

**ATD-15 Series, 15Watt**
**FEATURES:**

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



Model	Input voltage (Vac)	Output voltage (Vdc)	Output current (mA)	Output power (W)	Efficiency (%)
ATD15-5	85-265	5	3000	15	78
ATD15-9		9	1666	15	80
ATD15-12		12	1250	15	83
ATD15-15		15	1000	15	84
ATD15-18		18	833	15	85
ATD15-24		24	625	15	86
ATD15-48		48	312	15	87

Notes: Other output models may available on request.

**ELECTRICAL**

Input						
Parameters	Symbols	Test Conditions / Comment	Min.	Typ.	Max.	Units
Input voltage	$V_{in}$	--	85	220	265	Vac
			120	310	380	Vdc
Input frequency	$F_{line}$	--	47	50	63	Hz
Input current	--	$V_{in}=115V_{ac}$		0.36		A
		$V_{in}=220V_{ac}$		0.21		A
Inrush current	--	$V_{in}=115V_{ac}$		10		A
		$V_{in}=220V_{ac}$		20		A
Leakage current	--	$V_{in}=230V_{ac}, 50Hz$		0.5		mA
Efficiency	$\eta$	Full voltage, full load	76	--	83	%

External fuse  
recommend

1A-2A/250VAC slow break

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**ELECTRICAL**
**Output**

Parameters	Symbols	Test Conditions / Comment	Min.	Typ.	Max.	Units
Output voltage accuracy	--	Full input voltage range	--	±1.0	±2.0	%
Line regulation	$V_{out-line}$	$V_{in}$ from 100Vac to 240Vac	--	--	±0.5	%
Load regulation	$V_{out-load}$	20%-100% load	--	--	±1.0	%
No load power consumption	--	--	--	--	0.1	W
Ripple	$V_{ripple}$	--	50	--	150	mV
Turn-on delay time	--	--	50	--	100	ms

**Protection**

Over current	≥150% $I_o$ , continuous automatic recovery					
Over voltage	Yes					
Short circuit	Continuous automatic recovery					

**Environment**

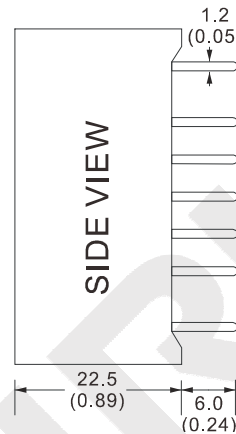
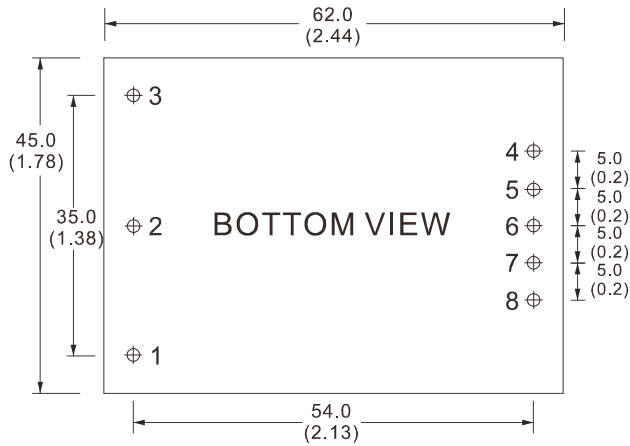
Storage	$T_{storage}$	Humidity: 5% RH to 95% RH	-40	--	+85	°C
Ambient operating temperature	$T_a$	--	-40	--	+75	°C
Operating relative humidity	$H_a$	Non condensing	10	--	90	%
MTBF	$T_{MTBF}$	--	300	--	--	kHrs

Dimension(LxWxH) 62.0x45.0x22.5mm

**Safety**

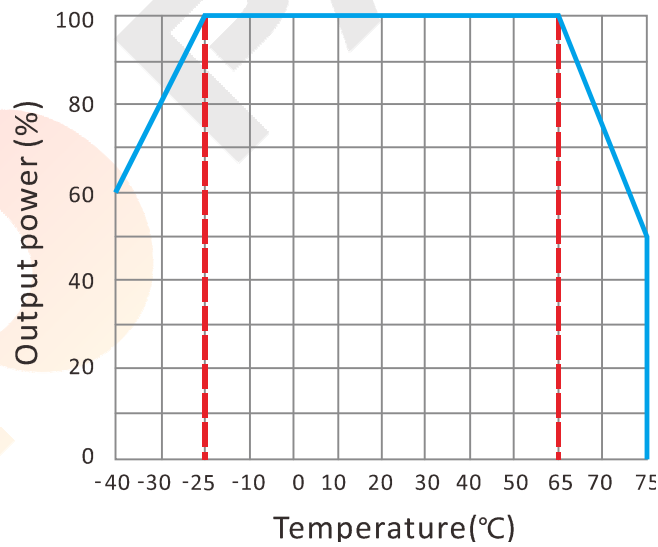
Isolation Voltage	Input-Output: 4000Vac≤1.5mA//1min					
Isolation resistance	Input-Output: 100MΩ@500Vdc					

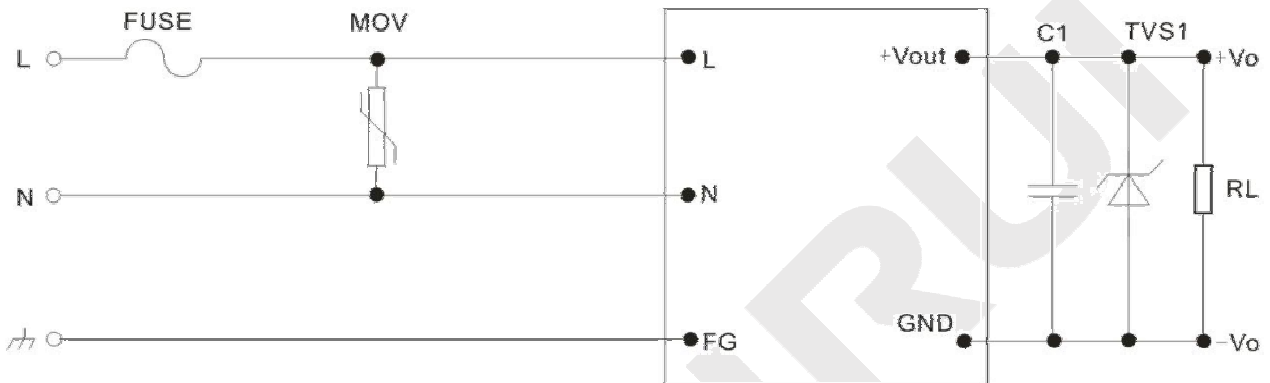
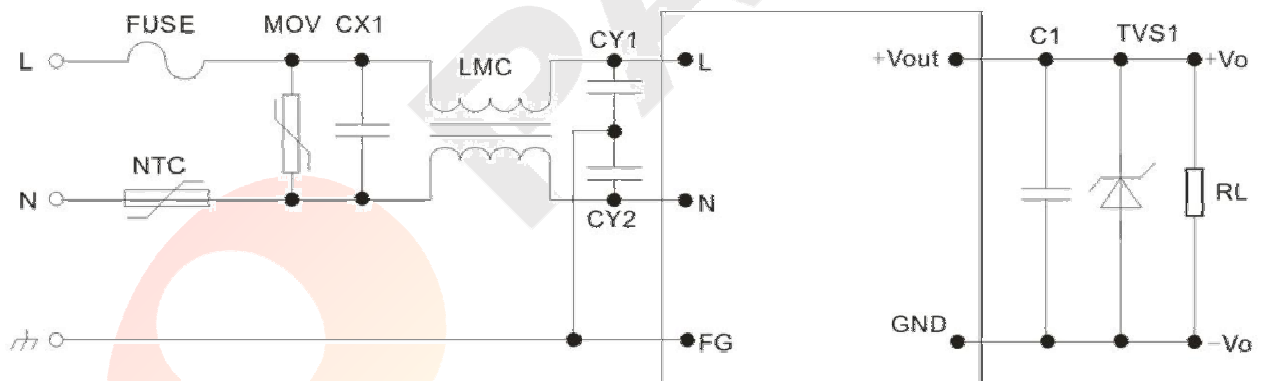
**Notes: Unless otherwise specified, all the above parameters are measured at ambient temperature of 25°C and  $V_{in}$  = 100Vac to 240Vac.**

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**MECHANICAL**

**CONNECTION**

PIN #	SINGLE
1	FG
2	AC(N)
3	AC(L)
4	+Vo
5	No Pin
6	No Pin
7	No Pin
8	-Vo

Note: Unit is mm(inch).

**ELECTRICAL CURVE**


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**NOTE**
**RECOMMENDED TEST AND APPLICATION CIRCUIT**

**RECOMMENDED TEST AND APPLICATION CIRCUIT for EMC**

**EMC RECOMMENDED APPLICATION CIRCUIT**

	5V	9V	12V	15V	24V
MOV			14D511K		
TVS1	SMBJ7.0A	SMBJ12A	SMBJ20A	SMBJ20A	SMBJ30A
CX1			0.1 $\mu$ F/275Vac		
FUSE			2A~250Vac, slow break		
CY1, CY2			100pF/400Vac		
NTC			5D-9		
LCM			Common mode choke, 15mH		