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# PSTX

The advanced range

|           |                              |
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# PSTX - The advanced range

## Introduction



### Technical specifications

- Rated operational current: 30... 1250 A (inside-delta: 2160 A)
- Operational voltage: 208... 690 V AC
- Wide rated control supply voltage: 100... 250 V, 50/60 Hz

### Features

- Both in-line and inside-delta connection
- Detachable keypad rated IP66 (4X outdoor)
- Graphical display with 17 languages for easy setup and operation
- Built-in bypass for energy saving and easy installation
- Analog output for measurement of current, voltage, power factor etc.

### Protections

- Complete motor protection

### Communication

- Built-in Modbus RTU
- Support for all major communication protocols



SECURE  
MOTOR  
RELIABILITY

### Complete motor protection

The PSTX offers complete motor protection in only one unit and is able to handle both load and network irregularities. PT-100, earth fault protection and over/under voltage protection along with many other functions keep your motor safer than ever. PSTX also offers three types of current limit: standard, dual and ramp. This gives you full control of your motor during start. It also allows you to use your motor in weaker networks.



IMPROVE  
INSTALLATION  
EFFICIENCY

### Built-in bypass saves time and energy

When reaching full speed, the PSTX will activate its bypass. This saves energy while reducing the softstarters heat generation. On the PSTX, the bypass is built in and verified by ABB, saving you time during installation and space in your panel.



INCREASE  
APPLICATION  
PRODUCTIVITY

### Complete control of pumps

Time to use your processes to their full potential. The PSTX features many application enhancing features, including torque control: the most efficient way to start and stop pumps. The pump cleaning feature can reverse pump flow and clean out pipes, securing uptime of your pump system.

**Heavy duty design** to handle heavy applications such as centrifugal fan, mill and mixers.

**Jog with slow speed forward & reverse**

The slow speed forward and backward jog feature will make you more flexible when operating e.g. conveyor belts and cranes.

**Torque control function** the absolutely best possible stop of pumps without water hammering and pressure surges.

**The HMI is user-friendly and have a clear display that** saves you time and resources during both setup and operation. The detachable keypad is standard on all PSTX softstarters with IP66 and 4x outdoor for tough environments.

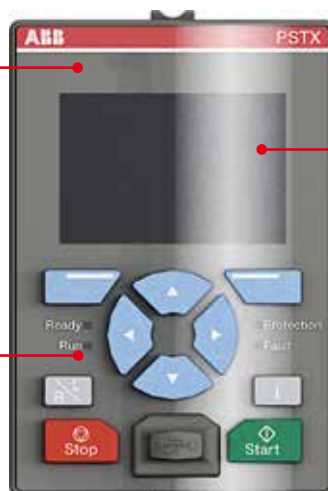
**Coated PCB** protecting from dust, moist and corrosive atmosphere.



**Customize your own specific home screens** (up to seven different). The PSTX has 17 pre-installed languages. You can use your customized home screens to show status information important to your process and hide information that is not.

**Detachable keypad** as standard. It can be placed on your panel door, meaning you do not have to interrupt your process in order to read status information or to change settings.

**Easy to learn** with a large graphical display along with built-in assistants make learning how to handle the PSTX fun and simple. The interface resembles other interfaces from ABB which will streamline and help with training of field personnel.



## PSTX - The advanced range

### Coordination examples



PSTX30... PSTX105

PSTX142... PSTX170

PSTX210... PSTX370

PSTX470... PSTX570

PSTX720... PSTX840

PSTX1050... PSTX1250

#### Normal start In-line connected

| Softstarter | Technical data |           |                   |            | Using manual motor starter or MCCB, type 1 coordination will be achieved. <sup>1)</sup> | Using gG fuses, type 1 coordination will be achieved. To achieve type 2 coordination, semiconductor fuses must be used. <sup>2)</sup> | Suitable switch fuse for the recommended semiconductor fuses. <sup>3)</sup> | The line contactor is not required for the softstarter itself but often used to open if OL trips <sup>3)</sup> |
|-------------|----------------|-----------|-------------------|------------|---|---|---|--|
|             | IEC kW (400V)  | IEC max A | UL HP (440-480 V) | UL max FLA |   |   |   |  |
| PSTX30      | 15             | 30        | 20                | 28         | XT2S160   | 170M1567  | OS32G   | AF30   |
| PSTX37      | 18.5           | 37        | 25                | 34         | XT2S160   | 170M1568  | OS63G   | AF38   |
| PSTX45      | 22             | 45        | 30                | 42         | XT2S160   | 170M1569  | OS63G   | AF52   |
| PSTX60      | 30             | 60        | 40                | 60         | XT2S160   | 170M1569  | OS63G   | AF65   |
| PSTX72      | 37             | 72        | 50                | 68         | XT2S160   | 170M1571  | OS125G  | AF80   |
| PSTX85      | 45             | 85        | 60                | 80         | XT2S160   | 170M1572  | OS125G  | AF96   |
| PSTX105     | 55             | 106       | 75                | 104        | XT2S160   | 170M3819  | OS250   | AF116  |
| PSTX142     | 75             | 143       | 100               | 130        | XT2S160   | 170M5810  | OS400   | AF146  |
| PSTX170     | 90             | 171       | 125               | 169        | XT4S250   | 170M5812  | OS400   | AF190  |
| PSTX210     | 110            | 210       | 150               | 192        | T4S320  | 170M5812  | OS400   | AF265  |
| PSTX250     | 132            | 250       | 200               | 248        | T5S400  | 170M5813  | OS400   | AF265  |
| PSTX300     | 160            | 300       | 250               | 302        | T5S400  | 170M6812  | OS630   | AF305  |
| PSTX370     | 200            | 370       | 300               | 361        | T5S630  | 170M6813  | OS630   | AF370  |
| PSTX470     | 250            | 470       | 400               | 480        | T7S800  | 170M6813  | OS630   | AF580  |
| PSTX570     | 315            | 570       | 500               | 590        | T7S800  | 170M6814  | OS630   | AF580  |
| PSTX720     | 400            | 720       | 600               | 720        | T7S1250   | 170M8554  | OS800   | AF750  |
| PSTX840     | 450            | 840       | 700               | 840        | T7S1250   | 170M6018  | -   | AF1350   |
| PSTX1050    | 560            | 1050      | 900               | 1062       | E2.2N 2000  | 170M6020  | -   | AF1650   |
| PSTX1250    | 710            | 1250      | 1000              | 1250       | E2.2N 2000  | 170M6021  | -   | -  |

<sup>1)</sup> These is an example of coordination. For more examples see: <https://applications.it.abb.com/SOC/Page/Selection.aspx>

<sup>2)</sup> When using a softstarter in a network with high harmonic disturbances, we recommend to use a line-contactor. Please check the information in the Installation manual for more details.



#### Coordination tables (SOC) >

For more examples of coordination visit the online tool for coordination with short circuit protection, overload protection and line contactor.



## PSTX - The advanced range

Normal starts, class 10, in-line

Ordering details



PSTX30... PSTX105

PSTX142... PSTX170

PSTX210... PSTX370

PSTX470... PSTX570

PSTX720... PSTX840

PSTX1050... PSTX1250

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

| IEC rated operational power |                     |                     | current<br>$I_e$<br>A | UL/CSA rated operational power |                         |                         |                         | FLA  | Type            | Order code      | Net Weight (kg) | Net Weight (lb) |
|-----------------------------|---------------------|---------------------|-----------------------|--------------------------------|-------------------------|-------------------------|-------------------------|------|-----------------|-----------------|-----------------|-----------------|
| 400V<br>$P_e$<br>kW         | 500V<br>$P_e$<br>kW | 690V<br>$P_e$<br>kW |                       | 200/208V<br>$P_e$<br>hp        | 220/240V<br>$P_e$<br>hp | 440/480V<br>$P_e$<br>hp | 550/600V<br>$P_e$<br>hp |      |                 |                 |                 |                 |
| 15                          | 18.5                | -                   | 30                    | 7.5                            | 10                      | 20                      | 25                      | 28   | PSTX30-600-70   | 1SFA898103R7000 | 4.6             | 10.1            |
| 18.5                        | 22                  | -                   | 37                    | 10                             | 10                      | 25                      | 30                      | 34   | PSTX37-600-70   | 1SFA898104R7000 | 4.6             | 10.1            |
| 22                          | 25                  | -                   | 45                    | 10                             | 15                      | 30                      | 40                      | 42   | PSTX45-600-70   | 1SFA898105R7000 | 4.6             | 10.1            |
| 30                          | 37                  | -                   | 60                    | 20                             | 20                      | 40                      | 50                      | 60   | PSTX60-600-70   | 1SFA898106R7000 | 4.6             | 10.1            |
| 37                          | 45                  | -                   | 72                    | 20                             | 25                      | 50                      | 60                      | 68   | PSTX72-600-70   | 1SFA898107R7000 | 4.7             | 10.4            |
| 45                          | 55                  | -                   | 85                    | 25                             | 30                      | 60                      | 75                      | 80   | PSTX85-600-70   | 1SFA898108R7000 | 4.7             | 10.4            |
| 55                          | 75                  | -                   | 106                   | 30                             | 40                      | 75                      | 100                     | 104  | PSTX105-600-70  | 1SFA898109R7000 | 4.7             | 10.4            |
| 75                          | 90                  | -                   | 143                   | 40                             | 50                      | 100                     | 125                     | 130  | PSTX142-600-70  | 1SFA898110R7000 | 7.0             | 15.4            |
| 90                          | 110                 | -                   | 171                   | 50                             | 60                      | 125                     | 150                     | 169  | PSTX170-600-70  | 1SFA898111R7000 | 8.9             | 19.6            |
| 110                         | 132                 | -                   | 210                   | 60                             | 75                      | 150                     | 200                     | 192  | PSTX210-600-70  | 1SFA898112R7000 | 13.3            | 29.3            |
| 132                         | 160                 | -                   | 250                   | 75                             | 100                     | 200                     | 250                     | 248  | PSTX250-600-70  | 1SFA898113R7000 | 15.5            | 34.2            |
| 160                         | 200                 | -                   | 300                   | 100                            | 100                     | 250                     | 300                     | 302  | PSTX300-600-70  | 1SFA898114R7000 | 15.5            | 34.2            |
| 200                         | 257                 | -                   | 370                   | 125                            | 150                     | 300                     | 350                     | 361  | PSTX370-600-70  | 1SFA898115R7000 | 15.5            | 34.2            |
| 250                         | 315                 | -                   | 470                   | 150                            | 200                     | 400                     | 500                     | 480  | PSTX470-600-70  | 1SFA898116R7000 | 25.0            | 55.1            |
| 315                         | 400                 | -                   | 570                   | 200                            | 200                     | 500                     | 600                     | 590  | PSTX570-600-70  | 1SFA898117R7000 | 27.0            | 59.5            |
| 400                         | 500                 | -                   | 720                   | 250                            | 300                     | 600                     | 700                     | 720  | PSTX720-600-70  | 1SFA898118R7000 | 46.5            | 102.5           |
| 450                         | 600                 | -                   | 840                   | 300                            | 350                     | 700                     | 800                     | 840  | PSTX840-600-70  | 1SFA898119R7000 | 46.5            | 102.5           |
| 560                         | 730                 | -                   | 1050                  | 400                            | 450                     | 900                     | 1000                    | 1062 | PSTX1050-600-70 | 1SFA898120R7000 | 62.3            | 137.3           |
| 710                         | 880                 | -                   | 1250                  | 400                            | 500                     | 1000                    | 1200                    | 1250 | PSTX1250-600-70 | 1SFA898121R7000 | 63.3            | 137.3           |

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

| IEC rated operational power |                     |                     | current<br>$I_e$<br>A | UL/CSA rated operational power |                         |                         |                         | FLA  | Type            | Order code      | Net Weight (kg) | Net Weight (lb) |
|-----------------------------|---------------------|---------------------|-----------------------|--------------------------------|-------------------------|-------------------------|-------------------------|------|-----------------|-----------------|-----------------|-----------------|
| 400V<br>$P_e$<br>kW         | 500V<br>$P_e$<br>kW | 690V<br>$P_e$<br>kW |                       | 200/208V<br>$P_e$<br>hp        | 220/240V<br>$P_e$<br>hp | 440/480V<br>$P_e$<br>hp | 550/600V<br>$P_e$<br>hp |      |                 |                 |                 |                 |
| 15                          | 18.5                | 25                  | 30                    | 7.5                            | 10                      | 20                      | 25                      | 28   | PSTX30-690-70   | 1SFA898203R7000 | 4.6             | 10.1            |
| 18.5                        | 22                  | 30                  | 37                    | 10                             | 10                      | 25                      | 30                      | 34   | PSTX37-690-70   | 1SFA898204R7000 | 4.6             | 10.1            |
| 22                          | 25                  | 37                  | 45                    | 10                             | 15                      | 30                      | 40                      | 42   | PSTX45-690-70   | 1SFA898205R7000 | 4.6             | 10.1            |
| 30                          | 37                  | 55                  | 60                    | 20                             | 20                      | 40                      | 50                      | 60   | PSTX60-690-70   | 1SFA898206R7000 | 4.6             | 10.1            |
| 37                          | 45                  | 59                  | 72                    | 20                             | 25                      | 50                      | 60                      | 68   | PSTX72-690-70   | 1SFA898207R7000 | 4.7             | 10.4            |
| 45                          | 55                  | 75                  | 85                    | 25                             | 30                      | 60                      | 75                      | 80   | PSTX85-690-70   | 1SFA898208R7000 | 4.7             | 10.4            |
| 55                          | 75                  | 90                  | 106                   | 30                             | 40                      | 75                      | 100                     | 104  | PSTX105-690-70  | 1SFA898209R7000 | 4.7             | 10.4            |
| 75                          | 90                  | 132                 | 143                   | 40                             | 50                      | 100                     | 125                     | 130  | PSTX142-690-70  | 1SFA898210R7000 | 7.0             | 15.4            |
| 90                          | 110                 | 160                 | 171                   | 50                             | 60                      | 125                     | 150                     | 169  | PSTX170-690-70  | 1SFA898211R7000 | 8.9             | 19.6            |
| 110                         | 132                 | 184                 | 210                   | 60                             | 75                      | 150                     | 200                     | 192  | PSTX210-690-70  | 1SFA898212R7000 | 13.3            | 29.3            |
| 132                         | 160                 | 220                 | 250                   | 75                             | 100                     | 200                     | 250                     | 248  | PSTX250-690-70  | 1SFA898213R7000 | 15.5            | 34.2            |
| 160                         | 200                 | 257                 | 300                   | 100                            | 100                     | 250                     | 300                     | 302  | PSTX300-690-70  | 1SFA898214R7000 | 15.5            | 34.2            |
| 200                         | 257                 | 355                 | 370                   | 125                            | 150                     | 300                     | 350                     | 361  | PSTX370-690-70  | 1SFA898215R7000 | 15.5            | 34.2            |
| 250                         | 315                 | 450                 | 470                   | 150                            | 200                     | 400                     | 500                     | 480  | PSTX470-690-70  | 1SFA898216R7000 | 25.0            | 55.1            |
| 315                         | 400                 | 560                 | 570                   | 200                            | 200                     | 500                     | 600                     | 590  | PSTX570-690-70  | 1SFA898217R7000 | 27.0            | 59.5            |
| 400                         | 500                 | 710                 | 720                   | 250                            | 300                     | 600                     | 700                     | 720  | PSTX720-690-70  | 1SFA898218R7000 | 46.5            | 102.5           |
| 450                         | 600                 | 800                 | 840                   | 300                            | 350                     | 700                     | 800                     | 840  | PSTX840-690-70  | 1SFA898219R7000 | 46.5            | 102.5           |
| 560                         | 730                 | 1000                | 1050                  | 400                            | 450                     | 900                     | 1000                    | 1062 | PSTX1050-690-70 | 1SFA898220R7000 | 62.3            | 137.3           |
| 710                         | 880                 | 1200                | 1250                  | 400                            | 500                     | 1000                    | 1200                    | 1250 | PSTX1250-690-70 | 1SFA898221R7000 | 63.3            | 137.3           |



## PSTX - The advanced range

Heavy-duty starts, class 30, in-line

Ordering details



PSTX300... PSTX105

PSTX142... PSTX170

PSTX210... PSTX370

PSTX470... PSTX570

PSTX720... PSTX840

PSTX1050... PSTX1250

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

| IEC rated operational power |                     |                     | current<br>$I_e$<br>A | UL/CSA rated operational power |                         |                         |                         | FLA  | Type            | Order code      | Net Weight (kg) | Net Weight (lb) |
|-----------------------------|---------------------|---------------------|-----------------------|--------------------------------|-------------------------|-------------------------|-------------------------|------|-----------------|-----------------|-----------------|-----------------|
| 400V<br>$P_e$<br>kW         | 500V<br>$P_e$<br>kW | 690V<br>$P_e$<br>kW |                       | 200/208V<br>$P_e$<br>hp        | 220/240V<br>$P_e$<br>hp | 440/480V<br>$P_e$<br>hp | 550/600V<br>$P_e$<br>hp |      |                 |                 |                 |                 |
| 11                          | 15                  | -                   | 22                    | 5                              | 7.5                     | 15                      | 20                      | 25   | PSTX30-600-70   | 1SFA898103R7000 | 4.6             | 10.1            |
| 15                          | 18.5                | -                   | 30                    | 7.5                            | 10                      | 20                      | 25                      | 28   | PSTX37-600-70   | 1SFA898104R7000 | 4.6             | 10.1            |
| 18.5                        | 22                  | -                   | 37                    | 10                             | 10                      | 25                      | 30                      | 34   | PSTX45-600-70   | 1SFA898105R7000 | 4.6             | 10.1            |
| 22                          | 25                  | -                   | 45                    | 10                             | 15                      | 30                      | 40                      | 42   | PSTX60-600-70   | 1SFA898106R7000 | 4.6             | 10.1            |
| 30                          | 37                  | -                   | 60                    | 20                             | 20                      | 40                      | 50                      | 60   | PSTX72-600-70   | 1SFA898107R7000 | 4.7             | 10.4            |
| 37                          | 45                  | -                   | 72                    | 20                             | 25                      | 50                      | 60                      | 68   | PSTX85-600-70   | 1SFA898108R7000 | 4.7             | 10.4            |
| 45                          | 55                  | -                   | 85                    | 25                             | 30                      | 60                      | 75                      | 80   | PSTX105-600-70  | 1SFA898109R7000 | 4.7             | 10.4            |
| 55                          | 75                  | -                   | 106                   | 30                             | 40                      | 75                      | 100                     | 104  | PSTX142-600-70  | 1SFA898110R7000 | 7.0             | 15.4            |
| 75                          | 90                  | -                   | 143                   | 40                             | 50                      | 100                     | 125                     | 130  | PSTX170-600-70  | 1SFA898111R7000 | 8.9             | 19.6            |
| 90                          | 110                 | -                   | 171                   | 50                             | 60                      | 125                     | 150                     | 169  | PSTX210-600-70  | 1SFA898112R7000 | 13.3            | 29.3            |
| 110                         | 132                 | -                   | 210                   | 60                             | 75                      | 150                     | 200                     | 192  | PSTX250-600-70  | 1SFA898113R7000 | 15.5            | 34.2            |
| 132                         | 160                 | -                   | 250                   | 75                             | 100                     | 200                     | 250                     | 248  | PSTX300-600-70  | 1SFA898114R7000 | 15.5            | 34.2            |
| 160                         | 200                 | -                   | 300                   | 100                            | 100                     | 250                     | 300                     | 302  | PSTX370-600-70  | 1SFA898115R7000 | 15.5            | 34.2            |
| 200                         | 257                 | -                   | 370                   | 125                            | 150                     | 300                     | 350                     | 361  | PSTX470-600-70  | 1SFA898116R7000 | 25.0            | 55.1            |
| 250                         | 315                 | -                   | 470                   | 150                            | 200                     | 400                     | 500                     | 480  | PSTX570-600-70  | 1SFA898117R7000 | 27.0            | 59.5            |
| 315                         | 400                 | -                   | 570                   | 200                            | 200                     | 500                     | 600                     | 590  | PSTX720-600-70  | 1SFA898118R7000 | 46.5            | 102.5           |
| 400                         | 500                 | -                   | 720                   | 250                            | 300                     | 600                     | 700                     | 720  | PSTX840-600-70  | 1SFA898119R7000 | 46.5            | 102.5           |
| 450                         | 600                 | -                   | 840                   | 300                            | 350                     | 700                     | 800                     | 840  | PSTX1050-600-70 | 1SFA898120R7000 | 62.3            | 137.3           |
| 560                         | 730                 | -                   | 1050                  | 400                            | 450                     | 900                     | 1000                    | 1062 | PSTX1250-600-70 | 1SFA898121R7000 | 63.3            | 137.3           |

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

| IEC rated operational power |                     |                     | current<br>$I_e$<br>A | UL/CSA rated operational power |                         |                         |                         | FLA  | Type            | Order code      | Net Weight (kg) | Net Weight (lb) |
|-----------------------------|---------------------|---------------------|-----------------------|--------------------------------|-------------------------|-------------------------|-------------------------|------|-----------------|-----------------|-----------------|-----------------|
| 400V<br>$P_e$<br>kW         | 500V<br>$P_e$<br>kW | 690V<br>$P_e$<br>kW |                       | 200/208V<br>$P_e$<br>hp        | 220/240V<br>$P_e$<br>hp | 440/480V<br>$P_e$<br>hp | 550/600V<br>$P_e$<br>hp |      |                 |                 |                 |                 |
| 11                          | 15                  | 18.5                | 22                    | 5                              | 7.5                     | 15                      | 20                      | 25   | PSTX30-690-70   | 1SFA898203R7000 | 4.6             | 10.1            |
| 15                          | 18.5                | 25                  | 30                    | 7.5                            | 10                      | 20                      | 25                      | 28   | PSTX37-690-70   | 1SFA898204R7000 | 4.6             | 10.1            |
| 18.5                        | 22                  | 30                  | 37                    | 10                             | 10                      | 25                      | 30                      | 34   | PSTX45-690-70   | 1SFA898205R7000 | 4.6             | 10.1            |
| 22                          | 25                  | 37                  | 44                    | 10                             | 15                      | 30                      | 40                      | 42   | PSTX60-690-70   | 1SFA898206R7000 | 4.6             | 10.1            |
| 30                          | 37                  | 55                  | 60                    | 20                             | 20                      | 40                      | 50                      | 60   | PSTX72-690-70   | 1SFA898207R7000 | 4.7             | 10.4            |
| 37                          | 45                  | 59                  | 72                    | 20                             | 25                      | 50                      | 60                      | 68   | PSTX85-690-70   | 1SFA898208R7000 | 4.7             | 10.4            |
| 45                          | 55                  | 75                  | 85                    | 25                             | 30                      | 60                      | 75                      | 80   | PSTX105-690-70  | 1SFA898209R7000 | 4.7             | 10.4            |
| 55                          | 75                  | 90                  | 106                   | 30                             | 40                      | 75                      | 100                     | 104  | PSTX142-690-70  | 1SFA898210R7000 | 7.0             | 15.4            |
| 75                          | 90                  | 132                 | 143                   | 40                             | 50                      | 100                     | 125                     | 130  | PSTX170-690-70  | 1SFA898211R7000 | 8.9             | 19.6            |
| 90                          | 110                 | 160                 | 171                   | 50                             | 60                      | 125                     | 150                     | 169  | PSTX210-690-70  | 1SFA898212R7000 | 13.3            | 29.3            |
| 110                         | 132                 | 184                 | 210                   | 60                             | 75                      | 150                     | 200                     | 192  | PSTX250-690-70  | 1SFA898213R7000 | 15.5            | 34.2            |
| 132                         | 160                 | 220                 | 250                   | 75                             | 100                     | 200                     | 250                     | 248  | PSTX300-690-70  | 1SFA898214R7000 | 15.5            | 34.2            |
| 160                         | 200                 | 257                 | 300                   | 100                            | 100                     | 250                     | 300                     | 302  | PSTX370-690-70  | 1SFA898215R7000 | 15.5            | 34.2            |
| 200                         | 257                 | 355                 | 370                   | 125                            | 150                     | 300                     | 350                     | 361  | PSTX470-690-70  | 1SFA898216R7000 | 25.0            | 55.1            |
| 250                         | 315                 | 450                 | 470                   | 150                            | 200                     | 400                     | 500                     | 480  | PSTX570-690-70  | 1SFA898217R7000 | 27.0            | 59.5            |
| 315                         | 400                 | 560                 | 570                   | 200                            | 200                     | 500                     | 600                     | 590  | PSTX720-690-70  | 1SFA898218R7000 | 46.5            | 102.5           |
| 400                         | 500                 | 710                 | 720                   | 250                            | 300                     | 600                     | 700                     | 720  | PSTX840-690-70  | 1SFA898219R7000 | 46.5            | 102.5           |
| 450                         | 600                 | 800                 | 840                   | 300                            | 350                     | 700                     | 800                     | 840  | PSTX1050-690-70 | 1SFA898220R7000 | 62.3            | 137.3           |
| 560                         | 730                 | 1000                | 1050                  | 400                            | 450                     | 900                     | 1000                    | 1062 | PSTX1250-690-70 | 1SFA898221R7000 | 63.3            | 137.3           |

## PSTX - The advanced range

Normal starts, class 10, inside delta

Ordering details



PSTX30... PSTX105

PSTX142... PSTX170

PSTX210... PSTX370

PSTX470... PSTX570

PSTX720... PSTX840

PSTX1050... PSTX1250

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

| IEC rated operational power |                     |                     | current<br>$I_e$<br>A | UL/CSA rated operational power |                         |                         |                         | FLA  | Type            | Order code      | Net Weight (kg) | Net Weight (lb) |
|-----------------------------|---------------------|---------------------|-----------------------|--------------------------------|-------------------------|-------------------------|-------------------------|------|-----------------|-----------------|-----------------|-----------------|
| 400V<br>$P_e$<br>kW         | 500V<br>$P_e$<br>kW | 690V<br>$P_e$<br>kW |                       | 200/208V<br>$P_e$<br>hp        | 220/240V<br>$P_e$<br>hp | 440/480V<br>$P_e$<br>hp | 550/600V<br>$P_e$<br>hp |      |                 |                 |                 |                 |
| 25                          | 30                  | -                   | 52                    | 10                             | 15                      | 30                      | 40                      | 48   | PSTX30-600-70   | 1SFA898103R7000 | 4.6             | 10.1            |
| 30                          | 37                  | -                   | 64                    | 15                             | 20                      | 40                      | 50                      | 58   | PSTX37-600-70   | 1SFA898104R7000 | 4.6             | 10.1            |
| 37                          | 45                  | -                   | 76                    | 20                             | 25                      | 50                      | 60                      | 72   | PSTX45-600-70   | 1SFA898105R7000 | 4.6             | 10.1            |
| 55                          | 75                  | -                   | 105                   | 30                             | 40                      | 75                      | 100                     | 103  | PSTX60-600-70   | 1SFA898106R7000 | 4.6             | 10.1            |
| 59                          | 80                  | -                   | 124                   | 30                             | 40                      | 75                      | 100                     | 117  | PSTX72-600-70   | 1SFA898107R7000 | 4.7             | 10.4            |
| 75                          | 90                  | -                   | 147                   | 40                             | 50                      | 100                     | 125                     | 138  | PSTX85-600-70   | 1SFA898108R7000 | 4.7             | 10.4            |
| 90                          | 110                 | -                   | 181                   | 60                             | 60                      | 150                     | 150                     | 180  | PSTX105-600-70  | 1SFA898109R7000 | 4.7             | 10.4            |
| 132                         | 160                 | -                   | 245                   | 75                             | 75                      | 150                     | 200                     | 225  | PSTX142-600-70  | 1SFA898110R7000 | 7.0             | 15.4            |
| 160                         | 200                 | -                   | 300                   | 75                             | 100                     | 200                     | 250                     | 292  | PSTX170-600-70  | 1SFA898111R7000 | 8.9             | 19.6            |
| 184                         | 250                 | -                   | 360                   | 100                            | 125                     | 250                     | 300                     | 332  | PSTX210-600-70  | 1SFA898112R7000 | 13.3            | 29.3            |
| 220                         | 295                 | -                   | 430                   | 150                            | 150                     | 350                     | 450                     | 429  | PSTX250-600-70  | 1SFA898113R7000 | 15.5            | 34.2            |
| 257                         | 355                 | -                   | 515                   | 150                            | 200                     | 450                     | 500                     | 523  | PSTX300-600-70  | 1SFA898114R7000 | 15.5            | 34.2            |
| 355                         | 450                 | -                   | 640                   | 200                            | 250                     | 500                     | 600                     | 625  | PSTX370-600-70  | 1SFA898115R7000 | 15.5            | 34.2            |
| 450                         | 600                 | -                   | 814                   | 250                            | 300                     | 600                     | 700                     | 830  | PSTX470-600-70  | 1SFA898116R7000 | 25.0            | 55.1            |
| 540                         | 700                 | -                   | 987                   | 300                            | 350                     | 700                     | 800                     | 1020 | PSTX570-600-70  | 1SFA898117R7000 | 27.0            | 59.5            |
| 710                         | 880                 | -                   | 1247                  | 400                            | 500                     | 1000                    | 1200                    | 1240 | PSTX720-600-70  | 1SFA898118R7000 | 46.5            | 102.5           |
| 800                         | 1000                | -                   | 1455                  | 500                            | 600                     | 1200                    | 1500                    | 1450 | PSTX840-600-70  | 1SFA898119R7000 | 46.5            | 102.5           |
| 1000                        | 1250                | -                   | 1810                  | 600                            | 700                     | 1500                    | 1800                    | 1830 | PSTX1050-600-70 | 1SFA898120R7000 | 62.3            | 137.3           |
| 1200                        | 1500                | -                   | 2160                  | 800                            | 900                     | 1800                    | 2000                    | 2160 | PSTX1250-600-70 | 1SFA898121R7000 | 63.3            | 137.3           |

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

| IEC rated operational power |                     |                     | current<br>$I_e$<br>A | UL/CSA rated operational power |                         |                         |                         | FLA  | Type            | Order code      | Net Weight (kg) | Net Weight (lb) |
|-----------------------------|---------------------|---------------------|-----------------------|--------------------------------|-------------------------|-------------------------|-------------------------|------|-----------------|-----------------|-----------------|-----------------|
| 400V<br>$P_e$<br>kW         | 500V<br>$P_e$<br>kW | 690V<br>$P_e$<br>kW |                       | 200/208V<br>$P_e$<br>hp        | 220/240V<br>$P_e$<br>hp | 440/480V<br>$P_e$<br>hp | 550/600V<br>$P_e$<br>hp |      |                 |                 |                 |                 |
| 25                          | 30                  | 45                  | 52                    | 10                             | 15                      | 30                      | 40                      | 48   | PSTX30-690-70   | 1SFA898203R7000 | 4.6             | 10.1            |
| 30                          | 37                  | 55                  | 64                    | 15                             | 20                      | 40                      | 50                      | 58   | PSTX37-690-70   | 1SFA898204R7000 | 4.6             | 10.1            |
| 37                          | 45                  | 59                  | 76                    | 20                             | 25                      | 50                      | 60                      | 72   | PSTX45-690-70   | 1SFA898205R7000 | 4.6             | 10.1            |
| 55                          | 75                  | 90                  | 105                   | 30                             | 40                      | 75                      | 100                     | 103  | PSTX60-690-70   | 1SFA898206R7000 | 4.6             | 10.1            |
| 59                          | 80                  | 110                 | 124                   | 30                             | 40                      | 75                      | 100                     | 117  | PSTX72-690-70   | 1SFA898207R7000 | 4.7             | 10.4            |
| 75                          | 90                  | 132                 | 147                   | 40                             | 50                      | 100                     | 125                     | 138  | PSTX85-690-70   | 1SFA898208R7000 | 4.7             | 10.4            |
| 90                          | 110                 | 160                 | 181                   | 60                             | 60                      | 150                     | 150                     | 180  | PSTX105-690-70  | 1SFA898209R7000 | 4.7             | 10.4            |
| 132                         | 160                 | 220                 | 245                   | 75                             | 75                      | 150                     | 200                     | 225  | PSTX142-690-70  | 1SFA898210R7000 | 7.0             | 15.4            |
| 160                         | 200                 | 257                 | 300                   | 75                             | 100                     | 200                     | 250                     | 292  | PSTX170-690-70  | 1SFA898211R7000 | 8.9             | 19.6            |
| 184                         | 250                 | 315                 | 360                   | 100                            | 125                     | 250                     | 300                     | 332  | PSTX210-690-70  | 1SFA898212R7000 | 13.3            | 29.3            |
| 220                         | 295                 | 400                 | 430                   | 150                            | 150                     | 350                     | 450                     | 429  | PSTX250-690-70  | 1SFA898213R7000 | 15.5            | 34.2            |
| 257                         | 355                 | 500                 | 515                   | 150                            | 200                     | 450                     | 500                     | 523  | PSTX300-690-70  | 1SFA898214R7000 | 15.5            | 34.2            |
| 355                         | 450                 | 600                 | 640                   | 200                            | 250                     | 500                     | 600                     | 625  | PSTX370-690-70  | 1SFA898215R7000 | 15.5            | 34.2            |
| 450                         | 600                 | 800                 | 814                   | 250                            | 300                     | 600                     | 700                     | 830  | PSTX470-690-70  | 1SFA898216R7000 | 25.0            | 55.1            |
| 540                         | 700                 | 960                 | 987                   | 300                            | 350                     | 700                     | 800                     | 1020 | PSTX570-690-70  | 1SFA898217R7000 | 27.0            | 59.5            |
| 710                         | 880                 | 1200                | 1247                  | 400                            | 500                     | 1000                    | 1200                    | 1240 | PSTX720-690-70  | 1SFA898218R7000 | 46.5            | 102.5           |
| 800                         | 1000                | 1400                | 1455                  | 500                            | 600                     | 1200                    | 1500                    | 1450 | PSTX840-690-70  | 1SFA898219R7000 | 46.5            | 102.5           |
| 1000                        | 1250                | 1700                | 1810                  | 600                            | 700                     | 1500                    | 1800                    | 1830 | PSTX1050-690-70 | 1SFA898220R7000 | 62.3            | 137.3           |
| 1200                        | 1500                | 2000                | 2160                  | 800                            | 900                     | 1800                    | 2000                    | 2160 | PSTX1250-690-70 | 1SFA898221R7000 | 63.3            | 137.3           |



## PSTX - The advanced range

Heavy-duty starts, class 30, inside delta

Ordering details



PSTX30... PSTX105

PSTX142... PSTX170

PSTX210... PSTX370

PSTX470... PSTX570

PSTX720... PSTX840

PSTX1050... PSTX1250

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

| IEC rated operational power |                     |                     | current<br>$I_e$<br>A | UL/CSA rated operational power |                         |                         |                         | FLA  | Type            | Order code      | Net Weight (kg) | Net Weight (lb) |
|-----------------------------|---------------------|---------------------|-----------------------|--------------------------------|-------------------------|-------------------------|-------------------------|------|-----------------|-----------------|-----------------|-----------------|
| 400V<br>$P_e$<br>kW         | 500V<br>$P_e$<br>kW | 690V<br>$P_e$<br>kW |                       | 200/208V<br>$P_e$<br>hp        | 220/240V<br>$P_e$<br>hp | 440/480V<br>$P_e$<br>hp | 550/600V<br>$P_e$<br>hp |      |                 |                 |                 |                 |
| 18.5                        | 25                  | -                   | 42                    | 7.5                            | 10                      | 25                      | 30                      | 34   | PSTX30-600-70   | 1SFA898103R7000 | 4.6             | 10.1            |
| 25                          | 30                  | -                   | 52                    | 10                             | 15                      | 30                      | 40                      | 48   | PSTX37-600-70   | 1SFA898104R7000 | 4.6             | 10.1            |
| 30                          | 37                  | -                   | 64                    | 15                             | 20                      | 40                      | 50                      | 58   | PSTX45-600-70   | 1SFA898105R7000 | 4.6             | 10.1            |
| 37                          | 45                  | -                   | 76                    | 20                             | 25                      | 50                      | 60                      | 72   | PSTX60-600-70   | 1SFA898106R7000 | 4.6             | 10.1            |
| 55                          | 75                  | -                   | 105                   | 30                             | 40                      | 75                      | 100                     | 103  | PSTX72-600-70   | 1SFA898107R7000 | 4.7             | 10.4            |
| 59                          | 80                  | -                   | 124                   | 30                             | 40                      | 75                      | 100                     | 117  | PSTX85-600-70   | 1SFA898108R7000 | 4.7             | 10.4            |
| 75                          | 90                  | -                   | 147                   | 40                             | 50                      | 100                     | 125                     | 138  | PSTX105-600-70  | 1SFA898109R7000 | 4.7             | 10.4            |
| 90                          | 110                 | -                   | 181                   | 60                             | 60                      | 150                     | 150                     | 180  | PSTX142-600-70  | 1SFA898110R7000 | 7.0             | 15.4            |
| 132                         | 160                 | -                   | 245                   | 75                             | 75                      | 150                     | 200                     | 225  | PSTX170-600-70  | 1SFA898111R7000 | 8.9             | 19.6            |
| 160                         | 200                 | -                   | 300                   | 75                             | 100                     | 200                     | 250                     | 292  | PSTX210-600-70  | 1SFA898112R7000 | 13.3            | 29.3            |
| 184                         | 250                 | -                   | 360                   | 100                            | 125                     | 250                     | 300                     | 332  | PSTX250-600-70  | 1SFA898113R7000 | 15.5            | 34.2            |
| 220                         | 295                 | -                   | 430                   | 150                            | 150                     | 350                     | 450                     | 429  | PSTX300-600-70  | 1SFA898114R7000 | 15.5            | 34.2            |
| 257                         | 355                 | -                   | 515                   | 150                            | 200                     | 450                     | 500                     | 523  | PSTX370-600-70  | 1SFA898115R7000 | 15.5            | 34.2            |
| 355                         | 450                 | -                   | 640                   | 200                            | 250                     | 500                     | 600                     | 625  | PSTX470-600-70  | 1SFA898116R7000 | 25.0            | 55.1            |
| 450                         | 600                 | -                   | 814                   | 250                            | 300                     | 600                     | 700                     | 830  | PSTX570-600-70  | 1SFA898117R7000 | 27.0            | 59.5            |
| 540                         | 700                 | -                   | 987                   | 300                            | 350                     | 700                     | 800                     | 1020 | PSTX720-600-70  | 1SFA898118R7000 | 46.5            | 102.5           |
| 710                         | 880                 | -                   | 1247                  | 400                            | 500                     | 1000                    | 1200                    | 1240 | PSTX840-600-70  | 1SFA898119R7000 | 46.5            | 102.5           |
| 800                         | 1000                | -                   | 1455                  | 500                            | 600                     | 1200                    | 1500                    | 1450 | PSTX1050-600-70 | 1SFA898120R7000 | 62.3            | 137.3           |
| 1000                        | 1250                | -                   | 1810                  | 600                            | 700                     | 1500                    | 1800                    | 1830 | PSTX1250-600-70 | 1SFA898121R7000 | 63.3            | 137.3           |

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

| IEC rated operational power |                     |                     | current<br>$I_e$<br>A | UL/CSA rated operational power |                         |                         |                         | FLA  | Type            | Order code      | Net Weight (kg) | Net Weight (lb) |
|-----------------------------|---------------------|---------------------|-----------------------|--------------------------------|-------------------------|-------------------------|-------------------------|------|-----------------|-----------------|-----------------|-----------------|
| 400V<br>$P_e$<br>kW         | 500V<br>$P_e$<br>kW | 690V<br>$P_e$<br>kW |                       | 200/208V<br>$P_e$<br>hp        | 220/240V<br>$P_e$<br>hp | 440/480V<br>$P_e$<br>hp | 550/600V<br>$P_e$<br>hp |      |                 |                 |                 |                 |
| 18.5                        | 25                  | 37                  | 42                    | 7.5                            | 10                      | 25                      | 30                      | 34   | PSTX30-690-70   | 1SFA898203R7000 | 4.6             | 10.1            |
| 25                          | 30                  | 45                  | 52                    | 10                             | 15                      | 30                      | 40                      | 48   | PSTX37-690-70   | 1SFA898204R7000 | 4.6             | 10.1            |
| 30                          | 37                  | 55                  | 64                    | 15                             | 20                      | 40                      | 50                      | 58   | PSTX45-690-70   | 1SFA898205R7000 | 4.6             | 10.1            |
| 37                          | 45                  | 59                  | 76                    | 20                             | 25                      | 50                      | 60                      | 72   | PSTX60-690-70   | 1SFA898206R7000 | 4.6             | 10.1            |
| 55                          | 75                  | 90                  | 105                   | 30                             | 40                      | 75                      | 100                     | 103  | PSTX72-690-70   | 1SFA898207R7000 | 4.7             | 10.4            |
| 59                          | 80                  | 110                 | 124                   | 30                             | 40                      | 75                      | 100                     | 117  | PSTX85-690-70   | 1SFA898208R7000 | 4.7             | 10.4            |
| 75                          | 90                  | 132                 | 147                   | 40                             | 50                      | 100                     | 125                     | 138  | PSTX105-690-70  | 1SFA898209R7000 | 4.7             | 10.4            |
| 90                          | 110                 | 160                 | 181                   | 60                             | 60                      | 150                     | 150                     | 180  | PSTX142-690-70  | 1SFA898210R7000 | 7.0             | 15.4            |
| 132                         | 160                 | 220                 | 245                   | 75                             | 75                      | 150                     | 200                     | 225  | PSTX170-690-70  | 1SFA898211R7000 | 8.9             | 19.6            |
| 160                         | 200                 | 257                 | 300                   | 75                             | 100                     | 200                     | 250                     | 292  | PSTX210-690-70  | 1SFA898212R7000 | 13.3            | 29.3            |
| 184                         | 250                 | 315                 | 360                   | 100                            | 125                     | 250                     | 300                     | 332  | PSTX250-690-70  | 1SFA898213R7000 | 15.5            | 34.2            |
| 220                         | 295                 | 400                 | 430                   | 150                            | 150                     | 350                     | 450                     | 429  | PSTX300-690-70  | 1SFA898214R7000 | 15.5            | 34.2            |
| 257                         | 355                 | 500                 | 515                   | 150                            | 200                     | 450                     | 500                     | 523  | PSTX370-690-70  | 1SFA898215R7000 | 15.5            | 34.2            |
| 355                         | 450                 | 600                 | 640                   | 200                            | 250                     | 500                     | 600                     | 625  | PSTX470-690-70  | 1SFA898216R7000 | 25.0            | 55.1            |
| 450                         | 600                 | 800                 | 814                   | 250                            | 300                     | 600                     | 700                     | 830  | PSTX570-690-70  | 1SFA898217R7000 | 27.0            | 59.5            |
| 540                         | 700                 | 960                 | 987                   | 300                            | 350                     | 700                     | 800                     | 1020 | PSTX720-690-70  | 1SFA898218R7000 | 46.5            | 102.5           |
| 710                         | 880                 | 1200                | 1247                  | 400                            | 500                     | 1000                    | 1200                    | 1240 | PSTX840-690-70  | 1SFA898219R7000 | 46.5            | 102.5           |
| 800                         | 1000                | 1400                | 1455                  | 500                            | 600                     | 1200                    | 1500                    | 1450 | PSTX1050-690-70 | 1SFA898220R7000 | 62.3            | 137.3           |
| 1000                        | 1250                | 1700                | 1810                  | 600                            | 700                     | 1500                    | 1800                    | 1830 | PSTX1250-690-70 | 1SFA898221R7000 | 63.3            | 137.3           |

## PSTX - The advanced range

### Accessories



Cable connectors for CU cables

#### Cable connectors for Cu cables

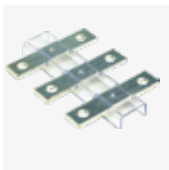
| Article              | Wire range<br>mm <sup>2</sup> | Tightening<br>torque max Nm | Type               | Order code      | Pkg qty | Net kg | lb   |
|----------------------|-------------------------------|-----------------------------|--------------------|-----------------|---------|--------|------|
| PSTX142 ... PSTX170  | 6-120                         | 8                           | KIT FC Cu XT4 3pcs | 1SDA066917R1    | 3       | 0.18   | 0.40 |
| PSTX142 ... PSTX170  | 2 x (50-95)                   | 16                          | LZ185-2C/120       | 1SFN074709R1000 | 3       | 0.30   | 0.66 |
| PSTX210 ... PSTX370  | 16-240                        | 25                          | T5 400 3pcs        | 1SDA055016R1    | 3       | 0.36   | 0.79 |
| PSTX210 ... PSTX370  | 2 x (95-185)                  | 22                          | OZXB4/1            | 1SCA022194R0890 | 1       | 0.19   | 0.42 |
| PSTX470 ... PSTX570  | 2 x (120-240)                 | 35                          | T6 630-S6 6pcs     | 1SDA013922R1    | 6       | 0.57   | 1.26 |
| PSTX570 ... PSTX1050 | 3 x (70-185)                  | 45                          | T6 800-S6 6pcs     | 1SDA013956R1    | 6       | 2.12   | 4.68 |



Cable connectors for AL cables

#### Cable connectors for Al cables

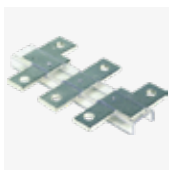
| Article              | Wire range<br>mm <sup>2</sup> | Tightening<br>torque max Nm | Type                       | Order code   | Pkg qty | Net kg | lb   |
|----------------------|-------------------------------|-----------------------------|----------------------------|--------------|---------|--------|------|
| PSTX142 ... PSTX170  | 95-185                        | 31                          | KIT FC CuAl T4 3pcs        | 1SDA054988R1 | 3       | 0.14   | 0.31 |
| PSTX210 ... PSTX370  | 185-240                       | 43                          | KIT FC CuAl T5 400 3pcs    | 1SDA055020R1 | 3       | 0.24   | 0.54 |
| PSTX470 ... PSTX1050 | 2 x (120-240)                 | 31                          | KIT FC CuAl T6 630-S6 3pcs | 1SDA023380R1 | 3       | 0.11   | 0.24 |



Terminal extensions

#### Terminal extensions

| Article             | Dimensions<br>hole ø mm2 | bar mm   | Type  | Order code      | Pkg qty | NET kg | lb   |
|---------------------|--------------------------|----------|-------|-----------------|---------|--------|------|
| PSTX142 ... PSTX170 | 8.5                      | 17.5 x 5 | LX205 | 1SFN074810R1000 | 1       | 0.25   | 5.55 |
| PSTX210 ... PSTX370 | 10.5                     | 20 x 5   | LX370 | 1SFN075410R1000 | 1       | 0.35   | 0.77 |
| PSTX470 ... PSTX570 | 10.5                     | 25 x 5   | LX460 | 1SFN075710R1000 | 1       | 0.50   | 1.10 |
| PSTX720 ... PSTX840 | 13                       | 40 x 6   | LX750 | 1SFN076110R1000 | 1       | 0.85   | 1.87 |



Terminal enlarge-  
ments

#### Terminal enlargements

| Article             | Dimensions<br>hole ø mm2 | bar mm   | Type  | Order code      | Pkg qty | Net kg | lb   |
|---------------------|--------------------------|----------|-------|-----------------|---------|--------|------|
| PSTX30 ... PSTX105  | 6.5                      | 15 x 3   | LW110 | 1SFN074307R1000 | 1       | 0.07   | 0.15 |
| PSTX142 ... PSTX170 | 10.5                     | 17.5 x 5 | LW205 | 1SFN074807R1000 | 1       | 0.25   | 5.55 |
| PSTX210 ... PSTX370 | 10.5                     | 20 x 5   | LW370 | 1SFN075407R1000 | 1       | 0.45   | 0.99 |
| PSTX470 ... PSTX570 | 10.5                     | 25 x 5   | LW460 | 1SFN075707R1000 | 1       | 0.73   | 1.61 |
| PSTX720 ... PSTX840 | 13                       | 40 x 6   | LW750 | 1SFN076107R1000 | 1       | 1.23   | 2.71 |



Terminal shrouds

#### Terminal shrouds

| Article              | Description   | Type      | Order code      | Pkg qty | Net kg | lb   |
|----------------------|---|-----------|-----------------|---------|--------|------|
| PSTX142 ... PSTX170  | short for use with cable clamps                                       | LT205-30C | 1SFN124801R1000 | 2       | 0.05   | 0.11 |
| PSTX142 ... PSTX170  | long for use with compression lugs                                    | LT205-30L | 1SFN124803R1000 | 2       | 0.22   | 0.49 |
| PSTX210 ... PSTX370  | short for use with cable clamps                                       | LT370-30C | 1SFN125401R1000 | 2       | 0.04   | 0.08 |
| PSTX210 ... PSTX370  | long for use with compression lugs                                    | LT370-30L | 1SFN125403R1000 | 2       | 0.28   | 0.62 |
| PSTX210 ... PSTX370  | long and deep for use with extending cable clamps, ATK300/2 and OZXB4 | LT370-30D | 1SFN125406R1000 | 2       | 0.15   | 0.33 |
| PSTX470 ... PSTX570  | short for use with cable clamps                                       | LT460-AC  | 1SFN125701R1000 | 2       | 0.10   | 0.22 |
| PSTX470 ... PSTX570  | long for use with compression lugs                                    | LT460-AL  | 1SFN125703R1000 | 2       | 0.80   | 1.76 |
| PSTX720 ... PSTX1250 | short for use with cable clamps                                       | LT750-AC  | 1SFN126101R1000 | 2       | 0.12   | 0.27 |
| PSTX720 ... PSTX1250 | long for use with compression lugs                                    | LT750-AL  | 1SFN126103R1000 | 2       | 0.83   | 1.82 |

## PSTX - The advanced range

### Accessories



USB cable

#### PSTX USB cable

| Article        | Type   | Order code      | Pkg qty | Net kg | lb   |
|----------------|--------|-----------------|---------|--------|------|
| PSTX USB Cable | PSCA-1 | 1SFA899314R1001 | 1       | 0.05   | 0.12 |



Fieldbus plug adaptor

#### Fieldbus plug connection, cable included

| Article               | Type    | Order code      | Pkg qty | Net kg | lb   |
|-----------------------|---------|-----------------|---------|--------|------|
| Fieldbus plug adaptor | PS-FBPA | 1SFA896312R1002 | 1       | 0.05   | 0.11 |



I/O module

#### I/O module, 24 V DC digital input

| Article                              | Type        | Order code      | Pkg qty | Net kg | lb   |
|--------------------------------------|-------------|-----------------|---------|--------|------|
| Extension module for I/O 24 VDC      | DX111-FBP.0 | 1SAJ611000R0101 | 1       | 0.22   | 0.49 |
| Extension module for I/O 110-230 VDC | DX122-FBP.0 | 1SAJ622000R0101 | 1       | 0.22   | 0.49 |

- Profibus DP-V1  
- Modbus RTU

DeviceNet



BACnet MS/TP

- BACnet IP  
- EthetCAT  
- EtherNet/IP  
- Modbus TCP  
- Profinet IO

#### Anybus connection accessory for communication protocol suitable for PSTX30 ...PSTX1250

| Article                  | Conection ports | Type             | Order code      | Pkg qty | kg   | lb   |
|--------------------------|-----------------|------------------|-----------------|---------|------|------|
| Profibus                 | 1               | AB-PROFIBUS-1    | 1SFA899300R1001 | 1       | 0.03 | 0.07 |
| DeviceNet                | 1               | AB-DEVICENET-1   | 1SFA899300R1002 | 1       | 0.03 | 0.07 |
| Modbus-RTU <sup>1)</sup> | 1               | AB-MODBUS-RTU-1  | 1SFA899300R1003 | 1       | 0.03 | 0.07 |
| BACnet IP                | 2               | AB- BACNET-IP-2  | 1SFA899300R1004 | 1       | 0.03 | 0.07 |
| EtherNet/IP              | 2               | AB-ETHERNET-IP-2 | 1SFA899300R1006 | 1       | 0.03 | 0.07 |
| Modbus/TCP               | 2               | AB-MODBUS-TCP-2  | 1SFA899300R1008 | 1       | 0.03 | 0.07 |
| Profinet                 | 2               | AB-PROFINET-IO-2 | 1SFA899300R1010 | 1       | 0.03 | 0.07 |
| BACnet MS/TP             | 1               | AB-BACNET-MSTP-1 | 1SFA899300R1011 | 1       | 0.03 | 0.07 |
| EtherCAT                 | 2               | AB-ETHERCAT-IP-2 | 1SFA899300R1012 | 1       | 0.03 | 0.07 |
| <b>New</b> CANopen       | 1               | AB-CANopen-IO-1  | 1SFA899300R1013 | 1       | 0.03 | 0.07 |

<sup>1)</sup>only needed when Com 3-port is used with Extension I/O

## PSTX - The advanced range

### Technical data

| Technical data  |  | PSTX30... 1250  |
|---|--|---|
| Rated insulation voltage U <sub>i</sub>                                   |  | 690V  |
| Rated operational voltage U <sub>e</sub>                                  |  | 208...600 V, 208...690V +10% / -15%, 50/60Hz ±10%   |
| Rated control supply voltage U <sub>s</sub>                               |  | 100...250 V +10%/-15%, 50/60Hz ±10%   |
| Rated control circuit voltage U <sub>c</sub>                              |  | Internal or external 24 V DC  |
| Starting capacity at I <sub>e</sub>                                       |  | 4 x I <sub>e</sub> for 10 sec   |
| Number of starts per hour   |  | 10 for PSTX30 ... PSTX370 <sup>1)</sup><br>6 for PSTX470 ... PSTX1250 <sup>1)</sup>   |
| Overload capability   |  | Overload class 10   |
| Maximum altitude  |  | 4000 m (13123 ft) <sup>3)</sup>   |
| Ambient temperature   |  |   |
| During operation  |  | -25...+60 °C, (-13...+140 F) <sup>2)</sup>  |
| During storage  |  | -40...+70 °C, (-40...+158 F)  |
| Degree of protection  |  |   |
| Main circuit  |  | -   |
| Supply and control circuit  |  | IP20  |
| Main circuit  |  |   |
| Built-in bypass contactor   |  | Yes   |
| Cooling system - Fan cooled   |  | Yes (thermostat controlled)   |
| HMI for settings (Human Machine Interface)                                |  |   |
| Display   |  | LCD type, graphical   |
| Languages   |  | Arabic, Chinese, Czech, Dutch, English, Finnish, French, German, Greek, Indonesian, Italian, Polish, Portuguese, Russian, Spanish, Swedish and Turkish  |
| Keypad  |  | 2 selection keys, 4 navigation keys, start key, stop key, info key and remote/local key   |
| Signal relays   |  |   |
| Number of programmable signal relays                                      |  | 3 (each relay can be programmed to None, Run, Top of ramp, Event group 0-6, Sequence 1-3 Run, Sequence 1-3 Top of ramp or Run reverse)  |
| K4  |  | Default as Run signal   |
| K5  |  | Default as Top of Ramp (Bypass) signal  |
| K6  |  | Default as Event group 0 (Faults)   |
| Rated operational voltage, U <sub>e</sub>                                 |  | 250 V AC/24 V DC  |
| Rated thermal current I <sub>th</sub>                                     |  | 5 A   |
| Rated operational current I <sub>e</sub> at AC-15 (U <sub>e</sub> =250 V) |  | 1.5 A   |
| Analog output   |  |   |
| Output signal reference   |  | 0...10 V, 0...10 mA, 0...20 mA, 4...20 mA   |
| Type of output signal   |  | Motor current (A), Main voltage (V), Active power (kW), Active power (HP), Reactive power (kVAr), Apparant power (kVArh), Active energy (kWh), Reactive energy (kVArh), cos phi, Motor temperature (%), Thyristor temperature (%), Motor voltage (%), Main frequency (Hz), PT100 temperature (centigrade), PTC resistance (Ohm) |

| Control circuit                          |  |
|--|--|
| Number of inputs                         | 2 (start, stop)  |
| Number of additional programmable inputs | 3 (each input can be programmed to: None, Reset, Enable, Slow speed forward (Jog), Slow speed reverse (Jog), Motor heating, Stand still brake, Start reverse, User defined protection, Emergency mode (active high), Emergency mode (active low), Fieldbus disable control, Start 1, Start 2, Start 3, Switch to remote control or Cancel brake) |
| Signalling indication LED                |  |
| Ready                                    | Green  |
| Run                                      | Green  |
| Fault                                    | Red  |
| Protection                               | Yellow   |
| External keypad                          |  |
| Detachable keypad                        | Yes  |
| Display                                  | LCD type, graphical  |
| Ambient temperature                      |  |
| During operation                         | -25...+60 °C, (-13...+140 F)   |
| During storage                           | -40...+70 °C, (-40...+158 F)   |
| Degree of protection                     | IP66 (Type 1, 4X, 12)  |
| Start and stop functions                 |  |
| Soft start with voltage ramp             | Linear voltage ramp, suitable for most applications  |
| Soft stop with voltage ramp              | Used to prolong the stop sequence  |
| Soft start with torque control           | Linear torque ramp, the best way to start pumps  |
| Soft stop with torque control            | Commonly used to reduce water hammering in pumps   |
| Kick start                               | More power in the start for heavy duty applications.   |
| Full voltage start                       | 0.5 second start ramp for applications with need of high starting torque   |
| Sequence start                           | Start multiple motors with one softstarter   |
| Current limit                            | Limits the current below a specified value   |
| Dual current limit                       | Consist of a low level, a high level and a time between them   |
| Current limit ramp                       | A linear increase of the current from the low to the high level  |
| Torque limit                             | Limit the torque to between 20-200%  |
| Pre-start function                       | Use Motor heating, Stand still brake or Jog automatically prior to start ramp  |
| Jog with slow speed, forward and reverse | Run the motor in three different speeds, both forward and reverse  |
| Start reverse (external contactors)      | Internal logic that allows control of external contactors for reverse start  |
| Dynamic brake                            | Provides a braking force to decrease stop time   |

<sup>1)</sup> Valid for normal start (class 10) for 50% on time and 50% off time. If other data is required, contact your local ABB office.

<sup>2)</sup> Above 40 °C (104 F) up to max. 60 °C (140 F) reduce the rated current with 0,8% per °C (0,44% per F).

<sup>3)</sup> When used at high altitudes, above 1000 meters (3281 ft) up to 4000 meters (13123 ft), de-rate the rated current using the following formula.

[ % of I<sub>e</sub> = 100 - x/1000 ] x = actual altitude of the softstarter in meter, [ % of I<sub>e</sub> = 100 - x/3280 ] x = actual altitude of the softstarter in feet. For de-rating of voltage, contact your local ABB office. 150

## PSTX - The advanced range

### Technical data

| <b>Fieldbus connection</b>                          |  |
|---|--|
| Built-in Modbus RTU                                 | Yes, with RS485 interface on terminals 23 and 24                                     |
| Connection for Anybus                               | Yes, including most common protocols, see catalog for details                        |
| Connection for ABB Fieldbus plug                    | Yes, compatible with a special adapter, see catalog for details                      |
| <b>Protections</b>                                  |  |
| Electronic overload protection, EOL                 | User defined, class 10A, 10, 20, 30  |
| Dual overload (separate overload for start and run) | Possible to set separate overloads for start and full speed                          |
| PTC connection                                      | User defined temperature control with external PTC sensor                            |
| PT-100 connection                                   | User defined temperature control with external PT-100 sensor                         |
| Locked rotor protection                             | Prevents start if motor is stuck, e.g. stuck pumps and conveyors                     |
| Current underload protection                        | Stops the process if the load is too light, e.g. a pump running dry                  |
| Current imbalance protection                        | User defined, checks current imbalance between the phases                            |
| Power factor underload protection                   | User defined, trip if power factor is out of range                                   |
| Under voltage protection                            | User defined, prevents the motor from stalling in weak networks                      |
| Over voltage protection                             | User defined, prevents the motor from damage at high voltage levels                  |
| Voltage imbalance protection                        | User defined, checks voltage imbalance between the phases                            |
| Earth fault protection / ground fault protection    | User defined, 0.1-1.0 sec, stops the process if earth fault is detected              |
| Phase reversal protection                           | Prevents start if phases are connected in the wrong order                            |
| Bypass open protection                              | Trips if the bypass is open when it should be closed                                 |
| User defined protection                             | Programmable input, can be used with external protection device                      |
| Too long current limit protection                   | User defined, trips when the current has been at the current limit for too long time |
| HMI failure protection                              | Indicates communication failure between softstarter and HMI                          |
| Fieldbus failure protection                         | Indicates communication failure between softstarter and PLC                          |
| Extension IO failure protection                     | Indicates communication failure between softstarter and IO module                    |
| Max number of starts/hour                           | Prevents start if the thyristors gets too warm (thus used over specification)        |
| Too long start time protection                      | User defined, trips when the starting time exceeds a set value                       |
| <b>External faults detection</b>                    |  |
| Phase loss  | Yes  |
| High current  | Yes  |
| Low control supply voltage                          | Yes  |
| Faulty usage  | Yes, e.g. using limp mode inside-delta   |
| Faulty connection                                   | Yes  |
| Bad network quality                                 | Yes  |
| <b>Vibration test</b>                               |  |
| According to IEC 60068-2-6:2007                     |  |

| <b>Warnings</b>  |  |
|--|--|
| Current underload warning  | User defined on/off  |
| Current imbalance warning  | User defined on/off  |
| Voltage imbalance warning  | User defined on/off  |
| Thyristor overload warning (SCR)   | User defined on/off  |
| Electronic overload Time-to-trip   | User defined on/off  |
| Short circuit warning (for Limp mode)                                      | User defined on/off, for Limp mode   |
| Over voltage warning   | User defined on/off  |
| Under voltage warning  | User defined on/off  |
| Power factor underload warning   | User defined on/off  |
| Locked rotor warning   | User defined on/off  |
| Faulty fan warning   | User defined on/off  |
| THD(U) - Total Harmonic Distortion warning                                 | User defined on/off  |
| Motor runtime limit warning  | User defined on/off  |
| Phase loss warning (for stand by)  | User defined on/off, for stand by  |
| EOL warning  | User defined on/off  |
| <b>Internal faults detection</b>   |  |
| Thyristor overload   | Yes  |
| Short circuit  | Yes  |
| Open circuit thyristor or gate   | Yes  |
| Heat sink over temperature   | Yes  |
| Shunt fault  | Yes  |
| <b>PTC input</b>   |  |
| Switch off resistance  | 2825 ohm ± 20%   |
| Switch on resistance   | 1200 ohm ± 20%   |
| <b>Other functions</b>   |  |
| Real time clock  | Can maintain time when the softstarter isn't powered up, 48 h back-up                  |
| Event log  | Log of events such as trips, parameters changed and operation                          |
| Emergency mode   | To keep the softstarter running regardless of trip or failure. Activated via DI        |
| Automatic restart  | In case of trip and stopped motor, the softstarter can restart itself                  |
| Keypad password  | Lock the keypad to inhibit unauthorized motor control                                  |
| Pump cleaning  | Can reverse pump flow and clean out pipes  |
| Electronic overload Time-to-cool   | Time until the motor is ready to be restarted after an EOL trip                        |
| Thyristor runtime measurement  | Measures most electrical variables, e.g. voltage, current and power                    |
| Auto phase sequence detection  | Detection of the phase sequence  |
| Electricity metering   | Measures most electrical variables, e.g. voltage, current and power                    |
| Motor heating  | DC injection in all windings to heat up the motor. Useful in cold or humid environment |
| Stand still brake  | Prevents the motor from moving, useful to keep fans from reversing                     |
| Voltage sags detection   | User defined   |
| Limp mode with two-phase motor control if one set of thyristors is shorted | Can keep process running until planned maintenance                                     |

For all functions and features see installation and commissioning manual, available on [solutions.abb.com/softstarters](https://solutions.abb.com/softstarters)

# PSTX - The advanced range

## Technical data

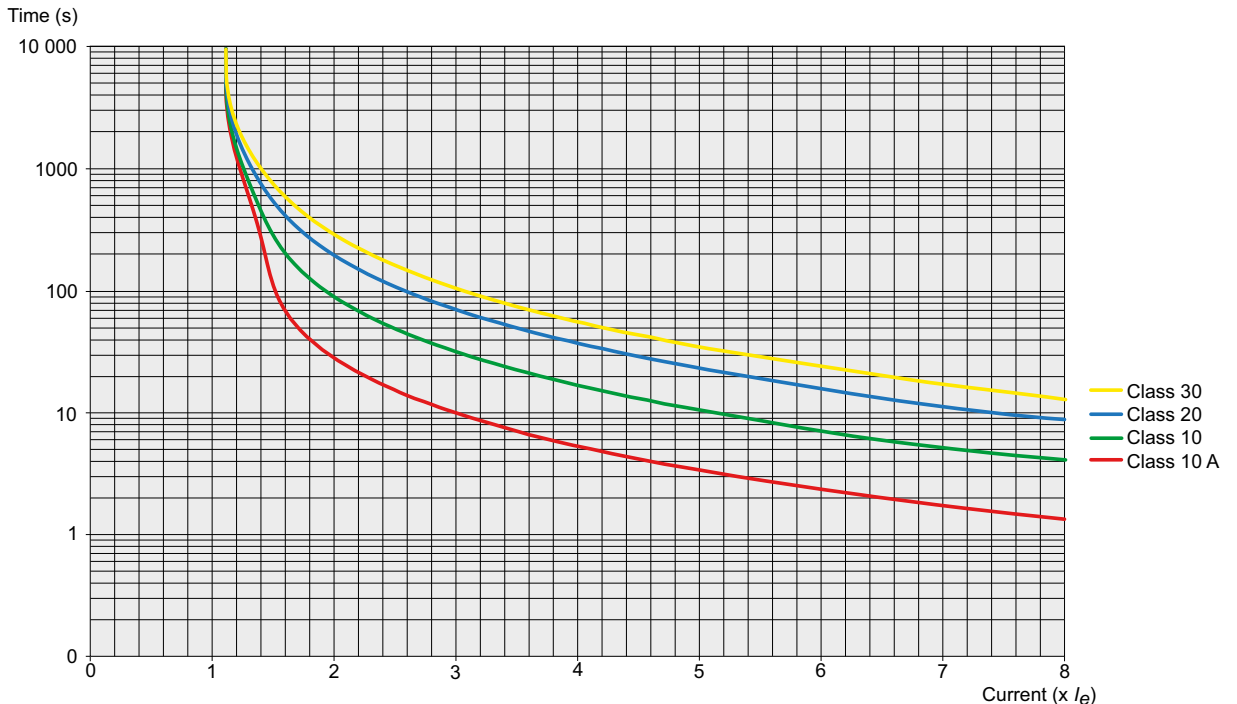
### Fuse ratings and power losses

| Softstarter               | Current range  | Max power loss<br>at rated $I_e$ | Max fuse rating - main circuit <sup>1) 2)</sup> |          |      | Power requirements |  |
|---------------------------|----------------|----------------------------------|---|----------|------|--------------------|--|
|                           | A              |                                  | W   | A        | Type | Size               | supply circuit Holding (VA) / Pull-in (VA) |
| PSTX30                    | 9.0...30.0     | 0.8                              | 100   | 170M1567 | 000  | 49/51              |  |
| PSTX37                    | 11.1...37.0    | 1.2                              | 125   | 170M1568 | 000  | 49/51              |  |
| PSTX45                    | 13.5...45.0    | 1.8                              | 160   | 170M1569 | 000  | 49/51              |  |
| PSTX60                    | 18.0...60.0    | 3.2                              | 160   | 170M1569 | 000  | 49/51              |  |
| PSTX72                    | 21.6...72.0    | 4.7                              | 250   | 170M1571 | 000  | 49/51              |  |
| PSTX85                    | 22.5...85.0    | 6.5                              | 315   | 170M1572 | 000  | 49/51              |  |
| PSTX105                   | 31.8...106.0   | 10                               | 400   | 170M3819 | 1*   | 49/51              |  |
| PSTX142                   | 42.9...143.0   | 18                               | 500   | 170M5810 | 2    | 49/53              |  |
| PSTX170                   | 51.3...171.0   | 26                               | 630   | 170M5812 | 2    | 49/53              |  |
| PSTX210                   | 63.0...210.0   | 48                               | 630   | 170M5812 | 2    | 56/276             |  |
| PSTX250                   | 75.0...250.0   | 68                               | 700   | 170M5813 | 2    | 56/276             |  |
| PSTX300                   | 90.0...300.0   | 97                               | 800   | 170M6812 | 3    | 56/276             |  |
| PSTX370                   | 111.0...370.0  | 148                              | 900   | 170M6813 | 3    | 56/276             |  |
| PSTX470                   | 141.0...470.0  | 99                               | 900   | 170M6813 | 3    | 67/434             |  |
| PSTX570                   | 171.0...570.0  | 146                              | 1000  | 170M6814 | 3    | 67/434             |  |
| PSTX720                   | 216.0...720.0  | 78                               | 1250  | 170M8554 | 3    | 61/929             |  |
| PSTX840                   | 252.0...840.0  | 106                              | 1500  | 170M6018 | 3    | 61/929             |  |
| PSTX1050 <sup>3)</sup>    | 315.0...1050.0 | 165                              | 1800  | 170M6020 | 3    | 68/929             |  |
| PSTX1250 <sup>3) 4)</sup> | 375.0...1250.0 | 234                              | 2000  | 170M6021 | 3    | 68/929             |  |

<sup>1)</sup> For the supply circuit 6 A delayed, for MCB use C characteristics.  
<sup>2)</sup> For inside delta connection the fuses shall be placed inside the delta. Contact ABB for more information.  
<sup>3)</sup> 170M6019 with fuse rating 1600 A should be used for 690 V version.  
<sup>4)</sup> For 690 V version, Bussmann fuses are only available for motors with rated current up to 1150 A.

### Tripping curves for electronic overload protection (cold) for PSE and PSTX









Tripping curves for the integrated electronic overload protection. All units have an integrated electronic overload protection that can be set to four different tripping classes. Below you find a curve for each tripping class in cold state. These tripping curves are valid for PSTX.





## PSTX - The advanced range

### Technical data

| Main terminals  |  |                                   |  |                           |                          |                   |
|---|--|-----------------------------------|--|---------------------------|--------------------------|-------------------|
| Article   | PSTX30 ...<br>PSTX105                    | PSTX142 ...<br>PSTX170            | PSTX210 ...<br>PSTX370                 | PSTX470 ...<br>PSTX570    | PSTX720 ...<br>PSTX1050  | PSTX1250          |
|  <b>Cu cable - flexible 1 x mm<sup>2</sup></b>   | 10...70 mm <sup>2</sup>                  | 6...120 mm <sup>2</sup>           | 16...240 mm <sup>2</sup>               | -                         | -                        | -                 |
| Clamp type  | Included                                 | 1SDA066917R1                      | 1SDA055016R1                           | -                         | -                        | -                 |
| Tightening torque   | 8 Nm                                     | 14 Nm                             | 25 Nm                                  | -                         | -                        | -                 |
|  <b>Cu cable - flexible 2 x mm<sup>2</sup></b>   | 6...35 mm <sup>2</sup>                   | 50...95 mm <sup>2</sup>           | 70...185 mm <sup>2</sup>               | -                         | -                        | -                 |
| Clamp type  | Included                                 | LZ185-2C/120<br>1SFN074709R1000   | OZXB4 <sup>1)</sup><br>1SCA022194R0890 | -                         | -                        | -                 |
| Tightening torque   | 8 Nm                                     | 16 Nm                             | 22 Nm                                  | -                         | -                        | -                 |
|  <b>Cu cable - Stranded 1 x mm<sup>2</sup></b>   | 10...95 mm <sup>2</sup>                  | 6...150 mm <sup>2</sup>           | 16...300 mm <sup>2</sup>               | -                         | -                        | -                 |
| Clamp type  | Included                                 | 1SDA066917R1                      | 1SDA055016R1                           | -                         | -                        | -                 |
| Tightening torque   | 8 Nm                                     | 14 Nm                             | 25 Nm                                  | -                         | -                        | -                 |
|  <b>Cu cable - Stranded 2 x mm<sup>2</sup></b>   | 6...35 mm <sup>2</sup>                   | 50...120 mm <sup>2</sup>          | 70...185 mm <sup>2</sup>               | 120...240 mm <sup>2</sup> | -                        | -                 |
| Clamp type  | Included                                 | LZ185 - 2C/120<br>1SFN074709R1000 | OZXB4 <sup>1)</sup><br>1SCA022194R0890 | 1SDA013922R1              | -                        | -                 |
| Tightening torque   | 8 Nm                                     | 16 Nm                             | 22 Nm                                  | 35 Nm                     | -                        | -                 |
|  <b>Cu cable - Stranded 3 x mm<sup>2</sup></b>   | -  | -                                 | -                                      | -                         | 70...185 mm <sup>2</sup> | -                 |
| Clamp type  | -  | -                                 | -                                      | -                         | 1SDA013956R1             | -                 |
| Tightening torque   | -  | -                                 | -                                      | -                         | 45 Nm                    | -                 |
|  <b>Al cable - Stranded 1 x mm<sup>2</sup></b> | -  | 95...185 mm <sup>2</sup>          | 185...240 mm <sup>2</sup>              | -                         | -                        | -                 |
| Clamp type  | -  | 1SDA0549881R1                     | 1SDA055020R1                           | -                         | -                        | -                 |
| Tightening torque   | -  | 31 Nm                             | 43 Nm                                  | -                         | -                        | -                 |
|  <b>Al cable - Stranded 2 x mm<sup>2</sup></b> | -  | -                                 | -                                      | 120...240 mm <sup>2</sup> | -                        | -                 |
| Clamp type  | -  | -                                 | -                                      | 1SDA023380R1              | -                        | -                 |
| Tightening torque   | -  | -                                 | -                                      | 31 Nm                     | -                        | -                 |
|  <b>Lugs Width ≤</b>                           | -  | 24 mm (0.945 in)                  | 32 mm (1.260 in)                       | 47 mm (1.850 in)          | 50 mm (1.969 in)         | 50 mm (1.969 in)  |
| <b>Diameter &gt;=</b>   | -  | 8 mm (0.355 in)                   | 10.2 mm (0.402 in)                     | 10.5 mm (0.413 in)        | 12.5 mm (0.492 in)       | 13 mm (0.519 in)  |
| <b>Tightening torque</b>  | -  | 18 Nm (160 in lb)                 | 28 Nm (248 in lb)                      | 35 Nm (310 in lb)         | 45 Nm (398 in lb)        | 45 Nm (398 in lb) |
| <b>Connection capacity acc to UL / CSA 1 x AWG / kcmil</b>  | 6...2/0                                  | 6...300 kcmil                     | 4...400 kcmil                          | -                         | -                        | -                 |
| Clamp type  | Included                                 | ATK185                            | ATK300                                 | -                         | -                        | -                 |
| Tightening torque   | 71 in lb                                 | 300 in lb                         | 375 in lb                              | -                         | -                        | -                 |
| <b>Connection capacity acc to UL / CSA 2 x AWG / kcmil</b>  | -  | -                                 | 4...500 kcmil                          | 2/0...500 kcmil           | 2/0...500 kcmil          | -                 |
| Clamp type  | -  | -                                 | ATK300/2 <sup>2)</sup>                 | ATK580/2                  | ATK580/2                 | -                 |
| Tightening torque   | -  | -                                 | 375 in lb                              | 375 in lb                 | 375 in lb                | -                 |
| <b>Connection capacity acc to UL / CSA 3 x AWG / kcmil</b>  | -  | -                                 | -                                      | 2/0...500 kcmil           | 2/0...500 kcmil          | -                 |
| Clamp type  | -  | -                                 | -                                      | ATK750/3                  | ATK750/3                 | -                 |
| Tightening torque   | -  | -                                 | -                                      | 375 in lb                 | 375 in lb                | -                 |
| <b>Supply and control circuit</b>   |  |                                   |  |                           |                          |                   |
| Cu cable - Stranded 1 x mm <sup>2</sup>   | 0.75...2.5 mm <sup>2</sup> (19...14 AWG) |                                   |  |                           |                          |                   |
| Cu cable - Stranded 2 x mm <sup>2</sup>   | 0.75...1.5 mm <sup>2</sup> (19...16 AWG) |                                   |  |                           |                          |                   |
| Tightening torque   | 0.5 Nm (4.4 in lb)                       |                                   |  |                           |                          |                   |

<sup>1)</sup> Terminal shrouds 1SFN125406R1000 must be used.

<sup>2)</sup> Terminal shrouds 1SFN125406R1000 can be used.

#### PSTX integrated bypass ratings

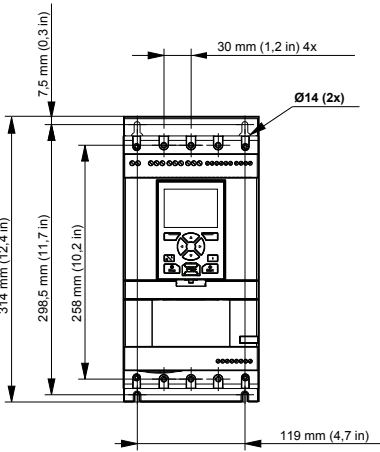
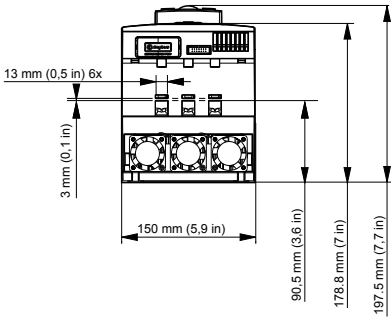
All ABB's softstarters are equipped with a built-in bypass contactor. This bypass contactor is rated AC-1 since it only make and break the motor in full speed at the rated current of the softstarter. However, in the PSTX470-PSTX1050 products, the bypass contactors has also a lower rated AC-3 rating which is shown in the table below.

| Softstarter                               | PSTX470... PSTX570 | PSTX720... PSTX1050 | PSTX1250      |
|---|--------------------|---------------------|---------------|
| <b>Integrated contactor</b>               | <b>AF370</b>       | <b>AF750</b>        | <b>AF1250</b> |
| AC-3 rating at 400 V                      | 370 A              | 750 A               | -             |
| IEC AC-3 Rated operational power at 400 V | 200 kW             | 400 kW              | -             |
| UL/CSA 3-phase motor rating at 480 V      | 300 hp             | 600 hp              | -             |

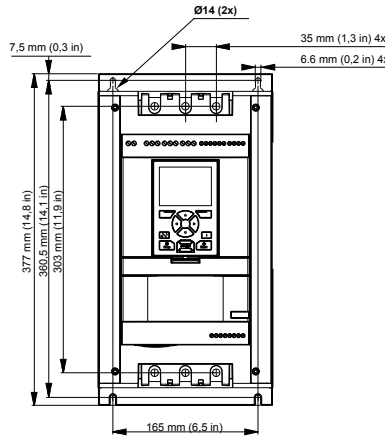
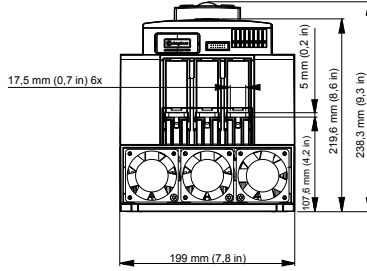
# PSTX - The advanced range

## Dimensions

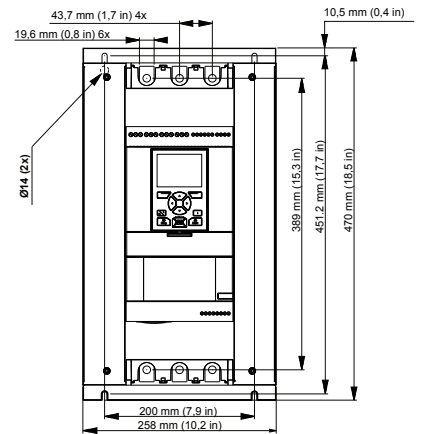
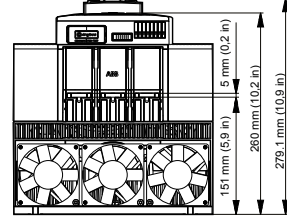
PSTX30... 105



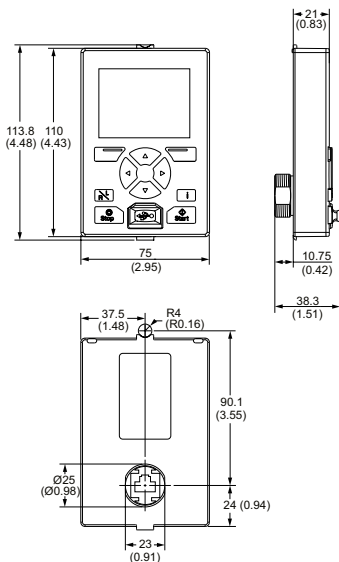
PSTX142... 170



PSTX210... 370



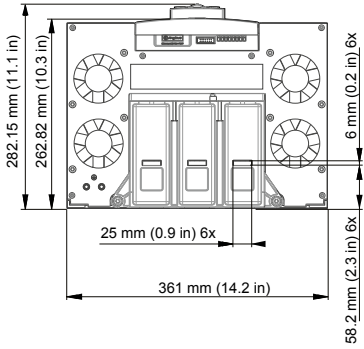
PSTX detachable keypad



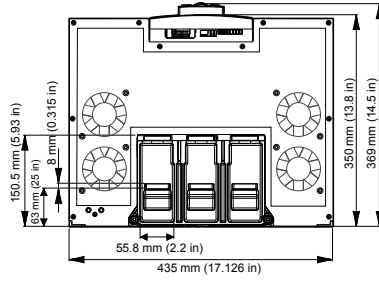
# PSTX - The advanced range

## Dimensions

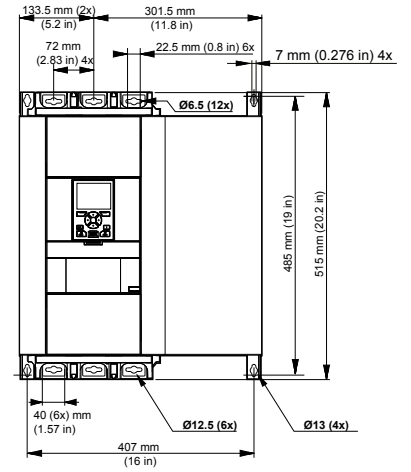
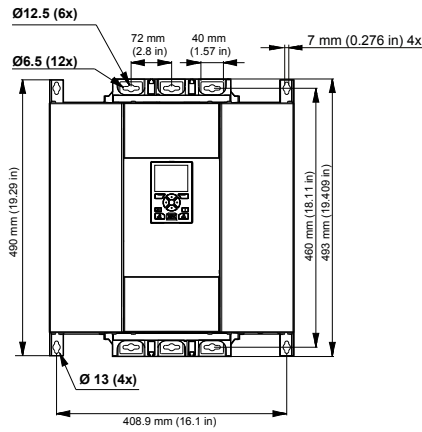
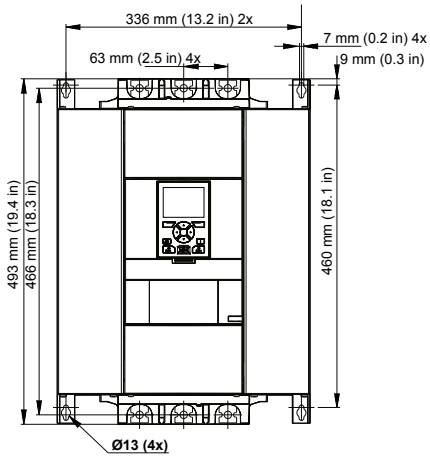
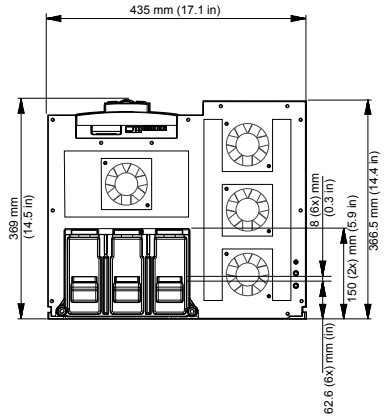
**PSTX470... 570**



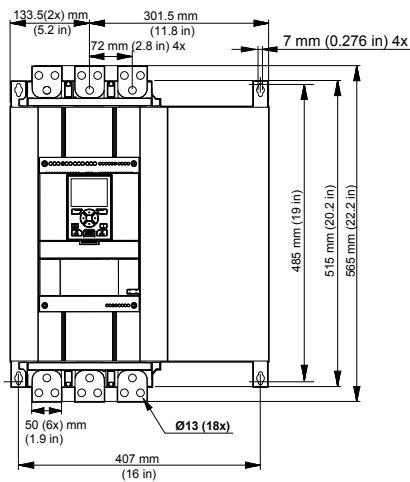
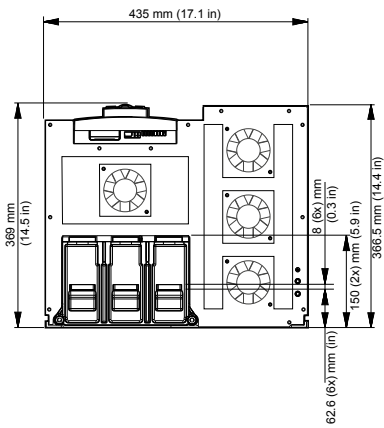
**PSTX720... 840**



**PSTX1050**



**PSTX1250**



# PSTX - The advanced range

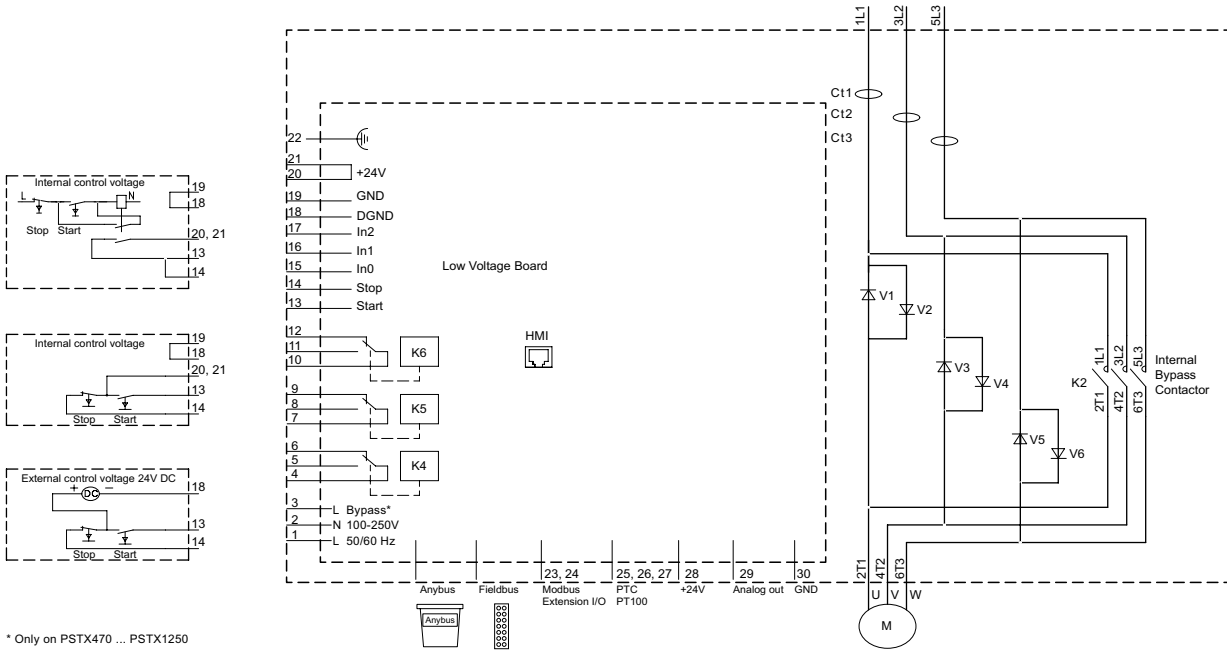
## Circuit diagrams



### CAUTION

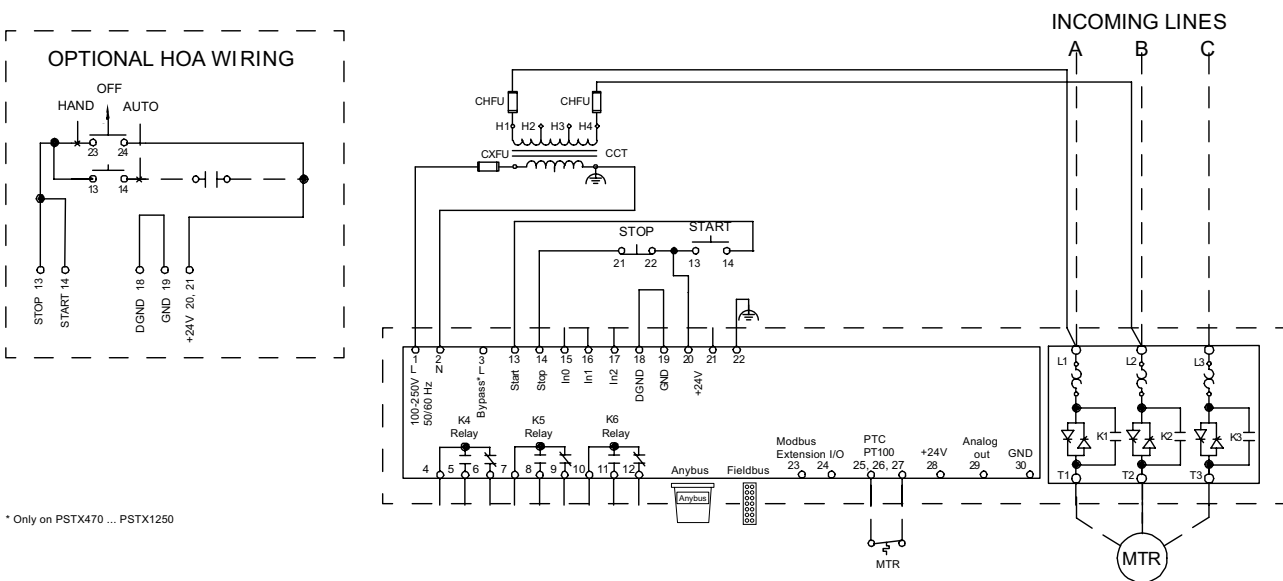
Terminal 22 is a function earth, it is not a protective earth. It shall be connected to the mounting plate.

PSTX30 ... PSTX1250 IEC circuit diagram



\* Only on PSTX470 ... PSTX1250

PSTX30 ... PSTX1250 UL circuit diagram



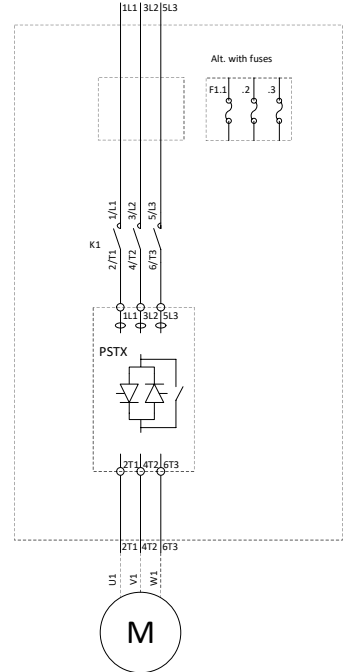
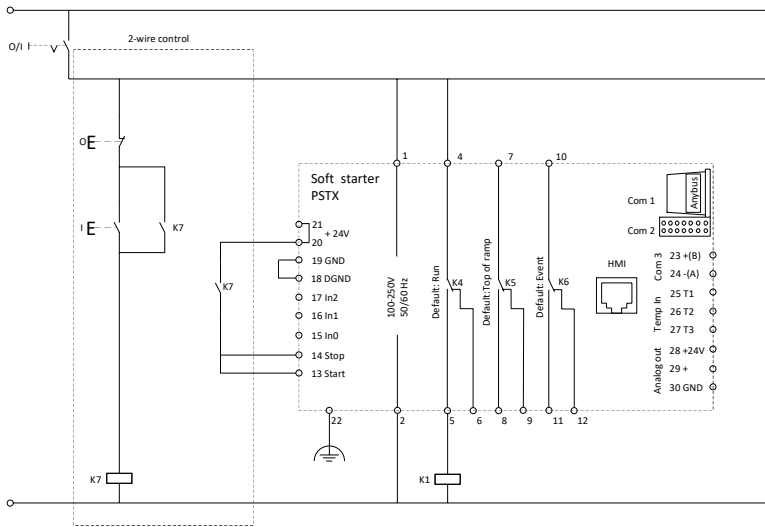
\* Only on PSTX470 ... PSTX1250

For more circuit diagrams see [solutions.abb.com/softstarters](http://solutions.abb.com/softstarters)

# PSTX - The advanced range

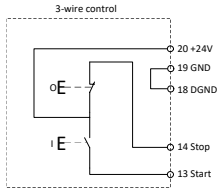
## Circuit diagrams

### PSTX30 ... PSTX1250 In-line connected with line contactor and fuses

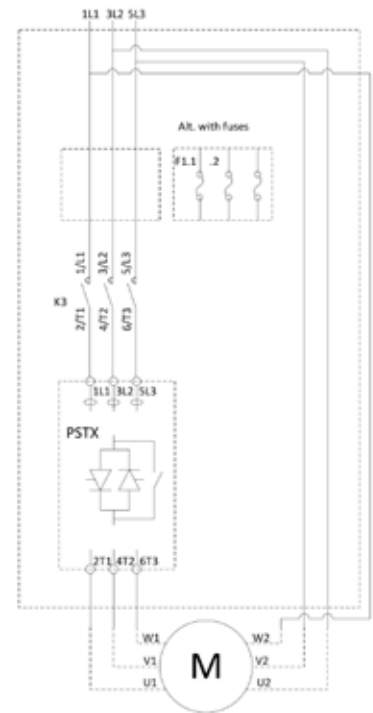
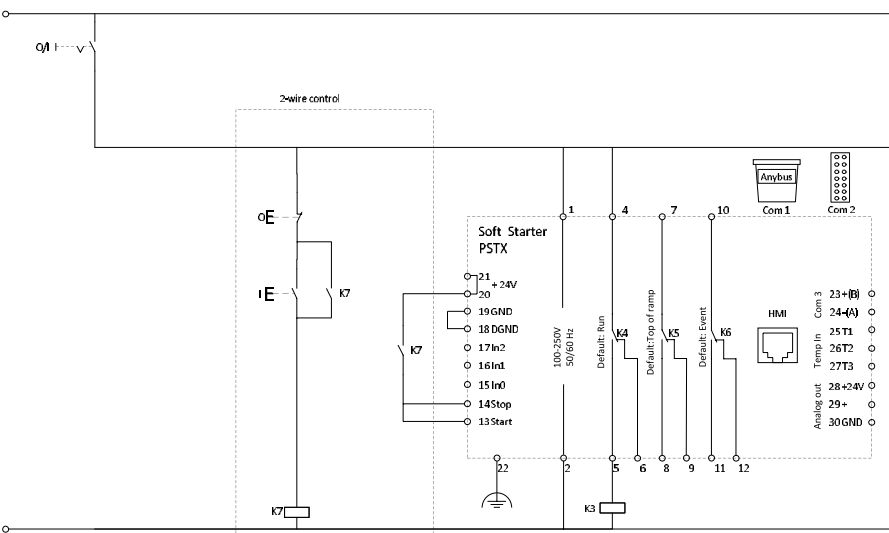


Coil consumption for main contactors.  
 Pul-in max 15A  
 Holding max 1.5A

If the pull-in or holding values are higher, the main contactors must be controlled via an auxiliary contactor.



### PSTX30 ... PSTX1250 Inside-delta connected with contactor and fuses



Coil consumption for Inside Delta contactor.  
 Pul-in max 15A  
 Holding max 1,5A

If the pull-in or holding values are Higher, the Inside Delta contactor must be controlled via an auxiliary contactor.

