

ANC-E1 SERIES

15 Watts

KEY FEATURES

- Switching Power Module for PCB Mountable
- Fully Encapsulated Plastic Case
- Universal Input Range 90-264VAC, 47-440 Hz
- Regulated Output
- Low Ripple and Noise
- High Efficiency
- CE, UL, TUV Approval
- 2-Years Product Warranty



ELECTRICAL SPECIFICATIONS

Model No. (Single Output)		ANC-5S A-E1		ANC-12S A-E1		ANC-15S A-E1		ANC-24S A-E1	
Max Output Wattage (W)		15W		15W		15W		15W	
Input	Voltage	90-264 VAC or 120-370 VDC							
	Frequency (Hz)	47-440 Hz							
	Current (Full load)	280 mA max. (115 VAC) / 170 mA max. (230 VAC)							
	Inrush Current (<2ms)	23 A max. (115 VAC) / 46 A max. (230 VAC)							
	Leakage Current	0.75 mA max.							
	External Fuse (recommend)	1.5 A slow blow type							
Output	Voltage (V.DC.)	5V		12V		15V		24V	
	Voltage Accuracy	±2%							
	Current (mA) max	3000		1250		1000		625	
	Line Regulation (LL-HL) (typ.)	±0.5%							
	Load Regulation (5-100%) (typ.)	±0.5%							
	Minimum Load	4%		2%		0%		0%	
	Maximum Capacitive Load	470-23,000μF depending on model							
	Ripple	<0.2% Vout +40mV max (Vp-p)							
	Noise	<0.5% Vout +50mV max (Vp-p)							
	Efficiency	70%		73%		73%		77%	
	Hold-up Time	15 ms min.							
	Switching Frequency	100 kHz							
Protection	Over Power Protection	Hiccup technique, auto-recovery							
	Over Voltage Protection	Zener diode clamp							
	Short Circuit Protection	Hiccup mode, indefinite (automatic recovery)							
Isolation	Input-Output (V.AC)	3000V							
	Input-FG (V.AC)	1500V							
	Output-FG (V.AC)	500V							
Environment	Operating Temperature	-40°C...+70°C (with derating)							
	Storage Temperature	-40°C...+85°C							
	Temperature Coefficient	±0.02%/°C							
	Humidity	95% RH							
	MTBF	>200,000 h @ 25°C (MIL-HDBK-217F)							
Physical	Dimension (L x W x H)	2.91 x 2.13 x 0.87 Inches (74.0 x 54.0 x 22.0 mm) Tolerance ±0.5 mm							
	Case Material	Plastic resin with Fiberglass (flammability to UL 94V-0)							
	Weight	140 g							
	Cooling Method	Free air convection							
Safety	Agency Approvals	UL/cUL, CE, TUV							
EMC	EMI (Conducted & Radiated Emission)	EN 55022 class B							
	EMS (Noise Immunity)	EN 55024							

All specifications valid at nominal input voltage, full load and +25°C after warm-up time unless otherwise stated.

ANC-E1 SERIES

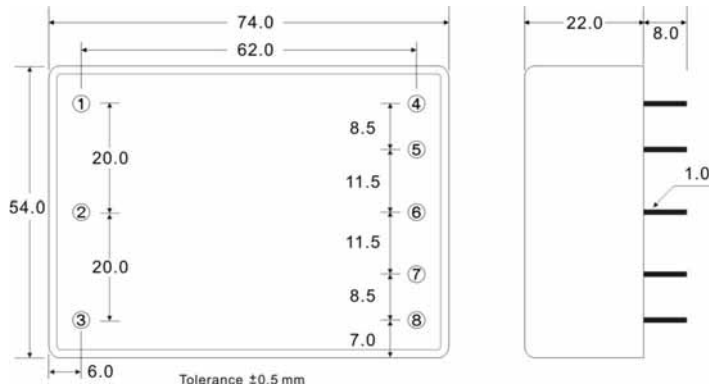
15 Watts

ELECTRICAL SPECIFICATIONS

Model No. (Dual, Triple Output)		ANC-5D A -E1	ANC-12D A -E1	ANC-15D A -E1	ANC-5S12D A -E1	ANC-5S15D A -E1
Max Output Wattage (W)		15W	15W	15W	15W	15W
Input	Voltage	90-264 VAC or 120-370 VDC				
	Frequency (Hz)	47-440 Hz				
	Current (Full load)	280 mA max. (115 VAC) / 170 mA max. (230 VAC)				
	Inrush Current (<2ms)	23 A max. (115 VAC) / 46 A max. (230 VAC)				
	Leakage Current	0.75 mA max.				
	External Fuse (recommend)	1.5 A slow blow type				
Output	Voltage (V.DC.)	±5V	±12V	±15V	5/±12	5/±15
	Voltage Accuracy	±5%			±2%	
	Current (mA) max	±1500	±650	±500	2000/±200	2000/±150
	Line Regulation (LL-HL) (typ.)	±0.5%			±1% / ±5%	
	Load Regulation (5-100%) (typ.)	±3%			±2% / ±5%	
	Minimum Load	0%			5V 10% (200 mA)	
	Maximum Capacitive Load	470-23,000μF depending on model				
	Ripple	<0.2% Vout +40mV max (Vp-p)				
	Noise	<0.5% Vout +50mV max (Vp-p)				
	Efficiency	71%	76%	65%	68%	68%
	Hold-up Time	15 ms min.				
	Switching Frequency	100 kHz				
Protection	Over Power Protection	Hiccup technique, auto-recovery				
	Over Voltage Protection	Zener diode clamp				
	Short Circuit Protection	Hiccup mode, indefinite (automatic recovery)				
Isolation	Input-Output (V.AC)	3000V				
	Input-FG (V.AC)	1500V				
	Output-FG (V.AC)	500V				
Environment	Operating Temperature	-40°C...+70°C (with derating)				
	Storage Temperature	-40°C...+85°C				
	Temperature Coefficient	±0.02%/°C				
	Humidity	95% RH				
	MTBF	>200,000 h @ 25°C (MIL-HDBK-217F)				
Physical	Dimension (L x W x H)	2.91 x 2.13 x 0.87 Inches (74.0 x 54.0 x 22.0 mm) Tolerance ±0.5 mm				
	Case Material	Plastic resin with Fiberglass (flammability to UL 94V-0)				
	Weight	140 g				
	Cooling Method	Free air convection				
Safety	Agency Approvals	UL/cUL, CE, TUV				
EMC	EMI (Conducted & Radiated Emission)	EN 55022 class B				
	EMS (Noise Immunity)	EN 55024				

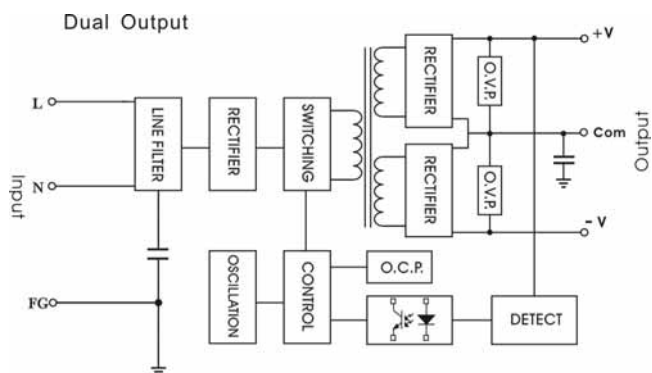
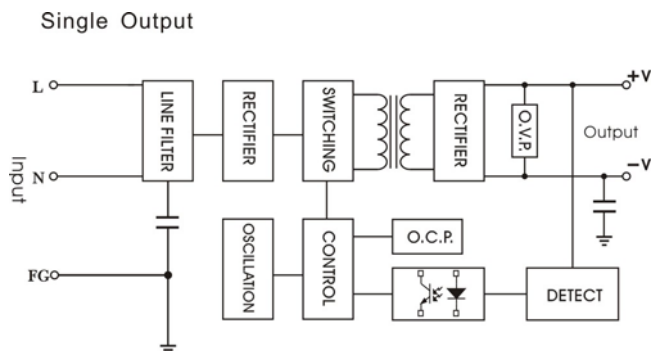
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MECHANICAL DIMENSION (Top View)

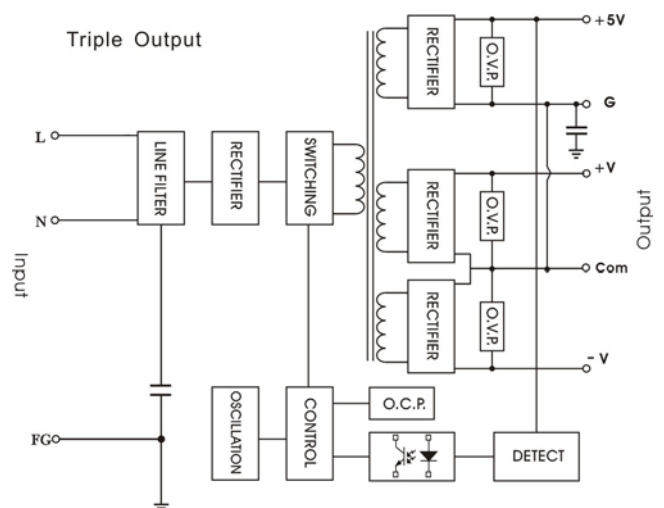
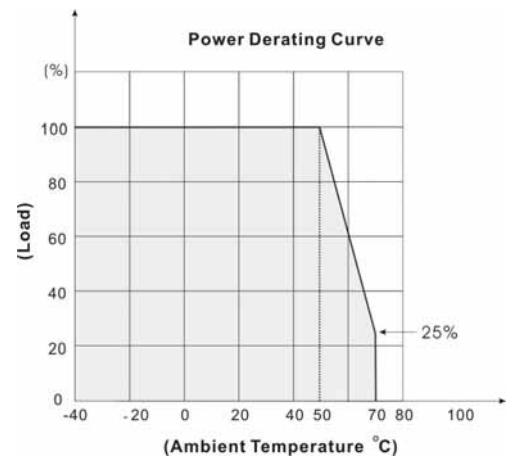


PIN#	SINGLE	Dual	Triple
1	FG	FG	FG
2	AC IN (N)	AC IN (N)	AC IN (N)
3	AC IN (L)	AC IN (L)	AC IN (L)
4	NO PIN	NO PIN	-DC OUT
5	-DC OUT	-DC OUT	COMMON
6	NO PIN	COMMON	+DC OUT
7	+DC OUT	+DC OUT	+5V RTN
8	NO PIN	NO PIN	+5V OUT

BLOCK DIAGRAM



DERATING

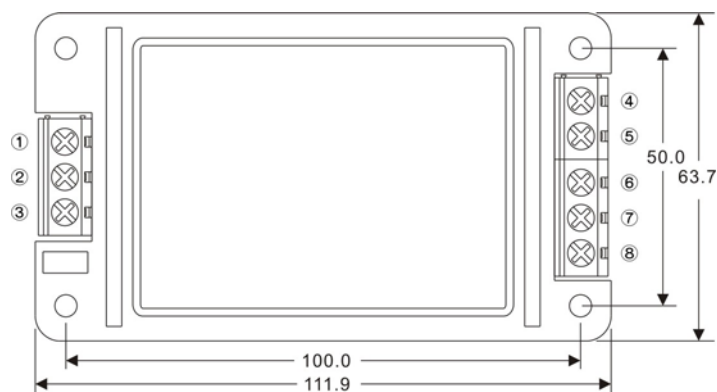


ANC-E1 SERIES

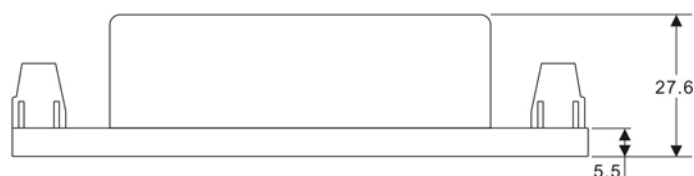
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SCREW TERMINAL

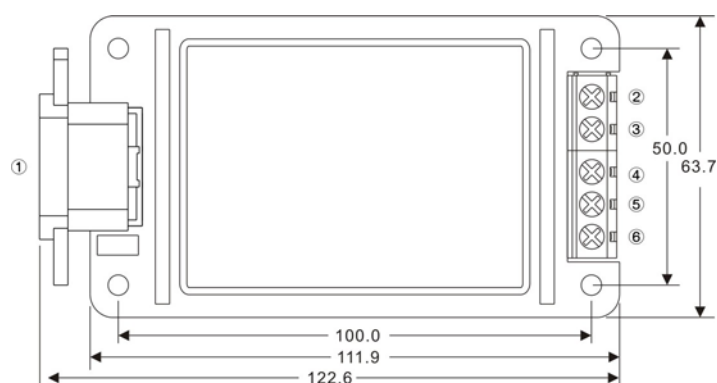
ANC-E1-A2



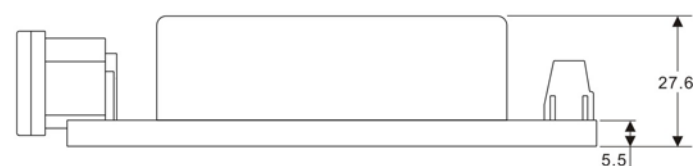
PIN#	Single	Dual	Triple
1	FG	FG	FG
2	AC IN (N)	AC IN (N)	AC IN (N)
3	AC IN (L)	AC IN (L)	AC IN (L)
4	NO CONNECT	NO CONNECT	-DC OUT
5	-DC OUT	-DC OUT	COMMON
6	NO CONNECT	COMMON	+DC OUT
7	+DC OUT	+DC OUT	+5V RTN
8	NO CONNECT	NO CONNECT	+5V OUT

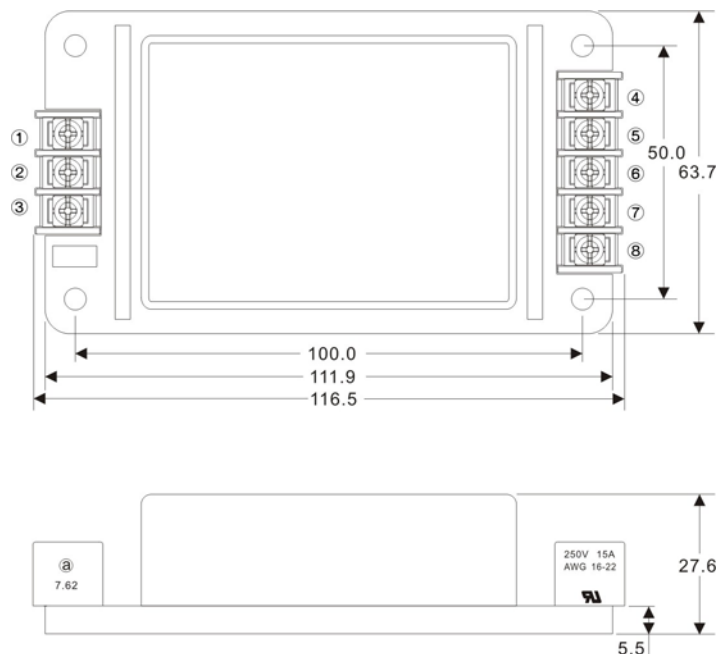


ANC-E1-A4

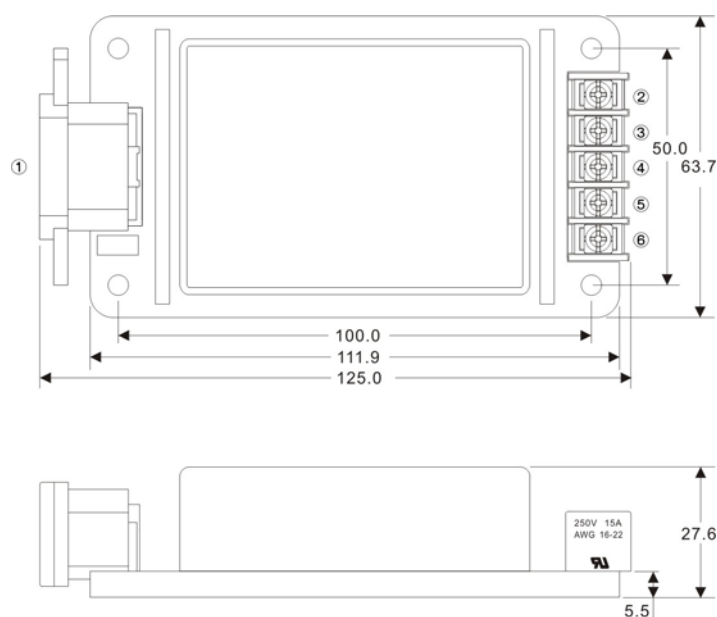


PIN#	Single	Dual	Triple
1	AC IN	AC IN	AC IN
2	NO CONNECT	NO CONNECT	-DC OUT
3	-DC OUT	-DC OUT	COMMON
4	NO CONNECT	COMMON	+DC OUT
5	+DC OUT	+DC OUT	+5V RTN
6	NO CONNECT	NO CONNECT	+5V OUT



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ANC-E1-A5


PIN#	Single	Dual	Triple
1	FG	FG	FG
2	AC IN (N)	AC IN (N)	AC IN (N)
3	AC IN (L)	AC IN (L)	AC IN (L)
4	NO CONNECT	NO CONNECT	-DC OUT
5	-DC OUT	-DC OUT	COMMON
6	NO CONNECT	COMMON	+DC OUT
7	+DC OUT	+DC OUT	+5V RTN
8	NO CONNECT	NO CONNECT	+5V OUT

ANC-E1-A7


PIN#	Single	Dual	Triple
1	AC IN	AC IN	AC IN
2	NO CONNECT	NO CONNECT	-DC OUT
3	-DC OUT	-DC OUT	COMMON
4	NO CONNECT	COMMON	+DC OUT
5	+DC OUT	+DC OUT	+5V RTN
6	NO CONNECT	NO CONNECT	+5V OUT