

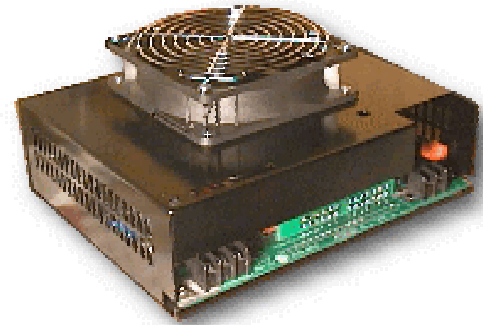
# DCFR550 SERIES

## 550 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 DCFR550 series offers 550W of power and is ideal for medium power applications. Available with up to seven outputs, optional features include top or side fan cooling, powerfail, output OK, inhibit / enable control, current share for parallel use, ORing diodes for N+1, output remote sense. Input voltages from 48 to 400Vdc. Output voltages to 600Vdc

### 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

Output voltages / currents : 600Vdc max / 100A Current  
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 : 550W Fan cooled  
Temperature coefficient :0.02%/°C (V1)0.05%(V2-V5)

#### 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  
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)

# DCFR550 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

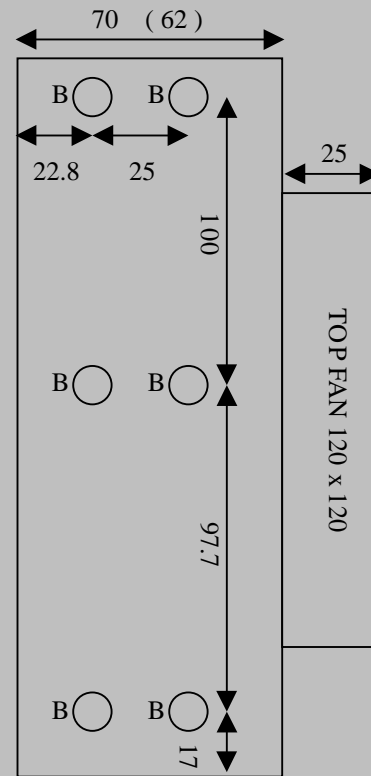
3	+
2	-
1	E

A : M3 CAPTIVE NUT  
 Maximum Insertion 6mm

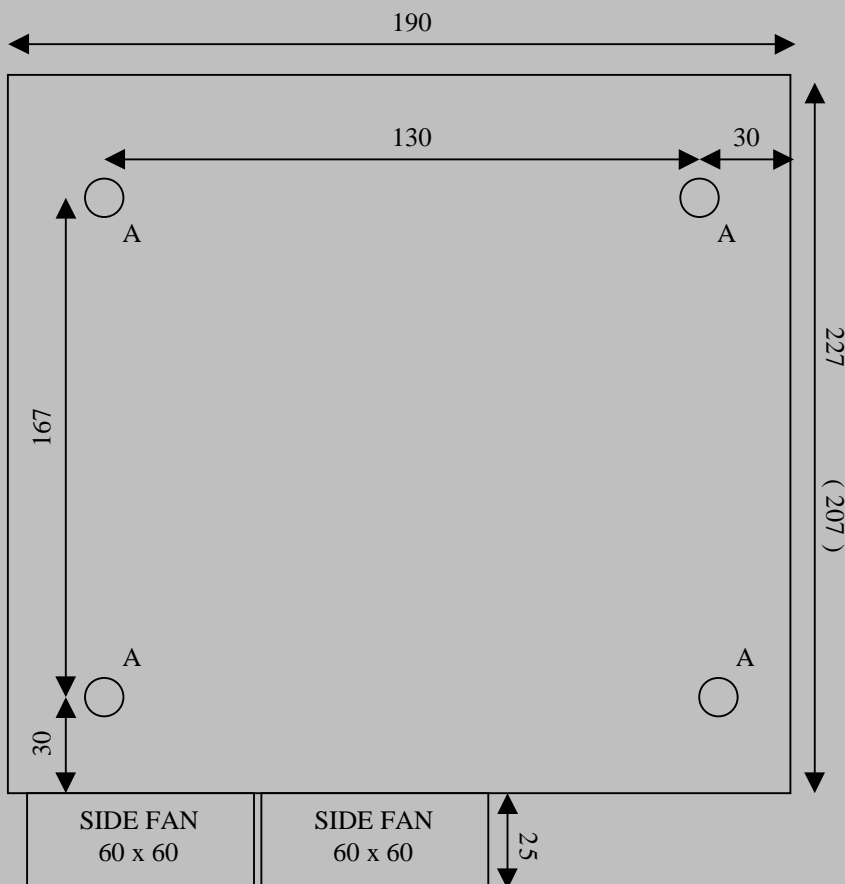
B : M4 CAPTIVE NUT  
 Maximum Insertion 6mm

Dimensions in (brackets)  
 Apply to side fans version only

## SIDE VIEW



## BOTTOM VIEW



# DCFR550 Series Multiple Output Mechanical Details and Connections

