

DESCRIPTIONS

100W, AC/DC DIN-Rail Power Supply



CE Report UK Report
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°C to +70°C
- 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
- Safety according to EN61558

APPLICATIONS

- Industrial control equipment
machinery

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.
EN/BS EN	ADL100-2B-12	90	12V/7.5A	12.0 - 13.8	88	10000
	ADL100-2B-15	97.5	15V/6.5A	13.5 - 18.0	89	6400
	ADL100-2B-24	100.8	24V/4.2A	21.6 - 29.0	90	2500
	ADL100-2B-48	100.8	48V/2.1A	43.2 - 55.2	90	1100

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 Specifications	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		--	--	3	A
			230VAC		--	--	1.6	
	Inrush Current		115VAC		--	35	--	
			230VAC		--	70	--	
	Leakage Current		240VAC/50Hz		0.5mA RMS Max.			
Hot Plug				Unavailable				
Output Specifications	Output Voltage		0% - 100% load		--	±2	--	%
	Line Regulation		Rated load		--	±0.5	--	
	Load Regulation		230VAC		--	±1.5	--	
	Output Ripple & Noise*		20MHz bandwidth (peak-to-peak value)	12V output	--	--	120	mV
				15V output	--	--	120	
				24V output	--	--	150	
				48V output	--	--	240	
	Temperature Coefficient				--	±0.03	--	%/°C
	Stand-by Power Consumption		230VAC input	12V/15V output	--	--	0.30	W
				24V output	--	--	0.35	
				48V output	--	--	0.40	
	Short Circuit Protection				Hiccup, continuous, self-recovery			
	Over-current Protection				110% - 200% Io, self-recovery			
	Over-voltage Protection		12V output		≤20V			
			15V output		≤25V			
			24V output		≤35V			
			48V output		≤60V			
	Minimum Load				0	--	--	%
	Start-up Time				--	--	3	s
	Hold-up Time		230VAC		--	30	--	ms
	General Specifications	Isolation	Input - output	Electric Strength Test for 1min., leakage current < 5mA		4000	--	--
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	12V/48V output	3.0	--	--	% / °C	
			24V output	7.0	--	--		
			15V output	8.0	--	--		

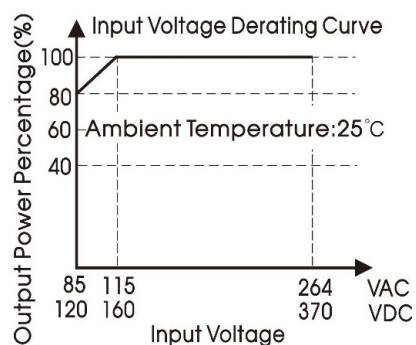
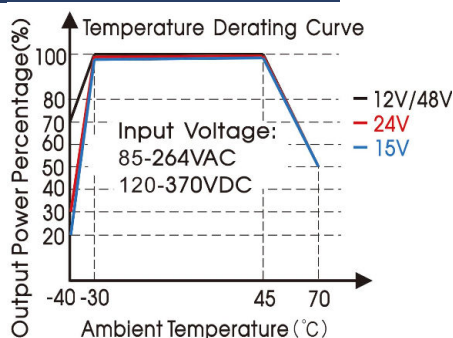
General Specifications	Power Derating	+45°C to +70°C	2.0	--	--	%/°C
		85VAC - 115VAC	0.67	--	--	%/VAC
	Safety Class		CLASS II			
	MTBF		MIL-HDBK-217F@25°C > 300,000 h			
Mechanical Specifications	Case Material	Plastic, heat-resistant (UL94V-0)				
	Package Dimensions	70.00 x 92.66 x 58.00 mm				
	Weight	235g (Typ.)				
	Cooling Method	Free air convection				
Note: * The “Tip and barrel method” is used for ripple and noise test.						

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Electromagnetic Compatibility (EMC)

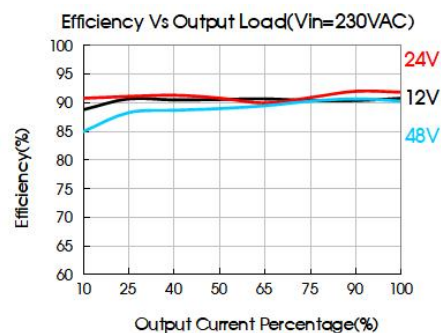
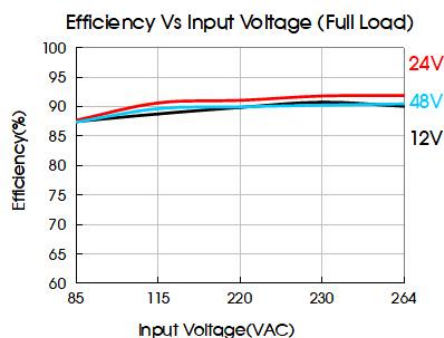
Electromagnetic Compatibility (EMC)	Emissions	CE	CISPR32/EN55032	CLASS B	
		RE	CISPR32/EN55032	CLASS B	
	Immunity	ESD	IEC/EN61000-4-2	Contact ±6KV/Air ±8KV	Perf. Criteria A
		RS	IEC/EN61000-4-3	10V/m	Perf. Criteria A
		EFT	IEC/EN61000-4-4	±4KV	Perf. Criteria A
		Surge	IEC/EN61000-4-5	line to line ±2KV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



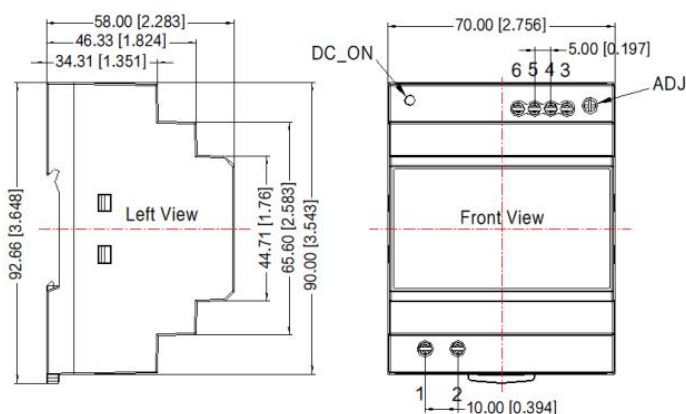
Note: ① With an AC input between 85-115VAC and a DC input between 120-160VDC, the output power must be derated as per temperature derating curves;

② This product is suitable for applications using natural air cooling.



Dimensions and Recommended Layout

THIRD ANGLE PROJECTION



Pin-Out	
Pin	Mark
1	AC(L)
2	AC(N)
3	+Vo
4	+Vo
5	-Vo
6	-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: $\pm 1.00 [\pm 0.039]$

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