Product data sheet
Characteristics

LUCM12BL
Multifunction control unit, TeSys Ultra, 3A to 12A, 1P/3P motors, protection & diagnostic, class 5-30, coil 24VDC



Main

Range	TeSys
Range of Product	TeSys Ultra
Product name	TeSys Ultra
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	Protection against overload and short-circuit Manual or automatic reset Protection function alarm Protection against phase failure and phase imbalance Log function Monitoring function, indication of main motor parameters Overload, no-load running Earth fault protection Differentiation of thermal overload and magnetic fault
Product compatibility	Power base LUB12[RETURN]Power base LUB32[RETURN]Power base LUB38[RETURN]Power base LUB120[RETURN]Power base LUB320[RETURN]Power base LUB380[RETURN]Reversing contactor breaker LU2B12BL[RETURN]Reversing contactor breaker LU2B32BL[RETURN]Reversing contactor breaker LU2B38BL
[Ue] rated operational voltage	690 V AC
Network frequency	40...60 Hz
Load type	3-phase motor self-cooled factory setting 3-phase motor self-cooled, force cooled settable Single-phase motor self-cooled, force cooled settable
Utilisation category	AC-41 AC-43 AC-44
Motor power kW	5.5 KW 400...440 V AC 50/60 Hz 3 phase 5.5 KW 500 V AC 50/60 Hz 3 phase 9 KW 690 V AC 50/60 Hz 3 phase 2.2 kW 400...440 V AC 50/60 Hz 1 phase
Rated motor current adjustment range	3…12 A
Thermal overload class	Class 5…30 50…60 Hz -13…131 °F (-25…55 °C) IEC 60947-6-2 Class 5…30 50…60 Hz -13…131 °F (-25…55 °C) UL 508
Tripping threshold	14.2 x Ir +/- 20 %
[Uc] control circuit voltage	24 V DC

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Complementary

Control circuit voltage limits	20...28 V DC 24 V in operation 14.5 V DC 24 V drop-out
Typical current consumption	150 MA 24 V DC I maximum while closing with LUB12 200 MA 24 V DC I maximum while closing with LUB32 200 MA 24 V DC I maximum while closing with LUB38 70 MA 24 V DC I rms sealed with LUB12 75 MA 24 V DC I rms sealed with LUB32 75 mA 24 V DC I rms sealed with LUB38
Heat dissipation	1.7 W control circuit with LUB12 1.8 W control circuit with LUB32 1.8 W control circuit with LUB38 0.8 W external auxiliary circuit
Operating time	35 ms opening with LUB12 control circuit 35 ms opening with LUB32 control circuit 35 ms opening with LUB38 control circuit 75 ms closing with LUB12 control circuit 65 ms closing with LUB32 control circuit 65 ms closing with LUB38 control circuit
Physical interface	RS485 multidrop RJ45 front panel Modbus RTU 19200 bit/s
Return time	<= 200 ms
Messages display capacity	2 lines of 12 characters LCD - English +/- 5 % 1 % of Ir 2 lines of 12 characters LCD - French +/- 5 % 1 % of Ir 2 lines of 12 characters LCD - German +/- 5 % 1 % of Ir 2 lines of 12 characters LCD - Italian +/- 5 % 1 % of Ir 2 lines of 12 characters LCD - Spanish +/- 5 % 1 % of Ir
Reset	Automatic reset setting range Manual factory setting Manual setting range Remote reset setting range
Time before reset	1…1000 S manual or automatic reset settable 120 s manual factory setting
User language	English factory setting English, French, German, Italian, Spanish 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[RETURN]UL[RETURN]CSA[RETURN]CCC[RETURN]EAC[RETURN]ASEFA[RETURN]ATEX[
[Ui] rated insulation voltage	690 V IEC 60947-6-2 600 V UL 60947-4-1 600 V CSA C22.2 No 60947-4-1
[Uimp] rated impulse withstand voltage	6 kV IEC 60947-6-2
Safe separation of circuit	400 V SELV between the control and auxiliary circuits IEC 60947-1 400 V SELV between the control or auxiliary circuit and the main circuit IEC 60947-1
Fixing mode	Plug-in front face)
Width	1.77 in (45 mm)
Height	2.60 in (66 mm)
Depth	2.36 in (60 mm)
Net Weight	0.39 lb(US) (0.175 kg)
Compatibility code	LUCM

Environment

IP degree of protection	IP20 front panel and wired terminals IEC 60947-1 IP20 other faces IEC 60947-1 IP40 front panel outside connection zone IEC 60947-1
Protective treatment	TH IEC 60068
Ambient air temperature for operation	-13…140 °F (-25…60 °C)
Ambient Air Temperature for Storage	-40…185 °F (-40…85 °C)
Operating altitude	6561.68 ft (2000 m)
Fire resistance	1760 °F (960 °C) parts supporting live components IEC 60695-2-12 1202 °F (650 °C) IEC 60695-2-12
Shock resistance	10 gn power poles open IEC 60068-2-27 15 gn power poles closed IEC 60068-2-27
Vibration resistance	2 gn 5…300 Hz power poles open IEC 60068-2-6 4 gn 5…300 Hz power poles closed IEC 60068-2-6
Resistance to electrostatic discharge	8 KV 3 in open air IEC 61000-4-2 8 kV 4 on contact IEC 61000-4-2
Resistance to radiated fields	9.14 V/m (10 V/m) 3 IEC 61000-4-3
Resistance to fast transients	2 KV 3 serial link IEC 61000-4-4 4 kV 4 all circuits except for serial link IEC 61000-4-4
Immunity to radioelectric fields	10 V IEC 61000-4-6
Immunity to microbreaks	3 ms
Immunity to voltage dips	70 % / 500 ms IEC 61000-4-11

Ordering and shipping details

Category	22398-TESYS U - MULTI-FCTN CTRL MOD(LUCM)
Discount Schedule	I11
GTIN	3389110365115
Returnability	No
Country of origin	FR

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	2.09 in (5.3 cm)
Package 1 Width	3.15 in (8.0 cm)
Package 1 Length	4.02 in (10.2 cm)
Package 1 Weight	6.35 oz (180.0 g)
Unit Type of Package 2	S02
Number of Units in Package 2	23
Package 2 Height	5.91 in (15.0 cm)
Package 2 Width	11.81 in (30.0 cm)
Package 2 Length	15.75 in (40.0 cm)
Package 2 Weight	9.77 lb(US) (4.432 kg)

Offer Sustainability

Sustainable offer status	Green Premium product
REACh Regulation	REACh Declaration
EU RoHS Directive	Compliant EU RoHS Declaration
Mercury free	Yes
China RoHS Regulation	China RoHS Declaration
RoHS exemption information	Yes
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