


DESCRIPTION :
50W 1.5KVAC Isolation Wide Input AC/DC Converters

The rated output power of TP50AW converters is 50W with wide input voltage range, for both AC input and DC input application. High reliability, precision, large power density, ultra-small size, stable output voltage and etc, with 1500V isolation voltage, short circuit, overload, internal thermal protection, Widely used in telecommunications, industrial control, instrument, data acquisition, signal control and other electronic systems.

FEATURES

Universal input voltage range	Both for AC and DC input voltage	Wide input voltage:2:1 and 4:1
RoHS compliant	Operating temperature: -25°C to 70°C	/
Short circuit protection	/	/

SELECTION GUIDE

Part Number	Input Voltage		Output		Efficiency (Typ.) %	Capacitive ability(uF)
	Rated	Range values	Voltage (VDC)	Current (A)		
	(VAC)					
TP40AW220S05	220(2:1)	165-265	5.1	8	77	10000
TP50AW220S05	220(2:1)	165-265	5	10	78	10000
TP50AW220S12	220(2:1)	165-265	12	4	81	1000
TP50AW220S15	220(2:1)	165-265	15	3.3	83	1000
TP50AW220S24	220(2:1)	165-265	24	2	83	470
TP50AW220S48	220(2:1)	165-265	48	1	82	470
TP50AW220S05W	220(4:1)	85-265	5	10	78	10000
TP50AW220S12W	220(4:1)	85-265	12	4	81	1000
TP50AW220S15W	220(4:1)	85-265	15	3.3	83	1000
TP50AW220S24W	220(4:1)	85-265	24	2	83	470
TP50AW220S48W	220(4:1)	85-265	48	1	82	470

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

GENERAL CHARACTERISTICS

Parameter	Conditions	Min.	Typ.	Max.	Units
Isolation voltage	Input / Output		1500		VAC
Isolation voltage	Input / case		1500		VAC
Isolation voltage	Output / case		500		VAC
MTBF(Mil HDBK217F, Tc=25°C)	3×10 ⁵				
Case material	Six-side metal shield				
Safety standard	CSA/NRTL/IEC/EN 60950-1,				

INPUT CHARACTERISTICS

Parameter	Conditions	Min.	Typ.	Max.	Units
Startup voltage	220VAC In module(165V-265V)	165	220	265	VAC
Startup voltage	220VAC In module(85V-265V)	85	220	265	VAC
Start rising time	Non-capacitive load	20			ms

OUTPUT CHARACTERISTICS

Parameter	Conditions	Min.	Typ.	Max.	Units
Voltage accuracy				±1	%
Voltage regulation			±0.2		%
Load regulation			±0.5		%
Dynamic Response	(overshoot/recovery time)			±4%Vo/400us	
Ripple and noise		Vo≤5Vdc: 50, Vo≥48Vdc: 200, Others: 100			
Short-circuit protection		Auto-recovery			

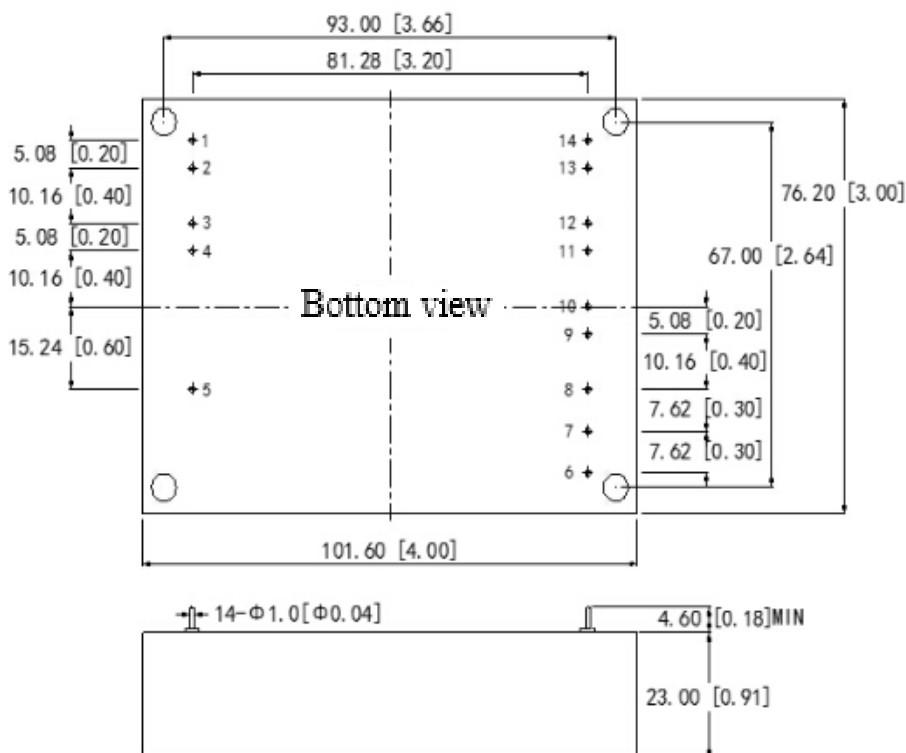
ENVIRONMENT CHARACTERISTICS

Parameter	Conditions	Min.	Typ.	Max.	Units
Operating temperature	industrial-class	-40		+70	°C
Maximum case temperature	industrial-class	-25		+85	°C
Storage temperature	Industry-class	-40		+95	°C
Relative humidity	No condensation	5		90	RH(%)
Temperature coefficient			±0.02		%/°C

Case temperature shall not exceed the maximum case temperature

MECHANICAL DIMENSIONS

DIP Package



unit: mm tolerance of PIN diameter: ±0.10MM Unmarked tolerances: ±0.50MM

PIN CONNECTIONS

Pin	Single output
1	L
2	L
3	N
4	N
5	FG
6	-S
7	TRIM
8	+S
9	NC
10	NC
11	-Vo
12	-Vo
13	+Vo
14	+Vo

MODEL SELECTION

