Wilmore® ELECTRONICS CO., INC.

Series #1720/1760
DC-DC CONVERTERS

Bulletin No. 76A0010H

200 & 400 Watt DC-to-DC Converters

Model 1720

Model 1760

- **ENGINEERED AND MANUFACTURED IN USA**
- **OPTIONAL REMOTE MONITORING CAPABILITY VIA SNMP/WEB BROWSER**
- **MAY BE PARALLELED FOR MORE POWER AND/OR REDUNDANCY**
- **AVAILABLE WITH OR WITHOUT OUTPUT METERS**

Input Voltage Range[1] (VDC)	Input Current[2] (ADC)	Output Voltage[1] (VDC)	Output Current (ADC)	Model Number[3] (See Page 3 for additional info)
10.5 - 16 (13 nominal)	17.8	24	0-8	17xx-13-24-8
	33.5	24	0-15	17xx-13-24-15
	17.5	48	0-4	17xx-13-48-4
	33.1	48	0-7.5	17xx-13-48-7.5
21-29 (24 nominal)	9.1	13.3	0-15	17xx-24-13-15
	18.2	13.3	0-30	17xx-24-13-30
	9.1	24	0-8	17xx-24-24-8
	18.2	24	0-16	17xx-24-24-16
	9.1	48	0-4	17xx-24-48-4
	18.2	48	0-8	17xx-24-48-8
	9.1	130	0-1.5	17xx-24-130-1.5
	18.2	130	0-3	17xx-24-130-3
42-58 (48 nominal)	4.5	13.3	0-15	17xx-48-13-15
	9.0	13.3	0-30	17xx-48-13-30
	4.5	24	0-8	17xx-48-24-8
	9.0	24	0-16	17xx-48-24-16
	4.5	48	0-4	17xx-48-48-4
	9.0	48	0-8	17xx-48-48-8
	4.5	130	0-1.5	17xx-48-130-1.5
	9.0	130	0-3	17xx-48-130-3
105-145 (130 nominal)	1.7	13.3	0-15	17xx-130-13-15
	3.4	13.3	0-30	17xx-130-13-30
	1.7	24	0-8	17xx-130-24-8
	3.4	24	0-16	17xx-130-24-16
	1.7	48	0-4	17xx-130-48-4
	3.4	48	0-8	17xx-130-48-8
	1.7	130	0-1.5	17xx-130-130-1.5
	3.4	130	0-3	17xx-130-130-3

[1] Can be connected as a positive or a negative ground due to galvanic isolation between the dc input, dc output, and the chassis.
[2] Typical at full load and nominal input voltage
[3] Specify 1720 without meters or 1760 with meters (substitute "20" or "60" for xx).

SEE PAGE 3 FOR MODEL NUMBERING INFORMATION

Series 1720/1760
200 & 400 Watt DC-to-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)	Up to 400 continuous, depending upon the model
OUTPUT VOLTAGE REGULATION	±0.5% versus dc input line; ±1% versus load / ±2% versus load for 13V-input models
OUTPUT VOLTAGE RIPPLE	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 and short-circuits is provided electronically. Recovery to normal operation is automatic upon removal of the 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 provided by a shunt diode working in conjunction with the front-panel circuit breaker
EFFICIENCY[1]	Reaches 90% at approximately 20% of full load and remains above 90% for most of the load range; reaches 80% for 13V-input models. The no-load input power is approximately 3 watts for 200W models; approximately 5 watts for 400W models; approximately 6 watts for 13V-input models.
AMBIENT TEMPERATURE RANGE	Operating: -30° C to +60° C (convection cooling) for 200W models -30° C to +50° C (convection cooling) for 400W models and 13V-input models Storage: -40° C to +95° C
HEAT DISSIPATION (at full load)	Approximately 75 BTU/hour for 200W models; approximately 150 BTU/hour for 400W models; approximately 135 BTU/hour for 13V-input 200W models; approximately 250 BTU/hour for 13V-input 360W models.
FRONT-PANEL CONTROLS	Combination circuit breaker and ON/OFF switch provided for dc-input power.
FRONT-PANEL INDICATORS	An LED indicates the presence (ON) of proper output voltage (Model 1720 only). A voltmeter and ammeter display the dc output (Model 1760 only).
REAR-PANEL OUTPUT STATUS INDICATOR (M3 and M5 Only)	Auxiliary Form C contacts (i.e. both Normally Open and Normally Closed) indicate improper converter output. Connections are provided through two-part (header and plug) wire-clamp connectors.
NETWORK COMMUNICATIONS INTERFACE (Model 1760: M5 Only)	Remote monitoring of converter metrics, including input voltage, output voltage, load current, and output power. Data may be obtained through SNMPv.1 and/or onboard web interface, web service API, or USB serial interface. There are no control functions remotely.
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 (KG)	Approximately 8 (3.7) for 200W models; approximately 10 (4.6) for 400W models and 13V-input, 360W models
ACCESSORIES INCLUDED	Mating connectors, mounting brackets for 19-inch rack mounting (flush mounting or 5-inch front offset mounting); brackets for 23- inch mounting are available upon request; and Ethernet & USB cables (for M5 version)

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

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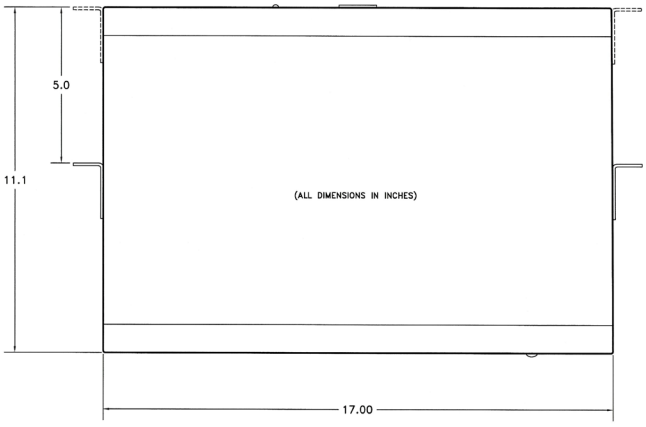
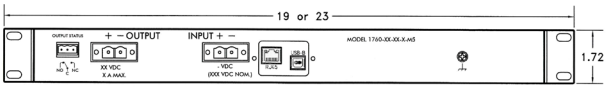
TOP VIEW





REAR PANEL VIEW OF M5 VERSION

Options:
Options are available for paralleling two or more converters for redundancy and/or additional power. To achieve paralleling, either the M3 or M5 version is recommended.

Version	Output Meters	Paralleling Diode	Auxiliary Form C Alarm Contacts (Normally Open & Normally Closed)	Balanced Load Sharing	Remote Monitoring through Ethernet connectivity
1720 Standard (No Suffix)					
1760 Standard (No Suffix)	✔				
1720 (M3 suffix)		✔	✔	✔	
1760 (M3 suffix)	✔	✔	✔	✔	
1760 (M5 suffix)	✔	✔	✔	✔	✔

Model Numbering Information

MODEL NUMBERING SEQUENCE

1760	-	48	-	24	-	8	-	M5
1		2		3		4		5

1. Series 1720 (No Meters) or 1760 (With Meters)
2. Input Voltage (13, 24, 48 or 130Vdc nominal)
3. Output Voltage (13, 24, or 48Vdc nominal)
4. Output Current (Maximum Amperes-See chart on Page 1)
5. Option (M3 or M5) or leave blank if standard version with no option is needed.

OTHER WILMORE 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.

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

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