

Product data sheet

Specifications



contactor, TeSys F, 4P(4NO), AC-1, <=440V 350A with coil LX1/LX9, 24...1000V AC 40/400Hz, LX4, 24...460V DC, LXE, 100...250V AC 50/60Hz or 100...380V DC

LC1F2654

⚠ To be discontinued

⚠ To be discontinued on: 31 December 2023

Main

Range	TeSys
Product name	TeSys F
Product or component type	Contactor
Device short name	LC1F
Contactor application	Resistive load
Utilisation category	AC-1
Poles description	4P
Power pole contact composition	4 NO
[Ie] rated operational current	350 A (at <40 °C) at <= 440 V AC AC-1

Complementary

[Uc] control circuit voltage	24...1000 V AC 40...400 Hz with LX1/LX9 coil 24...460 V DC with LX4 coil 100...250 V AC 50/60 Hz with LXE coil 100...380 V with LXE coil
[Uimp] rated impulse withstand voltage	8 kV
Overvoltage category	III
[Ith] conventional free air thermal current	350 A (at 40 °C)
Irms rated making capacity	2650 A AC conforming to IEC 60947-4-1
Rated breaking capacity	2120 A conforming to IEC 60947-4-1
[Icw] rated short-time withstand current	2200 A 40 °C - 10 s 1230 A 40 °C - 30 s 950 A 40 °C - 1 min 620 A 40 °C - 3 min 480 A 40 °C - 10 min
Associated fuse rating	315 A aM at <= 440 V 400 A gG at <= 440 V
Average impedance	0.3 mOhm - Ith 350 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	37 W AC-1

Control circuit voltage limits	Operational: 0.85...1.1 Uc AC 40...400 Hz with LX1/LX9 coil Drop-out: 0.35...0.55 Uc AC 40...400 Hz with LX1/LX9 coil Operational: 0.85...1.1 Uc DC with LX4 coil Drop-out: 0.15...0.2 Uc DC with LX4 coil Operational: 85...275 V AC 50/60 Hz with LXE coil Drop-out: 0...60 V AC 50/60 Hz with LXE coil Operational: 85...418 V DC with LXE coil Drop-out: 0...45 V DC with LXE coil
Heat dissipation	8 W 2.2...2.5 W
Operating time	40...65 ms closing for with LX1/LX9 coil 100...170 ms opening for with LX1/LX9 coil 40...50 ms closing for with LX4 coil 40...65 ms opening for with LX4 coil 40...80 ms closing for with LXE coil 6...54 ms opening for with LXE coil
Mounting support	Plate
Standards	IEC 60947-1 IEC 60947-4-1 JIS C8201-4-1 EN 60947-1 EN 60947-4-1
Product certifications	ABS CB DNV RMRoS UL CSA RINA LROS (Lloyds register of shipping) BV UKCA
Connections - terminals	Power circuit: bar 2 cable(s) - busbar cross section: 32 x 4 mm Power circuit: lugs-ring terminals 1 cable(s) 240 mm ² Power circuit: connector 1 cable(s) 240 mm ² Power circuit: bolted connection Control circuit: screw clamp terminals 1 cable(s) 1...4 mm ² flexible without cable end Control circuit: screw clamp terminals 2 cable(s) 1...4 mm ² flexible with cable end Control circuit: screw clamp terminals 1 cable(s) 1...4 mm ² flexible with cable end Control circuit: screw clamp terminals 2 cable(s) 1...2.5 mm ² solid without cable end Control circuit: screw clamp terminals 1 cable(s) 1...4 mm ² Control circuit: screw clamp terminals 2 cable(s) 1...4 mm ² Control circuit: screw clamp terminals 1.0 cable(s) 0.2...2.5 mm ² flexible without cable end Control circuit: screw clamp terminals 1.0 cable(s) 0.25...2.5 mm ² flexible with cable end Control circuit: screw clamp terminals 1.0 cable(s) 0.2...2.5 mm ² solid without cable end
Tightening torque	Power circuit: 35 N.m Control circuit: 1.2 N.m Control circuit: 0.6 N.m
Mechanical durability	10 Mcycles
Inrush power in VA	600...700 VA, 40...400 Hz cos phi 0.9 (at 20 °C)with LX1/LX9 coil 655...803 VA (at 20 °C)with LX4 coil 300...350 VA, 50/60 Hz cos phi 0.5 (at 20 °C)with LXE coil 300...310 VA (at 20 °C)with LXE coil
Hold-in power consumption in VA	8...10 VA, 40...400 Hz cos phi 0.9 (at 20 °C)with LX1/LX9 coil 3.68...4.53 VA (at 20 °C)with LX4 coil 4.5...7.0 VA, 50/60 Hz cos phi 0.5 (at 20 °C)with LXE coil 2.5...4.0 VA (at 20 °C)with LXE coil
Maximum operating rate	2400 cyc/h 55 °C
Compatibility code	LC1F
[Ue] rated operational voltage	<= 1000 V AC-1 <= 690 V AC-3 <= 690 V AC-4 <= 460 V DC
Environment	
IP degree of protection	IP20 front face with shrouds conforming to IEC 60529 IP20 front face with shrouds conforming to VDE 0106
Protective treatment	TH
Ambient air temperature for operation	-5...55 °C

Ambient air temperature for storage	-60...80 °C
Permissible ambient air temperature around the device	-40...70 °C
Operating altitude	3000 m without derating
Mechanical robustness	Vibrations contactor open: 2 Gn, 5...300 Hz Vibrations contactor closed: 5 Gn, 5...300 Hz Shocks contactor open: 6 Gn for 1/2 sine wave (11 ms) Shocks contactor closed: 15 Gn for 1/2 sine wave (11 ms)
Height	203 mm
Width	244.5 mm
Depth	213 mm
Net weight	8.54 kg

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	24.000 cm
Package 1 Width	24.400 cm
Package 1 Length	28.600 cm
Package 1 Weight	8.462 kg
Unit Type of Package 2	P06
Number of Units in Package 2	10
Package 2 Height	75.000 cm
Package 2 Width	60.000 cm
Package 2 Length	80.000 cm
Package 2 Weight	93.660 kg

Offer Sustainability






Sustainable offer status	Green Premium product
REACH Regulation	REACH Declaration
EU RoHS Directive	Compliant EU RoHS Declaration
Mercury free	Yes
China RoHS Regulation	China RoHS declaration Product out of China RoHS scope. Substance declaration for your information
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
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 www.P65Warnings.ca.gov

Contractual warranty

Warranty	18 months
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Recommended replacement(s)

LC1F2654 may be replaced by any of the following products:

1x		High power contactor, TeSys Giga, 4 pole (4NO), AC-1 <=440V 385A, advanced version, 24...48V wide band AC/DC coil LC1G2654BEEA
1x		High power contactor, TeSys Giga, 4 pole (4NO), AC-1 <=440V 385A, advanced version, 48...130V wide band AC/DC coil LC1G2654EHEA
1x		High power contactor, TeSys Giga, 4 pole (4NO), AC-1 <=440V 385A, advanced version, 200...500V wide band AC/DC coil LC1G2654LSEA
1x		High power contactor, TeSys Giga, 4 pole (4NO), AC-1 <=440V 385A, standard version, 48...130V wide band AC/DC coil LC1G2654EHEN
1x		High power contactor, TeSys Giga, 4 pole (4NO), AC-1 <=440V 385A, standard version, 100...250V wide band AC/DC coil LC1G2654KUEN