

# PowerBank

## PB1005AC(-F)(-G)(-H)(-HE)

**AC/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

Model	-F	-G	-H	-HE
Nominal Input Voltage	115VAC <sup>1</sup>	115/230 VAC	230VAC/300VDC	230VAC
Input Voltage Range	95-132VAC	95-132VAC or 180-264VAC	180-264VAC or 250-375VDC	180-264VAC
AC Input Frequency	47-440Hz	47-440Hz	47-440Hz	47-440Hz
Voltage Sag Immunity to SEMI F47-0200	No	No	No	Yes
Hold-Up Time (Max Load, Nominal Line, Typical)	20 ms	20 ms	20ms	30ms
Input Fuse (Internal)	20 A	15 A	20A	20A
Inrush Current (264 VAC peak line, cold start.)	30Apk,max	30Apk,max	200Apk,typical	200Apk,typical
Power Factor (typical)	0.60			

### Output <sup>2</sup>

Output #	A	B	C	D	E
Maximum Output Current (Connector Limit)	80A		18A	40A	
Output Voltage (Factory configurable)	1.8 to 52V		1.8 to 52V		
Output Voltage Setpoint (50% load)	±1.2%		±1.2%		
Load Regulation, No load to full load (max.)	±0.2%		±0.5%		
Line Regulation, Low Line to High Line (max.)	±0.2%		±0.5%		
Maximum Output Power	500W		150W		
Remote Sense	Yes		No		
Output Ripple and Noise	See individual Vicor modules specifications.				
Enable/inhibit function will affect this output	Yes or No (Configurable for each output individually at the factory.)				
Trim range	10% to 110% of module nominal Vo <sup>3</sup>		N/A		

### Environmental

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

### Safety

	<b>Important (!): Does not apply to (-F) operating at 230VAC</b>		
Agency Approvals	cTUVus, CE		
Safety Standard Compliance	EN60950		
Isolation	Primary-to-Secondary	Primary-Earth	Secondary-Earth
	3,000Vrms	1,500Vrms	250Vrms

<sup>1</sup> Model -F will operate at 230VAC, but operation at 230VAC has not been evaluated for safety purposes.

<sup>2</sup> Output voltage, current and power are limited to Vicor modules available.

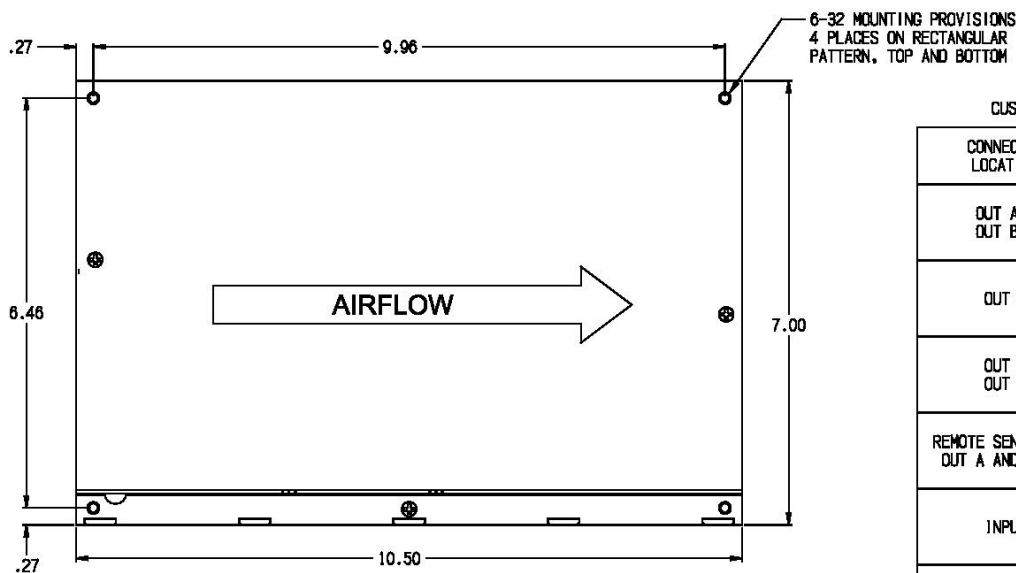
<sup>3</sup> Minimum load may be required to trim below 90%. Contact factory for details.

EMI and EMC	
Conducted Noise	EN55022 Class A (150kHz-30MHz)

Mechanical	
Dimensions	10.5" x 7" x 1.68"
Cooling	Internal Fans
Weight (Typical, depends on configuration)	6.6 lb. (3 kg)

Maximum Output Power vs. Ambient Air Temperature			
Input Voltage	-20 to 60°C	60 to 70°C	70°C
115VAC	800W	800W	800W
230VAC or 300VDC	1000W	Derate 20W/°C	800W

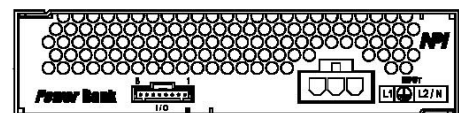
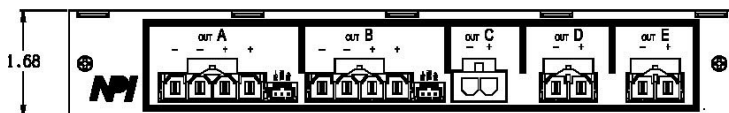
## Mechanical Outline Drawing



### CUSTOMER INTERCONNECT INFORMATION


CONNECTOR LOCATION	CONNECTOR IDENTIFICATION
OUT A * OUT B *	MFR. MOLEX TYPE MINIFIT SR. PN 42820-4212
OUT C	MFR. MOLEX TYPE SABRE PN 43160-3102
OUT D OUT E	MFR. MOLEX TYPE MINIFIT SR. PN 42820-2212
REMOTE SENSE/TRIM OUT A AND OUT B	MFR. MOLEX TYPE SINGLE ROW .100" PITCH PN 70555-0037
INPUT	MFR. MOLEX TYPE SABRE PN 43160-3103
I/O	MFR. MOLEX TYPE SINGLE ROW .100" PITCH PN 70555-0042

\* OUTPUTS A AND B CAN OPTIONALLY BE CONFIGURED WITH BUS BARS, RING TONGUE AND WIRE GAGE SHOULD BE SIZED TO MEET EXPECTED OUTPUT CURRENT



DWG 3758 REV.1

# Connections

Input		
Pin	Signal Description or Symbol	Details
1	L1	AC Line 1
2		Safety Ground
3	L2 / N	AC Line 2 or Neutral

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

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

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

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

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	Output Inhibit or Enable	Application of 5V to 24V signal inhibits all controlled outputs. Optoisolator input with 4.5k $\Omega$ series resistor.	Application of 5V to 24V signal enables all controlled outputs. Optoisolator input with 4.5k $\Omega$ 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.		

## **NPI designs and manufactures custom and standard power supplies using Vicor modules as core components.**

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