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SAFE & SURE

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Maximum Retail Prices
for Electrical Standard Products.



LARSEN & TOUBRO

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Switchgear Training Centres at Pune, Lucknow & Coonoor conduct training programmes to assist engineers and professionals in developing a better understanding of Electrical & Automation products & solutions.

These training programmes impart knowledge on selection, installation, maintenance & testing of Electrical & Automation products. These programmes help to minimize costs, enhance safety, conserve energy and maximize productivity.

Over One Lac participants have benefitted from these facilities so far.

Please contact any of the training centres for participation and detailed training programme schedule.



Pune

Larsen & Toubro Limited
Switchgear Training Centre
T-156/157, MIDC,
Bhosari, Pune:411 026.
Tel.: (020) 2712 0037 / 2712 0653
Fax.: (020) 2712 2933
E-mail :
STC-PUNE@LNTEBG.COM



Coonoor

Larsen & Toubro Limited
Switchgear Training Centre
Ooty-Coonoor Main Road,
Yellanahalli P.O., The Nilgiris -643 243.
Tel.: (0423) 251 7107
Fax.: (0423) 251 7158
E-mail :
STC-COONOOR@LNTEBG.COM



Lucknow

Larsen & Toubro Limited
Switchgear Training Centre
C-6&7, UPSIDC,
P.O. Sarojini Nagar, Lucknow:226 008.
Tel.: (0522) 247 6110 / 099355 63239
Fax.: (0522) 247 6015
E-mail :
STC-LUCKNOW@LNTEBG.COM

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

- **Distribution System Components such as 6kA, 10kA MCBs, ELCB etc.**
- **AC Variable Frequency Drives**
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- **Servo & Motion Control Solutions**
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- **Timing Devices**
- **Cable Ducts & LB Series Switches**
- **Modular Switches and Sockets**
- **Intelligent MCC Relay - MCOMP**
- **Medium Voltage AIS upto 36kV**

MORE power to you

More convenient. More compact.



- Convenient:** Standardized accessories
DIN rail mounting up to 110A
Lug-less termination facility
- Compact Range:** 45A in 45 mm width
110A in 70 mm width
- Safe:** Completely shrouded (finger-proof)
- Product Range:** MO Contactor from 9A to 110A
RTO Relay from 0.23A to 45A
(direct mounting)

L&T presents the MO range of contactors. Its compact dimensions help you save on precious panel space. MO has also been designed for worry-free installation and maintenance. You get standardized accessories right across the range, so you can cut down on inventory. MO is RoHS compliant, so you get all the benefits of a 'clean and green' contactor. These are just a few of the features that make the MO the ideal contactor for your needs. For more information, contact us.

Power Contactors

3 Pole

- MX Power (Mini)
- MNX
- MO
- ML

4 Pole

- MCX

Control Relays (Auxiliary Contactors)

- MX0 (Mini)
- MN0

Definite Purpose Contactors

- Capacitor Duty - MPX
- Capacitor Duty - MO C
- Single Pole - MR

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
- Entire range is UL listed
- Click fit type construction up to 40A
- Coil on top design in 95A and above
- Spares available for entire range



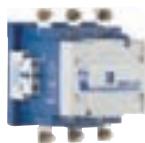
MNX 22



MNX 40



MNX 70



MNX 140



MNX 225



MNX 650

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 precious panel space
- DIN Rail mounting facility up to 110A
- Unique styling and visual appeal
- Lug less termination
- Standardized accessories throughout the range
- Low VA consumption
- RoHS compliant



MO 9



MO 45



MO 70



MO 110

AC3 Rating (A)	AC1 Rating (A)	Type	Aux. Contacts	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
9	25	MNX 9	1 NO	CS94106	670	10
			1 NC	CS94107	670	10
12	30	MNX 12	1 NO	CS94108	765	10
			1 NC	CS94109	765	10
18	30	MNX 18	1 NO	CS94100	835	10
			1 NC	CS94101	835	10
22	32	MNX 22	1 NO	CS94980	960	10
			1 NC	CS94981	960	10
25	45	MNX 25	#	CS94110	1120	10
32	55	MNX 32	#	CS94111	2315	10
40	55	MNX 40	#	CS94190	3500	10
45	80	MNX 45	2 NO + 2 NC	ST19000	4535	1
50	80	MNX 50	2 NO + 2 NC	ST19001	4605	1
70	100	MNX 70	2 NO + 2 NC	ST19002	6375	1
80	100	MNX 80	2 NO + 2 NC	ST19003	7755	1
95	160	MNX 95	2 NO + 2 NC	CS94136	9260	1
110	160	MNX 110	2 NO + 2 NC	CS94137	10495	1
140	160	MNX 140	2 NO + 2 NC	CS94138	14315	1
185	250	MNX 185	2 NO + 2 NC	CS94139	19370	1
225	300	MNX 225	2 NO + 2 NC	CS94140	21950	1
265	350	MNX 265	2 NO + 2 NC	CS94142	26240	1
325	400	MNX 325	2 NO + 2 NC	CS94143	31015	1
400	425	MNX 400	2 NO + 2 NC	CS94144	38170	1
550	650	MNX 550	2 NO + 2 NC	CS94145	54390	1
650	850	MNX 650	2 NO + 2 NC	CS96327	67750	1

AC3 Rating (A)	AC1 Rating (A)	Type	Aux. Contacts	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
9	30	MO 9	#	CS94564	600	10
12	35	MO 12	#	CS94565	695	10
18	40	MO 18	#	CS94566	775	10
25	45	MO 25	#	CS94567	1160	10
32	50	MO 32	#	CS94568	2390	10
40	50	MO 40	#	CS94569	3625	10
45	50	MO 45	#	CS94570	4440	10
50	65	MO 50	#	CS94572	4510	1
60	80	MO 60	#	CS94573	5280	1
70	100	MO 70	#	CS94574	6355	1
80	125	MO 80	#	CS94576	7790	1
95	125	MO 95	#	CS94577	9355	1
110	140	MO 110	#	CS94578	10645	1

Notes:

- 1) # Add-on blocks can be ordered separately.
For Add-on block Cat No. refer page No. 4
- 2) Standard coil voltage: MNX / MO - 110V, 220V, 240V and 415V, 50Hz.
- 3) For Ordering Suffix please refer page No. 5, Table B

3 Pole Power Contactors - Type MX

Features

- Conforms to IS / IEC 60947-4-1 & IEC 60947-4-1
- Enclosed construction providing compactness and convenience
- Suitable for industrial as well as commercial application
- Base as well as DIN Rail mounting facility



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	585	10
6A	20A	MX 06	1 NC	CS94013	585	10
9A	20A	MX 09	1 NO	CS94014	620	10
9A	20A	MX 09	1 NC	CS94015	620	10
12A	20A	MX 12	1 NO	CS94016	670	10
12A	20A	MX 12	1 NC	CS94017	670	10
For DC control (Std. Coil Voltage - 24, 110, 220V)						
6A	20A	MX 06	1 NO	CS94021	880	10
6A	20A	MX 06	1 NC	CS94022	880	10
9A	20A	MX 09	1 NO	CS94023	920	10
9A	20A	MX 09	1 NC	CS94024	920	10
12A	20A	MX 12	1 NO	CS94025	970	10
12A	20A	MX 12	1 NC	CS94026	970	10

3 Pole Power Contactors - Type ML



ML 1.5



ML 3



ML 6



ML 12

AC3 Rating (A)	AC1 Rating (A)	Type	Aux. Contacts	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
25	25	ML 1.5	2 NO + 2 NC	SS91851	1930	1
32	40	ML 2	2 NO + 2 NC	SS90701	3575	1
40	45	ML 3	2 NO + 2 NC	SS90721	5280	1
70	100	ML 4	2 NO + 2 NC	SS90910	8630	1
110	125	ML 6	2 NO + 2 NC	SS90921	13625	1
200	250	ML 10	2 NO + 2 NC	SS90935	30095	1
300	400	ML 12	2 NO + 2 NC	SS91010	32405	1

Auto Source Transfer Controller



Type	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
AuXC-1000	ST802300000	47950	1
Can be used along with dsine MCCBs, U-POWER ACBs and MCX contactors			

4 Pole Power Contactors - Type MCX

Features

- Conforms to IS / IEC 60947-4-1 & IEC 60947-4-1
- Range from 16A – 700A AC-1
- Wide operating band up to 100A AC-1
- Compact mechanical interlock arrangement up to 80A



MCX 03



MCX 13



MCX 22



MCX 34



MCX 46

AC-1 Rating (A)	Type	Aux Contacts	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
16	MCX 01	#	CS97009	910	10
25	MCX 02	#	CS97010	1005	10
32	MCX 03	#	CS97011	1055	10
40	MCX 04	#	CS97012	1585	10
50	MCX 11	#	CS97013	2010	1
63	MCX 12	#	CS97014	3835	1
80	MCX 21*	2 NO + 2 NC	CS97016	5465	1
100	MCX 22*	2 NO + 2 NC	CS97017	6225	1
130	MCX 31	1 NO + 1 NC	CS97019	8625	1
160	MCX 32	1 NO + 1 NC	CS97020	12460	1
200	MCX 33	1 NO + 1 NC	CS97021	15335	1
255	MCX 34	1 NO + 1 NC	CS97022	17250	1
325	MCX 41	2 NO + 2 NC	CS97023	28275	1
360	MCX 42	2 NO + 2 NC	CS97024	30670	1
400	MCX 43	2 NO + 2 NC	CS97025	38335	1
500	MCX 44	2 NO + 2 NC	CS97026	45045	1
600	MCX 45	2 NO + 2 NC	CS97027	53670	1
700	MCX 46	2 NO + 2 NC	CS97028	64210	1

4 Pole Mechanically Interlocked Contactors



Two MCX 12

Type	Aux Contacts	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Two MCX 11	#	CS94362	4985	1
Two MCX 12	#	CS94365	8625	1
MCX 11 - MCX 12	#	CS94363	6805	1

Notes:

- 1) # Add on blocks can be ordered separately.
For Add-on block Cat No. refer page No. 4
- 2) Std. Coil Voltage: ML - 110V, 220V, 240V and 415V, 50Hz
MCX - 220V, 240V, 50Hz
- 3) For Ordering Suffix please refer page No. 5, Table B
- 4) For Ordering MX accessories please refer page No. 4
- 5) *Ordering Suffix for MCX21 / MCX22; F000 - 240V AC, R000 - 415V AC

Accessories for Power Contactors

Add-on Auxiliary contact blocks for MNX, MCX, ML & MO



MNX / MCX Top Add-on Block



MNX / MCX Right Add-on Block



MO Top Add-on Block



MO Left Add-on Block



ML Add-on Block

Mounting Position	Contacts	Contactor	Cat. No.	M.R.P. (₹) Per Unit
Top	4 NO	MNX 9 - 40/ MCX 01 - 12	CS94112	285
	3 NO + 1 NC		CS94113	285
	2 NO + 2 NC		CS94114	285
	1 NO + 3 NC		CS94115	285
	4 NC		CS94116	285
	2 NO		CS94117	190
	1 NO + 1 NC		CS94118	190
	2 NC		CS94119	190
	1 NO		CS94120	95
	1 NC		CS94121	95
First Left	1 NO + 1 NC	MNX 9 - 40/ MCX 01 - 04	CS94220	285
First Right	1 NO + 1 NC		CS94221	285
First Left	1 NO + 1 NC	MNX 45 - 80/ MCX 11 - 22	CS94201	285
First Right	1 NO + 1 NC		CS94202	285
Second Left	1 NO + 1 NC		CS94203	285
Second Right	1 NO + 1 NC		CS94204	285
First Left	1 NO + 1 NC	MNX 95 - 650/ MCX 31 - 46	CS94205	335
First Right	1 NO + 1 NC		CS94206	335
Second Left	1 NO + 1 NC		CS94207	335
Second Right	1 NO + 1 NC		CS94208	335
Side Left / Right	1 NO + 1 NC	ML 4/6	SS91494	425
Side Left / Right	1 NO + 1 NC	ML 10/12	SS91474	425
Top	4 NO	MO 9 - 110	CS94594	285
	3 NO + 1 NC		CS94595	285
	2 NO + 2 NC		CS94596	285
	1 NO + 3 NC		CS94597	285
	4 NC		CS94598	285
	2 NO		CS94591	190
	1 NO + 1 NC		CS94592	190
	2 NC		CS94593	190
	1 NO		CS94585	95
	1 NC		CS94586	95
First Left	1 NO + 1 NC		CS94580	285
First Right	1 NO + 1 NC		CS94581	285
Second Left	1 NO + 1 NC		CS94582	285
Second Right	1 NO + 1 NC		CS94583	285

Note:

1) Ordering Suffix for Add-on blocks and Mechanical Interlock Kits: OOOO

MO Spreader Link Kit



For Contactor	Cat. No.	M.R.P. (₹) Per Unit
MO 9 - 45	CS94274OOOO	280

Note:

1) Spreader Link Kit consists of six terminals

Mechanical Interlock Kit for MX, MO, MNX & MCX



MNX M1 (MNX 9-40)



MNX M7 (MNX 185-225)



MNX M8 (MNX 265-650)



MCX M3 (MCX 21-22)



MO MI Kit (MO 9-110)



MX-M1 (MX0 / MX06-MX09)

For Contactor	Cat. No.	M.R.P. (₹) Per Unit
MX 06 to MX 09 / MX 0	CS94038	285
MO 9 - 110*	CS94584	345
MNX 9 - 40	CS94126	295
MNX 45 - 80	CS94197	1140
MNX 95 - 140	CS94198	1870
MNX 185 - 225	CS94199	2140
MNX 265 - 650	CS94200	2425
MCX 01 - 04	CS94126	295
MCX 21 - 22	CS93095	1875
MCX 31 - 34	SS94992	2015
MCX 41 - 46	CS94301	3265

* MO MIL Kit contains inbuilt 2 NC Contacts

Surge Suppressor for MX, MNX & MCX



MNX S1



MNX S3



MNX S4



MX - S1

For Contactor	Cat. No.	M.R.P. (₹) Per Unit
MX 06 to MX 09 / MX 0 AC	CS94039*	285
MNX 9 - 40 / MCX 01 - 04	CS94166*	285
MNX 45 - 80 / MCX 11 - 22	CS94163*	285
MNX 95 - 225 / MCX 31 - 34	CS94164*	1030
MNX 265 - 400 / MCX 41 - 44	CS94165*	1385

Ordering Suffix * 110-240V: BOOO, 415V: DOOO

110V: AOOO, 220-240V: BOOO, 360-525V: DOOO

Add on Auxiliary Contact Block for MX



MX - A1 22 E

Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
MX - A1 02E - 2 NO	CS94030	170	10
MX - A1 11E - 1 NO + 1 NC	CS94031	170	10
MX - A1 02E - 2 NC	CS94032	170	10
MX - A1 40E - 4 NO	CS94033	285	10
MX - A1 31E - 3 NO + 1 NC	CS94034	285	10
MX - A1 22E - 2 NO + 2 NC	CS94035	285	10
MX - A1 13E - 1 NO + 3 NC	CS94036	285	10
MX - A1 04E - 4 NC	CS94037	285	10

Control Relays (Auxiliary Contactors)

Features

- Conforms to IS / IEC 60947-4-1 & IEC 60947-4-1
- Alphanumeric terminal markings
- Available with AC or DC control

Type MX0



MX0 40E

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	MX0 40E (4 NO)	CS94018	700	10
	MX0 31E (3 NO + 1 NC)	CS94019	700	10
	MX0 22E (2 NO + 2 NC)	CS94020	700	10
	MX0 13E (1 NO + 3 NC)	CS94041	700	10
	MX0 04E (4 NC)	CS94042	700	10
For DC control std. Coil Voltage - 24, 110, 220V				
AC-15 4A	MX0 40E (4 NO)	CS94027	890	10
	MX0 31E (3 NO + 1 NC)	CS94028	890	10
	MX0 22E (2 NO + 2 NC)	CS94029	890	10
	MX0 13E (1 NO + 3 NC)	CS94043	890	10
	MX0 04E (4 NC)	CS94044	890	10

Notes:

- 1) For Ordering Suffix please refer Table B as shown below
- 2) 7 NC & 8 NC combinations are not recommended

Ordering Suffix for Coil Voltages

Type MN0



MN0 22E



MN0dc 22E

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	MN0 40E (4 NO)	SS94660	910	10
	MN0 31E (3 NO + 1 NC)	SS94661	910	10
	MN0 22E (2 NO + 2 NC)	SS94662	910	10
	MN0 13E (1 NO + 3 NC)	SS94663	910	10
	MN0 04E (4 NC)	SS94664	910	10
For DC control std. Coil Voltage - 24, 110, 220V				
AC-15 4A	MN0 40E (4 NO)	SS94665	1435	10
	MN0 31E (3 NO + 1 NC)	SS94666	1435	10
	MN0 22E (2 NO + 2 NC)	SS94667	1435	10
	MN0 13E (1 NO + 3 NC)	SS94668	1435	10
	MN0 04E (4 NC)	SS94669	1435	10

For Ordering Suffix refer Table B as shown below

Accessories for MN0 Control Relays (Auxiliary Contactor)

Add on Auxiliary Contact Block



1 NO + 1 NC



2 NO + 2 NC

Contacts Type	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
4 NO	SS94083	285	10
3 NO + 1 NC	SS94084	285	10
2 NO + 2 NC	SS94085	285	10
1 NO + 3 NC	SS94086	285	10
4 NC	SS94087	285	10
2 NO	SS94080	190	10
1 NO + 1 NC	SS94081	190	10
2 NC	SS94082	190	10
1 NO	SS94715	95	10
1 NC	SS94716	95	10

Ordering Suffix: OOOO

Surge Suppressor for MN0



MN - S1

Type	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
MN0 AC	SS94623	285	1

Ordering Suffix 110-240V : BOOO
415V : DOOO

Table B

Ordering Suffix for coil voltages			
AC Control		DC Control*	
Voltage (V)	Suffix	Voltage (V)	Suffix
24	G000	24	4000
42	H000	48	5000
48	J000	110	1000
110	A000	220	2000
220	K000		
230	N000		
240	B000		
220 / 240	Q000		
320	R000		
360	C000		
380	L000		
415	D000		
440	P000		
525	M000		

* for MX, MX0 & MN0 only

Definite Purpose Contactors

Features

- MO C range available from 8 to 50 KVAR
- Delatching auxiliary contacts ensure lower losses
- Lug less termination for MO C and MPX contactors

Capacitor Duty Contactors - Type MPX



MPX 15



MPX 30



MPX 60

kVAR Rating @ 415V, 3Ph, 50Hz	Type	Built-in Auxiliary Contacts	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
8	MPX 8	1 NO	ST41807	1560	1
12.5	MPX 12	1 NO	ST41808	1675	1
15	MPX 15	-	ST41809	2170	1
25	MPX 25	-	ST41810	2810	1
30	MPX 30	-	ST41811	5570	1
50	MPX 50	-	ST41812	8585	1
60	MPX 60	-	ST41813	9845	1

Ordering Suffix NOOO - 230V, 50Hz

Capacitor Duty Contactors - Type MO C



MO C25



MO C50

kVAR Rating @ 415V, 3Ph, 50Hz	Type	Built-in Auxiliary Contacts	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
8.5	MO C8.5	1NO	CS96320	1640	1
		1NC	CS96337	1640	1
12.5	MO C12.5	1NO	CS96321	1760	1
		1NC	CS96338	1760	1
25	MO C25	1NO	CS96322	3405	1
		1NC	CS96339	3405	1
33.5	MO C33.5	1NO	CS96323	6305	1
		1NC	CS96340	6305	1
50	MO C50	1NO	CS96324	9470	1
		1NC	CS96341	9470	1

Ordering Suffix, accessories and spares same as MO contactors

Note : For Power Factor Correction Capacitors refer page No. 52

Features

- Wide and chatter free operating band
- Rugged MR contactors suitable for single phase applications
- High AC-1 rating of MR ensures better overload capacity

Single Pole Contactors - Type MR



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	570	10
25A	MR 11NW	CS94178	645	10
40A	MR 13	CS94992	625	40

Ordering Suffix BOOO - 240V, 50Hz

4 Pole Contactors - Type MK1



MK 1

Type	AC3 Rating (A)	Motor Output 3 Phase 415V, 50Hz		Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
		HP	KW			
MK 1	11A	5.5	7.5	SS95200	910	10

For Overload Relays type MK1 please refer page No. 9

For Ordering Suffix please refer page No. 5, Table B

(For 360V wide band, Ordering Suffix - SOOO)

4 Pole Contactors - Type MU



MU 1



MU 2

AC3 Rating (A)	Type	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
16A	MU 1	CS94007	1330	10
25A	MU 2	CS94008	1750	10

For Overload Relays type MU refer page No. 9

For Ordering Suffix please refer page No. 5, Table B

Accessories for Definite Purpose Contactors

Add on Auxiliary Contact Block for MU / MR / MPX

Description	For Contactor	Contacts Type	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Side mounted auxiliary contact block	MU 1 / MU 2	1 NO + 1 NC	SS94072	130	10
		1 NC	SS94074	105	10
Add on Single pole (AC11 - 4A)	MR	1 NO	CS94179	155	10
Side Add on block	MPX 8 / 12 / 15 / 25 / 30 / 50 / 60	1 NC	ST41818	435	1
Side Add on block		1 NO	ST41819	435	1
Side Add on block		1 NO + 1 NC	ST94985	570	1



MR 1NO



MPX 1NC

Ordering Suffix for Add-on Block - OOOO

Spare Contact Kit and Spare Coil



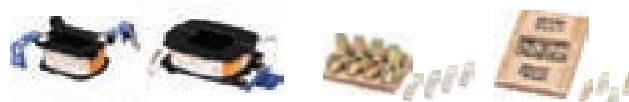
ML Spare Kits



ML Spare Coils

Type	Spare Contact kit		Spare Coil	
	Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit
MU 1	CS94010	490	CS94009	415
MU 2	CS94011	800		
ML 1.5	SS95305	1415	SS90873	590
ML 2	SS95307	2065	SS90545	870
ML 3	SS95309	3320		
ML 4	SS95311	5380	SS91258	1665
ML 6	SS95313	9285		
ML 10	SS95315	17395	SS91011	3650
ML 12	SS95317	23150		
MN 0 ac	-	-	SS94191	420
MN 0 dc	-	-	SS94651	770

Spare Contact Kit and Spare Coil



MNX Spare Coils

MCX Spare Kits



MNX Spare Kits

Type	Spare Contact kit		Spare Coil	
	Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit
MO 9	CS96380	490	CS96317	440
MO 12	CS96381	635		
MO 18	CS96382	695		
MO 25	CS96383	795		
MO 32	CS96384	1310		
MO 40	CS96385	1775		
MO 45	CS96386	2330	CS96318	1200
MO 50	CS96387	2500		
MO 60	CS96388	2725		
MO 70	CS96389	3290	CS96319	1550
MO 80	CS96390	3825		
MO 95	CS96391	4100		
MO 110	CS96392	4775	CS94105	440
MNX 9	CS94123	490		
MNX 12	CS94124	635		
MNX 18	CS94125	695		
MNX 22	CS94269	715		
MNX 25	CS94127	795		
MNX 32	CS94128	1310	CS94192	1200
MNX 40	CS94147	1775		
MNX 45	CS94149	2330		
MNX 50	CS94150	2520	CS94196	1550
MNX 70	CS94151	3290		
MNX 80	CS94152	3825		
MNX 95	CS94153	4100	CS94194	3150
MNX 110	CS94154	4775		
MNX 140	CS94155	5980		
MNX 185	CS94156	10450	CS94195	3620
MNX 225	CS94157	13465		
MNX 265	CS94159	14185		
MNX 325	CS94160	18975	CS94193	14105
MNX 400	CS94161	21920		
MNX 550	CS94162	34035		
MNX 650	CS96336	35210	CS94105	440
MCX 01-04	-	-		
MCX 11	CS94077	1515		
MCX 12	CS94078	2220	CS94192	1200
MCX 21	CS94330	3670		
MCX 22	CS94331	4230		
MCX 31	CS94081	6135	CS94196	1550
MCX 32	CS94082	6320		
MCX 33	CS94083	7665		
MCX 34	CS94084	8480	CS94195	3620
MCX 41	CS94295	18385		
MCX 42	CS94296	24260		
MCX 43	CS94297	26165	CS94193	14105
MCX 44	CS94298	28570		
MCX 45	CS94299	35940		
MCX 46	CS94300	40545		

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 0	ST28732	355
ML 1	ST28733	355
ML 1.5	ST28734	355
ML 2/ ML 3	ST23866	485
ML 4/ ML 6	ST28735	895
Combination coil with timer		
Type	Cat. No.	M.R.P. (₹) Per Unit
ML 2	SS90650	1715

Note :

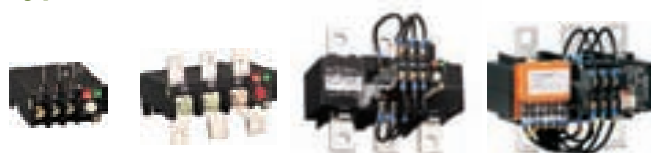
- 1) Ordering Suffix for Spare Contact kit - OOOO
- 2) For Spare Coil Ordering Suffix refer page No. 5, Table B

Bimetal Overload Relays

Features : MN Relays

- 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

Type MN



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	SS94141OOEO	1020	10
	0.3 - 0.5	SS94141OOGO	1020	10
	0.45 - 0.75	SS94141OOJO	1020	10
Direct mounting on MNX 9 / MNX 12 / MNX 18 / MNX 22 / MNX 25 / MNX 32 / MNX 40	0.6 - 1	SS94141OOKO	1020	10
	0.9 - 1.5	SS94141OOMO	1020	10
	1.4 - 2.3	SS94141OOPo	1020	10
	2 - 3.3	SS94141OOQO	1020	10
	3 - 5	SS94141OOSO	1020	10
	4.5 - 7.5	SS94141OOUO	1020	10
	6 - 10	SS94142OOVO	1020	10
	9 - 15	SS94142OOBO	1020	10
	14 - 23	SS94144OODO	1100	10
	20 - 33	SS94145OOEO	1390	10
	24 - 40	SS94145OOFO	1390	10
MN 5				
(Directly Operated)	20 - 33	SS94136OOEO	1750	10
	30 - 50	SS94136OOGO	1875	10
Direct Mounting	45 - 75	SS94137OOJO	2780	10
	66 - 110	SS94137OOKO	2780	10
MN 12				
(CT Operated)	42 - 69	SS94138OOHO	5555	1
	60 - 100	SS94138OOKO	5555	1
	90 - 150	SS94138OOMO	5555	1
	135 - 225	SS94138OOPo	5555	1
	180 - 300	SS94139OOQO	6295	1
	270 - 450	SS94139OORO	6850	1
MN 12L#				
(CT Operated)	42 - 69	SS94127OOHO	6900	1
	60 - 100	SS94127OOKO	6900	1
	90 - 150	SS94127OOMO	6900	1
	135 - 225	SS94127OOPo	6900	1
	180 - 300	SS94127OOQO	6900	1
	340 - 570	SS94127OOSO	6900	1

For motors with longer starting time

Features : RTO Relays

- 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

Type RTO



Type of Mounting (Operation)	Relay Range (A)	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
RTO - 1				
(Directly Operated)	0.23 - 0.41	CS96355OOFO	1070	10
	0.31 - 0.55	CS96355OOGO	1070	10
	0.55 - 0.85	CS96355OOJO	1070	10
Direct Mounting on MO 9 / MO 12 / MO 18 / MO 25 / MO 32 / MO 40 / MO 45	0.78 - 1.2	CS96355OOLo	1070	10
	1.2 - 2.0	CS96355OONO	1070	10
	1.9 - 2.8	CS96355OOPo	1070	10
	2.4 - 3.6	CS96355OOQO	1070	10
	3.5 - 5.2	CS96355OOSO	1070	10
	4.6 - 6.7	CS96355OOTO	1070	10
	6.7 - 9.7	CS96355OOVO	1070	10
	8.5 - 12.5	CS96355OOAO	1070	10
	12.5 - 18.5	CS96356OOCO	1155	10
	17 - 25.5	CS96356OODO	1155	10
	25 - 37	CS96356OOEO	1460	10
	35 - 45	CS96356OOGO	1460	10



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.

Bimetal Overload Relays

Type MX-R0*



MX - R0

Type of Mounting (Operation)	Relay Range (A)	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
(Directly Operated)	0.1 - 0.16	ST94074OOBO	835	10
	0.16 - 0.24	ST94074OODO	835	10
	0.22 - 0.33	ST94074OOEO	835	10
	0.3 - 0.45	ST94074OOGO	835	10
	0.45 - 0.67	ST94074OOHO	835	10
	0.67 - 1.0	ST94074OOKO	835	10
Direct Mounting on MX Range	1.0 - 1.5	ST94074OOMO	835	10
	1.4 - 2.1	ST94074OONO	835	10
	1.8 - 2.7	ST94074OOPo	835	10
	2.4 - 3.6	ST94074OOQO	835	10
	3.5 - 5	ST94074OOSO	835	10
	4.0 - 6.0	ST94074OOTO	835	10
	5.5 - 8.5	ST94074OOUO	835	10
	8.5 - 12.5	ST94074OOVO	835	10

* Available till stocks last

Type ML



ML 1



ML 1.5

Type of Mounting (Operation)	Relay Range (A)	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
(Directly Operated)	ML 0 / ML 1 / ML 1.5			
	0.15 - 0.25	SS91858OODO	1350	10
	0.25 - 0.4	SS91858OOFO	1350	10
	0.4 - 0.65	SS91858OOHO	1350	10
	0.6 - 1	SS91858OOKO	1350	10
	1 - 1.6	SS91858OOMO	1350	10
	1.5 - 2.5	SS91858OOPo	1350	10
	2.5 - 4	SS91858OORO	1350	10
	4 - 6.5	SS91858OOTO	1350	10
	6 - 10	SS91858OOVO	1350	10
Directly Mounting	10 - 16	SS91858OOBO	1350	10
	ML 2 / ML 3			
	9 - 14	SS91859OOAO	2000	2
	13 - 21	SS91859OOCO	2000	2
	20 - 32	SS91859OOEO	2000	2
	28 - 42	SS91859OOFO	2000	2

Type MK1



MK1

Type of Mounting (Operation)	Relay Range (A)	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
(Directly Operated)	0.15 - 0.25	SS90035OODO	690	10
	0.25 - 0.4	SS90035OOFO	690	10
	0.4 - 0.65	SS90035OOHO	690	10
	0.6 - 1	SS90035OOKO	690	10
	1 - 1.6	SS90035OOMO	690	10
	1.5 - 2.5	SS90035OOPo	690	10
Direct Mounting	2.5 - 4	SS90035OORO	690	10
	4 - 6.5	SS90035OOTO	690	10
	6 - 10	SS90035OOVO	690	10
	9 - 14	SS90035OOAO	690	10
	11 - 18	SS90036OOCO	690	10
	13 - 22	SS91888OODO	760	10

Type MU



MU1



MU2

Type of Mounting (Operation)	Relay Range (A)	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
(Directly Operated)	MU1			
	4 - 6.5	SS96557OOTO	1040	10
	6 - 10	SS96557OOVO	1040	10
	MU2			
Direct Mounting	9 - 14	SS95979OOAO	1575	10
	13 - 21	SS95979OOCO	1575	10
	20 - 32	SS95979OOEO	1575	10
	28 - 42	SS95979OOFO	1575	10

Accessories for Bimetal Overload Relays

Accessories for Bimetal 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 unit for MK 1 / ML Relays	SS90004	115	20
Push button unit for MN Relays	SS94001	115	20
Push button extn. unit for MN 2 Relays	SS94968	15	100
Kit for Mounting MN 2 Relay on ML 1.5 contactor	SS94701	80	50
Kit for Mounting MN 2 Relay separately (Direct Mounting Type)	SS94700	80	50
Kit for Mounting MN 5 Relay on MNX 95 / 110 / 140 contactor	SS94638	95	20
Kit for Mounting MN 5 Relay on ML 2 / ML 3 contactor	SS94151	95	20
Kit for Mounting MN5 Relay on ML 4 / ML 6 contactor	SS94152	125	20
DIN Rail Mounting Kit Relay on MN 2 Relay	SS91887	50	50

Relay Reset Cord for MN2 Relay



400 mm 650 mm 900 mm 1200 mm

Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
MN2 Relay reset cord - 400mm	SB942070000	385	1
MN2 Relay reset cord - 650mm	SB942080000	405	1
MN2 Relay reset cord - 900mm	SB942090000	440	1
MN2 Relay reset cord - 1200mm	SB942100000	500	1

Separate Mounting Kit for RTO Relay



Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
RTO Relay Separate Mounting Kit	CS963350000	145	1

Timers

Electronic Timers Type ET 100



ET 100

Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
110 / 240V, 50Hz for			
3 - 10 secs.	SE92001	2460	1
9 - 30 secs.	SE92002	2460	1
36 - 120 secs.	SE92003	2460	1
240 / 360 / 415V*, 50Hz for			
3 - 10 secs.	SE92005	2460	1
9 - 30 secs.	SE92006	2460	1
36 - 120 secs.	SE92007	2460	1

Notes: 1) # 360V tap can be used for 240V connections
2) Ordering Suffix is OOOO

To order a Timer, please specify Type & Cat no.

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	1865	1

Ordering Suffix for GT 200 Timer

Voltage (V)	Suffix
250V	NOOO
320V	ROOO
360V	COOO
380V	LOOO
400 / 440V	POOO

Note:

For Complete range of Timing Devices, please refer the Panel Accessories Price List

Control Accessories

Actuator Units Type TK3

6A, 415V, 50 Hz (Suitable for 30.5mm Cutout Dia.)

Description	Cat. No.	M.R.P. (₹) Per Unit	Std Pkg. (Nos.)
Selector actuator - 2 position (black only)	SS91516	335	30
Selector actuator - 3 position (black only)	SS91517	335	30
Mushroom push button actuator (red, green or black)	SS91518	205	30
Shrouded push button actuator (red, black, green, yellow, blue or grey)	SS91519	145	30
Unshrouded push button actuator (red, black, green, yellow, blue or grey)	SS91520	145	30
Key actuator - lockable in 1 position	SS91522 *	450	30
Key actuator - lockable in both positions	SS91521 *	450	30
Element with 2 fixing screws	SS90375 *	165	100

Ordering Suffix for Colour	
Black	OAOO
Red	OBOO
Green	OCOO
Yellow	ODOO
Blue	OEOO
Grey	OFOO
*	O000

Push Button Pendants

6A, 415V, 50 Hz

Description	Cat. No.	M.R.P. (₹) Per Unit	Std Pkg. (Nos.)
With 2 push buttons	SS90502	770	30
With 4 push buttons	SS90504	1435	30
With 6 push buttons	SS90506	1925	30

Ordering Suffix is O000

To order Control Accessories, please specify
Type, Cat no. & Ordering Suffix for color

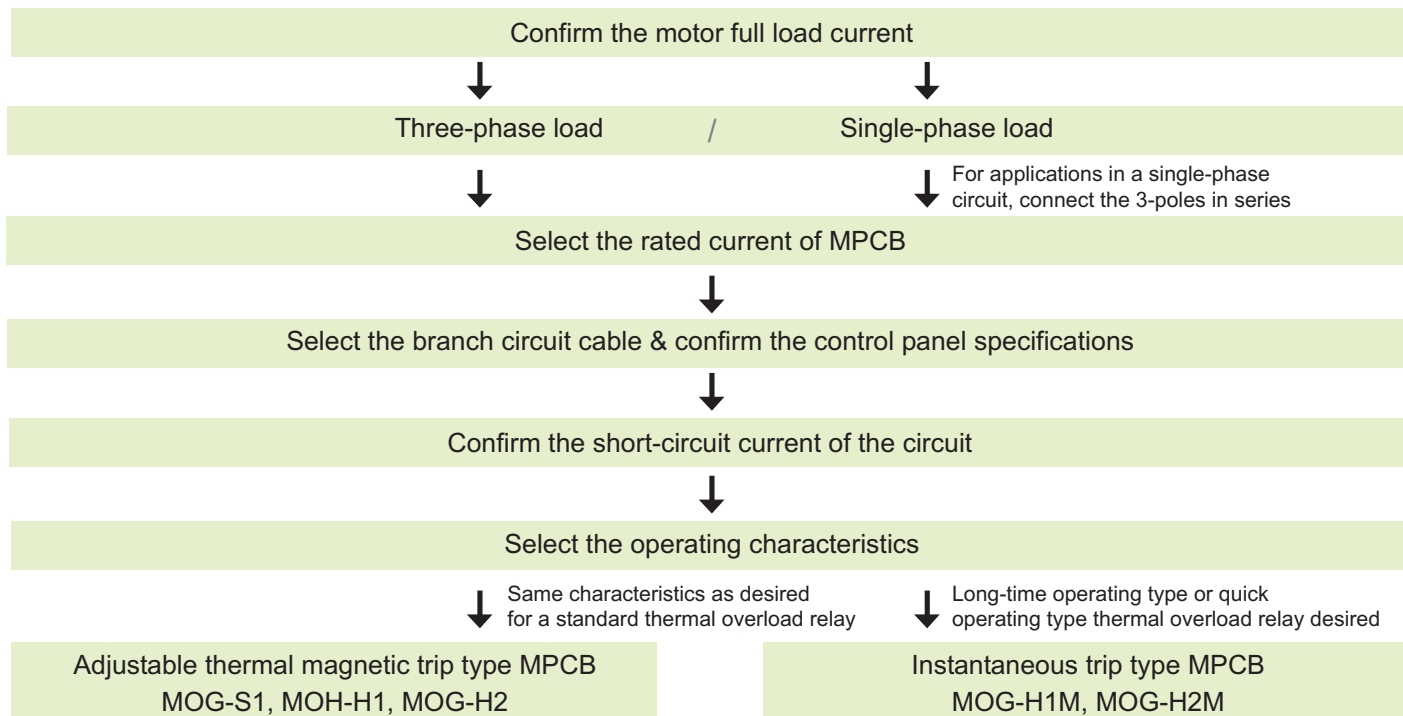


For Timing & Control Devices from GIC and 22.5 mm dia Range of Modular Remote Control & Indicating Units from ESBEE, please refer Panel Accessories Price List.

Features

- With compactness MPCB provides high-performance short-circuit current breaking
- Wide range of current adjustment dial for optimum protection
- Stand-alone motor protection
- All accessories are common for both frames and separate short circuit alarm is also available

Procedure for selecting the appropriate model:



Note: Please contact the nearest branch office for type 2 co-ordination chart.

Type MOG-S1 (Rocker Type)

(ROM cannot be fitted with MOG - S1)
With short circuit & overload protection



Type MOG-H1M (Rotary Type) - Frame 1

With short circuit protection only



Rating (A)	Recommended Motor Rating at 415V, 3-Ph, 50Hz (KW)	Thermal Release range (A)	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
0.16	-	0.1 - 0.16	ST418890000	2145	1
0.25	0.06	0.16 - 0.25	ST418900000	2145	1
0.40	0.09	0.25 - 0.40	ST418910000	2145	1
0.63	0.12	0.40 - 0.63	ST418920000	2240	1
1.00	0.25	0.63 - 1.00	ST418930000	2240	1
1.60	0.55	1.00 - 1.60	ST418940000	2295	1
2.50	0.75	1.60 - 2.50	ST418950000	2295	1
4.00	1.50	2.50 - 4.00	ST418960000	2350	1
6.30	2.20	4.00 - 6.30	ST418970000	2390	1
10.00	4.00	6.30 - 10.00	ST418980000	2460	1
13.00	5.40	9.00 - 13.00	ST418990000	2615	1

Rating (A)	Recommended Motor Rating at 415V, 3-Ph, 50Hz (KW)	Short Circuit Release (A)	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
0.16	-	2.1	ST419230000	2005	1
0.25	0.06	3.3	ST419240000	2005	1
0.40	0.09	5.2	ST419250000	2005	1
0.63	0.12	8.2	ST419260000	2825	1
1.00	0.25	13	ST419270000	2825	1
1.60	0.55	20.8	ST419280000	2825	1
2.50	0.75	32.5	ST419290000	2825	1
4.00	1.50	52	ST419300000	2950	1
6.30	2.20	81.9	ST419310000	2950	1
10.00	4.00	130	ST419320000	3080	1
13.00	5.40	169	ST419330000	3200	1
16.00	7.50	208	ST419340000	3255	1
20.00	9.00	260	ST419350000	3485	1
25.00	12.50	325	ST419360000	4215	1
32.00	15.00	416	ST419370000	5510	1

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

Type MOG-H1

(Rotary Type) - Frame 1

With short circuit & overload protection



Rating (A)	Recommended Motor Rating at 415V, 3-Ph, 50Hz (KW)	Thermal Release range (A)	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
0.16	-	0.1 - 0.16	ST419040000	2645	1
0.25	0.06	0.16 - 0.25	ST419050000	2645	1
0.40	0.09	0.25 - 0.40	ST419060000	2645	1
0.63	0.12	0.40 - 0.63	ST419070000	2845	1
1.00	0.25	0.63 - 1.00	ST419080000	2845	1
1.60	0.55	1.00 - 1.60	ST419090000	3050	1
2.50	0.75	1.60 - 2.50	ST419100000	3050	1
4.00	1.50	2.50 - 4.00	ST419110000	3050	1
6.30	2.20	4.00 - 6.30	ST419120000	3135	1
10.00	4.00	6.30 - 10.00	ST419130000	3200	1
13.00	5.40	9.00 - 13.00	ST419140000	3315	1
16.00	7.50	11.00 - 16.00	ST419150000	3660	1
20.00	9.00	14.00 - 20.00	ST419160000	3950	1
25.00	12.50	19.00 - 25.00	ST419170000	4300	1
32.00	15.00	24.00 - 32.00	ST419180000	6710	1

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

Type MOG-H2M

(Rotary Type) - Frame 2

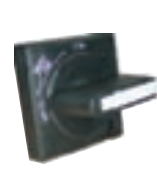
With short circuit protection only



Rating (A)	Recommended Motor Rating at 415V, 3-Ph, 50Hz (KW)	Short Circuit Release (A)	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
32.00	15.00	416	ST419380000	7435	1
40.00	20.00	520	ST419390000	7435	1
50.00	25.00	650	ST419400000	9065	1
63.00	34.00	819	ST419410000	9065	1

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

Accessories for MOG



Short Circuit Alarm

Auxiliary + Alarm

External Operating Handle

Shunt Trip

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)	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
32.00	15.00	24.00 - 32.00	ST419190000	9470	1
40.00	20.00	28.00 - 40.00	ST419200000	9590	1
50.00	25.00	35.00 - 50.00	ST419210000	9935	1
63.00	34.00	45.00 - 63.00	ST419220000	10580	1

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

Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Auxiliary Contact Front mtg. 1NO	ST419420000	460	1
Auxiliary Contact Front mtg. 1NC	ST419430000	460	1
Auxiliary Contact Left side mtg. 2NO	ST419440000	555	1
Auxiliary Contact Left side mtg. 1NO + 1NC	ST419450000	555	1
Auxiliary Contact Left side mtg. 2NC	ST419460000	555	1
Trip Alarm Contact Front mtg. 1NO	ST419470000	700	1
Trip Alarm Contact Front mtg. 1NC	ST419480000	700	1
Auxiliary + Alarm Left side mtg. 2NO	ST419490000	785	1
Short circuit alarm Left side mtg. 1NO + 1NC	ST419500000	785	1
Shunt trip 24V DC	ST419510000	1280	1
Shunt trip 110V, 50Hz	ST419520000	1280	1
Shunt trip 230V, 50Hz	ST429520000	1280	1
Under Voltage release, 110V, 50Hz	ST419530000	1280	1
Under Voltage release, 415V, 50Hz	ST419540000	1280	1
External operating handle, (Black) Frame 1	ST419550000	960	1
External operating handle, (Black) Frame 2	ST419560000	960	1

ORIS® Switches

Music for your walls



Larsen & Toubro takes the switch to the next level. We give it elegance while infusing it with efficiency and our reputation for excellence. A work of art that works for you.

salient features:

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BSNL/MTNL (Toll free): 1800 233 5858
Reliance (Toll free): 1800 200 5858
Tel: 022 6774 5858 Fax: 022 6774 5859
E-mail: cic@LNTB8G.com Website: www.LNTB8G.com



Direct-on-Line Starters

in Sheet-Steel Enclosure Type MF, MK, ML, MU & MB
(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					
2.0	1.5	12 - 20	MF1-1 Phase	SS97227	755	1
7.5	5.5	9 - 15	MF1-3 Phase	SS97210	1020	1
7.5	5.5	9 - 14	MK1 DOL	SS96210	1630	1
7.5	5.5	11 - 18	MK1 DOL	SS96211	1630	1
7.5	5.5	13 - 22	MK1 DOL	SS96228	1705	1
10.0	7.5	13 - 21	MU1 DOL #	SS95647	2665	1
10.0	7.5	14 - 23	MB1 DOL #	SS95649	2665	1
15.0	11.0	20 - 32	MU2 DOL #	SS95648	3570	1
15.0	11.0	20 - 33	MB2 DOL #	SS95650	3595	1

Direct-on-Line Starters

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					
10.0	7.5	9 - 15	MN 16 DOL	SS94351	2490	1
15.0	11.0	14 - 23	MN 25 DOL	SS94352	4010	1
20.0	15.0	20 - 33	MN 32 DOL	SS94353	6340	1
30.0	22.5	30 - 50	MN 45 DOL	SS94017	10170	1
45.0	33.5	45 - 75	MN 65 DOL	SS94018	14295	1
15.0	11.0	20 - 32	ML 1.5 DOL	SS91854	3885	1
20.0	15.0	20 - 32	ML 2 DOL	SS90702	6475	1
30.0	22.5	28 - 42	ML 3 DOL	SS90722	10170	1

Semi-Automatic Star-Delta Motor Starters

in Sheet-Steel Enclosure Type MK, MU & MB
(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					
12.5	9.3	9 - 14	MK1 SASD	SS96255	5330	1
15.0	11.0	11 - 18	MK1 SASD	SS96258	5330	1
15.0	11.0	13 - 22	MK1 SASD	SS96260	5370	1
15.0	11.0	13 - 21	MU1 SASD #	SS95891	7305	1
15.0	11.0	14 - 23	MB1 SASD #	SS95895	8290	1
30.0	22.5	20 - 32	MU2 SASD #	SS95893	8880	1
30.0	22.5	20 - 33	MB2 SASD #	SS95897	9720	1

Semi-Automatic Star-Delta Motor Starters

in Sheet-Steel Enclosure Type ML
(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					
25.0	18.5	13 - 21	ML1.5 SASD	SS91856	8945	1
35.0	26.0	20 - 32	ML2 SASD	SS90707	15640	1

Single Phase Motor Starters (Coil operated)



MHO

Max. Motor Output at 415V, 3-Ph		Relay Max. Range (A)	Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
HP	kW					
0.5	0.37	4 - 6.5	MHO	ST37491BOTO	895	1
1.0	0.75	6 - 10	MHO	ST37491BOVO	895	1

Note: 1) # Type MU1 / MU2 consists of type MU Relay + MU1 / MU2 contactors
Type MB1 / MB2 consists of type MN Relay + MU1 / MU2 contactors
2) For Ordering Suffix please refer table C page No. 17

Fully Automatic Star-Delta Motor Starters

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



MN 16F

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	8375	1
25.0	18.5	14 - 23	MN 25 FASD	SS94364	10030	1
35.0	26.0	20 - 33	MN 32 FASD	SS94366	16085	1
50.0	37.5	30 - 50	MN 45 FASD	SS94021	23810	1
75.0	55.0	45 - 75	MN 65 FASD	SS94022	41130	1
90.0	67.0	45 - 75	MN 80 FASD	SS94705	44445	1
125.0	90.0	66 - 110	MN 110 FASD	SS94706	57715	1
175.0	130.0	90 - 150	MN 140 FASD	SS94707	61325	1

Fully-Automatic Star-Delta Motor 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	6080	1
15.0	11.0	11 - 18	MK1 FASD	SS96257	6110	1
15.0	11.0	13 - 22	MK1 FASD	SS96259	6160	1
15.0	11.0	13 - 21	MU1 FASD #	SS95890	8105	1
15.0	11.0	14 - 23	MB1 FASD #	SS95894	8655	1
30.0	22.5	20 - 32	MU2 FASD #	SS95892	9595	1
30.0	22.5	20 - 33	MB2 FASD #	SS95896	9840	1



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	SS91855	10150	1
35.0	26.0	20 - 32	ML2 FASD	SS90705	16120	1
50.0	37.5	28 - 42	ML3 FASD	SS90730	24525	1
75.0	55.0	45 - 75	ML4 FASD	SS90913	41845	1
125.0	90.0	66 - 110	ML6 FASD	SS90923	68535	1
250.0	180.0	135 - 225	ML10 FASD	SS90938	108210	1
400.0	300.0	180 - 300	ML12 FASD	SS91019	122635	1

Note: 1) # Type MU1 / MU2 consists of type MU Relay + MU1 / MU2 contactors
Type MB1 / MB2 consists of type MN Relay + MU1 / MU2 contactors
2) For Ordering Suffix please refer table C page No. 17

Submersible Pump Starters

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



MR-G2



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	SS96988	3260	1
0.75	0.55	6 - 10		SS97727	3445	1
1.0	0.75	9 - 14		SS96560	3565	1
1.5	1.1	11 - 18		SS96989	3935	1
2.0	1.5	13 - 22		SS96990	4120	1
3.0	2.2	13 - 22		SS97725	4410	1
0.5	0.37	6.5 - 11	Type MF-G1 * For Single Phase Motors	SS97734	2130	1
1.0	0.75	12 - 20		SS97736	2190	1
1.5	1.1	12 - 20		SS97737	2300	1
2.0	1.5	12 - 20		SS97738	2345	1

Note: For dual meter (Ammeter + Voltmeter) version - Add (₹) 205

* Also available with lower Relay Ranges

Submersible Pump Starters

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



MU-G20



MU-G30



MU-G50

Max. Motor Output at 415V, 3-Ph		Relay Max. Range (A)	Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
HP	kW					
20	15	13 - 21	MU-G20 Fully Automatic Star - Delta Starter*	SS95984	9850	1
		20 - 32		SS96985	10380	1
20	15	28 - 42	MU-G20H Fully Automatic Star - Delta Starter*	SS95975	12650	1
30	22.5	20 - 33	MU-G30 Fully Automatic Star - Delta Starter	CS96008	18745	1
		30 - 50		CS96008	18745	1
50	37.5	30 - 50	MU-G50 Fully Automatic Star - Delta Starter	CS96009	27425	1
		45 - 75		CS96009	27425	1

* Also available with lower Relay Ranges

Submersible Pump Starters

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	4480	1
10	7.5	13 - 21	MU - G10 DOL Starter *	SS95983	5095	1
10	7.5	28 - 42	MU - G10H DOL Starter *	SS95974	5765	1

* Also available with lower Relay Ranges

Spares for Starters Type MK / MU-G Controllers



Aux contact block Spare coil Combination coil Push button unit SDz5 Controller

Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Single Moving Contact	SS91009	35	10
Std. Operating coils			
400 / 440V, 50Hz	SS90047	190	10
360V, 50Hz	SS90165	190	10
320V, 50Hz	SS90166	190	10
230V, 50Hz	SS90045	190	10
220V, 50Hz	SS90044	190	10
110V, 50Hz	SS90043	190	10
Auxiliary contact block: 1 NO + 1 NC	SS90120	260	50
Spare kit without coil	SS90983	395	50
Thermal timer without combination coil	SS90224	745	4
Combination coils			
Combination coils for 400 / 440V, 50Hz	SS90443	485	10
Combination coils for 230V, 50Hz	SS90444	485	10
Combination coils for 380V, 50Hz	SS90445	485	10
Combination coils for 360V, 50Hz	SS90446	485	10
Push Button Unit	SS90004	115	100
Arc Shield	SS50004	125	100
Contact bridge without Contacts	SS50005	115	100
Single Phase Preventor Relay - z5 360V	CS94801COOO	1145	1
Single Phase Preventor Relay - z5 415V	CS94801DOOO	1145	1
SDz5, 360V	XM81808O0000	1845	1
SDz5, 415V	XM81809O0000	1845	1
Single Phase Preventor Relay - Sz5 380V AC (6 wires)	CS94824LOOO	600	1
Single Phase Preventor Relay - Sz5 380V AC (7 wires)	ST92166O0000	600	1

Spares for MR-G2 Controllers

Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
30A Ammeter Spare for MRG Controller	CS96026O0000	360	1
Dual Meter (30A , 300V AC) Spare for MRG	CS96028O0000	585	1
Start Push Button Unit Pack Spares	CS96024O0000	130	1
Stop Push Button Unit Spares	CS96125O0000	155	1
Lamp Spares, MRG Controller	CS96126O0000	50	1
Wiring harness, MU-G50	CS96127O0000	3435	1
Wiring harness, MU-G30	CS96128O0000	2525	1
Wiring harness, MU-G20	CS96129O0000	1925	1
Wiring harness, MU-G20H	CS96135O0000	2050	1
Wiring harness, MU-G10	CS96130O0000	870	1
Wiring harness, MU-G10H	CS96134O0000	1130	1
Wiring harness, MU-G6	CS96131O0000	615	1
Wiring harness 4 sqmm, MRG2 Dual+2run	CS96132O0000	920	1
Wiring harness 2.5 sqmm, MRG2 Dual+2run	CS96133O0000	710	1
Wiring harness 2.5 sqmm, MRG2 Ammet+2run	CS96136O0000	820	1
Wiring harness 2.5 sqmm, MRG2 Ammet+1run	CS96137O0000	800	1
Wiring harness 2.5 sqmm, MRG2 dual+1run	CS96138O0000	780	1
Wiring harness 4 sqmm, MRG2 Ammeter+2run	CS96139O0000	945	1
Wiring harness 4 sqmm, MRG2 Ammeter+1run	CS96140O0000	920	1
Wiring harness 4 sqmm, MRG2 Dual+1run	CS96141O0000	900	1

Spares for MN Starters

Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Bracket for Mounting cont. MNX 25 - 32	SS94030O0000	65	20

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

Table C

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	E : 20 - 32	E : 20 - 33	C : 13 - 21	E : 20 - 33
P - 440 V	M : 1 - 1.6			E : 20 - 32	G : 30 - 50
	P : 1.5 - 2.5			F : 28 - 42	J : 45 - 75
	R : 2.5 - 4			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	U : 4.5 - 7.5
				P : 135 - 225	V : 6 - 10
				Q : 180 - 310	
				R : 2.5 - 4	
				T : 13 - 21	

Digital Soft Starters

CSX Soft Starters



Motor kW	Cat. No.	M.R.P. (₹) Per Unit
7.5	CSX0007V4C1	24100
15	CSX0015V4C1	25500
18	CSX0018V4C1	26400
22	CSX0022V4C1	31200
30	CSX0030V4C1	35200
37	CSX0037V4C1	40300
45	CSX0045V4C1	45800
55	CSX0055V4C1	50100
75	CSX0075V4C1	68000
90	CSX0090V4C1	74200
110	CSX0110V4C1	81500

Note : The above CSX & CSXi ratings are based on 400% starting current, 10 starts per hour, 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.

CSXi Soft Starters



Motor kW	Cat. No.	M.R.P. (₹) Per Unit
7.5	CSXi007V4C1	34900
15	CSXi015V4C1	40400
18	CSXi018V4C1	42500
22	CSXi022V4C1	45400
30	CSXi030V4C1	50500
37	CSXi037V4C1	55200
45	CSXi045V4C1	66600
55	CSXi055V4C1	72900
75	CSXi075V4C1	85200
90	CSXi090V4C1	106700
110	CSXi110V4C1	118800

- CSX Soft Starters : For Standard Applications
- Inbuilt Bypass Contactor
 - Soft Start / Soft Stop
 - Compact
 - Truly plug & play

- CSXi Soft Starters : For standard applications
- Inbuilt Bypass Contactor
 - Soft start / Soft stop / Adjustable current limit
 - Essential motor protections against
 - Overload
 - Single phasing
 - Phase sequence reversal
 - Abnormality in supply
 - Unbalanced current
 - Thermistor protection through PTC
 - Excess start time setting
 - PC Interface as optional

- EMX3 Soft Starters : For Heavy Duty Applications
- Ratings from 23 to 1600A
 - Control Voltage from 94Vdc to 484Vdc
 - Constant current / Adaptive acceleration start
 - Constant current / Adaptive de-acceleration for smooth stop
 - Forward / Reverse Jog
 - Comprehensive motor protection
 - Large LCD Keypad
 - Detachable built-in Real time clock
 - 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
 - Power through operation allows to run soft starter even with one of shorted SCR

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)		
EMX30023B411	23	35	57400	Built - In
EMX30043B411	43	65	61500	
EMX30053B411	53	75	71800	
EMX30076B411	76	105	76900	
EMX30097B411	97	135	82000	
EMX30105B411	105	155	97400	
EMX30145B411	145	205	112800	
EMX30170B411	170	240	128000	
EMX30220B411	220	330	134000	
EMX30255C411	255	365	149000	Terminals for connecting External contactor (AC1 duty)
EMX30360C411	360	540	158000	
EMX30430C411	400	645	239000	
EMX30620C411	620	930	246000	
EMX30650C411	650	975	261000	
EMX30790C411	790	1185	318000	
EMX30930C411	930	1395	400000	
EMX31200C411	1200	1800	615000	
EMX31410C411	1410	2115	738000	
EMX31600C411	1600	2400	820000	

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.

Optional Modules/Cards for CSX / CSXi / EMX3

Description	Cat. No.	M.R.P. (₹) Per Unit
Modbus Module	PIMMB01	11200
Profibus Module	PIMPB01	17400
Device Net Module	PIMDN01	13900
EMX3 RTD/Ground Fault Expansion Card	995-04804-00	13900
EMX3 I/O Expansion Card	995-04803-00	8700

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.

So good, you will want to CHANGEOVER



Changeover Switches from L&T

L&T's new range of Changeover switches - C Line, has been designed with safety and convenience in mind.

The staggered terminals and dual shaft position make installation very comfortable. The flip-handle makes operation of the switch very easy.

All the live parts of the switch are shrouded to avoid any accidental contact.

A fuse carrier kit, available as an accessory, gives you the freedom of converting the unit to a fuse version at site. Designed for endurance, you can count on C Line for long, trouble free service.

Now, that is performance and convenience for you.

L&T SWITCHGEAR

SAFE & SURE



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

E-mail : cic@LNTEBG.com

Website : www.LNTEBG.com

Switch-Disconnecter-Fuse Units

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



FNX TPN S-D-F



FNX 4P S-D-F

Features offered by **E-line** S-D-F

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

Rated Current (A)	Suitable HRC fuse-link		Three pole + Neutral (TPN)				Four Pole (FP)			
	Type	Range (A)	Type	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)	Type	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
32	HF	2 to 32	FNX 32 TPN / FP	SK96903	1360	1	FNX 32 TPN / FP	SK96903	1360	1
63	HF	2 to 63	FNX 63 TPN / FP	SK96904	1870	1	FNX 63 TPN / FP	SK96904	1870	1
100	HN Size 000	63 to 100	FNX 100 TPN / FP	SK96906	3910	1	FNX 100 TPN / FP	SK96906	3910	1
125	HN Size 000/00	63 to 125	FNX 125 TPN	SK95806	5330	1	FNX 125 FP	SK95814	6020	1
160	HN Size 000/00	63 to 160	FNX 160 TPN	SK95807	5870	1	FNX 160 FP	SK95815	6640	1
200	HN Size 0	80 to 200	FNX 200 TPN	SK95808	6950	1	FNX 200 FP	SK95816	8290	1
250	HN Size 1	125 to 250	FNX 250 TPN	SK95809	8820	1	FNX 250 FP	SK95817	9710	1
315	HN Size 1	125 to 315	FNX 315 TPN	SK95810	10900	1	FNX 315 FP	SK95818	11590	1
400	HN Size 2	200 to 400	FNX 400 TPN	SK95811	13140	1	FNX 400 FP	SK95819	13950	1
630	HN Size 3	315 to 630	FNX 630 TPN	SK95812	20820	1	FNX 630 FP	SK95820	21650	1
800	HN Size 3	315 to 800	FNX 800 TPN	SK95813	22700	1	FNX 800 FP	SK95821	23420	1

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



FN - TPN (Open Execution)



FN in SS Enclosure

Features offered by **FN** S-D-F

- Range 32A to 800A, 415V, AC 23A
- TP / TPN Versions
- Suitable for cylindrical / DIN / Bolted fuse-link
- Available in interior / Sheet steel enclosure version
- Conform to IEC 60947-3, IS/IEC 60947-3
- Door interlock & padlock facility

Rated Current (A)	Suitable HRC fuse-link		Open Execution				In Sheet Steel Enclosure			
	Type	Range (A)	Type	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)	Type	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
32	HF	2 to 32	FN 32 TPN / FP	SK95518	1360	1	FN 32 TPN / FP CE*	SK95612*	3220	1
32	HF	2 to 32	FN 32 TPN / FP CE*	SK95703*	1240	1				
63	HF	2 to 63	FN 63 TPN / FP	SK95421	1870	1	FN 63 TPN / FP CE*	SK95613*	3930	1
63	HF	2 to 63	FN 63 TPN / FP CE*	SK95704*	1720	1				
100	HN Size 000/00	63 to 100	FN 100 TPN	SK95568	4080	1	FN 100 TPN	SK95569	6480	1
125	HN Size 000/00	63 to 125	FN 125 TPN	SK95001	5330	1	FN 125 TPN	SK95005	7670	1
160	HN Size 000/00	63 to 160	FN 160 TPN	SK95713	5870	1	FN 160 TPN	SK95715	8140	1
200	HN Size 0	80 to 200	FN 200 TPN	SK95418	6950	1	FN 200 TPN	SK95511	10100	1
250	HN Size 1	125 to 250	FN 250 TPN	SK95642	8820	1	FN 250 TPN	SK95681	12120	1
315	HN Size 1	125 to 315	FN 315 TPN	SK95461	10900	1	FN 315 TPN	SK95514	14500	1
400	HN Size 2	200 to 400	FN 400 TPN	SK95481	13140	1	FN 400 TPN	SK95515	16600	1
630	HN Size 3	315 to 630	FN 630 TPN	SK95521	20820	1	FN 630 TPN	SK95547	26230	1
800	HN Size 3	315 to 800	FN 800 TPN	SK95679	22700	1	FN 800 TPN	SK95705	29110	1

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

Note: Please contact nearest branch office for type 2 co-ordination chart.

Switch-Disconnecter-Fuse Units

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



For Capacitor & Motor back-up

FN TP S-D-F

Rated Current (A)	Type	Suitable fuse-link type	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
32	FN 32 TP	HF	ST27892	1330	1
63	FN 63 TP	HF	ST27893	1830	1
100	FN 100 TP	HN Size 000/00	ST30287	3770	1
125	FN 125 TP	HN Size 000/00	ST27894	4930	1
160	FN 160 TP	HN Size 000/00	SK95998	5430	1
200	FN 200 TP	HN Size 0	ST27895	6770	1
250	FN 250 TP	HN Size 1	ST31731	8160	1
315	FN 315 TP	HN Size 1	ST27897	10090	1
400	FN 400 TP	HN Size 2	ST27898	12160	1
630	FN 630 TP	HN Size 3	ST27899	19260	1
800	FN 800 TP	HN Size 3	ST27900	21000	1

Note: Please contact nearest branch office for type 2 co-ordination chart.

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



FN TPN S-D-F

Rated Current (A)	Open Execution				
	Type	Suitable fuse-link type	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
32	FN 32 TPN	A1 / A1L	SK95653	1380	1
63	FN 63 TPN	A1 / A1L	SK95651	1890	1
100	FN 100 TPN	A3 / A4	SK95570	3790	1
125	FN 125 TPN	A4	SK95009	4770	1
160	FN 160 TPN	A4	SK95714	4940	1
200	FN 200 TPN	B2	SK95588	5960	1
250	FN 250 TPN	B2 / B3	SK95682	7740	1
315	FN 315 TPN	B3	SK95590	10140	1
400	FN 400 TPN	B4	SK95591	11470	1
630	FN 630 TPN	C2	SK95592	19390	1

Type FN & FG Switch-Disconnecter (TPN)



FN TPN S-D

Rated Current (A)	Type	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
32	FN 32 TPN / 4P	SK95541	1320	1
63	FN 63 TPN / 4P	SK95540	1810	1
100	FN 100 TPN	SK95571	3590	1
125	FN 125 TPN	SK95405	4470	1
200	FN 200 TPN	SK95607	5690	1
250	FN 250 TPN	SK95683	7910	1
315	FN 315 TPN	SK95609	9310	1
400	FN 400 TPN	SK95610	11650	1
630	FN 630 TPN	SK95611	17010	1
800	FN 800 TPN	SK95551	20250	1
1000	FN 1000 TPN	SK95710	25230	1
1000	FN 1000H TPN	SK95992	27680	1
1250	FG 1250 TPN	ST30198	37460	1
1600	FG 1600 TPN	ST30199	53980	1
2000	FG 2000 TPN	ST30200	144220	1
2500	FG 2500 TPN	ST30201	171110	1
3150	FG 3150 TPN	ST30202	174290	1

Refer catalogue for short circuit withstand capacity

Type FFO/FF/FAC suitable for panel mounting

Rated Current (A)	Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
32	FFO TP Interior	SK91100	990	1
63	FF TP Interior	SK91000	1500	1
63	FAC 63 TPN	SK95156	2780	1
100	FAC 100 TPN	SK95157	4550	1

Spares & Accessories for Type FFO/FF/FAC

Description	Rated Current (A)	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
FAC - Handle Assembly	63 / 100	SK90453	70	1
FFO / FF Handle Assembly	32 / 63	SK90998	80	1
FFO / FF Handle Coupler & Door Interlock	32 / 63	SK91079	400	1

Switch-Disconnecter-Fuse: Accessories

Accessories for type FNX



Castell 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	145	1
	FNX 100	SK91538	285	1
	FNX 125 / 160	SK91539	290	1
	FNX 200 / 250	SK91540	380	1
	FNX 315 / 400 / 630 / 800	SK91541	420	1
Handle Assembly	FNX 32 / 63 / 100	SK91524	270	1
	FNX 125 / 160 / 200 / 250	SK91525	510	1
	FNX 315 / 400 / 630 / 800	SK91526	640	1
Castell 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	65	1
Mechanical Interlock kit	FNX 125 / 160 / 200 / 250	SK95232	815	1
	FNX 315 / 400 / 630 / 800	SK95545	930	1

Accessories for type FN



Terminal Shroud Kit



Handle Assembly



Auxiliary Contact Kit



Switched Neutral Kit



Mechanical Interlock Kit



Shaft Extension Kit

Description	Type	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Auxiliary Contact Kit (1NO + 1 NC)	FN 32 / 63	SK91302	325	1
	FN 100 / 125 / 160	SK91328	370	1
	FN 200 / 250	SK91329	435	1
	FN 315 / 400 / 630 / 800	SK91330*	480	1
Terminal Shroud Kit	FN 32 / 63	SK91190	90	1
	FN 100 / 125 / 160	SK91137	120	1
	FN 200 / 250	SK91335	205	1
	FN 315 / 400	SK91346	215	1
Handle Assembly - A	FN 32 / 63	SK91257	260	1
	FN 100 / 125 / 160	SK91258	570	1
	FN 200 / 250	SK91258	570	1
	FN 315 / 400 / 630 / 800	SK91259*	635	1
Handle Assembly - B	FN 32 / 63	SK91277	260	1
	FN 100 / 125 / 160	SK91278	570	1
	FN 200 / 250	SK91278	570	1
	FN 315 / 400 / 630 / 800	SK91279*	635	1
Handle Assembly - CE	FN 32 / 63	SK91337	145	1
	FN 100 / 125 / 160	SK95232	815	1
	FN 200 / 250	SK95232	815	1
Mechanical Interlock Kit	FN 315 / 400 / 630 / 800	SK95545*	930	1
	FN 100 / 125 / 160	SK95233	1880	1
	FN 200 / 250	SK95516	1910	1
Switched Neutral Kit	FN 315 / 400	SK95517	1985	1
	FN 630 / 800	SK95546*	2670	1
Interphase Barrier Kit	FN 200	SK91343	190	1
	FN 315 / 400	SK91344	200	1
	FN 630 / 800	SK91345*	210	1
Shaft Extension Kit	FN 100 / 125 / 160	SK95600	150	1
	FN 315 / 400 / 630 / 800	SK91331*	180	1

* Also suitable for switch-disconnector FN1000 & FN1000H

Spare front housing assemblies for FN S-D-F (suitable for DIN fuse-link)

Rating (A)	Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
100	FN 100 Front housing assembly	ST31677	2890	1
125	FN 125 Front housing assembly	ST31678	3380	1
200	FN 200 Front housing assembly	ST31679	3865	1
250	FN 250 Front housing assembly	ST31729	5250	1
315	FN 315 Front housing assembly	ST31681	6325	1
400	FN 400 Front housing assembly	ST31682	7975	1
630	FN 630 Front housing assembly	ST31683	14310	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	108	1
Insulated fuse pulling handle for Type HN fuse-link from 63A-800A	SF90126	409	1

Castell lock for type FN



Castell lock

Rated Current (A)	Description & Cat. No.		M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
From FN 100 to FN 250	A = SK00333 C = SK00335	B = SK00334 D = SK00336	1110	1
From FN 315 to FN 800	A = SK00345 C = SK00347	B = SK00346 D = SK00348	1110	1

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	78	30
	4		SF90145	78	30
	6		SF90146	78	30
	8		SF90147	78	30
	10		SF90148	78	30
	16		SF90150	78	30
	20		SF90151	78	30
	25		SF90152	78	30
	32		SF90142	78	30
	40	Suitable for Type FN 63 / FNX 63 S-D-F & for HC 63 Fuse base	SF90143	87	30
	50		SF90158	173	30
	63		SF90159	217	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 Suitable for Type FA-C 100 & for HB 160 Fuse base	SF94940	260	3
	80		SF94941	260	3
	100		SF94942	260	3
	125		SF94946	295	3
00	63	Suitable for type FN 100/125/160 / FNX 125/160 S-D-F Suitable for Type FA-C 100 & for HB 160 Fuse base	SF94027	321	3
	80		SF94028	330	3
	100		SF94029	330	3
	125		SF94030	342	3
	160		SF94939	365	3
0	80	Suitable for Type FN 200 / FNX 200 S-D-F & for HB 250 Fuse base	SF94128	416	3
	100		SF94129	416	3
	125		SF94130	416	3
	160		SF94131	425	3
	200		SF94132	451	3
1	125	Suitable for Type FN 250/315 / FNX 250/315 S-D-F & for HB 250 Fuse base	SF94230	468	3
	160		SF94231	477	3
	200		SF94232	477	3
	250		SF94233	546	3
	315		SF94234	685	3
2	200	Suitable for Type FN 400 / FNX 400 S-D-F & for HB 800 Fuse base	SF94332	677	3
	250		SF94333	685	3
	315		SF94334	703	3
	400		SF94335	711	3
3	315	Suitable for Type FN 630/800 / FNX 630/800 S-D-F & for HB 800 Fuse base	SF94434	1101	1
	400		SF94435	1101	1
	500		SF94436	1136	1
	630		SF94437	1162	1
	800		SF94938	1379	1

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



HB

HCO

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	147	10
63	HC 63	Fuse holder	HF	2-63	SK91043	170	10
160	HB 160	Fuse base	HN-Size 000 & 00	63-160	SK90405	261	12
250	HB 250	Fuse base	HN-Size 0 & 1	80-250	SK90406	503	3
800	HB 800	Fuse base	HN-Size 2 & 3	200-800	SK91051	993	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	37	20
			4		ST30726	37	20
			6		ST30727	37	20
			10		ST30728	37	20
			16		ST30729	37	20
			20		ST30730	41	20
			25		ST30731	41	20
			32		ST30732	41	20
HQ	Offset	A1	2	Suitable for type FN 32/63 S-D-F	ST30736	53	20
			4		ST30737	53	20
			6		ST30738	53	20
			10		ST30739	53	20
			16		ST30740	53	20
			20		ST30741	56	20
			25		ST30742	56	20
			32		ST30743	62	20
		A1L	20	Suitable for type FN 100 S-D-F & for HK 63B/63H Fuse base	ST34527	62	20
			25		ST34528	62	20
			32		ST34529	65	20
			50		ST35827	65	20
			63		ST35828	65	20
		A2	4	Suitable for type HK 32H/32B fuse base	ST30747	53	10
			6		ST30748	53	10
			10		ST30749	53	10
			16		ST30750	53	10
			20		ST30751	53	10
			25		ST30752	53	10
			32		ST30753	53	10
		A3	35	Suitable for type FN 100 S-D-F & for HK 63B/63H Fuse base	ST30759	77	10
			50		ST30760	77	10
			63		ST30761	77	10
		A4	80	Suitable for type FN 100/125/160 S-D-F & for HK 125H/125B Fuse base	ST30767	144	10
			100		ST30768	151	10
			125		ST30769	178	10
			160		ST35829	184	10
	Centre Tag, 2 holes	B1	80	Suitable for type FN 200 S-D-F	ST30774	161	10
			100		ST30775	161	10
			125		ST30776	212	10
		B2	125	Suitable for type FN 250/315 S-D-F	ST30777	225	3
			160		ST30778	235	3
			200		ST30779	217	3
		B3	250	Suitable for type FN 400 S-D-F	ST30781	343	3
			315		ST30782	343	3
		B4	355	Suitable for type FN 630 S-D-F	ST30783	564	3
			400		ST30784	595	3
	Centre Tag, 4 holes	C2	400	Suitable for type FN 630 S-D-F	ST30785	986	1
			500		ST30786	991	1
			630		ST30787	1149	1
		C3	630	-	ST30788	1317	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	F1	2-20	ST30772	89	10
	HD 20P	Both side busbar	F1	2-20	ST30773	97	10
	HD 20B	Top busbar & bottom cable	F1	2-20	ST30766	97	10
32	HD 32H	Both side cable	F1	2-32	ST30733	91	10
	HD 32P	Both side busbar	F1	2-32	ST30734	130	10
	HD 32B	Top busbar & bottom cable	F1	2-32	ST30735	119	10
	HK 32H	Both side cable	A2	4-32	ST30754	147	10
	HK 32B	Top busbar & bottom cable	A2	4-32	ST30755	186	10
63	HK 63H	Both side cable	A3	35-63	ST30762	201	10
	HK 63B	Top busbar & bottom cable	A3	35-63	ST30763	259	10
125	HK 125H	Both side cable	A4	80-125	ST30770	655	10
	HK 125B	Top busbar & bottom cable	A4	80-125	ST30771	744	10

On Load Changeover Switch - Disconnectors

Type **C-line** changeover switch-disconnector



C-line Direct handle F1 **C-line** Extended handle F1 **C-line** as open execution **C-line** in SS enclosure

Features offered by **C-line** Changeover

- Range 63A to 1000A, 415V, AC 23A, 4P
- Conforms to IEC 60947-3, IS/IEC 60947-3
- Staggered terminals
- Available in fused version for open execution
- Flip-able handle above 400A
- Interchangeable dual shaft position with site convertibility
- **SS enclosure version does not require separate cable gland box**

Rated Current (A)	Open Execution				In Sheet Steel Enclosure [#]			
	Type	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)	Type	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
63	CO1-63	CO106300000	3970	1	CO1-63	CO106300S00	5580	1
63	CO1-63	CO10630000D*	3800	1				
100	CO1-100	CO110000000	5010	1				
100	CO1-100	CO11000000D*	4830	1				
125	CO2-125	CO212500000	7470	1	CO2-125	CO212500S00	10120	1
160	CO2-160	CO216000000	8330	1	CO2-160	CO216000S00	11120	1
200	CO2-200	CO220000000	10050	1	CO2-200	CO220000S00	12820	1
250	CO3-250	CO325000000	14210	1	CO3-250	CO325000S00	17880	1
315	CO3-315	CO331500000	15040	1	CO3-315	CO331500S00	18730	1
400	CO4-400	CO440000000	21760	1	CO4-400	CO440000S00	27340	1
630	CO4-630	CO463000000	25880	1	CO4-630	CO463000S00	31700	1
800	CO5-800	CO580000000	37850	1	CO5-800	CO580000S00	45890	1
1000	CO5-1000	CO510000000	62260	1	CO5-1000	CO510000S00	78250	1

* Direct handle version

All sheet steel enclosure version comes with extended handle switch

Type **FG / FGC (TPN)** changeover switch-disconnector



FGC Changeover

Rated Current (A)	Type	Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
1250	FGC 1250	Back to Back mtg. with 4 O/P terminals	ST274600OOC	91020	1
1600	FG 1600	Back to Back mtg. with 8 O/P terminals	ST274700OOC	126780	1

Type **C-line** in fused version Fuse mountable kit (suitable for DIN fuse-link)



Fuse Mountable Kit

Rated Current (A)	Suitable fuse-link type DIN	Fuse Mountable Kit	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
63	HF	CO Frame 1 63A	**	**	1
125	Size 00	CO Frame 2 125A	CX212500ODO	2765	1
160	Size 00	CO Frame 2 160A	CX216000ODO	3660	1
200	Size 00	CO Frame 2 200A	CX220000ODO	4670	1
250	Size 1	CO Frame 3 250A	CX325000ODO	4920	1
315	Size 1	CO Frame 3 315A	CX331500ODO	5155	1
400	Size 2	CO Frame 4 400A	CX440000ODO	7665	1

Spares & Accessories for type **C-line** / FG / FGC Auxiliary contact



Auxiliary Contact

Auxiliary contact block suitable for	Auxiliary Contact	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
C/O Frame 1 (63-100A)	1 NO + 1 NC	CX100020000	**	1
C/O Frame 2 (125-200A)	2 NO + 2 NC	CX200020000	605	1
C/O Frame 3 (250-315A)	2 NO + 2 NC	CX300020000	660	1
C/O Frame 4 (400-630A)	2 NO + 2 NC	CX400020000	695	1
C/O Frame 5 (800-1000A)	2 NO + 2 NC	CX500020000	795	1
FG & FGC (63 - 1600A)	1 NO + 1 NC	ST265120000	390	1
	1 NO + 1 NC	ST265420000	680	1

Operating handle



Operating Handle (125A to 315A)



Flip-able Handle (400A to 1000A)

Operating handle suitable for	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
C/O Frame 1 (63-100A)	CX100010000	**	1
C/O Frame 2 & 3 (125-315A)	CX300010000	800	1
C/O Frame 4 (400-630A)	CX400010000	1050	1
C/O Frame 5 (800-1000A)	CX500010000	1145	1
FG Isolator 1000 / 1250 / 1600A	ST265910000	2750	1
FGC C/O 1000 / 1250A	ST26591000C	2750	1

** For further details please contact the nearest branch office

MCCB Range



- Conforms to IS/IEC 60947-2 & IEC 60947-2
- Comprehensive range from 0.63A to 1600A
- 1, 2, 3 & 4 pole versions
- Breaking capacities upto 100kA
- Manual & Electrical operation
- Fixed, Plug-in & Withdrawable versions

- Protection units:
 - Thermal Magnetic
 - Microprocessor based
 - Microprocessor based with communication & metering
- Comprehensive range of internal & external accessories
- Solution for ASTS (Automatic Source Transfer System)

- 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 spares, unless otherwise specified against Cat. Nos.
- Spreaders are made of silver plated copper
- Any 2 internal accessories can be fitted

Special Applications

- For special applications like capacitor switching & DC etc. please contact nearest branch office
- For Motor backup protection, use 'M' series of MCCBs such as DM, DN0M, DN2M, DN3M
- For isolation, use SD version (without protection release)
- Please Contact nearest branch office for availability of Plug-in, Draw-out & higher breaking capacity MCCBs

DU MCCB Range

Rating (A)	16	20	25	32	40	50	63	80	100	125	160	200	250
Icu (kA)													
10	DU100												
30		DU100H											
36										DU250			

DU100 MCCB



- Conforms to IS/IEC 60947-2 & IEC 60947-2
- Range: 16A to 100A, 3P
- Compact size
- Also available in SS Enclosure
- Suitable for mounting on D-Pan assembly
- Suitable for MCB DB mounting

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	1485	1
	20		CM977520000	1485	1
	25		CM977530000	1485	1
	32		CM977540000	1485	1
	40		CM977550000	1485	1
	50		CM977560000	1485	1
	63		CM977570000	1485	1
	80		CM989210000	1615▲	1
	100		CM989220000	1615▲	1

▲ - Spreader Terminals are included.
Note: For DIN rail mounting MCCB, please contact nearest branch

DU100H MCCB



- Conforms to IS/IEC 60947-2 & IEC 60947-2
- Range: 20A to 100A, 3P & 4P
- Compact size
- Inbuilt DIN rail mounting
- Also available in SS Enclosure
- Suitable for mounting on D-Pan assembly
- Wide Range of snap fit Internal and External Accessories
- Adjustable overload setting: 0.8 - 1.0 x In
- Suitable for MCB DB mounting

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	
DU100H	16-20	30	CM97894OOC2	3340	CM97933OOC2	4425	1
	20-25		CM97894OOD2	3340	CM97933OOD2	4425	1
	25-32		CM97894OOE2	3340	CM97933OOE2	4425	1
	32-40		CM97894OOF2	3340	CM97933OOF2	4425	1
	40-50		CM97894OOG2	3340	CM97933OOG2	4425	1
	50-63		CM97894OOH2	3340	CM97933OOH2	4425	1
	63-80		CM97894OOJ2	3340	CM97933OOJ2	4425	1
	80-100		CM97894OOK2	3340	CM97933OOK2	4425	1

DU250 MCCB



- Conforms to IS/IEC 60947-2 & IEC 60947-2
- Range: 100A to 250A, 3P & 4P
- Compact size
- Wide Range of snap fit Internal and External Accessories
- Adjustable overload setting: 0.8 - 1.0 x In
- Suitable for DB mounting

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	
DU250	80-100	36	CM98064O000	4250	CM98065O0KO	5940	1
	100-125		CM98063O000	5465	CM98065O0LO	7105	1
	125-160		CM98062O000	6505	CM98065O0MO	8455	1
	160-200		CM98061O000	8585	CM98065O0NO	11145	1
	200-250		CM98060O000	10015	CM98065O0PO	13010	1

Accessories for DU MCCBs

Accessories for DU100



Auxiliary Contact



Shunt Release



Spreader Terminals



Direct Rotary Handle

Description	Internal		
	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Auxiliary Contact			
1 C/O - Right	CM977810000	365	1
1 C/O - Left	CM977820000	365	1
Shunt Release			
240/415V AC - Left	CM977830000	415	1

Description	External		
	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Spreader Terminals			
3 Pole	CM977850000	145	Set of 6
Rotary Handle			
Direct	SL970440000	675	1

Accessories for DU100H/DU250



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	565	1
2 C/O - Right	CM978870000	955	1
Trip Alarm Contact			
1 C/O - Right	CM978880000	565	1
2 C/O - Right	CM978890000	955	1
Auxiliary 1 C/O + TAC 1 C/O			
Right	CM978900000	955	1
Shunt Release			
240/415V AC - Left	CM978830000	800	1
Under Voltage Release			
240V AC - Left	CM978920000	1030	1



Spreader Terminals



Direct Rotary Handle



Extended Rotary Handle

Description	External		
	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Spreader Terminals			
DU100H - 3 Pole	CM977850000	145	Set of 6
DU100H - 4 Pole	CM979210000	250	Set of 8
DU250 - 3 Pole	ST980530000	800	Set of 6
DU250 - 4 Pole	CM920070000	1075	Set of 8
Rotary Handle			
DU100H - Direct	CM978950000	765	1
DU250 - Direct	CM980400000	825	1
DU100H - Extended	CM978960000	1145	1
DU250 - Extended	CM980410000	1195	1

D-Pan Assembly



- Offers a convenient solution for distribution
- Available for 250A, 400A main incomer 3P MCCBs
- Available for 4, 8 & 12 ways 3P outgoing MCCBs
- Type tested (KEMA)

Description I/C -	O/G - DU 100		O/G - DN0 / DU100H		Std. Pkg. (Nos.)
	Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit	
D-Pan I/C 250A O/G 4 Way	CM978210000	9105	CM979120000	9105	1
D-Pan I/C 250A O/G 8 Way	CM978220000	12750	CM979130000	12750	1
D-Pan I/C 250A O/G 12 Way	CM978230000	16485	CM979140000	16485	1
D-Pan I/C 400A O/G 4 Way	CM986050000	10660	CM979150000	10660	1
D-Pan I/C 400A O/G 8 Way	CM986060000	14300	CM979160000	14300	1
D-Pan I/C 400A O/G 12 Way	CM986070000	18030	CM979170000	18030	1



DN4



DN3



DN2



DN1



DN0

d sine With Thermal - Magnetic Release :

Rating (A)	20	25	32	40	50	63	80	100	125	160	200	250	320	400	500	630
Icu (kA)																
36																
50																
36/50/70																



- Conforms to IS/IEC 60947-2 & IEC 60947-2
- Range: 20A to 630A, 3P & 4P
- Choice of 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



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	
New DN0-100D*	16-20	36	CM97893OOC2OG	4075	CM97919OOC2OG	5375	1
	20-25		CM97893OOD2OG	4075	CM97919OOD2OG	5375	1
	25-32		CM97893OOE2OG	4075	CM97919OOE2OG	5375	1
	32-40		CM97893OOF2OG	4075	CM97919OOF2OG	5375	1
	40-50		CM97893OOG2OG	4075	CM97919OOG2OG	5375	1
	50-63		CM97893OOH2OG	4075	CM97919OOH2OG	5375	1
	63-80		CM97893OOJ2OG	4075	CM97919OOJ2OG	5375	1
	80-100		CM97893OOK2OG	4075	CM97919OOK2OG	5375	1
DN2-250D	100-125	36	CM92008OOL1OG	7720	CM92108OOL1OG	9625	1
	125-160		CM92008OOM1OG	9755	CM92108OOM1OG	11710	1
	160-200		CM92009OON1OG	13530	CM92109OON1OG	16480	1
	200-250		CM92009OOP1OG	15480	CM92109OOP1OG	18690	1
DN3-400D	250-320	36	CM94005OOQ1OG	19690	CM94105OOQ1OG	24675	1
	320-400		CM94005OOR1OG	19690	CM94105OOR1OG	24675	1
DN3-630D	400-500	36	CM94006OOS1OG	22595	CM94106OOS1OG	28230	1
	500-630		CM94006OOT1OG	22595	CM94106OOT1OG	28230	1
New DN1-250N*	80 - 100	50	CM98608OOKO	5505	-	-	1
	100 - 125		CM98608OOL1OG	7110	-	-	1
	125 - 160		CM98608OOMO	8455	-	-	1
	160 - 200		CM98608OONO	11145	-	-	1
	200 - 250		CM98608OOP1OG	13010	-	-	1
DN2-250N	100-125	50	CM92005OOL1OG	10145	CM92105OOL1OG	13530	1
	125-160		CM92005OOM1OG	12230	CM92105OOM1OG	15655	1
	160-200		CM92006OON1OG	15135	CM92106OON1OG	19295	1
	200-250		CM92006OOP1OG	17435	CM92106OOP1OG	20860	1
DN3-400N	250-320	50	CM94003OOQ1OG	20900	CM94103OOQ1OG	25845	1
	320-400		CM94003OOR1OG	20900	CM94103OOR1OG	25845	1
DN3-630N	400-500	50	CM94004OOS1OG	24460	CM94104OOS1OG	30875	1
	500-630		CM94004OOT1OG	24460	CM94104OOT1OG	30875	1
DN2-250S	100-125	70	CM92002OOL1OG	13615	CM92102OOL1OG	16090	1
	125-160		CM92002OOM1OG	15960	CM92102OOM1OG	19295	1
	160-200		CM92003OON1OG	19080	CM92103OON1OG	23415	1
	200-250		CM92003OOP1OG	20555	CM92103OOP1OG	24630	1
DN3-400S	250-320	70	CM94001OOQ1OG	22635	CM94101OOQ1OG	27665	1
	320-400		CM94001OOR1OG	22635	CM94101OOR1OG	27665	1
DN3-630S	400-500	70	CM94002OOS1OG	30875#	CM94102OOS1OG	36600#	1
	500-630		CM94002OOT1OG	30875#	CM94102OOT1OG	36600#	1

Note: For 800A refer DTH MCCBs. For d sine range of 800 - 1250 A ratings refer micro processor release tables.

Magnetic setting 3-6 In. Please contact nearest branch office for magnetic setting 6-10 In.

@ Motorised version available for DN3 frame.

* For DN0, DN1 Please refer catalogue.

d sine With Micro processor release :

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

d sine With Micro processor release MTX1.0 :

New



- Conforms to IS/IEC 60947-2 & IEC 60947-2
- Range: 40A to 1250A, 3P & 4P
- Choice of 36kA / 50kA / 70kA 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
- 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 @
- 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 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	CM92063O000X1	10410	CM92155O000X1	13615	1
	25 - 63		CM92071O000X1	10410	CM92154O000X1	13615	1
	40 - 100		CM92051O000X1	10410	CM92153O000X1	13615	1
	63 - 160		CM92074O000X1	12965	CM92152O000X1	18475	1
	100 - 250		CM92054O000X1	16695	CM92151O000X1	24155	1
DN3-400D	160 - 400	50	CM93001O000X1	22465	CM93003O000X1	27755	1
DN3-630D	250 - 630		CM93005O000X1	24025	CM93007O000X1	32695	1
DN2-250N	16 - 40		CM92064O000X1	12270	CM92160O000X1	15350	1
	25 - 63		CM92072O000X1	12270	CM92159O000X1	15350	1
	40 - 100		CM92052O000X1	12270	CM92158O000X1	15350	1
	63 - 160		CM92075O000X1	15870	CM92157O000X1	19340	1
	100 - 250		CM92055O000X1	19080	CM92156O000X1	25845	1
DN3-400N	160 - 400	70	CM93002O000X1	23545	CM93004O000X1	30095	1
DN3-630N	250 - 630		CM93006O000X1	26930	CM93008O000X1	36165	1
DN4-1250N	320 - 800		CM96011O000X1	39460	CM96111O000X1	50390	1
	400 - 1000		CM96012O000X1	49870	CM96112O000X1	69470	1
	500 - 1250		CM96013O000X1	62445	CM96113O000X1	88900	1
DN2-250S	16 - 40	70	CM92065O000X1	14310	CM92165O000X1	17695	1
	25 - 63		CM92073O000X1	14310	CM92164O000X1	17695	1
	40 - 100		CM92059O000X1	14310	CM92163O000X1	17695	1
	63 - 160		CM92076O000X1	20035	CM92162O000X1	24630	1
	100 - 250		CM92056O000X1	22205	CM92161O000X1	27970	1
DN3-400S	160 - 400	70	CM94053O000X1	27840	CM94153O000X1	38855	1
DN3-630S	250 - 630		CM94079O000X1	34000	CM94179O000X1	46835	1
DN4-1250S	320 - 800		CM96015O000X1	47615	CM96115O000X1	59845	1
	400 - 1000		CM96016O000X1	63920	CM96116O000X1	85950	1
	500 - 1250		CM96017O000X1	75630	CM96117O000X1	100695	1

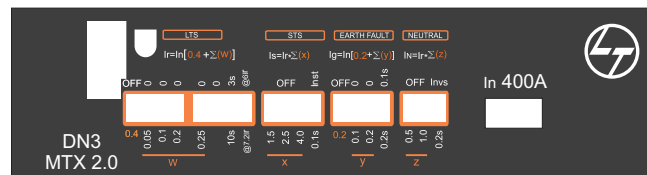
@ Motorised version available for DN3 frame.

d sine With Micro processor release MTX2.0 :

New



- Conforms to IS/IEC 60947-2 & IEC 60947-2
- Range: 40A to 1250A, 3P & 4P
- Choice of 36kA / 50kA / 70kA 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 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 (Ready, Over load pre-alarm & Overload)
- Panel mounted display available for Current metering*
- 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	21075	CM921550000AG	24240	1
	25 - 63		CM920710000AG	21075	CM921540000AG	24240	1
	40 - 100		CM920510000AG	21075	CM921530000AG	24240	1
	63 - 160		CM920740000AG	22160	CM921520000AG	27495	1
	100 - 250		CM920540000AG	25280	CM921510000AG	33175	1
DN3-400D	160 - 400	50	CM930010000AG	31615	CM930030000AG	35125	1
DN3-630D	250 - 630		CM930050000AG	33000	CM930070000AG	41630	1
DN2-250N	16 - 40		CM920640000AG	22895	CM921600000AG	25930	1
	25 - 63		CM920720000AG	22895	CM921590000AG	25930	1
	40 - 100		CM920520000AG	22895	CM921580000AG	25930	1
	63 - 160		CM920750000AG	24890	CM921570000AG	28315	1
	100 - 250		CM920550000AG	27235	CM921560000AG	34820	1
DN3-400N	160 - 400	70	CM930020000AG	32525	CM930040000AG	39030	1
DN3-630N	250 - 630		CM930060000AG	34910	CM930080000AG	45100	1
DN4-1250N	320 - 800		CM960110000AG	52255	CM961110000AG	63270	1
	400 - 1000		CM960120000AG	62660	CM961120000AG	82350	1
	500 - 1250		CM960130000AG	73720	CM961130000AG	101820	1
DN2-250S	16 - 40	70	CM920650000AG	24890	CM921650000AG	28275	1
	25 - 63		CM920730000AG	24890	CM921640000AG	28275	1
	40 - 100		CM920590000AG	24890	CM921630000AG	28275	1
	63 - 160		CM920760000AG	29010	CM921620000AG	33610	1
	100 - 250		CM920560000AG	31095	CM921610000AG	36990	1
DN3-400S	160 - 400	70	CM940530000AG	36815	CM941530000AG	47830	1
DN3-630S	250 - 630		CM940790000AG	39895	CM941790000AG	55810	1
DN4-1250S	320 - 800		CM960150000AG	60450	CM961150000AG	72635	1
	400 - 1000		CM960160000AG	76755	CM961160000AG	98830	1
	500 - 1250		CM960170000AG	88465	CM961170000AG	113575	1

@ Motorised version available for DN3 frame.

* For ordering details please refer to page no. 35



MTX2.0 with current metering module

d sine With Micro processor release RC10* :



- Conforms to IS/IEC 60947-2 & IEC 60947-2
- Range: 40A to 1250A, 3P & 4P
- Choice of 36kA / 50kA / 70kA breaking capacities
- Ics = 100% Icu
- Suitable for Isolation
- Adjustable Over Load from 40% - 100% of In
- Adjustable Short Circuit from 1.5 - 8 x Ir
- Inbuilt ground fault protection from 20% - 50% of In
- Neutral overload protection available
- 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 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	CM9206300000G	Available on request	CM9215500000G	Available on request	1
	25-63		CM9207100000G		CM9215400000G		1
	40-100		CM9205100000G		CM9215300000G		1
	63-160		CM9207400000G		CM9215200000G		1
	100-250		CM9205400000G		CM9215100000G		1
DN3-400D	160-400	50	CM9300100000G	Available on request	CM9300300000G	Available on request	1
DN3-630D	250-630		CM9300500000G		CM9300700000G		1
DN2-250N	16-40		CM9206400000G		CM9216000000G		1
	25-63		CM9207200000G		CM9215900000G		1
	40-100		CM9205200000G		CM9215800000G		1
	63-160		CM9207500000G		CM9215700000G		1
	100-250		CM9205500000G		CM9215600000G		1
DN3-400N	160-400	70	CM9300200000G	Available on request	CM9300400000G	Available on request	1
DN3-630N	250-630		CM9300600000G		CM9300800000G		1
DN2-250S	16-40		CM9206500000G		CM9216500000G		1
	25-63		CM9207300000G		CM9216400000G		1
	40-100		CM9205900000G		CM9216300000G		1
	63-160		CM9207600000G		CM9216200000G		1
	100-250		CM9205600000G		CM9216100000G		1
DN3-400S	160-400	50	CM9405300000G	Available on request	CM9415300000G	Available on request	1
DN3-630S	250-630		CM9407900000G		CM9417900000G		1
DN4-1250N	320-800		CM9601100000G		CM9611100000G		1
	400-1000		CM9601200000G		CM9611200000G		1
	500-1250		CM9601300000G		CM9611300000G		1

For communication capable release please contact the nearest branch office.

@ Motorised version available for DN3 frame.

*Available till stocks last

Automatic Source Transfer System New

- Stored Energy operated
- Automatic / Manual control of power supply source
- Set-up data programming
- Virtual front panel viewing with key activation feature
- Analog modem / GSM modem support
- Programmable I/Os
- Test function
- LED display
- Voltage and Frequency display
- Inbuilt UV protection
- Inbuilt phase unbalance protection





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AuXC-1000

2 d sine DN3 MCCBs + 2 SE-EOM + 1 MIL kit



With Thermal - Magnetic Releases

Rating (A)	Breaking Capacity Icu at 415V AC, 50Hz. (kA)	3 Pole		4 Pole	
		Cat. No.	M.R.P. (₹) of Total Unit	Cat. No.	M.R.P. (₹) of Total Unit
320	36	Assorted (2  DN3 MCCBs, 2 SE-EOM, 1 MIL Kit, 1 AuXC-1000)	132130	Assorted (2  DN3 MCCBs, 2 SE-EOM, 1 MIL Kit, 1 AuXC-1000)	142100
400			132130		142100
500			137940		149210
630			137940		149210
320	50		134550		144440
400			134550		144440
500			141670		154500
630			141670		154500
320	70		138020		148080
400			138020		148080
500			154500		165950
630			154500		165950



AuXC-1000

Type	Cat. No.	M.R.P. (₹) Per Unit
AuXC-1000	ST802300000	47950

With Micro processor release MTX1.0

Rating (A)	Breaking Capacity Icu at 415V AC, 50Hz. (kA)	3 Pole		4 Pole		
		Cat. No.	M.R.P. (₹) of Total Unit	Cat. No.	M.R.P. (₹) of Total Unit	
400	36	Assorted (2  DN3 MCCBs, 2 SE-EOM, 1 MIL Kit, 1 AuXC-1000)	137680	Assorted (2  DN3 MCCBs, 2 SE-EOM, 1 MIL Kit, 1 AuXC-1000)	148260	
630			140800		158140	
400	50		139840		152940	
630			146610		165080	
400	70		148430		170460	
630			160750		186420	

With Micro processor release MTX2.0

Rating (A)	Breaking Capacity Icu at 415V AC, 50Hz. (kA)	3 Pole		4 Pole	
		Cat. No.	M.R.P. (₹) of Total Unit	Cat. No.	M.R.P. (₹) of Total Unit
400	36	Assorted (2  DN3 MCCBs, 2 SE-EOM, 1 MIL Kit, 1 AuXC-1000)	155980	Assorted (2  DN3 MCCBs, 2 SE-EOM, 1 MIL Kit, 1 AuXC-1000)	163000
630			158750		176010
400	50		157800		170810
630			162570		182950
400	70		166380		188410
630			172540		204370

Note : It is recommended to use base plate MIL kit for all ASTS schemes

d sine Switch Disconnecter (MCCBs without protection release):



- Used as switching devices
- Range: 100A to 630A, 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	
DN2-250SD	100	CM96808OOKOOG	7200	CM96809OOKOOG	8935	1
	125	CM96810OOLOO	7370	CM96811OOLOO	9195	1
	160	CM96817OOMOOG	8760	CM96818OOMOOG	10840	1
	200	CM96814OONOO	11490	CM96815OONOO	14745	1
	250	CM96802OOPPOG	12010	CM96803OOPPOG	15610	1
DN3-400SD	320	CM96804OOQOOG	14135	CM96805OOQOOG	18560	1
	400	CM96804OOROOG	15440	CM96805OOROOG	19860	1
DN3-630SD	500	CM96806OOSOOG	16650	CM96807OOSOOG	21685	1
	630	CM96806OOTOO	17650	CM96807OOTOO	22940	1

d sine MCCBs for Motor back-up Protection:



- Range: 25A to 630A, 50kA
- Adjustable short circuit protection up to 10 In
- Suitable for isolation
- Wide Range of snap fit Internal and External Accessories

3 Pole					
Type	Current Rating (A)	Breaking Capacity Icu at 415V. AC, 50Hz. (kA)	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
New DN0-100M	25	50	CM98944OODO	4335	1
	32		CM98944OOEO	4335	1
	50		CM98944OOGO	4335	1
	63		CM98944OOHO	4335	1
	80		CM98944OOJO	4335	1
	100		CM98944OOKO	4335	1
DN2-250M	100		CM92172OOKOOG	7500	1
	125		CM92172OOLOO	7500	1
	160		CM92172OOMOOG	8845	1
	200		CM92171OONOO	11535	1
	250		CM92171OOPPOG	14830	1
DN3-400M	320		CM94516OOQOOG	16260	1
	400		CM94516OOROOG	17215	1
DN3-630M	500		CM94515OOSOOG	20295	1
	630		CM94515OOTOO	20640	1

Note: Please contact the nearest branch office for type 2 co-ordination chart.

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	CM978860000	565	1
DN0, DN1 - 2 C/O - Right	CM978870000	955	1
DN2, DN3, DN4 - 1 C/O	CM998010000	660	1
DN2, DN3, DN4 - 2 C/O	CM998020000	1160	1
Trip Alarm Contact			
DN0, DN1 - 1 C/O - Right	CM978880000	565	1
DN0, DN1 - 2 C/O - Right	CM978890000	955	1
DN2, DN3, DN4 - 1 C/O - Right	CM998030000	705	1
Auxiliary 1 C/O + TAC 1 C/O			
DN0, DN1 - Right	CM978900000	955	1
DN2, DN3, DN4 - Right	CM998040000	1260	1
Shunt Release			
DN0, DN1 - 240/415V AC - Left	CM978830MOO	800	1
DN2, DN3, DN4 - 110/415V AC, 110/220V DC	CM998050000	1500@	1
Under Voltage Release			
DN0, DN1 - 240V AC - Left	CM97892B000	1030	1
DN2, DN3 - 240V AC - Left	CM99986B000	1875**	1
DN4 - 240V AC - Left	CM999060000	2010**	1

@ - 'NO' of control contactor to be connected in series for DC control supply.

** - Use these UV Cat. Nos. with 'OG' (Grey look) Cat. Nos. MCCBs only.



Stored Energy EOM



Neutral CT



Adaptor kit for NCT

Description	External		
	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Stored Energy Electrical Operating Mechanism			
DN3 -240V AC	CM981300000	19820	1
External Neutral CT			
DN2 - 40A	CM999460000	1370	1
DN2 - 63A	CM999470000	1370	1
DN2 - 100A	CM999480000	1370	1
DN2 - 160A	CM999490000	1995	1
DN2 - 250A	CM999500000	1995	1
DN3 - 400A	CM999540000	3645	1
DN3 - 630A	CM999550000	3645	1
DN4 - 800A	CM998890000	5465	1
DN4 - 1000A	CM998900000	5465	1
DN4 - 1250A	CM998910000	5465	1
Adaptor kit for External Neutral CT			
DN2-250	CM999940000	400	Set of 2
DN3-400	CM999950000	790	Set of 2
DN3-630	CM999970000	885	Set of 2
DN4-800	CM999960000	1535	Set of 2
DN4-1000/1250	CM999980000	5810	Set of 2



Direct Rotary Handle



Extended Rotary Handle



Key Lock

Description	External		
	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Rotary Handle			
DN0 Direct	CM978950000	765	1
DN1 Direct	CM980400000	825	1
DN2 Direct	CM998290000	955	1
DN3 Direct	CM998600000	1415	1
DN0 Extended	CM978960000	1145	1
DN1 Extended	CM980410000	1195	1
DN2 Extended	CM998300000	1310	1
DN3 Extended	CM998610000	2325	1
DN4 Extended	CM998840000	3250	1
Panel door mounted Key lock for Extended Rotary Handle #			
Type 1	CM99958T0000	1170	1
Type 2	CM99958T000A	1170	1
Type 3	CM99958T000B	1170	1
Type 12	CM99958T000C	1170	1
Type 23	CM99958T000D	1170	1

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



Spreader
Terminals



MIL Kit - Base
Mounted



Current Metering
Module for MTX2.0

Description	External		
	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Spreader Terminals			
DN0-100 - 3 Pole	CM977850000	145	Set of 6
DN1, DN2 - 250 - 3 Pole	ST980530000	800	Set of 6
DN3-400 - 3 Pole	ST980650000	1570	Set of 6
DN3-630 - 3 Pole	ST980540000	1760	Set of 6
DN4-800 - 3 Pole	ST903610000	3070	Set of 6
DN4-1000-1250 - 3 Pole	ST980550000	11615	Set of 6
DN0-100 - 4 Pole	CM979210000	250	Set of 8
DN1, DN2 - 250 - 4 Pole	CM920070000	1075	Set of 8
DN3-400 - 4 Pole	ST980660000	2255	Set of 8
DN3-630 - 4 Pole	CM920040000	2655	Set of 8
DN4-800 - 4 Pole	ST903620000	4180	Set of 8
DN4-1000-1250 - 4 Pole	ST980580000	15335	Set of 8
Mechanical Interlock Kit - Base Mounted			
DN2	CM997310000	3295	1
DN3	CM997320000	5160	1
Current Metering Module & Power Supply Module for MTX2.0			
DN2/3/4	CM956980000	10000	1*
MTX PS Module	CL907220000	9000	1

* - Including display module, metering module and cable.

DM MCCB Range for Motor Back-up Protection



- Conforms to IS/IEC 60947-2 & IEC 60947-2
- Range: 0.63A to 400A, 65kA
- Short circuit protection up to 12 In
- Wide Range of Internal and External Accessories

3 Pole					
Type	Current Rating (A)	Breaking Capacity Icu at 415V, 50 Hz (kA)	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
DM16	0.63	65	SL975810000	3315	1
	1.0		SL975820000	3315	1
	1.6		SL975830000	3315	1
	2.5		SL975840000	3315	1
	4.0		SL975850000	3315	1
	5.0		SL975860000	3315	1
	6.3		SL975870000	3315	1
	7.5		SL975880000	3315	1
	10.0		SL975890000	3315	1
	12.0		SL975900000	3315	1
DM100	16.0		SL975910000	3315	1
	16.0		SL978110000	8285	1
	25.0		SL978120000	8285	1
	30.0		SL978160000	8285	1
	35.0		SL978130000	8285	1
	50.0		SL978140000	8285	1
	60.0		SL978170000	8285	1
	70.0		SL978150000	8285	1
	80.0		SL979870000	8285	1

3 Pole					
Type	Current Rating (A)	Breaking Capacity Icu at 415V, 50 Hz (kA)	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
DM160	100.0	65	SL971230000	13080	1
	120.0		SL977030000	13080	1
	160.0		SL971240000	13080	1
DM250	200.0		SL975510000	16235 ▲	1
	230.0		SL975520000	16235 ▲	1
	250.0		SL975530000	16235 ▲	1
DM400	275.0		SL975540000	19140 ▲	1
	325.0		SL975550000	19140 ▲	1
	350.0		SL975560000	19140 ▲	1
	400.0		SL975570000	19140 ▲	1

▲ - Spreader Terminals are included.

Note: Please contact the nearest branch office for type 2 co-ordination chart.

DH / DL MCCB Range

Rating (A) Icu (kA)	16	20	25	32	40	50	63	80	100	125	160	200	320	400	500	630
25	DH100															
35	DH125/160/200												DH400/630			
50	DL100															



- 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	
DL 100	12-16	50	SL978010000	8255	SL986200000	9385	1
	16-20		SL978020000	8255	SL986210000	9385	1
	20-25		SL978030000	8255	SL986220000	9385	1
	25-32		SL978040000	8255	SL986230000	9385	1
	32-40		SL978050000	8255	SL986240000	9385	1
	40-50		SL978060000	8255	SL986250000	9385	1
	50-63		SL978070000	8255	SL986260000	9385	1
	63-80		SL978080000	8255	SL986270000	9385	1
	80-100		SL978090000	8550▲	SL986280000	9845▲	1

▲ - Spreader Terminals are included.

DH / DL MCCB Range



- Conforms to IS/IEC 60947-2 & IEC 60947-2
- Range: 16A to 630A
- Ics = 100% Icu @
- Adjustable thermal setting: 0.8-1.0 x In
- Wide Range of Internal and External Accessories

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	12-16	25	SL972010000	4120	SL985970000	5810	1
	16-20		SL972020000	4120	SL985980000	5810	1
	20-25		SL972030000	4120	SL985990000	5810	1
	25-32		SL972040000	4120	SL986000000	5810	1
	32-40		SL972050000	4120	SL986010000	5810	1
	40-50		SL972060000	4120	SL986020000	5810	1
	50-63		SL972070000	4120	SL986030000	5810	1
	63-80		SL972080000	4120	SL986040000	5810	1
	80-100		SL972090000	4335 ▲	SL986050000	6115 ▲	1
DH125	12-16	35	SL986440000	5900	SL986110000	6850	1
	16-20		SL986450000	5900	SL986120000	6850	1
	20-25		SL986460000	5900	SL986130000	6850	1
	25-32		SL986470000	5900	SL986140000	6850	1
	32-40		SL986480000	5900	SL986150000	6850	1
	40-50		SL986490000	5900	SL986160000	6850	1
	50-63		SL986500000	5900	SL986170000	6850	1
	63-80		SL986510000	5900	SL986180000	6850	1
	80-100		SL986520000	6720 ▲	SL986190000	7545 ▲	1
	100-125		SL986530000	6720 ▲	SL986070000	7545 ▲	1
DH160	128-160		SL986540000	9455 ▲	SL986080000	10450 ▲	1
DH200 #	160-200		SL986550000	10840 ▲			
DH400 #	250-320		SL978830000	20295 ▲			
	320-400		SL978840000	20295 ▲			
DH630 #	400-500		SL945310000	22030 ▲			
	500-630		SL945320000	22030 ▲			

▲ - Spreader Terminals are included.

DH200 / 400 / 630 MCCBs will be available till stocks last.

@ Refer Catalogue for DH160, DH200.

DU (DU125/160/200) MCCB Range



- Conforms to IS/IEC 60947-2 & IEC 60947-2
- Range: 32A to 200A, 3P & 4P
- Adjustable thermal setting: 0.8-1.0 x In
- Also available in SS Enclosure
- Wide range of Internal and External Accessories

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	
DU125 #	25-32	30	Substitute by DU100H, 3P		Substitute by DU100H, 4P		1
	32-40						1
	40-50						1
	50-63						1
	63-80						1
	80-100						1
	100-125		CM977910000	5595 ▲	CM981100000	7285 ▲	1
DU160 #	128-160		Substitute by DU250, 3P		Substitute by DU250, 4P		1
DU200 #	160-200		Substitute by DU250, 3P				

▲ - Spreader Terminals are included.

Available till stocks last.

DTH MCCB Range



- Conforms to IS/IEC 60947-2 & IEC 60947-2
- Suitable for distribution & induction furnace application
- Adjustable thermal & adjustable magnetic
- Rugged construction

3 Pole (for Distribution Application)					
Type	Current Rating (A)	Breaking Capacity Icu at 415V, 50 Hz (kA)	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
DTH800	600-800	50	SL944720000	33910	1

3 Pole (for Induction Furnace Application)					
Type	Magnetic Release Range (A)	Breaking Capacity Icu at 415V, 50 Hz (kA)	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
DTH800 - Instantaneous	360	50	SB950520000	33910	1
	550	50	SB950530000	33910	1
	850	50	SB950540000	33910	1
	1050	50	SB950550000	33910	1

Accessories for DH100/125/160/200, DU125/160/200, DL100, DM100 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	685	1
1 C/O - Left	SL972970000	685	1
Trip Alarm Contact			
1 C/O - Right	SL972980000	710	1
Shunt Release			
240V AC - Left	SL972990M00	790	1
24V DC - Left *	SL972990400	790	1
Under Voltage Release			
240V AC - Left	SL976110000	1085	1



Spreader Terminal



Extended Rotary Handle

Description	External		
	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Spreader Terminal			
3 Pole	ST980470000	285	Set of 6
4 Pole	ST980600000	375	Set of 8
Rotary Handle			
Extended - New look	CM991030000	1025	1

* Not available for DU MCCBs

Accessories for DM16 MCCB



Auxiliary Contact



Shunt Release

Description	Internal		
	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Auxiliary Contact			
1 C/O - Right	SL970230000	470	1
1 C/O - Left	SL970250000	470	1
Trip Alarm Contact			
1 C/O - Right	SL970370000	475	1
Shunt Release			
240 / 415V AC, 110V DC - Left	SL970420000	475	1



Direct Rotary Handle



Extended Rotary Handle

Description	External		
	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Direct Rotary Handle			
Direct	SL970440000	675	1
Extended - New look	CM999180000	1180	1

Accessories for DM160 MCCB



Auxiliary Contact



Shunt Release



UV Release



Extended Rotary Handle

Description	Internal		
	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Auxiliary Contact			
2 C/O - Left	SL943290000	1675	1
2 C/O - Right	SL943300000	1675	1
Shunt Release			
415V AC - Right	SL943310D00	1580	1
240V AC - Right	SL943310B00	1580	1
Under Voltage Release			
415V AC - Left	SL94332D000	1580	1
240V AC - Left	SL94332B000	1580	1

Description	External		
	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Rotary Handle			
Extended - New look	CM991020000	1430	1

Note: For (DM160+TAC), Contact nearest branch

Accessories for DM250/400 & DH400/630 MCCBs



Auxiliary Contact



Shunt Release



UV Release



Direct Rotary Handle



Extended Rotary Handle

Description	Internal		
	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Auxiliary Contact			
2 C/O	SL975730000	1125	1
Trip Alarm Contact			
1 C/O - Right	SL975740000	1075	1
Shunt Release			
415V AC, 220V DC	SL975750000	1230	1
240V AC, 110V DC	SL975760000	1230	1
Under Voltage Release			
415V AC - Left	SL975790000	1430	1
240V AC - Left	SL975800000	1430	1

Description	External		
	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Rotary Handle			
DM250/400 & DH400 Direct	SL975620000	965	1
DH630 Direct	SL979790000	1155	1
DM250/400 & DH400 / 630 Extended - New look	CM991010000	2350	1
DM250/400 Spreader Terminals			
3 Pole	ST980450000	1770	Set of 6

Accessories for DTH 630/800 MCCBs



UV Release



Shunt Release



Auxiliary Contact



Extended Rotary Handle

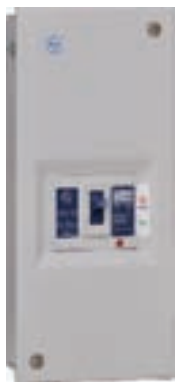
Description	Internal		
	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Auxiliary Contact			
2 C/O	SL942170000	1485	1
Shunt Release			
415V AC, 220V DC - Right	SL985260000	1655	1
240V AC, 110V DC - Right	SL985340000	1655	1
Under Voltage Release			
415V AC - Left	SL985480000	1655	1
240V AC - Left	SL985450000	1655	1
110V AC - Left	SL985430000	1655	1

New

Description	External		
	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Rotary Handle			
Extended - New look	CM998980000	2170	1

Note: For (DTH800+TAC), Contact nearest branch

SS Enclosure for DN0 / DU / DH / DL / DM



DN0 / DU SS Enclosure



DH / DL / DM SS Enclosure

Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
DU100 SS Enclosure	ST980500000	590	1
DU100H/DN0 SS Enclosure	ST420210000	650	1
DH100/125/160/200, DL100, DM100, DU125/160/200 SS Enclosure	ST299670000	1215	1

Note : Suitable for 3P MCCBs

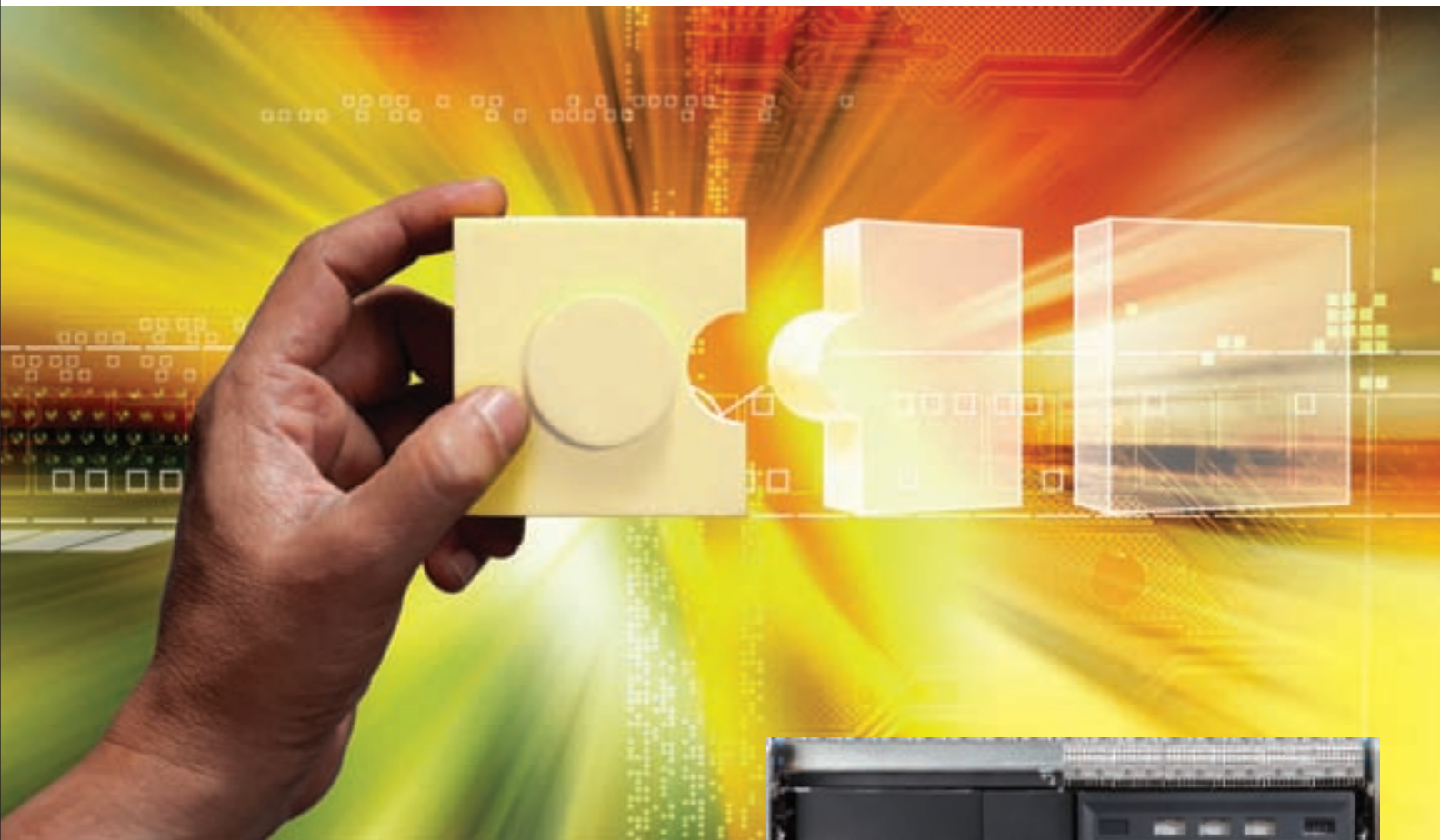
Ground Fault Module



- 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
- LED Indication for trip signal

Ground Fault Protection					
Type	Range (A)	Cat. No.	M.R.P. (₹) Per Unit	CT	Std. Pkg. (Nos.)
GF1	100, 125, 160, 200	ST277450000	6035	Built in CBCT	1
GF2	250, 400	ST277460000	9175	Built in CBCT	1
GF11	630, 800	ST285940000	6035 ##	External CT required	1

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



Ready for tomorrow, today. We go the extra mile.

Modular design means that when your business grows, so will the features of L&T Omega ACB. Its matrix releases have pluggable and withdraw-able modules, designed for flexibility, scalability and customization of your electrical system.

This is just one of the many innovative features that make the Omega smarter and safer, more compact and convenient.

Take a look at some of the others: lcs=lcu=lcw, arc chute interlocking, in-built electrical anti-pumping, O-LED display, password protection and touch-screen technology in releases.

And all this in what everyone agrees is among the most compact ACBs in industry. Yes, the extra mile goes a long way.



U-POWER Air Circuit Breakers
OMEGA

Customer Interaction Centre (CIC)

BSNL / MTNL (Toll free): 1800 233 5858

Reliance (Toll free): 1800 200 5858

Tel: +91 22 6774 5858 Fax: +91 22 6774 5859

E-mail: cic@Lntebg.com

L&T SWITCHGEAR

SAFE & SURE

C-POWER S1 Range of Air Circuit Breaker

- Conforms to IS / IEC 60947-2 & IEC 60947-2
- Current rating from 630A to 3200A
- Available in 3 Pole / 4 Pole, Manually & Electrically operated Draw-out version
- 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 (SR18, SR18G & SR21i)
- Self diagnostic Microprocessor based with on load testing through TEST button
- Inbuilt thermal memory
- Protection releases conform to EMI/EMC standard



C-POWER S1 ACB

C-POWER Range of Air Circuit Breaker



C-POWER ACB

- 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 (SR18, SR18G, SR21i & SR71)
- Self diagnostic Microprocessor based release with on load testing through TEST button
- Inbuilt thermal memory
- Protection releases conform to EMI/EMC standard
- Data communication & Power Management
- Breaker control through MODBUS protocol

Breaking Capacities offered:

I _{cu} = I _{cs} = I _{cw}											
	630A	800A	1000A	1250A	1600A	2000A	2500A	3200A	4000A	5000A	6300A
CN-CS : E	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 : H0								75kA	75kA		
CN-CS : H/H1								100kA	100kA		
	Frame-1					Frame-2		Frame-3		Frame-4	

For technical details please refer product catalogue.

C-POWER S1 Air Circuit Breakers

3 & 4 Pole Draw-out ACBs



Rating	Breaking Capacity I _{cu} =I _{cs} =I _{cw} (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
3200A	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	105590	SL96061	138250
SL96051	136590	SL96071	169250
SL96042	105590	SL96062	138250
SL96052	136590	SL96072	169250
SL96043	112210	SL96063	145830
SL96053	143210	SL96073	176830
SL96044	138720	SL96064	166960
SL96054	169720	SL96074	197960
SL96045	149140	SL96065	180230
SL96055	180140	SL96075	211230
SL96046	176560	SL96066	224620
SL96056	207560	SL96076	255620
SL96047	210290	SL96067	262640
SL96057	241290	SL96077	293640
SL96048	267640	SL96068	327860
SL96058	298640	SL96078	358860

Thermal-Magnetic DN1			
3 Pole		4 Pole	
Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit
SL95331	92090	SL95351	124750
SL95341	123090	SL95361	155750
SL95332	92090	SL95352	124750
SL95342	123090	SL95362	155750
SL95333	98710	SL95353	132330
SL95343	129710	SL95363	163330
SL95334	125220	SL95354	153460
SL95344	156220	SL95364	184460
SL95335	135640	SL95355	166730
SL95345	166640	SL95365	197730
SL95336	163060	SL95356	211120
SL95346	194060	SL95366	242120
SL95337	196790	SL95357	249140
SL95347	227790	SL95367	280140
SL95338	254140	SL95358	314360
SL95348	285140	SL95368	345360

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	30000
Microprocessor based SR18 (LSI)	Reduce	3000
Microprocessor based SR21i (LSI + ZSI)	Add	11000

C-POWER S1 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.

EDO version includes 240V ac Shunt trip coil, Closing coil and Motor for electrical charging.

Note: 1 NO Aux contact in MDO & 2NO+2NC in EDO 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

Thermal-Magnetic Release Type DN1				
Rating	Breaking Capacity I _{cu} =I _{cs} =I _{cw} (1 sec)	Version	Cat. No.	M.R.P. (₹) Per Unit
400A	50kA	3P MF	SL932910000	47440
630A	50kA	3P MF	SL932920000	47870
800A	50kA	3P MF	SL932930000	48340
1000A	50kA	3P MF	SL93294000A	51920
1250A	50kA	3P MF	SL932950000	64910
1600A	50kA	3P MF	SL932960000	75050
2000A	50kA	3P MF	SL932970000	85300

C-POWER Air Circuit Breakers

3 & 4 Pole Draw-out ACBs



Rating	Breaking Capacity Icu=Ics=Icw (1 sec)	Version
800A	65kA	MDO
		EDO
1000A	65kA	MDO
		EDO
1250A	65kA	MDO
		EDO
1600A	65kA	MDO
		EDO
2000A	55kA	MDO
		EDO
2500A	60kA	MDO
		EDO
3200A	75kA	MDO (H0)
		EDO (H0)
4000A	75kA	MDO (H0)
		EDO (H0)
5000A	95kA	MDO/EDO
6300A	95kA	MDO/EDO

Microprocessor Based SR18G			
3 Pole		4 Pole	
Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit
SL95311	147690	#	192000
SL95321	178690	#	223000
SL95312	158150	#	203860
SL95322	189150	#	234860
SL95313	187220	#	229710
SL95323	218220	#	260710
SL95314	199800	#	248900
SL95324	230800	#	279900
ST35545	198850	ST35565	258170
ST35555	229850	ST35575	289170
ST35546	236090	ST35566	299050
ST35556	267090	ST35576	330050
ST35547	304940	ST35567	375710
ST35557	335940	ST35577	406710
ST35548	368890	ST35568	473960
ST35558	399890	ST35578	504960
#	#	#	#
#	#	#	#

Thermal-Magnetic DN1			
3 Pole		4 Pole	
Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit
#	134190	#	178500
#	165190	#	209500
#	144650	#	190360
#	175650	#	221360
#	173720	#	216210
#	204720	#	247210
#	186300	#	235400
#	217300	#	266400
SL93065	185350	ST25035	244670
#	216350	#	275670
SL93066	222590	ST25036	285550
#	253590	#	316550
SL93459	291440	SL93479	362210
#	322440	#	393210
SL93460	355390	SL93480	460460
#	#	#	#
#	#	#	#
#	#	#	#

Note : For higher breaking capacities & 690 V ac application please contact the nearest branch office

C-POWER 3 & 4 Pole Manual Fixed ACBs

Rating	Breaking Capacity Icu=Ics=Icw (1 sec)	Version
800A	50kA	MF
1000A	50kA	
1250A	50kA	
1600A	50kA	
2000A	55kA	
2500A	60kA	
3200A	70kA	
4000A	70kA	

Microprocessor Based SR18G New			
3 Pole		4 Pole	
Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit
SL97631	90490	#	113100
SL97632	94320	#	117910
SL97633	121740	#	152170
SL97634	125030	#	156290
SL97635	136000	#	170000
SL97636	155740	#	194680
#	#	#	#
#	#	#	#

Thermal-Magnetic DN1 New			
3 Pole		4 Pole	
Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit
SL93001	76990	#	99600
SL93002	80820	#	104410
SL93003	108240	#	138670
SL93004	111530	#	142790
SL93005	122500	#	156500
SL93006	142240	#	181180
#	#	#	#
#	#	#	#

Note : For higher breaking capacities & 690 V ac application please contact the nearest branch office

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	30000
Microprocessor based SR18 (LSI)	Reduce	3000
Microprocessor based SR21i (LSIG + ZSI)	Add	11000
Microprocessor based SR71 (LSIGN + Current metering + Advance protection)	Add	On Request
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.

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.

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.

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	1990
Type BB	SL93148000B	1990
Type CC	SL93148000C	1990
Type DD	SL93148000D	1990
Locking of ACB in Isolated position (LIP)		
Type A	SL93146000A	1990
Type B	SL93146000B	1990
Type C	SL93146000C	1990
Type D	SL93146000D	1990
Locking of ACB in Any position (LAP)		
Type A	SL93147000A	1990
Type B	SL93147000B	1990
Type C	SL93147000C	1990
Type D	SL93147000D	1990
Racking Interlock		
Type AA	SL93149000A	3730
Type BB	SL93149000B	3730
Type CC	SL93149000C	3730
Type DD	SL93149000D	3730
Door Interlock	SL931500000	1990
Lockable Trip Push Button kit (3 I/C & 2 B/C)	SL919360000	9950
Lockable Trip Push Button kit (A to Z)	ST288950000	51740
Lockable Trip Push Button kit (A to P)	ST287300000	31840



Vertical Terminal Adaptors

Description & Rating	Cat. No.	Qty	M.R.P. (₹) Per Unit
Vertical Terminal Adaptors for Draw out C-POWER ACB			
630-1250 S1/800-1000C	SL932810000	1	2600
1600-2000 S1/1250-1600C	SL932820000	1	3040
2000C	SL932840000	1	4160
2500C	SL932850000	1	4510
3200H0/H1, 4000H0/H#	SL932880000	1	12140

For 3200 HO/H1 & 4000 HO/H please consider total 2 terminal adaptors per phase, 1 for incoming and 1 for outgoing.

Description	Cat. No.	M.R.P. (₹) Per Unit
Shunt Release (SR)		
Type EA : 24/48V DC	SL927180400	1990
Type EA : 110V DC	SL927180100	1990
Type EA : 220V DC	SL927180200	1990
Type EA1 : 110V AC	SL927180A00	1990
Type EA1 : 240V AC	SL927180B00	1990
Type EA1 : 415V AC	SL927180D00	1990
Under Voltage Release (UVR)		
Type MV : 24V DC	ST368770000	2910
Type MV : 240V AC	SL92720B000	2910
Type MV : 415V AC	SL92720D000	2910
Earth Fault Release (for DN1)		
Type EF1 (10%, 20% In)	SL913400000	1990
Type EF2 (30%, 40%, 50% In)	SL913410000	1990

AN1 Remote Annunciation Module for SR18G/SR21i	SL946540000	4340
6 way Secondary isolating contact	SL927010000	1740
Microswitch for voltmetric releases (2) each	SL927030000	1600
Microswitch for common indication of O/L & S/C (3) each	SL927040000	1600
Microswitch for separate indication of O/L & S/C (3) each	SL927050000	2690
Service position microswitch - Right (2)	SL931420000	1080
Service position microswitch - Left (2)	SL931430000	1080
Test or isolated position microswitch - Right (2)	SL931440000	1080
Test or isolated position microswitch - Left (2)	SL931450000	1080

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

Protection Releases & Current Transformers



SR71



SR21i



SR18G



SR18



DN1



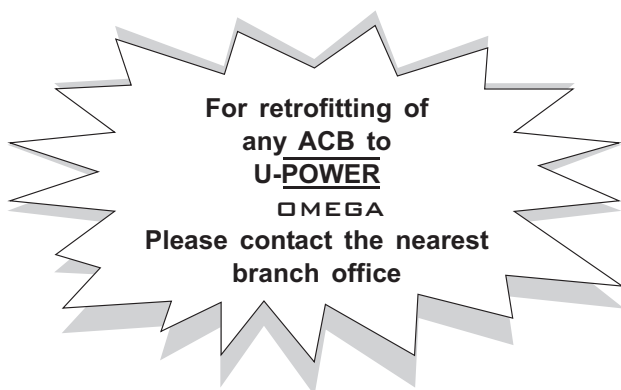
Test Kit

Description	Cat. No.	M.R.P. (₹) Per Unit
Protection Releases		
Microprocessor based Type SR71	Available on Request	
Microprocessor based Type SR21i	SL939600000	37660
Microprocessor based Type SR18G	SL939590000	26660
Microprocessor based Type SR18	SL939580000	23660
Thermal-Magnetic Release Type DN1	SL931520000	13160
Test-Kit SRT-2	ST231300000	17350



Arcing contacts

Description	Cat. No.	Qty. per Kit	M.R.P. (₹) Per Kit	No. of Kits for 3 pole ACB
Arcing contacts - Fixed				
For 630 to 1250A S1	SL93890	3	2820	1 kit
For 800 to 1600A C & 1600A S1	SL93891	3	2820	1 kit
For 2000A S1	SL93040	3	3890	1 kit
For 2000A C & 2500A S1	SL90631	1	420	12 kits
For 2500A C & 3200A S1	SL90631	1	420	15 kits
For 3200/4000A H0	SL93040	3	3890	2 kits
Arcing contacts - Moving				
For 800 to 1600A C/S1 & 2000A S1	SL93892	9	2820	1 kit
For 2000 & 2500A C	SL90629	1	420	12 kits
For 3200/4000 H0 & 2500/3200A S1	SL93892	9	2820	3 kits





U-POWER Range of Air Circuit Breaker

OMEGA

- Complete range conform to IS / IEC 60947-2 & IEC 60947-2
- Current rating from 400A to 6300A in 3 frames sizes
- Available in 3 Pole/4 Pole, Manually & Electrically operated, Fixed / Draw-out version
- Common Height & Depth across the range
- High short time fault withstanding 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
- In-built Electrical & Mechanical Anti-Pumping
- Modular & snap-fit accessories
- Ease of on-site conversion from Fixed to Draw-out version

New

Matrix Protection & Control units:

- Available in 8 versions - MTX1.0/1.0G/1.5G, MTX2.5/2.5G, MTX3.5/3.5EC & MTX4.5
- Unique O-LED display for metering
- Touch screen technology in UW-MTX4.5
- Pluggable / with-drawable 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
- Data communication on Modbus, Profibus & Zigbee protocol
- 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-MTX1.0G



UW-MTX1.5G



UW-MTX2.5/2.5G



UW-MTX3.5/3.5EC



UW-MTX4.5

Breaking Capacities offered:

		$I_{cu} = I_{cs} = I_{cw}$									
		800A	1000A	1250A	1600A	2000A	2500A	3200A	4000A	5000A	6300A
Frame-1	N : 50kA										
	S : 65kA										
	H : 80kA										
		UW1-08	UW1-10	UW1-12	UW1-16	UW1-20	UW1-25				
Frame-2	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.

U-POWER OMEGA ACB ordering information:

UW 1 08 N X D 1 2 9 0 0											U-POWER Omega 800A Fr-1 50kA 3P EDO UW-MTX1.5G																																																																				
Frame Size <table><tr><td>Frame - I</td><td>1</td></tr><tr><td>Frame - II</td><td>2</td></tr><tr><td>Frame - III</td><td>3</td></tr></table>		Frame - I	1	Frame - II	2	Frame - III	3	Current Ratings <table><tr><td>400A</td><td>04</td></tr><tr><td>630A</td><td>06</td></tr><tr><td>800A</td><td>08</td></tr><tr><td>1000A</td><td>10</td></tr><tr><td>1250A</td><td>12</td></tr><tr><td>1600A</td><td>16</td></tr><tr><td>2000A</td><td>20</td></tr><tr><td>2500A</td><td>25</td></tr><tr><td>3200A</td><td>32</td></tr><tr><td>4000A</td><td>40</td></tr><tr><td>5000A</td><td>50</td></tr><tr><td>6300A</td><td>63</td></tr></table>		400A	04	630A	06	800A	08	1000A	10	1250A	12	1600A	16	2000A	20	2500A	25	3200A	32	4000A	40	5000A	50	6300A	63	Temperature Rise Monitoring⁽³⁾ <table><tr><td>Not Required</td><td>0</td></tr><tr><td>Required</td><td>1</td></tr></table>		Not Required	0	Required	1	Selection for P&C Units <table><tr><td>B/C (w/o protection)</td><td>0</td></tr><tr><td>UW - MTX1.0</td><td>7</td></tr><tr><td>UW - MTX1.0G</td><td>8</td></tr><tr><td>UW - MTX1.5G</td><td>9</td></tr><tr><td>UW - MTX2.5</td><td>1</td></tr><tr><td>UW -MTX2.5G</td><td>2</td></tr><tr><td>UW-MTX3.5</td><td>3</td></tr><tr><td>UW-MTX3.5EC</td><td>4</td></tr><tr><td>UW-MTX4.5</td><td>5</td></tr></table>		B/C (w/o protection)	0	UW - MTX1.0	7	UW - MTX1.0G	8	UW - MTX1.5G	9	UW - MTX2.5	1	UW -MTX2.5G	2	UW-MTX3.5	3	UW-MTX3.5EC	4	UW-MTX4.5	5	Type <table><tr><td>Manually Operated</td><td>1</td></tr><tr><td>Electrically Operated</td><td>2</td></tr></table>		Manually Operated	1	Electrically Operated	2	Selection for control voltage⁽²⁾ <table><tr><td>For Manually Operated</td><td>0</td></tr><tr><td>240V ac ECD & CR & 240V ac SR</td><td>1</td></tr><tr><td>240V ac ECD & CR & 24V dc SR</td><td>2</td></tr></table>		For Manually Operated	0	240V ac ECD & CR & 240V ac SR	1	240V ac ECD & CR & 24V dc SR	2	Version <table><tr><td>Draw-out</td><td>D</td></tr><tr><td>Fixed</td><td>F</td></tr></table>		Draw-out	D	Fixed	F
		Frame - I	1																																																																												
		Frame - II	2																																																																												
Frame - III	3																																																																														
400A	04																																																																														
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Selection for Breaking Capacity (Icu=Ics)⁽¹⁾ <table><tr><td>50kA (Fr-I upto 1600A)</td><td>N</td></tr><tr><td>65kA (Fr-I & Fr-II)</td><td>S</td></tr><tr><td>80kA (Fr-I, Fr-II & Fr-III)</td><td>H</td></tr><tr><td>100kA (Fr-III)</td><td>V</td></tr></table>		50kA (Fr-I upto 1600A)	N	65kA (Fr-I & Fr-II)	S	80kA (Fr-I, Fr-II & Fr-III)	H	100kA (Fr-III)	V	Selection for No. of Poles <table><tr><td>3 Pole</td><td>X</td></tr><tr><td>4 Pole 100% N</td><td>F</td></tr><tr><td>4 Pole 50% N (in Fr-III only)</td><td>H</td></tr><tr><td>4 Pole 200% N (upto 2500A)</td><td>D</td></tr></table>		3 Pole	X	4 Pole 100% N	F	4 Pole 50% N (in Fr-III only)	H	4 Pole 200% N (upto 2500A)	D																																																												
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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/4.5

U-POWER OMEGA ACBs are offered with following standard features :

Draw-out version : U-POWER Omega ACBs with UW-MTX release will have inbuilt - Current Metering, 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 preventor, Electrical position indicator, Arc shield (with frame 1N, 2S & 3H version) & terminal adaptors at lower terminals.

Fixed version : U-POWER Omega ACBs with UW-MTX release will have inbuilt - Current Metering, common fault indication microswitch 4NO+4NC Aux. contacts, door sealing frame & Pad-Locking arrangement for ON/OFF button.

Electrically operated ACB includes Electrical Charging Device (240V ac), Closing Release (240V ac) & Shunt Release (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	On Request	UW108SXD01900	On Request	UW208HXD01900	On Request	UW308VXD01900	On Request
1000A		UW110NXD01900		UW110SXD01900		UW210HXD01900		UW310VXD01900	
1250A		UW112NXD01900		UW112SXD01900		UW212HXD01900		UW312VXD01900	
1600A		UW116NXD01900		UW116SXD01900		UW216HXD01900		UW316VXD01900	
2000A		-	-	UW120SXD01900	On Request	UW220HXD01900		UW320VXD01900	
2500A		-	-	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	On Request	UW108SXF01900	On Request	UW208HXF01900	On Request	UW308VXF01900	On Request
1000A		UW110NXF01900		UW110SXF01900		UW210HXF01900		UW310VXF01900	
1250A		UW112NXF01900		UW112SXF01900		UW212HXF01900		UW312VXF01900	
1600A		UW116NXF01900		UW116SXF01900		UW216HXF01900		UW316VXF01900	
2000A		-	-	UW120SXF01900	On Request	UW220HXF01900		UW320VXF01900	
2500A		-	-	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 KIT (Includes ECD 240V ac, CR 240 V ac & SR 240 V ac or 24 V DC)	On Request
Protection & Control Unit change with respect to UW-MTX1.5G ACB M.R.P.	
Buscoupler (without protection release)	On Request
UW - MTX1.0 (LSI - BCD Switches)	
UW - MTX1.0G (LSING - BCD Switches)	
UW - MTX2.5 (LSI + Current Metering)	
UW - MTX2.5G (LSING +Current Metering)	
UW-MTX3.5 (LSING + Current Metering) - can be upgraded for Power Metering & Communication	
UW-MTX3.5 EC (LSING + Power Metering + Communication)	
UW-MTX4.5 (LSING + Power Metering + Communication with Touch Screen navigation)	
UW-PS, Auxiliary power supply module for display in No-load or OFF condition	
COM Module (MODBUS) for communication	
PM Module for power metering	

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	On Request	UW108SFD01900	On Request	UW208HFD01900	On Request	UW308VFD01900	On Request
1000A		UW110NFD01900		UW110SFD01900		UW210HFD01900		UW310VFD01900	
1250A		UW112NFD01900		UW112SFD01900		UW212HFD01900		UW312VFD01900	
1600A		UW116NFD01900		UW116SFD01900		UW216HFD01900		UW316VFD01900	
2000A		-	-	UW120SFD01900	On Request	UW220HFD01900		UW320VFD01900	
2500A		-	-	UW225SFD01900		UW225HFD01900		UW325VFD01900	
3200A		-	-	UW232SFD01900		UW232HFD01900		UW332VFD01900	
4000A		-	-	-		UW340HFD01900		UW340VFD01900	
5000A		-	-	-		UW350HFD01900		UW350VFD01900	
6300A		-	-	-		UW363HFD01900		UW363VFD01900	

Current Rating	Version	4 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	UW108NFF01900	On Request	UW108SFF01900	On Request	UW208HFF01900	On Request	UW308VFF01900	On Request
1000A		UW110NFF01900		UW110SFF01900		UW210HFF01900		UW310VFF01900	
1250A		UW112NFF01900		UW112SFF01900		UW212HFF01900		UW312VFF01900	
1600A		UW116NFF01900		UW116SFF01900		UW216HFF01900		UW316VFF01900	
2000A		-	-	UW120SFF01900	On Request	UW220HFF01900		UW320VFF01900	
2500A		-	-	UW125SFF01900		UW225HFF01900		UW325VFF01900	
3200A		-	-	UW232SFF01900		UW232HFF01900		UW332VFF01900	
4000A		-	-	-		UW340HFF01900		UW340VFF01900	
5000A		-	-	-		UW350HFF01900		UW350VFF01900	
6300A		-	-	-		UW363HFF01900		UW363VFF01900	

Note : M.R.P. changes for product customization please refer page no. 49

Auto Source Transfer Controller

Type	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
AuXC-1000	ST802300000	47950	1

Can be used along with U-POWER Omega ACBs,  MCCBs, & MCX contactors

POWERMAN		
System for :		
<ul style="list-style-type: none"> Complete monitoring of Power & Energy Parameters Breaker Control 		
Cat. No.	Description	M.R.P. (₹) Per Unit
BPV3040RS	Powerman for 04 RS485 Meters/ACB/MCCB	33700
BPV3080RS	Powerman for 08 RS485 Meters/ACB/MCCB	54500
BPV3120RS	Powerman for 12 RS485 Meters/ACB/MCCB	69900
BPV3160RS	Powerman for 16 RS485 Meters/ACB/MCCB	89500
BPV304ARH	Add on Powerman for 04 RS485 Meters/ACB/MCCB	15000
BPV308ARH	Add on Powerman for 08 RS485 Meters/ACB/MCCB	29900
BPV312ARH	Add on Powerman for 12 RS485 Meters/ACB/MCCB	44840
BPV316ARH	Add on Powerman for 16 RS485 Meters/ACB/MCCB	59780

For details please contact the nearest branch office

LTXL Capacitors - The benchmark in quality and performance



Reactive Power Management Products

Higher operating life and performance due to:

- High over current withstand Capability (3 times rated current)
- High inrush current withstand capability (500 times rated current)
- Lower operating losses (0.35 W / kVAr)

L&T offers a complete range of Reactive Power Management products that includes the new LTXL range of capacitors.

The products, ranging from 5 kVAr to 100 kVAr, are available in box type construction, as single unit. With an enhanced, 300000 hour operating life, they withstand temperature levels from - 25°C to 70°C.

L&T's range of Reactive Power Management products are setting industry benchmarks in quality, availability and performance. The best keeps getting better.

Customer Interaction Center (CIC): • BSNL / MTNL (toll - free) : 1800 233 5858 • Reliance (toll - free) : 1800 200 5858
T : 022 6774 5858 • F : 022 6774 5859 • E : cic@LNTEBG.com • W : www.LNTEBG.com

Reactive Power Management Products

Power Factor Correction Capacitors

Standard Duty Capacitors



- MPP standard duty capacitors
- Operating losses - 0.45 W / kVAr
- Over current withstand capability - 1.5 times rated current
- Inrush current withstand capability - 200 times rated current
- Number of switching - 5000 operations per year

Duty	Type	kVAr Rating	Voltage (V)	M.R.P. (₹) per kVAr
Standard Duty	Cylindrical	1 to 25	440V	169
	Box	1 to 50	440V	221

Heavy Duty Capacitors



- MPP heavy duty capacitors
- Operating losses - 0.35 W / kVAr
- Over current withstand capability - 1.8 times rated current
- Inrush current withstand capability - 300 times rated current
- Operating life - 130000 hours
- Number of switching - 8000 operations per year

Duty	Type	kVAr Rating	Voltage (V)	M.R.P. (₹) per kVAr
Heavy Duty	Cylindrical (Gas filled)	5 to 30	440V	309
			480V	339
			525V	370
			690V	385
	Box (Resin filled)	5 to 20	440V	360
		25 to 50		359
		5 to 20	480V	396
		25 to 50		395
		5 to 20	525V	432
		25 to 50		431

LTXL - Ultra Heavy Duty Capacitors



- Advance APP technology
- Lower operating losses - 0.35 W / kVAr
- High over current withstand capability - 3 times rated current
- High inrush current withstand capability - 500 times rated current
- Higher operating life - 300000 hours
- More number of switching - 20000 operations per year

Duty	Type	kVAr Rating	Voltage (V)	M.R.P. (₹) per kVAr
Ultra Heavy Duty (LTXL)	Box	5 to 100	440V	564
			480V	620
			525V	677
			690V	705
			850V	733
			1000V	762

Notes:

- 1) For Capacitor Duty Contactors refer page No. 6
- 2) For APFC Relays refer page No. 57

7% Detuned Reactors, 440V 50Hz



- Copper wound reactors
- Lower operating losses
- High linearity - 1.8 times the rated current
- Thermal cut off

kVAr Rating	Cat. No.	M.R.P. (₹) Per Unit
5	LTFR0705B2	7175
10	LTFR0710B2	11275
15	LTFR0715B2	13840
20	LTFR0720B2	16400
25	LTFR0725B2	17425
50	LTFR0750B2	27675
75	LTFR0775B2	41000
100	LTFR0700B2	56375

Selection of Capacitors with Reactors

Reactor Voltage: 440V Capacitor Voltage: 480V

Output kVAr	Selection
10	10kVAr 7% Reactor + 12.5kVAr Capacitor
15	15kVAr 7% Reactor + 20kVAr Capacitor
20	20kVAr 7% Reactor + 25kVAr Capacitor
25	25kVAr 7% Reactor + 30kVAr Capacitor
50	50kVAr 7% Reactor + 2 x 30kVAr Capacitors

Sample Selection: for 75kVAr 7% detuned reactors with heavy duty capacitors, place an order for:

1 No. 75kVAr 7% detuned reactor: LTFR0775B2 & 3 No. 30kVAr LTCCN capacitors at 480V: 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	LTSM10B2	19760
25	LTSM25B2	28190
50	LTSM50B2	32900

Ordering Information for Capacitors

										C - Cylindrical, B - Box		
										Duty : S/F - Standard*, H - Heavy, N - Heavy Duty Gas Filled, U - Ultra Heavy,		
										kVAr Rating	Sample ratings	
											01 - 1 kVAr	
											07 - 7.5 kVAr	
											10 - 10 kVAr	
											12 - 12.5 kVAr	
										00 - 100 kVAr		
										Voltages : A - 415V, B - 440V, C - 480V, M - 525V, W - 690V, Y - 850V, Z - 1000V		
Cat. Nos. #												
L		T		C		3				2		

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

* For standard ratings please refer RPM catalogue

Reactive Power Management Products

etaSYS - STANDARD APFC PANELS

Product	kVAr Rating	Capacitors	Incomer	Branch Protection	Switching
etaSYS - MH	35 to 500 kVAr	Heavy Duty Gas filled capacitors	MCCB - up to 300 kVAr; ACB - 350 to 500 kVAr	MCCB	Auto + Manual
etaSYS - FH	35 to 500 kVAr	Heavy Duty Gas filled capacitors	MCCB - up to 300 kVAr; ACB - 350 to 500 kVAr	HRC Fuse	Auto + Manual
etaSYS - MU	100 to 500 kVAr	LTXL - Ultra Heavy Duty capacitors	MCCB - up to 300 kVAr; ACB - 350 to 500 kVAr	MCCB	Auto + Manual
etaSYS - FU	100 to 500 kVAr	LTXL - Ultra Heavy Duty capacitors	MCCB - up to 300 kVAr; ACB - 350 to 500 kVAr	HRC Fuse	Auto + Manual

etaSYS - MH

Contactor switched standard APFC Panels

Panel Rating (kVAr)	Cat. No.	Step sizes (kVAr)	No. of Steps	M.R.P. (₹) Per Unit
35	LTAPMH0351B2	2x12.5 + 2x5	4	158600
50	LTAPMH0501B2	2 x 12.5 + 2x10 + 1x5	5	183300
75	LTAPMH0751B2	2 x 25 + 2x10 + 1x5	5	214700
100	LTAPMH1001B2	50 + 25 + 15 + 5 + 5	5	246100
125	LTAPMH1251B2	2 x 12.5 + 2 x 25 + 50	5	271900
150	LTAPMH1501B2	2 x 12.5 + 3 x 25 + 50	6	305200
175	LTAPMH1751B2	2 x 12.5 + 2 x 25 + 2 x 50	6	332700
200	LTAPMH2001B2	2 x 12.5 + 25 + 3 x 50	6	369100
225	LTAPMH2251B2	2 x 12.5 + 4 x 50	6	402900
250	LTAPMH2501B2	2 x 25 + 4 x 50	6	433800
275	LTAPMH2751B2	1x100 + 3x50 + 2x12.5	6	472300
300	LTAPMH3001B2	1x100 + 3x50 + 2x25	6	490300
350	LTAPMH3501B2	1x100 + 3x50 + 4x25	8	585400
400	LTAPMH4001B2	2x100 + 2x50 + 4x25	8	696800
450	LTAPMH4501B2	2x100 + 4x50 + 2x25	8	754700
500	LTAPMH5001B2	3x100 + 3x50 + 2x25	8	849800

etaSYS - FH

Contactor switched standard APFC Panels

Panel Rating (kVAr)	Cat. No.	Step sizes (kVAr)	No. of Steps	M.R.P. (₹) Per Unit
35	LTAPFH0351B2	2x12.5 + 2x5	4	145900
50	LTAPFH0501B2	2 x 12.5 + 2x10 + 1x5	5	177300
75	LTAPFH0751B2	2 x 25 + 2x10 + 1x5	5	210500
100	LTAPFH1001B2	50 + 25 + 15 + 5 + 5	5	232200
125	LTAPFH1251B2	2 x 12.5 + 2 x 25 + 50	5	255900
150	LTAPFH1501B2	2 x 12.5 + 3 x 25 + 50	6	295300
175	LTAPFH1751B2	2 x 12.5 + 2 x 25 + 2 x 50	6	321200
200	LTAPFH2001B2	2 x 12.5 + 25 + 3 x 50	6	354000
225	LTAPFH2251B2	2 x 12.5 + 4 x 50	6	378100
250	LTAPFH2501B2	2 x 25 + 4 x 50	6	408100
275	LTAPFH2751B2	1x100 + 3x50 + 2x12.5	6	457700
300	LTAPFH3001B2	1x100 + 3x50 + 2x25	6	460500
350	LTAPFH3501B2	1x100 + 3x50 + 4x25	8	562300
400	LTAPFH4001B2	2x100 + 2x50 + 4x25	8	649200
450	LTAPFH4501B2	2x100 + 4x50 + 2x25	8	710800
500	LTAPFH5001B2	3x100 + 3x50 + 2x25	8	782300

Contactor Switched standard APFC panels with 7% detuned harmonics filter

Panel Rating (kVAr)	Cat. No.	Step sizes (kVAr)	No. of Steps	M.R.P. (₹) Per Unit
100	LTAPMH1002B2	50 + 25 + 15 + 5 + 5	5	347800
125	LTAPMH1252B2	2 x 12.5 + 2 x 25 + 50	5	393800
150	LTAPMH1502B2	2 x 12.5 + 3 x 25 + 50	6	445500
175	LTAPMH1752B2	2 x 12.5 + 2 x 25 + 2 x 50	6	483800
200	LTAPMH2002B2	2 x 12.5 + 1 x 25 + 3 x 50	6	541800
225	LTAPMH2252B2	2 x 12.5 + 4 x 50	6	547500
250	LTAPMH2502B2	2 x 25 + 4 x 50	6	622600
275	LTAPMH2752B2	1x100 + 3x50 + 2x12.5	6	687600
300	LTAPMH3002B2	1x100 + 3x50 + 2x25	6	722200
350	LTAPMH3502B2	1x100 + 3x50 + 4x25	8	860500
400	LTAPMH4002B2	2x100 + 2x50 + 4x25	8	989200
450	LTAPMH4502B2	2x100 + 4x50 + 2x25	8	1078500
500	LTAPMH5002B2	3x100 + 3x50 + 2x25	8	1203400

Contactor Switched standard APFC panels with 7% detuned harmonics filter

Panel Rating (kVAr)	Cat. No.	Step sizes (kVAr)	No. of Steps	M.R.P. (₹) Per Unit
100	LTAPFH1002B2	50 + 25 + 15 + 5 + 5	5	339800
125	LTAPFH1252B2	2 x 12.5 + 2 x 25 + 50	5	381800
150	LTAPFH1502B2	2 x 12.5 + 3 x 25 + 50	6	451200
175	LTAPFH1752B2	2 x 12.5 + 2 x 25 + 2 x 50	6	487900
200	LTAPFH2002B2	2 x 12.5 + 1 x 25 + 3 x 50	6	541000
225	LTAPFH2252B2	2 x 12.5 + 4 x 50	6	577300
250	LTAPFH2502B2	2 x 25 + 4 x 50	6	606400
275	LTAPFH2752B2	1 x 100 + 3 x 50 + 2 x 12.5	6	655700
300	LTAPFH3002B2	1 x 100 + 3 x 50 + 2 x 25	6	684400
350	LTAPFH3502B2	1 x 100 + 3 x 50 + 4 x 25	8	813300
400	LTAPFH4002B2	2 x 100 + 2 x 50 + 4 x 25	8	942200
450	LTAPFH4502B2	2 x 100 + 4 x 50 + 2 x 25	8	1022400
500	LTAPFH5002B2	3 x 100 + 3 x 50 + 2 x 25	8	1127900

Features of etaSYS:

- Wide range of ratings (35 to 500 kVAr) covers the typical requirement of APFC panel ratings for most of the industries
- 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

Notes:

- Standard lead time of APFC panels is 6 to 8 weeks (Ex-Nagpur)
- Freight charges at actuals
- For other ratings and specifications, contact nearest branch office

Thyristor Switched standard APFC panels with 7% detuned harmonics filter

Panel Rating (kVAr)	Cat. No.	Step sizes (kVAr)	No. of Steps	M.R.P. (₹) Per Unit
100	LTAPFH1003B2	50 + 25 + 15 + 5 + 5	5	545900
125	LTAPFH1253B2	2 x 12.5 + 2 x 25 + 50	5	608600
150	LTAPFH1503B2	2 x 12.5 + 3 x 25 + 50	6	706900
175	LTAPFH1753B2	2 x 12.5 + 2 x 25 + 2 x 50	6	747400
200	LTAPFH2003B2	2 x 12.5 + 1 x 25 + 3 x 50	6	794200
225	LTAPFH2253B2	2 x 12.5 + 4 x 50	6	838100
250	LTAPFH2503B2	2 x 25 + 4 x 50	6	867600
275	LTAPFH2753B2	1x100 + 3x50 + 2x12.5	6	945500
300	LTAPFH3003B2	1x100 + 3x50 + 2x25	6	972800
350	LTAPFH3503B2	1x100 + 3x50 + 4x25	8	1245700
400	LTAPFH4003B2	2x100 + 2x50 + 4x25	8	1368100
450	LTAPFH4503B2	2x100 + 4x50 + 2x25	8	1441400
500	LTAPFH5003B2	3x100 + 3x50 + 2x25	8	1581700

Reactive Power Management Products

etaSYS - MU

Contactor switched standard APFC Panels

Panel Rating (kVAr)	Cat. No.	Step sizes (kVAr)	No. of Steps	M.R.P. (₹) Per Unit
100	LTAPMU1001B2	50 + 25 + 15 + 5 + 5	5	296000
125	LTAPMU1251B2	2 x 12.5 + 2 x 25 + 50	5	324900
150	LTAPMU1501B2	2 x 12.5 + 3 x 25 + 50	6	375500
175	LTAPMU1751B2	2 x 12.5 + 2 x 25 + 2 x 50	6	412900
200	LTAPMU2001B2	2 x 12.5 + 25 + 3 x 50	6	457300
225	LTAPMU2251B2	2 x 12.5 + 4 x 50	6	488100
250	LTAPMU2501B2	2 x 25 + 4 x 50	6	531000
275	LTAPMU2751B2	1x100 + 3x50 + 2x12.5	6	571700
300	LTAPMU3001B2	1x100 + 3x50 + 2x25	6	602500
350	LTAPMU3501B2	1x100 + 3x50 + 4x25	8	706200
400	LTAPMU4001B2	2x100 + 2x50 + 4x25	8	817700
450	LTAPMU4501B2	2x100 + 4x50 + 2x25	8	893400
500	LTAPMU5001B2	3x100 + 3x50 + 2x25	8	987800

etaSYS - FU

Contactor switched standard APFC Panels

Panel Rating (kVAr)	Cat. No.	Step sizes (kVAr)	No. of Steps	M.R.P. (₹) Per Unit
100	LTAPFU1001B2	50 + 25 + 15 + 5 + 5	5	284000
125	LTAPFU1251B2	2 x 12.5 + 2 x 25 + 50	5	313100
150	LTAPFU1501B2	2 x 12.5 + 3 x 25 + 50	6	357500
175	LTAPFU1751B2	2 x 12.5 + 2 x 25 + 2 x 50	6	392100
200	LTAPFU2001B2	2 x 12.5 + 25 + 3 x 50	6	435500
225	LTAPFU2251B2	2 x 12.5 + 4 x 50	6	479400
250	LTAPFU2501B2	2 x 25 + 4 x 50	6	507500
275	LTAPFU2751B2	1x100 + 3x50 + 2x12.5	6	541600
300	LTAPFU3001B2	1x100 + 3x50 + 2x25	6	570700
350	LTAPFU3501B2	1x100 + 3x50 + 4x25	8	669100
400	LTAPFU4001B2	2x100 + 2x50 + 4x25	8	777600
450	LTAPFU4501B2	2x100 + 4x50 + 2x25	8	849600
500	LTAPFU5001B2	3x100 + 3x50 + 2x25	8	954800

Contactor Switched standard APFC panels with 7% detuned harmonics filter

Panel Rating (kVAr)	Cat. No.	Step sizes (kVAr)	No. of Steps	M.R.P. (₹) Per Unit
100	LTAPMU1002B2	50 + 25 + 15 + 5 + 5	5	409200
125	LTAPMU1252B2	2 x 12.5 + 2 x 25 + 50	5	438000
150	LTAPMU1502B2	2 x 12.5 + 3 x 25 + 50	6	503700
175	LTAPMU1752B2	2 x 12.5 + 2 x 25 + 2 x 50	6	543900
200	LTAPMU2002B2	2 x 12.5 + 1 x 25 + 3 x 50	6	582700
225	LTAPMU2252B2	2 x 12.5 + 4 x 50	6	616300
250	LTAPMU2502B2	2 x 25 + 4 x 50	6	657500
275	LTAPMU2752B2	1x100 + 3x50 + 2x12.5	6	696500
300	LTAPMU3002B2	1x100 + 3x50 + 2x25	6	726500
350	LTAPMU3502B2	1x100 + 3x50 + 4x25	8	871500
400	LTAPMU4002B2	2x100 + 2x50 + 4x25	8	983000
450	LTAPMU4502B2	2x100 + 4x50 + 2x25	8	1060100
500	LTAPMU5002B2	3x100 + 3x50 + 2x25	8	1153100

Contactor Switched standard APFC panels with 7% detuned harmonics filter

Panel Rating (kVAr)	Cat. No.	Step sizes (kVAr)	No. of Steps	M.R.P. (₹) Per Unit
100	LTAPFU1002B2	50 + 25 + 15 + 5 + 5	5	391600
125	LTAPFU1252B2	2 x 12.5 + 2 x 25 + 50	5	423900
150	LTAPFU1502B2	2 x 12.5 + 3 x 25 + 50	6	481400
175	LTAPFU1752B2	2 x 12.5 + 2 x 25 + 2 x 50	6	517400
200	LTAPFU2002B2	2 x 12.5 + 1 x 25 + 3 x 50	6	572900
225	LTAPFU2252B2	2 x 12.5 + 4 x 50	6	601700
250	LTAPFU2502B2	2 x 25 + 4 x 50	6	634300
275	LTAPFU2752B2	1x100 + 3x50 + 2x12.5	6	665600
300	LTAPFU3002B2	1x100 + 3x50 + 2x25	6	694700
350	LTAPFU3502B2	1x100 + 3x50 + 4x25	8	834400
400	LTAPFU4002B2	2x100 + 2x50 + 4x25	8	946000
450	LTAPFU4502B2	2x100 + 4x50 + 2x25	8	1023300
500	LTAPFU5002B2	3x100 + 3x50 + 2x25	8	1122900

Thyristor Switched standard APFC panels with 7% detuned harmonics filter

Panel Rating (kVAr)	Cat. No.	Step sizes (kVAr)	No. of Steps	M.R.P. (₹) Per Unit
100	LTAPFU1003B2	50 + 25 + 15 + 5 + 5	5	593000
125	LTAPFU1253B2	2 x 12.5 + 2 x 25 + 50	5	661800
150	LTAPFU1503B2	2 x 12.5 + 3 x 25 + 50	6	777700
175	LTAPFU1753B2	2 x 12.5 + 2 x 25 + 2 x 50	6	822900
200	LTAPFU2003B2	2 x 12.5 + 1 x 25 + 3 x 50	6	884600
225	LTAPFU2253B2	2 x 12.5 + 4 x 50	6	928800
250	LTAPFU2503B2	2 x 25 + 4 x 50	6	965600
275	LTAPFU2753B2	1x100 + 3x50 + 2x12.5	6	1047400
300	LTAPFU3003B2	1x100 + 3x50 + 2x25	6	1083700
350	LTAPFU3503B2	1x100 + 3x50 + 4x25	8	1376300
400	LTAPFU4003B2	2x100 + 2x50 + 4x25	8	1507900
450	LTAPFU4503B2	2x100 + 4x50 + 2x25	8	1605200
500	LTAPFU5003B2	3x100 + 3x50 + 2x25	8	1765200





New Your Energy Manager

You probably know of Larsen & Toubro as a:

- leading electrical and automation company
- premier infrastructure builder
- company engaged in frontline technologies

Yes, while we are all of the above, we are also now rapidly being recognized for our energy management expertise.

Our energy management systems can help you:

- reduce energy consumption
- overcome harmonics
- achieve eco-friendly operations.

L&T can help you achieve all of the above. If you have a specific application for which you need advice, contact us now.

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
E-mail: cic@Lntebg.com

ECOCARE
Complete Solutions for Energy Efficiency
& Harmonics Mitigation

Digital Protective Relays

3 Phase Over Current + Earth Fault Relay

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



Model	Aux. Supply (V)	Output Contacts	Cat. No.	M.R.P. (₹) Per Unit	Std Pkg. (Nos.)
MC31A	20 - 110V AC/DC	4 NO	MC31AAXX000	17400	1
MC31A	20 - 110V AC/DC	2 NO + 2 NC	MC31AAXX001	17400	1
MC31A	88 - 264V AC/DC	4 NO	MC31ABXX000	17400	1
MC31A	88 - 264V AC/DC	2 NO + 2 NC	MC31ABXX001	17400	1

3 Phase Over Current + Earth Fault Relay With High Set

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



Model	Aux. Supply (V)	Output Contacts	Cat. No.	M.R.P. (₹) Per Unit	Std Pkg. (Nos.)
MC61A	20 - 110V AC/DC	4 NO	MC61AAXX000	23500	1
MC61A	20 - 110V AC/DC	2 NO + 2 NC	MC61AAXX001	23500	1
MC61A	88 - 264V AC/DC	4 NO	MC61ABXX000	23500	1
MC61A	88 - 264V AC/DC	2 NO + 2 NC	MC61ABXX001	23500	1

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

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



Model	Aux. Supply (V)	C.T. Secondary (A)		Cat. No.	M.R.P. (₹) Per Unit	Std Pkg. (Nos.)
		In	On			
MC61C	20 - 110V AC/DC	1	1	MC61CA11000 *	40000	1
MC61C	20 - 110V AC/DC	5	5	MC61CA55000 *	40000	1
MC61C	88 - 264V AC/DC	1	1	MC61CB11000 *	40000	1
MC61C	88 - 264V AC/DC	5	5	MC61CB55000 *	40000	1

* - available on request only

Single Pole Over Current or Earth Fault Relay

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



Model	Aux. Supply (V)	C.T. Secondary (A)	Cat. No.	M.R.P. (₹) Per Unit	Std Pkg. (Nos.)
MC12A	20 - 110V AC/DC	1A	MC12AA10X00	9600	1
MC12A	20 - 110V AC/DC	5A	MC12AA50X00	9600	1
MC12A	88 - 264V AC/DC	1A	MC12AB10X00	9600	1
MC12A	88 - 264V AC/DC	5A	MC12AB50X00	9600	1

Single Pole Sensitive Earth Fault Relay

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



Model	Aux. Supply (V)	C.T. Secondary (A)	Cat. No.	M.R.P. (₹) Per Unit	Std Pkg. (Nos.)
ME12A	20 - 110V AC/DC	1A	ME12AA10000 *	9900	1
ME12A	20 - 110V AC/DC	5A	ME12AA50000 *	9900	1
ME12A	88 - 264V AC/DC	1A	ME12AB10000 *	9900	1
ME12A	88 - 264V AC/DC	5A	ME12AB50000 *	9900	1

* - available on request only

Single Phase Under Voltage or Over Voltage Relay



Model	Aux. Supply (V)	Cat. No.	M.R.P. (₹) Per Unit	Std Pkg. (Nos.)
MV12A	20 - 110V AC/DC	MV12AA00X00	9700	1
MV12A	88 - 264V AC/DC	MV12AB00X00	9700	1

Digital Protective Relays

Mini Motor Protection Relay[#]



Model	Thermal O/L Range (A)	Cat. No.	M.R.P. (₹) Per Unit	Std Pkg. (Nos.)
MPR 300	1 - 2.75	MPR300BE010	5700	1
MPR 300	2 - 5.5	MPR301BE020	5700	1
MPR 300	4 - 11	MPR302BE040	5700	1
MPR 300	8 - 22	MPR303BE080	5700	1
MPR 300	16 - 44	MPR304BE160	5700	1
MPR 300	32 - 88	MPR305BE320	5700	1

With AUX. supply 240 AC
AUX. supply 110V AC available on request

APFC Relays



Model	Description	Cat. No.	M.R.P. (₹) Per Unit	Std Pkg. (Nos.)
RPM 8	Eight Stage APFC Relay	MRPM0800000	13600	1
RPM 14	Fourteen Stage APFC Relay	MRPM1400000	16900	1



Other Relays

Model	Description	Device Code	Cat. No.	M.R.P. (₹) Per Unit	Std Pkg. (Nos.)
UFD34	Frequency Relay 20 - 110V	81, 27, 59, df/dt	EFD34A00000	123000	1
UDF34	Frequency Relay 88 - 264V	81, 27, 59, df/dt	EFD34B00000	123000	1
MM30	Motor Protection Relay 20 - 110V	49, 51LR, 46, 37, 50/51, 64, St No, ITR	EMM30AXX00E	67700	1
MM30	Motor Protection Relay 88 - 264V	49, 51LR, 46, 37, 50/51, 64, St No., ITR	EMM30BXX00E	67700	1
MM30W	Motor Protection Relay with Voltage Input 20 - 110V	12/14, 27/59, 47, 48, 55, 66, 68, 81 49, 51LR, 46, 37, 50/51, 64 St No, ITR	EMM30WAX002 *	84000	1
MM30W	Motor Protection Relay with Voltage Input 88 - 264V	12/14, 27/59, 47, 48, 55, 66, 68, 81 49, 51LR, 46, 37, 50/51, 64 St No, ITR	EMM30WBX002 *	84000	1
MG30	Generator Protection Relay For Generators with NGR (Neutral Grounding Resistor) 20 - 110V	21, 24, 27/59, 32, 37, 40, 46, 49, 50/27, 50V/51V, 51BF, 60FL, 64S, 68, 81	EMG30AXX000	210000	1
MG30	Generator Protection Relay For Generators with NGR (Neutral Grounding Resistor) 88 - 264V	21, 24, 27/59, 32, 37, 40, 46, 49, 50/27, 50V/51V, 51BF, 60FL, 64S, 68, 81	EMG30BXX000	210000	1
MG30-I	Generator Protection Relay For Generators without NGR (Neutral Grounding Resistor) 20 - 110V	21, 24, 27/59, 32, 37, 40, 46, 49, 50/27, 50V/51V, 51BF, 60FL, 64S, 68, 81	EM30GIAXX00	210000	1
MG30-I	Generator Protection Relay For Generators without NGR (Neutral Grounding Resistor) 88 - 264V	21, 24, 27/59, 32, 37, 40, 46, 49, 50/27, 50V/51V, 51BF, 60FL, 64S, 68, 81	EM30GIBXX00	210000	1
MD32G	Differential Relay for Generator 20 - 110V	87, 50/51, 87N	ED32GAXX000 *	266500	1
MD32G	Differential Relay for Generator 88 - 264V	87, 50/51, 87N	ED32GBXX000 *	266500	1
MD32TM	Differential Relay for Transformer 20 - 110V, W/O ref.	87RYB	ED32TMAXX00	148000	1
MD32TM	Differential Relay for Transformer 88 - 264V, W/O ref.	87RYB	ED32TMBXX00	148000	1
SPM21	Auto Synchronizing Relay 20 - 110V	25	EPM21A00000 *	143500	1
SPM21	Auto Synchronizing Relay 88 - 264V	25	EPM21B00000 *	143500	1
UM30	U/V Relay with Neutral Monitoring 20 - 110V	59, 81, 27	EUM30A00000 *	123000	1
UM30	U/V Relay with Neutral Monitoring 88 - 264V	59, 81, 27	EUM30B00000 *	123000	1

* - available on request only

Reverse Power Relay



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

Instantaneous Earth Fault Relay

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



Model	C.T. Secondary (A)	Range	Cat. No.	M.R.P. (₹) Per Unit	Std Pkg. (Nos.)
SC14S	1	10 - 40 %	MC14SX10100	8400	1
SC14S	1	20 - 80 %	MC14SX10200	8400	1
SC14S	5	10 - 40 %	MC14SX50100	8400	1
SC14S	5	20 - 80 %	MC14SX50200	8400	1

Electronic Metering Devices

Single Phase kWh meter with LCD display

Model EM101 + Class 1 Base mounting



Description	Cat. No.	M.R.P. (₹) Per Unit
1Ph LCD Meter 5-30A without optical port	WM101BC5DL0	1640
1Ph LCD Meter 10-60A without optical port	WM101BC7DL0	1950
1P LCD Meter 5-30A with optical port	WM101BC5DDH	1950
1Ph LCD Meter 10-60A with optical port	WM101BC7DDH	2050

3 Phase 4 Wire kWh Base mounting meter

Model EM301B Class 1



Description	Cat. No.	M.R.P. (₹) Per Unit
3Ph 4 W kWh CT op base mtg 240V 1-2A	WM301BC1C00	4820
3Ph 4 W kWh CT op base mtg 240V 5 -10 A	WM301BC3C00	4310
3Ph 4 W kWh Dir base mtg 240V 5 -20 A Sleek	WM301BC4D20	4310
3Ph 4 W kWh Dir base mtg 240V 10 -40 A Sleek	WM301BC6D20	4310
3Ph 4 W kWh Dir base mtg 240V 10 - 60 A big body	WM301BC7D10	4410
3Ph 4 W kWh Dir base mtg 240V 50 -100 A big body	WM301BC8D10	6250

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 LPR *	WR300BC63RS	12300

* - available on request only

Trivector Meter Class 0.5

Model ER300P Class 0.5 (Base Mounting)



Description	Cat. No.	M.R.P. (₹) Per Unit
3Ph, 3W TVM 110V (L-L) 1 A Class 0.5 BM *	WR200BB1200	20500
3Ph, 3W TVM 110V (L-L) 5 A Class 0.5 BM *	WR200BB5200	20500
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, 3W TVM 110V (L-L) 1 A Class 0.5 BM RS485 *	WR200BB12RS	24600
3Ph, 3W TVM 110V (L-L) 5 A Class 0.5 BM RS485 *	WR200BB52RS	24600
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

* - 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 - (6MB)	990MR1XX000	100000

Electronic Metering Devices

3 Phase kWh Flush mounting meter

Model Acrux, Nova & Gemini Class 1
(Flush Mounting) 96 x 96 mm



Gemini



Nova

Description	Cat. No.	M.R.P. (₹) Per Unit
3Ph 4 W 240V 5A with RS485 (Dual source kWh meter) - Gemini	WM30DFC3CRS	4600
3Ph 4 W 240V 5A with RS485 (kWh meter with RS485 port) - Nova	WM30KFC3CRS	4500
3Ph 4 W 240V 1A (kWh meter counter type) - Acrux	WM301FC1C10	4500
3Ph 4 W 240V 5A (kWh meter counter type) - Acrux	WM301FC3C10	4500

Intelligent Panel Meter New

Model QUASAR plus Class 0.5 (Flush Mounting) 96 x 96 mm



Description	Cat. No.	M.R.P. (₹) Per Unit
3Ph, 4W IPM 240 V (L-N) 1 A Class 0.5 FM *	WI300FC1200	10760
3Ph, 4W IPM 240 V (L-N) 5 A Class 0.5 FM	WI300FC5200	10760
3Ph, 3W IPM 110 V (L-L) 1 A Class 0.5 FM *	WI301FC1200	10760
3Ph, 3W IPM 110 V (L-L) 5 A Class 0.5 FM *	WI301FC5200	10760
3Ph, 4W IPM 110 V (L-L) 1A Class 0.5 FM *	WI300FB1200	10760
3Ph, 4W IPM 110 V (L-L) 5A Class 0.5 FM *	WI300FB5200	10760
3Ph, 4W IPM 240 V (L-N) 1 A Class 0.5 FM with RS485	WI300FC12RS	11790
3Ph, 4W IPM 240 V (L-N) 5 A Class 0.5 FM with RS485	WI300FC52RS	11790
3Ph, 3W IPM 110 V (L-L) 1 A Class 0.5 FM with RS485	WI301FC12RS	11790
3Ph, 3W IPM 110 V (L-L) 5 A Class 0.5 FM with RS485	WI301FC52RS	11790
3Ph, 4W IPM 110 V (L-L) 1A Class 0.5 FM with RS485 *	WI300FB12RS	11790
3Ph, 4W IPM 110 V (L-L) 5A Class 0.5 FM with RS485 *	WI300FB52RS	11790

* - available on request only

Intelligent Panel Meter

Model QUASAR Class 1 (Flush Mounting) 96 x 96 mm



Description	Cat. No.	M.R.P. (₹) Per Unit
3Ph, 4W IPM 240 V (L-N) 1 A Class 1 FM *	WI300FC1300	8710
3Ph, 4W IPM 240 V (L-N) 5 A Class 1 FM	WI300FC5300	8710
3Ph, 3W IPM 110 V (L-L) 1 A Class 1 FM *	WI301FC1300	8710
3Ph, 3W IPM 110 V (L-L) 5 A Class 1 FM *	WI301FC5300	8710
3Ph, 4W IPM 110 V (L-L) 1A Class 1 FM *	WI300FB1300	8710
3Ph, 4W IPM 110 V (L-L) 5A Class 1 FM *	WI300FB5300	8710
3Ph, 4W IPM 240 V (L-N) 1 A Class 1 FM with RS485 *	WI300FC13RS	9740
3Ph, 4W IPM 240 V (L-N) 5 A Class 1 FM with RS485	WI300FC53RS	9740
3Ph, 3W IPM 110 V (L-L) 1 A Class 1 FM with RS485 *	WI301FC13RS	9740
3Ph, 3W IPM 110 V (L-L) 5 A Class 1 FM with RS485 *	WI301FC53RS	9740
3Ph, 4W IPM 110 V (L-L) 1A Class 1 FM with RS485 *	WI300FB13RS	9740
3Ph, 4W IPM 110 V (L-L) 5A Class 1 FM with RS485 *	WI300FB53RS	9740

* - available on request only

Vega Series New



Multifunction Meter



Single Function Basic Meter

Description	Cat. No.	M.R.P. (₹) Per Unit
Multifunction Meters (MFM)		
3Ph Multifunction Meter, Model A, class 1, 5A	WDM303FDWA1	6990
3Ph Multifunction Meter, Model B, class 1, 5A	WDM303FDNB1	10900
3Ph Multifunction Meter, Model C, class 1, 5A	WDM303FDNC1	16020
3Ph Multifunction Meter, Model A, class 1, 5A with Relay	WDM303FDWA0	8200
3Ph Multifunction Meter, Model B, class 1, 5A with Relay	WDM303FDNB0	13320
3Ph Multifunction Meter, Model C, class 1, 5A with Relay	WDM303FDNC0	20500
VAF Meter		
3Ph VAF, Class 1, 5A	WDV303FC000	3000
Single Phase Basic Meters		
1Ph Voltmeter Class 1	WDS101FCV00	1000
1Ph Ammeter Class1	WDS101FCA00	1000
1Ph Freq. meter Class 0.2	WDS121FCF00	1000
Three Phase Basic Meters		
3Ph Voltmeter Class 1	WDS301FCV00	1360
3Ph Ammeter Class1	WDS301FCA00	1360

Panel Meter Overview

Meter type	Parametres	Display	RS 485
Accrux	kWh	Counter	No
Vega VAF	V, A, F, rpm	LED	No
Nova	V, A, F, kW, kWh	LCD	Yes
Gemini	V, A, F, kW, kWh - Dual source	LCD	Yes
Quasar	V, A, F, pf, Power, Energy, THD	LCD	Optional
Vega Model A	V, A, F, pf, Power, Energy, Run & ON hours, RPM	LED	Yes
Vega Model B	V, A, F, pf, Power, Energy, Run & ON hours, RPM + Neutral current,	LED	Yes
Vega Model C	MD (kW & kVA), MD reset V, A, F, pf, Power, Energy, Run & ON hours, RPM + Neutral current, MD (kW & kVA), MD reset + THD, Bi - directional	LED	Yes

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- Built-in High speed counter & Pulse Output
- Built-in real time clock in LX7
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- Can communicate with ACB, MCCB Releases, Energy Meters



LX7 / LX7S



LX70



LX700

Type	Cat. No.	Description	M.R.P. (₹) Per Unit
LX7S Series (Non Expandable PLC)	LX7S-10ADR	AC Powered, 6 Digital Inputs, 4 Digital Outputs (Relay)	9500
	LX7S-10ADT	AC Powered, 6 Digital Inputs, 4 Digital Outputs (Transistor)	9300
	LX7S-14ADR	AC Powered, 8 Digital Inputs, 6 Digital Outputs (Relay)	11200
	LX7S-14ADT	AC Powered, 8 Digital Inputs, 6 Digital Outputs (Transistor)	10900
	LX7S-20ADR	AC Powered, 12 Digital Inputs, 8 Digital Outputs (Relay)	13700
	LX7S-20ADT	AC Powered, 12 Digital Inputs, 8 Digital Outputs (Transistor)	13300
	LX7S-28ADR	AC Powered, 16 Digital Inputs, 12 Digital Outputs (Relay)	16500
	LX7S-28ADT	AC Powered, 16 Digital Inputs, 12 Digital Outputs (Transistor)	16100
	LX7S-40ADR	AC Powered, 24 Digital Inputs, 16 Digital Outputs (Relay)	20700
	LX7S-40ADT	AC Powered, 24 Digital Inputs, 16 Digital Outputs (Transistor)	20100
	LX7S-48ADR	AC Powered, 28 Digital Inputs, 20 Digital Outputs (Relay)	22900
	LX7S-48ADT	AC Powered, 28 Digital Inputs, 20 Digital Outputs (Transistor)	22200
	LX7S-10DDR	DC Powered, 6 Digital Inputs, 4 Digital Outputs (Relay)	9500
	LX7S-10DDT	DC Powered, 6 Digital Inputs, 4 Digital Outputs (Transistor)	9300
	LX7S-14DDR	DC Powered, 8 Digital Inputs, 6 Digital Outputs (Relay)	11200
	LX7S-14DDT	DC Powered, 8 Digital Inputs, 6 Digital Outputs (Transistor)	10900
LX7 Series (Expandable PLC)	Base Modules		
	LX7-28ADR	AC Powered, 16 Digital Inputs, 12 Digital Outputs (Relay)	21252
	LX7-28ADT	AC Powered, 16 Digital Inputs, 12 Digital Outputs (Transistor)	20066
	LX7-48ADR	AC Powered, 28 Digital Inputs, 20 Digital Outputs (Relay)	31510
	LX7-48ADT	AC Powered, 28 Digital Inputs, 20 Digital Outputs (Transistor)	29298
	LX7-28DDR	DC Powered, 16 Digital Inputs, 12 Digital Outputs (Relay)	21922
	LX7-28DDT	DC Powered, 16 Digital Inputs, 12 Digital Outputs (Transistor)	20608
	LX7-48DDR	DC Powered, 28 Digital Inputs, 20 Digital Outputs (Relay)	33270
	LX7-48DDT	DC Powered, 28 Digital Inputs, 20 Digital Outputs (Transistor)	30722
	LX7-20ADR-4A	AC Powered, 12 Digital Inputs, 8 Digital Outputs (Relay), 4 Analog Inputs	24900
	LX7-20ADR-6A	AC Powered, 12 Digital Inputs, 8 Digital Outputs (Relay), 4 Analog Inputs, 2 Analog Outputs	29500
	LX7-20ADT-4A	AC Powered, 12 Digital Inputs, 8 Digital Outputs (Transistor), 4 Analog Inputs	24400
	LX7-20ADT-6A	AC Powered, 12 Digital Inputs, 8 Digital Outputs (Transistor), 4 Analog Inputs, 2 Analog Outputs	28800
	Expansion Modules		
	LX7-14EDR	Expansion Module, 8 Digital Inputs, 6 Digital Outputs (Relay)	10400
	LX7-14EDT	Expansion Module, 8 Digital Inputs, 6 Digital Outputs (Transistor)	10100
	LX7-28EDR	Expansion Module, 16 Digital Inputs, 12 Digital Outputs (Relay)	14300
	LX7-28EDT	Expansion Module, 16 Digital Inputs, 12 Digital Outputs (Transistor)	13900

LX 70 Series PLC:

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- Fast & powerful processors to control upto 384 I/O points
- Built-in PID for process control

LX 700 Series PLC:

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Lμ1000 Programmable Smart Relay

- On board Programming / editing LCD screen and function keys
- LCD screen can be used as an HMI for data entry as well as for viewing alarms
- A power packed compact unit with Timers, Counters, Analog Comparalors, Text Display, Time Switches and many more
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- Programming upto 250 Lines
- Battery backed up Flash Memory
- DIN rail Mounting
- Built-in RS232 Modbus port
- Optional RS485 Modbus port
- Power up Option : 230V AC, 24V DC



Type	Cat. No.	Description	M.R.P. (₹) Per Unit
Lμ1000 Programmable Smart Relay	L1000-A12BR	AC Powered Base Module, 8 Digital Inputs, 4 Digital Outputs (Relay)	7500
	L1000-A12ER	AC Powered Expansion Module, 8 Digital Inputs, 4 Digital Outputs (Relay)	4100
	L1000-D12BR	DC Powered Base Module, 8 Digital Inputs**, 4 Digital Outputs (Relay)	6800
	L1000-D12ER	DC Powered Expansion Module, 8 Digital Inputs**, 4 Digital Outputs (Relay)	4100
	L1000-USBPR	USB Programming Cable	1150
	L1000-MEMBK	Memory Card for storing Program	900
	L1000-RS232	RS232 Cable for Communication on Modbus	1550
	L1000-485AC	AC Powered, RS485 module for Modbus Communication	1700
	L1000-485DC	DC Powered, RS485 module for Modbus Communication	2500

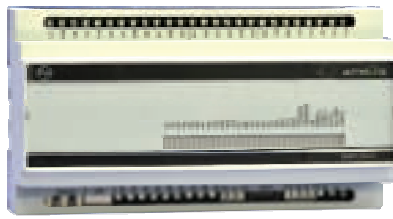
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- Advanced features: Multy - Language, Graphic, Extended Alarms, Recipe, Data Logging, Printing, Password protection, Trends
- Supports scripting



Type	Cat. No.	Description	M.R.P. (₹) Per Unit
1	LX-TEXTMATE	DC Powered, 3", 8-Line Alphanumeric Text Display	10400
2	S04TDAA	4.3" Wide 65536 Color TFT, SRAM, 480X272, 6M Memory(Serial only), DC powered	20000
3	E05TDAA	5.7" 65536 Color TFT, SRAM, 320X240, (Serial/USB/CF/Ethernet), DC powered	50000
4	S07TDAA	7" Wide 65536 Color TFT, SRAM, 800X480, 26M Memory (Serial only), DC powered	29000
5	E08TDAA	8.4" 65536 Color TFT, SRAM, 640*480, (Serial/USB/CF/Ethernet), DC powered	65000
6	E10TDAA	10.4" 65536 Color TFT, SRAM, 800x600, (Serial/USB/CF/Ethernet), DC powered	85000
7	F12TAAA	12.1" 65536 Color TFT, SRAM, 800x600, (Serial/USB/CF/Ethernet, Option: Profibus slave), AC powered	150000
8	F15TAAA	15" 65536 Color TFT, SRAM, 1024x768, (Serial/USB/CF/Ethernet, Option: Profibus slave), AC powered	200000



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Evolve into a higher form of life

With L&T Teletask Home Automation Solutions.

Teletask Home Automation integrates your home appliances, multimedia etc. thereby creating an ambience to delight your senses. It facilitates you to monitor and control devices both physically and by remote sensors. Further, it takes care of your house security too, that promises carefree living. So evolve into a new way of living with world class domotics by L&T.

Customer Interaction Center (CIC)

BSNL / MTNL (toll free): 1800 233 588 Reliance (toll free): 1800 200 5858

Tel: 022 6774 5858 Fax: 022 6774 5859 E-mail: cic@LNTEBG.com

L&T SWITCHGEAR
SAFE & SURE


TELETASK
Lighting & Comfort Control



POWERMAN
Energy Management System



PERIT
Video Surveillance System



ECOCARE
Energy Efficiency Solutions



SCHRACK
SECONET
Fire Detection and Alarm System



ATMOS
Building Management System

Complete Solutions for Building Automation

Discontinued Products

The following products have been discontinued :

Product Group	Range
Controlgear	MVX - Vacuum Contactors
	MXN - G MPCBs
	ML 0/1 Contactors
	MXN R - Relays
	MN Spares
Changeover Switches	FGC 125A - 1000A, FG 63
MCCB	DU125 (up to 100A) / DU160 / DU200
	dsine MCCBs with RC5 Release
	DTH 250/400
	DN2 MM (Direct Drive)
	DN3 MM (Direct Drive)



Air Insulated MV Switchgear

- Type tested indoor MV Panel upto 36 kV system voltage
- Complete range from 630A to 4000A
- Short time rating upto 40 kA for 3sec
- Metal clad, fully compartmentalised panel
- Floor mounted VCB
- Internal Arc compliant as per IEC 62271-200
- In-built comprehensive safety interlocks

General Terms

All prices are on maximum retail price basis inclusive of Excise Duty and VAT / Sales Tax as applicable.

Prices are subject to revision without notice.

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.

Should the product prove to be defective due to faulty workmanship or otherwise, we will remedy the defect or replace the faulty parts or the whole product at our discretion, as soon as possible, free of cost.

The warranty is however subject to the provision of proper usage, efficient maintenance and does not cover defects arising out of fire, accident, inefficient maintenance, faulty operation and willful or accidental damage. It also does not cover damage to power electronic components like thyristors & IGBTs, which fail predominantly due to over-temperature & over-voltage. The user needs to take adequate precautions to eliminate these conditions. The manufacturer shall not be liable for any consequential loss, injury or damages attributable to defect or failure of its products.

Comprehensive Service Support

L&T has over four decades of experience in providing after sales service for low voltage distribution systems in every type of industry & commercial complex in India.

L&T offers the following services, partnering you in your maintenance of low voltage distribution products :

- Regular Maintenance
- Preventive Maintenance Programme
- On Call
- Annual Maintenance Contract
- Product Support for Managing Obsolescence - Retrofitting & Upgradation of your switchgear products.

* Proof of purchase to be retained to avail warranty

[illegible]

Notes:

[illegible]

We Go The Extra Mile



Larsen & Toubro has a reputation for going the extra mile - in the range and quality of its products and systems, in the standards of service it has set and in the value it delivers to its customers.

So what does 'the extra mile' really mean? It means products available in ratings and versions that precisely meet your needs. Products that not just conform to international quality standards but are also easy to operate and maintain.

And it means that right from product selection to post sales customer support – our engineers are for all practical purposes, your partners. Yes, the extra mile goes a long way.

- Powergear
- Controlgear

- Energy Devices
- Building Electricals

- Building & Home Automation
- Industrial Automation

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Tel: 022 6774 5858 Fax: 022 6774 5859 E-mail: cic@LNTEBG.com



Electrical Standard Products (ESP) Branch Offices:

REGISTERED OFFICE AND HEAD OFFICE

L&T House, Ballard Estate
P. O. Box 278
Mumbai 400 001
Tel: 022-67525656
Fax: 022-67525858
Website: www.Larsentoubro.com

ELECTRICAL STANDARD PRODUCTS (ESP)

501, Sakar Complex I
Opp. Gandhigram Rly. Station
Ashram Road
Ahmedabad 380 009
Tel: 079-66304006-11
Fax: 079-66304025
e-mail: esp-ahm@LNTEBG.com

38, Cubbon Road, P. O. Box 5098
Bangalore 560 001
Tel: 080-25020100/25020324
Fax: 080-25580525
e-mail: esp-blr@LNTEBG.com

131/1, Zone II
Maharana Pratap Nagar
Bhopal 462 011
Tel: 0755-4098721/7/ 8 / 9
Fax: 0755-2769264
e-mail: esp-bho@LNTEBG.com

Plot No. 559, Annapurna Complex
Lewis Road
Bhubaneswar 751 014
Tel: 0674-6451342, 2436696
Fax: 0674-2537309
e-mail: esp-bbi@LNTEBG.com

SCO 32, Sector 26-D
Madhya Marg, P. O. Box 14
Chandigarh 160 026
Tel: 0172-4646840, 4646853
Fax: 0172-4646802
e-mail: esp-chd@LNTEBG.com

10, Club House Road,
Annasalai
Chennai 600 002
Tel: 044-28462072 / 4 / 5 / 2109
Fax: 044-28462102 / 3
e-mail: esp-maa1@Lntebg.com

67, Appuswamy Road
Post Bag 7156
Opp. Nirmala College
Coimbatore 641 045
Tel: 0422-2588120 / 1 / 5
Fax: 0422-2588148
e-mail: esp-cbe@LNTEBG.com

L&T House, Group MIG-5
Padmanabhpur
Durg 491 001
Tel: 0788-2213833 / 14 / 21 / 29
Fax: 0788-2213820
e-mail: esp-durg@LNTEBG.com

Khairasol, Degaul Avenue
Durgapur 713 212
Tel: 2559848, 2559849, 2559844
Fax: 0343-2553614
e-mail: esp-dgp@LNTEBG.com

Milanpur Road, Bamuni Maidan
Guwahati 781 021
Tel: 0361-2550562 / 65
Fax: 0361-2551308
e-mail: hazrasudipto@LNTEBG.com

II Floor, Vasantha Chambers
5-10-173, Fateh Maidan Road
Hyderabad 500004
Tel: 040-66720250
Fax: 040-23296468
e-mail: esp-hyd@LNTEBG.com

D-24, Prithvi Raj Road, C-Scheme
Jaipur 302 001
Tel: 0141-2385915 / 16 / 17 / 18
Fax: 0141-2373280
e-mail: esp-jai@LNTEBG.com

Akashdeep Plaza, 2nd Floor
P. O. Golmuri
Jamshedpur 831 003
Jharkhand
Tel: 0657-2312205 / 38
Fax: 0657-2341250
e-mail: esp-jam@LNTEBG.com

Skybright Bldg; M. G. Road
Ravipuram Junction, Ernakulam
Kochi 682 016
Tel: 0484-4409420 / 4 / 5 / 7
Fax: 0484-4409426
e-mail: esp-cok@LNTEBG.com

3-B, Shakespeare Sarani
Kolkata 700 071
Tel: 033-44002572 / 3 / 4
Fax: 033-22821025/7587
e-mail: esp-ccu@LNTEBG.com

A28, Indira Nagar, Faizabad Road
Lucknow 226 016
Tel: 0522-2312904 / 5 / 6
Fax: 0522-2311671
e-mail: esp-lko@LNTEBG.com

No: 73, Karpaga Nagar, 8th Street
K. Pudur
Madurai 625007
Tel: 0452-2537404, 2521068
Fax: 0452-2537552
e-mail: esp-mdu@LNTEBG.com

EBG North Wing Office-Level 2
Gate 7, Powai Campus
Mumbai 400 072
Tel: 022-67052874 / 2737 / 1156
Fax: 022-67051112
e-mail: esp-bom@LNTEBG.com

12, Shivaji Nagar
North Ambazari Road
Nagpur 440 010
Tel: 0712-2260012/3
Fax: 0712-2260020/30
e-mail: esp-nag@LNTEBG.com

32, Shivaji Marg
P. O. Box 6223
New Delhi 110 015
Tel: 011-41419514 / 5 / 6
Fax: 011-41419600
e-mail: esp-del@LNTEBG.com

L&T House
P. O. Box 119
191/1, Dhole Patil Road
Pune 411 001
Tel: 020-26135048/26164048
Fax: 020-26124910, 26135048
e-mail: esp-pnq@LNTEBG.com

3rd Floor
Vishwakarma Chambers
Majura Gate, Ring Road
Surat 395 002
Tel: 0261-2473726
Fax: 0261-2477078
e-mail: esp-sur@LNTEBG.com

Radhadaya Complex
Old Padra Road
Near Charotar Society
Vadodara 390 015
Tel: 0265-6613610 / 1 / 2
Fax: 0265-2336184
e-mail: esp-bar@LNTEBG.com

48-8-16, Dwarakanagar
Visakhapatnam 530 016
Tel: 0891-6620411-2 / 3
Fax: 0891-6620416
e-mail: esp-viz@LNTEBG.com

Product improvement is a continuous process. For the latest information and special applications, please contact any of our offices listed here. Photographs shown in the price list are for representative purpose only.

L&T SWITCHGEAR

SAFE & SURE

Electrical Standard Products
Larsen & Toubro Limited
Powai Campus, Mumbai 400 072
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Reliance (toll free) : 1800 200 5858
Tel : 022 6774 5858
Fax : 022 6774 5859
E-mail : cic@LNTEBG.com
Website : www.LNTEBG.com

