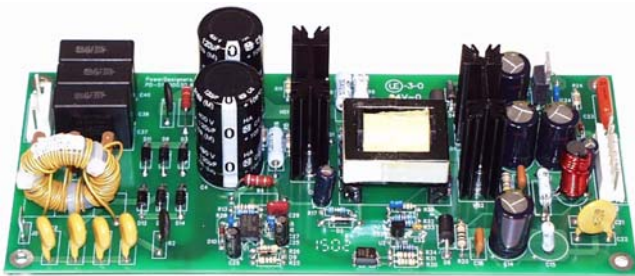


Open Frame Power Supplies

Single, Dual and Triple Output

- **Wide voltage input range**
 - ◆ AC: Three phase 220/380/480VAC
 - ◆ DC: 235-750VDC
- **40W with free air convection**
- **Over voltage and short circuit protection**
- **Regulated outputs**
- **High efficiency**
- **8.0 x 3.5 x 1.5 inch PCB card**
- **DTM: UL1950, FCC Part 15 Class A**



The HVAC40 and HVDC40 series open frame power supplies feature a wide input voltage range including 220/380/480V three-phase AC and 235-750V DC. The new series features a reliable, low parts count design utilizing a single rugged IGBT switch. The series provides 40W of output power with free air convection cooling assembled on a 8 x 3.5 x 1.5 inch PCB card. Standard safety features include overvoltage protection and short circuit protection. The standard series feature triple regulated outputs, however, custom outputs can be also configured. The HVAC40 and HVDC40 power supplies are ideal for medium to high power converters and inverters, motor drives, and other industrial control systems.

Advantages:

- Wide input voltage range including three-phase AC and DC
- High efficiency
- Triple regulated outputs

Applications:

- Housekeeping power supplies for industrial power converters and inverters, motor drives, and industrial controls.

MODEL SELECTIONS

Model Number	Input Voltage	Output Voltages	Output Amps	Min Load
HVAC40-1	220/380/480 VAC – Three-phase	Main: +5V Aux 1 ¹ : +/- 12V - Isolated Aux 2: +15V	2.4A 1.4A 0.8A	10% 0 0
HVAC40-2	220/380/480 VAC – Three-phase	Aux 1 ¹ : +/- 5V - Isolated Main: +12V Aux 2: +15V	2.4A 1.4A 0.8A	10% 0 0
HVDC40-1	235-750 VDC	Main: +5V Aux 1 ¹ : +/- 12V - Isolated Aux 2: +15V	0.5A 2.5A 0.4A	0 10% 0
HVDC40-2	235-750 VDC	Aux 1 ¹ : +/- 5V - Isolated Main: +12V Aux 2: +15V	0.5A 2.5A 0.4A	0 10% 0

¹ Auxiliary 1 output can be tied to common for +/- output or used as isolated output.

For further information and custom designs, please visit our website at www.powerdesigners.com or contact PowerDesigners, LLC at +1.608.231.0450

SPECIFICATIONS

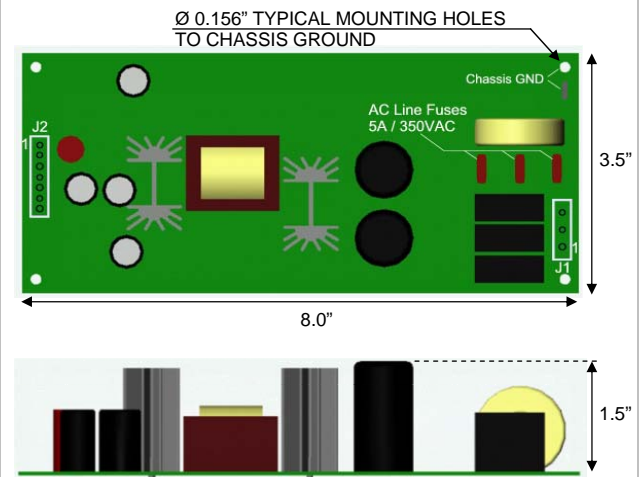
All specifications are typical at nominal input, full load, and 25°C unless otherwise stated.

INPUT SPECIFICATIONS	
Input Voltage Range	AC: Three-phase 220/380/480VAC DC: 235-750VDC
Input Current²	0.25A @ 220VAC 0.17A @ 380VAC 0.14A @ 480VAC
Input Frequency	47-440Hz
Leakage Current	0.03mA @ 220VAC 0.05mA @ 380VAC 0.1mA @ 480VAC
Inrush Current (cold start)	3.1A max @ 220VAC 5.4A max @ 380VAC 6.8A max @ 480VAC
Input Fusing	AC Input: 5A / 350VAC DC Input: None
OUTPUT SPECIFICATIONS	
Output Voltage	See selection chart
Output Current	See selection chart
Output Regulation	Main output: ±3% Auxiliary 1 output: ±5% Auxiliary 2 output: ±10%
Over Voltage Protection	135% on main output with output crowbar
Short Circuit Protection	Pulse shutdown with autorecovery.
Minimum Load Current	10% on main output 0A on auxiliary outputs
Output Voltage Ripple	1% pk-pk of nominal voltage (Measured with a grounding probe adaptor with 20MHz bandwidth)
Rise Time	1.0 sec max
GENERAL SPECIFICATIONS	
Efficiency	70%, nominal ³
Isolation Voltage	I/P-O/P: 2000VAC
Hold-up Time	30 ms @ 40W
Switching Frequency	Fixed, 40kHz, ±5%
Approvals	DTM UL 1950
PHYSICAL SPECIFICATIONS	
Size	8" x 3.5" x 1.5"
Weight	10.5 oz (300g)
Construction	Open frame

ENVIRONMENTAL SPECIFICATIONS

Operating Temperature	0°C-50°C
Storage Temperature	-20°C-85°C
Relative Humidity	20-90% non-condensing
EMC	DTM FCC Part 15 Class A

MECHANICAL SPECIFICATIONS



CONNECTORS PINOUT (HVAC series)⁴

J1 (Input)	
Pin 1	AC Input
Pin 2	AC Input
Pin 3	AC Input
J2 (Output)	
Pin 1	Return Auxiliary 1 ⁵
Pin 2	Auxiliary 1 ⁵ output
Pin 3	Main & Auxiliary 2 common
Pin 4	Main & Auxiliary 2 common
Pin 5	Main output
Pin 6	Main output
Pin 7	Auxiliary 2 output

² For DC input, it depends on the input DC voltage.

³ May vary with input voltage and output configurations.

⁴ For HDVC pinout, consult company.

⁵ Auxiliary 1 output can be tied to common for +/- output or used as isolated output.