

Features:

- Compact 1U High Profile
- Constant Current Characteristic
- Visual LED Indicators
- Hot Plug / Redundant Parallel Operation with Active Load Sharing
- No Minimum Load Requirements
- Analog, I2C, and PMBus control and monitoring
- Four (4) CAR1212DC Modules per Rack
- 3.6KW N+1 Capability/ or 4.8KW Total Power



FEATURES	BENEFITS
High Power Density >16W/in ³	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 4.8kW	Allows flexibility with minimum investment
Universal Input & International Certifications	Reduces logistical costs

KEY MARKET SEGMENTS & APPLICATIONS	
■ Distributed Power	■ RF Amplifiers
■ High End Servers	■ ATE Equipment
■ High End Routers and Switchgear	
■ Semiconductor Burn-in Equipment	

SPECIFICATIONS	1,200 Watt +12V Front End Power Supply with 48 VDC Input Range
Input Voltage Range	-36 ~ -75 VDC Input Range
Turn off (Hysteresis)	-32 VDC Turn Off
Input Current Maximum	38A, -36VDC Input, Full Load and 89% Efficiency (max)
Input Protection	Two fuses in the negative leg rated at 30 Amps Each
Efficiency	90% typical, at 12Vdc output, -48Vdc nominal input (including Oring Mosfets). Peak Efficiency at 60-80% load
Hold-Up Time	2.5ms at 1200W (typical) nominal -48Vdc
Isolation	1500 VDC Input to Output, 100 VDC Input to Frame
Output Voltage Range	10.8~13.2 VDC with remote programming
Output Current	100A @ 12Vout (max continuous)
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
Remote On/Off	ON if >3V or open; OFF if <1V (max. sink 1mA)
Current Limit Protection	110~130A, Constant current 12Vdc down to 11.8vdc. True constant current for Isc Non-hiccup mode (adjustable via I ² C)
Short Circuit Protection	Self protected with auto recovery
Over Voltage Protection	Trip level >14.5~15.5V, Reset condition by recycling the AC input or applying Remote or software ON/OFF
Operating Temperature	-10°C to +70°C. power derating above 50°C at change 2.5%/°C (startup @ -40C, within spec @ 30 min of warm up)
Over Temperature Protection	Non-Latching, thermal shutdown point is set for 120°C and recovery point is 110°C
EMI	FCC-B & EN55022-B with specified filter or at rack level, GR-1089-CORE
LED Indicators	3 LED Indicators to indicate Green = Input OK / Green = DCOK / Amber = Fault
Analog Status & Control	Voltage Programming (V Prog), Load sharing (I Share), Remote On/Off, Current Monitor (I Monitor), Input OK, DC OK, Temperature Warning, Fault, PS Present, Module Enable,
Digital Status & Control	I ² C and PMBus, see detailed specification for details
Shock & Vibration	NEBS GR-63-CORE Level 3
Dimensions	11.20 x 4.00 x 1.65" / 284.5 x 101.6 x 41.91mm
Safety Approvals	IEC/UL/CSA/EN60950-1, CE Mark (LVD)
Options	5VSB Output

rev 100225

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Lineage Power

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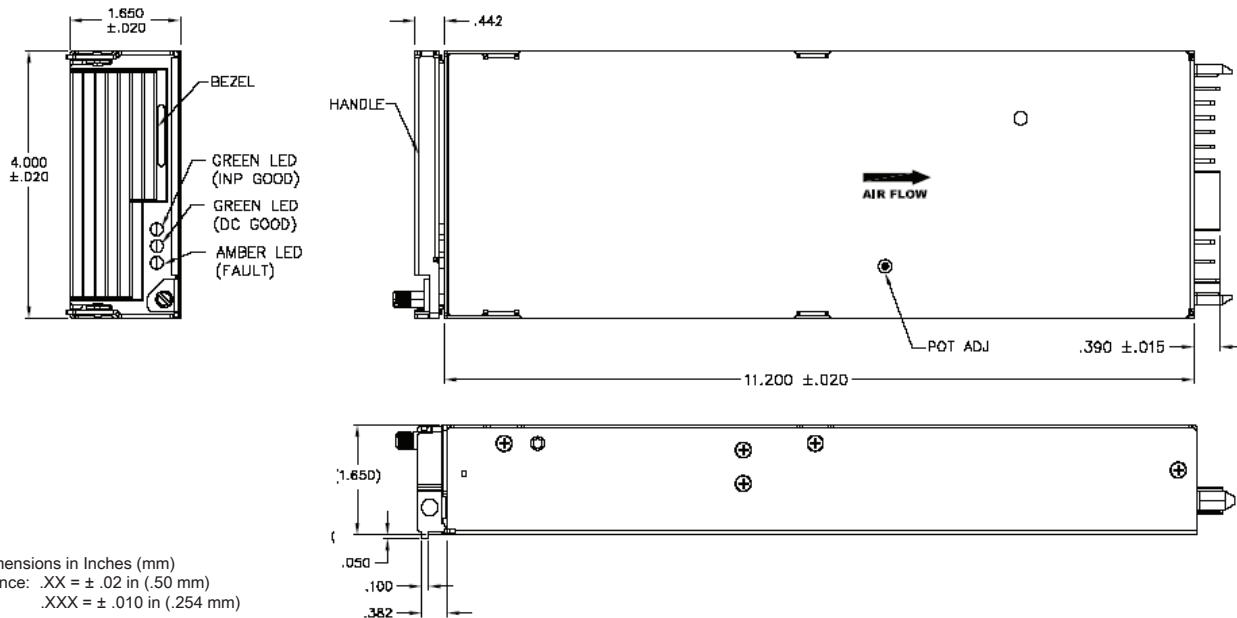
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OUTLINE DRAWING

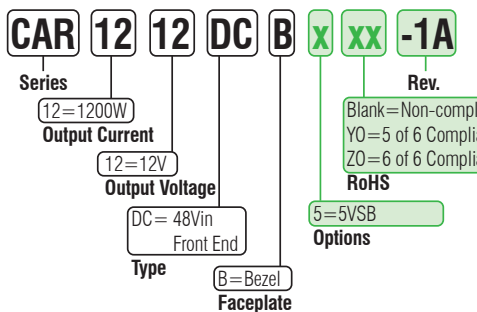


All Dimensions in Inches (mm)
Tolerance: .XX = $\pm .02$ in (.50 mm)
.XXX = $\pm .010$ in (.254 mm)

LED INDICATOR TEST CONDITION					MONITORING SIGNALS			
		INP OK	DC OK	FAULT	FAULT	DC OK	INP OK	TEMP OK
1	NORMAL OPERATION	Green	Green	Off	Low	Low	Low	High
2	OUT OF INPUT RANGE	Off	Off	Red	High	High	High	High
3	OVP	Green	Off	Red	High	High	Low	High
4	OVER CURRENT	Green	Off	Red	High	High	Low	High
5	THERMO ALARM	Green	Green	Red	High	Low	Low	Low

Test condition # 2 had two modules plug in. One module running and the other module with no DC input

PART NUMBER DEFINITION GUIDE:

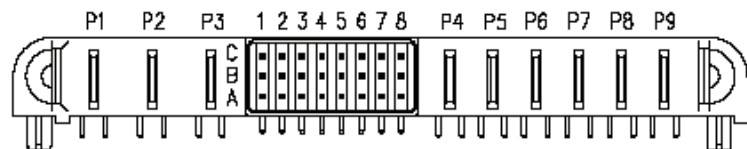


Examples:

CAR1212DCB-Z01A
12V Front, 6 of 6 RoHS Compliant

CAR1212DCB5-Y01A
12V Front End, 5VSB 5 of 5 RoHS Compliant

CONNECTOR DRAWING:



Output Connector: Molex 46437-1041

Pin	Functions	Pin	Function	Pin	Functions
A1	VPROG	B5	Interrupt (/SMBALERT)	P1	+48Vdc
A2	PS_Present	B6	Iout Monitor	P2	-48Vdc Return
A3	OVP Test Point	B7	Vstb	P3	PE
A4	Fault Signal	B8	Module Enable (Short pin)	P4	+12Vout
A5	Remote Sense (+)	C1	Remote ON/OFF	P5	+12Vout
A6	Temp Warning	C2	SDA	P6	+12Vout
A7	N/C	C3	SCL	P7	Output Return
A8	Remote Sense (-)	C4	Vstb Return	P8	Output Return
B1	Write Protect	C5	I ² C Address (A2)	P9	Output Return
B2	DC OK	C6	I ² C Address (A1)		
B3	INP OK	C7	I ² C Address (A0)		
B4	Signal Return	C8	I Share		