

# Product data sheet

Specifications



## TeSys F contactor - 3P (3 NO) - AC-3 - $\leq 440$ V 275 A - coil 220 V AC

LC1F185M5

ⓘ Discontinued on: 30 April 2022

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### Main

Range	TeSys
Range of product	TeSys F
Product or component type	Contactor
Device short name	LC1F
Contactor application	Motor control Resistive load
Utilisation category	AC-1 AC-3 AC-4
Poles description	3P
[Ue] rated operational voltage	$\leq 460$ V DC $\leq 690$ V AC 50/60 Hz
[Uc] control circuit voltage	220 V AC 50 Hz
[Ie] rated operational current	275 A (at $<40$ °C) at $\leq 440$ V AC-1 185 A (at $<55$ °C) at $\leq 440$ V AC-3

### Complementary

[Uimp] rated impulse withstand voltage	8 kV
[Ith] conventional free air thermal current	275 A (at 40 °C)
Rated breaking capacity	1480 A conforming to IEC 60947-4-1
[Icw] rated short-time withstand current	1500 A 40 °C - 10 s 920 A 40 °C - 30 s 740 A 40 °C - 1 min 500 A 40 °C - 3 min 400 A 40 °C - 10 min
Associated fuse rating	200 A aM at $\leq 440$ V 315 A gG at $\leq 440$ V
Average impedance	0.33 mOhm - Ith 275 A 50 Hz
[Ui] rated insulation voltage	1000 V conforming to IEC 60947-4-1 1500 V conforming to VDE 0110 group C
Power dissipation per pole	12 W AC-3 25 W AC-1
Overvoltage category	III
Power pole contact composition	3 NO

<b>Motor power kW</b>	90 kW at 380...400 V AC 50/60 Hz (AC-3) 100 kW at 415 V AC 50/60 Hz (AC-3) 100 kW at 440 V AC 50/60 Hz (AC-3) 110 kW at 500 V AC 50/60 Hz (AC-3) 110 kW at 660...690 V AC 50/60 Hz (AC-3) 55 kW at 220...230 V AC 50/60 Hz (AC-3) 33 kW at 400 V AC 50/60 Hz (AC-4)
<b>Control circuit voltage limits</b>	Operational: 0.85...1.1 U <sub>c</sub> 50/60 Hz (at 55 °C) Drop-out: 0.35...0.55 U <sub>c</sub> 50/60 Hz (at 55 °C)
<b>Mechanical durability</b>	10 Mcycles
<b>Inrush power in VA</b>	805 VA, 50 Hz cos phi 0.3 (at 20 °C)
<b>Hold-in power consumption in VA</b>	55 VA, 50 Hz cos phi 0.3 (at 20 °C)
<b>Maximum operating rate</b>	2400 cyc/h 55 °C
<b>Operating time</b>	20...35 ms closing 7...15 ms opening
<b>Connections - terminals</b>	Control circuit: screw clamp terminals 1 cable(s) 1...4 mm <sup>2</sup> flexible without cable end Control circuit: screw clamp terminals 2 cable(s) 1...4 mm <sup>2</sup> flexible without cable end Control circuit: screw clamp terminals 1 cable(s) 1...4 mm <sup>2</sup> flexible with cable end Control circuit: screw clamp terminals 2 cable(s) 1...2.5 mm <sup>2</sup> flexible with cable end Control circuit: screw clamp terminals 1 cable(s) 1...4 mm <sup>2</sup> solid without cable end Control circuit: screw clamp terminals 2 cable(s) 1...4 mm <sup>2</sup> solid without cable end Power circuit: bar 2 cable(s) - busbar cross section: 25 x 3 mm Power circuit: lugs-ring terminals 1 cable(s) 150 mm <sup>2</sup> Power circuit: connector 1 cable(s) 150 mm <sup>2</sup> Power circuit: bolted connection
<b>Tightening torque</b>	Control circuit: 1.2 N.m Power circuit: 18 N.m
<b>Mounting support</b>	Plate
<b>Heat dissipation</b>	18...24 W
<b>Standards</b>	EN 60947-1 EN 60947-4-1 IEC 60947-1 JIS C8201-4-1 IEC 60947-4-1
<b>Product certifications</b>	ABS RINA BV RMRoS UL LROS (Lloyds register of shipping) CCC CB DNV
<b>Compatibility code</b>	LC1F
<b>Control circuit type</b>	AC at 50 Hz
<b>Environment</b>	
<b>IP degree of protection</b>	IP2X front face with shrouds conforming to IEC 60529 IP2X front face with shrouds conforming to VDE 0106
<b>Protective treatment</b>	TH
<b>Ambient air temperature for operation</b>	-5...55 °C
<b>Ambient air temperature for storage</b>	-60...80 °C
<b>Permissible ambient air temperature around the device</b>	-40...70 °C
<b>Height</b>	174 mm
<b>Width</b>	168.5 mm
<b>Depth</b>	181 mm
<b>Operating altitude</b>	3000 m without derating
<b>Net weight</b>	4.65 kg

## Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	21 cm
Package 1 Width	22 cm
Package 1 Length	23 cm
Package 1 Weight	4.924 kg

## Offer Sustainability



Sustainable offer status	Green Premium product
REACH Regulation	<a href="#">REACH Declaration</a>
EU RoHS Directive	Compliant <a href="#">EU RoHS Declaration</a>
Mercury free	Yes
China RoHS Regulation	<a href="#">China RoHS declaration</a> Product out of China RoHS scope. Substance declaration for your information
RoHS exemption information	<a href="#">Yes</a>
Environmental Disclosure	<a href="#">Product Environmental Profile</a>
Circularity Profile	<a href="#">End of Life Information</a>
WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins
PVC free	Yes
California proposition 65	WARNING: This product can expose you to chemicals including: Lead and lead compounds, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to <a href="http://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a>

## Contractual warranty

Warranty	18 months
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## Recommended replacement(s)

LC1F185M5 may be replaced by any of the following products:

1x		High power contactor, TeSys Giga, 3 pole (3NO), AC-3 <=440V 185A, advanced version, 200...500V wide band AC/DC coil LC1G185LSEA
1x		High power contactor, TeSys Giga, 3 pole (3NO), AC-3 <=440V 185A, standard version, 100...250V wide band AC/DC coil LC1G185KUEN