

# Product datasheet

Specifications



Standard control unit, TeSys U, 4.5-18A, 3P motors, thermal magnetic protection, class 10, coil 24V AC, TQ10

LUCA18BTQ

! Discontinued

! Discontinued on: 1 Nov 2020

## Main

Range	TeSys
Range of product	TeSys U
Product name	TeSys U
Device short name	LUCA
Product or component type	Standard control unit
Device application	Motor control Motor protection
Product specific application	Basic protection requirements for motor starters: overload and short-circuit
main function available	Protection against overload and short-circuit Earth fault protection Protection against phase failure and phase imbalance Manual reset
Product compatibility	Power base LUB32 Power base LUB38 Power base LUB320 Power base LUB380 Reversing contactor breaker LU2B32B
[Ue] rated operational voltage	690 V AC
Network frequency	40...60 Hz
Load type	3-phase motor - cooling: self-cooled
Utilisation category	AC-41 AC-44 AC-43
Motor power kW	7.5 kW at 400...440 V AC 50/60 Hz 9 kW at 500 V AC 50/60 Hz 15 kW at 690 V AC 50/60 Hz
rated motor current adjustment range	4.5...18 A
Thermal overload class	Class 10 - frequency limit: 40...60 Hz - temperature compensation: -25...70 °C conforming to IEC 60947-6-2 Class 10 - frequency limit: 40...60 Hz - temperature compensation: -25...70 °C conforming to UL 508
Tripping threshold	14.2 x I <sub>r</sub> +/- 20 %
Phase failure sensitivity	Yes
[Uc] control circuit voltage	24 V AC

## Complementary

Control circuit voltage limits	20...26.5 V for AC circuit 24 V in operation 14.5 V for AC circuit 24 V drop-out
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<b>Typical current consumption</b>	220 mA at 24 V AC I maximum while closing with LUB32 220 mA at 24 V AC I maximum while closing with LUB38 90 mA at 24 V AC I rms sealed with LUB32 90 mA at 24 V AC I rms sealed with LUB38
<b>Heat dissipation</b>	3 W for control circuit with LUB32 3 W for control circuit with LUB38
<b>Operating time</b>	35 ms opening with LUB32 for control circuit 35 ms opening with LUB38 for control circuit 70 ms closing with LUB32 for control circuit 70 ms closing with LUB38 for control circuit
<b>Standards</b>	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
<b>Product certifications</b>	CE UL CSA CCC EAC ASEFA ATEX Marine
<b>[U<sub>i</sub>] rated insulation voltage</b>	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
<b>[U<sub>imp</sub>] rated impulse withstand voltage</b>	6 kV conforming to IEC 60947-6-2
<b>Safe separation of circuit</b>	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
<b>Fixing mode</b>	Plug-in (front face)
<b>Width</b>	45 mm
<b>Height</b>	66 mm
<b>Depth</b>	60 mm
<b>Net weight</b>	0.135 kg
<b>Compatibility code</b>	LUCA

## Environment

<b>IP degree of protection</b>	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
<b>Protective treatment</b>	TH conforming to IEC 60068
<b>Ambient air temperature for operation</b>	-25...70 °C
<b>Ambient air temperature for storage</b>	-40...85 °C
<b>Operating altitude</b>	2000 m
<b>Fire resistance</b>	960 °C parts supporting live components conforming to IEC 60695-2-12 650 °C conforming to IEC 60695-2-12
<b>Shock resistance</b>	10 gn power poles open conforming to IEC 60068-2-27 15 gn power poles closed conforming to IEC 60068-2-27
<b>Vibration resistance</b>	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
<b>Resistance to electrostatic discharge</b>	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
<b>Non-dissipating shock wave</b>	1 kV serial mode conforming to IEC 60947-6-2 2 kV common mode conforming to IEC 60947-6-2

<b>Resistance to radiated fields</b>	10 V/m 3 conforming to IEC 61000-4-3
<b>Resistance to fast transients</b>	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
<b>Immunity to radioelectric fields</b>	10 V conforming to IEC 61000-4-6
<b>Immunity to microbreaks</b>	3 ms
<b>Immunity to voltage dips</b>	70 % / 500 ms conforming to IEC 61000-4-11

## Packing Units

<b>Unit Type of Package 1</b>	PCE
<b>Number of Units in Package 1</b>	1
<b>Package 1 Height</b>	10.5 cm
<b>Package 1 Width</b>	14.8 cm
<b>Package 1 Length</b>	39.8 cm
<b>Package 1 Weight</b>	1.42 kg

## Contractual warranty

<b>Warranty (in months)</b>	18
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## 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 >](#)

### Use Better



#### Materials and Substances

EU RoHS Directive

[Compliant](#)

Halogen-free status

Halogen free plastic parts product

PVC free

Yes

### Use Longer



#### Lifetime extension

Repair

No

### Use Again



#### Repack and remanufacture

WEEE Label



The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins