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Products V

#### DC - AC Inverters: Uninterruptible and Standby AC Power Supplies

Applications

Contact 

Contact

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Support

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Wilmore DC to AC inverters feature a wide selection of AC output power ratings: **250, 500, 1000, and 2200 VA (volt-amperes)**. Our DC input, AC output power inverters operate from common telecom, utility and energy industry battery systems: 12, 24, 48, 125, and 130 VDC. Inverters designed for use with 36, 74, and 110 VDC railway, locomotive and rail/transit power systems are a specialty. Our DC - AC inverters include rack-mount units for use in 19" and 23" equipment racks and a variety of stand alone and portable designs. Many Wilmore DC - AC inverters include integral automatic load transfer circuitry for operation in uninterruptible or standby power modes. Also, our automatic transfer switch AC power distribution units provide back up AC power for redundant-power-source applications.

Examples of our DC-to-AC inverters are shown below. Please scroll down for descriptions of these products and links to the product bulletins.

#### 250 VA DC - AC Inverters (1U)

Designed for space-limited applications within the telecommunications, data-processing and utility industries, the 250-VA Model 1652 DC-to-AC inverter occupies only 1.75 inches (1U) of vertical rack space. The inverter provides a well-regulated 120-VAC, frequency-stable 60-Hz quasi-sine-wave output and is available in 12, 24, 48 and 130-VDC input versions. Compatible with either 19-inch or 23-inch equipment racks, the inverter can operate at maximum rated power with simple convection cooling.

The conservatively rated Model 1652 is well suited for powering a variety of loads, from sensitive electronic equipment to small motors and other nonlinear loads. It is available as a plain inverter or with built-in automatic load switchover features to permit operation in UPS or standby-power modes.

	Series 1652 DC - AC Inverters
	<ul> <li>250 VA output power</li> <li>12, 24, 48, and 130 VDC input voltages</li> <li>120 VAC, 60 Hz output voltage</li> <li>Rack-mount design</li> <li>Efficient and convection-cooled</li> <li>Optional transfer switch for UPS or standby power</li> </ul>
	Dimensions given in inches (mm):
Model 1652-48-120-60-U (Front View)	• Height 1.75"(44.45) 1 rack space
	Product Bulletins (PDF Files)
	250 VA (Series 1652)

### 500 VA Sinewave DC - AC Inverters (1U)

Conservatively rated, electrically rugged and highly efficient, the Series 1745 and 1765 DC-to-AC inverters provide a regulated, frequency-stable, 120-VAC sine-wave output at up to 500 volt-amperes. Standard versions of the inverters permit operation from 12, 24, 48 or 130-volt station batteries or other widely fluctuating DC sources in ambient temperatures up to 500c. Series 1745 inverters are not metered, whereas Series 1765 inverters feature a front-panel output meter that displays voltage, current, real power and power factor.

The inverters' low-distortion sine-wave output makes them particularly well-suited for powering sensitive electronic loads, such as telecommunication and data processing equipment (with or without power-factor-corrected power supplies), as well as loads normally considered difficult for inverters, such as small motors. Both the Model 1745 and the Model 1765 are available as a plain inverter or, optionally, as an inverter that features built-in automatic load switchover capability to permit operation in UPS or stand-by power modes.



#### 1000 VA Sinewave DC - AC Inverters (1U)

Conservatively rated, electrically rugged and highly efficient, the Series 1746 and 1766 DC-to-AC inverters provide a regulated, frequency-stable, 120-VAC sine-wave output at up to 1000 volt-amperes. Standard versions of the inverters permit operation from 24, 48 or 130-volt station batteries or other widely fluctuating DC sources in ambient temperatures up to 50°C. Series 1746 inverters are not metered, whereas Series 1766 inverters feature a front-panel output meter that displays voltage, current, real power and power factor.

The inverters' low-distortion sine-wave output makes them particularly well-suited for powering sensitive electronic loads, such as telecommunication and data processing equipment (with or without power-factor-corrected power supplies), as well as loads normally considered difficult for inverters, such as small motors.



#### 1000 VA Quasi-Sinewave DC - AC Inverters (1U)

Compact and rugged, the 1000-VA Model 1725 DC-to-AC inverter is particularly suited for space-limited applications within the tele-communications, dataprocessing and utility industries. Occupying only 1.75 inches (1U) of vertical rack space, this inverter provides a regulated 120-VAC, frequency-stable 60-Hz quasi-sine-wave output. It is available in 24, 48 and 130-VDC input versions and is compatible with either 19-inch or 23-inch equipment racks. The conservatively rated Model 1725 can operate continuously at maximum rated power over a -10°C to +50°C ambient temperature range and is well suited for powering a variety of loads, from sensitive electronic equipment to small motors and nonlinear loads normally considered difficult for inverters.

The Model 1725 is available as a plain inverter or with built-in automatic load switchover features to permit operation in UPS or standby-power modes.

	<ul> <li>1000 VA output power</li> <li>1.75 in. high (1u) rack-mount design</li> <li>24, 48, and 130 VDC input voltages</li> <li>120 VAC, 60 Hz output voltage</li> </ul> Dimensions given in inches (mm):
Model 1725-48-120-60-P (Front View)	Height 1.75"(44.45) 1 rack space Product Bulletins (PDF Files)  1000 VA (Series 1725)

#### 1000 VA Quasi-Sinewave DC - AC Inverters (2U)

The Model 1654 rack-mount inverter provides 1000 volt-amperes of 120-VAC, 60-Hz output power in only 3.5 inches of vertical rack space. Standard versions allow operation from 24-VDC, 48-VDC or 130-VDC battery sources. The well-regulated, frequency-stable quasi-sine-wave output is well-suited for powering sensitive telecommunications and data processing equipment, and in addition, is compatible with many loads normally considered difficult for inverters, including switch-mode power supplies, small motors and other nonlinear loads. Applications, therefore, include powering almost any critical industrial or telecommunications equipment within the volt-ampere rating of this inverter.

Conservatively designed and lightweight, this highly efficient inverter will operate continuously at any load within its rating over its full operating temperature range with simple convection cooling. The Model 1654 is available as a plain inverter or with integral automatic load switchover features to permit operation in "standby" or "on-line" UPS modes.



### 2200 VA Sinewave DC - AC Inverters (2U)

Designed for space-limited applications within the telecommunications, data processing and utility industries, the Model 1747 DC-to-AC inverter provides up to 2,200 volt-amperes in only 3.5 inches of vertical rack space. The inverter produces a well-regulated 115-VAC, frequency-stable 60-Hz sine-wave output (50Hz models are also available) from station batteries or other DC sources. Standard versions permit operation from either positive or negative 24-VDC, 48-VDC or 130-VDC sources because the DC input is galvanically isolated from the AC output and from the chassis. The inverter is compact, lightweight and compatible with either 19-inch or 23-inch equipment racks.

The Model 1747 is well-suited for powering a variety of loads, from sensitive communications and SCADA/telemetry equipment to loads normally considered difficult for inverters, including small motors and other reactive or high-surge loads. With the addition of Wilmore's Model 1747-ATS automatic transfer switch, the inverter can function as the primary or backup ac source for applications requiring uninterruptible/redundant power. Conservatively designed and well-protected against external faults, the Model 1747 DC-to-AC inverter is ideal for powering waveshape-sensitive and frequency-sensitive AC loads from DC power systems.

Series 1747 Sinewave DC - AC Inverter

DC-AC INVERTE THOSE AND AND ADDRESS THOSE ADDRESS ADDRESS THOSE ADDRESS ADDRESS THOSE ADDRESS ADDRESS THOSE ADDRESS ADDRESS THOSE ADDRESS ADDRESS THOSE ADDRESS ADDRESS ADDRESS THOSE ADDRESS	<ul> <li>24, 48, or 130 VDC input</li> <li>Conservatively rated 2,200 VA in two rack spaces</li> <li>Isolated, regulated low-distortion output</li> <li>Quartz clock frequency stability</li> <li>Approximately 90% efficient</li> <li>External auto-transfer switch available for UPS / redundant-power applications</li> </ul>
	Dimensions given in inches (mm):
Model 1747-130-115-60 (Front View)	Height 3.50"(88.9) 2 rack spaces
	Product Bulletin (PDF file)
	2200 VA (Series 1747) Automatic Transfer Switch (Series 1747)

#### Automatic AC Power Transfer Switch (1U)

Typical applications employ a DC-to-AC power inverter coupled with commercial AC power (or a second inverter) via the transfer switch to provide an uninterruptible AC power system at equipment sites where battery backup is present such as wireless/wireline telecom facilities and electric-utility substations.



#### 500 VA and 1000 VA Sinewave DC - AC Inverters

Compact and rugged, the 500-VA Model 1755 and 1000-VA Model 1756 DC-to-AC inverters are designed to perform equally well in stationary and mobile applications. The inverters provide an isolated, regulated 120-VAC, frequency stable 60-Hz sine-wave output and is available in 12 (Model 1755 only), 24, 48 and 130-VDC input versions. The conservatively rated Models 1755 and 1756 can operate continuously at maximum rated power over a -10°C to +50°C ambient temperature range. They are well suited for powering a variety of loads, from sensitive electronic equipment to small motors and nonlinear loads normally considered difficult for inverters.

The Models 1755 and 1756 are available as plain inverters or with built-in automatic load switch over features to permit operation in UPS or standby-power modes.



#### Series 1755 and 1756 Sinewave DC - AC Inverter

- 12 (Model 1755 only), 24, 48, or 130 VDC input
- Isolated, regulated, frequency-stable output
- Approximately 90% efficient
- Rugged, conservative design
- Available with integral high-speed transfer switch for UPS/standby-power applications

#### Dimensions given in inches (mm):

• 4.1" (104) high x 9.7" (246) wide x 13.6" (345) deep (excluding flanges).

Product Bulletin (PDF file)

Model 1756-48-120-60-U (Front View)



# 74VDC Input (75VA Output) DC - AC Inverters

Designed as a rugged, portable, cost-effective inverter for lower power applications, the Model 1715-74 provides 75 volt-amperes in a portable, compact enclosure. This inverter supplies a regulated, 120-VAC, crystal-frequency-stable quasi-sinewave output from a nominal 74-VDC battery source. Field proven input transient protection ensures confident operation in "harsh" battery environments. Designed for operation in a -30°C to +50°C ambient, only simple convection cooling is required. The 1715-74's conservative design makes it particularly well-suited for powering sensitive electronic loads such as laptop computers, telecommunications and data processing equipment.



### 74 VDC Input (500VA Output) Sinewave DC - AC Inverters

Designed to power test equipment, laptop computers and other AC loads from 74-VDC locomotive battery systems, the Model 1749-74 DC-to-AC inverter provides 500 volt-amperes of 110-VAC, 60-Hz output power in a lightweight, portable package. Its high power-conversion efficiency allows the inverter to operate continuously at full power with simple convection cooling (no fans). The isolated, regulated, and frequency-stable sine-wave output is well-suited for powering a variety of loads, from sensitive electronic equipment to small motors and nonlinear loads normally considered difficult for inverters.



# DC - AC Inverters and Uninterruptible Power Supplies

These inverters are well suited for powering a variety of loads, from sensitive electronic equipment to small motors and other nonlinear loads.



If you would like additional information about our DC-to-AC inverters or other Wilmore Electronics power conversion products, please <u>contact us</u> by email, telephone, or fax using the information shown on this page.



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