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**PRODUCT-DETAILS** 

## PSE250-600-70-1

## PSE250-600-70-1 Softstarter - 250 A - 208 ... 600 V AC



| General Information     |  |
|-------------------------|--|
| Global Commercial Alias | PSE250-600-70-1                                    |
| Extended Product Type   | PSE250-600-70-1                                    |
| Product ID              | 1SFA897113R7001                                    |
| ABB Type Designation    | PSE250-600-70-1                                    |
| EAN                     | 7320500515037                                      |
| Catalog Description     | PSE250-600-70-1 Softstarter - 250 A - 208 600 V AC |

Long Description

The softstarter PSE250-600-70-1 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. 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 purlipose softstarter. It's a perfect balance belltween high starting capacity and cost effiliciency. 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               |          |
|------------------------|----------|
| Minimum Order Quantity | 1 piece  |
| Customs Tariff Number  | 85371091 |

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

| Dimensions                 |         |
|----------------------------|---------|
| Product Net Width          | 190 mm  |
| Product Net Height         | 435 mm  |
| Product Net Depth / Length | 237 mm  |
| Product Net Weight         | 10.6 kg |

| Technical   |  |
|---|--|
| Rated Operational<br>Voltage                              | 208 600 V AC   |
| Rated Control Supply<br>Voltage (U <sub>s</sub> )         | 100 250 V AC   |
| Rated Control Circuit<br>Voltage (U <sub>c</sub> )        | 24 V DC  |
| Rated Frequency (f)                                       | 50/60 Hz<br>Main Circuit 50 / 60 Hz                      |
| Rated Operational Power<br>- In-Line Connection (Pe)      | (230 V) 75 kW<br>(400 V) 132 kW<br>(500 V) 160 kW        |
| Rated Operational<br>Current - In-Line<br>Connection (le) | 250 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>le       | 4xle for 10s   |
| Ramp Time   | 0 30 second [unit of time]<br>1 30 second [unit of time] |
| Initial Voltage During<br>Start                           | 30 70 %  |
| Step Down Voltage<br>Special Ramp                         | No %   |
| Current Limit Function                                    | 1.5 7xle   |

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| Switch for Inside Delta<br>Connection  | No   |
|--|--|
| Run Signal Relay   | Yes  |
| By-pass Signal Relay   | Yes  |
| Fault Signal Relay   | Yes  |
| Overload Signal Relay  | Yes  |
| Analog Outputs   | 420 mA   |
| Signal Indication Completed Start Ramp (LED)                                     | Green  |
| Signal Indication Ready<br>to Start/Standby ON<br>(LED)                          | Green  |
| Signal Indication<br>Running R (LED)   | Green  |
| Signal Indication<br>Ramping Up/Down<br>(LED)                                    | Green  |
| Signal Indication<br>Protection (LED)  | Yellow   |
| Signal Indication Fault<br>(LED)   | Red  |
| Number of Starts Per<br>Hour at 3.5*le for 7 sec.<br>50% ON Time 50% OFF<br>Time | 10   |
| Communication  | Modbus-RTU   |
| Degree of Protection   | IP00   |
| Terminal Type  | Main Circuit: Bars   |
| Connecting Capacity<br>Main Circuit  | Hole Diameter 8.5 mm Rigid $1/2 \times 2.5 \dots 70 \text{ mm}^2$ 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 28 N·m<br>Supply Circuit 0.5 N·m   |
| Product Main Type  | PSE250   |
| Function   | Soft start with torque control<br>Soft start with voltage ramp<br>Soft stop with torque control<br>Soft stop with voltage ramp |
|  | Kick start Sequence start Current limit  |
|  | 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                    |   |
|-------------------------------------|---|
| Maximum Operating<br>Voltage UL/CSA | Main Circuit 600 V  |
| Tightening Torque<br>UL/CSA         | Control Circuit 4.4 in·lb<br>Main Circuit 247.8<br>Supply Circuit 4.4 in·lb |

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

| Material Compliance                               |  |
|---|--|
| Conflict Minerals<br>Reporting Template<br>(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<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                    | CQC2018010304109915 |
| Declaration of<br>Conformity - CCC | 2020980304001510    |
| Declaration of<br>Conformity - CE  | 2CMT2015-005447     |

| Container Information           |               |
|---------------------------------|---------------|
| Package Level 1 Width           | 261 mm        |
| Package Level 1 Depth / Length  | 325 mm        |
| Package Level 1 Height          | 510 mm        |
| Package Level 1 Gross<br>Weight | 13.3 kg       |
| Package Level 1 EAN             | 7320500515037 |
| 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 G  |   | Quantity | Unit Of<br>Measure |
|-----------------|---|---|----------|--------------------|
| 1SDA055016R1    | KIT FC Cu 1x240mm2 T5 400 3pcs 1  | KIT FC Cu<br>KIT FC Cu 1x240mm2 T5 400 3pcs 1x240mm2 T5<br>400 3pcs |          | piece              |
| 1SDA055020R1    | KIT FC CuAl<br>KIT FC CuAl 1x240mm2 T5 400 3pcs 1x240mm2 T5<br>400 3pcs |   | 1        | piece              |
| 1SFN075107R1000 | LW300 Terminal Enlargement  | LW300   | 1        | piece              |
| 1SFA899221R1003 | PSLE-300 TERMINAL KIT   | PSLE-300  | 1        | piece              |
| 1SFN075410R1000 | LX370 Terminal Extension  | LX370   | 1        | piece              |
| 1SFN125101R1000 | LT300-AC Terminal Shroud  | LT300-AC  | 1        | piece              |
| 1SFN125103R1000 | LT300-AL Terminal Shroud  | LT300-AL  | 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              |
| 1SFA899222R1003 | LXR370 Terminal Enlargement   | LXR370  | 1        | piece              |
| 1SFA899300R1020 | PS-MBIA Communication Module  | PS-MBIA   | 1        | piece              |

## Categories

 $\mathsf{Drives} \to \mathsf{Softstarters} \to \mathsf{Softstarters} \to \mathsf{PSE} \, \mathsf{Softstarters} \to \mathsf{PSE250}$ 

 $Low\ Voltage\ Products\ and\ Systems \rightarrow Control\ Products \rightarrow Softstarters \rightarrow Softstarters \rightarrow PSE\ Softstarters \rightarrow PSE250$ 





