# GE Service Manual

PSTX250-600-70

## 1. Description

General Information

## 3. Product Information

General Information

Global Commercial Alias:

PSTX250-600-70

Extended Product Type:

PSTX250-600-70

Product ID:

1SFA898113R7000

ABB Type Designation:

PSTX250-600-70

EAN:

7320500501542

Catalog Description:

PSTX250-600-70 Softstarter - 250 A - 208 ... 600 V AC

Long Description:

The softstarter PSTX250-600-70 has a rated maximum operational current of 250 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:

Softstarter main catalog

Instructions and Manuals:

PSTX quick start guide

Instructions and Manuals (Part 2):

PSTX - Installation and commissioning manual

Instructions and Manuals (Part 3):

Softstarter Handbook

CAD Dimensional Drawing:

Information - 2D and 3D files for CAD systems

EPLAN Data:

EPLAN EDZ PSTX250

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 (Us):

100 ... 250 V AC

Rated Control Circuit Voltage (Uc):

24 V DC

Rated Frequency (f):

50/60 Hz

Main Circuit 50 / 60 Hz

Rated Operational Power - In-Line Connection (Pe):

(230 V) 75 kW

(400 V) 132 kW

(500 V) 160 kW

Rated Operational Current - In-Line Connection (Ie):

250 A

Rated Operational Power - Inside Delta Connection:

at 230 V 132 kW

at 400 V 220 kW

at 500 V 295 kW

Rated Operational Current - Inside Delta Connection:

430 A

Service Factor Percentage:

100 %

Overload Protection:

Built-in electronic overload protection

Integrated Electronic Overload:

Yes

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 10.2 mm

Connecting Capacity Control Circuit:

Rigid 1 x 2.5 mm²

Connecting Capacity Supply Circuit:

Rigid 1 x 2.5

Tightening Torque:

Main Circuit 25 N·m

Product Main Type:

PSTX250

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 75 Hp

(220 ... 240 V AC) Three Phase 100 Hp

(440 ... 480 V AC) Three Phase 200 Hp

(550 ... 600 V AC) Three Phase 250 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

Material Compliance

Conflict Minerals Reporting Template (CMRT):

CMRT - Conflict Minerals Reporting Template

REACH Declaration:

REACh Declaration for all Softstarters

RoHS Declaration:

RoHS II Declaration for all Softstarters

RoHS Information:

Following EU Directive 2011/65/EU and Amendment 2015/863 July 22, 2019

Toxic Substances Control Act - TSCA:

Toxic Substances Control Act (TSCA) declaration for Softstarters

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:

CE Declaration of Conformity - Softstarters - PSTX30...PSTX1250

DNV Certificate:

DNV Certificate, PSTX30...PSTX1250

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:

7320500501542

Package Level 1 Units:

box 1 piece

External Classifications and Standards

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