

AC/DC Open Frame

125 Watts IFC125 Series

XPIQ inc.

Intelligent Design Quality Product



Active PFC - Meets EN61000-3-2, -3

•
Small Size 3.0" x 5.0" x 1.25"

•
Single, Triple & Quad Outputs

•
Overvoltage & Overcurrent Protection

•
Power Fail Detect

•
International Safety Approvals

Specification

Input

- AC Input Voltage • 90-264 VAC
- Input Frequency • 47-63 Hz
- Power Factor • 0.98 typical
- Inrush Current • 24 A max at 100 VAC
- Input Current • 0.8 A max at 240 VAC
1.8 A max at 100 VAC

Output

- Output Voltage • See Table
- Output Power • 125 Watts
- Minimum Load • 5 W minimum load on any output or combination of outputs required to maintain regulation
- Line/Load Regulation • See Table
- Ripple and Noise • $\pm 2\%$ pk-pk maximum
> = 5 V out $\pm 1\%$ maximum
- Transient Response • 5% max deviation, recovering to a 1% of final value in less than 500 μ s after a 25% load change
- Temperature Coefficient • 0.04%/°C maximum
- Hold up Time • >28 ms minimum at full load
- Overvoltage Protection • V1 & V2: 113% to 148% recycle input to reset
- Overcurrent Protection • All outputs 115% to 135% with auto recovery
- Remote Sense • V1 only compensates for 0.5 V drop
Not Available on IFC125-31

General

- Efficiency • 83% typical
- Power Density • 6.66 W/in³
- MTBF • >220,000 hours per Bellcore
- Isolation Voltage • 3000 VAC Input to Output
1500 VAC Input to Ground
500 VAC Output to Ground
- Signals • Power Good - On = Logic Hi
- Size • 5.00" x 3.00" x 1.25"
- Weight • 312 grams approx.

Environmental

- Operating Temperature • -25 °C to +70 °C derate linearly from 100% load at +70 °C to 50% load at +50 °C
- Cooling • 5 CFM forced air required for 125 W
- Humidity • 5-95% RH, non-condensing
- Storage Temperature • -40 °C to +85 °C

EMC & Safety

- Safety Approvals • UL60950, CSA22.2: 60950 per cUL, EN60950, CE mark LVD
- EMI/EMC • Meets EN61000-3-2, -3
EN55022/CISPR22 Class B and FCC Class B conducted

OUTPUT VOLTAGE & CURRENT RATINGS

IFC125

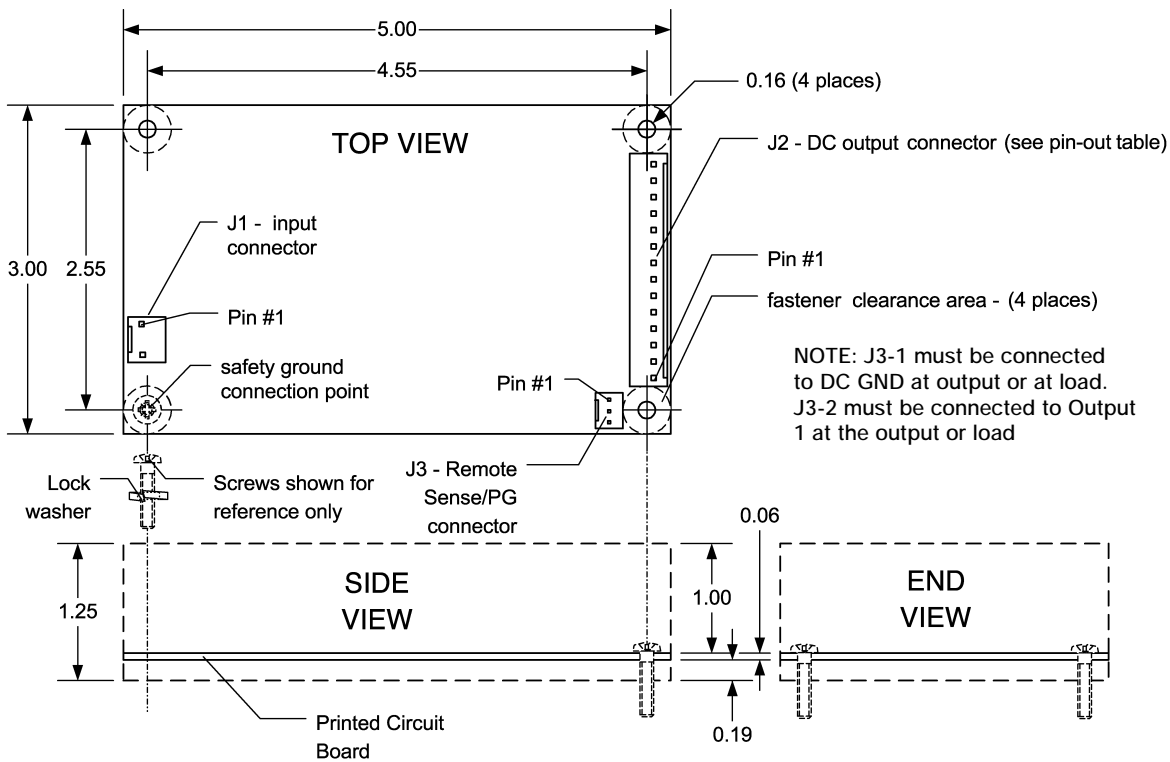
Output 1			Output 2			Output 3			Output 4			Model Number
Vnom	I _{max}	Reg ⁽¹⁾	Vnom	I _{max}	Reg ⁽¹⁾	Vnom	I _{max}	Reg ⁽¹⁾	Vnom	I _{max}	Reg ⁽¹⁾	
24.0 V	5.2 A	±3%	12.0 V	0.5 A	±5%							IFC125-14
5.0 V	16.5 A	±4%	12.0 V	5.0 A	±5%	-12.0 V	0.5 A	±5%				IFC125-31
2.5 V	12.5 A	±2%	5.0 V	15.0 A	±4%	12.0 V	5.0 A	±5%	-12.0 V	0.5 A	±5%	IFC125-40-1
3.3 V	10.0 A	±2%	5.0 V	15.0 A	±4%	12.0 V	5.0 A	±5%	-12.0 V	0.5 A	±5%	IFC125-42-3

Notes

1. Total regulation includes tolerance, line regulation and load regulation.
2. Maximum output power not to exceed 125 W with 5 CFM forced air or 70 W with convection cooling.
3. For models IFC125-40-1 and -42-3, a maximum of 80 W combined +2.5 V or +3.3 V and +5 V outputs with 5 CFM of forced air cooling or 40 W with convection cooling.
4. 5 W minimum load required to maintain regulation.

Mechanical Details

Mechanical Drawing for IFC125-31, -40-1 and -42-3 only. See next page for IFC125-14



J1-AC Input Connector
All models.

Pin 1	Neutral
Pin 2	Missing Pin
Pin 3	Line

J2 - DC Output Connector

	IFC125-31	IFC125-40-1	IFC125-42-3
Pin 14	+5 VDC	+5 VDC	+5 VDC
Pin 13	+5 VDC	+5 VDC	+5 VDC
Pin 12	+5 VDC	+5 VDC	+5 VDC
Pin 11	+5 VDC	+5 VDC	+5 VDC
Pin 10	DC GND	DC GND	DC GND
Pin 9	DC GND	DC GND	DC GND
Pin 8	DC GND	DC GND	DC GND
Pin 7	DC GND	DC GND	DC GND
Pin 6	DC GND	DC GND	DC GND
Pin 5	Not Used.	+2.5 VDC	+3.3 VDC
Pin 4	Not Used.	+2.5 VDC	+3.3 VDC
Pin 3	Not Used	+2.5 VDC	+3.3 VDC
Pin 2	+12 VDC	+12 VDC	+12 VDC
Pin 1	-12 VDC	-12 VDC	-12 VDC

Mating Connectors
with Molex part numbers

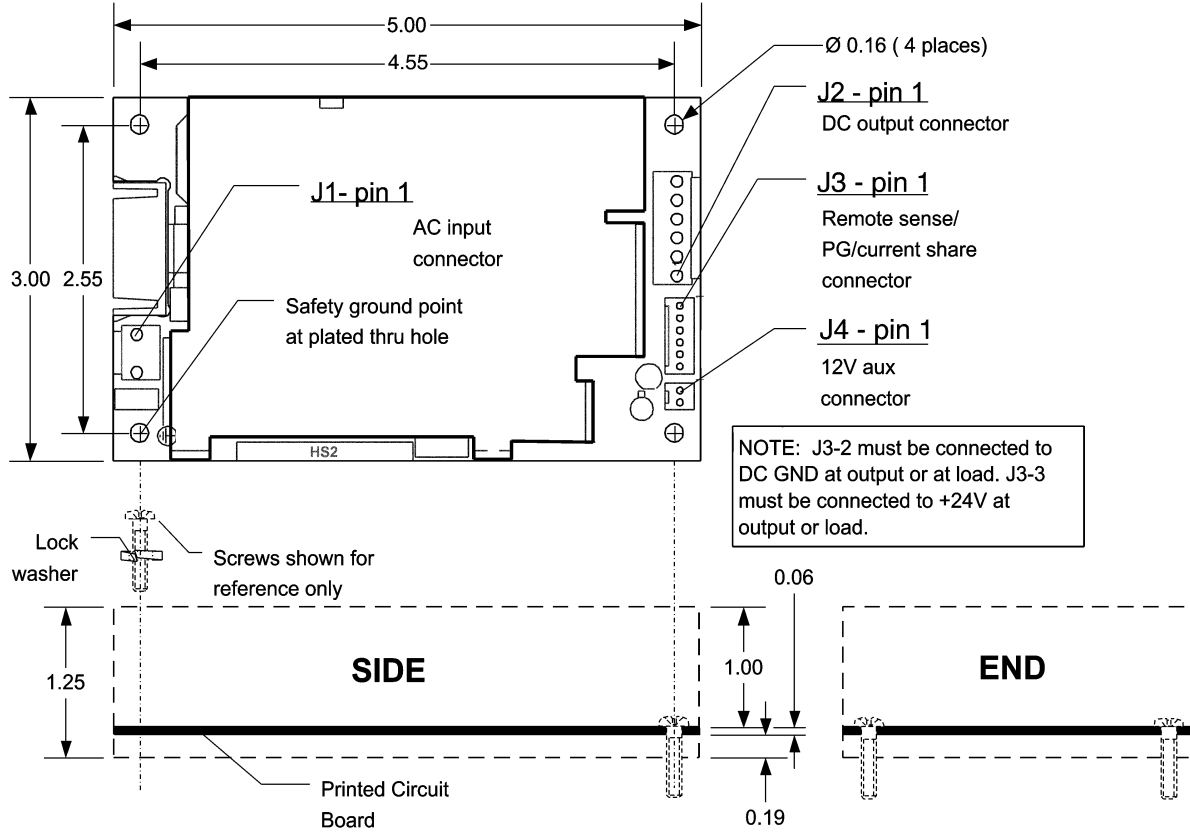
		IFC125-31 & -40-1	IFC125-42-3
J1	Housing Pins	09-50-8031 08-52-0113	90-50-8033 08-52-0113
J2	Housing Pins	09-50-8141 08-52-0113	09-50-8143 08-52-0113
J3	Housing Pins	22-01-3037 08-50-0114	22-01-3037 08-50-0114

J3-Remote Sense
& Power Good Connector

	IFC125-31	IFC125-40-1	IFC125-42-3
Pin 1	0V Sense	0V Sense	0V Sense
Pin 2	Not Used	+2.5 V Sense	+3.3 V Sense
Pin 3	Power Good	Power Good	Power Good

Mechanical Details

Mechanical Drawing for IFC125-14 only.



J1 - AC Input Connector.

Pin 1	Neutral
Pin 2	Missing Pin
Pin 3	Line

J4 - Aux Output Connector

Pin 1	+12 VDC
Pin 2	+12V Return

J2 - DC Output Connector

	IFC125-14
Pin 1	+24 VDC
Pin 2	+24 VDC
Pin 3	+24 VDC
Pin 4	DC GND
Pin 5	DC GND
Pin 6	DC GND

J3 - Remote Sense Connector

	IFC125-14
Pin 1	Return
Pin 2	-Sense
Pin 3	+Sense
Pin 4	Current Share
Pin 5	Power Good
Pin 6	PS OK

Mating Connectors with Molex Part Numbers IFC125-14

J1	Housing Pins	09-50-8031 08-52-0113
J2	Housing Pins	09-50-8061 08-52-0113
J3	Housing Pins	22-01-3067 08-50-0114
J4	Housing Pins	22-01-3027 08-50-0114