

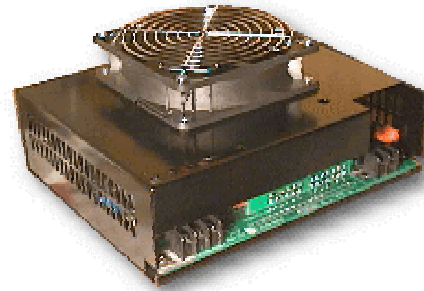
DCFR850 SERIES

850 Watt DC-DC Converter



Features:

- Input voltages from 48Vdc to 400Vdc
- Fully isolated input to output
- Reverse polarity protected
- Up to seven outputs available
- 600Vdc maximum output voltage
- Hot swap capability
- Front panel available for rack mounting
- Thermal protection as standard



Description:

The DCFR850 series is effectively an up-rated version of our 750W series with even more performance available in terms of cubic Watts. Again available with up to 7 outputs, optional features include mains input auto-select, top or side fan cooling, powerfail, output OK, inhibit / enable control, current share for parallel use, ORing diodes for N+1, output remote sense.

Specification:

Input

Input range : Contact sales
Inrush current : Meets relevant sections of BTNR 2511
Input current : Dependant upon input voltage requirement
Hold up time : >4mS @ full load
Input fuse: Consult sales

Output

Voltage adjustment : +/- 5% (V1)
Initial setting : 0.5%(V1);1.5%(V2 - V5)
Load regulation:<1% single o/p and V1 (4%V2-V5)*10% min load
Line regulation : <0.2% over input range
Cross regulation : 0.5% (V2-5) @ 10% load change V1
Ripple and noise: 0.2%RMS, 1% peak DC - 30MHz
Transient deviation : 5% for 50% load variation
Transient time : 2mS
Over voltage protection : 115 - 125% of V1
Over current protection : All outputs
Output power : 850W Fan cooled
Temperature coefficient :0.02%/°C (V1)0.05%(V2-V5)
Shock and vibration : Meets MIL STD810E
Safety cover : Fitted as standard

Options

Side fans for low profile
DC input powerfail signal
Output OK signal
Current share for parallel use
ORing diode for N+1
Inhibit / enable control
External voltage / current control via potentiometer
Remote sense
Under / over-voltage signals
Front panel to specification
Fully regulated auxiliary outputs (normally semi-regulated)
9mm screw terminal or M6 stud connections

Output ratings

Up to seven outputs available
(contact sales)
Output voltages up to 600Vdc
Max 100A current

General

Efficiency:
75-80% typical @ full load

MTBF:
>100,000 hrs to MIL217E @ 25°C

Environmental

Operating Temperature: 0 - 70°C
De-rate at 2.5% /°C above 50°C (Top Fan)
De-rate at 2.5% /°C above 40°C (Side Fans)
Storage Temperature: -25°C to + 85°C
Shock and vibration: Meets MIL STD810E
Operating humidity:
0 to 95% RH non-condensing

Safety & EMC

Isolation, input to earth : 2.5kVdc, >2.5mm
Isolation, input to output : 4.25KVdc, >6.4mm
Isolation, output to earth :
500Vdc (unless commoned)

Units designed to meet: EN60950, UL60950,
CSA 22.2 No. 950 & 234, EN41003

Emissions designed to meet: EN55022-B
(conducted) EN55022-A (radiated)

Immunity designed to meet: EN61000-4-2 (ESD)
(IEC801-2) EN61000-4-3 (radiated) (IEC801-3)
pending EN61000-4-4 (fast transients)
(IEC801-4) IEC801-5 (surge)

DCFR850 Series Single Output Mechanical Details and Connections

TOP VIEW

OUTPUT CONNECTOR
OPTIONS:
 2 x 6mm STUDS
 0.375" SCREW TERMINALS

3	V1
4	-
2	V1
1	+

OPTIONS CONNECTOR:
 0.1" MOLEX

I SHARE
 COMMON

6	+S
5	INH
4	B
3	A
2	PF
1	PF

INPUT CONNECTOR:
 0.375" SCREW TERMINALS

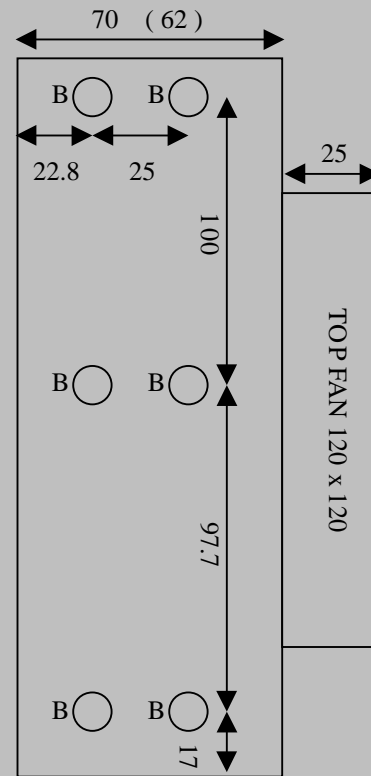
3	+
2	-
1	E

A : M3 CAPTIVE NUT
 Maximum Insertion 6mm

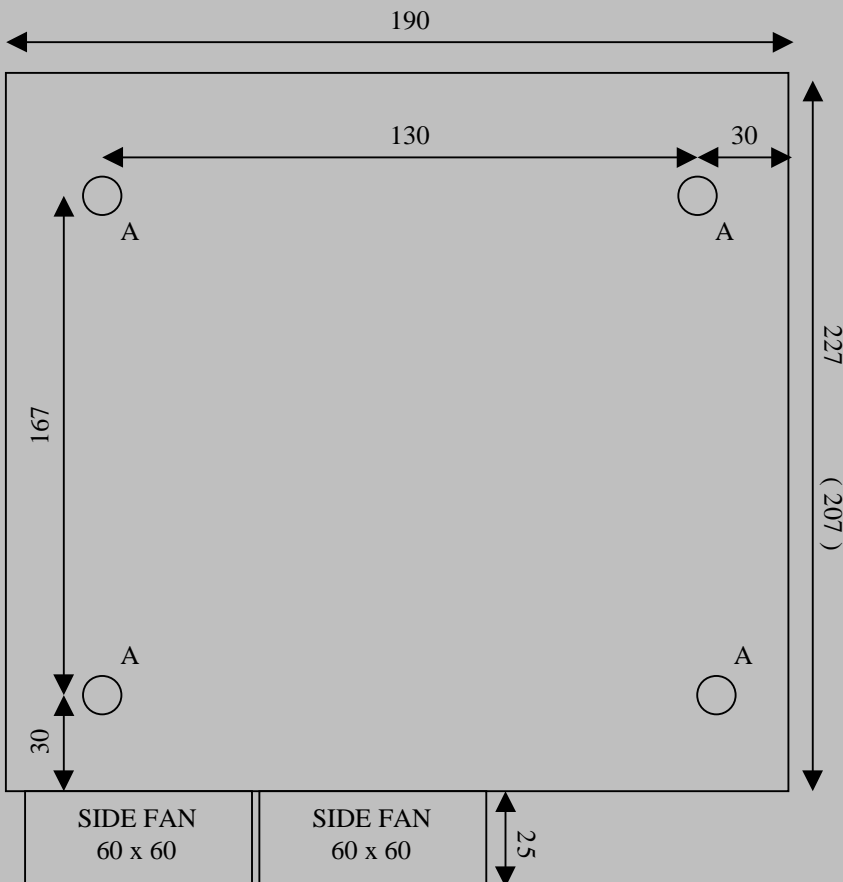
B : M4 CAPTIVE NUT
 Maximum Insertion 6mm

Dimensions in (brackets)
 Apply to side fans version only

SIDE VIEW



BOTTOM VIEW



DCFR850 Series Multiple Output Mechanical Details and Connections

