



Test Report: XDR-480E-36

480W AC/DC Economical Ultra Slim Industrial DIN Rail
Power

■ 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

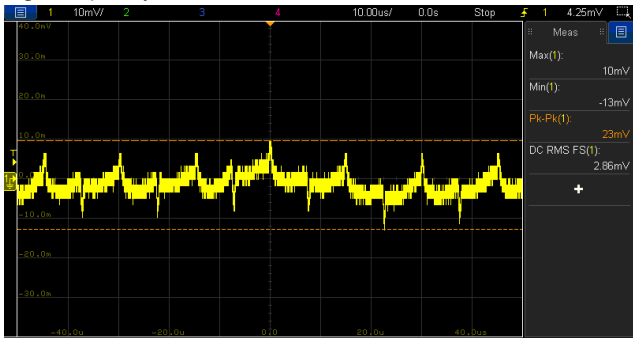
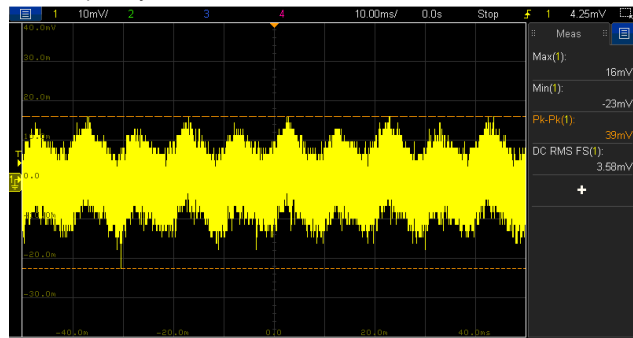
E.M.C. Test

■ RELIABILITY TEST

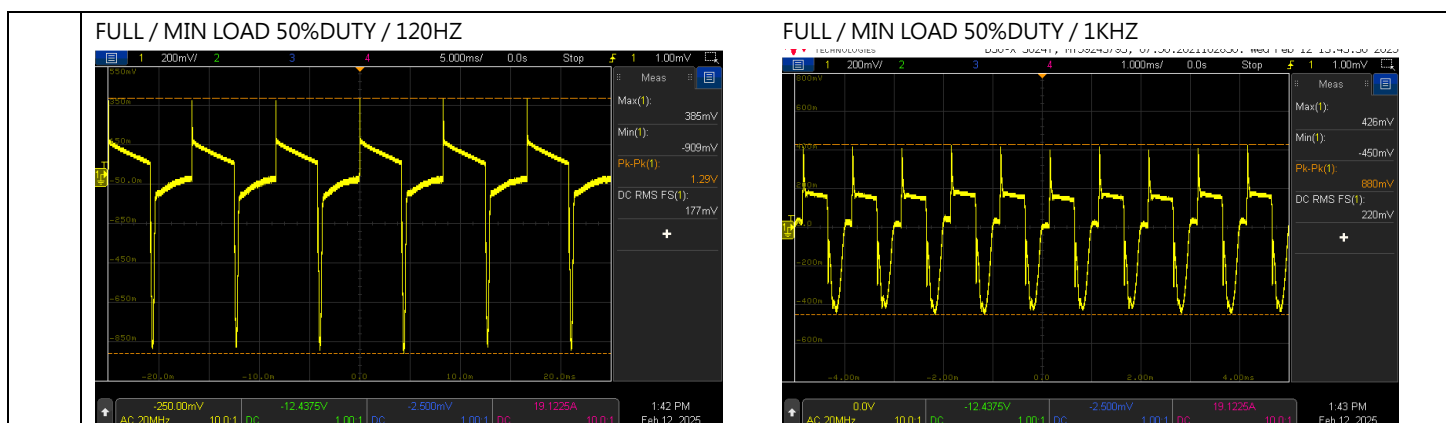
ENVIRONMENT TEST

DESIGN VERIFY TEST

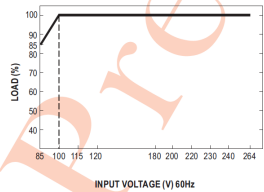
OUTPUT FUNCTION TEST

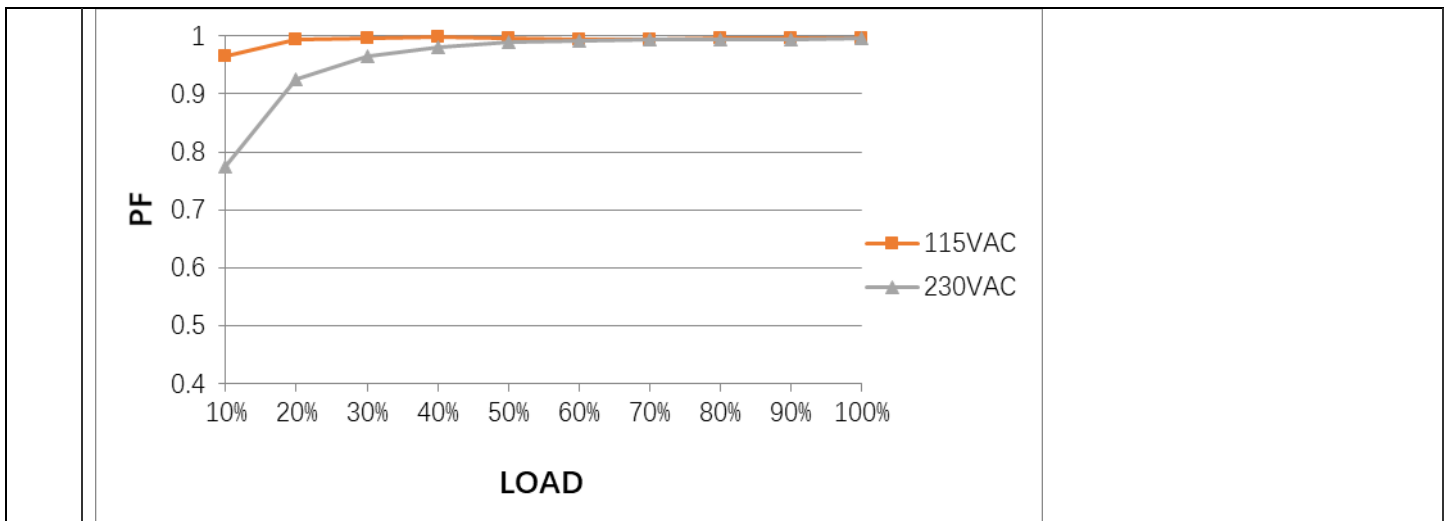
NO	TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT
1	OUTPUT VOLTAGE ADJUST RANGE	CH1: 36V~42V	I/P : 230 VAC I/P : 115 VAC O/P : MIN LOAD Ta : 25°C	34.69V~43.07V/230VAC 34.69V~43.07V/115VAC
2	OUTPUT VOLTAGE TOLERANCE	V1: -1% ~ +1%	I/P: 85VAC~ 264VAC O/P:FULL~ MIN. LOAD Ta:25°C	V1: 0.025% ~0.1861%
3	LINE REGULATION	V1: -0.5% ~ +0.5%	I/P: 85VAC~ 264VAC O/P:FULL LOAD Ta:25°C	V1: 0% ~0.0056%
4	LOAD REGULATION	V1: -1% ~ +1%	I/P: 230VAC O/P:FULL ~MIN LOAD Ta:25°C	V1: -0.0555% ~0.1055%
5	OVER/UNDERSHOOT TEST	<±5%	I/P: 230VAC O/P:FULL LOAD / NO LOAD Ta:25°C	1.14%
6	RIPPLE & NOISE (Max)	V1: 150mVp-p	I/P:230VAC O/P:FULL LOAD Ta:25°C	V1: 23mVp-p / high frequency 39mVp-p / low frequency
high frequency :				
low frequency :				
7	SET UP TIME (Max)	230VAC/1500ms 115VAC/3000ms	I/P : 230 VAC I/P : 115 VAC O/P : FULL LOAD Ta : 25°C	230VAC/ 381.7ms 115VAC/ 785.28ms
INPUT=230VAC/50HZ @ FULL LOAD CH1: Output Voltage CH3: AC Input Voltage		INPUT=115VAC/60HZ @ FULL LOAD CH1: Output Voltage CH3: AC Input Voltage		

8	RISE TIME (Max)	230VAC/150ms 115VAC/150ms	I/P : 230 VAC I/P : 115 VAC O/P : FULL LOAD Ta : 25°C	230VAC/ 6.14ms 115VAC/ 6.14ms	
INPUT=230VAC/50HZ @ FULL LOAD CH1: Output Voltage		INPUT=115VAC/60HZ @ FULL LOAD CH1: Output Voltage			
9	HOLD UP TIME (Typ.)	230VAC/ 15ms 115VAC/ 15ms	I/P : 230 VAC I/P : 115 VAC O/P : FULL LOAD Ta : 25°C	230VAC/ 26.6ms 115VAC/ 25.7ms	
INPUT=230VAC/50HZ @ FULL LOAD CH1: Output Voltage CH3: AC Input Voltage		INPUT=115VAC/60HZ @ FULL LOAD CH1: Output Voltage CH3: AC Input Voltage			
10	DYNAMIC LOAD	V1: 3600mVp-p	I/P: 230VAC O/P: (1) FULL/ MIN LOAD 50%DUTY / 120HZ (2) FULL/ MIN LOAD 50%DUTY / 1KHZ Ta:25°C	1290mVp-p 880mVp-p	



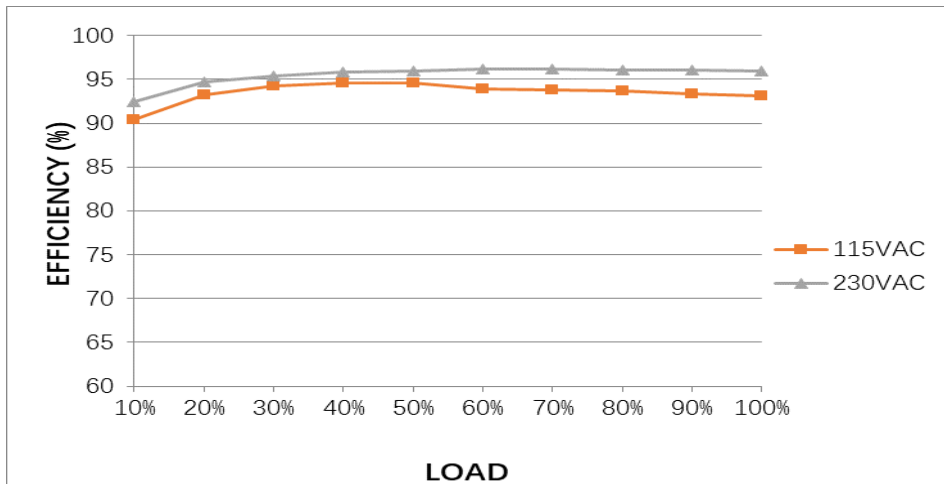
INPUT FUNCTION TEST

NO	TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT
1	INPUT VOLTAGE RANGE	85VAC~264VAC 120VDC~ 370VDC 	(1) I/P: TESTING O/P: FULL / 85% LOAD (2) I/P: DC TESTING (L: + N: -) O/P: FULL / 85% LOAD (3) I/P: DC TESTING (L: - N: +) O/P: FULL / 85% LOAD Ta:25°C I/P: HIGH-LINE+15%=300V O/P:FULL/MIN LOAD (PLEASE CHECK DERATING CURVE) ON: 30 Sec OFF: 30 Sec 10MIN (POWER ON/OFF NO DAMAGE)	(1) 74.8V~264V/ FULL LOAD 74.8V~264V/ 85% LOAD (2) 105.4Vdc~370Vdc/FULL LOAD 105.4Vdc~370Vdc/85% LOAD (3) 105.4Vdc~370Vdc/FULL LOAD 105.4Vdc~370Vdc/85% LOAD TEST : OK
2	INPUT FREQUENCY RANGE	47HZ ~63 HZ NO DAMAGE	I/P:85VAC ~264 VAC O/P:FULL~MIN LOAD Ta:25°C	TEST : OK
3	INPUT CURRENT (Typ.)	230V/ 3A 115V/ 6A	I/P : 230 VAC I/P : 115 VAC O/P : FULL LOAD Ta : 25°C	I =2.18A/ 230VAC I =4.48A/ 115VAC
4	LEAKAGE CURRENT	< 1mA / 240 VAC	I/P : 240 VAC/60HZ O/P : Min LOAD Ta : 25°C	0.588mA
5	NO LOAD CONSUMPTION	< 1.2W	I/P : 230VAC I/P : 115VAC O/P : NO LOAD Ta : 25°C	0.686W/ 230VAC 0.716W/ 115VAC
6	POWER FACTOR (Typ.)	0.95/ 230VAC 0.98/115VAC	I/P : 230 VAC I/P : 115 VAC O/P : FULL LOAD Ta : 25°C	PF=0.9963/230VAC PF=0.9967/115VAC
	P.F vs LOAD			



7	EFFICIENCY(Typ.)	95.5%	I/P:230 VAC O/P:FULL LOAD Ta:25°C	95.82%
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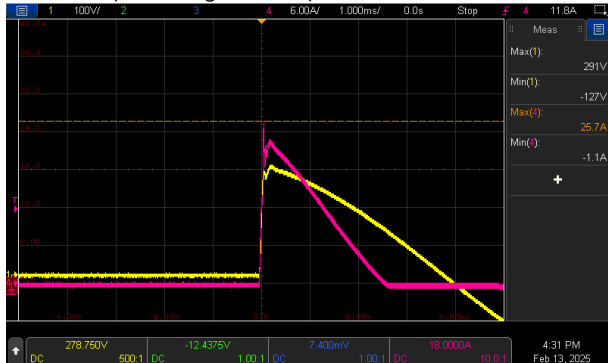
EFFICIENCY vs LOAD



8	INRUSH CURRENT(Typ.)	230V/30A 115V/15A COLD START	I/P : 230 VAC I/P : 115 VAC O/P : FULL LOAD Ta : 25°C	I =25.7A/ 230VAC I =12.0A/ 115VAC T50=1163.4us/230V
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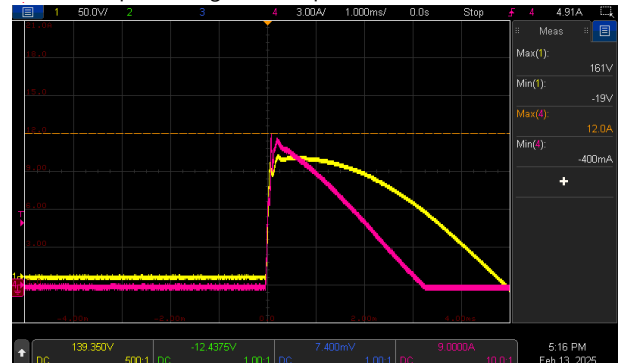
INPUT=230VAC/50HZ @ FULL LOAD

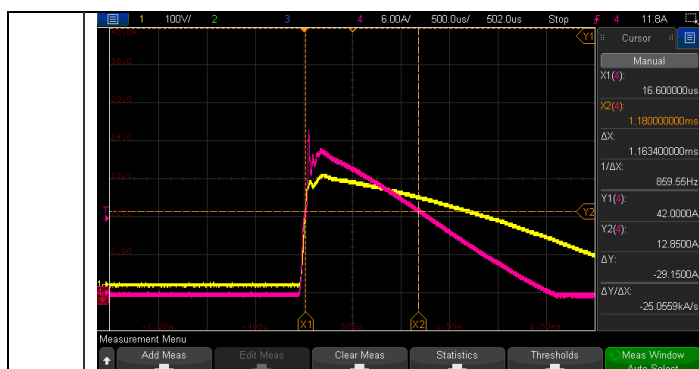
CH1: AC Input Voltage CH4: Input current



INPUT=115VAC/60HZ @ FULL LOAD

CH1: AC Input Voltage CH4: Input current





PROTECTION FUNCTION TEST

NO	TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT
1	OVER LOAD PROTECTION	105%~130% rated output power Protection type: Hiccup mode when output voltage <30%, recovers automatically after fault condition is removed Constant current limiting without shutdown within 30%~100% rated output voltage ,recovers automatically after fault condition is removed	I/P: 264VAC I/P: 230VAC I/P: 100VAC O/P: TESTING Ta:25°C	121.43%/ 264VAC 121.43%/ 230VAC 121.43%/ 100VAC PROTECTION TYPE : Hiccup mode when output voltage <30%, recovers automatically after fault condition is removed Constant current limiting without shutdown within 30%~100% rated output voltage, recovers automatically after fault condition is removed
2	OVER VOLTAGE PROTECTION	Max.50V Protection type: Hiccup mode, recovers automatically after fault condition is removed	I/P: 264VAC I/P: 85VAC O/P: MIN LOAD Ta:25°C	47.26V/ 264VAC 47.35V/ 85VAC PROTECTION TYPE : Hiccup mode, recovers automatically after fault condition is removed
3	OVER TEMPERATURE PROTECTION	Protection type: Shut down o/p voltage, recovers automatically after temperature goes down	I/P: 264VAC I/P: 85VAC O/P: FULL LOAD	O.T.P. Active OK Protection type : Shut down o/p voltage, recovers automatically after temperature goes down
4	SHORT PROTECTION	SHORT EVERY OUTPUT 1 HOUR NO DAMAGE Protection type: Hiccup mode, recovers automatically after fault condition is removed	I/P: 264VAC I/P: 85VAC O/P: FULL LOAD Ta:25°C	NO DAMAGE OK PROTECTION TYPE : Hiccup mode, recovers automatically after fault condition is removed

CONTROL FUNCTION TEST

NO	TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT
1	DC OK CONTACT RATINGS	30VDC/1A 30VAC/0.5A RESISTIVE LOAD	I/P:230VAC O/P:FULL LOAD Ta:25°C	TEST : <u>OK</u>
2	PARALLEL	Up to 1920W (3+1) units	I/P : 230 VAC O/P : TESTING LOAD Ta : 25°C	TEST : <u>OK</u>

COMPONENT STRESS TEST

NO	TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT
1	PWM Transistor (D to S) or (C to E) Peak Voltage	Q5/Q6 Rated: 600 V/33A	AC ON/OFF I/P: High-Line +3V =267V VDS: O/P: (1)Full Load (2)Output Short (3) Dynamic Load Full Load/ Min. Load 90%Duty/1KHz (4) Dynamic Load Full Load/ Min. Load 90%Duty/3KHz (5) Dynamic Load Full Load/ Min. Load 90%Duty/5KHz (6) Dynamic Load 100% Load/ Min. Load 50%Duty/120Hz (7)0%→400% Load Ta:25°C	Q5 Q6 VDS: (1) 480V (2) 510V (3) 485V (4) 479V (5) 482V (6) 480V (7) 486V Q6 VDS: (1) 455V (2) 467V (3) 471V (4) 452V (5) 455V (6) 464V (7) 455V
2	P.F.C Transistor (D to S) or (C to E) Peak Voltage	Q1/Q2 Rated: 600 V/34A	AC ON/OFF I/P: High-Line +3V =267V VDS: O/P: (1)Full Load (2)Output Short (3) Dynamic Load Full Load/ Min. Load 90%Duty/1KHz (4) Dynamic Load Full Load/ Min. Load 90%Duty/3KHz (5) Dynamic Load Full Load/ Min. Load 90%Duty/5KHz (6) Dynamic Load 100% Load/ Min. Load 50%Duty/120Hz (7)0%→400% Load Ta:25°C	VDS: (1) 489V (2) 489V (3) 486V (4) 489V (5) 489V (6) 480V (7) 447V
3	P.F.C DIODE	D1 Rated: 6A/ 650V	I/P: High-Line +3V =267V AC ON/OFF O/P: (1)Full Load	(1) 431V (2) 447V (3) 438V

			(2)Output Short (3) Dynamic Load Full Load/ Min. Load 90%Duty/5KHz (4) Dynamic Load 100% Load/ Min. Load 50%Duty/120Hz Ta:25°C	(4) 435V
4	Diode Peak Voltage	Q102/Q104 Rated : 60A/ 120V	AC ON/OFF I/P: High-Line +3V =267 V VO=Vomax O/P: (1)Full Load (2)Output Short (3) Dynamic Load Full Load/ Min. Load 90%Duty/1KHz (4) Dynamic Load Full Load/ Min. Load 90%Duty/3KHz (5) Dynamic Load Full Load/ Min. Load 90%Duty/5KHz (6) Dynamic Load 100% Load/ Min. Load 50%Duty/120Hz (7)0%→400% Load. (8).NO LOAD (9) burst Mode 脫離前 VO=Vnormal O/P: (1) Full Load Ta:25°C	Q102 : VO=Vomax VDS: (1) 95.2V (2) 95.0V (3) 95.7V (4) 95.1V (5) 95.1V (6) 95.7V (7) 93.9V (8) 93.9V (9) 93.9V VO=Vnormal (1) 84.9V Q104 : VO=Vomax VDS: (1) 94.9V (2) 95.1V (3) 106.6V (4) 94.7V (5) 94.7V (6) 95.9V (7) 92.3V (8) 93.5V (9) 92.3V VO=Vnormal (1) 82.6V
5	Input Capacitor Voltage	C5 Rated : 150u/450V	I/P: High-Line +3V =267V 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) 422V (2) 422V (3) 440V (4) 422V
6	Control IC Voltage Test	PFC /PWM IC U1 Rated : 12.5V~ 27.9V O/P IC U101 Rated : 4.75V~38V U102 Rated: 3.3V~ 36V U202 Rated: 3~30 V	AC ON/OFF I/P: High-Line +3V =267 V O/P: (1) FULL LOAD (2) Output Short (3) O.L.P (4) O.V.P. (5) NO LOAD VRmin (LOW LINE) Ta:25°C	U1 (1) 25.9V (2) 23.9V (3) 23.9V (4) 25.3V (5) 20.1V U101/ U102/U202 (1) 11.40V (2) 11.40V (3) 11.40V (4) 11.32V (5) 11.32V

■ SAFETY& E.M.C. TEST

SAFETY TEST

NO	TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT
1	WITHSTAND VOLTAGE	I/P-O/P: 4 K VAC/min I/P-FG : 2 K VAC/min O/P-FG: 1.5 KVAC/min O/P-DC OK: 0.5 KVAC/min	I/P-O/P: 4.4 KVAC/min I/P-FG: 2.4 KVAC/min O/P-FG: 1.8 KVAC/min O/P-DC OK: 0.6 KVAC/min Ta:25°C	I/P - O/P: 4.38 mA I / P - F G : 3.63 mA O / P - F G : 7.34 mA O/P-DC OK: 0.008 mA 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: 600 VDC I/P - F G : 600 VDC O/P-FG: 600 VDC Ta:25°C	I/P - O/P: 50 GΩ I / P - F G : 50 GΩ O / P - F G : 50 GΩ NO DAMAGE
3	GROUNDING CONTINUITY	FG(PE) TO CHASSIS OR TRACE < 100 mΩ	40A / 2min Ta:25°C	4 mΩ

E.M.C TEST

NO	TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT
1	HARMONIC	BS EN/EN61000-3-2 CLASS A	I/P:230VAC/50HZ O/P:FULL LOAD Ta:25°C	PASS
2	CONDUCTION	BS EN/EN55032 (CISPR32)/ BS EN/EN61204-3 / CNS15936 CLASS B	I/P : 230 VAC (50HZ) O/P : FULL/50% LOAD Ta : 25°C	PASS Test by certified Lab
3	RADIATION	BS EN/EN55032 (CISPR32)/ BS EN/EN61204-3 / CNS15936 CLASS B	I/P : 230 VAC (50HZ) O/P : FULL LOAD Ta : 25°C	PASS Test by certified Lab
4	E.S.D	BS EN/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	BS EN/EN61000-4-4 INDUSTRY INPUT : 2KV	I/P : 230 VAC/50HZ O/P : FULL LOAD Ta : 25°C	CRITERIA A
6	SURGE	BS EN/EN61000-4-5 INDUSTRY Line-Line : 2KV Line-Line-Chassis : 4KV	I/P : 230 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 : XDR-480E-36 1. ROOM AMBIENT BURN-IN : 2 HRS I/P : 230VAC O/P : FULL LOAD Ta= 25 °C 2. HIGH AMBIENT BURN-IN : 2 HRS I/P : 230VAC O/P : FULL LOAD Ta= 50 °C																																																																																																																																										
		<table><tr><th>NO</th><th>Position</th><th>ROOM AMBIENT Ta= 25 °C</th><th>HIGH AMBIENT Ta= 50 °C</th></tr><tr><td>1</td><td>R10</td><td>45.8°C</td><td>71.7°C</td></tr><tr><td>2</td><td>RTH1</td><td>46.5°C</td><td>72.5°C</td></tr><tr><td>3</td><td>L2</td><td>49.4°C</td><td>74.9°C</td></tr><tr><td>4</td><td>C6</td><td>49.6°C</td><td>73.3°C</td></tr><tr><td>5</td><td>C5</td><td>51°C</td><td>75.4°C</td></tr><tr><td>6</td><td>L1</td><td>53.8°C</td><td>78°C</td></tr><tr><td>7</td><td>Q1</td><td>51.2°C</td><td>76.5°C</td></tr><tr><td>8</td><td>Q2</td><td>51.6°C</td><td>76.6°C</td></tr><tr><td>9</td><td>RTH2</td><td>52.2°C</td><td>77.6°C</td></tr><tr><td>10</td><td>D2</td><td>49.9°C</td><td>74.5°C</td></tr><tr><td>11</td><td>T1 Coil</td><td>70.1°C</td><td>93.5°C</td></tr><tr><td>12</td><td>T1 Core</td><td>66.8°C</td><td>89.9°C</td></tr><tr><td>13</td><td>C26</td><td>56.6°C</td><td>81.6°C</td></tr><tr><td>14</td><td>C49</td><td>56.4°C</td><td>81°C</td></tr><tr><td>15</td><td>C105</td><td>51.4°C</td><td>76.2°C</td></tr><tr><td>16</td><td>C107</td><td>49.5°C</td><td>75.5°C</td></tr><tr><td>17</td><td>C114</td><td>52.5°C</td><td>78.2°C</td></tr><tr><td>18</td><td>Q108</td><td>64.2°C</td><td>88.5°C</td></tr><tr><td>19</td><td>U1</td><td>62.8°C</td><td>87.3°C</td></tr><tr><td>20</td><td>Q103</td><td>55.1°C</td><td>80°C</td></tr><tr><td>21</td><td>Q101</td><td>56.1°C</td><td>81.4°C</td></tr><tr><td>22</td><td>U101</td><td>64.8°C</td><td>89.2°C</td></tr><tr><td>23</td><td>Q8</td><td>60.8°C</td><td>84.9°C</td></tr><tr><td>24</td><td>U102</td><td>53.5°C</td><td>77.5°C</td></tr><tr><td>25</td><td>D1</td><td>59.4°C</td><td>85.3°C</td></tr><tr><td>26</td><td>Q5</td><td>58°C</td><td>84.9°C</td></tr><tr><td>27</td><td>Q9</td><td>57.3°C</td><td>83.6°C</td></tr><tr><td>28</td><td>U4</td><td>51.5°C</td><td>76°C</td></tr><tr><td>29</td><td>U202</td><td>56.4°C</td><td>80.7°C</td></tr><tr><td>30</td><td>C109</td><td>48.6°C</td><td>72.5°C</td></tr><tr><td>31</td><td>C108</td><td>52.4°C</td><td>76.4°C</td></tr><tr><td>32</td><td>LF100</td><td>51.9°C</td><td>76.1°C</td></tr><tr><td>33</td><td>RY100</td><td>56°C</td><td>79.9°C</td></tr></table>			NO	Position	ROOM AMBIENT Ta= 25 °C	HIGH AMBIENT Ta= 50 °C	1	R10	45.8°C	71.7°C	2	RTH1	46.5°C	72.5°C	3	L2	49.4°C	74.9°C	4	C6	49.6°C	73.3°C	5	C5	51°C	75.4°C	6	L1	53.8°C	78°C	7	Q1	51.2°C	76.5°C	8	Q2	51.6°C	76.6°C	9	RTH2	52.2°C	77.6°C	10	D2	49.9°C	74.5°C	11	T1 Coil	70.1°C	93.5°C	12	T1 Core	66.8°C	89.9°C	13	C26	56.6°C	81.6°C	14	C49	56.4°C	81°C	15	C105	51.4°C	76.2°C	16	C107	49.5°C	75.5°C	17	C114	52.5°C	78.2°C	18	Q108	64.2°C	88.5°C	19	U1	62.8°C	87.3°C	20	Q103	55.1°C	80°C	21	Q101	56.1°C	81.4°C	22	U101	64.8°C	89.2°C	23	Q8	60.8°C	84.9°C	24	U102	53.5°C	77.5°C	25	D1	59.4°C	85.3°C	26	Q5	58°C	84.9°C	27	Q9	57.3°C	83.6°C	28	U4	51.5°C	76°C	29	U202	56.4°C	80.7°C	30	C109	48.6°C	72.5°C	31	C108	52.4°C	76.4°C	32	LF100	51.9°C	76.1°C	33	RY100	56°C	79.9°C
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13	C26	56.6°C	81.6°C																																																																																																																																									
14	C49	56.4°C	81°C																																																																																																																																									
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16	C107	49.5°C	75.5°C																																																																																																																																									
17	C114	52.5°C	78.2°C																																																																																																																																									
18	Q108	64.2°C	88.5°C																																																																																																																																									
19	U1	62.8°C	87.3°C																																																																																																																																									
20	Q103	55.1°C	80°C																																																																																																																																									
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22	U101	64.8°C	89.2°C																																																																																																																																									
23	Q8	60.8°C	84.9°C																																																																																																																																									
24	U102	53.5°C	77.5°C																																																																																																																																									
25	D1	59.4°C	85.3°C																																																																																																																																									
26	Q5	58°C	84.9°C																																																																																																																																									
27	Q9	57.3°C	83.6°C																																																																																																																																									
28	U4	51.5°C	76°C																																																																																																																																									
29	U202	56.4°C	80.7°C																																																																																																																																									
30	C109	48.6°C	72.5°C																																																																																																																																									
31	C108	52.4°C	76.4°C																																																																																																																																									
32	LF100	51.9°C	76.1°C																																																																																																																																									
33	RY100	56°C	79.9°C																																																																																																																																									

		<table><tr><th>NO</th><th>Position</th><th>ROOM AMBIENT Ta= 25 °C</th><th>HIGH AMBIENT Ta= 50 °C</th></tr><tr><td>34</td><td>LF2</td><td>52.2°C</td><td>77°C</td></tr><tr><td>35</td><td>BD1</td><td>57°C</td><td>81°C</td></tr><tr><td>36</td><td>L5</td><td>46.9°C</td><td>72.2°C</td></tr><tr><td>37</td><td>ZNR1</td><td>43.8°C</td><td>69.8°C</td></tr><tr><td>38</td><td>C1</td><td>47.1°C</td><td>72.2°C</td></tr><tr><td>39</td><td>RY1</td><td>45.1°C</td><td>71.5°C</td></tr><tr><td>40</td><td>TSW1</td><td>52.4°C</td><td>79.7°C</td></tr></table>			NO	Position	ROOM AMBIENT Ta= 25 °C	HIGH AMBIENT Ta= 50 °C	34	LF2	52.2°C	77°C	35	BD1	57°C	81°C	36	L5	46.9°C	72.2°C	37	ZNR1	43.8°C	69.8°C	38	C1	47.1°C	72.2°C	39	RY1	45.1°C	71.5°C	40	TSW1	52.4°C	79.7°C
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2	OVER LOAD BURN-IN TEST	NO DAMAGE 1 HOUR (MIN)	I/P : 230 VAC O/P : 121.43 % LOAD Ta : 25°C	TEST : OK																																
3	LOW TEMPERATURE TURN ON TEST	TURN ON AFTER 2 HOUR	I/P : 264VAC/100VAC O/P : 100 * LOAD Ta= -30 °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 : 272 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 : 230 VAC O/P : FULL LOAD	± 0.011 %/°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:230V/ FULL LOAD AC ON 3sec/AC OFF 1sec TEST 1cycle:230V/ 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 C105 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) 569840.7 HRS (2) 102140.8 HRS (3) 150968.6 HRS (4) 219601.8 HRS																																
10	MTBF	Conducted by Parts Stress Analysis Prediction 1482.0K hrs min. Telcordia SR-332 (Bellcore) ; 258.3K hrs min. MIL-HDBK-217F (25°C)																																		



11	Ongoing Reliability Test	I/P : 230VAC O/P : FULL LOAD TA=50°C Demonstration Mean Time Between Failure : 30,000 hours
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TEST RESULT	TESTER	REVIEW	APPROVAL
PASS	LIUTT	LIUTT	WANGZD

2020.10.1 TAG-QA-009