



ABB softstarters

A part of your motor starting solution

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.



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.

PANORAMA

Softstarters

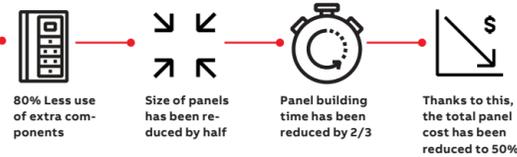
Type PSR, PSRC, PSE and PSTX



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.



Coordination tables (SOC) >
For examples of coordination visit the online tool for coordination with short circuit protection, overload protection and line contactor.



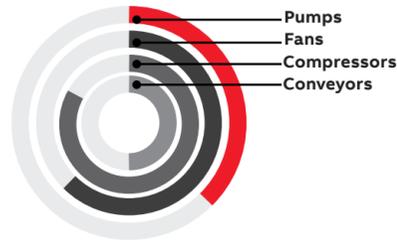
Softstarters portfolio Overview



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.

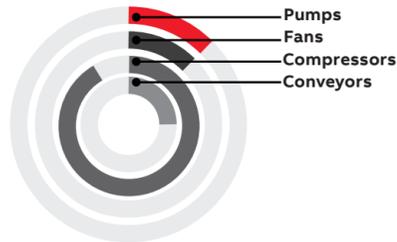
Current: 3 A... 105 A
Main voltage: 208 V... 600 V



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.

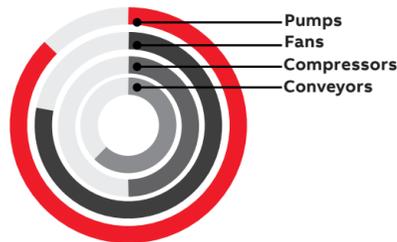
Current: 3 A... 105 A
Main voltage: 208 V... 600 V



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.

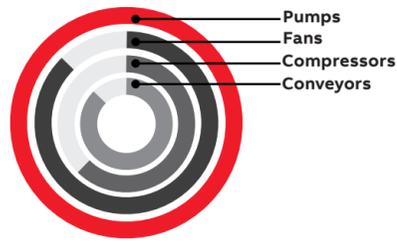
Current: 18 A... 370 A
Main voltage: 208 V... 600 V



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



Technical specifications

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 features overview	PSR	PSRC	PSE	PSTX
Motor protection	-	-	Medium	High
Installation efficiency	Basic	Basic	Medium	High
Application enhancement	Basic	Basic	Medium	High

Technical 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
Application	All	Scroll compressor	All	All
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

Communication protocols	PSR	PSRC	PSE	PSTX
Built-in communications	-	-	Modbus RTU	Modbus RTU
Fieldbus (optional accessories)	Modbus RTU, Profibus, DeviceNet	Modbus RTU, Profibus, DeviceNet	Modbus RTU, Profibus, DeviceNet, Modbus TCP	Modbus RTU, Profibus, DeviceNet, Modbus TCP
Anybus (optional accessories)	-	-	-	Profibus, DeviceNet, Modbus-RTU, BACnet IP, EtherNet/IP, Modbus-TCP, Profinet, BACnet MS/TP, EtherCAT

Certifications and approvals	PSR	PSRC	PSE	PSTX
Certifications	CE, cULus, CCC, EAC, ANCE, C-tick, KC	CE, cULus, CCC, EAC, ANCE, C-tick, KC	CE, cULus, CCC, EAC, ANCE, C-tick, KC	CE, cULus, CCC, EAC, ANCE, C-tick, KC
Approvals	-	-	ABS, DNV, Lloyd's register, CCS, PRS, Class NK	ABS, DNV, Lloyd's register, CCS, PRS, Class NK

Normal start In-line connected

Softstarters	PSR3	PSR6	PSR9	PSR12	PSR16	PSR25	PSR30	PSR37	PSR45	PSR60	PSR72	PSR85	PSR105	PSR142	PSR170	PSR210	PSR250	PSR300	PSR370	PSR470	PSR570	PSR720	PSR840	PSR1050	PSR1250
	PSRC3	PSRC6	PSRC9	PSRC12	PSRC16	PSRC25	PSRC30	PSRC37	PSRC45	PSRC60	PSRC72	PSRC85	PSRC105	PSRC142	PSRC170	PSRC210	PSRC250	PSRC300	PSRC370	PSRC470	PSRC570	PSRC720	PSRC840	PSRC1050	PSRC1250
							PSTX30	PSTX37	PSTX45	PSTX60	PSTX72	PSTX85	PSTX105	PSTX142	PSTX170	PSTX210	PSTX250	PSTX300	PSTX370	PSTX470	PSTX570	PSTX720	PSTX840	PSTX1050	PSTX1250
Current A ¹⁾	3	6	9	12	18	25	30	37	45	60	72	85	105	142	170	210	250	300	370	470	570	720	840	1050	1250
Power kW (400 V)	1.5	3	4	5.5	7.5	11	15	18.5	22	30	37	45	55	75	90	110	132	160	200	250	315	400	450	560	710
Power HP (440 V)	2	3	5	7.5	10	15	20	25	30	40	50	60	75	100	125	150	200	250	300	400	500	600	700	900	1000

¹⁾Approximate current. Please see softstarter catalog for exact details for IEC and UL ratings

Product features

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.

Secure motor reliability	PSR	PSRC	PSE	PSTX
Soft starts and stops	●	●	●	●
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	-	-	-	●

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.

Improve installation efficiency	PSR	PSRC	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	-	-	-	●

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.

Increase application productivity	PSR	PSRC	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	-	-	-	●

● = Built-in, ○ = Optional, - = Not available