

LU2B12ES

Reversing power base, TeSys U, 3P,
12A/690V, coil 48-72V AC/DC



Main

Range	TeSys
Product name	TeSys U
Device short name	LU2B
Product or component type	Reversing power base
Device application	Motor control Motor protection
Product compatibility	Control unit LUC.X6ES Control unit LUC.1XES Control unit LUC.05ES Control unit LUC.12ES
Poles description	3P
Suitability for isolation	Yes
[Ue] rated operational voltage	690 V AC for power circuit
Network frequency	40...60 Hz
[Ith] conventional free air thermal current	12 A
[Ie] rated operational current	12 A at ≤ 440 V 12 A at 500 V 9 A at 690 V
Utilisation category	AC-43 AC-44 AC-41
[Ics] rated service breaking capacity	50 KA at 230 V 50 KA at 440 V 10 KA at 500 V 4 kA at 690 V
Auxiliary contact composition	1 NO + 1 NC
Auxiliary contacts type	Type linked contacts (1 NO + 1 NC) conforming to IEC 60947-4-1 Type mirror contact (1 NC) conforming to IEC 60947-1
[Uc] control circuit voltage	48...72 V AC 50/60 Hz 48...72 V DC
Control circuit voltage limits	29 V AC drop-out 29 V DC drop-out 38.5...72 V AC in operation 38.5...93 V DC in operation

Complementary

Typical current consumption	2300 mA at 48...72 V DC I maximum while closing 2300 mA at 48...72 V AC I maximum while closing
Heat dissipation	3 W for control circuit with LUCA, LUCB, LUCC, LUCD 1.8 W for control circuit with LUCM
Inrush restraint duration	25 Ms AC 50/60 Hz 15 ms DC
Safety reliability level	B10d = 1369863 cycles contactor with nominal load conforming to EN/ISO 13849-1 B10d = 20000000 cycles contactor with mechanical load conforming to EN/ISO 13849-1
Operating time	150 ms with change of direction for power circuit 35 ms opening for control circuit 75 ms without change of direction for power circuit 60 ms closing for control circuit

Mechanical durability	15 Mcycles
Maximum operating rate	3600 cyc/h
Product certifications	CE UL CSA CCC EAC ASEFA ATEX Marine
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
[Ui] rated insulation voltage	690 V conforming to IEC 60947-6-2 (pollution degree 3) 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 appendix N 400 V SELV between the control or auxiliary circuit and the main circuit conforming to IEC 60947-1 appendix N
Fixing mode	Clipped (DIN rail) Screw-fixed (plate)
Connections - terminals	Control circuit: screw clamp terminals 1 cable(s) 0.34...1.5 mm ² flexible with cable end Control circuit: screw clamp terminals 1 cable(s) 0.75...1.5 mm ² flexible without cable end Control circuit: screw clamp terminals 1 cable(s) 0.75...1.5 mm ² rigid Control circuit: screw clamp terminals 2 cable(s) 0.34...1.5 mm ² flexible with cable end Control circuit: screw clamp terminals 2 cable(s) 0.75...1.5 mm ² flexible without cable end Control circuit: screw clamp terminals 2 cable(s) 0.75...1.5 mm ² rigid Power circuit: screw clamp terminals 1 cable(s) 1...10 mm ² rigid Power circuit: screw clamp terminals 1 cable(s) 1...6 mm ² flexible with cable end Power circuit: screw clamp terminals 1 cable(s) 2.5...10 mm ² flexible without cable end Power circuit: screw clamp terminals 2 cable(s) 1...6 mm ² flexible with cable end Power circuit: screw clamp terminals 2 cable(s) 1...6 mm ² rigid Power circuit: screw clamp terminals 2 cable(s) 1.5...6 mm ² flexible without cable end
Tightening torque	Control circuit: 0.8...1.2 N.m flat screwdriver 5 mm Control circuit: 0.8...1.2 N.m Philips no 1 screwdriver 5 mm Power circuit: 1.9...2.5 N.m flat screwdriver 6 mm Power circuit: 1.9...2.5 N.m Philips No 2 screwdriver 6 mm
Width	45 mm
Height	224 mm
Depth	126 mm
Net weight	1.27 kg
Compatibility code	LU2B

Environment

IP degree of protection	IP20 conforming to IEC 60947-1 (front panel and wired terminals) IP20 conforming to IEC 60947-1 (other faces) IP40 conforming to IEC 60947-1 (front panel outside connection zone)
Protective treatment	TH conforming to IEC 60068
Ambient air temperature for operation	-25...60 °C with LUCM -25...70 °C with LUCA, LUCB, LUCC, LUCD
Ambient air temperature for storage	-40...85 °C
Fire resistance	960 °C parts supporting live components conforming to IEC 60695-2-12 650 °C conforming to IEC 60695-2-12
Operating altitude	2000 m
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 (f= 5...300 Hz) power poles open conforming to IEC 60068-2-27 4 gn (f= 5...300 Hz) power poles closed conforming to IEC 60068-2-27
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

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
Non-dissipating shock wave	1 kV serial mode conforming to IEC 60947-6-2 2 kV common mode conforming to IEC 60947-6-2
Immunity to radioelectric fields	10 V conforming to IEC 61000-4-6
Immunity to microbreaks	3 ms for control circuit
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	1.293 kg
Package 1 Height	5.5 cm
Package 1 width	15 cm
Package 1 Length	25.2 cm
Unit Type of Package 2	S03
Number of Units in Package 2	9
Package 2 Weight	12.181 kg
Package 2 Height	30 cm
Package 2 width	30 cm
Package 2 Length	40 cm

Offer Sustainability

REACH Regulation	 REACH Declaration
EU RoHS Directive	Compliant  EU RoHS Declaration
Mercury free	Yes
RoHS exemption information	 Yes
China RoHS Regulation	 China RoHS Declaration
WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins