

Product data sheet

Specifications



EasyPact TVS contactor 3P(3 NO) - AC-3 - <= 440 V 18A - 110 V AC coil

LC1E1810F7

Main

Range	EasyPact
Product name	EasyPact TVS
Product or component type	Contactors
Device short name	LC1E
Contactors application	Motor control Resistive load
Utilisation category	AC-1 AC-3
Poles description	3P
Power pole contact composition	3 NO
[Ue] rated operational voltage	Power circuit: <= 690 V AC 50/60 Hz
[Ie] rated operational current	32 A (at <55 °C) at <= 415 V AC AC-1 for power circuit 18 A (at <55 °C) at <= 440 V AC AC-3 for power circuit
Motor power kW	4 kW at 220...230 V AC 50/60 Hz 7.5 kW at 380...400 V 9 kW at 415 V 9 kW at 440 V 10 kW at 500 V 10 kW at 660...690 V
Control circuit type	AC at 50/60 Hz
[Uc] control circuit voltage	110 V AC 50/60 Hz
Height	74 mm
Width	45 mm
Depth	80 mm
Product weight	0.3 kg
Colour	Grey (RAL 7011)

Complementary

Auxiliary contact composition	1 NO
[Uimp] rated impulse withstand voltage	6 kV coil not connected to the power circuit conforming to IEC 60947
[Ui] rated insulation voltage	690 V conforming to IEC 60947-4-1
Overvoltage category	III

[lth] conventional free air thermal current	32 A (at 55 °C)
Irms rated making capacity	180 A at 440 V AC for power circuit conforming to IEC 60947-4-1
Rated breaking capacity	144 A at 440 V for power circuit conforming to IEC 60947
[lcw] rated short-time withstand current	145 A 40 °C - 10 s for power circuit 84 A 40 °C - 60 s for power circuit 40 A 40 °C - 600 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 35 A gG at <= 690 V coordination type 1 for power circuit
Average impedance	2.5 mOhm - lth 32 A 50 Hz for power circuit
Power dissipation per pole	0.81 W AC-3 2.6 W AC-1
Control circuit voltage limits	Operational: 0.85...1.1 Uc at 50/60 Hz (at <55 °C) Drop-out: 0.3...0.6 Uc at 50/60 Hz (at <55 °C)
Operating time	12...22 ms on closing 4...19 ms on opening
Mechanical durability	10000000 cycles
Maximum operating rate	1800 cyc/h 60 °C
Inrush power in VA	95 VA 50 Hz cos phi 0.75 (at 20 °C) 95 VA 60 Hz cos phi 0.75 (at 20 °C)
Hold-in power consumption in VA	8.3 VA 50 Hz cos phi 0.3 (at 20 °C) 8.5 VA 60 Hz cos phi 0.3 (at 20 °C)
Heat dissipation	2...3 W for control circuit
Minimum switching current	5 mA for control circuit
Minimum switching voltage	17 V 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
Insulation resistance	> 10 MOhm for control circuit
Electrical durability	300000 cycles AC-1 1200000 cycles AC-3
Mounting support	Plate DIN rail
Connections - terminals	Power circuit: screw clamp terminals 1 1...4 mm ² - cable stiffness: flexible with cable end Power circuit: screw clamp terminals 2 1...2.5 mm ² - cable stiffness: flexible with cable end Control circuit: screw clamp terminals 1 1...4 mm ² - cable stiffness: flexible without cable end Control circuit: screw clamp terminals 2 1...4 mm ² - cable stiffness: flexible without cable end Control circuit: screw clamp terminals 1 1...4 mm ² - cable stiffness: flexible with cable end Control circuit: screw clamp terminals 2 1...2.5 mm ² - cable stiffness: flexible with cable end Control circuit: screw clamp terminals 1 1...4 mm ² - cable stiffness: solid without cable end Control circuit: screw clamp terminals 2 1...4 mm ² - cable stiffness: solid without cable end Power circuit: screw clamp terminals 1 1.5...6 mm ² - cable stiffness: solid without cable end Power circuit: screw clamp terminals 2 1.5...6 mm ² - cable stiffness: solid without cable end
Recommended tightening torque	Power circuit: 1.2 N.m Control circuit: 1.2 N.m
Max tightening torque	Power circuit: 1.4 N.m Control circuit: 1.4 N.m

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
Pollution degree	3
Ambient air temperature for operation	-5...55 °C

Ambient air temperature for storage	-60...80 °C
Permissible ambient air temperature around the device	-20...70 °C at Uc
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: 7 Gn for 11 ms Shocks contactor closed: 10 Gn for 11 ms

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Weight	300.0 g
Package 1 Height	8 cm
Package 1 width	4.5 cm
Package 1 Length	7.4 cm

Offer Sustainability

Sustainable offer status	Green Premium product
REACH Regulation	REACH Declaration
REACH free of SVHC	Yes
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