Product data sheet

Specifications

Motor starter, TeSys island, 80A at AC-1, 66A at AC-3, 37kW, 40hp, DOL type

TPRST080

Main

Range	TeSys
Product Name	TeSys island
Device Short Name	TPRST
Product Or Component Type	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
Product Compatibility	TPRBC bus coupler TPRVM voltage interface module
Poles Description	3P (3 NO)
Utilisation Category	AC-1 AC-2 AC-3 AC-4 AC-3e
Motor Power Kw	18.5 kW at 230 V 50 Hz (AC-3) 37 kW at 380...415 V 50 Hz (AC-3) 37 kW at 440 V 50 Hz (AC-3) 37 kW at 500 V 50 Hz (AC-3) 37 kW at 690 V 50 Hz (AC-3)
Motor Power Hp (Ul / Csa)	5 hp at 120 V AC 60 Hz for 1 phase motors 10 hp at 240 V AC 60 Hz for 1 phase motors 20 hp at 208 V AC 60 Hz for 3 phases motors 20 hp at 240 V AC 60 Hz for 3 phases motors 40 hp at 480 V AC 60 Hz for 3 phases motors 50 hp at 600 V AC 60 Hz for 3 phases motors
[Ue] Rated Operational Voltage	<= 690 V AC 47...63 Hz
[Ie] Rated Operational Current	66 A (at <50 °C) at <= 440 V AC-3 80 A (at <50 °C) at <= 440 V AC-1
[Ith] Conventional Free Air Thermal Current	80 A (at 50 °C)
[Ui] Rated Insulation Voltage	690 V conforming to IEC 60947-4-1 600 V conforming to UL 60947-4-1 600 V conforming to CSA C22.2 No 60947-4-1
[Uimp] Rated Impulse Withstand Voltage	6 kV conforming to IEC 60947-1
Overvoltage Category	III
Thermal Protection Adjustment Range	4…80 A
Thermal Overload Class	Class 5…30

Reset	Remotely or automatically
Irms Rated Making Capacity	1000 A at 440 V conforming to IEC 60947
Rated Breaking Capacity	1000 A at 440 V conforming to IEC 60947
[Icw] Rated Short-Time Withstand Current	900 A 40 °C - 1 s 520 A 40 °C - 10 s 260 A 40 °C - 1 min 110 A 40 °C - 10 min
Average Impedance	1.5 mOhm - Ith 80 A 50 Hz
Power Dissipation Per Pole	6.5 W AC-3 9.6 W AC-1
[Uc] Control Circuit Voltage	24 V DC supplied by the bus coupler
Current Consumption	80 mA contactor sealed 500 mA contactor closing
Power Dissipation In W	21.4 W at Ie AC-3

Complementary

Mechanical Durability	6 Mcycles
Electrical Durability	0.75 Mcycles 66 A AC-3 at Ue 440 V 0.5 Mcycles 80 A AC-1 at Ue 440 V
Maximum Operating Rate	3600 cyc/mn AC-3
Operating Time	< 80 ms closing < 80 ms opening
Safety Performance Level	B10d = 1369863 cycles contactor with nominal load conforming to EN/ISO 13849-1 B10d = 20000000 cycles contactor with mechanical load conforming to EN/ISO 13849-1
Protection Type	Thermal overload protection Motor overheat Overcurrent Undercurrent Jam Long start Stall Rapid cycle lockout Rapid restart lockout Phase sequence Phase loss Phase reversal 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	1 LED (green/red) for DS (device status) 1 LED (green/red) for LS (load status)
Standards	EN/IEC 60947-1 EN/IEC 60947-4-1 UL 60947-4-1 CSA C22.2 No 60947-4-1
Product Certifications	UL CSA CCC EAC

Mounting Mode	Horizontal and vertical (35 mm symmetrical DIN rail)
Connections - Terminals	EverLink BTR screw connectors 1 cable(s) 1…35 mm² (AWG 16...AWG 2) rigid EverLink BTR screw connectors 2 cable(s) 1…25 mm² (AWG 16...AWG 4) rigid EverLink BTR screw connectors 1 cable(s) 1…35 mm² (AWG 16...AWG 2) flexible without cable end EverLink BTR screw connectors 2 cable(s) 1…25 mm² (AWG 16...AWG 4) flexible without cable end EverLink BTR screw connectors 1 cable(s) 1…35 mm² (AWG 16...AWG 2) flexible with cable end EverLink BTR screw connectors 2 cable(s) 1…25 mm² (AWG 16...AWG 4) flexible with cable end
Tightening Torque	5 N.m - cable 1…25 mm`` hexagonal 4 mm 8 N.m - cable 25…35 mm² hexagonal 4 mm
Width	55 mm
Height	167 mm
Depth	125 mm
Net Weight	1.248 kg

Environment

Ambient Air Temperature For Storage	-25…70 °C
Ambient Air Temperature For Operation	-10…50 °C without derating 50…60 °C with current derating
Relative Humidity	5…95 %
Operating Altitude	0...2000 m without derating
Ip Degree Of Protection	IP20
Pollution Degree	2
Protective Treatment	TC
Fire Resistance	960 °C conforming to UL 94 850 °C conforming to IEC 60695-2-1 650 °C conforming to IEC 60695-2-12
Shock Resistance	15 gn (duration = 11 ms) conforming to IEC 60068-2-27
Vibration Resistance	1.5 mm peak to peak (f= 3…13 Hz) conforming to IEC 60068-2-6 1 gn (f= 13…200 Hz) conforming to 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

Packing Units

Unit Type Of Package 1	PCE
Number Of Units In Package 1	1
Package 1 Height	5.0 cm
Package 1 Width	11.0 cm
Package 1 Length	13.0 cm
Package 1 Weight	1.321 kg
Unit Type Of Package 2	S02
Number Of Units In Package 2	8

Package 2 Height	15.0 cm
Package 2 Width	30.0 cm
Package 2 Length	40.0 cm
Package 2 Weight	10.875 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
Halogen Free Plastic Parts Product	

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