



# Test Report: XDR-150E-48

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150W 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

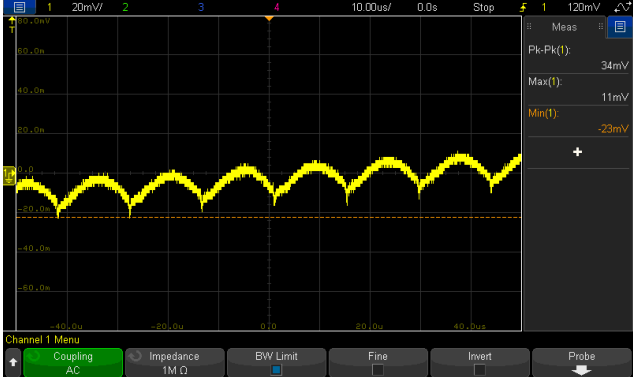
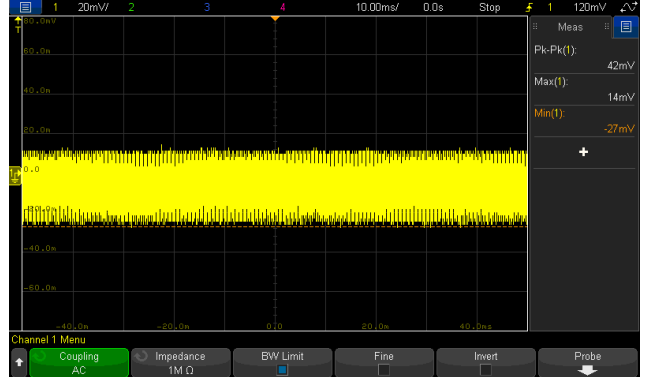
E.M.C. Test

## ■ RELIABILITY TEST

ENVIRONMENT TEST

## DESIGN VERIFY TEST

### OUTPUT FUNCTION TEST

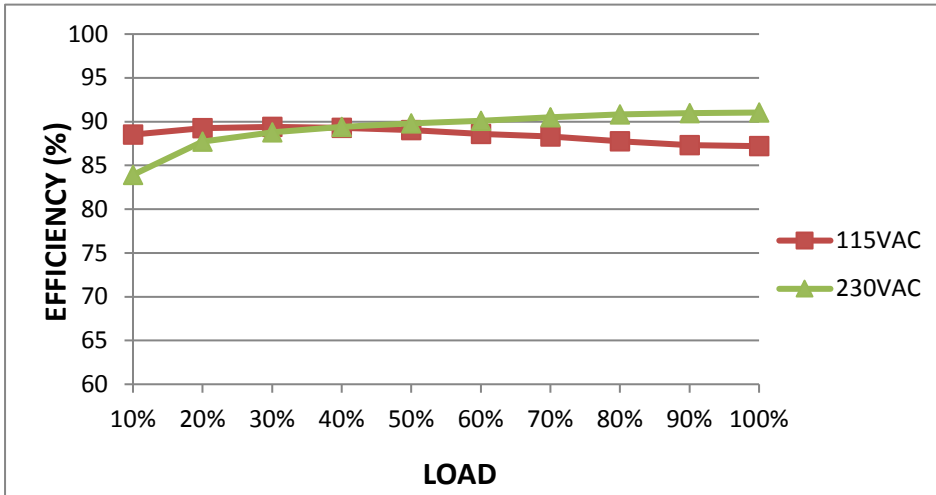
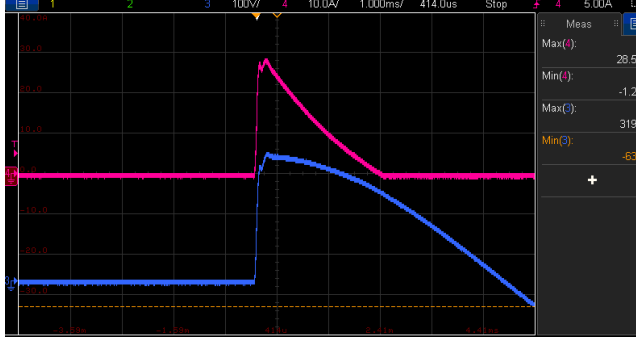
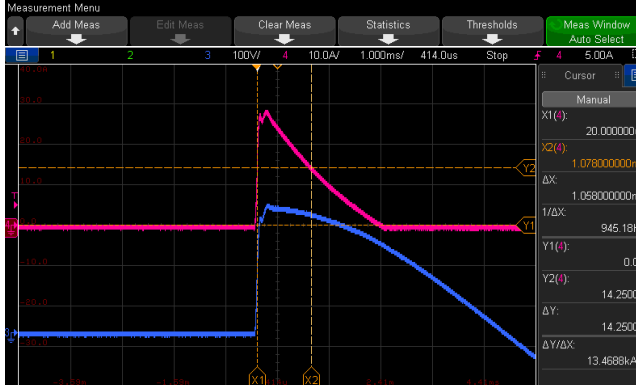
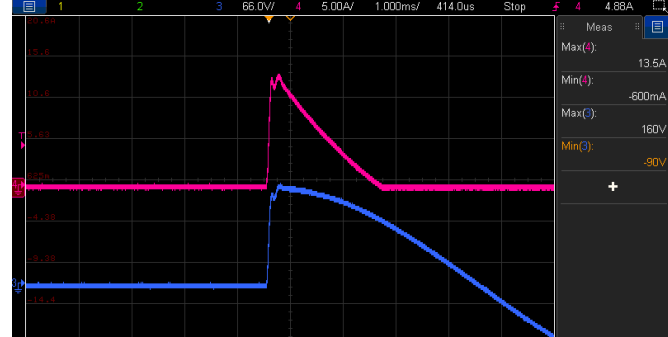
| NO                                                                                                                                                                                                                                                        | TEST ITEM                   | SPECIFICATION                  | TEST CONDITION                                                             | RESULT                                              |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|--------------------------------|----------------------------------------------------------------------------|-----------------------------------------------------|
| 1                                                                                                                                                                                                                                                         | OUTPUT VOLTAGE ADJUST RANGE | CH1: 48V~55V                   | I/P : 230 VAC<br>I/P : 115 VAC<br>O/P : MIN LOAD<br>Ta : 25°C              | 46.038V~56.53V/230VAC<br>46.038V~56.53V/115VAC      |
| 2                                                                                                                                                                                                                                                         | OUTPUT VOLTAGE TOLERANCE    | V1: -1% ~ +1%                  | I/P: 85VAC~ 264VAC<br>O/P:FULL~ MIN. LOAD<br>Ta:25°C                       | V1: -0.0208 % ~ 0.017%                              |
| 3                                                                                                                                                                                                                                                         | LINE REGULATION             | V1: -0.5% ~ +0.5%              | I/P: 85VAC~264VAC<br>O/P:FULL LOAD<br>Ta:25°C                              | V1: -0.0125% ~0.00208 %                             |
| 4                                                                                                                                                                                                                                                         | LOAD REGULATION             | V1: -1% ~ +1%                  | I/P: 230VAC<br>O/P:FULL ~MIN LOAD<br>Ta:25°C                               | V1: -0.0208 % ~ 0.017%                              |
| 5                                                                                                                                                                                                                                                         | OVER/UNDERSHOOT TEST        | <±5%                           | I/P: 230VAC<br>O/P:FULL LOAD / NO LOAD<br>Ta:25°C                          | 2.1% →FULL LOAD<br>1.3% →NO LOAD                    |
| 6                                                                                                                                                                                                                                                         | RIPPLE & NOISE (Max)        | V1:200mVp-p                    | I/P:230VAC<br>O/P:FULL LOAD<br>Ta:25°C                                     | 34mVp-p / high frequency<br>42mVp-p / low frequency |
| <div> <div>high frequency :</div>  </div> <div> <div>low frequency :</div>  </div> |                             |                                |                                                                            |                                                     |
| 7                                                                                                                                                                                                                                                         | SET UP TIME(Max)            | 230VAC/1200ms<br>115VAC/2500ms | I/P : 230 VAC<br>I/P : 115 VAC<br>O/P : FULL LOAD<br>Ta : 25°C             | 230VAC/329.4ms<br>115VAC/286.5ms                    |
| INPUT=230VAC/50HZ @ FULL LOAD<br>CH1: Output Voltage CH3: AC Input Voltage                                                                                                                                                                                |                             |                                | INPUT=115VAC/60HZ @ FULL LOAD<br>CH1: Output Voltage CH3: AC Input Voltage |                                                     |

|                                                                            |                    |                            |                                                                                                              |                                    |
|----------------------------------------------------------------------------|--------------------|----------------------------|--------------------------------------------------------------------------------------------------------------|------------------------------------|
|                                                                            |                    |                            |                                                                                                              |                                    |
| 8                                                                          | RISE TIME (Max)    | 230VAC/60ms<br>115VAC/60ms | I/P : 230 VAC<br>I/P : 115 VAC<br>O/P : FULL LOAD<br>Ta : 25°C                                               | 230VAC/ 41.47ms<br>115VAC/ 30.38ms |
| INPUT=230VAC/50HZ @ FULL LOAD<br>CH1: Output Voltage                       |                    |                            |                                                                                                              |                                    |
|                                                                            |                    |                            |                                                                                                              |                                    |
| INPUT=115VAC/60HZ @ FULL LOAD<br>CH1: Output Voltage                       |                    |                            |                                                                                                              |                                    |
|                                                                            |                    |                            |                                                                                                              |                                    |
| 9                                                                          | HOLD UP TIME(Typ.) | 230VAC/16ms<br>115VAC/8ms  | I/P : 230 VAC<br>I/P : 115 VAC<br>O/P : FULL LOAD<br>Ta : 25°C                                               | 230VAC/48.0ms<br>115VAC/10.0 ms    |
| INPUT=230VAC/50HZ @ FULL LOAD<br>CH1: Output Voltage CH3: AC Input Voltage |                    |                            |                                                                                                              |                                    |
|                                                                            |                    |                            |                                                                                                              |                                    |
| INPUT=115VAC/60HZ @ FULL LOAD<br>CH1: Output Voltage CH3: AC Input Voltage |                    |                            |                                                                                                              |                                    |
|                                                                            |                    |                            |                                                                                                              |                                    |
| 10                                                                         | DYNAMIC LOAD       | V1: 4800mVp-p              | I/P: 230VAC<br>O/P:<br>(1) FULL/ MIN LOAD<br>50%DUTY/120HZ<br>(2) FULL/ MIN LOAD 50%DUTY/<br>1KHZ<br>Ta:25°C | 820mVp-p<br>354mVp-p               |

|    |                         |                                                                                   |                                                              |                                                                                    |  |
|----|-------------------------|-----------------------------------------------------------------------------------|--------------------------------------------------------------|------------------------------------------------------------------------------------|--|
|    |                         | FULL / MIN LOAD 50%DUTY/120HZ                                                     |                                                              | FULL / MIN LOAD 50%DUTY/ 1KHZ                                                      |  |
|    |                         |  |                                                              |  |  |
| 11 | TRANSIENT RECOVERY TIME | V1:4800mVp-p<br><500us                                                            | I/P: 230VAC<br>O/P:40% LOAD CHANGE<br>50%DUTY/120HZ 1.25A/us | 211mVp-p<br>0us                                                                    |  |

## INPUT FUNCTION TEST

| NO | TEST ITEM             | SPECIFICATION                  | TEST CONDITION                                                                                                                                                                                                                                                                                                                                                | RESULT                                                                                                                                                                                                                                                                 |
|----|-----------------------|--------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1  | INPUT VOLTAGE RANGE   | 85VAC~264VAC<br>120VDC~ 370VDC | (1) I/P: TESTING<br>O/P: FULL / 80% LOAD/ 70% LOAD<br>(2) I/P: DC TESTING (L: + N: -)<br>O/P: FULL / 80% LOAD/ 70% LOAD<br>(3) I/P: DC TESTING (L: - N: +)<br>O/P: FULL / 80% LOAD/ 70% LOAD<br>Ta:25°C<br><br>I/P:<br>HIGH-LINE+15%=300V<br>O/P:FULL/MIN LOAD<br>(PLEASE CHECK DERATING CURVE)<br>ON: 30 Sec OFF: 30 Sec 10MIN<br>( POWER ON/OFF NO DAMAGE ) | (1) 90.8V~264V/ FULL LOAD<br>69.2V~264V/ 80% LOAD<br>67.5V~264V/ 70% LOAD<br>(2) 95.5Vdc~370Vdc/FULL LOAD<br>94.9Vdc~370Vdc/80% LOAD<br>94.8Vdc~370Vdc/70% LOAD<br>(3) 95.1Vdc~370Vdc/FULL LOAD<br>95.0Vdc~370Vdc/80% LOAD<br>94.6Vdc~370Vdc/70% LOAD<br><br>TEST : OK |
| 2  | INPUT FREQUENCY RANGE | 47HZ ~63 HZ<br>NO DAMAGE       | I/P:85VAC ~264 VAC<br>O/P:FULL~MIN LOAD<br>Ta:25°C                                                                                                                                                                                                                                                                                                            | TEST : OK                                                                                                                                                                                                                                                              |
| 3  | INPUT CURRENT(Typ.)   | 230V/ 1.6A<br>115V/ 2.6A       | I/P : 230 VAC<br>I/P : 115 VAC<br>O/P : FULL LOAD<br>Ta : 25°C                                                                                                                                                                                                                                                                                                | I =1.4613A/ 230VAC<br>I =2.0763A/ 115VAC                                                                                                                                                                                                                               |
| 4  | LEAKAGE CURRENT       | <1mA / 240 VAC                 | I/P : 240 VAC/60HZ<br>O/P : Min LOAD<br>Ta : 25°C                                                                                                                                                                                                                                                                                                             | 0.7587 mA                                                                                                                                                                                                                                                              |
| 5  | NO LOAD CONSUMPTION   | <1W                            | I/P : 230VAC<br>I/P : 115VAC<br>O/P : NO LOAD<br>Ta : 25°C                                                                                                                                                                                                                                                                                                    | 0.856W/230VAC<br>0.492W/ 115VAC                                                                                                                                                                                                                                        |

| 6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | EFFICIENCY(Typ.)     | 91%                                | I/P:230 VAC<br>O/P:FULL LOAD<br>Ta:25°C                        | 91.04%                                                   |      |        |        |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |      |    |    |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|------------------------------------|----------------------------------------------------------------|----------------------------------------------------------|------|--------|--------|-----|----|----|-----|----|----|-----|----|----|-----|----|----|-----|----|----|-----|----|----|-----|----|----|-----|----|----|-----|----|----|------|----|----|
| <div>EFFICIENCY vs LOAD</div>  <table><caption>Efficiency vs Load Data (Approximate)</caption><thead><tr><th>LOAD</th><th>115VAC</th><th>230VAC</th></tr></thead><tbody><tr><td>10%</td><td>88</td><td>84</td></tr><tr><td>20%</td><td>89</td><td>87</td></tr><tr><td>30%</td><td>89</td><td>88</td></tr><tr><td>40%</td><td>89</td><td>89</td></tr><tr><td>50%</td><td>88</td><td>90</td></tr><tr><td>60%</td><td>88</td><td>90</td></tr><tr><td>70%</td><td>87</td><td>91</td></tr><tr><td>80%</td><td>87</td><td>91</td></tr><tr><td>90%</td><td>87</td><td>91</td></tr><tr><td>100%</td><td>87</td><td>91</td></tr></tbody></table>                                                                                 |                      |                                    |                                                                |                                                          | LOAD | 115VAC | 230VAC | 10% | 88 | 84 | 20% | 89 | 87 | 30% | 89 | 88 | 40% | 89 | 89 | 50% | 88 | 90 | 60% | 88 | 90 | 70% | 87 | 91 | 80% | 87 | 91 | 90% | 87 | 91 | 100% | 87 | 91 |
| LOAD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 115VAC               | 230VAC                             |                                                                |                                                          |      |        |        |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |      |    |    |
| 10%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 88                   | 84                                 |                                                                |                                                          |      |        |        |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |      |    |    |
| 20%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 89                   | 87                                 |                                                                |                                                          |      |        |        |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |      |    |    |
| 30%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 89                   | 88                                 |                                                                |                                                          |      |        |        |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |      |    |    |
| 40%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 89                   | 89                                 |                                                                |                                                          |      |        |        |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |      |    |    |
| 50%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 88                   | 90                                 |                                                                |                                                          |      |        |        |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |      |    |    |
| 60%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 88                   | 90                                 |                                                                |                                                          |      |        |        |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |      |    |    |
| 70%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 87                   | 91                                 |                                                                |                                                          |      |        |        |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |      |    |    |
| 80%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 87                   | 91                                 |                                                                |                                                          |      |        |        |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |      |    |    |
| 90%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 87                   | 91                                 |                                                                |                                                          |      |        |        |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |      |    |    |
| 100%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 87                   | 91                                 |                                                                |                                                          |      |        |        |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |      |    |    |
| 7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | INRUSH CURRENT(Typ.) | 230V/40A<br>115V/20A<br>COLD START | I/P : 230 VAC<br>I/P : 115 VAC<br>O/P : FULL LOAD<br>Ta : 25°C | I =28.5A/ 230VAC<br>I =13.5A/ 115VAC<br>T50= 1058us/230V |      |        |        |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |      |    |    |
| <div><div>INPUT=230VAC/50HZ @ FULL LOAD<br/>CH1: AC Input Voltage CH4: Input current</div><div>Measurement Menu<br/>Add Meas Edit Meas Clear Meas Statistics Thresholds Meas Window Auto Select</div><div>Cursors Menu<br/>Mode Manual Source Cursors Units<br/>X1: 20.000000us X2: 1.07800000ms Y1: 0.0A Y2: 14.2500A</div></div> <div><div>INPUT=115VAC/ 60HZ @ FULL LOAD<br/>CH1: AC Input Voltage CH4: Input current</div><div>Measurement Menu<br/>Add Meas Edit Meas Clear Meas Statistics Thresholds Meas Window Auto Select</div></div> |                      |                                    |                                                                |                                                          |      |        |        |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |      |    |    |

## PROTECTION FUNCTION TEST

| NO | TEST ITEM                   | SPECIFICATION                                                                                                                                                                                             | TEST CONDITION                                                                                                        | RESULT                                                                                                                                                                                                                                      |
|----|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1  | OVER LOAD PROTECTION        | 105%~130% rated output power/230VAC<br>105%~150% rated output power/115VAC<br><br>Protection type:<br>Constant current limiting without shutdown, recovers automatically after fault condition is removed | I/P: 264VAC<br>I/P: 230VAC<br>I/P: 180VAC<br><br>I/P: 165VAC<br>I/P: 115VAC<br>I/P: 100VAC<br>O/P: TESTING<br>Ta:25°C | 111.84%/ 264VAC<br>112.15%/ 230VAC<br>111.53%/180VAC<br><br>139.42%/ 165VAC<br>139.8%/ 115VAC<br>135.76%/100VAC<br>PROTECTION TYPE :<br>Constant current limiting without shutdown, recovers automatically after fault condition is removed |
| 2  | OVER VOLTAGE PROTECTION     | 56V~65V<br>Protection type:<br>Shut down o/p voltage, re-power on to recover                                                                                                                              | I/P: 264VAC<br>I/P: 85VAC<br>O/P: MIN LOAD<br>Ta:25°C                                                                 | 58.9V/264VAC<br>59.1V/ 85VAC<br>PROTECTION TYPE :<br>Shut down o/p voltage, re-power on to recover                                                                                                                                          |
| 3  | OVER TEMPERATURE PROTECTION | Protection type:<br>Shut down o/p voltage, recovers automatically after fault condition is removed                                                                                                        | I/P: 264VAC<br>I/P: 85VAC<br>O/P: FULL LOAD                                                                           | O.T.P. Active OK<br>Protection type :<br>Shut down o/p voltage, recovers automatically after fault condition is removed                                                                                                                     |
| 4  | SHORT PROTECTION            | SHORT EVERY OUTPUT<br>1 HOUR NO DAMAGE<br>Protection type:<br>Constant current limiting without shutdown, recovers automatically after fault condition is removed                                         | I/P: 264VAC<br>I/P: 85VAC<br>O/P: FULL LOAD<br>Ta:25°C                                                                | NO DAMAGE OK<br>PROTECTION TYPE :<br>Constant current limiting without shutdown, recovers automatically after fault condition is removed                                                                                                    |

## CONTROL FUNCTION TEST

| NO | TEST ITEM             | SPECIFICATION                            | TEST CONDITION                           | RESULT    |
|----|-----------------------|------------------------------------------|------------------------------------------|-----------|
| 1  | DC OK CONTACT RATINGS | 30VDC/1A<br>30VAC/0.5A<br>RESISTIVE LOAD | I/P: 230VAC<br>O/P: FULL LOAD<br>Ta:25°C | TEST : OK |

## COMPONENT STRESS TEST

| NO | TEST ITEM                                               | SPECIFICATION            | TEST CONDITION                                                                                                                                           | RESULT                                                                 |
|----|---------------------------------------------------------|--------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------|
| 1  | PWM Transistor<br>( D to S ) or ( C to E ) Peak Voltage | Q1 :<br>Rated : 14A/650V | AC ON/OFF<br>I/P: High-Line +3V = 267V<br>VDS:<br>O/P: (1) Full Load 3.25A<br>(2) Output Short<br>(3) Dynamic Load Full Load/<br>Min. Load 90% Duty/1KHz | Q1<br>VDS:<br>(1) 548V<br>(2) 544V<br>(3) 548V<br>(4) 556V<br>(5) 556V |

|   |                          |                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                  |
|---|--------------------------|--------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|   |                          |                                                                    | (4)Dynamic Load Full Load/<br>Min. Load 90%Duty/3KHz<br>(5)Dynamic Load Full Load/<br>Min. Load 90%Duty/5KHz<br>(6)Dynamic Load 100% Load/<br>Min. Load 50%Duty/120Hz<br>(7)0%→400% Load<br>Ta:25°C                                                                                                                                                                                                                         | (6) 556V<br>(7) 548V                                                                                                                                                                                             |
| 2 | Diode PeakVoltage        | Q100 :<br>Rated : 10A/300V                                         | AC ON/OFF<br>I/P: High-Line +3V =267 V<br><u>VO=Vomax</u><br>O/P: (1)Full Load<br>(2)Output Short<br>(3)Dynamic Load Full Load/<br>Min. Load 90%Duty/1KHz<br>(4)Dynamic Load Full Load/<br>Min. Load 90%Duty/3KHz<br>(5)Dynamic Load Full Load/<br>Min. Load 90%Duty/5KHz<br>(6)Dynamic Load 100% Load/<br>Min. Load 50%Duty/120Hz<br>(7)0%→400% Load.<br>(8).NO LOAD<br><u>VO=Vnormal</u><br>O/P: (1) Full Load<br>Ta:25°C | <u>VO= Vomax</u><br>VDS:<br>(1) 245V<br>(2) 245V<br>(3) 245V<br>(4) 245V<br>(5) 245V<br>(6) 245V<br>(7) 247V<br>(8) 245V<br><u>VO=Vnormal</u><br>(1) 238V                                                        |
| 3 | Input Capacitor Voltage  | C5<br>Rated:<br>180μ/ 400V                                         | I/P:High-Line +3V =267V<br>O/P: (1)Full Load input on/off<br>(2) Min load input on /Off<br>(3)Full Load /Min load Change<br>(4)Full load continue<br>Ta:25°C                                                                                                                                                                                                                                                                | (1)376V<br>(2)376V<br>(3)376V<br>(4)372V                                                                                                                                                                         |
| 4 | Control IC Voltage Test  | PWM IC U1:<br>Rated : 9.5V~ 27V<br><br>IC U107 :<br>Rated : 3V~30V | AC ON/OFF<br>I/P: High-Line +3V =267 V<br>O/P: (1) FULL LOAD<br>(2) Output Short<br>(3) O.L.P<br>(4) O.V.P.<br>(5) NO LOAD VRmin (LOW LINE)<br>Ta:25°C                                                                                                                                                                                                                                                                      | U1                      U107<br>(1) 17.0V              (1) 11.7V<br>(2) 17.0V              (2) 12.3V<br>(3) 17.1V              (3) 12.0V<br>(4) 17.2V              (4) 11.5V<br>(5) 17.0V              (5) 11.5V |
| 5 | Clamp Diode Peak Voltage | D10 :<br>Rated : 620V/1A                                           | AC ON/OFF<br>I/P : High-Line +3V = 267 V<br>O/P : (1) Dynamic Load<br>90%Duty/1KHz<br>(2) Full load continue<br>Ta : 25°C                                                                                                                                                                                                                                                                                                   | (1)471V<br>(2)467V                                                                                                                                                                                               |

## ■ SAFETY& E.M.C. TEST

### SAFETY TEST

| NO | TEST ITEM           | SPECIFICATION                                                                                  | TEST CONDITION                                                                                              | RESULT                                                                                     |
|----|---------------------|------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|
| 1  | WITHSTANDVOLTAGE    | I/P-O/P: 4 K VAC/min<br>I/P-FG: 2 K VAC/min<br>O/P-FG: 1.5 KVAC/min<br>O/P-DC OK: 0.5 KVAC/min | I/P-O/P: 4.4 KVAC/min<br>I/P-FG: 2.4 KVAC/min<br>O/P-FG: 1.8 KVAC/min<br>O/P-DC OK: 0.6 KVAC/min<br>Ta:25°C | I/P-O/P: 6.66 mA<br>I/P-FG: 5.50 mA<br>O/P-FG: 6.48 mA<br>O/P-DC OK: 0.005 mA<br>NO DAMAGE |
| 2  | ISOLATIONRESISTANCE | I/P-O/P: 500 VDC>100MΩ<br>O/P-FG: 500 VDC>100MΩ<br>I/P-FG: 500 VDC >100MΩ                      | I/P-O/P: 600 VDC<br>I/P-FG: 600 VDC<br>O/P-FG: 600 VDC<br>Ta:25°C                                           | I/P-O/P: 50 GΩ<br>I/P-FG: 50 GΩ<br>O/P-FG: 50 GΩ<br>NO DAMAGE                              |
| 3  | GROUNDINGCONTINUITY | FG(PE) TO CHASSIS<br>OR TRACE < 100 mΩ                                                         | 40A / 2min<br>Ta:25°C                                                                                       | 8mΩ                                                                                        |

### E.M.C TEST

| NO | TEST ITEM                                                                                                                         | SPECIFICATION                                                               | TEST CONDITION                                           | RESULT                        |
|----|-----------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|----------------------------------------------------------|-------------------------------|
| 1  | HARMONIC                                                                                                                          | BS EN/EN61000-3-2<br>CLASS A                                                | I/P:230VAC/50HZ<br>O/P: FULL LOAD<br>Ta:25°C             | PASS                          |
| 2  | CONDUCTION                                                                                                                        | BS EN/EN55032 (CISPR32)/<br>BS EN/EN61204-3/<br>CNS15936<br>CLASS B         | I/P : 230 VAC (50HZ)<br>O/P : FULL/50% LOAD<br>Ta : 25°C | PASS<br>Test by certified Lab |
| 3  | RADIATION                                                                                                                         | BS EN/EN55032 (CISPR32)/<br>BS EN/EN61204-3/<br>CNS15936<br>CLASS B         | I/P : 230 VAC (50HZ)<br>O/P : FULL LOAD<br>Ta : 25°C     | PASS<br>Test by certified Lab |
| 4  | E.S.D                                                                                                                             | BS EN/EN61000-4-2<br>INDUSTRY<br>AIR : 8KV / Contact : 4KV                  | I/P : 230 VAC/50HZ<br>O/P : FULL LOAD<br>Ta : 25°C       | CRITERIA A                    |
| 5  | E.F.T                                                                                                                             | BS EN/EN61000-4-4<br>INDUSTRY<br>INPUT : 2KV                                | I/P : 230 VAC/50HZ<br>O/P : FULL LOAD<br>Ta : 25°C       | CRITERIA A                    |
| 6  | SURGE                                                                                                                             | BS EN/EN61000-4-5<br>INDUSTRY<br>Line-Line : 2KV<br>Line-Line-Chassis : 4KV | I/P : 230 VAC/50HZ<br>O/P : FULL LOAD<br>Ta : 25°C       | CRITERIA A                    |
| 7  | Test by certified Lab & Test Report Prepare<br>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-150E-48<br>1. ROOM AMBIENT BURN-IN : 2HRS<br>I/P : 230VAC O/P : FULL LOAD Ta= 25.8 °C<br>2. HIGH AMBIENT BURN-IN : 2HRS<br>I/P : 230VAC O/P : FULL LOAD Ta= 50 °C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                       |        |    |          |                        |                       |   |      |        |        |   |     |        |        |   |     |        |        |   |       |      |        |   |      |        |      |   |    |        |        |   |     |        |        |   |      |        |       |   |      |        |        |    |    |        |      |    |     |        |        |    |    |        |        |    |     |        |        |    |     |        |        |    |    |        |        |    |         |        |        |    |         |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |    |        |        |    |      |        |        |    |    |        |      |    |     |        |        |    |    |        |      |    |      |      |        |    |    |        |        |    |      |        |        |
|    |                       | <table><tr><th>NO</th><th>Position</th><th>ROOM AMBIENTTa= 25.8°C</th><th>HIGH AMBIENT Ta= 50°C</th></tr><tr><td>1</td><td>ZNR1</td><td>46.6°C</td><td>70.9°C</td></tr><tr><td>2</td><td>LF1</td><td>49.3°C</td><td>73.5°C</td></tr><tr><td>3</td><td>RY1</td><td>57.3°C</td><td>80.3°C</td></tr><tr><td>4</td><td>LF100</td><td>55°C</td><td>78.4°C</td></tr><tr><td>5</td><td>C115</td><td>51.6°C</td><td>75°C</td></tr><tr><td>6</td><td>C1</td><td>50.3°C</td><td>75.2°C</td></tr><tr><td>7</td><td>LF2</td><td>61.7°C</td><td>85.2°C</td></tr><tr><td>8</td><td>RTH2</td><td>87.4°C</td><td>101°C</td></tr><tr><td>9</td><td>RTH1</td><td>80.4°C</td><td>95.7°C</td></tr><tr><td>10</td><td>R6</td><td>71.7°C</td><td>88°C</td></tr><tr><td>11</td><td>BD1</td><td>52.4°C</td><td>75.2°C</td></tr><tr><td>12</td><td>C5</td><td>55.3°C</td><td>78.2°C</td></tr><tr><td>13</td><td>C35</td><td>60.8°C</td><td>83.3°C</td></tr><tr><td>14</td><td>R50</td><td>67.3°C</td><td>90.3°C</td></tr><tr><td>15</td><td>Q1</td><td>67.1°C</td><td>91.6°C</td></tr><tr><td>16</td><td>T1 Coil</td><td>66.7°C</td><td>88.9°C</td></tr><tr><td>17</td><td>T1 Core</td><td>59.2°C</td><td>81.7°C</td></tr><tr><td>18</td><td>RTH3</td><td>61.5°C</td><td>83.7°C</td></tr><tr><td>19</td><td>C118</td><td>65.5°C</td><td>87.8°C</td></tr><tr><td>20</td><td>C107</td><td>60.1°C</td><td>83.2°C</td></tr><tr><td>21</td><td>C105</td><td>63.8°C</td><td>86.7°C</td></tr><tr><td>22</td><td>R100</td><td>73.3°C</td><td>96.7°C</td></tr><tr><td>23</td><td>Q100</td><td>76.6°C</td><td>98.7°C</td></tr><tr><td>24</td><td>J110</td><td>68.4°C</td><td>91.7°C</td></tr><tr><td>25</td><td>U1</td><td>56.7°C</td><td>79.7°C</td></tr><tr><td>26</td><td>U107</td><td>55.6°C</td><td>78.3°C</td></tr><tr><td>27</td><td>U2</td><td>53.2°C</td><td>76°C</td></tr><tr><td>28</td><td>D10</td><td>70.3°C</td><td>93.3°C</td></tr><tr><td>29</td><td>Q2</td><td>65.5°C</td><td>88°C</td></tr><tr><td>30</td><td>D102</td><td>72°C</td><td>94.3°C</td></tr><tr><td>31</td><td>D7</td><td>65.5°C</td><td>87.4°C</td></tr><tr><td>32</td><td>Q200</td><td>68.3°C</td><td>91.6°C</td></tr></table> |                       |        | NO | Position | ROOM AMBIENTTa= 25.8°C | HIGH AMBIENT Ta= 50°C | 1 | ZNR1 | 46.6°C | 70.9°C | 2 | LF1 | 49.3°C | 73.5°C | 3 | RY1 | 57.3°C | 80.3°C | 4 | LF100 | 55°C | 78.4°C | 5 | C115 | 51.6°C | 75°C | 6 | C1 | 50.3°C | 75.2°C | 7 | LF2 | 61.7°C | 85.2°C | 8 | RTH2 | 87.4°C | 101°C | 9 | RTH1 | 80.4°C | 95.7°C | 10 | R6 | 71.7°C | 88°C | 11 | BD1 | 52.4°C | 75.2°C | 12 | C5 | 55.3°C | 78.2°C | 13 | C35 | 60.8°C | 83.3°C | 14 | R50 | 67.3°C | 90.3°C | 15 | Q1 | 67.1°C | 91.6°C | 16 | T1 Coil | 66.7°C | 88.9°C | 17 | T1 Core | 59.2°C | 81.7°C | 18 | RTH3 | 61.5°C | 83.7°C | 19 | C118 | 65.5°C | 87.8°C | 20 | C107 | 60.1°C | 83.2°C | 21 | C105 | 63.8°C | 86.7°C | 22 | R100 | 73.3°C | 96.7°C | 23 | Q100 | 76.6°C | 98.7°C | 24 | J110 | 68.4°C | 91.7°C | 25 | U1 | 56.7°C | 79.7°C | 26 | U107 | 55.6°C | 78.3°C | 27 | U2 | 53.2°C | 76°C | 28 | D10 | 70.3°C | 93.3°C | 29 | Q2 | 65.5°C | 88°C | 30 | D102 | 72°C | 94.3°C | 31 | D7 | 65.5°C | 87.4°C | 32 | Q200 | 68.3°C | 91.6°C |
| NO | Position              | ROOM AMBIENTTa= 25.8°C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | HIGH AMBIENT Ta= 50°C |        |    |          |                        |                       |   |      |        |        |   |     |        |        |   |     |        |        |   |       |      |        |   |      |        |      |   |    |        |        |   |     |        |        |   |      |        |       |   |      |        |        |    |    |        |      |    |     |        |        |    |    |        |        |    |     |        |        |    |     |        |        |    |    |        |        |    |         |        |        |    |         |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |    |        |        |    |      |        |        |    |    |        |      |    |     |        |        |    |    |        |      |    |      |      |        |    |    |        |        |    |      |        |        |
| 1  | ZNR1                  | 46.6°C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 70.9°C                |        |    |          |                        |                       |   |      |        |        |   |     |        |        |   |     |        |        |   |       |      |        |   |      |        |      |   |    |        |        |   |     |        |        |   |      |        |       |   |      |        |        |    |    |        |      |    |     |        |        |    |    |        |        |    |     |        |        |    |     |        |        |    |    |        |        |    |         |        |        |    |         |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |    |        |        |    |      |        |        |    |    |        |      |    |     |        |        |    |    |        |      |    |      |      |        |    |    |        |        |    |      |        |        |
| 2  | LF1                   | 49.3°C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 73.5°C                |        |    |          |                        |                       |   |      |        |        |   |     |        |        |   |     |        |        |   |       |      |        |   |      |        |      |   |    |        |        |   |     |        |        |   |      |        |       |   |      |        |        |    |    |        |      |    |     |        |        |    |    |        |        |    |     |        |        |    |     |        |        |    |    |        |        |    |         |        |        |    |         |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |    |        |        |    |      |        |        |    |    |        |      |    |     |        |        |    |    |        |      |    |      |      |        |    |    |        |        |    |      |        |        |
| 3  | RY1                   | 57.3°C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 80.3°C                |        |    |          |                        |                       |   |      |        |        |   |     |        |        |   |     |        |        |   |       |      |        |   |      |        |      |   |    |        |        |   |     |        |        |   |      |        |       |   |      |        |        |    |    |        |      |    |     |        |        |    |    |        |        |    |     |        |        |    |     |        |        |    |    |        |        |    |         |        |        |    |         |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |    |        |        |    |      |        |        |    |    |        |      |    |     |        |        |    |    |        |      |    |      |      |        |    |    |        |        |    |      |        |        |
| 4  | LF100                 | 55°C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 78.4°C                |        |    |          |                        |                       |   |      |        |        |   |     |        |        |   |     |        |        |   |       |      |        |   |      |        |      |   |    |        |        |   |     |        |        |   |      |        |       |   |      |        |        |    |    |        |      |    |     |        |        |    |    |        |        |    |     |        |        |    |     |        |        |    |    |        |        |    |         |        |        |    |         |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |    |        |        |    |      |        |        |    |    |        |      |    |     |        |        |    |    |        |      |    |      |      |        |    |    |        |        |    |      |        |        |
| 5  | C115                  | 51.6°C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 75°C                  |        |    |          |                        |                       |   |      |        |        |   |     |        |        |   |     |        |        |   |       |      |        |   |      |        |      |   |    |        |        |   |     |        |        |   |      |        |       |   |      |        |        |    |    |        |      |    |     |        |        |    |    |        |        |    |     |        |        |    |     |        |        |    |    |        |        |    |         |        |        |    |         |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |    |        |        |    |      |        |        |    |    |        |      |    |     |        |        |    |    |        |      |    |      |      |        |    |    |        |        |    |      |        |        |
| 6  | C1                    | 50.3°C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 75.2°C                |        |    |          |                        |                       |   |      |        |        |   |     |        |        |   |     |        |        |   |       |      |        |   |      |        |      |   |    |        |        |   |     |        |        |   |      |        |       |   |      |        |        |    |    |        |      |    |     |        |        |    |    |        |        |    |     |        |        |    |     |        |        |    |    |        |        |    |         |        |        |    |         |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |    |        |        |    |      |        |        |    |    |        |      |    |     |        |        |    |    |        |      |    |      |      |        |    |    |        |        |    |      |        |        |
| 7  | LF2                   | 61.7°C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 85.2°C                |        |    |          |                        |                       |   |      |        |        |   |     |        |        |   |     |        |        |   |       |      |        |   |      |        |      |   |    |        |        |   |     |        |        |   |      |        |       |   |      |        |        |    |    |        |      |    |     |        |        |    |    |        |        |    |     |        |        |    |     |        |        |    |    |        |        |    |         |        |        |    |         |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |    |        |        |    |      |        |        |    |    |        |      |    |     |        |        |    |    |        |      |    |      |      |        |    |    |        |        |    |      |        |        |
| 8  | RTH2                  | 87.4°C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 101°C                 |        |    |          |                        |                       |   |      |        |        |   |     |        |        |   |     |        |        |   |       |      |        |   |      |        |      |   |    |        |        |   |     |        |        |   |      |        |       |   |      |        |        |    |    |        |      |    |     |        |        |    |    |        |        |    |     |        |        |    |     |        |        |    |    |        |        |    |         |        |        |    |         |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |    |        |        |    |      |        |        |    |    |        |      |    |     |        |        |    |    |        |      |    |      |      |        |    |    |        |        |    |      |        |        |
| 9  | RTH1                  | 80.4°C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 95.7°C                |        |    |          |                        |                       |   |      |        |        |   |     |        |        |   |     |        |        |   |       |      |        |   |      |        |      |   |    |        |        |   |     |        |        |   |      |        |       |   |      |        |        |    |    |        |      |    |     |        |        |    |    |        |        |    |     |        |        |    |     |        |        |    |    |        |        |    |         |        |        |    |         |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |    |        |        |    |      |        |        |    |    |        |      |    |     |        |        |    |    |        |      |    |      |      |        |    |    |        |        |    |      |        |        |
| 10 | R6                    | 71.7°C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 88°C                  |        |    |          |                        |                       |   |      |        |        |   |     |        |        |   |     |        |        |   |       |      |        |   |      |        |      |   |    |        |        |   |     |        |        |   |      |        |       |   |      |        |        |    |    |        |      |    |     |        |        |    |    |        |        |    |     |        |        |    |     |        |        |    |    |        |        |    |         |        |        |    |         |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |    |        |        |    |      |        |        |    |    |        |      |    |     |        |        |    |    |        |      |    |      |      |        |    |    |        |        |    |      |        |        |
| 11 | BD1                   | 52.4°C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 75.2°C                |        |    |          |                        |                       |   |      |        |        |   |     |        |        |   |     |        |        |   |       |      |        |   |      |        |      |   |    |        |        |   |     |        |        |   |      |        |       |   |      |        |        |    |    |        |      |    |     |        |        |    |    |        |        |    |     |        |        |    |     |        |        |    |    |        |        |    |         |        |        |    |         |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |    |        |        |    |      |        |        |    |    |        |      |    |     |        |        |    |    |        |      |    |      |      |        |    |    |        |        |    |      |        |        |
| 12 | C5                    | 55.3°C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 78.2°C                |        |    |          |                        |                       |   |      |        |        |   |     |        |        |   |     |        |        |   |       |      |        |   |      |        |      |   |    |        |        |   |     |        |        |   |      |        |       |   |      |        |        |    |    |        |      |    |     |        |        |    |    |        |        |    |     |        |        |    |     |        |        |    |    |        |        |    |         |        |        |    |         |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |    |        |        |    |      |        |        |    |    |        |      |    |     |        |        |    |    |        |      |    |      |      |        |    |    |        |        |    |      |        |        |
| 13 | C35                   | 60.8°C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 83.3°C                |        |    |          |                        |                       |   |      |        |        |   |     |        |        |   |     |        |        |   |       |      |        |   |      |        |      |   |    |        |        |   |     |        |        |   |      |        |       |   |      |        |        |    |    |        |      |    |     |        |        |    |    |        |        |    |     |        |        |    |     |        |        |    |    |        |        |    |         |        |        |    |         |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |    |        |        |    |      |        |        |    |    |        |      |    |     |        |        |    |    |        |      |    |      |      |        |    |    |        |        |    |      |        |        |
| 14 | R50                   | 67.3°C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 90.3°C                |        |    |          |                        |                       |   |      |        |        |   |     |        |        |   |     |        |        |   |       |      |        |   |      |        |      |   |    |        |        |   |     |        |        |   |      |        |       |   |      |        |        |    |    |        |      |    |     |        |        |    |    |        |        |    |     |        |        |    |     |        |        |    |    |        |        |    |         |        |        |    |         |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |    |        |        |    |      |        |        |    |    |        |      |    |     |        |        |    |    |        |      |    |      |      |        |    |    |        |        |    |      |        |        |
| 15 | Q1                    | 67.1°C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 91.6°C                |        |    |          |                        |                       |   |      |        |        |   |     |        |        |   |     |        |        |   |       |      |        |   |      |        |      |   |    |        |        |   |     |        |        |   |      |        |       |   |      |        |        |    |    |        |      |    |     |        |        |    |    |        |        |    |     |        |        |    |     |        |        |    |    |        |        |    |         |        |        |    |         |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |    |        |        |    |      |        |        |    |    |        |      |    |     |        |        |    |    |        |      |    |      |      |        |    |    |        |        |    |      |        |        |
| 16 | T1 Coil               | 66.7°C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 88.9°C                |        |    |          |                        |                       |   |      |        |        |   |     |        |        |   |     |        |        |   |       |      |        |   |      |        |      |   |    |        |        |   |     |        |        |   |      |        |       |   |      |        |        |    |    |        |      |    |     |        |        |    |    |        |        |    |     |        |        |    |     |        |        |    |    |        |        |    |         |        |        |    |         |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |    |        |        |    |      |        |        |    |    |        |      |    |     |        |        |    |    |        |      |    |      |      |        |    |    |        |        |    |      |        |        |
| 17 | T1 Core               | 59.2°C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 81.7°C                |        |    |          |                        |                       |   |      |        |        |   |     |        |        |   |     |        |        |   |       |      |        |   |      |        |      |   |    |        |        |   |     |        |        |   |      |        |       |   |      |        |        |    |    |        |      |    |     |        |        |    |    |        |        |    |     |        |        |    |     |        |        |    |    |        |        |    |         |        |        |    |         |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |    |        |        |    |      |        |        |    |    |        |      |    |     |        |        |    |    |        |      |    |      |      |        |    |    |        |        |    |      |        |        |
| 18 | RTH3                  | 61.5°C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 83.7°C                |        |    |          |                        |                       |   |      |        |        |   |     |        |        |   |     |        |        |   |       |      |        |   |      |        |      |   |    |        |        |   |     |        |        |   |      |        |       |   |      |        |        |    |    |        |      |    |     |        |        |    |    |        |        |    |     |        |        |    |     |        |        |    |    |        |        |    |         |        |        |    |         |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |    |        |        |    |      |        |        |    |    |        |      |    |     |        |        |    |    |        |      |    |      |      |        |    |    |        |        |    |      |        |        |
| 19 | C118                  | 65.5°C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 87.8°C                |        |    |          |                        |                       |   |      |        |        |   |     |        |        |   |     |        |        |   |       |      |        |   |      |        |      |   |    |        |        |   |     |        |        |   |      |        |       |   |      |        |        |    |    |        |      |    |     |        |        |    |    |        |        |    |     |        |        |    |     |        |        |    |    |        |        |    |         |        |        |    |         |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |    |        |        |    |      |        |        |    |    |        |      |    |     |        |        |    |    |        |      |    |      |      |        |    |    |        |        |    |      |        |        |
| 20 | C107                  | 60.1°C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 83.2°C                |        |    |          |                        |                       |   |      |        |        |   |     |        |        |   |     |        |        |   |       |      |        |   |      |        |      |   |    |        |        |   |     |        |        |   |      |        |       |   |      |        |        |    |    |        |      |    |     |        |        |    |    |        |        |    |     |        |        |    |     |        |        |    |    |        |        |    |         |        |        |    |         |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |    |        |        |    |      |        |        |    |    |        |      |    |     |        |        |    |    |        |      |    |      |      |        |    |    |        |        |    |      |        |        |
| 21 | C105                  | 63.8°C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 86.7°C                |        |    |          |                        |                       |   |      |        |        |   |     |        |        |   |     |        |        |   |       |      |        |   |      |        |      |   |    |        |        |   |     |        |        |   |      |        |       |   |      |        |        |    |    |        |      |    |     |        |        |    |    |        |        |    |     |        |        |    |     |        |        |    |    |        |        |    |         |        |        |    |         |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |    |        |        |    |      |        |        |    |    |        |      |    |     |        |        |    |    |        |      |    |      |      |        |    |    |        |        |    |      |        |        |
| 22 | R100                  | 73.3°C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 96.7°C                |        |    |          |                        |                       |   |      |        |        |   |     |        |        |   |     |        |        |   |       |      |        |   |      |        |      |   |    |        |        |   |     |        |        |   |      |        |       |   |      |        |        |    |    |        |      |    |     |        |        |    |    |        |        |    |     |        |        |    |     |        |        |    |    |        |        |    |         |        |        |    |         |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |    |        |        |    |      |        |        |    |    |        |      |    |     |        |        |    |    |        |      |    |      |      |        |    |    |        |        |    |      |        |        |
| 23 | Q100                  | 76.6°C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 98.7°C                |        |    |          |                        |                       |   |      |        |        |   |     |        |        |   |     |        |        |   |       |      |        |   |      |        |      |   |    |        |        |   |     |        |        |   |      |        |       |   |      |        |        |    |    |        |      |    |     |        |        |    |    |        |        |    |     |        |        |    |     |        |        |    |    |        |        |    |         |        |        |    |         |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |    |        |        |    |      |        |        |    |    |        |      |    |     |        |        |    |    |        |      |    |      |      |        |    |    |        |        |    |      |        |        |
| 24 | J110                  | 68.4°C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 91.7°C                |        |    |          |                        |                       |   |      |        |        |   |     |        |        |   |     |        |        |   |       |      |        |   |      |        |      |   |    |        |        |   |     |        |        |   |      |        |       |   |      |        |        |    |    |        |      |    |     |        |        |    |    |        |        |    |     |        |        |    |     |        |        |    |    |        |        |    |         |        |        |    |         |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |    |        |        |    |      |        |        |    |    |        |      |    |     |        |        |    |    |        |      |    |      |      |        |    |    |        |        |    |      |        |        |
| 25 | U1                    | 56.7°C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 79.7°C                |        |    |          |                        |                       |   |      |        |        |   |     |        |        |   |     |        |        |   |       |      |        |   |      |        |      |   |    |        |        |   |     |        |        |   |      |        |       |   |      |        |        |    |    |        |      |    |     |        |        |    |    |        |        |    |     |        |        |    |     |        |        |    |    |        |        |    |         |        |        |    |         |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |    |        |        |    |      |        |        |    |    |        |      |    |     |        |        |    |    |        |      |    |      |      |        |    |    |        |        |    |      |        |        |
| 26 | U107                  | 55.6°C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 78.3°C                |        |    |          |                        |                       |   |      |        |        |   |     |        |        |   |     |        |        |   |       |      |        |   |      |        |      |   |    |        |        |   |     |        |        |   |      |        |       |   |      |        |        |    |    |        |      |    |     |        |        |    |    |        |        |    |     |        |        |    |     |        |        |    |    |        |        |    |         |        |        |    |         |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |    |        |        |    |      |        |        |    |    |        |      |    |     |        |        |    |    |        |      |    |      |      |        |    |    |        |        |    |      |        |        |
| 27 | U2                    | 53.2°C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 76°C                  |        |    |          |                        |                       |   |      |        |        |   |     |        |        |   |     |        |        |   |       |      |        |   |      |        |      |   |    |        |        |   |     |        |        |   |      |        |       |   |      |        |        |    |    |        |      |    |     |        |        |    |    |        |        |    |     |        |        |    |     |        |        |    |    |        |        |    |         |        |        |    |         |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |    |        |        |    |      |        |        |    |    |        |      |    |     |        |        |    |    |        |      |    |      |      |        |    |    |        |        |    |      |        |        |
| 28 | D10                   | 70.3°C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 93.3°C                |        |    |          |                        |                       |   |      |        |        |   |     |        |        |   |     |        |        |   |       |      |        |   |      |        |      |   |    |        |        |   |     |        |        |   |      |        |       |   |      |        |        |    |    |        |      |    |     |        |        |    |    |        |        |    |     |        |        |    |     |        |        |    |    |        |        |    |         |        |        |    |         |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |    |        |        |    |      |        |        |    |    |        |      |    |     |        |        |    |    |        |      |    |      |      |        |    |    |        |        |    |      |        |        |
| 29 | Q2                    | 65.5°C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 88°C                  |        |    |          |                        |                       |   |      |        |        |   |     |        |        |   |     |        |        |   |       |      |        |   |      |        |      |   |    |        |        |   |     |        |        |   |      |        |       |   |      |        |        |    |    |        |      |    |     |        |        |    |    |        |        |    |     |        |        |    |     |        |        |    |    |        |        |    |         |        |        |    |         |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |    |        |        |    |      |        |        |    |    |        |      |    |     |        |        |    |    |        |      |    |      |      |        |    |    |        |        |    |      |        |        |
| 30 | D102                  | 72°C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 94.3°C                |        |    |          |                        |                       |   |      |        |        |   |     |        |        |   |     |        |        |   |       |      |        |   |      |        |      |   |    |        |        |   |     |        |        |   |      |        |       |   |      |        |        |    |    |        |      |    |     |        |        |    |    |        |        |    |     |        |        |    |     |        |        |    |    |        |        |    |         |        |        |    |         |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |    |        |        |    |      |        |        |    |    |        |      |    |     |        |        |    |    |        |      |    |      |      |        |    |    |        |        |    |      |        |        |
| 31 | D7                    | 65.5°C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 87.4°C                |        |    |          |                        |                       |   |      |        |        |   |     |        |        |   |     |        |        |   |       |      |        |   |      |        |      |   |    |        |        |   |     |        |        |   |      |        |       |   |      |        |        |    |    |        |      |    |     |        |        |    |    |        |        |    |     |        |        |    |     |        |        |    |    |        |        |    |         |        |        |    |         |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |    |        |        |    |      |        |        |    |    |        |      |    |     |        |        |    |    |        |      |    |      |      |        |    |    |        |        |    |      |        |        |
| 32 | Q200                  | 68.3°C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 91.6°C                |        |    |          |                        |                       |   |      |        |        |   |     |        |        |   |     |        |        |   |       |      |        |   |      |        |      |   |    |        |        |   |     |        |        |   |      |        |       |   |      |        |        |    |    |        |      |    |     |        |        |    |    |        |        |    |     |        |        |    |     |        |        |    |    |        |        |    |         |        |        |    |         |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |      |        |        |    |    |        |        |    |      |        |        |    |    |        |      |    |     |        |        |    |    |        |      |    |      |      |        |    |    |        |        |    |      |        |        |

|    |                                                                   |                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                               |                                                                       |
|----|-------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------|
| 2  | OVER LOAD BURN-IN TEST                                            | NO DAMAGE<br>1 HOUR ( MIN )                                                                                                                                                                                                                                           | I/P : 230 VAC<br>O/P : 110.77% LOAD<br>Ta : 25°C                                                                                                                                                                                                                                                              | TEST : OK                                                             |
| 3  | LOW TEMPERATURE<br>TURN ON TEST                                   | TURN ON AFTER 2 HOUR                                                                                                                                                                                                                                                  | I/P : 264VAC/100VAC<br>O/P : 100% LOAD<br>Ta= -30°C                                                                                                                                                                                                                                                           | TEST : OK                                                             |
| 4  | HIGH HUMIDITY<br>HIGH TEMPERATURE<br>HIGH VOLTAGE<br>TURN ON TEST | AFTER 12 HOURS<br>IN CHAMBER ON<br>CONTROL 50°C/95 %R.H<br>NO DAMAGE                                                                                                                                                                                                  | I/P : 272 VAC<br>O/P : FULL LOAD<br>Ta= 50°C<br>HUMIDITY= 95 %R.H                                                                                                                                                                                                                                             | TEST : OK                                                             |
| 5  | TEMPERATURE<br>COEFFICIENT                                        | ± 0.03 %/°C(0~50°C)                                                                                                                                                                                                                                                   | I/P : 230 VAC<br>O/P : FULL LOAD                                                                                                                                                                                                                                                                              | ±0.012 %/°C(0~50°C)                                                   |
| 6  | STORAGE TEMPERATURE<br>TEST                                       | -40~85°C                                                                                                                                                                                                                                                              | 1. Thermal shock Temperature : -45°C~ +90°C<br>2. Temperature change rate : 25°C / MIN<br>3. Dwell time low and high temperature : 30 MIN/EACH<br>4. Total test cycle : 10 CYCLE<br>5. Input/Output condition : STATIC                                                                                        |                                                                       |
| 7  | THERMAL SHOCK TEST                                                | -30~50°C                                                                                                                                                                                                                                                              | 1. Thermal shock Temperature : -35°C~ +55°C<br>2. Temperature change rate : 25°C / MIN<br>3. Dwell time low and high temperature : 30 MIN/EACH<br>4. Total test cycle : 16 CYCLE<br>5. Input/Output condition :<br>15cycle:230V/ FULL LOAD AC ON 3sec/AC OFF 1sec TEST<br>1cycle:230V/ FULL LOAD Burn In Test |                                                                       |
| 8  | VIBRATION TEST                                                    | 10 ~ 500Hz, 2G 10min./1cycle,<br>60min. each along X, Y, Z axes                                                                                                                                                                                                       | 1 Carton & 1 Set<br>(1) Waveform : Sine Wave<br>(2) Frequency : 10~500Hz<br>(3) Sweep Time : 10min/sweep cycle<br>(4) Acceleration : 3G<br>(5) Test Time : 180min in each axis (X.Y.Z)<br>(6) Ta : 25°C                                                                                                       |                                                                       |
| 9  | CAPACITOR<br>LIFE CYCLE                                           | SUPPOSE C107 IS THE MOST CRITICAL COMPONENT<br>(1) I/P : 230VAC O/P : FULL LOAD Ta= 25°C LIFE TIME<br>(2) I/P : 230VAC O/P : FULL LOAD Ta= 50°C LIFE TIME<br>(3) I/P : 230VAC O/P : 75% LOAD Ta= 50°C LIFE TIME<br>(4) I/P : 230VAC O/P : 50% LOAD Ta= 50°C LIFE TIME |                                                                                                                                                                                                                                                                                                               | (1) 164208.5HRS<br>(2) 31328.1HRS<br>(3) 46699.6HRS<br>(4) 69432.3HRS |
| 10 | MTBF                                                              | Conducted by Parts Stress Analysis Prediction<br>2201.7K hrs min. Telcordia SR-332 (Bellcore) ; 440.4K hrs min. MIL-HDBK-217F (25°C)                                                                                                                                  |                                                                                                                                                                                                                                                                                                               |                                                                       |
| 11 | Ongoing Reliability Test                                          | I/P : 230VAC O/P : FULL LOAD TA=50°C<br>Demonstration Mean Time Between Failure : 30,000 hours                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                               |                                                                       |

| TEST RESULT | TESTER | REVIEW | APPROVAL |
|-------------|--------|--------|----------|
| PASS        | YUWEI  | LIUTT  | WANGZD   |

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