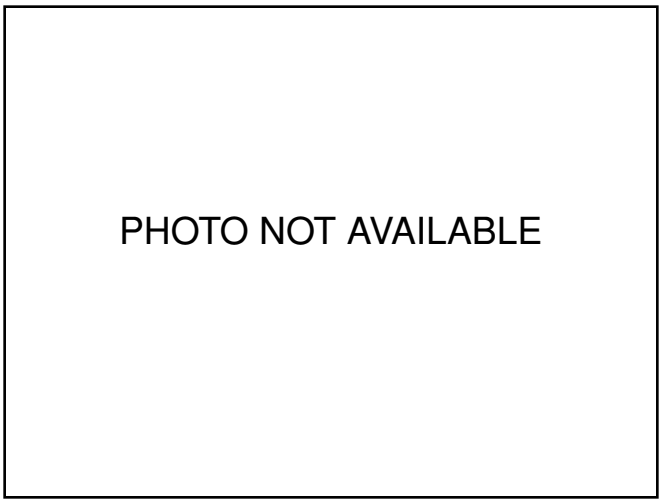
VMIVME-PSXX
Power Supplies

- Wide variety of output voltages and currents
- All units meet one or both FCC 20780 part 15 class A and VDE 0871/6.78 class A for conducted emissions
- Internal modules meet one or more of UL 478, CSA 22.2, IEC 380, IEC 435, VDE 0804, VDE 0806
- Thermal shutdown
- AC undervoltage protection
- Reverse voltage protection
- Output overload protection



VMIVME-PS1-060

Output: 5 V, 60 A, 300 W

Input: 90 to 132/180 to 264 VAC. 47 to 440 Hz.

Input Surge: 20 A peak from cold start (115 VAC). 40 A peak from cold start (220 VAC).

Line Regulation: ±0.5 percent within specified input limits

Load Regulation: ±5 percent no load to full load

Centering: ±10 percent trim adjustment

Ripple and Noise: 75 mV P.P maximum

Remote Sensing: Built-in

Holdup Time: 20 ms after loss of nominal AC power with full load

Efficiency: 75 percent typical

Overvoltage Protection: Built-in

Operating Temperature: 0 to 50 °C continuous duty, full rating. 50 to 71 °C derate linearly to 50 percent. Full rating at 71 °C.

Overload Protection: Built-in

Safety: Complies with UL 478 and CSA C22.2 154

Output Polarity: Outputs float

Soft Start: Unit has soft start feature to protect critical components

Transient Response: 2 percent maximum per 50 to 100 percent load change

Recovery Time: 1.0 ms maximum

MTBF: 25,000 hr

VMIVME-PS4-2

Outputs: +12 V, 2 A, 24 W. -12 V, 2 A, 24 W.

Input: 90 to 130 V (115 nominal). 180 to 266 V (230 V nominal). 47 to 440 Hz.

Input Surge: 20 A peak from cold start

Line Regulation: 0.4 percent typical at nominal power ±10 percent change

Load Regulation: 5 percent typical 1/2 load to full load

Centering: ±5 percent trim adjustment

Ripple and Noise: 1 percent typical, 2 percent maximum peak-to-peak

Remote Sensing: None

Ordering Options
October 15, 1992 800-000051-000 C
VMIVME-PSXX
PS1-060-C = 50 Hz 230 VAC **PS1-060-D =** 60 Hz 120 VAC **PS4-2-C =** 50 Hz 230 VAC **PS4-2-D =** 60 Hz 120 VAC **PS5-10-C =** 50 Hz 230 VAC **PS5-10-D =** 60 Hz 120 VAC **PS1-072, -100, -120-C =** 50 Hz 230 VAC **PS1-072, -100, -120-D =** 60 Hz 120 VAC **PS6-60/7-C =** 50 Hz 230 VAC **PS6-60/7-D =** 60 Hz 120 VAC **PS9-80/10-C =** 50 Hz 230 VAC **PS9-80/10-D =** 60 Hz 120 VAC **PS7-033-C/CM* =** 50 Hz 230 VAC **PS7-033-D/CM* =** 60 Hz 120 VAC **PS7-033-C/FP* =** 50 Hz 230 VAC **PS7-033-D/FP* =** 60 Hz 120 VAC
Notes
*CM = Chassis Mount *FP = Flat Plate for Rack Mount
For Ordering Information, Call: **1-800-322-3616 or 1-256-880-0444 • FAX (256) 882-0859** **E-mail: info@vmic.com Web Address: www.vmic.com** **Copyright © March 1989 by VMIC** **Specifications subject to change without notice.**

Holdup Time: Nominal input and maximum output 20 ms typical

Efficiency: 70 percent

Overvoltage Protection: Built-in

Operating Temperature: 0 to 50 °C. 50 percent derating at 70 °C.

Temperature Coefficient: ±0.05 percent/°C

Overload Protection: Built-in

Safety: Complies with UL 478 and CSA C22.2 154

Leakage Current: 0.5 mA maximum

Spacing: 8 mm minimum between primary and secondary

Dielectric Withstand: 3,750 VAC input/output. 1,500 VAC input/safety ground. 500 VAC output/safety ground.

Output Polarity: Both outputs share a common ground

Emissions: Units meet FCC Class A requirements

Soft Start: Built-in

Transient Response: 5 percent maximum per 50 to 100 percent load change

Recovery Time: Less than 1 ms following a 50 percent load change

MTBF: 35,000 hr

VMIVME-PS5-10

Outputs: +15 V, 10 A,150 W. -15 V, 10 A, 150 W.

Input: 90 to 130 VAC (115 VAC nominal) 47 to 63 Hz.

Input Surge: 40 A maximum from cold start with peak load

Line Regulation: ±0.4 percent typical (±10 percent change within specified AC limits)

Load Regulation: 1 percent typical

Centering: ±5 percent trim adjustment

Ripple and Noise: Ripple 1 percent peak-to-peak typical. Noise 3 percent peak-to-peak typical.

Remote Sensing: None

Holdup Time: Nominal input and output power 20 ms typical

Efficiency: 70 percent typical

Overvoltage Protection: Built-in

Operating Temperature: 0 to 50 °C

Temperature Coefficient: 0.05 percent/°C typical

Overload Protection: Built-in

Safety: Complies with UL 478, CSA C22.2 154, and VDE 0806, ±EC380

Leakage Current: 0.5 mA maximum

Spacing: 8 mm minimum between

Dielectric Withstand: 3,750 VAC input/output. 1,500 VAC input/safety ground. 500 VAC output/safety ground.

Output Polarity: Both outputs share a common ground

Emissions: Units meet FCC Class A requirements

Soft Start: Built-in

Transient Response: 5 percent maximum per 50 to 100 percent load change

Recovery Time: 1.0 ms maximum

MTBF: 20,000 hr

VMIVME-PS1-072, -100, -120

Outputs: PS1-072 5 V, 72 A, 360 W. PS1-100 5 V, 100 A, 500 W. PS1-120 5 V, 120 A, 600 W.

Input: 90 to 132 VAC or 180 to 264 VAC, 47 to 63 Hz.

Input Surge: 68 A peak from cold start

Line Regulation: ±0.1 percent for line change from nominal to minimum or maximum rating with no load on the measured output

Load Regulation: 5 V ±0.2 percent for load change from 100 percent maximum rating to no load

Centering: 5 V ±5 percent trim adjustment

Ripple and Noise: 1 percent or 100 mV, peak-to-peak, 20 MHz bandwidth

Remote Sensing: Standard

Holdup Time: 20 ms after loss of nominal AC power

Efficiency: 80 percent typical

Overvoltage Protection: Standard

Operating Temperature: 0 to 70 °C, derate 2 percent/°C above 50 to 70 °C

Temperature Coefficient: ±0.02 percent/°C

Overload: Outputs short circuit protected by current foldback with automatic recovery

Reverse Voltage Protection: Protected up to load ratings

Safety: Internal modules meet UL 478, CSA 22.2, IEC 380, IEC 435, VDE 0804, VDE 0806, VDE 0805 (proposed). UL File No. E47894, CSA File No. LR44876, TUV License No. R50259. 600 W modules agency approvals in process.

Leakage Current: 0.75 mA at 115 VAC, 60 Hz input

Spacing: 8 mm primary to secondary, 4 mm primary to grounded circuits

Dielectric Withstand: 3,750 Vrms input to ground, 3,750 Vrms input to output, 700 VDC output to ground

MTBF: 50,000 hr

Output Polarity: Output floating

Emissions: Units meet FCC 20780 Part 15 Class A and VDE 0871/6.78 Class A for conducted emissions. Compliance with Class B limits by addition of filter such as Corcom SK series.

AC Undervoltage: Low line lockout circuit protects against damage for undervoltage operation

Soft Start: Units have soft start feature to protect critical components

Dynamic Response: Peak transient less than ±2 percent or ±200 mV for step load change from 75 to 50 percent or 100 percent maximum ratings

Recovery Time: Less than 400 µs

Thermal Shutdown: Circuit cuts supply off in case of local over temperature. Unit resets automatically if excess temperature abates

Shock: MIL-STD 810-D Method 516.3, Procedure III

Vibration: MIL-STD 810-D Method 514.3, Category 1, Procedure 1

VMIVME-PS6-60/7

Outputs: Maximum output - 500 W. +5 V, 60 A, 300 W. +15 V, 7 A, 105 W. -15 V, 7A, 105 W.

Input: 90 to 132 VAC or 180 to 264 VAC, 47 to 63 Hz. Consult factory for 400 Hz operation.

Input Surge: 34 A peak from cold start

Line Regulation: ±0.1 percent for line change from nominal to minimum or maximum rating with 20 percent minimum load on the measured output.

Load Regulation: +5 V main, ±0.2 percent, -5 V auxiliary, ±3 percent (not used)
±15 V auxiliary ±2 percent for load change from 60 to 20 percent or 100 percent maximum rating.

Cross Regulation: ±0.2 percent for load change on the main +5 V output from 75 to 50 percent or 100 percent maximum rating with 20 percent minimum load on the measured output.

Centering: +5 V main ±5 percent trim adjustment ±15 V auxiliary ±5 percent trim adjustment tracking with all outputs loaded to 50 percent maximum ratings

Ripple and Noise: 1 percent or 100 mV, peak-to-peak, 20 MHz bandwidth

Remote Sensing: On +5 V main which is fully isolated from all auxiliaries

Holdup Time: 20 ms after loss of nominal AC power

Efficiency: 80 percent typical

Overvoltage Protection: Standard on +5 V main output only

Operating Temperature: 0 to 50 °C.
Derate 2.5 percent/°C above 50 to 70 °C.

Temperature Coefficient: +5 V main ±0.02 percent/°C
Auxiliaries ±0.05 percent/°C

Overload: Outputs short circuit protected by current foldback with automatic recovery

Reverse Voltage Protection: All outputs are protected up to load ratings

Safety: Units meet UL 478, CSA 22.2, IEC 380, IEC 435, VDE 0804, VDE 0806 (proposed). UL File No. E47894, CSA File No. LR44876, TUV License No. R50259.

Leakage Current: 0.75 mA at 115 VAC, 60 Hz input

Spacing: 8 mm primary to secondary
4 mm primary to grounded circuits

Dielectric Withstand: 3,750 Vrms input to ground. 3,750 Vrms input to output. 700 VDC output to ground.

Emissions: Units meet FCC 20780 Part 15 Class A, and VDE 0871/6.78 Class A for conducted emissions.

Compliance with Class B limits by addition of filter such as Corcom SK Series.

AC Undervoltage: Proprietary proportional drive and bias bootstrap protects against damage for undervoltage operation.

Soft Start: Units have soft start feature to protect critical components.

Dynamic Response: Peak transient less than +2 percent or ±200 mV for step load change from 75 to 50 percent or 100 percent maximum ratings.

Recovery Time: Less than 400 µs on main +5 V output.

Thermal Shutdown: Circuit cuts supply off in case of local over temperature. Unit resets automatically if excess temperature abates.

Shock: MIL-STD 810-D Method 516.3, Procedure III.

Vibration: MIL-STD 810-D Method 514.3, Category 1, Procedure 1.

VMIVME-PS9-80/10

Outputs:

No. 1 Maximum output capacity 500 W. 5 VDC, 80 A, 400 W.

No. 2 10 A typical at +12 VDC, 16 A Peak (30 seconds maximum).

No. 3 10 A at -12 VDC.

Adjustability: ±5 percent, all outputs.

Input: 90 to 132 VAC or 180 to 264 VAC, 47 to 63 Hz. Automatically selects either 115 or 230 VAC range without user intervention. Internally fused for 12 A.

AC Undervoltage: Holds regulation to 85 or 170 VAC.

Input Surge (Soft Start): Soft start is standard, 80 A peak at 115 VAC, 20 A peak at 230 VAC.

Line/Load Regulation: ±1 percent over AC Input range and 0 to 100 percent load change. Main +5 V output requires minimum load of 10 percent.

Ripple and Noise: Less than 0.2 percent rms, 1 percent peak-to-peak or 100 mV, whichever is greater

Remote Sense (+5 V): Compensates for 250 mV total line drop. Open Sense lead protection.

Holdup Time: 16 ms after removal of AC power (nominal) at full load

Efficiency: 80 percent typical

Overvoltage Protection (+5 V): Trip point set to 6.8 V

Operating Temperature: 0 to 50 °C full ratings, derate to half power at 70 °C

Temperature Coefficient: ±0.02 percent per degree C

Overload: Outputs short circuit protected with automatic recovery

Reverse Voltage Protection: Protected up to load ratings

Safety: Approved to UL 478, UL 1950, CSA 22.2 bulletins 1402c and 950, IEC 950, VDE 0805/VDE 0806 Class 1 SELV and EN 60950

MTBF: Over 100,000 hr when calculated in accordance with MIL-HDBK 217

RFI Emissions: Meets FCC Part 15, Subpart J, and VDE 0871, Class A. Consult the factory for VDE 0871 Class B compliance.

Thermal Shutdown: Shuts down power supply if overheated. Automatic recovery.

Dynamic Response (+5 V): Output voltage returns to within 1 percent in less than 500 µs for a 50 percent load change. Peak transient does not exceed 5 percent.

Cooling: 30 cfm fan supplied

Power Fail: Provides TTL "0".5 ms before output voltage goes out of regulation band, upon loss of AC power. VMEbus compatible, provides 48 mA sink current capability.

VMIVME-PS7-033

Outputs: ±15 V, ±33 A, 1,000 W. Outputs trim adjustable ±5 percent.

Input: 90 to 132 VAC or 180 to 264 VAC, 47 to 63 Hz. Strappable.

Input Surge: Less than two times the steady state peak current from cold start

Line Regulation: ±0.4 percent for input change from minimum to maximum rated values

Load Regulation: 0.04 percent for load change from minimum or maximum rated values

Ripple and Noise: 1 percent or 100 mV, peak-to-peak, 20 MHz bandwidth

Remote Sensing: On both outputs

Holdup Time: 20 ms from loss of nominal AC power

Efficiency: 80 percent typical

Overvoltage Protection: Standard

Operating Temperature: 0 to 70 °C, derate 2 percent/°C above 50 °C

Temperature Coefficient: ±0.02 percent/°C

Overload: Outputs protected by foldback current limiting with automatic recovery

Reverse Voltage Protection: Outputs are protected up to load ratings

Output Polarity: Outputs are floating from chassis and each other and can be referenced to each other or ground as required

Safety: Units meet UL 478, CSA 22.2, IEC 380, IEC 435, VDE 0804, VDE 0806, VDE 0805 (proposed). Certifications in process.

Leakage Current: 3.5 mA

Spacing: 8 mm primary to secondary. 4 mm primary to grounded circuits.

Dielectric Withstand: 3,750 Vrms input to ground. 3,750 Vrms input to output. 700 VDC output to ground.

Emissions: Unit meets FCC 20780 Part 15 Class A, and VDE 0871/6.78 Class A for conducted emissions with optional filter. Compliance with Class B limits by use of additional external filter.

AC Undervoltage: Proprietary proportional drive and bias bootstrap protect against damage for undervoltage operation

Soft Start: Unit has soft start feature to protect critical components

Dynamic Response: Peak transient less than ±2 percent or ±200 mV for step load change from 75 to 50 percent or 100 percent maximum ratings

Recovery Time: Less than 400 µs to recovery within 1 percent

Thermal Shutdown: Circuit cuts off supply in case of local over temperature. Units reset automatically if excess temperature abates.

Shock: MIL-STD 810-D Method 516.3, Procedure III

Vibration: MIL-STD 810-D Method 514.3, Category 1, Procedure 1.

TRADEMARKS