Product data sheet Characteristics

LC1F185

TeSys F contactor - 3P(3 NO) - AC-3 - <= 440 V 185 A - without coil



Main **Commercial Status** Commercialised Range of product TeSys F Product or component Contactor type Device short name LC1F Contactor application Motor control Resistive load

	Resistive load
Utilisation category	AC-1 AC-3
Poles description	3P
Power pole contact composition	3 NO
[Ue] rated operational voltage	<= 460 V DC <= 1000 V AC 50/60 Hz
[le] rated operational current	185 A (<= 55 °C) at <= 440 V AC AC-3 275 A (<= 40 °C) at <= 440 V AC AC-1
Motor power kW	110 kW at 660690 V AC 50/60 Hz 55 kW at 220240 V AC 50/60 Hz 90 kW at 380400 V AC 50/60 Hz 110 kW at 500 V AC 50/60 Hz 100 kW at 440 V AC 50/60 Hz 100 kW at 415 V AC 50/60 Hz 100 kW at 1000 V AC 50/60 Hz
[Uimp] rated impulse withstand voltage	8 kV
Overvoltage category	III
[Ith] conventional free air thermal current	275 A at <= 40 °C
Irms rated making capacity	1850 A AC conforming to IEC 60947-4-1
Rated breaking capacity	1480 kA conforming to IEC 60947-4-1
[lcw] rated short-time withstand current	400 A <= 40 °C 10 min 500 A <= 40 °C 3 min 740 A <= 40 °C 1 min 920 A <= 40 °C 30 s 1500 A <= 40 °C 10 s
Associated fuse rating	315 A gG at <= 440 V 200 A aM at <= 440 V
Average impedance	0.33 mOhm at 50 Hz - Ith 275 A
[Ui] rated insulation voltage	1500 V conforming to VDE 0110 group C 1000 V conforming to IEC 60947-4-1
Power dissipation per pole	12 W AC-3 25 W AC-1
Mounting support	Plate
Standards	EN 60947-1 EN 60947-4-1 IEC 60947-1 IEC 60947-4-1 JEM 1038

Product certifications	BV CCC CSA DNV GL RINA RMRoS UL LROS
Connections - terminals	Power circuit: bar 2 x (25 x 3 mm) Power circuit: connector 1 cable(s) 150 mm² Power circuit: lugs-ring terminals 1 cable(s) 150 mm² Control circuit: screw clamp terminals 2 cable(s) 14 mm² - cable stiffness: solid - without cable end Control circuit: screw clamp terminals 1 cable(s) 14 mm² - cable stiffness: solid - without cable end Control circuit: screw clamp terminals 2 cable(s) 12.5 mm² - cable stiffness: flexible - with cable end Control circuit: screw clamp terminals 1 cable(s) 14 mm² - cable stiffness: flexible - with cable end Control circuit: screw clamp terminals 2 cable(s) 14 mm² - cable stiffness: flexible - without cable end Control circuit: screw clamp terminals 1 cable(s) 14 mm² - cable stiffness: flexible - without cable end
Tightening torque	Power circuit: 18 N.m Control circuit: 1.2 N.m

Environment

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IP degree of protection	IP2x front face with shrouds (ordered separately) conforming to VDE 0106 IP2x front face with shrouds (ordered separately) conforming to IEC 60529
Protective treatment	TH
Ambient air temperature for operation	-555 °C
Ambient air temperature for storage	-6080 °C
Permissible ambient air temperature around the device	-4070 °C
Operating altitude	3000 m without derating in temperature
Mechanical robustness	Shocks contactor open 7 Gn for 11 ms Vibrations contactor closed 5 Gn, 5300 Hz Shocks contactor closed 15 Gn for 11 ms Vibrations contactor open 2 Gn, 5300 Hz
Height	174 mm
Width	168.5 mm
Depth	181 mm
Product weight	5.45 kg

RoHS compliance

RoHS EUR status	Compliant
RoHS EUR conformity date(YYWW)	0843

Contractual warranty

Period	18 months

