



**SERIES 1746, 1766, 1786
DC-TO-AC INVERTERS
120VAC SINE-WAVE OUTPUT**

1000-VA DC-to-AC Inverter

- 24, 48, OR 130-VDC INPUT
- AVAILABLE WITH AC POWER METER
- AVAILABLE WITH INTEGRAL HIGH-SPEED TRANSFER SWITCH FOR UPS/STANDBY-POWER APPLICATIONS
- ENGINEERED & MANUFACTURED IN NORTH CAROLINA, USA
- AVAILABLE WITH REMOTE MONITORING VIA SNMP AND WEB BROWSER (Network Communications Interface)



Model 1786-130-120-60-U



Model 1746-48-120-60-U

Input Voltage (VDC) ¹ [Range]	Input Current at No Load (ADC) ²	Input Current at Full Load (ADC) ³ / Efficiency (Typ) ²	Output Power Meter	Remote Monitoring	Model Number (substitute either P, U, or L for "X") See Table below.
24 nominal [21 - 29]	1.0	53.5 90%			1746-24-120-60-X
			✓		1766-24-120-60-X
			✓	✓	1786-24-120-60-X
48 nominal [42 - 58]	0.4	25.8 92%			1746-48-120-60-X
			✓		1766-48-120-60-X
			✓	✓	1786-48-120-60-X
130 nominal [105 - 145]	0.18	10.3 92%			1746-130-120-60-X
			✓		1766-130-120-60-X
			✓	✓	1786-130-120-60-X

¹ Can be a positive or a negative voltage because there is galvanic isolation between the dc input, ac output, and the chassis.

² Typical plain inverter (no switchover capability) at nominal input voltage

³ Typical at minimum input voltage

Model	Suffix in Model Number Sequence (substitute for "X" in above table)	Configuration (See Page 3 for More Information)	Form C Alarm Contacts ("Output Status")	Front Panel LEDs
1746 1766 1786	-P	No Load Transfer Switch		
	-U	Inverter-Preferred Load Transfer Switch	✓	✓
	-L	Line-Preferred Load Transfer Switch	✓	✓

<p>MODEL NUMBERING SEQUENCE</p> <p>1786 - 48 - 120 - 60 - U</p> <p>1 2 3 4 5</p>	<ol style="list-style-type: none"> 1. Series 1746, 1766, or 1786 2. Input Voltage (24, 48 or 130Vdc) 3. Output Voltage (120Vac) 4. Output Frequency (60 or 50Hz) 5. Configuration (P, U or L Version)
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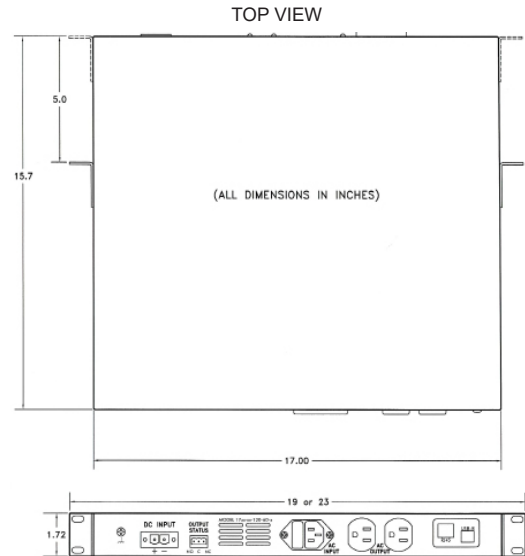
SPECIFICATIONS

INPUT VOLTAGE	See Table on Page 1
INPUT CURRENT AT NO LOAD	See Table on Page 1
INPUT CURRENT AT FULL LOAD	See Table on Page 1
EFFICIENCY	See Table on Page 1
OUTPUT VOLTAGE	118VAC nominal, single phase
FREQUENCY	60Hz nominal (50Hz optional) ±0.01Hz maximum variation over the full range of load and input voltage changes (crystal controlled)
VOLT-AMPERE RATING	1000 VA
OUTPUT VOLTAGE REGULATION	±1% versus dc input line; ±3% versus load
OUTPUT VOLTAGE WAVE SHAPE	Sine wave with 1%-3% total harmonic distortion (typical)
TEMPERATURE RANGE	Operating: -10° C to +50° C (internal fan cooling) Storage: -40° C to +95° C
PROTECTION	Provided electronically against output overload (including short-circuit) and input under-voltage. Recovery to normal operation is automatic upon removal or correction of fault conditions. Protection against accidental reversal of dc-input polarity provided by front-panel circuit breaker.
FRONT-PANEL CIRCUIT BREAKER	Combination circuit breaker and ON/OFF switch provided for dc-input power
FRONT-PANEL INDICATORS (U AND L VERSIONS)	Three LED status indicators display the active ac output source and the alarm status.
AC POWER METER (Models 1766 & 1786)	Meter indicates true-rms AC potential in Volts, true-rms AC current in Amperes, real AC power in Watts, and AC power factor.
REMOTE MONITORING (Model 1786)	Provided via a web interface or SNMP using RJ45 port
LOCAL ACCESS MONITORING (Model 1786)	Provided through serial terminal port using USB connection (Type B)
DC-INPUT CONNECTIONS	Provided via two-part (header and plug) wire-clamp screw terminal blocks
AC-INPUT CONNECTION (U AND L VERSIONS)	Provided via an IEC 60320-C14 receptacle. A three-conductor detachable cable terminated in a NEMA 5-15P plug is provided with the inverter for connecting an alternate AC source.
OUTPUT STATUS CONNECTIONS (U AND L VERSIONS)	Form C contacts provided via two-part (header and plug) wire-clamp screw terminal blocks
AC-OUTPUT CONNECTIONS	Provided via two standard NEMA 5-15R three-prong receptacles
DIMENSIONS INCHES (MM)	17.0 (452)W x 1.72 (44)H x 15.7 (399)D, excluding mounting brackets
WEIGHT & COLOR	Approximately 15 pounds. Standard front panel paint color is black.
MOUNTING BRACKETS	Provided for 19-inch and 23-inch rack mounting (flush mounting or 5-inch front offset mounting)
ACCESSORIES INCLUDED	Mating connectors, user information guide, mounting brackets, AC input line cord (U and L versions), and USB cable & ethernet cable (Model 1786)

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**MODEL 1786 NETWORK
COMMUNICATIONS INTERFACE**

The **Network Communications Interface** feature (Model 1786 only) allows for remote monitoring of various metrics of the inverter, such as input voltage, output voltage, external ac line voltage and transfer status (for U and L versions), load current and more. This information can be accessed through the onboard web interface, web service API, USB serial interface, and also using SNMP.



STANDARD CONFIGURATIONS

P VERSION	» The suffix P designates a plain inverter, with no internal inverter-to-line or line-to-inverter transfer switching provisions ("line" refers to commercial ac power or another available ac source). This version does not have the front-panel LED status indicators, rear-panel ac-line inlet or rear-panel auxiliary Form C contacts.
U VERSION	» The suffix U designates the inverter-preferred UPS configuration wherein the inverter normally provides load power. When the inverter output is interrupted, an internal transfer switch automatically transfers the load from the inverter to the line in less than one AC cycle. Such transfers are normally not detected by even highly sensitive loads. » Includes auxiliary Form C contacts (i.e. both Normally Open and Normally Closed) for remote indication of alarm conditions, a fused ac-line inlet and three front-panel LED status indicators displaying the active ac output source and alarm status.
L VERSION	» The suffix L designates the line-preferred configuration wherein the load power is normally provided by the line and the inverter operates in the standby mode. If commercial ac power is interrupted, an internal transfer switch automatically transfers the load to the inverter. Upon restoration of commercial ac power, there is a delay of approximately four seconds (to verify stability of the ac line) after which the load is transferred back to commercial ac power and the inverter again operates in standby mode. » Includes auxiliary Form C contacts (i.e. both Normally Open and Normally Closed) for remote indication of alarm conditions, a fused ac-line inlet and three front-panel LED status indicators displaying the active ac output source and alarm status.

OTHER WILMORE PRODUCTS



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

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