Quality Engineering Test Report

SERIES: ADS-155 155W AC-DC SINGLE OUTPUT WITH CHARGER

SAMPLE: A.ADS-155-12 +V1: 12V / 11.5A +V2:5V /3A B.ADS-155-24 +V1:24V /5.8A +V2:5V/3A

C.ADS-155-48 +V1:48V /2.9A +V2:5V/3A

NO	TEST ITEM	TEST CONDITION / SPECIFICATION	RESULT	VERDICT
1	AC INPUT VOLTAGE RANGE	I/P:TESTING SPEC:88~264VAC O/P:FULL LOAD	A:58.462VAC~264VAC	P
2	LINE REGULATION	I/P:88V~264VAC SPEC: O/P:FULL LOAD A :+V1 :±0.5% +V2 :±0.5% B :+V1 :±0.5% +V2 :±0.5% C :+V1 :±0.5% +V2 :±0.5%	A: +V1: 0%~0% +V2: 0%~0.122% B: +V1: -0.025%~0% +V2: 0%~0% C: +V1: 0%~0.0125% +V2: -0.123%~0%	P
3	LOAD REGULATION	I/P:230VAC SPEC: O/P:MIN. TO FULL LOAD A :+V1 : ±1% +V2 :±2% B : +V1 : ±1% +V2 :±2% C : +V1 : ±1% +V2 : ±1%	A: +V1: -0.099%~0.05% +V2: -0.62%~1.25% B: +V1: -0.025%~0% +V2: -0.5%~1.12% C: +V1: -0.125%~0% +V2: -0.51%~0.755%	P
4	OUTPUT VOLTAGE TOLERANCE	I/P:88~264VAC SPEC: O/P:MIN. TO FULL LOAD A :+V1 : ±2% +V2 : ±3% B : +V1 : ±1% +V2 : ±3% C : +V1 : ±1% +V2 : ±1%	A: +V1: -0.0496%~0.107% +V2: -0.239%~1.623% B: +V1: 0.029%~0.079% +V2: -0.377%~1.49% C: +V1: 0.027%~0.052% +V2: -0.263%~1.398%	P
5	RIPPLE&NOISE	I/P:230VAC SPEC: O/P:FULL LOAD A :+V1 :150mV +V2 :100mV B :+V1 :150mV +V2 :100mV C :+V1 :240mV +V2 :100mV	A: +V1: 22mV +V2: 47mV B: +V1: 19mV +V2: 46mV C: +V1: 25mV +V2: 57mV	P
6	AC INPUT CURRENT	I/P:230VAC SPEC:1.5A O/P:FULL LOAD	A:0.904A	P
7	MAX. INRUSH CURREN	I/P:230VAC SPEC:40A O/P: FULL LOAD	A:21.281A	P
8	O/P VOLTAGE ADJ.RANGE	I/P:230VAC SPEC: O/P:MIN. LOAD A: V1:13.2V~10.8V B: V1:26.4V~21.6V C: V1:52.8V~43.2V	A: 10.464V~13.913V B: 20.33V~27.47V C: 41.3V~54.1V	P
9	SET UP TIME	I/P:230VAC SPEC:900mS O/P:FULL LOAD	A: 680.028mS	P
10	HOLD UP TIME	I/P:230VAC SPEC:20mS O/P:FULL LOAD	A: 36.176mS	P
11	EFFICIENCY	I/P:230VAC SPEC: A:78% O/P:FULL LOAD B:82% C:82%	A:79.262% B:83.08% C:83.538%	P
12	OVER LOAD PROTECTION	I/P:230VAC SPEC:105%~135% O/P:TESTING	A:119% B:112% C:124.4%	P
14	GROUND LEAKAGE CURRENT	I/P:240VAC SPEC: L-FG--<1mA N-FG--<1mA	A: L-FG:0.4mA N-FG:0.4mA	P
15	INSULATION RESISTANCE	SPEC: O/P-FG 500VDC/100M Ohms MIN. I/P-O/P 500VDC/100M Ohms MIN. I/P-FG 500VDC/100M Ohms MIN.	A: O/P-FG >100M Ohms I/P-O/P >100M Ohms I/P-FG >100M Ohms	P

<table>
<tr><th>NO</th><th>TEST ITEM</th><th>TEST CONDITION / SPECIFICATION</th><th>RESULT</th><th>VERDICT</th></tr>
<tr><td>16</td><td>DIELECTRIC / WITHSTAND VOLTAGE</td><td>SPEC: I/P- O/P: 3000VAC/ 1 min. (10mA CUT-OFF)
I/P - FG: 1500VAC/ 1 min. (10mA CUT-OFF)
O/P - FG: 500VAC/ 1 min. (10mA CUT-OFF)</td><td>A: I/P-O/P :3.64mA
I/P-FG :2.746mA
O/P-FG :3.65mA</td><td>P</td></tr>
<tr><td>17</td><td>BURN-IN TEST</td><td>I/P: 230VAC O/P100% LOAD with 18.6CFM FAN
TA:23.9ºC BURN-IN DURATION :1hr</td><td>A: NON BREAK</td><td>P</td></tr>
<tr><td rowspan="3">18</td><td rowspan="3">ENVIRONMENT TEST</td><td>1.LOW TEMPERATURE TEST
I/P:230 VAC O/P:100% LOAD
AMBIENT TEMPERATURE:-8.3ºC</td><td>A :AFTER 15 hrs POWER ON OK</td><td rowspan="3">P</td></tr>
<tr><td>2.HIGH AMBIENT TEMPERATURE FULL LOAD TEST
I/P:230VAC O/P:FULL LOAD
AMBIENT TEMPERATURE:54.2ºC with 18.6CFM FAN</td><td>A :AFTER 2.5 hrs NON BREAK</td></tr>
<tr><td>3.HIGH HUMIDITY HIGH VOLTAGE ON/OFF TEST
I/P:264VAC O/P:FULL LOAD
AMBIENT TEMPERATURE：25ºC
AMBIENT HUMIDITY：95%</td><td>A :
AFTER13 hrs POWER ON/OFFNON BREAK</td></tr>
<tr><td>19</td><td>TEMPERATURE RISE TEST
T rise OF PARTS</td><td colspan="2">A: I/P :230VAC AFTER 1hr BURN-IN
O/P :100%LOAD TA:23.9ºC with 18.6CFM FAN
<table>
<tr><th></th><th>POSITION</th><th>P/N</th><th>TEMP</th><th>T rise</th></tr>
<tr><td></td><td>BD1</td><td>BRIDGE DIODE</td><td>60.6ºC</td><td>36.7ºC</td></tr>
<tr><td></td><td>Q1</td><td>MAIN TRANSISTOR</td><td>52.3ºC</td><td>28.4ºC</td></tr>
<tr><td></td><td>T1</td><td>MAIN TRANSFORMER</td><td>67.0ºC</td><td>43.1ºC</td></tr>
<tr><td></td><td>D40</td><td>O/P DIODE</td><td>94.0ºC</td><td>70.1ºC</td></tr>
<tr><td></td><td>C44</td><td>O/P FILTER CAPACITOR</td><td>64.4ºC</td><td>40.5ºC</td></tr>
<tr><td></td><td>C5</td><td>I/P FILTER CAPACITOR</td><td>42.1ºC</td><td>18.2ºC</td></tr>
</table></td><td>P</td></tr>
<tr><td>20</td><td>LIFE CYCLE</td><td colspan="2">A: SUPPOSE C44 IS THE MOST CRITICAL COMPONENT with 18.6CFM FAN
I/P:230VAC O/P:100% LOAD Ta:23.9ºC Tc:64.4ºC Life:113742.9hrs
I/P:230VAC O/P:100% LOAD Ta:54.2ºC Tc:98.5ºC Life:15460.2hrs</td><td>P</td></tr>
<tr><td>21</td><td>CRITICAL COMPONENT RECORD
(FOR QC INSPECTION REFERENCE ONLY)</td><td colspan="3">A: FUSE : 3A/250V CHARGER 15A/250V
BRIDGE DIODE : KBJ608G
LINE FILTER : LF201
TRANSFOMER : TF-695
POWER SWITCHER : 2SK2039
OUTPUT DIODE : D9202
OUTPUT CAPACITOR : RUBYCON 2200uF/25V YXG 105ºC
INPUT CAPACITOR : HITACHI 150uF/400V HP3 85ºC
P.C.B : ADD-155</td></tr>
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DATE	SAMPLE	TEST RESULT	TEST	APPROVAL
20001229	RD SAMPLE	PASS	VINCENT	Max Lin
20000130	A101B30 AD155A AD155B AD155C	PASS	VINCENT	Max Lin