**ABB**

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PRODUCT-DETAILS

# PSE18-600-70

# PSE18-600-70 Softstarter - 18 A - 208 … 600 V AC



## General Information

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|---|---|
| Global Commercial Alias | PSE18-600-70 |
| Extended Product Type | PSE18-600-70 |
| Product ID | 1SFA897101R7000 |
| ABB Type Designation | PSE18-600-70 |
| EAN | 7320500400593 |
| Catalog Description | PSE18-600-70 Softstarter - 18 A - 208 … 600 V AC |
| Long Description | The softstarter PSE18-600-70 has a rated maximum operational current of 18 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. PSE features a two-phase control with a 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 a relay output in NO (normally open state). The PSE has functions such as current limit, kickstart, analog output, EOL, underload, and locked rotor protection. To interact with PSE, it has an Illuminated display that uses symbols to become language neutral. As an option, you can add an identical external keypad with a rating of IP66. There are three ways to communicate with PSE. It can be done by hardwire inputs Start/Stop or by Reset of fault. Another popular option is the built-in fieldbus communication Modbus RTU. You can also use an external adaptor and a Fieldbus plug. PSE is a true general pur�──pose softstarter. It's a perfect balance be�──tween high starting capacity and cost effi⏪ciency. Very suitable for small to medium-sized three-phase motors with nominal currents from 18…370 A. Typical applications are, for example, pumps, fans, compressors, and conveyors. |

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## Ordering

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

## Popular Downloads

| | |
|---|---|
| Data Sheet, Technical Information | 1SFC132012C0201 |
| Instructions and Manuals | 1SFC132057M0201 |
| CAD Dimensional Drawing | 2CDC001079B0201 |
| Wiring Diagram | N/A |

## Dimensions

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|---|---|
| Product Net Width | 90 mm |
| Product Net Height | 245 mm |
| Product Net Depth / Length | 184 mm |
| Product Net Weight | 2.5 kg |

## Technical

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|---|---|
| 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<br>Main Circuit 50 / 60 Hz |
| Rated Operational Power - In-Line Connection (Pe) | (230 V) 4 kW<br>(400 V) 7.5 kW<br>(500 V) 11 kW |
| Rated Operational Current - In-Line Connection (Ie) | 18 A |
| Service Factor Percentage | 100 % |
| Overload Protection | Build-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 | 0 ... 30 second [unit of time]<br>1 ... 30 second [unit of time] |
| Initial Voltage During Start | 30 ... 70 % |
| Step Down Voltage Special Ramp | No % |
| Current Limit Function | 1.5 ... 7xIe |

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| | |
|---|---|
| Switch for Inside Delta Connection | No |
| Run Signal Relay | Yes |
| By-pass Signal Relay | Yes |
| Fault Signal Relay | Yes |
| Overload Signal Relay | Yes |
| Analog Outputs | 4…20 mA |
| Signal Indication Completed Start Ramp (LED) | Green |
| Signal Indication Ready to Start/Standby ON (LED) | Green |
| Signal Indication Running R (LED) | Green |
| Signal Indication Ramping Up/Down (LED) | Green |
| Signal Indication Protection (LED) | Yellow |
| Signal Indication Fault (LED) | Red |
| Number of Starts Per Hour at 3.5*Ie for 7 sec. 50% ON Time 50% OFF Time | 10 |
| Communication | Modbus-RTU |
| Degree of Protection | acc. to IEC 60529, IEC 60947-1, EN 60529 Main Terminals IP00 |
| Terminal Type | Screw Terminals |
| Connecting Capacity Main Circuit | Hole Diameter 8.5 mm<br>Rigid 1/2 x 2.5 … 70 mm²<br>Width and Thickness 17.5x5 mm |
| Connecting Capacity Control Circuit | Rigid 1 x 2.5 mm²<br>Rigid 2 x 1.5 mm² |
| Connecting Capacity Supply Circuit | Rigid 1 x 2.5 mm² |
| Tightening Torque | Control Circuit 0.5 N·m<br>Main Circuit 9 N·m<br>Supply Circuit 0.5 N·m |
| Product Main Type | PSE18 |
| Function | Soft start with torque control<br>Soft start with voltage ramp<br>Soft stop with torque control<br>Soft stop with voltage ramp<br>Kick start<br>Sequence start<br>Current limit<br>Start reverse (external contactors)<br>Automatic restart<br>Event log |
| Protection Function | Electronic overload protection, EOL; Locked rotor protection; Current underload protection |

## Technical UL/CSA

| | |
|---|---|
| Horsepower Rating UL/CSA | (200 … 208 V AC) Three Phase 5 Hp<br>(220 … 240 V AC) Three Phase 5 Hp<br>(440 … 480 V AC) Three Phase 10 Hp<br>(550 … 600 V AC) Three Phase 15 Hp |
| Maximum Operating Voltage UL/CSA | Main Circuit 600 V |

| Tightening Torque | Control Circuit 4.4 in·lb |
|---|---|
| UL/CSA | Main Circuit 79.7 |
| | Supply Circuit 4.4 in·lb |

## Environmental

| Ambient Air | Operation -25 ... +60 °C |
|---|---|
| Temperature | 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 | CQC2011010304468093 |
|---|---|
| Declaration of Conformity - CCC | 2020980304001546 |
| Declaration of Conformity - CE | 2CMT2015-005447 |
| DNV Certificate | 1SFC132383M0001 | TAE0000342 |

## Container Information

| Package Level 1 Width | 178 mm |
|---|---|
| Package Level 1 Depth / Length | 257 mm |
| Package Level 1 Height | 288 mm |
| Package Level 1 Gross Weight | 3.2 kg |
| Package Level 1 EAN | 7320500400593 |
| 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 |

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## Accessories

| Identifier | Description | Type | Quantity | Unit Of Measure |
|---|---|---|---|---|
| 1SFN074307R1000 | LW110 Terminal Enlargement | LW110 | 1 | piece |
| 1SFN124203R1000 | LT140-30L Terminal Shroud | LT140-30L | 1 | piece |
| 1SFA897100R1001 | PSEEK EXTERNAL KEYPAD | PSEEK | 1 | piece |
| 1SFA897201R1001 | PSECA USB cable | PSECA | 1 | piece |
| 1SFA896312R1002 | PS-FBPA Fieldbus plug kit | PS-FBPA | 1 | piece |
| 1SFA899300R1020 | PS-MBIA Communication Module | PS-MBIA | 1 | piece |

## Categories

Drives → Softstarters → Softstarters → PSE Softstarters → PSE18

Low Voltage Products and Systems → Control Products → Softstarters → Softstarters → PSE Softstarters → PSE18