



## AC-DC Converter

## 35 Watt

- ⊕ **Input voltage:**  
100-240VAC / 140-340VDC
- ⊕ **Output short circuit protection (SCP)**
- ⊕ **Over-current protection,**
- ⊕ **Over-voltage protection**
- ⊕ **100% aging test**
- ⊕ **Standard slim model, height only 30mm**
- ⊕ **Operating temperature range: -30°C to +70°C**
- ⊕ **3000VAC isolation**

Introducing our new, ultra-slim power 35ACPDC\_3 series. With a versatile input voltage range of 100-240VAC or 140-340VDC, this power converter is built to perform in diverse environments. It provides reliable output options of 3.3V, 5V, 12V, 15V, 24V, 36V, and 48V, making it suitable for various applications. Engineered with essential safety features, including output short circuit protection (SCP), over-current, and over-voltage protection, it ensures secure and stable performance. Each unit undergoes a rigorous 100% aging test, guaranteeing reliability and durability over time. This model's slim profile, with a height of only 30mm, allows for easy integration into compact spaces. Operating flawlessly in temperatures from -30°C to +70°C, it's ready for both standard and demanding conditions. Experience a power solution designed for versatility, efficiency, and reliability!



Common specifications	
Short circuit protection	Hiccup mode, recovers automatically after fault condition is removed.
Over current protection	105%Io (min.) 160%Io (max.) Hiccup mode, recovers automatically after fault condition is removed
Over voltage protection	110% (min.) 135% (max.) Voltage limited mode, recovers automatically after fault condition removed
Dielectric test	Input-output/3000 VAC / 10mA@60S Input-case/1500 VAC / 10mA@60S Output-case/500 VAC / 10mA@60S
Operating temperature*	-30°C - +70°C (with derating)
Storage temperature	-40°C - +85°C
Altitude	5000m (the ambient temperature derating of 0.5°C /100m for operating altitude higher than 2000m)
Relative humidity	20-95% RH (non-condensing)
Safety standard	UL 62368-1, EN62368-1, IEC 62368-1, GB 4943.1
MTBF	100,000 hours 230VAC, 25°C, 80% Load (MIL-HDBK-217F)
Weight	200g
Dimension	99.0 x 82.0 x 30.0 mm

Output specifications					
Item	Operating condition	Min	Typ	Max	Units
Voltage tolerance	3.3/5VDC	-2.0		+2.0	%
	others	-1.0		+1.0	
Ripple & noise (pk-pk)*	3.3/5VDC			100	mV
	12VDC			120	
	15/24VDC			150	
	36/48VDC			200	
Line regulation		-0.5		+0.5	%
Load regulation	3.3/5VDC	-2.0		+2.0	%
	others	-1.0		+1.0	
Turn on delay time	230VAC			2500	ms
Rise time	230VAC			50	ms
Hold up time	230VAC	20			ms
Temperature coefficient	0-50°C	-0.03		+0.03	%

Note: \*Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uF & 47uF parallel capacitor.

Isolation specifications					
Item	Operating conditions	Min	Typ	Max	Units
Ground resistances				0.1	Ω
Insulation resistance	500VDC, 60S	100			MΩ

Input specifications					
Item	Operating condition	Min	Typ	Max	Units
Input voltage range (AC)		90		264	VAC
Rated Input voltage (AC)		100		240	VAC
Frequency range		47		63	Hz
Rated input voltage (DC)		140		340	VDC
Input current	100% load, 115VAC			0.70	A
	100% load, 230VAC			0.50	
Leakage current	240VAC/60Hz			3.5	mA
Input voltage		120	230	277	VAC
Ipeak (typ.)			50		A

- Please follow the installation instructions when use the power supply.
- Before power on test run after installation, please check and proofread the wiring on each terminal, make sure that the input and output, AC and DC, positive and negative, voltage and current values are correct, prevent the occurrence of wrong connection, and avoid damaging the power supply and user equipment.
- Before power on, please use a multimeter to measure whether the live wire, zero wire and ground wire are short circuited, and whether the output terminal is short circuited; it is better to start without load when power on.
- Do not exceed the nominal value of the power supply when using, so as not to affect the reliability of the product. If you need to change the output parameters of the power supply, please consult our technical department before using.
- In order to ensure the safety of use and reduce interference, please ensure that the grounding terminal is reliably grounded (ground wire please thicker than AWG18#).
- If the power supply fails, please do not repair it without permission. Please contact our customer service department.

#### Example:

#### 35ACPDC\_05S3

35 = 35Watt; AC = AC-DC; PDC = Series; 05 = 5Vout; S = Single output; 3 = 3kVAC isolation

# 35ACPDC\_3 series

35W - Single Output AC-DC Converter

EMC specifications					
EMI	CE	Conducted emission test & radiated emission test	EN55032	Class B	
EMI	CE	Harmonic current emissions	EN 61000-3-2	Class A	
EMI	CE	Voltage fluctuations & flicker	EN 61000-3-3		
EMS	CE	Electrostatic discharge (ESD)	EN 61000-4-2	Air 8kV / contact 6kV	Criteria B
EMS	CE	Radio-Frequency electromagnetic field susceptibility Test-RS	EN 61000-4-3	80MHz-1GHz 10V/m	Criteria B
EMS	CE	Electrical Fast Transient / Burst-EFT	EN 61000-4-4	±2kV, (5 or 100) kHz	Criteria B
EMS	CE	Surge immunity test	EN 61000-4-5	CM ±2kV/DM ±1kV	Criteria B
EMS	CE	Conducted radio frequency disturbances test-CS	EN 61000-4-6	10Vr.m.s;	Criteria A

Notes: The power supply is considered a component which will be installed into a terminal equipment. All EMC test should be confirmed with the final equipment.

## Product Selection Guide

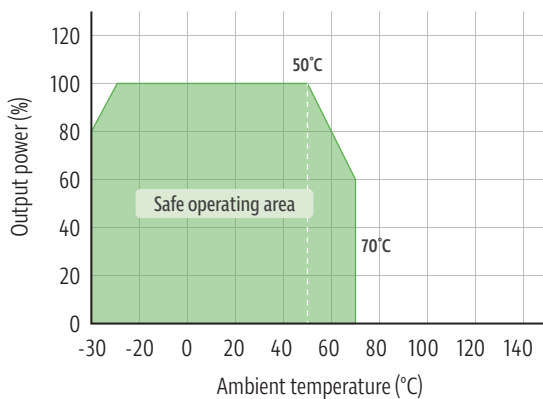
Approval	Part number	Output Power (W)	Input voltage (VAC)	Output voltage (VDC)	Default voltage (min./max)	Voltage ADJ. Range (min./max)	Output Current (A)	Efficiency* (%)	Efficiency** @110 VAC(%) typ.	Efficiency** @230 VAC(%) typ.	Max. Capacitive Load (µF)
	35ACPDC_03S3	23.1	100-240	3.3	3.25/3.35	3.0/3.6	0-7.00	81.0	80.0	81.0	6000
	35ACPDC_05S3	35.0	100-240	5	4.98/5.08	4.5/5.5	0-7.00	82.0	81.0	82.0	6000
	35ACPDC_12S3	36.0	100-240	12	11.88/12.12	10.8/13.2	0-3.00	84.0	83.0	84.0	1200
	35ACPDC_15S3	36.0	100-240	15	14.85/15.15	13.5/16.5	0-2.40	85.0	84.0	85.0	900
	35ACPDC_24S3	36.0	100-240	24	23.9/24.2	21.6/26.4	0-1.50	85.0	84.0	85.0	540
	35ACPDC_36S3	36.0	100-240	36	35.6/36.36	33.0/39.0	0-1.00	86.0	85.0	86.0	180
	35ACPDC_48S3	38.4	100-240	48	47.6/48.4	44.0/52.0	0-0.75	86.0	85.0	86.0	68

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

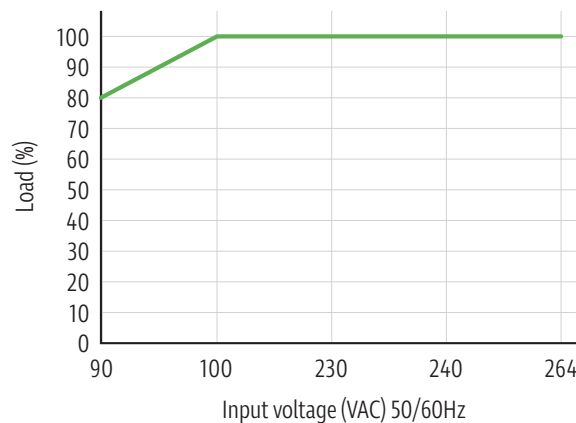
\*\* 100% load, Ta = 25°C

## Typical characteristics

Temperature derating graph



Load vs input voltage



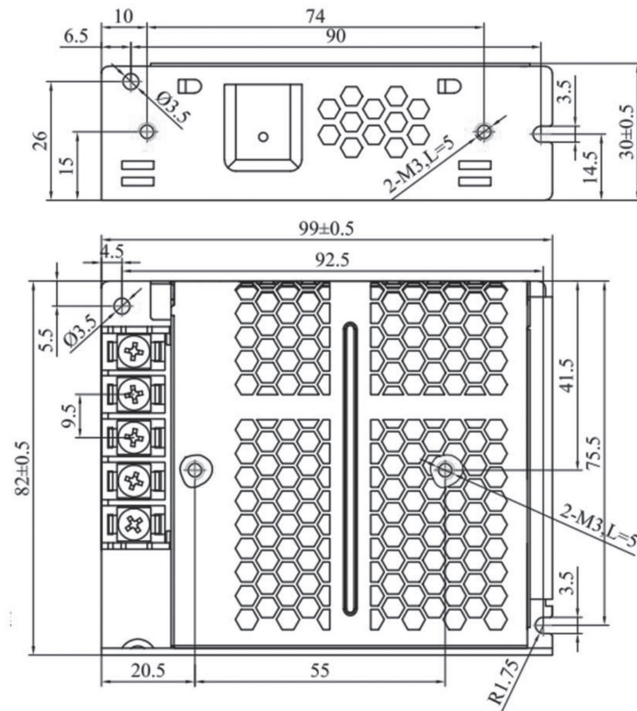
Note:

1. \*In order to extend the service life, it is recommended to leave 30% more allowance when loading. For example, if the equipment needs 100W power, please choose the power supply over 130W.

## 35ACPDC\_3 series

35W - Single Output AC-DC Converter

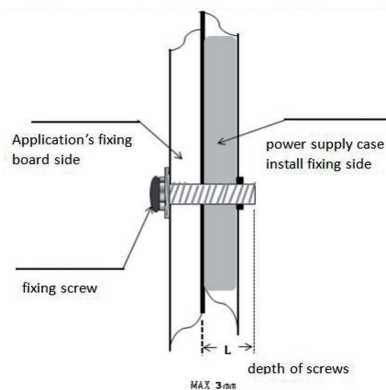
### Mechanical dimensions



Input and output terminals description

PIN Number	PIN Function	PIN Number	PIN Function
L	AC LINE	V+	DC output +
N	AC NEUTRAL	V-	DC output -
FG	EARTH		

### Installation



#### Warning

- Use mounting screws by M4 \* 6mm, 0.8N·m
- Max depth of screws into housing is 3mm
- Right picture with more details.
- Connector tightening torque:  
Input terminal: 1.0N·m  
Output terminal: 1.0N·m