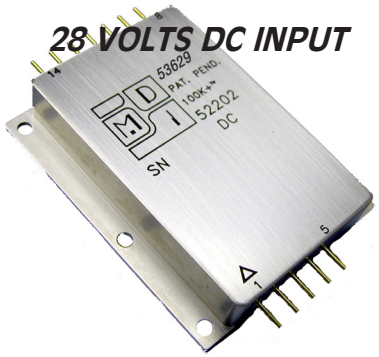
40 Watt Quad Output Hybrid

PROTON RAD HARD 100K+® DC-DC CONVERTERS

28 VDC

28 VOLTS DC INPUT



Series 53629

QUAD OUTPUT DEVICES		53629 (40W)		
PARAMETER	CONDITION	MIN	TYP	MAX
Output voltage	$+I_{out} = -I_{out}$	+4.9 -4.9 +15.1 -15.1	+5.0 -5.0 +15.5 -15.5	+5.1 -5.1 +15.9 -15.9
Output current	$V_{in\ min}$ — $V_{in\ max}$	+300mA -100mA +75mA -75mA	— — — —	+3A -1A +750mA -750mA
Efficiency	P_{out} = max rated load	83%	85%	—
Line regulation	P_{out} = max rated load $V_{in\ min}$ — $V_{in\ max}$	— —	±15mV ±15mV	±65mV ±85mV
Load regulation	P_{out} = min to F.L.	— —	±75mV ±175mV	±125mV ±250mV
Output ripple	F.L. BW 2 MHz mV_{pp}	— —	25 35	50 70

Features

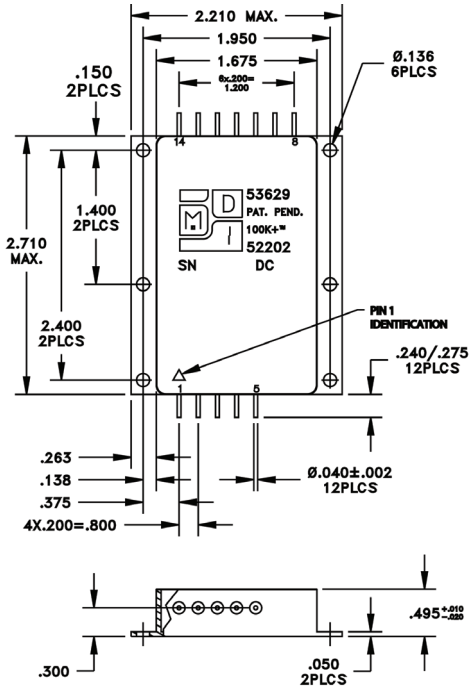
- Rad Hard: TID > 100kRad(Si)
- 2:1 margin: Operates beyond 200kRad TID
- No SEE:LET > 82MeV*cm^2/mg
- Proton Resistant: No optocouplers used
- Industry standard form factor and mounting footprint
- Built-in EMI input filter meets MIL-STD-461C requirements CE01, CE03, CS01, CS02 and CS06
- Completely self contained Thick Film Hybrid DC-DC Converter
- No external filter caps required
- Fully isolated design
- “Inhibit-not” enable function
- Power on soft start
- 250 kHz operation for low ripple and fast response time
- Short circuit and overvoltage protection
- External sync input

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 @ 11ms. Per MIL-STD-810, M516.5, P III
Acceleration: 500 G's Per MIL-STD-883, M2001
Vibration: 30 G's Per MIL-STD-883, M2026, C2H
Grade EU, L & S:
Full Power Output at T_{case} = +85°C
Linearly derates to zero at T_{case} = +115°C
Grade LE & SE:
Full Power Output at T_{case} = +125°C
Linearly derates to zero at T_{case} = +135°C
WEIGHT: 110 grams maximum, 95 grams typical.

- Model 53629 is a high efficiency cross regulated quad 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. Sync and Enable inputs are also provided.
- Other input/output voltages available on special order
- A combined total of 40W may be drawn on all 4 outputs. Up to 750mA is available from the auxiliary outputs provided the total output power does not exceed 40W.

Pin #	Designation
1	+28 VDC Input
2	+28 VDC Input Return
3	Enable
4	-5 VDC Return
5	-5 VDC Output
8	Sync Input
9	-15 VDC Dual Output
10	±15 VDC Dual Output Return
11	+15 VDC Dual Output
12	Chassis
13	+5 VDC Main Output
14	+5 VDC 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
L 45K+® +85°C military/aerospace
LE 45K+® +125°C military/aerospace
S 100K+® +85°C Space
SE 100K+® +125°C Space

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