



All information contained herein applies only to the above listed part number. Other versions of this part number with electrical or mechanical variations are available. Contact CUI Inc. for further assistance. 9615 SW Allen Blvd., Ste. 103, Beaverton OR 97005
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1.0 General Description

Model DTS090220UDC-P5-SZ is a universal type switch-mode power supply, operating at input voltage 90VAC to 264VAC and output voltage of 9VDC with 2.2A DC load.

2.0 Electric Characteristics

2.1 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	100V Input	30A Max
			240V Input	60A Max
6.	Input Power	100V-240V	65VA Max	
7.	Efficiency	100V-240V	65% 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	2.2A Load
		*Output Regulation	AC90V-264V
2.	Load Current	*Rated Current	100V-240V
		*Min current	100V-240V
		*Max Current	100V-240V
3.	Ripple Noise	100V-240V	100mV (p-p) Max.
4.	Over Voltage protection	Over 11.4-12.6VDC	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 2.2ADC

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

2.6 Humidity Test:

40°C ± 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

4.0 Meet EMI Standard

Design to meet FCC Class B & CE, VCCI II

5.0 Mechanical Specification

5.1 AC Plug: IEC320/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

SPEC NO:

PART NO: DTS090220UDC-P5-SZ



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PAGE NO: 4 of 6

UNIT: mm

DATE: 08/24/00

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TEST CONDITION	I/P	SPEC.	1	2	3	4	5	6
LINE REGULATION AT LOAD 2.2 A OUTPUT VOLTAGE	90V	9VDC ± 5%	8.86					
	115V		8.86					
	132V		8.86					
	180V		8.86					
	230V		8.86					
Ripple Noise V (p-p)	100V	100mV	80					
	230V	Max.	35					

TEST CONDITION	I/P	SPEC.	1	2	3	4	5	6
LINE REGULATION AT LOAD 0A OUTPUT VOLTAGE	90V	9VDC ± 5%	9.20					
	115V		9.20					
	132V		9.20					
	180V		9.20					
	230V		9.20					
Ripple Noise V (p-p)	100V	100 mV	4					
	230V	Max.	2					

INPUT CHARACTERISTICS:						
INPUT VOLTAGE	INPUT CURRENT (A)	INPUT POWER (W)	POWER FACTOR	EFFICIENCY (%)		
90V	0.49	25.3	0.57	77.7		
115V	0.41	24.9	0.53	78.1		
132V	0.37	24.8	0.51	78.4		
180V	0.31	24.8	0.44	78.4		
230V	0.27	24.6	0.41	76.7		
264V	0.24	25.7	0.39	75.0		
OUTPUT POWER PROTECTION:						
INPUT	90V	115V	132V	180V	230V	264V
RESULT (W)	25.6	28.8	28.8	25.7	24.2	23.7
OVER CURRENT PROTECTION:						
INPUT	90V	115V	132V	180V	230V	264V
RESULT (A)	3.8	4.0	4.1	4.0	3.7	3.6

SPEC NO:



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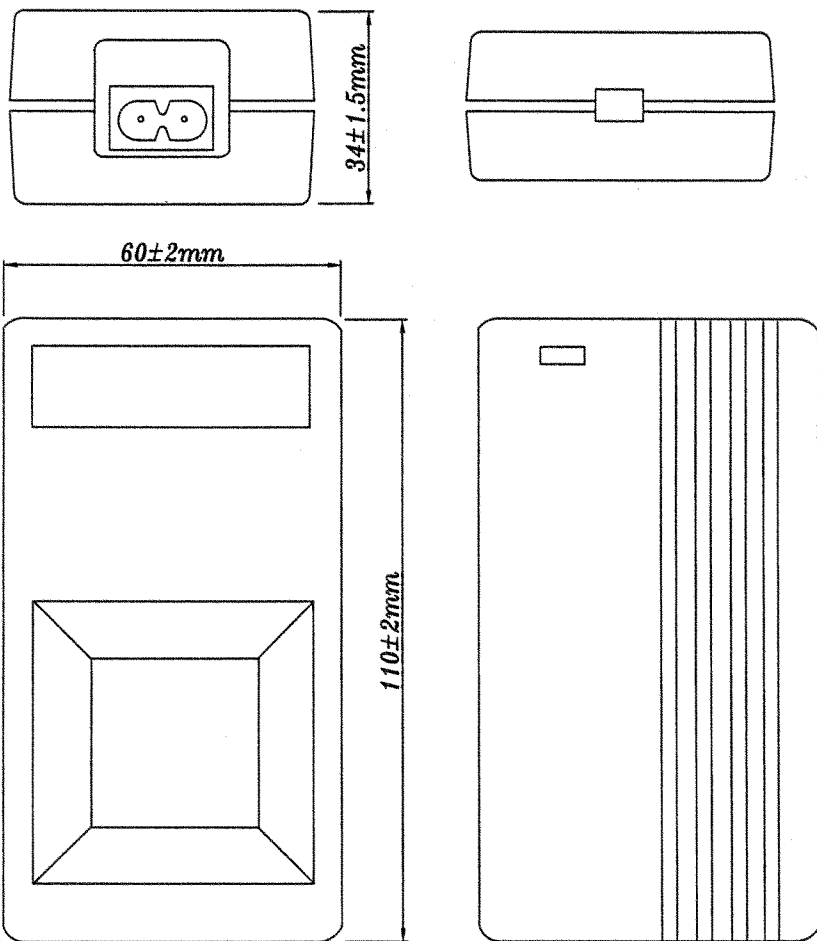
PAGE NO: 5 of 6

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Test Circuit

