400-Watt DC-DC Converters
Dual Output

Series 1722

Features

- 24, 48 or 130 Vdc Input
- Two 200-Watt outputs which can be any combination of 13, 24 or 48 Vdc
- Outputs are independently regulated and isolated
- Highly Efficient and Convection Cooled (no fans)

Series 1722 dc-to-dc converters provide two well-regulated dc output voltages from station batteries or other widely fluctuating dc sources. Each output is galvanically isolated from the source, the chassis and the other output and, therefore, may be connected either as a positive or a negative output.

Eighteen standard configurations are possible with the input and output voltages given in Tables 1 and 2 below. Complete part numbers for each version are explained in the section titled MODEL NUMBERING INFORMATION on Page 3 of this bulletin.

Table 1
Standard Input Voltages

Input Voltage Range (VDC)	Input Current[1] (ADC)
21-29 (24 nominal)	18.6
42-58 (48 nominal)	9.0
105-145 (130 nominal)	3.3

[1]Typical current at full load and nominal input voltage

Table 2
Standard Output Voltages[2]

Output Voltage (VDC)	Output Current (ADC)
13.3	0-15
24	0-8
48	0-4

[2]Other output voltages also available, subject to 200W-per-output limit

Specifications

INPUT VOLTAGE (VDC)	See Table 1 on Page 1
INPUT CURRENT (ADC)	See Table 1 on Page 1
OUTPUT VOLTAGE (VDC)	See Table 2 on Page 1
OUTPUT CURRENT (ADC)	See Table 2 on Page 1
OUTPUT POWER (W)	Up to 200 continuous for each of the two outputs
OUTPUT VOLTAGE REGULATION	±0.5% versus dc input line; ±1% versus load; the two outputs are independently regulated
OUTPUT VOLTAGE RIPPLE	5 millivolts rms (typical) 50 millivolts peak-to-peak (typical)
ISOLATION AND GROUNDING	Mutual electrical isolation provided between the input circuit, each output circuit, and chassis ground
PROTECTION	Protection against overloads, short-circuits and output overvoltages is provided electronically. Each output is independently protected, and ordinarily a fault on one output will not affect the other. Recovery to normal operating conditions is automatic upon removal of the overload or short-circuit fault. Following an overvoltage shutdown of either converter output, input power to the converter must be removed and reapplied to resume operation of the affected output. Protection against accidental reversal of the dc input-voltage polarity during installation is provided by a shunt diode working in conjunction with the front-panel circuit breaker.
EFFICIENCY	Reaches 90% at approximately 20% of full load on each output and remains above 90% for most of the load range. The no-load input power is approximately 5 watts.
AMBIENT TEMPERATURE RANGE	Operating: -30°C to +50°C (convection cooling) Storage: -40°C to +95°C
HEAT DISSIPATION (at full load)	Approximately 150 BTU/hour
FRONT-PANEL CONTROLS	A combination circuit breaker and ON-OFF switch is provided for input power.
FRONT-PANEL INDICATORS	A green LED indicates the presence (ON) of proper output voltage for each of the internal converters.
I/O POWER CONNECTIONS	Provided through two-part (header and plug) wire-clamp connectors.
DIMENSIONS INCHES (MM)	17.0 (432)W x 1.72 (44)H x 11.1 (282)D, excluding mounting brackets
WEIGHT LBS	Approximately 10 lbs.
ACCESSORIES INCLUDED	Mating connectors, user information guide, mounting brackets for 19-inch rack mounting (flush mounting or 5-inch front offset mounting); brackets for 23-inch mounting are available upon request.

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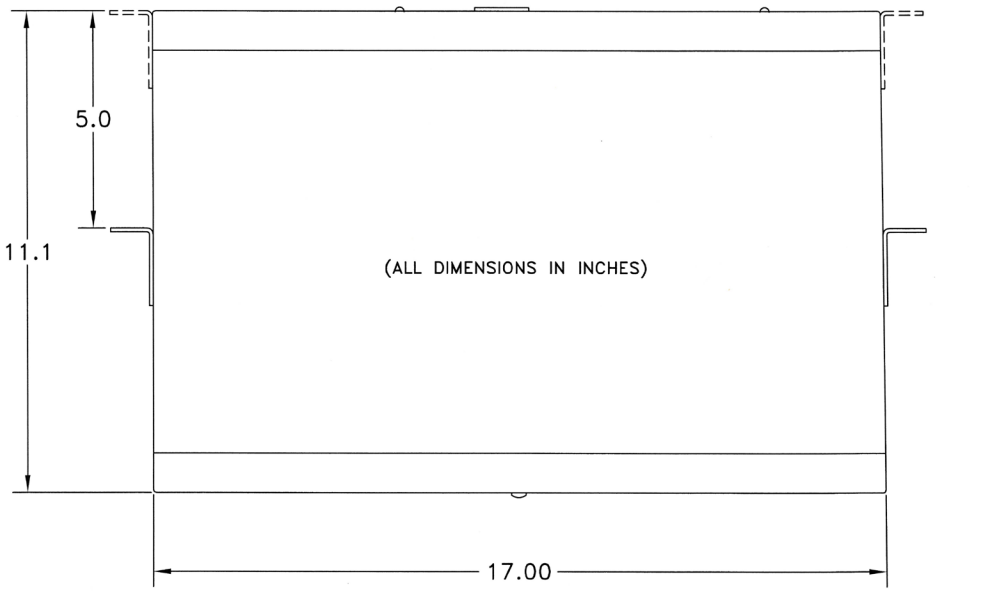
Top View



Rear View

MODEL NUMBERING INFORMATION	
1722 - 48 - 24 / 13 1 2 3 4	1. Series 1722 2. Input Voltage (24, 48 or 130Vdc nominal) 3. Output Voltage #1 (13, 24, or 48Vdc nominal). This is the higher of the two output voltages selected. 4. Output Voltage #2 (13, 24, or 48Vdc nominal). This is the lower of the two output voltages selected.

Model Numbering Information

Series 1722 converters are identified by four sets of numbers. The first group is the series number (**1722**) and the second group specifies the nominal input voltage (**24, 48,** or **130**). The third group specifies the first output voltage, while the fourth group specifies the second output voltage, with the higher of the two output voltages given first. For example, **Model 1722-48-24/13** is a 48-volt-input dc-dc converter with outputs of 24 volts and 13 volts.

Products

For information about other Wilmore dc-to-dc converters or for information about other power-conditioning products such as dc-to-ac inverters, switching power supplies, and custom power solutions, please contact our sales department.

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