

10Watt, Single Output, AC/DC Power Module Converter

FEATURES:

Universal Input 90~264VAC

High Efficiency Up To 85%

Protection: Short Circuit /Over load

Fully Encapsulated Plastic Case

Internal Input Filter

ROHS Compliant



AS10220 - F S XX

A B C D

A:Series 10 Watt

B:Case

C:Single (S) Dual (D)

Specifications typical at TA=25°C, nominal input voltage and rated output current unless otherwise specified

Part Number	Output Wattage	Output Voltage	Output Current	Ripple & Noise	Efficiency
	(W)	(VDC)	(mA)	(mV) max(Note)	(TYP %)
AS10220- FS03	6.6	3.3	2000	150	72
AS10220- FS05	10.0	5	2000	150	75
AS10220- FS10	10.0	10	1000	150	80
AS10220- FS12	12.0	12	1000	150	82
AS10220- FS15	12.0	15	800	150	82
AS10220- FS24	12.0	24	500	150	85
AS10220- FS36	12.0	36	330	240	85
AS10220- FS48	12.0	48	250	240	85

Input Specifications

Parameters	Conditions		Min	Typ	Max	Units
Rated Input Voltage	Vo,lo nom			100~240		Vac
Voltage Range	Vo,lo nom	AC in	90		264	Vac
		DC in	120		370	Vdc
Line frequency	Vi nom,lo nom		47	50/60	63	Hz
Inrush Current	Io nom	Vi:115VAC			10	A
		Vi:230VAC			20	A
Input Fuse	VDE/UL/CCC FUSE 2.5A/250V (Slow blow)					

Output Specifications

Parameters	Conditions		Min	Typ	Max	Units
Output Voltage Accuracy	Vi nom,lo nom	3.3....5V Models			±3	%
		10....48V Models			±2	%
Minimum Load	Vi nom		0			%
Line Regulation	Io nom,Vi min...Vi max			±0.2		%
Load Regulation	Vi nom, Io min...Io nom	3.3V Models		±1.0		%
		5....48V Models		±0.5		%
Transient Recovery time	Vi nom,Io nom = ↔ 0.5 Io nom			1,000		uS
Protection	Over load		Above 110% rated output power			
			Protection type: Recovers automatically after fault condition is removed			
	Short circuit		Recovers automatically after fault condition is removed			

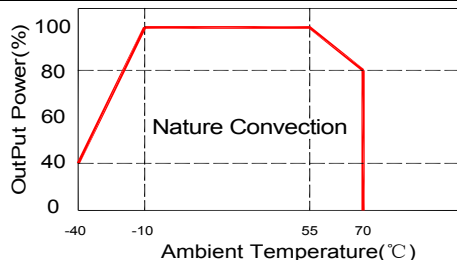
Note . Ripple & noise is measured by using 20 MHz bandwidth, measured with a 47uf paralleled with a high-frequency 0.47uf capacitor across each output by full load.

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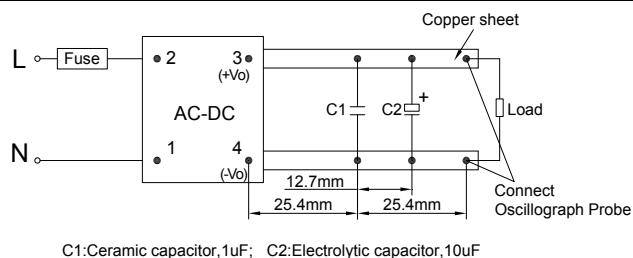
General Specifications

Parameters	Conditions	Min	Typ	Max	Units
Switching Frequency	Vi nom, Io nom		65		KHz
Isolation Voltage	Input / Output	4KVac/ 5mA/5Secs			
Isolation Resistance	Input / Output, 500 Vdc	100			MΩ
Operating Temperature	Refer to Temperature Derating Graph	-40		+70	°C
Storage Temperature	Non Operational	-40		+105	°C
Relative Humidity	Vi nom, Io nom			95	% RH
Safety Standards	Design refer to UL60950-1, IEC60950-1				
EMI Conduction & Radiation	EN55022, CLASS B (See Fig. 1 for recommended circuit)				
EMS Immunity	EN61000 (See Fig. 1 for recommended circuit)				
Dimension	L50.8 x W25.4 x H23.5 mm				
Cooling	Free air convection				

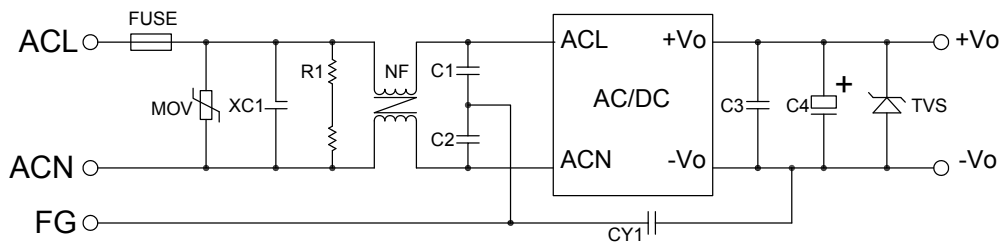
Temperature Derating Graph



Parallel Lines Measure



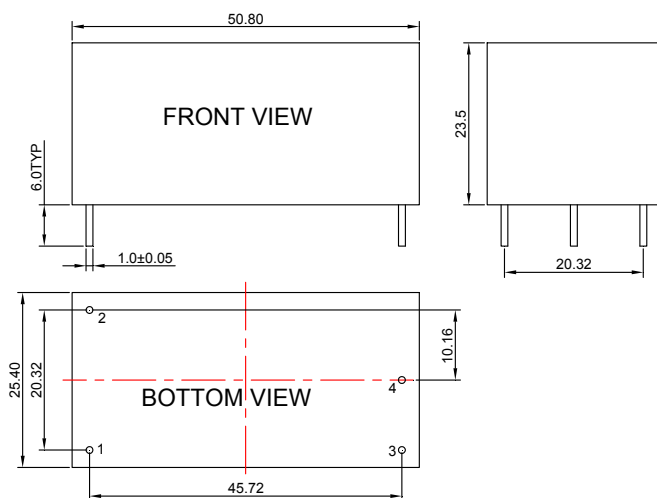
EMC solution-recommended circuit



NOTE:
MOV: 14D-561K
XC1: 0.47uF/275V, X2
R1/R2: 750K, 1206
NF: UU9.8, 20mH
C1/C2: 2200pF/250V, Y2

Fig. 1

Markings and dimensions



PIN	Model
1	ACN
2	ACL
3	+Vo
4	-Vo

Unit:mm Unless otherwise specified, all tolerances are ± 0.50