800 Watt DC-DC Converters

Features:

- Regulated, adjustable output voltage
- May be paralleled for more power and/or redundancy
- Input-Output Isolation
- Convection Cooled
- Very Low Ripple and Noise

These dc-to-dc converters provide a well-regulated dc output from station batteries or other widely fluctuating voltage sources. This output is galvanically isolated from the source and chassis and, therefore, may be connected either as a positive or a negative output. Applications include powering telecommunications equipment and radio transceivers in cellular radio sites and microwave repeater stations, power-utility relay systems and fiber-in-the-loop (FITL) communications networks.

Designed for relay rack mounting, these converters achieve superior electrical performance in a low profile enclosure. Conservatively rated and very efficient, all models will operate continuously at any load within their rating over a wide ambient temperature range with simple convection cooling. Exceptionally effective noise suppression and filtering allows these converters to be used in many applications considered too noise-sensitive for other transistor-switching power converters. An option is available that lets users adapt converters to specific system requirements, such as paralleling for redundancy and for additional power.

Input Voltage Range (VDC)	Input Current[1] (ADC)	Output Voltage (Adjustable ±5%) (VDC)	Output Current (ADC)	With Paralleling Option	Model Number (See page 3 for additional information)
21-29 (24 Nominal)	34.8	24.0	0-30		1565-24-24-30
	34.8	24.0	0-30	✓	1565-24-24-30-M3
	37.2	48.0	0-16		1560-24-48-16
	37.2	48.0	0-16	✓	1560-24-48-16-M3
42-58 (48 Nominal)	17.8	24.0	0-30		1561-48-24-30
	17.8	24.0	0-30	✓	1561-48-24-30-M3
	18.9	130.0	0-6		1562-48-130-6
	18.9	130.0	0-6	✓	1562-48-130-6-M3

[1] Typical current at full load, nominal input and output voltages

Series 1560
800 Watt DC-DC Converters

Specifications

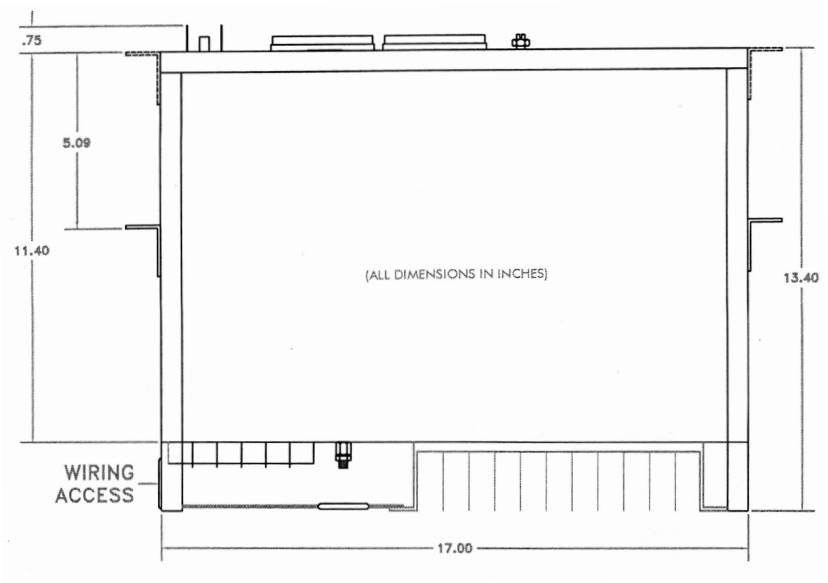
INPUT VOLTAGE (VDC)	See table on Page 1
INPUT CURRENT (ADC)	See table on Page 1
OUTPUT VOLTAGE (VDC)	See table on Page 1
OUTPUT CURRENT (ADC)	See table on Page 1
OUTPUT POWER (W)	800 continuous
OUTPUT VOLTAGE REGULATION[1]	±0.1% versus dc input line; ±0.5% versus load
OUTPUT VOLTAGE RIPPLE[1]	5 millivolts rms (typical) 50 millivolts peak-to-peak (typical)
ISOLATION AND GROUNDING	Mutual electrical isolation provided between the input circuit, the output circuit, and chassis ground
PROTECTION	Protection against output overloads, short-circuits and output overvoltages is provided electronically. Recovery to normal operation is automatic upon removal of the overload or short-circuit fault. An overvoltage fault will disable the output until input power is cycled for about 10 seconds. Protection against accidental reversal of dc-input voltage polarity is provided by a shunt diode working in conjunction with the front-panel circuit breaker
EFFICIENCY[1]	84% - 86%, depending upon the specific model The no-load input current is approximately 250mA for Models 1560 and 1565; approximately 170mA for Model 1561; approximately 150mA for Model 1562.
AMBIENT TEMPERATURE RANGE	Operating: -30° C to +50° C (convection cooling) Storage: -40° C to +95° C
HEAT DISSIPATION (at full load)	Approximately 400 BTU/hour for Models 1560 and 1565; approximately 460 BTU/hour for Model 1561; approximately 440 BTU/hour for Model 1562
FRONT-PANEL CONTROLS	Combination circuit breaker and ON/OFF switch provided for dc-input power. A potentiometer shaft with locking nut is provided to adjust the output voltage.
FRONT-PANEL INDICATORS	A voltmeter and ammeter display the dc output.
REAR-PANEL OUTPUT STATUS INDICATOR (M3 versions only)	Auxiliary Form C contacts (i.e. both Normally Open and Normally Closed) indicate improper converter output. Connections are made via a barrier-style screw terminal block with #6 screws.
I/O POWER CONNECTIONS	Provided via barrier-style terminal block; screws accept lugs for use with #12 hardware
DIMENSIONS INCHES (MM)	17.0 (432)W x 3.45 (88)H x 13.4 (341)D, excluding mounting brackets and front-panel features
WEIGHT LBS (KG)	Approximately 15 (6.8)
ACCESSORIES INCLUDED	User information guide, mounting brackets for 19-inch rack mounting (flush mounting or 5.09-inch front offset mounting); mounting brackets for 23-inch rack mounting are available upon request.
PARALLELING OPTION (M3 versions only)	M3 OPTION: Includes output series diode for parallel-redundant operation of multiple converters; auxiliary Form C contacts for remote indication of improper output; and balanced load sharing between converters being paralleled

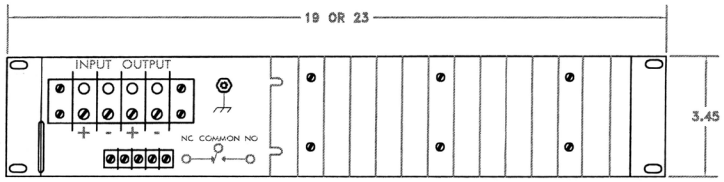
[1]M3 options may affect voltage regulation, ripple, and efficiency specifications.

Wilmore Electronics Company, INC.
P.O. Box 1329, Hillsborough, NC 27278
Telephone 919.732.9351 | Fax 919.732.9359
www.wilmoreelectronics.com

Series 1560
800 Watt DC-DC Converters

TOP VIEW





REAR PANEL VIEW OF M3 VERSION

Version	Paralleling Diode	Auxiliary Form C Alarm Contacts (Normally Open & Normally Closed)	Balanced Load Sharing
Series 1560 Standard (No Suffix)			
Series 1560 (M3 Suffix)	✔	✔	✔

MODEL NUMBERING INFORMATION

1561 - 48 - 24 - 30 - M3
1 2 3 4 5

1. Model (1560, 1561, 1562 or 1565)
2. Input Voltage (See chart on Page 1)
3. Output Voltage (See chart on Page 1)
4. Output Current (Maximum Amperes-See chart on Page 1)
5. Option (M3) or leave blank if standard version with no option is needed.

Products

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

Wilmore Electronics Company, INC.
P.O. Box 1329, Hillsborough, NC 27278
Telephone 919.732.9351 | Fax 919.732.9359
www.wilmoreelectronics.com