



**Features**

- . Input 180V to 264VAC, 50~60Hz or 254V-370VDC
- . Output voltage selectable from 12V to 48Vdc constant voltage
- . Protections: Short Circuit / Overload / Over Voltage Protection
- . 100% full load burn-in test for 2Hrs to make every unit reliable.
- . All using 105°C long life electrolytic capacitors
- . Built-in active PFC function, PF>0.95, high efficiency upto 91%
- . Active current sharing up to 9000W, 5 years warranty

**Safety Standards**

- . IEC62368-1 CB report for worldwide use
- . UL62368-1 + CAN/CSA 62368-1 for USA and Canada
- . EN 62368-1:2014/A11:2017 for European Union
- . AS/NZS 62368.1:2018 for Australia and New Zealand
- . J62368-1 for Japan and GB4943.1 for China market.



**Product Description:**

It is a highly reliable and ultra-thin 3000W switching power supply solution with 180-264Vac and designed strictly according to the international safety standards and built-in PFC function PF>0.95. The entire series supplies different models with output voltages ranging between 12Vdc and 48Vdc that can satisfy the demands for various types of communication devices, digital broadcasting, RF application industrial equipment, laser related machine, test and measurement instruments and so on. This 3000W enclosed type switching power supply utilizes metal housing built-in fan with fan speed control for force air convection cooling to make low temperature rise.

**Technical Specification**

Typ. Model	KSP-3000-12	KSP-3000-15	KSP-3000-24	KSP-3000-36	KSP-3000-48
<b>Output</b>					
Output Voltage	12VDC	15VDC	24VDC	36VDC	48VDC
Rated Current	200A Max.	200A Max.	125A Max.	83A Max.	62.5A Max.
Current Range	0 ~ 200A	0 ~ 200A	0 ~ 125A	0 ~ 83A	0 ~ 62.5A
Output Power	2400W Max.	3000W Max.	3000W Max.	3000W Max.	3000W Max.
Voltage Tolerance	±2%	±2%	±2%	±2%	±2%
Ripple & Noise	200mVp-p	200mVp-p	250mVp-p	300mVp-p	300mVp-p
<b>Input</b>					
Input voltage	180 ~264Vac or 254- 370Vdc				
Input Frequency	50-60Hz (When the input is AC)				
Input Current	20A Max. @ 115Vac 50/60Hz input				
Inrush Current	50A Max. @ 115 or 240Vac 50/60Hz input				
Efficiency (Typ.)	87.5%	88%	90%	90%	91.5%
Leakage Current	≤2mA @ full input range				
<b>Protections</b>					
Over current	100~112% rated output power. Auto-Recovery when the fault is removed				
Short Circuit	No damage. Auto-Recovery when the fault is removed				
Over temperature	Shut down o/p voltage, re-power on to recover				
<b>Environmental</b>					
Operation Temperature	-10°C to +45°C, 20%RH to 90%RH				
Storage Temp, Humidity	-45~ +85°C, 10%RH to 95%RH				
Operation Altitude	≤2000m @ full load and rated operating temperatures				
MTBF	≥50000Hrs @ full load and rated operating temperatures				
<b>Mechanical</b>					
Dimensions (W x L x H)	278.0 x 177.8 x 63.5mm (10.95 x 7.00 x 2.50 inch)				
Unit Weight	4kg±200 grams				
Packing Information	4pcs/ Carton, carton dimensions:47*37*20cm, 17kgs/ Carton				

## TEST REPORT

### OUTPUT FUNCTION TEST

NO	TEST ITEM	SPECIFICATION	TEST CONDIDTION	RESULT	VERDICT
1	RIPPLE & NOISE	200mVp-p (Max)	I/P:230VAC / O/P:FULL LOAD / Ta:25°C	88mVp-p	P
2	VOLTAGE TOLERANCE	-2% ~ +2% (Max)	I/P:100- 230VAC O/P:FULL~MIN. LOAD / Ta:25°C	-0.5% ~ +0.5% of output voltage	P
3	LINE REGULATION	-0.5% ~ +0.5% (Max)	I/P:90VAC ~264VAC O/P:FULL LOAD / Ta:25°C	-0.05% ~ +0.05% of output voltage	P
4	LOAD REGULATION	-0.5% ~ +0.5% (Max)	I/P:230VAC O/P:FULL ~MIN LOAD / Ta:25°C	-0.1% ~ +0.1% of output voltage	P
5	OVER/UNDERSHOOT	<±5%	I/P: 230VAC O/P:FULL LOAD / Ta:25°C	0.6%	P
6	SET UP TIME	1000 mS (Max)	I/P:115VAC O/P:FULL LOAD / Ta:25°C	885 mS	P
7	RISE TIME	80 mS (Max)	I/P: 230VAC O/P:FULL LOAD / Ta:25°C	44 mS	P
8	HOLD UP TIME	10 mS (Min)	I/P: 115VAC O/P:FULL LOAD / Ta:25°C	16 mS	P

### INPUT FUNCTION TEST

NO	TEST ITEM	SPECIFICATION	TEST CONDIDTION	RESULT	VERDICT
1	VOLTAGE RANGE	180VAC~264VAC	I/P:TESTING O/P:FULL LOAD / Ta:25°C	156V~264V	P
2	FREQUENCY RANGE	50HZ - 60HZ (Typ) NO DAMAGE OSC	I/P: 100VAC ~ 240VAC O/P:FULL~MIN LOAD / Ta:25°C	TEST: OK	P
3	EFFICIENCY	87.5% (Typ)	I/P:230VAC O/P:FULL LOAD / Ta:25°C	88.68%	P
4	AVERAGE EFFICIENCY	>85%	I/P:115/230VAC & O/P:25%、50%、75%、100% LOAD & Ta:25°C	86.66% (115VAC) 86.75% (230VAC)	P
5	AC CURRENT	20A (Max)	I/P:100VAC & O/P:FULL LOAD Ta:25°C	18.816A	P
6	INRUSH CURRENT	<60A COLD START	I/P: 230VAC / O/P:FULL LOAD Ta:25°C	44.93A	P
7	LEAKAGE CURRENT	<2.0mA	I/P:240VAC & O/P:Min LOAD Ta:25°C	L-FG:0.91mA N-FG:0.82mA	P

### PROTECTION FUNCTION TEST

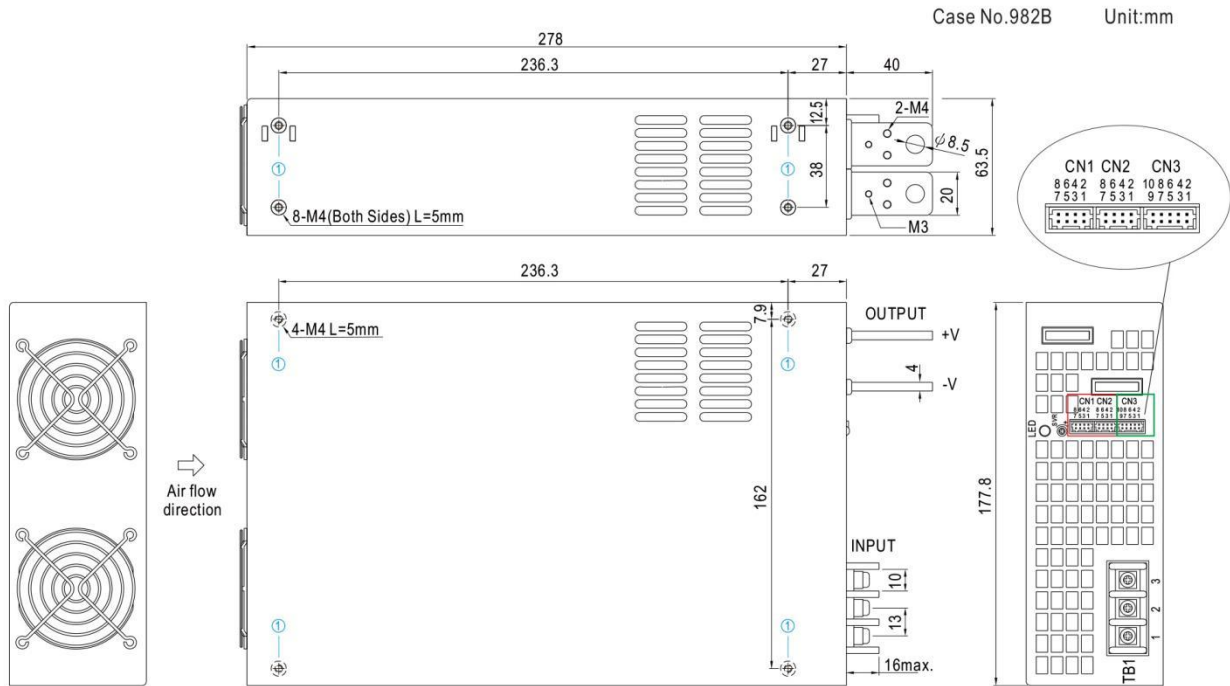
NO	TEST ITEM	SPECIFICATION	TEST CONDIDTION	RESULT	VERDICT
1	OVER LOAD PROTECTION	100 ~ 112% (Typ)	I/P:230VAC & O/P:TESTING Ta:25°C	106.33% HICCUP MODE	P
2	OVER VOLTAGE PROTECTION	120 ~ 140% (Typ)	I/P:230VAC O/P:MIN LOAD & Ta:25°C	Hiccup mode ,recovers automatically after fault condition is removed	P
3	SHORT PROTECTION	SHORT OUTPUT 1 HOUR NO DAMAGE	I/P:264VAC O/P:FULL LOAD & Ta:25°C	NO DAMAGE HICCUP MODE	P

### SAFETY TEST & E.M.C TEST

NO	TEST ITEM	SPECIFICATION	TEST CONDIDTION	RESULT	VERDICT
1	WITHSTAND VOLTAGE	I/P-O/P: 3KVAC/min I/P- FG: 1.5KVAC/min O/P-FG:0.5KVAC/min	I/P-O/P: 3.6 KVAC/min I/P-FG: 1.8 KVAC/min O/P-FG:0.6 KVAC/min Ta:25°C	I/P-O/P: 12.52mA I/P-FG: 11.20mA O/P-FG:8.39mA 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: 9999MΩ I/P-FG: 9999MΩ O/P-FG:9999 MΩ NO DAMAGE	P
3	CONDUCTION	BS EN/EN55032(CISPR32), FCC PART 15 / CISPR22 CAN	I/P: 230 VAC (50HZ) O/P: FULL/50% LOAD Ta: 25°C	PASS Test by certified Lab	P
4	RADIATION	BS EN/EN55032(CISPR32), FCC PART 15 / CISPR22 CAN	I/P: 230 VAC (50HZ) O/P: FULL LOAD Ta: 25°C	PASS Test by certified Lab	P
5	SURGE	BS EN/EN61000-4-5 LIGHT INDUSTRY L-N: 1KV	I/P: 230 VAC/50HZ O/P: FULL LOAD / Ta: 25°C	CRITERIA A	P
6	E.S.D	BS EN/EN61000-4-2 LIGHT INDUSTRY AIR: 8KV / Contact: 4KV	I/P: 230 VAC/50HZ O/P: FULL LOAD Ta: 25°C	CRITERIA A	P

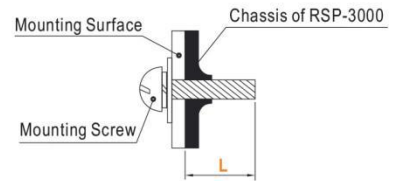
TEST RESULT	TESTER	REVIEW	APPROVAL
<b>PASS</b>	<b>ZHU LI</b>	<b>WANG LW</b>	<b>ZHANG DL</b>

**Mechanical Specification**

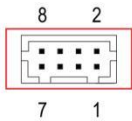


※ Mounting Instruction

Hole No.	Recommended Screw Size	MAX. Penetration Depth L	Recommended mounting torque
①	M4	5mm	7~10Kgf-cm



※ Control Pin No. Assignment (CN1,CN2) : HRS DF11-8DP-2DS or equivalent



Mating Housing	HRS DF11-8DS or equivalent
Terminal	HRS DF11-**SC or equivalent

◎ CN1 and CN2 are connected internally.

Pin No.	Function	Description
1	RCG	Remote ON-OFF Ground
2	RC	Remote ON-OFF
3	PV	Connection for output voltage programming
4	PS	Reference Voltage Terminal
5,7	-S	Negative sensing for remote sense
6	CS(Current Share)	Current Share
8	+S	Positive sensing for remote sense