SCMF2000 series

2000W Single Output Switching Power Supply

Features:

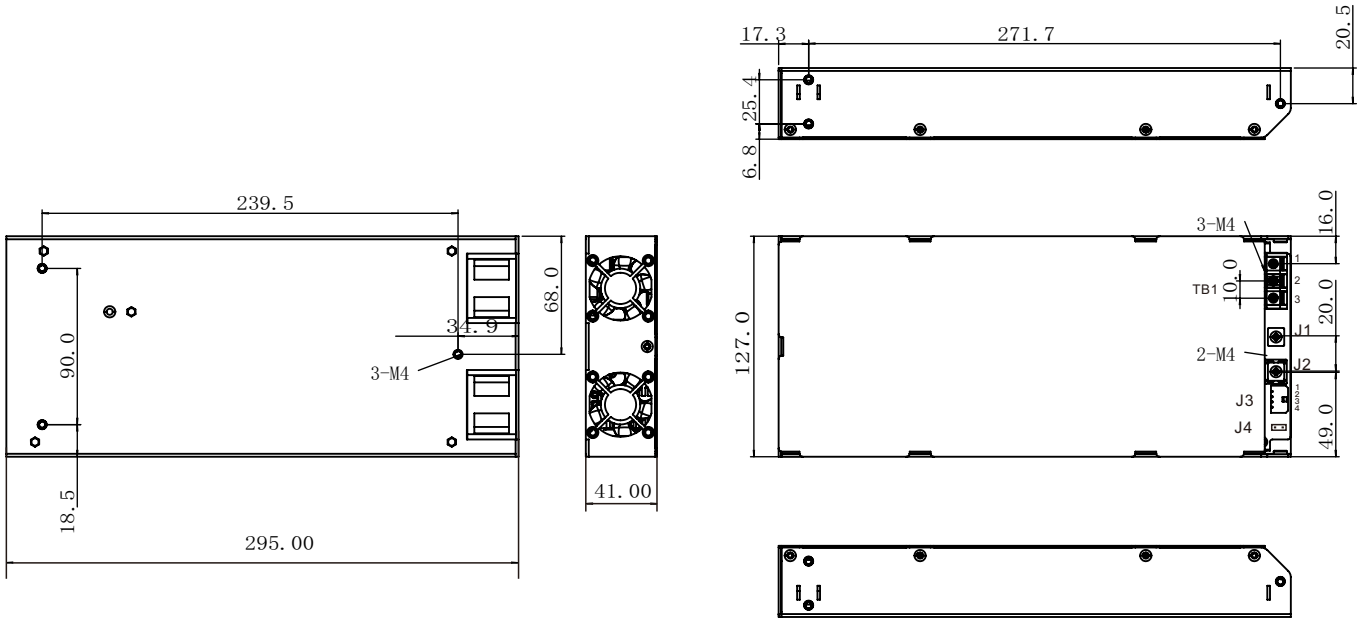
- Universal AC input
- Built in active PFC function
- High efficiency up to 90%
- Built in DC fan for forced cooling
- Remote control
- Protections: Short circuit / Overload / Over circuit
  Over voltage/Over temperature
- Spray moisture-proof agent
- 3 years warranty

Specification

MODEL		SCMF2000-24	SCMF2000-48
INPUT	VOLTAGE RANGE note4	90~264VAC	
	FREQUENCY RANGE	47-63Hz	
	POWER FACTOR(Typ.)	0.95/220VAC	
	EFFICIENCY	90%	92%
	AC CURRENT(Typ.)	15A/220VAC	
	INRUSH CURRENT	40A/220VAC	
	LEAKAGE CURRENT	<3.5mA/240VAC	
OUTPUT	DC VOLTAGE	24V	48V
	VOLTAGE RANGE	23~25V Adj.	47~49V Adj.
	RATED CURRENT	84A	42A
	CURRENT RANGE	0-84A	0-42A
	RATED POWER	2016W	2016W
	RIPPLE&NOISE (max.) note 2	240mVp-p	240mVp-p
	VOLTAGE TOLERANCE note3	⩽±1%	⩽±1%
	LINE REGULATION	⩽±1%	⩽±1%
	LOAD REGULATION	⩽±2%	⩽±2%
	SETUP、RISE TIME	3000ms,100ms/220VAC(At full load)	
	HOLD UP TIME(Typ.)	10ms/220VAC(At full load)	
PROTECTION	OVER LOAD	Protection type: Automatic recovery after abnormal load removal	
	SHORT CIRCUIT	Protection type: Hiccup mode, recovers automatically after fault condition is removed.	
	OVER CIRCUIT	Protection type: Hiccup mode, recovers automatically after fault condition is removed.	
	OVER VOLTAGE	30~35V	55~60V
		Protection type: Turn off output, restart to restore	
	OVER TEMPERATURE	Turn off the output voltage and automatically restore after the temperature drops	
FUNCTION	AUXILIARY POWER SUPPLY	5V @ 0.5A	
	REMOTE CONTROL	Power on: Short circuit ; Power off: Open circuit, please refer to the function manual	
ENVIRONIMENT	WORKING TEMP.	-20~ +60℃ (Refer to "Derating curve")	
	WORKING HUMIDITY	20~90% RH non-condensing	
	STORAGE TEMP.,HUMIDITY	-40~+85℃, 10~95% RH	
	TEMP. COEFFICIENT	±0.02%/℃ (0 ~ 50℃)	
	VIBRATION	5-9Hz, amplitude 3.5mm, 9-200Hz, acceleration 10m/s, 3 axes, sweep frequency vibration 5 times in each direction (3 * 50 minutes), power supply not damaged.	
Safety and electromagnetic compatibility (note 5)	Safety standards	UL62368-1, CSA C22.2 No. 62368-1, TUV BS EN/EN62368-1, BSMI CNS14336-1, AS/NZS62368.1, EAC TP TC 004design reference	
	Isolation resistance	I/P-O/P: 3KVac : 100MΩ / 500Vdc / 25℃ / 70%RH	
		I/P-FG: 2KVac 100MΩ / 500Vdc / 25℃ / 70%RH	
		O/P-FG: 0.5KVac 100MΩ / 500Vdc / 25℃ / 70%RH	
	Electromagnetic compatibility emission	**Parameter**	**Standard** / **Test Level / Note**
		Conducted	BS EN/EN55032(CISPR32) / Class A
		Radiated	BS EN/EN55032(CISPR32) / Class A
		Harmonic Current	BS EN/EN61000-3-2 / Class A
		Voltage Flicker	BS EN/EN61000-3-3 / ----
	Electromagnetic compatibility immunity	BS EN/EN55035, BS EN/EN61000-6-2, BSMI CNS13438	
		Parameter	**Standard** / **Test Level / Note**
		ESD	BS EN/EN61000-4-2 / Level 3, 8KV air ; Level 2, 4KV contact
		Radiated	BS EN/EN61000-4-3 / Level 3
		EFT/Burst	BS EN/EN61000-4-4 / Level 4
		Surge	BS EN/EN61000-4-5 / Level 4, 4KV/Line-Earth ;2KV/Line-Line
		Conducted	BS EN/EN61000-4-6 / Level 3
		Magnetic Field	BS EN/EN61000-4-8 / Level 4
		Voltage Dips and Interruptions	BS EN/EN61000-4-11 / >95% dip 0.5 periods, 30% dip 25 periods, >95% interruptions 250 periods

OTHERS	MTBF	100KHr
	DIMENSION	295*127*41mm (L*W*H)
	PACKING	
NOTE	1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25℃ 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. Under low voltage input conditions, a reduced output is required. Please refer to the output reduction curve diagram for details. 5. The power supply is considered a component which will be installed into a final equipment. All the EMC tests are been executed by mounting the unit on a 360mm*360mm metal plate with 1mm of thickness. The final equipment must be re-confirmed that it still meets EMC directives. 6. When the altitude exceeds 2000 meters (6500 feet), the ambient temperature of fanless models decreases at a rate of every 3.5 ℃/1000 meters, while the ambient temperature of fanless models decreases at a rate of every 5 ℃/1000 meters.	

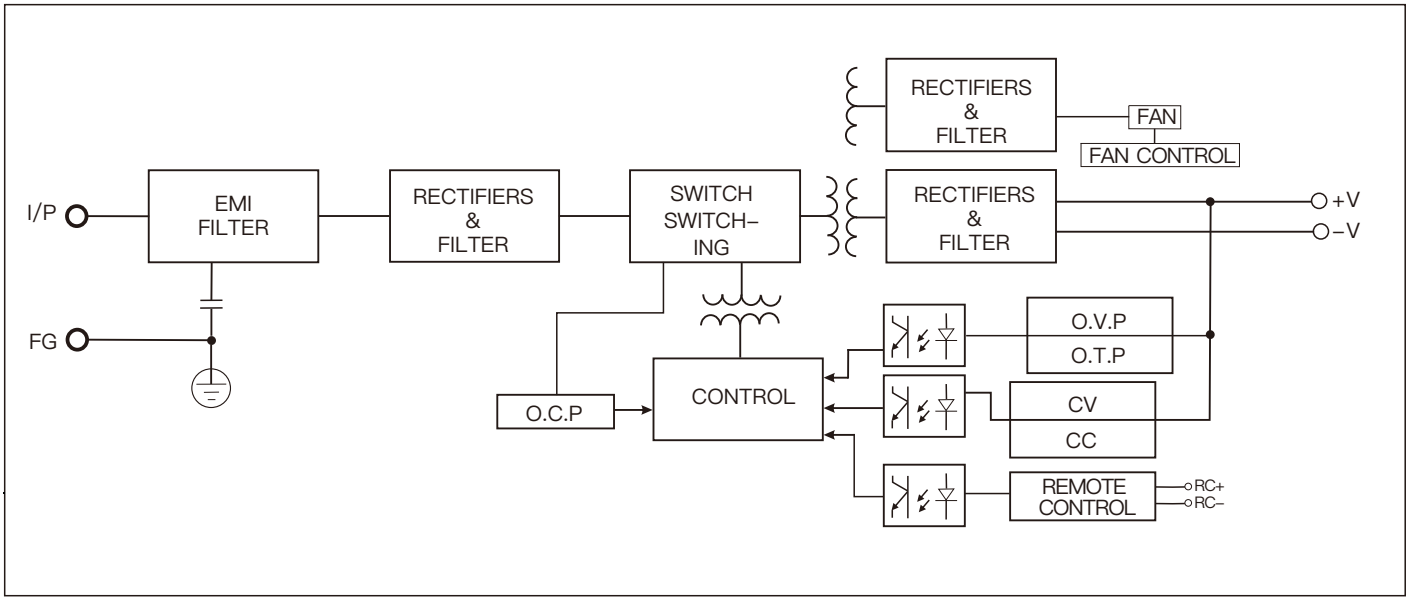
Mechanical specification



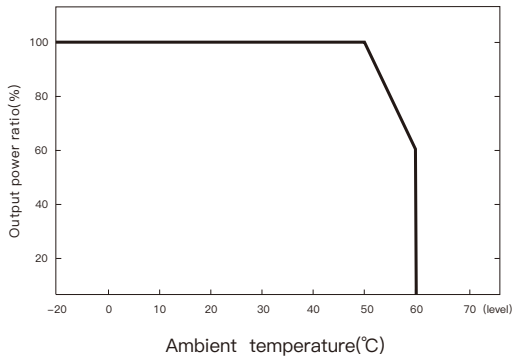
NOTE:
Unit: mm
TOL: ±1.00
J4 two pin with short-circuit cap, short-circuit power supply has output;
Only one control power switch can be selected from the J3 and J4 terminals;

	Pin No.	Assignment	Assignment description
TB1	1	FG	Protect ground
	2	AC/L	AC input live line
	3	AC/N	AC input null line
J1		DC output +V	Output terminal
J2		DC output -V	Output terminal
J3	1	ON-OFF	By electronic switch or pin 1 (Remote ON-OFF) and pin 4 The dry contact between (- S) opens or closes the power supply, short circuit: electric Power on, open circuit: power off
	2	5V-AUX	The auxiliary output voltage for pin3 (G-AUX) is 4.6~5.25V, maximum load current is 0.5A, this output terminal has redundant connections Residual diodes, and not controlled by ON/OFF signals
	3	G-AUX	The auxiliary output voltage GND is isolated from the main output (+V&- V) in the signal circuit
	4	-S	The negative pole of the enable switch is connected to the negative pole of the main circuit output through a 10R resistor
J4	ON-OFF		Two pins with short-circuit cap, short-circuit power supply has output

Block diagram



Derating curve



Derating curve