

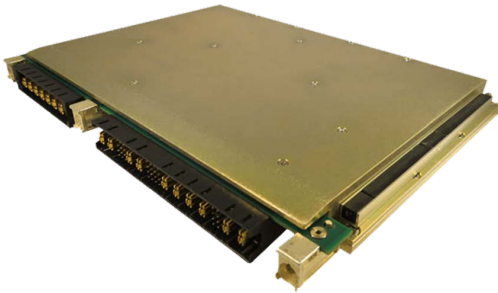


VITA 62 VPX SOLUTIONS Three Phase

DPM4067 SERIES

DPM4067 SERIES

AC/DC POWER SUPPLY



PRODUCT HIGHLIGHTS

- VITA 62 COMPLIANT
- 6U VPX FORM FACTOR
- SIX OUTPUTS
- AC/DC CONVERTER
- UP TO 1200W

For quotes and customization requests, please
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Ver. 1.0

Applications

Military (Airborne, ground-fix, shipboard), Ruggedized, Telecom, Industrial

Special Features

- VITA 62/6U
- High efficiency
- Input / Output isolation
- Remote sense
- EMI filters included
- Fixed switching frequency
- I²C/IPMI communication
- External Inhibit & Enable
- Parallel configuration
- Indefinite short circuit protection with auto-recovery
- Over-voltage shutdown with auto-recovery
- Over temperature shutdown with auto-recovery

Electrical Specifications

AC Input

115V_{AC} ± 10%

400Hz Three-Phase

Ride-through normal transient

IAW MIL-STD-704B-F

DC Outputs (standard version)

P01* 12V/35A Sense

P02* 12V/35A Sense

P03 5V/12V Sense
/40A

3.3V_Aux 3.3V/15A Sense

+12V_Aux +12V/1A

-12V_Aux -12V/1A

Total power output: 1200W

Isolation

500V_{DC} Input to Output

500V_{DC} Input to Case

500V_{DC} Output to Case

Line/Load regulation

See Table 2 on page 6

Current Sharing

Optional for VS# Outputs
ACS or PCS

EMC

Designed to meet MIL-STD-461F
CE102, CS101, CS114, CS115 &
CS116.¹

Ripple and Noise

Less than 50mV_{p-p}, typical (max.
1%), measured across 0.1μF and
10μF on Load

Load Transient Overshoot and undershoot

Output dynamic response up to
5% at step load of 60%-90%.
Output return to steady stated
within 300-500μSec

Efficiency

Typical 89% (Nominal line,
nominal load, room temperature)

System Management

I²C/IPMI protocol available
voltages, currents and
temperature for all
voltages (GAX, SCL, SDA)

Power Factor for

≥ 0.87 (Full load)

1. CE102 Deviation under 50KHz. Contact company for available options

*P01 and P02 outputs can be connected in parallel to achieve a single 12V/70A output

About Digital Power

Digital Power Corporation designs and manufactures full custom, value-added, and standard comprehensive power solutions for the most demanding applications in the defense, healthcare, telecom, and industrial markets.

Protections (Thresholds and protections can be modified / removed – please consult factory).

<u>Input</u>	<u>Output</u>	<u>General</u>
<ul style="list-style-type: none">• Inrush Current Limiter: peak value of $5 \times I_{IN}$ for inrush currents lasting longer than $100\mu s$.• Under Voltage Lock-Out Unit shuts down when input voltage is below $70V_{rms} \pm 5V_{rms}$.• Catastrophic Failure Protection Fuses are available to protect from catastrophic failure. The fuses are rated not to engage due to any normal type operation.	<ul style="list-style-type: none">• Active or Passive Over-Voltage Protection Set to engage at 110%-130% of nominal voltage.• Overload / Short Circuit Protection Continuous Hiccup protection (110-130%) for VS#. Aux Typical: 3.3Vaux / 20A 12Vaux. 1.5A-2A -12Vaux. 2.5A-3A	<ul style="list-style-type: none">• Over-Temperature Protection: Shutdown at temperature of $+100^{\circ}C \pm 5^{\circ}C$. Automatic recovery when temperature drops below $+90^{\circ}C \pm 5^{\circ}C$. Measured at Unit edge.

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Memory Space

Response Byte #	Data Type	Meaning	Interpretation	Reading Range
0	U Integer, MSB First	Echo of Command		21 Hex
1	U Integer, MSB First	N/A		00 Hex
2	S Integer, MSB First	Temperature	T(C°)=+/- 7bit Dec	-55 C° to 125 C°
3	U Integer, MSB First	Reserved	00Hex	
4-5	U Integer, MSB First	VS1 Voltage	V(out) = Data/ m2	20.48V
6-7	U Integer, MSB First	VS2 Voltage	V(out) = Data/ m2	20.48V
8-9	U Integer, MSB First	VS2 Voltage	V(out) = Data/ m2	20.48V
10-11	U Integer, MSB First	3.3V Aux Voltage	V(out) = Data/ m2	20.48V
12-13	U Integer, MSB First	12V Aux Voltage	V(out) = Data/ m2	20.48V
14-15	U Integer, MSB First	(-)12V Aux Voltage	V(out) = Data/ m2	20.48V
16-17	U Integer, MSB First	12V VS1 Current	V(out) = Data/ m3	40A
18-19	U Integer, MSB First	3.3V VS2 Current	V(out) = Data/ m3	40A
20-21	U Integer, MSB First	5V VS2 Current	V(out) = Data/ m3	40A
22-23	U Integer, MSB First	3.3V Aux Current	V(out) = Data/ m5	20A
24-35	U Integer, MSB First	12V Aux Current	V(out) = Data/ m4	10A
26-27	U Integer, MSB First	(-)12V Aux Current	V(out) = Data/ m4	10A
28-29	U Integer, MSB First	Reserved	00Hex	
30-31	U Integer, MSB First	Reserved	00Hex	
32-51	Character String (ASCII)	Part Number	M4067-1 (Note1)	20 Characters
52-53	Decimal, MSB First	Serial Number, 2MSB Dig	X,X Dec TBD (Note2)	N/A
54-55	Decimal, MSB First	Serial Number, 2LSB Dig	X,X Dec (Note2)	N/A
56-57	Decimal, MSB First	Date Code	Week, Year (Note3)	N/A
58-59	Character String (ASCII)	Hardware Rev	B01 & B02 Boards (Note4)	2 Characters
60-61	Decimal, MSB First	Firmware Rev	X,X,X,X Dec (Note5)	4 digits
62	U Integer, MSB First	Reserved		AA Hex
63	U Integer, MSB First	Zero Checksum	Value required to make the sum of bytes 0 to 62 added to a multiple of 256	

Note:

$$M_2 = 20.48 / 2^{2^{1111-1}}$$

$$M_3 = 40 / 2^{2^{1111-1}}$$

$$M_4 = 10 / 2^{2^{1111-1}}$$

$$M_5 = 20 / 2^{2^{1111-1}}$$

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