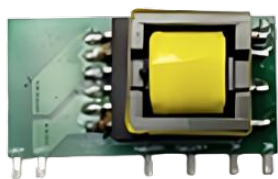


ACSW10W-xxV



FEATURES

- Input voltage range: 85 - 528VAC (100~745VDC)
- Working temperature range: -40°C To +85°C
- 4000VAC High isolation voltage
- Output short circuit, overcurrent protection
- 3 years warranty

DESCRIPTION

The ACSW10W-xxV series is an efficient modular power supply for miniaturized bare boards, with advantages such as dual use of AC and DC, wide input voltage range, high reliability, low power consumption, and safe isolation. Widely applicable to industrial control, power instruments, smart homes, and other occasions that require strict volume requirements and low EMC requirements. If it is necessary to apply in harsh electromagnetic compatibility environments, EMC peripheral circuits must be added.

MODEL NUMBERING

ACSW10W-xxV

Series Name Wide Input Output Voltage Output Power

SELECTION GUIDE

Product Model	Output power (W)	Output Voltage (Vo)(V)	Output Current (Io)(mA)	Efficiency (230VAC, %/Typ.)	Max.Capacitive Load(μF)
ACSW10W-03V	6.6	3.3	2000	70	1500
ACSW10W-05V	10	5	2000	77	1500
ACSW10W-09V	10	9	1100	80	1000
ACSW10W-12V	10	12	830	82	680
ACSW10W-15V	10	15	670	82	470
ACSW10W-24V	10	24	420	83	330

AC - DC CONVERTERS

10 WATTS

INPUT

Parameter	Conditions	Min.	Typ.	Max.	Units
Input Voltage	AC Input	85	--	528	VAC
	DC Input	100	--	745	VDC
Input voltage certification range	AC Input	100	--	480	VDC
Input voltage frequency	AC Input	47	--	63	Hz
Input Current	115VAC	--	--	0.30	A
	230VAC	--	--	0.15	A
	380VAC	--	--	0.10	A
Inrush current	115VAC	--	15	--	A
	230VAC	--	30	--	A
	480VDC	--	50	--	A
Leakage Current	480VAC/50Hz	0.5mA RMS Max			
Input fuse	External suggested (500V, 2A)				

Remarks: This product does not support hot plug

OUTPUT

Parameter	Conditions	Min.	Typ.	Max.	Units
Output voltage accuracy	10% -100% load	--	±4	±6	%
Linear regulation rate	Rated load	--	±1.5	±2	%
Load regulation rate	10% to 100% load	--	±3	--	%
Minimum load		10	--	--	%
Standby power	230VAC input	--	--	0.30	W
	380VAC input	--	--	0.50	W
Ripple & Noise	20MHz bandwidth (peak to peak)	--	100	180	MV
Temperature drift coefficient		--	±0.2	--	%/°C
Power-off hold time	115VAC input	--	8	--	ms
	230VAC input	--	35	--	ms
	380VAC input	--	80	--	ms
Short circuit protection	Hiccup type, capable of long-term short circuit and self recovery				
Overcurrent protection	≥110% I/O, self-recovery				

Note: The testing method for ripple and noise is parallel line testing, and a 100uF electrolytic capacitor and a 0.1uF ceramic capacitor need to be connected in parallel at the output end

GENERAL CHARACTERISTICS

Parameter	Conditions	Min.	Typ.	Max.	Units
Isolation voltage	Input-Output, Test time 1 minute, Leakage current less than 5mA	4000	--	--	VAC
Insulation resistance	Input-Output, Test voltage: 500VDC.	50	--	--	MΩ
Working temperature		-40	--	+85	°C
Storage temperature		-40	--	+105	°C
Storage humidity		--	--	95	%RH
Solder temperature	Wave soldering welding	260 ± 5°C ; Time : 5 - 10s			
	Hand Soldering	360 ± 10°C ; Time : 3 - 5s			
Switching frequency		--	--	65	KHz
Output power derating	+50°C to +85°C	1.72	--	--	%/°C
	-40°C to -25°C	1.33	--	--	%/°C
	85VAC - 100VAC	1.33	--	--	%/VAC
	480AVC - 528VAC	0.42	--	--	%/VAC
Standard for Safety	Adopted BS EN/EN62368-1 (Report); Comply with IEC/EN62477-1, EN61010-1				
Mean Time Between Failures 【MTBF】	MIL-HDBK-217F@25°C >500,000 h	500	--	--	kHours
Safety standards	CLASS II	--			

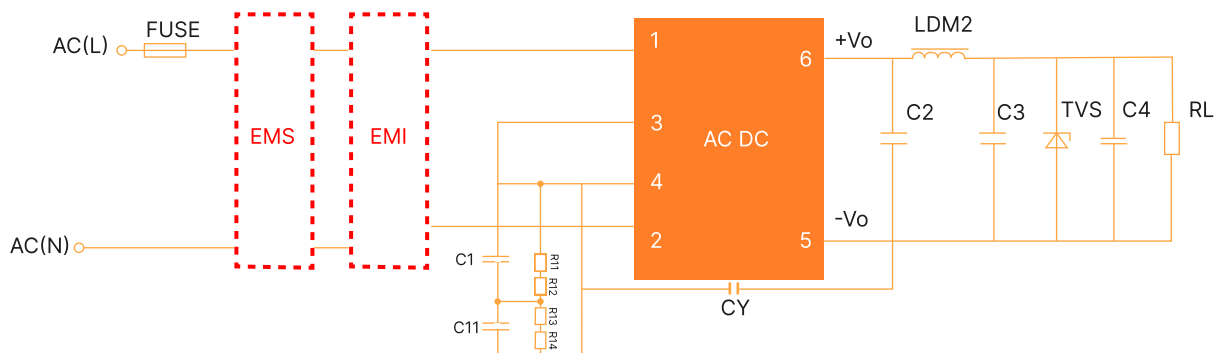
PHYSICAL CHARACTERISTICS

Parameter	Contents
Housing material	None (bare board)
Overall dimensions	38.00 × 20.00× 15.25 (L*W*H)
Weight	10g (Typ.)
Cooling mode	Natural air cooling

SAFETY & EMC

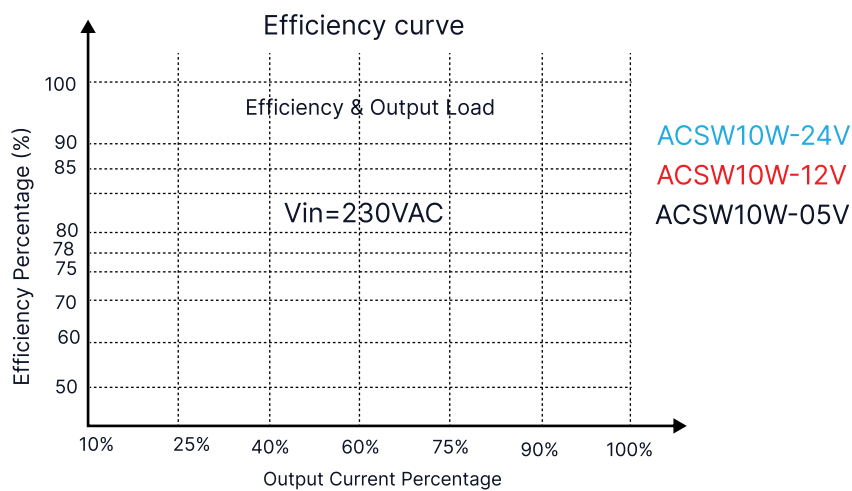
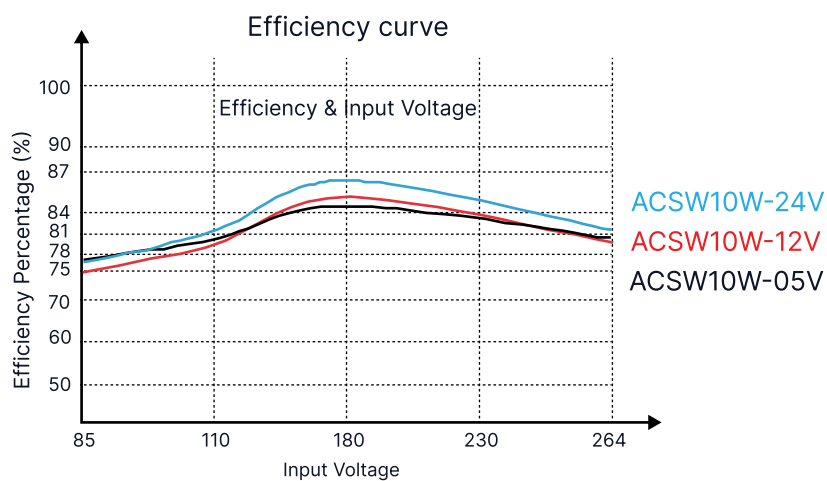
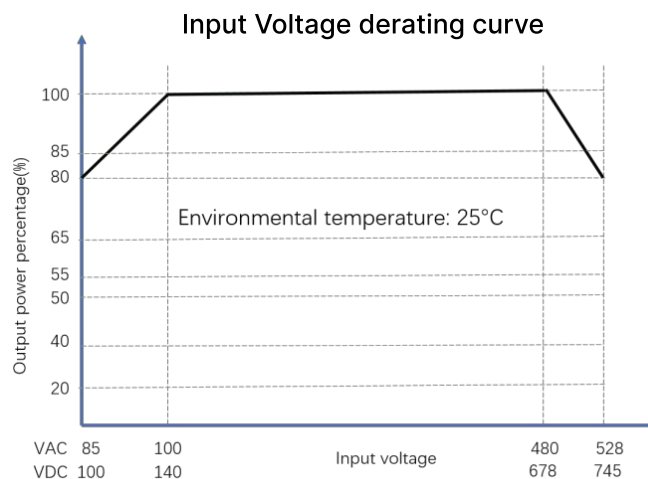
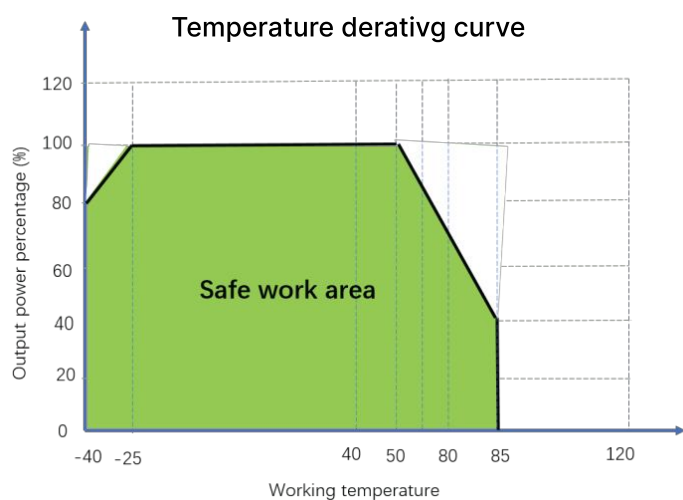
Parameter	Category	Content		
EMI	Conductive disturbance	CISPR32 EN55032	150kHz—30MHz, CLASS A	
		CISPR32 EN55032	150kHz—30MHz, CLASS B	
	Radiation disturbance	CISPR32 EN55032	30MHz—1GHz, CLASS A	
		CISPR32 EN55032	30MHz—1GHz, CLASS B*	
EMS	Electrostatic discharge	IEC/EN61000-4-2	Contact $\pm 6\text{KV}$ /Air $\pm 8\text{KV}$	Perf. Criteria A
	Radiated immunity	IEC/EN61000-4-3	80MHz – 1GHz 10V/m	Perf. Criteria A
	EFT	IEC/EN61000-4-4	$\pm 4\text{KV}$, (5 or 100)kHz	Perf. Criteria A
	Surge immunity	EC/EN61000-4-5	line to line $\pm 2\text{KV}$ /line to PE $\pm 4\text{KV}$	Perf. Criteria A
		IEC/EN61000-4-5	line to line $\pm 4\text{KV}$ /line to PE $\pm 6\text{KV}$	Perf. Criteria A
	Conducted disturbance immunity	IEC/EN61000-4-6	0.15MHz-80MHz 10Vr.m.s	Perf. Criteria A
	Voltage dip	IEC/EN61000-4-11	0%, 70%	Perf. Criteria A
	Voltage Interruption	IEC/EN61000-4-11	0% of 230Vac, 0Vac, 5000ms	Perf. Criteria B

TYPICAL APPLICATION CIRCUIT



Product Model	C1,C11 (Must)	R11/R12/ R13/ R14 (Must)	C2 (Must)	L1 (Must)	C3 (Must)	C4	CY1 (Must)	TVS
ACSW10W-03V	47uF/ 400 V	1MΩ/1206 / (1/4W)	1500uF/ 6.3V	2.2uH/ 15mΩ Max/6.5A	680uF/25V	0.1uF/50V	1nF/ 400VAC	SMBJ7.0A
ACSW10W-05V			820uF/ 16V		330uF/25V			SMBJ7.0A
ACSW10W-09V			470uF/ 16V		1000uF/16V			SMBJ12A
ACSW10W-12V			470uF/ 16V		330uF/25V			SMBJ20A
ACSW10W-15V			470uF/ 25V		100uF/ 35V			SMBJ20A
ACSW10W-24V			470uF/ 35V					SMBJ30A

PRODUCT CHARACTERISTIC CURVE



OVERALL DIMENSIONS AND PIN FUNCTIONS

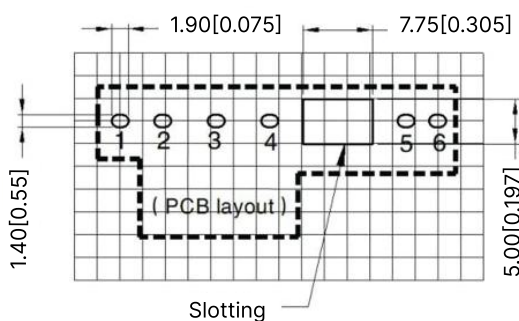
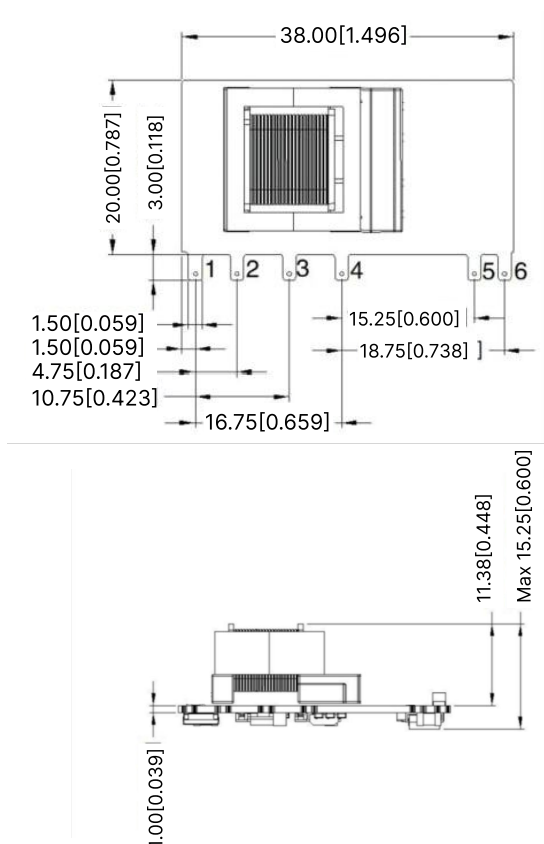


Table 3: Pin Function Table

Pin	Function
1	AC(L)
2	AC(N)
3	+V(cap)
4	-V(cap)
5	-Vo
6	+Vo

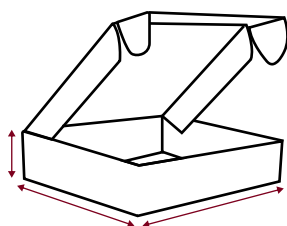
Note:

Dimensions in mm

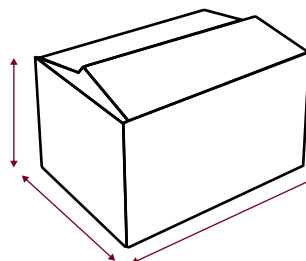
Terminal diameter tolerance: ± 0.10 [± 0.004]

Undeclared tolerance: ± 0.50 [± 0.020]

PACKAGING METHOD



160 Pieces/Inner box



800 Pieces/Outer box

NOTES & INSTRUCTIONS

1. The input voltage shall not exceed the specified range value, otherwise permanent and unrecoverable damage may be caused
2. Unless otherwise specified, the parameters in this manual are measured at 25°C, 40%~75% humidity, input nominal voltage and output pure resistance mode under full load
3. All index test methods are based on the company's enterprise standards.
4. The copyright and the final interpretation right of the product belong to HENXV.