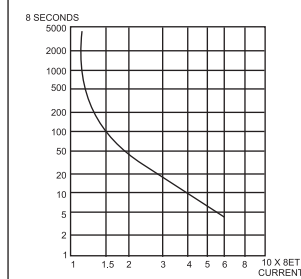
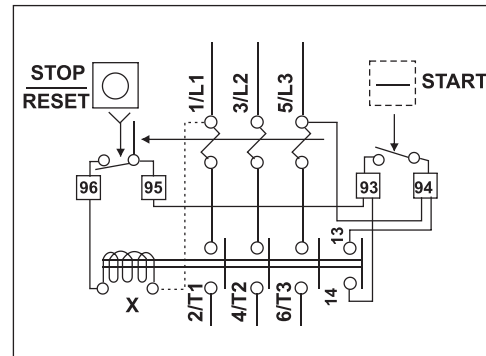


TRIPPING CURVE*



* Starting from cold condition

WIRING DIAGRAM



RELAY SELECTION

Cat.	Motor Rating 240V - 1 PHASE			Motor Rating 415V - 3 PHASE			Relay Range	Back-up Type HF Fuse
	No.	HP	kW	HP	kW	In, A	Amps.	Rating
				0.05	0.037	0.085	0.15 - 0.25	2A
				0.1	0.074	0.17	0.25 - 0.4	2A
				0.125	0.09	0.4	0.25 - 0.4	2A
				0.15	0.11	1.45	0.4 - 0.65	2A
				0.2	0.15	0.57	0.4 - 0.65	2A
				0.25	0.19	0.7	0.4 - 0.65	2A
				0.25	0.19	0.7	0.6 - 1.0	4A
	0.125	0.11		0.25	0.37	1.2	1.0 - 1.6	6A
				0.5	0.55	1.6	1.0 - 1.6	6A
	0.25	0.12	2	0.75	0.55	1.6	1.5 - 2.6	6A
				1	0.75	1.8	1.5 - 2.5	6A
SS 96210	0.5	0.4	3.6	1.25	0.92	2.1	2.5 - 4.0	10A
				1.5	1.1	2.6	2.5 - 4.0	10A
				1.75	1.3	3	2.5 - 4.0	10A
				2	1.5	3.5	2.5 - 4.0	10A
	0.75	0.55		2.5	1.8	4.8	4 - 6.5	16A
				3	2.2	5	4 - 6.5	16A
				4	3	6.2	4 - 6.5	16A
				4	3	6.2	6 - 10	16A
	1	0.75	7.5	5	3.7	7.5	6 - 10	20A
	1.25	0.9	8	6	4.5	9	6 - 10	25A
	1.75	2.33					9 - 4	25A
	2	1.5	9.5	7.5	5.5	11	9 - 14	25A
SS 96211	2	1.5	9.5	7.5	5.5	11	11 - 18	25A
SS 96228	2	1.5	9.5	7.5	5.5	11	13 - 22	32A

NOTE: Amp rating of back-up fuse refers to the recommended, HF type H.R.C. cartridge fuse.

OTHER MOTOR STARTERS AVAILABLE

Type	For motors up to	
	kW	hp
DOL		
MU1/MB1	7.5	10
MU2/MB2	11.0	15
ML2	15.0	20
ML3	22.5	30
STAR-DELTA		
MK1	11	15
MU1/MB1	11	15
MU2/MB2	22.5	30
ML2	26	35
ML3	37	50
ML4	55	75
ML6	90	125
ML 10	185	250
ML 12	300	400

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 Chennai Tel : (044)28462075 Fax : (044)28460648

Hyderabad Tel : (040)55720250 Fax : (040)23242356
 Kolkata Tel : (033)22822301 Fax : (033)22821025
 Mumbai Tel : (022)28581749 Fax : (022)28581112
 New Delhi Tel : (011)25931302 Fax : (011)25438624
 Pune Tel : (020)6135048 Fax : (020)6124910

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 Website: www.LNTEBG.com



Product improvement is a continuous process. For the latest information and special applications please contact any of our offices listed above.

DIRECT - ON - LINE MOTOR STARTER TYPE MK1



MOTOR STARTER
FARMER'S FRIEND

Motor protection starts with a starter that has all the features that guarantee reliability. These features are built into L&T's MK1 - the most wanted starter in India today.

L&T's MK-1 is manufactured at L&T's modern factories at Ahmednagar and Mumbai where quality systems are ISO-9001 certified by BVQI - one of the world's leading accredited agencies.

CONTACTORS

The contactor in the MK 1 starter is designed for exceptional endurance. The coil is tropicalised and subjected to rigorous tests for continuity, pick-up and drop-off. It also acts as undervoltage release disconnecting the supply to motor when voltage is low.

Each starter or contactor can be fitted with two auxiliary contact blocks of 1NO + 1NC each for indicating lamps, sequence interlocks and other pilot circuits.

THERMAL OVERLOAD RELAY

the thermal overload relay in a motor starter protects the motor against overloads and resulting burnouts. The MK 1 relay can be manually reset by just pressing the STOP button. The relays are ambient temperature compensated for operation between 5°C and 60° C.

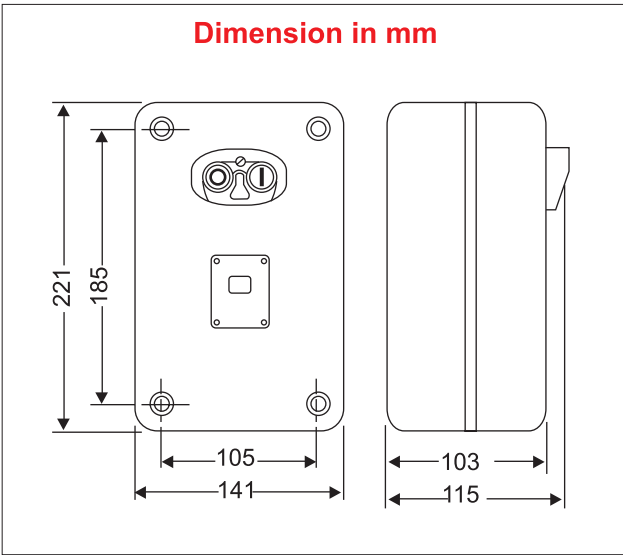
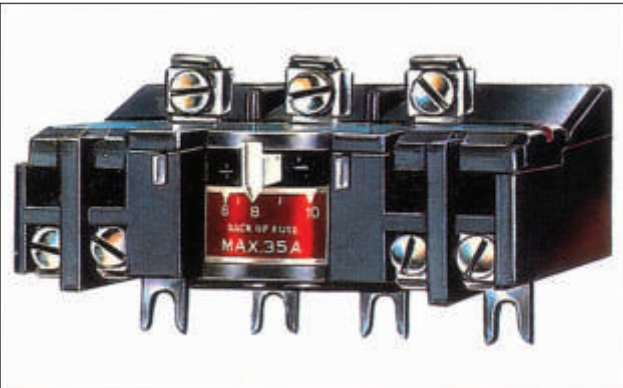
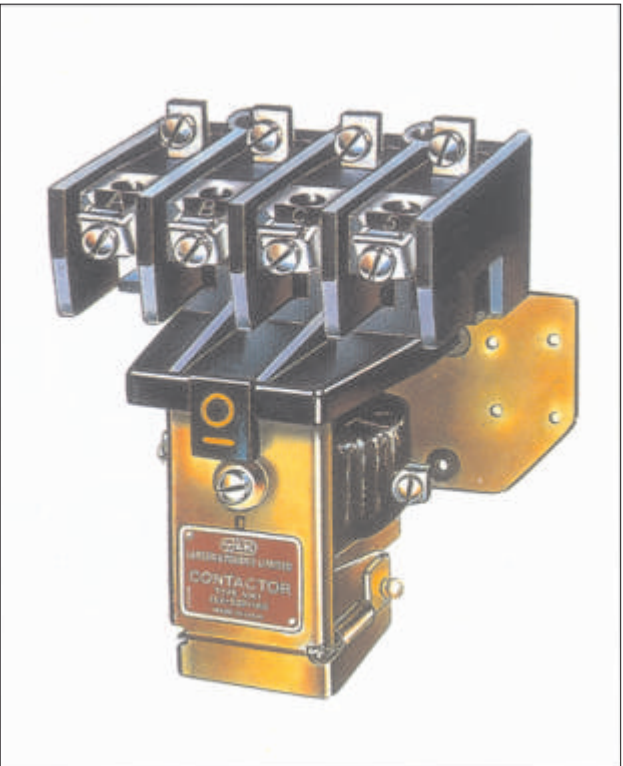
You can select from a wide range of relays with easily adjustable current settings. All overload relays are individually tested on an automated test bench to ensure foolproof operation.

PUSH BUTTON

The 'START-STOP' push buttons are designed for convenient operation. The stop push can be latched in the OFF position to prevent accidental starting.

REMOTE CONTROL

MK 1 contactors and starters can be remotely controlled by push button stations, float switches, pressure switches, thermostats or any other auxiliary circuit.



TECHNICAL DATA

MAIN CONTACTS

No. of contacts	4
Nominal rating at 50Hz	15A at 500 V
Motor hp/kW	
at 415V, 50Hz for AC3	7.5/5.5

TERMINAL SIZE

Wires up to	6 mm ²
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COIL CONSUMPTION

During closing	57 VA
When closed	13VA(6W)

OTHER DETAILS

max. number of full starts	30 per hour
Mechanical life	10 million operations
Contact life	More than 5 million operations for 11A, AC3 duty
Making capacity at 50Hz	88A at 0.3 pf at 457V
Breaking capacity at 50Hz	88A at 0.3 pf at 457V
Weight (unpacked) in kg	2.20 SS. Encl.
	1.00 Unenclosed

SPARES KIT

Cat. No	SS 90983
Contents	4 moving contacts 4 fixed contacts front 4 fixed contacts rear Spring & guides

ALSO AVAILABLE AS A SPARE:

Single moving contact Ss91009
Spare Kit with Hardware - SS92845

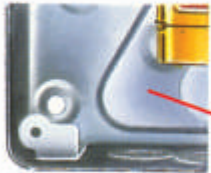
SEPARATE AUXILIARY CONTACT BLOCK (1NO + 1NC)

Cat. No.	SS 90120
Rating at 50Hz	2A at 500V
Terminal size - wires up to	2X2.5 mm ²
No. of blocks that can be fitted after tapping the holes provided for the same of the contactor	2

For CAT. Nos. of the other coil voltages and spares, please refer to our price list.

UNIQUE FEATURES

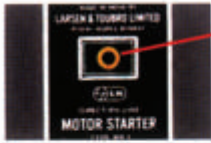
L&T's MK 1 comes to you with improved packaging it is warped in a polythene bag to prevent ingress of dust and water



ENCLOSURE
is dust, moisture and vermin proof with cord packing in the cover.



LATCH
To prevent accidental starting; this latch keeps stop button pressed when required.



WINDOW
Fool-proof ON/OFF indicator is visible through this window.



CONTACT SYSTEM
Tested for millions of operations without failure. Robust silver tipped contacts. Double break, bounce-free design



THERMAL RELAY UNIT
has accurately calibrated bimetallic elements with ambient temperature compensator for overload protection.



SOLENOID COIL
Machine wound, taped; vacuum impregnated and backed; also tested for inter-turn short circuit and subjected to a 4000 Volts impulse test.