

30D 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)			0.4A
AC Input Current – 230V AC (max)			0.2A
AC Inrush Current* – 115V AC, 60Hz			30A
AC Inrush Current* – 230V AC, 50Hz			50A
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)

MODEL	5V	12V	48V
Input 110V AC 60 Hz	1.8W max	1.8W max	1.8W max
Input 230V AC 50 Hz	3.0W max	3.0W max	4.0W max

OUTPUT

MODEL	5V	12V	48V
Normal DC Output Voltage	+5.0V	+12.0V	+48.0V
Minimum Load Current	0.0A	0.0A	0.0A
Maximum Load Current	2.4A	1.5A	0.2A
Maximum Output Power	12W	18W	9.6W
Ripple and Noise *	50mV	120mV	480mV
Over-voltage protection (max)	6.5V DC.	15.75V DC.	62.75V DC.
Total Output Regulation	+/- 5%	+/- 5%	+/- 5%
Dynamic Load Regulation **	+/- 5%	+/- 5%	+/- 5%
Short-circuit protection (max) ***	4W	5W	6W
Efficiency	65% minimum at normal input voltage and full load.		
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.		
Open-circuit protection	When primary power is applied with no load on any output level, no damage or hazardous conditions should occur.		

* 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.

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

*** With auto-recovery function.

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MECHANICAL

Dimensions	100(L) x 50(W) x 35(H)mm.
Weight	200g maximum.
Input Plug Type	Desk type, 3-conductors, <Active, Neutral, Earth>
Output Cord (5V & 12V)	Wire: SPT-1, VW-1, 18AWG, 1828mm.
Output Cord (48V)	Wire: SPT-1, VW-1, 20AWG, 1828mm.
Output Plug (5V & 12V)	10(L) x 5.5(D) x 2.1(ID)mm
Output Plug (48V)	10(L) x 5.5(D) x 2.5(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 ground	1,800V AC, 10mA, 1 second OR 2,545V DC, 10mA, 1 second.
Insulation Resistance	> 100MΩ at 500V DC between Primary Active, Neutral line and secondary.
Leakage Current	0.75mA maximum at normal AC input voltage and frequency

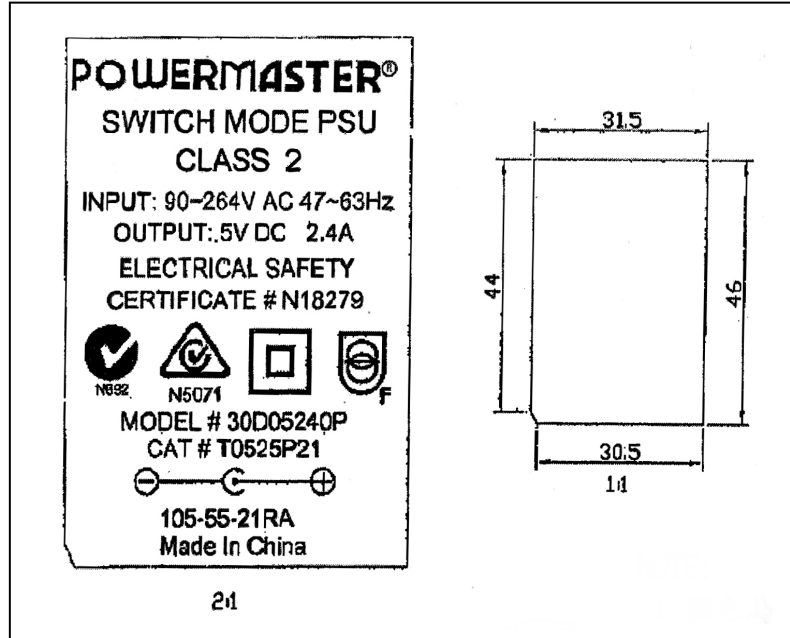
RELIABILITY

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

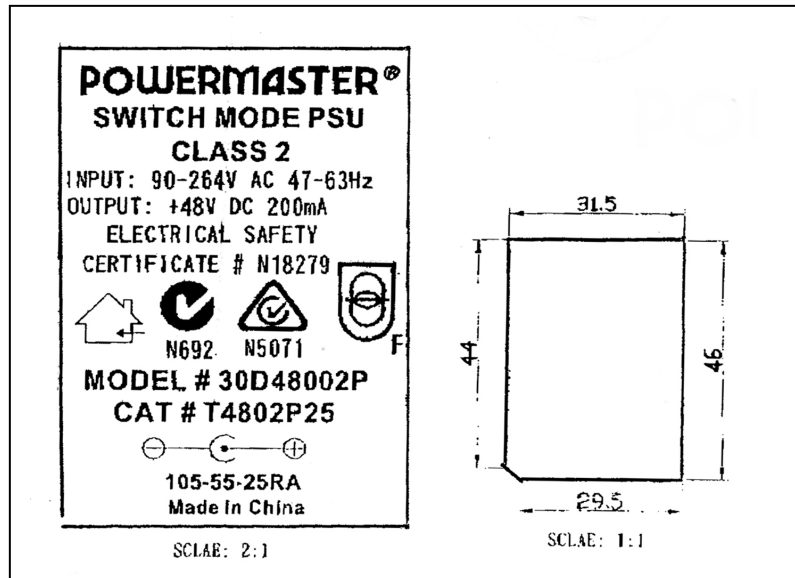
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RATING PLATE

5V & 12V Models

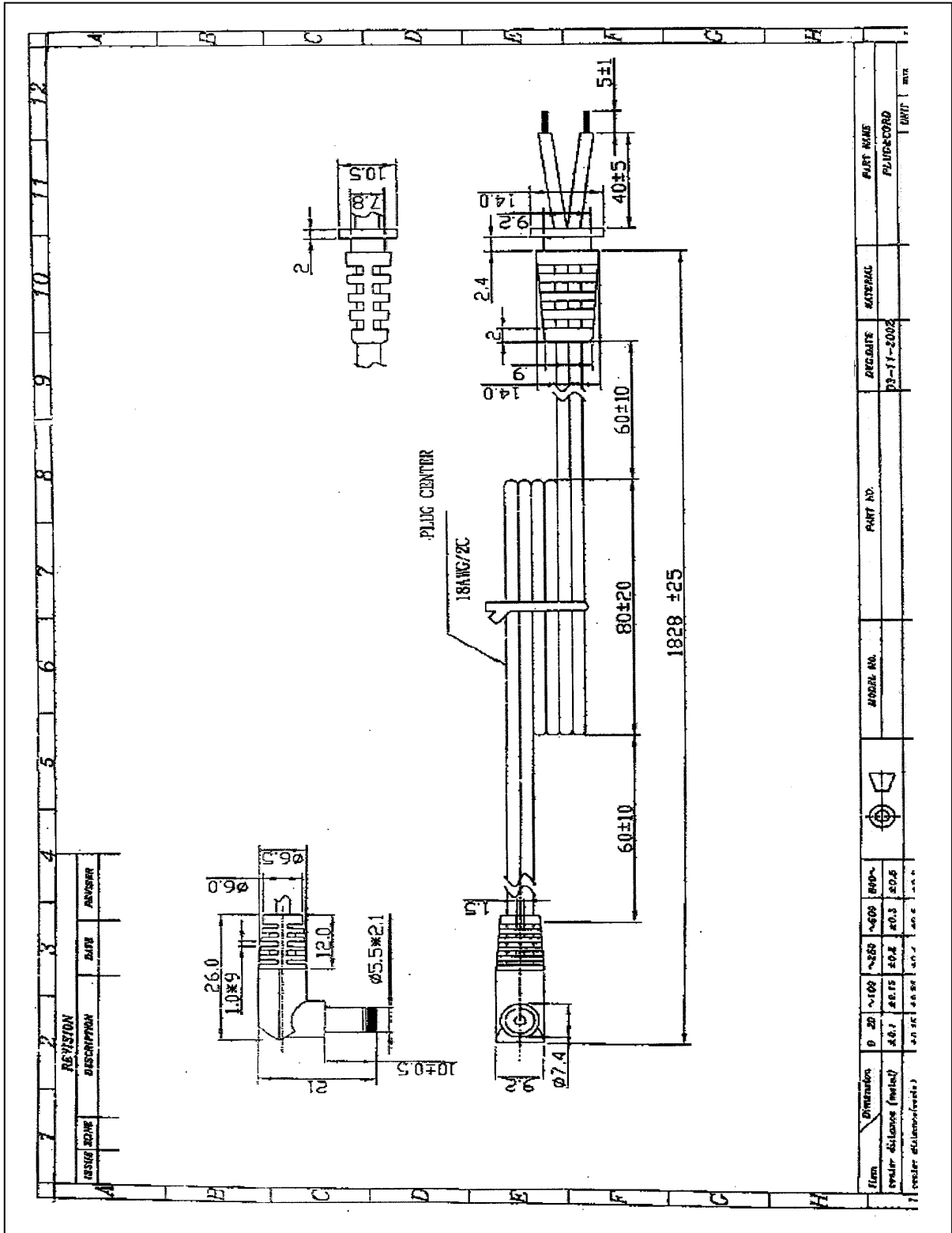


48V Model



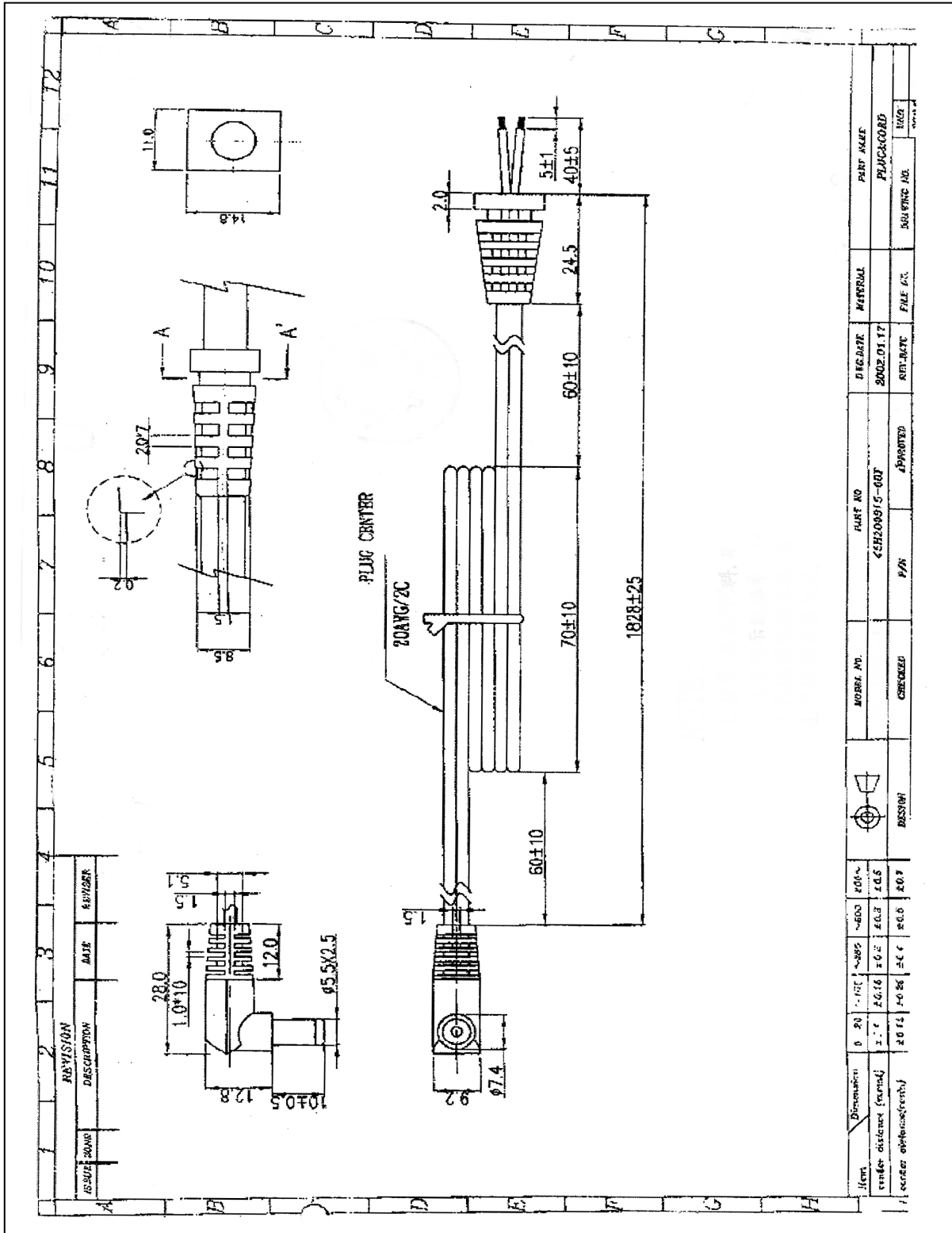
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DC OUTPUT CORD DRAWING 5V & 12V MODELS

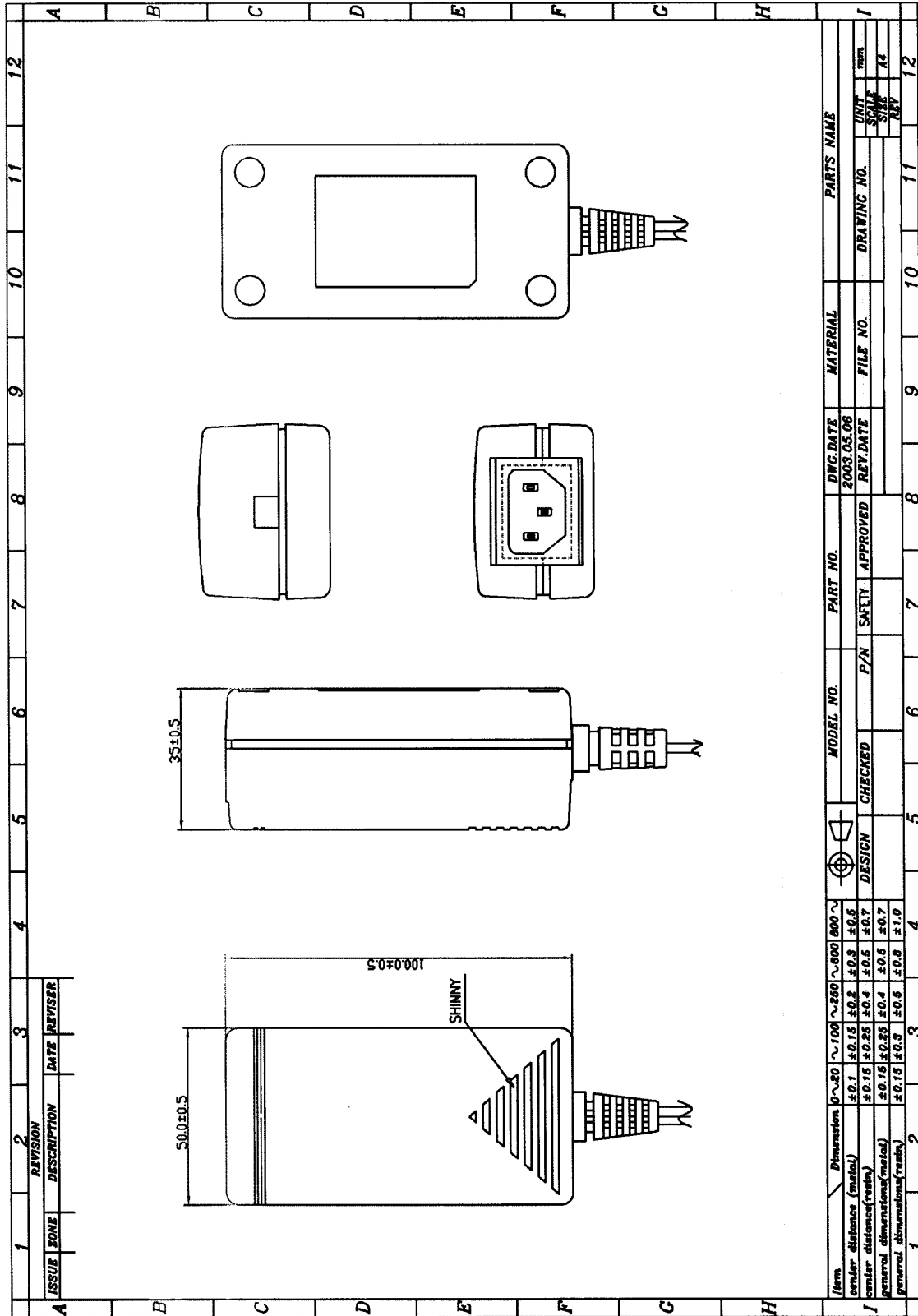


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DC OUTPUT CORD DRAWING 48V MODEL



PRODUCT OUTLINE DRAWING



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PACKING DRAWING

