

Product Specification

AC-DC ITE Power Module

Key Product Features

- Ultra Compact Size: 2.53" x 1.78"
- Universal Input Range 90-305VAC, 47-440Hz
- I/O Isolation 4000VAC
- Operating Ambient Temperature Range -40°C to +85°C
- No Load Power Consumption <0.1W
- High Efficiency up to 88%
- Screw Terminal Optional
- EMC Compliant w/o External Components
- Safety Approval UL / IEC/EN62368-1
- Meets IEC/EN60335-1 & IEC/EN61558-2-16

DPATCH30 Series 30 Watt



Electrical Specification

Input

Model No. (Single Output)	DPATCH30-5.1S	DPATCH30-12S	DPATCH30-15S	DPATCH30-24S
Max. Output Wattage	23.46W	30W	30W	30W
Voltage	90-305VAC or 120-430VDC			
Frequency (Hz)	47-440 Hz			
Current (Full Load)	600mA max. (115VAC)/ 400mA max. (230VAC)			
Inrush Current (<2ms)	30A max. (115 VAC)/ 60A max. (230 VAC)			
Leakage Current	0.25 mA max. (230VAC)			

Output

	5.1V	12V	15V	24V
Voltage (VDC)	5.1V	12V	15V	24V
Voltage Accuracy	±2%			
Current (mA) max	4600	2500	2000	1250
Line Regulation (LL-HL) (typ.)	±1%			
Load Regulation (0-100%) (typ.)	±3%	±2%		
Minimum Load	0%			
Maximum Capacitive Load	6800uF	1600uF	1200uF	470uF
Ripple & Noise	120mV max (Vp-p)	150mV max (Vp-p)	150mV max (Vp-p)	240mV max (Vp-p)
Efficiency (at 230VAC)	84%	88%	87%	86%
Hold-up Time (typ.)	36ms (at 230VAC)			

NOTES: All specifications valid at normal input voltage, full load and +25° C after warm-up time unless otherwise stated.

Protection

Over Power Protection	Hiccup technique, auto-recovery
Over Voltage Protection	Zener diode clamp
Short Circuit Protection	Hiccup mode, indefinite (automatic recovery)

Isolation

Input-Output (VAC)	4000V
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Environment

Operating Temperature	-40°C...+85°C (with derating)
Storage Temperature	-40°C...+85°C
Temperature Coefficient	±0.02%/°C
Humidity	95% RH
MTBF	>400,000 h @ 25°C (MIL-HDBK-217F)
Vibration	IEC60068-2-27 (10~500Hz, 2G 10min/1cycle, 60min each along X, Y, Z axes)
Shock	IEC60068-2-6

Physical

Dimension (L x W x H)	2.53 x 1.78 x 0.85 inches (64.3 x 45.1 x 21.7 mm) Tolerance ±0.5 mm
Case Material	Plastic resin (flammability to UL 94V-0)
Weight	106 g
Cooling Method	Free air convection

Safety

Agency Approvals	UL / IEC/EN62368-1
Standards Met	IEC/EN60335-1, IEC/EN61558-2-16

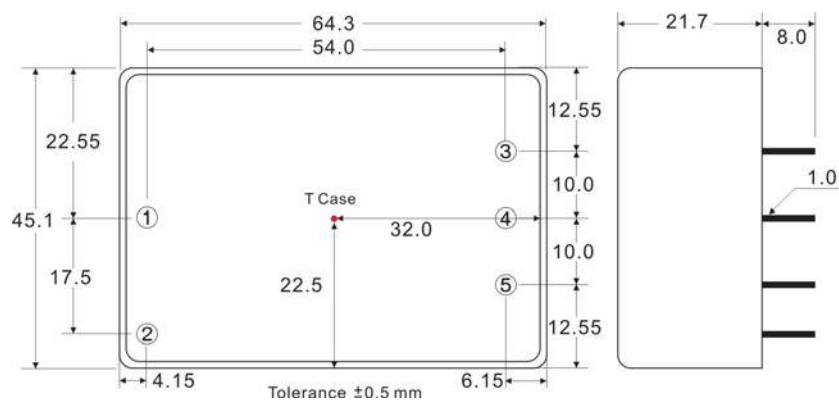
EMC

EMI (Conducted & Radiated Emission)	EN55032 class B
EMS (Noise Immunity)	EN55035

NOTES:

1. Ripple & Noise are measured at 20MHz of bandwidth with 0.1uF & 47uF parallel capacitor.

Mechanical Outline (Top View)

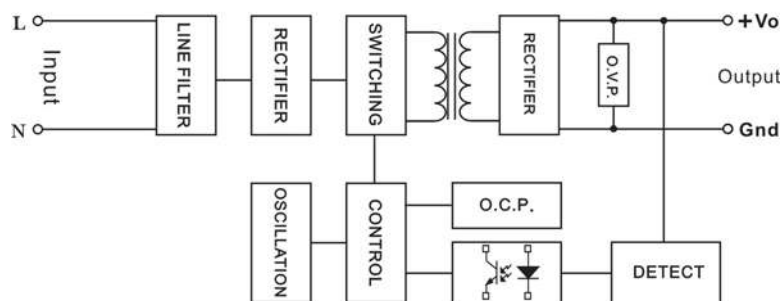


Outline Pin Assignment

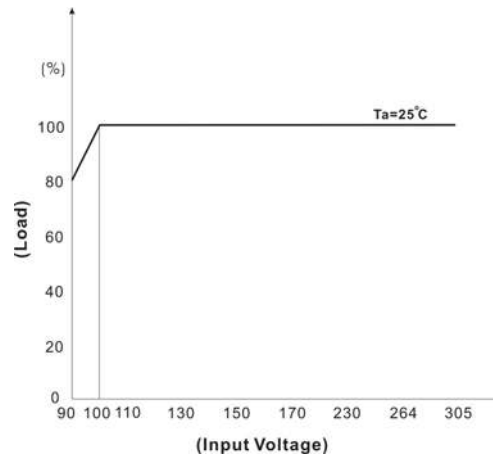
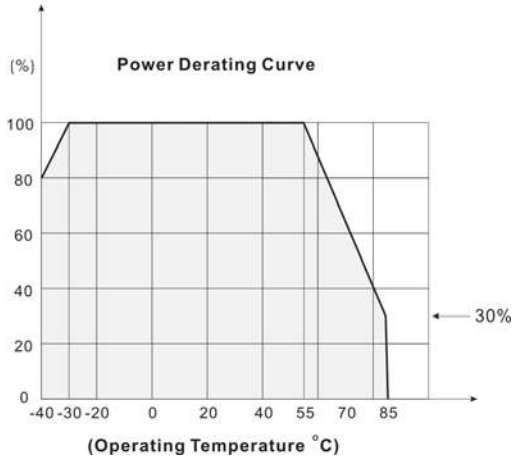
PIN#	Single
1	AC IN (N)
2	AC IN (L)
3	-DC OUT
4	NO PIN
5	+DC OUT

Block Diagram

Single Output

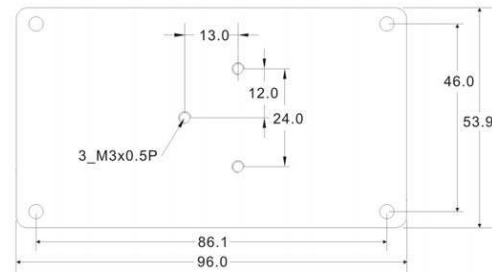
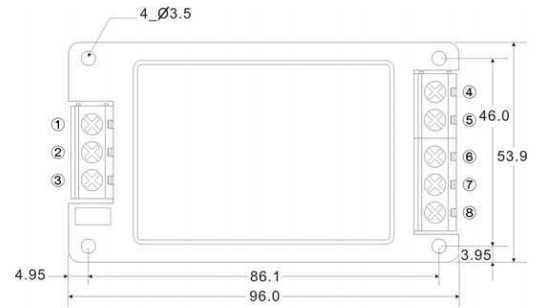


Power Derating Curve



Screw terminal

DPATCH30-A2



Outline Pin Assignmet

PIN#	Single
1	NO CONNECT
2	AC IN (N)
3	AC IN (L)
4	NO CONNECT
5	-DC OUT
6	NO CONNECT
7	+DC OUT
8	NO CONNECT