



Features :

- AC input 180~264VAC only
- 130% peak load capability
- 110mm slim design
- Built-in active PFC function compliance to EN61000-3-2
- High efficiency 94% and low power dissipation
- Protections: Short circuit / Overload / Over voltage / Over temperature
- Cooling by free air convection
- Built-in constant current limiting circuit
- Can be installed on DIN rail TS-35/7.5 or 15
- UL508(industrial control equipment)approved
- EN61000-6-2(EN50082-2) industrial immunity level
- Current sharing up to 3840W(3+1)
- Built-in DC OK relay contact
- 100% full load burn-in test
- 3 years warranty

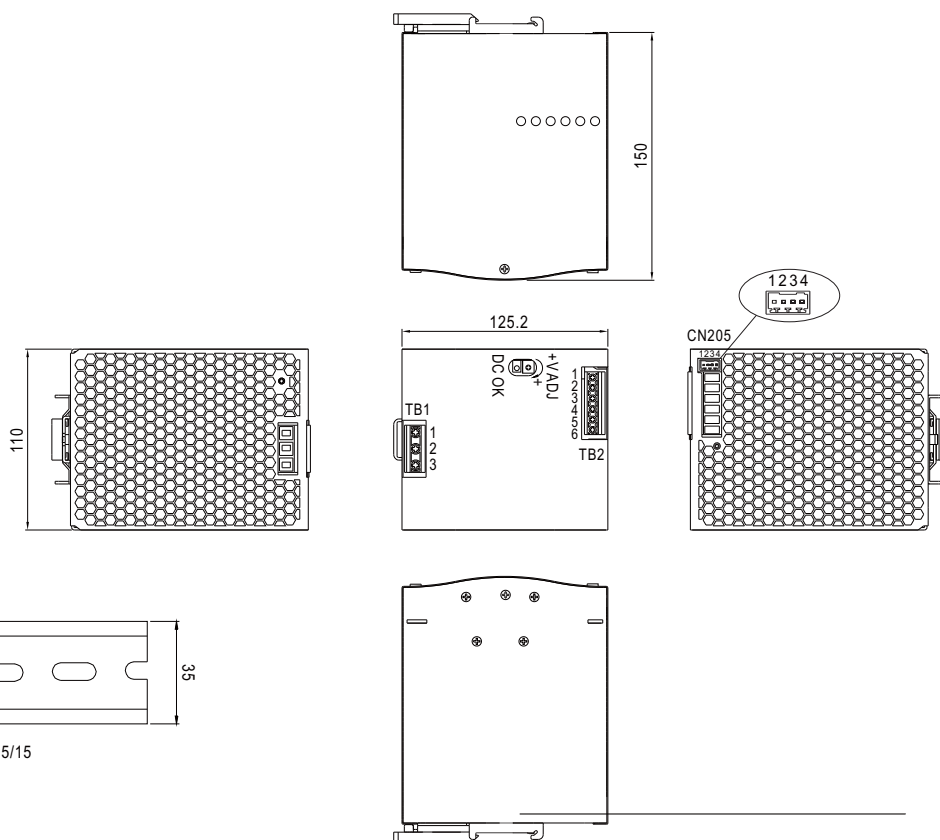


SPECIFICATION

MODEL		SDR-960-24	SDR-960-48
OUTPUT	DC VOLTAGE	24V	48V
	RATED CURRENT	40A	20A
	CURRENT RANGE	0 ~ 40A	0 ~ 20A
	RATED POWER	960W	960W
	PEAK CURRENT	52A	26A
	PEAK POWER	Note.6 1248W (3sec.)	
	RIPPLE & NOISE (max.)	Note.2 180mVp-p	250mVp-p
	VOLTAGE ADJ. RANGE	24 ~ 28V	48 ~ 55V
	VOLTAGE TOLERANCE	Note.3 ± 1.0%	± 1.0%
	LINE REGULATION	± 0.5%	± 0.5%
	LOAD REGULATION	± 1.0%	± 1.0%
INPUT	SETUP, RISE TIME	1000ms, 100ms/230VAC at full load	
	HOLD UP TIME (Typ.)	14ms / 230VAC at full load	
	VOLTAGE RANGE	Note.7 180 ~ 264VAC 254 ~ 370VDC	
	FREQUENCY RANGE	47 ~ 63Hz	
	POWER FACTOR (Typ.)	PF ≥ 0.95/230VAC at full load	
	EFFICIENCY (Typ.)	94%	94%
	AC CURRENT (Typ.)	6A/230VAC	
PROTECTION	INRUSH CURRENT (Typ.)	COLD START 50A / 230VAC	
	LEAKAGE CURRENT	<3.5mA / 240VAC	
	OVERLOAD	Normally works within 105 ~ 130% rated output power for more than 3 seconds and then shut down o/p voltage with auto-recovery after 30 seconds if the peak load condition is removed Constant current limiting within 130 ~ 150% rated output power for more than 3 seconds and then shut down o/p voltage, re-power on to recover	
	OVER VOLTAGE	29 ~ 33V	56 ~ 65V
FUNCTION	OVER TEMPERATURE	Shut down o/p voltage, recovers automatically after temperature goes down	
	DC OK RELAY CONTACT RATINGS (max.)	60Vdc/0.3A, 30Vdc/1A, 30Vac/0.5A resistive load	
	CURRENT SHARING	Please refer to function manual	
	WORKING TEMP.	Note.5 -30 ~ +70°C (Refer to "Derating Curve")	
ENVIRONMENT	WORKING HUMIDITY	20 ~ 95% RH non-condensing	
	STORAGE TEMP., HUMIDITY	-40 ~ +85°C, 10 ~ 95% RH non-condensing	
	TEMP. COEFFICIENT	± 0.03%/°C (0 ~ 50°C)	
	VIBRATION	Component: 10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes; Mounting: Compliance to IEC60068-2-6	
SAFETY & EMC (Note 4)	SAFETY STANDARDS	UL508, TUV EN60950-1, EAC TP TC 004, BSMI CNS14336-1 approved; (meet EN60204-1)	
	WITHSTAND VOLTAGE	I/P-O/P:3KVAC I/P-FG:2KVAC O/P-FG:0.5KVAC O/P-DC OK:0.5KVAC	
	ISOLATION RESISTANCE	I/P-O/P, I/P-FG, O/P-FG:>100M Ohms / 500VDC / 25°C / 70% RH	
	EMC EMISSION	Note.8 Compliance to EN55032 (CISPR32), EN61204-3 Conduction class B, Radiation class A, EN61000-3-2,-3, EAC TP TC 020, BSMI CNS13438	
OTHERS	EMC IMMUNITY	Compliance to EN61000-4-2,3,4,5,6,8,11, EN55024, EN61000-6-2 (EN50082-2), EN61204-3, heavy industry level, criteria A, EAC TP TC 020	
	MTBF	69.8K hrs min. MIL-HDBK-217F (25°C)	
	DIMENSION	110*125.2*150mm (W*H*D)	
	PACKING	2.47Kg ; 6pcs/15.8Kg/1.55CUFT	
NOTE		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. 5. Installation clearances : 40mm on top, 20mm on the bottom, 5mm on the left and right side are recommended when loaded permanently with full power. In case the adjacent device is a heat source, 15mm clearance is recommended. 6. 3 seconds peak power max. and the average output power should not exceed the rate power. 7. Derating may be needed under low input voltage. Please check the derating curve for more details. 8. Consult MEAN WELL for deployment of Radiation class B. 9. The ambient temperature derating of 3.5°C/1000m with fanless models and of 5°C/1000m with fan models for operating altitude higher than 2000m(6500ft).	

Mechanical Specification

Case No.214A Unit:mm



ADMISSIBLE DIN-RAIL: TS35/7.5 OR TS35/15

Terminal Pin No. Assignment (TB1)

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

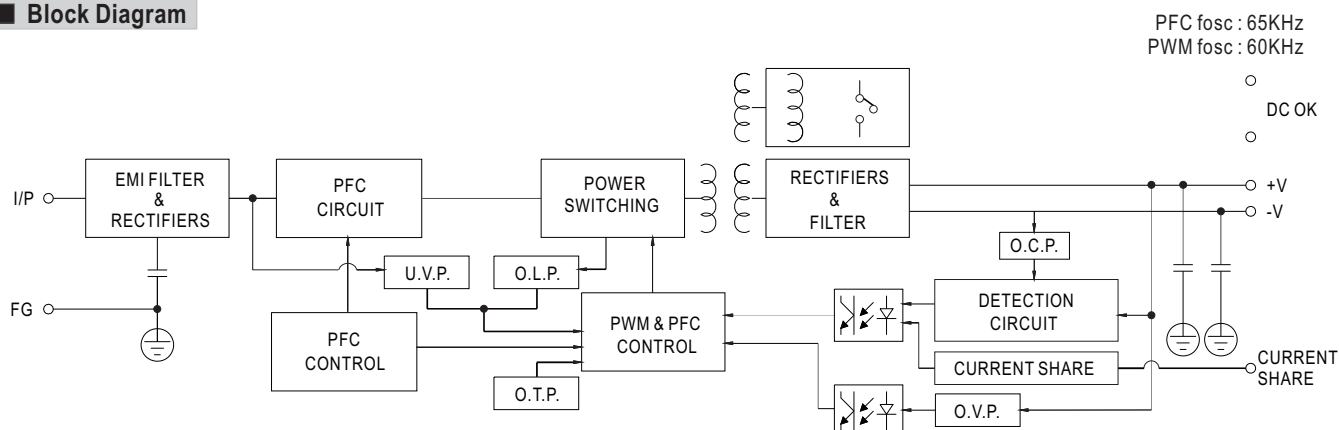
Terminal Pin No. Assignment (TB2)

Pin No.	Assignment
1,2,3	DC OUTPUT +V
4,5,6	DC OUTPUT -V

Control Pin (CN205) : DINKLE ECH250R-04P or equivalent

Pin No.	Assignment	Mating Housing	Wire Diameter
1	P-(Current Share)	DINKLE ESC250V-04P or equivalent (Including in the single package)	0.081~0.517mm ² (28~20AWG)
2	P+(Current Share)		
3,4	DC OK Relay Contact		

Block Diagram



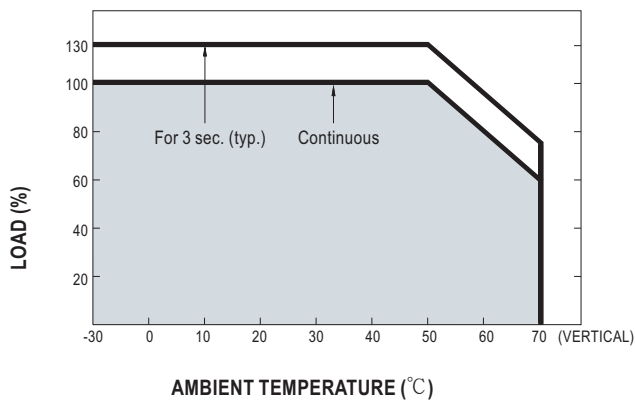
DC OK Relay Contact

Contact Close	PSU turns on / DC OK.
Contact Open	PSU turns off / DC Fail.
Contact Ratings (max.)	30V/1A resistive load.

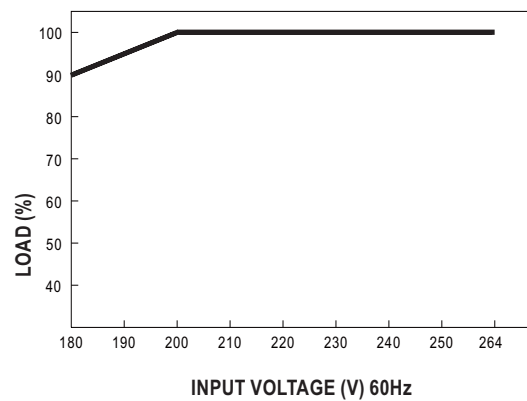
Peak Loading



Derating Curve



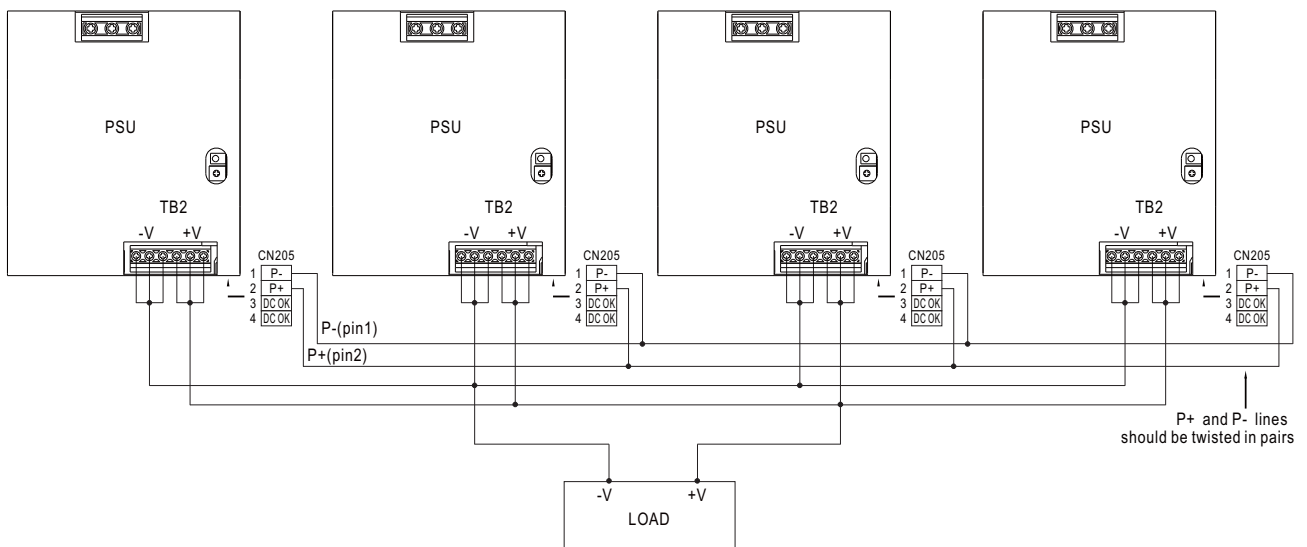
Output derating VS input voltage



Function Manual

1. Current sharing

- (1) Parallel operation is available by connecting the units shown as below (P+,P- are connected mutually in parallel).
- (2) Difference of output voltages among parallel units should be less than 0.2V.
- (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) The power supplies should be paralleled using short and large diameter wiring and then connected to the load.
- (6) When in parallel operation, the minimum output load should be greater than 5% of total output load.
(Min. load >5% rated current per unit x number of unit)
- (7) In parallel connection, maybe only one unit (master) operate if the total output load is less than 5% of rated load condition.
The other PSUs (slaves) may go into standby mode and their output LEDs & relays will not turn on.
- (8) Some minor noise may be heard at light load condition under parallel operation.
This is a normal phenomenon and the performance of the PSU will not be influenced.





Declaration of Conformity

For the following equipment :

Product Name: Din-Rail Switching Power Supply

Model Designation: SDR-960-X (X=24,48)

is herewith confirmed to comply with the requirements set out in the Council Directive, the following standards were applied :

RoHS Directive (2011/65/EU)、(EU)2015/863

Low Voltage Directive (2014/35/EU) :

EN62368-1:2014+A11

TUV certificate No : R50450450

Electromagnetic Compatibility Directive (2014/30/EU) :

EMI (Electro-Magnetic Interference)

Conducted emission / Radiated emission

EN55032:2015/A11:2020

Class A

Harmonic current

EN IEC61000-3-2:2019

Voltage flicker

EN61000-3-3:2013+A1:2019

EMS (Electro-Magnetic Susceptibility)

EN55024:2010+A1:2015 EN IEC 61000-6-2:2019 EN IEC 61204-3:2018 EN55035:2017+A11:2020

ESD air

EN61000-4-2:2009

Level 4

15KV

ESD contact

EN61000-4-2:2009

Level 4

8KV

RF field susceptibility

EN61000-4-3:2006+A1:2008+A2:2010

Level 3

10V/m

EFT bursts

EN61000-4-4:2012

Level 3

2KV/5KHz

Surge susceptibility

EN61000-4-5:2014+A1:2017

Level 4

2KV/Line-Line

Surge susceptibility

EN61000-4-5:2014+A1:2017

Level 4

4KV/Line-Earth

Conducted susceptibility

EN61000-4-6:2014

Level 3

10V

Magnetic field immunity

EN61000-4-8:2010

Level 4

30A/m

Voltage dip, interruption

EN IEC61000-4-11:2020 >95% dip 0.5 periods 30% dip 25 periods >95% interruptions 250 periods

Note:

The power supply is considered as a component that will be operated in combination with final equipment. Since EMC performance will be affected by the complete system, the final equipment manufacturers must re-qualify EMC Directive on the complete system again.

For guidance on how to perform these EMC tests, please refer to TDF (Technical Documentation File).

This Declaration is effective from serial number RC0xxxxxxx

Person responsible for marking this declaration :

MEAN WELL Enterprises Co., Ltd.

(Manufacturer Name)

No.28, Wuquan 3rd Rd., Wugu Dist., New Taipei City 24891, Taiwan

(Manufacturer Address)

Johnny Huang/ Manager, Certification Center :

(Name / Position)

(Signature)

Alex Tsai/Director, Marketing Department :

(Name / Position)

(Signature)

Taiwan

(Place)

Dec. 15th, 2020

(Date)