

Product data sheet

Characteristics

LC1E120M5

Contactor, EasyPact

TVS, 3P(3NO), AC-3, ≤440V, 120A, 220V AC
coil, 50Hz



Main

Range	EasyPact
Product or component type	Contactor
Device short name	LC1E
Contactor application	Motor control Resistive load
Utilisation category	AC-3 AC-1
Poles description	3P
[Ue] rated operational voltage	Power circuit: ≤ 690 V AC 50/60 Hz
[Ie] rated operational current	120 A (at ≤55 °C) at ≤ 440 V AC AC-3 for power circuit 150 A (at ≤55 °C) at ≤ 440 V AC AC-1 for power circuit
[Uc] control circuit voltage	220 V AC 50 Hz

Complementary

Motor power kW	37 kW at 220...230 V AC 50/60 Hz (AC-3) 55 kW at 380...400 V AC 50/60 Hz (AC-3) 59 kW at 415 V AC 50/60 Hz (AC-3) 59 kW at 440 V AC 50/60 Hz (AC-3) 75 kW at 500 V AC 50/60 Hz (AC-3) 80 kW at 660...690 V AC 50/60 Hz (AC-3)
Pole contact composition	3 NO
[Ith] conventional free air thermal current	150 A (at 40 °C)
Irms rated making capacity	1200 A at 440 V AC for power circuit conforming to IEC 60947-4-1
Rated breaking capacity	960 A at 440 V for power circuit conforming to IEC 60947
[Icw] rated short-time withstand current	1100 A 40 °C - 10 s for power circuit
Associated fuse rating	250 A gG at ≤ 690 V coordination type 1 for control circuit conforming to IEC 60947-5-1 10 A gG at ≤ 690 V coordination type 1 for power circuit
Average impedance	0.6 mΩ - Ith 150 A 50 Hz for power circuit
Power dissipation per pole	8.6 W AC-3 14 W AC-1
[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 0.8 (at 20 °C) 300 VA 60 Hz cos phi 0.8 (at 20 °C)

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Hold-in power consumption in VA	22 VA 50 Hz cos phi 0.3 (at 20 °C) 22 VA 60 Hz cos phi 0.3 (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 mm ² - cable stiffness: flexible with cable end Power circuit: screw clamp terminals 1 10...120 mm ² - cable stiffness: flexible with cable end Power circuit: screw clamp terminals 2 20...170 mm ² - cable stiffness: flexible with cable end Power circuit: screw clamp terminals 1 10...120 mm ² - cable stiffness: solid without cable end Power circuit: screw clamp terminals 2 20...170 mm ² - cable stiffness: solid without cable end Control circuit: screw clamp terminals 1 1...2.5 mm ² - cable stiffness: flexible without cable end Control circuit: screw clamp terminals 2 1...2.5 mm ² - cable stiffness: flexible without cable end Control circuit: screw clamp terminals 1 1...2.5 mm ² - cable stiffness: flexible with cable end Control circuit: screw clamp terminals 1 1...2.5 mm ² - cable stiffness: solid without cable end Control circuit: screw clamp terminals 2 1...2.5 mm ² - 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 60947-5-1 IEC 60947-4-1 IEC 60947-1
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
Product weight	2.3 kg

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	19.0 cm
Package 1 Width	17.0 cm
Package 1 Length	21.0 cm

Package 1 Weight	2.41 kg
Unit Type of Package 2	S03
Number of Units in Package 2	2
Package 2 Height	30.0 cm
Package 2 Width	30.0 cm
Package 2 Length	40.0 cm
Package 2 Weight	5.24 kg
Unit Type of Package 3	P06
Number of Units in Package 3	24
Package 3 Height	80.0 cm
Package 3 Width	80.0 cm
Package 3 Length	60.0 cm
Package 3 Weight	70.84 kg

Offer Sustainability

Sustainable offer status	Green Premium product
REACH Regulation	 REACH Declaration
EU RoHS Directive	Compliant  EU RoHS Declaration
Toxic heavy metal free	Yes
Mercury free	Yes
RoHS exemption information	 Yes
China RoHS Regulation	 China RoHS Declaration
Environmental Disclosure	 Product Environmental Profile
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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