Product data sheet
Characteristics

LUCMX6BL
Multifunction control unit, TeSys U, 0.15-0.6A, 1P/3P motors, protection & diagnostic, class 5-30, coil 24V DC

Main

Range	TeSys
Range of product	TeSys U
Product name	TeSys U
Device short name	LUCM
Product or component type	Multifunction control unit
Device application	Motor control Motor protection
Product specific application	Most sophisticated control and protection requirements, with display
Main function available	Earth fault protection Manual or automatic reset Protection function alarm Protection against overload and short-circuit Protection against phase failure and phase imbalance Log function Monitoring function, indication of main motor parameters Differentiation of thermal overload and magnetic fault Overload, no-load running
Product compatibility	Power base LUB12 Power base LUB32 Power base LUB38 Power base LUB120 Power base LUB320 Power base LUB380 Reversing contactor breaker LU2B12BL Reversing contactor breaker LU2B32BL Reversing contactor breaker LU2B38BL
[Ue] rated operational voltage	690 V AC
Network frequency	40...60 Hz
Load type	3-phase motor - cooling: self-cooled - setting factory setting 3-phase motor - cooling: self-cooled, force cooled - setting settable Single-phase motor - cooling: self-cooled, force cooled - setting settable
Utilisation category	AC-43 AC-44 AC-41
Motor power kW	0.09 kW at 400...440 V AC 50/60 Hz for 3 phases motors
Rated motor current adjustment range	0.15…0.6 A
Thermal overload class	Class 5…30 - frequency limit: 50…60 Hz - temperature compensation: -25…55 °C conforming to IEC 60947-6-2 Class 5…30 - frequency limit: 50…60 Hz - temperature compensation: -25…55 °C conforming to UL 508
Tripping threshold	14.2 x Ir +/- 20 %
[Uc] control circuit voltage	24 V DC

Complementary

Control circuit voltage limits	20...28 V for DC circuit 24 V in operation 14.5 V for DC circuit 24 V drop-out
Typical current consumption	150 MA at 24 V DC I maximum while closing with LUB12 200 MA at 24 V DC I maximum while closing with LUB32 200 MA at 24 V DC I maximum while closing with LUB38 70 MA at 24 V DC I rms sealed with LUB12 75 MA at 24 V DC I rms sealed with LUB32 75 mA at 24 V DC I rms sealed with LUB38
Heat dissipation	1.7 W for control circuit with LUB12 1.8 W for control circuit with LUB32 1.8 W for control circuit with LUB38 0.8 W for external auxiliary circuit
Operating time	35 ms opening with LUB12 for control circuit 35 ms opening with LUB32 for control circuit 35 ms opening with LUB38 for control circuit 75 ms closing with LUB12 for control circuit 65 ms closing with LUB32 for control circuit 65 ms closing with LUB38 for control circuit
Physical interface	RS485 multidrop - connector(s): RJ45 - location: front panel - communication protocol: Modbus RTU 19200 bit/s
Return time	<= 200 ms
Messages display capacity	2 lines of 12 characters - display LCD - English - accuracy +/- 5 % - resolution 1 % of Ir 2 lines of 12 characters - display LCD - French - accuracy +/- 5 % - resolution 1 % of Ir 2 lines of 12 characters - display LCD - German - accuracy +/- 5 % - resolution 1 % of Ir 2 lines of 12 characters - display LCD - Italian - accuracy +/- 5 % - resolution 1 % of Ir 2 lines of 12 characters - display LCD - Spanish - accuracy +/- 5 % - resolution 1 % of Ir
Reset	Automatic reset - setting: setting range Manual - setting: factory setting Manual - setting: setting range Remote reset - setting: setting range
Time before reset	1…1000 S - reset manual or automatic reset - setting settable 120 s - reset manual - setting factory setting
User language	English - setting factory setting English, French, German, Italian, Spanish - setting settable
Information displayed	Average current (factory setting) Average current (settable) Cause of last 5 faults (settable) Current in phase (settable) Earth leakage current (settable) Phase imbalance (settable) Thermal state of motor (settable)
Standards	EN 60947-6-2 IEC 60947-6-2 UL 60947-4-1, with phase barrier CSA C22.2 No 60947-4-1, with phase barrier
Product certifications	CE UL CSA CCC EAC ASEFA ATEX Marine
[Ui] rated insulation voltage	690 V conforming to IEC 60947-6-2 600 V conforming to UL 60947-4-1 600 V conforming to CSA C22.2 No 60947-4-1
[Uimp] rated impulse withstand voltage	IEC 60947-6-2 6 kV
Safe separation of circuit	400 V SELV between the control and auxiliary circuits conforming to IEC 60947-1 400 V SELV between the control or auxiliary circuit and the main circuit conforming to IEC 60947-1
Fixing mode	Plug-in (front face)
Width	45 mm
Height	66 mm
Depth	60 mm

Net weight	0.175 kg
Compatibility code	LUCM

Environment

IP degree of protection	IP20 front panel and wired terminals conforming to IEC 60947-1 IP20 other faces conforming to IEC 60947-1 IP40 front panel outside connection zone conforming to IEC 60947-1
Protective treatment	TH conforming to IEC 60068
Ambient air temperature for operation	-25…60 °C
Ambient air temperature for storage	-40…85 °C
Operating altitude	2000 m
Fire resistance	960 °C parts supporting live components conforming to IEC 60695-2-12 650 °C conforming to IEC 60695-2-12
Shock resistance	10 gn power poles open conforming to IEC 60068-2-27 15 gn power poles closed conforming to IEC 60068-2-27
Vibration resistance	2 gn, 5…300 Hz, power poles open conforming to IEC 60068-2-6 4 gn, 5…300 Hz, power poles closed conforming to IEC 60068-2-6
Resistance to electrostatic discharge	8 KV level 3 in open air conforming to IEC 61000-4-2 8 kV level 4 on contact conforming to IEC 61000-4-2
Non-dissipating shock wave	1 KV serial mode conforming to IEC 60947-6-2 2 kV common mode conforming to IEC 60947-6-2
Resistance to radiated fields	10 V/m 3 conforming to IEC 61000-4-3
Resistance to fast transients	2 KV class 3 serial link conforming to IEC 61000-4-4 4 kV class 4 all circuits except for serial link conforming to IEC 61000-4-4
Immunity to radioelectric fields	10 V conforming to IEC 61000-4-6
Immunity to microbreaks	3 ms
Immunity to voltage dips	70 % / 500 ms conforming to IEC 61000-4-11

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Weight	176 g
Package 1 Height	5.5 cm
Package 1 width	8.5 cm
Package 1 Length	10.2 cm
Unit Type of Package 2	S01
Number of Units in Package 2	9
Package 2 Weight	1.812 kg
Package 2 Height	15 cm
Package 2 width	15 cm
Package 2 Length	40 cm

Offer Sustainability

Sustainable offer status	Green Premium product
REACh Regulation	REACh Declaration
EU RoHS Directive	Compliant EU RoHS Declaration
Mercury free	Yes
RoHS exemption information	Yes
China RoHS Regulation	China RoHS Declaration
Environmental Disclosure	Product Environmental Profile
Circularity Profile	End Of Life Information
WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins
PVC free	Yes
Halogen content performance	Halogen free plastic parts product

Contractual warranty

Warranty	18 months