Product data sheet
Characteristics

LU2B12BL
power base - TeSys U - 12 A - 24 V DC screw clamps control

Main

Commercial Status	Commercialised
Range of product	TeSys U
Device short name	LU2B
Product or component type	Reversing power base
Poles description	3P
Suitability for isolation	Yes
[Ith] conventional free air thermal current	12 A
Utilisation category	AC-41 AC-43 AC-44
[Uc] control circuit voltage	24 V DC

Complementary

Auxiliary contact composition	2 NO
Auxiliary contacts type	Type mirror contact (1 NC) state of the power conforming to draft IEC 60947-1 Type linked contacts (1 NO + 1 NC) conforming to IEC 60947-4-1
[Ue] rated operational voltage	690 V 500 V 440 V 230 V
Network frequency	40...60 Hz
[Ie] rated operational current	9 A at 690 V 12 A at 500 V 12 A at <= 440 V
[Ics] rated service breaking capacity	50 kA 440 V 50 kA 230 V 4 kA 690 V 10 kA 500 V
Control circuit voltage limits	20...27 V 24 V DC in operation 14.5 V 24 V DC drop-out
Typical current consumption	70 mA I rms sealed with LUCM 60 mA I rms sealed with LUCA, LUCB, LUCC, LUCD 150 mA I maximum while closing with LUCM 130 mA I maximum while closing with LUCA, LUCB, LUCC, LUCD
Duration of inrush phase	15 ms for DC network
Safety reliability level	20000000 cycles 1369863 cycles
Operating time	75 ms without change of direction for power circuit 75 ms closing with LUCM for control circuit 70 ms closing with LUCA, LUCB, LUCC, LUCD for control circuit 35 ms opening with LUCA, LUCB, LUCC, LUCD, LUCM for control circuit 150 ms with change of direction for power circuit
Mechanical durability	15000000 cycles
Operating rate	60 cyc/mn
[Ui] rated insulation voltage	600 V conforming to CSA C22.2 No 14 690 V conforming to IEC 60947-1 3 600 V conforming to UL 508
[Uimp] rated impulse withstand voltage	6 kV conforming to IEC 60947-6-2
Safe separation of circuit	400 V SELV between the control or auxiliary circuit and the main circuit conforming to IEC 60947-1 appendix N 400 V SELV between the control and auxiliary circuits conforming to IEC 60947-1 appendix N

Connections - terminals	Power circuit: screw clamp terminals 2 cable 1.5...6 mm² - cable stiffness: flexible - without cable end Power circuit: screw clamp terminals 2 cable 1...6 mm² - cable stiffness: rigid - without cable end Power circuit: screw clamp terminals 2 cable 1...6 mm² - cable stiffness: flexible - with cable end Power circuit: screw clamp terminals 1 cable 2.5...10 mm² - cable stiffness: flexible - without cable end Power circuit: screw clamp terminals 1 cable 1...6 mm² - cable stiffness: flexible - with cable end Power circuit: screw clamp terminals 1 cable 1...10 mm² - cable stiffness: rigid - without cable end Control circuit: screw clamp terminals 2 cable 0.75...1.5 mm² - cable stiffness: rigid - without cable end Control circuit: screw clamp terminals 2 cable 0.75...1.5 mm² - cable stiffness: flexible - without cable end Control circuit: screw clamp terminals 2 cable 0.34...1.5 mm² - cable stiffness: flexible - with cable end Control circuit: screw clamp terminals 1 cable 0.75...1.5 mm² - cable stiffness: rigid - without cable end Control circuit: screw clamp terminals 1 cable 0.75...1.5 mm² - cable stiffness: flexible - without cable end Control circuit: screw clamp terminals 1 cable 0.34...1.5 mm² - cable stiffness: flexible - with cable end
Tightening torque	Power circuit: 1.9...2.5 N.m - with screwdriver 6 mm Philips No 2 Power circuit: 1.9...2.5 N.m - with screwdriver 6 mm flat Control circuit: 0.8...1.2 N.m - with screwdriver 5 mm Philips no 1 Control circuit: 0.8...1.2 N.m - with screwdriver 5 mm flat
Width	45 mm
Height	224 mm
Depth	126 mm
Product weight	1.27 kg

Environment

Heat dissipation	1.7 W for control circuit with LUCM 2 W for control circuit with LUCA, LUCB, LUCC, LUCD
Immunity to microbreaks	3 ms
Immunity to voltage dips	70 % 500 ms conforming to IEC 61000-4-11
Product certifications	ABS ASEFA ATEX BV CCC CSA DNV GL GOST LROS (Lloyds register of shipping) UL
Standards	CSA C22.2 No 14 type E UL 508 type E with phase barrier IEC 60947-6-2 EN 60947-6-2
IP degree of protection	IP40 front panel outside connection zone conforming to IEC 60947-1 IP20 other faces conforming to IEC 60947-1 IP20 front panel and wired terminals conforming to IEC 60947-1
Protective treatment	TH conforming to IEC 60068
Ambient air temperature for operation	-25...70 °C with LUCA, LUCB, LUCC, LUCD -25...60 °C with LUCM
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	15 gn power poles closed conforming to IEC 60068-2-27 10 gn power poles open conforming to IEC 60068-2-27
Vibration resistance	4 gn 5...300 Hz power poles closed conforming to IEC 60068-2-27 2 gn 5...300 Hz power poles open conforming to IEC 60068-2-27
Resistance to electrostatic discharge	8 kV level 4 on contact conforming to IEC 61000-4-2 8 kV level 3 in open air conforming to IEC 61000-4-2
Resistance to radiated fields	10 V/m 3 conforming to IEC 61000-4-3

Resistance to fast transients	4 kV class 4 all circuits except for serial link conforming to IEC 61000-4-4 2 kV class 3 serial link conforming to IEC 61000-4-4
Non-dissipating shock wave	2 kV common mode 24...240 V AC conforming to IEC 60947-6-2 1 kV serial mode 48...220 V DC conforming to IEC 60947-6-2 0 kV 24 V DC
Immunity to radioelectric fields	10 V conforming to IEC 61000-4-6

Contractual warranty

Period	18 months