



Catalog

Softstarters Type PSTX and PSTB

PSTX – The advanced range

Introduction



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

- Three-phase controlled
- Operational voltage: 208 – 690 VAC
- Wide rated control supply voltage: 100 – 250 V, 50/60 Hz
- PSTX rated operational current: 30 to 370 A (inside-delta: 640 A)
- Both in-line and inside-delta connection
- Coated circuit boards protecting from dust, moist and corrosive atmosphere
- Detachable keypad rated IP66 (Type 1, 4X,12)
- Graphical display with 14 languages for easy setup and operation
- Built-in bypass for energy saving and easy installation
- Built-in Modbus RTU for monitoring and control
- Support for all major communication protocols
- Analog output for measurement of current, voltage, power factor etc.

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.

Three types of current limit

PSTX 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 softstarter's heat generation. On the PSTX, the bypass is built in and verified by ABB, saving you time during installation and space in your panel.

Easy-to-use and detachable keypad

A user-friendly and clear display saves you time and resources during both setup and operation. The detachable keypad is standard on all PSTX softstarters.

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.

Jog with slow speed

The slow speed forward and backward jog feature will make you more flexible when operating e.g. conveyor belts and cranes. The PSTX provides positioning capabilities, letting you take control of your process.

PSTX – The advanced range

Introduction



Keyhole mounting for quick installation

The PSTX is simple and quick to install using keyhole mounting, saving you valuable time during the installation.

A compact motor starting solution

When your application reaches full speed, a bypass will reduce the softstarter's energy consumption. It also reduces heat generation which means you can save money by reducing the need of added cooling equipment. On the PSTX, the bypass is built in and verified by ABB.

Clear markings on the front

With the PSTX, you do not need a manual to handle control circuit connections. With the self-explanatory markings on the front you can verify that the connections are done right. And with basic data on the front, identification is simple without having to take the product down.



Customizable

The PSTX has 14 pre-installed languages along with options to customize your own specific home screens (up to five different). You can use your customized home screens to show status information important to your process – and hide information that is not.

Easy to learn

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.

Detachable

The PSTX comes with a 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.

PSTX30 ... PSTB1050 – The advanced range

Normal starts, class 10, in-line, ordering details



PSTX30 ... PSTX1050



PSTX142 ... PSTX170



PSTX210 ... PSTX370



PSTB470



PSTB570 ... PSTX1050

Description

Selection table for normal start. Typical applications:

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

If more than 10 starts/h, select one size larger than the standard selection. For a more precise selection, use the softstarter selection tool available at www.abb.com/lowvoltage.

Rated operational voltage U_e , 208-600 V

Rated control supply voltage U_s , 100-250 V AC, 50/60 Hz

IEC				UL/CSA					Type	Order code	Weight (1 pce)	
Rated operational power			current	Rated operational power				current			kg	(lb)
400 V	500 V	690 V		200 / 208 V	220 / 240 V	440 / 480 V	550 / 600 V					
P_e kW	P_e kW	P_e kW	I_e A	P_e hp	P_e hp	P_e hp	P_e hp	FLA A				
15	18.5	-	30	7.5	10	20	25	28	PSTX30-600-70	1SFA898103R7000	6.10	(13.45)
18.5	22	-	37	10	10	25	30	34	PSTX37-600-70	1SFA898104R7000	6.10	(13.45)
22	25	-	45	10	15	30	40	42	PSTX45-600-70	1SFA898105R7000	6.10	(13.45)
30	37	-	60	20	20	40	50	60	PSTX60-600-70	1SFA898106R7000	6.10	(13.45)
37	45	-	72	20	25	50	60	68	PSTX72-600-70	1SFA898107R7000	6.10	(13.45)
45	55	-	85	25	30	60	75	80	PSTX85-600-70	1SFA898108R7000	6.10	(13.45)
55	75	-	106	30	40	75	100	104	PSTX105-600-70	1SFA898109R7000	6.10	(13.45)
75	90	-	143	40	50	100	125	130	PSTX142-600-70	1SFA898110R7000	9.60	(21.16)
90	110	-	171	50	60	125	150	169	PSTX170-600-70	1SFA898111R7000	9.60	(21.16)
110	132	-	210	60	75	150	200	192	PSTX210-600-70	1SFA898112R7000	12.70	(27.99)
132	160	-	250	75	100	200	250	248	PSTX250-600-70	1SFA898113R7000	12.70	(27.99)
160	200	-	300	100	100	250	300	302	PSTX300-600-70	1SFA898114R7000	12.70	(27.99)
200	257	-	370	125	150	300	350	361	PSTX370-600-70	1SFA898115R7000	12.70	(27.99)
250	315	-	470	150	200	400	500	480	PSTB470-600-70	1SFA894016R7000	31.00	(68.34)
315	400	-	570	200	250	500	600	590	PSTB570-600-70	1SFA894017R7000	52.00	(114.64)
400	500	-	720	250	300	600	700	720	PSTB720-600-70	1SFA894018R7000	55.00	(121.25)
450	600	-	840	300	350	700	800	840	PSTB840-600-70	1SFA894019R7000	60.00	(132.28)
560	730	-	1050	400	450	900	1000	1062	PSTB1050-600-70	1SFA894020R7000	60.00	(132.28)

Rated operational voltage U_e , 208-690 V

Rated control supply voltage U_s , 100-250 V AC, 50/60 Hz

15	18.5	25	30	7.5	10	20	25	28	PSTX30-690-70	1SFA898203R7000	6.10	(13.45)
18.5	22	30	37	10	10	25	30	34	PSTX37-690-70	1SFA898204R7000	6.10	(13.45)
22	25	37	44	10	15	30	40	42	PSTX45-690-70	1SFA898205R7000	6.10	(13.45)
30	37	55	60	20	20	40	50	60	PSTX60-690-70	1SFA898206R7000	6.10	(13.45)
37	45	59	72	20	25	50	60	68	PSTX72-690-70	1SFA898207R7000	6.10	(13.45)
45	55	75	85	25	30	60	75	80	PSTX85-690-70	1SFA898208R7000	6.10	(13.45)
55	75	90	106	30	40	75	100	104	PSTX105-690-70	1SFA898209R7000	6.10	(13.45)
75	90	132	143	40	50	100	125	130	PSTX142-690-70	1SFA898210R7000	9.60	(21.16)
90	110	160	171	50	60	125	150	169	PSTX170-690-70	1SFA898211R7000	9.60	(21.16)
110	132	184	210	60	75	150	200	192	PSTX210-690-70	1SFA898212R7000	12.70	(27.99)
132	160	220	250	75	100	200	250	248	PSTX250-690-70	1SFA898213R7000	12.70	(27.99)
160	200	257	300	100	100	250	300	302	PSTX300-690-70	1SFA898214R7000	12.70	(27.99)
200	257	355	370	125	150	300	350	361	PSTX370-690-70	1SFA898215R7000	12.70	(27.99)
250	315	450	470	150	200	400	500	480	PSTB470-690-70	1SFA895016R7000	31.00	(68.34)
315	400	560	570	200	250	500	600	590	PSTB570-690-70	1SFA895017R7000	52.00	(114.64)
400	500	710	720	250	300	600	700	720	PSTB720-690-70	1SFA895018R7000	55.00	(121.25)
450	600	800	840	300	350	700	800	840	PSTB840-690-70	1SFA895019R7000	60.00	(132.28)
560	730	1000	1050	400	450	900	1000	1062	PSTB1050-690-70	1SFA895020R7000	60.00	(132.28)

PSTX30 ... PSTB1050 – The advanced range Heavy-duty, class 30, in-line, ordering details



PSTX30 ... PSTX1050



PSTX142 ... PSTX170



PSTX210 ... PSTX370



PSTB470



PSTB570 ... PSTB1050

Description

Selection table for heavy-duty start. Typical applications:

- Centrifugal fan
- Conveyor belt (long)
- Crusher
- Mill
- Mixer
- Stirrer

If more than 10 starts/h, select one size larger than the standard selection. For a more precise selection, use the softstarter selection tool available at www.abb.com/lowvoltage.

Rated operational voltage U_e , 208-600 V

Rated control supply voltage U_s , 100-250 V AC, 50/60 Hz

IEC		UL/CSA							Type	Order code	Weight (1 pce)	
Rated operational power		Rated operational current									kg	(lb)
400 V		500 V	690 V	200 / 208 V		220 / 240 V	440 / 480 V	550 / 600 V	FLA			
P_e kW	P_e kW	P_e kW	I_e A	P_e hp	P_e hp	P_e hp	P_e hp	P_e hp				
11	15	-	22	5	7.5	15	20	25	PSTX30-600-70	1SFA898103R7000	6.10	(13.45)
15	18.5	-	30	7.5	10	20	25	28	PSTX37-600-70	1SFA898104R7000	6.10	(13.45)
18.5	22	-	37	10	10	25	30	34	PSTX45-600-70	1SFA898105R7000	6.10	(13.45)
22	25	-	45	10	15	30	40	42	PSTX60-600-70	1SFA898106R7000	6.10	(13.45)
30	37	-	60	20	20	40	50	60	PSTX72-600-70	1SFA898107R7000	6.10	(13.45)
37	45	-	72	20	25	50	60	68	PSTX85-600-70	1SFA898108R7000	6.10	(13.45)
45	55	-	85	25	30	60	75	80	PSTX105-600-70	1SFA898109R7000	6.10	(13.45)
55	75	-	106	30	40	75	100	104	PSTX142-600-70	1SFA898110R7000	9.60	(21.16)
75	90	-	143	40	50	100	125	130	PSTX170-600-70	1SFA898111R7000	9.60	(21.16)
90	110	-	171	50	60	125	150	169	PSTX210-600-70	1SFA898112R7000	12.70	(27.99)
110	132	-	210	60	75	150	200	192	PSTX250-600-70	1SFA898113R7000	12.70	(27.99)
132	160	-	250	75	100	200	250	248	PSTX300-600-70	1SFA898114R7000	12.70	(27.99)
160	200	-	300	100	100	250	300	302	PSTX370-600-70	1SFA898115R7000	12.70	(27.99)
200	257	-	370	125	150	300	350	361	PSTB470-600-70	1SFA894016R7000	31.00	(68.34)
250	315	-	470	150	200	400	500	480	PSTB570-600-70	1SFA894017R7000	52.00	(114.64)
315	400	-	570	200	250	500	600	590	PSTB720-600-70	1SFA894018R7000	55.00	(121.25)
400	500	-	720	250	300	600	700	720	PSTB840-600-70	1SFA894019R7000	60.00	(132.28)
450	600	-	840	300	350	700	800	840	PSTB1050-600-70	1SFA894020R7000	60.00	(132.28)

Rated operational voltage U_e , 208-690 V

Rated control supply voltage U_s , 100-250 V AC, 50/60 Hz

11	15	18.5	22	5	7.5	15	20	25	PSTX30-690-70	1SFA898203R7000	6.10	(13.45)
15	18.5	25	30	7.5	10	20	25	28	PSTX37-690-70	1SFA898204R7000	6.10	(13.45)
18.5	22	30	37	10	10	25	30	34	PSTX45-690-70	1SFA898205R7000	6.10	(13.45)
22	25	37	44	10	15	30	40	42	PSTX60-690-70	1SFA898206R7000	6.10	(13.45)
30	37	55	60	20	20	40	50	60	PSTX72-690-70	1SFA898207R7000	6.10	(13.45)
37	45	59	72	20	25	50	60	68	PSTX85-690-70	1SFA898208R7000	6.10	(13.45)
45	55	75	85	25	30	60	75	80	PSTX105-690-70	1SFA898209R7000	6.10	(13.45)
55	75	90	106	30	40	75	100	104	PSTX142-690-70	1SFA898210R7000	9.60	(21.16)
75	90	132	143	40	50	100	125	130	PSTX170-690-70	1SFA898211R7000	9.60	(21.16)
90	110	160	171	50	60	125	150	169	PSTX210-690-70	1SFA898212R7000	12.70	(27.99)
110	132	184	210	60	75	150	200	192	PSTX250-690-70	1SFA898213R7000	12.70	(27.99)
132	160	220	250	75	100	200	250	248	PSTX300-690-70	1SFA898214R7000	12.70	(27.99)
160	200	257	300	100	100	250	300	302	PSTX370-690-70	1SFA898215R7000	12.70	(27.99)
200	257	355	370	125	150	300	350	361	PSTB470-690-70	1SFA895016R7000	31.00	(68.34)
250	315	450	470	150	200	400	500	480	PSTB570-690-70	1SFA895017R7000	52.00	(114.64)
315	400	560	570	200	250	500	600	590	PSTB720-690-70	1SFA895018R7000	55.00	(121.25)
400	500	710	720	250	300	600	700	720	PSTB840-690-70	1SFA895019R7000	60.00	(132.28)
450	600	800	840	300	350	700	800	840	PSTB1050-690-70	1SFA895020R7000	60.00	(132.28)

PSTX – The advanced range

Accessories



1SFT198099-095C2



SB6054C2

LZ...



1SFT198099-011C1



1SFT198000-012C3

LX...



1SFT198000-011C3

LW...



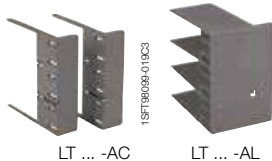
1SFC132021F002

LE185



1SFC132022F002

LE460



1SFT198099-010C3

LT ... -AC

LT ... -AL



1SFC132113F022

PSTEK

For softstarter type	Wire range mm ²	Tightening torque max. Nm	Type	Order code	Pkg qty	Weight (1 pce) kg (lb)
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Cable connectors for Cu cables

PSTX142 ... PSTX170	6-120	8	-	1SDA066917R1	3	0.113 (0.249)
PSTX142 ... PSTX170	2 x (50-95)	16	LZ185-2C/120	1SFN074709R1000	3	0.300 (0.661)
PSTX210 ... PSTX370	16-240	25	-	1SDA055016R1	3	0.133 (0.293)
PSTX210 ... PSTX370	2 x (70-185)	22	OZXB4	1SCA022194R0890	3	0.570 (1.257)
PSTB470	60-240	25	-	1SDA023368R0001	3	0.400 (0.882)

Cable connectors for Al cable

PSTX142 ... PSTX170	95-185	31	-	1SDA054988R1	3	0.078 (0.172)
PSTX210 ... PSTX370	185-240	43	-	1SDA055020R1	3	0.133 (0.293)
PSTB470 ... PSTX1050	3 x (70-185)	43	-	1SDA023384R0001	3	0.265 (0.584)
PSTB470 ... PSTX1050	2 x (120-240)	31	-	1SDA023380R0001	3	0.110 (0.243)

For softstarter type	Dimensions hole ø mm ²	bar mm	Type	Order code	Pkg qty	Weight (1 pce) kg (lb)
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Terminal extensions

PSTX142 ... PSTX170	8.5	17.5 x 5	LX205 ¹⁾	1SFN074810R1000	1	0.250 (5.551)
PSTX210 ... PSTX370	10.5	20 x 5	LX370 ²⁾	1SFN075110R1000	1	0.350 (0.772)
PSTB470	10.5	25 x 5	LX460	1SFN075710R1000	1	0.500 (1.102)
PSTB570 ... PSTB1050	13	40 x 6	LX750	1SFN076110R1003	1	0.850 (1.874)

Terminal enlargements

PSTX30 ... PSTX105	6.5	15 x 3	LW110 ¹⁾	1SFN074307R1000	1	0.100 (0.220)
PSTX142 ... PSTX170	10.5	17.5 x 5	LW205 ¹⁾	1SFN074807R1000	1	0.250 (5.551)
PSTX210 ... PSTX370	10.5	20 x 5	LW370 ¹⁾	1SFN075407R1000	1	0.450 (0.992)
PSTB470	10.5	25 x 5	LW460	1SFN075707R1000	1	0.730 (1.609)
PSTB570 ... PSTB150	13	40 x 6	LW750	1SFN076107R1000	1	1.230 (2.712)

For softstarter type	Req. qty	Type	Order code	Pkg qty	Weight (1 pce) kg (lb)
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Terminal nut washer

PSTX142 ... PSTX170	1	LL205-30	1SFN074811R1000	6	0.200 (0.441)
PSTX210 ... PSTX370	3	LL370-30	1SFN075411R1000	6	0.300 (0.661)
PSTB470	6	LE460	1SFN075716R1000	6	0.600 (1.323)
PSTB570 ... PSTB1050	6	LE750	1SFN076116R1000	6	0.750 (1.653)

Terminal shrouds

PSTX142 ... PSTX170, with cable clamps	2 pcs	LT205-30C	1SFN124801R1000	2	0.050 (0.110)
PSTX142 ... PSTX170, with compression lugs	2 pcs	LT205-30L	1SFN124803R1000	2	0.220 (0.485)
PSTX210 ... PSTX370, with cable clamps	2 pcs	LT370-30C	1SFN125401R1000	2	0.035 (0.077)
PSTX210 ... PSTX370, with compression lugs	2 pcs	LT370-30L	1SFN125403R1000	2	0.280 (0.617)
PSTX210 ... PSTX370, for use with extending cable clamps, ATK300/2 and OZXB4	2 pcs	LT370-30D	1SFN125406R1000	2	0.150 (0.331)
PSTB470, with cable clamps	2 pcs	LT460-AC	1SFN125701R1000	2	0.100 (0.220)
PSTB470, with compression lugs	2 pcs	LT460-AL	1SFN125703R1000	2	0.800 (1.764)
PSTB570 ... PSTB1050, with cable clamps	2 pcs	LT750-AC	1SFN126101R1000	2	0.120 (0.265)
PSTB570 ... PSTB1050, with compression lugs	2 pcs	LT750-AL	1SFN126103R1000	2	0.825 (1.819)

For softstarter type	Type	Order code	Pkg qty	Weight (1 pce) kg (lb)
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External keypad for PSTB including a 3 m cable

PSTB470 ... PSTB1050	PSTEK	1SFA899003R1000	1	0.400 (0.881)
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Anybus connection accessory

Anybus suitable for PSTX30 ... PSTX370, See page 18

FieldBusPlug connection accessory

PSTX30 ... PSTX370	PS-FBPA	1SFA896312R1002	1	0.060 (0.132)
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ABB's FieldBusPlug suitable for all sizes,
See catalog 1SFC132005C0201

I/O module, 24 V DC digital input

PSTX30 ... PSTX370	DX111-FBP.0	1SAJ611000R0101	1	0.220 (0.485)
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PSTX – The advanced range

Technical data

Softstarter types		PSTX30 ... PSTX370	PSTB470 ... PSTB1050		
Rated insulation voltage U_i		690V			
Rated operational voltage U_e		208...600 V, 208...690V + 10% / -15%, 50/60Hz ±5%			
Rated control supply voltage U_s		100...250 V +10% / -15%, 50/60Hz ±5%			
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 ¹⁾			
Overload capability		Overload class 10			
Ambient temperature		during operation	-25...+60 °C, (-13...+140 F) ²⁾		
		during storage	-40...+70 °C, (-40...+158 F)		
Maximum altitude		4000 m (13123 ft) ³⁾			
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	English, German, Italian, Dutch, Chinese, Finnish, Swedish, French, Spanish, Russian, Portuguese, Turkish, Polish and Czech		
		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 be Run, Bypass or Event signal)		
		K4	Default as Run signal		
		K5	Default as Top of Ramp (Bypass) signal		
		K6	Default as Event signal		
		Rated operational voltage, U_e	250 V AC/24 V DC		
		Rated thermal current I_{th}	5 A		
Analog output		Rated operational current I_e at AC-15 ($U_e=250$ V)	1.5 A		
		Output signal reference	0...10 V, 0...20 mA, 4...20 mA		
		Type of output signal	I Amp, U Volt, P kW, P hp, Q kVar, TmpMot, TmpSCR, cosPhi		
Control circuit		Number of inputs	2 (start, stop)		
		Number of additional programmable inputs	2 (Each input can be programmed to be either; Non, Reset, Enable, Jog, Direct on line-On, Start motor 2, Start motor 3 or FieldBus-disable)		
Signalling indication LED		Power on	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)		
Start and stop functions		Degree of protection	IP66 (Type 1, 4X, 12)		
		Soft start with voltage ramp	Yes		
		Soft stop with voltage ramp	Yes		
		Soft start with torque control	Yes		
		Soft stop with torque control	Yes		
		Kick start	Yes		
		Full voltage start	Yes		
		Sequence start	Yes, 3 different sets of settings		
		Current limit	Yes		
		Dual current limit	Yes		
		Current ramp	Yes		
		Torque limit	Yes		
		Motor heating	Yes		
		Jog with slow speed	Yes		
		Limp mode with two-phase motor control if one set of thyristors is shorted	Yes		
		Field bus connection		Built-in Modbus RTU	Yes
				Connection for Anybus	Yes
				Connection for ABB FieldBusPlug	Yes, with adapter
					Yes

¹⁾ Valid for 50% on time and 50% off time. If other data is required, contact your sales office.

²⁾ Above 40 °C (104 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)

you need to derate the rated current using the following formula.

$[\% \text{ of } I_e = 100 - \frac{x-1000}{150}] \times$ = actual altitude for the softstarter, $[\% \text{ of } I_e = 100 - \frac{x-3280}{497}] \times$ = actual altitude for the softstarter in feet.

Softstarter types	PSTX30 ... PSTX370	PSTB470 ... PSTB1050
Protections		
Electronic overload protection, EOL	Yes (Class.10A, 10, 20, 30)	Yes (Class.10A, 10, 20, 30)
Dual overload (separate overload for start and run)	Yes	Yes
PTC connection	Yes	Yes
PT-100 connection	Yes	No
Locked rotor protection	Yes (Level and delay adjustable)	Yes (Level and delay adjustable)
Current underload protection	Yes (Level and delay adjustable)	Yes (Level and delay adjustable)
Current imbalance protection	Yes	Yes
Power factor underload protection	Yes	No
Under voltage protection	Yes	No
Over voltage protection	Yes	No
Voltage imbalance protection	Yes	No
Earth fault protection / ground fault protection	Yes	No
High current protection (8 x I _e)	Yes	Yes
Phase reversal protection	Yes	Yes
Fieldbus fault	Yes	No
Warnings (pre-warning) and embedded diagnostics		
Current underload warning	Yes (level and delay adjustable)	Yes (level and delay adjustable)
Current imbalance warning	Yes	No
Voltage imbalance warning	Yes	No
Thyristor overload warning (SCR)	Yes	Yes
Electronic overload Time-to-trip	Yes	No
Electronic overload Time-to-cool	Yes	No
Over voltage warning	Yes	No
Under voltage warning	Yes	No
Power factor underload warning	Yes	No
Locked rotor warning	Yes	Yes
Faulty fans	Yes	No
THD(U) - Total Harmonic Distortion	Yes	No
Counted number of start sequences	Yes	No
Motor runtime measurement	Yes	No
Thyristor runtime measurement	Yes	No
Auto phase sequence detection	Yes	No
Electricity metering	Yes	No
Voltage sags detection	Yes	No
External faults detection		
Phase loss	Yes	Yes
High current	Yes	No
Low control supply voltage	Yes	No
Open circuit motor side	Yes	Yes
Faulty connection	Yes	Yes
Bad network quality	Yes	No
Internal faults detection		
Thyristor overload	Yes	Yes
Short circuit	Yes	Yes
Open circuit thyristor or gate	Yes	No
Bypass open	Yes	Yes
Shunt fault	Yes	No
PTC input		
Switch off resistance	2825 ohm ± 20%	2825 ohm ± 20%
Switch on resistance	1200 ohm ± 20%	1200 ohm ± 20%
Other functions		
Real time clock	Yes	Yes
Event log	Yes	Yes
Keypad password	Yes	Yes

PSTX - The advanced range Anybus

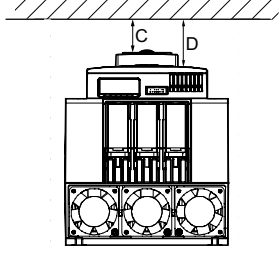
For communication protocol	Type	Order code	Pack Qty	Weight (1 pce)	
				kg	(lb)
Profibus	AB-PROFIBUS-1	1SFA899300R1001	1	0.042	(0.093)
DeviceNet	AB-DEVICENET-1	1SFA899300R1002	1	0.042	(0.093)
Modbus-RTU	AB-MODBUS-RTU-1	1SFA899300R1003	1	0.042	(0.093)
EtherNet/IP (1-port)	AB-ETHERNET-IP-1	1SFA899300R1005	1	0.042	(0.093)
EtherNet/IP (2-port)	AB-ETHERNET-IP-2	1SFA899300R1006	1	0.042	(0.093)
Modbus/TCP (1-port)	AB-MODBUS-TCP-1	1SFA899300R1007	1	0.042	(0.093)
Modbus/TCP (2-port)	AB-MODBUS-TCP-2	1SFA899300R1008	1	0.042	(0.093)



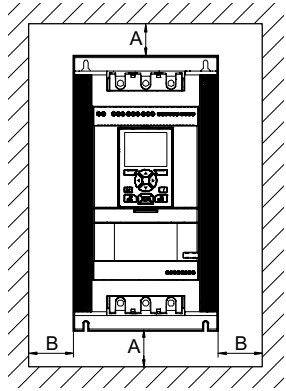
PSTX - The advanced range

Wall mounting instructions

Minimum distance to front



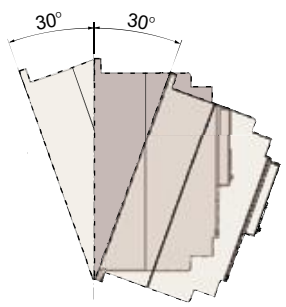
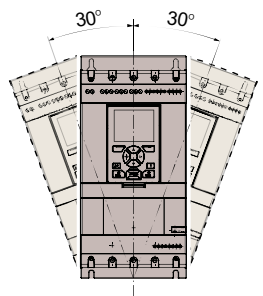
Minimum distance to wall



Dimensions mm (in)

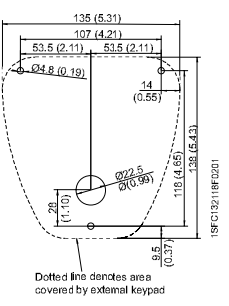
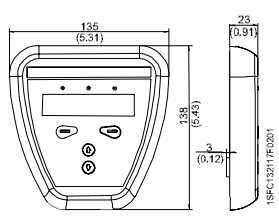
Softstarter, type	A	B	C	D
PSTX				
PSTX30 ... PSTX105	100 (3.937)	10 (0.393)	20 (0.787)	35 (1.378)
PSTX142 ... PSTX170	100 (3.937)	10 (0.393)	20 (0.787)	35 (1.378)
PSTX210 ... PSTX370	100 (3.937)	10 (0.393)	20 (0.787)	35 (1.378)
PSTB				
PSTB470	150 (5.905)	15 (0.590)	20 (0.787)	-
PSTB570 ... PSTB1050	150 (5.905)	15 (0.590)	20 (0.787)	-

Maximum mounting angle

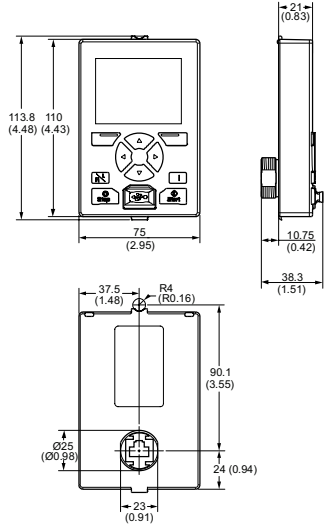


Dimensions

PSTB external keypad (PSTEK)



PSTX detachable keypad

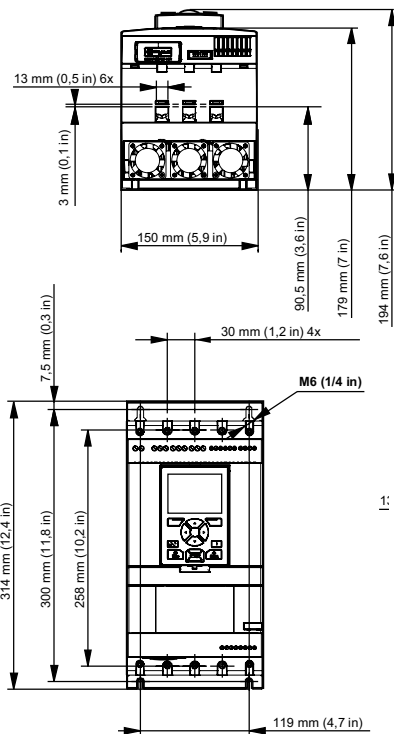


Dimensions in mm (in)

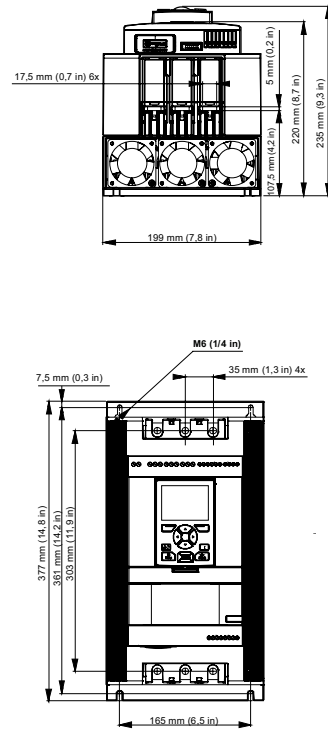
PSTX - The advanced range

Dimensions

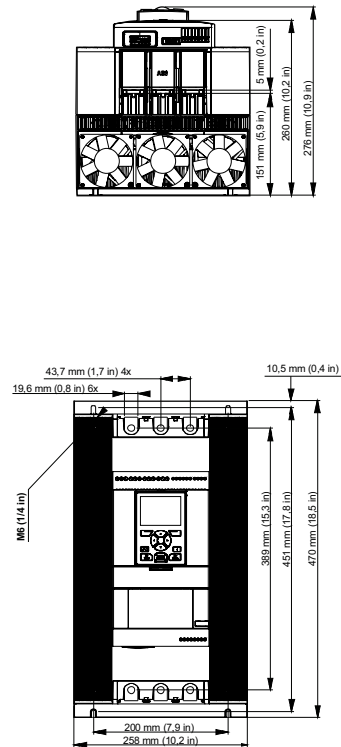
PSTX30 ... PSTX105



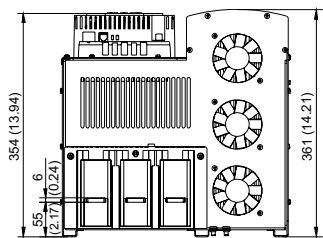
PSTX142 ... PSTX170



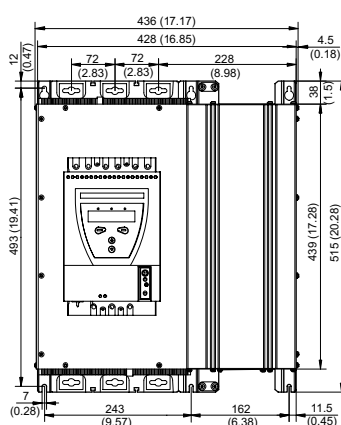
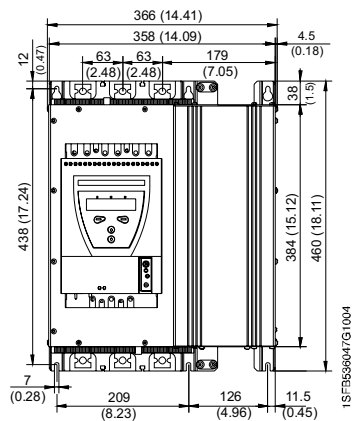
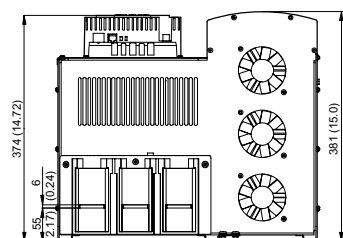
PSTX210 ... PSTX370



PSTB470



PSTB570 ... PSTB1050



Dimensions in mm (in)