

## Features:

- Universal AC input / Full range
- Programmable output Voltage (30% ~ 105%)
- Programmable output Current (40% ~ 105%)
- +5V / 0.5A auxiliary output
- Forced current sharing at parallel operation
- Power OK signal
- Remote ON / OFF, Remote sense function
- Protection: OVP, OLP, OTP, SCP, Fan failure
- 3 years warranty



MODEL		AK-650-05	AK-650-12	AK-650-15	AK-650-24	AK-650-27	AK-650-48
Output	DC Voltage Range	5V	12V	15V	24V	27V	48V
	Rated Current	100A	50A	40A	27A	24A	13.6A
	Current Range	0 ~ 100A	0 ~ 50A	0 ~ 40A	0 ~ 27A	0 ~ 24A	0 ~ 13.6A
	Rated Power	500W	600W	600W	648W	648W	652W
	Ripple & Noise (Max.) <div>Note.2</div>	150mVp-p	150mVp-p	150mVp-p	150mVp-p	150mVp-p	150mVp-p
	Voltage Adj. Range	±5.0% Typical adjustment by potentiometer					
	Voltage Tolerance <div>Note.3</div>	±1.0%					
	Line Regulation	±0.5%					
	Load Regulation	±0.5%					
	Setup, Rise Time	800ms, 60ms at full load					
Hold Up Time (Typ.)	16ms / 230VAC at full load						
Input	Voltage Range <div>Note.4</div>	90 ~ 264VAC, 127 ~ 370VDC					
	Frequency Range	47 ~ 63Hz					
	Power Factor (Typ.)	0.98 / 230VAC, 0.99 / 115VAC at full load					
	Efficiency (Typ.)	83%	88%	88%	90%	90%	91%
	AC Current (Typ.)	7.5A / 115VAC, 3.5A / 230VAC					
	Inrush Current (Typ.)	27A / 115VAC, 54A / 230VAC					
	Leakage Current	< 1.0mA / 240VAC					
Protection	Over Load	105 ~ 125% rated output power Protection type: Total Power limit, Latch-style (Recovery after reset AC power ON or inhibit)					
	Over Voltage	Variable OVP, 125 ±10% Vout. Protection type: Latch-style (Recovery after reset AC power ON or inhibit)					
	Over Temperature	By detecting primary and secondary heat sink. Protection type: Shut down o/p voltage (Recovers automatically after temperature goes down)					
	Auxiliary Power	5V / 0.5A (±3%)					
	Remote ON / OFF Control	External switch or NPN Transistor to turn ON / OFF					
Function	Power OK Signal	Open drain signal low when PSU turns on, Max. sink current: 20mA, Max. drain voltage: 40V.					
	Output Voltage Trim	Adjustment of output voltage is between 30 ~ 105% of rated output					
	Output Current Trim	Adjustment of output voltage is between 40 ~ 105% of rated output					
	Parallel (Current Sharing) <div>Note.5</div>	Please refer to Function Manual					
Environment	Working Temp.	-25 ~ +60°C (Refer to de-rating curve)					
	Working Humidity	20 ~ 90% RH non-condensing					
	Storage Temp. & Humidity	-40 ~ +85°C, 10 ~ 95% RH					
	Temp. Coefficient	±0.02% / °C (0 ~ 50°C)					
	Vibration	10 ~ 500Hz, 5G 10min. / 1cycle, period for 60min. each along X, Y, Z axes Compliance to IEC 68-2-6, IEC 68-2-64					
Safety & EMC	Safety Standards	Certified UL 60950-1; EN 60950-1					
	Withstand Voltage <div>Note.7</div>	I/P-O/P: 3KVAC (4242VDC), I/P-FG: 1.5KVAC (2121VDC), O/P-FG: 0.5KVAC (707VDC), 1min					
	Isolation Resistance	I/P-O/P, I/P-FG, O/P-FG: 100M Ohms / 500VDC					
	EMI Conduction & Radiation	Certified EN 55022; EN 61000-6-3					
	Harmonic Current	Certified EN 61000-3-2; EN 61000-3-3					
<div>Note.6</div>	EMS Immunity	Certified EN 55024; EN 61204-3; EN 61000-6-1; ENV 50204; IEC 61000-4-2, 3, 4, 5, 6, 8, 11					
Others	MTBF	166.2K HRS Certified MIL-HDBK-217F					
	Cooling	Load and Temperature control fan					
	Dimension (WxHxD)	127x40.9x249 mm / 5.000x1.610x9.803 inch					
	Packing	1.68kq; 9pcs / 16.1kq / 1.86CUFT					

## Note

1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C 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 setup time tolerance, line regulation and load regulation.
4. De-rating may apply in low input voltage. Please check the de-rating curve for more details.
5. In parallel connection, only one unit will operate if the total output load is less than 5% of the rated load condition.
6. The power supply is considered a component which will be installed into a final equipment. The final equipment must be re-confirmed that it still meets EMC directives.
7. This test is done without enclosure.