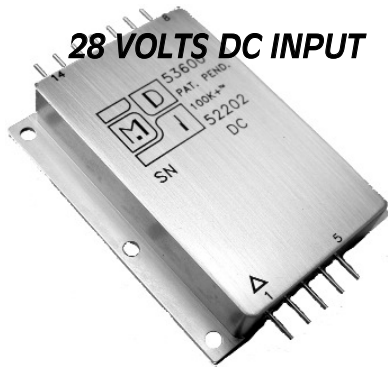


38 Watt Triple Output HYBRID

PROTON RAD HARD 100k+® DC-DC CONVERTERS



Features

- Rad Hard: TID > 100kRad(Si)
- 2:1 margin: Operates beyond 200kRad TID
- No SEE:LET > 82MeV*cm²/mg
- Proton Resistant: No optocouplers used
- Specifically designed for redundant or individual space applications
- Completely self contained Thick Film Hybrid DC-DC Converter
- No external filter caps required
- Fully isolated design
- "Inhibit-not" function
- Power on soft start
- 250 kHz operation for low ripple and fast response time
- Built-in EMI input filter meets MIL-STD-461C requirements CE01, CE03, CS01, CS02 and CS06
- Short circuit and overvoltage protection
- Capability of external sync for switching frequencies
- Built-in test capability

Specifications

INPUT: 28 VDC nominal
Range: 19 to 50 VDC

ISOLATION:

Input to case: 500 VDC
Input to output: 500 VDC
Output to case: 100 VDC

ENVIRONMENT:

Storage temperature: -55°C to +150°C
Shock: 50 G's, MIL-STD-810, M 516.5, P III (11mS pulse)

Acceleration: 500 G's, MIL-STD-883, M 2001, C A1 (Y1 500G limit)

Vibration: 30 G's, MIL-STD-883, M2026, C 2H (32.3g random)

Grade EU, R & S:

Full Power Output at T_{case} = +85°C
Linearly derates to zero at
T_{case} = +115°C

Grade RE & SE:

Full Power Output at T_{case} = +125°C
Linearly derates to zero at
T_{case} = +135°C

WEIGHT: 165 grams maximum

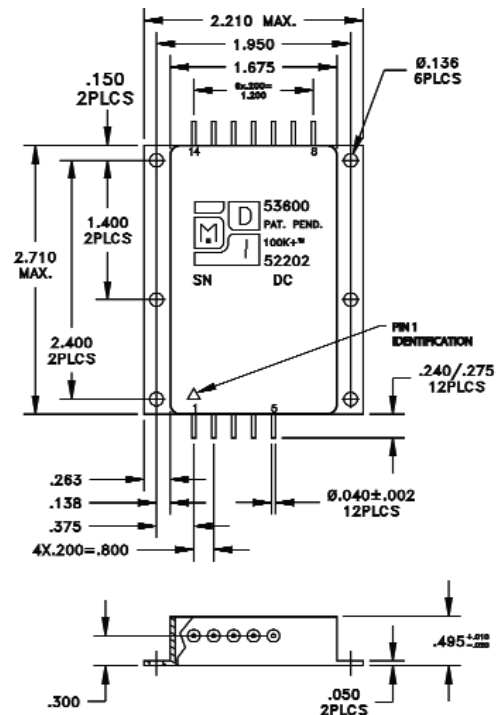
Series 53600

TRIPLE OUTPUT DEVICES		53600 (38W)		
PARAMETER	CONDITION	MIN	TYP	MAX
Output voltage	+I _{out} = -I _{out}	+4.9	+5.0	+5.1
		+15.1	+15.5	+15.9
		-15.1	-15.5	-15.9
Output current	V _{in min} — V _{in max}	150mA	—	3A
		±75mA	—	±750mA
Efficiency	P _{out} = max rated load	83%	85%	—
Line regulation	P _{out} = max rated load V _{in min} — V _{in max}	—	5mV	15mV
		—	±125mV	±200mV
Load regulation	P _{out} = min to F.L.	—	50mV	75mV
		—	±500mV	±700mV
Output ripple	F.L. BW 2 MHz mV _{pp}	—	25	70
		—	75	125

28
VDC

- Model 53600 is a high efficiency cross regulated triple output DC-DC converter that incorporates a built-in MIL-STD-461 EMI filter.
- High efficiency and excellent cross regulation are achieved by using a planar power transformer and GaAs rectifiers. A sync input and sync output are also provided.
- Other input/output voltages available on special order

Pin #	Designation
1	+28 VDC Input
2	+28 VDC Input Return
3	Enable
4	Sync In
5	Sync Out
6	N/C
7	N/C
8	BIT
9	-Aux Output
10	±Aux Output Return
11	+Aux Output
12	Chassis
13	Main Output
14	Main Output Return



GRADE LEVELS:

Please specify grade level for your application. EU grade units will be shipped if no option is specified.

EU	Engineering Units	S	100k+@ +85°C Space
R	100k+@ +85°C military/aerospace	SE	100k+@ +125°C Space
RE	100k+@ +125°C military/aerospace		



Modular Devices, Inc • One Roned Road • Shirley, New York 11967 • E-mail sales@mdipower.com • Fax 631.345.3106 • Tel 631.345.3100

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