

ASD-5 Series, 5Watt

FEATURES:

- ✓ Universal AC input/ Full range
- ✓ Typical Efficiency 75%
- ✓ Short circuit, over current protections
- ✓ Board in-line type installation
- ✓ High voltage isolation 4000Vac
- ✓ 100% burn-in test
- ✓ 3 year warranty



Model	Input voltage (Vac)	Output voltage (Vdc)	Output current (mA)	Efficiency Typ.
ASD5-3	85-264	3.3	1000	64%
ASD5-5		5	1000	69%
ASD5-9		9	550	73%
ASD5-12		12	420	75%
ASD5-15		15	330	76%
ASD5-24		24	210	78%

Note: other input and output models may available on request.

ELECTRICAL

Input						
Parameters	Symbols	Test Conditions / Comment	Min.	Typ.	Max.	Units
Input voltage	V_{in}	---	85	--	264	Vac
Input frequency	F_{line}	---	47	--	63	Hz
Input current	I_{in}	Full load, $V_{in} = 115Vac$	--	90	--	mA
		Full load, $V_{in} = 230Vac$	--	40	--	mA
Inrush current	I_{inrush}	Cold start, $V_{in} = 230Vac$	--	30	--	A
Efficiency	η	Full voltage, full load	--	75	--	%
Leakage current	$I_{leakage}$	$V_{in} = 230Vac$	--	--	1	mA

ASD-5 Series, 5Watt

ELECTRICAL

Output

Parameters	Symbols	Test Conditions / Comment	Min.	Typ.	Max.	Units
Output voltage accuracy	V_{out}	$V_{in}=100-240Vac$	--	2	--	%
Line regulation	$V_{out-line}$	V_{in} from 100Vac to 240Vac	--	1	--	%
Load regulation	$V_{out-load}$	20%-100% load	--	1	--	%
Set-up rise time	--	Full load, $V_{in}=115Vac$	--	50	--	ms
		Full load, $V_{in}=230Vac$	--	20	--	ms
Hold-up time	--	Full load, $V_{in}=115Vac$	--	15	--	ms
		Full load, $V_{in}=230Vac$	--	40	--	ms
Ripple	V_{ripple}	---	--	50	--	mV

Protection

Over current	Hiccup mode, it will auto-recovery after fault condition is removed					
Short circuit	Hiccup mode, it will auto-recovery after fault condition is removed					

Environment

Storage	$T_{storage}$	Humidity: 5% RH to 95% RH	-40	--	+85	°C
Ambient operating temperature	T_a	Startup at rated voltage (Please refer to derating curve)	-40	--	+70	°C
Operating relative humidity	H_a	Non condensing	10	--	90	%
MTBF	T_{MTBF}	Full load, 230Vac input, 25°C ambient temperature	--	--	200	kHrs
Dimension(LxWxH)	50.8 x 25.4 x 15.3mm					

Safety

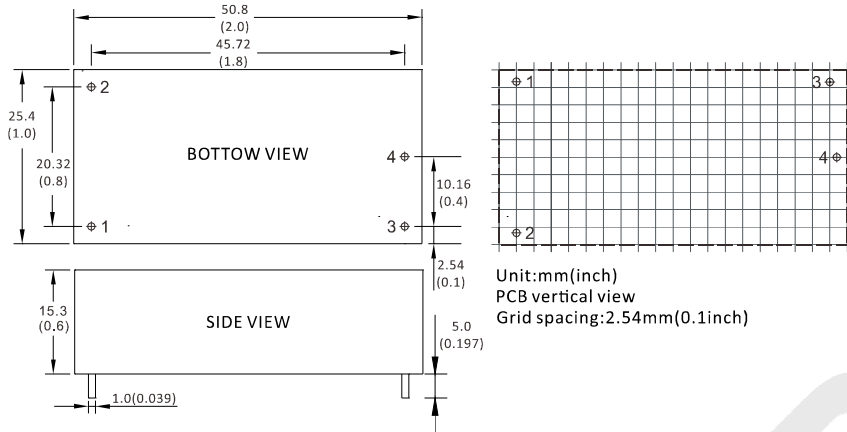
Safety standards	UL1012, EN60950, UL60950					
Withstand voltage	I/P-O/P:4KVac 2mA/1min					
Insulation Resistance	I/P-O/P: > 100M Ohms/500VDC/25°C/70%RH					
EMI / RFI conducted	EN55011, EN55022 (CISPR22)					

Notes: 1. Unless otherwise specified, all the above parameters are measured at ambient temperature of 25°C and input nominal voltage;

2. Ripple & Noise are measured at 20MHZ of bandwidth by using a 12" twisted pair-wire terminated with a 0.1µF & 47µF parallel capacitor.

ASD-5 Series, 5Watt

MECHANICAL



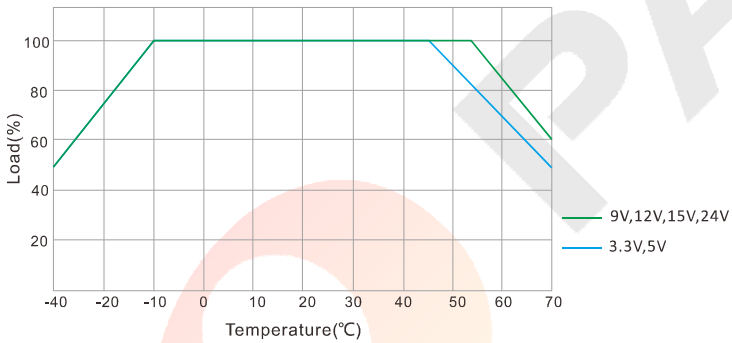
CONNECTION

PIN #	SINGLE
1	AC(N)
2	AC(L)
3	+Vo
4	-Vo

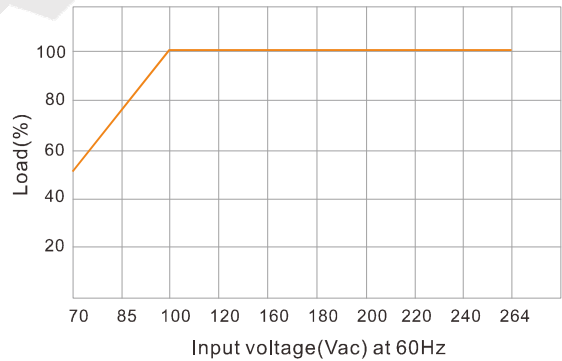
Note:
Unit is mm(inch).

ELECTRICAL CURVE

DERATING CURVE



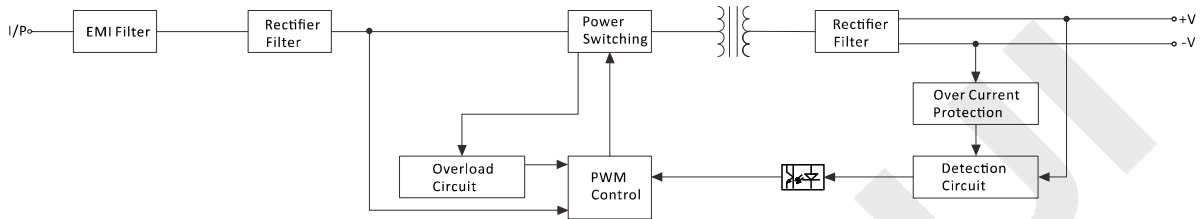
STATIC CHARACTERISTIC CURVE



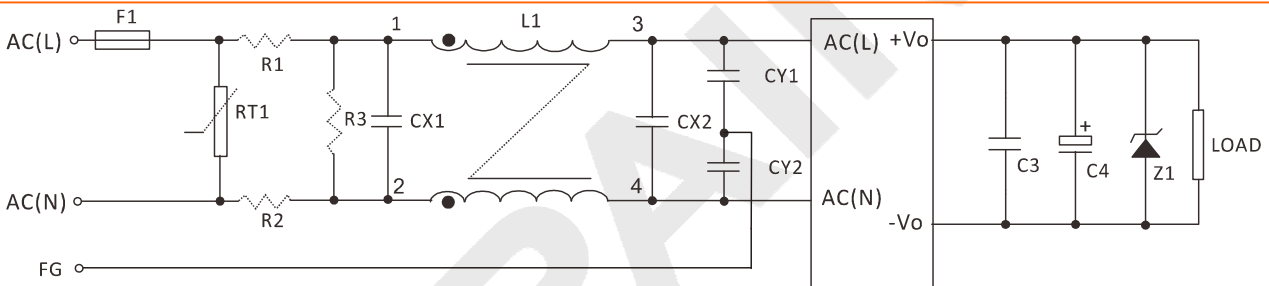
ASD-5 Series, 5Watt

NOTE

BLOCK DIAGRAM



RECOMMENDED TEST AND APPLICATION CIRCUIT



EMC RECOMMENDED APPLICATION CIRCUIT

	3.3VDC	5VDC	9VDC	12VDC	15VDC	24VDC
F1				T1A/250V		
RT1				7D471K		
R1, R2				2Ω/3W		
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	470uF/16V	470uF/16V	150uF/25V	120uF/25V	120uF/25V	100uF/35V
Z1	P6KE6.8A	P6KE6.8A	P6KE16A	P6KE16A	P6KE20A	P6KE33A