ANEVT(F) Series High-Precision Bidirectional DC Power Supply



Product Features /

- All-in-one unit for battery simulation and bidirectional output.
- Source mode and load mode with independently configurable parameters.
- High voltage, high current, and wide-range output capability.
- Adaptive grid regeneration function for continuous full-power energy feedback
- Withstand 1.25× peak overload.
- Support CV, CC, CP, and CR working modes.
- Voltage accuracy: 0.05% F.S.; Current accuracy: 0.1% F.S..
- Response time: ≤ 3ms; forward/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.
- 900-step programming capability with minimum programming time of 1ms.
- Independent airflow channel heat dissipation design ensures no derating operation within 40℃.
- It is equipped with standard CAN, LAN, RS232/RS485, LAN and other communication interfaces.
- Three-in-one Operation Mode: Buttons, Knob, and Touch Screen.

Product Overview /

The ANEVT(F) Series High-Precision bidirectional DC power supply is a high-tech product integrated with 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. With its wide range of voltage and current output capabilities and rich output programming test functions, it better meets the diverse testing needs of customers' products. The device also includes multiple protection programming functions to better protect the safety of customer equipment during testing.

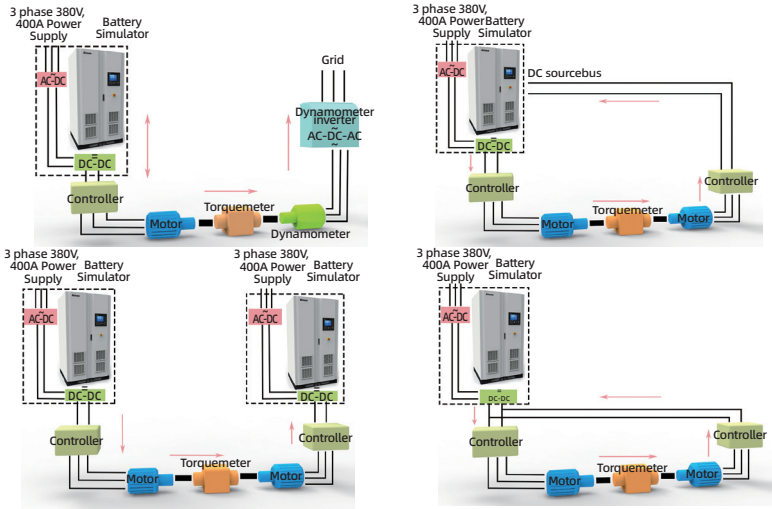
Product Specifications /

Product series	Product Model	Rated Current	Rated Power	Peak Current	Peak Power	Voltage Range	Dimension (W*D*H mm)
800V Series	ANEVT800-200C(F)	200A	60kW	300A	90kW	12V-800V	1000*1000*2100
	ANEVT800-300C(F)	300A	90kW	450A	135kW	12V-800V	1000*1000*2100
	ANEVT800-400C(F)	400A	120kW	500A	150kW	12V-800V	1000*1000*2100
	ANEVT800-500C(F)	500A	160kW	625A	200kW	12V-800V	1500*1000*2100
	ANEVT800-600C(F)	600A	200kW	750A	250kW	12V-800V	1500*1000*2100
	ANEVT800-800C(F)	800A	300kW	1000A	375kW	12V-800V	1500*1200*2100
	ANEVT800-900C(F)	900A	400kW	1125A	500kW	12V-800V	1500*1200*2100
	ANEVT800-1000C(F)	1000A	500kW	1250A	625kW	12V-800V	2000*1200*2200
	ANEVT800-1200C(F)	1200A	600kW	1500A	750kW	12V-800V	2000*1200*2200
1200V Series	ANEVT1200-150C(F)	150A	60kW	225A	90kW	12V-1200V	1000*1000*2100
	ANEVT1200-200C(F)	200A	90kW	300A	135kW	12V-1200V	1000*1000*2100
	ANEVT1200-300C(F)	300A	120kW	375A	150kW	12V-1200V	1000*1000*2100
	ANEVT1200-500C(F)	500A	160kW	625A	200kW	12V-1200V	1500*1000*2100
	ANEVT1200-600C(F)	600A	200kW	750A	250kW	12V-1200V	1500*1000*2100
	ANEVT1200-800C(F)	800A	300kW	1000A	375kW	12V-1200V	1500*1200*2100
	ANEVT1200-900C(F)	900A	400kW	1125A	500kW	12V-1200V	1500*1200*2100
	ANEVT1200-1000C(F)	1000A	500kW	1250A	625kW	12V-1200V	2000*1200*2200
	ANEVT1200-1200C(F)	1200A	600kW	1500A	750kW	12V-1200V	2000*1200*2200
1500V Series	ANEVT1500-600C(F)	600A	300kW	750A	375kW	15V-1500V	1800*1200*2100
	ANEVT1500-900C(F)	900A	500kW	1125A	625kW	15V-1500V	1800*1400*2100

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

Product Application /

- Electric Vehicle Motor, Controller, and System Test;
- Traction Battery and Battery Pack Charge/-discharge Test;
- OBC and Charging Pile Test;
- Fuel Cell Test;
- Capacitor and Super Capacitor Charging and Discharging Tests;
- Research institutions, testing organizations, and university laboratories.



Technical Specifications /

Product Name			High-Precision 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
	Input Electric Harmony		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-55Hz)
	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. 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
	CAN Interface		Supports CAN2.0 protocol (AORB).
	Ethernet		Supports Ethernet communication
Analog Interface			Supports external analog emergency stop switch quantity input control
Safety Performance	Insulation Resistance		≥2MΩ (tested at 1,000V insulation voltage)
	Compressive Strength		2000VDC 5mA/min
	Grounding Resistance		≤100mΩ
Working Environment	Working Temperature		0℃-40℃
	Working Humidity		20-90%RH (no condensation)
	Altitude		≤2,000m
	Storage Temperature		-10℃-70℃
Noise			≤75dB
Cooling Method			Temperature-controlled air cooling. It has a built-in temperature-controlled variable speed fan.
Protection Level			IP21

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