DC Voltage-stabilized Power Supply
AN50(F) Low Power Series

Product Overview

AN50(F) small power series DC power supply adopts high-frequency PWM control and full-bridge converter technology to be featured by fast dynamic response, strong overcurrent capability, and low output ripple. It has the advantages of small size, low weight, low noise, high efficiency and simple operation, making it a cost-effective power supply. It can be used for the manufacturing, testing, and maintenance of military electronic equipment such as motors, power tools, automotive electronics, breaking-closing coils, DC switches, aircraft and airborne equipment, radar and navigation, while being used in industrial and mining enterprises, college laboratories, research institutes, among others.

Features

- The full range of standard chassis, with a depth of only 350mm, is suitable for system integration and portable applications.
- The adopted high-frequency PWM and full-bridge converter technology makes the whole machine become more efficient.
- It supports up to 110% current/power overload.
- It also has excellent output stability.
- The lead voltage drop compensation terminal enables output lead voltage drop compensation for high-current operation.
- The complete protection function can ensure the normal operation of the power supply equipment and the safety of the load.
- The Nixie tube display is available. It is simple, intuitive and user-friendly.
- It supports SCPI, MODBUS-RTU standard communication protocols.

Ordering and function expansion

- AN5010-100(F): 10V/100A/1000W
- AN5035-30(F): 35V/30A/1000W
- AN5035-50(F): 35V/50A/1500W
- AN5035-100(F): 35V/100A/3000W
- AN5060-25(F): 60V/25A/1500W
- AN5060-50(F): 60V/50A/3000W
- AN50120-12(F): 120V/12.5A/1500W
- AN50120-25(F): 120V/25A/3000W
- AN50300-5(F): 300V/5A/1500W
- AN50300-10(F): 300V/10A/3000W
- AN5035-170(F): 35V/172A/6000W
- AN5035-285(F): 35V/286A/10000W
- AN5035-570(F): 35V/572A/20000W
- AN5080-75(F): 80V/75A/6000W
- AN5080-125(F): 80V/125/10000W
- AN5080-250(F): 80V/250A/20000W
- AN50120-50(F): 120V/50A/6000W
- AN50120-80(F): 120V/84A/10000W
- AN50120-165(F): 120V/167A/20000W
- AN50300-20(F): 300V/20A/6000W
- AN50300-30(F): 300V/34A/10000W
- AN50300-65(F): 300V/67A/20000W
- AN50600-10(F): 600V/10A/6000W
- AN50600-17(F): 600V/17A/10000W
- AN50600-30(F): 600V/34A/20000W
- AN50700-9(F): 700V/9A/6000W
- AN50700-14(F): 700V/14.5A/10000W
- AN50700-29(F): 700V/29A/20000W
- AN501200-17(F): 1200V/17A/20000W
- AN501400-14(F): 1400V/14A/20000W

Specifications

Model		AN5010-100(F)	AN5035-30(F)	AN5035-50(F)	AN5035-100(F)	AN5060-25(F)	AN5060-50(F)
Input Power Supply		Single phase，220V±22V，47-63Hz					
Output	Voltage	0～10V	0～35V			0～60V	
	Current	0～100A	0～30A	0～50A	0～100A	0～25A	0～50A
	Power	0～1000W	0～1000W	0～1500W	0～3000W	0～1500W	0～3000W
Resolution and accuracy	Voltage	Resolution 0.001V (0.01V when ≥ 10V), accuracy ≤ 0.4%Umax					
	Current	Resolution 0.001A (0.01A when ≥ 10A), accuracy ≤ 0.5%Imax					
Ripple and Noise 20Hz~20MHz	Vrms	30mV				60mV	
	Vpp	200mV				300mV	
Effect	Voltage	Load effect ≤0.1%Umax, source effect ≤0.05%Umax					
	Current	Load effect ≤0.2%Imax, source effect ≤0.1%Imax					
Transient response time		≤5ms					
Maximum lead voltage drop compensation		2V					
Communication function		RS-232 (standard)/RS485 (optional)					
Protection function		Output short-circuit protection, output overvoltage, internal overheating protection, S-terminal over-compensation protection, S-terminal reversal protection					
Analog interface(optional)		Start, stop, alarm, 0-5V/0-10V or 4-20mA analog control output					
Working Environment		Temperature：0～40℃；Humidity：20～90%RH					
Volume W×H×D(mm)		210×133×325		440×133×350			
Weight		6kg		9kg	12kg	9kg	12kg

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

Specifications

Model		AN50120-12(F)	AN50120-25(F)	AN50300-5(F)	AN50300-10(F)
Input Power Supply		Single phase，220V±22V，47-63Hz			
Output	Voltage	0～120V		0～300V	
	Current	0～12.5A	0～25A	0～5A	0～10A
	Power	0～1500W	0～3000W	0～1500W	0～3000W
Resolution/ Accuracy	Voltage	Resolution 0.001V/0.01V/0.1V, accuracy ≤ 0.4%Umax			
	Current	Resolution 0.001A/0.01A, accuracy ≤ 0.5%Imax			
Ripple and Noise 20Hz~20MHz	Vrms	80mV		100mV	
	Vpp	400mV		500mV	
Load effect	Voltage	Load effect ≤0.1%Umax, source effect ≤0.05%Umax			
	Current	Load effect ≤0.2%Imax, source effect ≤0.1%Imax			
Transient response time		≤5ms			
Maximum lead voltage drop compensation		10V			
Communication function		RS-232 (standard)/RS485 (optional)			
Protection		Output short-circuit protection, output overvoltage, internal overheating protection, S-terminal over-compensation protection, S-terminal reversal protection			
Analog interface(optional)		Start, stop, alarm, 0-5V/0-10V or 4-20mA analog control output			
Working Environment		Temperature：0～40℃；Humidity：20～90%RH			
Volume W×H×D(mm)		440×133×350			
Weight		9kg	12kg	9kg	12kg

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Specifications

Model		AN5035-170(F)	AN5035-285(F)	AN5035-570(F)	AN5080-75(F)	AN5080-125(F)	AN5080-250(F)
Input	Phase number	Three-phase					
	Voltage	380V±38V					
	Frequency	47-63HZ					
Output	Voltage	0～35V			0～80V		
	Current	0～172A	0～286A	0～572A	0～75A	0～125A	0～250A
	Power	0～6KW	0～10KW	0～20KW	0～6KW	0～10KW	0～20KW
Display mode		5-bit Nixie tube display					
Voltage resolution		0.01V (0.1V when ≥ 100V)					
Current resolution		0.01A (0.1A when ≥ 100A)					
Setting error (programming accuracy)	Voltage	≤0.2%Umax					
	Current	≤0.2%Imax					
Measurement error (readback accuracy)	Voltage	≤0.2%Umax					
	Current	≤0.2%Imax					
Ripple and noise 20Hz-20MHz	Vrms	60mV					
	Vpp	500mV					
Load effect	Voltage	≤0.1%Umax					
	Current	≤0.2%Imax					
Source effect	Voltage	≤0.05%Umax					
	Current	≤0.1%Imax					
Transient response time		≤2ms (50%-100%, or 100%-50%, error returns to 0.75% of stable value)					
Temperature drift	Voltage	0.05% setting value					
	Current	0.05% setting value					
Noise		≤68dB (A)					
Scope of OVP		110%F.S					
Maximum lead drop compensation		2V					
Communication function		RS-232 (standard)/485 (standard)/LAN (standard)					
Protection functions		Short-circuit protection, reverse protection, output overvoltage, current-limiting protection, internal overheating protection, S-terminal over-compensation protection					
Analog interface (optional)		Start, stop, alarm, 0-5V or 0-10V analog control output					
Efficiency		≥85%					
Operating temperature		0~40℃					
Storage temperature		-20~70℃					
Humidity		<80%, without condensation					
Volume		444*132.5*641mm					
Weight		24kg	24kg	34kg	23.5kg	23.5kg	33kg
Remarks		1. Programming accuracy/read-back accuracy test condition (25℃±5℃); 2. Time required for the load to change from 100% to 50% or in reverse, and for the output voltage to return to within "rated value±100mV"					

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Specifications

Model		AN50120-50(F)	AN50120-80(F)	AN50120-165(F)	AN50300-20(F)	AN50300-30(F)	AN50300-65(F)
Input	Phase number	Three-phase					
	Voltage	380V±38V					
	Frequency	47-63HZ					
Output	Voltage	0～120V			0～700V		
	Current	0～50A	0～84A	0～167A	0～20A	0～34A	0～67A
	Power	0～6KW	0～10KW	0～20KW	0～6KW	0～10KW	0～20KW
Display mode		5-bit Nixie tube display					
Voltage resolution		0.01V (0.1V when ≥ 100V)					
Current resolution		0.01A (0.1A when ≥ 100A)					
Setting error (programming accuracy)	Voltage	≤0.2%Umax					
	Current	≤0.2%Imax					
Measurement error (readback accuracy)	Voltage	≤0.2%Umax					
	Current	≤0.2%Imax					
Ripple and noise 20Hz-20MHz	Vrms	80mV					
	Vpp	500mV					
Load effect	Voltage	≤0.1%Umax					
	Current	≤0.2%Imax					
Source effect	Voltage	≤0.05%Umax					
	Current	≤0.1%Imax					
Transient response time [2]		≤2ms (50%-100%, or 100%-50%, error returns to 0.75% of stable value)					
Temperature drift	Voltage	0.05% setting value					
	Current	0.05% setting value					
Noise		≤68dB (A)					
Scope of OVP		110%F.S					
Maximum lead drop compensation		10V					
Communication function		RS-232 (standard)/485 (standard)/LAN (standard)					
Protection functions		Short-circuit protection, reverse protection, output overvoltage, current-limiting protection, internal overheating protection, S-terminal over-compensation protection					
Analog interface (optional)		Start, stop, alarm, 0-5V or 0-10V analog control output					
Efficiency		≥85%					
Operating temperature		0~40℃					
Storage temperature		-20~70℃					
Humidity		<80%, without condensation					
Volume		444*132.5*641mm					
Weight		22kg	22kg	30kg	22kg	22kg	30kg
Remarks		1.Programming accuracy/read-back accuracy test condition (25℃±5℃); 2.Time required for the load to change from 100% to 50% or in reverse, and for the output voltage to return to within "rated value±100mV"					

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Specifications

Model		AN50600-10(F)	AN50600-17(F)	AN50600-30(F)	AN50700-9(F)	AN50700-14(F)	AN50700-29(F)
Input	Phase number	Three-phase					
	Voltage	380V±38V					
	Frequency	47-63HZ					
Output	Voltage	0～600V			0～700V		
	Current	0～10A	0～17A	0～34A	0～9A	0～14.5A	0～29A
	Power	0～6KW	0～10KW	0～20KW	0～6KW	0～10KW	0～20KW
Display mode		5-bit Nixie tube display					
Voltage resolution		0.01V (0.1V when ≥ 100V)					
Current resolution		0.01A (0.1A when ≥ 100A)					
Setting error (programming accuracy)	Voltage	≤0.2%Umax					
	Current	≤0.2%Imax					
Measurement error (readback accuracy)	Voltage	≤0.2%Umax					
	Current	≤0.2%Imax					
Ripple and noise 20Hz-20MHz	Vrms	200mV					
	Vpp	1000mV					
Load effect	Voltage	≤0.1%Umax					
	Current	≤0.2%Imax					
Source effect	Voltage	≤0.05%Umax					
	Current	≤0.1%Imax					
Transient response time [2]		≤2ms (50%-100%, or 100%-50%, error returns to 0.75% of stable value)					
Temperature drift	Voltage	0.05% setting value					
	Current	0.05% setting value					
Noise		≤68dB (A)					
Scope of OVP		110%F.S					
Maximum lead drop compensation		10V					
Communication function		RS-232 (standard)/485 (standard)/LAN (standard)					
Protection functions		Short-circuit protection, reverse protection, output overvoltage, current-limiting protection, internal overheating protection, S-terminal over-compensation protection					
Analog interface (optional)		Start, stop, alarm, 0-5V or 0-10V analog control output					
Efficiency		≥85%					
Operating temperature		0~40℃					
Storage temperature		-20~70℃					
Humidity		<80%, without condensation					
Volume		444*132.5*641mm					
Weight		21kg	21kg	28.5kg	21kg	21kg	28.5kg
Remarks		1.Programming accuracy/read-back accuracy test condition (25℃±5℃); 2.Time required for the load to change from 100% to 50% or in reverse, and for the output voltage to return to within "rated value±100mV"					

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Specifications

Model		AN501200-17(F)	AN501400-14(F)
Input	Phase number	Three-phase	
	Voltage	380V±38V	
	Frequency	47-63HZ	
Output	Voltage	0～1200V	0～1400V
	Current	17A	14.5A
	Power	0～20KW	0～20KW
Display mode		5-bit Nixie tube display	
Voltage resolution		0.01V (0.1V when ≥ 100V)	
Current resolution		0.01A (0.1A when ≥ 100A)	
Setting error (programming accuracy)	Voltage	≤0.2%Umax	
	Current	≤0.2%Imax	
Measurement error (readback accuracy)	Voltage	≤0.2%Umax	
	Current	≤0.2%Imax	
Ripple and noise 20Hz-20MHz	Vrms	400mV	
	Vpp	2000mV	
Load effect	Voltage	≤0.1%Umax	
	Current	≤0.2%Imax	
Source effect	Voltage	≤0.05%Umax	
	Current	≤0.1%Imax	
Transient response time		≤2ms (50%-100%, or 100%-50%, error returns to 0.75% of stable value)	
Temperature drift	Voltage	0.05% setting value	
	Current	0.05% setting value	
Noise		≤68dB (A)	
Scope of OVP		110%F.S	
Maximum lead drop compensation		28.5V	
Communication function		RS-232 (standard)/485 (standard)/LAN (standard)	
Protection functions		Short-circuit protection, reverse protection, output overvoltage, current-limiting protection, internal overheating protection, S-terminal over-compensation protection	
Analog interface (optional)		Start, stop, alarm, 0-5V or 0-10V analog control output	
Efficiency		≥85%	
Operating temperature		0~40℃	
Storage temperature		-20~70℃	
Humidity		<80%, without condensation	
Dimensions(W×H×D mm)		444*132.5*641	
Weight		28.5kg	28.5kg
Remarks		1. Programming accuracy/read-back accuracy test condition (25℃±5℃); 2. Time required for the load to change from 100% to 50% or in reverse, and for the output voltage to return to within "rated value±100mV"	

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