

AND-3 Series
FEATURES:

- ✓ Input voltage range 90-264Vac
- ✓ Short circuit, over current, and over voltage protections
- ✓ Board in-line type installation
- ✓ 100% burn-in test
- ✓ 3 year warranty
- ✓ RoHS compliant

Model	Input voltage (Vac)	Output voltage (Vdc)	Output current (mA)	Efficiency Typ.
AND3-3	90-264	3.3	600	64%
AND3-5		5	600	70%
AND3-9		9	330	74%
AND3-12		12	250	76%
AND3-15		15	200	77%
AND3-24		24	130	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}	--	90	--	264	Vac
			80		370	Vdc
Input frequency	F_{line}	--	47	--	440	Hz
Input current	I_{in}	Full load, $V_{in} = 115Vac$	--	75	--	mA
		Full load, $V_{in} = 230Vac$	--	47	--	mA
Inrush current	I_{inrush}	Cold start, $V_{in} = 230Vac$	--	30	--	A
Leakage current	$I_{leakage}$	$V_{in} = 265Vac/50Hz$	--	0.1	--	mA
External fuse recommend	--	T1A/250Vac(slow break)				

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Output

Parameters	Symbols	Test Conditions / Comment	Min.	Typ.	Max.	Units
Output voltage accuracy	V_{out}	$V_{in}=100-240Vac$	--	± 2.0	--	%
Line regulation	$V_{out-line}$	$V_{in}=100-240Vac$	--	± 1.0	--	%
Load regulation	$V_{out-load}$	20%-100% load	--	± 1.0	--	%
Ripple	V_{ripple}	--	--	50	--	mVp-p
Rise time	--	Full load, $V_{in} = 115Vac$	--	50	--	ms
		Full load, $V_{in} = 230Vac$	--	20	--	ms
Hold time	--	Full load, $V_{in} = 115Vac$	--	15	--	ms
		Full load, $V_{in} = 230Vac$	--	40	--	ms

Protection

Over current	Hiccup mode, it will auto-recovery after fault condition is removed					
Over voltage	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: 10% 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	--	85	%
MTBF	T_{MTBF}	MIL-HDBK-217F(25°C)	200	--	--	kHrs
Temperature coefficient	0.03%/(0~50°C)					
Vibration	10~500Hz, 2G 10min./cycle, 80 min. Each along X, Y, Z axes					
Dimension(LxWxH)	27.9x20.0x15.0mm					

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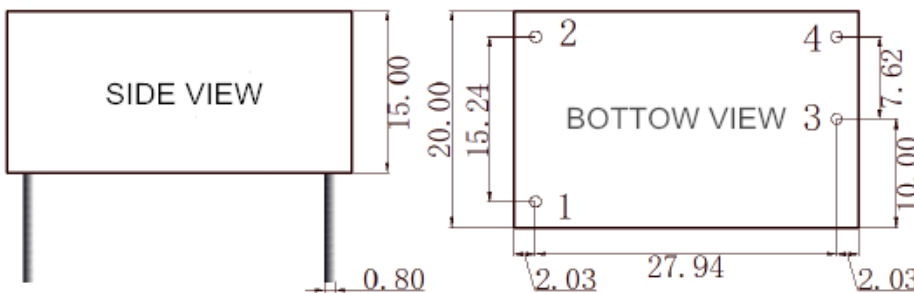
Safety&EMC

Safety standards	Design refer to EN60950, EN60601, UL60950
Isolation voltage	I/P-O/P: 3000Vac (AND3-24 is 1500Vac)
Isolation Resistance	I/P-O/P:>100M Ohms/500VDC/25°C/70%RH
EMI/EMC	Compliance to EN55011, EN55022(CISPR22) class B, EN61000-4-2, 3, 4, 5

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.

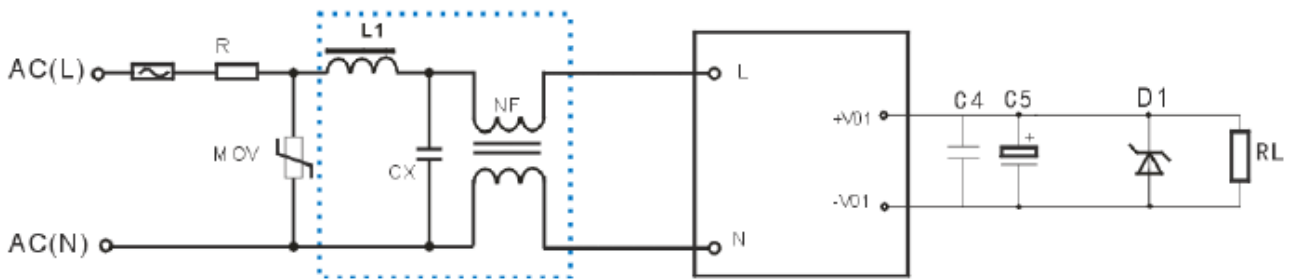
MECHANICAL



CONNECTION

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

Note: Unit is mm(inch).

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NOTE
APPLICATION CIRCUIT


P/N	FUSE	R	NF	MOV	CX	L1	C5	C4	D1
AND3-03							470uF/1 6V		P6KE6.8 A
AND3-05			Common mode choke				470uF/1 6V		P6KE6.8 A
AND3-09	10Ω/1W	Not Connect	30mH inductan ce, 0.2-0.5A current	14D471 K	104K/27 5V	1mH/0.5 A	150uF/1 6V	104K/50 V	P6KE16A
AND3-12							120uF/1 6V		P6KE16A
AND3-15							120uF/2 5V		P6KE20A
AND3-24							100uF/3 5V		P6KE33A