ADL30-2B-xx Series

DESCRIPTION

30W, AC-DC DIN-Rail Power Supply



RoHS

Report Report

UL62368-1 EN62368-1 BS EN62368-1

FEATURES

- Universal 85-264VAC or 120-370VDC input voltage
- Accepts AC or DC input (dual-use of same terminal)
- Operating ambient temperature range -40℃ to +70℃
- High I/O isolation voltage up to 4000VAC
- Industrial-grade design
- OVC III (design refer to EN61558-1: 2005)
- 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

APPLICATIONS

- Industrial control
- Power
- Intelligent building
- Smart home
- Pub

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 (UF) MAX.
EN/BS EN	ADL30-2B-05	15	5V/3A	4.9-5.5	82	12000
UL/EN/ BS EN	ADL30-2B-12	24	12V/2A	10.8-13.8	88	6000
EN/BS EN	ADL30-2B-15	30	15V/2A	13.5-18.0	89	5000
UL/EN/ BS EN	ADL30-2B-24	36	24V/1.5A	21.6-29.0	88	1400
EN/BS EN	ADL30-2B-48	36	48V/0.75A	43.2-55.2	90	600

Note: 1.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.
2.The product picture is for reference only.For details, please refer to the actual product.

Specifications

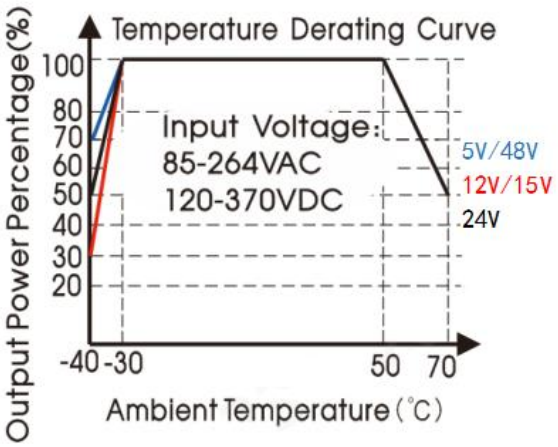
Product characteristics	Item	Operating Conditions		Min.	Typ.	Max.	Unit
Input Specifications	Input Voltage Range	AC input		85	--	264	VAC
		DC input		120	--	370	VDC
	Input Frequency			47	--	63	Hz
	Input Current	115VAC		--	--	0.9	A
		230VAC		--	--	0.5	
	Inrush Current	115VAC		--	25	--	
		230VAC		--	45	--	
	Contact leakage current	264VAC		0.25mA RMS max.			
	Hot Plug			Unavailable			
Output Specifications	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	--	%/℃
	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			

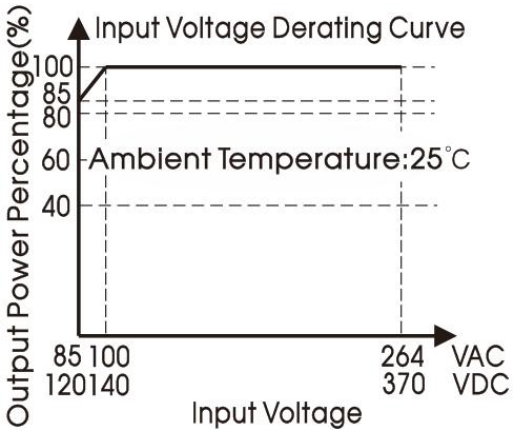
			15V output	≤20V			
			24V output	≤36V			
			48V output	≤60V			
	Minimum Load			0	--	--	%
	Start-up Time			--	--	3	s
	Hold-up Time		115VAC	--	12	--	ms
General Specifications	Isolation	Input - output	Electric Strength Test for 1min., (leakage current < 5mA)	4000	--	--	VAC
	Operating Temperature			-40	--	+70	℃
	Storage Temperature			-40	--	+85	
	Storage Humidity			--	--	95	%RH
	Operating Altitude			--	--	2000	m
	Switching Frequency			--	65	--	kHz
	Power Derating		-40℃ to -30℃	5V/48V output	3.0	--	--	%/℃
				12V/15V output	7.0	--	--	
				24V output	5.0	--	--	
			+50℃ to +70℃		2.5	--	--	
			85VAC - 100VAC		1.0	--	--	%/VAC
	Safety Class				CLASS I I			
	MTBF		MIL-HDBK-217F@25℃		> 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				
Note: *The "parallel cable" method is used for ripple and noise test.							

Electromagnetic Compatibility (EMC)

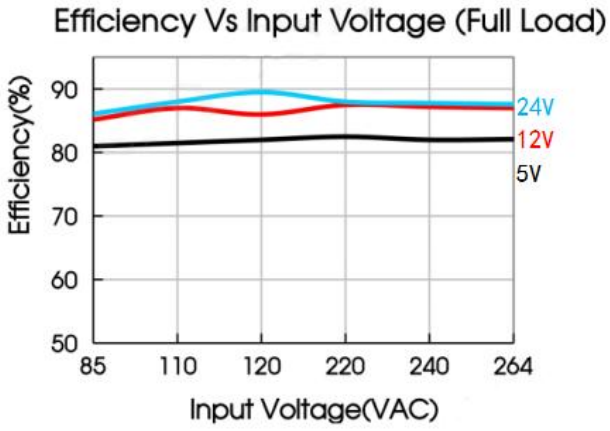
Electromagnetic Compatibility (EMC)	Emissions	CE	CISPR32/EN55032 CLASS B	
		RE	CISPR32/EN55032 CLASS B	
	Immunity	ESD	IEC/EN61000-4-2 Contact ±6KV/Air ±8KV	Perf. Criteria A
		RS	IEC/EN61000-4-3 10V/m	Perf. Criteria A
		EFT	IEC/EN61000-4-4 ±2KV	Perf. Criteria A
		Surge	IEC/EN61000-4-5 line to line ±2KV	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	Perf. Criteria A

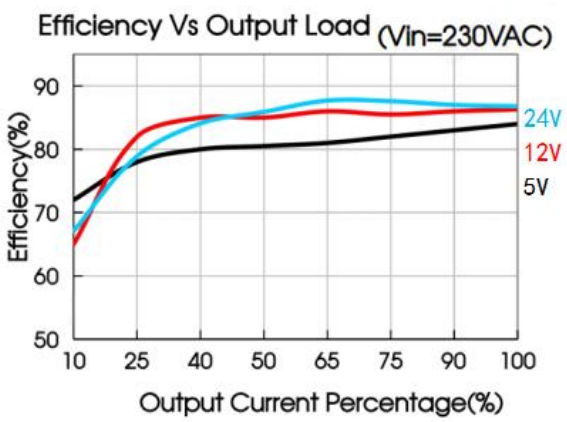
Product Characteristic Curve





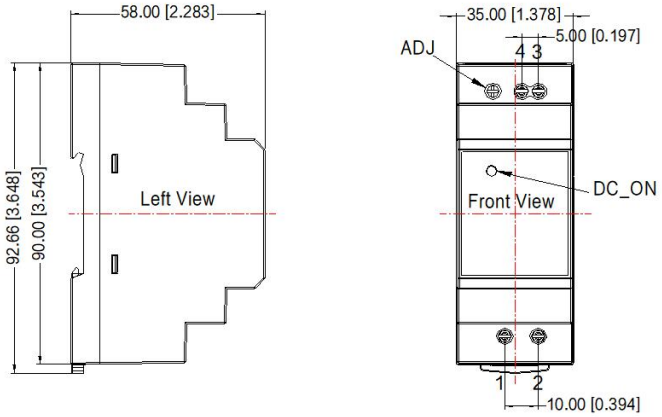
Note: ① With an AC input between 85-100VAC and a DC input between 120-140VDC, the output power must be derated as per temperature derating curves;
② This product is suitable for applications using natural air cooling.





Dimensions and Recommended Layout

THIRD ANGLE PROJECTION



Pin-Out	
Pin	Mark
1	AC(N)
2	AC(L)
3	-Vo
4	+Vo

Note:
Unit: mm[inch]
ADJ：adjustable resistance to change output voltage
Wire range: 24-12 AWG
Tightening torque: Max 0.4 N・m
Mounting rail: TS35
General tolerances: ± 1.00[± 0.039]

Note:

1.Unless otherwise specified, parameters in this datasheet were measured under the conditions of Ta=25℃, 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";

6.Our products shall be classified according to ISO14001 and related environmental laws and regulations, and shall be handled by qualified units.

7.The image certification marks are for reference only; please refer to the selection table for actual specifications. Certification is based on the physical mark or packaging label.