Product data sheet
Characteristics

LUCD12ES
Advanced control unit, TeSys Ultra, 3-12A, 3P motors, protection & diagnostic, class 20, coil 48-72V AC/DC



Main

Range	TeSys
Range of product	TeSys Ultra
Product name	TeSys Ultra
Device short name	LUCD
Product or component type	Advanced control unit
Device application	Motor control Motor protection
Product specific application	Basic protection and advanced functions, communication
Main function available	Earth fault protection Protection against phase failure and phase imbalance Manual reset Protection against overload and short-circuit
Product compatibility	Power base LUB12 Power base LUB32 Power base LUB38 Power base LUB120 Power base LUB320 Power base LUB380 Reversing contactor breaker LU2B12ES Reversing contactor breaker LU2B32ES
[Ue] rated operational voltage	690 V AC
Network frequency	40...60 Hz
Load type	3-phase motor - cooling: self-cooled
Utilisation category	AC-44 AC-43 AC-41
Motor power kW	5.5 KW at 400...440 V AC 50/60 Hz 5.5 KW at 500 V AC 50/60 Hz 9 kW at 690 V AC 50/60 Hz
Rated motor current adjustment range	3…12 A
Thermal overload class	Class 20 - frequency limit: 40…60 Hz - temperature compensation: -25…70 °C conforming to IEC 60947-6-2 Class 20 - frequency limit: 40…60 Hz - temperature compensation: -25…70 °C conforming to UL 508
Tripping threshold	14.2 x Ir +/- 20 %
Phase failure sensitivity	Yes
[Uc] control circuit voltage	48 V AC 48...72 V DC

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Complementary

Control circuit voltage limits	38.5...72 V for AC circuit 48 V in operation 38.5...93 V for DC circuit 48...72 V in operation 29 V for AC circuit 48 V drop-out 29 V for DC circuit 48...72 V drop-out
Typical current consumption	280 MA at 48 V AC I maximum while closing with LUB12 280 MA at 48 V AC I maximum while closing with LUB32 280 MA at 48 V AC I maximum while closing with LUB38 280 MA at 48...72 V DC I maximum while closing with LUB12 280 MA at 48...72 V DC I maximum while closing with LUB32 280 MA at 48...72 V DC I maximum while closing with LUB38 35 MA at 48 V AC I rms sealed with LUB12 45 MA at 48 V AC I rms sealed with LUB32 45 MA at 48 V AC I rms sealed with LUB38 35 MA at 48...72 V DC I rms sealed with LUB12 45 MA at 48...72 V DC I rms sealed with LUB32 45 mA at 48...72 V DC I rms sealed with LUB38
Heat dissipation	2 W for control circuit with LUB12 3 W for control circuit with LUB32 3 W for control circuit with LUB38
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 60 ms closing with LUB12 for control circuit 60 ms closing with LUB32 for control circuit 60 ms closing with LUB38 for control circuit
Reset	Manual reset
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	6 kV conforming to IEC 60947-6-2
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
Compatibility code	LUCD

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…70 °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	140 g
Package 1 Height	10.5 cm
Package 1 width	5.5 cm
Package 1 Length	8.5 cm

Offer Sustainability

Sustainable offer status	Green Premium product
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