

APPLICATION & SERVICE

AC Power Corp. offers products widely applied in multi-professional fields and provides the best power solutions to customers. Our mission is to satisfy customers' demand by considering the whole conditions including power environment, loading allocation, module solution alternative, thoughtful design, efficient manufacturing, and complete maintenance.

Application



Radar



Auto-Test System



Lab



Physical Vacuum Deposition



Automotive Electronics



DC Brushless Motor



Wheel Hub Motor



Car Inverter



Integrated Circuit Plate



Capacitor



IGBT Module



Electric Tools

Automotive Electronics

- Automobile headlight
- Automobile harness
- Car air-conditioner and electromotor inverter
- Brushless motor of EPS and MG units
- Car power component, sound power amplifier test
- Car ABS test application

Electronic Industry

- Passive component e.g. capacitor test
- Integrated circuit test and inspection process
- Semiconductor
- Product design, manufacture, QA and test

Production testing process

- Plating
- Vacuum deposition system (PVD)
- Auto test equipment (ATE)
- LCD panel test
- DC motor test
- Electric tool test
- Aging or life test

Other fields

- Radar system
- Factory and research institute
- Simulated power source of UPS converter
- Battery charging
- Process control
- Navigation wireless communication
- Land moving communication equipment
- Other applications which need constant voltage or constant current power supply



The Power You Trust!



ADC Series

DC Switching Power Supply

Modular Design

Professional Power Solutions Provider



ISO 9001:2008



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No.: ADC10110EN

Product Description

ADC series of DC switching power supply adopt the technology of pulse-width modulation, with advantage of high power density, high power factor, perfect protection function, fast response speed and high accuracy.

This series has 3 power module units with capacity of 2kW, 4kW, 8kW, and can be supplied with 18U/32U/42U 19" standard cabinet, and supervisor unit, composed of DC power systems (max capacity up to 64kW), provided flexible configuration to meet a variety of power needs.

Product features

■ High power density:

The height of 2kW and 4kW power module is only 2U, and 8kW is only 4U.^①

■ Multi-protection function:

Over voltage, over current, short circuit, and over temperature protection.

■ Remote control:

Remote control can be achieved with analog monitor interface, to monitor 0~100% output voltage and output current.

■ 19" standard cabinet:

Save space and can be accommodate to users' environment.

■ Remote sensing compensation:

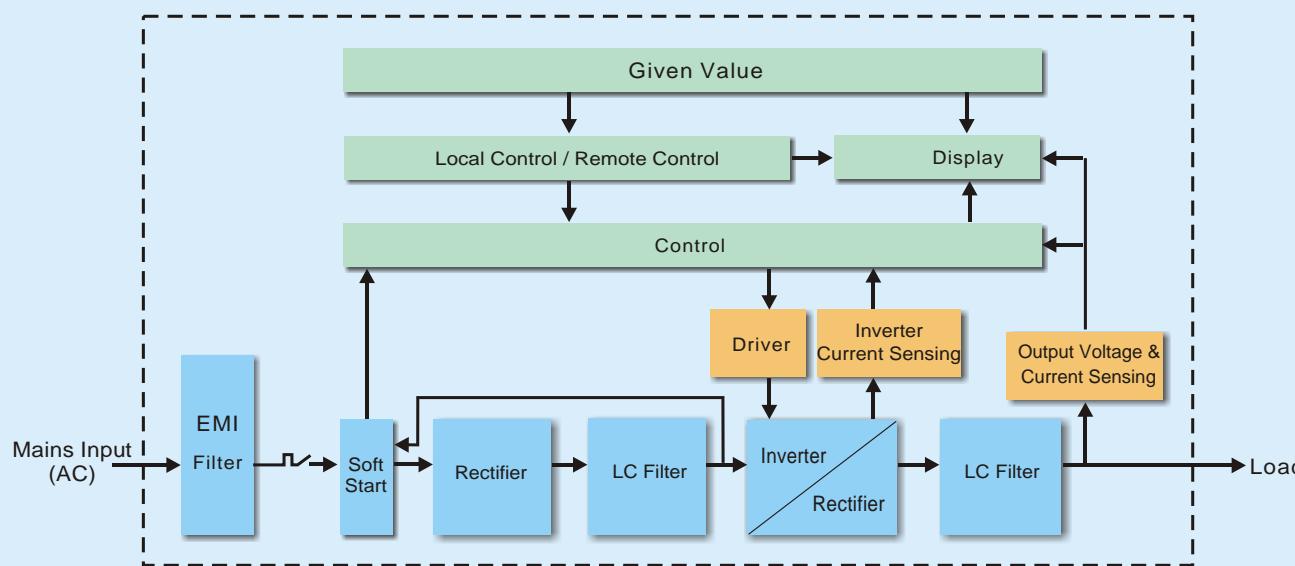
Can compensate voltage drop during transmission cable and contact resistance. The range of compensation is 0~3V.

[Remarks]:

① 1U = 1.75inch = 4.445cm.



Product Block Diagram



Product Specification

Input/Output													
Input	Rated voltage	187~253Vac, 1Φ2W+G	187~253Vac, 3Φ3W+G	187~253Vac, 3Φ3W+G 或 323~437Vac, 3Φ3W+G	187~253Vac, 1Φ2W+G 或 187~253Vac, 3Φ3W+G 或 323~437Vac, 3Φ3W+G								
	Current	Please refer to the form "Input/Output Specification"											
	Frequency	47~63Hz											
Output	Capacity	2 kW	4 kW	2 kW	4 kW	8 kW							
	Voltage	Please refer to the form "Input/Output Specification"											
	Current	Please refer to the form "Input/Output Specification"											
	Ripple	<0.15%											
	Voltage Adjustment	0~100% adjustable											
	Current limit adjustment	10~100% adjustable											
	Over-voltage adjustment	110% setting value~110% given value adjustable											
	Power adjustment rate	<±0.05% full scale											
	Load adjustment rate	<±0.05% full scale											
Transient response time < 1ms (load changes from 50% to 100% or from 100% to 50%)													
Other Specification													
Efficiency (at rated input, max load)		>0.85		>0.89		Depending on configuration							
Circuit type													
Protection function													
Local control	Voltage meter	3 1/2digital meter		4 digital meter									
	Current meter	3 1/2digital meter		4 digital meter									
	Indicator light	Abnormal, external control, constant voltage, constant current											
	Pre-set	Output voltage, output current, output over current, reset											
Remote control	Compensation	0~3V											
	Control	Output voltage, output current 0~100% adjustable through external 0~5Vdc Voltage											
	Monitor	External control and reset											
Environment	Operation temperature	0~50°C											
	Storage temperature	-25~65°C											
	Humidity	0~90% (non-condensing)											
	Cooling mode	Wind enter from the front and out in the back. Can be installed with rack from top to bottom.											
	Noise	< 55dB / 1m (fan speed control)											
Withstand voltage Input to crust 2200Vdc/1min without arc /4mA													
Insulation Resistance Input to crust ≥100MΩ (500Vdc)													
Electromagnetic Compatibility(EMC) Input EMI filter													
Mechanical Specification													
Input mode		Terminal strips		Air switch									
Output mode		Copper busbar											
Structure		19" (483 mm), xU rack type											
Demension W×D×H (mm)		430×500×88	430×500×176	430×500×88	430×500×88	430×500×176							
Weight (kg)		14	22	14	18	30							
Depending on configuration													

Input / Output Specification

Power Rating	2 kW	4 kW	8 kW	24 kW max	48 kW max	64 kW max
	Max Input Current (Aac)					
Input	Rated Input Voltage(Vac)					
	Single Phase 220	17	34	—	The max input current of power unit	
	Three Phase 220	8	15	30	×The number of power units configured	
Output	Rated Output Voltage(Vdc)	Max Output Current (Adc)				
	30	67	133	267		
	40	50	100	200		
	60	33	67	133		
	80	25	50	100		
	100	20	40	80		
	120	17	33	66		
	160	13	25	50		
	240	8	16	33		
	330	6	12	24		
	600	3	7	13		

[Remarks]: ① Custom-made specifications are on request;
② All specifications are subject to change without prior notice.

Standard Cabinet Dimensions and Max Capacity

[Dimension: Width×Depth×Height]



Optional Parts

■ 19" standard cabinet:

Three different height 19-inch standard cabinet: 18U, 32U, 42U.

18U power system — the max capacity can be 800Adc/24kW;

32U power system — the max capacity can be 1600Adc/48kW;

42U power system — the max capacity can be 2133Adc/64kW;

■ Power unit:

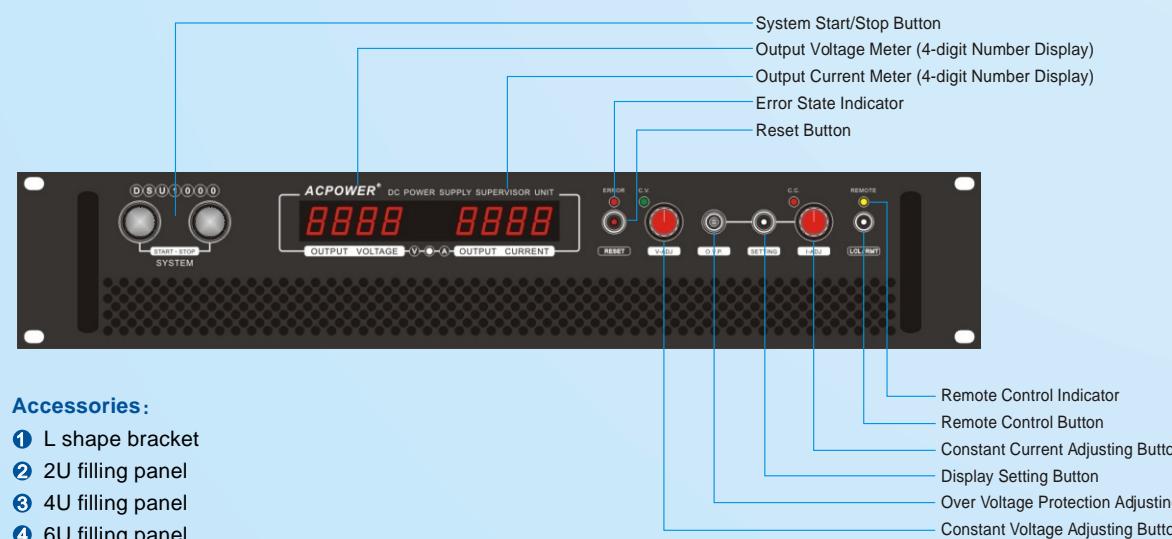
There are three power module units with capacity of 2kW, 4kW, 8kW available for configuration.

Power units with different input voltage specifications and output voltage specifications should not be mixed use.

■ Supervisor unit:

Display system running status and provide system control functions of high capacity DC power supply system (10~64kW);

Two type interfaces for options: standard interface, isolated analog interface.



■ Accessories:

- ① L shape bracket
- ② 2U filling panel
- ③ 4U filling panel
- ④ 6U filling panel

Product order information

DC Switching Power Supply

ADC-

Input specification

15 - 1Φ2W 187~253Vac

35 - 3Φ3W 187~253Vac

37 - 3Φ3W 323~437Vac

Output current value (see output specification form)

Output voltage value (see output specification form)

Example 1: ADC-0400050-15

Input: 1Φ2W 220V Output: 40V 50A

Example 2: ADC-1600400-35

Input: 3Φ3W 220V Output: 160V 400A

Example 3: ADC-0401200-37

Input: 3Φ3W 380V Output: 40V 1200A

* If total capacity of orders is beyond the largest capacity of single module (8kW), please refer to the below formula and 19" standard cabinet configuration list form:

(19" Standard Cabinet×1) + (Monitoring Unit×1) + (Power Module Unit×N) + (Cabinet Accessory×N)

Standard Cabinet	Power Module Unit	Supervisor Unit
DFR- ① ② ③	DPU- ① ②	DSU-1000A- ①
<p>① Rack height 18 - 19" 18U standard cabinet 32 - 19" 32U standard cabinet 42 - 19" 42U standard cabinet</p> <p>② Input specification 15 - 1Φ2W 187~253Vac 35 - 3Φ3W 187~253Vac 37 - 3Φ3W 323~437Vac</p> <p>③ Output current 02 - <200A 06 - <600A 12 - <1200A 20 - <2000A 30 - <3000A</p>	<p>① Output voltage/current (see output specification form) Example: 30067 - 30V 67A 60013 - 600V 13A</p> <p>② Input specification 15 - 1Φ2W 187~253Vac 35 - 3Φ3W 187~253Vac 37 - 3Φ3W 323~437Vac</p>	<p>① Interface options 00 - standard interface 10 - isolated analog interface</p>
Accessories		DOP-0101A - Simple fix rack DOP-0102A - L shape bracket DOP-0202A - 2U filling panel DOP-0204A - 4U filling panel DOP-0206A - 6U filling panel

Standard Cabinet Configuration List

Cabinet Model	Power units can be configured (Qty)			Monitoring Unit	Capacity (kW)	Input Current (Aac)	Output Current (Adc)			
	DPU2000	DPU4000	DPU8000				Iin max	CB ^①	200	600
DFR-18A15-xx	5			DSU1000	10	90	100	①	①	①
DFR-18A35-xx		6		DSU1000	24	90	100	①	①	①
DFR-18A37-xx			3	DSU1000	24	52	63	①	①	①
DFR-32A15-xx	10			DSU1000	20	180	225	①	①	①
DFR-32A35-xx		12		DSU1000	48	181	225	①	①	①
DFR-32A37-xx			6	DSU1000	48	105	125	①	①	①
DFR-42A15-xx	16			DSU1000	32	288	350	①	①	①
DFR-42A35-xx		16		DSU1000	64	241	315	①	①	①
DFR-42A37-xx			8	DSU1000	64	140	180	①	①	①

[Remarks]: ① Circuit breaker.