

## 42D Series Plug-in Switch Mode Power Supply Unit

### INPUT

	MINIMUM	NORMAL	MAXIMUM
AC Input Voltage	90V AC	100 – 240V AC	264V AC
AC Input Frequency	47 Hz	50 / 60 Hz	63 Hz
AC Input Current – 115V AC (max)			0.8A
AC Input Current – 230V AC (max)			0.4A
AC Inrush Current* – 115V AC, 60Hz	No damage shall occur and the input fuse shall not blow.		
AC Inrush Current* – 230V AC, 50Hz			
Primary current protection	An internal fuse on the AC input line is provided.		
Configuration	3-conductors, <Active, Neutral, Earth>		

\* At full-load, 25°C, cold start.

### Power consumption at no load (maximum)

Input 110V AC 60 Hz	0.50W max
Input 230V AC 50 Hz	0.75W max

### OUTPUT

MODEL	5V	12V	18V	24V
Normal DC Output Voltage	+5.0V	+12.0V	+18.0V	+24.0V
Minimum Load Current	0.0A	0.0A	0.0A	0.0A
Maximum Load Current	6.0A	3.5A	2.33A	1.75A
Maximum Output Power	30W	42W	42W	42W
Ripple and Noise *	75mV	120mV	180mV	240mV
Efficiency (min) **	70%	80%	80%	80%
Over-voltage protection (max)	6.5V DC	15.75V DC	21.6V DC	28V DC
Over-current protection ***	12A	8A	4.5A	3.5A
Total Output Regulation	+/- 5%			
Dynamic Load Regulation ****	+/- 5%			
Short-circuit protection	No damage when shorting the DC output to ground.			
Open-circuit protection	When primary power is applied with no load on any output level, no damage or hazardous conditions should occur.			
Drop-out	With half cycle input voltage drop-out, the unit shall meet the regulation requirement and operate within the prescribed voltages with a drop-out pulse repetition rate of 500mS under full load and with normal AC input voltage.			

\* Voltage measured P-P at 20MHz and output parallel with 0.1uF & 47uF capacitor to ground. Temperature at 25°C and normal AC input voltage.

\*\* At normal input voltage and full load.

\*\*\* Maximum with auto recovery function.

\*\*\*\* For 50% ~ 100% ~ 50% load change at any frequency up to 250Hz with 50% duty.

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### MECHANICAL

Dimensions	102.5(L) x 57.5(W) x 34.5(H)mm maximum.
Weight	280g maximum.
Input Plug Type	3-pin 3-conductors, <Active, Neutral, Earth>
Output Cord (5V)	Wire: SPT-1, VW-1, 18AWG, 800mm.
Output Cord (12V, 18V, 24V)	Wire: SPT-1, VW-1, 18AWG, 1828mm.
Output Plug	11(L) x 5.5(D) x 2.1(ID)mm

### ENVIRONMENTAL

Cooling	Natural convection.
Operating Temperature	0°C to +40°C
Storage Temperature	-20°C to +60°C
Operating Humidity	20 ~ 85 % RH. Non-condensing
Storage Humidity	5 ~ 95 % RH. Non-condensing

### SAFETY

Dielectric withstanding voltage test (Hi-pot test) input to output	1,800V AC, 10mA, 1 second OR 2,545V DC, 10mA, 1 second.
Dielectric withstanding voltage test (Hi-pot test) input to safety ground	1,500V AC, 10mA, 1 minute OR 1,800V AC, 10mA, 1 second.
Ground continuity test. Primary inlet F.G to secondary ground	25A for 3 seconds, 100mΩ maximum.
Insulation Resistance	> 100MΩ at 500V DC between Primary Active, Neutral line and secondary.
Leakage Current	0.5mA maximum at normal AC input voltage and frequency

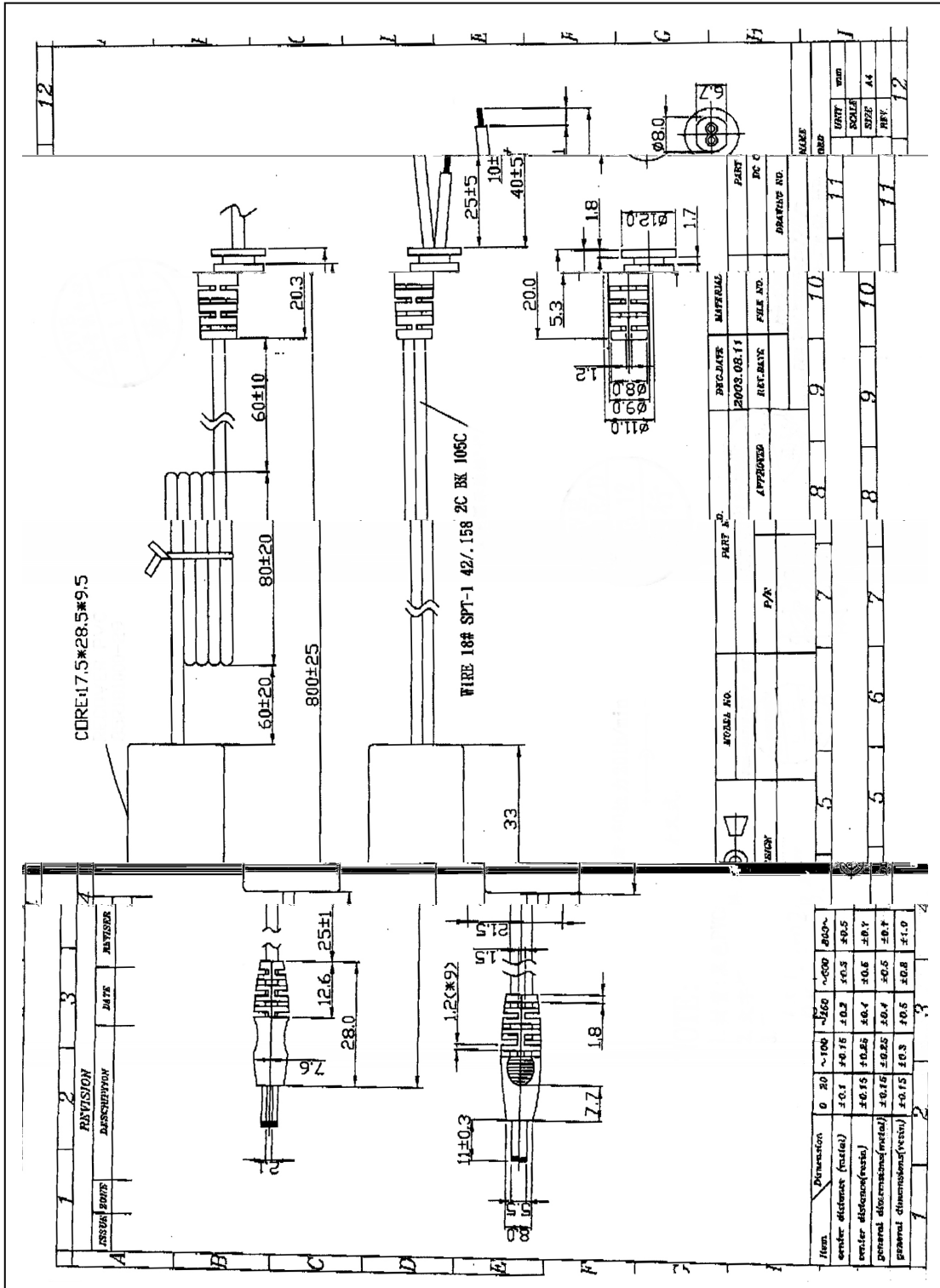
### RELIABILITY

Mean Time Between failure (MTBF)	The power supply is designed to have a MTBF of 50,000 operating hours at 90% confidence-level.
Burn-in Test	4 hours at 40°C +/- 5°C, normal input voltage, 80% of maximum load.



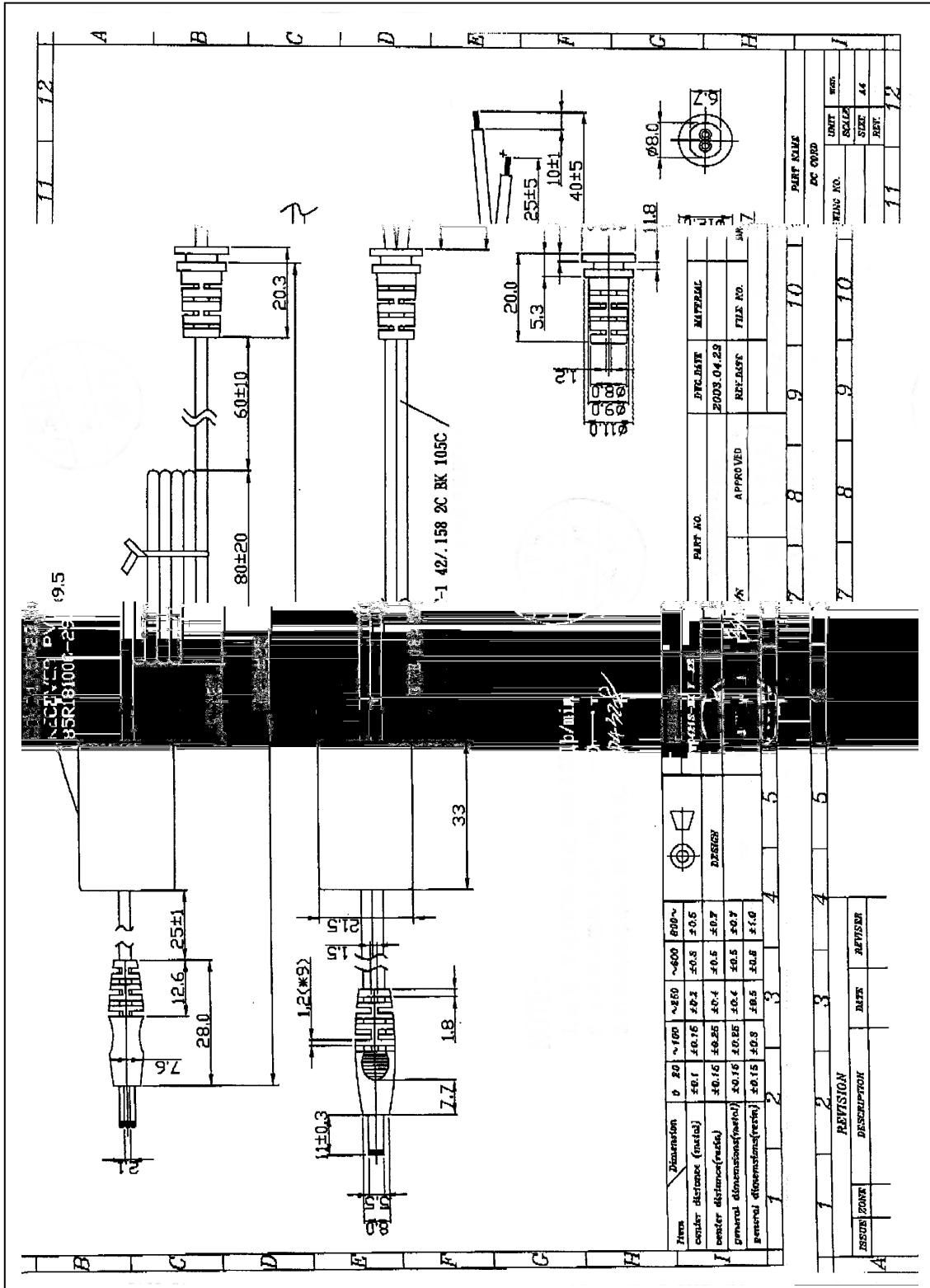
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DC OUTPUT CORD DRAWING 5V MODEL



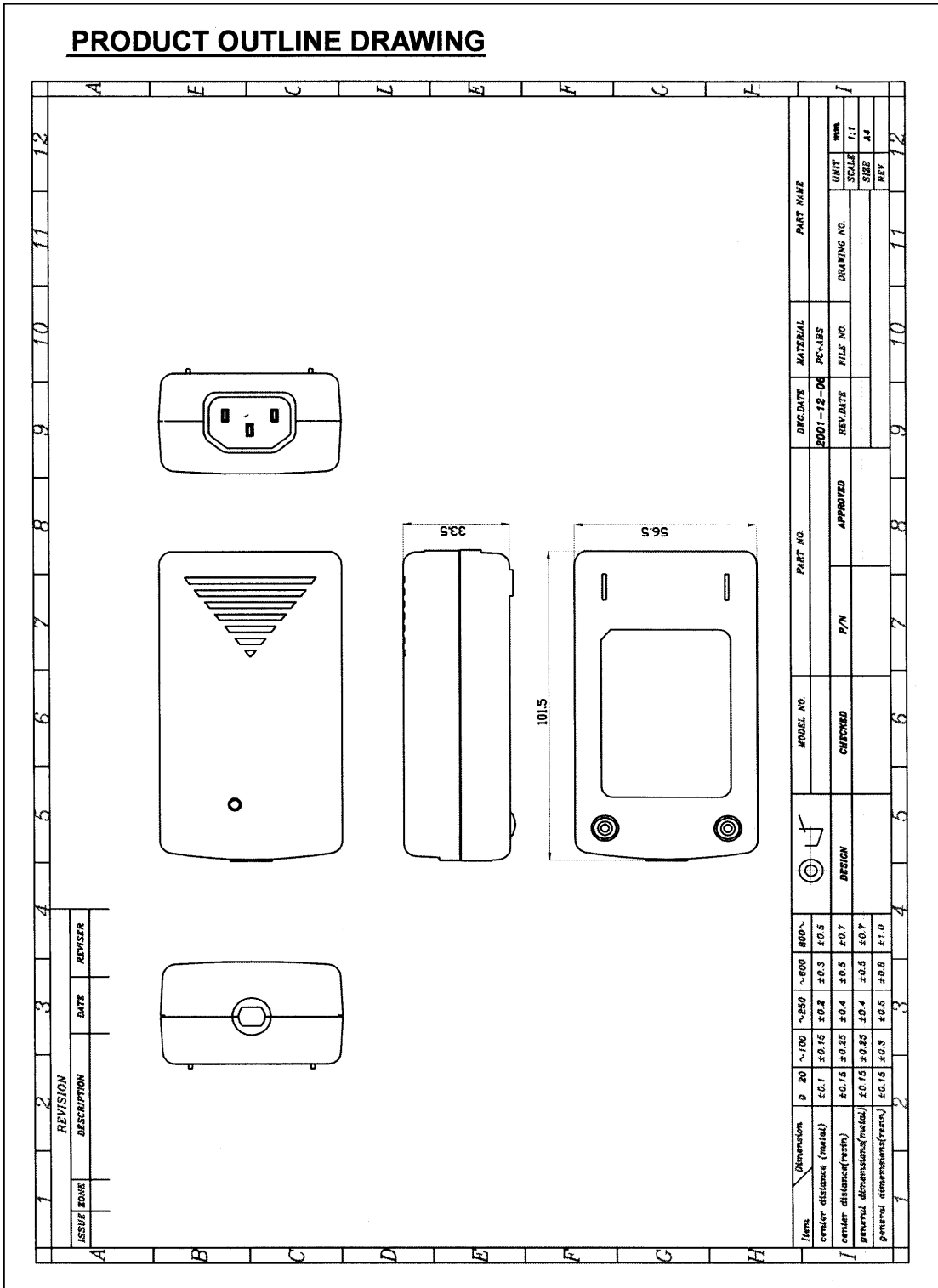
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DC OUTPUT CORD DRAWING 12V, 18V & 24V MODELS



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**PRODUCT OUTLINE DRAWING**



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**PACKING DRAWING**

