



### **-AC Input-**

Voltage/Current.....	AC 90-264V, 47-63Hz, 5.5A Max, 1 Phase.
Fusing.....	AC 6.3A, 250V internal line fuse provided, non-user serviceable.
Power Factor .....	>0.99 line PFC typical at AC 115V, full load.
Inrush Current .....	Thermistor soft start (~25°C cold start). 15Apk @ AC 115V, 30Apk @ AC 230V.
Transient Protection .....	MOV. Withstands transients as specified by EN61000-4-5 (differential / common mode).
EMI Filtering.....	Meets CISPR22B Level B, and EN 55022 Level B.
Efficiency .....	70% typical at AC 115V, full load.
Redundant/Hot Swap.....	Full power N+1 redundant, hot swap capable.

### **-DC Outputs-**

Voltage/Current (V/A)....	Refer to Model Chart.
Line/Load Regulation.....	<±1% at the sense point over full AC input range and 0 – 100% output loading, sense leads connected.
Minimum Loading .....	None required for single unit applications. 10% loading required in N+1, N2 configurations.
Output Turn-on Delay .....	<2 sec from AC turn on. <100 msec from remote enable.
Over/Under Shoot .....	None at turn-on or turn-off.
Stability .....	Output drift <±0.2% after 20 min. warm-up.
Temp. Coefficient .....	<±0.02%/°C, 0-50°C, after 20 min. warmup.
Dynamic Response .....	Less than 3% deviation with a 25% load change at 1A/μsec. Output recovers to within 1% in less than 300μsec.
Ripple & Noise (PAR) .....	50mV max or <1% peak-to-peak nominal, whichever is greater, at the output terminals with a 20 Mhz bandwidth limit. May be measured with 0.1μF ceramic capacitor in parallel with a 22μF tantalum.
Current Sharing/ Parallel N+1 Operation.....	Single wire connection for ±10% current sharing between any number of units.
Remote Sense.....	Output compensates for up to 0.5V total line drop in the load cables. Output internally sensed if leads are opened.
Over Temperature Protection .....	Internal temperature sensing. Automatic recovery.

### General Product Specifications:

## **1U( ) Model Series**

### **200W – 400W, Single Output.**

Hold-up Time.....	Output remains in regulation >20msec minimum following loss of AC power at low line, full load.
Over Current/Short Circuit Protection .....	Load current hiccup (cycles on/off). Automatic recovery when overload is removed.
Over Voltage Protection .....	Non-crowbar type. Output exceeding 25%±10% of nominal Vout will cause the out-put to latch off. Remote enable or AC input recycle required to reset.

### **-Signals, Indicators and Controls-**

Remote Enable.....	Enabled by closed circuit or TTL logic 0. Disabled by open circuit or TTL logic 1.
Power Fail Warning .....	Loss of input AC causes a TTL compatible signal to go low >4msec prior to the output dropping out of regulation. At AC turn-on, signal stays low until the output is in regulation. PF signal also triggered by an under voltage condition (V-out 10% below V-nom)
LED Indicator .....	Front panel mounted, single-color LED. Green indicates AC power ON and output within regulation. Off indicates an input and/or output power fault.

### **-Operating Environment-**

Operating Temperature ..	0° – 50°C ambient at full load, with specified airflow. Derates linearly to 50% at 70°C.
Cooling.....	Provided with internal single or dual DC ball bearing fans dependant on output power, rated 9 cfm minimum each. Forward airflow intake is at end opposite of I/O terminations.
Relative Humidity .....	Up to 90% RH, non-condensing.
Operating Vibration .....	0.75G peak, 5 – 500Hz along three orthogonal axis.
Storage Temperature .....	-40° to 85°C.
Altitude .....	Operating to 10,000 ft. Storage to 30,000 ft.
MTBF .....	Designed for 150,000 hours at 25°C.

### **-Interconnect-**

<b>Single Output Model .....</b>	18-circuit (3X6), sequential contact, hot pluggable type. Positronic Ind. P/N PLC18M4BN0A2-164.9. Mates with PI P/N PLC18F300A1.
----------------------------------	--

**Note:** Use of the specified mating connector is required to insure proper "make/break" sequential contact sequence.

---

**-Safety-**

Complies with CSA C22.2 No. 60950/UL 60950 Third Edition, and TUV EN 60950 standards.

Immunity: Complies with EN 50082-1, IEC 802-2,3,4.

<b>Model:</b>	<b>Input:</b> ~100-240V 50/60Hz Single Phase	<b>Output:</b> Volts @ Amps	<b>Fans:</b>
<b>200 Watt:</b>	<b>Input Amps:</b>		
1UE15HP	3.0A Max	15V, 13.3A	Single
1UE24HP		24V, 8.3A	Single
1UE28HP		28V, 7.2A	Single
1UE48HP		48V, 4.2A	Single
1UE54HP		54V, 3.7A	Single
<b>300 Watt:</b>			
1UF12HP	4.5A Max	12V, 25.0A	Dual
1UF15HP		15V, 20.0A	Single
1UF24HP		24V, 12.5A	Single
1UF28HP		28V, 10.7A	Single
1UF48HP		48V, 6.3A	Single
1UF54HP		54V, 5.6A	Single
1UF125HP		125V, 2.4A	Single
<b>400 Watt:</b>			
1UP24HP	5.5A Max	24V, 16.7A	Dual
1UP28HP		28V, 14.3A	Dual
1UP48HP		48V, 8.3A	Dual
1UP54HP		54V, 7.4A	Dual

## 1U( ) Single Output Input/Output and Signal Connector Type and Pin Functions:

Positronics Ind. P/N PLC18M4BN0. 18 circuit (3x6) hot plug-able type, with 16ga contact pin terminals. Glass filled polyester insulator material, rated 94V-0. Secured in the unit rear. Use of Positronic PLC18F series mating connector is required to ensure correct mating contact sequence and current capacity.

Pin#	Sequence	Function
1	(2) standard,	+V1 (DC power output).
2	(2) standard,	-V1 (Rtn).
3	(2) standard,	Not used.
4	(2) standard,	-S (-V1) Remote Sense.
5	Blank	No connection.
6	(2) standard,	L – Line (AC) Input.
7	(2) standard,	+S1 (+V1) Remote Sense.
8	(1) premate,	-V1 (Rtn).
9	(3) postmate,	Current Share Signal.
10	(3) postmate,	Remote DC Enable. TTL Low/Closed= ON.
11	(1) premate,	Primary Earth (PE) chassis ground.
12	Blank	No connection.
13	(2) standard,	+V1 (DC power output).
14,15	(2) standard,	Not used.
16	(2) standard,	Power Fail Warning.
17	Blank	No connection.
18	(2) standard,	N – Neutral (ACC) Input.

### Indicators and Controls:

**LED 1:** DC Power Good. Located on the front panel. The power supply is functioning within specifications when the LED indicator is green. Off indicates an input or output fault condition.

Power Fail Warning.....P1-16. Loss of input AC causes a TTL compatible signal to go low >4mSec prior to the output dropping out of regulation. At AC turn-on, signal stays low until output is in regulation. PF signal also triggered by an under voltage condition (V-out drops 10% below V-nom.)

Remote Sense P1-4, P1-7. Output compensates for up to 0.5V total line drop in the load cables.

Current Sharing/  
Parallel N+1 Operation..... P1-9. Single wire connection for  $\pm 10\%$  current sharing between any number of units.

Remote DC Enable ..... P1-10. Enabled by closed circuit or TTL logic 0. Disabled by open circuit or TTL logic 1.

### Other Features:

Undervoltage Protection..... Auto DC output shutdown when AC input falls below safe operating limits ( $\approx 80\text{VAC}$ ). Automatic recovery.

Minimum Loading..... None required.

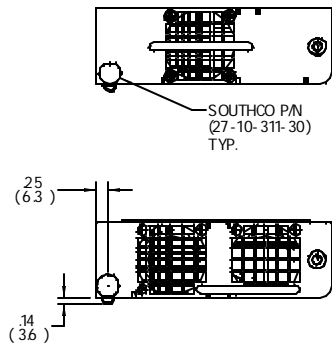
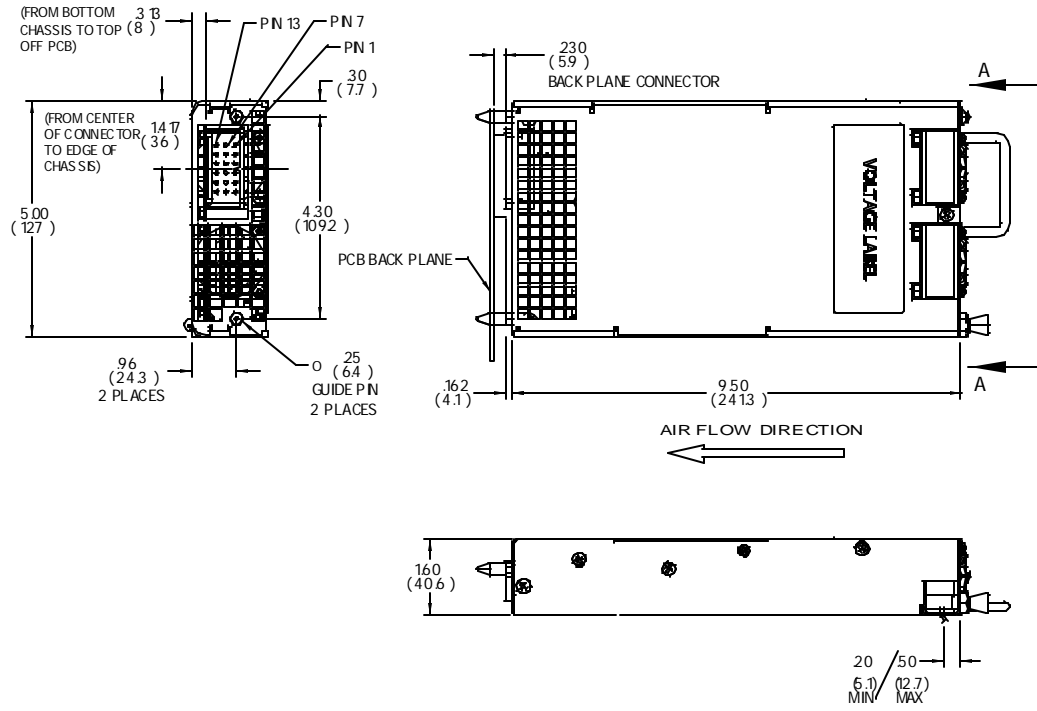
Over Current/Short  
Circuit Protection ..... Standard hiccup mode (on/off cycle) current limit when Vout current is >105% to 120% of full load. Automatic recovery when overload is removed.

Over Voltage Protection ..... Non-crowbar type. Any output that exceeds  $25\% \pm 10\%$  of nominal Vout will cause Vout to latch off. Remote enable or AC input recycle required to reset.

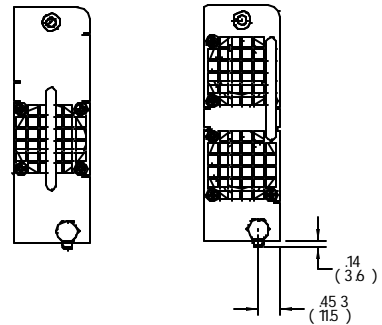
Over Temperature  
Protection ..... Internal temperature sensing. Causes Vout to shut down. Automatic recovery.

# Mechanical Outline

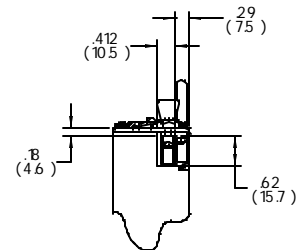
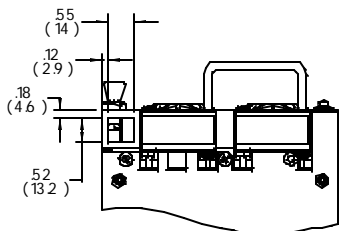
## Single Output



**VEWA-A(1)**  
 ROTATED 90° CW  
 HORIZONTAL MOUNT, SINGLE  
 AND DUAL FAN CONFIGURATIONS



**VEWA-A(2)**  
 VERTICAL MOUNT, SINGLE  
 AND DUAL FAN CONFIGURATIONS



**ETA-USA**  
 16315 Vineyard Blvd.  
 Morgan Hill, CA 95037

Ph: 408-778-2793 Fax: 408-779-2753 e-mail: [sales@eta-usa.com](mailto:sales@eta-usa.com) Web: [www.eta-usa.com](http://www.eta-usa.com)