

250-VA DC-TO-AC INVERTER

120-VAC, 60-Hz OUTPUT



Model 1716-48-120-60

FEATURES

- 12, 24, 48 OR 130 VDC INPUT
- ISOLATED, REGULATED FREQUENCY-STABLE OUTPUT
- 83%-90% EFFICIENT
- CONVECTION COOLED

Compact and lightweight, the 250 VA Model 1716 dc-to-ac inverter is designed to perform equally well in stationary and mobile applications. The inverter provides an isolated, well regulated 120-Vac, frequency-stable 60-Hz quasi-sine-wave output and is available in 12, 24, 48 and 130-Vdc input versions. The conservatively rated Model 1716 is well suited for powering a variety of loads, from sensitive electronic equipment to small motors and other nonlinear loads.

SPECIFICATIONS

Input Voltage and Current

The nominal input voltage, the input voltage range, the no-load input current and the full-load input current are shown in Table 1.

Output Voltage

118 Vac nominal¹, single phase

Frequency

60 Hz nominal ± 0.05 Hz maximum variation over the full range of load and input voltage changes. Temperature coefficient is $\pm 0.02\%$ maximum per °C.

Volt-Ampere Rating

250 VA

Output Voltage Regulation

$\pm 0.2\%$ versus dc input line
 $\pm 2.0\%$ versus load

¹As measured with a conventional average-responding, rms-calibrated voltmeter

Operating Temperature Range

For 24, 48 and 130-Vdc input versions:
 -30°C to $+50^{\circ}\text{C}$

For 12-Vdc input versions:
 -30°C to $+30^{\circ}\text{C}$ (for operation up to $+50^{\circ}\text{C}$, derate the output volt-ampere rating linearly to 175 VA)

Storage Temperature Range

-40°C to $+95^{\circ}\text{C}$

Output Voltage Wave Shape

Three-level stepped approximation to a sine wave with peak, average and rms values approximating those of a sine wave.

Protection

Protection against overloads and accidental short-circuit of the output is provided electronically, and recovery is automatic upon removal of the abnormal load. A front-panel circuit breaker in series with the dc input provides protection against accidental reversal of input polarity during installation.

Input/Output Connections

DC input connections are provided via a two-part (plug and header) connector. The ac output connection is provided via a NEMA type 5-20R duplex receptacle. A front panel chassis ground connection is provided for use with #8 hardware.

Mechanical

Dimensions in inches (mm):
3.25 (83) high x 7.60 (193) wide x 11.25 (286) deep (excluding flanges and terminal block). Mounting flange on base is 0.6 (15) wide each side.

Weight: 8 lbs.

Mounting: Flange on base accepts six #10 screws. Hole pattern (3 each side) is 3.8 (97) between holes front-to-back and 8.1(206) wide.

For Additional Information

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Information provided in this bulletin is subject to change without notice.

Table 1

Nominal Input Voltage (Vdc)	Input Voltage Range (Vdc)	Input Current No Load ² (Adc)	Input Current Full Load ³ (Adc)	Efficiency ³	Model Number
12	10.5-16	0.28	28.6	83%	1716-12-120-60
24	21-29	0.13	13.9	86%	1716-24-120-60
48	42-58	0.07	6.8	88%	1716-48-120-60
130	105-145	0.04	2.7	88%	1716-130-120-60

²Typical at no load and nominal input voltage

³Typical at full load and minimum input voltage