

COTEK

Professional Power Solutions Design
and Manufacturing

Switching Mode Power Supply

Always Power Ready



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COTEK is committed to providing proactive service, innovative technology and total quality assurance since COTEK was established in 1986. With Corporate Offices in Tao-yuan, Taiwan, COTEK is a technology-oriented company focusing on developing, designing and manufacturing products including:

- 1
- DC / AC Pure Sine Wave Inverter
- 2
- Inverter / Charger
- 3
- Battery Charger
- 4
- Programmable AC / DC Switching Mode Power Supply



D&B Top 1000 Elite SME Award
D-U-N-S Number : 65-728-6662



Why COTEK

One-stop shopping

Diverse power product lines that fulfill our business partner’s power requirement across multiple sectors (AC/DC, DC/AC, Chargers and Inverter Chargers)

World-Class R&D Team

30 years’ software & hardware development capability

Product Safety Approvals

Meet the global latest safety standards

Flexibility

To provide off-the-shelf and customized design service

Prompt Service

Authorized distributor partners in over 38 countries to ensure local services in the same time zone

Production Experience

Sold more than 20 million pcs to the worldwide market



COTEK Headquarters, Taiwan

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Product Index

General / Industrial

Photo	Type	Output	Series	Main Features	DC Output	Power Rating (Wattages)						Page
						500	650	800	1000	1500	3000	
	Enclosed	Single	AD	■ Programmable output voltage / current up to 105% ■ Forced current sharing at parallel operation ■ Constant current limit ■ I²C, PMBus (Meet), UART and MODBUS communication protocol ■ Aux output 5V/1A ■ Built-in ORing FETs ■ Support parallel operation via CAN Bus ■ Intelligent GUI available at request	LV	○		○		●		P.7
					HV					○		
			AE	■ Programmable output voltage / current (0~105%) ■ Constant current limit ■ Global control via RS-232 ■ Multiple remote settings via RS-232, I²C and RS485 ■ Auxiliary output 5V/0.5A or 9V/0.3A ■ Remote ON/OFF ■ Force current sharing at parallel operation ■ GUI available at request	LV			○●		●●	●	P.9
			AEK	■ Remote ON/OFF ■ Force current sharing at parallel operation ■ GUI available at request	LV						○●	P.11
					HV						●●	
			AK	■ Programmable output voltage (30~105%) & current (40~105%) ■ Remote ON/OFF ■ Force current sharing at parallel operation	LV		●		●			P.13

■ Model Naming Rule : [AD-1500-XX](#)
① ② ③

① Product Series
② Wattage

③ Output voltage
LV : 12 / 15 / 24 / 30 / 36 / 48 / 60 VDC
HV : 120 / 150 / 200 / 250 / 300 / 400 VDC

● = Standard Version (Available to order) ● = ORing Version (Available to order)
○ = Coming Soon

Accessories

Photo	Model Name	Description	Applicable Series
	CT-201/204/ 251/551	RS-232/485 Interface card	■ For AE, AEK Series
	CT-211	Charger board	■ For AE, AEK-3000-LV Series

Photo	Model Name	Description	Applicable Series
	AD - COMM - C11 / A23 / A24	Communication Interface card	■ For AD Series

Note: For the Accessories detail spec., please contact Sales if required.

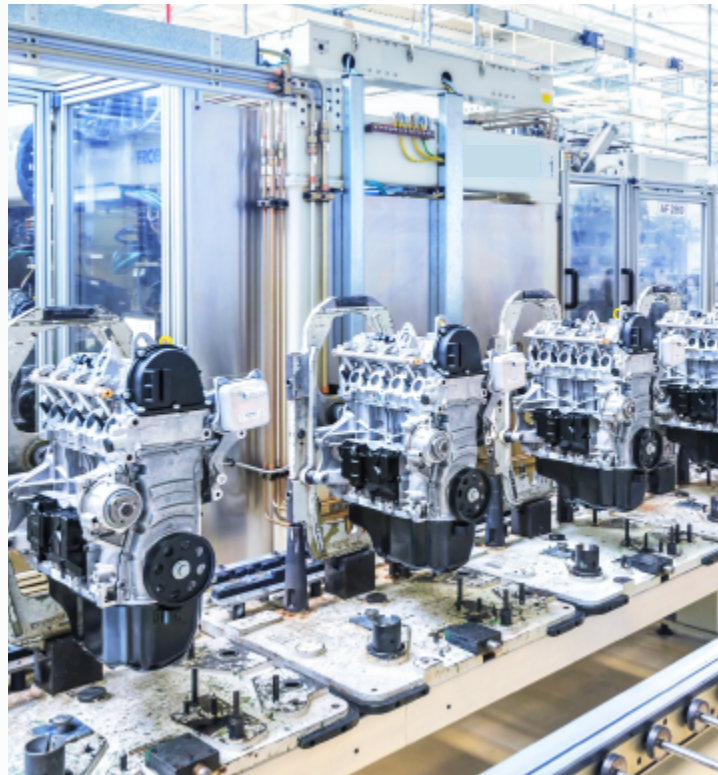
Applications

Industrial

Process Control
Burn-in
Test & Measurement
Laser-Carving
Factory Automation
Digital Signage/Display
Industrial Robotics
Aerospace grounding power
Lighting

Why Cotek:

- Universal Input
- Wide programmable range
- PCBA conformal coating as default



Ethernet

(Coming Soon)

Industrial automation
Gas and Oil Refineries
Pipelines
Simulators
Air Traffic Control
Financial Services
Satellite Communications
Mission Critical Application
CCTV

Conveyor

Conveyor Systems (Sortation, Crossbelt Sorter, etc.)
AGV Systems
Palletising and Depalletising System

Why Cotek:

- Wide programmable range
- Communication protocol available for PLC integration
- Parallel connection to support the power requirement for long distance production line
- Remote sense compensation voltage <0.5V
- Customized output voltage as default setting without having to update the safety approvals (cost saving)



Charging

EBUS/EV Charging
Warehouse automation
Smart Retail (Robotic)



Why Cotek:

- Constant current limit
- Wide programmable range
- Remote communication & setting
- Parallel Connection
- CT-211 (optional charger board) to set CC, CV and floating curve for charger applications

Healthcare

Blood Analysis
Dental heating
Laboratory
Monitoring
Cytocentrifuge
Incubators

Why Cotek:

- Universal Input
- Wide programmable range
- PMBUS communication
- Temperature info read out



AD-Series

1.5KW 12~400VDC Programmable Digital Power Supply



Features

- Universal AC input/Full range (90~264Vac)
 - Programmable output voltage & current 0~105%
 - Forced current sharing at parallel operation
 - Constant current limit
 - AUX POWER : +5.0V/1.0A auxiliary
 - Built-in OR'ing FETs
 - I²C, PMBus(meet), UART, and MODBUS communication protocols
(Reference datasheet for detail interface version info.)
- Support parallel operation via CAN Bus
 - Linear output voltage & current control by external signal/resistor
 - Intelligent GUI to set and monitor parameter
 - Power OK signal
 - Remote on/off, Remote sense function
 - Protection: OVP, OLP, OTP, UTP, AC/Power/Fan Failure
- AD-1500

AD-1500-HV - coming soon!



Protection	
Over Load	105% rated output power Protection type: Constant current limit
Over Voltage	Programmable OVP, 120 ± 7% Vout. Protection type: Latch-style (Recovery after reset AC power ON or inhibit)
Over Temperature	Detect on NTC, Protection type: Auto recovery after temperature goes down
Function	
Auxiliary Power	+5.0V / 1.0A
Remote ON/OFF Control	By external switch / communication
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 0% ~ 105% of rated output (C11 Version)
Output Current Trim	Adjustment of output current is between 0% ~ 105% of rated output (C11 Version)
Parallel	Current sharing via CANBUS (A23 & A24 Version)
Environment	
Working Temperature	-25 ~ +60°C (Refer to load de-rating curve)
Working Humidity	20 ~ 90% RH non-condensing
Storage Temp. & Humidity	-40°C ~ 85°C, 10 ~ 95% RH
Temperature Coefficient	± 0.02% / °C (0°C ~ 50°C)
Vibration	10 ~ 500Hz, 2G 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	UL 62368-1; EN 62368-1
Withstand Voltage	I/P-O/P: 3KVAC (4242VDC), I/P-FG: 1.5KVAC (2121VDC), O/P-FG: 0.5KVAC (707VDC)
Isolation Resistance	I/P-O/P, I/P-FG, O/P-FG: 100M Ohms / 500VDC
EMI Conduction & Radiation	EN 55032; EN 61204-3; EN 61000-6-3
Power Harmonic & Voltage	EN 61000-3-2; EN 61000-3-3
Fluctuation and Flicker	
EMS Immunity	EN55035: 2017 / A11: 2020 ; IEC 61000-4-2,3,4,5,6,8,11
Other	
Cooling	Load and temperature control fan
Product Dimension (WxHxD)	127.8x64x280.4 mm / 5.03x2.52x11.04 inch
Packing	2.2kg; 6pcs / 16kg / 1.86CUFT

Low Output Voltage (LV)

	AD-1500-12-xxx	AD-1500-15-xxx	AD-1500-24-xxx	AD-1500-30-xxx	AD-1500-36-xxx	AD-1500-48-xxx	AD-1500-60-xxx
Output							
DC Voltage	12V	15V	24V	30V	36V	48V	57V
Rated Current	125A	100A	62.5A	50A	41.7A	31.3A	26.3A
Current Range	0 ~ 125A	0 ~ 100A	0 ~ 62.5A	0 ~ 50A	0 ~ 41.7A	0 ~ 31.3A	0 ~ 26.3A
Rated Power*	1500W						
Ripple & Noise (Max.)	150mVp-p	150mVp-p	240mVp-p	300mVp-p	360mVp-p	480mVp-p	570mVp-p
Voltage Adj. Range	±5.0% Typical adjustment						
Voltage Tolerance	±2.0% (rate output voltage of single unit)						
Current Tolerance	±3.0% (rate output current of single unit)						
Line Regulation	±1.0%						
Load Regulation	±1.0%						
Setup, Rise Time	1300ms, 100ms at full load (230V ac)						
Hold Up Time (Typ.)	14ms / 230VAC at full load						
Input							
Voltage Range	90 ~ 264VAC, 250~370VDC (Refer to de-rating curve)						
Frequency Range	47 ~ 63Hz						
Power Factor (Typ.)	0.95 / 230VAC, 0.99 / 115VAC at ful load						
Efficiency (Typ.)	89%	90%	92%	92%	92%	92%	93%
AC Current (Typ.)	18A / 115VAC, 9A / 230VAC						
Inrush Current (Typ.)	30A / 115VAC, 45A / 230VAC						
Leakage Current	< 3.5mA / 240VAC						

High Output Voltage (HV)

	AD-1500-120-xxx	AD-1500-150-xxx	AD-1500-250-xxx	AD-1500-400-xxx
Output				
DC Voltage	120V	150V	250V	400V
Rated Current	12.5A	10.0A	6.0A	3.75A
Current Range	0 ~ 12.5A	0 ~ 10.0A	0 ~ 6.0A	0 ~ 3.75A
Rated Power*	1500W			
Ripple & Noise (Max.)	1200mVp-p	1500mVp-p	2500mVp-p	4000mVp-p
Voltage Adj. Range	±5.0% Typical adjustment			
Voltage Tolerance	±2.0% (rate output voltage of single unit)			
Current Tolerance	±3.0% (rate output current of single unit)			
Line Regulation	± 1.0%			
Load Regulation	± 1.0%			
Setup, Rise Time	1200ms, 100ms at full load (230V ac)			
Hold Up Time (Typ.)	14ms / 230VAC at full load			
Input				
Voltage Range	90 ~ 264VAC, 250~370VDC (Refer to de-rating curve)			
Frequency Range	47 ~ 63Hz			
Power Factor (Typ.)	0.95 / 230VAC, 0.99 / 115VAC at ful load			
Efficiency (Typ.)	92%			
AC Current (Typ.)	18A / 115VAC, 9A / 230VAC			
Inrush Current (Typ.)	30A / 115VAC, 45A / 230VAC			
Leakage Current	< 3.5mA / 240VAC			

*AD-1500-120-xxx, xxx can be **A23**, **A24**, or **C11**
Communication protocol : A23 : UART (RS-485), and Meet PMBus A24 : MODBUS & Meet PMBUS C11 : UART (RS-485)
*Rated power could be de-rated when AC input is below 100VAC, please refer to datasheet



AE-Series

800W~3KW Wide Programmable Range
Single Output Power Supply



Features

- Universal AC input / Full range
 - Programmable output voltage & current (0%~105%)
 - Forced current sharing at parallel operation
 - Constant current limit
 - Selectable +5V / 0.5A or +9V / 0.3A auxiliary output
 - Global control via RS232 / RS485 protocol
- Remote setting multiple PSU via RS-232, RS-485 & I²C
 - Power OK signal
 - Remote ON / OFF, Remote sense function
 - Protection: OVP, OLP, OTP, OCP and Fan Failure

AE-1500 Oring Diode Version

- Built-in Oring Diode
 - Built-in I²C and RS485 communication interface
- Built-in isolation IC for communication

AE-800 ORing version - coming soon!

Protection		
Over Load	105% rated output power, Protection type: Constant current limit	
Over Voltage	Variable OVP Refer to VCI VS OVP curve.(OVP Tolerance 7%) Protection type : Latch-style (Recovery after reset AC power ON or inhibit)	
Over Temperature	85 ±5°C detect on NTC, Protection type: Auto recovery after temperature goes down	
Environment		
Working Temperature	AE-800 : -20 ~ +60°C AE-1500 & AE-3000 : -25 ~ +60°C (Refer to load de-rating curve)	
Working Humidity	20 ~ 90% RH non-condensing	
Storage Temp. & Humidity	-40°C ~ 85°C, 10 ~ 95% RH	
Temperature Coefficient	± 0.02% / °C (0°C ~ 50°C)	
Vibration	10 ~ 500Hz, 2G 10min. / 1cycle, period for 60min. each along X, Y, Z axes Compliance to IEC60068-2-6; IEC60068-2-64	
Safety & EMC		
Safety Standards	Certified EN 62368-1; UL62368-1	
Withstand Voltage	I/P-O/P: 3KVAC (4242VDC), I/P-FG: 1.5KVAC (2121VDC), O/P-FG: 0.5KVAC (707VDC)	
Isolation Resistance	I/P-O/P, I/P-FG, O/P-FG: 100M Ohms / 500VDC (25°C / 70% RH)	
EMI Conduction & Radiation	Certified EN 55032; EN 61204-3; EN 610000-6-3	
Power Harmonic & Voltage	Certified EN 61000-3-2; EN 61000-3-3	
Fluctuation and Flicker		
EMS Immunity	Certified EN 55035: 2017 / A11: 2020; IEC 61000-4-2,3,4,5,6,8,11	
Other		
Cooling	Load and temperature control fan	
Product Dimension (WxHxD)	AE-800 : 127x41x249 mm / 5.00x1.61x9.80 inch AE-1500 : 127x64x280 mm / 5.00x2.52x11.02 inch AE-3000 : 127x127x325mm/5.00x5.00x12.80 inch	
Packing	AE-800 : Per Product 1.62kgs ; 9pcs / 17kg / 2.03CUFT AE-1500 : Per Product 2.6kg; 6pcs / 16.6kg / 1.86CUFT AE-3000 : Per Product 5.25kgs ; 4pcs / 22kg / 1.86CUFT	



Output	AE-800-12	AE-800-15	AE-800-24	AE-800-30	AE-800-36	AE-800-48	AE-800-60
DC Voltage	12V	15V	24V	30V	36V	48V	60V
Rated Current	66.7A	53.4A	33.5A	26.7A	22.3A	16.7A	13.4A
Rated Power*	800W						
Ripple & Noise (Max.)	120mVp-p	150mVp-p	240mVp-p	300mVp-p	360mVp-p	480mVp-p	600mVp-p
Voltage Adj. Range	± 5.0% Typical adjustment by potentiometer. (VR1)						
Voltage Tolerance	±2.0% (rated output voltage of single unit)						
Current Tolerance	±3.0% (rated output current of single unit)						
Line & Load Regulation	± 1.0%						
Setup, Rise Time	800ms, 100ms at full load						
Hold Up Time (Typ.)	8ms / 230VAC at full load						

Input							
Voltage Range	90 ~ 264VAC, 127 ~ 370VDC (Refer to de-rating curve)						
Frequency Range	47~63Hz						
Power Factor (Typ.)	0.95 / 230VAC, 0.98 / 115VAC at full load						
Efficiency (Typ.)	89%	90%	92%	92%	92%	92%	93%
AC Current (Typ.)	9.3A / 115VAC, 3.5A / 230VAC						
Inrush Current (Typ.)	30A / 115VAC, 60A / 230VAC						
Leakage Current	< 3.5mA / 240VAC						

Output	AE-1500-12	AE-1500-15	AE-1500-24	AE-1500-30	AE-1500-36	AE-1500-48	AE-1500-60
DC Voltage	12V	15V	24V	30V	36V	48V	60V
Rated Current	125A	100A	62.5A	50A	41.7A	31.3A	25A
Rated Power*	1500W						
Ripple & Noise (Max.)	150mVp-p	150mVp-p	240mVp-p	300mVp-p	360mVp-p	480mVp-p	600mVp-p
Voltage Adj. Range	±5.0% Typical adjustment by potentiometer. (Via V-Adj from PSU front panel)						
Voltage Tolerance	±2.0% (rated output voltage of single unit)						
Current Tolerance	±3.0% (rated output current of single unit)						
Line & Load Regulation	± 1.0%						
Setup, Rise Time	800ms, 100ms at full load						
Hold Up Time (Typ.)	14ms / 230VAC at full load						

Input							
Voltage Range	90 ~ 264VAC, 127 ~ 370VDC (Refer to de-rating curve)						
Frequency Range	47~63Hz						
Power Factor (Typ.)	0.95 / 230VAC, 0.99 / 115VAC at full load						
Efficiency (Typ.)STD/ORing	89% / 88%	90% / 89%	91% / 90%	92% / 91%	92% / 91%	92% / 91%	93% / 92%
AC Current (Typ.)	18A / 115VAC, 9A / 230VAC						
Inrush Current (Typ.)	30A / 115VAC, 45A / 230VAC						
Leakage Current	< 3.5mA / 240VAC						

Output	AE-3000-12	AE-3000-15	AE-3000-24	AE-3000-30	AE-3000-36	AE-3000-48	AE-3000-60
DC Voltage	12V	15V	24V	30V	36V	48V	60V
Rated Current	250A	200A	125A	100A	83.5A	62.5A	50A
Rated Power*	3000W						
Ripple & Noise (Max.)	150mVp-p	150mVp-p	240mVp-p	300mVp-p	360mVp-p	480mVp-p	600mVp-p
Voltage Adj. Range	± 5.0% Typical adjustment by potentiometer. (VR1)						
Voltage Tolerance	± 2.0%						
Current Tolerance	±3.0% (rated output current of single unit)						
Line & Load Regulation	± 1.0%						
Setup, Rise Time	2000ms, 100ms at full load						
Hold Up Time (Typ.)	14ms / 230VAC at full load						

Input							
Voltage Range	90 ~ 264VAC, 127 ~ 370VDC (Refer to de-rating curve)						
Frequency Range	47~63Hz						
Power Factor (Typ.)	0.95 / 230VAC, 0.98 / 115VAC at full load						
Efficiency (Typ.)	89%	90%	91%	91%	92%	92%	93%
AC Current (Typ.)	36A / 115VAC (3000W), 18A / 230VAC (3000W)						
Inrush Current (Typ.)	60A / 115VAC, 90A / 230VAC						
Leakage Current	< 3.5mA / 240VAC						

AEK-Series

3000W 12~400VDC Wide Programmable Range Single Output Power Supply



Features

- Universal AC input / Full range
- Programmable output voltage & current (0%~105%)
- High power density 16.3W / inch³
- Forced current sharing at parallel operation
- Constant current limit
- Selectable +5V / 0.5A or +9V / 0.3A auxiliary output
- Remote setting multiple PSU via RS-232, RS-485 & I²C

AEK-3000 Oring Diode Version

- Built-in Oring Diode
- Built-in I²C and RS485 communication interface



- Power OK signal
- Remote ON / OFF, remote sense function
- Protection: OVP, OLP, OTP, OCP and Fan Failure
- Global control via RS232 / RS485 protocol

- Built-in isolation IC for communication
- AEK-3000-LV ORing version - coming soon!

AEK-3000	
Protection	
Over Load	105% rated output power. Protection type: Constant current limit
Over Voltage	Variable OVP, 120±7% Vout. Refer to VCI v.s. OVP curve in the datasheet Protection type: Latch-style (Recovery after reset AC power ON or inhibit)
Over Temperature	85 ± 5°C detect on NTC, Protection type: Auto recovery after temperature goes down
Environment	
Working Temperature	-20 ~ +60°C (Refer to load de-rating curve)
Working Humidity	20 ~ 90% RH non-condensing
Storage Temp. & Humidity	-40°C ~ 85°C, 10 ~ 95% RH
Temperature Coefficient	± 0.02% / °C (0°C ~ 50°C)
Vibration	10 ~ 500Hz, 2G 10min. / 1cycle, period for 60min. each along X, Y, Z axes Compliance to IEC 60068-2-6, IEC 60068-2-64
Safety & EMC	
Safety Standards	Certified UL 62368-1; EN 62368-1
Withstand Voltage	I/P-O/P: 3KVAC (4242VDC), I/P-FG: 1.5KVAC (2121VDC), O/P-FG: 0.5KVAC (707VDC)
Isolation Resistance	I/P-O/P, I/P-FG, O/P-FG: 100M Ohms / 500VDC (25°C / 70% RH)
EMI Conduction & Radiation	Certified EN 55032; EN 61204-3; EN 610000-6-3
Power Harmonic & Voltage	Certified EN 61000-3-2; EN 61000-3-3
Fluctuation and Flicker	
EMS Immunity	Certified EN 55035: 2017 / A11: 2020; IEC 61000-4-2,3,4,5,6,8,11
Other	
Cooling	Load and temperature control fan
Product Dimension (WxHxD)	170x64x280 mm / 6.69x2.52x11.02 inch
Packing	Per Product 3.3kgs ; Per Carton 6pcs / 22.7kgs / 2.48CUFT

Low Output Voltage (LV)

	AEK-3000-12	AEK-3000-15	AEK-3000-24	AEK-3000-30	AEK-3000-36	AEK-3000-48	AEK-3000-60
Output							
DC Voltage	12V	15V	24V	30V	36V	48V	60V
Rated Current	200A	160A	125A	100A	83.5A	62.5A	50A
Current Range	0 ~ 200A	0 ~ 160A	0 ~ 125A	0 ~ 100A	0 ~ 83.5A	0 ~ 62.5A	0 ~ 50A
Rated Power*	2400W	2400W	3000W	3000W	3006W	3000W	3000W
Ripple & Noise (Max.)	150mVp-p	150mVp-p	240mVp-p	300mVp-p	360mVp-p	480mVp-p	600mVp-p
Voltage Adj. Range	±5.0% Typical adjustment by potentiometer. (Via V-Adj from PSU front panel)						
Voltage Tolerance	±2.0% (rated output voltage of single unit)						
Current Tolerance	±3.0% (rated output current of single unit)						
Line Regulation	±1.0%						
Load Regulation	±1.0%						
Setup, Rise Time	800ms, 100ms at full load						
Hold Up Time (Typ.)	14ms / 230VAC at full load						
Input							
Voltage Range	90 ~ 264VAC, 127 ~ 370VDC (Refer to de-rating curve)						
Frequency Range	47~63Hz						
Power Factor (Typ.)	0.95 / 230VAC, 0.98 / 115VAC at full load						
Efficiency (Typ.)	88%	89%	91%	91%	92%	92%	93%
AC Current (Typ.)	19.7A / 115VAC (2000W), 16.5A / 230VAC (3000W)						
Inrush Current (Typ.)	33A / 115VAC, 65A / 230VAC						
Leakage Current	< 3.5mA (240VAC)						

High Output Voltage (HV)

	AEK-3000-150	AEK-3000-200	AEK-3000-250	AEK-3000-300	AEK-3000-400
Output					
DC Voltage	150V	200V	250V	300V	400V
Rated Current	20A	15A	12A	10A	7.5A
Current Range	0 ~ 20A	0 ~ 15A	0 ~ 12A	0 ~ 10A	0 ~ 7.5A
Rated Power*	3000W	3000W	3000W	3000W	3000W
Ripple & Noise (Max.)	1500mVp-p	2000mVp-p	2500mVp-p	3000mVp-p	4000mVp-p
Voltage Adj. Range	±5.0% Typical adjustment by potentiometer. (Via V-Adj from PSU front panel)				
Voltage Tolerance	±2.0% (rated output voltage of single unit)				
Current Tolerance	±3.0% (rated output current of single unit)				
Line Regulation	±1.0%				
Load Regulation	± 1.0%				
Setup, Rise Time	1100ms, 350ms at full load				
Hold Up Time (Typ.)	14ms / 230VAC at full load				
Input					
Voltage Range	90 ~ 264VAC, 127 ~ 370VDC (Refer to de-rating curve)				
Frequency Range	47~63Hz				
Power Factor (Typ.)	0.95 / 230VAC, 0.98 / 115VAC at full load				
Efficiency(Typ.) STD/ORing	93% / 91%				
AC Current (Typ.)	19.7A / 115VAC (2000W), 14.5A / 230VAC (3000W)				
Inrush Current (Typ.)	33A / 115VAC, 65A / 230VAC				
Leakage Current	< 3.5mA (240VAC)				



AK-Series

650W & 1KW Programmable Single Output Power Supply



Features

- Universal AC input / Full range
- Programmable output voltage (30%~105%)
- Programmable output current (40%~105%)
- +5V / 0.5A auxiliary output
- 1U profile, high power density 11.1W / in³ (AK-1000)
- Forced current sharing at parallel operation
- Power OK signal
- Remote ON / OFF, remote sense function
- Protection: OVP, OLP, OTP, OCP, Fan failure

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: Shutdown O/P voltage (Recovers automatically after temperature goes down)	
Function		
Auxiliary Power	5V / 0.5A (±3%)	
Remote ON/OFF Control	External switch or NPN transistor to turn ON / OFF	
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 current is between 40~105% of rated output	
Parallel	Yes, please refer to datasheet	
Environment		
Working Temperature	-25 ~ +60°C (Refer to load de-rating curve)	
Working Humidity	20 ~ 90% RH non-condensing	
Storage Temp. & Humidity	-40°C ~ 85°C, 10 ~ 95% RH	
Temperature Coefficient	± 0.02% / °C (0°C ~ 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 EN 62368-1; UL 62368-1	
Withstand Voltage	I/P-O/P: 3KVAC (4242VDC), I/P-FG: 1.5KVAC (2121VDC), O/P-FG: 0.5KVAC (707VDC)	
Isolation Resistance	I/P-O/P, I/P-FG, O/P-FG: 100M Ohms / 500VDC (25°C / 70% RH)	
EMI Conduction & Radiation	Certified EN 55032; EN 61204-3; EN 610000-6-3	
Power Harmonic & Voltage	Certified EN 61000-3-2; EN 61000-3-3	
Fluctuation and Flicker		
EMS Immunity	Certified EN 55035: 2017 / A11: 2020; IEC 61000-4-2,3,4,5,6,8,11	
Other		
Cooling	Load and temperature control fan	
Product Dimension (WxHxD)	AK-650 : 127x41x249 mm / 5.00x1.61x9.80 inch (WxHxD)	AK-1000 : 127x41x283 mm / 5.00x1.61x11.14 inch (WxHxD)
Packing	AK-650 : Product 1.68kgs ; Per Carton 9pcs / 16.1kgs / 1.86CUFT	AK-1000 : Product 2.1kgs ; Per Carton 9pcs / 19.9kgs / 1.86CUFT

	AK-650-12	AK-650-15	AK-650-24	AK-650-27	AK-650-48
Output					
DC Voltage	12V	15V	24V	27V	48V
Rated Current	50A	40A	27A	24A	13.6A
Current Range	0 ~ 50A	0 ~ 40A	0 ~ 27A	0 ~ 24A	0 ~ 13.6A
Rated Power*	600W	600W	650W	650W	650W
Ripple & Noise (Max.)	150mVp-p	< 1% (mVp-p), according to the rated output voltage			
Voltage Adj. Range	± 5.0% Typical adjustment by potentiometer. (VR1)				
Voltage Tolerance	± 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	90 ~ 264VAC , 127 ~ 370VDC (Refer to load de-rating curve)				
Frequency Range	47~63Hz				
Power Factor (Typ.)	0.98 / 230VAC, 0.99 / 115VAC at full load				
Efficiency (Typ.)	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				
	AK-1000-24	AK-1000-27		AK-1000-48	
Output					
DC Voltage	24V		27V		48V
Rated Current	40A		37A		21A
Current Range	0 ~ 40A		0 ~ 37A		0 ~ 21A
Rated Power*	1000W		1000W		1000W
Ripple & Noise (Max.)	< 1% (mVp-p), according to the rated output voltage				
Voltage Adj. Range	± 5.0% Typical adjustment by potentiometer. (VR1)				
Voltage Tolerance	± 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	90 ~ 264VAC , 127 ~ 370VDC (Refer to load de-rating curve)				
Frequency Range	47~63Hz				
Power Factor (Typ.)	0.98 / 230VAC, 0.99 / 115VAC at full load				
Efficiency (Typ.)	89%		89%		90%
AC Current (Typ.)	12A / 115VAC, 5A / 230VAC				
Inrush Current (Typ.)	27A / 115VAC, 54A / 230VAC				
Leakage Current	< 1.0mA / 240VAC				

