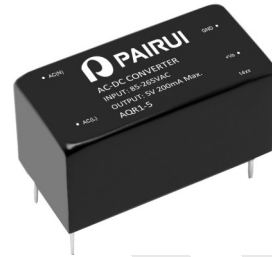


AQR-1 Series, 1Watt
FEATURES:

- ✓ Universal AC input range
- ✓ Short circuit, and over current protections
- ✓ Board in-line type installation
- ✓ High voltage isolation
- ✓ Compact size
- ✓ Metal case



Model	Input voltage (Vac)	Output voltage (Vdc)	Output current (mA)	Output power (W)
AQR1-5	85-265	5	200	1
AQR1-9		9	110	1
AQR1-12		12	83	1
AQR1-24		24	42	1
AQR1-D5		±5	±100	1
AQR1-D9		±9	±55	1
AQR1-D12		±12	±40	1
AQR1-D24		±24	±21	1

Notes: Above models are default to metal case.

ELECTRICAL

Input						
Parameters	Symbols	Test Conditions / Comment	Min.	Typ.	Max.	Units
Input voltage	V_{in}	--	85	--	265	Vac
Input frequency	F_{line}	--	47	--	63	Hz
Efficiency	η	Full voltage, full load	--	72	--	%
Output						
Output voltage accuracy	--	$V_{in}=100-240Vac$	--	±1	--	%
Line regulation	$V_{out-line}$	V_{in} from 100Vac to 240Vac	--	±0.2	--	%
Load regulation	$V_{out-load}$	20%-100% load	--	±0.5	--	%

AQR-1 Series, 1Watt
ELECTRICAL
Output

Parameters	Symbols	Test Conditions / Comment	Min.	Typ.	Max.	Units
Ripple	V_{ripple}	--	--	--	120	mV
Turn-on delay time	--	--	--	1	--	S

Protection

Over current	Continuous Automatic Recovery					
Short circuit	Continuous Automatic Recovery					

Environment

Storage	T_{storage}	Humidity: 5% RH to 95% RH	-40	--	+105	°C
Ambient operating temperature	T_a	--	-25	--	+65	°C
Case temperature	T_c	--	--	--	+90	°C
Operating relative humidity	H_a	Non condensing	10	--	90	%
MTBF	T_{MTBF}	--	--	--	200	kHrs
Dimension(LxWxH)	38x18x18mm					
Weight	24.6g					

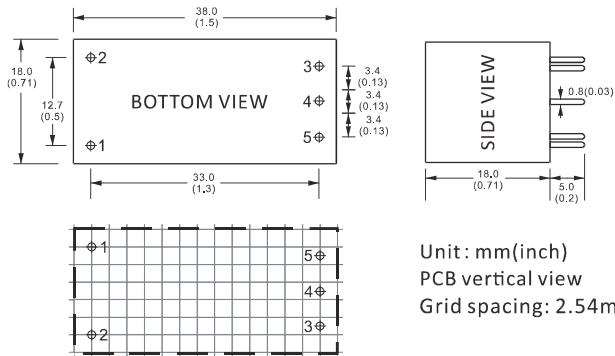
Safety

Isolation Voltage	Input-Output	2500Vac \leq 1.5mA//1min				
	Input-Case	1500Vac \leq 1.5mA//1min				
	output-Case	1500Vac \leq 1.5mA//1min				

Notes: Unless otherwise specified, all the above parameters are measured at ambient temperature of 25°C and $V_{\text{in}} = 100\text{Vac}$ to 240Vac .

AQR-1 Series, 1Watt

MECHANICAL

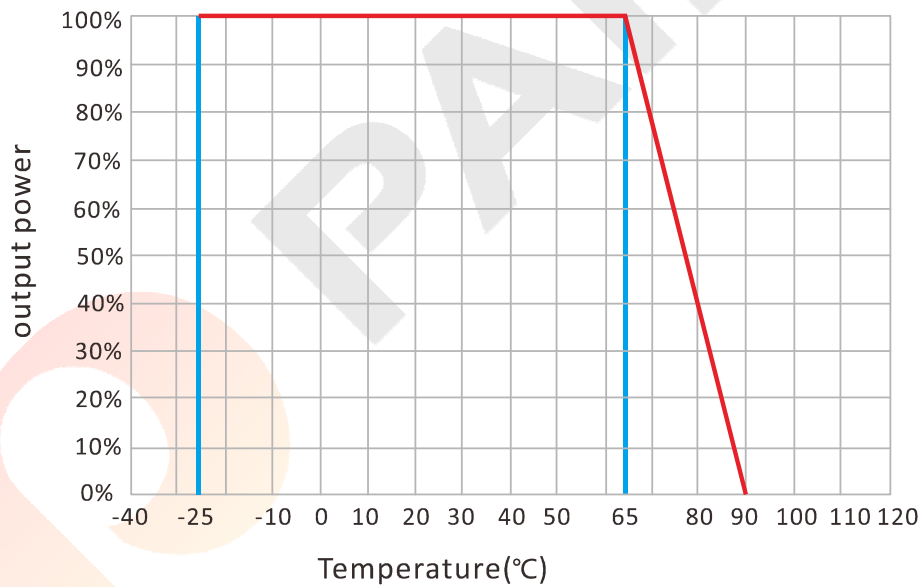


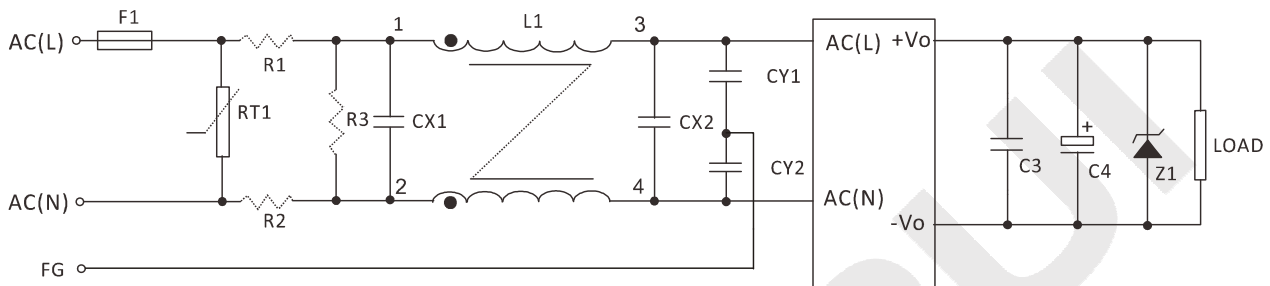
CONNECTION

PIN #	SINGLE	DUAL
1	AC(N)	AC(N)
2	AC(L)	AC(L)
3	+Vo	+Vo1
4	No Pin	COM
5	GND	-Vo2

Note: Unit is mm(inch).

ELECTRICAL CURVE



AQR-1 Series, 1Watt
NOTE
RECOMMENDED TEST AND APPLICATION CIRCUIT

EMC RECOMMENDED APPLICATION CIRCUIT

	5VDC	9VDC	12VDC	24VDC
F1			T0.5A/250V	
RT1			7D471K	
R1, R2			2Ω/3W(or NTC 10D-9)	
R3			1MΩ/2W	
L1			L=3-10mH,I=0.2-0.5A	
CX1, CX2			0.15-1μF/300Vac	
CY1, CY2			102K/400Vac	
C3			1μF/50V	
C4	220uF/16V	100uF/25V	100uF/25V	47uF/35V
Z1	P6KE6.8A	P6KE16A	P6KE16A	P6KE33A