

- Active PFC
- 5 Isolated & Regulated Outputs
- 3 Outputs have Current Sharing & Oring Diodes
- OVP, OCP, OTP, DC OK & Remote Sense
- Dedicated 12 V/250 mA Fan Output
- International Safety Approvals

Specification

Input

- AC Input Voltage • 90-264 VAC
- Input Frequency • 47-63 Hz
- DC Input Voltage • 170-370 VDC
- Power Factor • 0.98 typical
- Inrush Current • 43 A at 115 VAC, 86 A at 230 VAC
- Input Current • 7.1 A (rms) at 115 VAC, 3.2 A (rms) at 230 VAC

Output

- Output Voltage • See Table
- Output Power • 400 Watts
- Output Voltage Adjustment • $\pm 10\%$ on V1, V2 and V3
- Minimum Load • 5 A for V1, 1 A for V2, 0 A for V3, V4 & V5
- Line Regulation • $\pm 0.5\%$ from low line to high line
- Load Regulation • $\pm 2\%$ for V1 and V2, $\pm 3\%$ for V3, $\pm 4\%$ for V4 and V5
- Ripple and Noise • $\pm 2\%$ maximum
- Transient Response • 4% max deviation, 500 μ s recovery time for a 25% load change
- Temperature Coefficient • 0.04%/°C
- Hold up Time • 12 ms minimum at 115 VAC
- Overvoltage Protection • 112% to 132% for V1 only, recycle input to reset
- Overcurrent Protection • All outputs protected to short circuit conditions
- Overtemperature Protection • Provided
- Remote Sense • V1 - 0.3 V min, V2 - 0.2 V min, V3 - 0.5 V min
- Current Share • Single wire current sharing V1, V2 & V3

- Efficiency • 70% typical
- Power Density • 4.15 W/in³
- Leakage Current Maximum • 0.46 mA at 115 VAC, 0.80 mA at 230 VAC
- Switching Frequency • 94 kHz, ± 5 kHz
- MTBF • 100,000 hrs min to MIL-HDBK-217F
- Isolation Voltage • 3000 VAC Input to Output, 1500 VAC Input to Ground, 500 VAC Output to Ground
- Signals • DC OK
- Size • 5.00" x 11.00" x 1.75"
- Weight • 1.7 kgs (3.74 Lbs.) approx

Environmental

- Operating Temperature • 0 °C to +70 °C with derating
- Cooling • 45.2 CFM required for full power from 0 °C to +50 °C, derate linearly from 100% load at +50 °C to 50% load at +70 °C
- Humidity • 5-95% RH, non-condensing
- Storage Temperature • -40 °C to +85 °C

EMC & Safety

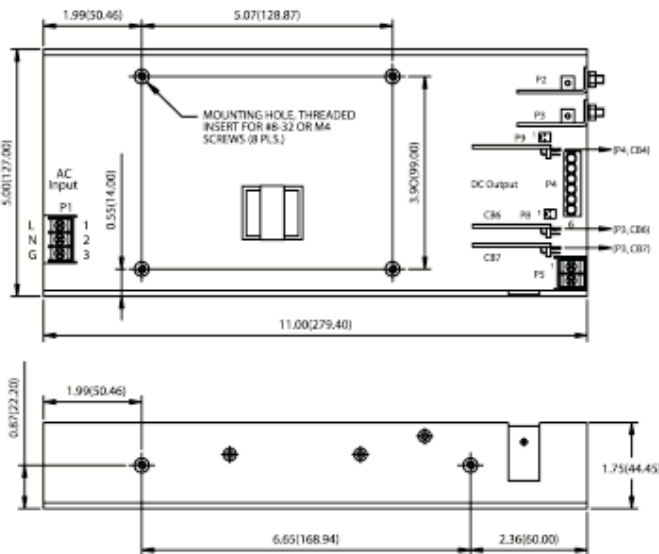
- Safety Approvals • UL1950, CSA C22.2 No 60950, EN60950 CE Mark LVD
- EMI/EMC • EN61000-3-2, -3 EN55022 & FCC 20780 Class B conducted, Class A radiated
- Immunity and Surge • EN55024 (EN61000-4-2, -3, -4, -5, -6, -8, 11)

OUTPUT VOLTAGE & CURRENT RATINGS					IFC
Output Power Maximum	Output Number	Output Voltage	Output Current	Total Regulation	Model Number
400 W	V1	5.1 V	40 A	2%	IFC400-50B
	V2	3.3 V	20 A	2%	
	V3	12.0 V	9 A	3%	
	V4	12.0 V	6 A	4%	
	V5	5.0 V	6 A	4%	
400 W	V1	5.1 V	40 A	2%	IFC400-51B
	V2	3.3 V	20 A	2%	
	V3	15.0 V	8 A	3%	
	V4	15.0 V	5 A	4%	
	V5	24.0 V	4 A	4%	
400 W	V1	5.1 V	40 A	2%	IFC400-55B
	V2	3.3 V	20 A	2%	
	V3	12.0 V	9 A	3%	
	V4	12.0 V	6 A	4%	
	V5	24.0 V	4 A	4%	
400 W	V1	5.1 V	40 A	2%	IFC400-56B
	V2	3.3 V	20 A	2%	
	V3	15.0 V	8 A	3%	
	V4	15.0 V	5 A	4%	
	V5	5.0 V	6 A	4%	

Notes

- All outputs are isolated and have individual return leads. Outputs can be either positive or negative.
- Outputs V1, V2 and V3 include single wire current sharing and oring diodes.
- Output V1 requires 5 A minimum load.
- Output V2 requires 1 A minimum load.
- Peak current for output V3 is 12 A for 12V or 9.6 A for 15 V.
- 45.2 CFM forced air cooling is required for 400 W output.

Mechanical Details



Notes:

- Dimensions shown are in inch (mm).
- Tolerance is 0.02 (0.5) maximum.
- P1 input connector is Beau Inc. P/N 72-5-03C, screws are #6-32 on 0.375 inch (9.53 mm) centers.
- P4 Output connector is Dinkle P/N 166-06P.
- P8 is for DC fan rated 12V/0.25 A.
- P8 and P9 Connectors mate with Molex housing 22-01-1023 and Molex 40445 series crimp terminal.
- Main output studs P2/P3 use M5*0.8 screws.
- Weight: 1.70 kgs (3.74 lbs.) approx.

DC OK Signal Spec

TTL logic high for normal operation, TTL logic low upon loss of input power.
This signal appears at least 1 ms prior to the +5.1 V output dropping 5% below its nominal value.
The signal also provides a minimum delay of 100 ms after the +5.1 V output is within regulation.

PIN CONNECTIONS	
CB4 Sub-board (for V1)	
Pin	Function
P4-1	+ Sense
P4-1	- Sense
P4-1	Current Share
CB6 Sub-board (for V3)	
Pin	Function
P3-1	+ Sense
P3-2	- Sense
P3-3	Current Share
CB7 Sub-board (for V2)	
Pin	Function
P3-1	+ Sense
P3-2	- Sense
P3-3	Current Share

Note:
For each Sub-board, Pin 1 is located at the top of the connector.

PIN CONNECTIONS	
P1	
Pin	Function
1	Live
2	Neutral
3	GND
P2	
Pin	Function
1	V1+
P3	
Pin	Function
1	V1 Return
P4	
Pin	Function
1	V5+
2	V5 Return
3	V4+
4	V4 Return
5	V3+
6	V3 Return
P5	
Pin	Function
1	V2+
2	V2 Return
P8	
Pin	Function
1	Fan (+12 V)
2	Fan Return
P9	
Pin	Function
1	PFD Return
2	DC OK