



CHEROKEE INTERNATIONAL

“The Powerful Choice”

BDS400 Series

400 Watt ± 24 Volt or -48 Volt DC Input
Multiple Output Power Supplies

Feature

- ◆ UL Recognized to 1950
- ◆ CSA Certified to 22.2 No. 234
- ◆ Fully compliant with FCC & VDE
Class A emissions for conducted EMI
- ◆ Reverse voltage protection
- ◆ Dual DC Fans
- ◆ Overvoltage Protection
- ◆ Overcurrent Protection
- ◆ Input surge current limited
- ◆ Brown-out protection
- ◆ 0 to 70°C operation
- ◆ Thermal shutdown protection



400 Watts

Electrical Specifications

Standard Models: BDS400: Dual end mounted fans - 5.0W x 11.50L x 2.5H. **BDS401:** Single top mounted fan - 5.0W x 10.50L x 3.0H

DC Input: Nominal: 48 VDC input,
Range: 42 to 60 VDC.

DC Output: Nominal: See output table on page 2.
Range: $\pm 5\%$ adjustment all outputs

Regulation: Line: $\pm 0.5\%$, full DC input range.
Load: $\pm 0.5\%$ on output V1, $\pm 1.0\%$ on all auxiliary outputs when output V1 is loaded between 10 - 100%.

Ripple/Noise: Sum: 1% Pk-Pk 20MHz bandwidth.

Efficiency: 75% typical.

Overshoot & Undershoot: Deviation $\pm 2\%$ for 25% load change at 5A / μ sec.

Temperature Coefficient: $\pm 0.2\%$ per degree C

Temperature: Operation: 0° to 50°C at rated Range output power. Derate linearly to 50% power at 70°C.

Shock: Per MIL-STD-810C Shock: Method 516.2, Procedure 1, III Shock (transit) Method 516.2, Proc. II.

Vibration: Vibration: Method 514.2 Proc. X, X1.

Overload Protection: Main output is current limited by sensing the primary current level. All auxiliary outputs are individually limited.

Overvoltage Protection: 6.3V, +5% causes shutdown. DC input cycling is required to restart.

Hold-up Time: 20 ms after loss of nominal DC input voltage for specified load regulation.

In-Rush: 25A / Peak, cold start

Remote Sense: Output V1, compensates up to 250 mv.

Remote On-Off: Turn-on: Open circuit or TTL “hi”.
Turn off: Short circuit to output return or TTL “low”.

Power Fail (Good): Power applied: Output “lo” until output is in regulation. Power Lost: After 1 cycle ride through (16 msec min.) output goes “lo” 4 msec min. before loss of regulation at nominal line.

Thermal: Automatic shutdown in the event of thermal overload. Automatic recovery when the condition improves.

Fusing: Type GMA-15, 15A/125V

Weight: 3 lbs. 9 oz.

Note: Specifications subject to change without notice.

BDS400 Model Selector and Output Power Matrix												
Model Suffix	V1 - Main Output			V2 - Aux.			V3 - Aux.			V4 - Aux.		
	Volts	Amps	Peak A	Volts	Amps	Peak A	Volts	Amps	Peak A	Volts	Amps	Peak A
A	+5V	60A	70A	12V	10A	12A	+12V	6A	8A	-5V	2A	3A
B	+5V	60A	70A	12V	10A	12A	+12V	6A	8A	-12V	2A	3A
C	+5V	60A	70A	12V	10A	12A	+12V	6A	8A	-15V	2A	3A
D	+5V	60A	70A	12V	10A	12A	+15V	6A	8A	-5V	2A	3A
E	+5V	60A	70A	12V	10A	12A	+15V	6A	8A	-12V	2A	3A
F	+5V	60A	70A	12V	10A	12A	+15V	6A	8A	-15V	2A	3A
G	+5V	60A	70A	12V	10A	12A	+24V	3A	3A	-5V	2A	3A
H	+5V	60A	70A	12V	10A	12A	+24V	3A	3A	-12V	2A	3A
I	+5V	60A	70A	12V	10A	12A	+24V	3A	3A	-15V	2A	3A
J	+5V	60A	70A	12V	10A	12A	+12V	6A	6A			
L	+5V	60A	70A	15V	3A	5A	-15V	3A	3A	+24	2A	3A
K	+12V	33A	35A	Maximum rated output power 400 watts. Consult factory for other voltage/current combinations.								

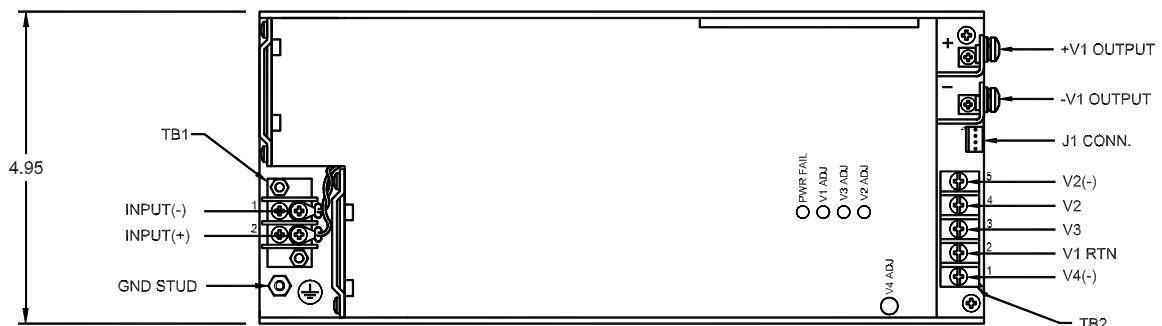
Mechanical Specifications/Electrical Interface

DC Input	
Input (+)	TB-1 (+)
Input (-)	TB-2 (-)
Safety Ground	Ground

Status & Controls		
Remote Sense	J1-1 (+S)	Output #1 Sense
	J1-2 (-S)	Output #2 Sense RTN
DC Power Good	J1-3 (PF)	Reference to J1-2 (-S)
Remote On/Off	J1-4	Short J1-2 to (-S), Off

DC Output	
V1 - Output	Terminal marked (+) Terminal marked (-)
V2 - Output	TB2-5 (RTN) TB2-4 (+)
V3 - Output	TB2-3 (+) TB2-2 (RTN)
V4 - Output	TB2-1 (-) TB2-2 (RTN)

Note: V1, V3 & V4 RTNS are connected together in the power supply.



J1 CONN.	
PIN NO.	FUNCTION
1	S(V1)
2	S(V1 RTN)
3	PWR FAIL
4	REMOTE ON/OFF

