

PFC UNIVERTER® SERIES

400-1000 WATTS 85-265VAC INPUT FULL BRICK POWER FACTOR

DESCRIPTION

UniVerter PFC modules accept 85-265 VAC (PFC-600) or 170-265 VAC (PFC-1000) and convert it to 380 VDC to power 300VDC input DC-DC converters. Power factor correction meets low harmonic distortion requirements of IEC 1000-3-2 and the European EN55022 emissions specification when used with the Model HH-1199-6 EMI filter. UniVerter modules utilize a boost converter incorporating a solid state series switch for active inrush and short circuit current limiting. The series switch is also used to provide over temperature shutdown with automatic recovery.

FEATURES

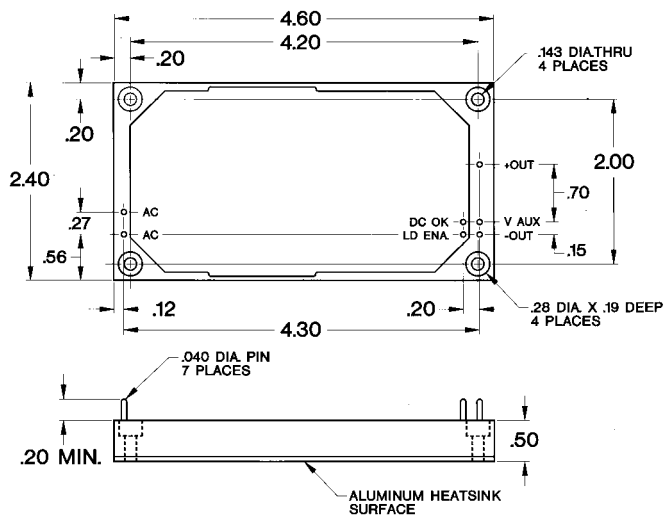
- 600 & 1000 Watts
- UL/CSA/TUV/CE MARK
- Meets European EN55022 Emissions when used with HH-1199-6 EMI Filter
- Unity Power Factor
- High Efficiency
- Active Inrush Limiting and Short Circuit Protection
- Very Low Harmonic Distortion
- Auxiliary Supply
- Power Fail Warning Via DC OK Signal
- Load Enable Signal to Control DC-DC Converters
- Very Low Thermal Resistance
- Superior Thermal Design
- 100°C Baseplate Operation



MODEL SELECTION

Model Number	Input Voltage	Output Voltage	Output Power*
PFC-600	85-265VAC	380VDC	600 Watts
PFC-1000	170-265VAC	380VDC	1000 Watts

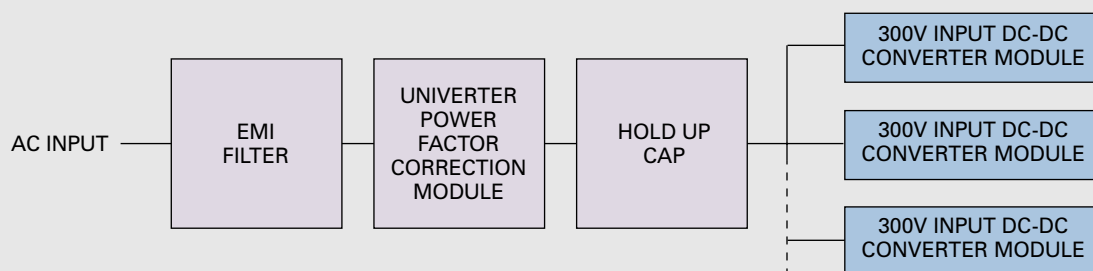
* See Derating Specification



PFC UNIVERTER SERIES SPECIFICATIONS

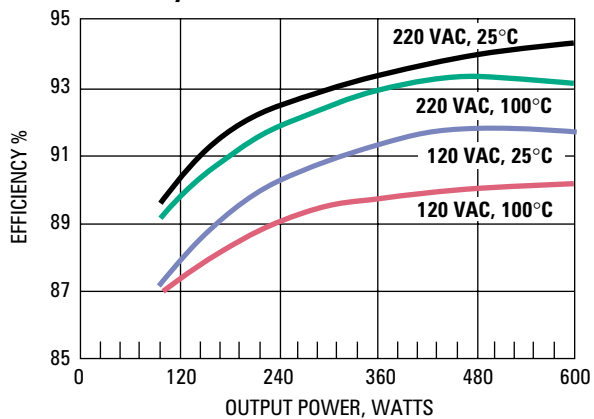
	PFC-600	PFC-1000
Power (Watts)	600 W Derate output power linearly below 105 VAC from 600W at 105 VAC to 400W at 85 VAC	1000 W Derate output power linearly below 205 VAC from 1000W at 205 VAC to 750W at 170 VAC
Input Range	85-265 VAC	170-265 VAC
Input Frequency	47-63 Hz (operation up to 440Hz is available with reduced specifications)	47-63 Hz (operation up to 440Hz is available with reduced specifications)
Power Factor	.99	.99
Harmonic Distortion	<5% (conforming to IEC 1000-3-2)	<5% (conforming to IEC 1000-3-2)
Output Voltage	380 VDC	380 VDC
Efficiency <i>See Curves on Page 79</i>	90/94 % (120/240 VAC) typical	94 % (240 VAC input)
Inrush Limiting	<15 A peak typical	30 A (max)
Short Circuit Protection	Trip point 1.8 A (Shutdown, automatic recovery after removal of short)	2.8 A (Shutdown, automatic recovery after removal of short)
Thermal Protection	105-110°C (Shutdown, automatic recovery)	105-110°C (Shutdown, automatic recovery)
Auxiliary Supply	14 V @ 10 mA	14 V, @10 mA
DC OK Signal	Provides power fail warning when output drops below 355VDC	Provides power fail warning when output drops below 355VDC
Load Enable	Direct interface with MicroVerter, MegaVerter and PicoVerter DC-DC Converter logic on/off pin	Direct interface with MicroVerter MegaVerter and PicoVerter DC-DC Converter logic on/off pin
Operating Temp.	-40 to +100°C Case	-40 to +100°C Case
Overvoltage Protection	415 VDC non-shutdown	415 VDC non-shutdown
Safety	UL1950, CSA22.2-234-M90, EN 60950	UL1950, CSA22.2-234-M90, EN 60950
Thermal Resistance (Case To Ambient)	3.3°C/W	3.3°C/W
Isolation: Input-Output	Non-isolated	Non-isolated
Input/Output-Case	2500 VDC	2500 VDC

SYSTEM DIAGRAM

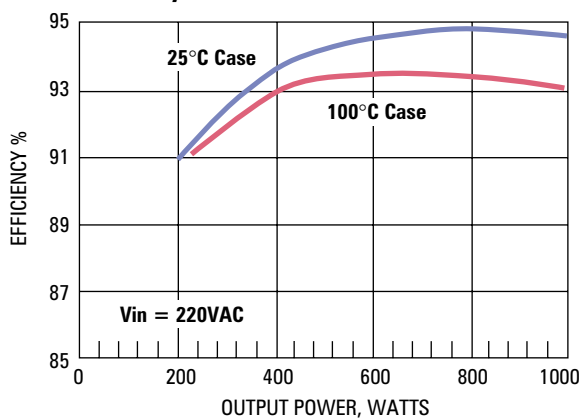


UNIVERTER SERIES

Efficiency PFC-600

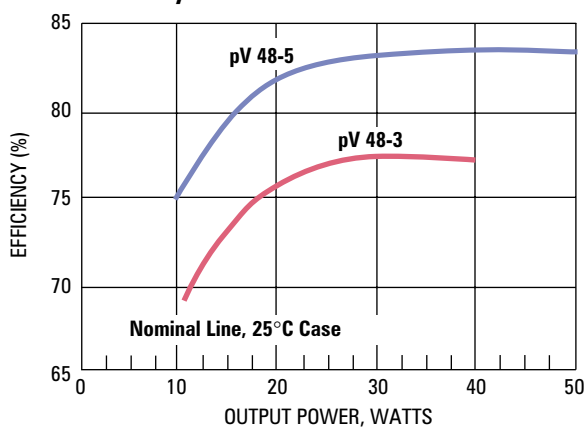


Efficiency PFC-1000

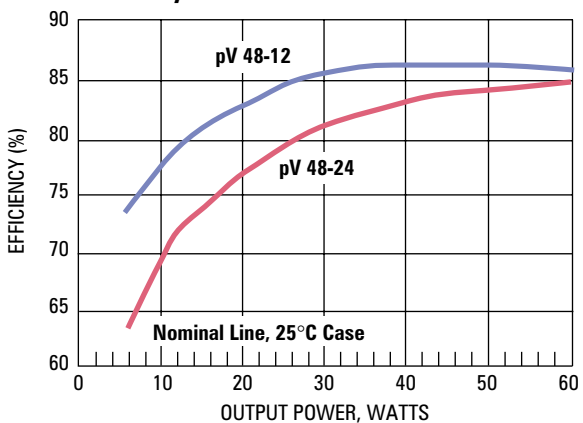


PICOVERTER SERIES

Efficiency-3 and 5V Models

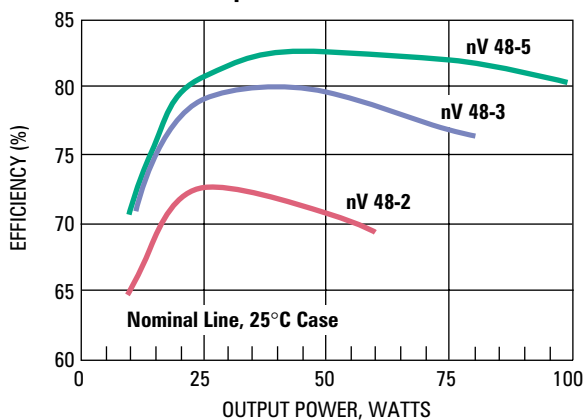


Efficiency-12 and 24V Models



NANOVERTER SERIES

2,3 and 5V Output Models



12 and 24V Output Models

