

NEW • HIGH DENSITY • UNIVERSAL INPUT • POWER FACTOR CORRECTION

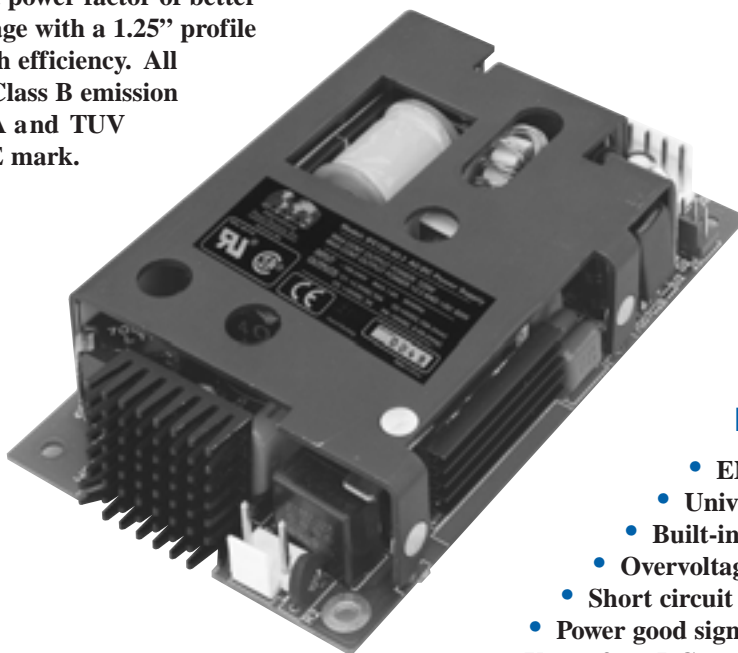
125 WATT

SWITCHING POWER SUPPLY



DESCRIPTION

The IFC125 Series is comprised of single and multiple output models capable of delivering 125 watts of continuous output power. All models have universal input and a power factor of better than 0.95. The high density package with a 1.25" profile is only 3" x 5" and offers very high efficiency. All models meet CISPR22 and FCC Class B emission limits, and are approved UL, CSA and TUV safety standards and carry the CE mark.



FEATURES

- EN61000-3-2, -3 compliant
- Universal Input
- Built-in EMI filter
- Overvoltage and thermal protection
- Short circuit protection with auto-recovery
- Power good signal and remote sense
- Up to four DC outputs

OUTPUT VOLTAGE/CURRENT RATINGS CHART

Model	Output #1				Output #2				Output #3				Output #4				Maximum Output Power ¹
	Vnom	Imin ²	Imax	Tol.	Vnom	Imin ²	Imax	Tol.	Vnom	Imin ²	Imax	Tol.	Vnom	Imin ²	Imax	Tol.	
IFC125-10	5V	0A	25.0A	3%	N/A				N/A				N/A				125W
IFC125-12	12V	0A	10.5A	3%	N/A				N/A				N/A				125W
IFC125-13	15V	0A	8.3A	3%	N/A				N/A				N/A				125W
IFC125-14	24V	0A	5.2A	3%	N/A				N/A				N/A				125W
IFC125-18	48V	0A	2.6A	3%	N/A				N/A				N/A				125W
IFC125-31	5V	0A	16.5A	4%	+12V	0A	5A	5%	-12V	0A	0.5A	5%	N/A				125W
IFC125-40-1	2.5V	0A	12A	3%	+5V	0A	15A	4%	+12V	0A	5A	5%	-12V	0A	0.5A	5%	125W
IFC125-42-3	3.3V	0A	10A	3%	+5V	0A	15A	4%	+12V	0A	5A	5%	-12V	0A	0.5A	5%	125W

NOTES:

1. Maximum 80 Watts combined for +2.5V or +3.3V and +5V outputs on multiple output models with 5CFM forced air.
2. 5 Watts minimum load on any output or combination of outputs required to maintain regulation.
3. Auxillary +12V/0.5A output included on all single output models: IFC125-10, -12, -13, -14 and -18.
4. Current sharing and N+1 redundancy with or-ing diodes available on the main output of IFC125-10, -12, -13, -14, -18.
5. Contact factory for redundant current sharing on IFC125-31, -40-1, and -42-3.

GENERAL SPECIFICATIONS

All specifications are typical at nominal line, full load, and 25°C.

Power factor:	0.98 typical
Efficiency:	83% typical
Hold-up time:	17 msec minimum at full load
Inrush current:	40A at 115VAC or 80A at 230VAC at 25°C cold start
Withstand voltage:	3000VAC from input to output 1500VAC from input to ground
Operating temperature:	0°C to +50°C
Storage temperature:	-40°C to +85°C
Relative humidity:	5% to 95% non-condensing
MTBF:	220,000 hours
EMI requirements:	Meets conduction limits of: (a) CISPR22 (EN 55022) Class B (b) FCC Class B
Safety requirements:	Approved to: (a) UL1950 (b) CSA C22.2 No. 950 (c) IEC 950 (EN60950)
Switching frequency:	90KHz fixed

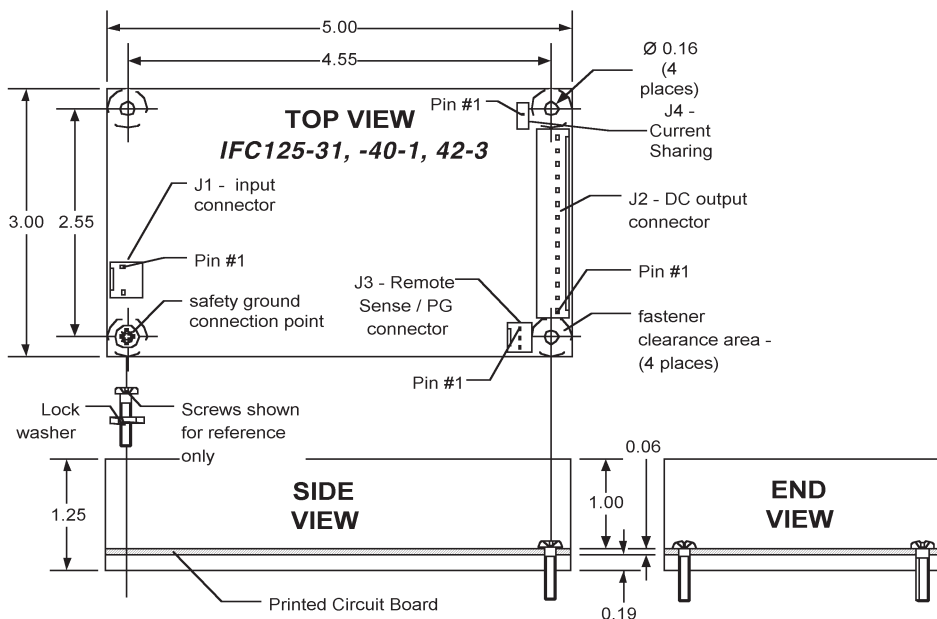
INPUT SPECIFICATIONS

Input voltage:	90 to 264 VAC
Input frequency:	47 to 63 Hz
Input current:	1.8A at 90VAC, 0.7A at 230VAC max.

OUTPUT SPECIFICATIONS

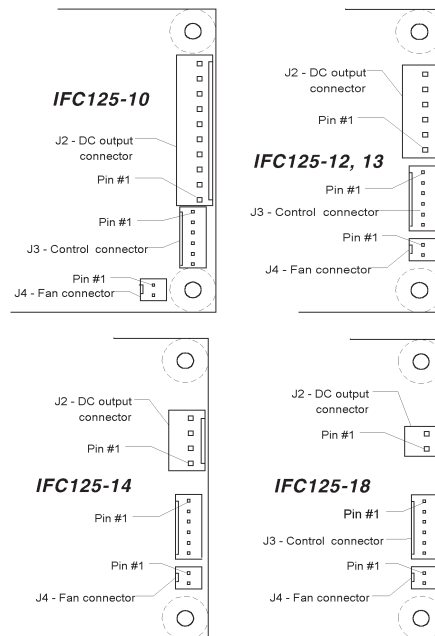
Output voltage:	See Rating Chart
Output current:	See Rating Chart
Ripple and noise:	2% peak-peak maximum
Overvoltage protection:	Provided on output #1 only; set at 113-148% of its nominal output voltage
Overcurrent protection:	All outputs protected to short circuit Conditions
Power good signal:	TTL logic high when DC outputs are within regulation
Cooling requirement:	5 CFM required for 125W output Max power with convection is 75W
Temperature coefficient:	All outputs $\pm 0.04\%/^{\circ}\text{C}$ maximum
Transient response:	Maximum excursion of 5%, recovering to 1% of final value in less than 500us after a 50% load change

MECHANICAL SPECIFICATIONS



NOTES:

1. Dimensions shown in inches
2. Tolerance is 0.02 maximum.
3. Weight: 300 grams (0.66 lbs) approx.



		Model							
		IFC125-42-3	IFC125-10	IFC125-12	IFC125-13	IFC125-14	IFC125-18	IFC125-40-1	IFC125-31
J1	Housing	09-50-8033	09-50-8033	09-50-8033	09-50-8033	09-50-8033	09-50-8033	09-50-8033	09-50-8033
	Pins	08-52-0113	08-52-0113	08-52-0113	08-52-0113	08-52-0113	08-52-0113	08-52-0113	08-52-0113
J2	Housing	09-50-8143	09-50-8103	09-50-8063	09-50-8063	09-50-8043	09-50-8023	09-50-8143	09-50-8143
	Pins	08-52-0113	08-52-0113	08-52-0113	08-52-0113	08-52-0113	08-52-0113	08-52-0113	08-52-0113
J3	Housing	22-01-3037	22-01-3067	22-01-3067	22-01-3067	22-01-3067	22-01-3067	22-01-3037	22-01-3037
	Pins	08-50-0114	08-50-0114	08-50-0114	08-50-0114	08-50-0114	08-50-0114	08-50-0114	08-50-0114
J4	Housing	10-11-2013	22-01-3027	22-01-3027	22-01-3027	22-01-3027	22-01-3027	10-11-2013	10-11-2013
	Pins	08-50-0005	08-50-0114	08-50-0114	08-50-0114	08-50-0114	08-50-0114	08-50-0005	08-50-0005

Notes: Part numbers listed are Molex, equivalents are acceptable. Do not mix manufacturers' contacts and housings.

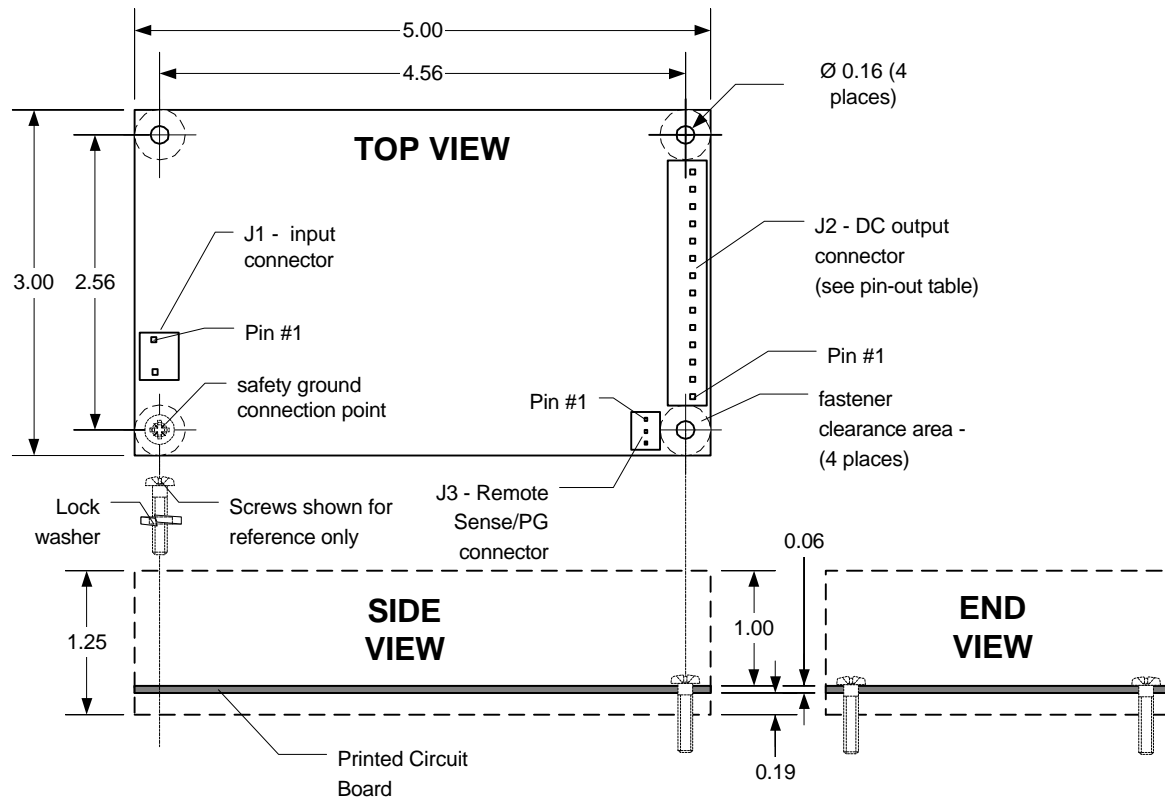


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INSTRUCTION SHEET

IFC125-42-3



J1 - AC I/P CONN.

Pin 1	NEUTRAL
Pin 2	missing pin
Pin 3	LINE

J2 - DC O/P CONN.

Pin 14	+5VDC
Pin 13	+5VDC
Pin 12	+5VDC
Pin 11	+5VDC
Pin 10	DC GND
Pin 9	DC GND
Pin 8	DC GND
Pin 7	DC GND
Pin 6	DC GND
Pin 5	+3.3VDC
Pin 4	+3.3VDC
Pin 3	+3.3VDC
Pin 2	+12VDC
Pin 1	-12VDC

J3 - REM SENSE/PG CONN.

Pin 1	0V sense
Pin 2	+3.3VDC sense
Pin 3	power good

WARNING! This power supply contains no user serviceable parts. Do not attempt to repair or replace any component.

1. Only qualified service personnel should handle, remove or install this power supply.
2. Ensure that the AC input mains is disconnected before installing or removing.
3. Ensure that all DC output lines are connected properly according to the table before applying the AC mains.
4. J1 is Molex connector P/N 26-62-4030 with center pin removed. Mating housing is Molex P/N 09-50-8033 and contact P/N 08-52-0113 or equivalent.
5. J2 is Molex connector P/N 26-60-4140. Mating housing is Molex P/N 09-50-8143 and contact P/N 08-52-0113 or equivalent.
6. J3 is Molex connector P/N 22-23-2030. Mating housing is Molex P/N 22-01-3037 and contact P/N 08-50-0114 or equivalent.
7. Note: Use only connector numbering system as shown on this instruction sheet and is evident on the silkscreen of the PCB. Different manufacturers have different pin numbering systems.
8. Safety ground is provided at the mounting connection point as shown in the above drawing.
9. It is recommended that lock washers be used at the screw to PCB contact point and the retaining nut to chassis contact point to ensure safety ground connection.
10. An additional safety ground wire should be installed via a ring terminal secured to customer's chassis and safety ground connection contact point on the PCB.
Ensure that the terminal cannot rotate so as to contact adjacent components.
11. Minimum recommended standoff height = .375".