



75ACP_S series

75W - Single Output AC-DC Converter - Universal Input - Isolated & Regulated

AC-DC Converter

75 Watt

- High efficiency up to 88%
- Universal AC input range (90~264VAC)
- Withstand 300VA surge input for 5 sec.
- Over voltage protection (OVP)
- Over load protection (OLP)
- Short circuit protection (SCP)
- Wide operating ambient temperature (-25°C~70°C)
- Operating altitude up to 5000M
- No Load power consumption<0.5W
- PCB soldering side with conformal coating

The 75ACP_S 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.



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:	-25°C~+70°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
Safety standards:	UL60950-1; EN60950-1 2006
Case material:	Heat-resistant Plastic (UL94-V0) and metal
Dimensions (L*W*H):	129×98×38mm
Weight:	473g

Isolation specifications

Item	Test condition	Min	Typ	Max	Units
Withstand voltage*	• Primary-Sec.: 10mA • Primary-PG: 10mA • Secondary-PG: 10mA	3000 1500 500			VAC
Isolation resistance		100			MΩ

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

Protection specifications

Over-load protection	•5V: 12.6~18A •12V: 6.3~9A •15V: 5.25~7.5A •24V: 3.36~4.8A •48V: 1.7~2.43A	Protection type: 5V is hiccup mode, rest are constant power, auto recovery
Over-voltage protection	•5V: 5.5~7.5V •12V: 13.2~18V •15V: 16.5~22.5V •24V: 26.4~36V •48V: 52.8~72V	Protection type: constant voltage, auto recovery

Note:

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

Input specifications

Input voltage range	90~264VAC
Input frequency	47~63Hz
AC current	2.5A (max)
Inrush current	Cold start, 230VAC 60A (max)
Leakage current (input 264Vac, 63Hz)	Input—output: <0.25mA Input—PG: <3.5mA

Output specifications

Item	Test conditions	Min	Typ	Max	Units
Output voltage accuracy	Full load			±1	%
Voltage adjustment range	•5V: 4.75~5.5V •12V: 11.4~13.2V •15V: 14.25~16.5V •24V: 22.8~26.4V •48V: 45.6~52.8V				
Line regulation	Vin= min. to max. at full load			±0.5	%
Load regulation	0% to 100% load			±1	%
Set-up time	@230VAC input, full load			1	s
Hold-up time (full load)	@230VAC input	20			ms
Overshoot and undershoot				5	%
Switching frequency			100		KHz

* Measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1 uF & 10uF parallel capacitor.

Example: 75ACP_24S

75 = 75Watt
AC = AC-DC
P = series
24 = 24 Vout
S = single output

75ACP_S series

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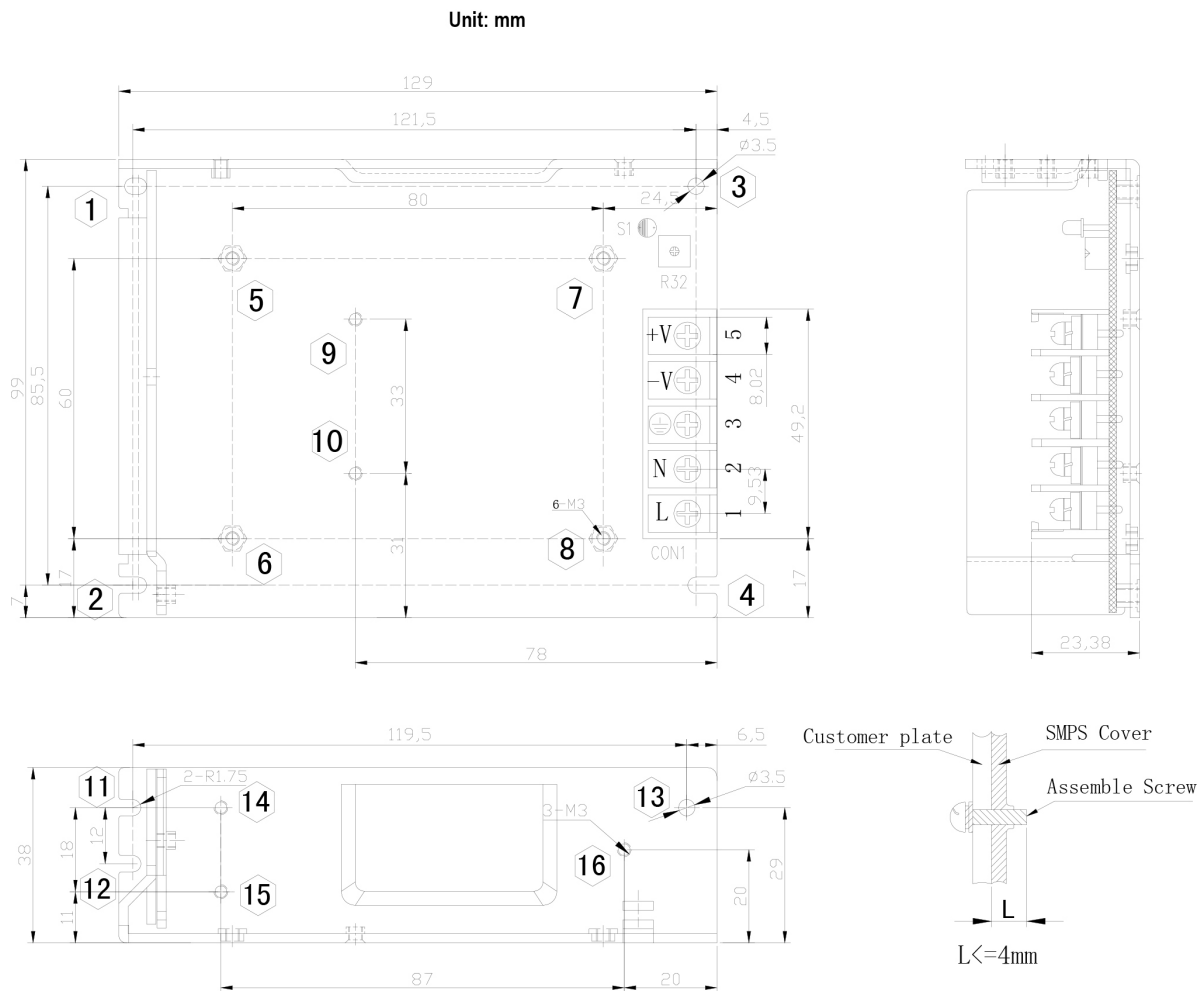
EMC specifications	
EMC / Conduction & Radiation	Compliance to EN55022, Class B / FCC Part15 B
EMC / Harmonic current	Compliance to EN61000-3-2, Class A
EMC / Immunity	Compliance to EN61000-4-2, -3, -4, -5, -6, -8, -11

The SPS 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.

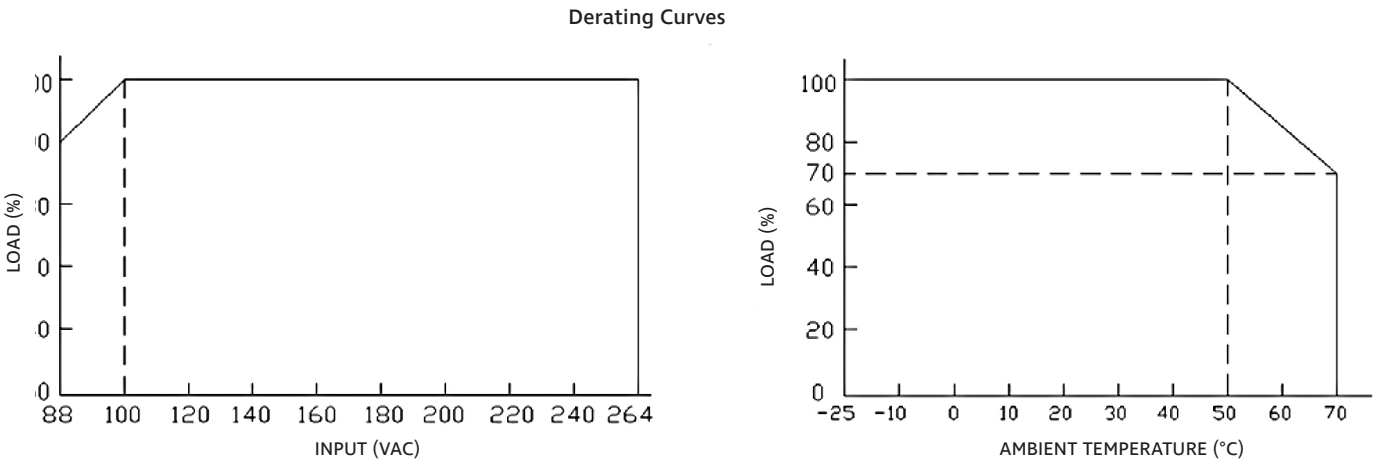
Approval	Model	Power [W]	Output [Vo, VDC]	Rated Current [A]	Current Range [A]	Ripple&Noise* [mV, typ] 0~70°C -25~0°C		Efficiency [%, typ]
UL	75ACP_05S	75	5	12	0~12	50	80	79
UL	75ACP_12S	75	12	6	0~6	80	200	84
UL	75ACP_15S	75	15	5	0~5	80	200	86
UL	75ACP_24S	75	24	3.2	0~3.2	80	200	86.5
UL	75ACP_48S	75	48	1.6	0~1.6	120	240	88

Measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1 uF & 10uF parallel capacitor.

Mechanical dimensions



Typical characteristics



Functional block diagram

