



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:

1. 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 | |

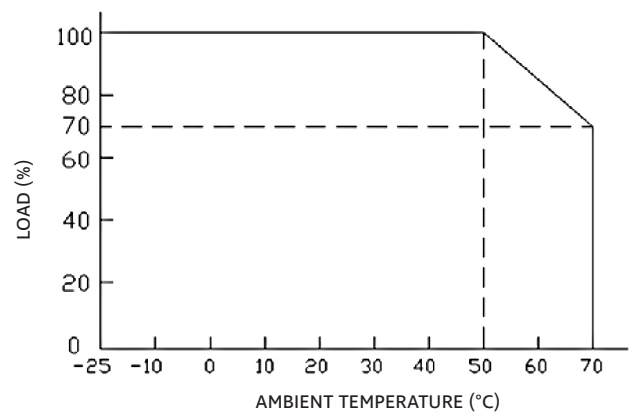
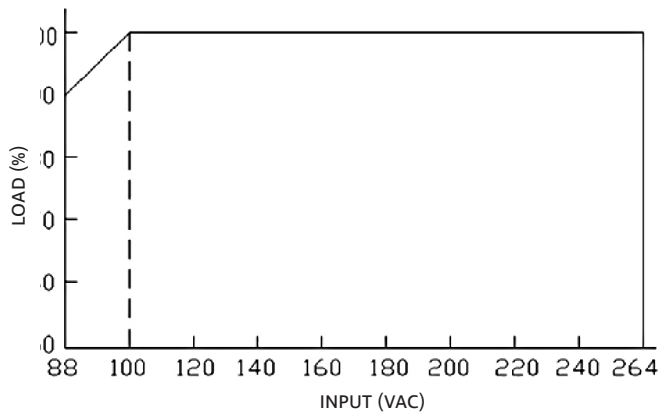
* Measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1 uF & 10uF parallel capacitor.

**Example:
75ACP_24S**

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

Typical characteristics

Derating Curves



Functional block diagram

Functional diagram

