



Test Report: RCB-1600-24

1600W Rack Mountable Front End Battery Charger

■ 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

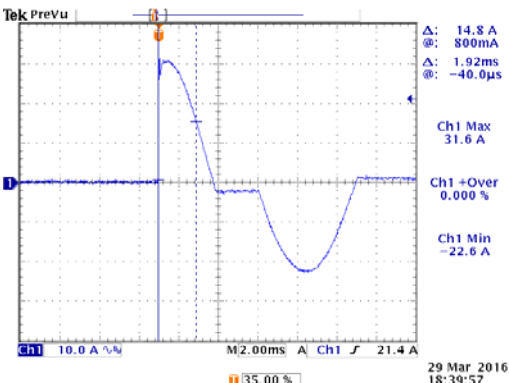
■ DESIGN VERIFY TEST

OUTPUT FUNCTION TEST

NO	TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT
1	BOOST CHARGE VOLTAGE(Vboost)(default)	Default, programmable 28.8V±0.24V	I/P: 230 VAC O/P: CV MODE Ta:25°C	28.859V
2	FLOAT CHARGE VOLTAGE	Default, programmable 27.6V±0.24V	I/P: 230 VAC O/P: CV MODE Ta:25°C	27.646V
3	OUTPUT CURRENT	55A±1.65A	I/P: 230 VAC O/P:CV MODE-2V Ta:25°C	55.5A
4	VOLTAGE ADJ. RANGE	23.5V~30V DIP switch position 4 : OFF	I/P: 230 VAC O/P:NO LOAD Ta:25°C	22.6V~30.72V/230VAC 22.6V~30.72V/115VAC
5	LEAKAGE CURRENT FROM BATTERY (Typ.)	<45mA	I/P: AC OFF O/P:BATTERY Ta:25°C	42.6mA

INPUT FUNCTION TEST

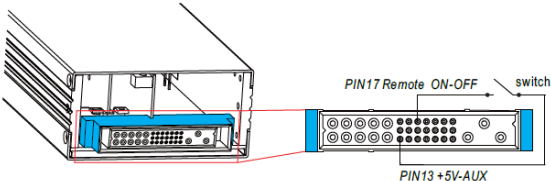
NO	TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT
1	INPUT VOLTAGE RANGE	90VAC~264VAC	I/P:TESTING O/P: FULL LOAD O/P:60% LOAD Ta:25°C	150 V~ 264 V 87V~264V
			I/P: (1)LOW-LINE-3V=87 V HIGH-LINE+15%=300 V O/P:FULL/MIN LOAD (PLEASE CHECK DERATING CURVE) ON: 30 Sec OFF: 30 Sec 10MIN (2)230Vac ON: 0.5 Sec OFF: 0.5 Sec 20MIN (3)230Vac ON:3Sec OFF:3Sec 12HOURS (POWER ON/OFF NO DAMAGE)	TEST:OK
2	INPUT FREQUENCY RANGE	47HZ ~63 HZ NO DAMAGE	I/P:100 VAC ~264 VAC O/P:FULL~MIN LOAD Ta:25°C	TEST: OK
3	INPUT CURRENT (Typ.)	230V/ 8.5 A 115V/ 15 A	I/P : 230 VAC I/P : 115 VAC O/P : FULL LOAD Ta : 25°C	I =7.83A/ 230VAC I =12.77A/ 115VAC
4	LEAKAGE CURRENT	<1.5 mA / 230 VAC	I/P : 230 VAC O/P : Min LOAD Ta : 25°C	L-FG : 0.8 mA N-FG : 0.8 mA
5	POWER FACTOR (Typ.)	0.97 / 230VAC	I/P : 230 VAC O/P : FULL LOAD Ta : 25°C	PF=0.98/230VAC

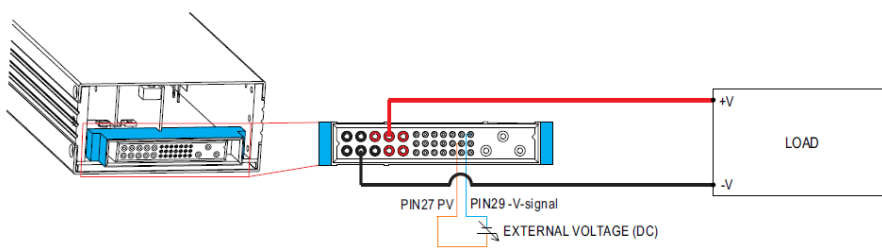
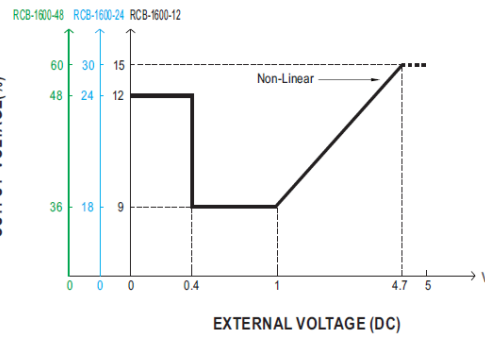
6	EFFICIENCY(Typ.)	92%	I/P:230 VAC O/P:FULL LOAD Ta:25°C	92.46 %
7	INRUSH CURRENT(Typ.)	230V/35 A COLD START	I/P : 230 VAC O/P : FULL LOAD Ta : 25°C	I =31.6A/ 230VAC T50= 1920 us/230V
INPUT=230VAC/50HZ @ FULL LOAD CH1 : Input current 				

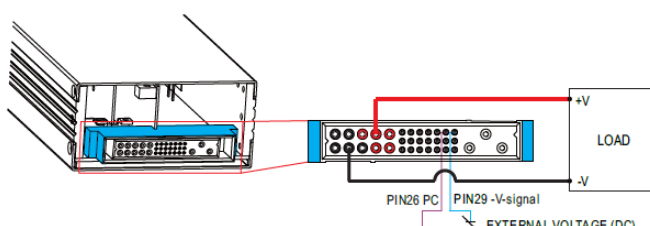
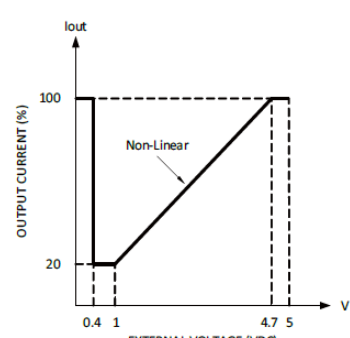
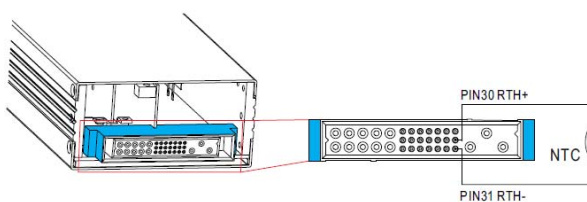
PROTECTION FUNCTION TEST

NO	TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT
1	OVER VOLTAGE PROTECTION	31.5 V~ 37.5 V PROTECTION TYPE : Shut down o/p voltage, re-power on to recover	I/P: 264VAC I/P: 230VAC I/P: 90VAC O/P:MIN LOAD Ta:25°C	34.5V/ 264VAC 34.5V/ 230VAC 34.5V/ 90VAC PROTECTION TYPE : Shut down o/p voltage, re-power on to recover
2	OVER TEMPERATURE PROTECTION	NO DAMAGE PROTECTION TYPE : Shut down o/p voltage, recovers automatically after temperature goes down	I/P: 264VAC I/P: 90VAC O/P:FULL LOAD	O.T.P. Active PROTECTION TYPE : Shut down o/p voltage, recovers automatically after temperature goes down

CONTROL FUNCTION TEST

NO	TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT						
1	AUXILIARY POWER (AUX)	1. 5V±10%@0.3A ripple:150mVp-p 2. 12V±10%@0.8A ripple:250mVp-p	I/P: 230 VAC O/P:FULL LOAD Ta:25℃	4.741V/0.3A ; ripple:14mVp-p 11.36V/0.8A ; ripple: 156 mVp-p						
2	REMOTE ON/OFF CONTROL	The charger can be turned ON/OFF individually or along with other units in parallel by using the "Remote ON-OFF" function.  I/P: 230 VAC O/P:FULL LOAD Ta:25℃ <table><thead><tr><th>Between Remote ON-OFF and +5V-AUX</th><th>Charger Status</th></tr></thead><tbody><tr><td>Switch Short</td><td>ON</td></tr><tr><td>Switch Open</td><td>OFF</td></tr></tbody></table>			Between Remote ON-OFF and +5V-AUX	Charger Status	Switch Short	ON	Switch Open	OFF
Between Remote ON-OFF and +5V-AUX	Charger Status									
Switch Short	ON									
Switch Open	OFF									
		Between ON/OFF and +5V-AUX	OUTPUT							

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3	ALARM SIGNAL	1. DC OK SIGNAL High (4.5 ~ 5.5V) : When the $V_{out} \leq 8V/16V/32V \pm 1V$. Low (0 ~ 0.5V) : When $V_{out} \geq 8V/16V/32V \pm 1V$. The maximum sourcing current is 10mA and only for output. DC OK is associated with battery low protection. I/P: 230 VAC O/P:FULL LOAD Ta:25°C Test Result : <table><tr><td>Vout</td><td>DC OK SIGNAL</td></tr><tr><td>$V_{out} \leq 75\%$</td><td>4.985V</td></tr><tr><td>$V_{out} \geq 85\%$</td><td>-0.09V</td></tr></table> 2. T-ALARM <table><tr><td>P.S.U STATUS</td><td>Vo</td><td>T-ALARM</td></tr><tr><td>NORMAL</td><td>100%±2%</td><td>-0.1 ~0.5V</td></tr><tr><td>OTP OR FAN LOCK</td><td>0V</td><td>4.5~5.5V</td></tr></table> I/P: 230 VAC O/P:FULL LOAD Ta:25°C Test Result : <table><tr><td>P.S.U STATUS</td><td>T-ALARM</td></tr><tr><td>NORMAL</td><td>-0.09 V</td></tr><tr><td>OTP OR FAN LOCK</td><td>4.936V</td></tr></table> 3. AC- OK <table><tr><td>AC IN</td><td>Vo</td><td>AC OK</td></tr><tr><td>$AC\ I/P \geq 87V_{rms}$</td><td>100%±2%</td><td>4.5~5.5V</td></tr><tr><td>$AC\ I/P \leq 75V_{rms}$</td><td>0V</td><td>0~0.5V</td></tr></table> I/P: TEST O/P:60%LOAD Test Result : <table><tr><td>AC IN</td><td>Vo</td><td>AC OK</td></tr><tr><td>$AC\ I/P \geq 87V$</td><td>100.4%</td><td>5.0489V</td></tr><tr><td>$AC\ I/P \leq 75V$</td><td>0.002V</td><td>0.00V</td></tr></table>	Vout	DC OK SIGNAL	$V_{out} \leq 75\%$	4.985V	$V_{out} \geq 85\%$	-0.09V	P.S.U STATUS	Vo	T-ALARM	NORMAL	100%±2%	-0.1 ~0.5V	OTP OR FAN LOCK	0V	4.5~5.5V	P.S.U STATUS	T-ALARM	NORMAL	-0.09 V	OTP OR FAN LOCK	4.936V	AC IN	Vo	AC OK	$AC\ I/P \geq 87V_{rms}$	100%±2%	4.5~5.5V	$AC\ I/P \leq 75V_{rms}$	0V	0~0.5V	AC IN	Vo	AC OK	$AC\ I/P \geq 87V$	100.4%	5.0489V	$AC\ I/P \leq 75V$	0.002V	0.00V
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4	OUTPUT VOLTAGE PROGRAMMABLE(PV)	DIP switch position 4 : OFF ※ In addition to the adjustment via the built-in potentiometer, the output voltage can be trimmed to 75~125% of the nominal voltage by applying EXTERNAL VOLTAGE.   I/P: 230 VAC O/P:FULL LOAD																																							

		Ta:25℃ Test Result : <table><tr><td>MODEL \ PV</td><td><0.4V</td><td>1V</td><td>4.7V</td><td>5V</td></tr><tr><td>SPEC</td><td>24V±5%</td><td>18V±5%</td><td>30V±5%</td><td>30V±5%</td></tr><tr><td>Vout</td><td>24.11V</td><td>18.03V</td><td>30.2V</td><td>30.3V</td></tr></table>	MODEL \ PV	<0.4V	1V	4.7V	5V	SPEC	24V±5%	18V±5%	30V±5%	30V±5%	Vout	24.11V	18.03V	30.2V	30.3V			
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Vout	24.11V	18.03V	30.2V	30.3V																
5	OUTPUT CURRENT PROGRAMMABLE (PC)	DIP switch position 4 : OFF ※ The output current can be trimmed to 20~100% of the rated current by applying EXTERNAL VOLTAGE.   I/P: 230 VAC O/P: TESTING Ta:25℃ Test Result : <table><tr><td>ADJ V</td><td><0.4V</td><td>1V</td><td>4.7V</td><td>5V</td></tr><tr><td>SPEC</td><td>100%±10%</td><td>20%±10%</td><td>100%±10%</td><td>100%±10%</td></tr><tr><td>Iout</td><td>101%</td><td>22.25%</td><td>100.7%</td><td>101.6%</td></tr></table>	ADJ V	<0.4V	1V	4.7V	5V	SPEC	100%±10%	20%±10%	100%±10%	100%±10%	Iout	101%	22.25%	100.7%	101.6%			
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6	TEMPERATURE COMPENSATION	Temperature sense associated with the temperature compensation function.  ◎ To exploit the temperature compensation function, please attach the temperature sensor, NTC, to the battery or the battery's vicinity. ◎ The charger is able to work normally without the NTC. I/P: 230 VAC O/P: FULL LOAD Test Result : <table><tr><th rowspan="2">TEMP</th><th rowspan="2">Voltage compensation</th><th colspan="2">Temperature compensation</th></tr><tr><th>BEFORE</th><th>AFTER</th></tr><tr><td>(Ta=0℃)</td><td>28.8V = +0.90V ±0.24V</td><td>29.082</td><td>29.946</td></tr><tr><td>(Ta=25℃)</td><td>28.8V = 0V</td><td>29.082</td><td>29.082</td></tr><tr><td>(Ta=50℃)</td><td>28.8V = -0.90V ±0.24V</td><td>29.084</td><td>28.271</td></tr></table>	TEMP	Voltage compensation	Temperature compensation		BEFORE	AFTER	(Ta=0℃)	28.8V = +0.90V ±0.24V	29.082	29.946	(Ta=25℃)	28.8V = 0V	29.082	29.082	(Ta=50℃)	28.8V = -0.90V ±0.24V	29.084	28.271
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Charging Curve

※ By factory default, this charger performs the default curve which can be programmed via PMBus.
 ※ To disable / enable the charging curve, change to a 2 stage curve, a different curve frequently used for certain types of batteries in the industry, and so on, please refer to the Installation Manual.

⊙ Default 3 stage charging curve

3 Stage

The graph illustrates the 3-stage charging process. The top y-axis represents Charge Voltage, with levels V_{boost} and V_{float} . The bottom y-axis represents Charge Current, with levels 100% and 10%. The x-axis represents time, divided into three stages: stage 1 (Constant Current), stage 2 (Constant Voltage), and stage 3 (Float). The Color of LED is Orange for stage 1 and stage 2, and Green for stage 3. A Status Indicator shows 'Charger fail if charging time exceed charging timeout'.

⊙ Suitable for lead-acid batteries (flooded, Gel and AGM) and Li-ion batteries (lithium iron and lithium manganese).

I/P: 230 VAC

O/P: FULL LOAD

Test Result :

⊙ Embedded 3 stage charging curve

MODEL	Description	Vboost	Vfloat
12V	Default, programmable	14.4	13.8
	Pre-defined, gel batter	14	13.6
	Pre-defined, flooded battery	14.2	13.4
	Pre-defined, AGM battery	14.5	13.5
24V	Default, programmable	28.8	27.6
	Pre-defined, gel batter	28	27.2
	Pre-defined, flooded battery	28.4	26.8
	Pre-defined, AGM battery	29	27
48V	Default, programmable	57.6	55.2
	Pre-defined, gel batter	56	54.4
	Pre-defined, flooded battery	56.8	53.6
	Pre-defined, AGM battery	58	54

MODEL	Constant voltage(V_{boost})	Float (V_{float})	Turn state current
24V	$28.8V \pm 0.24V$	$27.6V \pm 0.24V$	$5.5A \pm 1.65A$
	28.859V	27.646V	5.6A

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LED Status Indicators

※ LED Status Indicators

LED	Description
● Green	Float (stage 3)
● Orange	Charging (stage 1 or stage 2)
● Red	The LED will present a constant red light when the abnormal status (OTP, OLP, fan fail and charging timeout) arises.
● Red (Flashing)	The LED will flash with the red light when the internal temperature reaches 60°C; under this condition, the unit still operates normally without entering OTP. (In the meantime, an alarm signal will be sent out through the PMBus interface.)

TEST : OK

COMPONENT STRESS TEST

NO	TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT
1	PWM Transistor (D to S) or (C to E) Peak Voltage	Q901 Rated 29 A/650 V	I/P:High-Line +3V =267V AC ON/OFF VDS: O/P: (1)Full Load Ta:25°C	VDS: (1)469V
2	P.F.C Transistor (D to S) or (C to E) Peak Voltage	Q52 Rated 52 A/600 V	I/P:High-Line +3V =267 V AC ON/OFF O/P: (1)Full Load Ta:25°C	VDS: (1)464V
3	Diode Peak Voltage	Q101 Rated 104 A/150 V Q104 Rated 104 A/150 V	I/P:High-Line +3V =267 V AC ON/OFF O/P: (1)Full Load Ta:25°C	Q101: VDS: (1)101.2V Q104: VDS: (1)100.4V
4	Input Capacitor Voltage	C5 Rated: 680μ/400V SURGE VOLTAGE:450V	I/P:High-Line +3V =267 V O/P: (1)Full Load Ta:25°C	(1)398V
5	Control IC Voltage Test	PWM IC U901 Rated 6.5V ~24 V PFC IC U51 Rated 6V ~16V	I/P:High-Line +3V =267 V AC ON/OFF O/P(1)FULL LOAD Ta:25°C	U901 (1) 13.8V U51 (1)12.8 V

6	Transistor	Q154 Rated : 100A/40V	I/P:High-Line +3V =267 V (HOT SWAP TEST) O/P: (1)Full Load	(1)400mV
7	Transistor	Q163 Rated : 2.4A/100V	I/P:High-Line +3V =267 V (HOT SWAP TEST) O/P: (1)Full Load	(1)600mV

SAFETY TEST

NO	TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT
1	WITHSTAND VOLTAGE	I/P-O/P: 3KVAC/min I/P-FG :2KVAC/min O/P-FG:1.5KVAC/min	I/P-O/P: 3.6 KVAC/min I/P-FG: 2.4 KVAC/min O/P-FG:1.8 KVAC/min Ta:25°C	I/P-O/P:6.77mA I/P-FG:7.63mA O/P-FG:5.84mA NO DAMAGE
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: 30GΩ I/P-FG: 30GΩ O/P-FG: 30GΩ NO DAMAGE
3	GROUNDING CONTINUITY	FG(PE) TO CHASSIS OR TRACE < 100 mΩ	40A / 2min Ta:25°C	17 mΩ

E.M.C TEST

NO	TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT
1	HARMONIC	EN61000-3-2 CLASS A	I/P:230VAC/50HZ O/P:100% LOAD Ta:25°C	PASS
2	CONDUCTION	EN55022 CLASS B	I/P : 230 VAC (50HZ) O/P : FULL/50% LOAD Ta : 25°C	PASS Test by certified Lab
3	RADIATION	EN55022 CLASS A	I/P : 230 VAC (50HZ) O/P : FULL LOAD Ta : 25°C	PASS Test by certified Lab
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
5	E.F.T	EN61000-4-4 INDUSTRY INPUT : 2KV	I/P : 230 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 : 230 VAC/50HZ O/P : FULL LOAD Ta : 25°C	CRITERIA A
7	Test by certified Lab & Test Report Prepare			

■ RELIABILITY TEST

ENVIRONMENT TEST

NO	TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT																																																																																																																																				
1	TEMPERATURE RISE TEST	MODEL : RCB-1600-24 1. ROOM AMBIENT BURN-IN : 1 HRS I/P : 230VAC O/P : FULL LOAD Ta= 28.3 °C 2. HIGH AMBIENT BURN-IN : 3 HRS I/P : 230VAC O/P : FULL LOAD Ta= 52.5 °C <table><tr><th>NO</th><th>Position</th><th>ROOM AMBIENT Ta= 28.3 °C</th><th>HIGH AMBIENT Ta= 52.5 °C</th></tr><tr><td>1</td><td>Q901</td><td>48.6°C</td><td>72.3°C</td></tr><tr><td>2</td><td>Q904</td><td>75.5°C</td><td>81.5°C</td></tr><tr><td>3</td><td>Q52</td><td>63.2°C</td><td>87.8°C</td></tr><tr><td>4</td><td>D50</td><td>68.9°C</td><td>99.6°C</td></tr><tr><td>5</td><td>BD1</td><td>58.1°C</td><td>85.6°C</td></tr><tr><td>6</td><td>L900</td><td>45.9°C</td><td>68.6°C</td></tr><tr><td>7</td><td>T3</td><td>37.6°C</td><td>61.7°C</td></tr><tr><td>8</td><td>RG301</td><td>53.9°C</td><td>81.7°C</td></tr><tr><td>9</td><td>RG302</td><td>51.7°C</td><td>76.2°C</td></tr><tr><td>10</td><td>C302</td><td>30.3°C</td><td>55.3°C</td></tr><tr><td>11</td><td>C355</td><td>38.1°C</td><td>59.4°C</td></tr><tr><td>12</td><td>T1</td><td>30.2°C</td><td>76.1°C</td></tr><tr><td>13</td><td>Q101</td><td>47.8°C</td><td>76.0°C</td></tr><tr><td>14</td><td>Q104</td><td>48.7°C</td><td>77.2°C</td></tr><tr><td>15</td><td>U921</td><td>41.9°C</td><td>70.4°C</td></tr><tr><td>16</td><td>C5</td><td>38.4°C</td><td>64.2°C</td></tr><tr><td>17</td><td>L100</td><td>65.7°C</td><td>97.8°C</td></tr><tr><td>18</td><td>C980</td><td>33.4°C</td><td>63.9°C</td></tr><tr><td>19</td><td>C11</td><td>42.8°C</td><td>69.2°C</td></tr><tr><td>20</td><td>ZNR1</td><td>46.0°C</td><td>70.9°C</td></tr><tr><td>21</td><td>ZNR2</td><td>42.3°C</td><td>75.6°C</td></tr><tr><td>22</td><td>LF1</td><td>43.8°C</td><td>69.7°C</td></tr><tr><td>23</td><td>C2</td><td>43.0°C</td><td>69.7°C</td></tr><tr><td>24</td><td>D2</td><td>42.9°C</td><td>65.1°C</td></tr><tr><td>25</td><td>L1</td><td>49.1°C</td><td>77.9°C</td></tr><tr><td>26</td><td>L2</td><td>51.0°C</td><td>79.1°C</td></tr><tr><td>27</td><td>RY1</td><td>45.3°C</td><td>71.4°C</td></tr><tr><td>28</td><td>C101</td><td>47.0°C</td><td>73.6°C</td></tr><tr><td>29</td><td>T52</td><td>37.9°C</td><td>65.3°C</td></tr><tr><td>30</td><td>RTH21</td><td>54.0°C</td><td>76.4°C</td></tr><tr><td>31</td><td>RTH9</td><td>45.3°C</td><td>72.3°C</td></tr><tr><td>32</td><td>U671</td><td>43.8°C</td><td>70.0°C</td></tr></table>			NO	Position	ROOM AMBIENT Ta= 28.3 °C	HIGH AMBIENT Ta= 52.5 °C	1	Q901	48.6°C	72.3°C	2	Q904	75.5°C	81.5°C	3	Q52	63.2°C	87.8°C	4	D50	68.9°C	99.6°C	5	BD1	58.1°C	85.6°C	6	L900	45.9°C	68.6°C	7	T3	37.6°C	61.7°C	8	RG301	53.9°C	81.7°C	9	RG302	51.7°C	76.2°C	10	C302	30.3°C	55.3°C	11	C355	38.1°C	59.4°C	12	T1	30.2°C	76.1°C	13	Q101	47.8°C	76.0°C	14	Q104	48.7°C	77.2°C	15	U921	41.9°C	70.4°C	16	C5	38.4°C	64.2°C	17	L100	65.7°C	97.8°C	18	C980	33.4°C	63.9°C	19	C11	42.8°C	69.2°C	20	ZNR1	46.0°C	70.9°C	21	ZNR2	42.3°C	75.6°C	22	LF1	43.8°C	69.7°C	23	C2	43.0°C	69.7°C	24	D2	42.9°C	65.1°C	25	L1	49.1°C	77.9°C	26	L2	51.0°C	79.1°C	27	RY1	45.3°C	71.4°C	28	C101	47.0°C	73.6°C	29	T52	37.9°C	65.3°C	30	RTH21	54.0°C	76.4°C	31	RTH9	45.3°C	72.3°C	32	U671	43.8°C	70.0°C
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2	LOW TEMPERATURE TURN ON TEST	TURN ON AFTER 2 HOUR	I/P : 230VAC/180VAC O/P : 100 % LOAD Ta= -35°C / -30°C	TEST : OK																																																																																																																																				
3	HIGH HUMIDITY HIGH TEMPERATURE HIGH VOLTAGE TURN ON TEST	AFTER 12 HOURS IN CHAMBER ON CONTROL 50 °C NO DAMAGE	I/P : 272 VAC O/P : FULL LOAD Ta= 50 °C HUMIDITY= 95 %R.H	TEST : OK																																																																																																																																				

4	TEMPERATURE COEFFICIENT	$\pm 0.03\%/^{\circ}\text{C}$ (0~50°C)	I/P : 230 VAC O/P : FULL LOAD	$\pm 0.005\%/^{\circ}\text{C}$ (0~50°C)
5	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
6	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 : 15cycle:230V/ FULL LOAD AC ON 3sec/AC OFF 1sec TEST(13500 TIMES) 1cycle:230V/ FULL LOAD Burn In Test		OK
7	VIBRATION TEST	1 Carton & 1 Set (1) Waveform : Sine Wave (2) Frequency : 10~500Hz (3) Sweep Time : 12min/sweep cycle (4) Acceleration : 2G (5) Test Time : 60min in each axis (X.Y.Z) (6) Ta : 25°C		TEST : OK
8	CAPACITOR LIFE CYCLE	SUPPOSE C101 IS THE MOST CRITICAL COMPONENT (1) I/P : 230VAC O/P : FULL LOAD Ta= 25°C LIFE TIME (2) I/P : 230VAC O/P : FULL LOAD Ta= 50°C LIFE TIME (3) I/P : 230VAC O/P : 75% LOAD Ta= 50°C LIFE TIME (4) I/P : 230VAC O/P : 50% LOAD Ta= 50°C LIFE TIME		(1) 781466HRS (2) 119480HRS (3) 179758HRS (4) 222934HRS
9	MTBF	Conducted by Parts Stress Analysis Prediction 160.9K hrs min. Telcordia SR-332 (Bellcore) ; 42.1K hrs min. MIL-HDBK-217F (25°C)		
10	DMTBF/Accelerated Life Test	Demonstration Mean Time Between Failure (Expected Life): Above 50,000 hours @ TA 50°C		

TEST RESULT	TESTER	REVIEW	APPROVAL
PASS	DANIEL GAO	SANFORD SU	VINCENT TSENG

12.10.30 A50-F031