ELMARK
The Brand of Electricity

TECHNICAL SPECIFICATION

Thermal overload relays



Description:

The thermal relays LT 2- K/Exx series are three pole relays designed for protection of induction motors from overload or overheat. They are mounted to contactors LT 1 K/Dxx series and an operating circuit for motor control is passed through their NC contacts. They have bimetallic releases /1 per phase/ through them the motors current flows and indirectly mated. The bimetallic releases bend subject to the influence of mating and this results in tripping of the relay. The contacts change switch position. The choice of a suitable protection prevents motor's operation at unusual temperature conditions and guarantees maximum constant operation, increases the effectiveness and prolongs the term of exploitation.

Functions:

- switching off alternating current consumers at current overload
- making of control systems for consumers
- used as a protective operating element in control panels of induction motors
- remarkable with high reliability of current characteristics

Technical data:

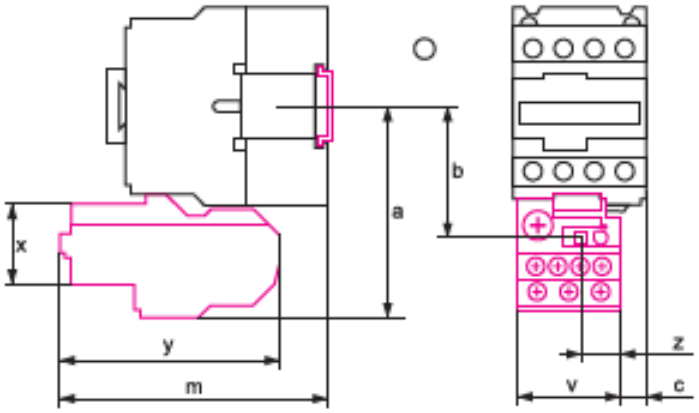
- Rated operating voltage: up to 690V AC; 50/60 Hz
- Rated operating current range: up to 690V AC
- Insulation voltage: >690V
- Plastic: wear resistance of UV rays and non-flammable (self-extinguishing material)
- Surge voltage wear resistance:≥6000V
- Joining terminal: screw terminal
- Temperature compensation: -25 +55
- Tripping category: class 10A
- Connecting:
  - flexible or rigid conductors with or without cable terminal for joining to the consumer
  - to the contactor through the relay terminals
  - the connecting terminals with the consumer can be adjusted according to the type of the contactor
- Electrical wear resistance (number of cycles):≥1000000
- Mechanical wear resistance (number of cycles):≥10000000
- Indication for protection activating
- Possibility for choice of the protection restoring (through the blue button)
- Possibility for range adjustment of the protection activating
- Possibility for operation at higher frequency

Mounting:

- Mounting to the contactor: to the terminals of the contactor as it is additionally clamped to its frame through a pin
- Mounting position: vertical gradient – maximum ± 5°
- Ambient temperature: -10°C ÷ +65°C
- Installation altitude: up to 2000m

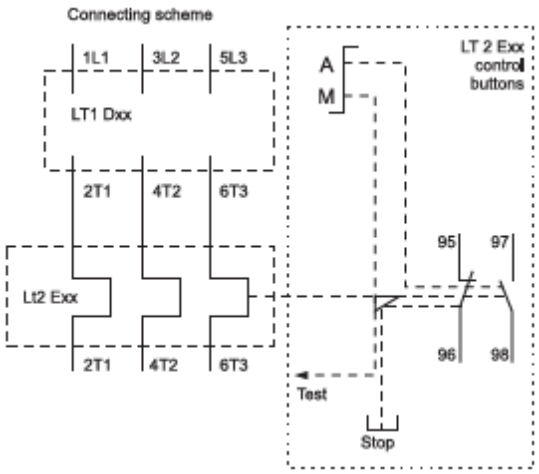
Note: To protect the consumer from short circuit, before the combination contactor- thermal relay, a suitably measured breaker or safety device should be mounted.

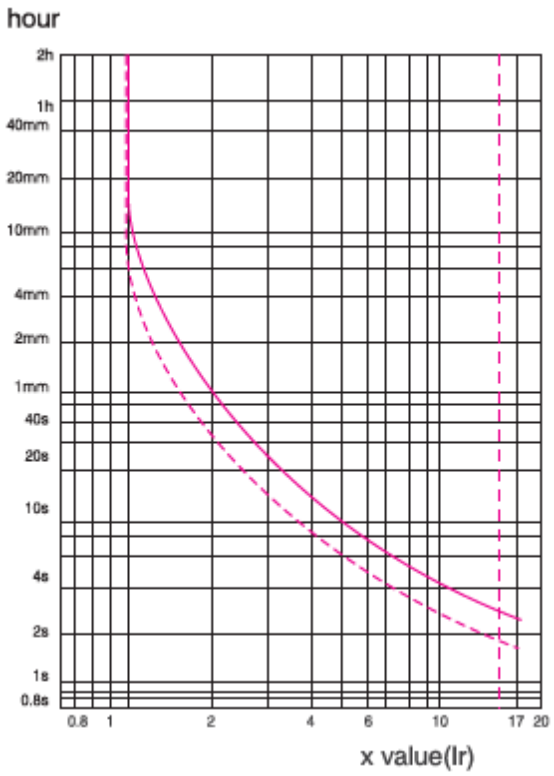
Dimensions:



Type	a	b	c	m	x	y	v	z
LT 2 - Kxx	81	50	0	98	47	92	44	17
LT 2 – E13xx	86	55	10.7	108	47	92	44	17
LT 2 – E23xx	86	55	9	109	47	92	44	17
LT 2 – E33xx	115	76	9.5	124	54	109	70	30

Schemes:





Variants:

For contactor LT1-K06 type	Motor capacity (kW)			Rated current (A)	Protection adjustment range	Packing / Box	Catalogue number
	220V 230V	380V 400V	660V 690V				
LT2-K0303	-	-	-	0.3	0.25 – 0.30	1 / 100	13403
LT2-K0306	-	0.37	1.10	1.20	0.80 – 1.20	1 / 100	13406
LT2-K0307	0.37	0.75	1.50	1.80	1.20 – 1.80	1 / 100	13407
LT2-K0308	0.75	1.10	2.20	2.60	1.80 – 2.60	1 / 100	13408
LT2-K0310	1.10	1.50	3.00	3.70	2.60 – 3.70	1 / 100	13410
LT2-K0312	1.10	2.20	4.00	5.50	3.70 – 5.50	1 / 100	13411
LT2-K0314	2.20	4.00	5.50	8.00	5.50 – 8.00	1 / 100	13412
LT2-K0316	3.00	5.00	7.50	11.5	8.00 – 11.5	1 / 100	13413

For contactor LT1-D9 to LT1-D25 type	Motor capacity (kW)			Rated current (A)	Protection adjustment range	Packing / Box	Catalogue number
	220V 230V	380V 400V	660V 690V				
LT2-E1301	-	-	-	0.16	0.10 – 0.16	1 / 100	13001
LT2-E1302	-	-	-	0.25	0.16 – 0.25	1 / 100	13002
LT2-E1303	-	-	-	0.40	0.25 – 0.40	1 / 100	13003
LT2-E1304	-	-	0.37	0.63	0.40 – 0.63	1 / 100	13004
LT2-E1305	-	-	0.55	1.00	0.63 – 1.00	1 / 100	13005
LT2-E1306	-	0.37	1.10	1.60	1.0 – 1.60	1 / 100	13006
LT2-E1307	0.37	0.75	1.50	2.50	1.6 – 2.50	1 / 100	13007
LT2-E1308	0.75	1.50	3.00	4.00	2.5 – 4.00	1 / 100	13008
LT2-E1310	1.10	2.20	4.00	6.00	4.0 – 6.00	1 / 100	13010
LT2-E1312	2.00	3.70	5.50	8.00	5.5 – 8.00	1 / 100	13012
LT2-E1314	2.20	4.00	7.50	10.0	7.0 – 10.0	1 / 100	13014
LT2-E1316	3.70	5.50	11.0	13.0	9.0 – 13.0	1 / 100	13016
LT2-E1321	4.00	7.50	15.0	18.0	12.0 – 18.0	1 / 100	13021
LT2-E1322	5.50	9.00	18.5	25.0	17.0 – 25.0	1 / 100	13022
LT2-E1353	9.00	11.0	18.5	33.0	23.0 – 32.0	1 / 100	13053

For contactor LT1-D40 to LT1-D95 type	Motor capacity (kW)			Rated current (A)	Protection adjustment range	Packing / Box (pcs)	Catalogue number
	220V 230V	380V 400V	660V 690V				
LT2-E3355	18.5	18.5	30	40	30.0 – 40.0	1 / 50	13355
LT2-E3357	22	22	30	50	37.0 – 50.0	1 / 50	13357
LT2-E3359	30	30	37	65	48.0 – 65.0	1 / 50	13359
LT2-E3363	45	45	55	80	63.0 – 80.0	1 / 50	13363
LT2-E3365	55	55	75	93	80.0 – 93.0	1 / 50	13365

	Motor capacity (kW)				

For contactor LT1-D32	220V 230V	380V 400V	660V 690V	Rated current (A)	Protection adjustment range	Packing / Box (pcs)	Catalogue number
LT2-E2353	11	11	18.5	32	23.0 – 32.0	1 / 100	13253
LT2-E2355	15	15	22.0	36	28.0 – 36.0	1 / 100	13255

For contactor LT1-F115 to LT1-F150	Motor capacity (kW)			Rated current (A)	Protection adjustment range	Packing / Box (pcs)	Catalogue number
	220V 230V	380V 400V	660V 690V				
LT2-F4367	40	75	100	150	90-150	1 / 30	13367

For contactor LT1-F225 to LT1-F400	Motor capacity (kW)			Rated current (A)	Protection adjustment range	Packing / Box (pcs)	Catalogue number
	220V 230V	380V 400V	660V 690V				
LT2-F4368	63	110	129	220	132-220	1 / 30	13368
LT2-F4369	100	160	220	330	200-330	1 / 18	13369
LT2-F4370	147	250	335	500	300-500	1 / 18	13370

For contactor LT1-F630	Motor capacity (kW)			Rated current (A)	Protection adjustment range	Packing / Box (pcs)	Catalogue number
	220V 230V	380V 400V	660V 690V				
LT2F4371	200	335	450	630	380-630	1 / 18	13371

Standards:

EN 60947-1; EN 60947-4-1

The products are in accordance with the directives of EC “Low voltage directives (LVD) no 2006/95/EC” and “Electromagnetic Compatibility Directives (EMC) no. 2004/108/EC”.