Product data sheet

Specifications

SIL motor starter, TeSys island, 30A at AC-1, 25A at AC-3, 11kW, 15hp, DOL type

TPRSS025

Product availability: Stock - Normally stocked in distribution facility

Main

Range	TeSys
Product name	TeSys island
Device short name	TPRSS
Product or Component Type	SIL motor starter
Motor starter type	Direct on line
Device presentation	Direct starter connected to an automation controller through a bus coupler Operational only when connected to a bus coupler
Function Available	Upstream voltage presence detection Electrical line and load protection Power and energy monitoring when connected with TPRVM voltage module Safe stop function available when connected with a TPRSM module
Product compatibility	TPRBC bus coupler TPRVM voltage interface module TPRSM SIL interface module
Poles description	3P 3 NO
Utilisation category	AC-1 AC-2 AC-3 AC-4 AC-3e
Motor power kW	5.5 kW at 230 V 50 Hz (AC-3) 11 kW at 380...415 V 50 Hz (AC-3) 11 kW at 440 V 50 Hz (AC-3) 15 kW at 500 V 50 Hz (AC-3) 15 kW at 690 V 50 Hz (AC-3)
motor power HP (UL / CSA)	2 hp at 120 V AC 60 Hz for 1 phase motors 3 hp at 240 V AC 60 Hz for 1 phase motors 7.5 hp at 208 V AC 60 Hz for 3 phase motors 7.5 hp at 240 V AC 60 Hz for 3 phase motors 15 hp at 480 V AC 60 Hz for 3 phase motors 20 hp at 600 V AC 60 Hz for 3 phase motors
[Ue] rated operational voltage	<= 480 V AC 47...63 Hz for overvoltage cat. III <= 690 V AC 47...63 Hz for overvoltage cat. II
[Ie] rated operational current	25 A (at <122 °F (50 °C)) at <= 440 V AC-3 30 A (at <122 °F (50 °C)) at <= 440 V AC-1
[Ith] conventional free air thermal current	30 A (at 122 °F (50 °C))
[Ui] rated insulation voltage	690 V IEC 60947-4-1 600 V UL 60947-4-1 600 V CSA C22.2 No 60947-4-1
[Uimp] rated impulse withstand voltage	6 kV IEC 60947-1

Overvoltage category	III for Ue <= 480 V II for Ue <= 690 V
Thermal protection adjustment range	0.5…25 A
Thermal overload class	Class 5…30
Reset	Remotely or automatically
Irms rated making capacity	450 A at 440 V conforming to IEC 60947
Rated breaking capacity	450 A at 440 V conforming to IEC 60947
[Icw] rated short-time withstand current	380 A 104 °F (40 °C) - 1 s 240 A 104 °F (40 °C) - 10 s 120 A 104 °F (40 °C) - 1 min 50 A 104 °F (40 °C) - 10 min
Average impedance	2 mOhm - Ith 30 A 50 Hz
Power dissipation per pole	1.25 W AC-3 - Ith 25 A 1.8 W AC-1 - Ith 30 A
[Uc] control circuit voltage	24 V DC supplied by the bus coupler
Current consumption	160 mA contactor sealed 160 mA contactor closing
Power dissipation in W	6.6 W at Ie AC-3

Complementary

Mechanical durability	30 Mcycles
Electrical durability	1.65 Mcycles 25 A AC-3 440 V 2 Mcycles 30 A AC-1 440 V
Maximum operating rate	3600 cyc/mn AC-3
Operating time	< 100 ms closing < 30 ms opening
Safety function	Safe stop: category 0 conforming to IEC 60204-1 when associated with a TPRSM module Safe stop: category 1 conforming to IEC 60204-1 when associated with a TPRSM module
Safety integrity level	SIL 2 conforming to IEC 61508 in single channel system architecture SILCL 2 conforming to IEC 62061 in single channel system architecture PL = d category 2 conforming to ISO 13849-1 in single channel system architecture
Safety performance level	B10d = 1369863 cycles contactor with nominal load EN/ISO 13849-1 B10d = 20000000 cycles contactor with mechanical load EN/ISO 13849-1
Protection type	Thermal overload protection Motor overheat Overcurrent Undercurrent Jam Long start Stall Rapid cycle lockout Phase sequence Rapid restart lockout Phase reversal Phase loss Phase unbalance Ground current

Monitoring type	Time device ON Time device switch ON Number of faults Number of switching cycles Number of device power cycles Average current Iavg Average voltage Vavg Max current Imax Max voltage Vmax Active and reactive power with voltage module Active and reactive energy with voltage module True power factor with voltage module
Local signalling	for DS (device status) 1 LED (green/red) for LS (load status) 1 LED (green/red)
Standards	EN/IEC 60947-1 EN/IEC 60947-4-1 UL 60947-4-1 CSA C22.2 No 60947-4-1
Product certifications	CCC EAC UL CSA
Mounting mode	Horizontal and vertical 35 mm symmetrical DIN rail)
Connections - terminals	screw-clamp terminals 1 0.002…0.02 in² (1.5…10 mm²) AWG 16...AWG 8)rigid screw-clamp terminals 2 0.002…0.02 in² (1.5…10 mm²) AWG 16...AWG 8)rigid screw-clamp terminals 1 0.004…0.02 in² (2.5…10 mm²) AWG 14...AWG 8)flexible without cable end screw-clamp terminals 2 0.004…0.02 in² (2.5…10 mm²) AWG 14...AWG 8)flexible without cable end screw-clamp terminals 1 0.002…0.02 in² (1.5…10 mm²) AWG 16...AWG 10)flexible with cable end screw-clamp terminals 2 0.002…0.009 in² (1.5…6 mm²) AWG 16...AWG 10)flexible with cable end
Tightening torque	22.1 lbf.in (2.5 N.m) flat Ø 6 mm 22.1 lbf.in (2.5 N.m) Philips No 3
Width	1.8 in (45 mm)
Height	4.8 in (121 mm)
Depth	4.5 in (115 mm)
Net Weight	1.583 lb(US) (0.718 kg)

Environment

Ambient air temperature for storage	-13…158 °F (-25…70 °C)
Ambient air temperature for operation	14…122 °F (-10…50 °C) without derating 122…140 °F (50…60 °C) with current derating
Relative Humidity	5…95 %
Operating altitude	0...6561.68 ft (0...2000 m) without derating
IP degree of protection	IP20
Pollution degree	2
Protective treatment	TC
Fire resistance	1760 °F (960 °C) UL 94 1562 °F (850 °C) IEC 60695-2-1 1202 °F (650 °C) IEC 60695-2-12
Shock resistance	15 gn 11 ms) IEC 60068-2-27
Vibration resistance	1.5 mm peak to peak 3…13 Hz) IEC 60068-2-6 1 gn 13…200 Hz) IEC 60068-2-6

Electromagnetic compatibility	Electrostatic discharge immunity test, level 3, 8 kV air, 6 kV contact, conforming to EN/IEC 61000-4-2 Radiated RF field immunity test, level 3, 10 V/m, conforming to EN/IEC 61000-4-3 Fast transient immunity test, level 4, 4 kV, conforming to EN/IEC 61000-4-4 Surge immunity test (differential mode), level 3, 2 kV, conforming to EN/IEC 61000-4-5 Surge immunity test (common mode), level 4, 4 kV, conforming to EN/IEC 61000-4-5 Conducted RF disturbance immunity test, 20 V, conforming to EN/IEC 61000-4-6

Ordering and shipping details

Category	US10I1222352
Discount Schedule	0I12
GTIN	3606489832803
Returnability	Yes
Country of origin	MX

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	2.0 in (5.0 cm)
Package 1 Width	4.9 in (12.5 cm)
Package 1 Length	5.1 in (13.0 cm)
Package 1 Weight	27.2 oz (772.0 g)
Unit Type of Package 2	S02
Number of Units in Package 2	14
Package 2 Height	5.9 in (15.0 cm)
Package 2 Width	11.8 in (30.0 cm)
Package 2 Length	15.7 in (40.0 cm)
Package 2 Weight	24.480 lb(US) (11.104 kg)

Contractual warranty

Warranty	18 months

Sustainability

Green Premium™ label is Schneider Electric's commitment to delivering products with best-in-class environmental performance. Green Premium promises compliance with the latest regulations, transparency on environmental impacts, as well as circular and low-CO_2 products.

Guide to assessing product sustainability is a white paper that clarifies global eco-label standards and how to interpret environmental declarations.

Learn more about Green Premium >

Guide to assess a product's sustainability >

Transparency

RoHS/REACh

Well-being performance

Mercury Free	
Rohs Exemption Information	Yes

Certifications & Standards

Reach Regulation	REACh Declaration
Eu Rohs Directive	Compliant with Exemptions
China Rohs Regulation	China RoHS declaration Product out of China RoHS scope. Substance declaration for your information.
Environmental Disclosure	Product Environmental Profile
Weee	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins.
Circularity Profile	End of Life Information