Product data sheet

Specifications

Reversing power base, TeSys Ultra, 3P, 1NO + 1NC, 38A, 690VAC, 24VDC coil

LU2B38BL

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 Control unit LUC.18BL Control unit LUC.32BL Control unit LUC.38BL
Poles description	3P
Suitability for isolation	Yes
[Ue] rated operational voltage	690 V AC power circuit
Network frequency	40...60 Hz
[Ith] conventional free air thermal current	38 A
[Ie] rated operational current	35 A <= 440 V 28 A 500 V 24 A 690 V
Utilisation category	AC-43 AC-41
[Ics] rated service breaking capacity	25 kA 230 V 25 kA 440 V 10 kA 500 V 4 kA 690 V
Auxiliary contact composition	1 NO + 1 NC
Auxiliary contacts type	Linked contacts 1 NO + 1 NC) IEC 60947-4-1 Mirror contact 1 NC) 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 24 V DC I maximum while closing 120 mA 24 V DC I rms sealed
Heat dissipation	3 W control circuit with LUCA, LUCB, LUCC, LUCD 1.8 W control circuit with LUCM
Inrush restraint duration	15 ms DC

Safety reliability level	B10d = 1369863 cycles contactor with nominal load EN/ISO 13849-1 B10d = 20000000 cycles contactor with mechanical load EN/ISO 13849-1
Operating time	150 ms with change of direction power circuit 75 ms without change of direction power circuit 35 ms opening with LUCA, LUCB, LUCC, LUCD, LUCM control circuit 75 ms closing with LUCM control circuit 70 ms closing with LUCA, LUCB, LUCC, LUCD control circuit
Mechanical durability	15 Mcycles
maximum operating rate	3600 cyc/h
Product certifications	CE UL CSA CCC EAC
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 IEC 60947-6-2 3) 600 V UL 60947-4-1 600 V CSA C22.2 No 60947-4-1
[Uimp] rated impulse withstand voltage	6 kVIEC 60947-6-2
Safe separation of circuit	400 V SELV between the control and auxiliary circuits IEC 60947-1 appendix N 400 V SELV between the control or auxiliary circuit and the main circuit IEC 60947-1 appendix N
Fixing mode	Clipped (DIN rail) Screw-fixed (plate)
Connections - terminals	Control circuit: screw clamp terminals 1 cable(s) 0.0005…0.002 in² (0.34…1.5 mm²) flexible with cable end Control circuit: screw clamp terminals 1 cable(s) 0.001…0.002 in² (0.75…1.5 mm²) flexible without cable end Control circuit: screw clamp terminals 1 cable(s) 0.001…0.002 in² (0.75…1.5 mm²) rigid Control circuit: screw clamp terminals 2 cable(s) 0.0005…0.002 in² (0.34…1.5 mm²) flexible with cable end Control circuit: screw clamp terminals 2 cable(s) 0.001…0.002 in² (0.75…1.5 mm²) flexible without cable end Control circuit: screw clamp terminals 2 cable(s) 0.001…0.002 in² (0.75…1.5 mm²) rigid Power circuit: screw clamp terminals 1 cable(s) 0.002…0.02 in² (1…10 mm²) rigid Power circuit: screw clamp terminals 1 cable(s) 0.002…0.009 in² (1…6 mm²) flexible with cable end Power circuit: screw clamp terminals 1 cable(s) 0.004…0.02 in² (2.5…10 mm²) flexible without cable end Power circuit: screw clamp terminals 2 cable(s) 0.002…0.009 in² (1…6 mm²) flexible with cable end Power circuit: screw clamp terminals 2 cable(s) 0.002…0.009 in² (1…6 mm²) rigid Power circuit: screw clamp terminals 2 cable(s) 0.002…0.009 in² (1.5…6 mm²) flexible without cable end
Tightening torque	Control circuit: 7.08…10.6 lbf.in (0.8…1.2 N.m) flat screwdriver 0.2 in (5 mm) Control circuit: 7.08…10.6 lbf.in (0.8…1.2 N.m) Philips no 1 screwdriver 0.2 in (5 mm) Power circuit: 16.8…22.1 lbf.in (1.9…2.5 N.m) flat screwdriver 0.2 in (6 mm) Power circuit: 16.8…22.1 lbf.in (1.9…2.5 N.m) Philips No 2 screwdriver 0.2 in (6 mm) Power circuit: 16.8…22.1 lbf.in (1.9…2.5 N.m) pozidriv No 2 screwdriver 0.2 in (6 mm)
Width	1.8 in (45 mm)
Height	8.8 in (224 mm)
Depth	5.0 in (126 mm)
Net weight	2.80 lb(US) (1.27 kg)
Compatibility code	LU2B

Environment

IP degree of protection	IP20 IEC 60947-1 front panel and wired terminals) IP20 IEC 60947-1 other faces) IP40 IEC 60947-1 front panel outside connection zone)
Protective treatment	TH IEC 60068
Ambient air temperature for operation	-13…140 °F (-25…60 °C) with LUCM -13…158 °F (-25…70 °C) with LUCA, LUCB, LUCC, LUCD
Ambient air temperature for storage	-40…185 °F (-40…85 °C)
Fire resistance	1760 °F (960 °C) parts supporting live components IEC 60695-2-12 1202 °F (650 °C) IEC 60695-2-12
Operating altitude	2000 m
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 60068-2-27 4 gn 5…300 Hz) power poles closed IEC 60068-2-27
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 fast transients	2 kV 3 serial link IEC 61000-4-4 4 kV 4 all circuits except for serial link IEC 61000-4-4
Resistance to radiated fields	9.1 V/yd (10 V/m) 3 IEC 61000-4-3
Immunity to radioelectric fields	10 V IEC 61000-4-6
Immunity to microbreaks	3 ms control circuit
Immunity to voltage dips	70 % / 500 ms IEC 61000-4-11

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	10.039 in (25.500 cm)
Package 1 Width	2.165 in (5.500 cm)
Package 1 Length	5.906 in (15.000 cm)
Package 1 Weight	2.877 lb(US) (1.305 kg)
Unit Type of Package 2	S03
Number of Units in Package 2	2
Package 2 Height	11.811 in (30.000 cm)
Package 2 Width	11.811 in (30.000 cm)
Package 2 Length	15.748 in (40.000 cm)
Package 2 Weight	6.801 lb(US) (3.085 kg)

Contractual warranty

Warranty (in months)	18

Environmental Data

Schneider Electric aims to achieve Net Zero status by 2050 through supply chain partnerships, lower impact materials, and circularity via our ongoing “Use Better, Use Longer, Use Again” campaign to extend product lifetimes and recyclability.

Environmental Data explained >

How we assess product sustainability >

Environmental footprint

Total lifecycle Carbon footprint	**46 kg CO2 eq.**
Carbon footprint of the manufacturing phase [A1 to A3]	**9 kg CO2 eq.**
Carbon footprint of the distribution phase [A4]	**0.7 kg CO2 eq.**
Carbon footprint of the installation phase [A5]	**0.1 kg CO2 eq.**
Carbon footprint of the use phase [B2, B3, B4, B6]	**33 kg CO2 eq.**
Carbon footprint of the end-of-life phase [C1 to C4]	**3 kg CO2 eq.**
Environmental Disclosure	Product Environmental Profile

Use Better

Materials and Substances

Packaging made with recycled cardboard	**Yes**
Packaging without single use plastic	**Yes**
SCIP Number	**19d2f48a-9308-42e2-8a8a-e2be758e3b3a**
EU RoHS Directive	Compliant By Exemption
REACh Regulation	Reference contains Substances of Very High Concern above the threshold
Halogen content performance	**Product contains halogen above thresholds**

Use Longer

Lifetime extension

Repair	**No**

Use Again

Repack and remanufacture

Recyclability potential, in %	**58**
Circularity Profile	End of Life Information
Take-back	**No**
WEEE Label	**The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins**