

# 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

<b>[Uimp] rated impulse withstand voltage</b>	8 kV coil not connected to the power circuit conforming to IEC 60947
<b>Mechanical durability</b>	400000 cycles
<b>Electrical durability</b>	800000 cycles AC-3 250000 cycles AC-1
<b>Control circuit type</b>	AC at 50 Hz
<b>Control circuit voltage limits</b>	0.85...1.1 U <sub>c</sub> (55 °C):operational 50 Hz 0.35...0.55 U <sub>c</sub> (55 °C):drop-out 50 Hz
<b>Inrush power in VA</b>	300 VA 50 Hz cos phi 0.9 (at 20 °C) 300 VA 60 Hz cos phi 0.9 (at 20 °C)
<b>Hold-in power consumption in VA</b>	22 VA 50 Hz cos phi 0.9 (at 20 °C) 22 VA 60 Hz cos phi 0.9 (at 20 °C)
<b>Heat dissipation</b>	3...8 W for control circuit
<b>Operating time</b>	20...50 ms on closing 6...20 ms on opening
<b>Maximum operating rate</b>	1200 cyc/h 55 °C
<b>Connections - terminals</b>	Control circuit: screw clamp terminals 2 1...2.5 mm <sup>2</sup> - cable stiffness: flexible with cable end Power circuit: screw clamp terminals 1 10...120 mm <sup>2</sup> - cable stiffness: flexible with cable end Power circuit: screw clamp terminals 1 10...120 mm <sup>2</sup> - cable stiffness: solid without cable end Control circuit: screw clamp terminals 1 1...2.5 mm <sup>2</sup> - cable stiffness: flexible without cable end Control circuit: screw clamp terminals 2 1...2.5 mm <sup>2</sup> - cable stiffness: flexible without cable end Control circuit: screw clamp terminals 1 1...2.5 mm <sup>2</sup> - cable stiffness: flexible with cable end Control circuit: screw clamp terminals 1 1...2.5 mm <sup>2</sup> - cable stiffness: solid without cable end Control circuit: screw clamp terminals 2 1...2.5 mm <sup>2</sup> - cable stiffness: solid without cable end Power circuit: screw clamp terminals 2 10...120 mm <sup>2</sup> - cable stiffness: flexible with cable end Power circuit: screw clamp terminals 2 10...120 mm <sup>2</sup> - cable stiffness: solid without cable end
<b>Tightening torque</b>	Power circuit: 12 N.m Control circuit: 1.2 N.m
<b>Auxiliary contact composition</b>	1 NO + 1 NC
<b>Minimum switching voltage</b>	17 V for control circuit
<b>Minimum switching current</b>	5 mA for control circuit
<b>Insulation resistance</b>	> 10 MOhm for control circuit
<b>Non-overlap time</b>	1.5 ms on energisation guaranteed between NC and NO contact 1.5 ms on de-energisation guaranteed between NC and NO contact
<b>Mounting support</b>	DIN rail Plate
<b>Environment</b>	
<b>Standards</b>	IEC 60947-1 IEC 60947-4-1 IEC 60947-5-1
<b>Product certifications</b>	EAC CE
<b>IP degree of protection</b>	IP2X conforming to IEC 60529
<b>Protective treatment</b>	TH (pollution degree 3) conforming to IEC 60068-2-30 test Db
<b>Permissible ambient air temperature around the device</b>	-20...70 °C at U <sub>c</sub> -60...80 °C storage -5...55 °C operation
<b>Operating altitude</b>	3000 m without derating
<b>Fire resistance</b>	850 °C conforming to IEC 60695-2-1
<b>Mechanical robustness</b>	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)
<b>Height</b>	158 mm
<b>Width</b>	120 mm
<b>Depth</b>	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)