



Features :

- Universal AC input / Full range (up to 295VAC)
- Protections: Short circuit / Overload / Over voltage / Over temperature
- Output voltage and constant current level adjustable
- Built-in active PFC function
- IP66 design for indoor or outdoor installations
- Cooling by free air convection
- 100% full load burn-in test
- High reliability
- Suitable for LED lighting and moving sign applications
- Compliance to worldwide safety regulations for lighting
- Suitable for dry / damp / wet locations
- 3 years warranty

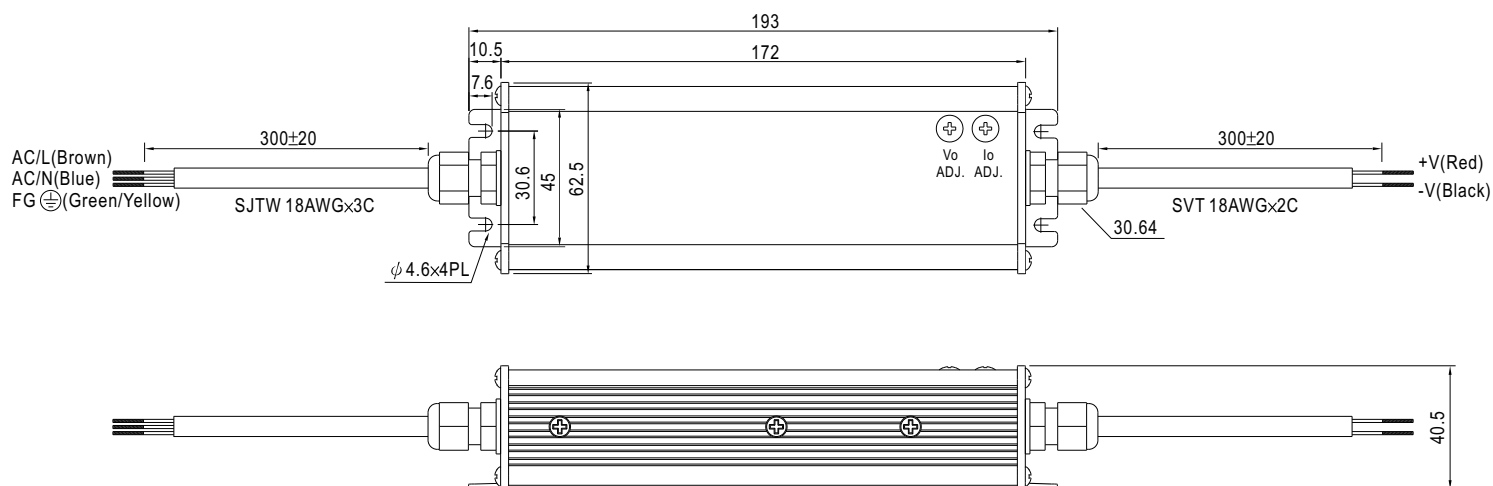


SPECIFICATION

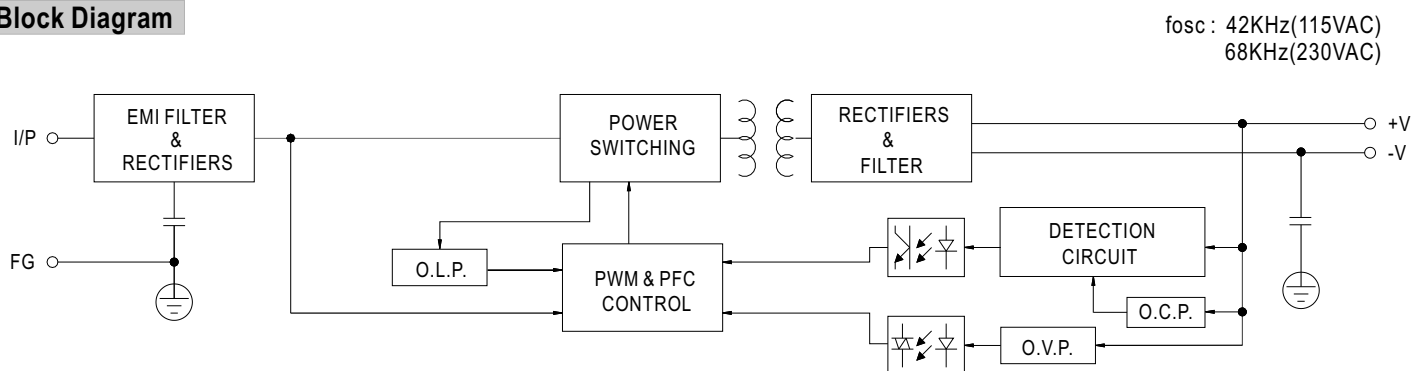
MODEL		CEN-100-20	CEN-100-24	CEN-100-30	CEN-100-36	CEN-100-42	CEN-100-48	CEN-100-54
OUTPUT	DC VOLTAGE	20V	24V	30V	36V	42V	48V	54V
	CONSTANT CURRENT OPERATION VOLTAGE Note.5	13 ~ 20V	15.6 ~ 24V	19.5 ~ 30V	23.4 ~ 36V	27.3 ~ 42V	31.2 ~ 48V	35.1 ~ 54V
	RATED CURRENT	4.8A	4A	3.2A	2.65A	2.28A	2A	1.77A
	CURRENT RANGE	0 ~ 4.8A	0 ~ 4A	0 ~ 3.2A	0 ~ 2.65A	0 ~ 2.28A	0 ~ 2A	0 ~ 1.77A
	RATED POWER	96W	96W	96W	95.4W	95.76W	96W	95.58W
	RIPPLE & NOISE (max.) Note.2	2.0Vp-p	2.7Vp-p	3Vp-p	3.6Vp-p	4Vp-p	4.6Vp-p	5Vp-p
	VOLTAGE ADJ. RANGE (SVR1)	17 ~ 22V	22 ~ 27V	27 ~ 33V	33 ~ 40V	37 ~ 46V	43 ~ 53V	49 ~ 58V
	CURRENT ADJ. RANGE (SVR2)	3.12 ~ 4.8A	2.6 ~ 4A	2.08 ~ 3.2A	1.72 ~ 2.65A	1.48 ~ 2.28A	1.3 ~ 2A	1.15 ~ 1.77A
	VOLTAGE TOLERANCE Note.3	±10%						
	LINE REGULATION	±3.0%						
	LOAD REGULATION	±5.0%						
	SETUP TIME	3000ms / 230VAC 5000ms / 115VAC at full load						
INPUT	VOLTAGE RANGE Note.4	90 ~ 295VAC 127 ~ 417VDC						
	FREQUENCY RANGE	47 ~ 63Hz						
	POWER FACTOR (Typ.)	PF ≥ 0.9 at 65 ~ 100% load, 115VAC / 230VAC ; PF > 0.97 / 115VAC PF > 0.95 / 230VAC at full load						
	EFFICIENCY (Typ.)	88%	89%	90%	90%	90%	91%	91%
	AC CURRENT (Typ.)	1.4A/115VAC 0.7A/230VAC						
	INRUSH CURRENT (Typ.)	60A/230VAC						
	LEAKAGE CURRENT	<0.75mA / 240VAC						
PROTECTION	OVER CURRENT	95 ~ 110% Protection type : Constant current limiting, recovers automatically after fault condition is removed						
	SHORT CIRCUIT	Hiccup mode, recovers automatically after fault condition is removed						
	OVER VOLTAGE	22.8 ~ 26V	28 ~ 32V	34 ~ 38V	41 ~ 46V	47 ~ 52V	54 ~ 60V	59 ~ 65V
	OVER TEMPERATURE	100°C ±10°C (RTH1)						
		Protection type : Shut down o/p voltage, re-power on to recover						
ENVIRONMENT	WORKING TEMP.	-30 ~ +70°C (Refer to output load derating curve)						
	WORKING HUMIDITY	20 ~ 95% RH non-condensing						
	STORAGE TEMP., HUMIDITY	-40 ~ +80°C, 10 ~ 95% RH						
	TEMP. COEFFICIENT	±0.03%/°C (0 ~ 50°C)						
	VIBRATION	10 ~ 500Hz, 5G 12min./1cycle, period for 72min. each along X, Y, Z axes						
SAFETY & EMC	SAFETY STANDARDS	UL8750, TUV EN61347-1, EN61347-2-13, IP66 approved						
	WITHSTAND VOLTAGE	I/P-O/P:3.75KVAC I/P-FG:1.88KVAC O/P-FG:0.5KVAC						
	ISOLATION RESISTANCE	I/P-O/P, I/P-FG, O/P-FG: >100M Ohms / 500VDC / 25°C / 70% RH						
	EMI CONDUCTION & RADIATION	Compliance to EN55015						
	HARMONIC CURRENT	Compliance to EN61000-3-2 Class C (≥65% load) ; EN61000-3-3						
	EMS IMMUNITY	Compliance to EN61000-4-2,3,4,5,6,8,11; ENV50204, EN55024, EN61547, light industry level (surge 4KV), criteria A						
	MTBF	519.5Khrs min. MIL-HDBK-217F (25°C)						
OTHERS	DIMENSION	193*62.5*40.5mm (L*W*H)						
	PACKING	0.6Kg; 24pcs/15.4Kg/1.11CUFT						
NOTE		1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature. 2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor. Direct connecting to LEDs is not suggested for models with "RIPPLE & NOISE" >±10% and using additional drivers is highly recommended. 3. Tolerance : includes set up tolerance, line regulation and load regulation. 4. Derating may be needed under low input voltage. Please check the static characteristics for more details. 5. Constant current operation region is within 65% ~100% rated output voltage. This is the suitable operation region for LED related applications, but please reconfirm special electrical requirements for some specific system design. 6. The power supply is considered as a component that will be operated in combination with final equipment. Since EMC performance will be affected by the complete installation, the final equipment manufacturers must re-qualify EMC Directive on the complete installation again.						

Mechanical Specification

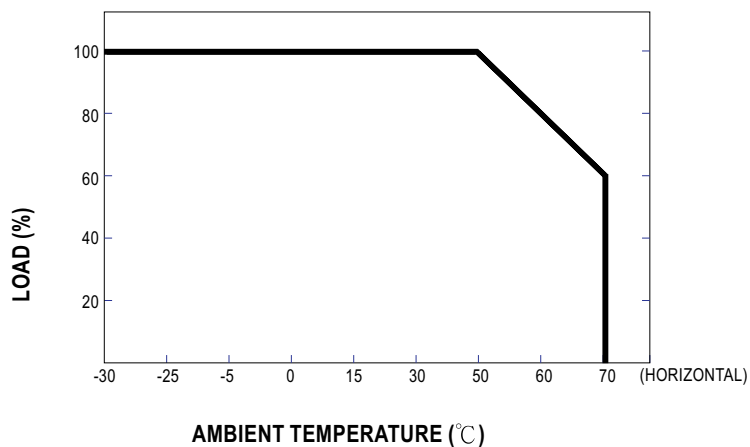
Case No. 993A Unit:mm



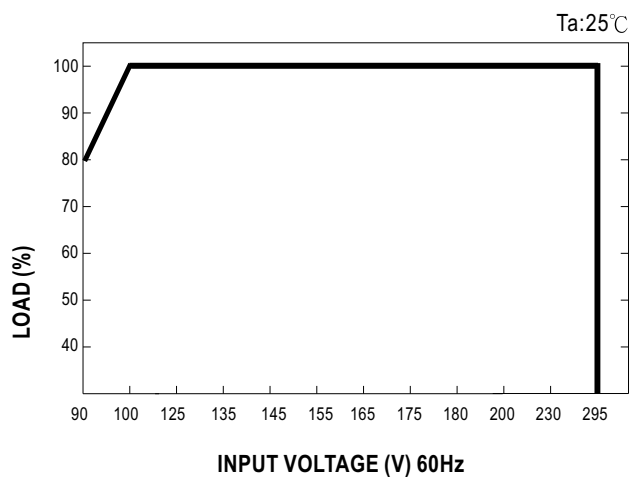
Block Diagram



Derating Curve



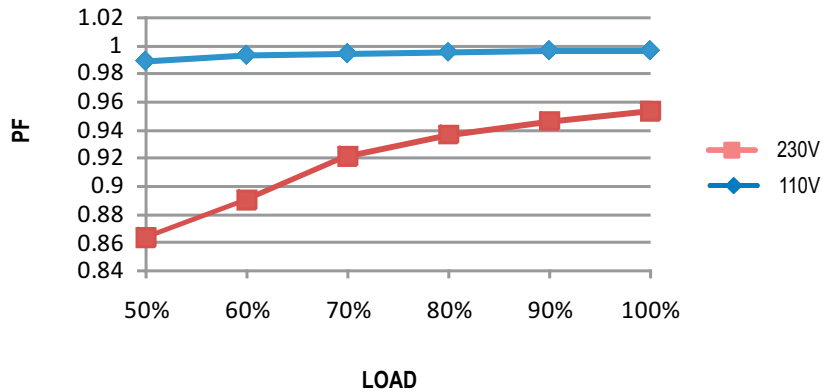
Static Characteristics



Power Factor Characteristic

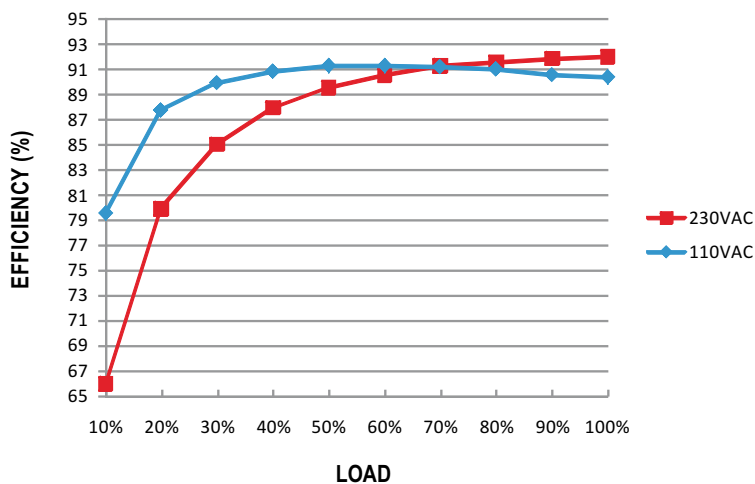
Power factor will be higher than 0.9 when output loading is 65% or higher.

Constant Current Mode



EFFICIENCY vs LOAD (48V Model)

CEN-100 series possess superior working efficiency that up to 91% can be reached in field applications.

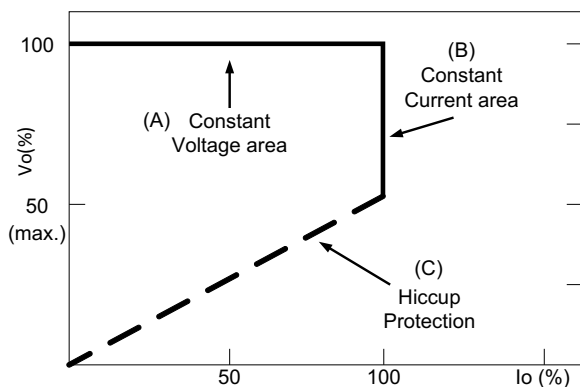


DRIVING METHODS OF LED MODULE

There are two major kinds of LED drive method "direct drive" and "with LED driver".

A typical LED power supply may either work in "constant voltage mode (CV) or constant current mode (CC)" to drive the LEDs.

Mean Well's LED power supply with CV+ CC characteristic can be operated at both CV mode [with LED driver, at area (A)] and CC mode [direct drive, at area (B)].



Typical LED power supply I-V curve



Test Report: CEN-100-30

100W Single Output LED Power Supply

■ DESIGN VERIFY TEST

Output Function Test

Input Function Test

Protection Function Test

Other Test

Component Stress Test

■ SAFETY & E.M.C. TEST

Safety Test

E.M.C. Test

■ RELIABILITY TEST

DESIGN VERIFY TEST

OUTPUT FUNCTION TEST

NO	TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT	VERDICT
1	RIPPLE & NOISE	V1: 3 Vp-p (Max)	I/P: 230 VAC O/P:FULL LOAD Ta:25°C	V1: 1.27 Vp-p (Max)	P
2	OUTPUT VOLTAGE ADJUST RANGE	CH1: 27 V~33 V	I/P: 230 VAC I/P:115VAC O/P:MIN LOAD Ta:25°C	26.01V~ 34.47 V /230VAC 26.01V~34.46 V/115VAC	P
3	CURRENT ADJ RANGE	2.4 A~3.2 A	I/P: 230 VAC O/P: CV=Vo-2V Ta:25°C	2.254 A~ 3.587 A	P
4	CONSTANT CURRENT REGION	18V~30V	I/P: 230 VAC O/P:CV MODE Ta:25°C	O/P=18V: 3.275 A O/P=29V: 3.274 A	P
5	OUTPUT VOLTAGE TOLERANCE	V1: 10 % ~ -10 % (Max)	I/P: 100 VAC /295VAC O/P:FULL/ 0 % LOAD Ta:25°C	V1: 1 % ~ -1 %	P
6	LINE REGULATION	V1: 3 % ~ -3 % (Max)	I/P:100 VAC ~295 VAC O/P:FULL LOAD Ta:25°C	V1: 0.35 %~-0.35 %	P
7	LOAD REGULATION	V1: 5 % ~ -5 % (Max)	I/P: 230 VAC O/P:FULL ~MIN LOAD Ta:25°C	V1: 0.6 %~-0.6 %	P
8	SET UP TIME	230VAC/3000 ms (Max) 115VAC/ 5000 ms (Max)	I/P: 230 VAC I/P: 115 VAC O/P:FULL LOAD Ta:25°C	230VAC/ 1101 ms 115 VAC/ 2200 ms	P
9	OVER/UNDERSHOOT TEST	< ±10%	I/P: 230 VAC O/P:FULL LOAD Ta:25°C	TEST:< 10 %	P

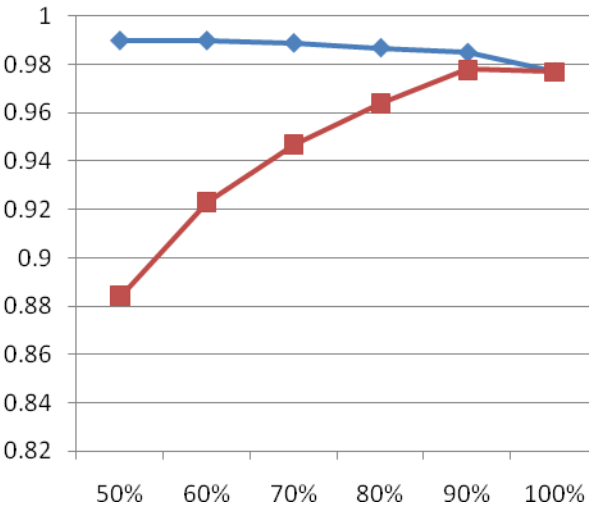
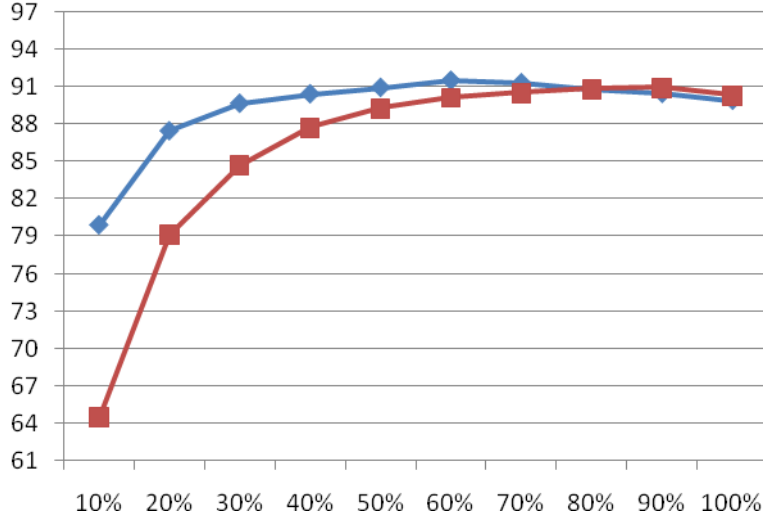
INPUT FUNCTION TEST

NO	TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT	VERDICT
1	INPUT VOLTAGE RANGE	90VAC~295 VAC	I/P:TESTING O/P:FULL LOAD Ta:25°C	62V~264V	P
			I/P: (1)LOW-LINE=3V=87 V (2)HIGH-LINE=305 V O/P:FULL/MIN LOAD ON: 30 Sec . OFF: 30 Sec 10MIN (AC POWER ON/OFF NO DAMAGE)	TEST: OK	
2	INPUT FREQUENCY RANGE	47HZ ~63 HZ NO DAMAGE OSC	I/P: 100 VAC ~295AC O/P:FULL~MIN LOAD Ta:25°C	OK	P
3	POWER FACTOR	0.95/ 230 VAC FULL LOAD 0.97/ 115 VAC FULL LOAD 0.9/ 230 VAC 60% LOAD 0.9/ 115 VAC 60%LOAD	I/P: 230 VAC I/P: 115 VAC O/P:FULL LOAD / 60% LOAD Ta:25°C	PF=0.980 /230V/100%LOAD PF=0.981 /115V/100%LOAD PF=0.931 /230V/60%LOAD PF=0.984 /115V/60%LOAD	P
4	EFFICIENCY	90 % (TYP)	I/P: 230 VAC O/P:FULL LOAD Ta:25°C	90.30 %	P
5	INPUT CURRENT	230 V/ 0.7 A (Typ) 115 V/ 1.4 A (Typ)	I/P: 230 VAC I/P: 115 VAC O/P:FULL LOAD Ta:25°C	I = 0.46 A/ 230VAC I = 0.93 A/ 115VAC	P
6	INRUSH CURRENT	230 V/ 60A (Typ) COLD START	I/P: 230 VAC O/P:FULL LOAD Ta:25°C	I = 39 A/ 230VAC	P

PROTECTION FUNCTION TEST

NO	TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT	VERDICT
1	OVER LOAD PROTECTION	95 %~110 %	I/P: 230 VAC I/P: 115 VAC O/P:TESTING Ta:25°C	102 %/ 230VAC 102 %//115VAC Constant current limiting,	P
2	OVER VOLTAGE PROTECTION	V1: 34V~ 38V	I/P: 230 VAC I/P: 115 VAC O/P:MIN LOAD Ta:25°C	36.4 V/ 230VAC 36.4V/ 115VAC Shunt down Re- power ON	P
3	OVER TEMPERATURE PROTECTION	SPEC: RTH1: 85±10°C O.T.P. NO DAMAGE	I/P: 230 VAC O/P:FULL LOAD	O.T.P. Active Shut down o/p volotage , re-power on to recover	P
4	SHORT PROTECTION	SHORT EVERY OUTPUT 1 HOUR NO DAMAGE	I/P: 295VAC O/P: FULL LOAD Ta:25°C	NO DAMAGE Hiccup Mode	P

OTHER TEST

NO	TEST ITEM	RESULT
1	POWER FACTOR CHARACTERISTIC CONSTANT CURRENT MODE	CONSTANT CURRENT MODE I/P:230V/110V O/P:100/90/80/70/60/50% LOAD Ta:25°C  BLUE WIRE=110V ; RED WIRE=230V
2	EFFICIENCY VS LOAD	I/P:230V/110V O/P:100/90/80/70/60/50/40/30/20/10% LOAD Ta:25°C  BLUE WIRE=110V ; RED WIRE=230V

COMPONENT STRESS TEST

NO	TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT	VERDICT
1	Power Transistor (D to S) or (C to E) Peak Voltage	Q1 Rated TK13A60D 13A/600V	I/P : High-Line +3V = 298 V O/P : (1)Full Load Turn on (2) Output Short (3)Full load continue Ta : 25°C	(1) 576 V (2) 480 V (3) 566 V	P
2	Diode Peak Voltage	D100 Rated STTH2003CT 20A/300V	I/P : High-Line +3V = 298 V O/P : (1)Full Load Turn on (2)Output Short (3)Full load continue Ta : 25°C	(1) 191 V (2) 158 V (3) 190 V	P
3	Control IC Voltage Test	U 1 Rated TDA4863G 10.5V~21V	I/P : High-Line +3V = 298 V O/P : (1)Full Load Turn on /Off (2) Min load Turn on /Off (3)Full Load /Min load Change Ta : 25°C	(1) 14.73 V (2) 14.57 V (3) 14.58 V	P

SAFETY & EMC TEST

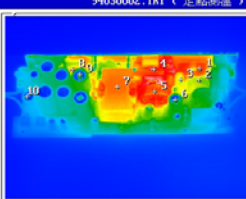
SAFETY TEST

NO	TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT	VERDICT
1	WITHSTAND VOLTAGE	IEC60950-1 I/P-O/P: 3.75KVAC/min<10mA I/P-FG:1.88 KVAC/min<10mA O/P-FG:0.5KVAC/min<10mA	I/P-O/P: 4 KVAC/min I/P-FG: 2.256KVAC/min O/P-FG: 0.6 KVAC/min Ta:25°C	I/P-O/P: 4.98 mA I/P-FG: 3.83 mA O/P-FG: 4.62 mA NO DAMAGE	P
2	ISOLATION RESISTANCE	I/P-O/P:500VDC>100MΩ I/P-FG: 500VDC>100MΩ O/P-FG:500VDC>100MΩ	I/P-O/P: 500 VDC I/P-FG: 500 VDC O/P-FG: 500 VDC Ta:25°C	I/P-O/P: 26 GΩ I/P-FG: 21.3 GΩ O/P-FG: 30 GΩ NO DAMAGE	P
3	GROUNDING CONTINUITY	IEC60950-1 FG(PE) TO CHASSIS OR TRACE < 100 mΩ	40A / 2min Ta:25°C	38 mΩ	P
4	LEAKAGE CURRENT	IEC60950-1 < 0.75 mA / 240VAC	I/P: 264 VAC O/P:Min LOAD Ta:25°C	L-FG: 0.41 mA N-FG: 0.4 mA	P

E.M.C TEST

NO	TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT	VERDICT
1	HARMONIC	EN61000-3-2 CLASS C	I/P: 230VAC/50HZ LOAD:LED/ELECTRONIC LOAD O/P:100%/75%/60% LOAD Ta:25°C	PASS	P
2	CONDUCTION	EN55015 CLASS B	I/P: 230 VAC (50HZ) O/P:FULL/50% LOAD Ta:25°C	PASS Test by certified Lab	P
3	RADIATION	EN55015 CLASS B	I/P: 230 VAC (50HZ) O/P:FULL LOAD Ta:25°C	PASS Test by certified Lab	P
4	E.S.D	EN61000-4-2 INDUSTRY AIR:8KV / Contact:4KV	I/P: 230 VAC/50HZ O/P:FULL LOAD Ta:25°C	CRITERIA A	P
5	E.F.T	EN61000-4-4 INDUSTRY INPUT: 2KV	I/P: 230 VAC/50HZ O/P:FULL LOAD Ta:25°C	CRITERIA A	P
6	SURGE	IEC61000-4-5 INDUSTRY L-N :2KV L,N-PE:4KV	I/P: 230 VAC/50HZ O/P:FULL LOAD Ta:25°C	CRITERIA A	P

Reliability Test

NO	TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT	VERDICT																																																														
1.	THERMO TRACER TEST Before potted (ROOM AMBIENT)	MODEL:CEN-100-30 94030002.1R1 (定點測溫) 91 83 75 67 59 52 44 36 28 20 12  熱源依調整 座 標: 151, 4 自動調整 原算料溫度: 25.1°C (20.94) 放射率: 0.94 高溫 90.8°C 補正後溫度: 25.1°C (20.94) 低溫 12.4°C 環境 溫度: 25.4°C 最高溫 (H): 86.3°C 座標: 200, 87 最低溫 (L): 24.5°C 座標: 8, 8 全域放射率: 0.940 日期: 2009/ 4/ 3 時間: 12: 6:19 p 1: 70.3°C 255x, 69y p 2: 55.0°C 254x, 83y p 3: 58.2°C 230x, 82y p 4: 76.6°C 195x, 69y p 5: 70.5°C 196x, 90y p 6: 47.0°C 223x, 109y p 7: 67.7°C 147x, 92y p 8: 69.1°C 88x, 69y p 9: 48.0°C 98x, 76y p 10: 34.7°C 28x, 105y p11: p12: p13: p14: p15: <table><thead><tr><th></th><th>Position</th><th>Temp</th><th>VERDICT</th></tr></thead><tbody><tr><td>P1</td><td>BD1</td><td>70.3°C</td><td>PASS</td></tr><tr><td>P2</td><td>LF2</td><td>55°C</td><td>PASS</td></tr><tr><td>P3</td><td>C7</td><td>58.2°C</td><td>PASS</td></tr><tr><td>P4</td><td>Q1</td><td>76.6°C</td><td>PASS</td></tr><tr><td>P5</td><td>L1</td><td>70.5°C</td><td>PASS</td></tr><tr><td>P6</td><td>C5</td><td>47°C</td><td>PASS</td></tr><tr><td>P7</td><td>T1</td><td>67.7°C</td><td>PASS</td></tr><tr><td>P8</td><td>D100</td><td>69.1°C</td><td>PASS</td></tr><tr><td>P9</td><td>C105</td><td>48°C</td><td>PASS</td></tr><tr><td>P10</td><td>C104</td><td>34.7°C</td><td>PASS</td></tr><tr><td>P11</td><td></td><td></td><td></td></tr><tr><td>P12</td><td></td><td></td><td></td></tr><tr><td>P13</td><td></td><td></td><td></td></tr><tr><td>P14</td><td></td><td></td><td></td></tr><tr><td>P15</td><td></td><td></td><td></td></tr></tbody></table>		Position	Temp	VERDICT	P1	BD1	70.3°C	PASS	P2	LF2	55°C	PASS	P3	C7	58.2°C	PASS	P4	Q1	76.6°C	PASS	P5	L1	70.5°C	PASS	P6	C5	47°C	PASS	P7	T1	67.7°C	PASS	P8	D100	69.1°C	PASS	P9	C105	48°C	PASS	P10	C104	34.7°C	PASS	P11				P12				P13				P14				P15				P
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P15																																																																			

2	TEMPERATURE RISE TEST	MODEL : CEN-100-24 1. ROOM AMBIENT BURN-IN : 14 HRS I/P : 230 VAC O/P : CV=23V Ta= 28.3 °C 2. HIGH AMBIENT BURN-IN : 5 HRS I/P : 230 VAC O/P : CV=23V Ta= 55.5 °C			P																																																																																																									
		<table><tr><th>NO</th><th>Position</th><th>P/N</th><th>ROOM AMBIENT Ta= 28.3 °C</th><th>HIGH AMBIENT Ta= 55.5 °C</th></tr><tr><td>1</td><td>LF1</td><td>TR368-R5</td><td>55.7°C</td><td>78.7°C</td></tr><tr><td>2</td><td>BD1</td><td>6A/800V SILICON US6KB80R-7000</td><td>57.6°C</td><td>81.7°C</td></tr><tr><td>3</td><td>L1</td><td>TR549-R1</td><td>69.6°C</td><td>91.3°C</td></tr><tr><td>4</td><td>C7</td><td>684/400V 10% P=10 MM 6A2L684G</td><td>63.5°C</td><td>86.8°C</td></tr><tr><td>5</td><td>C5</td><td>10u/450V 105°C 10*20 PX</td><td>63.2°C</td><td>85.3°C</td></tr><tr><td>6</td><td>D2</td><td>3A/600V GP30J DO-201</td><td>85.3°C</td><td>108.9°C</td></tr><tr><td>7</td><td>T1</td><td>TF1981 PQ-3220</td><td>74.5°C</td><td>94.4°C</td></tr><tr><td>8</td><td>RTH1</td><td>NTC 220KΩ 3Φ TTC3A224F4371EY 1%</td><td>65.2°C</td><td>87.3°C</td></tr><tr><td>9</td><td>C47</td><td>47u/50V L5Kh 6.3*11 YXF</td><td>71.1°C</td><td>92.3°C</td></tr><tr><td>10</td><td>C46</td><td>100u/25V L5Kh 6.3*11 KY</td><td>63.2°C</td><td>85.3°C</td></tr><tr><td>11</td><td>U1</td><td>TDA4863G PG-DSO-8-3</td><td>70.0°C</td><td>92.1°C</td></tr><tr><td>12</td><td>Q1</td><td>TK13A60D 13A/600V TO220</td><td>74.2°C</td><td>98.6°C</td></tr><tr><td>13</td><td>D100</td><td>STTH2003CT 20A/300V TO220</td><td>76.4°C</td><td>98.2°C</td></tr><tr><td>14</td><td>C105</td><td>1000u/35V UL10Kh 12.5*20 ZLH</td><td>68.3°C</td><td>89.3°C</td></tr><tr><td>15</td><td>C107</td><td>1000u/35V UL10Kh 12.5*20 ZLH</td><td>62.5°C</td><td>84.3°C</td></tr><tr><td>16</td><td>C150</td><td>0.47u/50V L5Kh 5*11 KY</td><td>56.7°C</td><td>79.1°C</td></tr><tr><td>17</td><td>LF100</td><td>TR627-R2</td><td>58.4°C</td><td>80.8°C</td></tr><tr><td>18</td><td>C120</td><td>47u/25V L5Kh 5*11 KY</td><td>58.2°C</td><td>80.4°C</td></tr><tr><td>19</td><td>C122</td><td>47u/50V L5Kh 6.3*11 YXF</td><td>60.5°C</td><td>82.2°C</td></tr><tr><td>20</td><td>CASE</td><td>UP CASE</td><td>50.6°C</td><td>74.6°C</td></tr></table>				NO	Position	P/N	ROOM AMBIENT Ta= 28.3 °C	HIGH AMBIENT Ta= 55.5 °C	1	LF1	TR368-R5	55.7°C	78.7°C	2	BD1	6A/800V SILICON US6KB80R-7000	57.6°C	81.7°C	3	L1	TR549-R1	69.6°C	91.3°C	4	C7	684/400V 10% P=10 MM 6A2L684G	63.5°C	86.8°C	5	C5	10u/450V 105°C 10*20 PX	63.2°C	85.3°C	6	D2	3A/600V GP30J DO-201	85.3°C	108.9°C	7	T1	TF1981 PQ-3220	74.5°C	94.4°C	8	RTH1	NTC 220KΩ 3Φ TTC3A224F4371EY 1%	65.2°C	87.3°C	9	C47	47u/50V L5Kh 6.3*11 YXF	71.1°C	92.3°C	10	C46	100u/25V L5Kh 6.3*11 KY	63.2°C	85.3°C	11	U1	TDA4863G PG-DSO-8-3	70.0°C	92.1°C	12	Q1	TK13A60D 13A/600V TO220	74.2°C	98.6°C	13	D100	STTH2003CT 20A/300V TO220	76.4°C	98.2°C	14	C105	1000u/35V UL10Kh 12.5*20 ZLH	68.3°C	89.3°C	15	C107	1000u/35V UL10Kh 12.5*20 ZLH	62.5°C	84.3°C	16	C150	0.47u/50V L5Kh 5*11 KY	56.7°C	79.1°C	17	LF100	TR627-R2	58.4°C	80.8°C	18	C120	47u/25V L5Kh 5*11 KY	58.2°C	80.4°C	19	C122	47u/50V L5Kh 6.3*11 YXF	60.5°C	82.2°C	20	CASE	UP CASE	50.6°C	74.6°C
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3	LOW TEMPERATURE TURN ON TEST	TURN ON AFTER 2 HOUR	I/P : 230 VAC/100VAC O/P : CV=23V Ta= -35 °C	TEST : OK	P																																																																																																									
4	HIGH HUMIDITY HIGH TEMPERATURE HIGH VOLTAGE TURN ON TEST	AFTER 12 HOURS IN CHAMBER ON CONTROL 50 °C NO DAMAGE	I/P : 295 VAC O/P : CV=23V Ta= 50 °C HUMIDITY= 95 %R.H	TEST : OK	P																																																																																																									
5	TEMPERATURE COEFFICIENT	± 0.03 %(0~50°C)	I/P : 230 VAC O/P : FULL LOAD	± 0.002 %(0~50°C)	P																																																																																																									
6	STORAGE TEMPERATURE TEST	1. Thermal shock Temperature : -45°C ~ +90°C 2. Temperature change rate : 25°C / MIN 3. Dwell time low and high temperature : 30 MIN/EACH 4. Total test cycle : 5 CYCLE 5. Input/Output condition : STATIC		OK	P																																																																																																									
7	THERMAL SHOCK TEST	1. Thermal shock Temperature : -35°C ~ +55°C 2. Temperature change rate : 25°C / MIN 3. Dwell time low and high temperature : 30 MIN/EACH 4. Total test cycle : 10 CYCLE 5. Input/Output condition : 230VAC/Full Load AC ON/OFF TEST turn on 58sec ; turn off 2sec		OK	P																																																																																																									

8	VIBRATION TEST	1 Carton & 1 Set (1) Waveform : Sine Wave (2) Frequency : 10~500Hz (3) Sweep Time : 12min/sweep cycle (4) Acceleration : 5G (5) Test Time : 72min in each axis (X.Y.Z) (6) Ta : 25℃	TEST : OK	P
9	CAPACITOR LIFE CYCLE	CEN-100-24:SUPPOSE C105 IS THE MOST CRITICAL COMPONENT (1) I/P : 230VAC O/P : FULL LOAD Ta= 25 ℃ LIFE TIME (2) I/P : 230VAC O/P : FULL LOAD Ta= 50 ℃ LIFE TIME	(1) 195520HRS (2) 53157HRS	P
10	MTBF	MIL-HDBK-217F NOTICES2 PARTS COUNT TOTAL FAILURE RATE : 519.5K HRS		P

DATE	SAMPLE	TEST RESULT	TESTER	APPROVAL
2009/10/8	RD SAMPLE	PASS	SANFORD SU	VINCENT TSENG
2009/12/7	PRODUCT SAMPLE W0911A60	PASS	SANFORD SU	VINCENT TSENG

2003/12/12 A50-F023