

Data Sheet

PowerBank PB1005DC

DC/DC Power Supply Up to 5 Outputs 1000W Low-Profile 1.68"



All specifications are at nominal input, full load, 25°C, all models, unless otherwise noted.

Input		
Nominal Input Voltage	24V	48V
Input Voltage Range	18-36V	36-75V
Internal Input Fuse	No internal fuse.	

Output ¹					
Output #	Α	В	С	D	E
Maximum Output Current (Connector Limit)	80A		18A	18A 40A	
Output Voltage (Factory configurable)	1.8 to 5	52 V		1.8 to 5	52 V
Output Voltage Setpoint (50% load)	±1.2% ±1.2%			%	
Load Regulation, No load to full load (max.)	±0.2%			±0.2%	
Line Regulation, Low Line to High Line (max.)	±0.2%			±0.2%	
Maximum Output Power (24V Input)	400W			100 W	
Maximum Output Power (48V Input)	500\	500W		150 W	
Remote Sense	Yes			No	
Output Ripple and Noise	See individual Vicor module specifications				
Enable/inhibit function will affect this output	Yes or No (Configurable for each output individually at the factory.)				

Environmental		
Operating Temperature Range	-20°C to 70°C	
Storage Temperature Range	-40°C to 70°C	
Relative Humidity	5% -95% non-condensing	

Mechanical	
Dimensions	10.5" x 7" x 1.68"
Cooling	Internal Fans
Outline Drawing	Available on www.npi-inc.com
Weight (Typical, depends on configuration)	6.6 lb. (3 kg)

Maximum Output Power vs. Air Temperature			
-20 to 60°C	60 to 70°C	70°C	
1000 W	Derate 20W/°C	800 W	

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¹ Output voltage, current and power are limited to Vicor modules available.

Input Cor	Input Connector (Molex PN 42820-3212)				
Pin	Signal Description	Details			
1	+ IN	Positive Input Terminal			
2	Chassis	Chassis Connection			
3	- IN	Negative Input Terminal			

Output	Outputs A and B				
Pin	Signal Description	Option -M	Option -B	Option -R	
1	+	Positive Terminal, 49A max	Positive Terminal	Positive Terminal #8 tapped hole	
2	+	Positive Terminal, 49A max	1/4" hole, 100A max	5/16" deep, 100A max	
3	-	Negative Terminal, 49A max	Negative Terminal	Negative Terminal #8 tapped hole 5/16" deep, 100A max	
4	-	Negative Terminal, 49A max	1/4" hole, 100A max		

Outputs	Outputs A and B - Remote Sense Connector		
Pin	Signal Description	Details	
1	+	Positive Sense Connection	
2	Trim	Trim input	
3	-	Negative Sense Connection	

Output	Output C			
Pin	Signal Description	Details		
1	-	Negative Terminal, 18A max		
2	+	Positive Terminal, 18A max		

Outputs	Outputs D and E			
Pin	Signal Description	Details		
1	+	Positive Terminal, 20A max		
2	-	Negative Terminal, 20A max		

I/O Cor	I/O Connections Note: All control signals are isolated; Input - 3,000 Vrms; Output - 250 Vrms; Chassis - 250 Vrms			
Pin	Signal Description	Details		
		Option -N	Option -E	
1 1	Output Inhibit or Enable	Application of 5V to 24V signal inhibits	Application of 5V to 24V signal enables	
' '	Output Illinibit of Enable	all controlled outputs. Optoisolator	all controlled outputs. Optoisolator	
		input with $4.5k\Omega$ series resistor.	input with 4.5k Ω series resistor.	
2	Not Connected	Reserved for future use.		
3	Output A Power Good	Open Collector, 60V/1mA, Active Low = Power Good		
4	Output B Power Good	Open Collector, 60V/1mA, Active Low = Power Good		
5	Output C Power Good	Open Collector, 60V/1mA, Active Low = Power Good		
6	Output D Power Good	Open Collector, 60V/1mA, Active Low = Power Good		
7	Output E Power Good	Open Collector, 60V/1mA, Active Low = Power Good		
8	I/O Control Signal Return	All I/O control signals on pins 1-7 are referenced to this pin.		

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