PSR – The compact range
Technical data

Softstarter types	PSR3	PSR6	PSR9	PSR12	PSR16	PSR25	PSR30	PSR37	PSR45	PSR60	PSR72	PSR85	PSR105
Rated insulation voltage U_i	600 V												
Rated operational voltage U_e	208...600 V +10%/-15%, 50/60 Hz ±5%												
Rated control supply voltage U_s	100...240 V AC, 50/60Hz ±5% or 24 V AC/DC, +10%/-15%,												
Starting capacity at I_e	4 x I_e for 6 sec.												
Number of starts per hour	See table below for details												
standard	10[1]												
with aux. fan	20[1]												
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	IP20							IP10					
control circuit	IP20												
Power consumption													
Supply circuit													
at 100...240 V AC	12 VA							10 VA					
at 24 V AC/DC	5 W												
Max. Power loss at rated I_e	0.7 W	2.9 W	6.5 W	11.5 W	20.5 W	25 W	36 W	5.5 W	8.1 W	3.6 W	5.2 W	7.2 W	6.6 W
Connectable cable area													
main circuit	1 x 0.75...2.5 mm² (19...14 AWG)					1 x 2.5...10 mm² (14...8 AWG)		1 x 6...35 mm² (10...2 AWG)		1 x 10...95 mm² (8...4/0 AWG)			
	2 x 0.75...2.5 mm² (19...14 AWG)					2 x 2.5...10 mm²(14...8 AWG)		2 x 6...16 mm² (10...6 AWG)		2 x 6...35 mm² (10...2 AWG)			
control circuit	1 x 0.75...2.5 mm² (19...14 AWG)					1 x 0.75...2.5 mm² (19...14 AWG)							
	2 x 0.75...2.5 mm² (19...14 AWG)					2 x 0.75...1.5 mm² (19...16 AWG)							
Signal relays for run signal													
resistive load	3 A					3 A							
AC-15 (contactor)	0.5 A					0.5 A							
for top of ramp signal													
resistive load	–					3 A							
AC-15 (contactor)	–					0.5 A							
LED													
for On/Ready	Green												
for Run/Top of ramp	Green												
Settings													
Ramp time during start	1...20 sec.												
Ramp time during stop	0...20 sec.												
Initial and end voltage	40...70%												

[1] Valid 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.

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

For derating of voltage, contact your local ABB office.

Number of starts per hour using PSR softstarters

Motor current	Starts/hour without auxiliary fan								Starts/hour with auxiliary fan							
I_e	10	20	30	40	50	60	80	100	10	20	30	40	50	60	80	100
3 A	PSR3							PSR6	PSR3							
6 A	PSR6					PSR9			PSR6							PSR9
9 A	PSR9			PSR12			PSR16	PSR25	PSR9				PSR12			
12 A	PSR12			PSR16	PSR25		PSR30		PSR12			PSR16	PSR25			
16 A	PSR16	PSR25			PSR30		PSR37		PSR16	PSR25				PSR30		
25 A	PSR25	PSR30	PSR37			PSR45		PSR60	PSR25	PSR30	PSR37					PSR45
30 A	PSR30	PSR37		PSR45		PSR60		PSR72	PSR30	PSR37		PSR45				
37 A	PSR37	PSR45		PSR60		PSR72	PSR85	PSR105	PSR37	PSR45				PSR60		
45 A	PSR45		PSR60		PSR72	PSR85	PSR105	-	PSR45		PSR60			PSR72		
60 A	PSR60		PSR72	PSR85	PSR105		-	-	PSR60			PSR72		PSR85	PSR105	-
72 A	PSR72	PSR85	PSR105		-	-	-	-	PSR72		PSR85	PSR105		-	-	
85 A	PSR85	PSR105		-	-	-	-	-	PSR85	PSR105		-	-	-	-	
105 A	PSR105	-	-	-	-	-	-	-	PSR105	-	-	-	-	-	-	

Data based on an ambient temperature of 40° (104 °F), starting current of 4 x I_e and ramp time 6 seconds. For more optimized selection or to use PSR for heavy-duty starts, please use the softstarter selection tool.