

CATALOG

Softstarters

~~PSR, PSRC, PSE and PSTX~~



Motors use almost one third of the world's generated electricity. So it is safe to say that reliable motor operation is crucial to our modern way of life.

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ABB softstarters

How we are helping the industry

A softstarter from ABB offers you several values and benefits. Whether you are a consultant, OEM, panel builder or end-user, A softstarter will add to your business value by securing motor reliability, improving installation efficiency and increasing application productivity.



SECURE
MOTOR
RELIABILITY

ABB softstarters help increase your motors lifetime by protecting it from electrical stress. Starting currents are easily optimized to your load, application and motor size. Over ten motor protection features are included to keep your motor safe from different load and network irregularities.



IMPROVE
INSTALLATION
EFFICIENCY

Reduce your installation time and panel size by having all features you need built into your softstarter. Our softstarters are easy to install thanks to their compact design and many built-in features. The built-in bypass saves energy and space while reducing heat generation. A complete motor starting solution in one unit.



INCREASE
APPLICATION
PRODUCTIVITY

Reduce the number of stops in your production by allowing your softstarter to do more than just starting. Our softstarters reduce the mechanical stress on your motor application, which will increase your uptime. Torque control, pump cleaning, motor brake and many other features enable you to operate your process at its full potential.



Xylem - South Africa

ABB softstarters providing efficiency to the mining industry

One of Xylem's water solutions helps to prevent flooding in mines. Previous softstarters needed a lot of extra protection equipment. Xylem was looking for a simpler solution that would ensure reliability even at 3,500 meters depth. Reducing the number of components by 80 percent, shortened installation time by 60 percent. Costs cut to half has helped Xylem sell twice as many panels with softstarters as before.



**Installation time
reduced by 60%**



**Total panel cost
reduced by 50%**

Common applications for softstarters

Pumps, fans, compressors and conveyors

A softstarter can do wonders with your operations. Packed with useful features, it reduces the wear of your equipment, improve the reliability of your processes and increase overall productivity.



01 Softstarters controlling pumps



02 Softstarters controlling fans

Pump

Eliminating water hammering with torque control

Water hammering is a common problem with pumps and typically results in wear in pipes and valves when starting and stopping the pump. The ABB softstarter feature torque control provides a soft pipe fill during start and eliminates water hammering during stop. The benefits are prolonged lifetime of the system and increased uptime.

Keep pipes and pumps clean

Many pumps risk getting clogged over time. This will cause reduced flow and increased risk of pump damage. Thanks to the feature to reverse the direction of the flow and start again with kick-start, ABB softstarters can help prevent and solve pump clogging and associated downtime.

Avoid running dry with underload protection

Damages due to pumps running dry can be avoided with the softstarter feature dry pump protection, called underload protection. It stops the motor which saves the pump from additional wear and contributes to prolonging its lifetime.

01



Fans

Soft starting adjusted to application

Fans normally have a high moment of inertia, which makes starting tough and current high. Using an ABB softstarter, the voltage is increased gradually during start, which reduces the current and removes the inrush peak. It is possible to adjust the settings to fit almost any starting condition, from unloaded to fully loaded.

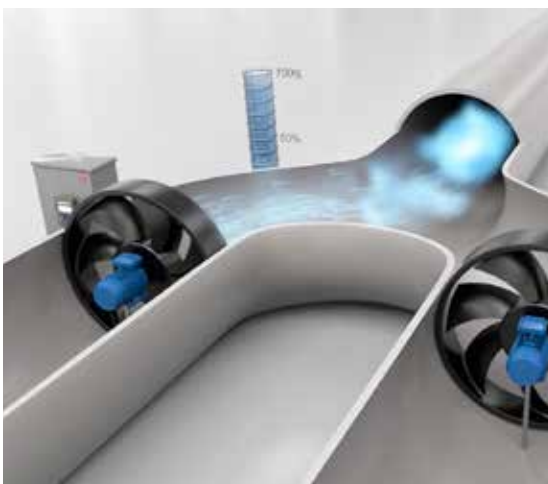
Fast stops with motor braking

It can also take a long time to stop a fan. With the dynamic brake feature, also called flux braking, the stopping time can be reduced. This improves process safety when the load has a high moment of inertia and makes fan operation easier for the operator.

Avoid unwanted movements with stand still brake

An idle fan that is rotating backwards, due to wind or airflow from another fan, can be kept still using the stand still brake. It prevents unwanted airflow and improves the control of the system without the need for an external mechanical brake.

02





03 Softstarters controlling compressors



04 Softstarters controlling conveyor belts

Compressors

Full control of current with current limit

Many applications are sensitive to high or variable starting currents. The feature current limit makes it possible to start the motor securely even in a weaker network, improving the availability of the equipment and system. Reducing the current means reducing the stress on cables, network and motor.

Full voltage start for scroll compressors

For scroll compressors it is often necessary to start the motor in a very short time while still maintaining a low starting current. Full voltage start is a start mode that gives you almost a direct start but without the current peak.

Phase reversal protection for problem-free commissioning

A motor rotating in the wrong direction, which may occur due to connecting the phases wrongly, may cause severe damage to a compressor. Using phase reversal protection, the motor won't start in the wrong direction, avoiding costly compressor downtime and repairs.

03



Conveyors

Avoid overheating with overload protection

Too much material on a conveyor belt may cause overload and overheating, reducing the reliability and longevity of the motor. ABB's overload protection feature shuts down the motor in case of overload, avoiding overheating.

Increased flexibility with jog with slow speed

After stopping the belt, it may be necessary to run the motor at low speed to correctly position the belt before resuming operation. The jog with slow speed feature makes it possible to position the belt manually, in both forward and reverse direction, before re-starting the belt. This improves process efficiency and eliminates the need for a variable speed drive, a considerably more expensive solution for solving the problem.

Continuous operation with limp mode

Shorted thyristor is a possible problem for a softstarter, putting it out of operation until the component has been replaced. Using limp mode, the softstarter will continue to work with one thyristor shorted, avoiding costly unplanned stoppages.

04



Motor starting

Why motor starting and stopping matters

There are some common issues associated with starting and stopping electrical motors. Depending on requirement, different starting and stopping methods can be used.



Direct-on-line

Direct-on-line starting (DOL) is the easiest and most commonly used starting method. It is suitable for stable networks and mechanically stiff and well-dimensioned shaft systems due to the high current and torque generated during start. DOL starting is uncontrolled, which means that the motor will start with maximum current and torque regardless of load type.

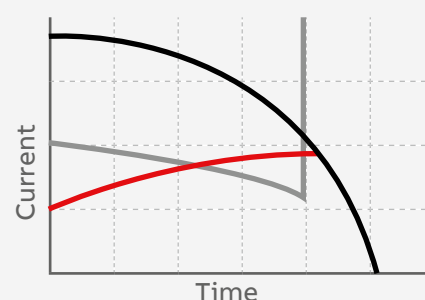
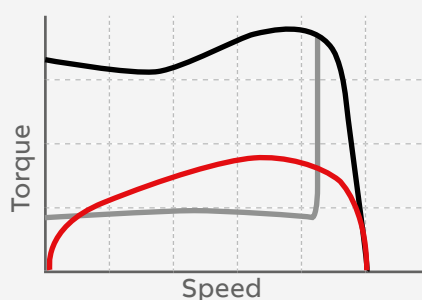


Star-delta

A star-delta starter reduces current and torque during start. The starting current is about one third compared to direct-on-line starting, although it also reduces the starting torque to about 25 percent. Star-delta is not adjustable, so if the torque is reduced too much, the motor will not start. Current peaks will happen when switching from star to delta connection.

Typical torque and current curves from starting a motor

- Softstarter
- DOL
- Star-delta





Softstarter

Like direct-on-line and star delta starters, softstarters are used to start and stop motors in full-speed applications. It eliminates common problems associated with motor starting and stopping, including electrical surges, spikes and high inrush currents. Because it offers soft starting and stopping, a softstarter is the optimal compromise between a direct-on-line or star-delta starter and a variable speed drive in many full-speed motor applications.



Variable speed drive

Like a softstarter, a variable speed drive (VSD) can perform soft motor starting and stopping. However, the VSD was designed primarily to control motor speed, resulting in energy efficient motor operation in variable speed applications. Using a VSD with the sole purpose of ensuring soft starting and stopping of full-speed motors can therefore be considered an unnecessarily advanced solution.

Comparison between different starting methods

The table below describes which problems are prevented, using the most common starting methods.

	Direct on line DOL	Star-delta start Y/D	Softstarter	Drive
Reduce high inrush current	–	●	●	●
Reduce heavy wear on bearings, shafts, gear boxes, etc	–	○	●	●
Prevent slipping belts	–	○	●	●
Remove torque/current peaks	–	–	●	●
Prevent water hammering in piping system	–	–	●	●
Need of variable speed control	–	–	–	●

● = standard, ○ = reduced, – = not available

ABB softstarters

A part of your motor starting solution

Motor starting requires several components to work perfectly together. ABB is a one-stop shop for motor starting, offering all the necessary components and complete motor starting solutions, proven together in numerous installations worldwide.

Can I use a softstarter on a ship?

ABB softstarters PSE and PSTX have marine approvals and are certified for marine environment.

Ships uses IT-networks which means that there is a floating electrical ground. It is possible to use an ABB softstarter in such a network but it is recommended to not connect the functional ground on the softstarter to the ship to avoid disturbances from the network to effect the electronics inside the softstarter.

Can I use a softstarter for an ATEX motor?

ABB softstarter PSTX can be used to start ATEX classified motors in EX environments. However, always consult with your local ATEX certified expert for component selection and system design. Listed below are some points for consideration (but not limited to):

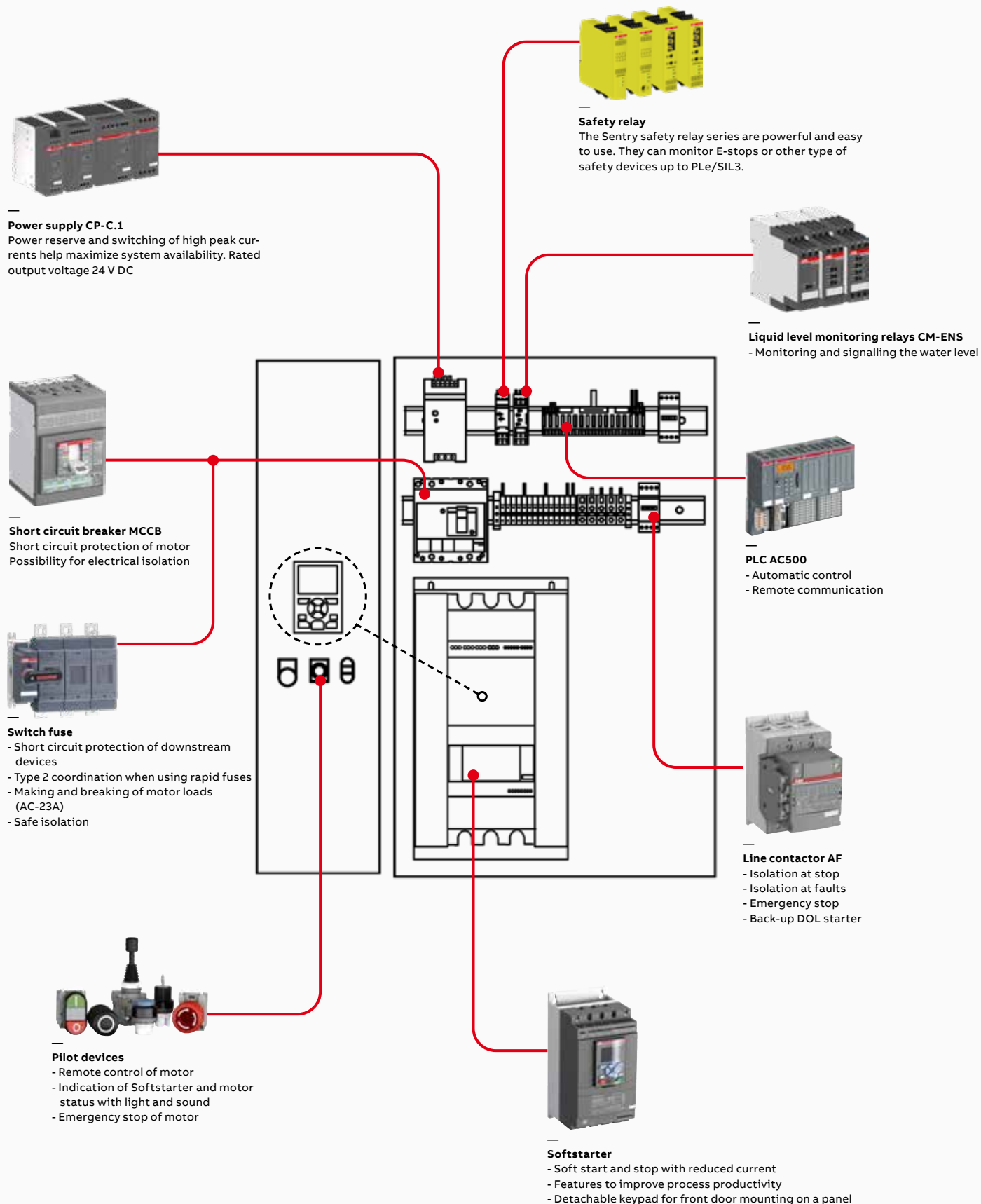
- Locate the softstarter outside the EX area, or in an ATEX approved panel
- The PSTX Softstarter has not a specific ATEX approved motor overload protection. The standard (global or local) may require this depending on the type of installation. If the standard requires it an external ATEX approved EOL/TOL should be considered
- Select softstarter according to normal or heavy-duty start depending on your application.
- A line/fault contactor can be used in case of failure
- Determine the short circuit coordination rating and type that is needed for the application. Typically, there should be a coordination for a device, for example a fault contactor, that won't get welded shut in case of short circuit.

Always consult with certified ATEX expert and follow local laws and regulations that applies.



Typical motor control cabinet

Overview



Softstarters portfolio

Overview



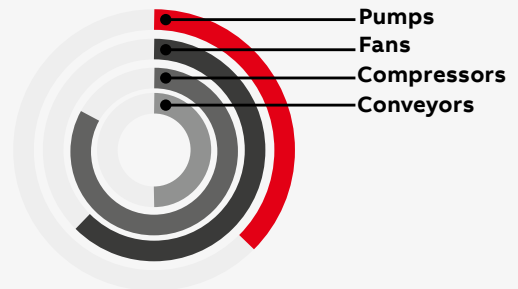
PSR - The compact range

PSR is our most compact softstarter with basic benefits and values. PSR can handle up to 100 starts per hour. Suitable for small motors.

Current: 3 A... 105 A

Main voltage: 208 V... 600 V

Application features



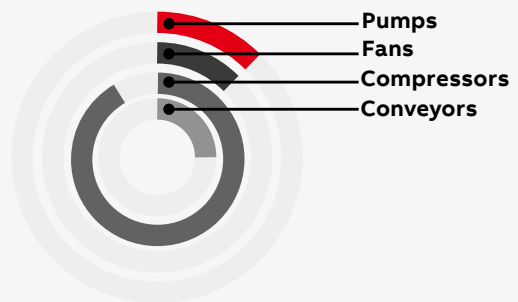
PSRC - For scroll compressor

PSRC is fast and easy to install with fixed settings. Designed for scroll compressors results in less stress on the compressor reducing the maintenance cost to a minimum.

Current: 3 A... 105 A

Main voltage: 208 V... 600 V

Application features



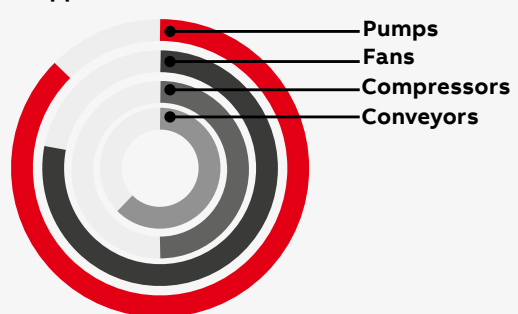
PSE - The efficient range

The new generation PSE is a true general purpose softstarter. It's a perfect balance between high starting capacity and cost efficiency. Now featuring built-in fieldbus communication.

Current: 18 A... 370 A

Main voltage: 208 V... 600 V

Application features



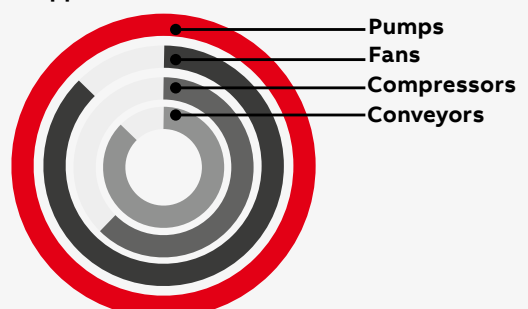
PSTX - The advanced range

PSTX is the most complete alternative for any motor starting application. Featuring built-in modbus and anybus modules that support all major communication protocols.

Current: 30 A... 1250 A

Main voltage: 208 V... 690 V

Application features



Softstarters selection

ABB softstarters offering consists of four ranges, covering every need. The products help you secure motor reliability, improve installation efficiency and increase application productivity.



Product range overview	PSR	PSRC	PSE	PSTX
Technology	Basic	Basic	General	Advanced
Motor size	Small – up to 105 A	Small – up to 105 A	Medium – up to 370 A	Large – up to 1250 A
Installation efficiency	Basic	Basic	Medium	High
Motor protection	-	-	Medium	High
Application	All	Scroll compressor	All	All
Application enhancement	Basic	Basic	Medium	High
Fieldbus Communication	Yes	Yes	Yes	Yes
Anybus Communication	-	-	-	Yes
Torque control	-	-	Yes	Yes
Heavy duty starts	-	-	Yes	Yes
Frame sizes	A, B, C, D	A, B, C, D	A, B, C	A, B, C, D, E, F

Selection process

1

Determine softstarter series

First, determine the softstarter series that fulfill the needs of the application and motor. Use the guide on the left to explore the three series and the power range each one covers.

Altitude formula

De-rate for altitudes between 1000-4000 m or 3280-13123 ft with the following equations for all softstarters:

In meters: % of I_e = 100 – (x-1000)/150

In feet: % of FLA = 100 – (y-3280)/480

Where x/y is the actual altitude in m/ft

2

Match the softstarter size with the motor current

When the softstarter series is selected, the correct size should now be determined. The selection of a softstarter is based on the current. Find the softstarter that corresponds to the motor current.

Temperature equations

PSTX and PSR In Celsius: 40...60 °C: Reduce I_e with 0.8%/°C

PSTX and PSR In Fahrenheit: 104...140 °F: Reduce FLA with 0.44%/°F

PSE In Celsius: 40...60 °C: Reduce I_e with 0.6%/°C

PSE In Fahrenheit: 104...140 °F: Reduce FLA with 0.33%/°F

3

Fine tune and select the correct size

The last step is to fine tune the selection, and there are three different factors to consider:

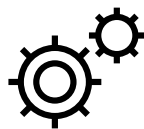
- Normal or a heavy load: If the load is characterized as a heavy load, select the next size softstarter in the series.
- High ambient temperature
- High altitude

Use the equations and the table on the right to find the correct de-rating equation.

Typical applications

Normal duty start	Heavy duty
Bow thrusters	Centrifugal fan
Centrifugal pump	Conveyor belt (long)
Compressors	Crusher
Conveyor belt (short)	Stirrer
Elevator	Sawmill

Softstarters benefits and features



SECURE MOTOR RELIABILITY

Increase your motors lifetime...

With ABB softstarters, starting currents are easily optimized to your load, application and motor size.

...by protecting it from electrical stresses.

Over ten motor protection features are included to keep your motor safe from overloads and network irregularities.

Softstarter features	PSR	PSE	PSTX
Current limit	–	●	●
Current limit ramp and dual current limit	–	–	●
Electronic motor overload protection	–	●	●
Dual overload protection	–	–	●
Underload protection	–	●	●
Power factor underload protection	–	–	●
Locked rotor protection	–	●	●
Current/Voltage imbalance protection	–	–	●
Phase reversal protection	–	–	●
Customer defined protection	–	–	●
Motor heating	–	–	●
PTC/PT100 input for motor protection	–	–	●
Overvoltage/undervoltage protection	–	–	●
Earth-fault protection	–	–	●

● = standard, ○ = option, – = not available



IMPROVE INSTALLATION EFFICIENCY

Reduce your installation time and panel size...

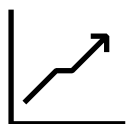
ABB softstarters are easy to install thanks to their compact design and many built-in features.

...by having everything that you need built in.

Built-in bypass saves energy and space while reducing heat generation: a complete motor starting solution in one unit designed and verified by ABB.

Softstarter features	PSR	PSE	PSTX
Built-in bypass	●	●	●
Inside-delta connection possible	–	–	●
Graphical display and keypad	–	●	●
Detachable keypad	–	–	●
Motor runtime and start count	–	–	●
Programmable warning functions	–	–	●
Diagnostics	–	–	●
Overload time-to-trip	–	–	●
Overload time-to-cool	–	–	●
Analog output	–	●	●
Fieldbus communication	○	●	●
Event log	–	○	●
Multiple languages	–	–	17
Electricity metering	–	–	●

● = standard, ○ = option, – = not available



INCREASE APPLICATION PRODUCTIVITY

Reduce the number of production stops...

ABB softstarters reduce mechanical stress on your application which increases uptime.

...by letting the softstarter do more than just starting.

Torque control, pump cleaning, motor break and many more features enables you to use your process to its full potential.

Softstarter features	PSR	PSE	PSTX
Torque control	–	●	●
Torque limit	–	–	●
Coated PCBA	–	●	●
Limp mode	–	–	●
Jog with slow speed forward/ reverse	–	–	●
Dynamic brake	–	–	●
Stand still brake	–	–	●
Sequence start	–	–	●
Full voltage start	–	–	●
Kick start	–	●	●
Automatic pump cleaning	–	–	●

● = standard, ○ = option, – = not available

Case studies

Tasmanian salmon operation keeps its fish cool with ABB softstarters

Tassal upgrades the motor control center in Australia's biggest land-based salmon hatchery with ABB Softstarters, ensuring the continuous operation of its water chillers. For more information visit: [Link](#)

Lower the inrush current by 50%



Xylem - South Africa

ABB softstarters providing efficiency to the mining industry

Xylem reducing the number of components by 80%, shortened installation time by 60%. Costs cut to half has helped Xylem sell twice as many panels with softstarters as before. For more information visit: [Link](#)

Total panel costs reduced by 50%



Indian tourist town is pumped up over ABB Softstarters that help uninterrupted water supply

Shimla has cut pipeline damage 50% using Softstarters to help lift water thousands of feet from a dam to quench the thirst of millions. For more information visit: [Link](#)

Pipeline damage reduced by 50%

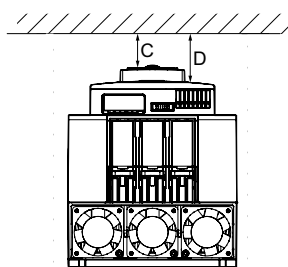


Wall mounting

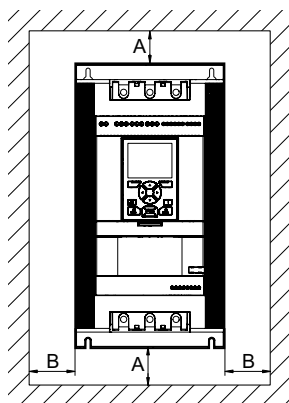
Instructions

Product	Minimum distance to wall mm (in)			
	A	B	C	D
PSR				
PSR3 ... PSR16	0	0	25 (0.98)	N/A
PSR25 ... PSR30	0	0	25 (0.98)	N/A
PSR37 ... PSR45	0	0	25 (0.98)	N/A
PSR60 ... PSR105	0	0	25 (0.98)	N/A
PSRC				
PSR3 ... PSR16	0	0	25 (0.98)	N/A
PSR25 ... PSR30	0	0	25 (0.98)	N/A
PSR37 ... PSR45	0	0	25 (0.98)	N/A
PSR60 ... PSR105	0	0	25 (0.98)	N/A
PSE				
PSE18 ... PSE105	100 (3.94)	10 (0.39)	20 (0.79)	N/A
PSE142 ... PSE170	100 (3.94)	10 (0.39)	20 (0.79)	N/A
PSE210 ... PSE370	100 (3.94)	10 (0.39)	20 (0.79)	N/A
PSTX				
PSTX30 ... PSTX105	100 (3.94)	10 (0.39)	20 (0.79)	35 (1.38)
PSTX142 ... PSTX170	100 (3.94)	10 (0.39)	20 (0.79)	35 (1.38)
PSTX210 ... PSTX370	100 (3.94)	10 (0.39)	20 (0.79)	35 (1.38)
PSTX470 ... PSTX570	150 (5.91)	15 (0.59)	20 (0.79)	35 (1.38)
PSTX720 ... PSTX840	150 (5.91)	15 (0.59)	20 (0.79)	35 (1.38)
PSTX1050 ... PSTX1250	150 (5.91)	15 (0.59)	20 (0.79)	35 (1.38)

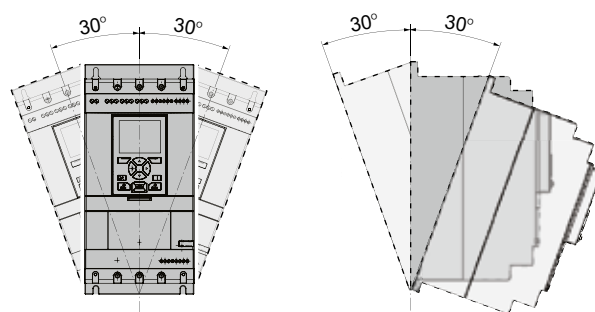
Minimum distance to front



Minimum distance to wall
















Maximum mounting angle



Certifications and approvals

The table below shows the certifications and approvals for ABB softstarters. For other certifications and/or approvals, please contact ABB.

Certifications and approvals														
Abbreviation approved in	Certifications							Approvals: ship classification societies						
														
	CE EU	cULus Canada USA	CCC China	EAC Russia	ANCE Mexico	C-tick Australia	KC Korea	ABS	DNV	Lloyd's Register	CCS	PRS	Class NK	
PSR3 ... PSR105	●	●	●	●	●	●	●	—	—	—	—	—	—	
PSRC3 ... PSRC105	●	●	●	●	●	●	●	—	—	—	—	—	—	
PSE18 ... PSE370	●	●	●	●	●	●	●	●	●	●	●	●	●	
PSTX30 ... PSTX1250	●	●	●	●	●	●	●	●	●	●	●	●	●	

Note: • Standard design approved, the products wear the certification mark when it is required.

Directives and standards

No. 2006/95/EC	Low voltage equipment
No. 2004/108/EC	Electromagnetic compatibility
EN 60947-1	Low-voltage switchgear and controlgear - Part 1: General rules
EN 60947-4-2	AC semiconductor motor controllers and starters
UL 508	Industrial Control Equipment
CSA C22.2 No 14	Industrial Control Equipment

Items included in the box with the softstarter

	Multi-language manual	Terminal kit	Cable and mounting kit for detachable keypad
PSR3 ... PSR105	•	O	—
PSRC3 ... PSRC105	•	O	—
PSE18 ... PSE105	•	O	—
PSE142...PSE370	•	—	—
PSTX30 ... PSTX105	•	O	•
PSTX142...PSTX1250	•	—	•

● = included, O = built-in, — = not included

The PSTX combines many years of research and product development with extensive knowledge of application specific requirements and needs. It is our latest advancement in motor control & protection, and it adds new functionality and increased reliability.



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.

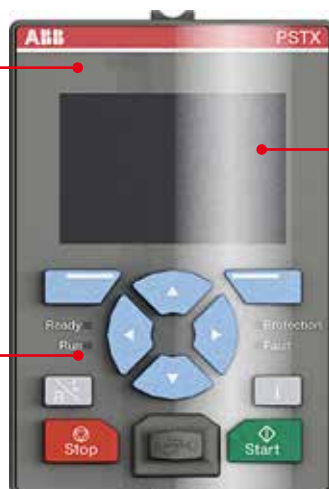
Coated PCB protecting from dust, moist and corrosive atmosphere.



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. ¹⁾	Using gG fuses, type 1 coordination will be achieved. To achieve type 2 coordination, semiconductor fuses must be used. ¹⁾	Suitable switch fuse for the recommended semiconductor fuses. ¹⁾	The line contactor is not required for the softstarter itself but often used to open if OL trips ¹⁾
	IEC kW (400V)	IEC max A	UL HP (440-480 V)	UL max FLA	MCCB (50 kA) 400 V, 40 °C	Fuse protection (80 kA), Semiconductor fuses, Bussmann	Switch fuse	Line contactor
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	-	-

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

²⁾ 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 I_e A	UL/CSA rated operational power				FLA	Type	Order code	Net Weight (kg)	Net Weight (lb)
400V P_e kW	500V P_e kW	690V P_e kW		200/208V P_e hp	220/240V P_e hp	440/480V P_e hp	550/600V P_e 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 I_e A	UL/CSA rated operational power				FLA	Type	Order code	Net Weight (kg)	Net Weight (lb)
400V P_e kW	500V P_e kW	690V P_e kW		200/208V P_e hp	220/240V P_e hp	440/480V P_e hp	550/600V P_e 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



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 I_e A	UL/CSA rated operational power				FLA	Type	Order code	Net Weight (kg)	Net Weight (lb)
400V P_e kW	500V P_e kW	690V P_e kW		200/208V P_e hp	220/240V P_e hp	440/480V P_e hp	550/600V P_e 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 I_e A	UL/CSA rated operational power				FLA	Type	Order code	Net Weight (kg)	Net Weight (lb)
400V P_e kW	500V P_e kW	690V P_e kW		200/208V P_e hp	220/240V P_e hp	440/480V P_e hp	550/600V P_e 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 I_e A	UL/CSA rated operational power				FLA	Type	Order code	Net Weight (kg)	Net Weight (lb)
400V P_e kW	500V P_e kW	690V P_e kW		200/208V P_e hp	220/240V P_e hp	440/480V P_e hp	550/600V P_e 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 I_e A	UL/CSA rated operational power				FLA	Type	Order code	Net Weight (kg)	Net Weight (lb)
400V P_e kW	500V P_e kW	690V P_e kW		200/208V P_e hp	220/240V P_e hp	440/480V P_e hp	550/600V P_e 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 I_e A	UL/CSA rated operational power				FLA	Type	Order code	Net Weight (kg)	Net Weight (lb)
400V P_e kW	500V P_e kW	690V P_e kW		200/208V P_e hp	220/240V P_e hp	440/480V P_e hp	550/600V P_e 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 I_e A	UL/CSA rated operational power				FLA	Type	Order code	Net Weight (kg)	Net Weight (lb)
400V P_e kW	500V P_e kW	690V P_e kW		200/208V P_e hp	220/240V P_e hp	440/480V P_e hp	550/600V P_e 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

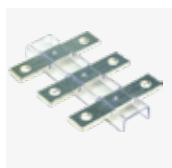
Article	Wire range mm ²	Tightening torque max Nm	Type	Order code	Pkg qty	Net kg	lb
PSTX142 ... PSTX170	6-120	8	KIT FC Cu XT4 3pcs	1SDA066917R1	3	0.18	0.40
PSTX142 ... PSTX170	2 x (50-95)	16	LZ185-2C/120	1SFN074709R1000	3	0.30	0.66
PSTX210 ... PSTX370	16-240	25	T5 400 3pcs	1SDA055016R1	3	0.36	0.79
PSTX210 ... 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

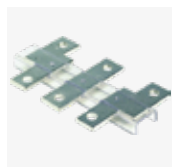
Article	Wire range mm ²	Tightening torque max Nm	Type	Order code	Pkg qty	Net kg	lb
PSTX142 ... PSTX170	95-185	31	KIT FC CuAl T4 3pcs	1SDA054988R1	3	0.14	0.31
PSTX210 ... PSTX370	185-240	43	KIT FC CuAl T5 400 3pcs	1SDA055020R1	3	0.24	0.54
PSTX470 ... PSTX1050	2 x (120-240)	31	KIT FC CuAl T6 630-S6 3pcs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



Terminal extensions

Terminal extensions

Article	Dimensions 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 enlargements

Terminal enlargements

Article	Dimensions 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
- EtherCAT
- EtherNet/IP
- Modbus TCP
- Profinet IO

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

Article	Connection 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 ¹⁾	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
New CANopen	1	AB-CANopen-IO-1	1SFA899300R1013	1	0.03	0.07

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

PSTX - The advanced range

Technical data

Technical data	
Rated insulation voltage U_i	690V
Rated operational voltage U_e	208...600 V, 208...690V +10% / -15%, 50/60Hz $\pm 10\%$
Rated control supply voltage U_s	100...250 V +10%/-15%, 50/60Hz $\pm 10\%$
Rated control circuit voltage U_c	Internal or external 24 V DC
Starting capacity at I_e	4 x I_e for 10 sec
Number of starts per hour	10 for PSTX30 ... PSTX370 ¹⁾ 6 for PSTX470 ... PSTX1250 ¹⁾
Overload capability	Overload class 10
Maximum altitude	4000 m (13123 ft) ³⁾
Ambient temperature	
During operation	-25...+60 °C, (-13...+140 F) ²⁾
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_e	250 V AC/24 V DC
Rated thermal current I_{th}	5 A
Rated operational current I_e at AC-15 ($U_e=250$ 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), Apparent 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

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

²⁾ 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).

³⁾ 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.

$$\left[\% \text{ of } I_e = 100 - \frac{x-1000}{1000} \right] x = \text{actual altitude of the softstarter in meter, } \left[\% \text{ of } I_e = 100 - \frac{x-3280}{3280} \right] x = \text{actual altitude of the softstarter in feet. For de-rating of voltage, contact your local ABB office. 150}$$

PSTX - The advanced range

Technical data

Fieldbus connection	
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
Protections	
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 get too warm (thus used over specification)
Too long start time protection	User defined, trips when the starting time exceeds a set value
External faults detection	
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
Vibration test	
According to IEC 60068-2-6:2007	

Warnings	
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
Internal faults detection	
Thyristor overload	Yes
Short circuit	Yes
Open circuit thyristor or gate	Yes
Heat sink over temperature	Yes
Shunt fault	Yes
PTC input	
Switch off resistance	2825 ohm \pm 20%
Switch on resistance	1200 ohm \pm 20%
Other functions	
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

PSTX - The advanced range

Technical data

Fuse ratings and power losses

Softstarter	Current range	Max power loss at rated I_e	Max fuse rating - main circuit ^{1) 2)} Bussmann fuses, DIN43 620 (Knife)			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 ³⁾	315.0...1050.0	165	1800	170M6020	3	68/929
PSTX1250 ^{3) 4)}	375.0...1250.0	234	2000	170M6021	3	68/929

¹⁾ For the supply circuit 6 A delayed, for MCB use C characteristics.

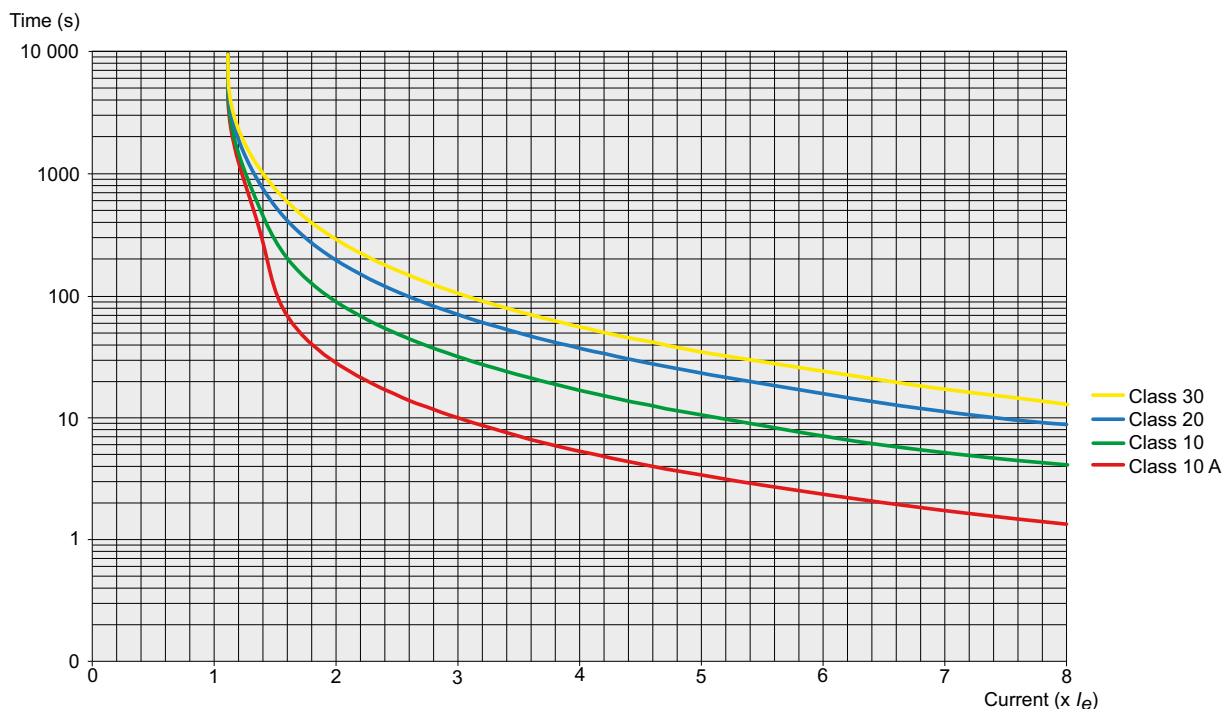
²⁾ For inside delta connection the fuses shall be placed inside the delta. Contact ABB for more information.

³⁾ 170M6019 with fuse rating 1600 A should be used for 690 V version.

⁴⁾ For 690 V version, Bussmann fuses are only available for motors with rated current up to 1150 A.


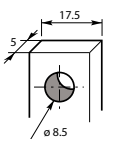
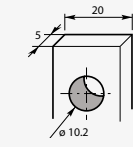
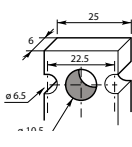
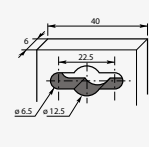
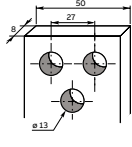








Tripping curves for electronic overload protection (cold) for PSE and PSTX

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 ... PSTX105	PSTX142 ... PSTX170	PSTX210 ... PSTX370	PSTX470 ... PSTX570	PSTX720 ... PSTX1050	PSTX1250
 Cu cable - flexible 1 x mm²	10...70 mm ²	6...120 mm ²	16...240 mm ²	-	-	-
Clamp type	Included	1SDA066917R1	1SDA055016R1	-	-	-
Tightening torque	8 Nm	14 Nm	25 Nm	-	-	-
 Cu cable - flexible 2 x mm²	6...35 mm ²	50...95 mm ²	70...185 mm ²	-	-	-
Clamp type	Included	LZ185-2C/120 1SFN074709R1000	OZXB4 ¹⁾ 1SCA022194R0890	-	-	-
Tightening torque	8 Nm	16 Nm	22 Nm	-	-	-
 Cu cable - Stranded 1 x mm²	10...95 mm ²	6...150 mm ²	16...300 mm ²	-	-	-
Clamp type	Included	1SDA066917R1	1SDA055016R1	-	-	-
Tightening torque	8 Nm	14 Nm	25 Nm	-	-	-
 Cu cable - Stranded 2 x mm²	6...35 mm ²	50...120 mm ²	70...185 mm ²	120...240 mm ²	-	-
Clamp type	Included	LZ185 - 2C/120 1SFN074709R1000	OZXB4 ¹⁾ 1SCA022194R0890	1SDA013922R1	-	-
Tightening torque	8 Nm	16 Nm	22 Nm	35 Nm	-	-
 Cu cable - Stranded 3 x mm²	-	-	-	-	70...185 mm ²	-
Clamp type	-	-	-	-	1SDA013956R1	-
Tightening torque	-	-	-	-	45 Nm	-
 Al cable - Stranded 1 x mm²	-	95...185 mm ²	185...240 mm ²	-	-	-
Clamp type	-	1SDA0549881R1	1SDA055020R1	-	-	-
Tightening torque	-	31 Nm	43 Nm	-	-	-
 Al cable - Stranded 2 x mm²	-	-	-	120...240 mm ²	-	-
Clamp type	-	-	-	1SDA023380R1	-	-
Tightening torque	-	-	-	31 Nm	-	-
 Lugs Width ≤	-	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)
Diameter ≥	-	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)
Tightening torque	-	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)
Connection capacity acc to UL / CSA 1 x AWG / kcmil	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	-	-	-
Connection capacity acc to UL / CSA 2 x AWG / kcmil	-	-	4...500 kcmil	2/0...500 kcmil	2/0...500 kcmil	-
Clamp type	-	-	ATK300/2 ²⁾	ATK580/2	ATK580/2	-
Tightening torque	-	-	375 in lb	375 in lb	375 in lb	-
Connection capacity acc to UL / CSA 3 x AWG / kcmil	-	-	-	2/0...500 kcmil	2/0...500 kcmil	-
Clamp type	-	-	-	ATK750/3	ATK750/3	-
Tightening torque	-	-	-	375 in lb	375 in lb	-
Supply and control circuit						
Cu cable - Stranded 1 x mm ²	0.75...2.5 mm ² (19...14 AWG)					
Cu cable - Stranded 2 x mm ²	0.75...1.5 mm ² (19...16 AWG)					
Tightening torque	0.5 Nm (4.4 in lb)					

¹⁾ Terminal shrouds 1SFN125406R1000 must be used.

²⁾ Terminal shrouds 1SFN125406R1000 can be used.

PSTX integrated bypass ratings

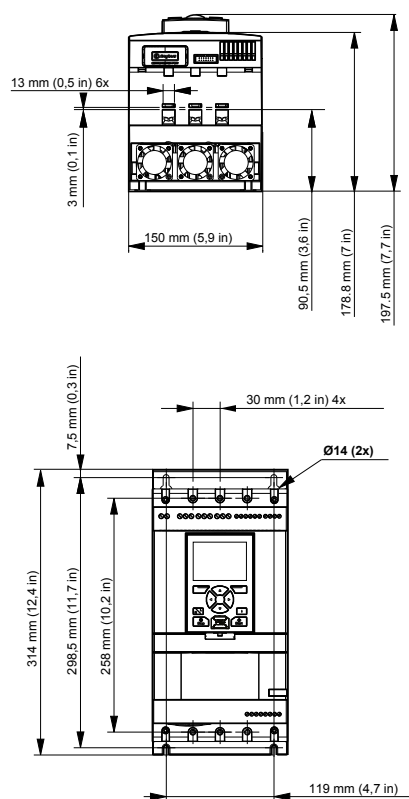
All ABB's softstarters are equipped with a built-in bypass contactor. This bypass contactor is rated AC-1 since it only make and break the motor in full speed at the rated current of the softstarter. However, in the PSTX470-PSTX1050 products, the bypass contactors has also a lower rated AC-3 rating which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

Softstarter	PSTX470... PSTX570	PSTX720... PSTX1050	PSTX1250
Integrated contactor	AF370	AF750	AF1250
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	-

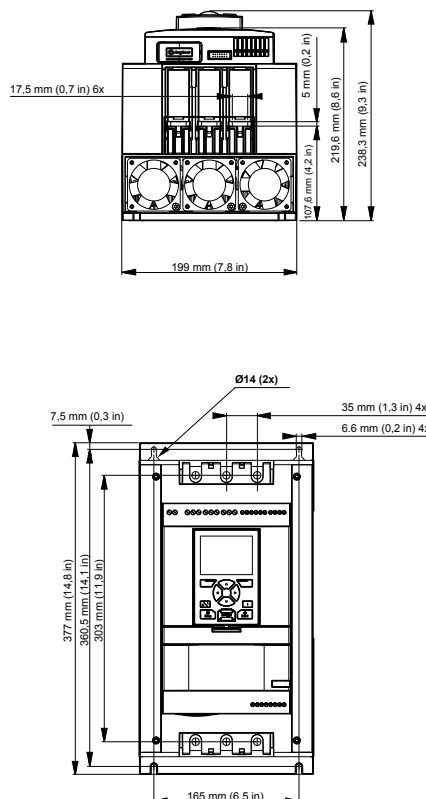
PSTX - The advanced range

Dimensions

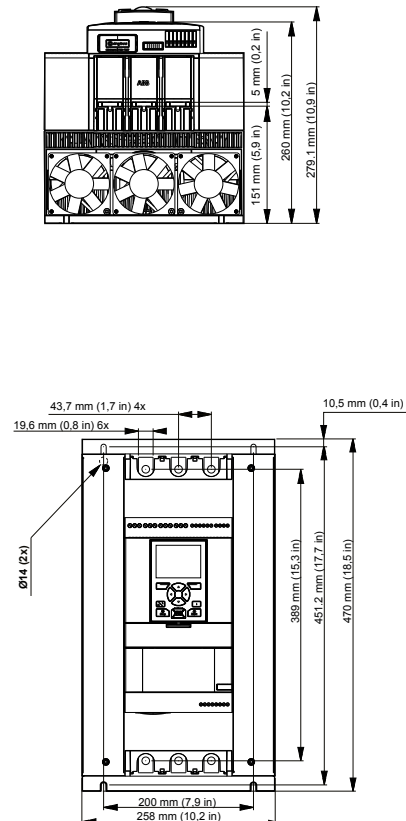
PSTX30... 105



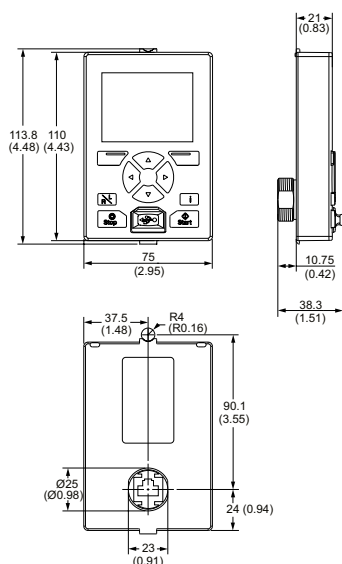
PSTX142... 170



PSTX210... 370

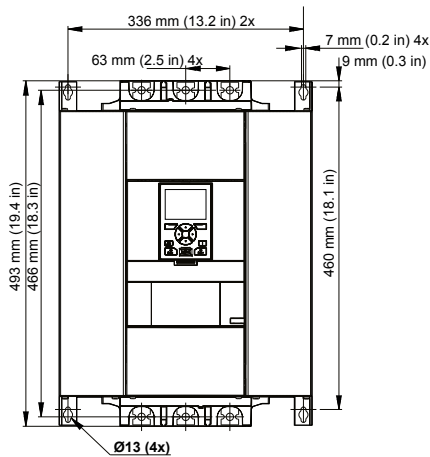
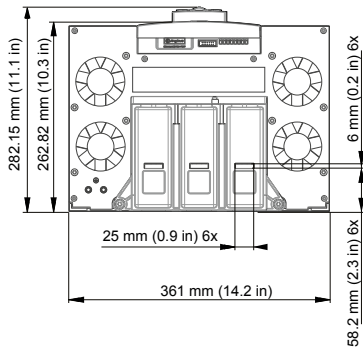
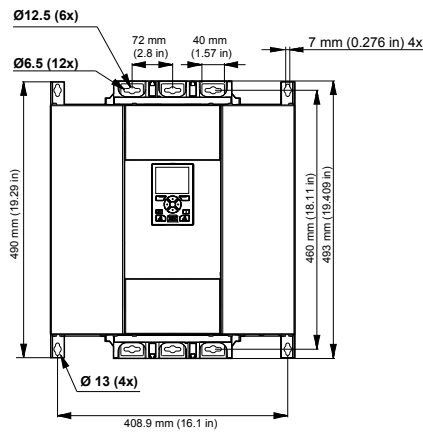
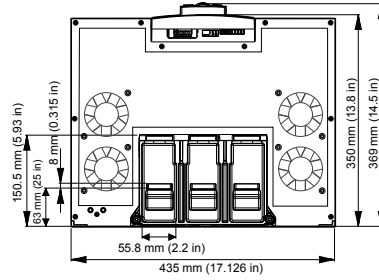
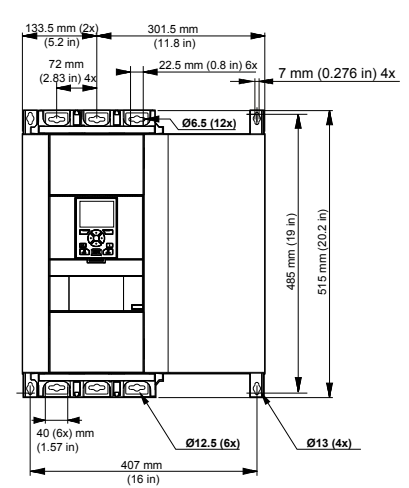
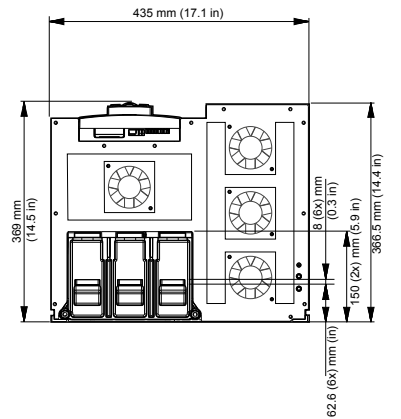
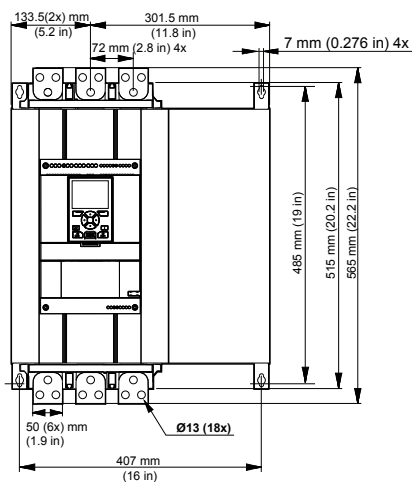
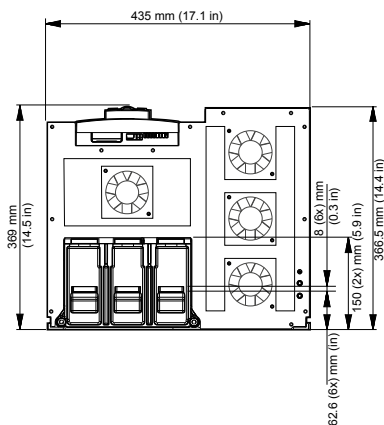


PSTX detachable keypad



PSTX - The advanced range

Dimensions

PSTX470... 570**PSTX720... 840****PSTX1050****PSTX1250**

PSTX - The advanced range

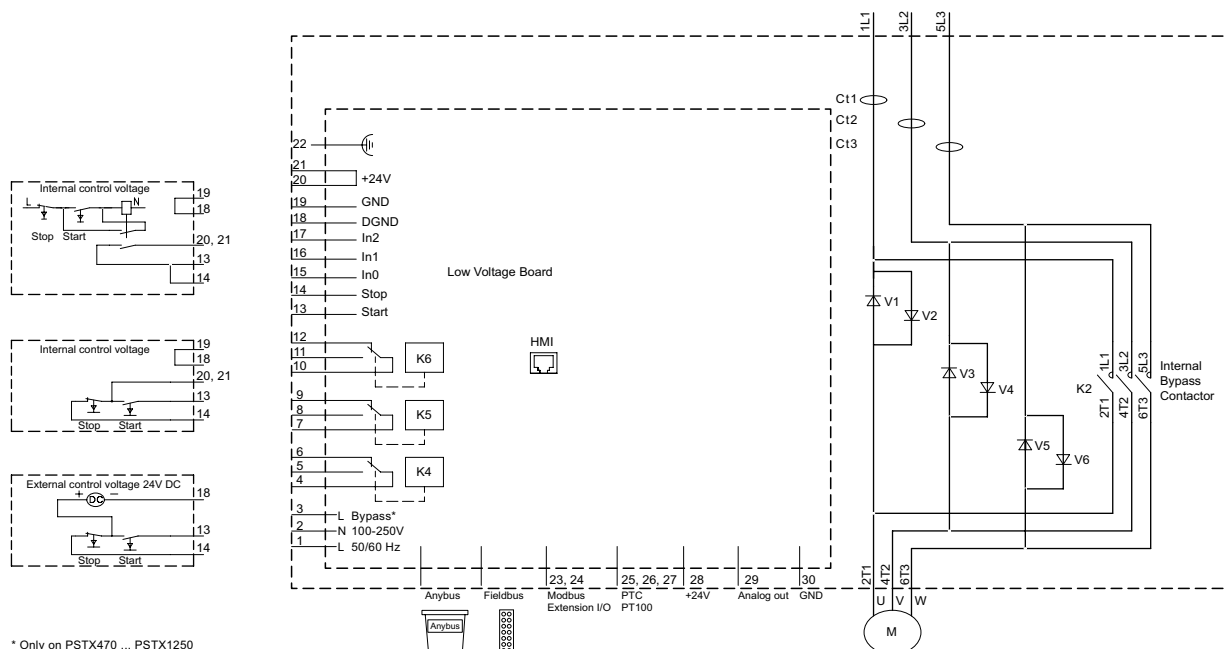
Circuit diagrams



CAUTION

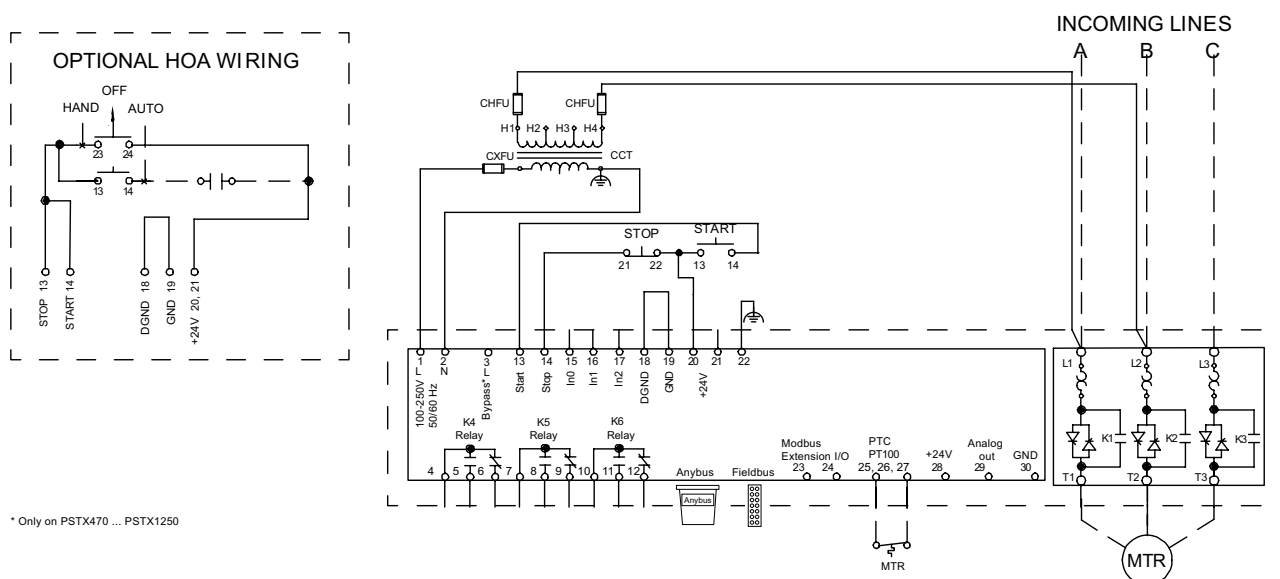
Terminal 22 is a function earth, it is not a protective earth. It shall be connected to the mounting plate.

PSTX30 ... PSTX1250 IEC circuit diagram



* Only on PSTX470 ... PSTX1250

PSTX30 ... PSTX1250 UL circuit diagram

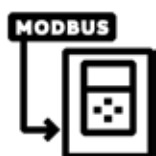


* Only on PSTX470 ... PSTX1250

For more circuit diagrams see solutions.abb.com/softstarters

Fieldbus communication

For softstarters



Fieldbus communication interface offering

PSR, PSE and PSTX softstarters can be connected to a fieldbus network for monitoring and control. All major industrial fieldbus protocols are covered with different accessories making the installation very flexible.

Built-in Modbus-RTU for PSTX and PSE

- Built-in Modbus RTU communication interface
- Easy to install using the Modbus RTU adaptor which is included with the Softstarter
- Through this communication interface it is possible to get full control and status information of the Softstarter as well as reading- and writing parameters

Anybus connection for PSTX

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



PROFIBUS



DeviceNet



Modbus RTU



BACnet IP



EtherNet IP



Modbus TCP



PROFINET



BACnet MS/TP



EtherCAT



CANopen

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 ¹⁾	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
New CANopen	1	AB-CANopen-IO-1	1SFA899300R1013	1	0.03	0.07

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

ABB Fieldbus interface

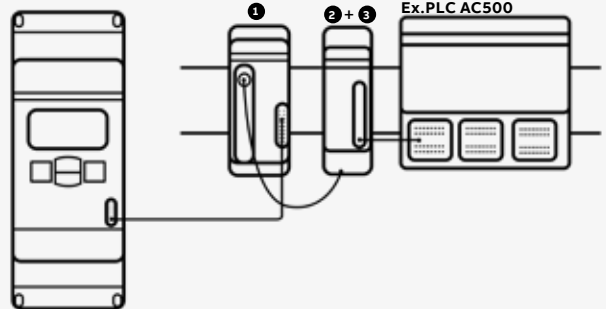
For softstarters

Fieldbus communication interface offering
Available communication protocols for softstarters

Communication	PSR	PSRC	PSE	PSTX
Modbus RTU	○	○	●	●
Profibus	○	○	○	○
DeviceNet	○	○	○	○
Modbus TCP	–	–	○	–
Anybus	–	–	–	○

● = Built-in
○ = Optional
– = not available

Softstarters:
PSR, PSRC, PSE or PSTX



Fieldbus plug adapter

1 Fieldbus plug adapter with cable

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



Fieldbus plug kit

2 Fieldbus plug kit for mounting fieldbus plug adapter together with fieldbus plugs Includes: Holder, cable, cable holder and 2 terminal blocks

Article	Type	Order code	Pkg qty	kg	lb
Accessory kit	PS-FBPK	1SFA899320R1002	1	0.15	0.33

3 Fieldbus communication interface

Article	Type	Order code	Pkg qty	kg	lb
Profibus					
Profibus DP communication interface	PDP32.0	1SAJ242000R0001	1	0.05	0.11
Cable from PDP32.0 to drawer outside, length 1.5 m	CDP24.150	1SAJ929240R0015	1	0.06	0.13
DeviceNet					
DeviceNet communication interface; terminal block for fieldbus connection included	DNP31.0	1SAJ231000R0001	1	0.04	0.09
Cable from DNP31.0 to drawer outside, length 1.5 m	CDP24.150	1SAJ929240R0015	1	0.06	0.13
Modbus-TCP ¹⁾					
Ethernet Modbus TCP interface	MTQ22-FBP	1SAJ260000R0100	1	0.17	0.38
Cable ETH-X1/X4-M12 female, length 1.5m	CDP17-FBP.150	1SAJ929170R0015	1	0.08	0.17
Modbus-RTU ²⁾					
Modbus RTU communication interface; terminal block for fieldbus connection included	MRP31.0	1SAJ251000R0001	1	0.04	0.09
Cable from MRP31.0 to drawer outside, length 1.5 m	CDP24.150	1SAJ929240R0015	1	0.06	0.13

¹⁾ only for PSE softstarter no fieldbus plug kit needed

²⁾ Only for PSR, Modbus RTU is built-in on PSE and PSTX.

Note: See separate catalog for fieldbus communication interfaces: [Link](#)
For more information visit the Universal Motor Controller website: [Link](#)



- Profibus
- DeviceNET



Modbus-TCP

Marketing materials and tools

It is easy to access more information about ABB softstarters online. On our web page you will find tools for selection, coordination tables, CAD drawings and different types of documentation. solutions.abb.com/softstarters



Marketing materials

Panorama >

Softstarter product overview.

Leaflets >

One- or two pages information for example case studies, fact sheet and more.

Manuals >

Do you need help with settings or communication and more check out our softstarter manuals.

Certificates >

ISO certificates and approvals for softstarters.

Videos >

Softstarter YouTube playlist.



—
PSTX105-600-70D
Box with accessories
1SFA898109R7008

Demo units

Article	Description	Order code
PSR16-600-70D	Demonstration unit without power electronics	1SFA896107R7009
PSR30-600-70D	Demonstration unit without power electronics	1SFA896109R7009
PSR45-600-70D	Demonstration unit without power electronics	1SFA896111R7009
PSR105-600-70D	Demonstration unit without power electronics	1SFA896115R7009
PSE105-600-70D	Demonstration unit without power electronics	1SFA897109R7009
PSTX105-600-70D	Demonstration unit without power electronics packed in a case with pushbuttons and USB cable	1SFA898109R7008
PSTX105-600-70D	Demonstration unit without power electronics	1SFA898109R7009
PSTX170-600-70D	Demonstration unit without power electronics	1SFA898111R7009
PSTX370-600-70D	Demonstration unit without power electronics	1SFA898115R7009

Extended warranty

Extended lifetime

Time to use your processes to their full potential. For Softstarters we have extended warranty options up to 3 years. Professional commissioning with warranty extension provides free of charge rapid response services, if the unexpected occurs.

[Extended warranty tool >](#)



PSTX simulator

Software application for testing and learning more about PSTX softstarter. Simulate a motorstart in your computer an easy way to learn the menu and parameters.

[PSTX Simulator >](#)

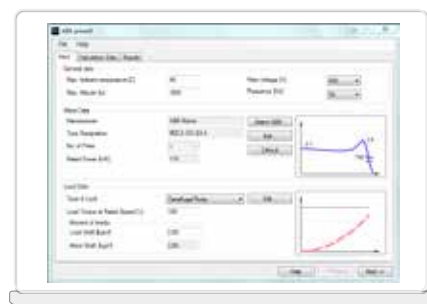


ABB proSoft

Our popular software for the best softstarter/application match, which is free to download and use. All relevant ABB motors are preset in the tool, and all other motors can be set manually.

[ABB proSoft >](#)



SoftstarterCare™

Service engineer tool makes softstarter commissioning easy by plug-in your PSE or PSTX softstarter using a PC. Access all parameters, event logs and troubleshooting information.

[SoftstarterCare™ >](#)



ABB e-configure

Product and application configuration tool for fast and easy online selection of softstarters.

[ABB e-Configure >](#)

For more information, please contact
your local ABB representative or visit
solutions.abb/softstarters



To get more information,
install QR code reader on
your mobile device, scan the
code and see more.