Product data sheet
Characteristics

LC1E120M5
Contactor,Easy TeSys Control,LC1E,3P(3NO),AC-3/ AC-3e,<=440V,120A/96A,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	120 A (at <55 °C) at <= 440 V AC AC-3 for power circuit 96 A (at <55 °C) at <= 440 V AC AC-3e for power circuit 150 A (at <40 °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 55 KW at 380/400 V AC 50/60 Hz 59 KW at 415/440 V AC 50/60 Hz 75 KW at 500 V AC 50/60 Hz 80 KW at 660/690 V AC 50/60 Hz 80 KW at 660...690 V AC 50/60 Hz
Pole contact composition	3 NO
[Ith] conventional free air thermal current	150 A (at 40 °C) for power circuit
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 power circuit 10 A gG at <= 690 V for auxiliary contact circuit conforming to IEC 60947-5-1
Average impedance	0.6 MOhm - 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	4000000 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 (-5…55 °C):operational 50 Hz 0.35...0.55 Uc (-5…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)
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	Power circuit: screw clamp terminals 1 10…120 mm² - cable stiffness: flexible without cable end Power circuit: screw clamp terminals 1 10…120 mm² - cable stiffness: flexible with cable end Power circuit: screw clamp terminals 1 10…120 mm² - cable stiffness: solid without cable end Control circuit: screw clamp terminals 1 1…2.5 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…2.5 mm² - cable stiffness: flexible with cable end Control circuit: screw clamp terminals 2 1…2.5 mm² - cable stiffness: flexible with cable end Control circuit: screw clamp terminals 1 1…2.5 mm² - cable stiffness: solid without cable end Control circuit: screw clamp terminals 2 1…2.5 mm² - 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 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	DIN rail Plate

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
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	158 Mm
Width	120 Mm
Depth	132 Mm
Net weight	2.3 Kg

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	17.700 Cm
Package 1 Width	16.700 Cm
Package 1 Length	21.000 Cm
Package 1 Weight	2.404 Kg
Unit Type of Package 2	S06

Number of Units in Package 2	24
Package 2 Height	75.000 Cm
Package 2 Width	60.000 Cm
Package 2 Length	80.000 Cm
Package 2 Weight	70.500 Kg

Offer Sustainability

Recyclability potential, in %	58
Total lifecycle Carbon footprint	1 070 kg CO2 eq.
Carbon footprint of the manufacturing phase [A1 to A3]	16.612298212317775
Carbon footprint of the manufacturing phase [A1 to A3]	17 kg CO2 eq.
Carbon footprint of the distribution phase [A4]	3.0318054228939757
Carbon footprint of the distribution phase [A4]	3 kg CO2 eq.
Carbon footprint of the installation phase [A5]	0.0002316146589889061
Carbon footprint of the installation phase [A5]	0 kg CO2 eq.
Carbon footprint of the use phase [B2, B3, B4, B6]	1045.731073403499
REACh free of SVHC	Yes
Carbon footprint of the use phase [B2, B3, B4, B6]	1 046 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]	4.472743020731874
Carbon footprint of the end-of-life phase [C1 to C4]	4 kg CO2 eq.
Environmental Disclosure	Product Environmental Profile
Total lifecycle Carbon footprint	1070
Packaging made with recycled cardboard	Yes
Packaging without single use plastic	Yes
REACh Regulation	Free of 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