



Main

Range	EasyPact
Product name	EasyPact TVR
Product or component type	Contact
Device short name	LC1R
Contact application	Reversing Resistive load Motor control
Utilisation category	AC-1 AC-3
Poles description	3P
Power pole contact composition	3 NO
[Ie] rated operational current	20 A (at <40 °C) at <= 400 V AC AC-1 for power circuit 9 A (at <40 °C) at <= 400 V AC AC-3 for power circuit
[Uc] control circuit voltage	220 V AC 50 Hz
Auxiliary contact composition	1 NC
[Ue] rated operational voltage	Power circuit: 690 V AC 50 Hz Signalling circuit: 690 V AC 50 Hz

Complementary

Motor power kW	2.2 kW at 220/230 V AC 50 Hz 4 kW at 380/400 V AC 50 Hz 5.5 kW at 660/690 V AC 50 Hz
Electrical durability	1 Mcycles 9 A AC-3 at Ue <= 440 V
Mechanical durability	10 Mcycles
Maximum operating rate	1200 cyc/h 40 °C
Operating time	12...22 ms closing 4...19 ms opening
Control circuit voltage limits	Operational: 0.85...1.1 Uc Drop-out: 0.2...0.75 Uc
Hold-in power consumption in VA	8.3 VA cos phi 0.3
[Ith] conventional free air thermal current	20 A (at 40 °C) for power circuit 10 A (at 40 °C) for signalling circuit
Average impedance	2.5 mOhm - Ith 20 A 50 Hz for power circuit
Power dissipation per pole	AC-3: 0.2 W AC-1: 1.56 W
Heat dissipation	2...3 W at 50 Hz
Irms rated making capacity	108 A 380 V AC power circuit AC-3 IEC 60947 108 A 380 V AC power circuit AC-3 GB 14048
Rated breaking capacity	90 A at 380 V for power circuit AC-3 conforming to IEC 60947 90 A at 380 V for power circuit AC-3 conforming to GB 14048
[Icw] rated short-time withstand current	100 A - 1 s for signalling circuit 120 A - 500 ms for signalling circuit 140 A - 100 ms for signalling circuit 105 A 40 °C - 10 s for power circuit 61 A 40 °C - 1 min for power circuit 30 A 40 °C - 10 min for power circuit

Associated fuse rating	20 A gG at ≤ 690 V coordination type 1 for power circuit 10 A gG for signalling circuit conforming to IEC 60947-5-1
Overvoltage category	III
[Ui] rated insulation voltage	Power circuit: 690 V conforming to IEC 60947-4-1 Signalling circuit: 690 V conforming to IEC 60947-1 Power circuit: 690 V conforming to GB 14048.4
Coil technology	Without built-in suppressor module
Auxiliary contacts type	Type mirror contact 1 NC conforming to IEC 60947-4-1 Type mechanically linked 1 NC conforming to IEC 60947-5-1
Signalling circuit frequency	50 Hz
Minimum switching current	5 mA for signalling circuit
Switching voltage	17 V for signalling circuit
Non-overlap time	1.5 Ms on de-energisation between NC and NO contact 1.5 ms on energisation between NC and NO contact
Insulation resistance	> 10 MOhm for signalling circuit
Mounting support	Rail Plate
Connections - terminals	Power circuit: screw clamp terminals 1 1...4 mm ² - external diameter: 8 mm - cable stiffness: flexible without cable end Power circuit: screw clamp terminals 2 1...4 mm ² - external diameter: 8 mm - cable stiffness: flexible without cable end Power circuit: screw clamp terminals 1 1...4 mm ² - external diameter: 8 mm - cable stiffness: flexible with cable end Power circuit: screw clamp terminals 2 1...2.5 mm ² - external diameter: 8 mm - cable stiffness: flexible with cable end Power circuit: screw clamp terminals 1 1...4 mm ² - external diameter: 8 mm - cable stiffness: solid without cable end Power circuit: screw clamp terminals 2 1...4 mm ² - external diameter: 8 mm - cable stiffness: solid without 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
Tightening torque	Power circuit: 1.2 N.m - on screw clamp terminals - with screwdriver flat Ø 6 mm M3.5 Power circuit: 1.2 N.m - on screw clamp terminals - with screwdriver Philips No 2 M3.5 Control circuit: 1.2 N.m - on screw clamp terminals - with screwdriver flat Ø 6 mm Control circuit: 1.2 N.m - on screw clamp terminals - with screwdriver Philips No 2
Height	74 mm
Width	45 mm
Depth	80 mm
Standards	IEC 60947-1 GB 14048.4 GB 14048.1 IEC 60947-4-1
Product certifications	CCC

Environment

Pollution degree	3
Protective treatment	TH conforming to IEC 60068-2-30
Ambient air temperature for operation	-5...40 °C
Ambient air temperature for storage	-40...60 °C
Permissible ambient air temperature around the device	-20...55 °C at U _c
Operating altitude	2000 m without derating

Fire resistance	850 °C conforming to IEC 60695-2-11
Mechanical robustness	Vibrations contactor open (1.2 gn, 5...300 Hz) conforming to IEC 60068-2-6 Vibrations contactor closed (2.5 Gn, 5...300 Hz) conforming to IEC 60068-2-6 Shocks 11 ms contactor open (5 gn) conforming to IEC 60068-2-27 Shocks 11 ms contactor closed (8 gn) conforming to IEC 60068-2-27

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	4.5 cm
Package 1 Width	8 cm
Package 1 Length	7.4 cm
Package 1 Weight	290 g

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
China RoHS Regulation	 China RoHS Declaration
RoHS exemption information	 Yes
Environmental Disclosure	 Product Environmental Profile
Circularity Profile	 End Of Life Information
WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins