Product data sheet
Characteristics

LC1E50M5
Contactor,Easy TeSys Control,LC1E,3P(3NO),AC-3/ AC-3e,<=440V,50A,220V AC coil,50Hz



Main

Range	Easy TeSys
Range of product	Easy TeSys Control
Product or component type	Contactor
Device short name	LC1E
Contactor application	Motor control Resistive load
Utilisation category	AC-3 AC-3e AC-1
Poles description	3P
[Ue] rated operational voltage	Power circuit: <= 690 V AC 50/60 Hz
[Ie] rated operational current	50 A (at <55 °C) at <= 440 V AC AC-3 for power circuit 40 A (at <55 °C) at <= 440 V AC AC-3e for power circuit 70 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	11 KW at 220/230 V AC 50/60 Hz 22 KW at 380/400 V AC 50/60 Hz 22 KW at 415/440 V AC 50/60 Hz 30 KW at 500 V AC 50/60 Hz 30 KW at 660/690 V AC 50/60 Hz 33 KW at 660...690 V AC 50/60 Hz
Pole contact composition	3 NO
[Ith] conventional free air thermal current	70 A (at 55 °C) for power circuit
Irms rated making capacity	650 A at 440 V AC for power circuit conforming to IEC 60947-4-1
Rated breaking capacity	425 A at 440 V for power circuit conforming to IEC 60947
[Icw] rated short-time withstand current	400 A 40 °C - 10 s for power circuit 208 A 40 °C - 60 s for power circuit 84 A 40 °C - 600 s for power circuit
Associated fuse rating	100 A gG at <= 690 V coordination type 1 for power circuit 10 A gG at <= 690 V for auxiliary contact circuit conforming to IEC 60947-5-1
Average impedance	1.5 MOhm - Ith 70 A 50 Hz for power circuit
Power dissipation per pole	3.8 W AC-3 7.4 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	6 KV coil not connected to the power circuit conforming to IEC 60947
Mechanical durability	5000000 Cycles

Electrical durability	350000 Cycles AC-1 900000 Cycles AC-3
Control circuit type	AC at 50 Hz
Control circuit voltage limits	0.85...1.1 Uc (-5…55 °C):operational 50 Hz 0.3...0.6 Uc (-5…55 °C):drop-out 50 Hz
Inrush power in VA	160 VA 50 Hz cos phi 0.75 (at 20 °C) 140 VA 60 Hz cos phi 0.75 (at 20 °C)
Hold-in power consumption in VA	15 VA 50 Hz cos phi 0.3 (at 20 °C) 13 VA 60 Hz cos phi 0.3 (at 20 °C)
Heat dissipation	6…10 W for control circuit
Operating time	20...26 ms on closing 8...12 ms on opening
Maximum operating rate	1200 Cyc/H 60 °C
Connections - terminals	Power circuit: screw clamp terminals 1 2.5…25 mm² - cable stiffness: flexible without cable end Power circuit: screw clamp terminals 2 2.5…10 mm² - cable stiffness: flexible without cable end Power circuit: screw clamp terminals 1 2.5…25 mm² - cable stiffness: flexible with cable end Power circuit: screw clamp terminals 2 2.5…16 mm² - cable stiffness: flexible with cable end Power circuit: screw clamp terminals 1 2.5…25 mm² - cable stiffness: solid without cable end Power circuit: screw clamp terminals 2 2.5…16 mm² - cable stiffness: solid without cable end Control circuit: screw clamp terminals 1 1…4 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…4 mm² - cable stiffness: flexible with cable end Control circuit: screw clamp terminals 2 1…4 mm² - cable stiffness: flexible with cable end Control circuit: screw clamp terminals 1 1…4 mm² - cable stiffness: solid without cable end Control circuit: screw clamp terminals 2 1…4 mm² - cable stiffness: solid without cable end
Tightening torque	Control circuit: 1.2 N.m Power circuit: 5 N.m
Auxiliary contact composition	1 NO + 1 NC
Minimum switching voltage	17 V for auxiliary contact circuit
Minimum switching current	5 MA for auxiliary contact circuit
Insulation resistance	> 10 MOhm for auxiliary contact 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	Plate DIN rail

Environment

Standards	EN/IEC 60947-1 EN/IEC 60947-4-1 EN/IEC 60947-5-1 GB/T 14048.1 GB/T 14048.4 GB/T 14048.5 EN/IEC 60335-1:Clause 30.2 EN/IEC 60335-2-40:Annex JJ
Product certifications	CB Scheme[RETURN]CCC[RETURN]CE[RETURN]EAC
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	127 Mm
Width	75 Mm
Depth	114 Mm
Net weight	0.98 Kg

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	8.200 Cm
Package 1 Width	12.400 Cm
Package 1 Length	13.200 Cm
Package 1 Weight	985.000 G
Unit Type of Package 2	S02
Number of Units in Package 2	9
Package 2 Height	15.000 Cm
Package 2 Width	30.000 Cm
Package 2 Length	40.000 Cm
Package 2 Weight	9.178 Kg

Offer Sustainability

Recyclability potential, in %	48
Total lifecycle Carbon footprint	934 kg CO2 eq.
Carbon footprint of the manufacturing phase [A1 to A3]	6.958869449139125
Carbon footprint of the manufacturing phase [A1 to A3]	7 kg CO2 eq.
Carbon footprint of the distribution phase [A4]	1.2075522208116074
Carbon footprint of the distribution phase [A4]	1 kg CO2 eq.
Carbon footprint of the installation phase [A5]	0.00026342654322591004
Carbon footprint of the installation phase [A5]	0 kg CO2 eq.
Carbon footprint of the use phase [B2, B3, B4, B6]	924.5131116075922
Carbon footprint of the use phase [B2, B3, B4, B6]	925 kg CO2 eq.
Toxic heavy metal free	Yes
Mercury free	Yes
Sustainable packaging	Yes
Carbon footprint of the end-of-life phase [C1 to C4]	1.516888677833345
Carbon footprint of the end-of-life phase [C1 to C4]	2 kg CO2 eq.
Environmental Disclosure	Product Environmental Profile
Total lifecycle Carbon footprint	934
Packaging made with recycled cardboard	Yes
Packaging without single use plastic	Yes
SCIP Number	4ca4954b-5710-4949-8440-15cb0afd6d31
REACh Regulation	Reference contains Substances of Very High Concern above the threshold
EU RoHS Directive	Compliant
End of life manual availability	End Of Life Information
Take-back	No
WEEE Label	The product must be disposed on European Union markets following specific waste collection a

Contractual warranty

Warranty (in months)	18

Product Life Status : Commercialised