PRODUCT-DETAILS

PSTX170-600-70

PSTX170-600-70 Softstarter - 170 A - 208 ... 600 V AC

General Information

Global Commercial Alias	PSTX170-600-70
Extended Product Type	PSTX170-600-70
Product ID	1SFA898111R7000
ABB Type Designation	PSTX170-600-70
EAN	7320500501436
Catalog Description	PSTX170-600-70 Softstarter - 170 A - 208 ... 600 V AC
Long Description	The softstarter PSTX170-600-70 has a rated maximum operational current of 170 A with an operating voltage span from 208...600 V AC. The rated control voltage is between 100...250 V AC at 50/60 Hz. PSTX features a three-phase control soft start and stop through a voltage or a torque ramp. It has built-in bypass for easy installation and energy saving. A RUN, TOR and Event signal is available from relay outputs in NO (normally open state). The PSTX has functions such as current limit, kickstart, analog output, EOL, motor heating and pump cleaning. PSTX also features features jog, braking, stand-still brake, diagnostics, sequence start and emergency/fire pump mode as standard.To interact with PSTX, it has a detachable full graphic display with IP66 and 4x outdoor rating. There are four ways to communicate with PSTX. It can be done by hardwire inputs Start/Stop/Reset of fault, and by three programmable digital inputs. Another popular option is the built-in Fieldbus communication Modbus RTU and incl optional ANYBUS modules with every major protocol such as for example Profinet, Profibus, Modbus TCP, Ethernet IP and others. Another way to communicate with PSTX is to use an external adaptor and a Fieldbus plug. PSTX is the complete alternative for any motor starting application. It's suitable for medium to large-sized three-phase motors with nominal currents from 30...1250 A inline connection or 52...2160 A inside delta connection. Typical applications are, for example, pumps, fans, compressors, and conveyors.

Ordering

Minimum Order Quantity	1 piece
Customs Tariff Number	85371091

Popular Downloads

Data Sheet, Technical Information	1SFC132012C0201
Instructions and Manuals	1SFC132081M0201
CAD Dimensional Drawing	2CDC001079B0201
Wiring Diagram	N/A

Dimensions

Product Net Width	199 mm
Product Net Height	377 mm
Product Net Depth / Length	283 mm
Product Net Weight	8.9 kg

Technical

Rated Operational Voltage	208 ... 600 V AC
Rated Control Supply Voltage (U_S)	100 ... 250 V AC
Rated Control Circuit Voltage (U_C)	24 V DC
Rated Frequency (f)	50/60 Hz

	Main Circuit 50 / 60 Hz
Rated Operational Power - In-Line Connection (Pe)	(230 V) 45 kW (400 V) 90 kW (500 V) 110 kW
Rated Operational Current - In-Line Connection (Ie)	170 A
Rated Operational Power - Inside Delta Connection	at 230 V 90 kW at 400 V 160 kW at 500 V 200 kW
Rated Operational Current - Inside Delta Connection	300 A
Service Factor Percentage	100 %
Overload Protection	Built-in electronic overload protection
Integrated Electronic Overload	Yes
Adjustable Rated Motor Current Ie	30 ... 100 %
Starting Capacity at Maximum Rated Current Ie	4xIe for 10s
Ramp Time	1 ... 120 second [unit of time]
Initial Voltage During Start	10 ... 99 %
Step Down Voltage Special Ramp	100 ... 10 %
Current Limit Function	1.5 ... 7.5 xIe
Switch for Inside Delta Connection	Yes
Run Signal Relay	Yes
By-pass Signal Relay	Yes
Fault Signal Relay	Yes
Overload Signal Relay	Yes
Analog Outputs	0…10 V, 0…20 mA, 4…20 mA
Signal Indication Ready to Start/Standby ON (LED)	Green
Signal Indication Running R (LED)	Green
Signal Indication Protection (LED)	Yellow
Signal Indication Fault (LED)	Red
Communication	Modbus-RTU; Modbus-TCP; Ethernet-IP; EtherCAT; DeviceNet; CANopen; Profibus; Profinet; BACnet-IP; BACnet-MSTP
Degree of Protection	acc. to IEC 60529, IEC 60947-1, EN 60529 Main Terminals IP00
Terminal Type	Main Circuit: Bars
Connecting Capacity Main Circuit	Hole Diameter 8.5 mm
Connecting Capacity Control Circuit	Rigid 1 x 2.5 mm²
Connecting Capacity Supply Circuit	Rigid 1 x 2.5 mm²
Tightening Torque	Main Circuit 14 N·m
Product Main Type	PSTX170
Function	Auto phase sequence detection Automatic restart Current limit Current limit ramp

	Dual current limit Dynamic brake Electricity metering Electronic overload Time-to-cool Emergency mode Event log Full voltage start Jog with slow speed, forward and reverse Keypad password Kick start Limp mode with two-phase motor control if one set of thyristors is shorted Motor heating Pre-start function Pump cleaning Real time clock Sequence start Soft start with torque control Soft start with voltage ramp Soft stop with torque control Soft stop with voltage ramp Stand still brake Start reverse (external contactors) Thyristor runtime measurement Torque limit Voltage sags detection
Protection Function	Bypass open protection; Current imbalance protection; Current underload protection; Dual overload (separate overload for start and run); Earth fault protection / ground fault protection; Electronic overload protection, EOL; Extension IO failure protection; Fieldbus failure protection; HMI failure protection; Locked rotor protection; Max number of starts/hour; Over voltage protection; Phase reversal protection; Power factor underload protection; PT-100 connection; PTC connection; Too long current limit protection; Too long start time protection; Under voltage protection; User defined protection; Voltage imbalance protection
Warning Details	Current imbalance warning; Current underload warning; Electronic overload Time-to-trip; EOL warning; Faulty fan warning; Locked rotor warning; Motor runtime limit warning; Over voltage warning; Phase loss warning (for standby); Power factor underload warning; Short circuit warning (for Limp mode); THD(U) - Total Harmonic Distortion warning; Thyristor overload warning (SCR); Under voltage warning; Voltage imbalance warning

Technical UL/CSA

Horsepower Rating UL/CSA	(200 ... 208 V AC) Three Phase 50 Hp (220 ... 240 V AC) Three Phase 60 Hp (440 ... 480 V AC) Three Phase 125 Hp (550 ... 600 V AC) Three Phase 150 Hp
Maximum Operating Voltage UL/CSA	Main Circuit 600 V
Tightening Torque UL/CSA	Main Circuit 123.9

Environmental

Ambient Air Temperature	Operation -25 ... +60 °C Storage -40 ... +70 °C

Material Compliance

Conflict Minerals Reporting Template (CMRT)	9AKK108467A5658

REACH Declaration	2CMT2022-006481
RoHS Information	2CMT2022-006500
RoHS Status	Following EU Directive 2011/65/EU and Amendment 2015/863 July 22, 2019
Toxic Substances Control Act - TSCA	2CMT2023-006524
WEEE B2C / B2B	Business To Business
WEEE Category	5. Small Equipment (No External Dimension More Than 50 cm)

Certificates and Declarations

CQC Certificate	CN: CQC2014010304744407 / SE: CQC2014010304724379
Declaration of Conformity - CCC	CN: 2020980304001092 / SE: 2020980304001485
Declaration of Conformity - CE	2CMT005209
DNV Certificate	TAE000087N

Container Information

Package Level 1 Width	263 mm
Package Level 1 Depth / Length	323 mm
Package Level 1 Height	454 mm
Package Level 1 Gross Weight	10.4 kg
Package Level 1 EAN	7320500501436
Package Level 1 Units	box 1 piece

Classifications

Object Classification Code	Q
ETIM 7	EC000640 - Soft starter
ETIM 8	EC000640 - Soft starter
ETIM 9	EC000640 - Soft starter
eClass	V11.0 : 27370907
UNSPSC	39121521
IDEA Granular Category Code (IGCC)	4740 >> Soft starter

Categories

Drives → Softstarters → Softstarters → PSTX Softstarters → PSTX170

Low Voltage Products and Systems → Control Products → Softstarters → Softstarters → PSTX Softstarters → PSTX170