GILGAL Power Systems Ltd.

Military Power Supply

Model: GIL76160-CBA

Up to 160W output power
18Vds to 32Vdc Input Voltage
Output Voltage #1 : 12V
Output Voltage #2 : 5V
Output Voltage #3 : 3V3

Features

- Insolated Outputs voltage.
- Output power – up to 160W.
- Wide input voltage range 18VDC to 32VDC
- Remote on/off.
- Reverse input voltage protection. Auto recovery.
- Output Current limit for each output.
- Wide operating temperature range -40°C to +65°C.
- **Measurement all Voltages & Currents through I²C (AD7997B)**
- O.U.V. indication
- **High efficiency up to 93%.**
- Protection against surge & spikes per MIL-STD-1275A&B, MIL-STD-704A÷E.
- Protection against conducted susceptibility and radiated susceptibility per MIL-STD-461F.
- Decreases input line Susceptibility emission per MIL-STD-461, CS101.
- Vibration withstand according to MIL-STD-810.

Applications

- Automotive
- Industrial
- Military

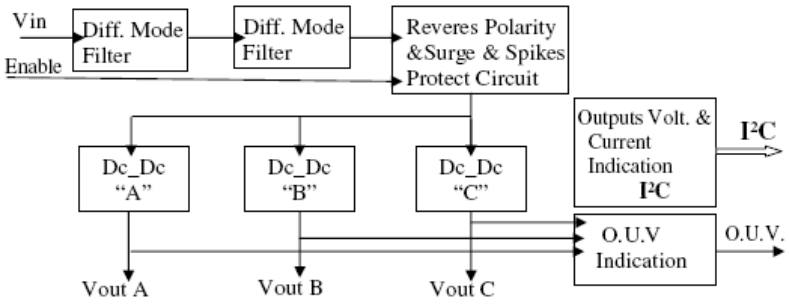

Figure 1: Block Diagram

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Specification (at 25°C, 75% load, 24V nominal voltage, unless otherwise specified)

PARAMETER	
Input	
Nominal input voltage:	28v
Input range	18v ÷ 36v
Reverse input protect	Automatic Recovery
Enable	Yes (positive or negative, see how to order)
Meet MIL-1275A/B	Surge – 100v/50ms, 0.5Ω,
	Spikes – 250v/70us
Meet MIL-704A/F	Surge – 80v/75ms
	Spikes – 600v/10us
Meet DO160E cat A/Z	Surge – 80v/100ms
	Spikes – 600v/10us
Meet MIL-461F	CS-101, CS-106,
Output #1	
Output voltage	12v
Output power	Up to 120W (10Amp.)
Voltage trim	+/- 10% (only by manufacture)
Voltage Accuracy	+/- 1%
Line Reg. & Load Regulation	+/-1.5% max
Output ripple (10MHz)	30mVrms max
Output Current limit	Remove overload for recovery.
Option Output #2	
Output voltage	3v3 or 5v or 12v or 15v
Output power	15w or 20w
Voltage trim	+/- 10% (only by manufacture)
Voltage Accuracy	+/- 1%
Line Reg. & Load Regulation	+/-1.5% max
Output ripple (10MHz)	25mVrms max
Output Current limit	Remove overload for recovery.
Option Output #3	
Output voltage	3v3 or 5v or 12v or 15v
Output power	15w or 20w
Voltage trim	+/- 10% (only by manufacture)
Voltage Accuracy	+/- 1%
Line Reg. & Load Regulation	+/-1.5% max
Output ripple (10MHz)	25mVrms max
Output Current limit	Remove overload for recovery.
General	
Power Efficiency (typ.)	93%
Remote control	Yes (see how to order)
Insolated Output to Input	500vMin
Case coating	Anodize
Weight (typ.)	540 gr.
Environmental	
Temperature	-40 + 65˚C , Operational Base Plate
MIL-STD-810G, Methods 501.5,502.5	-40 + 95˚C , Storage
Vibration	MIL-STD-810G, Method 514.5
SHOCK ,MIL-STD-810G Method 516.5 –Ground equipment	SRS Shock of 40g's 15-23 msec @ cross over Freq -45 Hz per Table 516.6-I , Operational
VIBRATION , MIL-STD-810G	
Trucks & Trailers. Transportation	Cat. 4. Secured Cargo Cat. 5. Loose Cargo (with its transit case)

Physical

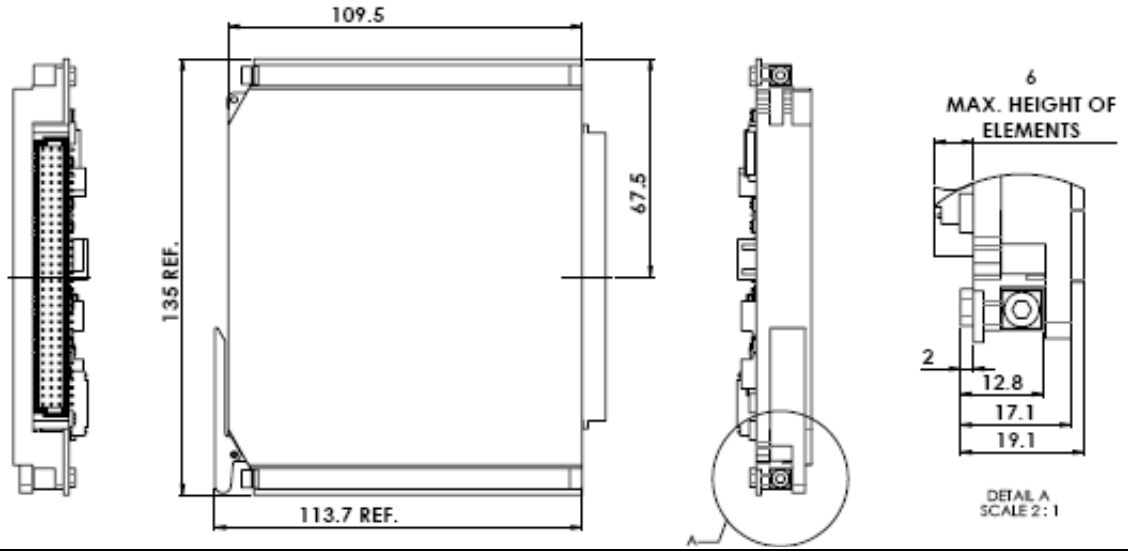
- connector: DIN41612 STYLE M 42+8 pin male

Pin No.	Description	Pin No.	Description	Pin No.	Description
A13	GND	B13	GND_out	C13	GND_out
A14	NC	B14	NC	C14	O.U.V. Indication
A15	Inhibit	B15	NC	C15	NC
A16	NC	B16	+28v_input	C16	+28v_input
A17	GND_out	B17	GND_in	C17	GND_in
A18	+3v3	B18	NC	C18	+3v3
A19	+12v	B19	+12v	C19	+12v
A20	+5v	B20	+5v	C20	+5v
B2	+5v	B22	GND_out		
B5	GND_out	B25	CHASSIS		
B8	+3v3	B28	+28v_input		
B11	+12v	B31	GND_in		

Table 1: Pin Connection and function

- O.U.V. Indication: Normality mode - open Collector. Failure mode -GND

Dimensions:



How to Order:

GIL-76160-CBA (for 12v/10Amp, 5v/3A, 3v3/4A)

For other outputs voltage – please connect to the factory.

	3v3	5v	12v	15v
Option Output #2	A	B	C	D
Option Output #3	A	B	C	D

NOTES:

1. **Warranty: 2 year**.
2. Specification subject to change without notice.

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