PRODUCT-DETAILS

PSTX300-600-70

PSTX300-600-70 Softstarter - 300 A - 208 ... 600 V AC



General Information

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Global Commercial Alias	PSTX300-600-70
Extended Product Type	PSTX300-600-70
Product ID	1SFA898114R7000
ABB Type Designation	PSTX300-600-70
EAN	7320500501474
Catalog Description	PSTX300-600-70 Softstarter - 300 A - 208 ... 600 V AC
Long Description	The softstarter PSTX300-600-70 has a rated maximum operational current of 300 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	258 mm
Product Net Height	470 mm
Product Net Depth / Length	279 mm
Product Net Weight	15.5 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

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	Main Circuit 50 / 60 Hz
Rated Operational Power - In-Line Connection (Pe)	(230 V) 90 kW (400 V) 160 kW (500 V) 200 kW
Rated Operational Current - In-Line Connection (Ie)	300 A
Rated Operational Power - Inside Delta Connection	at 230 V 160 kW at 400 V 257 kW at 500 V 355 kW
Rated Operational Current - Inside Delta Connection	515 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	30 ... 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 10.2 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 25 N·m
Product Main Type	PSTX300
Function	Auto phase sequence detection Automatic restart Current limit Current limit ramp

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	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 100 Hp (220 ... 240 V AC) Three Phase 100 Hp (440 ... 480 V AC) Three Phase 250 Hp (550 ... 600 V AC) Three Phase 300 Hp
Maximum Operating Voltage UL/CSA	Main Circuit 600 V
Tightening Torque UL/CSA	Main Circuit 221.3

Environmental

Ambient Air Temperature	Operation -25 ... +60 °C Storage -40 ... +70 °C
Degree of Protection	acc. to IEC 60529, IEC 60947-1, EN 60529 Main Terminals IP00

Material Compliance

Conflict Minerals Reporting Template	9AKK108467A5658

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(CMRT)	
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: CQC2014010304744408 / SE: CQC2014010304724384
Declaration of Conformity - CCC	CN: 2020980304001093 / SE: 2020980304001490
Declaration of Conformity - CE	2CMT005209
DNV Certificate	TAE000087N

Container Information

Package Level 1 Width	352 mm
Package Level 1 Depth / Length	379 mm
Package Level 1 Height	564 mm
Package Level 1 Gross Weight	18.5 kg
Package Level 1 EAN	7320500501474
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

Accessories

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Identifier	Description	Type	Quantity	Unit Of Measure
1SDA055016R1	KIT FC Cu 1x240mm2 T5 400 3pcs	KIT FC Cu 1x240mm2 T5 400 3pcs	1	piece
1SCA022194R0890	OZXB4/1 AL-CU TERMINAL 1PC	OZXB4/1	1	piece
1SDA055020R1	KIT FC CuAl 1x240mm2 T5 400 3pcs	KIT FC CuAl 1x240mm2 T5 400 3pcs	1	piece
1SFN075410R1000	LX370 Terminal Extension	LX370	1	piece
1SFN075407R1000	LW370 Terminal Extension	LW370	1	piece
1SFN125401R1000	LT370-30C Terminal Shroud	LT370-30C	1	piece
1SFN125403R1000	LT370-30L Terminal Shroud	LT370-30L	1	piece
1SFN125406R1000	LT370-30D Terminal Shroud	LT370-30D	1	piece
1SFA899314R1001	PSCA-1 USB cable	PSCA-1	1	piece
1SFA899300R1001	AB-PROFIBUS-1 Communication Module	AB-PROFIBUS-1	1	piece
1SFA899300R1002	AB-DEVICENET-1 Communication Module	AB-DEVICENET-1	1	piece
1SFA899300R1003	AB-MODBUS-RTU-1 Communication Module	AB-MODBUS-RTU-1	1	piece
1SFA899300R1006	AB-ETHERNET-IP-2 Communication Module	AB-ETHERNET-IP-2	1	piece
1SFA899300R1008	AB-MODBUS-TCP-2 Communication Module	AB-MODBUS-TCP-2	1	piece
1SFA899300R1010	AB-PROFINET-IO-2 Communication Module	AB-PROFINET-IO-2	1	piece
1SFA899300R1011	AB-BACNET-MSTP-1 Communication Module	AB-BACNET-MSTP-1	1	piece
1SFA899300R1012	AB-ETHERCAT-IP-2 Communication Module	AB-ETHERCAT-IP-2	1	piece
1SAJ611000R0101	DX111-FBP.0 IO-Module for UMC100 DI 24 VDC, supply 24VDC	DX111-FBP.0	1	piece
1SAJ622000R0101	DX122-FBP.0 IO-Module for UMC100 DI 110/230VAC, supply 24VDC	DX122-FBP.0	1	piece
1SFA896312R1002	PS-FBPA Fieldbus plug kit	PS-FBPA	1	piece

Categories

Drives → Softstarters → Softstarters → PSTX Softstarters → PSTX300

Low Voltage Products and Systems → Control Products → Softstarters → Softstarters → PSTX Softstarters → PSTX300

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