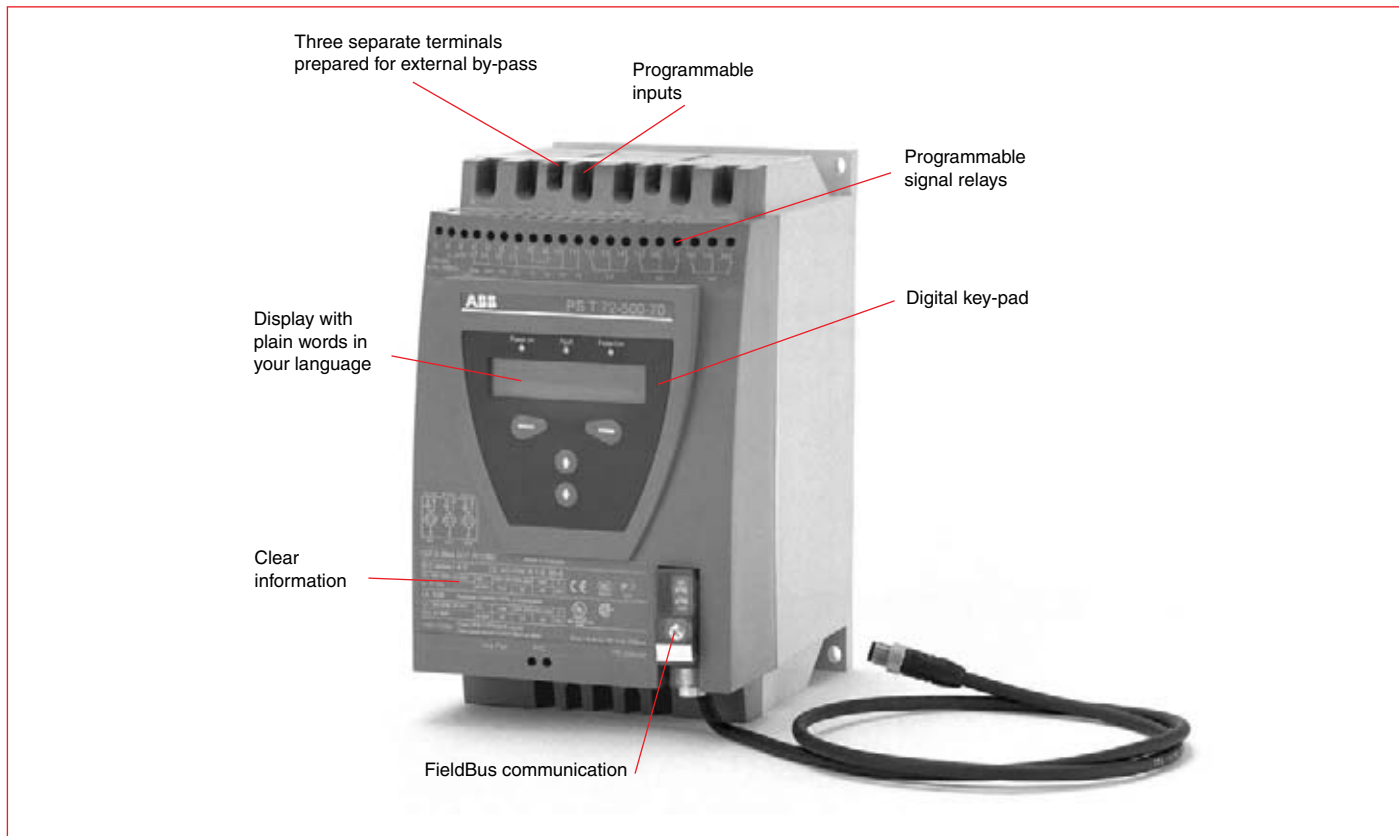


# General information

## Application and description

Softstarters  
Type PST



6

### Application

The PST range is a microprocessor based softstarter designed with the latest technology for soft start and soft stop of motors. The PST Softstarter has several advanced motor protection features as standard. The four button key pad and the logic structure of the menu makes the installation, commissioning and operation easy. It is possible to choose between 12 different languages.

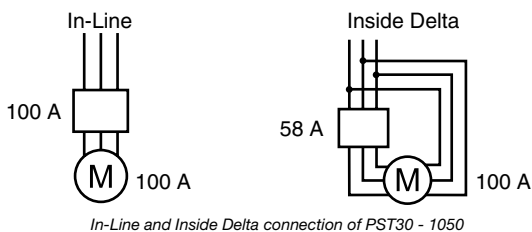
The PST Softstarter can be used with or without a by-pass contactor. The larger sizes, PSTB370 – PSTB1050, include a built-in by-pass contactor.

The PST Softstarter can be selected according to the rated motor power in normal duty applications like pumps, compressors, elevators, escalators, short conveyor belts and bow thrusters.

### Digital display

Your business is going global. Shouldn't your motor control go global, too? The PST display gives you information presented in plain words – in your language. You can choose between almost a dozen languages including English, German, Italian, Chinese, Finnish, Swedish, French, Spanish, Dutch, Russian, Turkish and Portuguese. On the PST display, you get all the information you need to set up, adjust and trouble-shoot. This makes the PST extremely easy to handle and reduces the risk of misinterpretations.

At any time, you can read output current, output voltage, number of starts, total run time and motor temperature on the display. If a fault should occur, this is also indicated on the display. The fault messages are presented in clear text in the selected language.



## General information

### Application and description

#### Four button keypad

The PST employs the same basic user concept as today's advanced mobile telephones. Using the four buttons on the keypad, you can easily adjust your own start and stop profile and motor protection functions for any type of application. There are standard settings for many common applications including pumps, conveyors, fans, mixers and compressors for quick and easy set up.

You can also set the advanced warning parameters to allow potential problems to be identified before real problems occur. A password protection function is available to prevent unauthorized changes to the programming.

#### Remote four button keypad

6 This optional remote keypad is an extended HMI (human-machine interface) for all PST(B) softstarters. The remote keypad allows you to access all functions from the PST(B) on the outside of the enclosure door.

The interface/display is exactly the same as the one on the softstarter (working in parallel with the one on the product). Used as a handheld device, it is easy to set up parallel softstarter units as you can copy data from one softstarter unit and download to another.

The keypad kit includes all necessary details for assembling: 3 screws, 10 ft. communication cable, installation instructions and a drilling plan.

The keypad has the following approvals: UL Type 1, 12, Indoor 4/4X.

#### Starting several motors

You can store as many as three different starting parameter sets for optimal sequence start of three different motors. You can use this function for two or three speed motors as well.

#### Integrated advanced motor protection

Inside the PST Softstarter, you will find useful features for advanced motor and softstarter protection, including: programmable overload protection, high current, underload, phase imbalance, phase reversal, thyristor overload protection, and bypass monitoring to ensure proper by-pass operation.

#### Programmable signal relays

All PST units have three programmable signal relays where each relay can signal Run, Top of Ramp or Event. The Event setting can be used to signal fault protections or warnings. The supervisory functions monitor not only software and critical softstarter functionality but also phase loss and out of frequency range.

#### Integrated by-pass contactor

On the larger sizes (PSTB370 – PSTB1050), there is an integrated ABB AF contactor. This gives you advantages in terms of cost-saving, (less investment in fans, cables, time), space saving (more compact soft starter; no fan that takes up space), and last but not least, energy saving. With a by-pass contactor you can reduce the power losses during normal run by 90% or more.

For the smaller PST below 370A, which are not equipped with built-in contactors, the units have double connections for the main terminals on the line side. The extra terminals are used to connect an external by-pass contactor in order to enable the integrated protection functions.



PSTB1050 with integrated by-pass contactor.

#### Fieldbus communication

The PST Softstarter has a built-in interface on the front for connection of the ABB FieldBusPlug used for fieldbus communication. Through this interface, it is possible to control the softstarter, achieve status information, upload and download parameters. The interface between the softstarter and the FieldBusPlug is always the same. Independently of PST Softstarter size or delivery date, it is possible to connect to any fieldbus protocol later on since this is defined in the FieldBusPlug itself. The following protocols are currently available: AS-I, DeviceNet and Profibus DP. To connect the PST Softstarter to a fieldbus system, you need the accessories described on pages 6.33 to 6.34 as well as specific software for PLC set-up, which is available on the ABB web site; see the Resources section at the bottom of the Softstarter product page at [www.abb-control.com/products/softstarters.htm](http://www.abb-control.com/products/softstarters.htm).

# Open In-Line, Inside Delta 7.5 – 1800 HP

Softstarters  
Type PST

## Connected In-Line ①



Maximum motor current		Maximum horsepower					Weight (lbs.)	Catalog number	List price
UL	IEC	208V	240V	380V	480V	600V			
28	30	7.5	10	15	20	25	9	PST30-600-70	\$ 1330
34	37	10	10	20	25	30	9	PST37-600-70	1360
42	44	10	15	25	30	40	11	PST44-600-70	1390
54	50	15	20	30	40	50	11	PST50-600-70	1730
68	72	20	25	40	50	60	22	PST72-600-70	1755
80	85	25	30	50	60	75	22	PST85-600-70	2380
104	105	30	40	60	75	100	27	PST105-600-70	2410
130	142	40	50	75	100	125	33	PST142-600-70	3375
156	175	50	60	100	125	150	44	PST175-600-70	3420
192	210	60	75	125	150	200	49	PST210-600-70	3870
248	250	75	100	150	200	250	49	PST250-600-70	4350
302	300	100	100	150	250	300	53	PST300-600-70	4480
361	370	125	150	200	300	350	84	PSTB370-600-70	5660
480	470	150	200	300	400	500	93	PSTB470-600-70	7000
590	570	200	250	350	500	600	97	PSTB570-600-70	8550
720	720	250	300	450	600	700	119	PSTB720-600-70	9630
840	840	300	350	500	700	800	124	PSTB840-600-70	10,900
1062	1050	400	450	600	900	1000	137	PSTB1050-600-70	18,000



PST72-600-70



PST142-600-70



PST175-600-70



PSTB370-600-70



PSTB570-600-70

## Connected Inside Delta ①



Maximum motor current		Maximum horsepower					Weight (lbs.)	Catalog number	List price
UL	IEC	208V	240V	380V	480V	600V			
42	51	10	15	30	30	40	9	PST30-600-70	\$ 1330
54	64	15	20	40	40	50	9	PST37-600-70	1360
72	76	20	25	50	50	60	11	PST44-600-70	1390
80	86	25	30	50	60	75	11	PST50-600-70	1730
104	124	30	40	75	75	100	22	PST72-600-70	1755
130	148	40	50	75	100	125	22	PST85-600-70	2380
156	181	50	60	100	125	150	27	PST105-600-70	2410
192	245	60	75	150	150	200	33	PST142-600-70	3375
248	303	75	100	200	200	250	44	PST175-600-70	3420
302	363	100	100	200	250	300	49	PST210-600-70	3870
361	433	125	150	250	300	350	49	PST250-600-70	4350
480	519	150	200	300	400	500	53	PST300-600-70	4480
590	640	200	250	400	500	600	84	PSTB370-600-70	5660
720	814	250	300	500	600	700	93	PSTB470-600-70	7000
840	987	300	350	600	700	800	97	PSTB570-600-70	8550
1247	1247	400	500	800	1000	1200	119	PSTB720-600-70	9630
1454	1454	500	600	900	1200	1500	124	PSTB840-600-70	10,900
1839	1818	600	700	1000	1500	1800	137	PSTB1050-600-70	18,000

① Different frame sizes are separated by rules.