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PRODUCT-DETAILS

# PSTX72-600-70

# PSTX72-600-70 Softstarter - 72 A - 208 ... 600 V AC



**General Information** 

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| Catalog Description     | PSTX72-600-70 Softstarter - 72 A - 208 600 V AC |
|-------------------------|---|
| EAN                     | 7320500501405                                   |
| ABB Type Designation    | PSTX72-600-70                                   |
| Product ID              | 1SFA898107R7000                                 |
| Extended Product Type   | PSTX72-600-70                                   |
| Global Commercial Alias | PSTX72-600-70                                   |

The softstarter PSTX72-600-70 has a rated maximum operational current of 72 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.

#### Long Description

#### Ordering

| Minimum Order Quantity | 1 piece  |
|------------------------|----------|
| Customs Tariff Number  | 85371091 |

#### **Popular Downloads**

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

#### **Dimensions**

| Product Net Width   | 150 mm |
|---------------------|--------|
| Product Net Height  | 314 mm |
| Product Net Depth / | 198 mm |
| Length              |        |
| Product Net Weight  | 4.7 kg |

#### **Technical**

| Rated Operational<br>Voltage                       | 208 600 V AC |
|--|--------------|
| Rated Control Supply Voltage $(U_s)$               | 100 250 V AC |
| Rated Control Circuit<br>Voltage (U <sub>c</sub> ) | 24 V DC      |
| Rated Frequency (f)                                | 50/60 Hz     |

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|   | Main Circuit 50 / 60 Hz  |
|---|--|
| Rated Operational Power<br>- In-Line Connection (Pe)            | (230 V) 18.5 kW<br>(400 V) 37 kW<br>(500 V) 45 kW  |
| Rated Operational Current - In-Line Connection (le)             | 72 A   |
| Rated Operational Power<br>- Inside Delta                       | at 230 V 37 kW<br>at 400 V 59 kW   |
| Connection  Rated Operational Current - Inside Delta Connection | at 500 V 80 kW 124 A   |
| Service Factor<br>Percentage                                    | 100 %  |
| Overload Protection   | Built-in electronic overload protection  |
| Integrated Electronic<br>Overload                               | Yes  |
| Adjustable Rated Motor<br>Current le                            | 30 100 %   |
| Starting Capacity at<br>Maximum Rated Current<br>Ie             | 4xle for 10s   |
| Ramp Time   | 1 120 second [unit of time]  |
| Initial Voltage During<br>Start                                 | 10 99 %  |
| Step Down Voltage<br>Special Ramp                               | 100 10 %   |
| Current Limit Function  | 1.5 7.5 xle  |
| Switch for Inside Delta<br>Connection                           | Yes  |
| Run Signal Relay  | Yes  |
| By-pass Signal Relay  | Yes  |
| Fault Signal Relay  | Yes  |
| Overload Signal Relay  Analog Outputs                           | Yes<br>010 V, 020 mA, 420 mA   |
| Signal Indication Ready<br>to Start/Standby ON<br>(LED)         | Green  |
| Signal Indication Running R (LED)                               | Green  |
| Signal Indication<br>Protection (LED)                           | Yellow   |
| Signal Indication Fault<br>(LED)                                | Red  |
| Communication   | Modbus-RTU; Modbus-TCP; Ethernet-IP; EtherCAT; DeviceNet; CANopen;<br>Profibus; Profinet; BACnet-IP; BACnet-MSTP |
| Degree of Protection  | IP00   |
| Terminal Type   | Cable Clamp  |
| Connecting Capacity<br>Main Circuit                             | Hole Diameter 8.5 mm   |
| Connecting Capacity<br>Control Circuit                          | Rigid 1 x 2.5 mm <sup>2</sup>  |
| Connecting Capacity<br>Supply Circuit                           | Rigid 1 x 2.5 mm <sup>2</sup>  |
| Tightening Torque   | Main Circuit 8 N·m   |
| Product Main Type   | PSTX72   |
| Function  | Auto phase sequence detection<br>Automatic restart<br>Current limit  |
|   | Current limit<br>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 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 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 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

| Technical UL/CSA                 |                    |
|----------------------------------|--------------------|
| Maximum Operating Voltage UL/CSA | Main Circuit 600 V |
| Tightening Torque<br>UL/CSA      | Main Circuit 70.8  |

| Environmental        |                      |
|----------------------|----------------------|
| Ambient Air          | Operation -25 +60 °C |
| Temperature          | Storage -40 +70 °C   |
| Degree of Protection | IP00                 |

| Material Compliance                         |                 |
|---|-----------------|
| Conflict Minerals Reporting Template (CMRT) | 9AKK108467A5658 |
| REACH Declaration                           | 2CMT2022-006481 |
| RoHS Information                            | 2CMT2022-006500 |

**Protection Function** 

Warning Details

imbalance warning

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| RoHS Status                            | Following EU Directive 2011/65/EU and Amendment 2015/863 July 22, 2019 |
|--|--|
| SCIP                                   | ac10f14a-1b4e-426d-af4a-2e5fd406051c Sweden (SE)                       |
| Toxic Substances<br>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: CQC2014010304744405 / SE: CQC2014010304724380 |
| Declaration of<br>Conformity - CCC | CN: 2020980304001091 / SE: 2020980304001489       |
| Declaration of<br>Conformity - CE  | 2CMT005209  |

| Container Information             |               |
|-----------------------------------|---------------|
| Package Level 1 Width             | 200 mm        |
| Package Level 1 Depth /<br>Length | 282 mm        |
| Package Level 1 Height            | 388 mm        |
| Package Level 1 Gross<br>Weight   | 5.7 kg        |
| Package Level 1 EAN               | 7320500501405 |
| Package Level 1 Units             | box 1 piece   |

| Classifications                       |                         |  |  |  |
|---------------------------------------|-------------------------|--|--|--|
| Object Classification<br>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<br>Code (IGCC) | 4740 >> Soft starter    |  |  |  |

### Accessories

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| Identifier      | Description   | Type Quantity        |   | Unit Of<br>Measure |
|-----------------|---|----------------------|---|--------------------|
| 1SFN074307R1000 | LW110 Terminal Enlargement                                      | LW110                | 1 | piece              |
| 1SFA899314R1001 | PSCA-1 USB cable  | PSCA-1               | 1 | piece              |
| 1SFA899300R1001 | AB-PROFIBUS-1 Communication Module                              | AB-PROFIBUS-<br>1    | 1 | piece              |
| 1SFA899300R1002 | AB-DEVICENET-1 Communication Module                             | AB-<br>DEVICENET-1   | 1 | piece              |
| 1SFA899300R1003 | AB-MODBUS-RTU-1 Communication Module                            | AB-MODBUS-<br>RTU-1  | 1 | piece              |
| 1SFA899300R1006 | AB-ETHERNET-IP-2 Communication Module                           | AB-ETHERNET<br>-IP-2 | 1 | piece              |
| 1SFA899300R1008 | AB-MODBUS-TCP-2 Communication Module                            | AB-MODBUS-<br>TCP-2  | 1 | piece              |
| 1SFA899300R1010 | AB-PROFINET-IO-2 Communication Module                           | AB-PROFINET-<br>IO-2 | 1 | piece              |
| 1SFA899300R1011 | AB-BACNET-MSTP-1 Communication Module                           | AB-BACNET-<br>MSTP-1 | 1 | piece              |
| 1SFA899300R1012 | AB-ETHERCAT-IP-2 Communication Module                           | AB-ETHERCAT<br>-IP-2 | 1 | piece              |
| 1SAJ611000R0101 | DX111-FBP.0 IO-Module for UMC100 DI 24 VDC,<br>supply 24VDC     | DX111-FBP.0          | 1 | piece              |
| 1SAJ622000R0101 | DX122-FBP.0 IO-Module for UMC100 DI<br>110/230VAC, supply 24VDC | DX122-FBP.0          | 1 | piece              |
| 1SFA896312R1002 | PS-FBPA Fieldbus plug kit                                       | PS-FBPA              | 1 | piece              |

## Categories

 $Drives \rightarrow Softstarters \rightarrow PSTX \ Softstarters \rightarrow PSTX72 \\ Low \ Voltage \ Products \ and \ Systems \rightarrow Control \ Products \rightarrow Softstarters \rightarrow PSTX \ Softstarters \rightarrow PSTX72$ 





