



200ACP_SCF Series

200W - Single Output AC-DC Converter - Universal Input - Isolated & Regulated

AC-DC Converter 200 Watt

- ⊕ High efficiency up to 87%
- ⊕ Universal AC input range (85~264VAC)
- ⊕ Built-in Active PFC function, PF>0.95
- ⊕ Over power protection (OPP)
- ⊕ Over load protection (OLP)
- ⊕ Short circuit protection (SCP)
- ⊕ Wide operating ambient temperature (-20°C~65°C)
- ⊕ Operating altitude up to 5000M
- ⊕ 100% full load burn-in test
- ⊕ Withstand 300Vac surge input for 5s
- ⊕ PCB soldering side with conformal coating

The 200ACP_SCF series features standard rail mounting, energy efficiency and is highly cost-effective. The series offers stability and high noise immunity especially for industrial control equipment, machinery and other demanding environments for industrial equipment. This converter offers a compact and light weight design with and standard rail installation (35mm). Furthermore this series offers Easy Fuse Tripping due and a built-in DC OK relay contact. The converter can be installed on TS-35/7.5 or TS-35/15.



UL
UL-60950-1 (E347551)



Common specifications	
Short circuit protection:	Long-term mode, automatic recovery
Temperature rise at full load:	40°C MAX
Cooling:	Free air convection
Operation temperature range:	-20°C~+65°C
Storage temperature range:	-40°C ~+85°C
Storage humidity range:	< 95%
Temperature coefficient:	0.03%/°C MAX
MTBF (using MIL-HDBK-217F):	+25°C >200,000 hours
Power boost:	150% of rated current
Parallel function:	support
Safety standards:	UL60950-1 2 nd Ed; IEC 60950-1:2005(2 nd Ed); EN60950-1:2006
Case material:	Heat-resistant Plastic (UL94-V0) and metal
Dimensions:	199*99*50mm
Weight:	950g

Input specifications			
Input voltage range	90~264VAC, 120Vdc~370Vdc		
Input frequency	47~63Hz		
Power factor	115VAC	230VAC	
	• 0.98 (typ)	• 0.95 (typ)	
AC current	3.5A (max)		
Inrush current	Cold start	115VAC	220VAC
		• 30A (typ)	• 50A (typ)
Leakage current	Input—output: ≤0.25mA Input—PG: ≤3.5mA		

Output specifications						
Item	Test conditions	Min	Typ	Max	Units	
Output voltage accuracy	Full load				±2	%
	• 12V				±1	%
	• 24V/36V/48V					
Voltage adjustment range	• 12V	9		15		V
	• 24V	20		27		V
	• 36V	32		40		V
	• 48V	40		53		V
Line regulation	Vin= min. to max. at full load			±0.5		%
Load regulation	0% to 100% load				±2	%
	• 12V				±1	%
	• 24V/36V/48V					
Set-up time	• @230VAC input				2	s
	• @115VAC input				4	s
Hold-up time	@full load	12				ms
Overshoot and undershoot					5	%
Switching frequency					100	KHz

* Measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated

Isolation specifications						
Item	Test condition	Min	Typ	Max	Units	
Withstand voltage*	• Primary-Sec.: 10mA	3000				VAC
	• Primary-PG: 10mA	1500				
	• Secondary-PG	500				
Isolation resistance		10				MΩ

* Input-Output, tested for 1 minute, 500VDC and leakage current less than 1mA

Protection specifications		
Over-load protection	• 12V: 18~30A • 24V: 10~15A • 36V: 5.88~8.8A • 48V: 5~7.56A	Protection type: Hiccup mode, auto recovery
Over-power protection	• 12V: 216~360W • 24V: 240~360W • 36V: 210~320W • 48V: 240~363W	Protection type: Hiccup mode, auto recovery

Note:

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

Example: 200ACP_24SCF

200 = 200Watt
AC = AC-DC
P = series
24 = 24 Vout
S = Single Output
C = PFC (Power Factor Correction)
F = Fan

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EMC specifications

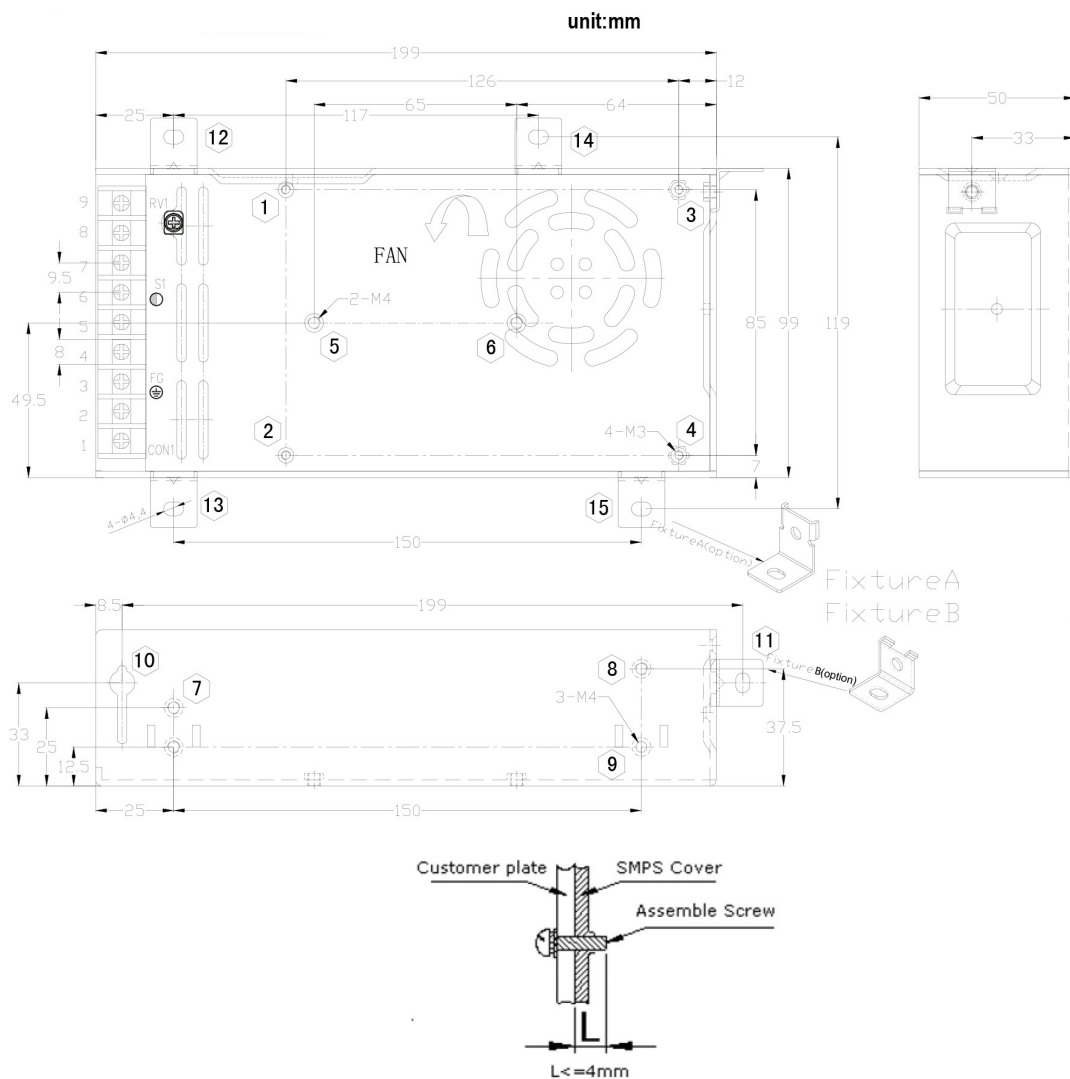
EMC / Conduction & Radiation Compliance to EN55022, EN55024, FCC PART 15 Class B

EMC / Immunity Compliance to EN61000-4-2, -3, -4, -5, -6, -8, -11

The power supply is considered as a component which will be installed into a final equipment.
The final equipment must be re-confirmed that it still meets EMC directives.

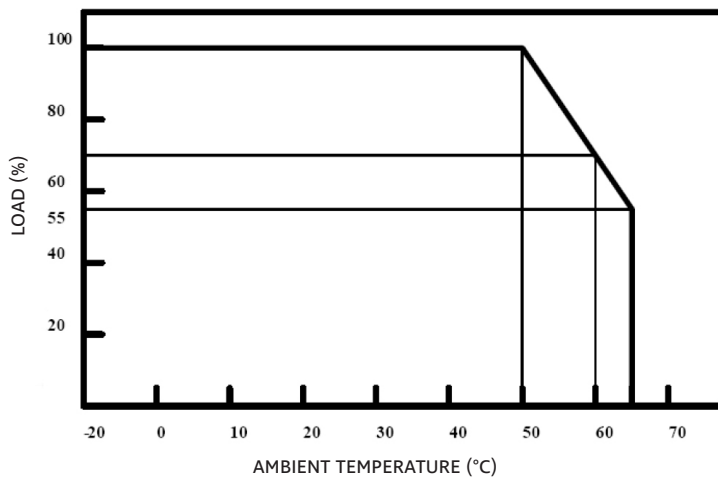
Approval	Model	Power [W]	Output [Vo, VDC]	Rated Current [A]	Current Range [A]	Ripple&Noise* [mV, typ] 0~65°C -20~0°C		Efficiency [%, min]
UL	200ACP_12SC	200	12	16.7	0~16.7	150	200	84
UL	200ACP_24SC	200	24	8.4	0~8.4	150	200	87
UL	200ACP_36SC	200	36	5.6	0~5.6	200	200	86.5
UL	200ACP_48SC	200	48	4.2	0~4.2	150	200	87

Mechanical dimensions



Typical characteristics

Derating Curve



Functional block diagram

Functional diagram

