

## Features:

- Compact 1U Profile
- High Efficiency design optimized for mid to light load applications
- Constant Current Characteristic
- N+1 Redundancy with Hot Plug Capability
- High Power Density (20W/in<sup>3</sup>)
- 3.3VSB, Active Load Sharing, I<sup>2</sup>C and PMBus standard Interface
- Remote On/Off and Remote Sense functions



FEATURES	BENEFITS
High Power Density 20W/in <sup>3</sup>	More system space for application circuits and hardware
Load Sharing & Fault Tolerant	Excellent reliability in N+1 operation
Automatic Fan Speed Control	Reduces audible noise and increases reliability
System Scalability up to 6.4kW	Allows flexibility with minimum investment
Universal Input & International Certifications	Reduces logistical costs

KEY MARKET SEGMENTS & APPLICATIONS
<ul style="list-style-type: none"> <li>■ Distributed Power</li> <li>■ Blade Servers</li> <li>■ Mid-End Servers</li> <li>■ Network Equipment</li> <li>■ Network Attached Storage</li> <li>■ Storage Area Networks</li> </ul>

SPECIFICATIONS	1600 Watt +12V Front End Power Supply
Input Voltage Range	85-264 VAC, 47-63 Hz, derate to 1200W for <180VAC Input
Input Current Maximum	10.5A @ 180VAC / 14.3A @ 100VAC, Full Load (max)
Inrush Current	40A max. cold start (per ETS 300 132-1 and Bellcore specifications)
Input Protection	20 Amp / 250 VAC
Power Factor	0.99 typical at full load, complies with IEC555, EN60555-2, EN61000-3-2
Efficiency	Up to 94.5% at 50% Load and 230VAC Operation
Output Power	1600W at High Line Operation (180-264 VAC), 1200W at Low Line Operation (85-132 VAC)
Output Voltage Range	10.8~13.2 VDC with remote programming
Output Current	134A @ 12Vout / 230VAC Operation, 100A @ 12Vout / 110VAC Operation
Standby Bias Voltage	3.3VSB@1A (optional 5Vsb)
Voltage Regulation	±2% of Vnom for any combination of line, load and temperature
Output Ripple & Noise	1% (pk-pk) @ 20MHz with 0.1µF ceramic and 10µF Tantalum caps at the output
Transient Response	5% max deviation Recovery time 300µs @ 50% load step and di/dt < 1A/µs
Hold-Up Time	12ms at 1600W (typical) @ 220Vac (Early Warning: 2ms)
Remote On/Off	ON if >3V or open; OFF if <1V (max. sink 1mA) Open collector type
Current Limit Protection	Adjustable via I <sup>2</sup> C interface or PMBus, Constant current characteristic & power limited to 1600W or 1200W (<180VAC input)
Short Circuit Protection	Self protected with auto recovery
Over Voltage Protection	Trip level >+14.8Vdc ± 1V, Reset condition by recycling the AC input or applying Remote ON/OFF
Operating Temperature	-10°C to +70°C. power derating above 50°C at 2.5%/°C
Over Temperature Protection	Non-Latching, thermal shutdown point is set for 125°C and recovery point is 110°C
EMI	FCC-B & EN55022-B with specified filter or at rack level, GR-1089-CORE
LED Indicators	AC OK (Green) / DC OK (Green) / Thermal Alarm (Orange) / Fault (Red), "All on one LED" Tri-color LED
Analog Status & Control	Voltage Programming (V Prog), Load sharing (I Share), Remote On/Off, Current Monitor (I Monitor), AC OK, DC OK, Temperature Warning, Fault, PS Present, Module Enable,
Digital Status & Control	I <sup>2</sup> C Option and PMBus Option, see detailed specification for details
Shock & Vibration	NEBS GR-63-CORE Level 3
Dimensions	12.45 x 4.00 x 1.61" / 316.23 x 101.6 x 41.91mm
Weight	4.28 lb. / 1.94 kg.
Safety Approvals	IEC/UL/CSA/EN60950-1, CE Mark (LVD), TUV
Options	5VSB Output, Bezel

[www.LineagePower.com](http://www.LineagePower.com)

### Lineage Power

3000 Skyline Dr. P: (972) 284-2000  
Mesquite, TX 75149 F: (972) 284-2000

### Lineage Power

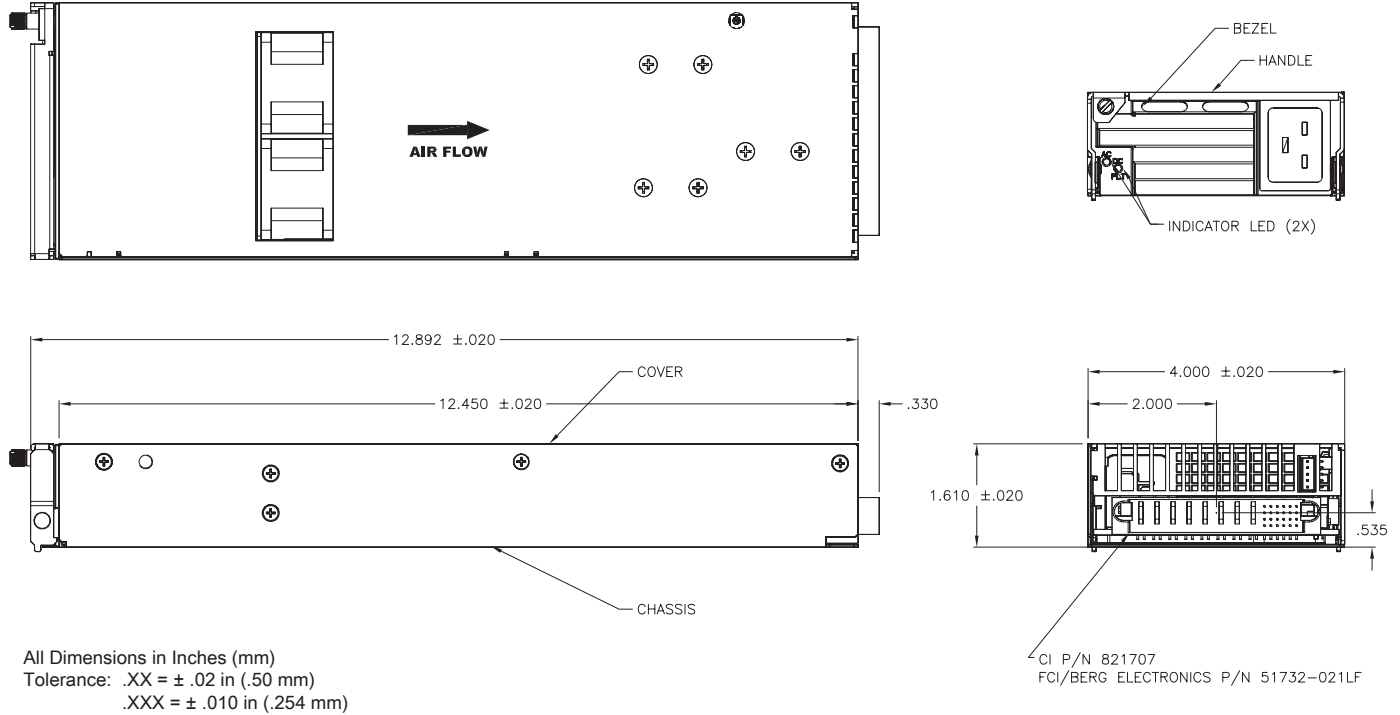
2841 Dow Avenue P: (714) 544-6665  
Tustin, CA 92780 USA F: (714) 838-4742

### Lineage Power (China)

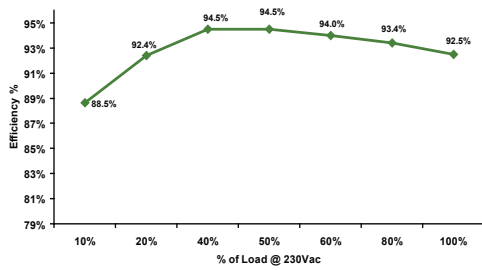
1353 Chenqiao Road, Shanghai Sengpu Industrial Park  
Shanghai, 201401 China P: 021 6710 8910



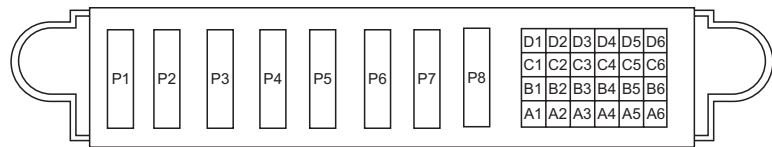
**OUTLINE DRAWING**



**EFFICIENCY CURVE:**

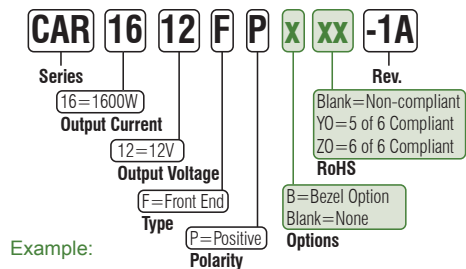


**CONNECTOR DRAWING:**



FCI Berg Pt # 51732-021 or equivalent  
Suggested mating connector part # 51762-10802400ABLF (Right Angle Mounting)

**PART NUMBER DEFINITION GUIDE:**



Example:  
CAR1612FPBZ0-1A  
1600W/12V Front End, Bezel, 6 of 6 RoHS

**PIN OUT INFORMATION**

A1	VSB 3.3V	B4	PS Present	D1	V Prog	P4	Vout Return
A2	VSB 3.3V Return	B5	SDA	D2	OVP Test Point	P5	Vout
A3	Signal RTN	B6	SCL	D3	Remote On/Off	P6	Vout
A4	Write Protect	C1	I Share	D4	DC OK	P7	Vout
A5	Remote Sense (+)	C2	Not Connected	D5	AC OK	P8	Vout
A6	Remote Sense (-)	C3	Temp Warning	D6	Interrupt		
B1	Fault	C4	I2C Address (A0)	P1	Vout Return		
B2	I Monitor	C5	I2C Address (A1)	P2	Vout Return		
B3	Enable (Short Pin)	C6	I2C Address (A2)	P3	Vout Return		