

# Product data sheet

Specifications



## Contactor, EasyPact TVS, 3P(3NO), AC-3, <=440V, 160A, 415V AC coil

LC1E160N5

### Main

Range	EasyPact
Product or component type	Contactor
Device short name	LC1E
Contactor application	Motor control Resistive load
Utilisation category	AC-1 AC-3
Poles description	3P
[Ue] rated operational voltage	Power circuit: <= 690 V AC 50/60 Hz
[Ie] rated operational current	160 A (at <55 °C) at <= 440 V AC AC-3 for power circuit 200 A (at <55 °C) at <= 440 V AC AC-1 for power circuit
[Uc] control circuit voltage	415 V AC 50 Hz

### Complementary

Motor power kW	45 kW at 220...230 V AC 50/60 Hz 75 kW at 380...400 V 80 kW at 415 V 80 kW at 440 V 90 kW at 500 V 100 kW at 660...690 V
Pole contact composition	3 NO
[Ith] conventional free air thermal current	200 A (at 40 °C)
Irms rated making capacity	1600 A at 440 V AC for power circuit conforming to IEC 60947-4-1
Rated breaking capacity	1280 A at 440 V for power circuit conforming to IEC 60947
[Icw] rated short-time withstand current	1400 A 40 °C - 10 s for power circuit
Associated fuse rating	10 A gG at <= 690 V coordination type 1 for control circuit conforming to IEC 60947-5-1 315 A gG at <= 690 V coordination type 1 for power circuit
Average impedance	0.6 mOhm - Ith 200 A 50 Hz for power circuit
Power dissipation per pole	24 W AC-1 15 W AC-3
[Ui] rated insulation voltage	690 V conforming to IEC 60947-4-1
Overvoltage category	III
Pollution degree	3

[Uimp] rated impulse withstand voltage	8 kV coil not connected to the power circuit conforming to IEC 60947
Mechanical durability	400000 cycles
Electrical durability	800000 cycles AC-3 250000 cycles AC-1
Control circuit type	AC at 50 Hz
Control circuit voltage limits	0.85...1.1 Uc (55 °C):operational 50 Hz 0.35...0.55 Uc (55 °C):drop-out 50 Hz
Inrush power in VA	300 VA 50 Hz cos phi 0.9 (at 20 °C) 300 VA 60 Hz cos phi 0.9 (at 20 °C)
Hold-in power consumption in VA	22 VA 50 Hz cos phi 0.9 (at 20 °C) 22 VA 60 Hz cos phi 0.9 (at 20 °C)
Heat dissipation	3...8 W for control circuit
Operating time	20...50 ms on closing 6...20 ms on opening
Maximum operating rate	1200 cyc/h 55 °C
Connections - terminals	Control circuit: screw clamp terminals 2 1...2.5 mm² - cable stiffness: flexible with cable end Power circuit: screw clamp terminals 1 10...120 mm² - cable stiffness: flexible with cable end Power circuit: screw clamp terminals 1 10...120 mm² - cable stiffness: solid without cable end Control circuit: screw clamp terminals 1 1...2.5 mm² - cable stiffness: flexible without cable end Control circuit: screw clamp terminals 2 1...2.5 mm² - cable stiffness: flexible without cable end Control circuit: screw clamp terminals 1 1...2.5 mm² - cable stiffness: flexible with cable end Control circuit: screw clamp terminals 1 1...2.5 mm² - cable stiffness: solid without cable end Control circuit: screw clamp terminals 2 1...2.5 mm² - cable stiffness: solid without cable end Power circuit: screw clamp terminals 2 10...120 mm² - cable stiffness: flexible with cable end Power circuit: screw clamp terminals 2 10...120 mm² - cable stiffness: solid without cable end
Tightening torque	Power circuit: 12 N.m Control circuit: 1.2 N.m
Auxiliary contact composition	1 NO + 1 NC
Minimum switching voltage	17 V for control circuit
Minimum switching current	5 mA for control circuit
Insulation resistance	> 10 MOhm for control circuit
Non-overlap time	1.5 ms on energisation guaranteed between NC and NO contact 1.5 ms on de-energisation guaranteed between NC and NO contact
Mounting support	DIN rail Plate

## Environment

Standards	IEC 60947-1 IEC 60947-4-1 IEC 60947-5-1
Product certifications	EAC CE
IP degree of protection	IP2X conforming to IEC 60529
Protective treatment	TH (pollution degree 3) conforming to IEC 60068-2-30 test Db
Permissible ambient air temperature around the device	-20...70 °C at Uc -60...80 °C storage -5...55 °C operation
Operating altitude	3000 m without derating
Fire resistance	850 °C conforming to IEC 60695-2-1
Mechanical robustness	Vibrations contactor open (1.5 Gn, 5...300 Hz) Vibrations contactor closed (3 Gn, 5...300 Hz) Shocks contactor open (6 Gn for 11 ms) Shocks contactor closed (7 Gn for 11 ms)
Height	158 mm
Width	120 mm
Depth	132 mm

Net weight	2.3 kg
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### Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	19.0 cm
Package 1 Width	17.5 cm
Package 1 Length	21.0 cm
Package 1 Weight	2.3 kg
Unit Type of Package 2	S06
Number of Units in Package 2	24
Package 2 Height	73.5 cm
Package 2 Width	60.0 cm
Package 2 Length	80.0 cm
Package 2 Weight	68.2 kg

### Offer Sustainability

Sustainable offer status	Green Premium product
REACH Regulation	<a href="#">REACH Declaration</a>
EU RoHS Directive	Compliant <a href="#">EU RoHS Declaration</a>
Toxic heavy metal free	Yes
Mercury free	Yes
China RoHS Regulation	<a href="#">China RoHS declaration</a>
RoHS exemption information	<a href="#">Yes</a>
Environmental Disclosure	<a href="#">Product Environmental Profile</a>
WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins

### Contractual warranty

Warranty	18 months
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### Recommended replacement(s)