

# Product data sheet

Specifications



contactor, TeSys F, 4P(4NO), AC-1,  $\leq 440\text{V}$  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	Contacteur
Device short name	LC1F
Contacteur application	Resistive load
Utilisation category	AC-1
Poles description	4P
Power pole contact composition	4 NO
[Ie] rated operational current	350 A (at $\leq 40^\circ\text{C}$ ) at $\leq 440\text{ V AC AC-1}$

## 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 $40^\circ\text{C}$ )
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 $40^\circ\text{C}$ - 10 s 1230 A $40^\circ\text{C}$ - 30 s 950 A $40^\circ\text{C}$ - 1 min 620 A $40^\circ\text{C}$ - 3 min 480 A $40^\circ\text{C}$ - 10 min
Associated fuse rating	315 A aM at $\leq 440\text{ V}$ 400 A gG at $\leq 440\text{ V}$
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

<b>Control circuit voltage limits</b>	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
<b>Heat dissipation</b>	8 W 2.2...2.5 W
<b>Operating time</b>	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
<b>Mounting support</b>	Plate
<b>Standards</b>	IEC 60947-1 IEC 60947-4-1 JIS C8201-4-1 EN 60947-1 EN 60947-4-1
<b>Product certifications</b>	ABS CB DNV RMRoS UL CSA RINA LROS (Lloyds register of shipping) BV UKCA
<b>Connections - terminals</b>	Power circuit: bar 2 cable(s) - busbar cross section: 32 x 4 mm Power circuit: lugs-ring terminals 1 cable(s) 240 mm <sup>2</sup> Power circuit: connector 1 cable(s) 240 mm <sup>2</sup> Power circuit: bolted connection 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 with 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> solid without cable end Control circuit: screw clamp terminals 1 cable(s) 1...4 mm <sup>2</sup> Control circuit: screw clamp terminals 2 cable(s) 1...4 mm <sup>2</sup> Control circuit: screw clamp terminals 1.0 cable(s) 0.2...2.5 mm <sup>2</sup> flexible without cable end Control circuit: screw clamp terminals 1.0 cable(s) 0.25...2.5 mm <sup>2</sup> flexible with cable end Control circuit: screw clamp terminals 1.0 cable(s) 0.2...2.5 mm <sup>2</sup> solid without cable end
<b>Tightening torque</b>	Power circuit: 35 N.m Control circuit: 1.2 N.m Control circuit: 0.6 N.m
<b>Mechanical durability</b>	10 Mcycles
<b>Inrush power in VA</b>	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
<b>Hold-in power consumption in VA</b>	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
<b>Maximum operating rate</b>	2400 cyc/h 55 °C
<b>Compatibility code</b>	LC1F
<b>[Ue] rated operational voltage</b>	<= 1000 V AC-1 <= 690 V AC-3 <= 690 V AC-4 <= 460 V DC
<b>Environment</b>	
<b>IP degree of protection</b>	IP20 front face with shrouds conforming to IEC 60529 IP20 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>Operating altitude</b>	3000 m without derating
<b>Mechanical robustness</b>	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)
<b>Height</b>	203 mm
<b>Width</b>	244.5 mm
<b>Depth</b>	213 mm
<b>Net weight</b>	8.54 kg

## Packing Units

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

## Offer Sustainability

<b>Sustainable offer status</b>	Green Premium product
<b>REACH Regulation</b>	<a href="#">REACH Declaration</a>
<b>EU RoHS Directive</b>	Compliant <a href="#">EU RoHS Declaration</a>
<b>Mercury free</b>	Yes
<b>China RoHS Regulation</b>	<a href="#">China RoHS declaration</a> Product out of China RoHS scope. Substance declaration for your information
<b>RoHS exemption information</b>	Yes
<b>Environmental Disclosure</b>	<a href="#">Product Environmental Profile</a>
<b>Circularity Profile</b>	<a href="#">End of Life Information</a>
<b>WEEE</b>	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins
<b>PVC free</b>	Yes
<b>California proposition 65</b>	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

<b>Warranty</b>	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  $\leq 440V$  385A, advanced version, 24...48V wide band AC/DC coil  
LC1G2654BEEA

1x



High power contactor, TeSys Giga, 4 pole (4NO), AC-1  $\leq 440V$  385A, advanced version, 48...130V wide band AC/DC coil  
LC1G2654EHEA

1x



High power contactor, TeSys Giga, 4 pole (4NO), AC-1  $\leq 440V$  385A, advanced version, 200...500V wide band AC/DC coil  
LC1G2654LSEA

1x



High power contactor, TeSys Giga, 4 pole (4NO), AC-1  $\leq 440V$  385A, standard version, 48...130V wide band AC/DC coil  
LC1G2654EHEN

1x



High power contactor, TeSys Giga, 4 pole (4NO), AC-1  $\leq 440V$  385A, standard version, 100...250V wide band AC/DC coil  
LC1G2654KUEN