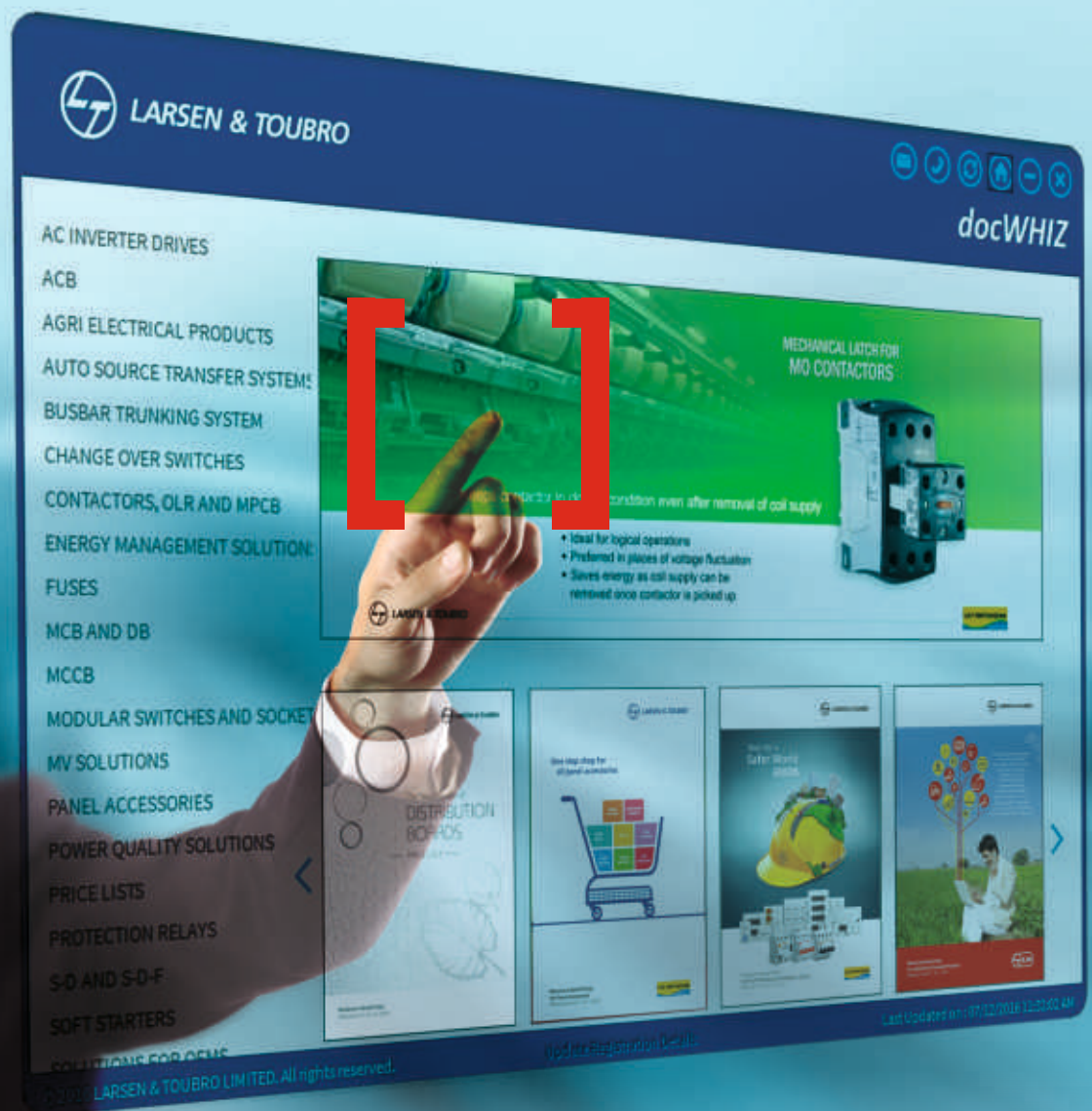


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**Please contact the nearest branch office for
Prices of the following products :**

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- Dry Pump Detection
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MI Contactors

6-150A, AC-3 Rating

Optimum solution
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Understanding customer requirements, we make sure that our range of contactors caters to their evolving needs. Considering the changing expectations of customers and a need for an optimum and reliable solution, we introduce MI range of contactors for applications upto 150 A AC3 rating.

Features :

- Finger proof terminals upto 40A
- Can be used with existing MN Range of thermal overload relays
- Top mounting add-on blocks possible upto 80A
- Spares available for entire range
- Optimised for AC1/AC3 applications

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- VFD, Soft Starters applications
- UPS
- Solar and Wind inverters
- Resistive loads
- Battery charging

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Contactors

Power Contactors

- | | | | |
|---------------|---------------|--------------------|---------------|
| 1 Pole | 2 Pole | 3 Pole | 4 Pole |
| • MR | • MNX | • MX Power | • MCX |
| | • MU-2P | • MNX | |
| | | • MO | |
| | | • MDX (DC Control) | |
| | | • ML | |

Control Relays (Auxiliary Contactors)

- MX0 (Mini) AC/DC
- MO0 AC
- MN0 DC

Capacitor Duty Contactors

- MO C

Definite Purpose Contactors

- MK1
- MU

3 Pole Power Contactors

3 Pole Power Contactors - Type MNX

Features

- Conforms to IS / IEC 60947-4-1 & IEC 60947-4-1
- Range from 9A – 650AAC-3
- Click fit type construction up to 40A
- Coil on top design in 95A and above
- Spares available for entire range



MNX 22



MNX 40



MNX 80



MNX 140



MNX 250



MNX 650

Size	AC3 Rating (A)	AC1 Rating (A)	Type	Aux. Contacts	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Fr 1	9	25	MNX 9	1 NO	CS94106	775	10
				1 NC	CS94107	775	10
	12	30	MNX 12	1 NO	CS94108	900	10
				1 NC	CS94109	900	10
	18	30	MNX 18	1 NO	CS94100	1050	10
				1 NC	CS94101	1050	10
22	32	MNX 22	1 NO	CS94980	1220	10	
			1 NC	CS94981	1220	10	
Fr 2	25	45	MNX 25	#	CS94110	1270	10
	32	55	MNX 32	#	CS94111	2745	10
	40	55	MNX 40	#	CS94190	4230	10
Fr 3	45	85	MNX 45*	#	CS97074	6115	1
	50	85	MNX 50	#	CS97075	6160	1
	70	100	MNX 70	#	CS97076	8280	1
	80	100	MNX 80	#	CS97077	10530	1
Fr 4	95	160	MNX 95	2 NO + 2 NC	CS94136	13240	1
	110	160	MNX 110	2 NO + 2 NC	CS94137	15950	1
	140	160	MNX 140	2 NO + 2 NC	CS94138	21050	1
Fr 5	185	250	MNX 185	2 NO + 2 NC	CS94139	25325	1
	225	300	MNX 225	2 NO + 2 NC	CS94140	27880	1
	250	300	MNX 250	2 NO + 2 NC	CS94141	31450	1
Fr 6	265	350	MNX 265*	2 NO + 2 NC	CS94142	37100	1
	300	400	MNX 300	2 NO + 2 NC	CS90280	37920	1
	325	400	MNX 325*	2 NO + 2 NC	CS94143	42200	1
	400	425	MNX 400	2 NO + 2 NC	CS94144	48215	1
	550	650	MNX 550	2 NO + 2 NC	CS94145	69145	1
650	800	MNX 650	2 NO + 2 NC	CS96327	103470	1	

3 Pole Power Contactors - Type MO

Features

- Conforms to IS / IEC 60947-4-1 & IEC 60947-4-1
- Range from 9A - 110AAC-3
- Compact dimensions saving panel space
- Lug less termination
- Built in surge suppressor
- MO 9/12/18 contactor comes with in-built 1 NO+1 NC in 45mm width
- Standardized accessories throughout the range
- Low pick-up VA consumption
- Common coil for 50 & 60Hz application
- **RoHS** compliant



MO 18



MO 45



MO 70



MO 110

Size	AC3 Rating (A)	AC1 Rating (A)	Type	Aux. Contacts	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Fr 0	9	30	MO 9	1 NO + 1 NC	CS94833	1185	10
	12	32	MO 12	1 NO + 1 NC	CS94834	1315	10
	18	32	MO 18	1 NO + 1 NC	CS94835	1495	10
Fr 1	25	45	MO 25	#	CS94567	1605	10
	32	50	MO 32	#	CS94568	3570	10
	40	50	MO 40	#	CS94569	4695	10
	45	50	MO 45▲	#	CS94570	5060	10
Fr 2	50	100	MO 50	#	CS94572	5610	1
	60	100	MO 60	#	CS94573	6485	1
	70	100	MO 70	#	CS94574	7635	1
Fr 3	80	125	MO 80	#	CS94576	9305	1
	95	125	MO 95	#	CS94577	11400	1
	110	140	MO 110	#	CS94578	13755	1

Notes:

- 1) # Add-on blocks can be ordered separately
- 2) For ordering MNX/MO add-on aux contact blocks, please refer page No. 8
- 3) For ordering MNX surge suppressor and MNX/MO MIL kit, please refer page No. 9
- 4) For ordering Suffix, please refer page No. 10
- 5) Standard coil voltage: MNX/MO - 110V, 220V, 240V and 415V, 50Hz.

▲ If using 16 sq mm cable for MO 45 use of spreader link kit is mandatory

▲ For ordering spreader link kit for MO 45, Please refer page No. 9

* Available till stock lasts

2 Pole Power Contactors

2 Pole Power Contactors - Type MNX

Features

- Conforms to IS / IEC 60947-4-1 & IEC 60947-4-1
- Range from 9A – 650A AC-3
- DC ratings available
- Click fit type construction up to 40A
- Coil on top design in 95A and above
- Common spares and accessories as MNX 3P

Size	AC3 Rating (A)	AC1 Rating (A)	Type	Aux. Contacts	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Fr 1	9	25	MNX 9-2P	1 NO	CS90232	575	10
	12	30	MNX 12-2P	1 NO	CS90234	620	10
	18	30	MNX 18-2P	1 NO	CS90236	740	10
	22	32	MNX 22-2P	1 NO	CS90238	885	10
Fr 2	25	45	MNX 25-2P	#	CS90240	935	10
	32	55	MNX 32-2P	#	CS90241	2040	10
	40	55	MNX 40-2P	#	CS90242	3130	10
Fr 3	45	85	MNX 45-2P*	#	CS94060	4250	1
	50	85	MNX 50-2P	#	CS94061	4410	1
	70	100	MNX 70-2P	#	CS94062	5980	1
	80	100	MNX 80-2P	#	CS94063	7370	1
	95	160	MNX 95-2P	2 NO + 2 NC	CS94064	9230	1
Fr 4	110	160	MNX 110-2P	2 NO + 2 NC	CS94065	10060	1
	140	160	MNX 140-2P	2 NO + 2 NC	CS94066	13460	1
	185	250	MNX 185-2P	2 NO + 2 NC	CS94978	17350	1
Fr 5	225	300	MNX 225-2P	2 NO + 2 NC	CS94979	18395	1
	250	300	MNX 250-2P	2 NO + 2 NC	CS90301	20350	1
	265	350	MNX 265-2P*	2 NO + 2 NC	CS94067	22985	1
Fr 6	300	400	MNX 300-2P	2 NO + 2 NC	CS90346	24745	1
	325	400	MNX 325-2P*	2 NO + 2 NC	CS94068	25785	1
	400	425	MNX 400-2P	2 NO + 2 NC	CS94069	32090	1
	550	650	MNX 550-2P	2 NO + 2 NC	CS90243	50455	1
	650	800	MNX 650-2P	2 NO + 2 NC	CS90578	70480	1

3 Pole Power Contactors

3 Pole Power Contactors - Type MDX (DC Control)

Features

- Conforms to IS/IEC 60947-4-1 & IEC 60947-4-1
- Range from 9 - 110A AC-3
- Built in surge suppressor for MDX 9 - 38
- IP20 connection security for MDX 9 - 38



MDX 25



MDX 38



MDX 110

Size	AC3 Rating (A)	AC1 Rating (A)	Type	Aux. Contacts	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Fr 1	9	25	MDX 9	1 NO	CS96564	1450	1
	12	28	MDX 12	1 NO	CS96565	1560	1
	18	32	MDX 18	1 NO	CS96566	1730	1
	25	32	MDX 25	1 NO	CS96567	2525	1
Fr 2	32	56	MDX 32	#	CS96552	4900	1
	38	56	MDX 38	#	CS96553	5725	1
Fr 3	50	90	MDX 50	#	CS96554	8140	1
	65	110	MDX 65	#	CS96555	9310	1
	80	125	MDX 80	#	CS96556	11385	1
	95	125	MDX 95	#	CS96557	14485	1
	110	125	MDX 110	#	CS96558	15175	1

- Notes: 1) # Add-on blocks can be ordered separately.
 2) For ordering MDX/MNX add-on aux contact blocks, please refer page No. 8
 3) For ordering MDX/MNX surge suppressor and MIL kit, please refer page No. 9
 4) For ordering Suffix, please refer page No. 10
 5) Standard coil voltage: MDX - 24V, 48V, 110V and 220V DC.
 6) Standard coil voltage: MNX 2P - 240V, 50Hz
 7) For DC power ratings refer catalogue

* Available till stock lasts

3 Pole Power Contactors

3 Pole Power Contactors - Type MX Mini

Features

- Conforms to IS / IEC 60947-4-1 & IEC 60947-4-1
- AC/DC Contactor in 45mm width
- Base as well as DIN Rail mounting facility
- Inbuilt Surge Suppressor in MX DC



MX 06

AC3 Rating (A)	AC1 Rating (A)	Type	Aux. Contact	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
For AC control (Std. Coil Voltage - 24, 110, 240, 415V, 50Hz)						
6A	20A	MX 06	1 NO	CS94012	740	10
6A	20A	MX 06	1 NC	CS94013	740	10
9A	20A	MX 09	1 NO	CS94014	770	10
9A	20A	MX 09	1 NC	CS94015	770	10
12A	20A	MX 12	1 NO	CS94016	800	10
12A	20A	MX 12	1 NC	CS94017	800	10
For DC control (Std. Coil Voltage - 24, 110, 220V)						
6A	20A	MX 06	1 NO	CS94021	1125	10
6A	20A	MX 06	1 NC	CS94022	1125	10
9A	20A	MX 09	1 NO	CS94023	1135	10
9A	20A	MX 09	1 NC	CS94024	1135	10
12A	20A	MX 12	1 NO	CS94025	1240	10
12A	20A	MX 12	1 NC	CS94026	1240	10

3 Pole Power Contactors - Type ML

Features

- Conforms to IS/IEC 60947-4-1 & IEC 60947-4-1
- Range from 25 - 300A AC-3
- Robust and suitable for hostile applications



ML 1.5



ML 3



ML 6



ML 12

Size	AC3 Rating (A)	AC1 Rating (A)	Type	Aux. Contacts	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Fr 1	25	25	ML 1.5*	2 NO + 2 NC	SS91851	2530	1
	32	40	ML 2	2 NO + 2 NC	SS90701	4700	1
Fr 2	40	45	ML 3	2 NO + 2 NC	SS90721	6935	1
	70	100	ML 4	2 NO + 2 NC	SS90910	11345	1
Fr 3	110	125	ML 6	2 NO + 2 NC	SS90921	17910	1
	200	250	ML 10*	2 NO + 2 NC	SS90935	39560	1
Fr 4	300	400	ML 12	2 NO + 2 NC	SS91010	40565	1

Notes:

- 1) For ordering ML/MX add-on aux contact blocks, please refer page No. 8
- 2) For ordering MX surge suppressor and MIL kit, please refer page No. 9
- 3) For Ordering Suffix, please refer page No. 10
- 4) Std. Coil Voltage: ML - 110V, 240V and 415V, 50Hz

* Available till stock lasts

4 Pole Power Contactors & AST System Components

4 Pole Power Contactors - Type MCX

Features

- Conforms to IS / IEC 60947-4-1 & IEC 60947-4-1
- Range from 16A – 800A AC-1
- Wide operating band up to 130A AC-1



MCX 22



MCX 34



MCX 47

Size	AC-1 Rating (A)	Type	Aux Contacts	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Fr 1	16	MCX 01	#	CS97009	1025	10
	25	MCX 02	#	CS97010	1115	10
	32	MCX 03	#	CS97011	1175	10
	40	MCX 04	#	CS97012	1830	10
Fr 2	50	MCX 11	#	CS97013	2280	1
	63	MCX 12	#	CS97014	4395	1
	80	MCX 13	#	CS97015	5960	1
Fr 3	80	MCX 21 ^{5*}	#	CS97016	7675	1
	100	MCX 22 ⁵	#	CS97017	8015	1
	130	MCX 23 ⁵	#	CS97018	9280	1
Fr 4	130	MCX 31*	2 NO + 2 NC	CS97019	12775	1
	160	MCX 32	2 NO + 2 NC	CS97020	15565	1
	200	MCX 33	2 NO + 2 NC	CS97021	18240	1
	255	MCX 34	2 NO + 2 NC	CS97022	20905	1
Fr 5	325	MCX 41	2 NO + 2 NC	CS97023	37000	1
	360	MCX 42	2 NO + 2 NC	CS97024	40135	1
	400	MCX 43	2 NO + 2 NC	CS97025	47430	1
	500	MCX 44	2 NO + 2 NC	CS97026	59520	1
	600	MCX 45	2 NO + 2 NC	CS97027	71595	1
	700	MCX 46	2 NO + 2 NC	CS97028	84025	1
	800	MCX 47	2 NO + 2 NC	CS94291	108315	1

Automatic Transfer Controllers (ATC)



AuXC-1000 Controller



AuXC-2000 Controller

Type	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
AuXC-1000 Controller*	ST802300000	19500	1
AuXC-2000 Controller	ATC20000000	19500	1

Can be used along with **OMEGA** MCCBs, MCX contactors & **Line** Motorized Changeover switches

Notes:

- 1) # Add on blocks can be ordered separately.
- 2) For ordering MCX add-on aux contact blocks, please refer page No. 8
- 3) For ordering MCX surge suppressor and MIL kit, please refer page No. 9
- 4) For Ordering Suffix, please refer page No. 10
- 5) Std. Coil Voltage: MCX - 220V, 240V and 415V 50Hz
- 6) \$ Ordering Suffix for MCX 21 / 22 / 23; F000 - 240V AC, R000 - 415V AC
- 7) Mounting of side add-on aux. contact block is not recommended for mechanically interlocked MCX 11/12/13 contactors
- 8) **New** MCX 01-14 and MCX 11-13 available in 48V DC coil. Contact nearest branch for more details.

* Available till stock lasts

Control Relays (Auxiliary Contactors)

Type MX0



MX0 40E

Features

- Conforms to IS / IEC 60947-4-1 & IEC 60947-4-1
- Available with AC or DC control in 45mm width
- Inbuilt Surge Suppressor in MX DC

Rated Current	Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
For AC control std. Coil Voltage - 24, 110, 240, 415V, 50Hz				
AC-15 4A at 415V	MX0 40E (4 NO)	CS94018	810	10
	MX0 31E (3 NO + 1 NC)	CS94019	810	10
	MX0 22E (2 NO + 2 NC)	CS94020	810	10
	MX0 13E (1 NO + 3 NC)	CS94041	810	10
	MX0 04E (4 NC)	CS94042	810	10
For DC control std. Coil Voltage - 24, 110, 220V				
AC-15 4A at 415V	MX0 40E (4 NO)	CS94027	1145	10
	MX0 31E (3 NO + 1 NC)	CS94028	1145	10
	MX0 22E (2 NO + 2 NC)	CS94029	1145	10
	MX0 13E (1 NO + 3 NC)	CS94043	1145	10
	MX0 04E (4 NC)	CS94044	1145	10

Notes: 1) For Ordering Suffix, please refer page No. 10
 2) 5 NC & above combinations are not recommended for MX0 DC Control Contactors
 3) 1 NO + 3 NC, 4 NC add on block combinations are not recommended for MX0 DC Control Contactors. For Example, In MX0 DC control Contactors, 4NO + 4NC combination can be achieved with 2NO + 2NC aux contactor and 2NO + 2NC add on block and not with 4NO standalone contactor and 4NC add on block

AC Control Contactor - MO0



MO0 AC

Features

- MO0 in 5 pole design in 45mm width
- Same add-on aux. contact block in MO0 as of MO power contactors
- Common coil for 50 & 60Hz application
- Built in surge suppressor

Rated Current	Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
For AC control std. Coil Voltage - 24, 110, 240, 415V, 50Hz				
AC-15 4A at 415V	MO0 41E (4 NO + 1 NC)	CS94825	985	10
	MO0 32E (3 NO + 2 NC)	CS94826	985	10
	MO0 23E (2 NO + 3 NC)	CS94827	985	10
	MO0 14E (1 NO + 4 NC)	CS94828	985	10

Note: 7NC & above combination is not recommended for MO0

DC Control Contactor - MN0



MN0 DC 22E

Rated Current	Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
For DC control std. Coil Voltage - 24, 110, 220V				
AC-15 4A at 415V	MN0 40E (4 NO)	SS94665	1580	10
	MN0 31E (3 NO + 1 NC)	SS94666	1580	10
	MN0 22E (2 NO + 2 NC)	SS94667	1580	10
	MN0 13E (1 NO + 3 NC)	SS94668	1580	10
	MN0 04E (4 NC)	SS94669	1580	10

Capacitor Duty Contactors

Capacitor Duty Contactors - Type MO C



MO C25



MO C50



MO C80

Size	kVAr Rating @ 415V, 3Ph, 50Hz	Type	Built-in Auxiliary Contacts	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Fr 1	5	MO C5	1NO	CS96127	1525	1
	8.5	MO C8.5	1NO	CS96320	1790	1
	12.5	MO C12.5	1NO	CS96321	2100	1
	15	MO C15	1NO	CS90019	2925	1
	20	MO C20	1NO	CS90021	3345	1
	25	MO C25▲	1NO	CS96322	3795	1
Fr 2	30	MO C30 [§]	1NO	CS96148	5800	1
	33.5*	MO C33.5	1NO	CS96323	8700	1
	40	MO C40	1NO	CS96147	9100	1
Fr 2	50	MO C50	1NO	CS96324	10400	1
	60	MO C60 [§]	1NO	CS96149	11900	1
Fr 3	70*	MO C70	1NO	CS96325	13000	1
	75	MO C75	1NO	CS96150	13800	1
	80	MO C80	1NO	CS90326	14855	1

Features

- MO C Range available from 5 - 80 kVAr
- Delatching auxiliary contacts
- Common coil for 50 & 60Hz application
- Separate termination for damping resistors
- Standard accessories throughout the range in line with MO contactor
- Lug less termination
- Built in surge suppressor
- Low pick-up VA
- Encapsulated resistor assembly
- **RoHS** compliant

For Power Quality Solutions, please refer page No. 58-61

Note :

- 1) For ordering add-on aux. contact block, please refer page No. 8
- 2) For ordering suffix, please refer page No.10
- 3) For ordering spare coils, please refer page No. 11
- 4) Standard coil voltage : 240V, 50Hz

- ▲ If using 16 sq mm cable for MO C25 use of spreader link kit is mandatory
- ▲ For ordering spreader link kit for MO C25, Please refer page No. 9
- § Spreader link included in packing
- * Available till stock lasts

Definite Purpose Contactors

Single Pole Contactors - Type MR

Features

- Wide and chatter free operating band
- High AC-1 rating for single phase applications



MR 11W
(Wide band coil)



MR 13



MR 11NW
SPN (Wide band coil)

AC3 Rating (A)	Type	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
25A	MR 11W	CS94176	675	10
25A	MR 11NW	CS94178	725	10
40A	MR 13	CS94992	740	40

Ordering Suffix BOOO - 240V, 50Hz

Two Pole Contactors - Type MU-2P



MU 16-2P

Features

- Wide band molded coil
- Neutral isolation

AC3 Rating (A)	Type	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
16A	MU16-2P	CS90117	640	10
25A	MU25-2P	CS90118	830	10
40A	MU40-2P	CS90119	1080	10

Note: 1) Coil voltages available for MU-2P are 220V, 240V, wide band coil 160-220V
2) Ordering suffix for wide band coil of MU-2P is NOOO

Type MK1 & MK2



MK 1



MK 2

Type	AC3 Rating (A)	Motor Output 3 Phase 415V, 50Hz		Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
		HP	KW			
MK 1	15A	7.5	5.5	SS95200	1105	10
MK 2	25A	7.5	5.5	CS90945	1195	10

For Overload Relays type MK1 & MK2, please refer page No. 14
For Ordering Suffix, please refer page No. 10
(For 360V wide band, Ordering Suffix - SOOO)

Type MU



MU 1



MU 1H



MU 2



MU 3

AC3 Rating (A)	Type	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
16A	MU 1	CS94007	1785	10
20A	MU1 H	CS90623	1950	10
25A	MU 2	CS94008	2425	10
32A	MU 3	CS90609	2930	10

For Overload Relays type MU refer page No.14
For Ordering Suffix please refer page No.10

Accessories - Add-on Auxiliary Contact Blocks

	MNX 9-80	MNX 95-650	MO 9-110	ML	MX	MDX 9-110	MCX 01-23	MCX 31-47	MX0	MN0	MO0	MO C	MR	MU
Front add-on possible	Yes	No	Yes	No	Yes	Yes	Yes	No	Yes	Yes	Yes	No	Yes	No
Side add-on possible	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	No	No	No	Yes	No	Yes

Note: 1) Mounting of side add-on aux. contact block is not recommended for mechanically interlocked MCX 11/12/13 contactors
2) Accessories are common for MNX 2P & MNX 3P contactors

Front Mounting Add-on aux. Contact Block



MNX / MCX
Front Add-on
aux. contact Block



MO / MO0
Front Add-on
aux. contact Block



MDX Front
Add-on
aux. contact Block



MX Front
Add-on
aux. contact Block



MU-2P
Front Add-on
aux. contact Block



MN0 Front
Add-on
aux. contact Block

Front Mounting	Suitable for											
	MNX 9-80 / MCX 01-23	M.R.P. (₹) Per Unit	MO 9-110 / MO0	M.R.P. (₹) Per Unit	MDX 9-110	M.R.P. (₹) Per Unit	MX 0/6/9/12	M.R.P. (₹) Per Unit	MU-2P	M.R.P. (₹) Per Unit	MN0 DC	M.R.P. (₹) Per Unit
4 NO	CS94112 [^]	450	CS94594 [^]	450	-	-	CS94033 [^]	390	-	-	SS94083 [^]	410
3 NO + 1 NC	CS94113 [^]	450	CS94595 [^]	450	-	-	CS94034 [^]	390	-	-	SS94084 [^]	410
2 NO + 2 NC	CS94114 [^]	450	CS94596 [^]	450	CS96569 [~]	525	CS94035 [^]	390	-	-	SS94085 [^]	410
1 NO + 3 NC	CS94115 [^]	450	CS94597 [^]	450	CS90906 [~]	525	CS94036 [^]	390	-	-	SS94086 [^]	410
4 NC	CS94116 [^]	450	CS94598 [^]	450	-	-	CS94037 [^]	390	-	-	SS94087 [^]	410
2 NO	CS94117 [^]	300	CS94591 ^{^^}	300	-	-	CS94030 [^]	250	CS90692 [^]	300	SS94080 [^]	280
1 NO + 1 NC	CS94118 [^]	300	CS94592 ^{^^}	300	CS96568 [~]	305	CS94031 [^]	250	CS90693 [^]	300	SS94081 [^]	280
2 NC	CS94119 [^]	300	CS94593 ^{^^}	300	-	-	CS94032 [^]	250	CS90694 [^]	300	SS94082 [^]	280
1 NO	CS94120 [^]	150	CS94585 ^{^^}	150	CS96586 [~]	170	-	-	CS90695 [^]	150	SS94715 [^]	140
1 NC	CS94121 [^]	150	CS94586 ^{^^}	150	-	-	-	-	CS90696 [^]	150	SS94716 [^]	140

Side Mounting Add-on aux. Contact Block



MNX/MCX
Side Add-on
aux. contact Block



MO/MO C
Left Add-on
aux. contact Block



MDX
Side Add-on
aux. contact Block

Side Mounting	Aux Contact	Suitable for											
		MNX 9-40/ MCX 01-04	M.R.P. (₹) Per Unit	MCX 11-13	M.R.P. (₹) Per Unit	MNX 45-80/ MCX 21-23	M.R.P. (₹) Per Unit	MNX 95-650/ MCX 31-47	M.R.P. (₹) Per Unit	MO 9-110/ MO C 5-80	M.R.P. (₹) Per Unit	MDX 9-110	M.R.P. (₹) Per Unit
First left	1 NO + 1 NC	CS94220 [^]	450	CS94201 [^]	485	CS94201 [^]	485	CS94205 [^]	550	CS94580 [^]	450	ST94985 [^]	630
First Right	1 NO + 1 NC	CS94221 [^]	450	CS94202 [^]	485	CS94202 [^]	485	CS94206 [^]	550	CS94581 [^]	450		
Second Left	1 NO + 1 NC	-	-	-	-	CS94203 [^]	485	CS94207 [^]	550	CS94582 [^]	450	-	-
Second right	1 NO + 1 NC	-	-	-	-	CS94204 [^]	485	CS94208 [^]	550	CS94583 [^]	450	-	-

Note: Mounting of side add-on aux. contact block is not recommended for mechanically interlocked MCX 11/12/13 contactors

Side Mounting Add-on aux. Contact Block - ML Add-on aux. Contact Block - MR & MU



ML Add-on
aux. contact Block



MR 1NO

Side Mounting	Aux Contact	Suitable for			
		ML 4/6	M.R.P. (₹) Per Unit	ML 10/12	M.R.P. (₹) Per Unit
Left	1 NO + 1 NC	SS91494 [^]	560	-	-
Right	1 NO + 1 NC	-	-	SS91474 [^]	590

Description	For Contactor	Contacts Type	Cat. No.	M.R.P. (₹) Per Unit
Top add-on single pole	MR	1 NO	CS94179 [^]	180
Side mounted auxiliary contact block	MU 1 / MU 2	1 NO + 1 NC	SS94072 [~]	165
		1NC	SS94074 [~]	145

Note: Ordering Suffix for Add-on aux. contact blocks : OOOO

~ Standard Packing is 1
^ Standard Packing is 10
^^ Standard Packing is 20

Accessories - Surge Suppressors

For MX, MNX, MDX & MCX



For Contactor	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
MX 06 to MX 12 / MX 0 AC	CS94039*	385	10
MNX 9 - 40 / MCX 01 - 04	CS94166*	390	10
MNX 45 - 80 / MCX 11 - 23	CS94163*	425	10
MNX 95 - 250 / MCX 31 - 34	CS94164[#]	1405	10
MNX 265 - 400 / MCX 41 - 44	CS94165[#]	1900	10
MDX 50 - 110	CS96571**	360	1

Ordering Suffix * 110-240V: B000, 415V: D000 ** : O000
 # 110V: A000, 220-240V: B000, 360-525V: D000
 - MX DC has in-built surge suppressor

For MN0



Type	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
MN0 DC	SS94781	425	10

Ordering Suffix: 24-48VDC : 5000
 110-220VDC : 2000

Accessories - Mechanical Interlock Kits & Spreader Link Kit

Mechanical Interlock Kit for MX, MO, MDX, MNX & MCX



For Contactor	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
MX 06 to MX 12 / MX 0	CS94038	375	10
MO 9 - 110*	CS94584	495	10
MDX 9 - 38	CS96572	400	1
MDX 50 - 110	CS96573	1225	1
MNX 9 - 40	CS94126	400	10
MNX 45 - 80	CS94197	1810	1
MNX 95 - 140	CS94198	2815	1
MNX 185 - 250	CS94199	3210	1
MNX 265 - 650	CS94200	3640	1
MCX 01 - 04	CS94126	400	10
MCX 11 - 13	ST50540	755	10
MCX 21 - 23	CS93095	2735	1
MCX 31 - 34	SS94992	2825	1
MCX 41 - 47	CS94301	4665	1

Note

- 1) Ordering Suffix for Mechanical Interlock Kits : O000
- 2) * MO MIL Kit contains inbuilt 2 NC Contacts
- 3) Mounting of side add-on aux. contact block is not recommended for mechanically interlocked MCX 11/12/13 contactors
- 4) MIL kit for MNX 45-80 comes with 2 left & 2 right side add-on aux. contact blocks i.e. 4 NO + 4 NC
- 5) MIL kit for MCX 21/22/23 comes with 2 left & 2 right side add-on aux. contact blocks i.e. 4 NO + 4 NC

MO Spreader Link Kit



For Contactor	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
MO 45 / MO C 25	CS942740000	365	10

Note:

- 1) If using 16 sq mm cable for MO 45/MO C25 use of spreader link is mandatory
- 2) Spreader Link Kit consists of six terminals

Accessories - Connecting Links

New DOL Starter - Link



DOL Starter



Contactor MPCB Link

Suitable For	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
MOG H1/S1 with MO 9-18	CS90396 #	300	10
MOG H1/S1 with MO 25-45	CS90391 #	300	10

New Reversing DOL Starter - Link



RDOL Starter



Reversing Starter



Paralleling Link



Contactor MPCB Link

Suitable For	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
MOG H1/S1 with MO 9-18	CS90548 #	750	10
MOG H1/S1 with MO 25-45	CS90546 #	750	10

New Star Delta Starter - Link



Star Delta Starter



Reversing / star delta Link



Paralleling Link



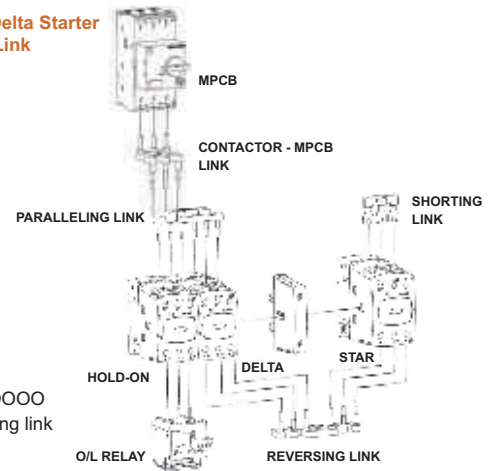
Contactor MPCB Link



Shorting Link

Suitable For	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
MOG H1/S1 with MO 9-18	CS90549 #	900	10
MOG H1/S1 with MO 25-45	CS90547 #	900	10

Example of Star Delta Starter Connection with Link



Ordering Suffix OOOO
For MPCB paralleling link refer page no.17

Accessories - Mechanical Latch

New Mechanical Latch



Suitable For	Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
MO 9-70A, MO 0 control	Mechanical Latch	CS90136	2000	10

Features

- Keeps contactor in closed condition even after removal of coil supply
- Ideal for logical operations
- Suitable for sites where voltage fluctuation is frequent
- Saves energy as coil supply can be removed once contactor is picked up

For Ordering Suffix refer below table
Standard Coil Voltage of Mechanical Latch is 24V AC, 110V AC & 240V AC

Ordering Suffix for Standard Coil Voltages

Ordering Suffix for Standard Coil Voltages			
AC Control		DC Control*	
Voltage (V)	Suffix	Voltage (V)	Suffix
24	G000	24	4000
110	A000	48	5000
220	K000	110	1000
240	B000	220	2000
415	D000		

Note:

- 1) * For MX DC, MDX, MX0 DC & MN0 DC
- 2) For other coil voltages please contact nearest branch office

Spare Contact Kit and Spare Coil



Spare Contact kit			Spare Coil	
Type	Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit
MU 1	CS94010 [~]	635	CS94009 [^]	455
MU 1H	CS90624 [~]	835		
MU 2	CS94011 [~]	1125		
MU 3	CS90612 [~]	1430		
ML 1.5	SS95305 [^]	1415	SS90873 [^]	590
ML 2	SS95307 [^]	2305	SS90545 [^]	980
ML 3	SS95309 [^]	3880		
ML 4	SS95311 [^]	6050	SS91258 [~]	1875
ML 6	SS95313 [^]	10650		
ML 10	SS95315 [~]	21695	SS91011 [~]	4225
ML 12	SS95317 [~]	24900		
MR	-	-	CS94102 [^]	370
MU16-2P	CS90217 [^]	200	CS90793 [^]	240
MU25-2P	CS90218 [^]	260		
MU40-2P	CS90219 [^]	380		
MO 0 AC	-	-	CS94841 [^]	440
MN 0 AC	-	-	SS94191 [^]	470
MN 0 DC	-	-	SS94651 [~]	865

Note:
 1) Coil voltages available for MU-2P are 220V, 240V, wide band coil 160-220V
 2) Ordering suffix for wide band coil of MU-2P is NOOO

MO C Spare Coils		
Type	Cat. No.	M.R.P. (₹) Per Unit
MO C5 - 30	CS96317 [^]	440
MO C33.5 - 60	CS96318 [^]	1390
MO C70 - 80	CS96319 [^]	2360

Front housing & Moving bridge kit and Combination coil with timer for ML contactor



Front housing and moving bridge kit		
Type	Cat. No.	M.R.P. (₹) Per Unit
ML 1.5	ST28734 [~]	425
ML 2/ ML 3	ST23866 [~]	585
ML 4/ ML 6	ST28735 [~]	1060
Combination coil with timer		
Type	Cat. No.	M.R.P. (₹) Per Unit
ML 2	SS90650 [~]	2005

Note :
 1) Ordering Suffix for Spare Contact kit - OOOO
 2) For Spare Coil Ordering Suffix refer page No. 10

~ Standard Packing is 1
 ^~ Standard Packing is 5
 ^ Standard Packing is 10
 ~ Standard Packing is 50

Spare Contact Kit and Spare Coil



	Spare Contact kit			Spare Coil	
	Type	Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit
MO Contactors	MO 9 (1 NO + 1 NC)	CS94843 [^]	490	CS94841 [^]	440
	MO 12 (1 NO + 1 NC)	CS94844 [^]	635		
	MO 18 (1 NO + 1 NC)	CS94845 [^]	695		
	MO 9	CS96380 ^{^~}	490	CS96317 [^]	440
	MO 12	CS96381 ^{^~}	635		
	MO 18	CS96382 ^{^~}	695		
	MO 25	CS96383 ^{^~}	795		
	MO 32	CS96384 ^{^~}	1485		
	MO 40	CS96385 ^{^~}	2365		
	MO 45	CS96386 ^{^~}	2745		
	MO 50	CS96387 ^{^~}	2805	CS96318 [^]	1390
	MO 60	CS96388 ^{^~}	3465		
	MO 70	CS96389 ^{^~}	4040	CS96319 [^]	2360
	MO 80	CS96390 ^{^~}	5445		
MO 95	CS96391 ^{^~}	6190			
MO 110	CS96392 ^{^~}	7945			
MNX Contactors	MNX 9	CS94123 [^]	490		
	MNX 12	CS94124 [^]	635		
	MNX 18	CS94125 [^]	695		
	MNX 22	CS94269 [^]	715		
	MNX 25	CS94127 [^]	795		
	MNX 32	CS94128 [^]	1485	CS94192 [^]	1390
	MNX 40	CS94147 [^]	2365		
	MNX 45	CS94149 [^]	2745		
	MNX 50	CS94150 [^]	2805		
	MNX 70	CS94151 [^]	4040		
	MNX 80	CS94152 [^]	5445	CS94196 [~]	2360
	MNX 95	CS94153 [~]	6190		
	MNX 110	CS94154 [~]	7945	CS94194 [~]	4250
	MNX 140	CS94155 [~]	11215		
	MNX 185	CS94156 [~]	12215		
	MNX 225	CS94157 [~]	13870		
	MNX 250	CS90310 [~]	16675		
	MNX 265	CS94159 [~]	18570	CS94195 [~]	4950
	MNX 300	CS90283 [~]	19520		
	MNX 325	CS94160 [~]	22545		
MNX 400	CS94161 [~]	26855			
MNX 550	CS94162 [~]	35410			
MNX 650	CS96336 [~]	52200	CS94193 [~]	14675	
MCX Contactors	MCX 01-04	-	-	CS94105 [^]	440
	MCX 11	CS94077 [^]	1590	CS94009 [^]	455
	MCX 12	CS94078 [^]	2615		
	MCX 13	CS90307 [^]	3655		
	MCX 21	CS94330 [~]	3855	ST91291 ^{^~}	1390
	MCX 22	CS94331 [~]	4530		
	MCX 23	CS90078 [~]	5555	CS94196 [~]	2360
	MCX 31	CS94081 [^]	6440		
	MCX 32	CS94082 [^]	8360		
	MCX 33	CS94083 [^]	10510		
	MCX 34	CS94084 [^]	11505		
	MCX 41	CS94295 [~]	20075		
	MCX 42	CS94296 [~]	25475		
	MCX 43	CS94297 [~]	28575	CS94195 [~]	4950
	MCX 44	CS94298 [~]	35005		
	MCX 45	CS94299 [~]	37735		
	MCX 46	CS94300 [~]	43420	CS94193 [~]	14675
MCX 47	CS90308 [~]	55975			

* Ordering Suffix for 240V AC - FOOO, 415V AC - ROOO

Thermal Overload Relays

Type MN

Features

- Available in 3 frame sizes from 0.2-570 A
- Ambient temperature compensated up to 55°C
- Built-in Single Phasing protection
- Manual and auto reset mode



MN 2

MN 5

MN 12

MN 12L

Type of Mounting (Operation)	Relay Range (A)	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)	
MN 2					
(Directly Operated)	0.2 - 0.33	SS941410OEO	1195	10	
	0.3 - 0.5	SS941410OGO	1195	10	
	0.45 - 0.75	SS941410OJO	1195	10	
	0.6 - 1	SS941410OKO	1195	10	
	0.9 - 1.5	SS941410OMO	1205	10	
	1.4 - 2.3	SS941410OPO	1205	10	
	Direct mounting on MNX 9 - 40	2 - 3.3	SS941410OQO	1205	10
		3 - 5	SS941410OSO	1205	10
		4.5 - 7.5	SS941410OUO	1205	10
		6 - 10	SS941420OVO	1205	10
9 - 15		SS941420OBO	1240	10	
14 - 23		SS941440ODO	1440	10	
	20 - 33	SS941450OEO	2085	10	
	24 - 40	SS941450OFO	2245	10	
MN 5					
(Directly Operated)	9 - 15	SS941350OBO	2510	10	
	14 - 23	SS941350ODO	2510	10	
	Direct Mounting on MNX 45 - 80	20 - 33	SS941360OEO	2530	10
		30 - 50	SS941360OGO	2730	10
		36 - 60	SS941360OTO	3170	10
		45 - 75	SS941370OJO	3610	10
		66 - 110	SS941370OKO	4155	10
MN 12					
(CT Operated)	28 - 46.5	SB942110OGO	6405	1	
	42 - 69	SS941380OHO	6405	1	
	60 - 100	SS941380OKO	6405	1	
	Separate Mounting	90 - 150	SS941380OMO	6405	1
		135 - 225	SS941380OPO	7415	1
		180 - 300	SS941390OQO	8105	1
		270 - 450	SS941390ORO	9265	1
MN 12L #					
(CT Operated)	42 - 69	SS941270OHO	11670	1	
	60 - 100	SS941270OKO	11670	1	
	90 - 150	SS941270OMO	11670	1	
	Separate Mounting	135 - 225	SS941270OPO	11670	1
		180 - 300	SS941270OQO	11670	1
		340 - 570	SS941270OSO	11670	1

For motors with longer starting time (Trip class 30)

Type RTO

Features

- Ambient temperature compensated upto 55°C
- Built-in Single Phasing protection
- Manual and auto reset mode
- Front access to START and STOP/RESET buttons
- Sealable in OFF condition



RTO 1

RTO 2

RTO 3

Type of Mounting (Direct)	Relay Range (A)	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
RTO - 1				
MO 9 - 45	0.23 - 0.41	CS963550OFO	1530	10
	0.31 - 0.55	CS963550OGO	1530	10
	0.55 - 0.85	CS963550OJO	1530	10
	0.78 - 1.2	CS963550OLO	1530	10
	1.2 - 2.0	CS963550ONO	1530	10
	1.9 - 2.8	CS963550OPO	1530	10
	2.4 - 3.6	CS963550OQO	1540	10
	3.5 - 5.2	CS963550OSO	1540	10
	4.6 - 6.7	CS963550OTO	1540	10
	6.7 - 9.7	CS963550OVO	1540	10
	8.5 - 12.5	CS963550OAO	1590	10
	12.5 - 18.5	CS963560OCO	1745	10
	17 - 25.5	CS963560ODO	1745	10
	25 - 37	CS963560OEO	2665	10
35 - 45	CS963560OGO	2665	10	
RTO - 2				
MO 50 - 70	10.5 - 16	CS963660OBO	2980	1
	15 - 21	CS963660OCO	2980	1
	20 - 31	CS963660OEO	3005	1
	30 - 43	CS963660OFO	3305	1
	40 - 57	CS963660OSO	4625	1
	50 - 75	CS963670OJO	5090	1
RTO - 3				
MO 80 - 110	23-30	CS908730OEO	5165	1
	29-38	CS963030OQO	5165	1
	37-49	CS963040OGO	5535	1
	47-62	CS963120OTO	5535	1
	60-78	CS963130OJO	6395	1
	75 - 110	CS963140OKO	7400	1



Modular Load Feeder

RTO Relays can be directly mounted onto MO contactors. This along with the standardized accessories of MO provides you a complete modular feeder solution.

Electronic Motor Protection Relay

MPR200nX Motor Protection Relay

Features

- Protections:
 - Overload
 - Locked Rotor
 - Single Phasing, Current Unbalance, Phase Sequence Reversal
 - Under Current
- Inbuilt CT's (1 A to 88 A)
- Trip indication
- Test facility
- Selectable trip class - 10A, 10, 20 and 30 as per IEC 947-4-1



Model	O/L Range (A)	Device Code	Aux. Supply: 240 V AC		Aux. Supply: 110 V AC	
			Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit
MPR200nX	1 - 2.75	49, 51LR, 37, 46,	MPR200BE010	3100	MPR200BB010	3100
	2 - 5.5		MPR201BE020	3100	MPR201BB020	3100
	4 - 11		MPR202BE040	3500	MPR202BB040	3500
	8 - 22		MPR203BE080	3500	MPR203BB080	3500
	16 - 44		MPR204BE160	3900	MPR204BB160	3900
	32 - 88		MPR205BE320	3900	MPR205BB320	3900

MPR300 Motor Protection Relay

With in-built earth fault protection

Features

- Protections:
 - Overload
 - Earth Fault
 - Locked Rotor
 - Single Phasing, Current Unbalance, Phase Sequence Reversal
 - Under Current
- Inbuilt CT's (1 A to 88 A)
- Trip indication
- Test facility
- Selectable trip class - 10A, 10, 20 and 30 as per IEC 947-4-1



Model	O/L Range	Aux. Supply: 240 V AC		Aux. Supply: 110 V AC	
		Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit
MPR300	1-2.75	MPR300BE010	5700	MPR300BB010	5700
	2-5.5	MPR301BE020	5700	MPR301BB020	5700
	4-11	MPR302BE040	6100	MPR302BB040	6100
	8-22	MPR303BE080	6100	MPR303BB080	6100
	16-44	MPR304BE160	6500	MPR304BB160	6500
	32-88	MPR305BE320	6500	MPR305BB320	6500

Note : For comprehensive Relays portfolio kindly refer page No. 62

Thermal Overload Relays

Type RX

New



RX

Features

- Direct mounting on MX contactor
- Built-in single phasing protection
- Front access to START and STOP/RESET buttons

Type of Mounting (Operation)	Relay Range (A)	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
(Directly Operated)	0.23-0.41	CS96357OOF0	890	10
	0.45-0.78	CS96357OOJO	890	10
	0.78-1.2	CS96357OOL0	890	10
	1.2-1.9	CS96357OON0	890	10
Direct Mounting on MX Contactors	1.8-2.8	CS96357OOPO	890	10
	2.6-3.6	CS96357OOQ0	890	10
	3.6-5.2	CS96357OOSO	890	10
	4.8-7	CS96357OOT0	890	10
	6.4-9.7	CS96357OOVO	890	10
	8.2-12.1	CS96357OOAO	890	10

Type ML



ML

Type of Mounting (Operation)	Relay Range (A)	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
(Directly Operated)	ML 1*			
	0.15 - 0.25	SS91858OOD0	1780	10
	0.25 - 0.4	SS91858OOF0	1780	10
	0.4 - 0.65	SS91858OOH0	1780	10
	0.6 - 1	SS91858OOK0	1780	10
	1 - 1.6	SS91858OOM0	1780	10
	1.5 - 2.5	SS91858OOP0	1780	10
	2.5 - 4	SS91858OOR0	1780	10
	4 - 6.5	SS91858OOT0	1780	10
	6 - 10	SS91858OOVO	1780	10
Direct Mounting on ML 1.5 Contactors	10 - 16	SS91858OOBO	1780	10
	ML 2 / ML 3			
	9 - 14	SS91859OOAO	2630	2
	13 - 21	SS91859OOCO	2630	2
	20 - 32	SS91859OOEO	2630	2
Direct Mounting on ML 2/3 Contactors	28 - 42	SS91859OOF0	2630	2

* Available till stock lasts

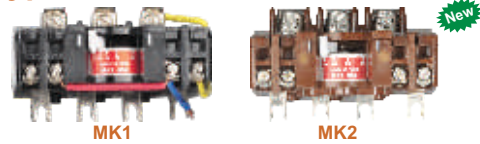
Thermal Overload Relays

Type MU (3 Pole) & MU-2P (2 Pole)



Type of Mounting (Operation)	Relay Range (A)	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
(Directly Operated)	MU1 (3 Pole)			
	4 - 6.5	SS96557OOTO	1110	1
	6 - 10	SS96557OOVO	1110	1
	MU2 (3 Pole)			
	9 - 14	SS95979OOAO	1215	1
	13 - 21	SS95979OOCO	1290	1
	15 - 25	SS95979OODO	1405	1
	20 - 32	SS95979OOEO	1570	1
	24 - 38	SS95979OOGO	1725	1
	28 - 42	SS95979OOF0	1870	1
Direct Mounting on MU Contactor	MU 2P (2 Pole)			
	1 - 1.6A	CS90207OOMO	500	1
	1.5 - 2.5A	CS90207OOPO	500	1
	2.5 - 4A	CS90207OORO	500	1
	4 - 6.5A	CS90207OOTO	500	1
	6 - 10A	CS90207OOVO	500	1
	9 - 14A	CS90207OOAO	500	1
	11 - 18A	CS90207OOCO	575	1
	13 - 22A	CS90207OODO	575	1
	16 - 26A	CS90207OOBO	575	1
20 - 32A	CS90207OOEO	725	1	
26 - 40A	CS90207OOF0	725	1	

Type MK1 & MK2



Type of Mounting (Operation)	Relay Range (A)	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
(Directly Operated)	MK1 Relay			
	0.6 - 1	SS90035OOKO	815	10
	1 - 1.6	SS90035OOMO	815	10
	1.5 - 2.5	SS90035OOPO	815	10
	2.5 - 4	SS90035OORO	815	10
	4 - 6.5	SS90035OOTO	815	10
	6 - 10	SS90035OOVO	815	10
	9 - 14	SS90035OOAO	815	10
	11 - 18	SS90036OOCO	850	10
	13 - 22	SS91888OODO	925	10
Direct Mounting on MK Contactors	MK2 Relay			
	13 - 22	CS90946OODO	995	10
	20 - 32	CS90946OOEO	995	10

Accessories for Thermal Overload Relays

Accessories for Thermal Overload Relays



Relay Mounting Kit Kit for Mounting MN5 Relay Din Rail Mounting Kit MN2 Relay

Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Push button extn. unit for MN 2 Relays	SS94968	45	100
Kit for Mounting MN 2 Relay on ML 1.5 contactor	SS94701	160	50
Kit for Mounting MN 2 Relay separately (Direct Mounting Type)	SS94700	160	50
Kit for Mounting MN 5 Relay on MNX 95 / 110 / 140 contactor	SS94638	250	20
Kit for Mounting MN 5 Relay on ML 2 / ML 3 contactor	SS94151	175	20
Kit for Mounting MN5 Relay on ML 4 / ML 6 contactor	SS94152	230	20
DIN Rail Mounting Kit Relay on MN 2 Relay	SS91887	125	50

Relay Reset Cord for MN2 Relay



Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
MN2 Relay reset cord - 400mm	SB94207O000	565	1
MN2 Relay reset cord - 650mm	SB94208O000	595	1
MN2 Relay reset cord - 900mm	SB94209O000	650	1
MN2 Relay reset cord - 1200mm	SB94210O000	730	1

Separate Mounting Kit for RTO Relay



Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
RTO-1 Relay Separate Mounting Kit	CS96335O000	220	1
RTO-2 Relay Separate Mounting Kit	CS96306O000	500	1
RTO-3 Relay Separate Mounting Kit	CS96307O000	750	1

Relay Reset Cord for RTO Relay

Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
RTO Relay reset cord - 400mm	CS90941O000	565	1
RTO Relay reset cord - 650mm	CS90942O000	595	1
RTO Relay reset cord - 900mm	CS90943O000	650	1
RTO Relay reset cord - 1200mm	CS90944O000	730	1



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For Digital Panel Meter details please refer Pg.68

Customer Interaction Center (CIC)

BSNL / MTNL (toll free): 1800 233 5858 Reliance (toll free): 1800 200 5858
Tel: 022 6774 5858 Fax: 022 6774 5859 Email: cic@Lntebg.com Web: www.Lntebg.com

Motor Protection Circuit Breakers

Rocker Type

- MOG-S1: upto 32A
- Short circuit + Overload protection
- Icu=100kA upto 10A, Icu=50kA for 13A & Icu=25kA for 16-32A

Rotary Type

- MOG-H1M: upto 32A
- MOG-H2M: 32A-63A
- Short circuit protection
- Icu=100kA upto 13A & Icu=50kA from 16A-63A

Rotary Type

- MOG-H1: upto 32A
- MOG-H2: 32A-63A
- Short circuit + Overload protection
- Icu=100kA upto 13A & Icu=50kA from 16A-63A

✓ Short circuit protection

✓ Over current protection

Circuit Breaker

✓ Compact

✓ High breaking capacity

✓ Short circuit protective coordination

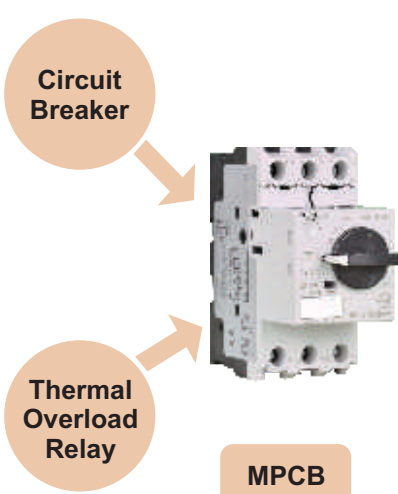
✓ Reduction in wiring work

✓ High switching durability

✓ Padlocking feature available even without extended rotary handle

✓ Stand alone motor protection

✓ Common accessories



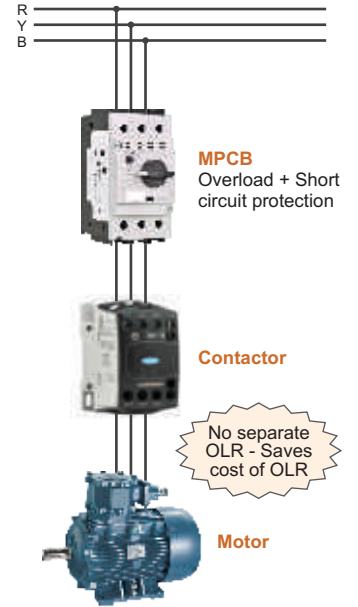
MPCB

✓ Overload protection

✓ Phase loss protection

✓ Wide range of current adjustment dial

✓ Ambient temperature compensation



Type MOG-S1 (Rocker Type)

With short circuit & overload protection



Rating (A)	Recommended Motor Rating at 415V, 3-Ph, 50Hz (KW)	Thermal Release range (A)	Instantaneous Trip Current (A)	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
0.16	-	0.1 - 0.16	2.1	ST418890000	2340	1
0.25	0.06	0.16 - 0.25	3.3	ST418900000	2340	1
0.40	0.09	0.25 - 0.40	5.2	ST418910000	2340	1
0.63	0.12	0.40 - 0.63	8.2	ST418920000	2495	1
1.00	0.25	0.63 - 1.00	13	ST418930000	2495	1
1.60	0.55	1.00 - 1.60	20.8	ST418940000	2505	1
2.50	0.75	1.60 - 2.50	32.5	ST418950000	2505	1
4.00	1.50	2.50 - 4.00	52	ST418960000	2585	1
6.30	2.20	4.00 - 6.30	81.9	ST418970000	2585	1
10.00	4.00	6.30 - 10.00	130	ST418980000	2665	1
13.00	5.40	9.00 - 13.00	169	ST418990000	3025	1
16.00	7.50	11.00 - 16.00	208	ST419000000	3245	1
20.00	9.00	14.00 - 20.00	260	ST419010000	3580	1
25.00	12.50	19.00 - 25.00	325	ST419020000	3770	1
32.00	15.00	24.00 - 32.00	416	ST419030000	6385	1

Breaking capacity: Icu = 100kA upto 10A, Icu = 50kA for 13A & Icu = 25kA for 16-32A

Type MOG-H1 (Rotary Type) - Frame1

With short circuit & overload protection



Rating (A)	Recommended Motor Rating at 415V, 3-Ph, 50Hz (KW)	Thermal Release range (A)	Instantaneous Trip Current	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
0.16	-	0.1 - 0.16	2.1	ST419040000	3000	1
0.25	0.06	0.16 - 0.25	3.3	ST419050000	3000	1
0.40	0.09	0.25 - 0.40	5.2	ST419060000	3000	1
0.63	0.12	0.40 - 0.63	8.2	ST419070000	3260	1
1.00	0.25	0.63 - 1.00	13	ST419080000	3260	1
1.60	0.55	1.00 - 1.60	20.8	ST419090000	3265	1
2.50	0.75	1.60 - 2.50	32.5	ST419100000	3265	1
4.00	1.50	2.50 - 4.00	52	ST419110000	3390	1
6.30	2.20	4.00 - 6.30	81.9	ST419120000	3390	1
10.00	4.00	6.30 - 10.00	130	ST419130000	3645	1
13.00	5.40	9.00 - 13.00	169	ST419140000	4125	1
16.00	7.50	11.00 - 16.00	208	ST419150000	4640	1
20.00	9.00	14.00 - 20.00	260	ST419160000	5025	1
25.00	12.50	19.00 - 25.00	325	ST419170000	5025	1
32.00	15.00	24.00 - 32.00	416	ST419180000	8570	1

Breaking capacity: Icu = 100kA upto 13A & Icu = 50kA from 16A - 32A

Note: Extended rotary handle cannot be fitted with MOG - S1

Motor Protection Circuit Breakers

Type MOG-H1M (Rotary Type) - Frame 1

With short circuit protection only



Rating (A)	Recommended Motor Rating at 415V, 3-Ph, 50Hz (KW)	Instantaneous Trip Current	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
0.16	-	2.1	ST419230000	2320	1
0.25	0.06	3.3	ST419240000	2320	1
0.40	0.09	5.2	ST419250000	2320	1
0.63	0.12	8.2	ST419260000	3410	1
1.00	0.25	13	ST419270000	3410	1
1.60	0.55	20.8	ST419280000	3410	1
2.50	0.75	32.5	ST419290000	3410	1
4.00	1.50	52	ST419300000	3410	1
6.30	2.20	81.9	ST419310000	3410	1
10.00	4.00	130	ST419320000	3415	1
13.00	5.40	169	ST419330000	3415	1
16.00	7.50	208	ST419340000	3420	1
20.00	9.00	260	ST419350000	3625	1
25.00	12.50	325	ST419360000	4385	1
32.00	15.00	416	ST419370000	6615	1

Breaking capacity: Icu = 100kA upto 13A & Icu = 50kA from 16A - 32A

Type MOG-H2 (Rotary Type) - Frame 2

With short circuit & overload protection



Rating (A)	Recommended Motor Rating at 415V, 3-Ph, 50Hz (KW)	Thermal Release range (A)	Instantaneous Trip Current	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
32.00	15.00	24.00 - 32.00	416	ST419190000	9470	1
40.00	20.00	28.00 - 40.00	520	ST419200000	10070	1
50.00	25.00	35.00 - 50.00	650	ST419210000	12330	1
63.00	34.00	45.00 - 63.00	819	ST419220000	12905	1

Breaking capacity: Icu = 50kA from 32A - 63A

Type MOG-H2M (Rotary Type) - Frame 2

With short circuit protection only



Rating (A)	Recommended Motor Rating at 415V, 3-Ph, 50Hz (KW)	Instantaneous Trip Current	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
32.00	15.00	416	ST419380000	8230	1
40.00	20.00	520	ST419390000	8230	1
50.00	25.00	650	ST419400000	9430	1
63.00	34.00	819	ST419410000	9430	1

Breaking capacity: Icu = 50kA from 32A - 63A

Accessories for MOG



Short Circuit Alarm



Auxiliary + Alarm



Extended Rotary Handle



Shunt Trip



MPCBs with bus bar connection



Connecting Busbar link



3 Phase Feed in terminal

Mounting Position *	Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
F1/F2	Auxiliary Contact Front mtg. 1NO	ST419420000	480	10
F1/F2	Auxiliary Contact Front mtg. 1NC	ST419430000	480	10
L	Auxiliary Contact Left side mtg. 2NO	ST419440000	590	1
L	Auxiliary Contact Left side mtg. 1NO + 1NC	ST419450000	590	1
L	Auxiliary Contact Left side mtg. 2NC	ST419460000	575	1
F2	Trip Alarm Contact Front mtg. 1NO	ST419470000	765	10
F2	Trip Alarm Contact Front mtg. 1NC	ST419480000	765	10
L	Auxiliary + Alarm Left side mtg. 2NO	ST419490000	815	1
L	Short circuit alarm Left side mtg. 1NO + 1NC	ST419500000	815	1
R	Shunt trip 24V DC	ST419510000	1330	1
R	Shunt trip 110V, 50Hz	ST419520000	1400	1
R	Shunt trip 230V, 50Hz	ST429520000	1400	1
R	Under Voltage release, 110V, 50Hz	ST419530000	1400	1
R	Under Voltage release, 415V, 50Hz	ST419540000	1400	1
-	External operating handle, (Black) Frame 1	ST419550000	1050	1
-	External operating handle, (Black) Frame 2	ST419560000	1050	1

* F1- Front left slot F2- Front right slot L- Left side R- Right side

Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Connecting Busbar link			
2 MPCB 45 mm width w/o acc	ST419570000	590	5
3 MPCB 45 mm width w/o acc	ST419580000	650	5
4 MPCB 45 mm width w/o acc	ST419590000	705	5
5 MPCB 45 mm width w/o acc	ST419600000	765	5
2 MPCB 45 mm width with one acc 9 mm	ST419610000	690	5
3 MPCB 45 mm width with one acc 9 mm	ST419620000	750	5
4 MPCB 45 mm width with one acc 9 mm	ST419630000	805	5
5 MPCB 45 mm width with one acc 9 mm	ST419640000	865	5
2 MPCB 55 mm width w/o acc	ST419660000	1080	1
3 MPCB 55 mm width w/o acc	ST419670000	1230	1
4 MPCB 55 mm width w/o acc	ST419680000	1480	1
2 MPCB 55 mm width with one acc 9 mm	ST419690000	1180	1
3 MPCB 55 mm width with one acc 9 mm	ST419700000	1330	1
4 MPCB 55 mm width with one acc 9 mm	ST419710000	1580	1
2 MPCB 55 mm width with two acc 18 mm	ST419720000	1380	1
4 MPCB 55 mm width with two acc 18 mm	ST419730000	1530	1
Feed in terminal for 45 mm width Busbar	ST419650000	690	1
Feed in terminal for 55 mm width Busbar	ST419740000	1195	1
Bus bar safety cover 45 mm width Busbar	ST419750000	300	10
Bus bar safety cover 55 mm width Busbar	ST419760000	325	10

acc: Accessories

Direct-on-Line Starters

in Sheet-Steel Enclosure Type MF, MK, MU & MB
(Motor Rating AC-3 Duty, 415V, 50Hz, 3-Ph)



MK1 MK2 MU 1H MU 3

Max. Motor Output at 415V, 3-Ph		Relay Max. Range (A)	Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
HP	kW					
7.5	5.5	9 - 15	MF1*	SS97210	1195	1
7.5	5.5	9 - 14	MK1 DOL	SS96210	1985	1
7.5	5.5	11 - 18	MK1 DOL	SS96211	2035	1
7.5	5.5	13 - 22	MK1 DOL	SS96228	2085	1
New 7.5	5.5	20 - 32	MK2 DOL	CS90947	2250	1
10.0	7.5	15 - 25	MU1 DOL #	SS95647	3610	1
10.0	7.5	14 - 23	MB1 DOL #	SS95649	3540	1
12.5	9.3	20 - 32	MU1H DOL #	CS90622	3945	1
15.0	11.0	24 - 38	MU2 DOL #	SS95648	4795	1
15.0	11.0	20 - 33	MB2 DOL #	SS95650	4755	1
17.5	13	28 - 42	MU3 DOL #	CS90613	5230	1

For lower relay ranges, please refer Agricultural Electrical Products' price list.

Single Phase Starters



MF1 1-Ph MU-2P DOL

Max. Motor Output at 230V, 1-Ph		Relay Max. Range (A)	Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
HP	kW					
2.0	1.5	10.5 - 17.5	MF1*	SS97227O0BO	890	1
3.0	2.2	12 - 20	MF1*	SS97227O0CO	890	1
2	1.5	9 - 14	MU-2P	CS90319K0AO	1455	1
2	1.5	11 - 18	MU-2P	CS90319K0CO	1495	1
3	2.2	13 - 22	MU-2P	CS90319K0DO	1540	1

Semi-Automatic Star-Delta Starters

in Sheet-Steel Enclosure Type MK, MU & MB
(Motor Rating AC-3 Duty, 415V, 50Hz, 3-Ph)



MK 1S MU 1S MB 2S

Max. Motor Output at 415V, 3-Ph		Relay Max. Range (A)	Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
HP	kW					
12.5	9.3	9 - 14	MK1 SASD	SS96255	6750	1
15.0	11.0	11 - 18	MK1 SASD	SS96258	6805	1
15.0	11.0	13 - 22	MK1 SASD	SS96260	6895	1
15.0	11.0	13 - 21	MU1 SASD #	SS95891	8955	1
15.0	11.0	14 - 23	MB1 SASD #	SS95895	9860	1
30.0	22.5	20 - 32	MU2 SASD #	SS95893	11220	1
30.0	22.5	20 - 33	MB2 SASD #	SS95897	11620	1

For lower relay ranges, please refer Agricultural Electrical Products' price list.

Direct-on-Line Starters

in Sheet-Steel Enclosure Type MN with Single Phase Protection feature (Motor Rating AC-3 Duty, 415V, 50Hz, 3-Ph)



MN 16 MN 45

Max. Motor Output at 415V, 3-Ph		Relay Max. Range (A)	Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
HP	kW					
10.0	7.5	9 - 15	MN 16 DOL	SS94351	3165	1
15.0	11.0	14 - 23	MN 25 DOL	SS94352	4840	1
20.0	15.0	20 - 33	MN 32 DOL	SS94353	7810	1
30.0	22.5	30 - 50	MN 45 DOL	SS94017	13360	1
45.0	33.5	45 - 75	MN 65 DOL	SS94018	18300	1

Direct-on-Line Starters

in Sheet-Steel Enclosure Type ML
(Motor Rating AC-3 Duty, 415V, 50Hz, 3-Ph)



ML 1.5 ML 2 ML 3

Max. Motor Output at 415V, 3-Ph		Relay Max. Range (A)	Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
HP	kW					
15.0	11.0	20 - 32	ML 1.5 DOL**	SS91854	5110	1
20.0	15.0	20 - 32	ML 2 DOL	SS90702	8510	1
30.0	22.5	28 - 42	ML 3 DOL	SS90722	14620	1

Semi-Automatic Star-Delta Starters

in Sheet-Steel Enclosure Type ML
(Motor Rating AC-3 Duty, 415V, 50Hz, 3-Ph)



ML 1.5S ML 2S

Max. Motor Output at 415V, 3-Ph		Relay Max. Range (A)	Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
HP	kW					
25.0	18.5	13 - 21	ML1.5 SASD**	SS91856	11760	1
35.0	26.0	20 - 32	ML2 SASD	SS90707	20555	1

Note:

- # Type MU range consists of type MU Relay + MU contactors
- Type MB range consists of type MN Relay + MU contactors
- 2) For Ordering Suffix please refer page No. 20
- 3) \$ For alternate solution, please refer MU starters

* Available till stock last

Fully Automatic Star-Delta Starters



MN 16F

in Sheet-Steel Enclosure Type MN
with Single Phase Protection feature
(Motor Rating AC-3 Duty, 415V, 50Hz, 3-Ph)

Max. Motor Output at 415V, 3-Ph		Relay Max. Range (A)	Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
HP	kW					
15.0	11.0	9 - 15	MN 16 FASD	SS94362	10665	1
25.0	18.5	14 - 23	MN 25 FASD	SS94364	11925	1
35.0	26.0	20 - 33	MN 32 FASD	SS94366	19620	1
50.0	37.5	30 - 50	MN 45 FASD	SS94021	31505	1
75.0	55.0	45 - 75	MN 65 FASD	SS94022	52215	1
90.0	67.0	45 - 75	MN 80 FASD	SS94705	57080	1
125.0	90.0	66 - 110	MN 110 FASD	SS94706	74705	1
175.0	130.0	90 - 150	MN 140 FASD	SS94707	78205	1

Fully-Automatic Star-Delta Starters

in Sheet-Steel Enclosure Type MK, ML, MU & MB
(Motor Rating AC-3 Duty, 415V, 50Hz, 3Ph)



MK 1F



MB 1F



MU 2F

Max. Motor Output at 415V, 3-Ph		Relay Max. Range (A)	Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
HP	kW					
12.5	9.3	9 - 14	MK1 FASD	SS96254	7530	1
15.0	11.0	11 - 18	MK1 FASD	SS96257	7580	1
15.0	11.0	13 - 22	MK1 FASD	SS96259	7630	1
15.0	11.0	13 - 21	MU1 FASD #	SS95890	10415	1
15.0	11.0	14 - 23	MB1 FASD #	SS95894	10415	1
30.0	22.5	20 - 32	MU2 FASD #	SS95892	12305	1
30.0	22.5	20 - 33	MB2 FASD #	SS95896	12740	1

For lower relay ranges, please refer Agricultural Electrical Products' price list.



ML 2F



ML 1.5F

Max. Motor Output at 415V, 3-Ph		Relay Max. Range (A)	Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
HP	kW					
25.0	18.5	13 - 21	ML1.5 FASD* ⁵	SS91855	13350	1
35.0	26.0	20 - 32	ML2 FASD	SS90705	21195	1
50.0	37.5	28 - 42	ML3 FASD	SS90730	35250	1
75.0	55.0	45 - 75	ML4 FASD	SS90913	60405	1
125.0	90.0	66 - 110	ML6 FASD	SS90923	99035	1
250.0	180.0	135 - 225	ML10 FASD*	SS90938	156750	1
400.0	300.0	180 - 300	ML12 FASD*	SS91019	177555	1

Note: 1) # Type MU range consists of type MU Relay + MU contactors
Type MB range consists of type MN Relay + MU contactors
2) For Ordering Suffix please refer page No. 20
3) \$ For alternate solution, please refer MU starters / MU-G controllers

Spares for MK1 & MK2 Starters



Aux contact block



Spare coil



Combination coil



Push button unit

Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Single Moving Contact for MK1	SS91009	40	10
Single Moving Contact for MK2	CS90951	55	10
Std. Operating Coils for MK1 & MK2			
400 / 440V, 50Hz	SS90047	165	10
360V, 50Hz	SS90165	165	10
230V, 50Hz	SS90045	165	10
220V, 50Hz	SS90044	165	10
110V, 50Hz	SS90043	165	10
Auxiliary contact block: 1 NO + 1 NC	SS90120	215	50
Spare kit with hardware for MK1	CS90983	415	50
Spare kit with hardware for MK2	CS90956	550	50
Thermal timer without combination coil	SS90224	600	1
Combination Coils for MK1			
Combination coils for 400 / 440V, 50Hz	SS90443	395	10
Combination coils for 230V, 50Hz	SS90444	395	10
Combination coils for 380V, 50Hz	SS90445	395	10
Combination coils for 360V, 50Hz	SS90446	395	10
Push Button Unit for MK1 & MK2	SS90004	95	1
Arc Shield for MK1	SS50004	100	1
Arc Shield for MK2	CS91013	105	1
Contact bridge without Contacts for MK1	SS50005	95	1
Contact bridge without Contacts for MK2	CS91014	100	1

Spares for MN Starters

Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Bracket for Mounting cont. MNX 25 - 32	SS940300000	100	20
MN DOL/FASD Push Button	SS939410000	165	10

Salient Features and Benefits of Starters

- Conforms to IS/IEC 60947-4-1 & IEC 60947-4-1
- Sheet steel enclosures with IP 54 protection
- Wide range of relay settings and coil voltages
- Standardized accessories and spares available

* Available till stock last

Submersible Pump Controllers

Submersible Pump Controller

In Sheet Enclosure Type MU - G
(Motor Rating AC-3 Duty, 415V, 50Hz, 3 phase)



MU - G6



MU - G10

Max. Motor Output at 415V, 3-Ph		Relay Max. Range (A)	Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
HP	kW					
6	4.5	9 - 14	MU - G6 DOL Starter [§]	SS97756	5680	1
10	7.5	13 - 21	MU - G10 DOL Starter [§]	SS95983	6750	1
10	7.5	28 - 42	MU - G10H DOL Starter [§]	SS95974	7825	1

§ For lower relay ranges, please refer Agricultural Electrical Products' price list.

Submersible Pump Controller

In Sheet Enclosure Type MU-G
(Motor Rating AC-3 Duty, 415V, 50 Hz, 3 phase)



MU-G15



MU-G20



MU-G50



MU-G75

Max. Motor Output at 415V, 3-Ph		Relay Max. Range (A)	Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
HP	kW					
15	11	13 - 22	MU-G15 Fully Automatic Star - Delta Starter [§]	CS94091	11075	1
20	15	13 - 21	MU-G20 Fully Automatic Star - Delta Starter [§]	SS95984	12965	1
20	15	28 - 42	MU-G20H Fully Automatic Star - Delta Starter [§]	SS95975	15865	1
30	22.5	30 - 50	MU-G30 Fully Automatic Star - Delta Starter [§]	CS96008	26955	1
New 40	30	36 - 60	MU-G40 Fully Automatic Star - Delta Starter [§]	CS90908	31395	1
50	37.5	45 - 75	MU-G50 Fully Automatic Star - Delta Starter [§]	CS96009	43060	1
75	101	66 - 110	MU-G75 Fully Automatic Star - Delta Starter [§]	CS96451	58900	1

§ For lower relay ranges, please refer Agricultural Electrical Products' price list.

Submersible Pump Controller

In Sheet Steel Enclosure Type MR-G, MF-G

With MU-2P Contactor & MU-2P Relay



MR-G2



MR-G3



MF-G1

Max. Motor Output at 230V, 3-Ph		Relay Max. Range (A)	Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
HP	kW					
0.5	0.37	6 - 10	Type MR-G2 [§] For Single Phase Motors (Only Ammeter Version)	SS96988	3680	1
1.0	0.75	9 - 14		SS96560	4010	1
1.5	1.1	11 - 18		SS96989	4435	1
2.0	1.5	13 - 22		SS96990	4640	1
3.0	2.2	16 - 26		CS96461	4970	1
New 5.0	3.7	20 - 32	Type MR-G3 [§]	CS96167	7080	1
0.5	0.37	6.5 - 11	Type MF-G1 [§] For Single Phase Motors (Only Ammeter Version)	SS97734	2465	1
1.0	0.75	12 - 20		SS97736	2575	1
1.5	1.1	12 - 20		SS97737	2665	1
2.0	1.5	12 - 20		SS97738	2710	1

Note: For dual meter (Ammeter + Voltmeter) version - Add (₹) 225

§ For lower Relay Ranges & dual meter version, please refer Agricultural Electrical Products' price list.

M-POWER + Module for Mobile Starter



Description	IVRS Languages	Suitable Region	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Module for Mobile Starter & Submersible controllers	-	All India	GSM03010000*	5950	1
New M-POWER + Module for Mobile Starter - 1P/3P 3 Wire	English, Hindi, Marathi, Punjabi, Gujarati	North & West	GSM030100NO	6450	1
	English, Hindi, Kannada, Telugu, Tamil	South	GSM030100SO	6450	1
	English, Hindi, Bengali, Odiya, Assamese	East	GSM030100EO	6450	1

* Available till stock last

Salient Features and Benefits of Submersible Pump Controller

- Conforms to IS/IEC 60947-4-1 & IEC 60947-4-1
- Protections Offered - Overload, Single Phasing, Phase reversal, Phase imbalance
- Auto Restart Feature
- Vibration proof enclosure with IP54 protection class
- Indications Offered - ON/OFF, Voltage and Ampere
- Compatible with M-POWER+

Ordering Suffix for MK1/MU/MB/ML & MN Starters

Coil Voltages	Relay Range (A)				
	MK1	MU	MB	ML	MN
B - 240 V	A : 9 - 14	A : 9 - 14	B : 9 - 15	A : 9 - 14	B : 9 - 15
C - 360 V	C : 11 - 18	C : 13 - 21	D : 14 - 23	B : 10 - 16	D : 14 - 23
D - 415 V	D : 13 - 22	D : 15 - 25	E : 20 - 33	C : 13 - 21	E : 20 - 33
P - 440 V	M : 1 - 1.6	E : 20 - 32		E : 20 - 32	G : 30 - 50
	P : 1.5 - 2.5	G : 24 - 38		F : 28 - 42	J : 45 - 75
	R : 2.5 - 4	F : 28 - 42		G : 30 - 50	K : 66 - 110
	T : 4 - 6.5			J : 45 - 75	Q : 2 - 3.3
	V : 6 - 10			K : 66 - 110	S : 3 - 5
				M : 90 - 150	T : 36 - 60
				P : 135 - 225	U : 4.5 - 7.5
				Q : 180 - 310	V : 6 - 10
				R : 2.5 - 4	
				T : 13 - 21	

Electronic Timers Type ST 100



ST 100

Description	Cat. No.	M.R.P. (₹) Per Unit	Std Pkg. (Nos.)
240 / 360 / 415V, 50Hz for			
3 - 30 secs.	ST803280000	1440	1
12 - 120 secs.	ST803290000	1440	1

Note: ST 100 supplied with Mounting Kit, suitable for ET 100 replacement.
For Complete range of Timing Devices, please refer the Panel Accessories Price List.

Salient Features and Benefits of Electronic Timers ST 100

- Wide operating voltage band of 160V to 500V
- Available in Time-Delay range of 3-30Sec and 12-120Sec
- 1-mod design provides compactness in size
- Suitable for base mounting and DIN mounting
- Ease of connection
- Star-Operation LED display to indicate Star to Delta changeover

Thermal Timers Type GT 200



GT 200

Description	Cat. No.	M.R.P. (₹) Per Unit	Std Pkg. (Nos.)
Operating Voltages: 230 / 250V, 360V, 400 / 440V, 500V, 50 Hz for 5 - 18 secs. range	SS91270	2480	1

Ordering Suffix for GT 200 Timer

Voltage (V)	Suffix
250V	N000
320V	R000
360V	C000
380V	L000
400 / 440V	P000

Single Phase Preventor Relay



Sz5



SDz5

With Settable time
ON Delay
30sec - 5min

Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
SPPR type Sz5 (7 Wire), 380V	ST921660000	630	1
SPPR type Sz5 (6 Wire), 360V	CS94824C000	630	1
SPPR type Sz5 (6 Wire), 380V	CS94824L000	630	1
SPPR type Sz5 (6 Wire), 415V	CS94824D000	630	1
SPPR type SDz5, SPPR + Timer, 360V	XM818080000	1250	1
SPPR type SDz5, SPPR + Timer, 380V	XM818070000	1250	1
SPPR type SDz5, SPPR + Timer, 415V	XM818090000	1250	1

Salient Features and Benefits of Single Phase Preventor Relay

- Protection from
 - Single Phasing condition
 - Phase Reversal condition
 - Phase Unbalance condition
- Modes of Operation
 - Auto
 - Manual
 - Bypass
- Auto-Restart benefit with 30sec - 5min settable time ON-Delay
- Colourful dial and Colourful wiring for ease of connection with Starter
- Compact in dimensions
- Sz5 SPPR is suitable for DOL Starter and SDz5 SPPR is suitable for Star-Delta Starter.
- Sz5 SPPR is available in 6-wire version and 7-wire version
- SDz5 has in-built Star-Delta Timer

Water Level Controller (WLC)



Salient Features of Water Level Controller

- One/two level detection of water in a tank
- Draining or filling for monitoring of one tank
- Draining & filling for monitoring of two tanks

Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Water Level Controller (240V) (Double Tank Application)	XM810520000	1195	1
Water Level Controller (415V) (Double Tank Application)	XM810530000	1195	1
Water Level Controller (110V) (Double Tank Application)	XM810540000	1195	1
Water Level Controller (240V) (Single Tank Application)	XM810550000	1135	1
Water Level Controller (415V) (Single Tank Application)	XM810560000	1135	1
Water Level Controller (110V) (Single Tank Application)	XM810570000	1135	1
WLC probes (set of 3 nos.)	XM810510000	390	1
WLC probes (set of 6 nos.)	XM810760000	780	1

- Supports up to 1000m length cable for longer distance probe sensing
- Adjustable sensitivity of water from 1K to 200Kohm
- Manual Start Switch to allow manual pump start for filling while taking care of dry run condition and overflow conditions



Naya DOL, 20-32A relay ke saath

Toh Bhaiyyon, ab fikr ki kya baat?



LTLK MK2 DOL Starter – 20-32A Relay ke Saath

LTLK now brings you a new starter, MK2 DOL, which lets you keep pumping water, even when the voltage drops.

Other key features:

- New MK2 contactor (AC1-32A, AC3-25A)
- Increased silver alloy layer for heavy duty application
- Wide terminals for easy installation

Ask your electrician to install only LTLK MK2 DOL starter

Customer Interaction Center (CIC)

BSNL / MTNL (toll free): 1800 233 5858 Reliance (toll free): 1800 200 5858
Tel: 022 6774 5858 Fax: 022 6774 5859 Email: cic@Lntebg.com Web: www.Lntebg.com

Switch-Disconnecter-Fuse Units

Type FN S-D-F suitable for DIN fuse-link (2P)

Also for 220Vdc & 240Vac application

Features offered by FN S-D-F

- Range 32A to 630A, 415V, **AC 23A**
- Suitable for Cylindrical / DIN fuse-link
- Conforms to IEC 60947-3, IS/IEC 60947-3
- Door interlock & padlock facility



FN 2P S-D-F

Size	Rated Current (A)	Suitable fuse-link type	Type FN (2P) S-D-F suitable for DIN fuse-link			Std. Pkg (Nos.)
			Open Execution			
			Type	Cat. No.	M.R.P. (₹) Per Unit	
Fr 1	32	HF 14x51	FN 32 2P	SK95594	1480	1
	63	HF 14x51	FN 63 2P	SK95595	2040	1
Fr 2	100	HN Size 000/00	FN 100 2P	ST35086	4140	1
	125	HN Size 000/00	FN 125 2P	ST35087	5280	1
	160	HN Size 000/00	FN 160 2P	ST35088	5650	1
Fr 3	200	HN Size 0	FN 200 2P	ST35089	7080	1
	250	HN Size 1	FN 250 2P	ST31674	8510	1
Fr 4	315	HN Size 1	FN 315 2P	ST38930	10800	1
	400	HN Size 2	FN 400 2P	ST31676	12890	1
Fr 5	630	HN Size 3	FN 630 2P	ST35090	20810	1

Type FN S-D-F suitable for BS fuse-link (TPN)

For BOLTED fuse-link

Features offered by FN S-D-F

- Range 32A to 630A, 415V, **AC 23A**
- Suitable for Bolted fuse-link
- Conforms to IEC 60947-3, IS/IEC 60947-3
- Door interlock & padlock facility



FN - TPN S-D-F

Size	Rated Current (A)	Suitable fuse-link type	Type FN (TPN) S-D-F suitable for BOLTED fuse-link			Std. Pkg (Nos.)
			Open Execution			
			Type	Cat. No.	M.R.P. (₹) Per Unit	
Fr 1	32	A1L	FN 32 TPN	SK95653	1710	1
	63	A1L	FN 63 TPN	SK95651	2390	1
Fr 2	100	A4	FN 100 TPN	SK95570	4860	1
	125	A4	FN 125 TPN	SK95009	6260	1
	160	A4	FN 160 TPN	SK95714	6800	1
Fr 3	200	B1 / B2	FN 200 TPN	SK95588	8560	1
	250	B2 / B3	FN 250 TPN	SK95682	10750	1
Fr 4	315	B3	FN 315 TPN	SK95590	13300	1
	400	B4	FN 400 TPN	SK95591	15630	1
Fr 5	630	C2	FN 630 TPN	SK95592	25690	1

Type FN S-D-F suitable for DIN fuse-link (TPN)

Features offered by FN S-D-F

- Range 32A to 800A, 415V, **AC 23A**
- Suitable for Cylindrical / DIN fuse-link
- Available in interior / Sheet steel enclosure version
- Conforms to IEC 60947-3, IS/IEC 60947-3
- Door interlock & padlock facility



FN - TPN S-D-F (Open Execution)

New



Separate cable gland box NOT required

FN - TPN S-D-F in SS Enclosure

Size	Rated Current (A)	Suitable HRC fuse-link		Open Execution Type FN (TPN) S-D-F suitable for DIN fuse-link			Std. Pkg. (Nos.)	In Sheet Steel Enclosure Type FN (TPN) S-D-F suitable for DIN fuse-link			Std. Pkg. (Nos.)
		Type	Range (A)	Type	Cat. No.	M.R.P. (₹) Per Unit		Type	Cat. No.	M.R.P. (₹) Per Unit	
Fr 1	32	HF	2 to 32	FN 32 TPN / FP	SK95518	1835	1	FN 32 TPN / FP CE*	SK90483*	4140	1
	32	HF	2 to 32	FN 32 TPN / FP CE*	SK95703*	1670	1				
	63	HF	2 to 63	FN 63 TPN / FP	SK95421	2550	1				
	63	HF	2 to 63	FN 63 TPN / FP CE*	SK95704*	2280	1				
Fr 2	100	HN Size 000/00	63 to 100	FN 100 TPN	SK95568	5230	1	FN 100 TPN	SK90485	8120	1
	125	HN Size 000/00	63 to 125	FN 125 TPN	SK95001	6850	1	FN 125 TPN	SK90486	9620	1
	160	HN Size 000/00	63 to 160	FN 160 TPN	SK95713	7460	1	FN 160 TPN	SK90487	10300	1
Fr 3	200	HN Size 0	80 to 200	FN 200 TPN	SK95418	9530	1	FN 200 TPN	SK90488	13550	1
	250	HN Size 1	125 to 250	FN 250 TPN	SK95642	11310	1	FN 250 TPN	SK90489	15620	1
Fr 4	315	HN Size 1	125 to 315	FN 315 TPN	SK95461	13980	1	FN 315 TPN	SK90490	18520	1
	400	HN Size 2	200 to 400	FN 400 TPN	SK95481	16850	1	FN 400 TPN	SK90491	21610	1
Fr 5	630	HN Size 3	315 to 630	FN 630 TPN	SK95521	27100	1	FN 630 TPN	SK90492	34640	1
	800	HN Size 3	315 to 800	FN 800 TPN	SK95679	29410	1	FN 800 TPN	SK90493	37170	1

* 'CE' handle has door interlock facility without defeat feature

Notes:

- 1) Please refer page no. 26 for Switch-Disconnecter & 4 pole Switch-Disconnecter-Fuse
- 2) Type FN S-D-F range (Bolted fuse-link) suitable for harsh environment is also available. Please contact nearest branch office for further details
- 3) For 690V ac application please contact nearest branch office.
- 4) Spare cat no. ST978950000 is of Interior FN 250 SDF suitable for old sheet steel enclosure cat no. SK956810000

HRC Fuses

Features offered by HRC fuse link

- Conforms to IEC 60269-2, IS 13703 part 2
- Range: 2A to 800A, 415V, AC 50Hz
- Type: Cylindrical (2A to 63A), DIN (63A to 800A) & Bolted (2A to 630A)
- High breaking capacity: 100kA for type HN and 80kA for type HF/HG/HQ

Cylindrical fuse links Type HF



Size	Rated Current (A)	Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
14 X 51	2	Suitable for Type FN 32 / 63 / FNX 32 / 63 S-D-F & for HCO 32 Fuse base	SF90144	98	30
	4		SF90145	98	30
	6		SF90146	98	30
	8		SF90147	98	30
	10		SF90148	98	30
	16		SF90150	98	30
	20		SF90151	98	30
	25		SF90152	98	30
	32		SF90142	98	30
	40		SF90143	108	30
	50	Suitable for Type FN 63 / FNX 63 S-D-F & for HC 63 Fuse base	SF90158	237	30
	63		SF90159	297	30

DIN Type Fuse Links Type HN



Size	Rated Current (A)	Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
000	63	Suitable for Type FN 100/125/160 / FNX 100/125/160 S-D-F & for HB 160 Fuse base	SF94940	310	3
	80		SF94941	330	3
	100		SF94942	330	3
	125		SF94946	390	3
00	63	Suitable for Type FN 100/125/160 / FNX 125/160 S-D-F & for HB 160 Fuse base	SF94027	410	3
	80		SF94028	410	3
	100		SF94029	410	3
	125		SF94030	430	3
	160		SF94939	430	3
0	80	Suitable for Type FN 200 / FNX 200 S-D-F & for HB 250 Fuse base	SF94128	545	3
	100		SF94129	545	3
	125		SF94130	545	3
	160		SF94131	555	3
	200		SF94132	555	3
1	125	Suitable for Type FN 250/315 / FNX 250/315 S-D-F & for HB 250 Fuse base	SF94230	585	3
	160		SF94231	610	3
	200		SF94232	610	3
	250		SF94233	670	3
	315		SF94234	790	3
2	200	Suitable for Type FN 400 / FNX 400 S-D-F & for HB 800 Fuse base	SF94332	835	3
	250		SF94333	870	3
	315		SF94334	885	3
	400		SF94335	895	3
3	315	Suitable for Type FN 630/800 / FNX 630/800 S-D-F & for HB 800 Fuse base	SF94434	1240	1
	400		SF94435	1240	1
	500		SF94436	1395	1
	630		SF94437	1420	1
	800		SF94938	1725	1

Fuse holders & Fuse bases suitable for Cylindrical / DIN fuse-links



Rated Current (A)	Type	Description	Suitable fuse-link		Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
			Type	Range (A)			
32	HCO 32	Fuse holder	HF	2-32	SK91314	185	10
63	HC 63	Fuse holder	HF	2-63	SK91043	205	10
160	HB 160	Fuse base	HN-Size 000 & 00	63-160	SK90405	325	12
250	HB 250	Fuse base	HN-Size 0 & 1	80-250	SK90406	680	3
800	HB 800	Fuse base	HN-Size 2 & 3	200-800	SK91051	1300	3

Bolted fuse links: Type HG and HQ



Type	Fixing Method	Size	Rating (A)	Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)	
HG	Offset, staggered	F1	2	Suitable for type HD 20H/20P/20B, HD 32H/32P/32B fuse base	ST30725	46	24	
			4		ST30726	46	24	
			6		ST30727	46	24	
			10		ST30728	46	24	
			16		ST30729	46	24	
			20		ST30730	54	24	
			25		ST30731	54	24	
32	ST30732	54	24					
HQ	Offset	A1L	20	Suitable for type FN 32/63 S-D-F	ST34527	83	15	
			25		ST34528	83	15	
			32		ST34529	89	15	
			50		ST35827	89	15	
			63		ST35828	89	15	
		A2	4	Suitable for type HK 32H/32B fuse base	ST30747	70	12	
			6		ST30748	70	12	
			10		ST30749	73	12	
			16		ST30750	73	12	
			20		ST30751	73	12	
			25		ST30752	73	12	
			32		ST30753	73	12	
	A3	35	Suitable for type HK 63B/63H Fuse base	ST30759	105	12		
		50		ST30760	105	12		
		63		ST30761	105	12		
	A4	80	Suitable for type FN 100/125/160 S-D-F & for HK 125H/125B Fuse base	ST30767	200	12		
		100		ST30768	205	12		
		125		ST30769	250	12		
		160		ST35829	260	12		
	Centre Tag, 2 holes	B1	80	Suitable for type FN 200 S-D-F	ST30774	230	12	
			100		ST30775	230	12	
			125		ST30776	290	12	
		B2	125		ST30777	320	3	
			160		ST30778	335	3	
200			ST30779		335	3		
B3		250	Suitable for type FN 250/315 S-D-F		ST30781	480	3	
		315			ST30782	495	3	
B4		355	Suitable for type FN 400 S-D-F		ST30783	740	3	
		400			ST30784	780	3	
Centre Tag, 4 holes		C2	400		Suitable for type FN 630 S-D-F	ST30785	1330	1
			500			ST30786	1515	1
	630		ST30787	1645		1		

Fuse holders suitable for Bolted fuse-links



Rated Current (A)	Type	Connection Method	Fuse Type	Suitable Fuse Range (A)	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
20	HD 20H	Both side cable (Front)	F1	2-20	ST30772	115	12
	HD 20P	Both side busbar (Back)	F1	2-20	ST30773	125	12
	HD 20B	Top busbar & bottom cable	F1	2-20	ST30766	120	12
32	HD 32H	Both side cable (Front)	F1	2-32	ST30733	125	12
	HD 32P	Both side busbar (Back)	F1	2-32	ST30734	155	12
	HD 32B	Top busbar & bottom cable	F1	2-32	ST30735	145	12
	HK 32H	Both side cable (Front)	A2	4-32	ST30754	205	12
	HK 32B	Top busbar & bottom cable	A2	4-32	ST30755	235	12
63	HK 63H	Both side cable (Front)	A3	35-63	ST30762	270	6
	HK 63B	Top busbar & bottom cable	A3	35-63	ST30763	330	6
125	HK 125H	Both side cable (Front)	A4	80-125	ST30770	845	3
	HK 125B	Top busbar & bottom cable	A4	80-125	ST30771	880	3

Switch-Disconnecter-Fuse Units

Type FNX S-D-F suitable for DIN fuse-link in open execution

Features offered by FNX S-D-F

- Range 32A to 800A, 415V, AC 23A
- TPN and 4P version
- Suitable for Cylindrical / DIN fuse-link
- Telescopic shaft for depth adjustment
- DIN rail mounting up to 100A
- Conforms to IEC 60947-3, IS/IEC 60947-3
- Door interlock & padlock facility



FNX TPN S-D-F



FNX 4P S-D-F

Size	Rated Current (A)	Suitable fuse-link type	Range (A)	Open Execution Type FNX (TPN) S-D-F suitable for DIN fuse-link				Open Execution Type FNX (4P) S-D-F suitable for DIN fuse-link			Std. Pkg. (Nos.)
				Type	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)	Type	Cat. No.	M.R.P. (₹) Per Unit	
Fr 1	32	HF	2 to 32	FNX 32 TPN / FP	SK96903	2030	1	FNX 32 TPN / FP	SK96903	2030	1
	63	HF	2 to 63	FNX 63 TPN / FP	SK96904	2680	1	FNX 63 TPN / FP	SK96904	2680	1
Fr 2	100	HN Size 000	63 to 100	FNX 100 TPN / FP	SK96906	5280	1	FNX 100 TPN / FP	SK96906	5280	1
Fr 3	125	HN Size 000/00	63 to 125	FNX 125 TPN	SK95806	7000	1	FNX 125 FP	SK95814	7220	1
	160	HN Size 000/00	63 to 160	FNX 160 TPN	SK95807	7810	1	FNX 160 FP	SK95815	8150	1
Fr 4	200	HN Size 0	80 to 200	FNX 200 TPN	SK95808	9970	1	FNX 200 FP	SK95816	10520	1
	250	HN Size 1	125 to 250	FNX 250 TPN	SK95809	11860	1	FNX 250 FP	SK95817	12270	1
Fr 5	315	HN Size 1	125 to 315	FNX 315 TPN	SK95810	14650	1	FNX 315 FP	SK95818	15140	1
	400	HN Size 2	200 to 400	FNX 400 TPN	SK95811	17660	1	FNX 400 FP	SK95819	18240	1
Fr 6	630	HN Size 3	315 to 630	FNX 630 TPN	SK95812	28420	1	FNX 630 FP	SK95820	29390	1
	800	HN Size 3	315 to 800	FNX 800 TPN	SK95813	30810	1	FNX 800 FP	SK95821	31820	1

Note : For 690V ac application please contact nearest branch office

Type FN & COS Switch-Disconnecter (2P / TPN / 4P)

Features offered by S-D

- Range 32A to 2000A, 415V, AC 23A
- Conforms to IEC 60947-3, IS/IEC 60947-3
- Door interlock & padlock facility
- Telescopic shaft for depth adjustment 1000A and above
- Flip-able handle 1000A and above



FN 2P S-D



FN TPN S-D

Size	Rated Current (A)	Open Execution 2P S-D			Std. Pkg. (Nos.)	Open Execution TPN S-D			Std. Pkg. (Nos.)
		Type	Cat. No.	M.R.P. (₹) Per Unit		Type	Cat. No.	M.R.P. (₹) Per Unit	
Fr 1	32	FN 32 2P	SK904180000	1315	1	FN 32 TPN / 4P	SK955410000	1870	1
	63	FN 63 2P	SK904190000	1795	1	FN 63 TPN / 4P	SK955400000	2610	1
Fr 2	100	FN 100 2P	SK904200000	3655	1	FN 100 TPN	SK955710000	4660	1
	125	FN 125 2P	SK904210000	4660	1	FN 125 TPN	SK954050000	5800	1
Fr 3	200	FN 200 2P	SK904500000	6250	1	FN 200 TPN	SK956070000	7920	1
	250	FN 250 2P	SK904540000	7510	1	FN 250 TPN	SK956830000	10080	1
Fr 4	315	FN 315 2P	SK904650000	9545	1	FN 315 TPN	SK956090000	11200	1
	400	FN 400 2P	SK904660000	11395	1	FN 400 TPN	SK956100000	14870	1
Fr 5	630	FN 630 2P	SK904670000	18375	1	FN 630 TPN	SK956110000	21690	1
	800	FN 800 2P	SK904680000	19270	1	FN 800 TPN	SK955510000	24280	1
	1000	FN 1000 2P	SK904690000	24760	1	FN 1000 TPN	SK957100000	31980	1
Fr 6	1000	-	-	-	-	COS SD 1000 4P	COS10000040	37130	1
	1250	-	-	-	-	COS SD 1250 4P	COS12500040	41640	1
	1600	-	-	-	-	COS SD 1600 4P	COS16000040	55690	1
	2000	-	-	-	-	COS SD 2000 4P	COS20000040	69160	1

Switch-Disconnecter-Fuse: Spares & Accessories

Spares & Accessories for type FNX



Castell Type Lock



DIN Rail Assembly



Auxiliary Contact Kit



Handle Assembly

Description	Type	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Auxiliary Contact Kit (1NO + 1 NC)	FNX 32 / 63	SK91537	175	1
	FNX 100	SK91538	335	1
	FNX 125 / 160	SK91539	335	1
	FNX 200 / 250	SK91540	435	1
	FNX 315 / 400 / 630 / 800	SK91541	495	1
Handle Assembly	FNX 32 / 63 / 100	SK91524	285	1
	FNX 125 / 160 / 200 / 250	SK91525	535	1
	FNX 315 / 400 / 630 / 800	SK91526	670	1
Castell Type Lock	FNX 32 / 63 / 100	SK91530	500	1
	FNX 125 / 160 / 200 / 250	SK91531	880	1
	FNX 315 / 400 / 630 / 800	SK91531	880	1
DIN Rail Assembly	FNX 32 / 63 / 100	SK91617	75	1

Fuse pulling handle



For Type HN fuse-link



For Type HF fuse-link

Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Fuse pulling handle for HF Fuse-link from 2A-63A	SK91185	120	1
Insulated fuse pulling handle for Type HN fuse-link from 63A-800A	SF90126	450	1

Spares & Accessories for type COS Switch-Disconnecter

Type	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Auxiliary Contact Kit (1 sets of C/O contact)	CXS6002	580	1
Operating Handle	CXS6001	1315	1
Castell Type Lock	CX60004	1550	1

Spares & Accessories for type FN



Terminal Shroud Kit



Handle Assembly



Switched Neutral Kit



Auxiliary Contact Kit



Castell Type Lock

Description	Type	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)	
Auxiliary Contact Kit (1NO + 1 NC)	FN 32 / 63	SK91302	405	1	
	FN 100 / 125 / 160	SK91328	455	1	
	FN 200 / 250	SK91329	540	1	
	FN 315 / 400 / 630 / 800	SK91330*	600	1	
Terminal Shroud Kit	FN 32 / 63	SK91190	100	1	
	FN 100 / 125 / 160	SK91137	130	1	
	FN 200 / 250	SK91335	230	1	
	FN 315 / 400	SK91346	240	1	
	FN 630 / 800	SK91347*	255	1	
Handle Assembly - A	FN 32 / 63	SK91257	275	1	
	FN 100 / 125 / 160	SK91258	600	1	
	FN 200 / 250	SK91258	600	1	
	FN 315 / 400 / 630 / 800	SK91259*	665	1	
Handle Assembly - B	FN 32 / 63	SK91277	275	1	
	FN 100 / 125 / 160	SK91278	600	1	
	FN 200 / 250	SK91278	600	1	
	FN 315 / 400 / 630 / 800	SK91279*	665	1	
Handle Assembly - CE	FN 32 / 63	SK91337	160	1	
Switched Neutral Kit	FN 100 / 125 / 160	SK95233	2610	1	
	FN 200 / 250	SK95516	2680	1	
	FN 315 / 400	SK95517	2790	1	
	FN 630 / 800	SK95546*	3780	1	
Interphase Barrier Kit	FN 200	SK91343	190	1	
	FN 315 / 400	SK91344	200	1	
	FN 630 / 800	SK91345*	210	1	
Castell Type Lock	FN 100 / 125 / 160 / 200 / 250	A	SK00333	1550	1
		B	SK00334	1550	1
		C	SK00335	1550	1
		D	SK00336	1550	1
	FN 315 / 400 / 630 / 800	A	SK00345*	1550	1
		B	SK00346*	1550	1
		C	SK00347*	1550	1
		D	SK00348*	1550	1

*Also suitable for Switch-Disconnecter FN 1000

On Load Changeover Switch - Disconnectors

Changeover Switch-Disconnecter (Conforms to IEC 60947-3 , IS/IEC 60947-3)

Features offered by Manual Changeover

- Range 63A to 2000A, 415V, AC 23A, 4P
- Site convertible fuse version for open execution
- Site convertible dual shaft position
- SS enclosure version does not require separate cable gland box
- Staggered terminals



Open execution



SS enclosure



Motorised Changeover

Features offered by Motorised Changeover

- Range 125 A to 2000A, 415V, AC 23A, 4P (Control Voltage 240 Vac)
- No change in HxWxD dimension of motorised and manual changeover switch
- Padlocking in OFF position
- Option for selection between manual and auto mode

Inbuilt 2 C/O Auxiliary Contact across the range

Size	Rated Current (A)	Type	Manual Changeover Open Execution		Manual Changeover In Sheet Steel Enclosure#		Motorised Changeover Open Execution		Std. Pkg. (Nos.)		
			Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit			
Fr 1	63	CO1-63	CO106300000	4540	CO106300S00	6460	-	-	1		
	63	CO1-63	CO10630000D ▲	4250							
	100	CO1-100	CO110000000	5980			CO110000S00	8240		-	-
	100	CO1-100	CO11000000D ▲	5530							
Fr 2	125	CO2-125	CO212500000	9010	CO212500S00	12250	CK90161B000	30210	1		
	160	CO2-160	CO216000000	9840	CO216000S00	13400	CK90162B000	31980	1		
	200	CO2-200	CO22000000A	11710	CO220000S00	15490	CK90163B000	32665	1		
Fr 3	250	CO3-250	CO325000000	17190	CO325000S00	21540	CK90164B000	40425	1		
	315	CO3-315	CO331500000	18110	CO331500S00	22570	CK90165B000	41150	1		
Fr 4	400	CO4-400	CO440000000	26460	CO440000S00	32940	CK90166B000	51820	1		
	630	CO4-630	CO463000000	31170	CO463000S00	38190	CK90167B000	55755	1		
Fr 5	630	CO5-630 \$	CO563000000 \$	32450	-	-	CK90168B000	58990	1		
	800	CO5-800	CO580000000	46440	CO580000S00	56520	CK90169B000	84745	1		
	1000	CO5-1000	CO510000000	79430	CO510000S00	100270	CK90170B000	110155	1		
Fr 6	1250	CO6-1250	CO612500000	103790	-	-	*	*	1		
	1600	CO6-1600	CO616000000	121490	-	-	*	*	1		
	2000	CO6-2000	CO620000000	146520	-	-	*	*	1		

▲ Direct handle version # All sheet steel enclosure version are with extended handle switch * Available on request \$ CO5-630 Changeover switch is suitable for fuse mounting kit CX56300000

Spares & Accessories for Changeover S-D



Auxiliary Contact



Operating Handle (63A to 200A)



Flip-able Handle (250A to 2000A)



Castell Type Lock

Description	Type	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Auxiliary Contact Kit (2 sets of C/O contact)	CO1-(63-100A)	CX100020000	240	1
	CO2-(125-200A)	CX200020000	475	1
	CO3-(250-315A)	CX300020000	695	1
	CO4-(400-630A)	CX400020000	735	1
	CO5-(800-1000A)	CX500020000	840	1
	CO6-(1250-2000A)	CX600020000	895	1
Operating Handle	CO1-(63-100A)	CX100010000	450	1
Operating Handle Kit (handle + shaft + center bush + bush clip)	CO2-(125-200A)	CX300010000	840	1
	CO3-(250-315A)	CK903920000	1105	1
	CO4-(400-630A)	CX400010000	1105	1
	CO5-(800-1000A)	CX500010000	1210	1
Operating Handle	CO6-(1250-2000A)	CX600010000	1315	1
Castell Type Lock	CO-(125-1000A)	CX400040000	1550	1
	CO6-(1250-2000A)	CX600040000	1550	1
Output shorting link	CO1-(63-100A) Top Side	CX10005000T	500	1
	CO1-(63-100A) Bottom Side	CX10005000B	500	1
Operating Handle for Motorised Changeover	C/O Frame 2 & 3 (125-315A)	CK903740000	840	1
	C/O Frame 4 & 5 (400-1000A)	CK903780000	1105	1
	C/O Frame 6 (1250-2000A)	CK906450000	1315	1

Automatic Transfer Controllers (ATC) for Motorised Changeover



AST Controller with wire harness



AuXC-2000 Controller with wire harness



Illuminated Push Button assembly

Description	Type	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)	
Automatic Transfer Controllers	AST Controller with wire harness	CK901920000	14040	1	
	AuXC - 2000 Controller with wire harness	AuXC - 2000	ATC200000000	19500	1
		AuXC - 2000	CK900990000	2575	1
Control Accessories	Illuminated Push Button assembly with Wire harness	CK901950000	2205	1	

Fuse Mountable Kit



Description	Suitable fuse-link	Type	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Fuse Mountable Kit	HF 14x51	CO1-63	CX1063000CO	1160	1
	HN Size 000	CO2-125	CX2125000DO	2820	1
	HN Size 00	CO2-160	CX2160000DO	3740	1
	HN Size 1	CO3-250	CX3250000DO	5120	1
	HN Size 1	CO3-315	CX3315000DO	5360	1
	HN Size 2	CO4-400	CX4400000DO	7820	1
	HN Size 3	CO5-630	CX5630000DO	16890	1
	HN Size 3	CO5-800	CX5800000DO	18870	1

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Total Selectivity
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d sine Range of MCCBs

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Variants: 3P/4P

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DU MCCB Range

DU With Thermal - Magnetic Release :

Rating (A)	16	20	25	32	40	50	63	80	100	125	160	200	250	320	400
Icu (kA)															
10	DU100										DU125U				
18	DU100D										DU125D				
25											DU250C				
30	DU100H										DU125H				
36											DU250				
50														DU400N	

2 Pole MCCBs

DU100/DU125U MCCBs



- Conforms to IS/IEC 60947-2 & IEC 60947-2
- Range: 16A to 125A, 2P
- Compact size
- SS Enclosure available

3 Pole MCCBs

DU100/DU125U MCCBs



- Conforms to IS/IEC 60947-2 & IEC 60947-2
- Range: 16A to 125A, 3P
- Compact size
- SS Enclosure available

For DC application please refer catalogue

Type	Current Rating (A)	Breaking Capacity Icu (kA)	2 Pole		Std. Pkg. (Nos.)
			Cat. No.	M.R.P. (₹) Per Unit	
DU100	16	AC : 25kA @ 240V AC, 50Hz DC : 10kA @ 125V DC, (2P in Series) L/R < 15 msec.	CM977950000	1230	1
	20		CM977960000	1230	1
	25		CM977970000	1230	1
	32		CM977980000	1230	1
	40		CM977990000	1230	1
	50		CM978000000	1230	1
	63		CM978010000	1230	1
	80		CM978020000	1340 ▲	1
	100		CM978030000	1340 ▲	1
DU125U	125		CM9096500LY	1900 ▲	1

Type	Current Rating (A)	Breaking Capacity Icu at 415V AC 50Hz. (kA)	3 Pole		Std. Pkg. (Nos.)
			Cat. No.	M.R.P. (₹) Per Unit	
DU100	16	10	CM977510000	1680	1
	20		CM977520000	1680	1
	25		CM977530000	1680	1
	32		CM977540000	1680	5
	40		CM977550000	1680	1
	50		CM977560000	1680	1
	63		CM977570000	1680	5
	80		CM989210000	1840 ▲	1
	100		CM989220000	1840 ▲	5
DU125U	125		CM9032200LY	2680 ▲	1

▲ - Spreader Terminals are included

Note: 2P in 3P frame size

DIN rail kit available as an accessory. Please refer DU100/DU125U accessories table on page no. 32

3 Pole / 4 Pole MCCBs

DU100D/DU125D MCCBs



- Conforms to IS/IEC 60947-2 & IEC 60947-2
- Range: 20A to 125A, 3P & 4P
- Ics=100% of Icu
- Compact size
- SS Enclosure available
- Wide Range of snap fit Internal and External Accessories
- Adjustable Overload Setting: 0.8 - 1.0 x In

Kindly refer page no. 41 for cost effective MCCB for motor starter application

Type	Thermal Release Range (A)	Breaking Capacity Icu at 415V AC 50Hz. (kA)	3 Pole		4 Pole		Std. Pkg. (Nos.)
			Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit	
DU100D	16-20	18	CM9051700CO	3710	CM9051800CO	4740	1
	20-25		CM9051700DO	3710	CM9051800DO	4740	1
	25-32		CM9051700EO	3710	CM9051800EO	4740	1
	32-40		CM9051700FO	3710	CM9051800FO	4740	1
	40-50		CM9051700GO	3710	CM9051800GO	4740	1
	50-63		CM9051700HO	3710	CM9051800HO	4740	1
	63-80		CM9051700JO	3710	CM9051800JO	4740	1
	80-100		CM9051700KO	3710	CM9051800KO	4740	1
DU125D	100-125		CM9067600LO	4080	CM9067700LO	5300	1

Note: DIN rail kit available as an accessory. Please refer DU100D/DU125D accessories table on page no. 32

DU MCCB Range

2 Pole / 3 Pole / 4 Pole MCCBs

DU100H/DU125H MCCBs



- Conforms to IS/IEC 60947-2 & IEC 60947-2
- Range: 20A to 125A, 2P, 3P & 4P
- Compact size
- SS Enclosure available
- Wide Range of snap fit Internal and External Accessories
- Adjustable Overload Setting: 0.8 - 1.0 x In

For DC application
please refer catalogue

Type	Thermal Release Range (A)	Breaking Capacity Icu (kA)	2 Pole		Breaking Capacity Icu at 415V AC 50Hz. (kA)	3 Pole		4 Pole		Std. Pkg. (Nos.)
			Cat. No.	M.R.P. (₹) Per Unit		Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit	
DU100H	16-20	AC : 65kA @ 240V AC, 50Hz	CM97898OOC2	3050	30	CM97894OOC2	4490	CM97933OOC2	5950	1
	20-25		CM97898OOD2	3050		CM97894OOD2	4490	CM97933OOD2	5950	1
	25-32		CM97898OOE2	3050		CM97894OOE2	4490	CM97933OOE2	5950	1
	32-40		CM97898OOF2	3050		CM97894OOF2	4490	CM97933OOF2	5950	1
	40-50	DC : 15kA @ 250V DC, (2P in Series) L/R < 15 msec.	CM97898OOG2	3050		CM97894OOG2	4490	CM97933OOG2	5950	1
	50-63		CM97898OOH2	3050		CM97894OOH2	4490	CM97933OOH2	5950	1
	63-80		CM97898OOJ2	3050		CM97894OOJ2	4490	CM97933OOJ2	5950	1
	80-100		CM97898OOK2	3050		CM97894OOK2	4490	CM97933OOK2	5950	1
DU125H	100-125		CM91198OOL0	3920		CM90678OOL0	4800	CM90679OOL0	6400	1

Note: 2P in 3P frame size

DIN rail kit available as an accessory. Please refer DU100H/DU125H accessories table on page no. 32

2 Pole / 3 Pole / 4 Pole MCCBs

DU250C/DU250/DU400N MCCBs



- Conforms to IS/IEC 60947-2 & IEC 60947-2
- Range: 160A to 400A, 2P, 3P & 4P
- SS Enclosure available*
- Compact size
- Wide Range of snap fit Internal and External Accessories
- Adjustable Overload Setting: 0.8 - 1.0 x In

Kindly refer page no. 41
for cost effective MCCB for
motor starter application

Type	Thermal Release Range (A)	Breaking Capacity Icu (kA)	2 Pole		Std. Pkg. (Nos.)
			Cat. No.	M.R.P. (₹) Per Unit	
DU250	125-160	AC : 65kA @ 240V AC, 50Hz DC : 15kA for DU250 @250V DC & 25kA for DU400N @ 250V DC, (2P in Series) L/R < 15 msec.	CM90905OOMO	4620	1
	160-200		CM90905OONO	5340	1
	200-250		CM90905OPO	5980	1
DU400N	250-320		CM90886OOQO	10440	1
	320-400		CM90886OORO	10660	1

Note: 2P in 3P frame size

Type	Thermal Release Range (A)	Breaking Capacity Icu at 415V AC 50Hz. (kA)	3 Pole		4 Pole		Std. Pkg. (Nos.)
			Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit	
DU250C	125-160	25	CM90631OOMO	6310	CM90634OOMO	7900	1
	160-200		CM90631OONO	7420	CM90634OONO	9350	1
	200-250		CM90631OPO	8270	CM90634OPO	10890	1
DU250	125-160	36	CM98062OOO	8270	CM98065OOMO	10060	1
	160-200		CM98061OOO	10710	CM98065OONO	13820	1
	200-250		CM98060OOO	12310	CM98065OPO	15840	1
DU400N	250-320	50	CM98402OOQO	15800	CM98404OOQO	19840	1
	320-400		CM98402OORO	16140	CM98404OORO	20180	1

* For DU250/DU250C

Accessories for DU MCCBs

Accessories for DU100/DU125U MCCBs



Auxiliary Contact



Shunt Release

Description	Internal		
	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Auxiliary Contact			
1 C/O - Right	CM977810000	465	1
1 C/O - Left	CM977820000	465	1
Trip Alarm Contact			
1 C/O - Right	SL970370000	705	1
Shunt Release			
240/415V AC, 110 DC - Left	CM977830000	600	1

Note: All internal accessories & ROMs are common for 2P MCCBs



Spreader Terminals



Direct Rotary Handle



Extended Rotary Handle



DU SS Enclosure

Description	External		
	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Spreader Terminals			
2 Pole	CM977850002	175	Set of 4
3 Pole	CM977850000	240	Set of 6
Rotary Handle			
Direct	SL970440000	765	1
Extended	CM999180000	1460	1
DIN rail kit	CM909440000	65	1
SS Enclosure	ST980500000	800	1

Note: Phase Barriers are supplied along with MCCBs

Accessories for DU100D/DU125D/DU100H/DU125H/DU250C/DU250 MCCBs



Auxiliary Contact



ATAC



Shunt Release



UV Release

Description	Internal		
	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Auxiliary Contact			
1 C/O - Right	CM978860000	765	1
2 C/O - Right	CM978870000	1365	1
Trip Alarm Contact			
1 C/O - Right	CM978880000	765	1
2 C/O - Right	CM978890000	1365	1
Auxiliary + Trip Alarm Contact			
1 C/O + 1C/O - Right	CM978900000	1345	1
Shunt Release			
110V AC - Left	CM978830A00	1235	1
240/415V AC - Left	CM978830M00	1235	1
Under Voltage Release			
240V AC - Left	CM97892B000	1655	1

Accessories for DU400N MCCBs



Auxiliary Contact



TAC



Shunt Release



UV Release

Description	Internal		
	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Auxiliary Contact			
1 C/O	CM998010000	880	1
2 C/O	CM998020000	1600	1
Trip Alarm Contact			
1 C/O - Right	CM998030000	880	1
Auxiliary + Trip Alarm Contact			
1 C/O + 1C/O - Right	CM998040000	1650	1
Shunt Release			
110/240/415V AC, 110/220V DC	CM998050000	2145@	1
24V DC	CM989760400	2145@	1
Under Voltage Release			
240V AC - Left	CM99986B000	2675	1



Spreader Terminals



Direct Rotary Handle



Extended Rotary Handle

Description	External			
	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)	
Spreader Terminals				
DU100H - 2 Pole	CM977850002	175	Set of 4	
DU125H - 2 Pole	CM9119900LO	230	Set of 4	
DU250 - 2 Pole	CM909600000	895	Set of 4	
DU100D/DU100H - 3 Pole	CM977850000	240	Set of 6	
DU125D/DU125H - 3 Pole	CM9068700LO	330	Set of 6	
DU250C/DU250 - 3 Pole	ST980530000	1280	Set of 6	
DU100D/DU100H - 4 Pole	CM979210000	380	Set of 8	
DU125D/DU125H - 4 Pole	CM9068800LO	460	Set of 8	
DU250C/DU250 - 4 Pole	CM920070000	1555	Set of 8	
Rotary Handle				
DU100D/DU125D/	Direct	CM978950000	990	1
DU100H/DU125H	Extended	CM978960000	1500	1
DU250C/DU250	Direct	CM980400000	1055	1
	Extended	CM980410000	1510	1
DIN rail kit				
DU100D/DU125D/DU100H/DU125H	CM909440000	65	1	

Note: Phase Barriers are supplied along with MCCBs



Spreader Terminals



Direct Rotary Handle



Extended Rotary Handle

Description	External		
	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Spreader Terminals			
2 Pole	CM909640000	1545	Set of 4
3 Pole	ST980650000	2205	Set of 6
4 Pole	ST980660000	3170	Set of 8
Rotary Handle			
Direct	CM998600000	1700	1
Extended	CM998610000	2855	1

Note: Phase Barriers are supplied along with MCCBs
All internal accessories & ROMs are common for 2P MCCBs
@ - 'NO' of control contactor to be connected in series for DC control supply

DH MCCB Range

DH/DL With Thermal - Magnetic Release :

Rating (A) Icu (kA)	16	20	25	32	40	50	63	80	100	125
25							DH100		DH100	
35	DH125									
50	DL100									



- Conforms to IS/IEC 60947-2 & IEC 60947-2
- Range: 16A to 125A, 3P & 4P
- Ics = 100% Icu
- Adjustable thermal setting: 0.8-1.0 x In
- Wide Range of Internal and External Accessories

Kindly refer page no. 41 for cost effective MCCB for motor starter application

Type	Thermal Release Range (A)	Breaking Capacity Icu at 415V AC, 50Hz. (kA)	3 Pole		4 Pole		Std. Pkg. (Nos.)
			Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit	
DH100*	50-63	25	SL972070000	5700	SL986030000	7190	1
	80-100		SL972090000	6150▲	SL986050000	8020▲	1
DH125	12-16	35	SL986440000	6450	SL986110000	7630	1
	16-20		SL986450000	6450	SL986120000	7630	1
	20-25		SL986460000	6450	SL986130000	7630	1
	25-32		SL986470000	6450	SL986140000	7630	1
	32-40		SL986480000	6450	SL986150000	7630	1
	40-50		SL986490000	6450	SL986160000	7630	1
	50-63		SL986500000	6450	SL986170000	7630	1
	63-80		SL986510000	6450	SL986180000	7630	1
	80-100		SL986520000	7200▲	SL986190000	8540▲	1
	100-125		SL986530000	7340▲	SL986070000	8780▲	1

▲ - Spreader Terminals are included

* Available till stocks last.

DH125 with same mounting dimensions is recommended substitute for DH100

DL MCCB Range



- Conforms to IS/IEC 60947-2 & IEC 60947-2
- Range: 16A to 100A, 3P & 4P
- Ics = 100% Icu
- Adjustable thermal setting: 0.8-1.0 x In
- Wide Range of Internal and External Accessories
- For Icu=65 kA, please contact branch office

Type	Thermal Release Range (A)	Breaking Capacity Icu at 415V AC, 50Hz. (kA)	3 Pole		4 Pole		Std. Pkg. (Nos.)
			Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit	
DL100	12-16	50	SL978010000	9950	SL986200000	12090	1
	16-20		SL978020000	9950	SL986210000	12090	1
	20-25		SL978030000	9950	SL986220000	12090	1
	25-32		SL978040000	9950	SL986230000	12090	1
	32-40		SL978050000	9950	SL986240000	12090	1
	40-50		SL978060000	9950	SL986250000	12090	1
	50-63		SL978070000	9950	SL986260000	12090	1
	63-80		SL978080000	9950	SL986270000	12090	1
	80-100		SL978090000	11000▲	SL986280000	13350▲	1

▲ - Spreader Terminals are included

DTH MCCB Range

DTH With Thermal - Magnetic Release :



- Conforms to IS/IEC 60947-2 & IEC 60947-2
- Suitable for distribution & induction furnace application
- Rugged construction
- Adjustable thermal setting : 600 - 800A
- Adjustable magnetic setting : 2600 - 6400A

3 Pole (for Distribution Application)					
Type	Thermal Release Range (A)	Breaking Capacity Icu at 415V, 50Hz (kA)	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
DTH800	600-800	50	SL944720000	44160	1

3 Pole (for Induction Furnace Application)						
Type	Current Rating (A)	Instantaneous Setting (A)	Breaking Capacity Icu at 415V, 50Hz (kA)	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
DTH800 - Instantaneous	250	360	50	SB950520000	44160	1
	400	550	50	SB950530000	44160	1
	630	850	50	SB950540000	44160	1
	800	1050	50	SB950550000	44160	1

Accessories for DH100/DH125, DL100 MCCBs



Auxiliary Contact



TAC



Shunt Release



UV Release

Description	Internal		
	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Auxiliary Contact			
1 C/O - Right	SL972960000	805	1
1 C/O - Left	SL972970000	805	1
Trip Alarm Contact			
1 C/O - Right	SL972980000	805	1
Shunt Release			
110/240/415V AC - Left	SL972990M00	1070	1
24V DC - Left	SL972990400	1070	1
Under Voltage Release			
240V AC - Left	SL976110000	1410	1



Spreader Terminal



Extended Rotary Handle

Description	External		
	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Spreader Terminals			
3 Pole	ST980470000	390	Set of 6
4 Pole	ST980600000	510	Set of 8
Rotary Handle			
Extended	CM991030000	1450	1

Note: Phase Barriers are supplied along with MCCBs

Accessories for DTH 800 MCCBs



UV Release



Shunt Release



Auxiliary Contact



Extended Rotary Handle

Description	Internal		
	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Auxiliary Contact			
2 C/O	SL942170000	1670	1
Shunt Release			
415V AC, 220V DC - Right	SL985260000	2095	1
240V AC, 110V DC - Right	SL985340000	2095	1
Under Voltage Release			
415V AC - Left	SL985480000	2095	1
240V AC - Left	SL985450000	2095	1
110V AC - Left	SL985430000	2095	1

Description	External		
	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Extension Link			
3 Pole	ST306580000	3150	Set of 6
Rotary Handle			
Extended	CM998980000	2790	1

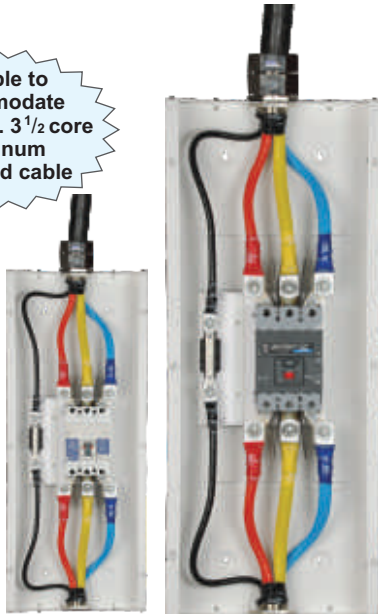
Note: For (DTH800+TAC), please contact nearest branch office

SS Enclosure for MCCBs

New

Suitable to accommodate 185 sq. mm. 3 1/2 core Aluminum armoured cable

Suitable to accommodate 70 sq. mm. 3 1/2 core Aluminum armoured cable



Size I & Size II Enclosures

Note: Pictorial is for representation purpose only. Does not include cabling. MCCB to be purchased separately.

Perfect home for your MCCB

Separate cable gland box NOT required

- Superior Aesthetics
- Common Enclosure for 3P and 4P MCCBs
- Generous space for cable termination
- In-built neutral Link for TPN system
- IK08 and IP30 Protection
- Mounting holes for easy wall mounting
- Louvers for better heat dissipation
- Effortless Installation
- Size I suitable up to 125A MCCBs, 36kA
- Size II suitable from 160A to 250A MCCBs, 50kA



Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
New Size I Enclosure for DU100H/ DU125H/DU100D/DU125D/DN0	CM909960000	1470	1
New Size II Enclosure for DU250C/DU250/DN1	CM910030000	3240	1



Easy wall Mounting



In-built Neutral Link



Better Heat Dissipation

Ground Fault Module



- Provides protection against ground fault
- GF Module for ground fault protection can be used with all Thermal Magnetic MCCBs
- Adjustable ground fault sensitivity selection: 10% - 50% of In
- Adjustable time delay: 100ms / 200ms
- Test facility to check healthiness of ground fault protection system without tripping MCCB
- Suitable for 3 phase 3 wire & 3 phase 4 wire electrical distribution network with cable termination
- LED for earth fault indication

Ground Fault Protection					
Type	Range (A)	Cat. No.	M.R.P. (₹) Per Unit	CT	Std. Pkg. (Nos.)
GF1	100 - 200A	ST277450000	6035	Built in CBCT	1
GF2	250 - 400A	ST277460000	9175	Built in CBCT	1
GF11	up to 800A	ST285940000	5500 #	External CT required	1

External CTs of 5P10 class with secondary rating of 1A or 5A

d sine With Thermal - Magnetic Release :

Rating (A) Icu (kA)	20	25	32	40	50	63	80	100	125	160	200	250	320	400	500	630
25	DN0-100C								DN1							
36	DN0-100D/125D										DN3B					
36/50/70	DN2								DN3							



- Conforms to IS/IEC 60947-2 & IEC 60947-2
- Range: 20A to 630A, 3P & 4P
- Choice of 25kA / 36kA / 50kA / 70kA breaking capacities
- Ics = 100% Icu*
- Suitable for Isolation
- Adjustable Over Load setting: 0.8 - 1.0 x In
- Adjustable Short Circuit setting: 6 - 10 x In**
- Manual, Rotary or Motorised versions available @
- Wide Range of snap fit Internal and External Accessories

Kindly refer page no. 41 for cost effective MCCB for motor starter application

Type	Thermal Release Range (A)	Breaking Capacity Icu at 415V AC, 50Hz. (kA)	3 Pole		4 Pole		Std. Pkg. (Nos.)
			Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit	
DN0-100D*	16-20	36	CM978930OC2OG	6250	CM979190OC2OG	8500	1
	20-25		CM978930OD2OG	6250	CM979190OD2OG	8500	1
	25-32		CM978930OE2OG	6250	CM979190OE2OG	8500	1
	32-40		CM978930OF2OG	6250	CM979190OF2OG	8500	1
	40-50		CM978930OG2OG	6250	CM979190OG2OG	8500	1
	50-63		CM978930OH2OG	6250	CM979190OH2OG	8500	1
	63-80		CM978930OJ2OG	6250	CM979190OJ2OG	8500	1
	80-100		CM978930OK2OG	6250	CM979190OK2OG	8500	1
DN0-125D*	100-125		CM906800OLOOG	7640	CM906810OLOOG	10160	1
DN0-100C	16-20	25	CM916120OCCOOG	6360	CM917120OCCOOG	8710	1
	20-25		CM916120ODDOOG	6360	CM917120ODDOOG	8710	1
	25-32		CM916120OEOOG	6360	CM917120OEOOG	8710	1
	32-40		CM916120OFOOG	6360	CM917120OFOOG	8710	1
	40-50		CM916120OGOOG	6360	CM917120OGOOG	8710	1
	50-63		CM916120OHOOG	6360	CM917120OHOOG	8710	1
	63-80		CM916120OJOOG	6360	CM917120OJOOG	8710	1
	80-100		CM916120OKOOG	6360	CM917120OKOOG	8710	1
DN1-250C	100-125		CM906380OLO	9410	CM906420OLO	11290	1
	125-160		CM906380OMO	12210	CM906420OMO	14630	1
	160-200		CM906380ONO	15520	CM906420ONO	20090	1
	200-250		CM906380OPO	17800	CM906420OPO	22970	1

Note:

Breaking Capacity : C = 25kA, D = 36kA, N = 50kA, S = 70kA

@ Motorised version available for DN2 and DN3 frames (please refer page No. 42)

* DN0-100D/125D, DN1-250N : Ics = 50% Icu

**For DN0, DN1, DN3B-Short Circuit Setting: 9In

For DN1-250N (50kA) please contact nearest branch office

d sine With Thermal - Magnetic Release :



For DC application please refer catalogue

Type	Thermal Release Range (A)	Breaking Capacity Icu at 415V AC, 50Hz. (kA)	3 Pole		4 Pole		Std. Pkg. (Nos.)	
			Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit		
DN2-250D	100-125	36	CM92008OOL1OG	10500	CM92108OOL1OG	12900	1	
	125-160		CM92008OOM1OG	13680	CM92108OOM1OG	16250	1	
	160-200		CM92009OON1OG	19300	CM92109OON1OG	23520	1	
	200-250		CM92009OOP1OG	21000	CM92109OOP1OG	25660	1	
DN3B-400D	250-320		CM98401OOQOOG	23930	CM98403OOQOOG	30050	1	
	320-400		CM98401OOROOG	24430	CM98403OOROOG	30540	1	
DN3-400D	250-320		CM94005OOQ1OG	*	CM94105OOQ1OG	*	1	
	320-400		CM94005OOR1OG	*	CM94105OOR1OG	*	1	
DN3-630D	400-500		CM94006OOS1OG	28830	CM94106OOS1OG	36730	1	
	500-630		CM94006OOT1OG	31700	CM94106OOT1OG	39520	1	
DN2-250N	100-125		50	CM92005OOL1OG	13170	CM92105OOL1OG	17400	1
	125-160			CM92005OOM1OG	16490	CM92105OOM1OG	19910	1
	160-200	CM92006OON1OG		21590	CM92106OON1OG	26990	1	
	200-250	CM92006OOP1OG		23210	CM92106OOP1OG	28680	1	
DN3-400N	250-320	CM94003OOQ1OG		27620	CM94103OOQ1OG	34130	1	
	320-400	CM94003OOR1OG		27710	CM94103OOR1OG	34600	1	
DN3-630N	400-500	CM94004OOS1OG		31340	CM94104OOS1OG	40550	1	
	500-630	CM94004OOT1OG		33930	CM94104OOT1OG	43440	1	
DN2-250S	100-125	70		CM92002OOL1OG	20620	CM92102OOL1OG	23240	1
	125-160			CM92002OOM1OG	23860	CM92102OOM1OG	28610	1
	160-200			CM92003OON1OG	26080	CM92103OON1OG	34030	1
	200-250			CM92003OOP1OG	27870	CM92103OOP1OG	34850	1
DN3-400S	250-320		CM94001OOQ1OG	31580	CM94101OOQ1OG	37000	1	
	320-400		CM94001OOR1OG	32200	CM94101OOR1OG	37130	1	
DN3-630S	400-500		CM94002OOS1OG	40470	CM94102OOS1OG	50820	1	
	500-630		CM94002OOT1OG	42400	CM94102OOT1OG	51880	1	

Kindly refer page no. 41 for cost effective MCCB for motor starter application

Note: Breaking Capacity - C = 25kA, D = 36kA, N = 50kA, S = 70kA

* Price on request

General Information

- Use of phase barriers is mandatory. These are supplied along with MCCBs
- It is recommended to use spreader terminals for enhancing termination capacity
- Spreader terminals are available as accessories, unless otherwise specified against Cat. Nos.

Special Applications

- dsine/DU MCCBs with TM release can be used for DC application (2P/3P/4P)
- dsine/DU MCCBs can be used for Capacitor back-up protection
- For Motor back-up protection, use 'M' series of MCCBs such as DN0-M, DN1-M, DN2-M, DN3-M
- For isolation, use SD version (without protection release)

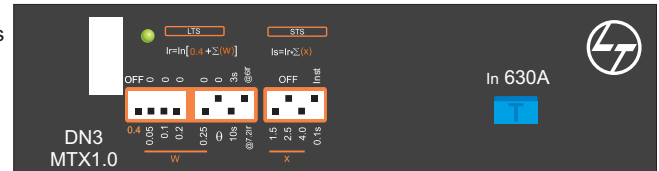
dsine With Microprocessor Release :

Rating (A) Icu (kA)	40	50	63	80	100	125	160	200	250	320	400	500	630	800	1000	1250	
36/50/70/100	DN2							DN3					DN4				
50/70/100																	

dsine With Microprocessor Release MTX1.0 :



- Conforms to IS/IEC 60947-2 & IEC 60947-2
- Range: 40A to 1250A, 3P & 4P
- Choice of 36kA / 50kA / 70kA /100kA breaking capacities
- Ics = 100% Icu
- Suitable for Isolation
- Adjustable Over Load from 0.4 - 1.0 x In
- Adjustable Short Circuit from 1.5 - 8 x Ir
- Inbuilt Instantaneous Protection
- Provision of Thermal Memory : ON/OFF
- Variable trip class at 7.2 Ir & 6 Ir
- Front LED indication of Over Load (Ready, Over load pre-alarm & Overload)
- Manual, Rotary or Motorised versions available @
- Wide Range of snap fit Internal and External Accessories



Type	Release Range (A)	Breaking Capacity Icu at 415V AC, 50Hz. (kA)	3 Pole		4 Pole		Std. Pkg. (Nos.)
			Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit	
DN2-250D	16 - 40	36	CM920630000X1	14600	CM921550000X1	19080	1
	25 - 63		CM920710000X1	14600	CM921540000X1	19080	1
	40 - 100		CM920510000X1	14600	CM921530000X1	19080	1
	63 - 160		CM920740000X1	18200	CM921520000X1	24700	1
	100 - 250		CM920540000X1	24520	CM921510000X1	31990	1
DN3-400D	160 - 400		CM930010000X1	30360	CM930030000X1	37860	1
DN3-630D	250 - 630		CM930050000X1	33330	CM930070000X1	43760	1
DN2-250N	16 - 40	50	CM920640000X1	18020	CM921600000X1	22160	1
	25 - 63		CM920720000X1	18020	CM921590000X1	22160	1
	40 - 100		CM920520000X1	18020	CM921580000X1	22160	1
	63 - 160		CM920750000X1	22690	CM921570000X1	28160	1
	100 - 250		CM920550000X1	28330	CM921560000X1	35590	1
DN3-400N	160 - 400		CM930020000X1	33370	CM930040000X1	42620	1
DN3-630N	250 - 630		CM930060000X1	36270	CM930080000X1	47340	1
DN4-1250N	320 - 800	70	CM960210000X1	52530	CM961110000X1	65290	1
	400 - 1000		CM960220000X1	83430	CM961120000X1	118380	1
	500 - 1250		CM960230000X1	102080	CM961130000X1	149520	1
DN2-250S	16 - 40	70	CM920650000X1	20200	CM921650000X1	25730	1
	25 - 63		CM920730000X1	20200	CM921640000X1	25730	1
	40 - 100		CM920590000X1	20200	CM921630000X1	25730	1
	63 - 160		CM920760000X1	27240	CM921620000X1	34760	1
	100 - 250		CM920560000X1	33660	CM921610000X1	39420	1
DN3-400S	160 - 400		CM940530000X1	41080	CM941530000X1	51900	1
DN3-630S	250 - 630		CM940790000X1	45740	CM941790000X1	59070	1
DN4-1250S	320 - 800	70	CM960250000X1	73130	CM961150000X1	90020	1
	400 - 1000		CM960260000X1	105030	CM961160000X1	150080	1
	500 - 1250		CM960270000X1	127270	CM961170000X1	176600	1

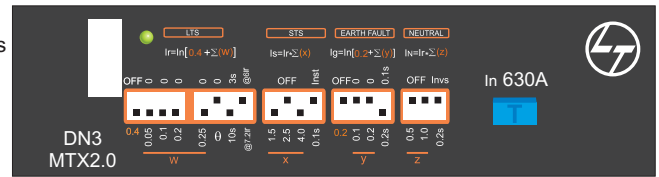
Note: dsine-V Version (Icu=Ics=100kA) MCCBs are available on request.

@ Motorised version available for DN2 and DN3 frames (please refer page No. 42)

d sine With Microprocessor Release MTX2.0 :



- Conforms to IS/IEC 60947-2 & IEC 60947-2
- Range: 40A to 1250A, 3P & 4P
- Choice of 36kA / 50kA / 70kA / **100kA** breaking capacities
- $I_{cs} = 100\% I_{cu}$
- Suitable for Isolation
- Adjustable Over Load from 0.4 - 1.0 x I_n
- Adjustable Short Circuit from 1.5 - 8 x I_r
- Inbuilt Instantaneous Protection
- Inbuilt ground fault protection from 20% - 50% of I_n
- Adjustable neutral overload protection available : 50% to 150% of I_r
- Provision of Thermal Memory : ON/OFF
- Variable trip class at 7.2 I_r & 6 I_r
- Front LED indication of Over Load, short circuit & earth fault
- Panel mounted display available for Current metering & trip record
- Manual, Rotary or Motorised versions available @
- For 3 phase 4 wire system, External neutral CTs available for 3P MCCBs
- Wide Range of snap fit Internal and External Accessories



Type	Release Range (A)	Breaking Capacity I_{cu} at 415V AC, 50Hz. (kA)	3 Pole		4 Pole		Std. Pkg. (Nos.)
			Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit	
DN2-250D	16 - 40	36	CM920630000AG	25900	CM921550000AG	30070	1
	25 - 63		CM920710000AG	25900	CM921540000AG	30070	1
	40 - 100		CM920510000AG	25900	CM921530000AG	30070	1
	63 - 160		CM920740000AG	29650	CM921520000AG	36760	1
	100 - 250		CM920540000AG	35050	CM921510000AG	43140	1
DN3-400D	160 - 400		CM930010000AG	42100	CM930030000AG	49220	1
DN3-630D	250 - 630		CM930050000AG	45360	CM930070000AG	56130	1
DN2-250N	16 - 40	50	CM920640000AG	28400	CM921600000AG	33870	1
	25 - 63		CM920720000AG	28400	CM921590000AG	33870	1
	40 - 100		CM920520000AG	28400	CM921580000AG	33870	1
	63 - 160		CM920750000AG	33580	CM921570000AG	40020	1
	100 - 250		CM920550000AG	37080	CM921560000AG	44700	1
DN3-400N	160 - 400		CM930020000AG	43740	CM930040000AG	52180	1
DN3-630N	250 - 630		CM930060000AG	48390	CM930080000AG	62550	1
DN4-1250N	320 - 800		CM960210000AG	79460	CM961110000AG	94760	1
	400 - 1000		CM960220000AG	103120	CM961120000AG	137980	1
	500 - 1250		CM960230000AG	120770	CM961130000AG	172820	1
DN2-250S	16 - 40	70	CM920650000AG	33600	CM921650000AG	38900	1
	25 - 63		CM920730000AG	33600	CM921640000AG	38900	1
	40 - 100		CM920590000AG	33600	CM921630000AG	38900	1
	63 - 160		CM920760000AG	42190	CM921620000AG	51220	1
	100 - 250		CM920560000AG	45520	CM921610000AG	54640	1
DN3-400S	160 - 400		CM940530000AG	54640	CM941530000AG	67050	1
DN3-630S	250 - 630		CM940790000AG	61940	CM941790000AG	85110	1
DN4-1250S	320 - 800		CM960250000AG	91810	CM961150000AG	110990	1
	400 - 1000		CM960260000AG	127450	CM961160000AG	170530	1
	500 - 1250		CM960270000AG	148390	CM961170000AG	202420	1

Note: dsine-V Version ($I_{cu}=I_{cs}=100kA$) MCCBs are available on request.

@ Motorised version available for DN2 and DN3 frames (please refer page No. 42)

Modules for MTX2.0 release	Cat. No.	M.R.P. (₹) Per Unit
Current Metering Module (Display & Metering Module)	CM956980000	11000
Cable (2m length)	CM011960000	1000
Power Supply Module	CL907220000	*
UNCO Module for Status Indication & Control through communication	CL908520000	9500

* Available on request

Current Metering & latest trip record

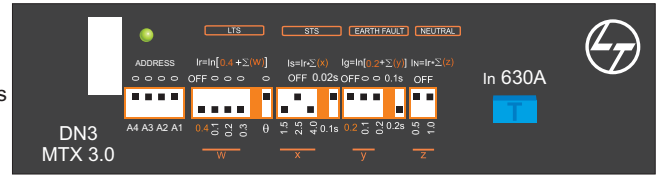


MTX2.0 with current metering module

d sine With Microprocessor Release MTX3.0 :



- Conforms to IS/IEC 60947-2 & IEC 60947-2
- Range: 40A to 1250A, 3P & 4P
- Choice of 36kA / 50kA / 70kA / **100kA** breaking capacities
- $I_{cs} = 100\% I_{cu}$
- Suitable for Isolation
- Adjustable Over Load from 0.4 - 1.0 x I_n
- Adjustable Short Circuit from 1.5 - 8 x I_r with selectable time delay
- Instantaneous protection with fine settings
- Inbuilt ground fault protection from 10% - 50% of I_n
- Adjustable neutral overload protection available : 50% to 150% of I_r
- Advanced Current, Voltage, Frequency & Power based protections
- Other Protections like Maximum Demand, Phase Sequence, THD etc.
- Comprehensive Current, Power, Energy, PF, MD, THD metering
- Provision of Thermal Memory : ON/OFF
- Variable trip class at 1.5 I_r , 6 I_r & 7.2 I_r
- Front LED indication of Over Load, short circuit & earth fault
- Panel mounted display available for advanced protections & metering
- Communication capable release
- Manual, Rotary or Motorised versions available @
- For 3 phase 4 wire system, External neutral CTs available for 3P MCCBs
- Wide Range of snap fit Internal and External Accessories



Type	Release Range (A)	Breaking Capacity I_{cu} at 415V AC, 50Hz. (kA)	3 Pole		4 Pole		Std. Pkg. (Nos.)
			Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit	
DN2-250D	16 - 40	36	CM920630000BG	*	CM921550000BG	*	1
	25 - 63		CM920710000BG		CM921540000BG		1
	40 - 100		CM920510000BG		CM921530000BG		1
	63 - 160		CM920740000BG		CM921520000BG		1
	100 - 250		CM920540000BG		CM921510000BG		1
DN3-400D	160 - 400		CM930010000BG		CM930030000BG		1
DN3-630D	250 - 630		CM930050000BG		CM930070000BG		1
DN2-250N	16 - 40	50	CM920640000BG	*	CM921600000BG	*	1
	25 - 63		CM920720000BG		CM921590000BG		1
	40 - 100		CM920520000BG		CM921580000BG		1
	63 - 160		CM920750000BG		CM921570000BG		1
	100 - 250		CM920550000BG		CM921560000BG		1
DN3-400N	160 - 400		CM930020000BG		CM930040000BG		1
DN3-630N	250 - 630		CM930060000BG		CM930080000BG		1
DN4-1250N	320 - 800		CM960210000BG		CM961110000BG		1
	400 - 1000		CM960220000BG		CM961120000BG		1
	500 - 1250		CM960230000BG		CM961130000BG		1
DN2-250S	16 - 40	70	CM920650000BG	*	CM921650000BG	*	1
	25 - 63		CM920730000BG		CM921640000BG		1
	40 - 100		CM920590000BG		CM921630000BG		1
	63 - 160		CM920760000BG		CM921620000BG		1
	100 - 250		CM920560000BG		CM921610000BG		1
DN3-400S	160 - 400		CM940530000BG		CM941530000BG		1
DN3-630S	250 - 630		CM940790000BG		CM941790000BG		1
DN4-1250S	320 - 800		CM960250000BG		CM961150000BG		1
	400 - 1000		CM960260000BG		CM961160000BG		1
	500 - 1250		CM960270000BG		CM961170000BG		1

Note: dsine-V Version ($I_{cu}=I_{cs}=100kA$) MCCBs are available on request.

@ Motorised version available for DN2 and DN3 frame.

Modules for MTX3.0 release	Cat. No.	M.R.P. (₹) Per Unit
Communication Module	CM956800000	*
Voltage Module	CM956850000	
Display Module	CM956760000	
Power Supply Module	CL907220000	
UNCO Module for Status Indication & Control through communication	CL908520000	9500

* Price on request

MCCB with MTX3.0 release



MTX3.0 with all modules

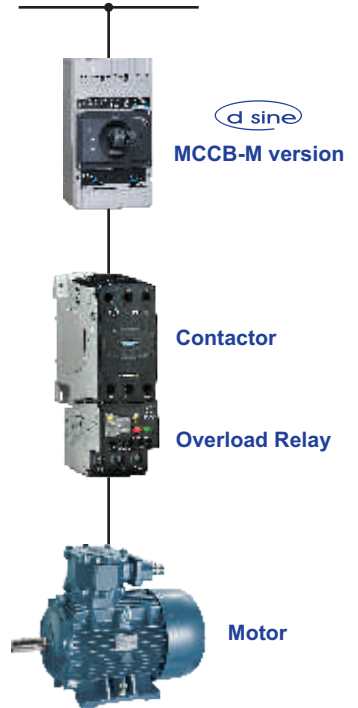
d sine MCCBs for Motor back-up Protection:



- Range: 32A to 630A, 50kA
- Suitable for isolation
- Wide Range of snap fit Internal and External Accessories

Cost effective solution for motor starter protection

3 Pole					
Type	Current Rating (A)	Breaking Capacity Icu at 415V. AC, 50Hz. (kA)	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
DN0-100M	32	50	CM98944OOEO	4830	1
	40		CM98944OOF0	4830	1
	50		CM98944OOGO	4830	1
	63		CM98944OOHO	4830	1
	80		CM98944OOJO	4830	1
	100		CM98944OOKO	4830	1
DN1-160M	100		CM90345OOKO	7730	1
	125		CM90345OOL0	8240	1
	160		CM90345OOM0	9790	1
DN2-250M	200		CM921710ON0OG	13330	1
	250		CM921710OP0OG	16970	1
DN3-400M	320		CM945160OQ0OG	19720	1
	400		CM945160OR0OG	20890	1
DN3-630M	500		CM945150OS0OG	24620	1
	630		CM945150OT0OG	25030	1



Representative Application Image

Note: Please contact nearest branch office for fuseless type 2 co-ordination selection chart For lower HP motors, Please select MPCB. Details are given on page no. 16



Give your motor the right protection

dsine-M is compact and it comes with a wide range of snap-fit accessories. Why settle for anything else?



Cost Effective

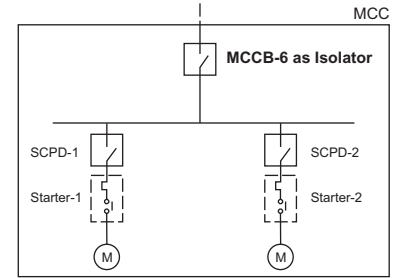
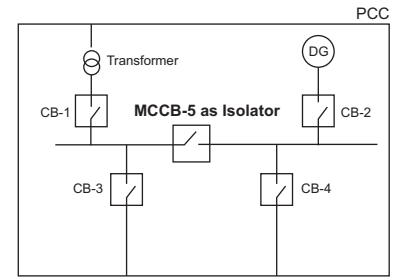
d sine
dsine-M range

d sine Switch Disconnecter - SD (MCCBs without protection release):



- Used as switching devices for isolation
- Range: 32A to 1250A, 3P & 4P
- Suitable for isolation
- Wide Range of snap fit Internal and External Accessories

Type	Current Rating (A)	3 Pole		4 Pole		Std. Pkg. (Nos.)
		Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit	
DN0-160SD	32	CM907160OEO	4640	CM907170OEO	6030	1
	63	CM907160OHO	4640	CM907170OHO	6030	1
	100	CM907160OKO	5720	CM907170OKO	7300	1
	125	CM907160OLO	6250	CM907170OLO	7970	1
	160	CM907160OMO	6770	CM907170OMO	8640	1
DN2-250SD	200	CM968140ONOOG	14190	CM968150ONOOG	17910	1
	250	CM968020OPOOG	14560	CM968030OPOOG	18970	1
DN3B-400SD	320	CM984100OQOOG	17640	CM984120OQOOG	22930	1
	400	CM984100OROOG	19850	CM984120OROOG	24810	1
DN3-630SD	500	CM968060OSOOG	23340	CM968070OSOOG	30490	1
	630	CM968060OTOOG	24060	CM968070OTOOG	32260	1
DN4-1250SD	800	CM930410OUO	51430	CM930420OUO	64820	1
	1000	CM930410OVO	69490	CM930420OVO	90100	1
	1250	CM930410OAO	85950	CM930420OAO	120360	1



Representative Application Image

Automatic Source Transfer System (ASTS)

- 128x80 pixel, backlit LCD screen with 4 grey levels
- Advanced programmable I/O function
- Management of automatic generator start/stop
- Controls of UV, OV, phase loss, asymmetry, minimum frequency, maximum frequency, with independent enabling and time delay



AuXC-2000

2 d sine MCCBs + 2 SE-EOM + 2 UV + 1 MIL kit

Automatic Transfer Controllers (ATC)

Type	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
AuXC-1000 controller*	ST802300000	19500	1
AuXC-2000 controller	ATC20000000	19500	1

Please add Controller MRP with below MRPs

Can be used along with OMEGA Air Circuit Breaker, d sine MCCBs, MCX contactors & Motorised Changeover switches

* Available till stocks last.

Frame	Current Rating (A)	Breaking Capacity Icu at 415V AC, 50Hz. (kA)	ASTS with TM		ASTS with MTX1.0		ASTS with MTX2.0	
			3 Pole	4 Pole	3 Pole	4 Pole	3 Pole	4 Pole
			M.R.P. (₹) Per Unit	M.R.P. (₹) Per Unit	M.R.P. (₹) Per Unit	M.R.P. (₹) Per Unit	M.R.P. (₹) Per Unit	M.R.P. (₹) Per Unit
DN2	100	36	78660	83500	88200	97160	110800	119140
	160		86360	91500	95400	108400	118300	132520
	250		101000	110320	108040	122980	129100	145280
DN2	100	50	82440	88400	95040	103320	115800	126740
	160		91980	98820	104380	115320	126160	139040
	250		105420	116360	115660	130180	133160	148400
DN3	400	70	124570	138350	135890	154390	156630	173510
	630		137010	156030	141690	163830	165930	194250
DN2	160	70	106720	116220	113480	128520	143380	161440
	250		114740	128700	126320	137840	150040	168280
DN3	400		133550	143410	151310	172950	178430	203250
	630	153950	172910	160630	187290	193030	239370	

ASTS MRP consists of the following products: 2 dsine MCCBs, 2 SE-EOMs, 2 UV release, 2 Aux + Trip Alarm contact & 1 MIL Kit

Note: Picture shown is for representation purpose only, MCCB + EOM + UV combination, MIL kit & AuXC-2000 to be purchased separately & assembled at site.

Accessories for MCCBs



Auxiliary Contact



TAC



Shunt Release



UV Release

Description	Internal		
	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Auxiliary Contact			
DN0, DN1 - 1 C/O - Right	CM97886O000	765	1
DN0, DN1 - 2 C/O - Right	CM97887O000	1365	1
DN2, DN3B, DN3, DN4 - 1 C/O	CM99801O000	880	1
DN2, DN3B, DN3, DN4 - 2 C/O	CM99802O000	1600	1
Trip Alarm Contact			
DN0, DN1 - 1 C/O - Right	CM97888O000	765	1
DN0, DN1 - 2 C/O - Right	CM97889O000	1365	1
DN2, DN3B, DN3, DN4 - 1 C/O - Right	CM99803O000	880	1
Auxiliary 1 C/O + TAC 1 C/O			
DN0, DN1 - Right	CM97890O000	1345	1
DN2, DN3B, DN3, DN4 - Right	CM99804O000	1650	1
Shunt Release			
DN0, DN1 - 110V AC - Left	CM97883OAOO	1235	1
DN0, DN1 - 240/415V AC - Left	CM97883OMOO	1235	1
DN2, DN3B, DN3, DN4 - 110/240/415V AC, 110/220V DC	CM99805O000	2145@	1
DN2, DN3B, DN3 - 24V DC	CM98976O4OO	2145@	1
Under Voltage Release			
DN0, DN1 - 240V AC - Left	CM97892BOOO	1655	1
DN2, DN3B, DN3 - 240V AC - Left	CM9986BOOO	2675**	1
DN4 - 240V AC - Left	CM99906O000	2770**	1

@ - 'NO' of control contactor to be connected in series for DC control supply
 ** - Use these UV Cat. Nos. with Grey look MCCBs only



Neutral CT



Adaptor kit for NCT

Description	External		
	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
External Neutral CT			
DN2 - 40A	CM99946O000	1400	1
DN2 - 63A	CM99947O000	1400	1
DN2 - 100A	CM99948O000	1400	1
DN2 - 160A	CM99949O000	2000	1
DN2 - 250A	CM99950O000	2000	1
DN3 - 400A	CM99954O000	3700	1
DN3 - 630A	CM99955O000	3700	1
DN4 - 800A	CM99889O000	5500	1
DN4 - 1000A	CM99890O000	5500	1
DN4 - 1250A	CM99891O000	6065	1
Adaptor kit for External Neutral CT			
DN2 - 250	CM99994O000	500	Set of 2
DN3 - 400	CM99995O000	1035	Set of 2
DN3 - 630	CM99997O000	1050	Set of 2
DN4 - 800	CM99996O000	1765	Set of 2
DN4 - 1000	CM90966O000	3530	Set of 4
DN4 - 1250	CM99998O000	6565	Set of 2
Stored Energy Electrical Operating Mechanism			
DN2 - 240V AC	*		
DN3 - 240V AC			

* Available on request



Direct Rotary Handle



Extended Rotary Handle



Key Lock

Description	External		
	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Rotary Handle			
DN0 Direct	CM97895O000	990	1
DN1 Direct	CM98040O000	1055	1
DN2 Direct	CM99829O000	1135	1
DN3B, DN3 Direct	CM99860O000	1700	1
DN0 Extended	CM97896O000	1500	1
DN1 Extended	CM98041O000	1510	1
DN2 Extended	CM99830O000	1760	1
DN3B, DN3 Extended	CM99861O000	2855	1
DN4 Extended	CM99884O000	3700	1
Panel door mounted Key lock for Extended Rotary Handle #			
Type 1	CM99958TOOOO	1550	1
Type 2	CM99958TOOOA	1550	1
Type 3	CM99958TOOOB	1550	1
Type 12	CM99958TOOOC	1550	1
Type 23	CM99958TOOOD	1550	1

- Can be used with dsine, DU, DH/DL, DTH new look extended ROM



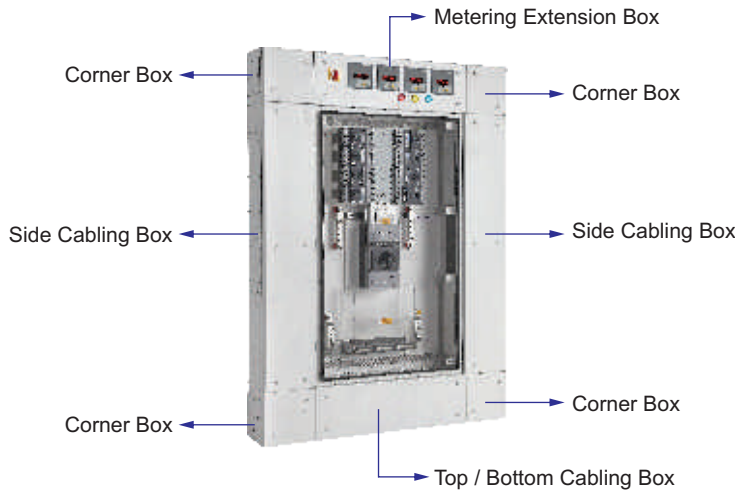
Spreader Terminals



MIL Kit - Base Mounted

Description	External		
	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Spreader Terminals			
DN0-100 - 3 Pole	CM97785O000	240	Set of 6
DN0-125D - 3 Pole	CM90687O0LO	330	Set of 6
DN1, DN2 - 250 - 3 Pole	ST98053O000	1280	Set of 6
DN3B/DN3-400 - 3 Pole	ST98065O000	2205	Set of 6
DN3-630 - 3 Pole	ST98054O000	2485	Set of 6
DN4-800 - 3 Pole	CM91161OOUO	5035	Set of 6
DN4-1000 - 3 Pole	CM91161OOVO	10070	Set of 12
DN4-1250 - 3 Pole	CM91161OOAO	18225	Set of 6
DN0-100 - 4 Pole	CM97921O000	380	Set of 8
DN0-125D - 4 Pole	CM90688O0LO	460	Set of 8
DN1, DN2 - 250 - 4 Pole	CM92007O000	1555	Set of 8
DN3B/DN3-400 - 4 Pole	ST98066O000	3170	Set of 8
DN3-630 - 4 Pole	CM92004O000	3720	Set of 8
DN4-800 - 4 Pole	ST90362O000	6550	Set of 8
DN4-1000 - 4 Pole	CM90064OOVO	13100	Set of 16
DN4-1250 - 4 Pole	ST98058O000	22920	Set of 8
Mechanical Interlock Kit - Base Plate			
DN2-250	CM99731O000	4150	1
DN3-400	CM99732O000	6300	1
DN3-630	CM99854O000	6300	1
DIN rail kit			
DN0	CM90944O000	65	1

Note: Phase Barriers are supplied along with MCCBs



Range Highlights

- Compliance with latest standard - IEC 61439-2
- DEKRA and ASTA certified
- Rating upto 630 A
- Short-time withstand current - 36 kA for 1 sec.
- Ingress protection - IP 43
- Choice in number of outgoing ways - 4, 8, 12 and 16
- Ready to use, off the shelf solution
- Suitable for range of MCCBs
- Metering & cabling extensions are available as accessories

ENERSYS-S SMDB

Description	Cat. No.	M.R.P. (₹) Per Unit	Height (H) (mm)	Width (W) (mm)	Depth (D) (mm)
SMDB - TN250D, O/G 100A 4 ways	DA20D1044CZZO	38000	637	670	208.5
SMDB - TN250D, O/G 100A 8 ways	DA20D1084CZZO	46000	787	670	208.5
SMDB - TN250D, O/G 100A 12 ways	DA20D1124CZZO	59000	937	670	208.5
SMDB - TN250D, O/G 100A 16 ways	DA20D1164CZZO	69000	1087	670	208.5
SMDB - TN400D, O/G 100A 4 ways	DA40D1044CZZO	43000	937	670	208.5
SMDB - TN400D, O/G 100A 8 ways	DA40D1084CZZO	49000	1087	670	208.5
SMDB - TN400D, O/G 100A 12 ways	DA40D1124CZZO	63000	1237	670	208.5
SMDB - TN400D, O/G 100A 16 ways	DA40D1164CZZO	75000	1387	670	208.5
SMDB - TN630D, O/G 100A 8 ways	DA60D1084CZZO	* Available on request			
SMDB - TN630D, O/G 100A 12 ways	DA60D1124CZZO				

Incoming Device		
SMDB	Description	Cat. No.
TN250D	DN1-250N 3 Pole MCCB - 160A	CM98608OOMO
	DN1-250N 3 Pole MCCB - 200A	CM98608OONO
	DN1-250N 3 Pole MCCB - 250A	CM98608OPO
TN400D	DN3-400D 3 Pole MCCB - 320A	CM94005OOQ1OG
	DN3-400D 3 Pole MCCB - 400A	CM94005OOR1OG

Outgoing Device		
SMDB	Description	Cat. No.
TN250D & TN400D	DN0-100D 3 Pole MCCB - 20 A	CM97893OOC2OG
	DN0-100D 3 Pole MCCB - 25 A	CM97893OOD2OG
	DN0-100D 3 Pole MCCB - 32 A	CM97893OOE2OG
	DN0-100D 3 Pole MCCB - 40 A	CM97893OOF2OG
	DN0-100D 3 Pole MCCB - 50 A	CM97893OOG2OG
	DN0-100D 3 Pole MCCB - 63 A	CM97893OOH2OG
	DN0-100D 3 Pole MCCB - 80 A	CM97893OOJ2OG
	DN0-100D 3 Pole MCCB - 100 A	CM97893OOK2OG

Note:
While ordering SMDB, incoming and outgoing MCCBs have to be ordered separately. Prices of MCCBs are not included in SMDB prices. Refer MCCB section for prices of incoming and outgoing devices.

ENERSYS-S SMDB Accessories

Metering, Top/Bottom Cabling & Corner Box

- Metering box comprises of enclosure with provision for mounting ammeter, voltmeter, selector switch & indicating lamps

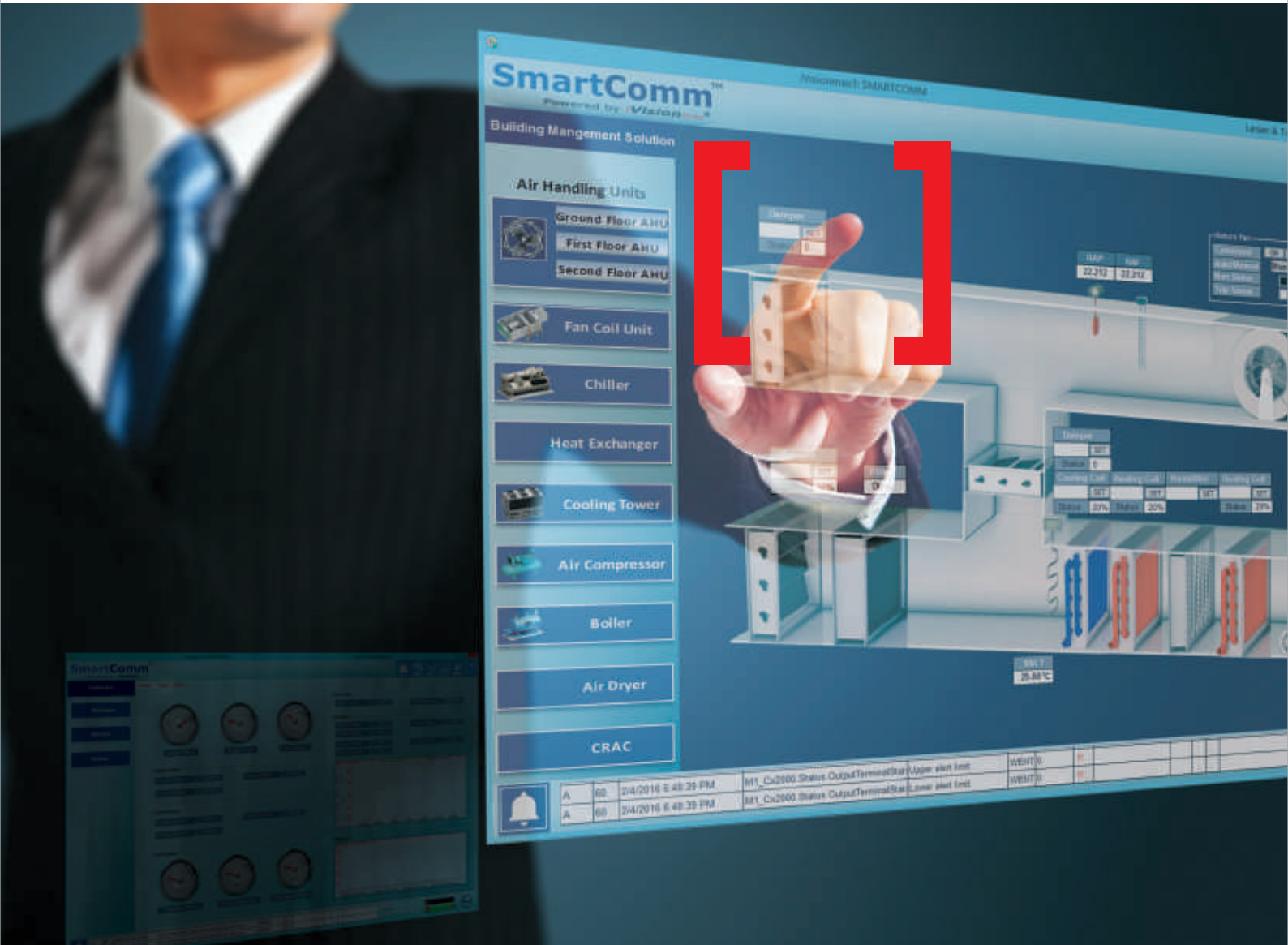
SMDB	Description	Cat. No.	M.R.P. (₹) Per Unit
TN250D & TN400D	Metering Extension Box	CM90439OOPO	6400
	Top/Bottom Cabling Box	CM90437OOOO	6000
	Corner Box	CM91089OOOO	2000

Note: Ammeter, voltmeter, selector switch and indicating lights have to be ordered separately.

Side Cabling Box

SMDB	No. of Ways	Left		Right	
		Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit
TN250D	4	CM91085ODOO	5800	CM91086ODOO	5800
	8	CM91085OFOO	7500	CM91086OFOO	7500
	12	CM91085OHOO	9000	CM91086OHOO	9000
	16	CM91085OKOO	10500	CM91086OKOO	10500
TN400D	4	CM91087ODOO	9000	CM91088ODOO	9000
	8	CM91087OFOO	10500	CM91088OFOO	10500
	12	CM91087OHOO	11500	CM91088OHOO	11500
	16	CM91087OKOO	13000	CM91088OKOO	13000

Smart is in the Communication



Presenting SmartComm – Integration | Monitoring | Protection | Control | Reporting

SmartComm is an unified software platform for device communication, integration, data acquisition, data management, monitoring & control.

This single platform integrates complete E&A's communicable product offerings ranging from Digital Panel Meters through Circuit Breakers, Protection Relays, AC Drives, Soft Starters, Final Distribution Products and Building Automation devices.

SmartComm built-in features of Energy Monitoring, Controlling and Monitoring Switchgears as well as Building Automation and Management functionality.

Key Features:

Customised SLD

Multi-device and Protocol Compatibility

Real-time Reporting

Easy View Interface

Customer Interaction Center (CIC)

BSNL / MTNL (toll free): 1800 233 5858 Reliance (toll free): 1800 200 5858

Tel: 022 6774 5858 Fax: 022 6774 5859 Email: cic@Lntebg.com Web: www.Lntebg.com

SmartComm



U-POWER

OMEGA Range of Air Circuit Breakers

Air Circuit Breakers

- Complete range conforms to IS/IEC 60947-2 & IEC 60947-2
- Current rating from 400A to 6300A in 3 frame sizes
- Available in 3 Pole/4 Pole, Manually & Electrically operated, Fixed/Draw-out version
- Common Height & Depth across the range
- High short time fault withstand capacity, $I_{cu} = I_{cs} = I_{cw}$ for 1 sec for total selectivity
- High mechanical and electrical operating life
- Neutral pole is 100% rated, option of 50% & 200% rated neutral also available
- Available in both NRYB & RYBN configuration in 4 Pole ACBs **with on-site change facility**
- In-built Electrical & Mechanical Anti-Pumping
- Modular & snap-fit accessories
- Ease of on-site conversion from Fixed to Draw-out version
- Pollution Degree - 4 suitability

Matrix Protection & Control Units:

- Available in versions - MTX1.0/1G/1.5G, MTX3.5/3.5EC/3.5H & MTX4.5
- Unique O-LED display for metering
- Touch screen technology in UW-MTX4.5
- Unique withdrawable Communication & Power metering modules
- Dual protection curve settings & Password protection
- Soft-rating plug for precise protection at lower load currents
- Provision for on-load self-diagnosis of Releases & modules
- Data communication on Modbus, Profibus & wireless Zigbee protocols
- Power & Harmonics measurement
- Temperature rise monitoring & protection
- Easy to integrate with HMI & PLC
- Add-on modules for advance protection
- Protection Releases conform to EMI/EMC standard



UW-MTX1.0



UW-MTX1G



UW-MTX1.5G



UW-MTX3.5/3.5EC/3.5H



UW-MTX4.5

Breaking Capacities Offered:

		I _{cu} = I _{cs} = I _{cw} for 1 sec									
		800A	1000A	1250A	1600A	2000A	2500A	3200A	4000A	5000A	6300A
Frame-1	N : 50kA						New				
	S : 65kA										
	H : 80kA										
		UW1-08	UW1-10	UW1-12	UW1-16	UW1-20	UW1-25				
Frame-2	N : 50kA						New				
	S : 65kA										
	H : 80kA										
		UW2-08	UW2-10	UW2-12	UW2-16	UW2-20	UW2-25	UW2-32			
Frame-3	H : 80kA										
	V : 100kA										
		UW3-08	UW3-10	UW3-12	UW3-16	UW3-20	UW3-25	UW3-32	UW3-40	UW3-50	UW3-63

Note: 400A & 630A ACBs are also available on request.

OMEGA ACB ordering information:

UW 1 08 N X D 1 2 9 0 0⁽⁵⁾ OMEGA 800A Fr-1 50kA 3P EDO UW-MTX1.5G

Frame Size	
Frame - I	1
Frame - II	2
Frame - III	3

Current Ratings	
400A	04
630A	06
800A	08
1000A	10
1250A	12
1600A	16
2000A	20
2500A ⁽⁴⁾	25
3200A	32
4000A	40
5000A	50
6300A	63

Selection for Breaking Capacity (Icu=Ics) ⁽¹⁾	
50kA (Fr-I upto 2000A & Fr-2 2500A)	N
65kA (Fr-I & Fr-II)	S
80kA (Fr-I, Fr-II & Fr-III)	H
100kA (Fr-III)	V

Temperature Rise Monitoring ⁽³⁾	
Not Required	0
Required	1

Selection for P&C Units	
B/C (w/o protection)	0
UW - MTX1.0	7
UW - MTX1G	8
UW - MTX1.5G	9
UW-MTX3.5	3
UW-MTX3.5EC ⁽⁶⁾	4
UW-MTX4.5	5
UW-MTX3.5H	6

Type	
Manually Operated	1
Electrically Operated	2

Selection for control voltage ⁽²⁾	
For Manually Operated	0
240V AC ECD & CR & 240V AC SR	1
240V AC ECD & CR & 24V DC SR	2

Version	
Draw-out	D
Fixed	F

Selection for No. of Poles	
3 Pole	X
4 Pole 100% N	F
4 Pole 50% N (in Fr-III only)	H
4 Pole 200% N (upto 2500A)	D

Please Note :

- ⁽¹⁾ For Icw values please refer product catalogue
- ⁽²⁾ Other options of control voltage are available as accessory
- ⁽³⁾ Temperature protection is available in UW-MTX3.5/3.5EC/3.5H/4.5
- ⁽⁴⁾ For Fr-1, 2500A selection, please contact the nearest branch office
- ⁽⁵⁾ Refer point 'D' of Omega ACBs standard features
- ⁽⁶⁾ For system requiring 690V metering, kindly order separate Power Metering module with MTX 3.5 (refer page 51)

OMEGA ACBs are offered with following standard features:

Draw-out version : Omega ACBs with UW-MTX release will have inbuilt- Current Metering (MTX 1.5G/3.5/3.5EC/3.5H/4.5), Common Fault Indication microswitch, 4NO+4NC Aux. contacts, Smart-racking shutter, Safety shutter assembly, Racking Handle, Door sealing frame, Pad-locking arrangement for ON/OFF button, Rating Error Preventer, Arc shield.

- A) For ratings upto 1600A, one side vertical terminal adaptors (Bottom).
- B) For ratings 2000A & above, both side vertical terminal adaptors (Top & Bottom).
- C) For ratings 4000A & above, operation counter inbuilt.
- D) For rating 4000A & 5000A, replace 13th digit of ACB cat no with (recommended for Buscoupler only)
 - X : For Top Horizontal (Long) & Bottom Vertical
 - Y : For Top & Bottom Horizontal (Long)
 (Please refer Omega catalogue for details)

Fixed Version : Omega ACBs with UW-MTX release will have inbuilt- Current Metering (MTX 1.5G/3.5/3.5EC/3.5H/4.5), Common Fault Indication microswitch, 4NO+4NC Aux. contacts, Door sealing frame & Pad-locking arrangement for ON/OFF push button.

- A) For ratings upto 1600A, one side vertical terminal adaptors (Bottom).
 - B) For ratings 2000A & above, both side vertical terminal adaptors (Top & Bottom).
 - C) For ratings 4000A & above, operation counter inbuilt
- Electrically operated ACB includes ECD (240V AC), CR (240V AC) & SR (240V AC OR 24V DC).

3 Pole ACBs with UW-MTX1.5G (LSING + Current Metering)



Current Rating	Version	3 Pole Manual Draw-out ACB with UW-MTX1.5G							
		N (50kA)		S (65kA)		H (80kA)		V (100kA)	
		Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit
800A	MDO	UW108NXD01900	*	UW108SXD01900	*	UW108HXD01900	*	UW308VXD01900	*
1000A		UW110NXD01900		UW110SXD01900		UW110HXD01900		UW310VXD01900	
1250A		UW112NXD01900		UW112SXD01900		UW112HXD01900		UW312VXD01900	
1600A		UW116NXD01900		UW116SXD01900		UW116HXD01900		UW316VXD01900	
2000A		UW120NXD01900 New		UW120SXD01900		UW120HXD01900		UW320VXD01900	
2500A		UW225NXD01900 New		UW225SXD01900		UW225HXD01900		UW325VXD01900	
3200A		-		UW232SXD01900		UW232HXD01900		UW332VXD01900	
4000A		-		-		UW340HXD01900		UW340VXD01900	
5000A		-		-		UW350HXD01900		UW350VXD01900	
6300A	-	-	UW363HXD01900	UW363VXD01900					

Current Rating	Version	3 Pole Manual Fixed ACB with UW-MTX1.5G							
		N (50kA)		S (65kA)		H (80kA)		V (100kA)	
		Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit
800A	MF	UW108NXF01900	*	UW108SXF01900	*	UW108HXF01900	*	UW308VXF01900	*
1000A		UW110NXF01900		UW110SXF01900		UW110HXF01900		UW310VXF01900	
1250A		UW112NXF01900		UW112SXF01900		UW112HXF01900		UW312VXF01900	
1600A		UW116NXF01900		UW116SXF01900		UW116HXF01900		UW316VXF01900	
2000A		UW120NXF01900 New		UW120SXF01900		UW120HXF01900		UW320VXF01900	
2500A		UW225NXF01900 New		UW225SXF01900		UW225HXF01900		UW325VXF01900	
3200A		-		UW232SXF01900		UW232HXF01900		UW332VXF01900	
4000A		-		-		UW340HXF01900		UW340VXF01900	
5000A		-		-		UW350HXF01900		UW350VXF01900	
6300A	-	-	UW363HXF01900	UW363VXF01900					

M.R.P. changes for product customization	M.R.P. (₹) Per Unit
MDO to EDO or MF to EF conversion (Includes ECD 240V AC, CR 240V AC & SR 240V AC or 24V DC)	*
Buscoupler (without protection release)	
UW-MTX1.0 (LSI - BCD Switches)	
UW-MTX1G (LSING - BCD Switches)	
UW-MTX3.5 (LSING + Current Metering) - can be upgraded for Power Metering & Communication	
UW-MTX3.5EC (LSING + Power Metering + Communication)	
UW-MTX3.5H (LSING + Power Metering + Harmonic Metering)	
UW-MTX4.5 (LSING + Power Metering + Harmonic Metering + Communication with Touch Screen navigation + UW-PS Module)	
UW-PS, Auxiliary power supply module for display in No-load or OFF condition	
COM Module (MODBUS) for communication	
PM Module for power metering	

* Available on request

4 Pole ACBs with UW-MTX1.5G (LSING + Current Metering)



Current Rating	Version	4 Pole Manual Draw-out ACB with UW-MTX1.5G							
		N (50kA)		S (65kA)		H (80kA)		V (100kA)	
		Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit
800A	MDO	UW108NFD01900		UW108SFD01900		UW108HFD01900	*	UW308VFD01900	
1000A		UW110NFD01900		UW110SFD01900		UW110HFD01900		UW310VFD01900	
1250A		UW112NFD01900		UW112SFD01900		UW112HFD01900		UW312VFD01900	
1600A		UW116NFD01900	*	UW116SFD01900	*	UW116HFD01900		UW316VFD01900	
2000A		UW120NFD01900	New	UW120SFD01900		UW120HFD01900		UW320VFD01900	
2500A		UW225NFD01900	New	UW225SFD01900		UW225HFD01900		UW325VFD01900	*
3200A		-	-	UW232SFD01900		UW232HFD01900		UW332VFD01900	
4000A		-	-	-	-	UW340HFD01900		UW340VFD01900	
5000A		-	-	-	-	UW350HFD01900		UW350VFD01900	
6300A		-	-	-	-	UW363HFD01900		UW363VFD01900	

4 Pole Manual Fixed ACB with UW-MTX1.5G									
800A	MF	UW108NFF01900		UW108SFF01900		UW108HFF01900	*	UW308VFF01900	
1000A		UW110NFF01900		UW110SFF01900		UW110HFF01900		UW310VFF01900	
1250A		UW112NFF01900		UW112SFF01900		UW112HFF01900		UW312VFF01900	
1600A		UW116NFF01900	*	UW116SFF01900	*	UW116HFF01900		UW316VFF01900	
2000A		UW120NFF01900	New	UW120SFF01900		UW120HFF01900		UW320VFF01900	
2500A		UW225NFF01900	New	UW225SFF01900		UW225HFF01900		UW325VFF01900	*
3200A		-	-	UW232SFF01900		UW232HFF01900		UW332VFF01900	
4000A		-	-	-	-	UW340HFF01900		UW340VFF01900	
5000A		-	-	-	-	UW350HFF01900		UW350VFF01900	
6300A		-	-	-	-	UW363HFF01900		UW363VFF01900	

* Available on request

Accessories of OMEGA Air Circuit Breakers



Draw-out ACBs Terminal Adaptors



Fix ACBs Terminal Adaptors

Description	Cat. No.	M.R.P. (₹) Per Unit
Terminal Adaptors for Draw-out Omega ACBs		
Frame-1 400-2000A (Vertical / Horizontal)	CL609630000	*
Frame-1 2500A (Vertical)	CL609640000	
Frame-2 400-3200A (Vertical / Horizontal)		
Frame-3 400-3200A (Vertical / Horizontal) #	CL907470000	
Frame-3 4000A (Vertical) #		
Frame-3 4000A (Horizontal-Long)	CL600730000	
Frame-3 5000A (Vertical) #	CL600670000	
Frame-3 5000A (Horizontal-Long)	CL609660000	
Frame-3 6300A (Vertical) #	CL609650000	

: Please consider 4 terminal adaptors per phase (I/C + O/G)

Description	Cat. No.	M.R.P. (₹) Per Unit
Terminal Adaptors for Fixed Omega ACBs		
Frame-1 400-1600A N/S (Vertical / Horizontal)	CL609670000	*
Frame-1 400-2000A H & 2000A N/S (Vertical/Horizontal)	CL609680000	
Frame-1 2500A S/H (Vertical)	CL609760000	
Frame-2 400-3200A S/H & 2500A N (Vertical / Horizontal)	CL609770000	
Frame-3 400-4000A H/V (Vertical / Horizontal) #	CL906680000	
Frame-3 5000A H/V (Vertical) #	CL609820000	
Frame-3 6300A H/V (Vertical) #	CL906690000	

: Please consider 4 terminal adaptors per phase (I/C + O/G)

Accessories of OMEGA Air Circuit Breakers

Air Circuit Breakers



Operation Counter



Door Interlock

Description	Cat. No.	M.R.P. (₹) Per Unit
Operation Counter	CL909830000	*
Door Interlock	CL909780000	
Electrical Position Indication (EPI)	CL958260000	
Microswitch for Common Fault Indication (CFI)	CL909490000	
Microswitch for Ready To Close Indication (RTC)	CL909530000	
Microswitch for Shunt Release	CL909510000	
Microswitch for Undervoltage Release	CL909470000	
Microswitch for Spring Charging Indication	ST426720000	



R-Lock



C-Lock

Description	Cat. No.	M.R.P. (₹) Per Unit
Mechanical Interlock using Key & Lock		
R - Lock Type - 1	CL006590000	*
R - Lock Type - 2	CL006600000	
R - Lock Type - 3	CL006610000	
R - Lock Type - 12	CL006620000	
R - Lock Type - 23	CL006630000	
Locking arrangement for OFF button with R - Lock (on breaker)	CL908150000	
Locking arrangement for ISO position with R - Lock (on Cradle)	CL908650000	
Locking arrangement for ANY position with R - Lock (on Cradle)	CL909270000	
C - Lock Type - S	CL006640000	
C - Lock Type - T	CL006650000	
C - Lock Type - ST	CL006660000	
C - Lock Type - SS	CL006670000	
C - Lock Type - TT	CL006680000	
Locking arrangement for OFF button with C - Lock (on breaker)	CL908140000	
Locking arrangement for ISO position for C - Lock (on Cradle)	CL909820000	
Locking arrangement for ANY position with C - Lock (on Cradle)	CL909810000	

Note: For Mechanical Interlock using Key & Lock please order combination of Lock and Locking arrangement.

* Available on request
Available till stock last



Closing Release



Shunt Release



UV Release

Description	Cat. No.	M.R.P. (₹) Per Unit
Electrical Charging Device (ECD)		
24-30V DC	CL903620000	*
110V AC / 110-125V DC	CL903600000	
220V AC / 200V DC	CL903640000	
240V AC / 250V DC	CL903590000	
415V AC / 400V DC	CL903610000	
Closing Release (CR)		
24-30V DC	CL908174000	*
110V AC & DC	CL90817A000	
240V AC / 220 - 250V DC	CL90817B000	
415V AC	CL90817D000	
Shunt Release (SR)		
24-30V DC	CL908160400	*
110V AC / 110V DC	CL908160A00	
240V AC / 220 - 250V DC	CL908160B00	
415V AC	CL908160D00	
Under Voltage Release (UVR) with time delay (0-1-3-5 sec)		
24-30V DC	CL908184000	*
110V AC	CL90818A000	
240V AC	CL90818B000	
415V AC	CL90818D000	



NCT

Description	Cat. No.	M.R.P. (₹) Per Unit
External Neutral CT for UW-MTX Releases		
Frame-1, 2 & 3 400-800A	CL007170000	*
Frame-1, 2 & 3 1000-1600A	CL007180000	
Frame-1 2000-2500A	CL007190000	
Frame-2 & 3 2000-3200A	CL007200000	
Frame-3 4000A		
Frame-3 5000-6300A	CL007210000	



AuXC-2000 Controller

Automatic Transfer Controllers (ATC)

Type	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
AuXC-1000 controller	ST802300000 #	19500	1
AuXC-2000 controller	ATC20000000	19500	1

Can be used along with OMEGA Air Circuit Breakers, sine MCCBs, MCX contactors & Motorised Changeover switches

U-POWER
Accessories of **OMEGA** Air Circuit Breakers
Air Circuit Breakers



Mechanical Interlock using Bowden Cable

Description	Cat. No.	M.R.P. (₹) Per Unit
Mechanical Interlock using Bowden Cable (5 meters length)		
Between 2 Incomers	CL906630000	*
Between 3 Incomers	CL906640000	
Between 2 Incomers & 1 Standby	CL906650000	
Between 2 Incomers & 1 Buscoupler	CL906660000	
Mechanical Interlock using Bowden Cable (3 meters length)		
Between 2 Incomers	CL906590000	*
Between 3 Incomers	CL906600000	
Between 2 Incomers & 1 Standby	CL906610000	
Between 2 Incomers & 1 Buscoupler	CL906620000	
Mechanical Interlock using Bowden Cable (2 meters length)		
Between 2 Incomers	CL908100000	*
Between 3 Incomers	CL908110000	
Between 2 Incomers & 1 Standby	CL908120000	
Between 2 Incomers & 1 Buscoupler	CL908130000	

Note: Common from 400A to 6300A and can be interlocked between Fixed / Draw-out / Mixed version

* Available on request



MODBUS Module



Power Metering Module

Description	Cat. No.	M.R.P. (₹) Per Unit
MATRIX Releases & Modules		
UW-MTX1.0	CL919660000	*
UW-MTX1G	CL919710000	
UW-MTX1.5G	CL919650000	
UW-MTX3.5	CL901130000	
UW-MTX3.5EC	CL907000000	
UW-MTX3.5H	CL919750000	
UW-MTX4.5	CL906110000	
Power supply module	CL907220000	
Relay Module	CL907160000	
MODBUS Module	CL907090000	
Profibus Module	CL907320000	
Matrix Smart Card Module	CL907050000	
Power Metering Module (415V)	CL907040000	
New Power Metering Module (690V)	CL900500000	
ZSI Module	CL907180000	
TCS Module	CL907190000	
EL Module	CL907200000	
REF Module	CL907210000	
Simulation Kit	CL907240000	

**For Energy Management Communication Software
Please contact the nearest branch office**

Upgrade to the new-age OMEGA ACB with Minimal Modifications



Pre-Engineered Retrofit Solution
Upgrade L&T CNCS ACB to OMEGA ACB



Presenting the pre-engineered L&T CNCS to OMEGA Retrofit kit

The L&T CNCS to OMEGA Retrofit kit is a pre-engineered solution which allows you to upgrade from the old CNCS ACB to the advanced L&T OMEGA ACB - with minimal modification. All installations are done by trained Engineers from the nearest L&T Authorised Service Centre to ensure total reliability and minimum shut-down time.

Specifications

- ETP grade Copper links with Silver Plating
- CNCS to OMEGA Retrofit solution is available from 800A to 3200A

Customer Interaction Center (CIC)

BSNL / MTNL (toll free): 1800 233 5858
Reliance (toll free): 1800 200 5858
Tel: 022 6774 5858 Fax: 022 6774 5859
Email: cic@Lntebg.com Web: www.Lntebg.com

For retrofitting of any ACB to Omega ACB please contact the nearest branch office

C-POWER Air Circuit Breakers

C-POWER S1 Range of Air Circuit Breakers

- Conforms to IS/IEC 60947-2 & IEC 60947-2
- Current rating from 400A to 3200A
- Available in 3 Pole/4 Pole, Manually & Electrically operated, Fixed & Draw-out versions
- High short time withstand capacity, $I_{cu} = I_{cs} = I_{cw}$ for 1 sec for total selectivity
- High mechanical and electrical operating life
- 100% rated neutral pole
- Common height and depth across the range
- Protection through Thermal - Magnetic (DN1) & Microprocessor releases (SR18G, SR18G+D & SR18Gi+D)
- Self diagnostic Microprocessor based Releases with on-load testing through TEST button
- Inbuilt thermal memory
- Protection Releases conform to EMI/EMC standards
- Breaker control through MODBUS protocol



C-POWER S1 ACB



C-POWER ACB

C-POWER Range of Air Circuit Breakers

- Conforms to IS/IEC 60947-2 & IEC 60947-2
- Current rating from 800A to 6300A
- Available in 3 Pole/4 Pole, Manually & Electrically operated, Fixed & Draw-out versions
- High short time fault withstanding capacity, $I_{cu} = I_{cs} = I_{cw}$ for 1 sec for total selectivity
- High mechanical and electrical operating life
- 100% rated neutral pole
- Protection through Thermal - Magnetic (DN1) & Microprocessor releases (SR18G, SR18G+D, SR18Gi+D & SR71)
- Self diagnostic Microprocessor based Releases with on-load testing through TEST button
- Inbuilt thermal memory
- Protection Releases conform to EMI/EMC standards
- Data communication & Power Management
- Breaker control through MODBUS protocol

C-POWER ACBs for DG Application

- G Range Air Circuit Breakers for DG protection
- 400A to 2000A in 3P Manual Fix version
- Choice of Thermo-Magnetic release-DN1 / Micro processor based release SR18G (LSIG)
- $I_{cu}=I_{cs}=I_{cw}=50kA$ for 1 second across the entire range
- Compact and rugged design with inbuilt Under-voltage protection



C-POWER G Range

C-POWER HE ACBs for Harsh Environment New

- Please contact the nearest branch office for Details & product Selection

Breaking Capacities Offered:

		I _{cu} = I _{cs} = I _{cw} for 1 sec										
		630A	800A	1000A	1250A	1600A	2000A	2500A	3200A	4000A	5000A	6300A
CN-CS : E / G		50kA	50kA	50kA	50kA	50kA	50kA					
	Frame-1											
CN-CS : S1		50kA	50kA	50kA	50kA	50kA	50kA	60kA	60kA			
	Frame-1							Frame-2				
CN-CS : C			50kA	50kA	50kA	50kA	55kA	60kA			95kA	95kA
CN-CS : H			65kA	65kA	65kA	65kA	75kA	75kA				
CN-CS : H2									75kA	75kA		
CN-CS : H / H1									100kA	100kA		
CN-CS : HE New					50kA		60kA		75kA		95kA	
	Frame-1				Frame-2		Frame-3		Frame-4			

For technical & dimension details please refer product catalogue. 400AACB also available on request.

C-POWER Air Circuit Breakers



C-POWER S1 3 & 4 Pole Draw-out ACBs

Rating	Breaking Capacity Icu=Ics=Icw (1 sec)	Version
630A	50kA	MDO
		EDO
800A	50kA	MDO
		EDO
1000A	50kA	MDO
		EDO
1250A	50kA	MDO
		EDO
1600A	50kA	MDO
		EDO
2000A	50kA	MDO
		EDO
2500A	60kA	MDO
		EDO

Microprocessor Based SR18G			
3 Pole		4 Pole	
Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit
SL96041	144580	SL96061	181630
SL96051	178580	SL96071	215630
SL96042	144580	SL96062	181630
SL96052	178580	SL96072	215630
SL96043	151900	SL96063	191960
SL96053	185900	SL96073	225960
SL96044	169860	SL96064	213610
SL96054	203860	SL96074	247610
SL96045	191680	SL96065	234940
SL96055	225680	SL96075	268940
SL96046	228140	SL96066	286150
SL96056	262140	SL96076	320150
SL96047	272550	SL96067	332210
SL96057	306550	SL96077	366210

Thermal-Magnetic DN1			
3 Pole		4 Pole	
Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit
SL95331	132580	SL95351	169630
SL95341	166580	SL95361	203630
SL95332	132580	SL95352	169630
SL95342	166580	SL95362	203630
SL95333	139900	SL95353	179960
SL95343	173900	SL95363	213960
SL95334	157860	SL95354	201610
SL95344	191860	SL95364	235610
SL95335	179680	SL95355	222940
SL95345	213680	SL95365	256940
SL95336	216140	SL95356	274150
SL95346	250140	SL95366	308150
SL95337	260550	SL95357	320210
SL95347	294550	SL95367	354210

Note : Add a Suffix "OOOO" for all the above mentioned cat. nos.

C-POWER S1 3 & 4 Pole Fixed ACBs

Rating	Breaking Capacity Icu=Ics=Icw (1 sec)	Version
630A	50kA	MF
		EF
800A	50kA	MF
		EF
1000A	50kA	MF
		EF
1250A	50kA	MF
		EF
1600A	50kA	MF
		EF

Microprocessor Based SR18G			
3 Pole		4 Pole	
Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit
SL95561	102710	SL95581	128400
SL95571	136710	SL95591	162400
SL95562	102710	SL95582	128400
SL95572	136710	SL95592	162400
SL95563	107070	SL95583	133830
SL95573	141070	SL95593	167830
SL95564	129150	SL95584	161450
SL95574	163150	SL95594	195450
SL95565	141920	SL95585	177420
SL95575	175920	SL95595	211420

Thermal-Magnetic DN1			
3 Pole		4 Pole	
Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit
SL95481	90710	SL95501	116400
SL95491	124710	SL95511	150400
SL95482	90710	SL95502	116400
SL95492	124710	SL95512	150400
SL95483	95070	SL95503	121830
SL95493	129070	SL95513	155830
SL95484	117150	SL95504	149450
SL95494	151150	SL95514	183450
SL95485	129920	SL95505	165420
SL95495	163920	SL95515	199420

Note : Add a Suffix "OOOO" for all the above mentioned cat. nos.

M.R.P. changes for product customization w.r.t. SR18G ACB M.R.P.		M.R.P. (₹) Per Unit
Bus - Coupler (w/o protection)	Reduce	23000
Microprocessor based SR18G+D (LSING + Current Metering)	Add	4500
Microprocessor based SR18Gi+D (LSING + Current metering + ZSI)	Add	6000

C-POWER S1 Draw-Out ACBs will have inbuilt - 2NO+2NC Aux contact for MDO & 6NO+6NC Aux contact for EDO breakers, Safety shutter assembly, Racking handle, Door sealing frame, Push-button cover & Rating error preventor.

C-POWER S1 Fixed ACBs will have inbuilt - 2NO+2NC Aux contact for MF & 6NO+6NC Aux contact for EF breakers, Door sealing frame & Push-button cover.

Electrical version includes 240V AC Shunt trip coil, Closing coil and Motor for electrical charging.

Note: 1 NO Aux contact in manual version & 2NO+2NC in electrical version breakers will be pre-wired with accessories mounted in breaker.

In electrically operated breaker with DN1 release, either earth fault or undervoltage protection can be used.

CN-CS...E Range 3 Pole Manual Fixed

Rating	Breaking Capacity Icu=Ics=Icw (1 sec)	Version
400A	50kA	3P MF
630A	50kA	3P MF
800A	50kA	3P MF
1000A	50kA	3P MF
1250A	50kA	3P MF
1600A	50kA	3P MF
2000A	50kA	3P MF

Thermal-Magnetic Release Type DN1	
Cat. No.	M.R.P. (₹) Per Unit
SL95721OOOO	62750
SL95722OOOO	63300
SL95723OOOO	65160
SL95724OOOO	67450
SL95725OOOO	87540
SL95726OOOO	97500
SL93297OOOO	110810

G Range 3 Pole Manual Fixed for DG Application

(with in-built UV Protection & 2NO + 2NC Aux Contact Block)

Thermal-Magnetic Release Type DN1	
Cat. No.	M.R.P. (₹) Per Unit
SL91263OOOO	76600
SL91264OOOO	76750
SL91265OOOO	77200
SL91266OOOO	80300
SL91267OOOO	100100
SL91268OOOO	110800
SL91269OOOO	130300

Microprocessor Based SR18G	
Cat. No.	M.R.P. (₹) Per Unit
SL91320OOOO	88600
SL91321OOOO	88750
SL91322OOOO	89200
SL91323OOOO	92300
SL91324OOOO	112100
SL91325OOOO	122800
SL91326OOOO	142300

C-POWER Air Circuit Breakers



C-POWER 3 & 4 Pole Draw-out ACBs

Rating	Breaking Capacity I _{cu} =I _{cs} =I _{cw} (1 sec)	Version	Type	Microprocessor Based SR18G				Thermal-Magnetic DN1			
				3 Pole		4 Pole		3 Pole		4 Pole	
				Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit
800A	65kA	MDO	H	SL95311	203190	#	253280	#	191190	#	241280
		EDO	H	SL95321	237190	#	287280	#	225190	#	275280
1000A	65kA	MDO	H	SL95312	219590	#	268920	#	207590	#	256920
		EDO	H	SL95322	253590	#	302920	#	241590	#	290920
1250A	65kA	MDO	H	SL95313	242360	#	294540	#	230360	#	282540
		EDO	H	SL95323	276360	#	328540	#	264360	#	316540
1600A	65kA	MDO	H	SL95314	263570	#	329890	#	251570	#	317890
		EDO	H	SL95324	297570	#	363890	#	285570	#	351890
2000A	75kA	MDO	H	SL95315	310210	#	389800	#	298210	#	377800
		EDO	H	SL95325	344210	#	423800	#	332210	#	411800
2500A	75kA	MDO	H	SL95316	341370	#	428000	#	329370	#	416000
		EDO	H	SL95326	375370	#	462000	#	363370	#	450000
3200A	75kA	MDO	H2	SL94822	356240	SL94826	436810	SL94814	344240	SL94818	424810
		EDO	H2	SL94824	390240	SL94828	470810	SL94816	378240	SL94820	458810
4000A	75kA	MDO	H2	SL94823	432680	SL94827	547740	SL94815	420680	SL94819	535740
		EDO	H2	SL94825	466680	SL94829	581740	SL94817	454680	SL94821	569740
5000A	95kA	MDO/EDO	C	#	*	#	*	#	*	#	*
6300A	95kA	MDO/EDO	C	#	*	#	*	#	*	#	*

Note: For higher breaking capacities & 690V AC application please contact the nearest branch office
Add a Suffix "OOOO" for all the above mentioned cat. nos.

C-POWER 3 & 4 Pole Manual Fixed ACBs

Rating	Breaking Capacity I _{cu} =I _{cs} =I _{cw} (1 sec)	Version	Type	Microprocessor Based SR18G				Thermal-Magnetic DN1			
				3 Pole		4 Pole		3 Pole		4 Pole	
				Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit
800A	50kA	MF	C	*							
1000A	50kA			*							
1250A	50kA			*							
1600A	50kA			*							
2000A	55kA			*							
2500A	60kA			*							
				SL97635	173490	#	225050	SL93005	161490	#	213050
				SL97636	191170	#	257720	SL93006	179170	#	245720

Note: For higher breaking capacities & 690V AC application please contact the nearest branch office
Add a Suffix "OOOO" for all the above mentioned cat. nos.

M.R.P. changes for product customization w.r.t. SR18G M.R.P.		M.R.P. (₹) Per Unit
Bus-Coupler (w/o protection)	Reduce	23000
Microprocessor based SR18G+D (LSING + Current Metering)	Add	4500
Microprocessor based SR18Gi+D (LSING + Current metering + ZSI)	Add	6000
Microprocessor based SR71 (LSING + Current metering + Advance protection + PS Module)	Add	*
Communication Module (MODBUS) for SR71 release (SR71 - COM)	SL94698	
Power Metering Module for SR71 release (SR71 - PM)	SL94699	

C-POWER Draw-Out ACBs will have inbuilt - 6NO+6NC Aux contact, Safety shutter assembly, Racking handle, Door sealing frame, Push-button cover & Rating Error preventor. Option of horizontal & vertical termination upto 4000A also available. Operation counter for 4000A & above.
EDO version includes 240V AC Shunt trip coil, Closing coil and Motor for electrical charging.

C-POWER Fixed ACBs will have inbuilt - 6NO+6NC Aux contact, Door sealing frame & Push-button cover. Operation counter for 4000A & above.

Note: 1 NO Aux contact in manual version & 2NO+2NC in electrical version breakers will be pre-wired with accessories mounted in breaker.

In electrically operated breaker with DN1 release, either earth fault or undervoltage protection can be used.

Note: Electrical Fixed type breakers are available on request.

Available on "Made to order" basis. * Available on request

Accessories of C-POWER Air Circuit Breakers

Accessories (Common for C-POWER Family)



AN1 Module



LTPB



LIP



Shunt Release



UV Release

Description	Cat. No.	M.R.P. (₹) Per Unit
Lockable Trip Push Button (LTPB)		
Type AA	SL93148000A	2460
Type BB	SL93148000B	2460
Type CC	SL93148000C	2460
Type DD	SL93148000D	2460
Lockable Trip Push Button kit (3 I/C & 2 B/C)	SL919360000	12340
Locking of ACB in Isolated position (LIP)		
Type A	SL93146000A	2460
Type B	SL93146000B	2460
Type C	SL93146000C	2460
Type D	SL93146000D	2460
Locking of ACB in Any position (LAP)		
Type A	SL93147000A	2460
Type B	SL93147000B	2460
Type C	SL93147000C	2460
Type D	SL93147000D	2460
Racking Interlock		
Type AA	SL93149000A	4630
Type BB	SL93149000B	4630
Type CC	SL93149000C	4630
Type DD	SL93149000D	4630
Door Interlock	SL931500000	2460
Racking Padlock Assembly	CL900250000	1530
Mechanical Operation Counter*	XM808370000	2500
Mounting Kit for Front Mounted Counter	SL958820000	600

* For mounting the Operation counter, mounting kit "SL958820000" needs to be ordered separately.



Vertical Terminal Adaptor

Description & Rating	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Vertical Terminal Adaptors for Draw out C-POWER ACB			
400-1250 S1/800-1000 C	SL932810000	3220	1
1600-2000 S1/1250-1600 C/800-1600 H	SL932820000	3770	1
2000 C	SL932840000	5160	1
2000 H/2500 C/H	SL932850000	5600	1
2500 S1	SL932890000	5600	1
3200 S1	SL932860000	6200	1
3200H2/H1, 4000H2/H	SL932880000	15040	1

Description	Cat. No.	M.R.P. (₹) Per Unit
Shunt Release (SR)		
Type EA : 24/48V DC	SL927180400	2460
Type EA : 110V DC	SL927180100	2460
Type EA : 220V DC	SL927180200	2460
Type EA1 : 110V AC	SL927180A00	2460
Type EA1 : 240V AC	SL927180B00	2460
Type EA1 : 415V AC	SL927180D00	2460
Under Voltage Release (UVR)		
Type MV : 24V DC	ST368770000	3620
Type MV : 240V AC	SL92720B000	3620
Type MV : 415V AC	SL92720D000	3620
Earth Fault Release (for DN1)		
Type EF1 (10%, 20% In)	SL913400000	2460
Type EF2 (30%, 40%, 50% In)	SL913410000	2460

AN1 Remote Annunciation Module for SR18G/SR18G+D/SR18Gi+D : 240V AC	SL946540000	7680
Microswitch for Voltmetric Releases (2) each	SL927030000	1990
Microswitch for Common Indication of O/L & S/C (3) each	SL927040000	1990
Microswitch for Separate Indication of O/L & S/C (3) each (for DN1 release)	SL927050000	3330
Service Position Microswitch - Right (2)	SL931420000	1340
Service Position Microswitch - Left (2)	SL931430000	1340
Test or Isolated Position Microswitch - Right (2)	SL931440000	1340
Test or Isolated Position Microswitch - Left (2)	SL931450000	1340

Note :

- The Numerical in brackets, against various accessories indicate the SICs required for wiring purpose in Draw-Out breakers
- Shunt release requires one set of auxiliary contacts
- Maximum 24 SICs can be fitted on an ACB. In Electrical ACBs 5 SICs are prewired for control circuit purpose



UN-CO module

Features

- Remote Status & Control of ACB
- Communicates on MODBUS Protocol
- Inbuilt RS485 Port

Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
UN-CO module for Breaker control	CL908520000	9500	1

Spares of C-POWER Air Circuit Breakers

Protection Releases



SR71



SR18G+D/SR18Gi+D



SR18G



DN1



Test Kit



CT

Description	Cat. No.	M.R.P. (₹) Per Unit
Protection Releases		
Microprocessor based type SR71	On Request	
Microprocessor based type SR18Gi+D	SL948130000	36000
Microprocessor based type SR18G+D	SL948120000	34500
Microprocessor based type SR18G	SL939590000	30000
Thermal-Magnetic Release type DN1	SL931520000	18000
Test-Kit SRT-2 (SR21i/SR18G/SR18)	ST231300000	31300
Test-Kit SRT (SR18G+D/SR18Gi+D)	CL908530000	24860

Upgrade to high end communicable Release SR71

Retrofit kit solutions are available

For further details please contact the nearest branch office

Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
CTs for SR18G / SR18G+D / SR18Gi+D			
400 S1 Fix & Draw-out	SL015230000	4490	1
630 S1 Fix & Draw-out	ST374950000	4490	1
800 C/H/S1 Fix & Draw-out	SL018570000	4490	1
1000 C/H/S1 Fix & Draw-out	SL018580000	4490	1
1250 C/H/S1 Fix & Draw-out	SL905710000	5460	1
1600 C/H/S1 Fix & Draw-out	SL905720000	5460	1
2000 C/H Fix & Draw-out	SL905650000	5850	1
2000 S1 Draw-out	SL932100000	5850	1
2500 C/H Fix & Draw-out	SL905660000	5850	1
2500 S1 Draw-out			
3200 H2/H1 Draw-out	SL017400000	7080	1
4000 H2/H Draw-out	SL017390000	8000	1

For External Neutral C.T.s please use the above Cat. No.

Protect your equipment
in Sulphur-rich environments

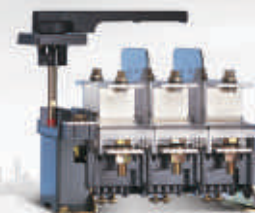
C-POWER HE Air Circuit Breaker

- Range 1250A to 5000A, 415/690V ac
- Available in 3 Pole/4 Pole, Manually & Electrically operated, Fixed & Draw-out versions
- Protection through Microprocessor release



FN BOLTED HE Switch-Disconnecter-Fuse

- Range 32A to 800A, 415V ac, AC 23A
- TPN version suitable for Bolted Fuse Link
- Door Interlocking & Padlocking facility



L&T's HE range of Air Circuit Breakers (ACBs) and Switch-Disconnecter-Fuse (S-D-F) are designed to ensure that they operate at peak efficiency for their entire lifespan in harsh, Sulphur-rich environments.

Customer Interaction Center (CIC)

BSNL / MTNL (toll free): 1800 233 5858 Reliance (toll free): 1800 200 5858 Tel: 022 6774 5858 Fax: 022 6774 5859 Email: cic@Lntebg.com Web: www.Lntebg.com

CLM/PHD/122015

Smart Is In Better Power Quality Management



Power Capacitors

Capacitor Duty Contactors

Thyristor Switching Modules

APFC Controller

Reactive Power Management Solutions



Active Harmonic Filter

Detuned Harmonic Filter Reactor

Harmonic Filtering Solutions

L&T Electrical & Automation, India's leading switchgear solutions company, provides Power Quality Management Solutions that help industrial and infrastructural installations operate more cost-efficiently.

Lower Bills. Higher Productivity.

Higher use of energy-saving devices leads to increased harmonics. This lowers productivity through overheating of equipment, electrical component failure and ultimately, expensive shutdowns, besides having an adverse impact on the power factor.

Our Active and Passive Harmonic Filtering Solutions help reduce harmonic distortions. Combined with our range of Reactive Power Management Solutions, they enhance the power factor and help reduce your electricity bills by:

- avoiding penalty due to low Power Factor in kWh billing states
- avoiding penalty due to high harmonics in states with harmonics regulation
- reducing electricity units consumed in kVAh billing states

For more information on how our 'smart' Power Quality Management Solutions can ensure continuing productivity and profitability, visit www.Lntebg.com

Customer Interaction Center (CIC)

BSNL / MTNL (toll free): 1800 233 5858 Reliance (toll free): 1800 200 5858

Tel: 022 6774 5858 Fax: 022 6774 5859 Email: cic@Lntebg.com Web: www.Lntebg.com

Power Factor Correction Capacitors

Standard Duty Capacitors

- Over current withstand capability
 - 1.5 times rated current
- Operating losses - 0.45 W/kVAr
- Peak inrush current withstand capability
 - 200 times rated current
- Number of switching - 5000 operations per year
- Operating life – 100000 hours



Duty	Type	kVAr Rating	Voltage (V)	M.R.P. (₹) per kVAr
Standard Duty	Cylindrical 1 to 6 kVAr - Series : LTCCF 7.5 to 25 kVAr - Series : LTCCD	1 to 25	440 V	186
	Box 1 to 6 kVAr - Series : LTBCF 7.5 to 30 kVAr - Series : LTBCD	1 to 30	440 V	254

LTXL - Ultra Heavy Duty Capacitors

- Over current withstand capability
 - 3 times rated current
- Operating losses - 0.35 W/kVAr
- Peak Inrush current withstand capability
 - 500 times rated current
- Number of switching operations - 20000 per year
- Operating life - 300000 hours



Duty	Type	kVAr Rating	Voltage (V)	M.R.P. (₹) per kVAr
LTXL - Ultra Heavy Duty	Box Series: LTBCU	5 to 15	440 V	672
			480 V	739
			525 V	805
		20 to 50	440 V	659
		20 to 30	480 V	725
		20 to 33.1	525 V	791

Heavy Duty Capacitors

- Over current withstand capability
 - 1.8 times rated current
- Operating losses - 0.35 W/kVAr
- Peak inrush current withstand capability
 - 300 times rated current
- Number of switching - 8000 operations per year
- Operating life - 150000 hours



Duty	Type	kVAr Rating	Voltage (V)	M.R.P. (₹) per kVAr
Heavy Duty	Cylindrical Series: LTCCH New	1 & 2	440 V	367
	Cylindrical Series : LTCCN	3 to 15	440 V	331
			480 V	364
			525 V	397
		20 & 25	440 V	323
		20 to 30	480 V	355
	Box Series : LTBCB New	1 to 4	440 V	480
			440 V	406
		5 to 15	480 V	447
			525 V	487
			440 V	397
		20 to 30	480 V	437
20 to 33.1		525 V	476	

Ordering Information for Capacitors

C - Cylindrical, B - Box

Duty : D/F - Standard**,
H - Heavy Box,
N - Heavy Cylindrical,
U - Ultra Heavy

kVAr Rating	Sample ratings
	01 - 1 kVAr
	07 - 7.5 kVAr
	10 - 10 kVAr
12 - 12.5 kVAr	

Voltages : A - 415V, B - 440V,
C - 480V, M - 525V

Catalogue Number

** F - 1 to 6 kVAr. D - 7.5 kVAr & above

Standard kVAr ratings:
440 V – 1, 2, 3, 4, 5, 7.5, 8.33, 10, 12.5, 15, 20, 25, 50
480 V – 7.5, 12.5, 15, 20, 25, 30
525 V – 7.5, 12.5, 15, 20, 25, 30, 33.1

Detuned Reactors, 440 V, 50 Hz

- Copper & Aluminium wound reactors
- Lower operating losses
- 180% linearity
- Thermal cut off



kVAr Rating	7% Copper Reactor		7% Aluminium Reactor		14% Copper Reactor		14% Aluminium Reactor	
	Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit
5	LTFR0705B2	7610	LTAL0705B2	6900	LTFR1405B2	14780	LTAL1405B2	11550
10	LTFR0710B2	11965	LTAL0710B2	9800	LTFR1410B2	23225	LTAL1410B2	16170
12.5	LTFR0712B2	13260	LTAL0712B2	10750	LTFR1412B2	25000	LTAL1412B2	17738
15	LTFR0715B2	14685	LTAL0715B2	11500	LTFR1415B2	28510	LTAL1415B2	18975
20	LTFR0720B2	17395	LTAL0720B2	13700	LTFR1420B2	33785	LTAL1420B2	22605
25	LTFR0725B2	18490	LTAL0725B2	14500	LTFR1425B2	35895	LTAL1425B2	23925
50	LTFR0750B2	29360	LTAL0750B2	23000	LTFR1450B2	57010	LTAL1450B2	37950
75	LTFR0775B2	43495	LTAL0775B2	34200	LTFR1475B2	84460	LTAL1475B2	56430
100	LTFR0700B2	59805	LTAL0700B2	47000	LTFR1400B2	116130	LTAL1400B2	77550

*Prices of 200% linearity reactors are available on request.

Selection of capacitors for detuned harmonic filter application

Effective kVAr output	With 7% detuned reactor			With 14% detuned reactor	
	Reactor (440 V)	Capacitor (480 V)	Capacitor (525 V)	Reactor (440 V)	Capacitor (525 V)
5 kVAr	5 kVAr	7.5 kVAr 480 V	7.5 kVAr 525 V	5 kVAr	7.5 kVAr 525 V
10 kVAr	10 kVAr	12.5 kVAr 480 V	12.5 kVAr 525 V	10 kVAr	12.5 kVAr 525 V
12.5 kVAr	12.5 kVAr	15 kVAr 480 V	15 kVAr 525 V	12.5 kVAr	15 kVAr 525 V
15 kVAr	15 kVAr	20 kVAr 480 V	20 kVAr 525 V	15 kVAr	20 kVAr 525 V
20 kVAr	20 kVAr	25 kVAr 480 V	25 kVAr 525 V	20 kVAr	25 kVAr 525 V
25 kVAr	25 kVAr	30 kVAr 480 V	33.1* kVAr 525 V	25 kVAr	30 kVAr 525 V
50 kVAr	50 kVAr	2 nos of 30 kVAr 480 V	2 nos of 33.1* kVAr 525 V	50 kVAr	2 nos of 30 kVAr 525 V
100 kVAr	100 kVAr	4 nos of 30 kVAr 480 V	4 nos of 33.1* kVAr 525 V	100 kVAr	4 nos of 30 kVAr 525 V

* Select 25+8.33 kVAr for LTCCN series of capacitors

Sample Selection: for 25kVAr 7% detuned reactors with heavy duty capacitors, place an order for: 1 No. 25 kVAr 7% detuned reactor: LTFR0725B2 & 1 No. 30 kVAr LTCCN capacitors at 480 V: LTCCN330C2

Thyristor Switching Module, 440V 50Hz

- High Peak Inverse Voltage (PIV) - 2.2 kV
- Lower operating losses
- Auto thermal cut off



kVAr Rating	Cat. No.	M.R.P. (₹) Per Unit
10	LTTSM10B2	19760
25	LTTSM25B2	28190
50	LTTSM50B2	32900

Note: Above prices include Quick Discharge Resistors (QDR)

Capacitor Duty Contactors - Type MO C



MO C25



MO C50



MO C80

Size	kVAr Rating @ 415V, 3Ph, 50Hz	Type	Built-in Auxiliary Contacts	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Fr 1	5	MO C5	1NO	CS96127	1525	1
	8.5	MO C8.5	1NO	CS96320	1790	1
	12.5	MO C12.5	1NO	CS96321	2100	1
	15	MO C15	1NO	CS90019	2925	1
	20	MO C20	1NO	CS90021	3345	1
	25	MO C25▲	1NO	CS96322	3795	1
Fr 2	30	MO C30 [§]	1NO	CS96148	5800	1
	33.5*	MO C33.5	1NO	CS96323	8700	1
	40	MO C40	1NO	CS96147	9100	1
Fr 3	50	MO C50	1NO	CS96324	10400	1
	60	MO C60 [§]	1NO	CS96149	11900	1
	70*	MO C70	1NO	CS96325	13000	1
	75	MO C75	1NO	CS96150	13800	1
	80	MO C80	1NO	CS90326	14855	1

Note :

- 1) For ordering add-on aux. contact block, please refer page No. 8
- 2) For ordering suffix, please refer page No.10
- 3) For ordering spare coils, please refer page No. 11
- 4) Standard coil voltage : 240V, 50Hz

▲ If using 16 sq mm cable for MO C25 use of spreader link kit is mandatory

▲ For ordering spreader link kit for MO C25, Please refer page No. 9

§ Spreader link included in packing

* Available till stock lasts

Please refer page No. 7 for further details.

APFC Relays

etaCON M Series



Features:

- Modular and expandable steps
- Large Backlit LCD display with user-friendly interface
- CT secondary - 1 A / 5 A Site selectable
- Measurement of individual Current and Voltage harmonic up to 15th Order.
- Suitable for LV as well as HT side sensing
- Communicable on Modbus-RS485 with the help of RS485 Plug-in Module

etaCON M APFC Relay Selection Guidelines

Steps	Steps Description	Size (W x H in mm)	Combination	Cat. No. Combination	M.R.P. (₹) Per Set
5	4 + 1*	96 x 96	5 Step APFC Relay	ETACONM005R	10500
7	6 + 1*	96 x 96	5 Step APFC Relay + 2 Steps Plug-in Module	ETACONM005R + ETACONEXP2R	11700
8	7 + 1*	96 x 96	5 Step APFC Relay + 3 Steps Plug-in Module	ETACONM005R + ETACONEXP3R	12400
8	7 + 1*	144 x 144	8 Step APFC Relay	ETACONM008R	13500
10	9 + 1*	144 x 144	8 Step APFC Relay + 2 Steps Plug-in Module	ETACONM008R + ETACONEXP2R	14700
12	11 + 1*	144 x 144	8 Step APFC Relay + 2 Steps Plug-in Module + 2 Steps Plug-in Module	ETACONM008R + ETACONEXP2R + ETACONEXP2R	15900
14	13 + 1*	144 x 144	8 Step APFC Relay + 3 Steps Plug-in Module + 3 Steps Plug-in Module	ETACONM008R + ETACONEXP3R + ETACONEXP3R	17300

* Last Contact can be programmed for capacitor switching / Alarm function / Fan Control

etaCON M APFC Relay

Model	CT secondary	Voltage input	Cat. No.	M.R.P. (₹) Per Unit
5 Step APFC Relay(96 x 96)	1 A / 5 A	415V / 110 V	ETACONM005R	10500
8 Step APFC Relay(144 x 144)			ETACONM008R	13500

etaCON M Optional Plug-in Modules

Description	Model	Cat. No.	M.R.P. (₹) Per Unit
2 Steps Plug-in Module	2 Relays NO	ETACONEXP2R	1200
3 Steps Plug-in Module	3 Relays NO	ETACONEXP3R	1900
RS485 Plug-in Module	RS485 Plug-in Module	ETACONRS485	8000

etaCON L Series



* Last Contact can be programmed for capacitor switching / Alarm function / Fan Control
Available till stock lasts

Model	Steps	Steps Description	CT secondary	Voltage input	Cat. No.	M.R.P. (₹) Per Unit
etaCON L3	3	3	5 Amp	415V	ERPML03D500	9000
etaCON L5	5	4 + 1*			ERPML05D500	10000
etaCON L7	7	6 + 1*			ERPML07D500	11000
etaCON L8	8	7 + 1*			ERPML08D500	13600
etaCON L12	12	11 + 1*			ERPML12D500	14800

Active Harmonic Filter (AHF)

- Reduces THD within IEEE limits
- Dynamic correction of THD
- Improves both distortion & displacement Power Factor
- Load balancing & Neutral current reduction (triplen harmonics) with 4 wire filter



Filter Rating (A)	3 Phase 3 wire AHF		3 Phase 4 wire AHF	
	Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit
30	AHF030331D2	On Request	AHF030341D2	On Request
60	AHF060331D2		AHF060341D2	
75	AHF075331D2		AHF075341D2	
100	AHF100331D2		AHF100341D2	
150	AHF150331D2		AHF150341D2	
200	AHF200331D2		AHF200341D2	
300	AHF300331D2		AHF300341D2	
400	AHF400331D2		AHF400341D2	
600	AHF600331D2		AHF600341D2	

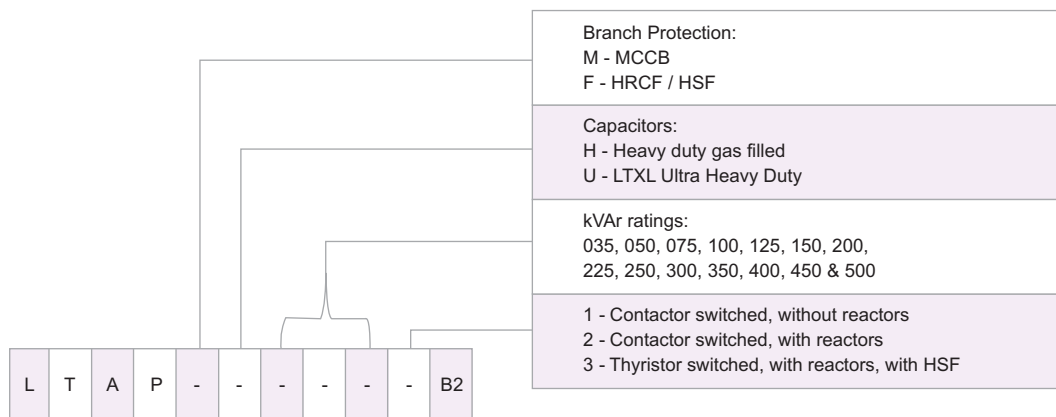
etaSYS Standard APFC Panels

Features

- Wide range of ratings (35 to 500 kVAr) covers the typical requirement of APFC panel ratings
- All the panels are with optimal number of steps and step sizes
 - Offers sufficient step resolution which would be suitable for all types of industries
 - Panel operation without hunting of capacitors
- Pre-selected switchgear with accurate ratings offers reliable operation, protection and isolation
- Accurate combination of capacitor and reactor offers better protection against harmonics
- IP 42 panels
- Standard GA drawing readily available
- Auto and manual switching options



Ordering Information for APFC Panels



Product	Description	kVAr ratings	Capacitors	Main Incomer	Branch Protection	Switching	Harmonic filter
etaSYS – MH1	Contactor switched standard APFC Panels	35 to 500 kVAr	Heavy Duty Gas filled capacitors	MCCB - up to 350 kVAr; ACB - 400 to 500 kVAr	MCCB	MO C Capacitor duty contactor	-
etaSYS – MH2	Contactor switched standard APFC Panels with harmonic filters	100 to 500 kVAr	Heavy Duty Gas filled capacitors	MCCB - up to 350 kVAr; ACB - 400 to 500 kVAr	MCCB	MO C Capacitor duty contactor	7% copper reactor
etaSYS - FH1	Contactor switched standard APFC Panels	35 to 500 kVAr	Heavy Duty Gas filled capacitors	MCCB - up to 350 kVAr; ACB - 400 to 500 kVAr	HRC Fuse	MO C Capacitor duty contactor	-
etaSYS - FH2	Contactor switched standard APFC Panels with harmonic filters	100 to 500 kVAr	Heavy Duty Gas filled capacitors	MCCB - up to 350 kVAr; ACB - 400 to 500 kVAr	HRC Fuse	MO C Capacitor duty contactor	7% copper reactor
etaSYS - FH3 (RTPFC)	Thyristor switched standard APFC Panels with harmonic filters	100 to 500 kVAr	Heavy Duty Gas filled capacitors	MCCB - up to 350 kVAr; ACB - 400 to 500 kVAr	Semiconductor fuse	Thyristor switching modules	7% copper reactor
etaSYS - MU1	Contactor switched standard APFC Panels	100 to 500 kVAr	LTXL - Ultra Heavy Duty capacitors	MCCB - up to 350 kVAr; ACB - 400 to 500 kVAr	MCCB	MO C Capacitor duty contactor	-
etaSYS – MU2	Contactor switched standard APFC Panels with harmonic filters	100 to 500 kVAr	LTXL - Ultra Heavy Duty capacitors	MCCB - up to 350 kVAr; ACB - 400 to 500 kVAr	MCCB	MO C Capacitor duty contactor	7% copper reactor
etaSYS - FU1	Contactor switched standard APFC Panels	35 to 500 kVAr	LTXL - Ultra Heavy Duty capacitors	MCCB - up to 350 kVAr; ACB - 400 to 500 kVAr	HRC Fuse	MO C Capacitor duty contactor	-
etaSYS - FU2	Contactor switched standard APFC Panels with harmonic filters	100 to 500 kVAr	LTXL - Ultra Heavy Duty capacitors	MCCB - up to 350 kVAr; ACB - 400 to 500 kVAr	HRC Fuse	MO C Capacitor duty contactor	7% copper reactor
etaSYS - FU3 (RTPFC)	Thyristor switched standard APFC Panels with harmonic filters	100 to 500 kVAr	LTXL - Ultra Heavy Duty capacitors	MCCB - up to 350 kVAr; ACB - 400 to 500 kVAr	Semiconductor fuse	Thyristor switching modules	7% copper reactor

Note: Prices of other ratings are available on request.

3 Phase Over Current + Earth Fault Relay

C.T. Rating 1A or 5A, Field Selectable



- IDMT & Definite time characteristics
- Last 30 trip data recording with date and time
- Password Protection

Model	Aux. Supply (V)	Output Contacts	Device Code	Cat. No.	M.R.P. (₹) Per Unit
MC31AnX	24 - 240V AC/ DC	2 NO + 2 NC	51, 51N	MC31ANX2200	16000
		4 NO		MC31ANX4000	

Single Pole Over Current or Earth Fault Relay

C.T. Rating 1A or 5A, Not Field Selectable



- IDMT and Definite time characteristics

Model	Aux. Supply (V)	C.T. Secondary (A)	Device Code	Cat. No.	M.R.P. (₹) Per Unit
MC12	20 - 110V AC/DC	1A	50, 51 or 50N, 51N	MC12AA10X00	9600
		5A		MC12AA50X00	
	88 - 264V AC/DC	1A		MC12AB10X00	
		5A		MC12AB50X00	

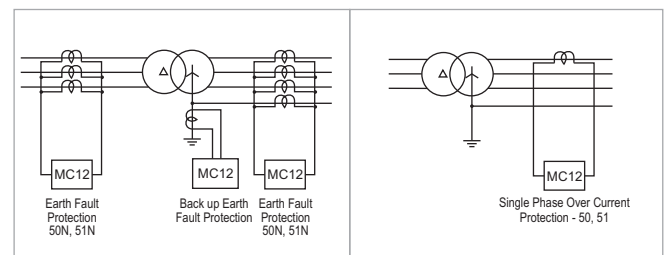
3 Phase Over Current + Earth Fault Relay with High Set

C.T. Rating 1A or 5A, Field Selectable



- IDMT & Definite time characteristics
- Last 30 trip data recording with date and time
- Password Protection

Model	Aux. Supply (V)	Output Contacts	Device Code	Cat. No.	M.R.P. (₹) Per Unit
MC61AnX	24 - 240V AC/ DC	2 NO + 2 NC	51, 51N, 50, 50N	MC61ANX2200	18000
		4 NO		MC61ANX4000	



Reverse Power Relay

C.T. Rating 1A or 5A, Not Field Selectable



Model	Aux Supply (V)	C.T. Secondary (A)	Device Code	Cat. No.	M.R.P. (₹) Per Unit
MRP11	20 - 110V AC/DC	1A	32	MRP11A10X00	21500
		5A		MRP11A50X00	
	88 - 264V AC/DC	1A		MRP11B10X00	
		5A		MRP11B50X00	

3 Phase Over Current + Earth Fault Relay with High Set & RS - 485 Port

C.T. Rating 1A or 5A, Field Selectable



- IDMT & Definite time characteristics
- Last 30 trip data recording with date and time
- Password Protection

Model	Aux. Supply (V)	Output Contacts	Device Code	Cat. No.	M.R.P. (₹) Per Unit
MC61CnX	24 - 240V AC/ DC	4 NO	51, 51N, 50, 50N	MC61CNX4000	24000

Trip Circuit Supervision Relay



- Static Relay.
- Monitors Trip Coil in Breaker ON & OFF condition
- Site selectable Trip Coil Voltage

Model	Aux. Supply (V)	Cat. No.	M.R.P. (₹) Per Unit
TCS01nX	20 - 110 V AC/ DC	TCS01NXA000	7500
	88 - 264 V AC/ DC	TCS01NXB000	

Motor Protection Relays

MPR200nX Electronic Motor Protection Relay



- Protections:
 - Overload
 - Locked Rotor
 - Single Phasing, Current Unbalance, Phase Sequence Reversal
 - Under Current
- Inbuilt CT's (1 A to 88 A)
- Trip indication
- Test facility
- Selectable trip class - 10A, 10, 20 and 30 as per IEC 947-4-1

Model	Aux. supply	Thermal O/L Range (A)	Device Code	Cat. No.	M.R.P. (₹) Per Unit
MPR200nX	240V AC	1 - 2.75	49, 51LR, 37, 46,	MPR200BE010	3100
		2 - 5.5		MPR201BE020	3100
		4 - 11		MPR202BE040	3500
		8 - 22		MPR203BE080	3500
		16 - 44		MPR204BE160	3900
		32 - 88		MPR205BE320	3900
	110V AC	1 - 2.75		MPR200BB010	3100
		2 - 5.5		MPR201BB020	3100
		4 - 11		MPR202BB040	3500
		8 - 22		MPR203BB080	3500
		16 - 44		MPR204BB160	3900
		32 - 88		MPR205BB320	3900

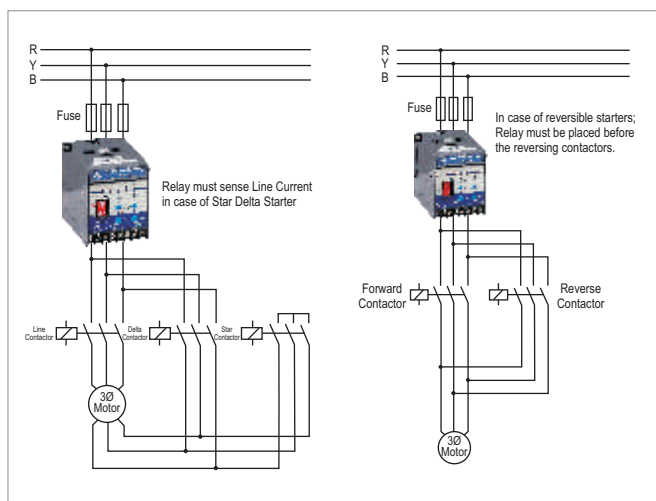
MPR300 Electronic Motor Protection Relay With in-built Earth Fault Protection



- Protections:
 - Overload
 - Earth Fault
 - Locked Rotor
 - Single Phasing, Current Unbalance, Phase Sequence Reversal
 - Under Current
- Inbuilt CT's (1 A to 88 A)
- Trip indication
- Test facility
- Selectable trip class - 10A, 10, 20 and 30 as per IEC 947-4-1

Model	Aux. supply	Thermal O/L Range (A)	Device Code	Cat. No.	M.R.P. (₹) Per Unit
MPR300	240V AC	1 - 2.75	49, 51LR, 64, 37, 46,	MPR300BE010	5700
		2 - 5.5		MPR301BE020	5700
		4 - 11		MPR302BE040	6100
		8 - 22		MPR303BE080	6100
		16 - 44		MPR304BE160	6500
		32 - 88		MPR305BE320	6500
	110V AC	1 - 2.75		MPR300BB010	5700
		2 - 5.5		MPR301BB020	5700
		4 - 11		MPR302BB040	6100
		8 - 22		MPR303BB080	6100
		16 - 44		MPR304BB160	6500
		32 - 88		MPR305BB320	6500

MPR200nX / MPR300 Application Diagram



MPR200nX / MPR300 Trip Time Characteristics

Trip class	Trip time delay		
	I = 120% of I _m	I = 150% of I _m	I = 720% of I _m
10A	< 2 hours	< 2 min	2 - 10 secs
10	< 2 hours	< 4 min	4 - 10 secs
20	< 2 hours	< 6 min	6 - 20 secs
30	< 2 hours	< 12 min	9 - 30 secs

I_m - Motor Full Load Current
I - Actual current drawn by the Motor

Motor Protection Relays

Compact Motor Protection Relay - MM10

- Flush Mounting with display
- Last trip data recording



- Protections:
 - Thermal Overload with pre- alarm
 - Short Circuit
 - Earth fault
 - Phase loss, Unbalance, Phase reversal
 - Under Current
 - Prolong starting, Locked Rotor

Model	Aux. Supply	CT secondary	Device code	Cat. No.	M.R.P. (₹) Per Unit
MM10	110 - 240 V AC / DC	5 Amp	37, 46, 49, 50 / 51, 51LR, 64	MM10240E005	15000

Comprehensive Motor Protection Relay

MM30-743 with current based protections

MM30-W74* with current and voltage based protections



Model	Aux. Supply	Device code	Cat. No.	M.R.P. (₹) Per Unit
MM30 - 743	20 - 110V AC/ DC	37,46,47,48, 49,50/51,51LR,	EMM30AXX00E	85000
	88 - 240V AC/ DC	64, 66,68,74	EMM30BXX00E	
MM30 - W74	20 - 110V AC/DC	12/14,27/59,37, 46,47,48,49,	EMM30WAX002	95000
	88 - 240V AC/DC	50/51, 51LR,55, 64,66,68,74,81.	EMM30WBX002	

* Available on request only

MCOMP - Intelligent Motor Control, Monitoring and Protection Relay

- Current & Voltage based metering and protection in a single compact unit
- In-built voltage module: enables power measurement
- 6 DI & 4 DO in base unit
- Universal auxiliary supply
- Communication capability: Modbus RTU, Modbus TCP / IP, Profibus
- Inbuilt Analog output & RTD / PTC inputs
- OLED Display: 170° viewing angle, brighter pixilation
- Conformal coating



CT Unit Main unit Display unit

Description	Cat. No.	M.R.P. (₹) Per Unit
MCOMP Main Unit; RTU (expand); 80 - 240 VAC/ DC; RTD	MCOMPZX90032	24000
MCOMP CT1 UNIT 0.5M CABLE; 0.675A to 2.025A	MCOMPZX90006	4000
MCOMP CT2 UNIT 0.5M CABLE; 1.8A to 5.4A	MCOMPZX90007	5000
MCOMP CT3 UNIT 0.5M CABLE; 4.5A to 13.5A	MCOMPZX90008	5000
MCOMP CT4 UNIT 0.5M CABLE; 12.6A to 37.8A	MCOMPZX90009	5000
MCOMP CT5 UNIT 0.5M CABLE; 36A to 81A	MCOMPZX90010	6000
MCOMP USB DISPLAY UNIT- 1.0 M CABLE; 80-240 V AC/DC	MCOMPZX90042	15000
MCOMP USB DISPLAY UNIT- 2.0 M CABLE; 80-240 V AC/DC	MCOMPZX90043	15000

Note: For ordering information on Profibus & Modbus TCP/IP, Contact nearest Branch office

Generator Protection Relay

Generator Protection Relay



Model	Generator Grounding	Aux. supply	Device code	Cat. No.	M.R.P. (₹) Per Unit
MG30I	Solid grounding	20 - 110 VAC/ DC	21,24,27/59,32,37, 40,46,49,50/27, 50V/51V, 51BF, 60FL, 64S,68,81	EM30GIAXX00	210000
		88 - 240 VAC/DC		EM30GIBXX00	
MG30	Impedance Grounding (NGR/ NGT)	20 - 110 VAC/ DC	21,24,27/59,32,37, 40,46,49,50/27, 50V/51V,51BF, 60FL, 64S,68,81	EMG30AXX000	210000
		88 - 240 VAC/DC		EMG30BXX000	

Generator Differential Relay



Model	Description	Aux. supply	Device code	Cat. No.	M.R.P. (₹) Per Unit
MD32G	Generator Differential Relay	20 - 110V AC/ DC	50/51, 68, 87, 87N	ED32GAXX000 *	266500
		88 - 240V AC/DC		ED32GBXX000 *	

* Available on request only

APFC Relays

etaCON M Series



Features:

- Modular and expandable steps
- Large Backlit LCD display with user-friendly interface
- CT secondary - 1 A / 5 A Site selectable
- Measurement of individual Current and Voltage harmonic up to 15th Order.
- Suitable for LV as well as HT side sensing
- Communicable on Modbus-RS485 with the help of RS485 Plug-in Module

etaCON M APFC Relay Selection Guidelines

Steps	Steps Description	Size (W x H in mm)	Combination	Cat. No. Combination	M.R.P. (₹) Per Set
5	4 + 1*	96 x 96	5 Step APFC Relay	ETACONM005R	10500
7	6 + 1*	96 x 96	5 Step APFC Relay + 2 Steps Plug-in Module	ETACONM005R + ETACONEXP2R	11700
8	7 + 1*	96 x 96	5 Step APFC Relay + 3 Steps Plug-in Module	ETACONM005R + ETACONEXP3R	12400
8	7 + 1*	144 x 144	8 Step APFC Relay	ETACONM008R	13500
10	9 + 1*	144 x 144	8 Step APFC Relay + 2 Steps Plug-in Module	ETACONM008R + ETACONEXP2R	14700
12	11 + 1*	144 x 144	8 Step APFC Relay + 2 Steps Plug-in Module + 2 Steps Plug-in Module	ETACONM008R + ETACONEXP2R + ETACONEXP2R	15900
14	13 + 1*	144 x 144	8 Step APFC Relay + 3 Steps Plug-in Module + 3 Steps Plug-in Module	ETACONM008R + ETACONEXP3R + ETACONEXP3R	17300

* Last Contact can be programmed for capacitor switching / Alarm function / Fan Control

etaCON M APFC Relay

Model	CT secondary	Voltage input	Cat. No.	M.R.P. (₹) Per Unit
5 Step APFC Relay(96 x 96)	1 A / 5 A	415V / 110 V	ETACONM005R	10500
8 Step APFC Relay(144 x 144)			ETACONM008R	13500

etaCON M Optional Plug-in Modules

Description	Model	Cat. No.	M.R.P. (₹) Per Unit
2 Steps Plug-in Module	2 Relays NO	ETACONEXP2R	1200
3 Steps Plug-in Module	3 Relays NO	ETACONEXP3R	1900
RS485 Plug-in Module	RS485 Plug-in Module	ETACONRS485	8000

etaCON L Series



Model	Steps	Steps Description	CT secondary	Voltage input	Cat. No.	M.R.P. (₹) Per Unit
etaCON L3	3	3	5 Amp	415V	ERPML03D500	9000
etaCON L5	5	4 + 1*			ERPML05D500	10000
etaCON L7	7	6 + 1*			ERPML07D500	11000
etaCON L8	8	7 + 1*			ERPML08D500	13600
etaCON L12	12	11 + 1*			ERPML12D500	14800

* Last Contact can be programmed for capacitor switching / Alarm function / Fan Control
Available till stock lasts

Voltage & Frequency Relays

Single Phase Under Voltage or Over Voltage Relay



Model	Aux. Supply (V)	Device code	Cat. No.	M.R.P. (₹) Per Unit
MV12A	20 - 110V AC/DC	27 or 59	MV12AA00X00	10000
	88 - 264V AC/DC		MV12AB00X00	



UFD34 - Three phase Voltage and Frequency relay with df/dt and dv/dt protection

UM30 - Voltage Frequency and Zero Sequence Voltage Relay with Vector shift detection

Model	Aux. supply	Device code	Cat. No.	M.R.P. (₹) Per Unit
UFD34	20 - 110V AC/ DC	27, 59, 81, df/dt, dv/dt	EFD34A00000	150000
	88 - 240V AC/DC		EFD34B00000	
UM30	20 - 110V AC/ DC	24, 27d/59d, 47, 59, 59Uo, 78, 81	EUM30A00000 *	150000
	88 - 240V AC/DC		EUM30B00000 *	

* available on request only

Metering Devices

Single Phase kWh meter with LCD display

Model EM101+ Class 1 Base mounting



Description	Cat. No.	M.R.P. (₹) Per Unit
1P LCD Meter 5-30A	WM101BC5DL0	1420
1P LCD Meter 5-30A with BOX	WM101BC5DL0BOX	1900
1P LCD Meter 5-30A with OPTICAL PORT	WM101BC5DDH	1950
1P LCD Meter 5-30A with Optical port + BOX	WM101BC5DDHBOX	2430
1P LCD Meter 10-60A	WM101BC7DL0	1720
1P LCD Meter 10-60A with BOX	WM101BC7DL0BOX	2170
1P LCD Meter 10-60A with Optical Port	WM101BC7DDH	2200
1P LCD Meter 10-60A with Optical Port + BOX	WM101BC7DDHBOX	2530

3 Phase 4 Wire kWh meter Counter type

Model EM301B Class 1 Base mounting



Description	Cat. No.	M.R.P. (₹) Per Unit
3Ph 4 W kWh CT op base mtg 240V 5 -10 A	WM301BC3C00	3810
3Ph 4 W kWh Dir base mtg 240V 5 -20 A Sleek	WM301BC4D20	3410
3Ph 4 W kWh Dir base mtg 240V 10 -40 A Sleek	WM301BC6D20	3510
3Ph 4 W kWh Dir base mtg 240V 10 - 60 A big body	WM301BC7D10	4310
3Ph 4 W kWh Dir base mtg 240V 50 -100 A big body	WM301BC8D10	6250

Trivector Meter Class 0.5

Model ER300P Class 0.5 (Base Mounting)



Description	Cat. No.	M.R.P. (₹) Per Unit
3Ph, 4W TVM 110V (L-L) 1 A Class 0.5 BM	WR300BB1200	20500
3Ph, 4W TVM 110V (L-L) 5 A Class 0.5 BM	WR300BB5200	20500
3Ph, 4W TVM 240V (L-N) 1 A Class 0.5 BM *	WR300BC1200	20500
3Ph, 4W TVM 240V (L-N) 5 A Class 0.5 BM	WR300BC5200	20500
3Ph, 4W TVM 110V (L-L) 1 A Class 0.5 BM RS485	WR300BB12RS	24600
3Ph, 4W TVM 110V (L-L) 5 A Class 0.5 BM RS485 *	WR300BB52RS	24600
3Ph, 4W TVM 240V (L-N) 1 A CI 0.5 BM RS485 *	WR300BC12RS	24600
3Ph, 4W TVM 240V (L-N) 5 A CI 0.5 BM RS485	WR300BC52RS	24600

Trivector Meter Class 1 whole current meter

Model ER300P Class 1 (Base Mounting)



Description	Cat. No.	M.R.P. (₹) Per Unit
3Ph, 4W TVM 240 V 10 - 60A BM	WR300BC7300	6660
3Ph, 4W TVM 240 V 10 - 60A BM RS 485*	WR300BC73RS485	9500
3Ph, 4W TVM 240 V 10 - 60A BM with Hinge type Box	WR300BC73BOXH	8250

* - available on request only

* - available on request only

Trivector Meter Class 0.2

Model ER300P Class 0.2 (Base Mounting)



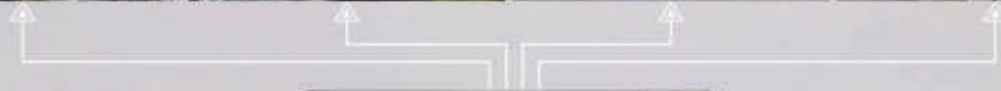
Description	Cat. No.	M.R.P. (₹) Per Unit
3Ph, 4W TVM 110V (L-L) 1 A Class 0.2 BM	WR300BB1100	46120
3Ph, 4W TVM 110V (L-L) 5 A Class 0.2 BM	WR300BB5100	46120
3Ph, 4W TVM 110V (L-L) 1 A Class 0.2 BM RS485	WR300BB11RS	49200
3Ph, 4W TVM 110V (L-L) 5 A Class 0.2 BM RS485	WR300BB51RS	49200

Meter Reading Instrument



Description	Cat. No.	M.R.P. (₹) Per Unit
Meter Reading Instrument - (6.5 MB)	990MRIXX00S	87120
Meter Reading Instrument - (16.5 MB)	990MRIXX000	100000
Meter Optical port to USB cable	990PCXXUSB	1000

Smart is in the Energy Management



Introducing Energy Management Solutions from L&T

Key Features

- SmartComm Energy Management System software
- Meters with Class 1, Class 0.5, 0.5S, Class 0.2, 0.2S accuracy
- Meters with THD and individual harmonics up to 31st
- Direct access to Basic, Power and Energy parameters through front keys
- RS485 or Ethernet communication available
- Analog inputs and outputs, data logging options

L&T's metering solutions include:

- Single function meters
- VAF, PF meters
- Energy meters
- Dual Source meters
- Basic Multifunction meters
- Advanced Multifunction meters
- MD Controller

Customer Interaction Center (CIC)

BSNL / MTNL (toll free): 1800 233 5858 Reliance (toll free): 1800 200 5858
Tel: 022 6774 5858 Fax: 022 6774 5859 Email: cic@Lntebg.com Web: www.Lntebg.com

New

Single Function Meters

1xxx Series

Features

- Accuracy Class 1.0, 0.5
- Input voltage measurement range 50-550 VAC (P-P)
- Aux supply 80-300 VAC
- CT secondary site selectable 1A / 5A
- Flush mounting 96 x 96 mm
- Inbuilt selector switch for 3 phase meters
- CT/PT site programmable



Description	Cat. No.	M.R.P. (₹) Per Unit
1Ph LED Ammeter CI 1	WL1110100000	1000
1Ph LED Voltmeter CI 1	WL1120100000	1000
3Ph LED Ammeter CI 1	WL1310100000	1450
3Ph LED Voltmeter CI 1	WL1320100000	1450
LED Freq meter CI 0.2	WL1130400000	1000
1Ph LED Ammeter CI 0.5	WL1110200000	1350
1Ph LED Voltmeter CI 0.5	WL1120200000	1350
3Ph LED Ammeter CI 0.5	WL1310200000	1750
3Ph LED Voltmeter CI 0.5	WL1320200000	1750

New

VAF + PF Meters

4110 Series

Features

- Accuracy Class 1.0, 0.5
- Input voltage measurement range 50-550 VAC (P-P)
- Aux supply 80-300 VAC/DC
- CT secondary site selectable 1A / 5A
- Flush mounting 96 x 96 mm
- CT/PT site programmable
- Parameters: VLL, VLN, A, F, PF, On Hrs, RPM, Apeak



Description	Cat. No.	M.R.P. (₹) Per Unit
VAF + PF meter, CI 1	WL4110100000	2500
VAF + PF meter with RS485, CI 1	WL4110110000	3100
VAF + PF meter, CI 0.5	WL4110200000	2850
VAF + PF meter with RS485, CI 0.5	WL4110210000	3450

New

Energy Meters

4000 Series

Features

- Accuracy Class 1.0, 0.5
- Input voltage measurement range 50-550 VAC (P-P)
- Aux supply 80-300 VAC/DC
- CT secondary site selectable 1A / 5A
- Flush mounting 96 x 96 mm
- CT/PT site programmable
- Auto scaling of Kilo, Mega and Giga
- Parameters: Site selectable kWh / kVAh / PF / W, Old energy



Description	Cat. No.	M.R.P. (₹) Per Unit
kWh LED meter CI 1	WL4000100000	2800
kWh LED meter CI 1 with RS485	WL4000110000	3300
kWh LED meter CI 0.5	WL4000200000	3550
kWh LED meter CI 0.5 with RS485	WL4000210000	4050
kWh LCD meter CI 1	WC4000100000	3100
kWh LCD meter CI 1 with RS485	WC4000110000	3600
kWh LCD meter CI 0.5	WC4000200000	3850
kWh LCD meter CI 0.5 with RS485	WC4000210000	4350

4000 Series

Features

- DIN mounting whole current operated meter
- Accuracy Class 1.0
- RS485 and Wi-Fi modules available
- Displays day, week, month and push to push consumption
- Parameters: 1 Phase - Voltage, Current, kW, kWh
3 Phase - Voltage, Current, kW, kWh + PF, kVA, kVAh, MD



Description	Cat. No.	M.R.P. (₹) Per Unit
Energy meter 1P 5-40A CI 1 DIN	WD4000101000	2200
Energy meter 3P 10-60A CI 1 DIN	WD4000103000	5000
Energy meter RS485 module	WD400010RS00	2200
Energy meter Wi-Fi module	WD400010WFO0	5000

4030 Series

Features

- Accuracy Class 1.0
- Flush mounting 96 x 96 mm
- Counter type energy meter
- Available with sealing arrangement
- Parameter : kWh



Description	Cat. No.	M.R.P. (₹) Per Unit
kWh Counter type meter CI 1	WL4030100000	3200

New

Dual Source Meters

4040 Series

Features

- Accuracy Class 1.0, 0.5
- Input voltage measurement range 50-550 VAC (P-P)
- Aux supply 90-300 VAC/DC
- CT secondary site selectable 1A / 5A
- DG sensing input 230 VAC
- Flush mounting 96 X 96 mm
- CT/PT site programmable
- Parameters: V, A, F, kW, PF, On hours, kWh (EB and DG)



Description	Cat. No.	M.R.P. (₹) Per Unit
Dualsource LED meter CI1	WL4040100000	4000
Dualsource LED meter CI1 with RS485	WL4040110000	4600
Dualsource LED meter CI0.5	WL4040200000	4750
Dualsource LED meter CI0.5 with RS485	WL4040210000	5350
Dualsource LCD meter CI1	WC4040100000	4300
Dualsource LCD meter CI1 with RS485	WC4040110000	4900
Dualsource LCD meter CI0.5	WC4040200000	5050
Dualsource LCD meter CI0.5 with RS485	WC4040210000	5650

New

Multifunction Meters

Features

- Accuracy Class 1.0, 0.5, 0.5S, 0.2, 0.2S
- Input voltage measurement range 50-550 VAC (P-P)
- Aux supply 90-300 VAC/DC
- CT secondary site selectable 1A / 5A
- Flush mounting 96 x 96 mm
- CT/PT site programmable



4410 Series

- Parameters: V, A, F, PF, kW, kVA, kVAR, kWh, kVAh, kVARh, Runhours, On hours, Phase angle, Interrupts, THD, Events (High-Low), Neutral Current

Description	Cat. No.	M.R.P. (₹) Per Unit
MFM 4410 LED meter CI 1	WL4410100000	7000
MFM 4410 LED meter CI 1 with RS485	WL4410110000	8000
MFM 4410 LED meter CI 0.5 with RS485	WL4410210000	9500
MFM 4410 LED meter CI 0.5S with RS485	WL4410310000	10500
MFM 4410 LED meter CI 0.2 with RS485	WL4410410000	12500
MFM 4410 LED meter CI 0.2S with RS485	WL4410510000	16000
MFM 4410 LCD meter CI 1	WC4410100000	8000
MFM 4410 LCD meter CI 1 with RS485	WC4410110000	9000
MFM 4410 LCD meter CI 0.5 with RS485	WC4410210000	10500
MFM 4410 LCD meter CI 0.5S with RS485	WC4410310000	11500
MFM 4410 LCD meter CI 0.2 with RS485	WC4410410000	13500
MFM 4410 LCD meter CI 0.2S with RS485	WC4410510000	17000

New

Basic Multifunction Meters

4400 Series

Features

- Accuracy Class 1.0, 0.5
- Input voltage measurement range 50-550 VAC
- Aux supply 90-300 VAC/DC
- CT secondary site selectable 1A / 5A
- Flush mounting 96 x 96 mm
- CT/PT site programmable
- Parameters: V, A, F, PF, kW, kWh, kVA, kVAh, Old Wh, On hours



Description	Cat. No.	M.R.P. (₹) Per Unit
MFM 4400 LED meter CI 1	WL4400100000	4200
MFM 4400 LED meter CI 1 with RS485	WL4400110000	5200
MFM 4400 LED meter CI 0.5 with RS485	WL4400210000	6150
MFM 4400 LED meter CI 0.5S with RS485	WL4400310000	6200
MFM 4400 LCD meter CI 1	WC4400100000	4500
MFM 4400 LCD meter CI 1 with RS485	WC4400110000	5500

4420 Series

Parameters:

- All parameters of 4410 series
- Maximum Demand (kW & kVA)

Description	Cat. No.	M.R.P. (₹) Per Unit
MFM 4420 LED meter CI 1	WL4420100000	10500
MFM 4420 LED meter CI 1 with RS485	WL4420110000	11500
MFM 4420 LED meter CI 0.5 with RS485	WL4420210000	13000
MFM 4420 LED meter CI 0.5S with RS485	WL4420310000	14000
MFM 4420 LED meter CI 0.2 with RS485	WL4420410000	16000
MFM 4420 LED meter CI 0.2S with RS485	WL4420510000	19500
MFM 4420 LCD meter CI 1	WC4420100000	11500
MFM 4420 LCD meter CI 1 with RS485	WC4420110000	12500
MFM 4420 LCD meter CI 0.5 with RS485	WC4420210000	14000
MFM 4420 LCD meter CI 0.5S with RS485	WC4420310000	15000
MFM 4420 LCD meter CI 0.2 with RS485	WC4420410000	17000
MFM 4420 LCD meter CI 0.2S with RS485	WC4420510000	20500



Multifunction Meters

4430 Series

Parameters:

- All parameters of Model 4420 series
- Bi-directional (Import-Export)

Description	Cat. No.	M.R.P. (₹) Per Unit
MFM 4430 LED meter CI 1	WL4430100000	15500
MFM 4430 LED meter CI 1 with RS485	WL4430110000	16500
MFM 4430 LED meter CI 0.5 with RS485	WL4430210000	18000
MFM 4430 LED meter CI 0.5S with RS485	WL4430310000	19000
MFM 4430 LED meter CI 0.2 with RS485	WL4430410000	21000
MFM 4430 LED meter CI 0.2S with RS485	WL4430510000	24500
MFM 4430 LCD meter CI 1	WC4430100000	16500
MFM 4430 LCD meter CI 1 with RS485	WC4430110000	17500
MFM 4430 LCD meter CI 0.5 with RS485	WC4430210000	19000
MFM 4430 LCD meter CI 0.5S with RS485	WC4430310000	20000
MFM 4430 LCD meter CI 0.2 with RS485	WC4430410000	22000
MFM 4430 LCD meter CI 0.2S with RS485	WC4430510000	25500

4440 Series

Parameters:

- All parameters of 4420 series
- Maximum Demand with RTC
- Events (high-low) with time stamp

Description	Cat. No.	M.R.P. (₹) Per Unit
MFM 4440 LED meter CI 1 with RS485	WL4440110000	12000
MFM 4440 LED meter CI 0.5 with RS485	WL4440210000	13500
MFM 4440 LED meter CI 0.2 with RS485	WL4440410000	16500
MFM 4440 LCD meter CI 1 with RS485	WC4440110000	13000
MFM 4440 LCD meter CI 0.5 with RS485	WC4440210000	14500
MFM 4440 LCD meter CI 0.2 with RS485	WC4440410000	17500



Maximum Demand Controller

6000 Series

Features

- Accuracy Class 1.0, 0.5S
- Input voltage measurement range 50-550 VAC (P-P)
- Aux supply 90-300 VAC/DC
- CT secondary site selectable 1A / 5A
- Flush mounting 96 x 96 mm
- CT/PT site programmable
- Detalog (8MB)
- 4 relay output
- Time of Day (TOD) 6 slots available
- Block/sliding window site selectable

5000 Series

Features

- Datalog (8 MB)
- Analog I/O, digital I/O variants available*
- Meter with Ethernet port available

Parameters:

- V, A, F, kW, KVA, kVAh, kWh, kVAh, kVAh, PF, Runhr, Onhr, Interupts, Phase angle, THD, Neutral current, Max Demand (with RTC),
- Events (high-low) with time stamp
- Individual Harmonics upto 31st.



Description	Cat. No.	M.R.P. (₹) Per Unit
MFM 5000 LED meter CI 1 with RS485	WL5000110000	30800
MFM 5000 LED meter CI 1 with Ethernet	WL5000120000	35000
MFM 5000 LED meter CI 0.5 with Ethernet	WL5000220000	36500
MFM 5000 LED meter CI 0.5S with Ethernet	WL5000320000	37500
MFM 5000 LCD meter CI 1 with RS485	WC5000110000	31800
MFM 5000 LCD meter CI 1 with Ethernet	WC5000120000	36000
MFM 5000 LCD meter CI 0.5 with RS485	WC5000210000	33300
MFM 5000 LCD meter CI 0.5S with RS485	WC5000310000	34300
MFM 5000 LCD meter CI 0.5 with Ethernet	WC5000220000	37500
MFM 5000 LCD meter CI 0.5S with Ethernet	WC5000320000	38500
MFM 5000 LCD meter CI 0.2 with RS485	WC5000410000	36300
MFM 5000 LCD meter CI 0.2S with RS485	WC5000510000	39800

* For Input/Output options please contact nearest branch office.

5010 Series

Parameters:

- V, A, F, kW, KVA, kVAh, kWh, kVAh, kVAh, PF, Runhr, Onhr, Interupts, Phase angle, THD, Neutral current, Max Demand (with RTC).
- Events (high-low) with time stamp
- Individual Harmonics upto 31st.

Description	Cat. No.	M.R.P. (₹) Per Unit
MFM 5010 LED meter CI 1	WL5010100000	11000
MFM 5010 LED meter CI 1 with RS485	WL5010110000	12000
MFM 5010 LED meter CI 0.5S	WL5010300000	13500
MFM 5010 LED meter CI 0.5S with RS485	WL5010310000	14500
MFM 5010 LED meter CI 0.2 with RS485	WL5010410000	16500



Parameters:

- V, A, F, kW, KVA, kVAh, kWh, kVAh, kVAh, PF, Runhr, Onhr, Intr, Phase angle, THD, Events, Neutral current, Max Demand (with RTC)

Description	Cat. No.	M.R.P. (₹) Per Unit
MDC 6000 LED meter CI 1 with RS485	WL6000110000	26000
MDC 6000 LED meter CI 0.5S with RS485	WL6000310000	28500
MFM 6000 LCD meter CI 1 with RS485	WC6000110000	27000



SmartComm EMS

Simple and powerful energy monitoring software with multiple benefits that empowers the user to save money.

Features:

- Glimpse of all entire energy consumption in the plant through dashboard
- Quick understanding of energy consumption of today compared to yesterday, this month consumption compared to last month as well as yoy energy comparison through dashboard.
- Easy navigation through the modules
- Excel reports with charts
- All parameters in the device can be monitored from the software
- Multiple combination of devices and parameters for analysis
- Provision to generate multiple report types
- Specific Energy Consumption (SEC) report
- Access to features defined by user levels
- L&T meters preconfigured in the software



Please contact nearest branch office for optimal Energy Monitoring Solution and network architecture with SmartComm EMS software.

Digital Panel Meters (Available till stocks last)

Single Function Meters

Model VEGA

Description	Cat. No.	M.R.P. (₹) Per Unit
Single Phase Basic Meters		
1Ph Voltmeter Class 1	WDS101FEV00	1000
1Ph Ammeter, Class 1, 5A	WDS101FCA00	1000
1Ph Ammeter, Class 1, 1A	WDS101OCA00	1000
1Ph Freq. meter Class 0.2	WDS121FCF00	1000
Three Phase Basic Meters		
3Ph Voltmeter Class 1	WDS301FEV00	1360
3Ph Ammeter, 5A, Class 1	WDS301FCA00	1360
3Ph Ammeter, 1A, Class 1	WDS301OCA00	1360

VAF + PF Meters

Model VEGA

Description	Cat. No.	M.R.P. (₹) Per Unit
VAF + PF Meter		
3Ph VAF + PF, Class 1, 5A	WDV303FC000	2600
3Ph VAF + PF, Class 1, 1A	WDV303OC000	2600

LCD Multifunction Meter

Model QUASAR

Description	Cat. No.	M.R.P. (₹) Per Unit
3Ph, 4W IPM 240 V (L-N) 1 A Class 1 FM	WI300FC1300	9060
3Ph, 4W IPM 240 V (L-N) 5 A Class 1 FM	WI300FC5300	9060
3Ph, 3W IPM 110 V (L-L) 1 A Class 1 FM	WI301FC1300	9060
3Ph, 3W IPM 110 V (L-L) 5 A Class 1 FM	WI301FC5300	9060
3Ph, 4W IPM 110 V (L-L) 1 A Class 1 FM	WI300FB1300	9060
3Ph, 4W IPM 110 V (L-L) 5 A Class 1 FM	WI300FB5300	9060
3Ph, 4W IPM 240 V (L-N) 1 A Class 1 FM with RS485	WI300FC13RS	10130
3Ph, 4W IPM 240 V (L-N) 5 A Class 1 FM with RS485	WI300FC53RS	10130
3Ph, 3W IPM 110 V (L-L) 1 A Class 1 FM with RS485	WI301FC13RS	10130
3Ph, 3W IPM 110 V (L-L) 5 A Class 1 FM with RS485	WI301FC53RS	10130
3Ph, 4W IPM 110 V (L-L) 1 A Class 1 FM with RS485	WI300FB13RS	10130
3Ph, 4W IPM 110 V (L-L) 5 A Class 1 FM with RS485	WI300FB53RS	10130

Description	Cat. No.	M.R.P. (₹) Per Unit
3Ph, 4W IPM 240 V (L-N) 1 A Class 0.5 FM	WI300FC1200	11190
3Ph, 4W IPM 240 V (L-N) 5 A Class 0.5 FM	WI300FC5200	11190
3Ph, 3W IPM 110 V (L-L) 1 A Class 0.5 FM	WI301FC1200	11190
3Ph, 3W IPM 110 V (L-L) 5 A Class 0.5 FM	WI301FC5200	11190
3Ph, 4W IPM 110 V (L-L) 1 A Class 0.5 FM	WI300FB1200	11190
3Ph, 4W IPM 110 V (L-L) 5 A Class 0.5 FM	WI300FB5200	11190
3Ph, 4W IPM 240 V (L-N) 1 A Class 0.5 FM with RS485	WI300FC12RS	12260
3Ph, 4W IPM 240 V (L-N) 5 A Class 0.5 FM with RS485	WI300FC52RS	12260
3Ph, 3W IPM 110 V (L-L) 1 A Class 0.5 FM with RS485	WI301FC12RS	12260
3Ph, 3W IPM 110 V (L-L) 5 A Class 0.5 FM with RS485	WI301FC52RS	12260
3Ph, 4W IPM 110 V (L-L) 1 A Class 0.5 FM with RS485	WI300FB12RS	12260
3Ph, 4W IPM 110 V (L-L) 5 A Class 0.5 FM with RS485	WI300FB52RS	12260

LED Multifunction Meters

Model VEGA

Description	Cat. No.	M.R.P. (₹) Per Unit
Class 1		
Model A, Class 1, RS485 port	WDM303FDWA1	7500
Model B, Class 1, RS485 port	WDM303FDNB1	11400
Model C, Class 1, RS485 port	WDM303FDNC1	16400
Model A, Class 1 without RS485 port	WDM303FDWAX	6990
Model B, Class 1 without RS485 port	WDM303FDNBX	10500
Model C, Class 1 without RS485 port	WDM303FDNCX	15500
Class 0.5S		
Model A, Class 0.5S, RS485 port	WDM313CDWA1	9000
Model B, Class 0.5S, RS485 port	WDM313CDNB1	14000
Model C, Class 0.5S, RS485 port	WDM313CDNC1	20000

LCD Multifunction Meters

Model NOVA

Description	Cat. No.	M.R.P. (₹) Per Unit
3Ph 4W 240V 5A with RS485	WM30KFC3CRS	4800
3Ph 4W 240V 5A	WM30KFC3C00	4300

kWh Meter

LCD Type

Description	Cat. No.	M.R.P. (₹) Per Unit
3Ph 4W, 5A, kWh meter Class 1	WM30JFC3C00	3000
3Ph 4W, 5A, kWh meter Class 1 with RS485 port	WM30JFC3CRS	3500

kWh Meter

Model Acrux - Counter Type

Description	Cat. No.	M.R.P. (₹) Per Unit
3Ph 4W 240V 1A (kWh meter counter type) - Acrux	WM301FC1C10	3200
3Ph 4W 240V 5A (kWh meter counter type) - Acrux	WM301FC3C10	3200

DIN Energy Meter

Model Mi-energy

Description	Cat. No.	M.R.P. (₹) Per Unit
1Ph 5-30A, 240V, Class 2	W2DLD050600	2200
3Ph 10-60A, 240V, Class 2	W4DLD100600	5000
RS485 module	W1DLD0000RS	2200
Wi-Fi module	W1DLD0000WF	5000

Dual Source Meter

Model Gemini

Description	Cat. No.	M.R.P. (₹) Per Unit
3Ph 4W 240V 5A with RS485	WM30DFC3CRS	4600

The Drive for Harsh Ambient Conditions.



Sx2000 | IP66 AC Drive

Sx2000 provides protection against harsh environmental conditions by restricting entry of foreign substances such as fine dust and high-pressure water spray.

Satisfies IEC 60529 standard IP66 Drive

Satisfies NEMA standard type 4X for indoor use.

Range: 0.75kW to 22kW (HD)

Features:

- Built-in Disconnecter Switch
- V/F, Sensorless Vector Control, Slip compensation
- Starting Torque: 150% at 3 Hz for V/F, 200% at 0.5Hz for Vector Control
- Conformal Coating complying to IEC 60721-3-3 class 3C2
- Built-in RS485 Modbus
- Peer to Peer Communication to share I/O's
- Built-in Brake Control
- Inbuilt PLC functionality
- Component Life Monitor
- Built-in PID
- Multi Keypad
- Built-in Braking Chopper till 22kW (HD)

Customer Interaction Center (CIC)

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Tel: 022 6774 5858 Fax: 022 6774 5859 Email: cic@Lntebg.com Web: www.Lntebg.com

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L&T's expanding range of automation products and systems meets the precise needs of machinery manufacturers and end users. The range encompasses AC Drive, PLC and HMI.

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AC Drive Range:

- 1) **Cx2000**: Compact Drive - Range : 0.1 to 11kW (ND)
- 2) **Sx2000**: Smart Drive - Range : 0.75 to 90kW (ND)
- 3) **Fx2000**: Flexi Drive - Range : 0.75 to 375kW (HD)
- 4) **Ex2000**: Energy Saver Drive - Range : 5.5 to 450kW (ND)

Application Specific Drives:

- 1) **Hx2000**: HVAC Drive - Range : 0.75 to 90kW (ND)
- 2) **Sx2000**: IP66 Drive - Range : 0.75 to 22kW (HD)
- 3) **Lx2000**: Elevator Drive - Range : 3.7 to 22kW (HD)

Model type & Selection:

LTVF	X	X	XXXX	X	X	A
L&T Variable Frequency Drive	Series	Input Voltage	Drive Current Rating (ND)*	Enclosure	Keypad	Reserved
	C Cx2000 S Sx2000 E Ex2000 F Fx2000 L Lx2000 H Hx2000	1 Single-Phase 200-240[V] 2 Three-Phase 200-240[V] 4 Three-Phase 380-480[V]		A IP00 B IP20 C IP21 X IP66	A With **B Without	

*For Cx2000 230Vac Single-Phase mentioned current is for HD rating.
 **Valid for Cx2000 series only.

AC Drives

Compact Series Cx2000



- Range: 0.1kW to 11kW
- Starting Torque 150% at 3 Hz
- Built-in Potentiometer
- Built-in PID
- Built-in Brake Control
- Conformal Coating complying to IEC 60721-3-3 class 3C2
- Built-in RS485 Modbus RTU
- Built-in Braking Chopper upto 11kW

Input Voltage	Description	Cat. No.	M.R.P. (₹) Per Unit
Single Phase 230Vac	Cx2000 VVVF 230V 1Ph Drive 0.10 kW (HD)	LTVF-C10001BAA	*
	Cx2000 VVVF 230V 1Ph Drive 0.20 kW (HD)	LTVF-C10002BAA	*
	Cx2000 VVVF 230V 1Ph Drive 0.40 kW (HD)	LTVF-C10003BAA	*
	Cx2000 VVVF 230V 1Ph Drive 0.75 kW (HD)	LTVF-C10005BAA	*
	Cx2000 VVVF 230V 1Ph Drive 1.50 kW (HD)	LTVF-C10008BAA	*
	Cx2000 VVVF 230V 1Ph Drive 2.20 kW (HD)	LTVF-C10011BAA	*
Three Phase 230Vac	Cx2000 VVVF 230V 3Ph Drive 0.40 kW (HD) / 0.75 kW (ND)	LTVF-C20003BAA	*
	Cx2000 VVVF 230V 3Ph Drive 0.75 kW (HD) / 1.1 kW (ND)	LTVF-C20006BAA	*
	Cx2000 VVVF 230V 3Ph Drive 1.5 kW (HD) / 2.20 kW (ND)	LTVF-C20010BAA	*
	Cx2000 VVVF 230V 3Ph Drive 2.2 kW (HD) / 3.0 kW (ND)	LTVF-C20012BAA	*
	Cx2000 VVVF 230V 3Ph Drive 3.7 kW (HD) / 4.0 kW (ND)	LTVF-C20018BAA	*
Three Phase 415Vac	Cx2000 VVVF 415V Drive 0.40 kW (HD) / 0.75 kW (ND)	LTVF-C40002BAA	*
	Cx2000 VVVF 415V Drive 0.75 kW (HD) / 1.1 kW (ND)	LTVF-C40003BAA	*
	Cx2000 VVVF 415V Drive 1.50 kW (HD) / 2.20 kW (ND)	LTVF-C40005BAA	*
	Cx2000 VVVF 415V Drive 2.20 kW (HD) / 3.70 kW (ND)	LTVF-C40007BAA	*
	Cx2000 VVVF 415V Drive 3.70 kW (HD) / 4.0 kW (ND)	LTVF-C40010BAA	*
	Cx2000 VVVF 415V Drive 5.50 kW (HD) / 7.50 kW (ND)	LTVF-C40016BAA	*
	Cx2000 VVVF 415V Drive 7.50 kW (HD) / 11.0 kW (ND)	LTVF-C40023BAA	*

Note: * For prices please contact nearest branch office

1) Cx2000 has model without built-in keypad for which external LED keypad (LTOP-DOP-50) is used which comes with default 3m cable.

Smart Series Sx2000



- Range: 0.75kW to 90kW
- Starting Torque: 150% at 3 Hz for V/F, 200% at 0.5Hz for Vector Control
- Built-in Brake Control
- Built-in PLC functionality
- Peer to Peer Communication to share I/O's
- Conformal Coating complying to IEC 60721-3-3 class 3C2
- Built-in RS485 Modbus RTU
- Component Life Monitor
- Built-in Braking Chopper till 30kW

Input Voltage	Description	Cat. No.	M.R.P. (₹) Per Unit
Single Phase 230Vac	Sx2000 VVVF 230V 1Ph Drive 0.40 kW (HD) / 0.75 kW (ND)	LTVF-S10003BAA	*
	Sx2000 VVVF 230V 1Ph Drive 0.75 kW (HD) / 1.5 kW (ND)	LTVF-S10006BAA	*
	Sx2000 VVVF 230V 1Ph Drive 1.5 kW (HD) / 2.20 kW (ND)	LTVF-S10010BAA	*
	Sx2000 VVVF 230V 1Ph Drive 2.2 kW (HD) / 3.70 kW (ND)	LTVF-S10012BAA	*
Three Phase 230Vac	Sx2000 VVVF 230V 3Ph Drive 0.40 kW (HD) / 0.75 kW (ND)	LTVF-S20003BAA	*
	Sx2000 VVVF 230V 3Ph Drive 0.75 kW (HD) / 1.5 kW (ND)	LTVF-S20006BAA	*
	Sx2000 VVVF 230V 3Ph Drive 1.5 kW (HD) / 2.20 kW (ND)	LTVF-S20010BAA	*
	Sx2000 VVVF 230V 3Ph Drive 2.2 kW (HD) / 3.70 kW (ND)	LTVF-S20012BAA	*
	Sx2000 VVVF 230V 3Ph Drive 4.0 kW (HD) / 5.5 kW (ND)	LTVF-S20018BAA	*
	Sx2000 VVVF 230V 3Ph Drive 5.5 kW (HD) / 7.5 kW (ND)	LTVF-S20030BAA	*
	Sx2000 VVVF 230V 3Ph Drive 7.5 kW (HD) / 11 kW (ND)	LTVF-S20040BAA	*
	Sx2000 VVVF 230V 3Ph Drive 11 kW (HD) / 15 kW (ND)	LTVF-S20056BAA	*
	Sx2000 VVVF 230V 3Ph Drive 15 kW (HD) / 18.5 kW (ND)	LTVF-S20069BAA	*
	Sx2000 VVVF 230V 3Ph Drive 18.5 kW (HD) / 22.0 kW (ND)	LTVF-S20099BAA	*
Three Phase 415Vac	Sx2000 VVVF 415V Drive 0.40 kW (HD) / 0.75 kW (ND)	LTVF-S40002BAA	*
	Sx2000 VVVF 415V Drive 0.75 kW (HD) / 1.50 kW (ND)	LTVF-S40003BAA	*
	Sx2000 VVVF 415V Drive 1.50 kW (HD) / 2.20 kW (ND)	LTVF-S40005BAA	*
	Sx2000 VVVF 415V Drive 2.20 kW (HD) / 3.7 kW (ND)	LTVF-S40007BAA	*
	Sx2000 VVVF 415V Drive 4.00 kW (HD) / 5.50 kW (ND)	LTVF-S40010BAA	*
	Sx2000 VVVF 415V Drive 5.50 kW (HD) / 7.50 kW (ND)	LTVF-S40016BAA	*
	Sx2000 VVVF 415V Drive 7.50 kW (HD) / 11.0 kW (ND)	LTVF-S40023BAA	*
	Sx2000 VVVF 415V Drive 11.0 kW (HD) / 15.0 kW (ND)	LTVF-S40030BAA	*
	Sx2000 VVVF 415V Drive 15.0 kW (HD) / 18.5 kW (ND)	LTVF-S40038BAA	*
	Sx2000 VVVF 415V Drive 18.5 kW (HD) / 22.0 kW (ND)	LTVF-S40044BAA	*
	Sx2000 VVVF 415V Drive 22.0 kW (HD) / 30.0 kW (ND)	LTVF-S40058BAA	*
	Sx2000 VVVF 415V Drive 30.0 kW (HD) / 37.0 kW (ND)	LTVF-S40075BAA	*
	Sx2000 VVVF 415V Drive 37.0 kW (HD) / 45.0 kW (ND)	LTVF-S40091BAA	*
	Sx2000 VVVF 415V Drive 45.0 kW (HD) / 55.0 kW (ND)	LTVF-S40107BAA	*
	Sx2000 VVVF 415V Drive 55.0 kW (HD) / 75.0 kW (ND)	LTVF-S40142BAA	*
	Sx2000 VVVF 415V Drive 75.0 kW (HD) / 90.0 kW (ND)	LTVF-S40169BAA	*

Note: * For prices please contact nearest branch office

Flexi Series *Fx2000*



- Range: 0.75kW to 375kW (HD)
- Ideal for Heavy Duty Application Crane, Winder, Textile Application, Plastic extruders
- Starting Torque: 250% at 0Hz for Closed Loop
- Built-in Crane & Wobulation Macros
- Winder Algorithm - Optional
- Conformal Coating complying to IEC 60721-3-3 class 3C2
- Built-in RS485 Modbus RTU
- Built-in DC Reactor from 22kW to 280kW
- Built-in Braking Chopper till 30kW

Input Voltage	Description	Cat. No.	M.R.P. (₹) Per Unit
Three Phase 415Vac	Fx2000 VVVF 415V Drive 0.75 kW (HD) / 1.50 kW (ND)	LTVF-F40004CAA	*
	Fx2000 VVVF 415V Drive 1.50 kW (HD) / 2.20 kW (ND)	LTVF-F40006CAA	*
	Fx2000 VVVF 415V Drive 2.20 kW (HD) / 3.70 kW (ND)	LTVF-F40008CAA	*
	Fx2000 VVVF 415V Drive 3.70 kW (HD) / 4.00 kW (ND)	LTVF-F40012CAA	*
	Fx2000 VVVF 415V Drive 5.50 kW (HD) / 7.50 kW (ND)	LTVF-F40016CAA	*
	Fx2000 VVVF 415V Drive 7.50 kW (HD) / 11.0 kW (ND)	LTVF-F40024CAA	*
	Fx2000 VVVF 415V Drive 11.0 kW (HD) / 15.0 kW (ND)	LTVF-F40030CAA	*
	Fx2000 VVVF 415V Drive 15.0 kW (HD) / 18.5 kW (ND)	LTVF-F40039CAA	*
	Fx2000 VVVF 415V Drive 18.5 kW (HD) / 22.0 kW (ND)	LTVF-F40045CAA	*
	Fx2000 VVVF 415V Drive 22.0 kW (HD) / 30.0 kW (ND)	LTVF-F40061CAA	*
	Fx2000 VVVF 415V Drive 30.0 kW (HD) / 37.0 kW (ND)	LTVF-F40075CAA	*
	Fx2000 VVVF 415V Drive 37.0 kW (HD) / 45.0 kW (ND)	LTVF-F40091CAA	*
	Fx2000 VVVF 415V Drive 45.0 kW (HD) / 55.0 kW (ND)	LTVF-F40110CAA	*
	Fx2000 VVVF 415V Drive 55.0 kW (HD) / 75.0 kW (ND)	LTVF-F40152CAA	*
	Fx2000 VVVF 415V Drive 75.0 kW (HD) / 90.0 kW (ND)	LTVF-F40183CAA	*
	Fx2000 VVVF 415V Drive 90.0 kW (HD) / 110 kW (ND)	LTVF-F40223AAA	*
	Fx2000 VVVF 415V Drive 110 kW (HD) / 132 kW (ND)	LTVF-F40264AAA	*
	Fx2000 VVVF 415V Drive 132 kW (HD) / 160 kW (ND)	LTVF-F40325AAA	*
	Fx2000 VVVF 415V Drive 160 kW (HD) / 185 kW (ND)	LTVF-F40370AAA	*
	Fx2000 VVVF 415V Drive 185 kW (HD) / 220 kW (ND)	LTVF-F40432AAA	*
Fx2000 VVVF 415V Drive 220 kW (HD) / 285 kW (ND)	LTVF-F40547AAA	*	
Fx2000 VVVF 415V Drive 285 kW (HD) / 315 kW (ND)	LTVF-F40613AAA	*	
Fx2000 VVVF 415V Drive 315 kW (HD) / 375 kW (ND)	LTVF-F40731AAA	*	
Fx2000 VVVF 415V Drive 375 kW (HD) / 450 kW (ND)	LTVF-F40877AAA	*	

Note: * For prices please contact nearest branch office

Energy Saver Series *Ex2000* (Fans & Pumps)



- Range: 5.5kW to 450kW
- Starting Torque: 200% at 0.5Hz for Sensorless Control
- Built-in Booster pump control
- Component Life Monitoring
- Conformal Coating complying to IEC 60721-3-3 class 3C2
- Built-in RS485 Modbus ASCII
- Pre-heat Function
- Built-in DC Reactor from 22kW to 280kW

Input Voltage	Description	Cat. No.	M.R.P. (₹) Per Unit
Three Phase 415Vac	Ex2000 VVVF 415V Drive 5.50 kW (ND) / 3.70 kW (HD)	LTVF-E40012BAA	*
	Ex2000 VVVF 415V Drive 7.50 kW (ND) / 5.50 kW (HD)	LTVF-E40016BAA	*
	Ex2000 VVVF 415V Drive 11.0 kW (ND) / 7.50 kW (HD)	LTVF-E40024BAA	*
	Ex2000 VVVF 415V Drive 15.0 kW (ND) / 11.0 kW (HD)	LTVF-E40030AAA	*
	Ex2000 VVVF 415V Drive 18.5 kW (ND) / 15.0 kW (HD)	LTVF-E40039AAA	*
	Ex2000 VVVF 415V Drive 22.0 kW (ND) / 18.5 kW (HD)	LTVF-E40045AAA	*
	Ex2000 VVVF 415V Drive 30.0 kW (ND) / 22.0 kW (HD)	LTVF-E40061AAA	*
	Ex2000 VVVF 415V Drive 37.0 kW (ND) / 30.0 kW (HD)	LTVF-E40075AAA	*
	Ex2000 VVVF 415V Drive 45.0 kW (ND) / 37.0 kW (HD)	LTVF-E40091AAA	*
	Ex2000 VVVF 415V Drive 55.0 kW (ND) / 45.0 kW (HD)	LTVF-E40110AAA	*
	Ex2000 VVVF 415V Drive 75.0 kW (ND) / 55.0 kW (HD)	LTVF-E40152AAA	*
	Ex2000 VVVF 415V Drive 90.0 kW (ND) / 75.0 kW (HD)	LTVF-E40183AAA	*
	Ex2000 VVVF 415V Drive 110 kW (ND) / 90.0 kW (HD)	LTVF-E40223AAA	*
	Ex2000 VVVF 415V Drive 132 kW (ND) / 110 kW (HD)	LTVF-E40264AAA	*
	Ex2000 VVVF 415V Drive 160 kW (ND) / 132 kW (HD)	LTVF-E40325AAA	*
	Ex2000 VVVF 415V Drive 220 kW (ND) / 160 kW (HD)	LTVF-E40432AAA	*
	Ex2000 VVVF 415V Drive 280 kW (ND) / 220 kW (HD)	LTVF-E40547AAA	*
	Ex2000 VVVF 415V Drive 315 kW (ND) / 280 kW (HD)	LTVF-E40613AAA	*
	Ex2000 VVVF 415V Drive 375 kW (ND) / 315 kW (HD)	LTVF-E40731AAA	*
	Ex2000 VVVF 415V Drive 450 kW (ND) / 375 kW (HD)	LTVF-E40877AAA	*

Note: * For prices please contact nearest branch office

Accessories for AC Drives

Input Voltage	Description	Cat. No.	M.R.P. (₹) Per Unit
Cx2000	Cx2000 Digital Operator with 3m cable	LTOP-DOP-50	*
Sx2000	LCD Digital Operator	LTOP-DOP-200	*
	I/O Expansion Card for Sx2000	LTIO-EXP-S	*
	CANOpen Communication card	LTCI-CAN-S	*
	Profibus-DP Communication card	LTCI-PDP-S.	*
	Ethernet IP - Modbus TCP Communication card	LTCI-ETH-S.	*
Fx2000	LCD Digital Operator	LTOP-DOP-200	*
	I/O Expansion Card 1 for Fx2000	LTIO-EX1-F	*
	I/O Expansion Card 2 for Fx2000	LTIO-EX2-F	*
	Synchronization Option Card	LTCN-SYN-F	*
	Position control option card for Fx2000	LTCN-PCN-F	*
	Incremental card for Open collector and Line Driver Encoder	LTEN-INC-F	*
	Profibus-DP Communication Interface card	LTCI-PDP-F	*
	Application Development PLC Option card	LTAD-PLC-F	*
	CANOpen Communication Interface card	LTCI-CAN-F	*
	DeviceNet Communication Interface card	LTCI-DEN-F	*
Ethernet IP/Modbus TCP Communication Interface card	LTCI-ETH-F	*	
Ex2000	LCD Digital Operator	LTOP-DOP-100	*
	Modbus RTU Communication Card	LTCI-MOD-E	*
	Modbus TCP Communication Card	LTCI-TCP-E	*
	Profibus-DP Communication Interface card	LTCI-PDP-E	*
	DeviceNet Communication Interface card	LTCI-DEN-E	*
DBU for Sx2000, Fx2000	Dynamic Braking Unit for 11 - 15kW	LTDBU-0150-4	*
	Dynamic Braking Unit for 18.5 - 22kW	LTDBU-0220-4	*
	Dynamic Braking Unit for 30 - 37kW	LTDBU-0370-4	*
	Dynamic Braking Unit for 45 - 55kW	LTDBU-0550-4	*
	Dynamic Braking Unit for 75kW	LTDBU-0750-4	*
	Dynamic Braking Unit for 220 - 375kW	LTDBU-2200-4	*

Note: * For prices please contact nearest branch office

EMX3 Soft Starters



EMX3 Cat. No.	Suitable for Motor with Rated Current in Amps [#]		M.R.P. (₹) Per Unit	Bypass Contactor
	3 Wire (Inline Connection)	6 Wire (Inside Delta Connection)		
EMX3-0023B-411	23	34	*	Built - In
EMX3-0043B-411	43	64	*	
EMX3-0053B-411	53	79	*	
EMX3-0076B-411	76	114	*	
EMX3-0097B-411	97	145	*	
EMX3-0105B-411	105	157	*	
EMX3-0145B-411	145	217	*	
EMX3-0170B-411	170	255	*	
EMX3-0220B-411	220	330	*	
EMX3-0255B-411	255	382	*	
EMX3-0350B-411	350	525	*	
EMX3-0425B-411	425	638	*	
EMX3-0500B-411	500	750	*	
EMX3-0580B-411	580	870	*	
EMX3-0700B-411	700	1050	*	
EMX3-0820B-411	820	1230	*	
EMX3-0920B-411	920	1380	*	
EMX3-1000B-411	1000	1500	*	

Note: * For prices please contact nearest branch office

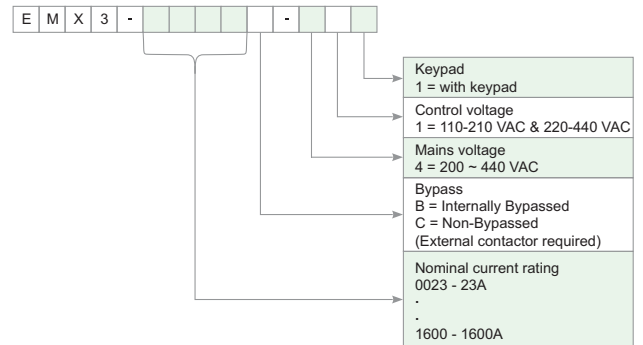
EMX3 Cat. No.	Suitable for Motor with Rated Current in Amps [#]		M.R.P. (₹) Per Unit	Bypass Contactor
	3 Wire (Inline Connection)	6 Wire (Inside Delta Connection)		
EMX3-0255C-411	255	382	*	Terminals for connecting External contactor (AC1 duty)
EMX3-0360C-411	360	540	*	
EMX3-0430C-411	400	645	*	
EMX3-0620C-411	620	930	*	
EMX3-0650C-411	650	975	*	
EMX3-0790C-411	790	1185	*	
EMX3-0930C-411	930	1395	*	
EMX3-1200C-411	1200	1800	*	
EMX3-1410C-411	1410	2115	*	
EMX3-1600C-411	1600	2400	*	

* All protections remain active during bypass operation

Note: * For prices please contact nearest branch office

Note : The above EMX3 current ratings are based on 300% starting current, 10 starts per hour, 10 seconds starting time and ambient temperature of 45°C. For proper sizing of soft starter based on the application parameters please use Winstart Software. For Winstart software please contact Customer Interaction Centre.

Ordering Information for EMX3 Soft Starter



EMX3 Soft Starters : For Heavy Duty Applications

- Ratings from 23 to 1600A
- Control Voltage from 94VAC to 484VAC
- Constant current
- XLR-8 Adaptive acceleration control for pumps
- Kickstart
- XLR-8 Adaptive deceleration control for pumps
- Forward / Reverse Jog
- Comprehensive motor protection
- Large LCD Keypad
- Auto Start / stop
- 2 motor data sets
- Fully programmable overload trip
- 5 digital inputs, 4 digital outputs, 1 analog output
- Built-in RTD & Thermistor inputs
- 99 event logs with time stamping
- Starter communication timeout
- Network communication trip
- Auto detection of inline or inside delta power connection
- Programmable auto start/stop
- 24 VDC auxiliary power supply
- Power through operation allows to run soft starter even with one SCR shorted
- Emergency run operation
- I/O expansion card (optional)

We recommend the use of :

1. Line Contactor : This will isolate and protect the soft starter SCR's from any voltage transient while it's not in operation.
2. Bypass Contactor (For models without built-in bypass) : This will bypass and protect the soft starter SCR's while in running state from Current and Voltage transient's.
3. Semiconductor fuses : This will protect the starter SCR's during starting and stopping states from current transient's and excess I²T.

Digital Soft Starters

CSX Soft Starters



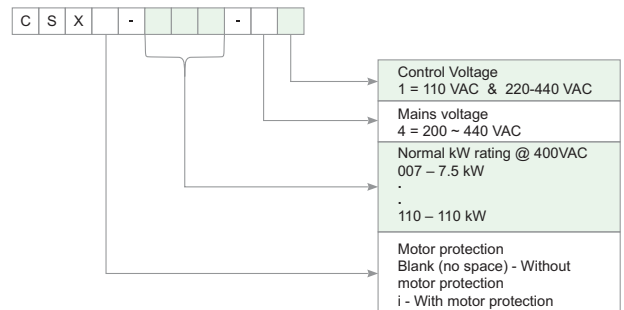
CSXi Soft Starters



Motor kW	Cat. No.	M.R.P. (₹) Per Unit
7.5	CSX-007-41	*
15	CSX-015-41	*
18	CSX-018-41	*
22	CSX-022-41	*
30	CSX-030-41	*
37	CSX-037-41	*
45	CSX-045-41	*
55	CSX-055-41	*
75	CSX-075-41	*
90	CSX-090-41	*
110	CSX-110-41	*

Motor kW	Cat. No.	M.R.P. (₹) Per Unit
7.5	CSXi-007-41	*
15	CSXi-015-41	*
18	CSXi-018-41	*
22	CSXi-022-41	*
30	CSXi-030-41	*
37	CSXi-037-41	*
45	CSXi-045-41	*
55	CSXi-055-41	*
75	CSXi-075-41	*
90	CSXi-090-41	*
110	CSXi-110-41	*

Ordering Information for CSX Series Soft Starter



Note: * For prices please contact nearest branch office

Note : The above CSX & CSXi ratings are based on 400% starting current, 10 starts per hour up to 30kW & 6 starts per hour for 37kW & above, 6 seconds starting time and ambient temperature of 45°C.

For proper sizing of soft starter based on the application parameters please use Winstart Software.

Optional Modules/Cards for CSX / CSXi / EMX3



Description	Cat. No.	M.R.P. (₹) Per Unit
Modbus Interface	PIM-MB-01	*
Profibus Interface	PIM-PB-01	*
DeviceNet Interface	PIM-DN-01	*
USB Interface	PIM-USB-01	*
Modbus TCP Module	PIM-MT-01	*
Ethernet IP Module	PIM-EI-01	*
Profinet Module	PIM-PN-01	*
EMX3 RTD/Ground Fault Expansion Card	995-04804-00	*
EMX3 I/O Expansion Card	995-04803-00	*

Note: * For prices please contact nearest branch office

CSX Soft Starters : For Standard Applications

- Inbuilt Bypass Contactor
- Soft Start / Soft Stop
- Compact
- Complements existing motor protection
- Truly plug & play
- Communication options available

CSXi Soft Starters : For standard applications

- Inbuilt Bypass Contactor
- Soft start / Soft stop / Adjustable current limit
- Essential motor protections against
 - Overload
 - Single phasing
 - Instantaneous overcurrent
 - Phase sequence reversal
 - Abnormality in supply
 - Unbalanced current
- Thermistor protection through PTC
- Excess start time setting
- Communication options available
- PC Interface as optional

We recommend the use of :

1. Line Contactor : This will isolate and protect the soft starter SCR's from any voltage transient while it's not in operation.
2. Bypass Contactor (For models without built-in bypass) : This will bypass and protect the soft starter SCR's while in running state from Current and Voltage transient's.
3. Semiconductor fuses : This will protect the starter SCR's during starting and stopping states from current transient's and excess I²T.

ARRIVING

SOON!

PLC

Features:

- Processing speed: 0.06 μ s/step
- Expandable upto 10 modules
- Built-in Function: RTC, HSC, PTO, PID, Interrupt, Analog I/O
- Various communication Interface: Built-in USB / RS-232C / RS-485 / Ethernet, optional other communication modules
- Built-in Web-server, E-mail
- EtherCAT based motion control modules with Virtual Axis
- Built-in SD Card interface
- Smart Remote IO



Range:

- Up to 352 local I/O points
- Up to 5728 remote I/O points

HMI



Range:

- Text Display
- 4" ~ 15" TFT color LCD

Features:

- Large Memory: Upto 128MB display data and 1MB back-up memory
- Various Communication Interface: Ethernet / RS-232C / RS-422/485
- USB host and device
- SD memory card interface
- Web server / Data monitoring
- Remote controlling and monitoring
- Presence sensor (within 1m)
- Sound Output

Servo

Features:

- Absolute encoder (standard)
- 1.6 kHz Frequency response
- Serial communication (RS-422/485, Modbus)
- Supports various operation modes (CSP, CSV, CST, PP, PV, PT, HM, IP, etc.)
- Safe-torque off function
- 4-step notch filter
- 2-step vibration suppression filter at the load position
- FFT function for real-time frequency analysis
- Scalable analog output



Range:

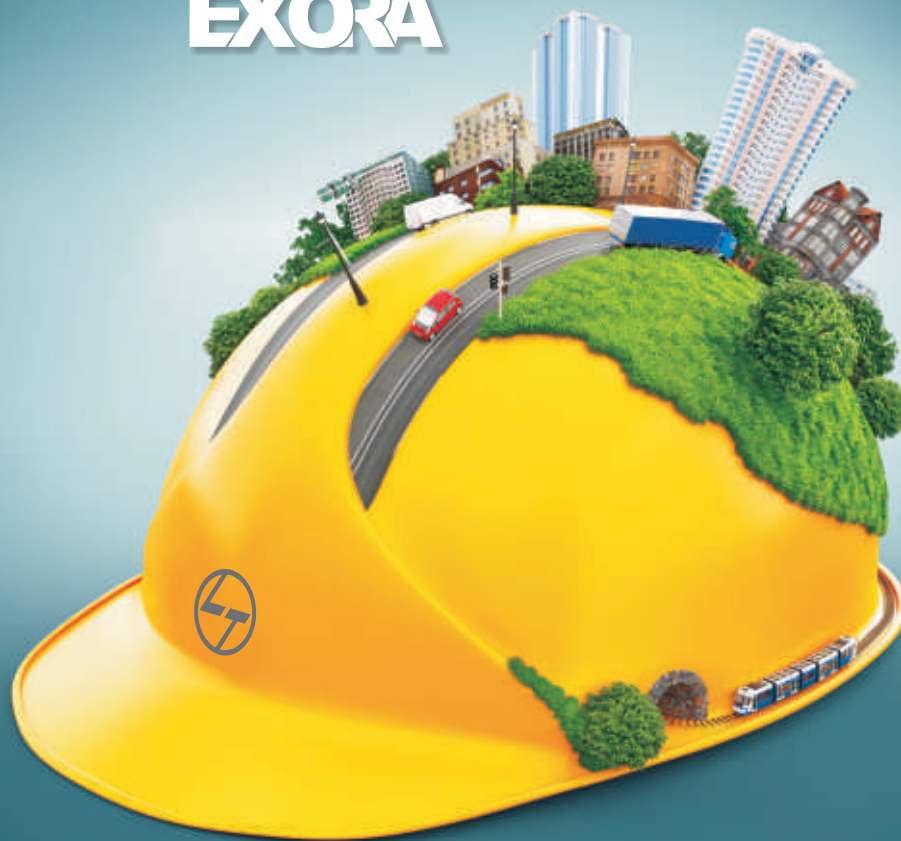
- Capacity: 0.1kW to 15kW
- Voltage: 200Vac / 400Vac
- Speed: 1500rpm / 3000rpm
- Control: Pulse/Analog or Network

Customer Interaction Center (CIC)

BSNL / MTNL (toll free): 1800 233 5858 Reliance (toll free): 1800 200 5858

Tel: 022 6774 5858 Fax: 022 6774 5859 Email: cic@Lntebg.com Web: www.Lntebg.com

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Safer World
EXORA



Customer Interaction Center (CIC)

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Tel: 022 6774 5858 Fax: 022 6774 5859 Email: cic@Lntebg.com Web: www.Lntebg.com

Miniature Circuit Breaker (MCB)

Range Highlights

- True contact indication for individual pole
- Label holder facility for all configurations
- Conforms to IS/IEC 60898 and IEC 60947-2
- Breaking capacity of 10kA throughout the range
- Available in B, C & D curves
- Low watt loss - almost 50% of the values prescribed by IS/IEC 60898
- Trip free mechanism
- Design based on advanced current limiting hammer trip mechanism
- No Line-Load bias
- Suitable for accessory fitment
- DC MCBs as per IEC 60947-2
 - Rated Voltage: 130V DC (for SP), 250V DC (for DP) with breaking capacity of 6kA



Current Rating (In)	Modules 1 Mod = 17.5 mm	B-Curve Cat. No.	M.R.P. (₹) Per Unit	C-Curve Cat. No.	M.R.P. (₹) Per Unit	D-Curve Cat. No.	M.R.P. (₹) Per Unit	DC MCBs Cat. No.	M.R.P. (₹) Per Unit
Single Pole (SP)									
0.5A	1	-	-	BB10E50C	355	BB10E50D	360	BB10E5DC	520
1A	1	-	-	BB10010C	355	BB10010D	360	BB1001DC	520
2A	1	-	-	BB10020C	355	BB10020D	360	BB1002DC	520
3A	1	-	-	BB10030C	355	BB10030D	360	BB1003DC	520
4A	1	-	-	BB10040C	355	BB10040D	360	BB1004DC	520
6A	1	BB10060B	229	BB10060C	229	BB10060D	310	BB1006DC	440
10A	1	BB10100B	229	BB10100C	229	BB10100D	310	BB1010DC	440
16A	1	BB10160B	229	BB10160C	229	BB10160D	310	BB1016DC	440
20A	1	BB10200B	229	BB10200C	229	BB10200D	310	BB1020DC	440
25A	1	BB10250B	229	BB10250C	229	BB10250D	310	BB1025DC	440
32A	1	BB10320B	229	BB10320C	229	BB10320D	310	BB1032DC	440
40A	1	BB10400B	525	BB10400C	525	BB10400D	555	BB1040DC	580
50A	1	BB10500B	525	BB10500C	525	BB10500D	*	BB1050DC	580
63A	1	BB10630B	525	BB10630C	525	BB10630D	*	BB1063DC	580

Double Pole (DP)

0.5A	2	-	-	BB20E50C	965	BB20E50D	980	BB20E5DC	1065
1A	2	-	-	BB20010C	965	BB20010D	980	BB2001DC	1065
2A	2	-	-	BB20020C	965	BB20020D	980	BB2002DC	1065
3A	2	-	-	BB20030C	965	BB20030D	980	BB2003DC	1065
4A	2	-	-	BB20040C	965	BB20040D	980	BB2004DC	1065
6A	2	BB20060B	730	BB20060C	730	BB20060D	750	BB2006DC	930
10A	2	BB20100B	730	BB20100C	730	BB20100D	750	BB2010DC	930
16A	2	BB20160B	730	BB20160C	730	BB20160D	750	BB2016DC	930
20A	2	BB20200B	730	BB20200C	730	BB20200D	750	BB2020DC	930
25A	2	BB20250B	730	BB20250C	730	BB20250D	750	BB2025DC	930
32A	2	BB20320B	730	BB20320C	730	BB20320D	750	BB2032DC	930
40A	2	BB20400B	1190	BB20400C	1190	BB20400D	1215	BB2040DC	1170
50A	2	BB20500B	1190	BB20500C	1190	BB20500D	*	BB2050DC	1170
63A	2	BB20630B	1190	BB20630C	1190	BB20630D	*	BB2063DC	1170

Note: Standard Pack Quantity for MCB : SP - 12 Nos., DP - 6 Nos., TP - 4 Nos., FP - 3 Nos.

* On request

Miniature Circuit Breaker (MCB)



Current Rating (In)	Modules 1 Mod = 17.5mm	B-Curve Cat. No.	M.R.P. (₹) Per Unit	C-Curve Cat. No.	M.R.P. (₹) Per Unit	D-Curve Cat. No.	M.R.P. (₹) Per Unit
Three Pole (TP)							
0.5A	3	-	-	BB30E50C	1340	BB30E50D	1370
1A	3	-	-	BB30010C	1340	BB30010D	1370
2A	3	-	-	BB30020C	1340	BB30020D	1370
3A	3	-	-	BB30030C	1340	BB30030D	1370
4A	3	-	-	BB30040C	1340	BB30040D	1370
6A	3	BB30060B	1185	BB30060C	1185	BB30060D	1210
10A	3	BB30100B	1185	BB30100C	1185	BB30100D	1210
16A	3	BB30160B	1185	BB30160C	1185	BB30160D	1210
20A	3	BB30200B	1185	BB30200C	1185	BB30200D	1210
25A	3	BB30250B	1185	BB30250C	1185	BB30250D	1210
32A	3	BB30320B	1185	BB30320C	1185	BB30320D	1210
40A	3	BB30400B	1820	BB30400C	1820	BB30400D	1885
50A	3	BB30500B	1820	BB30500C	1820	BB30500D	*
63A	3	BB30630B	1820	BB30630C	1820	BB30630D	*



Current Rating (In)	Modules 1 Mod = 17.5mm	B-Curve Cat. No.	M.R.P. (₹) Per Unit	C-Curve Cat. No.	M.R.P. (₹) Per Unit	D-Curve Cat. No.	M.R.P. (₹) Per Unit
Four Pole (FP)							
0.5A	4	-	-	BB40E50C	1865	BB40E50D	1890
1A	4	-	-	BB40010C	1865	BB40010D	1890
2A	4	-	-	BB40020C	1865	BB40020D	1890
3A	4	-	-	BB40030C	1865	BB40030D	1890
4A	4	-	-	BB40040C	1865	BB40040D	1890
6A	4	BB40060B	1600	BB40060C	1600	BB40060D	1625
10A	4	BB40100B	1600	BB40100C	1600	BB40100D	1625
16A	4	BB40160B	1600	BB40160C	1600	BB40160D	1625
20A	4	BB40200B	1600	BB40200C	1600	BB40200D	1625
25A	4	BB40250B	1600	BB40250C	1600	BB40250D	1625
32A	4	BB40320B	1600	BB40320C	1600	BB40320D	1625
40A	4	BB40400B	2285	BB40400C	2285	BB40400D	2340
50A	4	BB40500B	2285	BB40500C	2285	BB40500D	*
63A	4	BB40630B	2285	BB40630C	2285	BB40630D	*

Note: Standard Pack Quantity for MCB : SP - 12 Nos., DP - 6 Nos., TP- 4 Nos., FP - 3 Nos.

* On request

Auxiliary & Accessories for MCBs



Description	Cat. No.	M.R.P. (₹) Per Unit
Auxiliary Contact - 6A (1NO+1NC), 0.5 Mod	BZA11006	690
Shunt Release - 240V AC, 1 Mod	BZS00240	1845
Trip Alarm Contact - 240V AC, (1NO+1NC), 0.5 Mod	BZT11006	805

Residual Current Circuit Breaker (RCCB)

Range Highlights

- Conforms to IS 12640 (Part 1) / IEC 61008-1
- RCCBs are available in DP and FP versions from 25 to 100A ratings with 30 mA, 100 mA and 300 mA sensitivity
- Truly current operated - operation even at nominal voltage
- Operates on Core Balance Current Transformer (CBCT) principle
- Operation even in case of neutral failure
- Advanced neutral mechanism



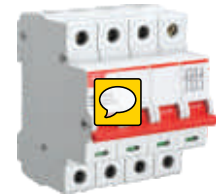
Current Rating (In)	Sensitivity	Modules 1 Mod = 17.5 mm	Cat. No.	M.R.P. (₹) Per Unit
Double Pole (DP)				
25A	30 mA	2	BG202503	2500
	100 mA	2	BG202510	2600
	300 mA	2	BG202530	2600
40A	30 mA	2	BG204003	2820
	100 mA	2	BG204010	2975
	300 mA	2	BG204030	2975
63A	30 mA	2	BG206303	3530
	100 mA	2	BG206310	3625
	300 mA	2	BG206330	3625
100A	30 mA	2	BG210003	6235
	100 mA	2	BG210010	6315
	300 mA	2	BG210030	6315

Current Rating (In)	Sensitivity	Modules 1 Mod = 17.5 mm	Cat. No.	M.R.P. (₹) Per Unit
Four Pole (FP)				
25A	30 mA	4	BG402503	3285
	100 mA	4	BG402510	3410
	300 mA	4	BG402530	3410
40A	30 mA	4	BG404003	3315
	100 mA	4	BG404010	3455
	300 mA	4	BG404030	3455
63A	30 mA	4	BG406303	3790
	100 mA	4	BG406310	3975
	300 mA	4	BG406330	3975
100A	30 mA	4	BG410003	6805
	100 mA	4	BG410010	6930
	300 mA	4	BG410030	6930

Isolators

Range Highlights

- Conforms to IEC 60947-3
- Utilization category AC-22A
- Available in DP, TP and FP versions in 40A, 63A, 80A & 100A ratings



Current Rating (In)	Modules 1 Mod = 17.5 mm	Cat. No.	M.R.P. (₹) Per Unit	Modules 1 Mod = 17.5 mm	Cat. No.	M.R.P. (₹) Per Unit	Modules 1 Mod = 17.5 mm	Cat. No.	M.R.P. (₹) Per Unit
Double Pole (DP)			Three Pole (TP)			Four Pole (FP)			
40A	2	BF204000	445	3	BF304000	785	4	BF404000	1025
63A	2	BF206300	575	3	BF306300	905	4	BF406300	1040
80A	2	BF208000	725	3	BF308000	1000	4	BF408000	1180
100A	2	BF210000	770	3	BF310000	1015	4	BF410000	1250

Note: Standard Pack Quantity for Isolator : DP - 6 Nos., TP - 4 Nos., FP - 3 Nos.

MCBs (Miniature Circuit Breakers) : 80A-125A

Range Highlights

- Short circuit Breaking Capacity - 15kA (IEC 60947-2, EN 60947-2)
- C & D Characteristics
- Available in SP, DP, TP and FP
- Suitable for Isolation
- Protection Degree - IP 20
- Availability of wide Range of Site Mountable Accessories

Rating	Module	C Curve Cat. No.	M.R.P. (₹) Per Unit
Single Pole			
80A	1.5	AU15S10803C	1970
100A	1.5	AU15S11003C	2205
125A	1.5	AU15S11253C	2375



D Curve Cat. No.	M.R.P. (₹) Per Unit
AU15S10803D	2085
AU15S11003D	2340
AU15S11253D	2530

Two Pole			
80A	3	AU15S20803C	4360
100A	3	AU15S21003C	4655
125A	3	AU15S21253C	5120



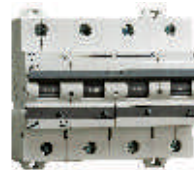
AU15S20803D	4635
AU15S21003D	4945
AU15S21253D	5430

Three Pole			
80A	4.5	AU15S30803C	6885
100A	4.5	AU15S31003C	7335
125A	4.5	AU15S31253C	8140



AU15S30803D	7305
AU15S31003D	7785
AU15S31253D	8635

Four Pole			
80A	6	AU15S40803C	8990
100A	6	AU15S41003C	9350
125A	6	AU15S41253C	10580



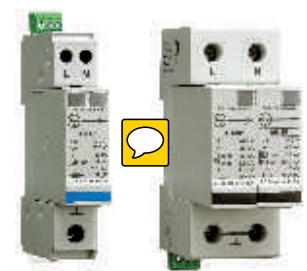
AU15S40803D	9522
AU15S41003D	9925
AU15S41253D	11225

SPDs (Surge Protection Devices)

Range Highlights

- Conforms to IEC 61643-11
- Available in Type 2 and Type 1+2
- Type 2 : Protection against indirect lightning and switching surges
 - Maximum Discharge Current - I_{max} up to 70kA
- Type 1+2 : Protection against direct and indirect lightning surges
 - Maximum Discharge Current - I_{max} up to 100kA

Description	Configuration	Module	Cat. No.	M.R.P. (₹) Per Unit
Type 1+2, I _{max} 50kA	1P+N	2	AUSP121PN50	10800
	3P+N	4	AUSP123PN50	21200
Type 2, I _{max} 40kA	1P+N	1	AUSP021PN40	7500
	3P+N	2	AUSP023PN40	15000
Type 2, I _{max} 15kA	1P+N	1	AUSP021PN15	6000
	3P+N	2	AUSP023PN15	11800
Type 1+2, I _{max} 100kA	1P+N	2	AUSP121PN100	12000
	3P+N	4	AUSP123PN100	22000
Type 2, I _{max} 70kA	1P+N	2	AUSP021PN70	12000
	3P+N	4	AUSP023PN70	20000



New

New

Changeover Switches

Range Highlights

- Conforms to IEC 60947-3 and IS/IEC 60947-3
- Available in 3 positions (I-O-II) with centre off position
- Utilization category AC-22A



Rating	Module	Cat. No.	M.R.P. (₹) Per Unit
Double Pole			
25A	2	AUC00202500	1400
40A	2	AUC00204000	2150
Four Pole			
40A	4	AUC00404000	3700
63A	6	AUC00406300	4200

Modular Contactors

Range Highlights

- Wide Range of Current Ratings:
 - 25A, 40A and 63A
- Conforms to:
 - IEC 61095, EN 61095
 - IEC 60497-4-1, EN 60497-4-1
 - IEC 60497-5-1
- Available in:
 - 1NO, 2NO, 3NO, 4NO and 2NO+2NC version
- Protection Degree IP 20



Description (AC-1)	Module	Cat. No.	M.R.P. (₹) Per Unit
25A-1NO	1	AUMC1002501	1340
25A-2NO	1	AUMC2002501	1670
40A-2NO	3	AUMC2004003	2870
40A-3NO	3	AUMC3004003	4010
40A-4NO	3	AUMC4004003	4800
63A-2NO+2NC	3	AUMC2206303	5100
63A-3NO	3	AUMC3006303	5200
63A-4NO	3	AUMC4006303	5720
Auxiliary Contact, 2NO	0.5	AUMCAUX240	1600

Time Switches



Description	Module	Cat. No.	M.R.P. (₹) Per Unit
Analog time switch	1	AUTS01ANA00	2450
Analog time switch	3	AUTS03ANA00	2400
Digital time switch	2	AUTS02DIG00	1875
Astro time switch	2	AUTS02AST00	3150

Indicating Lights



Description	Module	Cat. No.	M.R.P. (₹) Per Unit
RED	1	AUIL01RED00	825
YELLOW	1	AUIL01YEL00	825
BLUE	1	AUIL01BLU00	825
GREEN	1	AUIL01GRE00	825
RED-YELLOW-BLUE	1	AUIL01RYB00	1000

Energy Meters

Range Highlights

- Communication with additional RS485 & WiFi module
- Class 1 accuracy
- Direct current operated meter
- Reverse current indication for three-phase meter



Description	Module	Cat. No.	M.R.P. (₹) Per Unit
Single Phase (5-40A)	2	WD4000101000	2200
Three Phase (10-60A)	7	WD4000103000	5000

SPN DB

TPN DB

Highlights

- Conforms to IS 8623-1 & 3, IEC 61439-1 & 3
- IK 08-for single door DBs, IK 09-for double door DBs
- Available in CRCA sheet steel, RAL9003, powder coated
- Ready to use DBs - Provided with 100A insulated phase bus-bar | neutral bar/s with shroud/s | earth bar/s | sticking saddles | cement spill protector | color-coded interconnecting wire set | cable ties | blanking plates and circuit identification label
- With provision for DP MCB/Isolator/RCCB/RCBO as incomer and SP MCBs as outgoing



IP 30 - Single Door IP 43 - Metal Door IP 43 - Glazed Door

Description	No. of Modules		CAT Nos.	M.R.P. (₹) Per Unit
	Incomer	Outgoing		
IP 30 - Single Door				
4 way	2	2	DBSPN004SD	1035
6 way	2	4	DBSPN006SD	1130
8 way	2	6	DBSPN008SD	1295
12 way	2	10	DBSPN012SD	1535
16 way	2	14	DBSPN016SD	1890
18 way	2	16	DBSPN018SD	2440
IP 43 - Metal Door				
4 way	2	2	DBSPN004DD	1410
6 way	2	4	DBSPN006DD	1625
8 way	2	6	DBSPN008DD	1745
12 way	2	10	DBSPN012DD	2105
16 way	2	14	DBSPN016DD	2640
18 way	2	16	DBSPN018DD	3510
IP 43 - Glazed Door				
4 way	2	2	DBSPN004GD	1790
6 way	2	4	DBSPN006GD	1915
8 way	2	6	DBSPN008GD	2090
12 way	2	10	DBSPN012GD	2525
16 way	2	14	DBSPN016GD	3130
18 way	2	16	DBSPN018GD	3665
IP 54 - Metal Door				
4 way	2	2	DBSPN00454	4470
6 way	2	4	DBSPN00654	4985
8 way	2	6	DBSPN00854	5255
12 way	2	10	DBSPN01254	6070
16 way	2	14	DBSPN01654	6720
18 way	2	16	DBSPN01854	7200

Highlights

- Conforms to IS 8623-1 & 3, IEC 61439-1 & 3
- IK 08-for single door DBs, IK 09-for double door DBs
- Available in CRCA sheet steel, RAL 9003, powder coated
- Ready to use DBs - Provided with 100A insulated phase bus-bars | neutral bar/s with shroud/s | earth bar/s | sticking saddles | cement spill protector | color-coded interconnecting wire set | cable ties | blanking plates and circuit identification labels
- With provision for FP MCB/Isolator/RCCB/RCBO as incomer and SP MCBs as outgoing



IP 30 - Single Door IP 43 - Metal Door IP 43 - Glazed Door

Description	No. of Modules		CAT Nos.	M.R.P. (₹) Per Unit
	Incomer	Outgoing		
IP 30 - Single Door				
4 way	4	4+4+4	DBTPE004SD	2675
6 way	4	6+6+6	DBTPE006SD	3290
4 way	8	4+4+4	DBTPN004SD	2875
6 way	8	6+6+6	DBTPN006SD	3545
8 way	8	8+8+8	DBTPN008SD	4170
12 way	8	12+12+12	DBTPN012SD	6175
16 way	8	16+16+16	DBTPN016SD	7610
IP 43 - Metal Door				
4 way	4	4+4+4	DBTPE004DD	3285
6 way	4	6+6+6	DBTPE006DD	4055
4 way	8	4+4+4	DBTPN004DD	3500
6 way	8	6+6+6	DBTPN006DD	4320
8 way	8	8+8+8	DBTPN008DD	5175
12 way	8	12+12+12	DBTPN012DD	7750
16 way	8	16+16+16	DBTPN016DD	9560
IP 43 - Glazed Door				
4 way	4	4+4+4	DBTPE004GD	4210
6 way	4	6+6+6	DBTPE006GD	5195
4 way	8	4+4+4	DBTPN004GD	4485
6 way	8	6+6+6	DBTPN006GD	5535
8 way	8	8+8+8	DBTPN008GD	6635
12 way	8	12+12+12	DBTPN012GD	10180
16 way	8	16+16+16	DBTPN016GD	12220
IP 54 - Metal Door				
4 way	4	4+4+4	DBTPE00454	10165
6 way	4	6+6+6	DBTPE00654	12535
4 way	8	4+4+4	DBTPN00454	10705
6 way	8	6+6+6	DBTPN00654	12885
8 way	8	8+8+8	DBTPN00854	14090
12 way	8	12+12+12	DBTPN01254	19860
16 way	8	16+16+16	DBTPN01654	23835

Highlights

- Conforms to IS 8623-1 & 3, IEC 61439-1 & 3
- IK 09-for double door DBs
- Available in CRCA sheet steel, RAL 9003, powder coated
- Ready to use DBs - Provided with 100A insulated phase bus-bars | neutral bar/s with shroud/s | earth bar/s | sticking saddles | cement spill protector | color-coded interconnecting wire set | cable ties | blanking plates and circuit identification labels
- With provision for FP MCB/Isolator//RCCB/RCBO/ as incomer, DP RCCB/RCBO as sub-incomer and SP MCBs as outgoing



Horizontal PPI DBs

IP 43 - Metal Door

Description	No. of Modules			CAT Nos.	M.R.P. (₹) Per Unit
	Incomer	Sub-Incomer	Outgoing		
IP 43 - Metal Door					
4 way	8	2+2+2	4+4+4	DBHPI004DD	5390
6 way	8	2+2+2	6+6+6	DBHPI006DD	6435
8 way	8	2+2+2	8+8+8	DBHPI008DD	7650
12 way	8	2+2+2	12+12+12	DBHPI012DD	10460
16 way	8	2+2+2	16+16+16	DBHPI016DD	12555
IP 54 - Metal Door					
4 way	8	2+2+2	4+4+4	DBHPI00454	12640
6 way	8	2+2+2	6+6+6	DBHPI00654	15060
8 way	8	2+2+2	8+8+8	DBHPI00854	16635
12 way	8	2+2+2	12+12+12	DBHPI01254	22700
16 way	8	2+2+2	16+16+16	DBHPI01654	26995



Tier PPI DBs

IP 43 - Metal Door

Description	No. of Modules			CAT Nos.	M.R.P. (₹) Per Unit
	Incomer	Sub-Incomer	Outgoing		
IP 43 - Metal Door					
6 way	8	2+2+2	6+6+6	DBTPI006DD	7645
8 way	8	2+2+2	8+8+8	DBTPI008DD	9590
10 way	8	2+2+2	10+10+10	DBTPI010DD	10060
12 way	8	2+2+2	12+12+12	DBTPI012DD	10940
16 way	8	2+2+2	16+16+16	DBTPI016DD	11520
12 way	MCCB*	2+2+2	12+12+12	DBTPL012DD	11400
IP 54 - Metal Door					
6 way	8	2+2+2	6+6+6	DBTPI00654	12610
8 way	8	2+2+2	8+8+8	DBTPI00854	15825
10 way	8	2+2+2	10+10+10	DBTPI01054	16600
12 way	8	2+2+2	12+12+12	DBTPI01254	18055
16 way	8	2+2+2	16+16+16	DBTPI01654	19010
12 way	MCCB*	2+2+2	12+12+12	DBTPL01254	18815

*Suitable for 3 pole and 4 pole DU100H MCCB as incomer

Highlights

- Conforms to IS 8623-1 & 3, IEC 61439-1 & 3
- IK 08-for single door DBs. IK 09-for double door DBs
- Available in CRCA sheet steel, RAL 9003, powder coated
- Ready to use DBs - Provided with 100A insulated phase bus-bars | neutral bar/s with shroud/s | earth bar/s | sticking saddles | cement spill protector | color-coded interconnecting wire set | cable ties | blanking plates and circuit identification labels
- With provision for 1. Modular Incomer - FP MCB/Isolator as incomer, DP RCCB/RCBO as sub-incomer and SP MCBs as outgoing
2. MCCB Incomer - TP/FP DU100H MCCB as incomer, DP RCCB/RCBO as sub-incomer and SP MCBs as outgoing



IP 30 - Single Door



IP 43 - Metal Door

With Modular Incomer

Description	No. of Modules			CAT Nos.	M.R.P. (₹) Per Unit
	Incomer	Sub-Incomer	Outgoing		
IP 30 - Single Door					
4 way	8	4+4+4	4+4+4	DBPSG004SD	8030
6 way	8	4+4+4	6+6+6	DBPSG006SD	8755
8 way	8	4+4+4	8+8+8	DBPSG008SD	9385
12 way	8	4+4+4	12+12+12	DBPSG012SD	10800
IP 43 - Metal Door					
4 way	8	4+4+4	4+4+4	DBPSG004DD	8695
6 way	8	4+4+4	6+6+6	DBPSG006DD	9800
8 way	8	4+4+4	8+8+8	DBPSG008DD	10930
12 way	8	4+4+4	12+12+12	DBPSG012DD	13960
IP 54 - Metal Door					
4 way	8	4+4+4	4+4+4	DBPSG00454	14925
6 way	8	4+4+4	6+6+6	DBPSG00654	16810
8 way	8	4+4+4	8+8+8	DBPSG00854	18775
12 way	8	4+4+4	12+12+12	DBPSG01254	23960



IP 30 - Single Door



IP 43 - Metal Door

With MCCB Incomer

Description	No. of Modules			CAT Nos.	M.R.P. (₹) Per Unit
	Incomer*	Sub-Incomer	Outgoing		
IP 30 - Single Door					
4 way	MCCB	4+4+4	4+4+4	DBPGL004SD	11590
6 way	MCCB	4+4+4	6+6+6	DBPGL006SD	13340
8 way	MCCB	4+4+4	8+8+8	DBPGL008SD	15325
12 way	MCCB	4+4+4	12+12+12	DBPGL012SD	17795
IP 43 - Metal Door					
4 way	MCCB	4+4+4	4+4+4	DBPGL004DD	13025
6 way	MCCB	4+4+4	6+6+6	DBPGL006DD	14900
8 way	MCCB	4+4+4	8+8+8	DBPGL008DD	17065
12 way	MCCB	4+4+4	12+12+12	DBPGL012DD	19435
IP 54 - Metal Door					
4 way	MCCB	4+4+4	4+4+4	DBPGL00454	22140
6 way	MCCB	4+4+4	6+6+6	DBPGL00654	25325
8 way	MCCB	4+4+4	8+8+8	DBPGL00854	29010
12 way	MCCB	4+4+4	12+12+12	DBPGL01254	33040

*Suitable for 3 pole and 4 pole DU100H MCCB as incomer

TPN Phase Selector DB

Flexi/Row DB

Highlights

- Conforms to IS 8623-1 & 3, IEC 61439-1 & 3
- IK 08-for single door DBs, IK 09-for double door DBs
- Available in CRCA sheet steel, RAL 9003, powder coated
- Ready to use DBs - Provided with 3 nos. of 63A Salzer rotary switches | 3 nos. of rocker switches for phase identification | 100A insulated phase bus-bars | neutral bar/s with shroud/s | earth bar/s | sticking saddles | color-coded interconnecting wire set | cable ties | blanking plates and circuit identification labels
- With provision for - FP MCB/Isolator/RCCB/RCBO as incomer and SP MCBs as outgoing



IP 30 - Single Door

IP 43 - Metal Door

Description	No. of Modules		CAT Nos.	M.R.P. (₹) Per Unit
	Incomer	Outgoing		
IP 30 - Single Door				
4 way	8	4+4+4	DBPSR004SD	11110
6 way	8	6+6+6	DBPSR006SD	11815
8 way	8	8+8+8	DBPSR008SD	13090
10 way	8	10+10+10	DBPSR010SD	13580
12 way	8	12+12+12	DBPSR012SD	14370
IP 43 - Metal Door				
4 way	8	4+4+4	DBPSR004DD	12370
6 way	8	6+6+6	DBPSR006DD	12570
8 way	8	8+8+8	DBPSR008DD	13465
10 way	8	10+10+10	DBPSR010DD	14385
12 way	8	12+12+12	DBPSR012DD	15165
IP 54 - Metal Door				
4 way	8	4+4+4	DBPSR00454	16570
6 way	8	6+6+6	DBPSR00654	16835
8 way	8	8+8+8	DBPSR00854	18040
10 way	8	10+10+10	DBPSR01054	19270
12 way	8	12+12+12	DBPSR01254	20315

Highlights

- Conforms to IS 8623-1 & 3, IEC 61439-1 & 3
- IK 08-for single door DBs, IK 09-for double door DBs
- Available in CRCA sheet steel, RAL 9003, powder coated
- Ready to use DBs - neutral bar/s with shroud/s | earth bar/s | sticking saddles | cement spill protector | cable ties | blanking plates and circuit identification labels
- With provision to mount modular devices as per requirement



IP 30 - Single Door

IP 43 - Metal Door

IP 43 - Glazed Door

Description	No. of Modules Per Row	CAT Nos.	M.R.P. (₹) Per Unit
IP 30 - Single Door			
2 Row 28 Module	14	DBROW228SD	4455
3 Row 42 Module	14	DBROW342SD	5245
4 Row 56 Module	14	DBROW456SD	5715
4 Row 64 Module	16	DBROW464SD	6220
IP 43 - Metal Door			
2 Row 28 Module	14	DBROW228DD	3665
3 Row 42 Module	14	DBROW342DD	4400
4 Row 56 Module	14	DBROW456DD	5040
4 Row 64 Module	16	DBROW464DD	5660
IP 43 - Glazed Door			
2 Row 28 Module	14	DBROW228GD	4575
3 Row 42 Module	14	DBROW342GD	5610
4 Row 56 Module	14	DBROW456GD	6355
4 Row 64 Module	16	DBROW464GD	6975
IP 54 - Metal Door			
2 Row 28 Module	14	DBROW22854	7210
3 Row 42 Module	14	DBROW34254	8915
4 Row 56 Module	14	DBROW45654	9715
4 Row 64 Module	16	DBROW46454	10725

DB Accessories

Busbar - Fork Type

Highlights

- Available in Single Pole, Double Pole, Three Pole and Four Pole versions
- Material : Copper



Description	CAT Nos.	M.R.P. (₹) Per Unit	Std. Pack Qty.
SP 13 Mod	BSP13	280	5
SP 56 Mod	BSP56	1060	5
DP 12 Mod	BDP12	465	5
TP 12 Mod	BTP12	495	5
FP 12 Mod	BFP12	1040	5
End Caps for SP	ECP01*	8	10
End Caps for DP/TP	ECP03*	25	10
End Caps for FP	ECP04*	35	10

Blanking Plates

Highlights

- Available in One module and Half module



Description	CAT Nos.	M.R.P. (₹) Per Unit	Std. Pack Qty.
One Module	BKP10	15	10
Half Module	BKP05	15	10

Padlock

Highlights

- Version with standard lock and a common key



PDK02

Description	CAT Nos.	M.R.P. (₹) Per Unit	Std. Pack Qty.
Lock and Key Kit	PDK02	450	5

Vertical TPN DB with Modular Incomer

Vertical TPN DB with MCCB Incomer

Highlights

- Conforms to IS 8623-1 & 3, IEC 61439-1 & 3
- IK 08-for single door DBs, IK 09-for double door DBs
- Available in CRCA sheet steel, RAL 9003, powder coated
- Ready to use DBs - Provided with insulated vertical phase bus-bars | neutral bar/s with shroud/s | earth bar/s | sticking saddles | cement spill protector | color-coded interconnecting wire set | cable ties | blanking plates and circuit identification labels
- With provision for FP MCB/Isolator/RCCB/RCBO as incomer and SP/TP MCBs as outgoing

Highlights

- Conforms to IS 8623-1 & 3, IEC 61439-1 & 3
- IK 08-for single door DBs, IK 09-for double door DBs
- Available in CRCA sheet steel, RAL 9003, powder coated
- Ready to use DBs - Provided with insulated vertical phase bus-bars | neutral bar/s with shroud/s | earth bar/s | sticking saddles | cement spill protector | color-coded interconnecting wire set | cable ties | blanking plates and circuit identification labels
- With provision for MCCB* as incomer and SP/TP MCBs as outgoing
 - *Suitable for 3 pole and 4 Pole MCCB as incomer
 - A) Up to 125A - DU100H, DU125H (Icu = 30kA, Ics = 50% Icu)
 - B) Up to 250A - DU250 (Icu = 36kA, Ics = 50% Icu)



IP 30 - Single Door IP 43 - Metal Door IP 43 - Glazed Door

Description	No. of Modules		CAT Nos.	M.R.P. (₹) Per Unit
	Incomer	Outgoing		
IP 30 - Single Door				
4 way	8	4+4+4	DBVTM004SD	7960
6 way	8	6+6+6	DBVTM006SD	8705
8 way	8	8+8+8	DBVTM008SD	9715
12 way	8	12+12+12	DBVTM012SD	14030
16 way	8	16+16+16	DBVTM016SD	16225
IP 43 - Metal Door				
4 way	8	4+4+4	DBVTM004DD	8530
6 way	8	6+6+6	DBVTM006DD	10430
8 way	8	8+8+8	DBVTM008DD	11430
12 way	8	12+12+12	DBVTM012DD	15815
16 way	8	16+16+16	DBVTM016DD	18665
IP 43 - Glazed Door				
4 way	8	4+4+4	DBVTM004GD	11385
6 way	8	6+6+6	DBVTM006GD	12160
8 way	8	8+8+8	DBVTM008GD	14475
12 way	8	12+12+12	DBVTM012GD	19310
16 way	8	16+16+16	DBVTM016GD	20500
IP 54 - Metal Door				
4 way	8	4+4+4	DBVTM00454	17175
6 way	8	6+6+6	DBVTM00654	19300
8 way	8	8+8+8	DBVTM00854	20660
12 way	8	12+12+12	DBVTM01254	27530
16 way	8	16+16+16	DBVTM01654	29150



IP 30 - Single Door IP 43 - Metal Door IP 43 - Glazed Door

Description	No. of Modules		CAT Nos.	M.R.P. (₹) Per Unit
	Incomer*	Outgoing		
IP 30 - Single Door				
4 way	MCCB	4+4+4	DBVTL004SD	9130
6 way	MCCB	6+6+6	DBVTL006SD	9920
8 way	MCCB	8+8+8	DBVTL008SD	10805
12 way	MCCB	12+12+12	DBVTL012SD	16340
16 way	MCCB	16+16+16	DBVTL016SD	19330
IP 43 - Metal Door				
4 way	MCCB	4+4+4	DBVTL004DD	10225
6 way	MCCB	6+6+6	DBVTL006DD	11735
8 way	MCCB	8+8+8	DBVTL008DD	12850
12 way	MCCB	12+12+12	DBVTL012DD	17100
16 way	MCCB	16+16+16	DBVTL016DD	19730
IP 43 - Glazed Door				
4 way	MCCB	4+4+4	DBVTL004GD	11500
6 way	MCCB	6+6+6	DBVTL006GD	13035
8 way	MCCB	8+8+8	DBVTL008GD	14700
12 way	MCCB	12+12+12	DBVTL012GD	19600
16 way	MCCB	16+16+16	DBVTL016GD	21700
IP 54 - Metal Door				
4 way	MCCB	4+4+4	DBVTL00454	19765
6 way	MCCB	6+6+6	DBVTL00654	21200
8 way	MCCB	8+8+8	DBVTL00854	23760
12 way	MCCB	12+12+12	DBVTL01254	29990
16 way	MCCB	16+16+16	DBVTL01654	35890

*Suitable for 3 pole and 4 pole DU100H, DU125H MCCB as incomer.

Vertical TPN DB with MCCB Incomer

Plug & Socket DB

Up to 250A MCCB Incomer



IP 30 - Single Door IP 43 - Metal Door IP 43 - Glazed Door

Description	No. of Modules		CAT Nos.	M.R.P. (₹) Per Unit
	Incomer*	Outgoing		
IP 30 - Single Door				
4 way	MCCB	4+4+4	DBVTH004SD	11205
6 way	MCCB	6+6+6	DBVTH006SD	11755
8 way	MCCB	8+8+8	DBVTH008SD	12930
12 way	MCCB	12+12+12	DBVTH012SD	18265
16 way	MCCB	16+16+16	DBVTH016SD	22010
IP 43 - Metal Door				
4 way	MCCB	4+4+4	DBVTH004DD	12635
6 way	MCCB	6+6+6	DBVTH006DD	14350
8 way	MCCB	8+8+8	DBVTH008DD	15780
12 way	MCCB	12+12+12	DBVTH012DD	21125
16 way	MCCB	16+16+16	DBVTH016DD	25085
IP 43 - Glazed Door				
4 way	MCCB	4+4+4	DBVTH004GD	20850
6 way	MCCB	6+6+6	DBVTH006GD	23395
8 way	MCCB	8+8+8	DBVTH008GD	24330
12 way	MCCB	12+12+12	DBVTH012GD	25640
16 way	MCCB	16+16+16	DBVTH016GD	27590
IP 54 - Metal Door				
4 way	MCCB	4+4+4	DBVTH00454	28140
6 way	MCCB	6+6+6	DBVTH00654	30725
8 way	MCCB	8+8+8	DBVTH00854	31775
12 way	MCCB	12+12+12	DBVTH01254	37210
16 way	MCCB	16+16+16	DBVTH01654	39160

*Suitable for 3 pole and 4 pole DU250 MCCB as incomer

Enclosure

Highlights

- Conforms to IS 8623-1 & 3, IEC 61439-1 & 3
- Suitable for Surface and Flush mounting
- Available in CRCA sheet steel RAL9003 powder coated
- With provision to mount MCB/Isolator/RCCB/RCBO and other modular devices



IP 30 - Metal Door

Description	No. of Modules	CAT Nos.	M.R.P. (₹) Per Unit
IP 30 - Metal Door			
2 way	2	DBENC002SD	540
3 way	3	DBENC003SD	540
4 way	4	DBENC004SD	540
6 way	6	DBENC006SD	815

Highlights

- Conforms to IS 8623-1 & 3, IEC 61439-1 & 3
- Suitable for Surface and Flush mounting
- Available in CRCA sheet steel RAL9003 powder coated
- Loose Metal Plugs & Sockets conforms to IS 8804; available in Single Phase & Three Phase



Metal Plug & Socket



Plastic Plug & Socket

Description	No. of Pins	No. of Modules	CAT Nos.	M.R.P. (₹) Per Unit
Metal Plug & Sockets				
10 A, 2 Pin + SC [^]	P + N	1	DBMPS110SD	1390
20 A, 2 Pin + SC [^]	P + N	1	DBMPS120SD	1495
20 A, 2 Pin + SC [^]	P + N	2	DBMPS220SD	1630
20 A, 3 Pin + SC [^]	3P	3	DBMPS320SD	2760
32 A, 3 Pin + SC [^]	3P	3	DBMPS332SD	3265
32 A, 3 Pin + SC [^]	3P	4	DBMPS432SD	3470
63 A, 5 Pin + SC [^]	3P+N+E	4	DBMPS463SD	11795
Plastic Plug & Sockets				
16 A, 3 Pin	P+N+E	2	DBPPS316SD	2250
32 A, 3 Pin	P+N+E	4	DBPPS332SD	2430
32 A, 5 Pin	3P+N+E	8	DBPPS532SD	4425
63 A, 5 Pin	3P+N+E	8	DBPPS563SD	11255

Metal Plug



Description	No. of Pins	CAT Nos.	M.R.P. (₹) Per Unit
10 A, 2 Pin + SC [^]	P + N	MPS210P	145
20 A, 2 Pin + SC [^]	P + N	MPS220P	155
20 A, 3 Pin + SC [^]	3P	MPS320P	205
32 A, 3 Pin + SC [^]	3P	MPS332P	385

Metal Socket



Description	No. of Pins	CAT Nos.	M.R.P. (₹) Per Unit
10 A, 2 Pin + SC [^]	P + N	MPS210S	150
20 A, 2 Pin + SC [^]	P + N	MPS220S	170
20 A, 3 Pin + SC [^]	3P	MPS320S	225
32 A, 3 Pin + SC [^]	3P	MPS332S	385

[^]SC-Scraping Earth

Cable End Boxes

Highlights

- Available in CRCA sheet steel RAL9003 powder coated
- Can be either at the top or bottom of the distribution board



Description	CAT Nos.	M.R.P. (₹) Per Unit
CEB for SPN DBs		
CEB-SPN Double Door, 4 way	DBSPN004CB	605
CEB-SPN Double Door, 6 way	DBSPN006CB	645
CEB-SPN Double Door, 8 way	DBSPN008CB	720
CEB-SPN Double Door, 12 way	DBSPN012CB	805
CEB-SPN Double Door, 16 way	DBSPN016CB	1115
CEB-SPN Double Door, 18 way	DBSPN018CB	1185
CEB for TPN DBs		
CEB-TPN Double Door, 4 way	DBTPN004CB	1010
CEB-TPN Double Door, 6 way	DBTPN006CB	1280
CEB-TPN Double Door, 8 way	DBTPN008CB	1980
CEB-TPN Double Door, 12 way	DBTPN012CB	2575
CEB-TPN Double Door, 16 way	DBTPN016CB	2600
CEB-TPE Double Door, 4 way	DBTPE004CB	950
CEB-TPE Double Door, 6 way	DBTPE006CB	1185
CEB for Horizontal PPI DBs		
CEB-Horz. PPI Double Door, 4 way	DBHPI004CB	1165
CEB-Horz. PPI Double Door, 6 way	DBHPI006CB	1325
CEB-Horz. PPI Double Door, 8 way	DBHPI008CB	1560
CEB-Horz. PPI Double Door, 12 way	DBHPI012CB	1745
CEB-Horz. PPI Double Door, 16 way	DBHPI016CB	1970
CEB for Tier PPI DBs		
CEB-Tier PPI Double Door, 6 way	DBTPI006CB	1100
CEB-Tier PPI Double Door, 8 way	DBTPI008CB	1150
CEB-Tier PPI Double Door, 10 way	DBTPI010CB	1395
CEB-Tier PPI Double Door, 12 way	DBTPI012CB	1710
CEB-Tier PPI Double Door, 16 way	DBTPI016CB	1820
CEB-Tier PPI Double Door, 12 way MCCB incomer	DBTPL012CB	1730

Description	CAT Nos.	M.R.P. (₹) Per Unit
CEB for VTPN DBs		
CEB-VTPN Double Door, Modular Incomer	DBVTMXXCB	780
CEB-VTPN Double Door, MCCB Incomer	DBVTXXXCB	2800
CEB for FLEXI DBs		
CEB for Flexi DBS with 14 Modules per Row	DBROWX14CB	905
CEB for Flexi DBS with 16 Modules per Row	DBROWX16CB	1030
CEB for Phase Segregated DBs		
CEB-PSG Double Door, 4 way	DBPSG004CB	1730
CEB-PSG Double Door, 6 way	DBPSG006CB	2060
CEB-PSG Double Door, 8 way	DBPSG008CB	2280
CEB-PSG Double Door, 12 way	DBPSG012CB	2535
CEB for Phase Selector DBs		
CEB-Phase Selector Double Door, 4 way	DBPSR004CB	875
CEB-Phase Selector Double Door, 6 way	DBPSR006CB	990
CEB-Phase Selector Double Door, 8 way	DBPSR008CB	1605
CEB-Phase Selector Double Door, 10 way	DBPSR010CB	1855
CEB-Phase Selector Double Door, 12 way	DBPSR012CB	2010

Selection as per Type 2 Co-ordination

All our type 2 charts are available on **docWHIZ** & **ProductWhiz**.



Pl. download docWHIZ from
www.Intebg.com/docwhiz



or ProductWhiz from
GOOGLE PLAY STORE

Following combination of Type 2 Charts available

Fuse Based Charts		Fuseless Charts			
IE2/IE3	IE2/IE3	IE2	IE2	IE3	IE3
DOL	SD	DOL	SD	DOL	SD
FN	FN	MPCB/MCCB	MPCB/MCCB	MPCB/MCCB	MPCB/MCCB
MNX/MO	MNX/MO	MNX/MO	MNX/MO	MNX/MO	MNX/MO

Charts available at Iq of

- 50kA
- 65kA
- 80kA
- 100kA

MCCB charts are available with
Microprocessor Releases too



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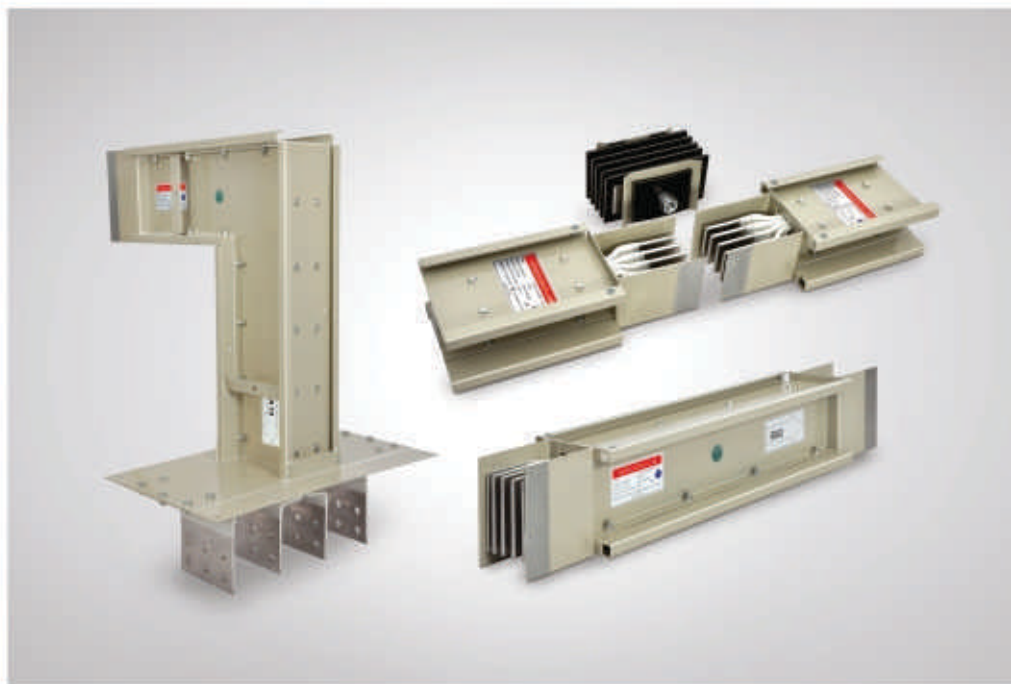
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Busbar Trunking System

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Discontinued Products/Suggested Alternate Products

Product Group	Discontinued Products	Suggested Alternate Products
Controller	AuxC1000 Controller	AuxC2000 Controller
Controlgear	MX-R0 Relay	RX Relay
	Actuator units Type TK3	Gen Next Push Button & Actuators with Adaptor Ring
	Push button pendants type TK3	Gen Next Push Button Stations
Starter	MH0-1 Phase Starter	MU-2P DOL Starter
Moulded Case Circuit Breakers	MCCB Type DM16	MPCB Type MOG as per Type - 2
	MCCB Type DM100	MCCB dsine M version as per Type - 2 (refer page no. 41)
	MCCB Type DM160	
	MCCB Type DM250	
	MCCB Type DM400	
	Compact SS Enclosure Suitable for DH100/DH125	Spacious SS Enclosure "Size 1"- Suitable for DN0-100D/DN0-125D/DN0-100C/DU100H/DU125H/DU100D/DU125D
Compact SS Enclosure Suitable for DU100H/DU125H/DU100D/DU125D		
Fusegear	Compact SS Enclosure Suitable for FN SDF	Spacious Enclosures Suitable for FN SDF
	Manual Changeover Switch - CO2 - 200A (CO2200000000)	Manual Changeover Switch - CO2 - 200A (CO220000000A)
	Fuse Mounting Kit Suitable for CO2 - 200A	Fuse Mounting Kit Suitable for CO3 - 250A
APFC Relays	RPM14	etaCON M
Digital Panel meters	VEGA Single function	New meter WL 1XXX series
	VEGA VAF+PF	New meter WL 4110 series
	VEGA Multifunction Model A/B/C	New meter Multifunction WL 4410/4420/4430
	Quasar Multifunction	New meter Multifunction WC 4420
	NOVA Basic Multifunction	New meter Basic Multifunction WL4400 / WC4400
	Gemini Dual Source	New meter Dual Source WL4040 / WC4040
	LCD kWh meter	New meter Energy meter WL4000 / WC4000
	Acrux Counter meter	New meter WL4030 counter series
	Mi energy DIN meter	New DIN meters 4000 series

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Warranty Policy

All the products listed in the price list carry a warranty, against manufacturing defects for a period of 18* months from the date of purchase.

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