

# US-70 Series

## 70 Watt Flexible Input / Output Power Supply



### PRODUCT DESCRIPTION

The US Series of Switching power supplies offer Flexible Input and Output Options to satisfy a wide range of applications. The options include Universal AC / 48 VDC Input / 24 VDC Input ranges and up to four output voltages that can be set from 2.0 - 48 VDC depending upon the customer requirement. Features include:

- 70W with up to 4 outputs
- Ruggedized U-channel construction
- Universal AC Input
- RoHS compliant
- 24V and 48V DC Input models available
- International regulatory approvals
- Medical versions available

### INPUT

Input - AC Models (US100)	90-264VAC, 47-63 Hz
Hold-Up Time	6msec minimum (Full Load)
Inrush Current	25 Amp Maximum (cold start)
Input - 48 Vin Models (DP100)	36-72 VDC Input Range
Input - 24Vin Models (DM100)	18-36 VDC Input Range

### ELECTROMAGNETIC COMPATIBILITY

Electrostatic Discharge	EN61000-4-2, ±4KV Contact / ±8KV Air Discharge
Radiated Susceptibility	EN61000-4-3, 26-1000MHz, 10V/M, 80% AM
EFT / Bursts	EN61000-4-4, ±2KV
Surges	EN61000-4-5, ±2KV Line-Earth, ±1KV Line-Line
Conducted Immunity	EN61000-4-6, 0.15-800MHz, 10V, 80% AM
Voltage Dips	EN61000-4-11, 95% Dip & 10ms, 30% Dip & 500ms

*Electromagnetic compatibility specs apply to AC-DC Models only, please consult Digital Power for DC-DC specs.*

### ENVIRONMENTAL

Operation Temperature	0 ~ +50C. De-rate 2.5%/C up to +71C
Storage Temperature	-40C to +85C
Cooling	28 CFM for full load (50W Convection)
Humidity	Up to 95% RH Non-condensing
Shock & Vibration	0.75G Peak 5Hz - 500Hz
MTBF	>280,000 Hours per Belcore 332 issue 6

### OUTPUT

Line Regulation	± 0.2% for Vin (min.) to Vin (max.)
Transient Response	< 5% and recovers in 0.5msec, 25~75% Step lo change
Over-Voltage Protection	130% Typical (Latched Shut-down)
Overload Protection	130% Total Power Limited
Load Regulation	V1 = ± 3% Max V2, V3 & V4 = ± 5% Max
Min. Load Requirement	20% I <sub>max</sub> (V1,V2,V3,V4)
Turn-On Delay	2 Sec. Max.
Initial Setting Accuracy	± 1%
Ripple (pk-pk max)	± 1%

### SAFETY & EMISSIONS

Safety Approvals	UL1950 CSA 22.2 No. 60950-1 VDE EN60950-1 CE Marking
Emissions	EN55022 Level A



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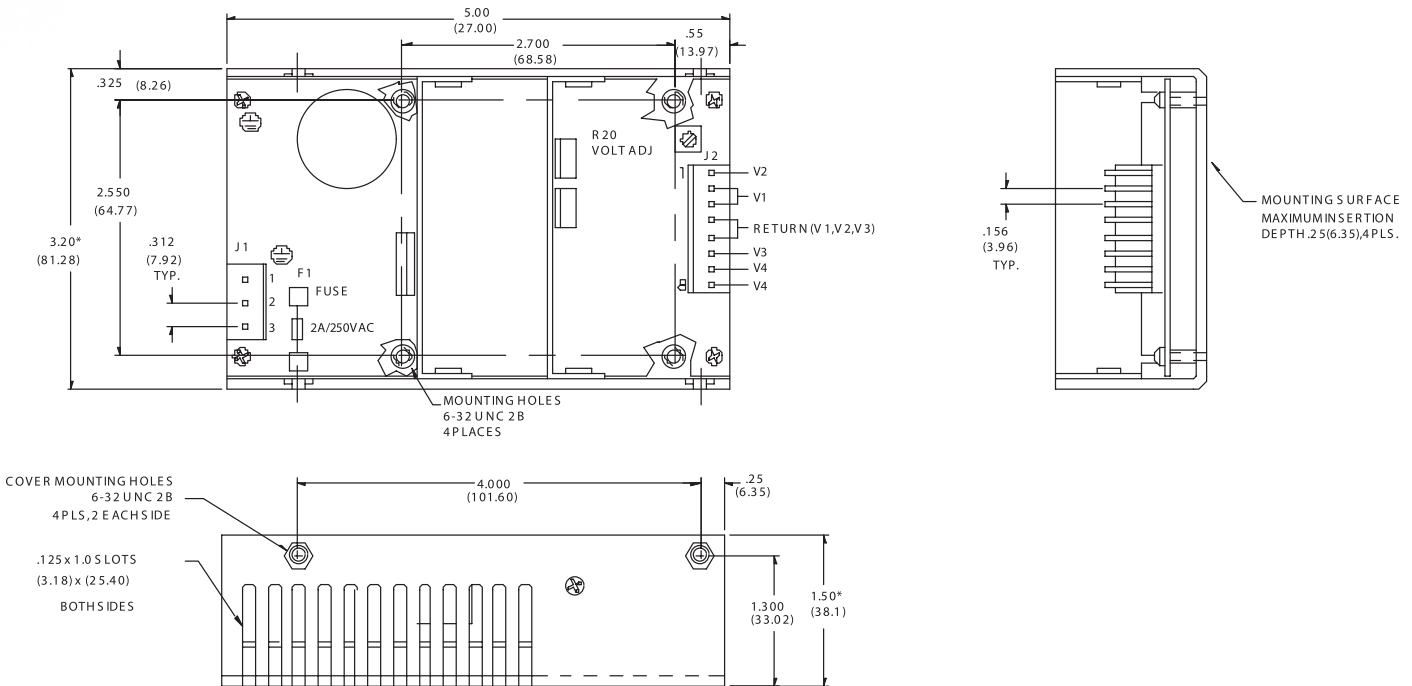
### Single Output Model Selection Guide

AC Model	48VDC Model	24VDC Model	Output Power	Output Voltage	Output Current
US70-105	DP70-105	DM70-105	70 Watts	5V	10.0A
US70-112	DP70-112	DM70-112	70 Watts	12V	5.0A
US70-124	DP70-124	DM70-124	70 Watts	24V	2.7A

### Multiple Output Model Selection Guide

Model	Output Power	V1 Output	V2 Output	V3 Output	V4 Output
US/DP/DM 70-201	70 Watts	+5V/7A	+12V/4A	-	-
US/DP/DM 70-301	70 Watts	+5V/8A	+12V/4A	-12V/2A	-
US/DP/DM 70-303	70 Watts	+5V/5A	+15V/4A	-15V/1A	-
US/DP/DM 70-401	70 Watts	+5V/7A	+12V/4A	-12V/2A	-5V/2A

Consult Digital power for DC input options, unique output voltages and other power levels.



\* - O OPTIONAL COVER ADDS .30 (7.62) TO WIDTH AND .05 (1.27) TO HEIGHT.

#### J1 Connector Pinout

Connector	AC-DC	DC-DC
1	Ground	Ground
2	Neutral	-Input
3	Line	+Input

J1 CONNECTOR = MOLEX INC., 41671 SERIES, P/N: 26-48-1055.  
 (MATING CONNECTOR = MOLEX INC., 6442 SERIES (OR 41695 SERIES), P/N: 26-03-4050 (OR 09-50-8051))  
 J2 CONNECTOR = MOLEX INC., 41671 SERIES, P/N: 26-48-1145.  
 (MATING CONNECTOR = MOLEX INC., 6442 SERIES (OR 41695 SERIES), P/N: 26-03-4141 (OR 09-50-8081))  
 (MATING CRIMP TERMINALS = MOLEX INC., 6838 SERIES, P/N: 08-52-0113 OR 08-52-0112)  
 \* OPTIONAL COVER ADDS 0.035 (.89) TO HEIGHT.

Revision A: 03/23/09 All specifications subject to change. Please consult Digital Power for latest specifications.