



CITROEN SWITCHGEARS PVT. LTD.

**AUTHORIZED DISTRIBUTORS AND CHANNEL PARTNER**

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# Electrification Products Price List (₹)

Power and productivity  
for a better world™



# Softstarters

## ABB softstarters - The complete range

ABB offers four different ranges of softstarters to cover every customer need for solutions for motor sizes up to 1800 A. This page describes the main characteristics of the different softstarter ranges

### PSR - The compact range

The PSR softstarter is the most compact of all the softstarter ranges, thereby making it possible to design compact starting equipments. The system concept with Manual Motor Starters and the PSR provides a far more compact starting solution than for instance a star delta starter.

Built-in by-pass reduces the energy loss and makes the connection easier and with only three potentiometers, the set-up couldn't be any easier. Still, the optimized ramping characteristics will ensure a very smooth start and stop for all applications.

### PSE - The efficient range

The PSE softstarter is the world's first compact softstarter with both built-in electronic overload for motor protection and torque control for an excellent control of pumps. The compact design with the most important functionality integrated provides a very efficient starting solution.

The illuminated language neutral display and the four button keypad make it easy to take advantage of all the advanced functionality in the softstarter. The display will also provide all the necessary information both during

### PSTX - The advanced range

The PSTX softstarter is the most advanced softstarter in the range with almost all imaginable functionality included. All the advanced protections for the motor, the softstarter and the load ensure a trouble free operation. Pre-warnings even allow problems to be detected before the motor needs to be stopped

The torque control function has been developed and tested together with well known pump manufacturers to ensure the absolutely best possible stop of pumps without water hammering and pressure surges. and there by avoiding unnecessary downtime.

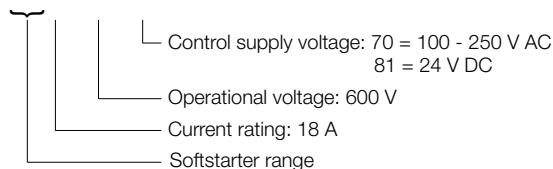


The PSTX combines many years of research and product development with extensive knowledge of application specific requirements and needs.

It is our latest advancement in motor control and protection and adds new functionality and increased reliability.

- Three-phase controlled
- Operational voltage: 208 – 690 VAC
- Wide rated control supply voltage: 100 – 250 V, 50/60 Hz
- PSTX rated operational current: 30 to 1250 A (inside-delta: 2160 A)
- Both in-line and inside-delta connection
- Coated circuit boards protecting from dust, moist and corrosive atmosphere
- Detachable keypad rated IP66 (Type 1, 4X,12)
- Graphical display with 14 languages for easy setup and operation
- Built-in bypass for energy saving and easy installation
- Built-in Modbus RTU for monitoring and control
- Support for all major communication protocols
- Analog output for measurement of current, voltage, power factor etc.

#### PSR18 - 600 -70



| PSR | PSE | PSTX | * Standard, O Optional, - Not available        |
|-----|-----|------|------------------------------------------------|
| *   | *   | *    | Built-in by-pass 1) on PSTB                    |
| -   | -   | *    | Inside delta connection                        |
| -   | *   | *    | Coated PCBs                                    |
| -   | *   | *    | Display and keypad,                            |
| -   | *   | *    | Torque control / Pump control                  |
| -   | *   | *    | Settable current limit function                |
| -   | *   | *    | Electronic motor overload protection           |
| -   | -   | *    | PTC input for motor protection                 |
| -   | -   | *    | Phase imbalance protection                     |
| -   | -   | *    | Phase reversal protection                      |
| -   | *   | *    | Locked rotor protection                        |
| -   | *   | *    | Thyristor overtemperature protection           |
| -   | *   | *    | Underload protection                           |
| -   | -   | *    | UV/OV protection                               |
| -   | -   | *    | Programmable warning functions                 |
| -   | *   | *    | Analog output                                  |
| O   | O   | * 1) | FieldBus communication, 1) built in Modbus-RTU |
| -   | O   | *    | Event log                                      |
| -   | O   | * 1) | External keypad 1) detachable key pad          |
| -   | -   | *    | Motor heating                                  |
| -   | -   | *    | Pump cleaning                                  |
| -   | -   | *    | limp mode                                      |
| -   | -   | *    | Network Diagnostics                            |

## Quick guide for selection



Normal start Class 10

Heavy duty start class 30

### Typical applications

- |                |                         |                   |                        |
|----------------|-------------------------|-------------------|------------------------|
| • Bow thruster | • Centrifugal pump      | • Centrifugal fan | • Conveyor belt (long) |
| • Compressor   | • Conveyor belt (short) | • Crusher         | • Mill                 |
| • Elevator     | • Escalator             | • Mixer           | • Stirrer              |

**!** If more than 10 starts/h  
Select one size larger than the standard selection

## PSR - The compact and cost effective solution integrated bypass

PSR3 ... PSR105

Rated operational voltage  $U_e$ , 208-600 V AC

Rated control supply voltage,  $U_s$ , 100 - 240 V AC



| 415V $P_e$<br>kW" | IEC<br>Max rated<br>operational $I_e$ A | Type          | Order Code      | L.P.(₹) |
|-------------------|-----------------------------------------|---------------|-----------------|---------|
| 1.5               | 3.9                                     | PSR3-600-70   | 1SFA896103R7000 | 8,860   |
| 3                 | 6.8                                     | PSR6-600-70   | 1SFA896104R7000 | 9,700   |
| 4                 | 9                                       | PSR9-600-70   | 1SFA896105R7000 | 11,580  |
| 5.5               | 12                                      | PSR12-600-70  | 1SFA896106R7000 | 14,200  |
| 7.5               | 16                                      | PSR16-600-70  | 1SFA896107R7000 | 16,000  |
| 11                | 25                                      | PSR25-600-70  | 1SFA896108R7000 | 18,350  |
| 15                | 30                                      | PSR30-600-70  | 1SFA896109R7000 | 25,250  |
| 18.5              | 37                                      | PSR37-600-70  | 1SFA896110R7000 | 30,400  |
| 22                | 45                                      | PSR45-600-70  | 1SFA896111R7000 | 32,900  |
| 30                | 60                                      | PSR60-600-70  | 1SFA896112R7000 | 45,900  |
| 37                | 72                                      | PSR72-600-70  | 1SFA896113R7000 | 56,950  |
| 45                | 85                                      | PSR85-600-70  | 1SFA896114R7000 | 63,900  |
| 55                | 105                                     | PSR105-600-70 | 1SFA896115R7000 | 70,050  |

For Rated control supply voltage,  $U_s$ , 24 V Dc replace R7000 by R8100

## PSE - The efficient range with integrated bypass

Normal Starts , Class 10, In-Line



| 415V $P_e$<br>kW | IEC<br>Max rated<br>operational $I_e$ A | Type          | Order Code      | L.P.(₹)  |
|------------------|-----------------------------------------|---------------|-----------------|----------|
| 7.5              | 18                                      | PSE18-600-70  | 1SFA897101R7000 | 37,600   |
| 11               | 25                                      | PSE25-600-70  | 1SFA897102R7000 | 37,800   |
| 15               | 30                                      | PSE30-600-70  | 1SFA897103R7000 | 40,100   |
| 18.5             | 37                                      | PSE37-600-70  | 1SFA897104R7000 | 46,000   |
| 22               | 45                                      | PSE45-600-70  | 1SFA897105R7000 | 52,550   |
| 30               | 60                                      | PSE60-600-70  | 1SFA897106R7000 | 61,300   |
| 37               | 72                                      | PSE72-600-70  | 1SFA897107R7000 | 70,050   |
| 45               | 85                                      | PSE85-600-70  | 1SFA897108R7000 | 78,800   |
| 55               | 106                                     | PSE105-600-70 | 1SFA897109R7000 | 80,600   |
| 75               | 143                                     | PSE142-600-70 | 1SFA897110R7000 | 1,13,300 |
| 90               | 171                                     | PSE170-600-70 | 1SFA897111R7000 | 1,23,600 |
| 110              | 210                                     | PSE210-600-70 | 1SFA897112R7000 | 1,33,900 |
| 132              | 250                                     | PSE250-600-70 | 1SFA897113R7000 | 1,49,350 |
| 160              | 300                                     | PSE300-600-70 | 1SFA897114R7000 | 1,62,750 |
| 200              | 370                                     | PSE370-600-70 | 1SFA897115R7000 | 1,75,100 |

For accessories consult



# Softstarters

## PSTX30 ... PSTX370 – The advanced range Normal starts, class 10, in-line, ordering details

### Three-phase controlled

- Operational voltage: 208 – 690 VAC
- Wide rated control supply voltage: 100 – 250 V, 50/60 Hz
- PSTX rated operational current: 30 to 370 A (inside-delta: 640 A)
- Both in-line and inside-delta connection
- Coated circuit boards protecting from dust, moist and corrosive atmosphere
- Detachable keypad rated IP66 (Type 1, 4X,12)
- Graphical display for easy setup and operation
- Built-in bypass for energy saving
- Built-in Modbus RTU for monitoring and control
- Support for all major communication protocols
- Analog output for measurement of current, voltage, power factor etc.

### Application

- Bow thruster
- Centrifugal pump
- Compressor
- Conveyor belt (short)
- Elevator



PSTX142 ... PSTX170

Rated operational voltage  $U_e$ , 208-600 V  
Rated control supply voltage  $U_s$ , 100-250 V AC, 50/60 Hz



| 415V Pe<br>kW | IEC<br>Max rated operational<br>I <sub>e</sub> A | Type*)          | Order code**)   | L.P.(₹)      |
|---------------|--------------------------------------------------|-----------------|-----------------|--------------|
| 15            | 30                                               | PSTX30-600-70   | 1SFA898103R7000 | Upon request |
| 18.5          | 37                                               | PSTX37-600-70   | 1SFA898104R7000 |              |
| 22            | 45                                               | PSTX45-600-70   | 1SFA898105R7000 |              |
| 30            | 60                                               | PSTX60-600-70   | 1SFA898106R7000 |              |
| 37            | 72                                               | PSTX72-600-70   | 1SFA898107R7000 |              |
| 45            | 85                                               | PSTX85-600-70   | 1SFA898108R7000 |              |
| 55            | 106                                              | PSTX105-600-70  | 1SFA898109R7000 |              |
| 75            | 143                                              | PSTX142-600-70  | 1SFA898110R7000 |              |
| 90            | 171                                              | PSTX170-600-70  | 1SFA898111R7000 |              |
| 110           | 210                                              | PSTX210-600-70  | 1SFA898112R7000 |              |
| 132           | 250                                              | PSTX250-600-70  | 1SFA898113R7000 |              |
| 160           | 300                                              | PSTX300-600-70  | 1SFA898114R7000 |              |
| 200           | 370                                              | PSTX370-600-70  | 1SFA898115R7000 |              |
| 250           | 470                                              | PSTX470-600-70  | 1SFA898116R7000 |              |
| 315           | 570                                              | PSTX570-600-70  | 1SFA898117R7000 |              |
| 400           | 720                                              | PSTX720-600-70  | 1SFA898118R7000 |              |
| 450           | 840                                              | PSTX840-600-70  | 1SFA898119R7000 |              |
| 560           | 1050                                             | PSTX1050-600-70 | 1SFA898120R7000 |              |
| 710           | 1200                                             | PSTX1250-600-70 | 1SFA898121R7000 |              |

# Softstarters

Rated operational voltage  $U_e$ , 208-690 V  
Rated control supply voltage  $U_s$ , 100-250 V AC, 50/60 Hz



1



PSTX142 ... PSTX170



PSTX210 ... PSTX370

| 690V Pe<br>kW | IEC<br>Max rated operational<br>Ie A | Type*)          | Order code**)   | L.P.(₹)      |
|---------------|--------------------------------------|-----------------|-----------------|--------------|
| 25            | 30                                   | PSTX30-690-70   | 1SFA898203R7000 | Upon request |
| 30            | 37                                   | PSTX37-690-70   | 1SFA898204R7000 |              |
| 37            | 44                                   | PSTX45-690-70   | 1SFA898205R7000 |              |
| 55            | 60                                   | PSTX60-690-70   | 1SFA898206R7000 |              |
| 59            | 72                                   | PSTX72-690-70   | 1SFA898207R7000 |              |
| 75            | 85                                   | PSTX85-690-70   | 1SFA898208R7000 |              |
| 90            | 106                                  | PSTX105-690-70  | 1SFA898209R7000 |              |
| 132           | 143                                  | PSTX142-690-70  | 1SFA898210R7000 |              |
| 160           | 171                                  | PSTX170-690-70  | 1SFA898211R7000 |              |
| 184           | 210                                  | PSTX210-690-70  | 1SFA898212R7000 |              |
| 220           | 250                                  | PSTX250-690-70  | 1SFA898213R7000 |              |
| 257           | 300                                  | PSTX300-690-70  | 1SFA898214R7000 |              |
| 355           | 370                                  | PSTX370-690-70  | 1SFA898215R7000 |              |
| 450           | 470                                  | PSTX470-690-70  | 1SFA898216R7000 |              |
| 560           | 570                                  | PSTX570-690-70  | 1SFA898217R7000 |              |
| 710           | 720                                  | PSTX720-690-70  | 1SFA898218R7000 |              |
| 800           | 840                                  | PSTX840-690-70  | 1SFA898219R7000 |              |
| 1000          | 1050                                 | PSTX1050-690-70 | 1SFA898220R7000 |              |
| 1200          | 1250                                 | PSTX1250-690-70 | 1SFA898221R7000 |              |

## Soft Starter communication accessories



EtherNet/IP (2-port)  
Modbus TCP (2-port)  
Profinet (2-port)



EtherNet/IP (1-port)  
Modbus TCP (1-port)



Profibus  
Modbus-RTU

| For communication<br>protocol | Type             | Order code      | L.P.(₹)      |
|-------------------------------|------------------|-----------------|--------------|
| Profibus                      | AB-PROFIBUS-1    | 1SFA899300R1001 | Upon request |
| Devicenet                     | AB-DEVICENET-1   | 1SFA899300R1002 |              |
| Modbus-RTU                    | AB-MODBUS-RTU-1  | 1SFA899300R1003 |              |
| EtherNet/IP (1-port)          | AB-ETHERNET-IP-1 | 1SFA899300R1005 |              |
| EtherNet/IP (2-port)          | AB-ETHERNET-IP-2 | 1SFA899300R1006 |              |
| Modbus TCP (1-port)           | AB-MODBUS-TCP-1  | 1SFA899300R1007 |              |
| Modbus TCP (2-port)           | AB-MODBUS-TCP-2  | 1SFA899300R1008 |              |
| Profinet (2-port)             | AB-PROFINET-2    | 1SFA899300R1010 |              |

88 Softstarters | Protection and connection

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