

SPEC NO:

PART NO: DTS120166UDC-P5-SZ



CUI INC

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UNIT: mm

DATE: 08/24/00

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1.0 General Description

Model DTS120166UDC-P5-SZ is a universal type switch-mode power supply, operating at input voltage 90VAC to 264VAC and output voltage of 12VDC with 1.66A DC load.

2.0 Electric Characteristics

2.1 Input

Input				
No	ITEM		CONDITION	SPECIFICATION
1.	Input Connector			IEC320/C7-2 2PIN
2.	EMI			FCC/EN55022 Class B
3.	Input Voltage	*Rated Voltage		AC100V-240V
		*Vibration Range		AC90V-264V
4.	Frequency	*Rated		50-60Hz
		*Vibration		47-63Hz
5.	Input Current	Rated Current	Full load	600mA RMS Max
		No Load Current	At Rated Input	100mA Max
		Inrush Current	120V Input	30A Max
			230V Input	60A Max
6.	Input Power		100V-240V	65VA Max
7.	Efficiency		100V-240V	70% Min.



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2.2 Output:

2.2.1 The Power supply described by this specification shall meet the following output, requirement give in the test circuit as show in 8.0

No	ITEM	CONDITION	SPECIFICATION
1.	Output Voltage	*Rated Output	1.66A Load 12VDC $\pm$ 5%
		*Out Regulation	AC90V-264V
2.	Load Current	*Rated Current	100V-240V 1.66A
		*Min current	100V-240V 0mA
		*Max Current	100V-240V 1.66A
3.	Ripple Noise	100V-240V	120mV(p-p) Max.
4.	Over Voltage protection	Over 14.25-15.75VDC	Shut off output
5.	Over Current Protection	Over Load Short Circuit	Shut off output & Auto reset

2.3 Dielectric Withstand voltage:

The unit shall withstand for 1 min. without break down , application of 4240VDC or 3000VAC between blades and output plug.

2.4 Insulation Resistance:

Between input and output and output plug shall not be less 100M ohm, Measured by 500VDC insulation resistance tester.

2.5 Temperature rise:

a)Rated input 230VAC 50Hz & rated load 1.66ADC

Enclosure:45°C Max. on ambient temperature of 25°C by use thermometer or thermocouple.

2.6 Humidity Test:

40°C $\pm$ 2°C relative humidity 90% RH for 96 hours, After keeping 30 minutes following insulation must be more than 5 M ohm.

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2.7 Short circuit protection:

Shorting the DC output shall not cause damage to the power supply Removal of the short will allow the output to return to proper output voltage. Duration of the short time is 500milliseconds.

2.8 Output polarity: See Reference(1)

3.0 Safety approved: UL , CUL , TUV,CE

3.1 Meet EMI Standard

Design to meet FCC Class B & CE ,VCC I II.

5.0 Mechanical Specification

5.1 AC Plug: IEC 320/C7-2 2PIN

5.2 DC Output Cord:

Bending test: Life 1000 times 100% guarantee. Swings 120 from left to right
(60+60) Loading weight 500gm, 50 cycle/minute.

Pull test :DC cord and plug, weight 6kg for 1 minute

5.3 Cord length output plug: See Reference (2)

5.4 Vibration Test:

Vibration Frequency 1500 cycle/minute, swings 2mm peak-peak 3 direction
(X-Y-Z) each 30 min.

5.5 Drop Test:

The unit shall comply with 2.4 without exposing live parts by creak or open of enclosure even the unit shall dropped from a high of 100cm onto a flat wooden board which is 30mm thickness.(For CE).

6.0 Normal Operating temperature & Humidity:

Normal operating temperature:10°C to 40°C

Humidity :20% to 80%

7.0 Storage Temperature & Humidity:

Storage Temperature:-10°C to 70°C

Humidity :10% -90% RH

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TEST CONDITION	I/P	SPEC.	1	2	3	4	5	6
LINE REGULATION AT LOAD 1.66A OUTPUT VOLTAGE	90V	12VDC ± 5%	11.98					
	115V		11.98					
	132V		11.98					
	180V		11.98					
	230V		11.98					
Ripple Noise V(p-p)	264V		11.98					
	100V	120mV	31					
	230V	Max.	25					

TEST CONDITION	I/P	SPEC	1	2	3	4	5	6
LINE REGULARION AT LOAD 0A OUTPUT VOLTAGW	90V	12VDC ±5%	12.25					
	115V		12.25					
	132V		12.25					
	180V		12.25					
	230V		12.25					
Ripple Noise V(p-p)	264V		12.25					
	100V	120 mV	6					
	230V	MAX	26					

INPUT CHARACTERISTICS:

INPUT VOLTAGE	INPUT CURRENT (A)	INPUT POWER (W)	POWER FACTOR	EFFICIENCY (%)
90V	0.48	24.7	0.57	88.3
115V	0.40	24.3	0.53	81.6
130V	0.37	24.3	0.50	81.6
180V	0.31	24.5	0.44	80.9
230V	0.27	25.1	0.40	79.0
264V	0.25	25.8	0.39	76.8

OUTPUT POWER PROTECTION:

INPUT	90V	115V	132V	180V	230V	264V
RESULT(W)	30.7	33.7	34.8	34.7	32.4	30.5

OVER CURRENT PROTECTION:

INPUT	90V	115V	132V	180V	230V	264V
RESULT(A)	3.4	3.6	3.7	3.7	3.6	3.4

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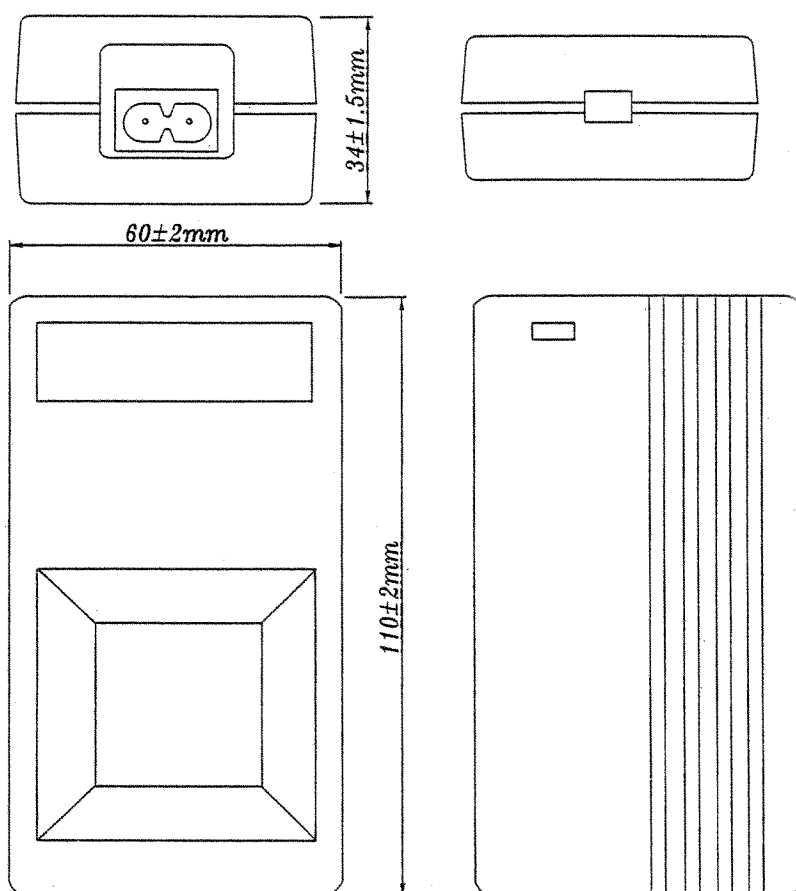
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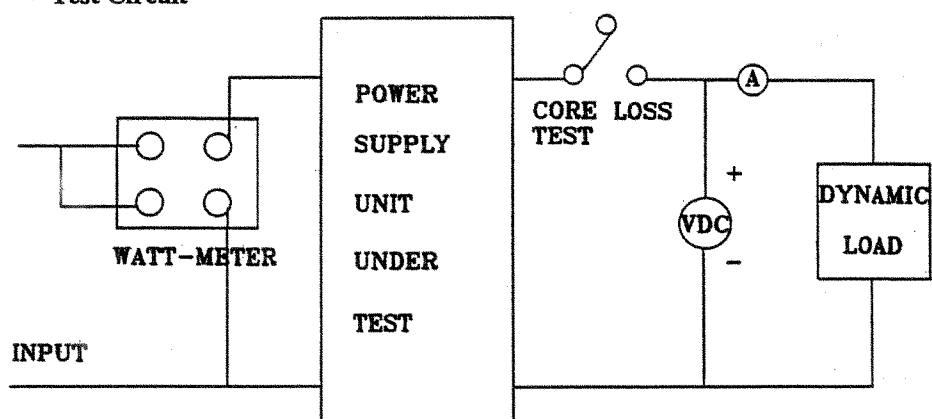
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Test Circuit



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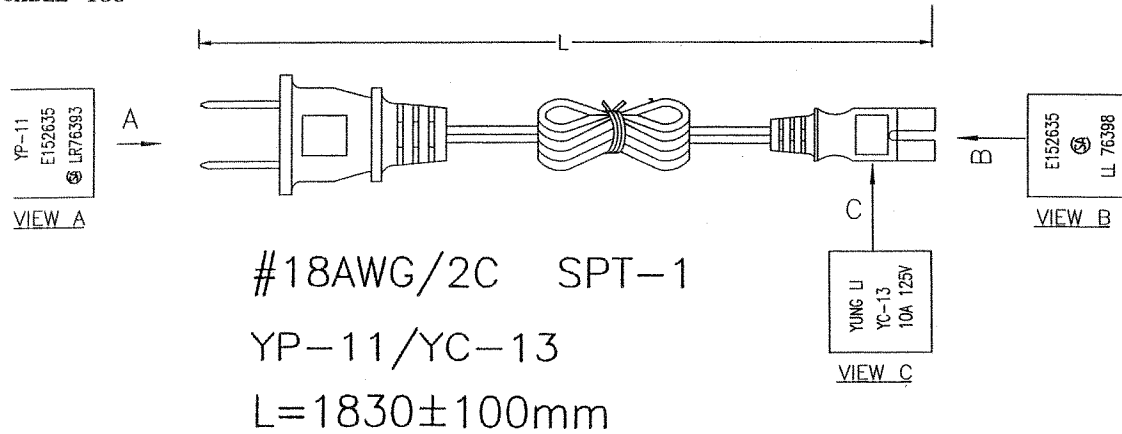
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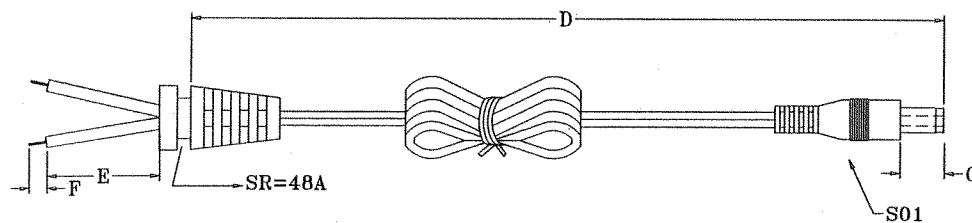
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CABLE-135



CABLE-206



AWG	A	B	C	D	E	F	DATE	SING
20/2C	5.5±0.1mm	2.1±0.1mm	9.5±0.5mm	1830mm/+200/-0	30±5mm	10±5mm		