

# Product datasheet

Specifications



## TeSys F - star delta starter - 3 x 3P (3 NO) - 330 A - 220/230 V AC coil

LC3F330M7

⚠ Discontinued on: 1 Nov 2020

⚠ Discontinued

### Main

|                                        |                                                                                                                                                                                          |
|----------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Range                                  | TeSys                                                                                                                                                                                    |
| Product name                           | TeSys F                                                                                                                                                                                  |
| Product or component type              | Star delta starter                                                                                                                                                                       |
| Device short name                      | LC3F                                                                                                                                                                                     |
| Contactor application                  | Motor control                                                                                                                                                                            |
| Utilisation category                   | AC-3                                                                                                                                                                                     |
| Device presentation                    | Pre-wired                                                                                                                                                                                |
| Poles description                      | 3 x 3P                                                                                                                                                                                   |
| power pole contact composition         | 3 x 3 NO                                                                                                                                                                                 |
| [Ue] rated operational voltage         | Power circuit: <= 1000 V AC 16 Hz 2/3...200 Hz                                                                                                                                           |
| [Ie] rated operational current         | 330 A (at <55 °C) at <= 440 V AC AC-3 for power circuit                                                                                                                                  |
| Motor power kW                         | 160 kW at 220/230 V AC 50/60 Hz<br>280 kW at 380/400 V AC 50/60 Hz<br>280 kW at 415 V AC 50/60 Hz<br>315 kW at 440 V AC 50/60 Hz                                                         |
| Control circuit type                   | AC at 50/60 Hz                                                                                                                                                                           |
| [Uc] control circuit voltage           | 220/230 V AC 50/60 Hz                                                                                                                                                                    |
| Auxiliary contact composition          | 1 NC for KM1 star contactor<br>1 NO for KM1 star contactor<br>2 NC for KM2 line contactor<br>1 NO for KM2 line contactor<br>1 NC for KM3 delta contactor<br>2 NO for KM3 delta contactor |
| [Uimp] rated impulse withstand voltage | 8 kV                                                                                                                                                                                     |
| [Ui] rated insulation voltage          | 1000 V conforming to IEC 60947-4-1<br>1500 V conforming to VDE 0110 group C                                                                                                              |
| Interlocking type                      | Without start delta mechanical interlock                                                                                                                                                 |
| Mounting support                       | Plate                                                                                                                                                                                    |
| Standards                              | IEC 60947-4-1<br>EN 60947-1<br>JIS C8201-4-1<br>IEC 60947-1<br>EN 60947-4-1                                                                                                              |

Disclaimer: This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications

|                        |                                                                                             |
|------------------------|---------------------------------------------------------------------------------------------|
| Product certifications | CB<br>DNV<br>CCC<br>RINA<br>CSA<br>UL<br>LROS (Lloyds register of shipping)<br>RMRoS<br>ABS |
|------------------------|---------------------------------------------------------------------------------------------|

## Complementary

|                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|---------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| [Ith] conventional free air thermal current | 400 A 40 °C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Irms rated making capacity                  | 3300 A conforming to IEC 60947-4-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Rated breaking capacity                     | 2640 A conforming to IEC 60947-4-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| [Icw] rated short-time withstand current    | 2650 A 40 °C - 10 s<br>1800 A 40 °C - 30 s<br>1300 A 40 °C - 1 min<br>900 A 40 °C - 3 min<br>750 A 40 °C - 10 min                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Associated fuse rating                      | 500 A gG at <= 440 V<br>400 A aM at <= 440 V                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Connections - terminals                     | Control circuit: screw clamp terminals 1 1...4 mm² - cable stiffness: flexible with cable end<br>Control circuit: screw clamp terminals 2 1...2.5 mm² - cable stiffness: flexible with cable end<br>Control circuit: screw clamp terminals 1 1...4 mm² - cable stiffness: flexible without cable end<br>Control circuit: screw clamp terminals 2 1...4 mm² - cable stiffness: flexible without cable end<br>Control circuit: screw clamp terminals 1 1...4 mm² - cable stiffness: solid without cable end<br>Control circuit: screw clamp terminals 2 1...4 mm² - cable stiffness: solid without cable end<br>Power circuit: bar 2 - busbar cross section: 30 x 5 mm<br>Power circuit: bolted connection<br>Power circuit: lugs-ring terminals 1 240 mm² |
| connections bolt diameter                   | M10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Tightening torque                           | Control circuit: 1.2 N.m<br>Power circuit: 35 N.m                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Operating time                              | 40...65 ms closing<br>100...170 ms opening                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Mechanical durability                       | 10 Mcycles                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Maximum operating rate                      | 2400 cyc/h 55 °C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Starting time                               | 20 s                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Control circuit voltage limits              | Operational: 0.85...1.1 Uc at 40...400 Hz (at <55 °C)<br>Drop-out: 0.35...0.55 Uc at 40...400 Hz (at <55 °C)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Inrush power in VA                          | 650 VA 40...400 Hz cos phi 0.9 (at 20 °C)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Hold-in power consumption in VA             | 10 VA 40...400 Hz cos phi 0.9 (at 20 °C)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Heat dissipation                            | 8 W                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Width                                       | 725 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Height                                      | 110 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Depth                                       | 276 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Net weight                                  | 37 kg                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

## Environment

|                                       |                                                                                                                                                                                   |
|---------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| IP degree of protection               | IP20 front face with shrouds conforming to IEC 60529<br>IP20 front face with shrouds conforming to VDE 0106                                                                       |
| Protective treatment                  | TH                                                                                                                                                                                |
| Ambient air temperature for storage   | -60...80 °C                                                                                                                                                                       |
| Ambient air temperature for operation | -5...55 °C<br>-40...70 °C at Uc                                                                                                                                                   |
| Operating altitude                    | 3000 m without derating                                                                                                                                                           |
| Mechanical robustness                 | Vibrations contactor open: 2 Gn, 5...300 Hz<br>Shocks contactor closed: 15 Gn for 11 ms<br>Vibrations contactor closed: 5 Gn, 5...300 Hz<br>Shocks contactor open: 6 Gn for 11 ms |

## Packing Units

|                              |     |
|------------------------------|-----|
| Unit Type of Package 1       | PCE |
| Number of Units in Package 1 | 1   |

## Contractual warranty

|                      |    |
|----------------------|----|
| Warranty (in months) | 18 |
|----------------------|----|



## Environmental Data

Schneider Electric aims to achieve Net Zero status by 2050 through supply chain partnerships, lower impact materials, and circularity via our ongoing “Use Better, Use Longer, Use Again” campaign to extend product lifetimes and recyclability.

[Environmental Data explained](#) >

[How we assess product sustainability](#) >



### Environmental footprint

Environmental Disclosure

[Product Environmental Profile](#)

## Use Better



### Materials and Substances

PVC free

Yes

## Use Longer



### Lifetime extension

Repair

No

## Use Again



### Repack and remanufacture

WEEE Label



The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins

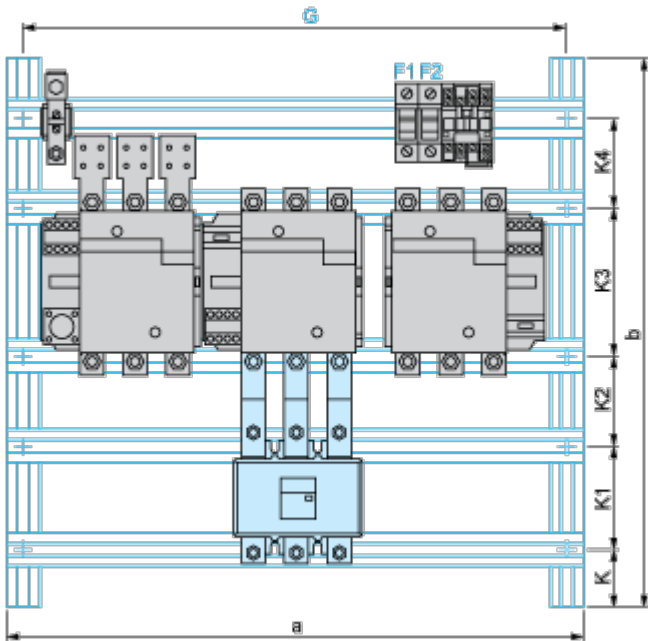
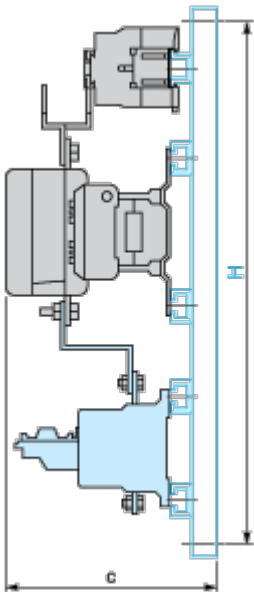
Dimensions Drawings

Dimensions and Drawings

Chassis mounted starters

Pre-assembled: LC3 F185 to LC3 F400

For customer assembly: 2 x LC1 F●●● and 1 x LC1 D150 or 3 x LC1 F●●●



|                                                           | a   | b   | c   | G   | H   | K   | K1  | K2 | K3  | K4 |
|-----------------------------------------------------------|-----|-----|-----|-----|-----|-----|-----|----|-----|----|
| LC3 F185 or 2 x LC1 F●●● + 1 x LC1 D with components F185 | 565 | 675 | 235 | 525 | 625 | 160 | 110 | 80 | 110 | 80 |
| LC3 F225 or 3 x LC1 F●●● with components F225             | 565 | 675 | 235 | 525 | 625 | 160 | 110 | 80 | 110 | 80 |

|                                               | a   | b   | c   | G   | H   | K   | K1  | K2  | K3  | K4  |
|-----------------------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| LC3 F265 or 3 x LC1 F●●● with components F265 | 665 | 775 | 266 | 625 | 725 | 165 | 110 | 100 | 110 | 110 |
| LC3 F330 or 3 x LC1 F●●● with components F330 | 765 | 975 | 276 | 725 | 825 | 195 | 140 | 100 | 110 | 180 |
| LC3 F400 or 3 x LC1 F●●● with components F400 | 765 | 975 | 276 | 725 | 925 | 195 | 140 | 100 | 180 | 110 |