

# HDX-410-DC

## HOT SWAP - 400 WATTS - 1U HIGH

18-40 VDC INPUT  
I<sup>2</sup>C OPTION FOR IPMI COMPATIBILITY



### FEATURES:

- Size: 1.6" x 5" x 10" in Size**
- Low Profile - Only 1.6" high!**
- N+1 Redundant and Hot Swap**
- 5w/in<sup>3</sup> Power Density**
- Meets FCC Class A**
- No Additional Cooling Required up to 50 °C**
- Wide Range Input (18-40VDC), Transients to 75VDC for 2 Secs.**
- 'Zero' Wire Current Share**
- Remote Sense**
- No Minimum Load Required**
- Includes Standby Output 5V/0.25A**
- Integral LED Status Indicators**
- Greater than 90,000 Hrs MTBF (500,000 Hrs in Redundancy)**

#### Standard Configurations Available :

	<b>OUTPUT VOLTAGE (VDC)</b>	<b>OUTPUT AMPERES (MAX)</b>	<b>OUTPUT POWER (WATTS)</b>
<b>+V1</b>	<b>48Vdc</b>	<b>8.4</b>	<b>400</b>
<b>+V1</b>	<b>24Vdc</b>	<b>16.7</b>	<b>400</b>
<b>+V1</b>	<b>12Vdc</b>	<b>33.3</b>	<b>400</b>

# HDX-410-DC SERIES - 400 WATT COMPACT SIZE

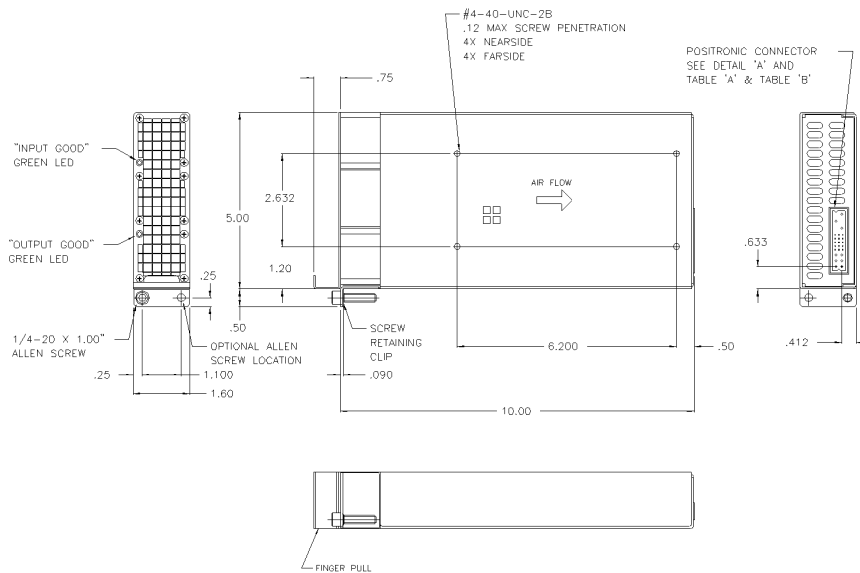
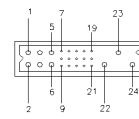


TABLE 'A' WITH I2C OPTION POSITRONIC P/N PCB24W9M400A1 MATES WITH PCB24W9F400A1	
PIN #	DESCRIPTION
1	+VOUT
2	+VOUT
3	+VOUT
4	RTN
5	RTN
6	RTN
7	ENABLE
8	+SENSE
9	-SENSE
10	INHIBIT
11	SDA
12	SCLK
13	MODULE PRESENT
14	GAT
15	N/C
16	N/C
17	GAD
18	N/C
19	GA2
20	+5V SB
21	+5V SB RTN
22	CHASSIS GROUND
23	-24VDC
24	-24VDC RTN

TABLE 'B' WITHOUT I2C OPTION POSITRONIC P/N PCB24W9M400A1 MATES WITH PCB24W9F400A1	
PIN #	DESCRIPTION
1	+VOUT
2	+VOUT
3	+VOUT
4	RTN
5	RTN
6	RTN
7	ENABLE
8	+SENSE
9	-SENSE
10	INHIBIT
11	N/C
12	N/C
13	MODULE PRESENT
14	DC POWER GOOD
15	N/C
16	N/C
17	OVERTEMP WARNING
18	N/C
19	V1 CURRENT MONITOR
20	+5V SB
21	+5V SB RTN
22	CHASSIS GROUND
23	-24VDC
24	-24VDC RTN



DETAIL 'A'  
SCALE: 2/1  
ROTATED 90° CW

<b>Nominal Input Voltage</b>	24VDC, 25A max.
<b>Operational Input Voltage Range</b>	18-40 VDC
<b>Inrush Current</b>	Less than 5 msec. 45 amperes @ -48VDC.
<b>Fusing</b>	40 Ampere, 125 VDC.
<b>Hold up time</b>	1msec minimum after loss of DC Input at full load and any input.
<b>Efficiency</b>	75% typical
<b>Turn on time</b>	1 sec max. from power up.
<b>Line and Load Regulation</b>	±2% over DC input range and 0 to 100% load change.
<b>Minimum Load</b>	No minimum load required.
<b>Ripple &amp; Noise</b>	Through 20MHz 0.5% max. peak to peak, with coaxial probe and 0.1uF/10uF capacitors at the connector.
<b>Transient Response</b>	Output maximum excursion of ± 4% for 25% load step. Recovery less than 300 µsec.
<b>Overshoot/Undershoot</b>	No turn-on or turn-off overshoot.
<b>Output Isolation</b>	Isolated from chassis ground, 50Vdc.
<b>Input/Output Isolation</b>	1500 VDC from input to both chassis/outputs. SELV construction.
<b>Reverse Voltage</b>	Protected against reverse voltage to supply current rating.
<b>Overvoltage Protection</b>	Clamp at 130% of nominal Vout.
<b>Overtemperature Protection</b>	Unit shuts down if overheated. Recycle DC to reset.
<b>Current Limiting</b>	V1 short circuit protected with foldback protection. 5VSB Foldback.

<b>Paralleling</b>	Two or more supplies can be operated in parallel and will share current to within ±10% of each other.
<b>Redundant</b>	Full power N+1 redundant with integral Oring Diodes.
<b>Remote Sense</b>	Compensates for up to 0.5V total distribution voltage drop.
<b>INHIBIT</b>	Open to Run, Contact closure to return , turns off all outputs.
<b>ENABLE</b>	Closed to run. Contact closure to return, turns on all outputs.
<b>Indicators</b>	Green LED indicating Input Good, Green LED indicating output Good.
<b>Output Power Good</b>	Provides logic Low signal when V1 is within 90% of it's rating.
<b>Over Temp Warning</b>	Provides a logic High signal at least 1 sec before supply shuts down.
<b>Operating Temperature</b>	-20°C to 50°C operating temperature. 50°C to 75°C, derate 2%/°C.
<b>Stability</b>	All outputs ±0.2% for 8 hrs. after 30 minute warm-up. All outputs ±0.5% during 30 minute warm-up.
<b>Humidity</b>	Up to 95% non-condensing.
<b>Storage Temperature</b>	-40°C to 85°C.
<b>Connector</b>	Positronic Part No. PCB24W9M400A1
<b>Size</b>	1.6" x 5" x 10" <b>Weight:</b> 4 lbs.
<b>EMC</b>	Meets FCC Class A conducted. External filter required for EN55022 Level A.
<b>Safety</b>	Meets UL 60950 / CSA C22.2 No. 60950, EN60950.

Standby Output: +5V/0.25A, First On, Last Off. Remains ON during all fault conditions.