



# ■ Features :

- Universal AC input / Full range
- Built-in active PFC function, PF>0.95
- Protections: Short circuit / Overload / Over voltage / Over temperature
- \* Forced air cooling by built-in DC Fan
- Built-in fan speed control
- Fixed switching frequency at 100KHz
- 3 years warranty





# **SPECIFICATION** CD 220 2 2 CD 220 5 CD 220 7 5 CD 220 42 CD 220 42 5 CD 220 45 CD 220 24 CD 220 27

MODEL		SP-320-3.3	SP-320-5	SP-320-7.5	SP-320-12	SP-320-13.5	SP-320-15	SP-320-24	SP-320-27	SP-320-36	SP-320-48	
OUTPUT	DC VOLTAGE		3.3V	5V	7.5V	12V	13.5V	15V	24V	27V	36V	48V
	RATED CURRENT		55A	55A	40A	25A	22A	20A	13A	11.7A	8.8A	6.7A
	CURRENT RANGE		0 ~ 60A	0 ~ 55A	0 ~ 40A	0 ~ 25A	0 ~ 22A	0 ~ 20A	0 ~ 13A	0 ~ 11.7A	0 ~ 8.8A	0 ~ 6.7A
	RATED POWER		181.5W	275W	300W	300W	297W	300W	312W	315.9W	316.8W	321.6W
	RIPPLE & NOISE (max.) Note.2		150mVp-p	150mVp-p	150mVp-p	150mVp-p	150mVp-p	150mVp-p	150mVp-p	200mVp-p	220mVp-p	240mVp-p
	VOLTAGE ADJ. RANGE		3.14 ~ 3.63V	4.5 ~ 5.5V	6~9V	10 ~ 13.2V	12 ~ 15V	13.5 ~ 18V	20 ~ 26.4V	26 ~ 31.5V	32.4 ~ 39.6V	41 ~ 56V
	VOLTAGE TOLERANCE Note.3		±1.0%	±2.0%	±2.0%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%
	LINE REGULATION		±0.5%	±0.5%	±0.5%	±0.3%	±0.3%	±0.3%	±0.2%	±0.2%	±0.2%	±0.2%
	LOAD REGULATION		±1.5%	±1.0%	±1.0%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%
	SETUP, RISE TIME		800ms, 50ms/230VAC 2500ms, 50ms/115VAC at full load									
	HOLD UP TIME (Typ.)		16ms/230VAC 16ms/115VAC at full load									
INPUT	VOLTAGE RANGE Note.5		88 ~ 264VAC 124 ~ 370VDC									
	FREQUENCY RANGE		47 ~ 63Hz									
	POWER FACTOR (Typ.)		PF>0.95/230VAC PF>0.98/115VAC at full load									
	EFFICIENCY (Typ.)		74%	79%	83%	86%	86%	86%	87%	88%	87%	89%
	AC CURRENT (Typ.)	115VAC	2.5A	5A						-		-
		230VAC	1.5A	2.5A								
	INRUSH CURRENT (Typ.)		20A/115VAC 40A/230VAC									
	LEAKAGE CURRENT		<1mA/240VAC									
PROTECTION	OVERLOAD		105 ~ 135% rated output power									
			Protection type: Hiccup mode, recovers automatically after fault condition is removed									
	OVER VOLTAGE		3.8 ~ 4.5V	5.75 ~ 6.75V	9.4 ~ 10.9V	13.8 ~ 16.2V	15.5 ~ 18.2V	18 ~ 21V	27.6 ~ 32.4V	33.7 ~ 39.2V	45 ~ 52.5V	57.6 ~ 67.2
			Protection type: Shut down o/p voltage, re-power on to recover									
	OVER TEMPERATURE		Shut down o/p voltage, recovers automatically after temperature goes down									
	WORKING TEMP.		-20 ~ +65 °C (Refer to "Derating Curve")									
ENVIRONMENT	WORKING HUMIDITY		20 ~ 90% RH non-condensing									
	STORAGE TEMP., HUMIDITY		-40 ~ +85°C, 10 ~ 95% RH									
	TEMP. COEFFICIENT		±0.03%/°C (0~50°C)									
	VIBRATION		10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes									
	SAFETY STANDARDS		UL60950-1 approved									
SAFETY &	WITHSTAND VOL	I/P-O/P:3KVAC I/P-FG:2KVAC O/P-FG:0.5KVAC										
EMC (Note 4)	ISOLATION RESISTANCE		I/P-O/P, I/P-FG, O/P-FG:100M Ohms / 500VDC / 25°C/ 70% RH									
	EMC EMISSION		Compliance to EN55032 (CISPR32) Class B, EN61000-3-2,-3									
	EMC IMMUNITY		Compliance to EN61000-4-2,3,4,5,6,8,11, EN55024, light industry level, criteria A									
OTHERS	MTBF		207K hrs min. MIL-HDBK-217F (25°C)									
	DIMENSION		215*115*50	mm (L*W*H)								
	PACKING		1.1Kg; 12pc	s/14Kg/0.9C	UFT							
NOTE	1. All parameters											

- 2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1 uf & 47uf parallel capacitor.
- 3. Tolerance : includes set up tolerance, line regulation and load regulation.

  4. The power supply is considered a component which will be installed into a final equipment. All the EMC tests are been executed by mounting the unit on a 360mm\*360mm metal plate with 1mm of thickness. The final equipment must be re-confirmed that it still meets EMC directives. For guidance on how to perform these EMC tests, please refer to "EMI testing of component power supplies." (as available on http://www.meanwell.com)
- 5. Derating may be needed under low input voltages. Please check the derating curve for more details.
- ※ Product Liability Disclaimer: For detailed information, please refer to https://www.meanwell.com/serviceDisclaimer.aspx



