PSE Softstarter – the Efficient range
Features and Benefits

Product description

- Wide rated operational voltage 208–600 V AC
- Wide rated control supply voltage 100–250 V, 50/60 Hz
- Rated operational current 18 to 370 A
- Wide ambient temperature range, -25 to +60 degrees Celsius
- Coated circuit boards for reliable operation in harsh environments
- Built-in by-pass on all sizes, saving energy and reducing installation time
- User friendly HMI with illuminated language neutral display and four button keypad
- Torque control for excellent control of pumps
- Current limit, adjustable between 1,5-7xIe
- Motor overload protection with classes 10A, 10, 20 and 30
- Motor underload protection and locked rotor protection
- Kick start to start jammed pumps or conveyor belts
- Analog output showing operational current, 4-20 mA
- Prepared for fieldbus communication using Profibus, Modbus, Devicenet or CANopen

Built-in by-pass

Using by-pass after reaching full voltage will greatly reduce the power loss, and thereby save energy. In the PSE soft-starter range, the by-pass is built-in on all sizes, which will give a very compact starting solution and reduce the need for wiring during installation.

Motor protection

The PSE softstarter is equipped with built-in electronic over-load protection, protecting the motor from overheating. Since no additional overload device is needed, our efficient design saves both space, installation time, and ultimately money.
The PSE softstarter can detect a stalled motor thanks to the locked rotor protection. This further protects your equipment.
Finally, the built-in underload protection can be used to detect broken belts and dry pumps which cause low loaded motors, thereby preventing damage and saving energy.

Kick start

Sometimes a high starting torque is required to overcome the initial friction of, for example, jammed conveyor belts or pumps. An activated kick start provides the necessary torque to allow the application to break loose and the start ramp will then still ensure a soft start.

Analog output

The analog output terminals can be connected to an analog current meter to show the current during operation and there-by eliminating the need for an additional current transformer. The analog output signal can also be used as an analog input to a PLC.

Fieldbus communication

With the use of an optional connection device, the PSE softstarter can be connected to a PLC system using the ABB FieldBusPlug, offering all common protocols. Using the fieldbus system the softstarter can be set-up, monitored, and controlled from the PLC.

More information

For further information, please explore the Softstarters Main Catalog (1SFC132005C0201), the Softstarters Complete Range Panorama (1SFC132009B0201), the Softstarters Solutions for Water and Wastewater Management (1SFC132010B0201) or visit www.abb.com/lowvoltage.

Ordering details

PSE18 ... PSE105

PSE142 ... PSE170

Normal starts, class 10, In-line

PSE18 ... PSE370

Rated operational voltage, U_e, 208 - 600 V AC

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

Motor power

230 V P_e kW	400 V P_e kW	500 V P_e kW	IEC Max rated operational current I_e A	Type	Order code	Weight kg 1 piece
4	7.5	11	18	**PSE18-600-70**	**1SFA897 101 R7000**	2.4
5.5	11	15	25	**PSE25-600-70**	**1SFA897 102 R7000**	2.4
7.5	15	18.5	30	**PSE30-600-70**	**1SFA897 103 R7000**	2.4
9	18.5	22	37	**PSE37-600-70**	**1SFA897 104 R7000**	2.4
11	22	30	45	**PSE45-600-70**	**1SFA897 105 R7000**	2.4
15	30	37	60	**PSE60-600-70**	**1SFA897 106 R7000**	2.4
18.5	37	45	72	**PSE72-600-70**	**1SFA897 107 R7000**	2.5
22	45	55	85	**PSE85-600-70**	**1SFA897 108 R7000**	2.5
30	55	75	106	**PSE105-600-70**	**1SFA897 109 R7000**	2.5
40	75	90	143	**PSE142-600-70**	**1SFA897 110 R7000**	4.2
45	90	110	171	**PSE170-600-70**	**1SFA897 111 R7000**	4.2
59	110	132	210	**PSE210-600-70**	**1SFA897 112 R7000**	12.4
75	132	160	250	**PSE250-600-70**	**1SFA897 113 R7000**	13.9
90	160	200	300	**PSE300-600-70**	**1SFA897 114 R7000**	13.9
110	200	250	370	**PSE370-600-70**	**1SFA897 115 R7000**	13.9

PSE210 ... PSE370

Heavy duty starts, class 30, In-line

PSE18 ... PSE370

Rated operational voltage, U_e, 208 - 600 V AC

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

Motor power

230 V P_e kW	400 V P_e kW	500 V P_e kW	IEC Max rated operational current I_e A	Type	Order code	Weight kg 1 piece
3	5.5	7.5	12	**PSE18-600-70**	**1SFA897 101 R7000**	2.4
4	7.5	11	18	**PSE25-600-70**	**1SFA897 102 R7000**	2.4
5.5	11	15	25	**PSE30-600-70**	**1SFA897 103 R7000**	2.4
7.5	15	18.5	30	**PSE37-600-70**	**1SFA897 104 R7000**	2.4
9	18.5	22	37	**PSE45-600-70**	**1SFA897 105 R7000**	2.4
11	22	30	45	**PSE60-600-70**	**1SFA897 106 R7000**	2.4
15	30	37	60	**PSE72-600-70**	**1SFA897 107 R7000**	2.5
18.5	37	45	72	**PSE85-600-70**	**1SFA897 108 R7000**	2.5
22	45	55	85	**PSE105-600-70**	**1SFA897 109 R7000**	2.5
30	55	75	106	**PSE142-600-70**	**1SFA897 110 R7000**	4.2
40	75	90	143	**PSE170-600-70**	**1SFA897 111 R7000**	4.2
45	90	110	171	**PSE210-600-70**	**1SFA897 112 R7000**	12.4
59	110	132	210	**PSE250-600-70**	**1SFA897 113 R7000**	13.9
75	132	160	250	**PSE300-600-70**	**1SFA897 114 R7000**	13.9
90	160	200	300	**PSE370-600-70**	**1SFA897 115 R7000**	13.9