

date 05/07/2015

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SERIES: PFR-2100 **DESCRIPTION:** AC-DC HOT-SWAP POWER SUPPLY

FEATURES

- up to 2100 W continuous power
- constant current limited to 5.125 A
- blind mate connections for hot-swap
- power factor correction
- DROOP current sharing
- single I/O connector for AC input, DC output & signals
- remote on/off control, power good signal
- front panel LED indicators
- efficiency up to 94%





| MODEL | output voltage¹ | output current | output power ^{2,3} | ripple and noise⁴ | efficiency |
|--------------|--------------------|-------------------|--------------------------------|----------------------|------------|
| | | max | max | max | typ |
| | (Vdc) | (A) | (W) | (mVp-p) | (%) |
| PFR-2100-400 | 400 | 5.125 | 2100 | 100 | 94 |

Notes:

- 1. Vout adjustable to 100~410 Vdc. 2. At 100 Vdc output, maximum of 512 W. 3. At 410 Vdc output, maximum of 2101 W.
- 4. With 2000 µF external capacitance

PART NUMBER KEY

PFR-2100 - 400 - CXX Reserved for Custom Base Number Output Voltage Configurations

INPUT

| parameter | conditions/description | min | typ | max | units |
|-------------------------|---|------|-----|------|-------|
| voltage | | 180 | | 264 | Vac |
| frequency | | 50 | | 60 | Hz |
| current | at 230 Vac | | | 10.7 | А |
| inrush current | at 230 Vac, 50 Hz, half cycle, cold start, 25°C | | | 40 | А |
| leakage current | | | | 2.0 | mArms |
| power factor correction | at 230 Vac | 0.98 | | | |

OUTPUT

| parameter | conditions/description | min | typ | max | units |
|--------------------|---|-----|-----|-----|-------|
| total regulation | | | ±2 | | % |
| transient response | 25% step load, recovery to 1% within 0.3 ms, slew rate $1A/\mu s$ | | | 4 | % |
| hold-up time | at 115/230 Vac, full load | 20 | | | ms |

STATUS & CONTROL

| parameter | conditions/description | min | typ | max | units |
|-----------------------|---|-----|-----|-----|-------|
| remote enable | "active low" enables main output, last-mate / first- break enable pin | | | | |
| current share | passive droop with 1% regulation, external OR'ing diode required (up to 12 units) | | | | |
| Vprog (adjustability) | via 0 \sim 5.0 V signal for adjustment; unterminated default @ 100 Vdc | 100 | | 410 | Vdc |
| LED in disease. | AC OK open collector, active "high" =Good | | | | |
| LED indicator | DC OK open collector, active "high" =Good | | | | |

PROTECTIONS

| parameter | conditions/description | min | typ | max | units |
|-----------------------------|---------------------------------|-----|-----|-----|-------|
| over voltage protection | | 115 | | 135 | % |
| over current protection | | 120 | | 130 | % |
| over temperature protection | output shut down, auto recovery | - | | | |

SAFETY & COMPLIANCE

| parameter | conditions/description | min | typ | max | units | | |
|---|---|---------|-----|-----|-------|--|--|
| safety approvals | | | | | | | |
| emissions FCC 15 Sub Part J, Class A, EN55022 Class A, VCCI Class A | | | | | | | |
| harmonic compliance | EN61000-3-2 Class D | | | | | | |
| surges (mains) | IEC/EN 61000-4-5 | | | | | | |
| voltage dips/interruptions | IEC/EN 61000-4-11 | | | | | | |
| MTBF | as per Telcordia SR332, 40°C, full load | 400,000 | | | hours | | |
| RoHS | 2011/65/EU | | | | | | |

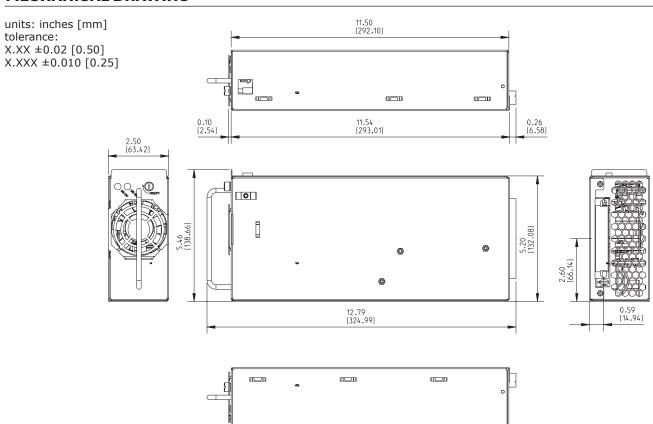
ENVIRONMENTAL

| parameter | conditions/description | min | typ | max | units |
|-----------------------|------------------------|-----|-----|-----|-------|
| operating temperature | | 0 | | 50 | °C |
| storage temperature | | -40 | | 85 | °C |

MECHANICAL

| parameter | conditions/description | min | typ | max | units |
|--------------------------|--|-----|-----|-----|--------|
| dimensions | 11.50 x 5.20 x 2.50 (292.1 x 132.08 x 63.50 mm) | | | | inches |
| cooling / airflow | integral high performance 60 mm fan, air inlet at face; exhaust at connector | | | | |
| input / output connector | FCI P/N 51939-377LF mates with FCI 51940-263LF | | | | |
| hot-swap capability | fully hot-swappable, blind mate connector | | | | |

MECHANICAL DRAWING



| | INPUT / OUTPUT CONNECTOR ¹ | | | | | | | | | | | | |
|------|---------------------------------------|------|-----------------|------|----------|------|--------------|------|----------|------|--------------------|------|------------------------|
| Pins | Function | Pins | Function | Pins | Function | Pins | Function | Pins | Function | Pins | Function | Pins | Function |
| P2 | -Vout | A1 | Reserved | A2 | DC_OK_L | А3 | Reserved | A4 | ОТР | A5 | Enable (Return) | A6 | Ref (OVP/ UVP test) |
| P4 | + Vout | B1 | Reserved | B2 | N/C | В3 | N/C | B4 | N/C | B5 | Test-Pin 5 | В6 | Test-Pin 3 |
| P6 | Earth Ground | C1 | Logic Return | C2 | Reserved | C3 | N/C | C4 | N/C | C5 | N/C | C6 | Test-Pin 4 |
| P8 | AC Neutral | D1 | PS Present | D2 | AC_OK_L | D3 | V program | D4 | Reserved | D5 | -VE Sense | D6 | Enable |
| P10 | AC Line | | | | | | | | | | | | |

Note: 1. Power Blades P1, P3, P5, P7 & P9 omitted for isolation

REVISION HISTORY

| rev. | description | date |
|------|-----------------|------------|
| 1.0 | initial release | 05/07/2015 |

The revision history provided is for informational purposes only and is believed to be accurate.



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