

US Series

70 Watt Flexible Power Supply Platform



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 (US70)	90-264VAC, 47-63 Hz
Hold-Up Time	6msec minimum (Full Load)
Inrush Current	25 Amp Maximum
Input - 48 Vin Models (DP70)	36-72 VDC Input Range
Input - 24Vin Models (DM70)	18-36 VDC Input Range

OUTPUT

Line Regulation	$\pm 0.2\%$ for V_{in} (min.) to V_{in} (max.)
Transient Response	$< 5\%$ and recovers in 0.5msec
Over-Voltage Protection	130% Typical (Latched Shut-down)
Overload Protection	130% Total Power Limited
Load Regulation	$V1 = \pm 3\%$ Max $V2, V3 \& V4 = \pm 5\%$ Max
Min. Load Requirement	None
Turn-On Delay	2 Sec. Max.
Initial Setting Accuracy	$\pm 1\%$

ELECTROMAGNETIC COMPATIBILITY

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

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

SAFETY & EMISSIONS

Safety Approvals	UL/cUL60950, TUV EN60950 & CE Marking
Emissions	EN55022 Level A



ENVIRONMENTAL

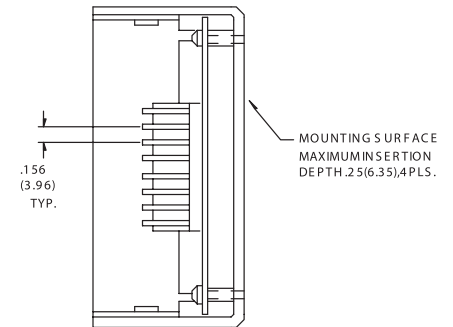
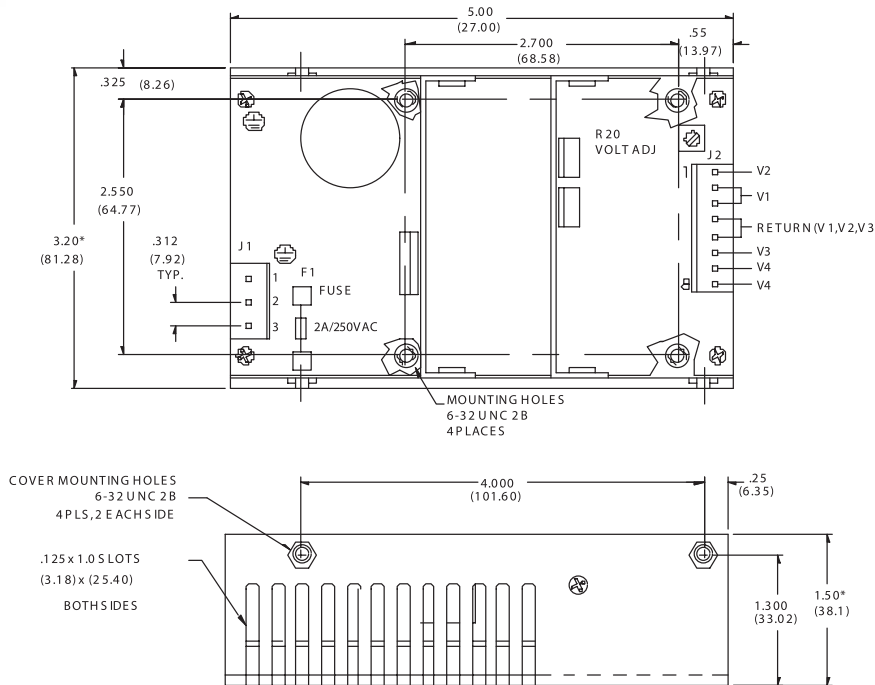
Operation Temperature	-0 ~ +50C. De-rate 2.5%/C up to +71C
Storage Temperature	-40C to +85C
Cooling	28 CFM for full load (50W Convection)
Humidity	Up to 95% RH Non-condensing
Shock & Vibration	0.75G Peak 5Hz - 500Hz
MTBF	$> 280,000$ Hours per Belcore 332 issue 6

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	10A
US70-112	DP70-112	DM70-112	70 Watts	12V	5A
US70-124	DP70-124	DM70-124	70 Watts	24V	2.7A

Multiple Output Model Selection Guide

Model	Input	Output Power	V1 Output	V2 Output	V3 Output	V4 Output
US70-201	90-264VAC	70 Watts	+5V/7A	+12V/4A	-	-
US70-301	90-264VAC	70 Watts	+5V/8A	+12V/4A	-12V/2A	-
US70-303	90-264VAC	70 Watts	+5V/5A	+15V/4A	-15V/1A	-
US70-401	90-264VAC	70 Watts	+5V/7A	+12V/4A	-12V/2A	-5V/2A



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: 26-48-1085.
(MATING CONNECTOR = MOLEX INC., 6442 SERIES (OR 41695 SERIES), P/N: 26-03-4081 (OR 09-50-8081))
(MATING CRIMP TERMINALS = MOLEX INC., 6838 SERIES, P/N: 08-52-0113 OR 08-52-0112)

J1 Connector Pinout

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

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

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