Product data sheet
Characteristics

LU2B12BL
Reversing power base, TeSys Ultra, 3P, 1NO + 1NC, 12A, 690VAC, 24VDC coil



Main

Range	TeSys
Product name	TeSys Ultra
Device short name	LU2B
Product or component type	Reversing power base
Device application	Motor control Motor protection
Product compatibility	Control unit LUC.X6BL Control unit LUC.1XBL Control unit LUC.05BL Control unit LUC.12BL
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	24 V DC
Control circuit voltage limits	14.5 V DC drop-out 20...27 V DC in operation

Complementary

Typical current consumption	120 MA at 24 V DC I maximum while closing 120 MA at 24 V DC I rms sealed
Heat dissipation	2 W for control circuit with LUCA, LUCB, LUCC, LUCD 1.7 W for control circuit with LUCM
Inrush restraint duration	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 75 ms without change of direction for power circuit 35 ms opening with LUCA, LUCB, LUCC, LUCD, LUCM for control circuit 75 ms closing with LUCM for control circuit 70 ms closing with LUCA, LUCB, LUCC, LUCD for control circuit
Mechanical durability	15 Mcycles
Maximum operating rate	3600 Cyc/H
Product certifications	CE[RETURN]UL[RETURN]CSA[RETURN]CCC[RETURN]EAC[RETURN]ASEFA[RETURN]ATEX[
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-
Fixing mode	Clipped (DIN rail) Screw-fixed (plate)

Connections - terminals	Control circuit: screw clamp terminals 1 cable(s) 0.34…1.5 mm² flexible with cable end Control circuit: screw clamp terminals 1 cable(s) 0.75…1.5 mm² flexible without cable end Control circuit: screw clamp terminals 1 cable(s) 0.75…1.5 mm² rigid Control circuit: screw clamp terminals 2 cable(s) 0.34…1.5 mm² flexible with cable end Control circuit: screw clamp terminals 2 cable(s) 0.75…1.5 mm² flexible without cable end Control circuit: screw clamp terminals 2 cable(s) 0.75…1.5 mm² rigid Power circuit: screw clamp terminals 1 cable(s) 1…10 mm² rigid Power circuit: screw clamp terminals 1 cable(s) 1…6 mm² flexible with cable end Power circuit: screw clamp terminals 1 cable(s) 2.5…10 mm² flexible without cable end Power circuit: screw clamp terminals 2 cable(s) 1…6 mm² flexible with cable end Power circuit: screw clamp terminals 2 cable(s) 1…6 mm² rigid Power circuit: screw clamp terminals 2 cable(s) 1.5…6 mm² 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 Power circuit: 1.9…2.5 N.m pozidriv 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 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
Resistance to radiated fields	10 V/M 3 conforming to IEC 61000-4-3
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 Height	25.000 Cm
Package 1 Width	5.500 Cm
Package 1 Length	14.700 Cm
Package 1 Weight	1.292 Kg
Unit Type of Package 2	S03
Number of Units in Package 2	9
Package 2 Height	30.000 Cm
Package 2 Width	30.000 Cm
Package 2 Length	40.000 Cm
Package 2 Weight	12.245 Kg
Unit Type of Package 3	P06
Number of Units in Package 3	72
Package 3 Height	75.000 Cm

Package 3 Width	60.000 Cm
Package 3 Length	80.000 Cm
Package 3 Weight	110.100 Kg

Offer Sustainability

Recyclability potential, in %	58
Total lifecycle Carbon footprint	23 kg CO2 eq.
Carbon footprint of the manufacturing phase [A1 to A3]	8.772996276236627
Carbon footprint of the manufacturing phase [A1 to A3]	9 kg CO2 eq.
Carbon footprint of the distribution phase [A4]	0.6902466229284615
Carbon footprint of the distribution phase [A4]	0.7 kg CO2 eq.
Carbon footprint of the installation phase [A5]	0.09015285223186957
Carbon footprint of the installation phase [A5]	0.1 kg CO2 eq.
Carbon footprint of the use phase [B2, B3, B4, B6]	10.242554388924361
Carbon footprint of the use phase [B2, B3, B4, B6]	10 kg CO2 eq.
Mercury free	Yes
Sustainable packaging	Yes
Carbon footprint of the end-of-life phase [C1 to C4]	3.2669648598704013
Carbon footprint of the end-of-life phase [C1 to C4]	3 kg CO2 eq.
Environmental Disclosure	Product Environmental Profile
Total lifecycle Carbon footprint	23
Packaging made with recycled cardboard	Yes
Packaging without single use plastic	Yes
SCIP Number	19d2f48a-9308-42e2-8a8a-e2be758e3b3a
REACh Regulation	Reference contains Substances of Very High Concern above the threshold
EU RoHS Directive	Compliant By Exemption
California proposition 65	WARNING: This product can expose you to chemicals including: Antimony oxide & Antimony trioxi
Halogen-free status	Product contains halogen above thresholds
PVC free	Yes
End of life manual availability	End Of Life Information
Take-back	No
WEEE Label	The product must be disposed on European Union markets following specific waste collection and

Contractual warranty

Warranty (in months)	18

Product Life Status : Commercialised