

- Universal 85-264VAC or 120-370VDC input voltage
- Accepts AC or DC input (dual-use of same terminal)
- Operating ambient temperature range -40°C to +70°C
- High I/O isolation voltage up to 4000VAC
- Industrial-grade design
- OVC III (EN61558-1 standards)
- Low standby power consumption, high efficiency
- Low ripple & noise
- Output short circuit, over-current, over-voltage protection
- Withstand 300VAC surge input for 5s
- DIN rail TS35X7.5/ TS35X15 mountable

ASDT30-20XXP



RoHS 3-Year Warranty

Description

ASDT30-20XXP offer a high level of stability and immunity to noise, compliant with international IEC62368 standards for EMC and safety sepeciftions meet IEC/EN61000-4, CISPR32, EN55032, UL62368, IEC62368 and EN62368. These light weight AC-DC converters also have an extremely compact design for space saving and are ideal for applications such as industrial control equipment machinery and all kinds of applications in a harsh environment.

Selection Guide

Certification	Part No.	Output Power (W)	Nominal Output Voltage and Current (Vo/Io)	Output Voltage Adjustable Range ADJ(V)*	Efficiency at 230VAC (%) Typ.	Capacitive Load (μF) Max.
/	ASDT30-2005P	15	5V/3A	4.9-5.5	82	12000
	ASDT30-2012P	24	12V/2A	10.8-13.8	88	6000
	ASDT30-2015P	30	15V/2A	13.5-18.0	89	5000
	ASDT30-2024P	36	24V/1.5A	21.6-29.0	88	1400
	ASDT30-2048P	36	48V/0.75A	43.2-55.2	90	600

Note: *The actual adjustment range may extend outside the values stated, care should be exercised to ensure that the output voltage and power levels remain within the published maximum values.

Input Specifications

Item	Operating Conditions	Min.	Typ.	Max.	Unit	
Input Voltage Range	AC input	85	--	264	VAC	
	DC input	120	--	370	VDC	
Input Frequency		47	--	63	Hz	
Input Current	115VAC	--	--	0.9	A	
	230VAC	--	--	0.5		
Inrush Current	115VAC	--	25	--		
	230VAC	--	45	--		
Leakage Current	264VAC	0.25mA RMS max.				
Hot Plug		Unavailable				

Output Specifications

Item	Operating Conditions		Min.	Typ.	Max.	Unit
Output Voltage Accuracy	0% - 100% load		--	±2	--	%
Line Regulation	Rated load		--	±0.5	--	
Load Regulation	230VAC		--	±1.5	--	
Output Ripple & Noise*	20MHz bandwidth (peak-to-peak value)	5V output	--	--	80	mV
		12V output	--	--	120	
		15V output	--	--	120	
		24V output	--	--	150	
		48V output	--	--	240	
Temperature Coefficient			--	±0.02	--	%/°C
Short Circuit Protection		Hiccup, continuous, self-recovery				
Over-current Protection		≥120 % Io, self-recovery				
Over-voltage Protection	5V output	≤7.5V	Output voltage clamp or hiccup			
	12V output	≤16V				
	15V output	≤20V				
	24V output	≤36V				
	48V output	≤60V				
Minimum Load			0	--	--	%
Start-up Time			--	--	3	s
Hold-up Time	115VAC		--	12	--	ms
	230VAC		--	60	--	

Note: *The "parallel cable" method is used for ripple and noise test, please refer to AC-DC Converter Application Notes for specific information.

General Specifications

Item		Operating Conditions		Min.	Typ.	Max.	Unit
Isolation	Input - output	Electric Strength Test for 1min., (leakage current<5mA)		4000	--	--	VAC
Operating Temperature				-40	--	+70	°C
Storage Temperature				-40	--	+85	
Storage Humidity				--	--	95	%RH
Operating Altitude				--	--	2000	m
Switching Frequency				--	65	--	kHz
Power Derating		-40°C to -30°C	5V/48V output	3.0	--	--	% / °C
			12V/15V output	7.0	--	--	
			24V output	5.0	--	--	
		+50°C to +70°C		2.5	--	--	% / °C
		85VAC - 100VAC		1.0	--	--	
Safety Standard				UL/IEC62368-1, IS13252 (Part1) safety approved & EN62368-1, EN61558-1/-2-16, BS EN 62368-1 (Report);			
Safety Class				CLASS II			
MTBF		MIL-HDBK-217F@25°C		> 300,000 h			

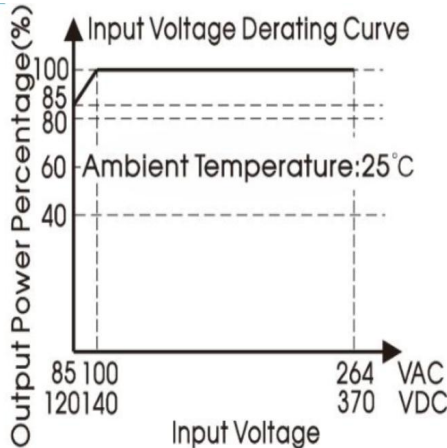
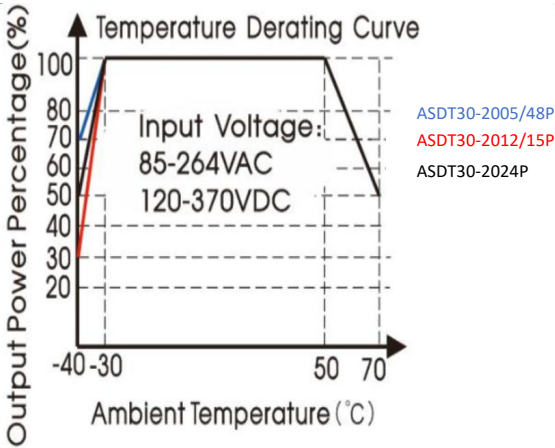
Mechanical Specifications

Case Material	Plastic, heat-resistant (UL94V-0)
Package Dimensions	92.66 x 35.00 x 58.00 mm
Weight	115g (Typ.)
Cooling Method	Free air convection

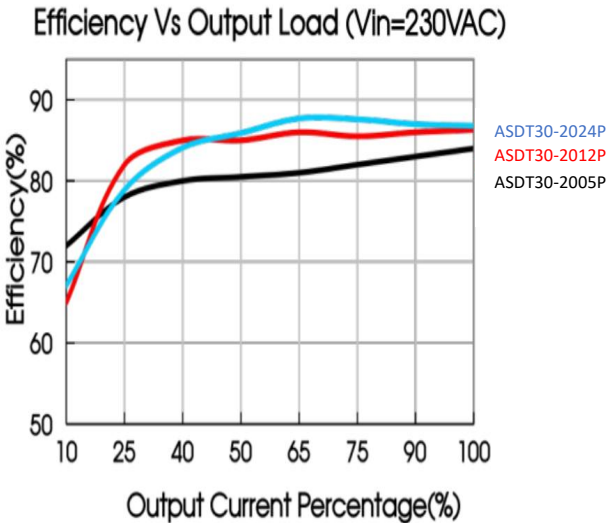
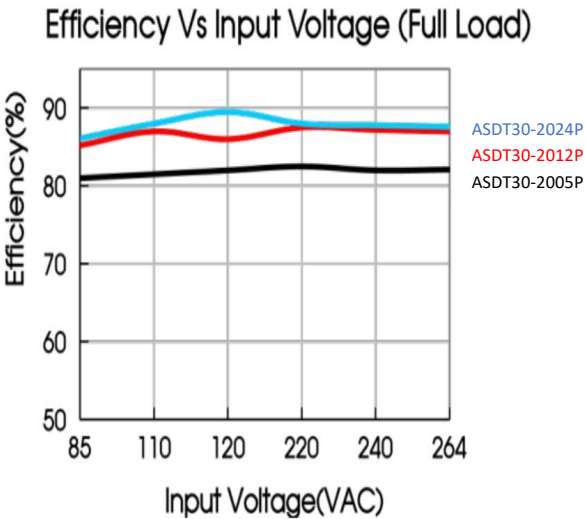
EMC Specifications

Emissions	CE	CISPR32/EN55032 CLASS B
	RE	CISPR32/EN55032 CLASS B
Immunity	ESD	IEC/EN61000-4-2 Contact ±6KV/Air ±8KV Perf. Criteria A
	RS	IEC/EN61000-4-3 10V/m Perf. Criteria A
	EFT	IEC/EN61000-4-4 ±2KV Perf. Criteria A
	Surge	IEC/EN61000-4-5 line to line ±2KV Perf. Criteria A
	CS	IEC/EN61000-4-6 10Vr.m.s Perf. Criteria A
	Voltage dips, short interruptions and voltage variations immunity	IEC/EN61000-4-11 100% dip 1 periods, 30% dip 25 periods, 100% interruptions 250 periods

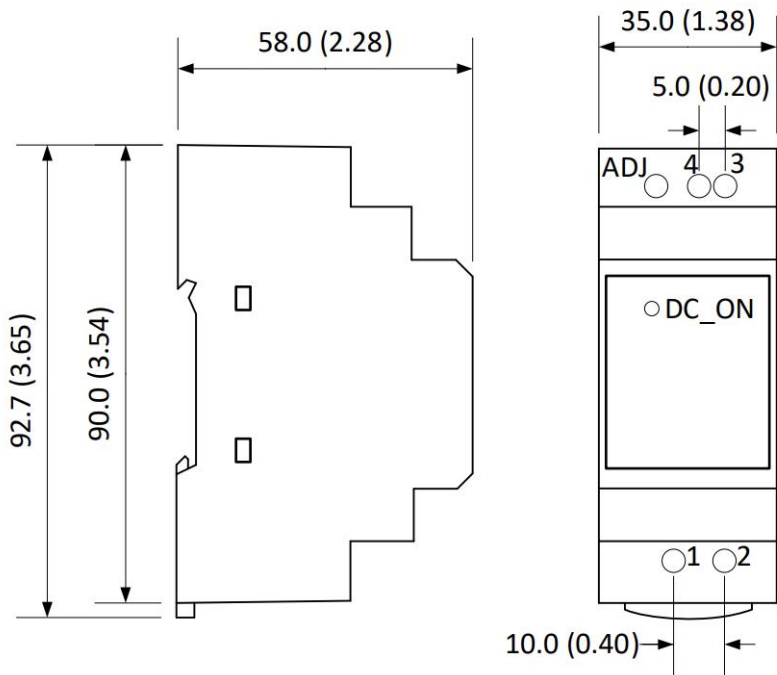
Product Characteristic Curves



Note: ① With an AC input between 85-100VAC and a DC input between 120-140VDC, the output power must be derated as per temperature derating curves;



Dimensions and Recommended Layout



Pin Output Specifications	
Pin	Function
1	Input (N)
2	Input (L)
3	-V Output
4	+V Output
ADJ	Voltage adjustment

Note:
Unit: mm (inch)
General tolerance: ± 1.0 (0.04)
Wire gauge: 24 – 12AWG
Tightening torque: 0.4N·m Max.
Mounting rail: TS35

- Note:
- 1. Unless otherwise specified, parameters in this datasheet were measured under the conditions of $T_a=25^{\circ}\text{C}$, humidity<75% with nominal input voltage and rated output load;
 - 2. All index testing methods in this datasheet are based on our company corporate standards;
 - 3. We can provide product customization service, please contact our technicians directly for specific information;
 - 4. Specifications are subject to change without prior notice.
 - 5. Products are related to laws and regulations: see "Features" and "EMC";