



Test Report: SHP-30K-400CP

30KW High Efficiency Digital Power Supply

■ DESIGN VERIFY TEST

Output Function Test

Input Function Test

Protection Function Test

Control Function Test

Component Stress Test

■ SAFETY & E.M.C. TEST

Safety Test

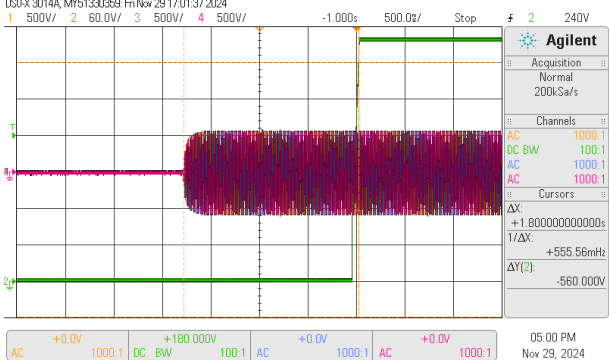
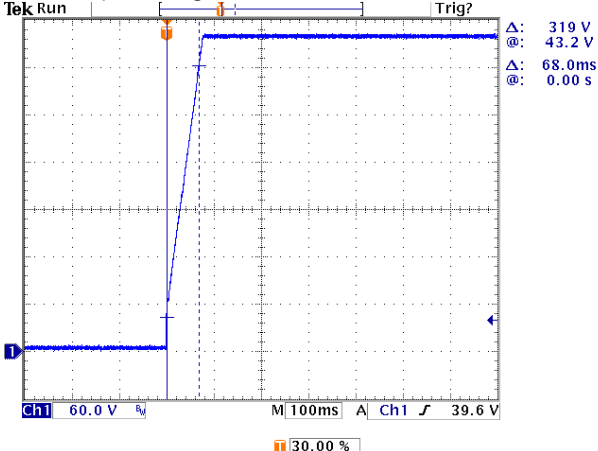
E.M.C. Test

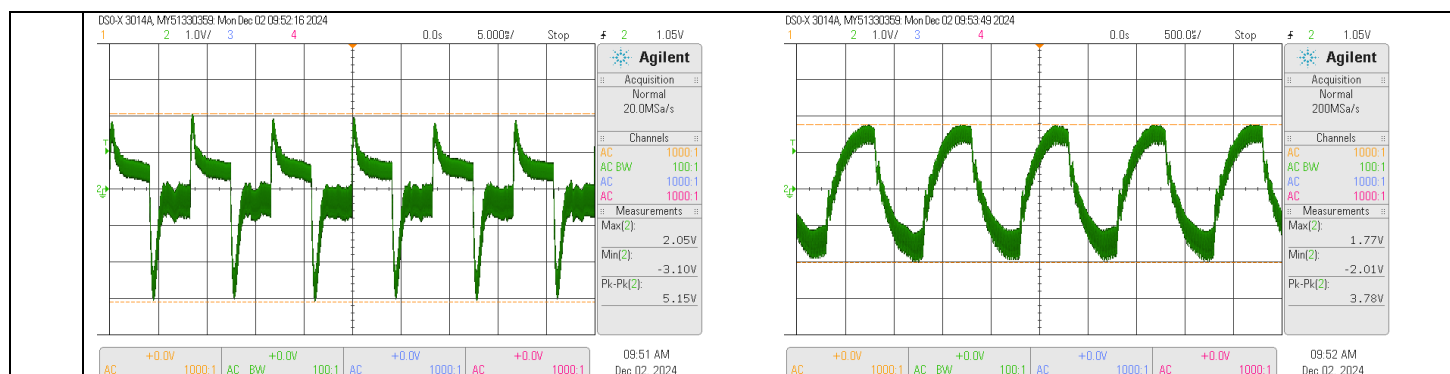
■ RELIABILITY TEST

ENVIRONMENT TEST

DESIGN VERIFY TEST

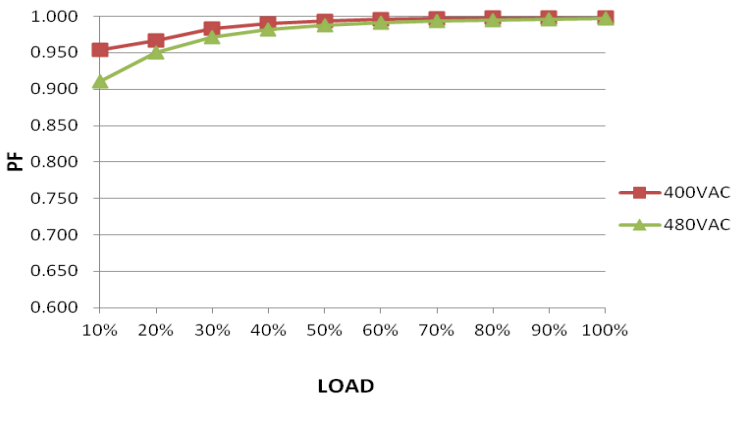
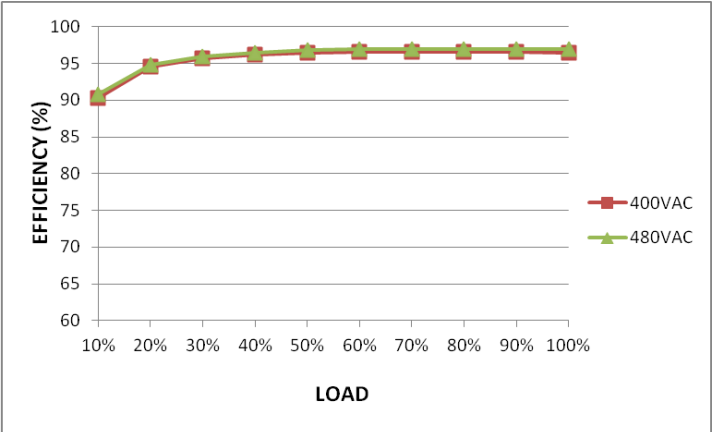
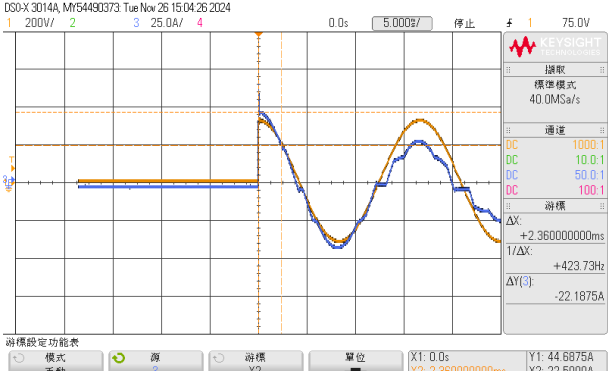
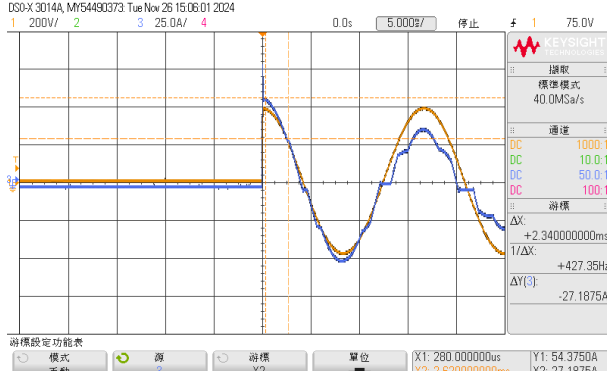
OUTPUT FUNCTION TEST

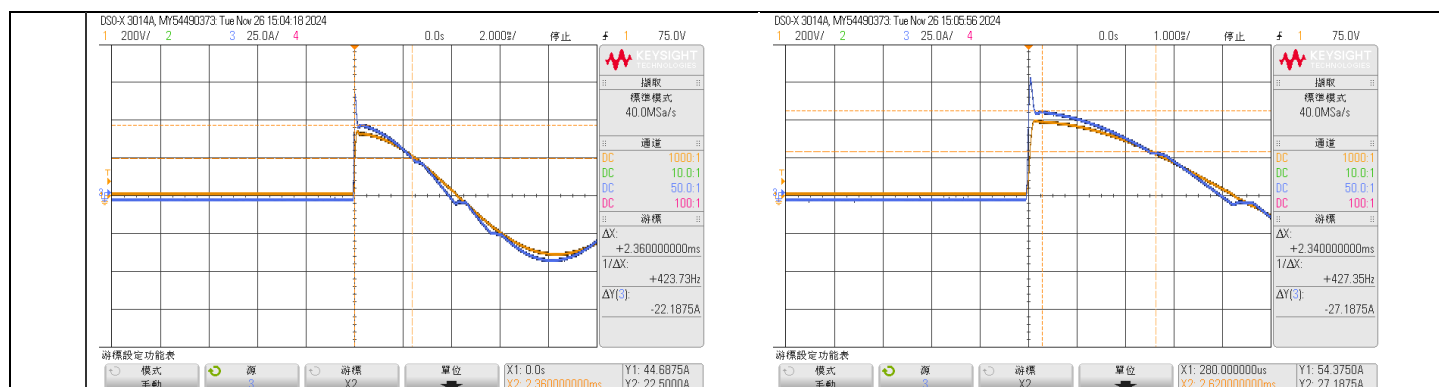
NO	TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT
1	OUTPUT VOLTAGE ADJUST RANGE	CH1: 290V~ 450V	I/P : 400 VAC I/P : 340 VAC O/P : MIN LOAD Ta : 25°C	282.68V~461.3V/400VAC 282.68V~461.3V/340VAC
2	OVER/UNDERSHOOT TEST	<± 15%	I/P: 400VAC O/P:FULL LOAD Ta:25°C	3.83% / -11.45%
3	SET UP TIME(Max)	400VAC/3000ms	I/P : 400 VAC O/P : FULL LOAD Ta : 25°C	1800ms
INPUT=400VAC/50HZ @ FULL LOAD CH2 : Output Voltage CH1,3,4 : AC Input Voltage 				
4	RISE TIME (Max)	400VAC/100ms	I/P : 400 VAC O/P : FULL LOAD Ta : 25°C	68ms
INPUT=400VAC/50HZ @ FULL LOAD CH1 : Output Voltage 				
FULL /50% LOAD 50%DUTY / 120HZ			FULL /50% LOAD 50%DUTY / 1KHZ	



INPUT FUNCTION TEST

NO	TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT
1	INPUT VOLTAGE RANGE	340VAC~ 530VAC	(1) I/P:TESTING O/P:FULL LOAD Ta:25°C	(1) 336V~ 540V
			I/P: LOW-LINE-3V=337 V HIGH-LINE+10V=540 V O/P:FULL/MIN LOAD (PLEASE CHECK DERATING CURVE) ON: 30 Sec OFF: 30 Sec 10MIN (POWER ON/OFF NO DAMAGE)	TEST: PASS
2	INPUT FREQUENCY RANGE	47HZ ~63 HZ NO DAMAGE	I/P:340 VAC ~530 VAC O/P:FULL~MIN LOAD Ta:25°C	TEST: PASS
3	INPUT CURRENT (Typ.)	400V/ 47 A 480V/ 39 A	I/P : 400 VAC I/P : 480 VAC O/P : FULL LOAD Ta : 25°C	I = 45.53A/ 400VAC I = 37.86A/ 480VAC
4	LEAKAGE CURRENT	<9 mA / 530 VAC <14 mA (Peak)/ 530 VAC	I/P : 530 VAC O/P : Min LOAD Ta : 25°C	Y : N-FG : 2.7mA(rms)/ 4.24mA(Peak) △ : L1-FG : 6.1mA(rms)/ 9.7mA(Peak) L2-FG : 6.12mA(rms)/ 9.8mA(Peak) L3-FG : 6.1mA(rms)/ 10.0mA(Peak)
5	POWER FACTOR (Typ.)	≥ 0.98 / 400VAC ≥ 0.98/ 480VAC	I/P : 400 VAC I/P : 480 VAC O/P : FULL LOAD Ta : 25°C	PF= 0.998/400VAC PF= 0.996/480VAC
	P.F vs LOAD			

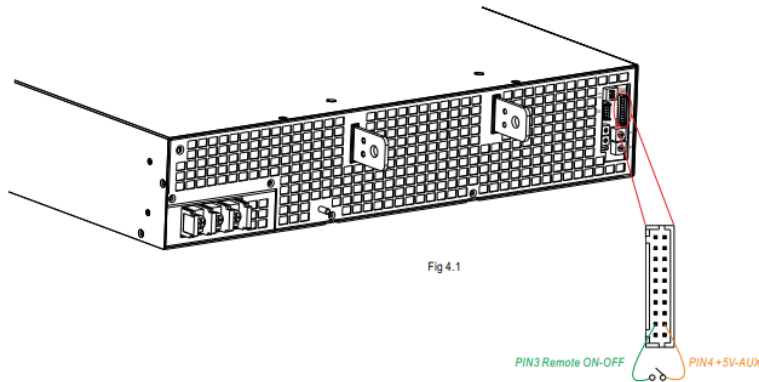
				
6	EFFICIENCY(Typ.)	97 %	I/P: 480 VAC O/P: 75% LOAD Ta:25°C	97.14%
	EFFICIENCY vs LOAD 			
8	INRUSH CURRENT(Typ.)	400V/60A 480V/80A COLD START	I/P : 400 VAC I/P : 480 VAC O/P : FULL LOAD Ta : 25°C	I = 44.6A/ 400VAC I = 54A/ 480VAC T50= 2.36 ms/400V T50= 2.60 ms/480V
	INPUT=400VAC/50HZ @ FULL LOAD CH1 : AC Input Voltage CH3 : Input current  INPUT=480VAC/ 50HZ @ FULL LOAD CH1 : AC Input Voltage CH3 : Input current 			



PROTECTION FUNCTION TEST

NO	TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT
1	OVER LOAD PROTECTION	100 %~ 105 %	I/P: 530VAC I/P: 400VAC I/P: 380VAC I/P: 340VAC O/P:TESTING Ta:25°C	102.6% / 530VAC 102.9% / 400VAC 103.1% / 380VAC 102.8% / 340VAC PROTECTION TYPE : Constant current limiting, shut down O/P voltage after 5 sec. After O/P voltage falls, re-power on to recover
2	OVER VOLTAGE PROTECTION	480 V~540 V	I/P: 530VAC I/P: 400VAC I/P: 340VAC O/P:MIN LOAD Ta:25°C	488V/ 530VAC 488V/ 400VAC 488V/ 340VAC PROTECTION TYPE : Shut down o/p voltage, re-power on to recover
3	OVER TEMPERATURE PROTECTION	Protection type : Shut down o/p voltage, recovers automatically after temperature goes down	I/P: 530VAC I/P: 340VAC O/P:FULL LOAD	O.T.P. Active Protection type : Shut down o/p voltage, recovers automatically after temperature goes down
4	SHORT PROTECTION	SHORT EVERY OUTPUT 1 HOUR NO DAMAGE	I/P: 530VAC I/P: 340VAC O/P: FULL LOAD Ta:25°C	NO DAMAGE PROTECTION TYPE : Constant current limiting, unit will shutdown after 5 sec. re-power on to recover

CONTROL FUNCTION TEST

NO	TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT												
1	AUXILIARY POWER (AUX)	+12V-AUX(pin 17 & 18) 1.Auxiliary voltage output, 11.4~12.6V, referenced to GND-AUX (pin 19 & 20). The maximum load current is 1.5A. This output is not controlled by "Remote ON-OFF." I/P: 400 VAC O/P: FULL LOAD Ta:25°C Test Result : PASS <table><tr><td>AUX</td><td>TOLERANCE</td><td>RIPPLE</td><td>TEST RESULT</td></tr><tr><td>12V / 1.5A</td><td>11.4~12.6 V</td><td>150mVp-p</td><td>NoLoad : 12.080V FullLoad : 11.629V Ripple : 105mV</td></tr></table>	AUX	TOLERANCE	RIPPLE	TEST RESULT	12V / 1.5A	11.4~12.6 V	150mVp-p	NoLoad : 12.080V FullLoad : 11.629V Ripple : 105mV						
AUX	TOLERANCE	RIPPLE	TEST RESULT													
12V / 1.5A	11.4~12.6 V	150mVp-p	NoLoad : 12.080V FullLoad : 11.629V Ripple : 105mV													
2	REMOTE ON/OFF CONTROL	4.Remote ON-OFF Control ※ The power supply can be turned ON-OFF by using the "Remote ON-OFF" function. <table><tr><td>Between Remote ON-OFF(CN86 pin3) and 5V-AUX(CN86 pin4)</td><td>Output Status</td></tr><tr><td>Switch close (Short)</td><td>power supply ON</td></tr><tr><td>Switch open (Open)</td><td>power supply OFF</td></tr></table> Table 4.1  Fig 4.1 PIN3 Remote ON-OFF PIN4 +5V-AUX I/P: 400 VAC O/P:FULL LOAD Ta:25°C Test Result : PASS <table><tr><td>Between ON/OFF and +5V-AUX</td><td>Power Supply Status</td></tr><tr><td>SW SHORT</td><td>ON</td></tr><tr><td>SW OPEN</td><td>OFF</td></tr></table>	Between Remote ON-OFF(CN86 pin3) and 5V-AUX(CN86 pin4)	Output Status	Switch close (Short)	power supply ON	Switch open (Open)	power supply OFF	Between ON/OFF and +5V-AUX	Power Supply Status	SW SHORT	ON	SW OPEN	OFF		
Between Remote ON-OFF(CN86 pin3) and 5V-AUX(CN86 pin4)	Output Status															
Switch close (Short)	power supply ON															
Switch open (Open)	power supply OFF															
Between ON/OFF and +5V-AUX	Power Supply Status															
SW SHORT	ON															
SW OPEN	OFF															

3 ALARM SIGNAL

※ There are 4 alarm signals, DC-OK, T-ALARM, Fan Fail and AC-OK, in TTL signal form, on CN86. These signals are isolated from output.

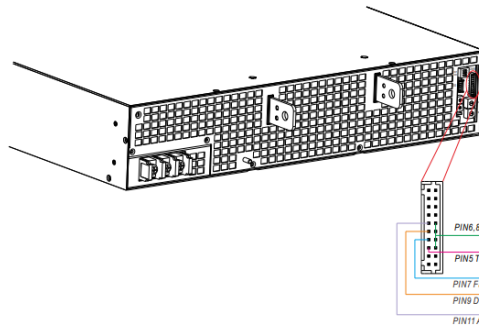


Fig 5.1

DC-OK & T-ALARM & Fan Fail Signal	Power Supply Status
"High" >3.5~5.5V	OFF
"Low" <-0.5~-0.5V	ON

AC-OK Signal	Power Supply Status
"High" >3.5~5.5V	ON
"Low" <-0.5~-0.5V	OFF

1. DC OK SIGNAL

High (3.5 ~ 5.5V) : When the $V_{out} \leq 80\% \pm 6\%$.

Low (-0.1 ~ 0.5V) : When $V_{out} \geq 80\% \pm 6\%$.

The maximum sourcing current is 10mA and only for output.

I/P: 400 VAC

O/P: FULL LOAD

Ta: 25°C

Test Result

Spec.	Transition point	Spec.	DC OK SIGNAL
$V_{out} \leq 74\% \sim 86\%$	77.3%	High (3.5 ~ 5.5V)	5.05V
$V_{out} \geq 74\% \sim 86\%$	80.5%	Low (-0.5 ~ 0.5V)	0V

2. T-ALARM

High (3.5 ~ 5.5V) : When the internal temperature exceeds the limit of temperature alarm, or when Fan fails.

Low (-0.5 ~ 0.5V) : When the internal temperature is normal, and when Fan works normally.

The maximum sourcing current is 10mA and only for output

I/P: 400 VAC

O/P: FULL LOAD, Alarm/10mA Load

Ta: 25°C

Test Result :

P.SU STATUS	T-ALARM SPEC	T-ALARM TEST
NORMAL	-0.5 ~ 0.5V	0.06 V
OTP	3.5~5.5V	3.81 V

3. AC OK

High (3.5 ~ 5.5V): When AC input $\geq 335 \pm 1.5\% V_{ac}$, PSU works normally.

Low (-0.5 ~ 0.5V): When AC input $\leq 320 \pm 1.5\% V_{ac}$, PSU shut down.

The maximum sourcing current is 10mA and only for output.(Note)

I/P : 400 VAC

O/P : FULL LOAD

Ta : 25°C

Test Result :

Spec.	Vin	Spec.	AC OK SIGNAL
$AC \geq 335 \pm 1.5\%$	333.8	High (3.5 ~ 5.5V)	3.81V
$AC \leq 320 \pm 1.5\%$	317.8	Low (-0.5 ~ 0.5V)	-0.04V

4. Fan Fail
 High(3.5~5.5V):When the fan fail.
 Low(-0.5~0.5V):When the fan works normally.
 The maximum sourcing current is 10mA and only for output.(Note)
 I/P : 400 VAC
 O/P: FULL LOAD
 Ta : 25°C
 Test Result : PASS

FAN	FAN FAIL SIGNAL
Fan lock	3.81 V
Fan works	-0.047V

4 OUTPUT VOLTAGE PROGRAMMABLE(PV)

1.Output Voltage Programming (or, PV / remote voltage programming / remote adjust / margin programming / dynamic voltage trim)
 (1)Default by potentiometer (SVR)
 (a)Have the DIP switch position-3 set as 
 (b)Output voltage can be trimmed by SVR.
 (2)By Output Voltage Programming
 (a)Have the DIP switch position-3 set as 
 (b)The output voltage can be trimmed to 50~120% by applying EXTERNAL VOLTAGE between PV+ and PV- on CN53.

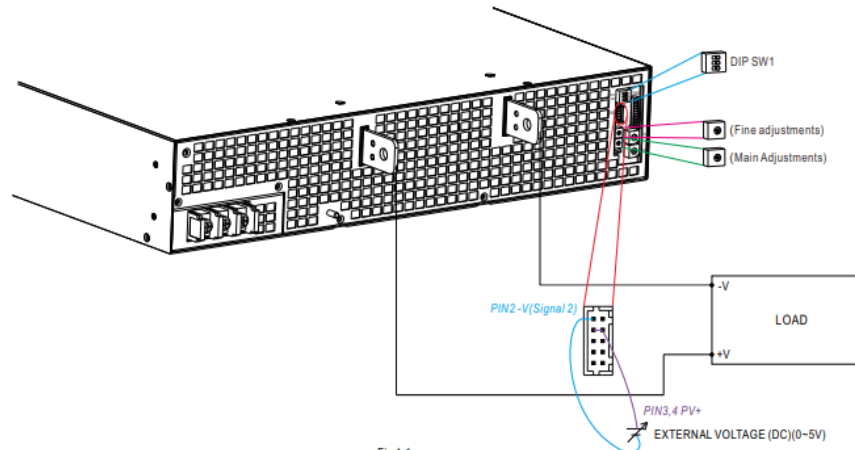
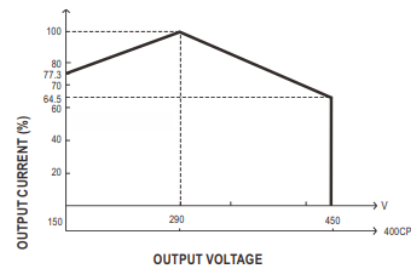
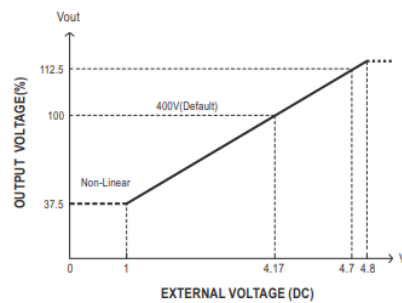


Fig 1.1

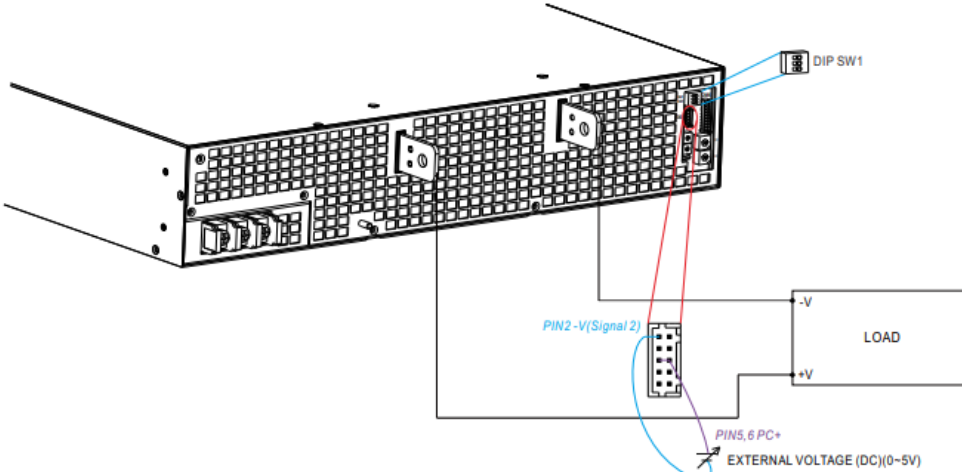
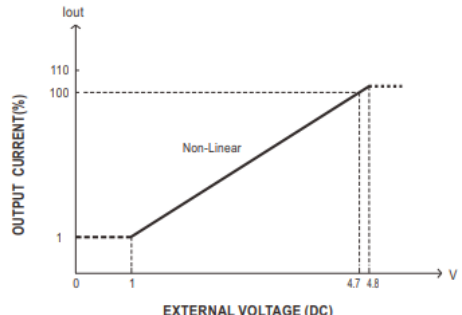
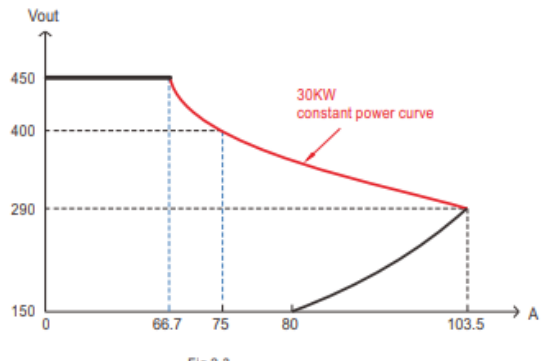


- ⊙ The 100% output voltage is 400V.
- ⊙ Output voltage might be inaccurate when external voltage below 1V.

- ⊙ The rated current should change with the Output Voltage Programming accordingly.

I/P: 400 VAC
 O/P:FULL LOAD
 Ta:25°C
 TEST RESULT : PASS

External voltage(DC)	1V	4.17V	4.8V
SPEC	37.5%±5%	100%±5%	112.5%±5%
Vout	149.9V (37.48%)	405.62V (101.41%)	455.67V (113.92%)

5	OUTPUT CURRENT PROGRAMMABLE (PC)	2.Constant Current Programming (or, PC / remote current programming / dynamic current trim) (1)Default Overload Protection(OLP) value (a)Have the DIP switch position-2 set as  (b)Output current is set default value. (2)By Constant Current Level Programming  (a)Have the DIP switch position-2 set as (b)The constant current level can be trimmed to 1~100% of the rated current by applying EXTERNAL VOLTAGE between PC+ and PC- on CN53.  Fig 2.1 ※ Under PC function at wattage < 10KW, the power supply might enter burst mode and cause output unstable, please increase the load to minimized the effect.  Fig 2.2  Fig 2.3 ⊙ The 100% output current is 103.5A. ⊙ It might cause higher current ripple when the output current adjust below 20% ⊙ Output current might be inaccurate when external voltage below 1V. I/P: 400 VAC O/P: 150V Ta:25°C <table border="1"> <thead> <tr> <th>External voltage(DC)</th><th>0V</th><th>1V</th><th>4.7V</th><th>4.8V</th></tr> </thead> <tbody> <tr> <td>SPEC</td><td>1%±10%</td><td>1%±10%</td><td>100%±10%</td><td>102.13%±10%</td></tr> <tr> <td>Iout</td><td>0.96%</td><td>0.96%</td><td>102.45%</td><td>103.71%</td></tr> </tbody> </table>			External voltage(DC)	0V	1V	4.7V	4.8V	SPEC	1%±10%	1%±10%	100%±10%	102.13%±10%	Iout	0.96%	0.96%	102.45%	103.71%
External voltage(DC)	0V	1V	4.7V	4.8V															
SPEC	1%±10%	1%±10%	100%±10%	102.13%±10%															
Iout	0.96%	0.96%	102.45%	103.71%															
6	CURRENT SHARING	CURRENT SHARING TOLERANCE <±10%	I/P : 400 VAC O/P : 95%/50% LOAD Ta : 25°C	O/P : 95% PSU1 : 70.1A PSU2 : 72.03A PSU3 : 69.6A PSU4 : 70.27A O/P : 50% PSU1 : 36.56A PSU2 : 35.46A PSU3 : 36.95A PSU4 : 37.99A															

COMPONENT STRESS TEST

NO	TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT
1	PWM Transistor (D to S) or (C to E) Peak Voltage	Q308 Rated : 1200V/91A VGS : -10~25 V	AC ON/OFF I/P:High-Line +3V =533V VDS: O/P: (1)Full Load (2)Output Short (3)CV(max) *CV447V (4)CV(min) *CV147V (5)No load I/P:Low-Line -3V = 337V O/P: (1)Full Load (2)Output Short (3)CV(max) *CV447V (4)CV(min) *CV147V (5)No load Ta:25°C	VDS: (1) 1091V/74.5A (2) 1171V/90A (3) 1123V/72.5A (4) 1091V/82.5A (5) 1074V/72.5A VDS: (1) 1117V/ 74.5A (2) 1193V/ 90A (3) 1099V/ 76.5A (4) 1139V/ 82.5A (5) 1091V/ 72.5A
2	P.F.C Transistor (D to S) or (C to E) Peak Voltage	Q93 Rated : 1200V/91A VGS : -10~25V	I/P:High-Line +3V =533 V AC ON/OFF O/P: (1)Full Load (2)Output Short (3)CV(max) *CV447V (4)CV(min) *CV147V (5)No load I/P:Low-Line -3V = 337V AC ON/OFF O/P: (1)Full Load (2)Output Short (3)CV(max) *CV447V (4)CV(min) *CV147V (5)No load Ta:25°C	VDS: (1) 711V/63.2A (2) 488V/9.09A (3) 642V/32.2A (4) 549V/52.5A (5) 493V/21.7A VDS: (1) 718V/58.5A (2) 492V/9.5A (3) 714V/ 54A (4) 618V/85.5A (5) 549V/ 20.5A
3	P.F.C DIODE	D83 Rated : 15A/ 1200V	I/P:High-Line +3V =533 V AC ON/OFF O/P: (1)Full Load (2)Output Short (3)CV(max) (4)CV(min) (5)No load I/P:Low-Line -3V = 337V AC ON/OFF O/P: (1)Full Load (2)Output Short	(1) 1032V (2) 969V (3) 1058V (4) 962V (5) 1091V (1) 1064V (2) 969V

			(3)CV(max) (4)CV(min) (5)No load Ta:25°C	(3) 1091V (4) 978V (5) 954V
4	Diode Peak Voltage	DJ13 Rated: 15A/1200V DJ61 Rated: 15A/1200V	AC ON/OFF I/P:High-Line +3V =533 V VO: 400V O/P: (1)Full Load (2)Output Short (3).NO LOAD VO : 450V O/P : (1)Full Load (2)Output Short (3)CV(max) (4)CV(min) (5)No load Ta:25°C	DJ13: VO: 400V (1) 913.83V (2) 937V (3) 882.21V VO : 450V (1) 1099V (2) 1099V (3) 1099V (4) 449V (5) 1034V DJ61: (1) 921.74V (2) 929V (3) 874.31V (1) 1074V (2) 1074V (3) 1074V (4) 433V (5) 1042
5	Input Capacitor Voltage	C484 & C485 Rated : 560μ /500V Surge voltage: 550V	I/P:High-Line +3V =533V O/P: (1)Full Load input on/off (2) Min load input on /Off (3)Full Load /Min load Change (4)Full load continue Ta:25°C	(1) 489V (2) 489V (3) 499V (4) 481V
6	Control IC Voltage Test	PWM IC U982 HR1001C Rated 8.9V~15.5V	AC ON/OFF I/P:High-Line +3V =533 V O/P(1) Full Load (2) Output Short (3) O.L.P (4) O.V.P. (5) No Load Vout min (Low Line) Ta:25°C	(1) 13.2V (2) 13.4V (3) 13.2V (4) 13.2V (5) 13.2V
8	TOP SWITCHING STAND BY POWER	Q590 Rated: 950V/5.5A	AC ON/OFF I/P:High-Line +3V =533 V O/P: (1)Full Load (2)Remote On/Off I/P:Low-Line -3V =337 V O/P: (1)Full Load (2)Remote On/Off Ta:25°C	(1) 905.93V/ 1.56A (2) 911.46V/ 1.62A (1) 921.74V/ 1.6A (2) 874.31V/ 1.62A

■ SAFETY& E.M.C. TEST

SAFETY TEST

NO	TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT
1	WITHSTAND VOLTAGE	I/P-O/P: 4.25 K VAC/min I/P-FG : 3 K VAC/min O/P-FG: 3 KVAC/min	I/P-O/P: 4.68 KVAC/min I/P-FG: 3.6 KVAC/min O/P-FG: 3.6 KVAC/min Ta:25°C	I/P - O/P: 27.1 mA I / P - F G : 32.9 mA O / P - F G : 27 m A NO DAMAGE
2	ISOLATION RESISTANCE	I/P-O/P: 500 VDC>100MΩ O/P-FG: 500 VDC>100MΩ I/P - F G : 500 VDC >100MΩ	I/P-O/P: 500 VDC I/P - F G : 500 VDC O/P-FG: 500 VDC Ta:25°C	I/P - O/P: 13.7 GΩ I / P - F G : 8.86 GΩ O / P - F G : 8.74 GΩ NO DAMAGE
3	GROUNDING CONTINUITY	FG(PE) TO CHASSIS OR TRACE < 100 mΩ	40A / 2min Ta:25°C	6 mΩ

E.M.C TEST

NO	TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT
1	HARMONIC	EN61000-3-2	I/P: 400 VAC/50HZ O/P:FULL LOAD Ta:25°C	PASS
2	CONDUCTED	EN55032 /EN55011 CLASS A	I/P : 400 VAC (50HZ) O/P : FULL Ta : 25°C	PASS
3	RADIATED	EN55032 /EN55011 CLASS A	I/P : 400 VAC (50HZ) O/P : FULL LOAD Ta : 25°C	PASS
4	E.S.D	EN61000-4-2 INDUSTRY AIR : 8KV / Contact : 4KV	I/P : 400 VAC/50HZ O/P : FULL LOAD Ta : 25°C	CRITERIA A
5	E.F.T	EN61000-4-4 INDUSTRY INPUT : 2KV	I/P : 400 VAC/50HZ O/P : FULL LOAD Ta : 25°C	CRITERIA A
6	SURGE	IEC61000-4-5 INDUSTRY L-N : 2KV L,N-PE : 4KV	I/P : 400 VAC/50HZ O/P : FULL LOAD Ta : 25°C	CRITERIA A
7	Test by certified Lab & Test Report Prepare Any contradictions of the test results, please refer to the latest EMC test report			

■ RELIABILITY TEST

ENVIRONMENT TEST

NO	TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT																																																																																																																																				
1	TEMPERATURE RISE TEST	MODEL : SHP-30K-400CP 1. ROOM AMBIENT BURN-IN : 2HRS I/P : 400VAC O/P : FULL LOAD Ta= 25 °C 2. HIGH AMBIENT BURN-IN : 2HRS I/P : 400VAC O/P : FULL LOAD Ta= 50°C																																																																																																																																						
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34	L901	31.9°C	55.8°C													
35	D531	38.9°C	63.1°C													
2	OVER LOAD BURN-IN TEST	NO DAMAGE 1 HOUR (MIN)	I/P : 400 VAC O/P : 101%LOAD Ta : 25°C	TEST : OK												
3	LOW TEMPERATURE TURN ON TEST	TURN ON AFTER 2 HOUR	I/P : 530VAC/340VAC O/P : 100%/90%LOAD Ta= -35°C	TEST : OK												
4	HIGH HUMIDITY HIGH TEMPERATURE HIGH VOLTAGE TURN ON TEST	AFTER 12 HOURS IN CHAMBER ON CONTROL 50 °C/95 %R.H NO DAMAGE	I/P : 540 VAC O/P : FULL LOAD Ta= 50 °C HUMIDITY= 95 %R.H	TEST : OK												
5	TEMPERATURE COEFFICIENT	± 0.03%/°C(0~50°C)	I/P : 400 VAC O/P : FULL LOAD	± 0.004 %/°C(0~50°C)												
6	STORAGE TEMPERATURE TEST	-40~85°C	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 : 10 CYCLE 5. Input/Output condition : STATIC													
7	THERMAL SHOCK TEST	-30~50°C	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 : 16 CYCLE 5. Input/Output condition : 15cycle:380V/ FULL LOAD AC ON 3sec/AC OFF 1sec TEST 1cycle:380V/ FULL LOAD Burn In Test													
8	VIBRATION TEST	10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes	1 Carton & 1 Set (1) Waveform : Sine Wave (2) Frequency : 10~500Hz (3) Sweep Time : 10min/sweep cycle (4) Acceleration : 3G (5) Test Time : 180min in each axis (X.Y.Z) (6) Ta : 25°C													
9	CAPACITOR LIFE CYCLE	SUPPOSE C934 IS THE MOST CRITICAL COMPONENT (1) I/P : 400VAC O/P : FULL LOAD Ta= 25°C LIFE TIME (2) I/P : 400VAC O/P : FULL LOAD Ta= 50°C LIFE TIME (3) I/P : 400VAC O/P : 75% LOAD Ta= 50°C LIFE TIME (4) I/P : 400VAC O/P : 50% LOAD Ta= 50°C LIFE TIME		(1) 3136717HRS (2) 562239HRS (3) 646641HRS (4) 690986HRS												
10	MTBF	Conducted by Parts Stress Analysis Prediction 188.1K hrs min. Telcordia SR-332 (Bellcore) ; 20.9K hrs min. MIL-HDBK-217F (25°C)														
11	Ongoing Reliability Test	I/P : 400VAC O/P : FULL LOAD TA=50°C Demonstration Mean Time Between Failure : 50,000 hours														

TEST RESULT	TESTER	REVIEW	APPROVAL
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30KW High Efficiency Digital Power Supply **SHP-30K** series

PASS	DANIEL GAO	SANFORD SU	ERIS WU
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