



# PFC FrontEnd

## Power Factor Corrected High Voltage DC Front End

### Features

- Power factor corrected (PFC)
- Low profile (1.72"/43,6 mm H)
- Output power to 2,200 W
- High power density > 28 W/in<sup>3</sup>
- Up to 4 non-isolated outputs
- Integral cooling fan
- Meets MIL-STD-810E for vibration
- DIN rail mountable
- Safety agency approvals: cTÜVus, CE Marked
- RoHS compliant
- Output voltage 360, 375 or 384V



PFC FrontEnd  
 1.72"H x 6.4" W x 7.0" L  
 43,6 mm x 162,6 mm x 177,8 mm  
 Up to 2,200 W  
 1 to 4 non-isolated outputs

### Product Overview

The PFC FrontEnd is an extremely low profile, 1 RU enclosed chassis mount AC front end that may be used with any Vicor 300 V VI-200/VI-J00 or 375 V Maxi, Mini, Micro modules or ViPAC Arrays to create a complete, high density AC-DC power supply.

Accepting universal input voltages of 85 Vac to 264 Vac, and 100-380 Vdc, the PFC FrontEnd can deliver up to 2,200 W @ 230Vac from 4 non-isolated outputs (additional using "Y" adapters). With an extremely compact, package size of 1.72" H (43,6mm) x 6.4" W (162,6mm) x 7" L (177,8mm), the PFC FrontEnd can provide >28 W/in<sup>3</sup>.

The PFC FrontEnd is DIN mountable.

Besides meeting the cTÜVus and CE Marked safety agency approvals, the PFC FrontEnd complies with harmonic current limits per EN61000-3-2, electrical fast transient/burst per EN61000-4-4 and surge immunity per EN61000-4-5. It also meets the rugged MIL-STD-810E for vibration.

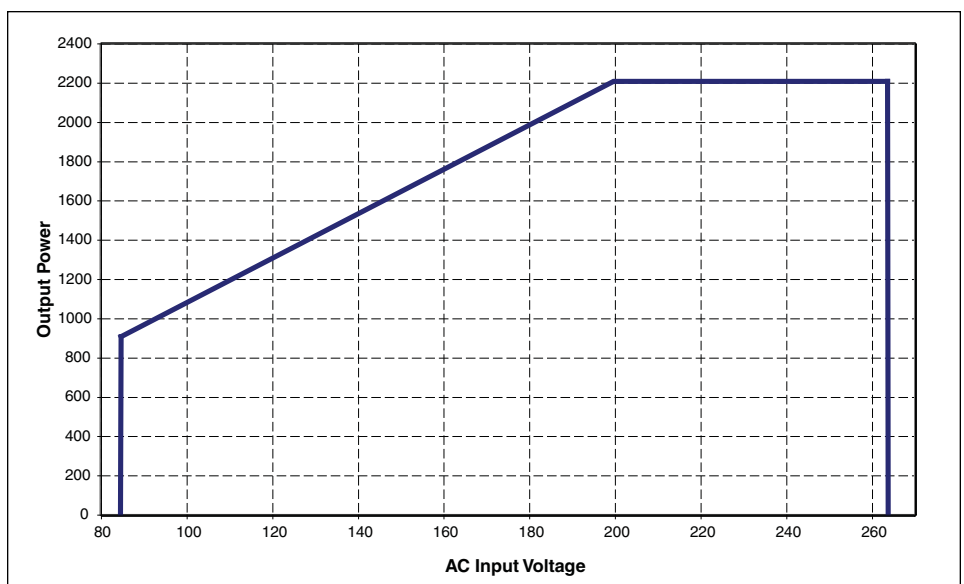
For more details about the product, refer to the PFC FrontEnd Design Guide available online at [vicorpower.com](http://vicorpower.com).

### Part Number

# F E X X X

Where XXX = 360, 375 or 384, dependent on model selected

### PFC FrontEnd Output Power vs. AC Input Voltage



# End of Life - Not Recommended for New Designs

## ELECTRICAL CHARACTERISTICS

Electrical characteristics apply over the full operating range of input voltage, output load (resistive) and baseplate temperature, unless otherwise specified.

### ■ INPUT SPECIFICATIONS

Parameter		Unit	Notes
AC Input			
Voltage	85 – 264	Vac	
Frequency	47 – 800	Hz	
DC Input			
	100 – 380	Vdc	
Inrush current			
@ 115 Vac	2	A pk	@ 115 Vac
@ 230 Vac	3.5	A pk	@ 230 Vac
Conducted EMI/RFI	FCC Class A, EN 55022 Class A		
Power factor	0.99		@ 115 Vac
	0.95		@ 230 Vac
Harmonic current limits	EN61000-3-2		Passed
Voltage fluctuations and flicker	EN61000-3-3		Passed
ESD susceptibility	EN61000-4-2		Level 4, Performance, Criteria A
RF radiated immunity, 10 V/m	EN61000-4-3		Level 3, Performance Criteria A
Transient burst immunity	EN61000-4-4		Level 3, Performance, Criteria A
Surge immunity	EN61000-4-5		Installation Class 3, Performance Criteria A
RF conducted immunity	EN61000-4-6		Class 3, Performance Criteria A
Magnetic field immunity	EN61000-4-8		Level 4, Performance Criteria A
Voltage dips and interrupts	EN61000-4-11		Passed
Dielectric withstand			
Primary to chassis GND	2,121	Vdc	

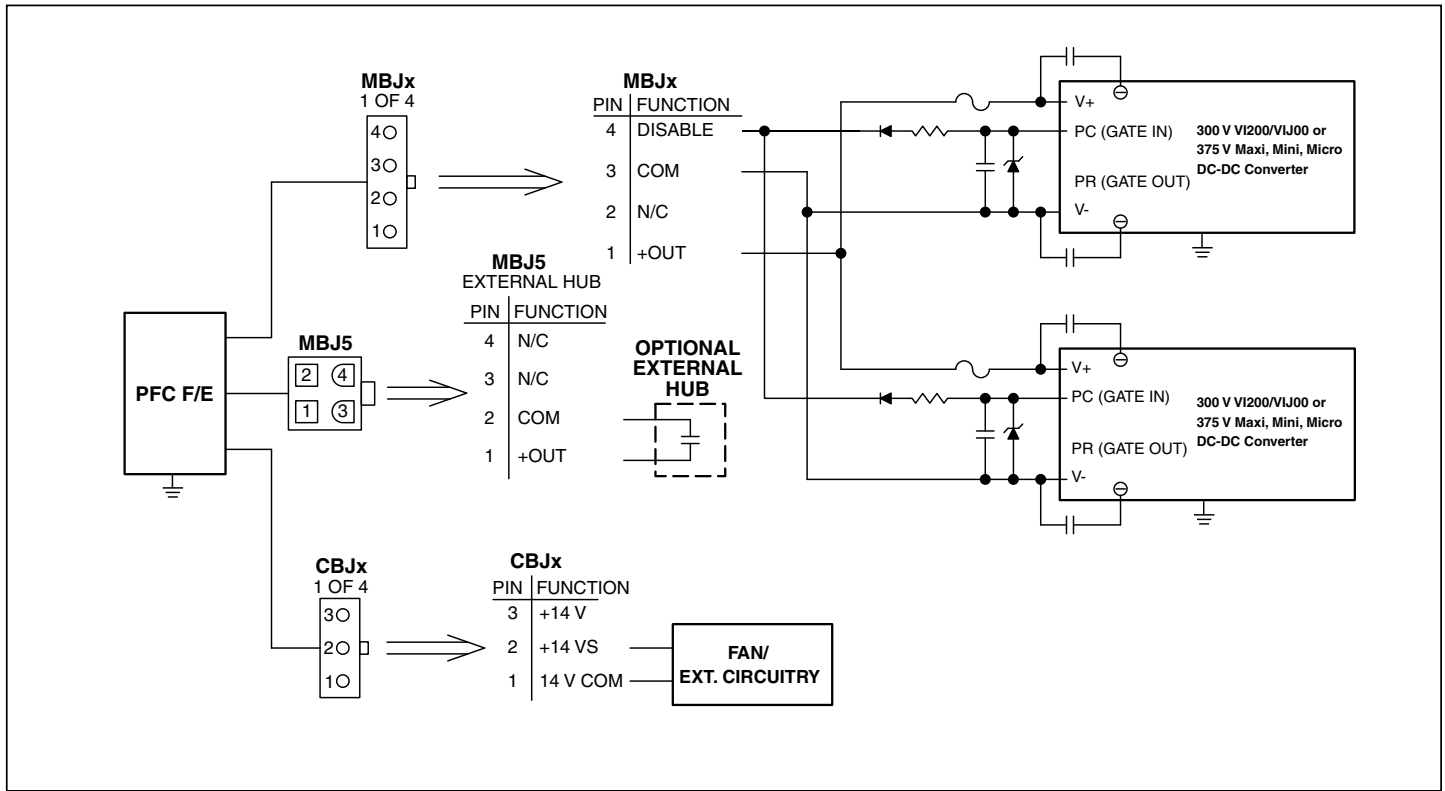
### ■ ENVIRONMENTAL CHARACTERISTICS

Parameter		Unit	Notes
Storage temperature	-40 to +85	°C	
Operating temperature			
Full power	-20 to +45	°C	
Half power	-20 to +65	°C	
Safety approvals	cTÜVus, CE Marked		

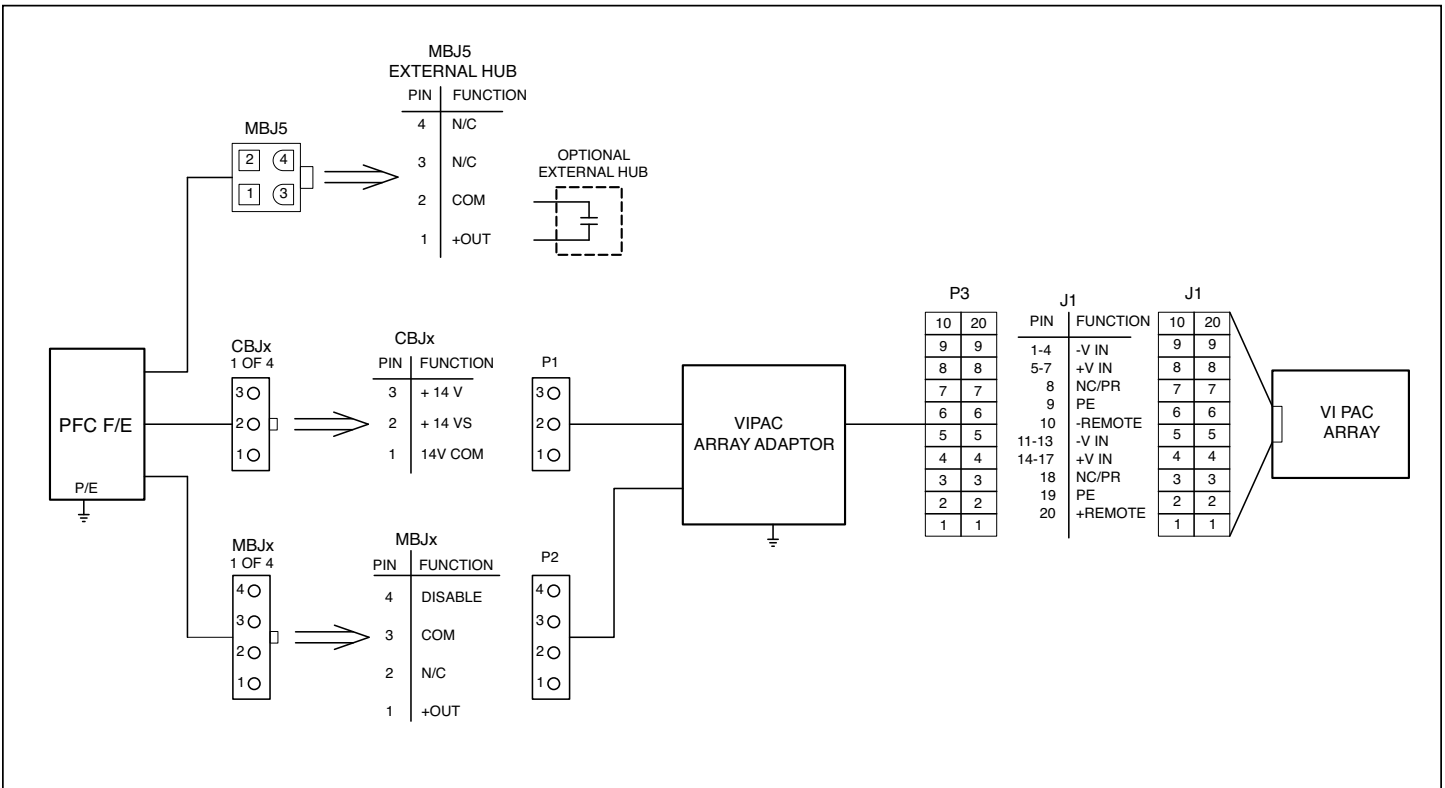
### ■ MECHANICAL CHARACTERISTICS

Parameter		Unit	Notes
Weight	5.0	lbs.	
	2.3	kg	
Overall dimensions			
	7 x 6.4 x 1.72	inches	L x W x H
	177,8 x 162,6 x 43,6	mm	L x W x H

**CONNECTION DIAGRAMS**

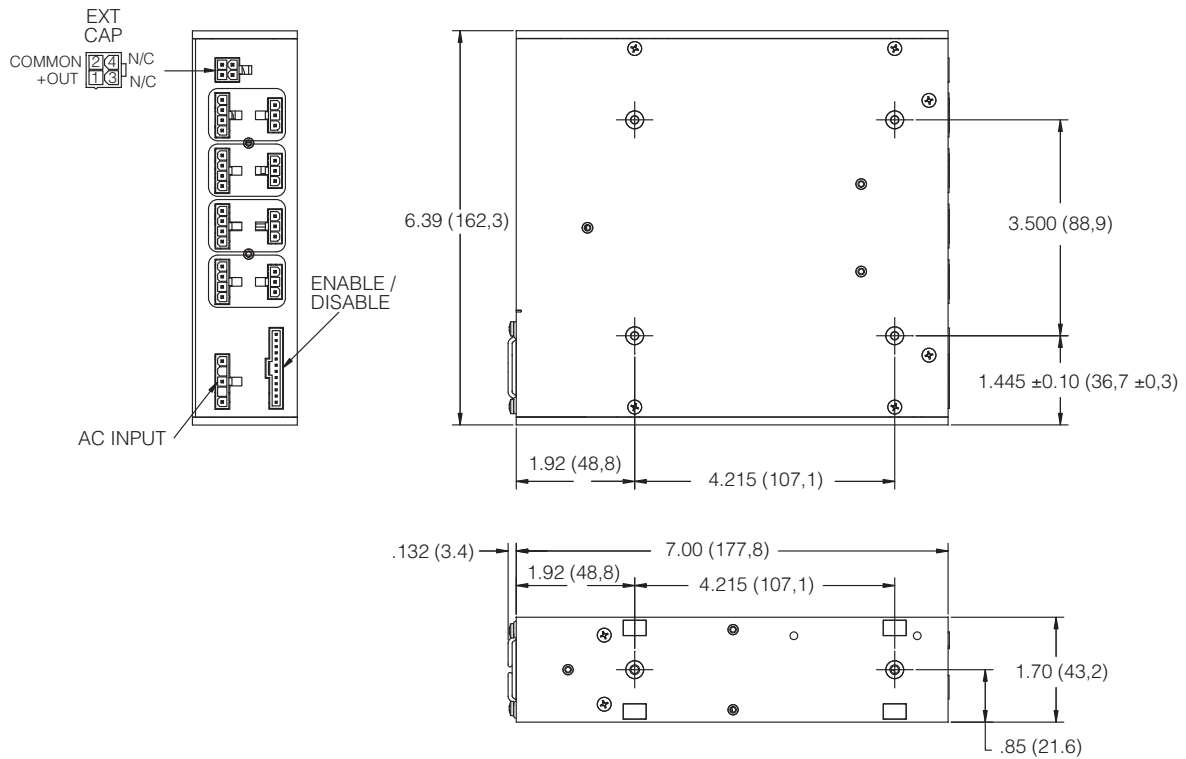


**Figure 1** — Connection diagram using PFC FrontEnd with Vicor DC-DC converters.



**Figure 2**—Connection diagram using PFC FrontEnd with Vicor ViPAC Array.  
Optional ViPAC Array adapter available (#19-130064)

## MECHANICAL DRAWINGS



## ACCESSORIES

The following accessories are available for the PFC FrontEnd.

**CONNECTOR KITS**                      **19-130059**

**DIN RAIL**                                      **19-130060**

**VIPAC ARRAY ADAPTER**              **19-130064**

Note: Additional technical information covered in the PFC FrontEnd Design Guide available online at [vicorpower.com](http://vicorpower.com).

# End of Life - Not Recommended for New Designs

**Vicor's comprehensive line of power solutions includes high density AC-DC and DC-DC modules and accessory components, fully configurable AC-DC and DC-DC power supplies, and complete custom power systems.**

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**Specifications are subject to change without notice.**

*The latest data is available on the Vicor web site at [vicorpower.com](http://vicorpower.com).*

Westcor, a division of Vicor, designs and builds medium to high power configurable power supplies incorporating Vicor's high density DC-DC converters and accessory components. Westcor's product line includes:

- PFC Mini
- PFC Micro
- PFC MicroS
- Autoranging MegaPAC
- Mini MegaPAC
- PFC MegaPAC
- PFC FrontEnd
- PFC MegaPAC (High Power)
- PFC MegaPAC-EL (Low Noise)
- 3 Phase/4kW MegaPAC
- 3 Phase/4kW MegaPAC-EL (Low Noise)
- ConverterPACs
- FlatPAC-EN

See Design Guides for detailed information about all Westcor products. They can be downloaded in PDF format from the website.



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