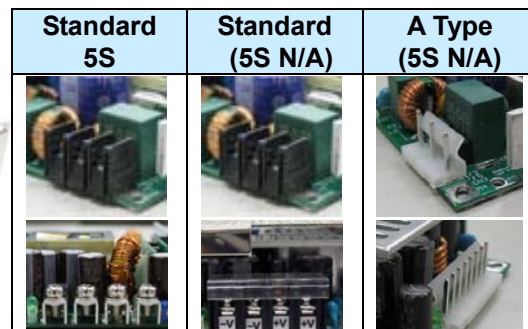


AQF240U SERIES

240 Watts

KEY FEATURES

- U Bracket Switching Power Supply
- Universal Input: 90-264 VAC
- With P.F.C. Function, PF>0.95
- High Efficiency up to 93%
- RoHS Compliant Design
- Ultra Compact Size: 6.0 x 4.18 x 1.38 Inches
- 3-Year Product Warranty



Please refer to the types of terminal block; the pictures shown are for illustration purpose only, actual product may vary.

ELECTRICAL SPECIFICATIONS



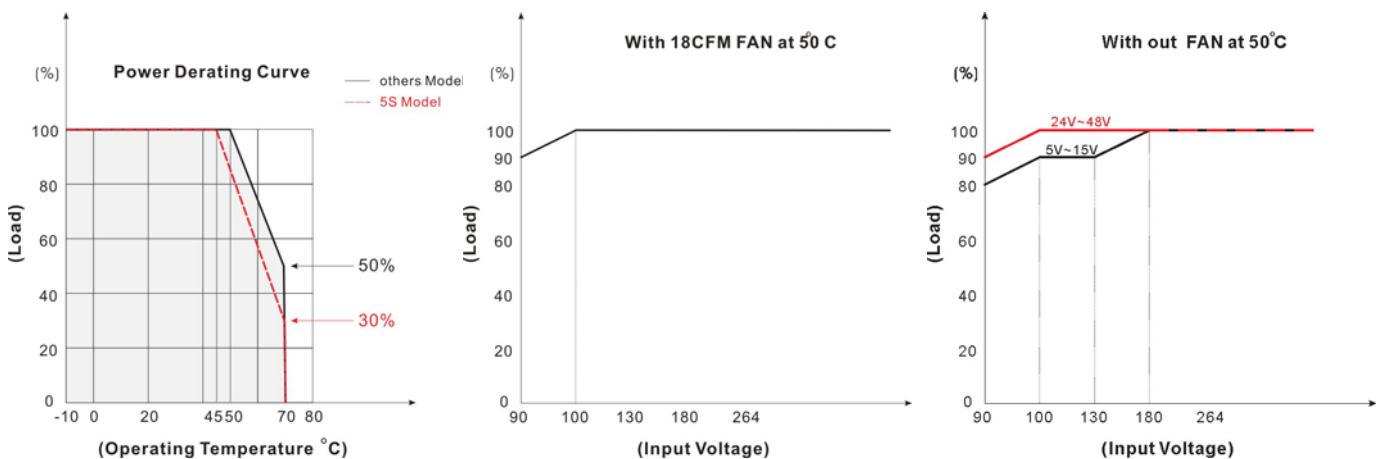
All specifications valid at normal input voltage, full load and +25°C after warm-up time unless otherwise stated.

Model No.		AQF240 U-5S	AQF240 U-12S	AQF240 U-15S	AQF240 U-24S	AQF240 U-28S	AQF240 U-36S	AQF240 U-32S	AQF240 U-48S
Max Output Wattage (W)		180W	240W						
Input	Voltage (Note 3)	90-264 VAC or 120-370 VDC							
	Frequency (Hz)	47-63 Hz							
	Current (Full load)	<3.0 A max. (115 VAC) / <1.5 A max. (230 VAC)							
	Inrush Current (<2ms)	< 30 A max. (115 VAC) / < 60 A max. (230 VAC)							
	Leakage Current	< 0.5 mA max.							
	Power Factor	PF>0.98 (115 VAC) / PF>0.95 (230 VAC) at Full Load							
Output	Voltage (V.DC.)	5V	12V	15V	24V	28V	36V	32V	48V
	Trim	±5% Output Voltage							
	Voltage Accuracy	±2%							
	Current (Convection) (A) max	36	20	16	10	8.57	6.66	7.5	5
	Line Regulation	±1%							
	Load Regulation	±1%							
	Minimum Load	5%	2%						
	Maximum Capacitive Load	470-23,000µF depending on model							
	Ripple & Noise (max.)	150mVp-p	120mVp-p	200mVp-p					
	Efficiency (at 230VAC)	87%	90%	90%	92%	92%	92%	92%	93%
Protection	Hold-up Time	10 ms min.							
	Over Power Protection	Auto recovery							
	Over Voltage Protection	Latch Off							
	Short Circuit Protection	Protection level 1 (nominal) : Continuous, Auto recovery Protection level 2 (instantaneous high current) : Latch							
Isolation	Input-Output (V.AC)	4000VAC or 5656VDC							
	Input-FG (V.AC)	2000V							
	Output-FG (V.AC)	500V							
Environment	Operating Temperature	-10°C...+70°C (with derating) (Note 4)							
	Storage Temperature	-25°C...+85°C							
	Temperature Coefficient	±0.03%/°C (0~50°C)							
	Humidity	95% RH							
	MTBF	>120,000 h @ 25°C (MIL-HDBK-217F)							
Physical	Vibration	10~500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes.							
	Dimensions (L x W x H)	5S: 6.0 x 4.18 x 1.46 Inches (150.0 x 106.0 x 37.0 mm) Tolerance ±0.5 mm Others: 6.0 x 4.18 x 1.38 Inches (150.0 x 106.0 x 35.0 mm) Tolerance ±0.5 mm							
	Weight	580 g							
	Cooling Method	Free convection or 18CFM							
Safety	Agency Approvals	IEC / EN 60950(5S,15S, 28S, 36S N/A), UL/ IEC / EN 62368-1(5S,15S, 28S, 36S N/A)							
EMC	EMI (Conducted & Radiated Emission)	EN 55032 class B							
	EMS (Noise Immunity)	EN 55024							

NOTE

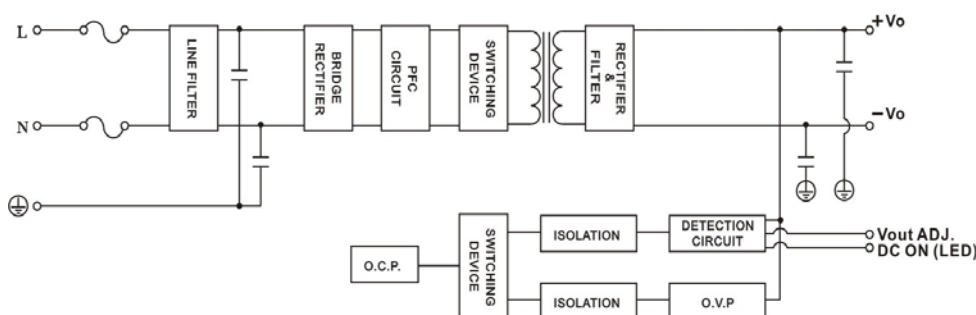
1. Ripple & Noise are measured at 20MHz of bandwidth with 0.1uF & 47uF parallel capacitor.
2. Strongly recommend to conduct this test with DC Voltage. If customer wishes to test with AC Voltage, please disconnect all Y-Capacitors from Arch power supply.
3. Derating may be needed under low input voltages. Please check the derating curve for more details.
4. Due to varying customer application conditions, the product is tested for maximum operating temperature under full load only. For other regulatory requirements, please contact ARCH.
5. CAUTION: Double pole, neutral fusing. Disconnect mains before servicing.
(ATTENTION : 2 poles avec fusible sur le neutre. Deconnecter le secteur avant intervention.)

DERATING



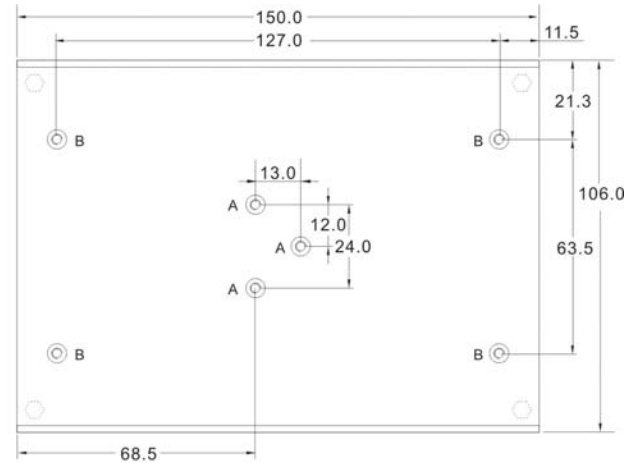
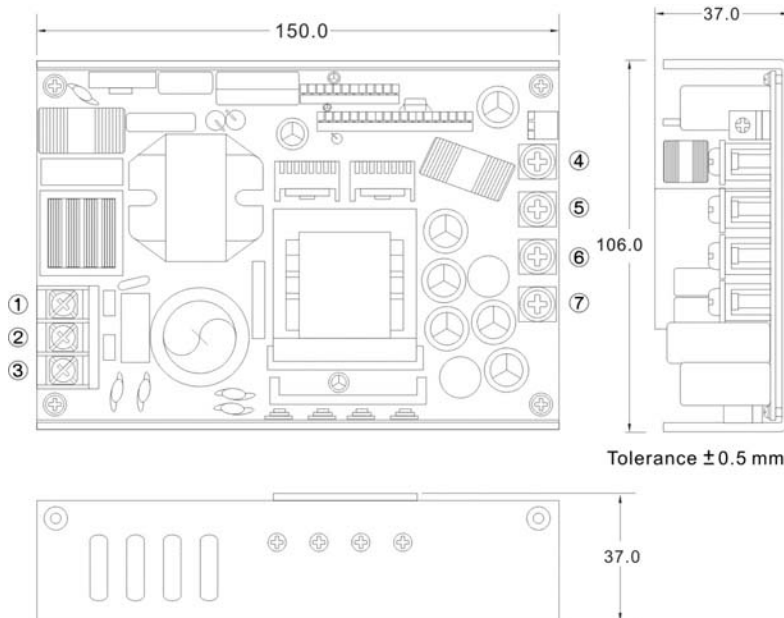
BLOCK DIAGRAM

Single Output



MECHANICAL DIMENSIONS (Top View)

Standard (5S)



A= For fixture to chassis only

A=M3x0.5P

B=For fixture to pcb/chassis only

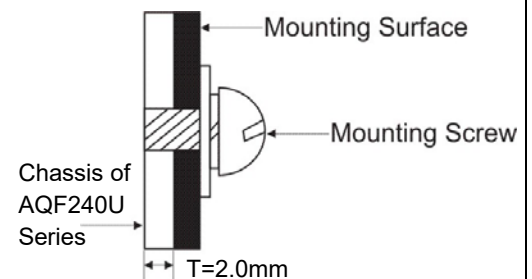
B=M3x0.5P

Torque:3±0.5 Kgf.cm

ASSEMBLY INSTRUCTIONS

*U Case T=2.0mm

Customer is advised to screw into the threads no more than 2.0mm



Brands		Terminal
PIN#	Single	ANYTEK DG28S-B-03P
1	AC IN (L)	
2	AC IN (N)	
3	FG	M5 Pan HD screw in 2 positions Torque to 8 lbs-in(90 cNm) max.
4~5	+DC OUT	
6~7	-DC OUT	

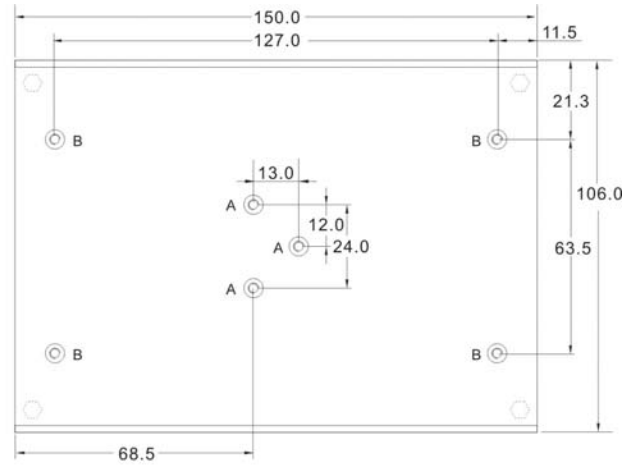
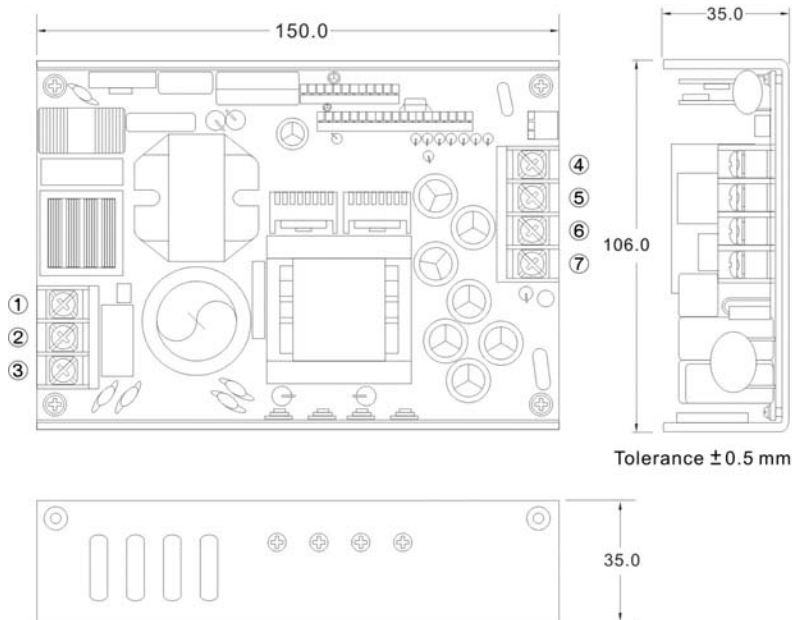
Standard (5S)



Please refer to the types of terminal block; the pictures shown are for illustration purpose only, actual product may vary.

MECHANICAL DIMENSIONS (Top View)

Standard (5S N/A)



A= For fixture to chassis only

A=M3x0.5P

B=For fixture to pcb/chassis only

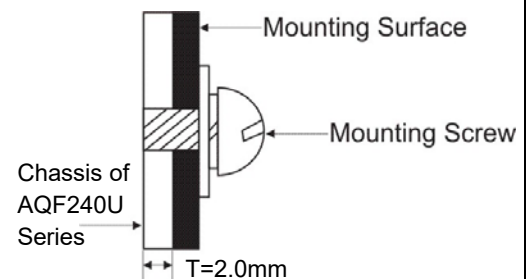
B=M3x0.5P

Torque:3±0.5 Kgf.cm

ASSEMBLY INSTRUCTIONS

*U Case T=2.0mm

Customer is advised to screw into the threads no more than 2.0mm



Brands		Terminal
PIN#	Single	
1	AC IN (L)	ANYTEK DG28S-B-03P
2	AC IN (N)	
3	FG	
4~5	+DC OUT	ANYTEK DG28S-B-04P
6~7	-DC OUT	

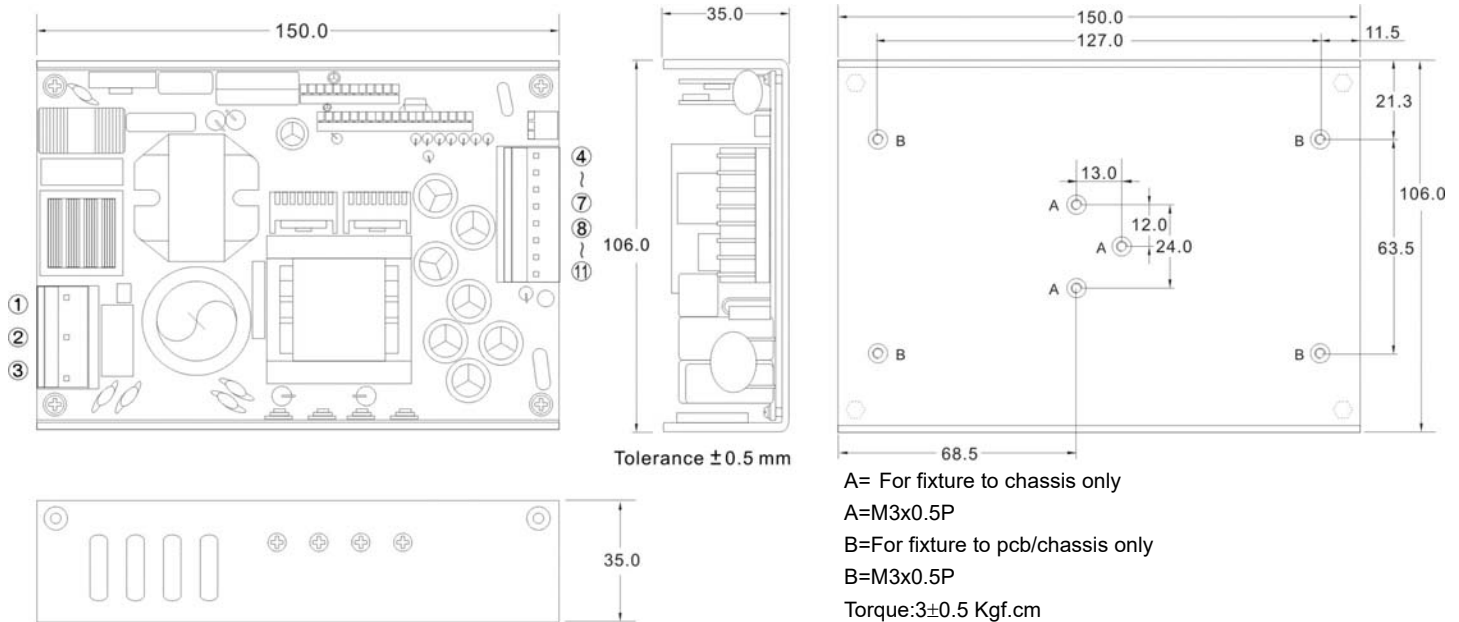
Standard (5S N/A)



Please refer to the types of terminal block; the pictures shown are for illustration purpose only, actual product may vary.

MECHANICAL DIMENSIONS (Top View)

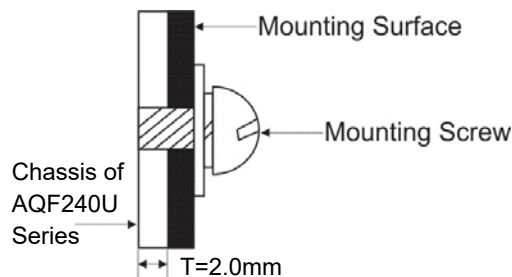
A Type (5S N/A)



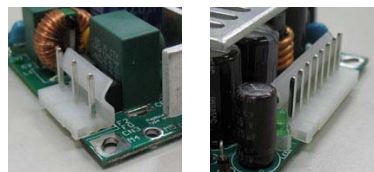
ASSEMBLY INSTRUCTIONS

*U Case T=2.0mm

Customer is advised to screw into the threads no more than 2.0mm



A Type (5S N/A)



Please refer to the types of terminal block; the pictures shown are for illustration purpose only, actual product may vary.

Brands		Alex		Molex	
PIN#	Single	Mating Housing	Terminal	Mating Housing	Terminal
1	AC IN (L)	8639-05N2 8095-05N2	23T or 24T series 94T or 95T series	5195-05	5194T
2	AC IN (N)				
3	FG				
4~7	+DC OUT	8639-08N2 8095-08N2	23T or 24T series 94T or 95T series	5195-08	5194T
8~11	-DC OUT				

KEY FEATURES

- Enclosed Switching Power Supply
- Universal Input: 90-264 VAC
- With P.F.C. Function, PF>0.95
- High Efficiency up to 93%
- RoHS Compliant Design
- Ultra Compact Size: 6.0 x 4.18 x 1.38 Inches
- 3-Year Product Warranty



ELECTRICAL SPECIFICATIONS

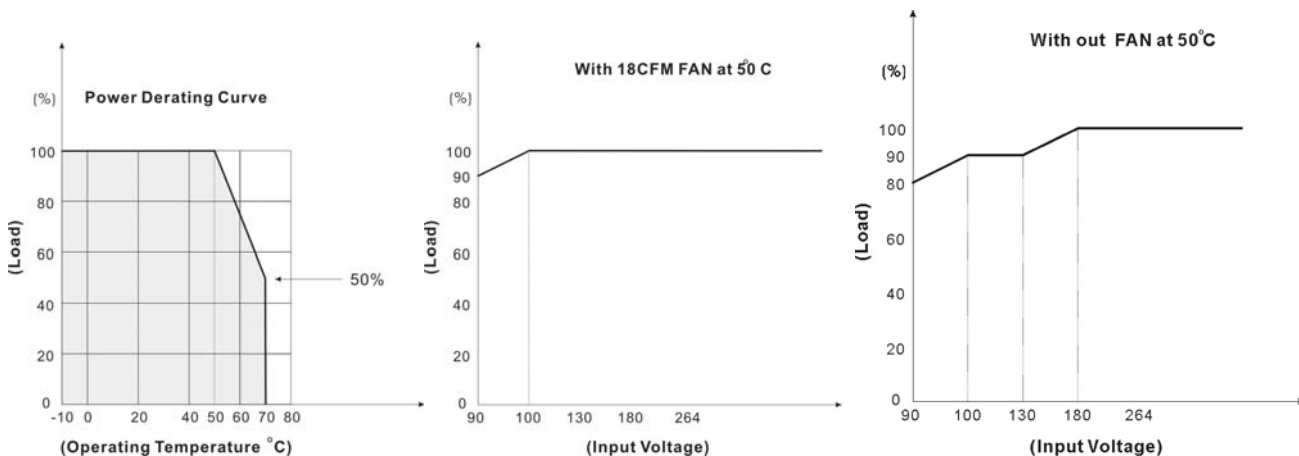
All specifications valid at normal input voltage, full load and +25°C after warm-up time unless otherwise stated.

Model No.		AQF240E-12S	AQF240E-15S	AQF240E-24S	AQF240E-28S	AQF240E-36S	AQF240E-32S	AQF240E-48S
Max Output Wattage (W)		200W	220W	240W				
Input	Voltage (Note 3)	90-264 VAC or 120-370 VDC						
	Frequency (Hz)	47-63 Hz						
	Current (Full load)	<3.0 A max. (115 VAC) / <1.5 A max. (230 VAC)						
	Inrush Current (<2ms)	< 30 A max. (115 VAC) / < 60 A max. (230 VAC)						
	Leakage Current	< 0.5 mA max.						
	Power Factor	PF>0.98 (115 VAC) / PF>0.95 (230 VAC) at Full Load						
Output	Voltage (V.DC.)	12V	15V	24V	28V	36V	32V	48V
	Voltage Accuracy	±2%						
	Trim	±5% Output Voltage						
	Current (Convection) (A) max	16.66	14.66	10	8.57	6.66	7.5	5
	Line Regulation	±1%						
	Load Regulation	±1%						
	Minimum Load	2%						
	Maximum Capacitive Load	470-23,000µF depending on model						
	Ripple & Noise (max.)	120mVp-p			200mVp-p			
	Efficiency (at 230VAC)	90%	90%	92%	92%	92%	92%	93%
Protection	Hold-up Time (Note 5)	12 ms min.						
	Over Power Protection	Auto recovery						
	Over Voltage Protection	Latch Off						
	Short Circuit Protection	Protection level 1 (nominal) : Continuous, Auto recovery Protection level 2 (instantaneous high current) : Latch						
Isolation	Input-Output (V.AC)	4000VAC or 5656VDC						
	Input-FG (V.AC)	2000V						
	Output-FG (V.AC)	500V						
Environment	Operating Temperature	-10°C...+70°C (with derating) (Note 4)						
	Storage Temperature	-25°C...+85°C						
	Temperature Coefficient	±0.03%/°C (0~50°C)						
	Humidity	95% RH						
	MTBF	>120,000 h @ 25°C (MIL-HDBK-217F)						
	Vibration	10~500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes.						
Physical	Dimensions (L x W x H)	6.0 x 4.18 x 1.38 Inches (150.0 x 106.0 x 35.0 mm) Tolerance ±0.5 mm						
	Weight	610 g						
	Cooling Method	Free convection or 18CFM						
Safety	Agency Approvals	IEC / EN 60950(15S, 28S, 36S N/A), UL/ IEC / EN 62368-1(15S, 28S, 36S N/A)						
EMC	EMI (Conducted & Radiated Emission)	EN 55032 class B						
	EMS (Noise Immunity)	EN 55024						

NOTE

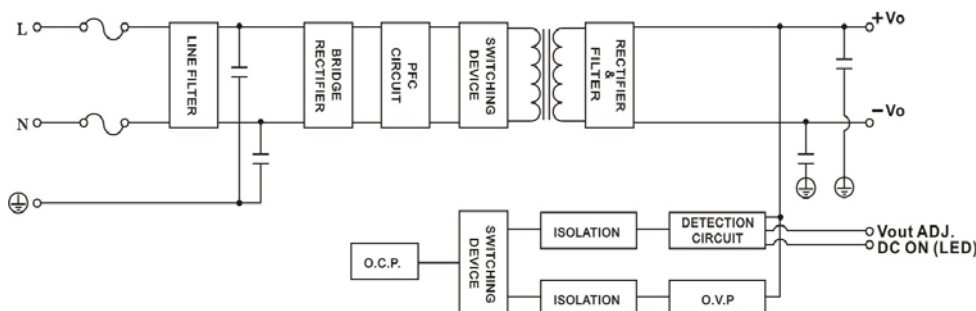
1. Ripple & Noise are measured at 20MHz of bandwidth with 0.1uF & 47uF parallel capacitor.
2. Strongly recommend to conduct this test with DC Voltage. If customer wishes to test with AC Voltage, please disconnect all Y-Capacitors from Arch power supply.
3. Derating may be needed under low input voltages. Please check the derating curve for more details.
4. Hold-up Time : 10ms at 32S output, 12ms for others output models.
5. Due to varying customer application conditions, the product is tested for maximum operating temperature under full load only. For other regulatory requirements, please contact ARCH.
6. CAUTION: Double pole, neutral fusing. Disconnect mains before servicing.
(ATTENTION : 2 poles avec fusible sur le neutre. Deconnecter le secteur avant intervention.)

DERATING

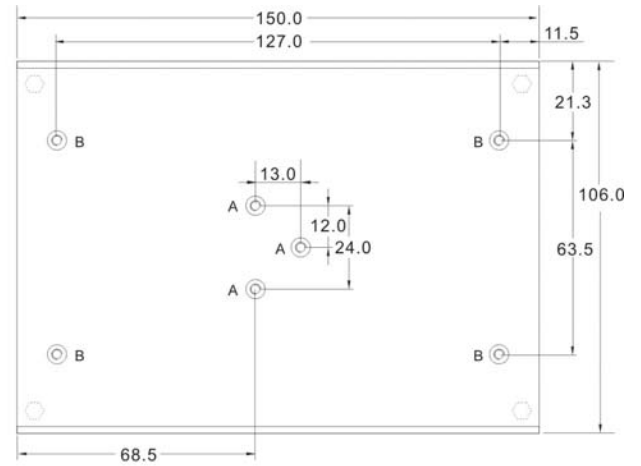
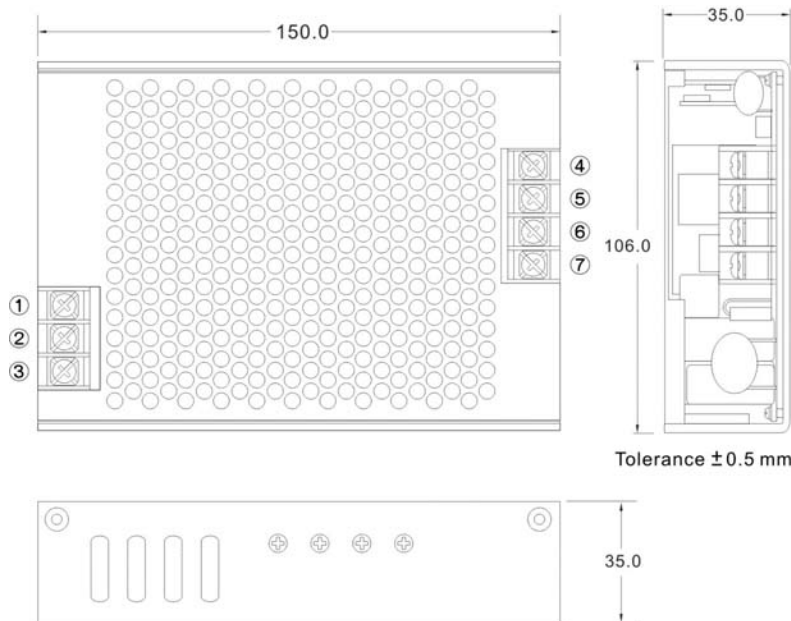


BLOCK DIAGRAM

Single Output



MECHANICAL DIMENSIONS (Top View)



A= For fixture to din rail kit/chassis only

A=M3x0.5P

B=For fixture to pcb/chassis only

B=M3x0.5P

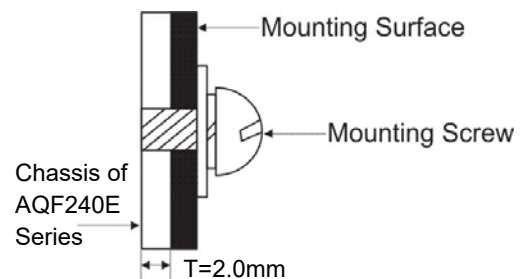
Torque:3±0.5 Kgf.cm

Brands		Terminal
PIN#	Single	ANYTEK DG28S-B-03P
1	AC IN (L)	
2	AC IN (N)	
3	FG	ANYTEK DG28S-B-04P
4~5	+DC OUT	
6~7	-DC OUT	

ASSEMBLY INSTRUCTIONS

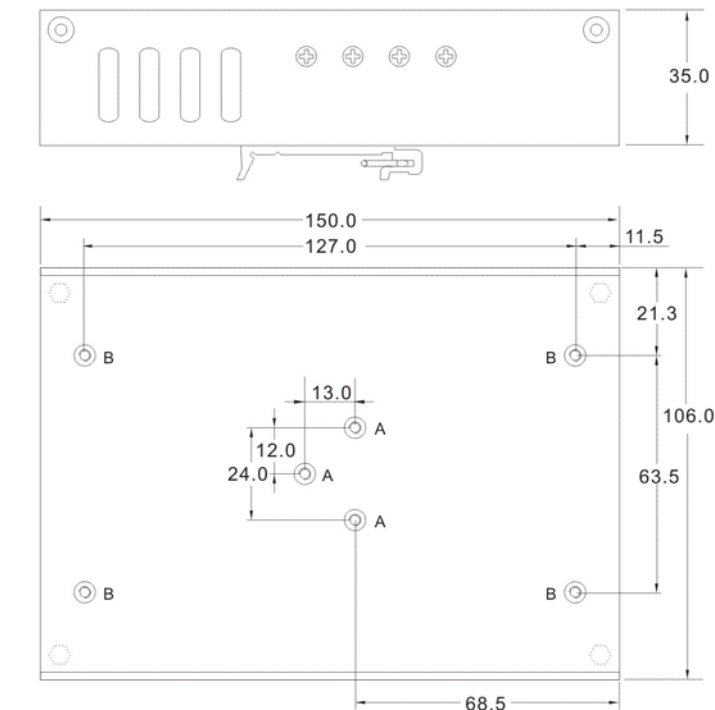
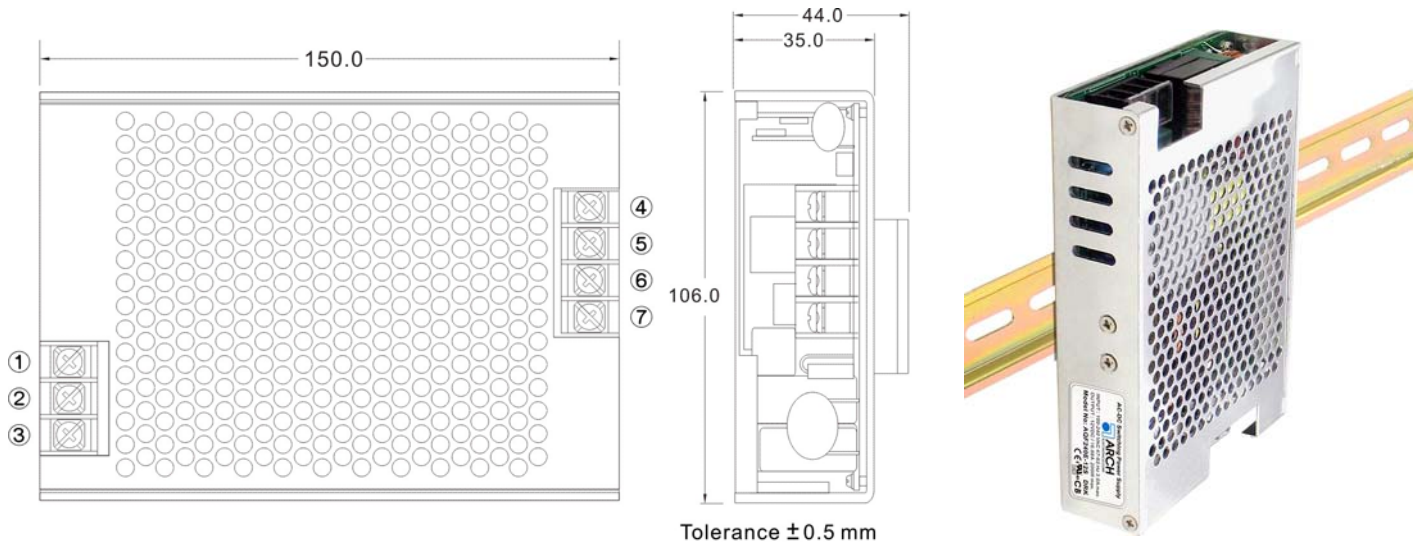
*U Case T=2.0mm

Customer is advised to screw into the threads no more than 2.0mm



Din Rail Kit

AQF240E-DRK



A= For fixture to din rail kit /chassis only

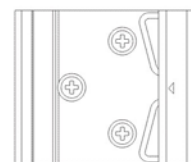
A=M3x0.5P

B=For fixture to pcb/chassis only

B=M3x0.5P

Torque:3 $\pm$ 0.5 Kgf.cm

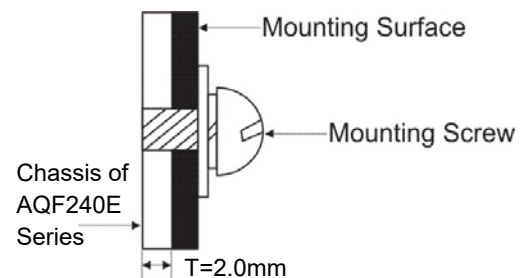
Din Accessory



ASSEMBLY INSTRUCTIONS

*U Case T=2.0mm

Customer is advised to screw into the threads no more than 2.0mm



Brands		Terminal
PIN#	Single	
1	AC IN (L)	ANYTEK DG28S-B-03P
2	AC IN (N)	
3	FG	
4~5	+DC OUT	ANYTEK DG28S-B-04P
6~7	-DC OUT	