

PSD

AC Variable Speed Drive for Refrigeration Compressors & Condensing Fans

Power Range

0.75kW to 110 kW

Compressor currents

2.5 to 205 amps

Power supply 230 & 460 VAC
three phase



3

PSD AC variable speed drive has been designed to control the speed of refrigeration compressors. To improve system performance by matching compressor speed to cooling demand. The PSD has two dedicated analog inputs, 0 to 10 volts and 4-20mA, which can be used to control the speed of the compressor. The speed demand signals are provided by an external controller, such as Parker's **PSR** Rack Controller.

The **PSD** has a dedicated compressors motor fluxing software, providing 20% more starting torque than other drive suppliers, which ensures the compressor always start first time, even under the worst operating conditions, and weak power supplies.

With a limited number of control inputs & outputs, plus easy to use LCD programming keypad, with factory set compressor parameters, such as minimum & maximum speed, making the drive easy to install and commission.

With a wide power range, 0.75 kW to 110 kW, the **PSD** can cover the majority of refrigeration applications. Larger drives are available, for application such as chillers, where screw compressors are commonly used.

Advise you can trust. With over 20 years experience in controlling the speed of refrigeration compressors, we have built up a unique compressor cross reference list, with technical details on more than 1.500 compressor models, enabling us to select the right **PSD** drive for your compressor and condensing fan.

PSD A.C. Variable Speed Drives for Control of Refrigeration Compressors and Condensing Fans

PSD controls the speed of refrigeration compressors and condensing fans, to match the system capacity to the cooling demand. PSD is designed to work as a slave to an external controller, or with Parker Sporlan Rack Controller, type PSR.

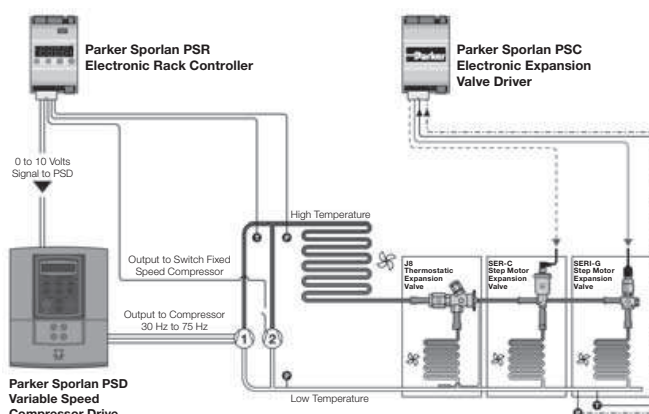
Benefits:

- **Dedicated "compressor software" guarantees compressors start, lowering the risk of compressor failure**
- **Dedicated "compressor software" improves the system performance by expanding the cooling capacity of the compressor**
- **Matched PSD and PSR controller lowers technical risks and reduces design time**
- **Improved Product quality better suction temperature control**
- **Reduced product wastage - improved control of suction line temperature**
- **Up to 40% energy savings**
- **Lower maintenance costs because PSD reduces the start up stress on the compressor**
- **Easy to install, only 7 parameters to set (Reduces commissioning costs)**

- Power supply 380 to 460 VAC +/-10%
- Power range 0.75 kW to 110 kW
- Enclosed to IP20 or IP40
- Ambient temperature 50°C with de-rate
- Low Voltage directive EN 50178
- Machinery Directive EN 60204-1
- EMC EN50081-1/2 & EN 500821/2
- Serial port communications Modbus, LonWorks LCD Multilingual programming keypad



Drive Systems for Refrigeration Compressors and Condenser Fans



For all requests, consult your nearest Parker Sporlan Wholesaler or contact us on: racecustomerservice@parker.com / www.parker.com/race

Order Selection Guide-PSD

PSD6K (380 to 460 volts +/- 10% 3 AC)	kW	Amps	Frame	W x H x D (mm)	kg
PSD6K-2.5T460	0.75	2.5	B	177 x 233 x 181	4.5
PSD6K-4.5T460	1.5	4.5	B	177 x 233 x 181	4.5
PSD6K-5.5T460	2.2	5.5	B	177 x 233 x 181	4.5
PSD6K-9.5T460	4	9.5	B	177 x 233 x 181	4.5
PSD6K-12T460	5.5	12	B	177 x 233 x 181	4.5
PSD6K-14T460	6	14	B	177 x 233 x 181	4.5
PSD6K-23T460	11	23	C	201 x 348 x 207	12.5
PSD6K-30T460	15	30	C	201 x 348 x 208	12.5
PSD6K-37T460	18.5	37	C	201 x 348 x 208	12.5
PSD6K-45T460	22	45	D	252 x 453 x 245	23
PSD6K-59T460	30	59	D	252 x 453 x 245	23
PSD6K-73T460	37	73	D	252 x 453 x 245	23
PSD6K-87T460	45	87	E	257 x 669 x 312	40
PSD6K-105T460	55	105	E	257 x 669 x 312	40
PSD6K-145T460	75	145	F	257 x 720 x 355	60
PSD6K-165T460	90	165	F	257 x 720 x 355	60
PSD6K-205T460	110	205	F	257 x 720 x 355	60

PSD (220 to 240 volts +/- 10% 3 AC)	kW	Amps	Frame	WxHxD (mm)	kg
PSD6K 16.5T230	4	16.5	B	177x 233 x181	4.5
PSD6K 42T230	11	42	C	201x 348 x208	12.5
PSD6K 54T230	15	54	D	253x 453 x 245	23
PSD6K 68T230	18.5	68	D	253x 453 x 245	23
PSD6K 104T230	30	104	E	257x 669 x 312	40
PSD6K 130T230	37	130	F	257x 720 x 355	60
PSD6K 192T230	55	192	F	257x 720 x 355	60

Accurate at the time of going to print.

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Order Selection Guide-PSD Options

PSD6 - Class B back mounting RFI Filter

C0467842U020 Frame B

C0467842U044 Frame C

C0467842U084 Frame D

C0467842U105 Frame E

C0467842U215 Frame F

PSD6 - IP40 Gland Box Cover

BA467840U020 Frame B

BA467840U044 Frame C

BA467840U084 Frame D

BA467840U105 Frame E

PSD6 - IP40 Top Cover

LA467452 Frame B

LA465034U002 Frame C

LA465048U002 Frame D

LA465058U002 Frame E

PSD6 - Remote Mounting Keypad Kit 3m

6052-11

PSD6 -Modbus Communication Cards

6053-EI00-04 Frame B

6055-EI00-04 Frame F

PSD6 - Keypad

6901-11

PSD6 - Duct Kit

LA 466717U003 Frame F only

PSD6 - Blanking Cover

BD467732

For more information on PSD6K please visit www.parker.com/race

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