Dual-channel Bidirectional DC Power Supply
ANEVT DA(F) Series



Product Introduction

The ANEVT DA(F) Series Bidirectional Dual-channel Bidirectional DC Power Supply is a dedicated test power supply developed for the new energy vehicle industry. It is a high-tech product integrating high-frequency PWM rectification technology, bidirectional DC conversion technology, and FPGA digital control technology. It has adaptive grid feedback capability and can meet the continuous energy feedback requirements in the full power range. It also offers seamless switching between forward and reverse outputs, enabling seamless connection of energy transfer. With dual-loop control technology, it achieves ultra-high control precision, rapid response to customer device applications, ensuring equipment test stability and data precision. It provides independent dual-channel outputs, each of which is controllable, offering a concise and reliable test scheme for different tests such as tests of motors, electronic controls, hybrids, etc.

Features

- It provides dual-channel outputs, with power freely allocated to each channel.
- Each channel has independent control and protection functions that do not interfere with each other.
- It is a battery simulation, bidirectional output multifunctional integrated machine.
- It provides the source load integral mode with adjustable parameters.
- It has high voltage, large current, and wide range output capabilities.
- It features adaptive grid feedback function for full power continuous energy feedback.
- It supports CV, CC, CP, CR working modes.
  Voltage 0.05%FS and current 0.1%FS.
- Response time≤3ms; forward and reverse switching time≤
- 4ms.
  Power factor≥0.99, current harmonic distortion≤3%.
- It simulates 7 types of batteries such as lithium, nickel-hydrogen, lead-acid, etc.
  It has 1st, 2nd, and 3rd order battery simulation functions,
- supporting import and export of data in mat and csv data formats.
- It provides 900-step programming function with a minimum programming time of 1mS.
  It features independent air duct heat dissipation design,
- supporting long-term continuous operation of the equipment.
- It is equipped with standard CAN, RS232/RS485, LAN and other communication interfaces.
- It offers a three-in-one operation mode of buttons, knobs, and touch operation.

Specifications

Product series	Product model	Single channel rated current	Single channel rated power	Single channel peak current	Single channel peak power	Single channel voltage range	Dimension /mm (W×D×H)
800V Series	ANEVT800-300DA(F)	300A	90kW	450A	135KW	24V-800V	1500×1000×2100
	ANEVT800-400DA(F)	400A	120kW	500A	150KW	24V-800V	1500×1000×2100
	ANEVT800-500DA(F)	500A	160kW	625A	200KW	24V-800V	2000×1000×2100
	ANEVT800-600DA(F)	600A	200kW	750A	250KW	24V-800V	2000×1000×2100
	ANEVT800-800DA(F)	800A	300kW	1000A	375KW	24V-800V	2000×1200×2200
	ANEVT800-900DA(F)	900A	400kW	1125A	500KW	24V-800v	2500×1200×2200
	ANEVT800-1000DA(F)	1000A	500kW	1250A	625KW	24V-800v	2500×1200×2200
	ANEVT800-1200DA(F)	1200A	600kW	1500A	750KW	24V-800V	2500×1200×2200
1000V Series	ANEVT1000-200DA(F)	200A	90kW	300A	135KW	24V-1000V	1500×1000×2100
	ANEVT1000-300DA(F)	300A	120kW	375A	150KW	24V-1000V	1500×1000×2100
	ANEVT1000-500DA(F)	500A	160kW	625A	200KW	24V-1000V	2000×1000×2100
	ANEVT1000-600DA(F)	600A	200kW	750A	250KW	24V-1000V	2000×1000×2100
	ANEVT1000-800DA(F)	800A	300kW	1000A	375KW	24V-1000V	2000×1200×2200
	ANEVT1000-900DA(F)	900A	400kW	1125A	500KW	24V-1000V	2500×1200×2200
	ANEVT1000-1000DA(F)	1000A	500kW	1250A	625KW	24V-1000V	2500×1200×2200
	ANEVT1000-1200DA(F)	1200A	600kW	1500A	750KW	24V-1000V	2500×1200×2200
1200V Series	ANEVT1200-200DA(F)	200A	90kW	300A	135KW	24V-1200V	1500×1000×2100
	ANEVT1200-300DA(F)	300A	120kW	375A	150KW	24V-1200V	1500×1000×2100
	ANEVT1200-500DA(F)	500A	160kW	625A	200KW	24V-1200V	2000×1000×2100
	ANEVT1200-600DA(F)	600A	200kW	750A	250KW	24V-1200V	2000×1000×2100
	ANEVT1200-800DA(F)	800A	300kW	1000A	375KW	24V-1200V	2000×1200×2200
	ANEVT1200-900DA(F)	900A	400kW	1125A	500KW	24V-1200V	2500×1200×2200
	ANEVT1200-1000DA(F)	1000A	500kW	1250A	625KW	24V-1200V	2500×1200×2200
	ANEVT1200-1200DA(F)	1200A	600kW	1500A	750KW	24V-1200V	2500×1200×2200
Remarks		Two channels can freely allocate power within the overall power range of the whole unit.					

Any changes to the above parameter specifications will not be notified separately.

Specifications

Product name			Dual-channel Bidirectional DC Power Supply
Input parameter	Input method		Three-phase four-wire+PE
	Input voltage		Line voltage: 380V±15%
	Input frequency		50/60Hz±5Hz
	Input power factor		0.99
	Current harmonics		3% (under rated conditions)
Output parameter	Voltage accuracy		0.05%F.S
	Current accuracy		0.1%F.S
	Power accuracy		0.2%F.S
	Power effect		0.1%F.S
	Load effect		0.1%F.S
	Ripple (Vpp)		0.2%F.S
	Transient recovery time		≤3ms (10%-90% rated resistive load switching)
	Current rise time		≤3ms (loading test after starting output)
Feedback parameter	Feedback voltage		323-437V
	Feedback frequency		Grid frequency (45Hz-65Hz)
	Power factor		≥0.99
	Total harmonic content		≤3% (tested under conditions of standard AC power input with distortion within 1.5%)
	Forward and reverse output switching time		≤4ms
	Feedback function		Full power continuous energy feedback
Product feature	Working mode		CV, CC, CP, and CR
	Output programming		It provides programmable output voltage waveform, including voltage and current slope, step, cyclic control, and jump control; 900-step programming function, with the minimum programming time of 1ms.
	Emergency stop		With emergency stop button, it can quickly disconnect the connection with the load equipment
	Battery simulation		It can simulate functions of 7 types of batteries including ternary lithium, lithium manganese oxide, lithium titanium oxide, lithium cobalt oxide, lithium iron phosphate, lead-acid, and nickel-metal hydride batteries. It has customizable battery cell capacity, series and parallel connection quantities, SOC, and temperature parameters with 1st, 2nd, and 3rd order battery simulation functions, supporting import and export of data in mat and csv data formats.
	Output ramp-up function		Programmable output voltage ramp-up
	Self-discharge function		It has a built-in discharge unit, which automatically discharges upon shutdown.
	Protection function		It has multiple protection devices, input protection devices, OCP, OVP, OPP, OTP, bus overvoltage protection, output short circuit protection, etc.
	Voltage drop compensation		It features automatic voltage drop compensation terminals, automatically compensating for cable voltage drop
Display and operation	Display resolution	Voltage	0.001V
		Current	0.001A
		Power	0.001kW
	Display mode		LCD
	Operation mode		Number key, knob and touch screen three-in-one
Communication interface	Serial interface		Standard RS232/RS485 (select one)
	CAN interface		Supports CAN2.0 protocol (AORB). Communication data update frequency ≥50Hz
	Ethernet		Supports Ethernet communication (standard)
Analog interface			Supports external analog emergency stop switch quantity input control
Safety performance	Insulation resistance		≥2MΩ (tested at 1,000V insulation voltage)
	Compressive strength		2,000VDC 5mA/min
	Grounding resistance		≤100mΩ
Working environment	Working temperature and working humidity		0℃-40℃
			20-90%RH (no condensation)
	Altitude and storage temperature		≤2000m
			-10℃-70℃
Noise			≤75dB
Cooling method			Temperature-controlled air cooling. It has a built-in temperature-controlled variable speed fan.
Protection level			IP21

Any changes to the above parameter specifications will not be notified separately.