

MODEL : DR-RDN20

### OUTPUT FUNCTION TEST

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT
1	REVERSE VOLTAGE	30V (Max)	I/P: 30 VDC O/P:FULL LOAD Ta:25°C	29.5V	P
2	VOLTAGE DROP	0.5 V	I/P: 21 VDC I/P: 28 VDC O/P:FULL LOAD Ta:25°C	0.4V / 21VDC 0.4V / 28VDC	P
3	LED INDICATORS	TWO green LEDs indicating each input is "OK" or "fail"	I/P: 21VDC~28VDC O/P:FULL LOAD Ta:25°C	OK	P

### INPUT FUNCTION TEST

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT
1	INPUT VOLTAGE RANGE	21VDC~28VDC	I/P: 21VDC~28VDC O/P:FULL LOAD Ta:25°C	19.5V~ 29.5 V	P
2	NUMBER OF INPUTS	TWO	I/P: 21VDC~28VDC O/P:FULL LOAD Ta:25°C	OK	P
3	INPUT CURRENT	20A (MAX)	I/P: 21VDC~28VDC O/P:FULL LOAD Ta:25°C	20A	P

### FUNCTION TEST

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT
1	INPUT VOLTAGE ALARM	When input is >20V (± 5%) or <30V (± 5%) relay contacts	I/P: TESTING O/P:FULL LOAD Ta:25°C	VINA: > 29.5 V , relay contacts < 19.5 V , relay contacts  VINB: > 29.5 V , relay contacts < 19.4 V , relay contacts	P
2	RELAY CONTACT RATING	30VDC / 1A (MAX)	ALARM A: 30 VDC /1A ALARM B: 30 VDC /1A Ta:25°C	OK	P

## ENVIRONMENT TEST

NO	TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT	VERDICT
1	TEMPERATURE RISE TEST	MODEL : DR-RDN20 1. ROOM AMBIENT BURN-IN : 62HRS I/P: 24VDC O/P: FULL LOAD Ta= 33.2 °C 2. HIGH AMBIENT BURN-IN : 1HRS I/P: 24VDC O/P: FULL LOAD Ta= 78.3°C			P
2	LOW TEMPERATURE TURN ON TEST	TURN ON AFTER 2 HOUR	I/P: 24VDC O/P: 100% LOAD Ta= -20 °C	TEST : OK	P
3	HIGH HUMIDITY HIGH TEMPERATURE HIGH VOLTAGE TURN ON TEST	AFTER 12 HOURS IN CHAMBER ON CONTROL 70°C NO DAMAGE	I/P: 24VDC O/P: FULL LOAD Ta= 70°C HUMIDITY= 95 %R.H	TEST : OK	P
4	VIBRATION TEST	1 Carton & 1 Set (1) Waveform: Sine Wave (2) Frequency: 10~500Hz (3) Sweep Time: 10min/sweep cycle (4) Acceleration: 2G (5) Test Time: 1 hour in each axis (X.Y.Z) (6) Ta: 25°C		TEST : OK	P

## SAFETY TEST

NO	TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT	VERDICT
1	WITHSTAND VOLTAGE	Terminal-chassis: 0.5 KVAC/min Relay contacts-Terminal: 0.5 KVAC/min	Terminal-chassis: 0.6 KVAC/min Relay contacts-Terminal: 0.6 KVAC/min Ta: 25°C	Terminal-chassis: 0.06 mA Relay contacts-Terminal: 0.06 mA NO DAMAGE	P
2	ISOLATION RESISTANCE	Terminal-chassis : 500VDC > 100MΩ Relay contacts-Terminal : 500VDC > 100MΩ	Terminal-chassis : 500 VDC Relay contacts-Terminal : 500 VDC Ta: 25°C	Terminal-chassis 30 GΩ Relay contacts-Terminal : 30 GΩ NO DAMAGE	P

E.M.C TEST

NO	TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT	VERDICT
1	E.F.T	EN61000-4-4 +V-PE :0.5KV -V-PE: 0.5KV	I/P: 24VDC O/P:FULL LOAD Ta:25°C	CRITERIA A	P
2	SURGE	IEC61000-4-5 +V-PE :0.5KV -V-PE: 0.5KV	I/P: 24VDC O/P:FULL LOAD Ta:25°C	CRITERIA A	P
7	Test by certified Lab & Test Report Prepare				

M.T.B.F & LIFE CYCLE CALCULATION

NO	TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT	VERDICT
1	CAPACITOR LIFE CYCLE	SUPPOSE C2 IS THE MOST CRITICAL COMPONENT I/P: 230VAC O/P:FULL LOAD Ta= 25 °C LIFE TIME= 583030 HRS I/P: 230VAC O/P:FULL LOAD Ta= 70 °C LIFE TIME= 27020 HRS			P
2	MTBF	MIL-HDBK-217F NOTICES2 PARTS COUNT TOTAL FAILURE RATE: 996.8KHRS			P

DATE	SAMPLE	TEST RESULT	TESTER	APPROVAL
2006/12/13	RD SAMPLE	PASS	VINCENT TSENG	MAX LIN
2007/1/22	PRODUCT SAMPLE W0701A24	PASS	VINCENT TSENG	MAX LIN
2007/5/9	PRODUCT SAMPLE W0704B05	PASS	VINCENT TSENG	MAX LIN

2003/12/12 A50-F023