Papallel D BI A BALLAT CRCC



NOTE



Features:

- Universal AC input/Full range
- · ZVS new technology
- AC input active surge current limiting
- High efficiency up to 91%
- Built-in active PFC function, PF>0.95
- Protections: Short circuit / Overload / Over voltage / Over temperature
- · Forced air cooling by built-in DC ball bearing fan
- Output voltage can be trimmed between 70~100% of the rated output voltage
- High power density 8.3W/inch³
- Current sharing up to 6000W(3+1)
- · Alarm signal output
- Built-in 12V/0.1A auxiliary output for remote control
- Built-in remote ON-OFF control
- · Built-in remote sense function
- · 3 years warranty

SPECIFICATION				rdrdilleli (FC) c TL US Friedrick APPROXID CD (
MODEL		RSP-1500-5	RSP-1500-12	RSP-1500-15	RSP-1500-24	RSP-1500-27	RSP-1500-48
	DC VOLTAGE	5V	12V	15V	24V	27V	48V
	RATED CURRENT	240A	125A	100A	63A	56A	32A
	CURRENT RANGE	0 ~ 240A	0 ~ 125A	0 ~ 100A	0 ~ 63A	0 ~ 56A	0 ~ 32A
	RATED POWER	1200W	1500W	1500W	1512W	1512W	1536W
	RIPPLE & NOISE (max.) Note.2	150mVp-p	150mVp-p	150mVp-p	150mVp-p	150mVp-p	200mVp-p
AUTBUT	VOLTAGE AR L RANGE	4 5 5 5 7	40 40 51/	10 5 10 5)/	00 00 41/	04 001/	40 501/

	RATED POWER	1200W	1500W	1500W	1512W	1512W	1536W
	RIPPLE & NOISE (max.) Note.2	150mVp-p	150mVp-p	150mVp-p	150mVp-p	150mVp-p	200mVp-p
OUTPUT	VOLTAGE ADJ. RANGE	4.5 ~ 5.5V	10 ~ 13.5V	13.5 ~ 16.5V	20 ~ 26.4V	24 ~ 30V	43 ~ 56V
	VOLTAGE TOLERANCE Note.3	±2.0%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%
	LINE REGULATION	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%
	LOAD REGULATION	±2.0%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%
	CETUD DICE TIME	1500ms 100ms at fu	Ilload				

SETUP, KISE TIME	1300ms, 100ms at full load		
HOLD UP TIME (Typ.)	10ms at full load	14ms at full load	16ms at full load
VOLTAGE RANGE	90 ~ 264VAC 127 ~ 370VDC		

	POWER FACTOR (Typ.)	0.95/230VAC 0	.98/115VAC at full load				
INPUT	EFFICIENCY (Typ.)	80%	87%	87%	90%	90%	91%
	AC CUPPENT (Typ.)	17A/115\/AC 8A	/230VAC				

LEAKAGE CURRENT		<2.0mA/240VAC
		105 ~135% rated output power
OVERLOAD	Note.5	Protection type: Constant current limiting unit will shut down o/p voltage after 5sec. Re-power on to recover

5.75 ~ 6.75V 13.8 ~ 16.8V 17 ~ 20.5V 27.6 ~ 32.4V 31 ~ 36.5V 57.6 ~ 67.2V OVER VOLTAGE PROTECTION Protection type: Shut down o/p voltage, re-power on to recover

 $95^{\circ}C \pm 5^{\circ}C$ (TSW2) detect on heatsink of power transistor **OVER TEMPERATURE** Protection type: Shut down o/p voltage, recovers automatically after temperature goes down

60A/230VAC

AUXILIARY POWER(AUX) 12V@0.1A(Only for Remote ON/OFF control) REMOTE ON/OFF CONTROL Please see the Function Manual Please see the Function Manual **FUNCTION | ALARM SIGNAL OUTPUT**

Please see the Function Manual **OUTPUT VOLTAGE TRIM** Please see the Function Manual **CURRENT SHARING** -20 ~ +70°C (Refer to "Derating Curve") WORKING TEMP.

FREQUENCY RANGE

INRUSH CURRENT (Typ.)

20~90% RH non-condensing **WORKING HUMIDITY ENVIRONMENT** STORAGE TEMP., HUMIDITY -40 ~ +85°C, 10 ~ 95% RH

47~63Hz

30A/115VAC

TEMP. COEFFICIENT ±0.05%/°C (0 ~ 50°C) VIBRATION 10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes SAFETY STANDARDS UL60950-1, TUV EN60950-1 approved

WITHSTAND VOLTAGE I/P-O/P:3KVAC I/P-FG:1.5KVAC O/P-FG:0.5KVAC **SAFETY & ISOLATION RESISTANCE** I/P-O/P, I/P-FG, O/P-FG:100M Ohms / 500VDC / $25^{\circ}C$ / 70% RH **EMC**

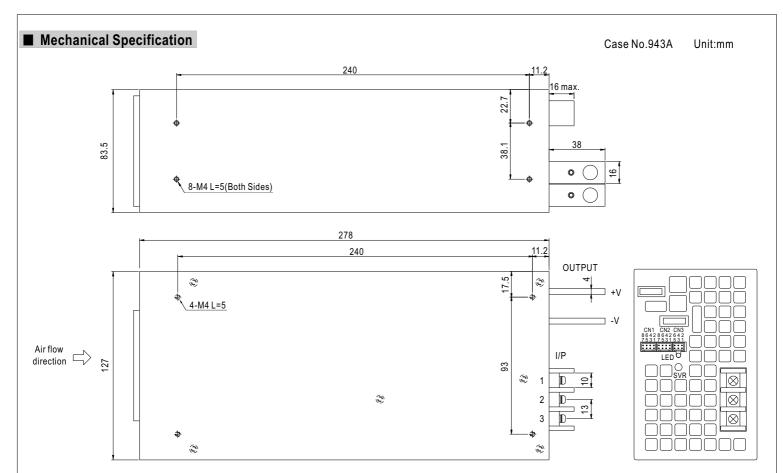
EMC EMISSION Compliance to EN55022 (CISPR22), EN61000-3-2,-3 (Note 4) **EMC IMMUNITY** Compliance to EN61000-4-2,3,4,5,6,8,11, EN55024, light industry level, criteria A **MTBF** 62.6K hrs min. MIL-HDBK-217F (25°C)

OTHERS DIMENSION 278*127*83.5mm (L*W*H) 3.0Kg; 4pcs/13Kg/1.19CUFT **PACKING**

1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.

- 2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor.
- 3. Tolerance: includes set up tolerance, line regulation and load regulation.
- 4. The power supply is considered a component which will be installed into a final equipment. The final equipment must be re-confirmed that it still meets EMC directives. For guidance on how to perform these EMC tests, please refer to "EMI testing of component power supplies." (as available on http://www.meanwell.com)
- 5. Derating may be needed under low input voltages. Please check the derating curve for more details.





AC Input Terminal Pin No. Assignment

Pin No.	Assignment
1	FG ±
2	AC/N
3	AC/L

Control Pin No. Assignment(CN1, CN2): HRS DF11-8DP-2DS or equivalent

	•	•			
Pin No.	Assignment	Pin No.	Assignment	Mating Housing	Terminal
1	RCG	4	TRIM	UD0 DE44 0D0	LIDO DE 14 **00
2	RC2	6	LS(Current Share)	HRS DF11-8DS or equivalent	or equivalent
3,5,7	-S	8	+S	or oquivalent	or oquivaloni

RCG: Remote ON/OFF Ground

RC2: Remote ON/OFF -S :-Remote Sensing TRIM: Adjustment of Output Voltage

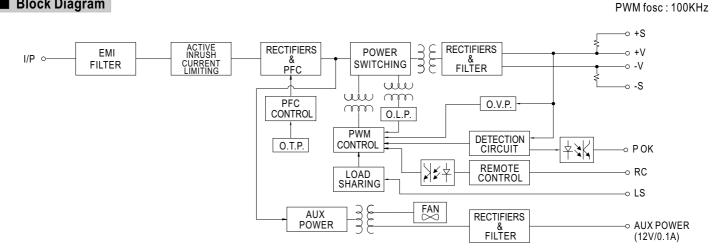
LS: Load Share +S: +Remote Sensing

Control Pin No. Assignment(CN3): HRS DF11-6DP-2DS or equivalent

Pin No.	Assignment	Pin No.	Assignment	Mating Housing	Terminal
1	P OK GND	4	AUXG	UD0 DE44 0D0	UD0 DE44 **00
2	P OK	5	RC1	or equivalent	HRS DF11-**SC
3	RCG	6	AUX	or equivalent	or equivalent

P OK GND: Power OK Ground P OK: Power OK Signal RCG: Remote ON/OFF Ground AUXG: Auxiliary Ground RC1: Remote ON/OFF **AUX: Auxiliary Output**





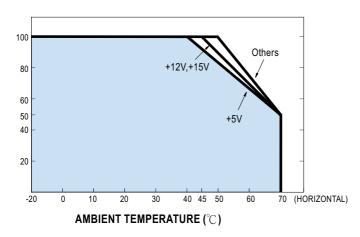
PFC fosc: 70KHz

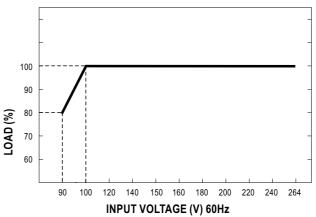


■ Derating Curve

(%) **GVO**

■ Static Characteristics





■ Function Manual

1.Remote ON/OFF

- (1)Remote ON/OFF control becomes available by applying voltage in CN1 & CN2 & CN3
- (2) Table 1.1 shows the specification of Remote ON/OFF function
- (3)Fig.1.2 shows the example to connect Remote ON/OFF control function

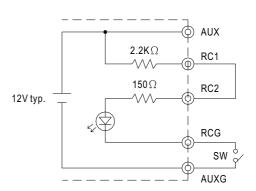
Table 1.1 Specification of Remote ON/OFF

	Connection Method		Fig. 1.2(A)	Fig. 1.2(B)	Fig. 1.2(C)
	SW Logic	Output on	SW Open	SW Open	SW Close
		Output off	SW Close	SW Close	SW Open

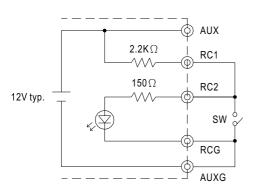
Fig.1.2 Examples of connecting remote ON/OFF

(A)Using external voltage source

(B)Using internal 12V auxiliary output



(C)Using internal 12V auxiliary output





2. Alarm Signal Output

- (1) Alarm signal is sent out through "P OK" & "P OK GND" pins
- (2)An external voltage source is required for this function. The maximum applied voltage is 50V and the maximum sink current is 10mA
- (3) Table 2.1 explain the alarm function built-in the power supply

Function	Description	Output of alarm(P OK)
P OK	The signal is "Low" when the power supply is above 65% of the rated output voltage-Power OK	Low (0.5V max at 10mA)
FUN	The signal turns to be "High" when the power supply is under 65% of the rated output voltage-Power Fail	High or open (External applied voltage 10mA max.)

Table 2.1 Explanation of alarm

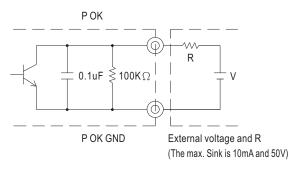
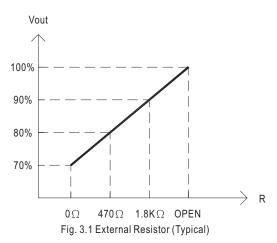


Fig. 2.2 Internal circuit of P OK (Open collector method)

3. Output Voltage TRIM

- (1)Adjustment of output voltage is possible between 70~100%(Typ.) of the rated output which is shown in Fig. 3.1
- (2)Connecting a resistor externally between TRIM and-S on CN1 or CN2 that is shown in Fig. 3.2.
- (3)+S & +V, -S & -V also need to be connected on CN1 or CN2.



4. Current Sharing

- (1)Parallel operation is available by connecting the units shown as below (+S,-S and LS are connected mutually in parallel):
- (2) The voltage difference among each output should be minimized that less than ±2% is required
- (3)The total output current must not exceed the value determined by the following equation (Output current at parallel operation)=(The rated current per unit) x (Number of unit) x 0.9
- (4) In parallel operation 4 units is the maximum, please consult the manufacture for other applications
- (5) When remote sensing is used in parallel operation, the sensing wire must be connected only to the master unit

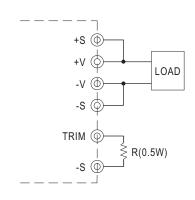


Fig. 3.2 Output voltage trimming

