

KEY FEATURES

- Switching Power Module for PCB Mountable
- Fully Encapsulated Plastic Case
- Universal Input Range 90-305VAC
- High Efficiency up to 89%
- Isolation Class II
- <0.3W No Load Input Power
- Very Small 2.52" x 1.8" x 0.93 " Package
- CE, CB and UL Approval
- 3-Year Product Warranty



ELECTRICAL SPECIFICATIONS

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

Model No. (Single Output)	DPATC30-3.3S	DPATC30-5S	DPATC30-12S	DPATC30-15S	DPATC30-24S
Max Output Wattage (W)	16.5W	25W	30W	30W	30W
Input	Voltage (Note1) 90-305 VAC or 120-430 VDC				
	Frequency (Hz) 50 / 60 Hz				
	Current (Full load) 600 mA max. (115 VAC) / 400 mA max. (230 VAC)				
	Inrush Current (<2ms) 30 A max. (115 VAC) / 60 A max. (230 VAC)				
	Leakage Current 0.25 mA max.				
	No Load Input Power (<240 VAC) <0.3W				
	External Fuse (recommended) 3.15 A slow blow type				
Output	3.3V	5V	12V	15V	24V
	Voltage Accuracy ±2%				
	5000	5000	2500	2000	1250
	Line Regulation (LL-HL) (typ.) ±0.5%				
	±1.5%		±1%		
	Minimum Load 0%				
	6800 uF	6800 uF	1600 uF	1200 uF	470 uF
	100mVp-p	100mVp-p	150mVp-p	150mVp-p	240mVp-p
	80%	84%	89%	86%	86%
	Hold-up Time 10 ms min.				
Switching Frequency (typ.) (at 230 VAC) 66 kHz					
Protection	Over Power Protection Hiccup technique, auto-recovery				
	Over Voltage Protection Zener diode clamp				
	Short Circuit Protection Hiccup mode (automatic recovery)				
Isolation	Input-Output (V.AC) 3000V				
	Input-FG (V.AC) 1500V				
	Output-FG (V.AC) 500V				
Environment	Operating Temperature -40°C...+70°C (with derating)				
	Storage Temperature -40°C...+85°C				
	Max Case Operating Temperature Under 115 VAC 78°C , others 85°C				
	Temperature Coefficient ±0.02%/°C				
	Humidity 95% RH				
MTBF >400,000 h @ 25°C (MIL-HDBK-217F)					
Physical	Dimensions (L x W x H) 2.52 x 1.8 x 0.93 Inches (64.1 x 45.6 x 23.5 mm) Tolerance ±0.5 mm, Height Tolerance ±1 mm				
	Case Material Plastic resin (flammability to UL 94V-0)				
	Weight 130 g				
	Cooling Method Free air convection				

ELECTRICAL SPECIFICATIONS

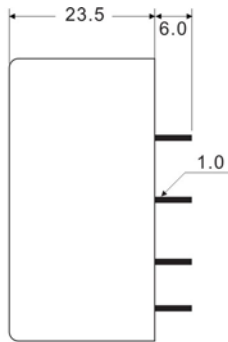
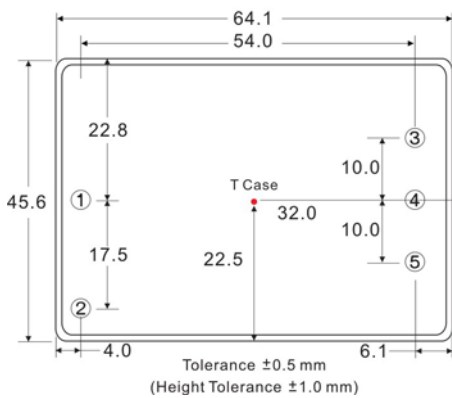
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Safety	Agency Approvals	IEC / EN 60950, UL / IEC / EN 62368-1				
EMC	EMI (Conducted & Radiated Emission)	EN 55032 class B				
	EMS (Noise Immunity)	EN 55024				
	ESD	EN61000-4-2 air ± 8kV , Contact ± 4kV (A)				
	Radiated Immunity	EN61000-4-3 3V/m (A)				
	Fast Transient	EN61000-4-4 ± 1kV (A)				
	Surge	EN61000-4-5 ±1kV (A)				
	Conducted Immunity	EN61000-4-6 3Vrms (A)				
	PFMF	EN61000-4-8 1A/m (A)				
	Dips	EN61000-4-11 30% 500ms (A)				

NOTE

1. Please check the derating curve for more details.
2. Ripple & Noise are measured at 20MHz of bandwidth with 0.1uF & 47uF parallel capacitor.
3. It's recommended Varistor 14S561K at L / N input side in parallel.

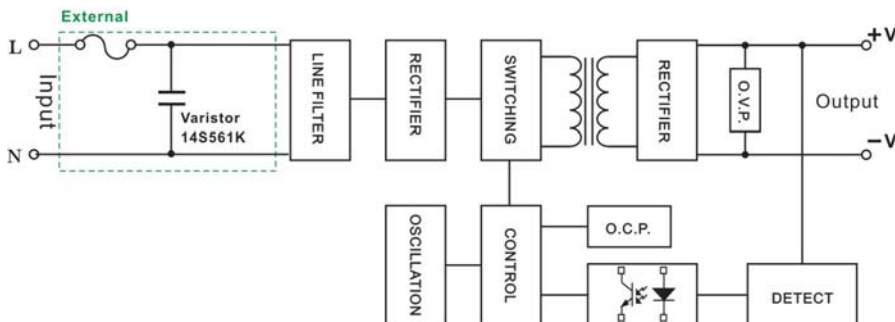
MECHANICAL DIMENSIONS (Top View)



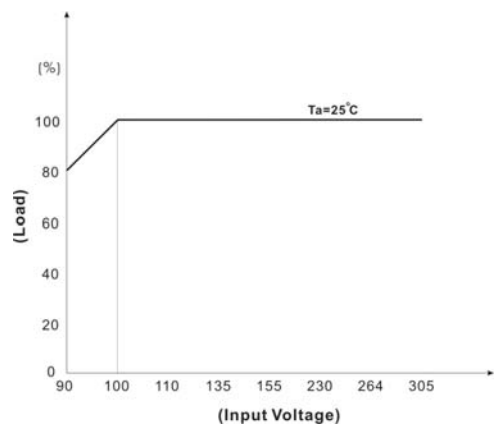
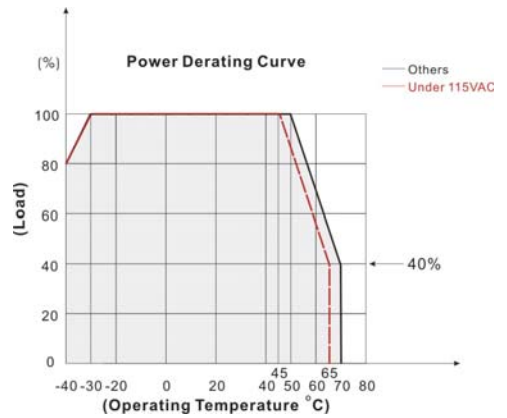
PIN#	Single
1	AC IN (N)
2	AC IN (L)
3	-DC OUT
4	NO PIN
5	+DC OUT

BLOCK DIAGRAM

Single Output



DERATING



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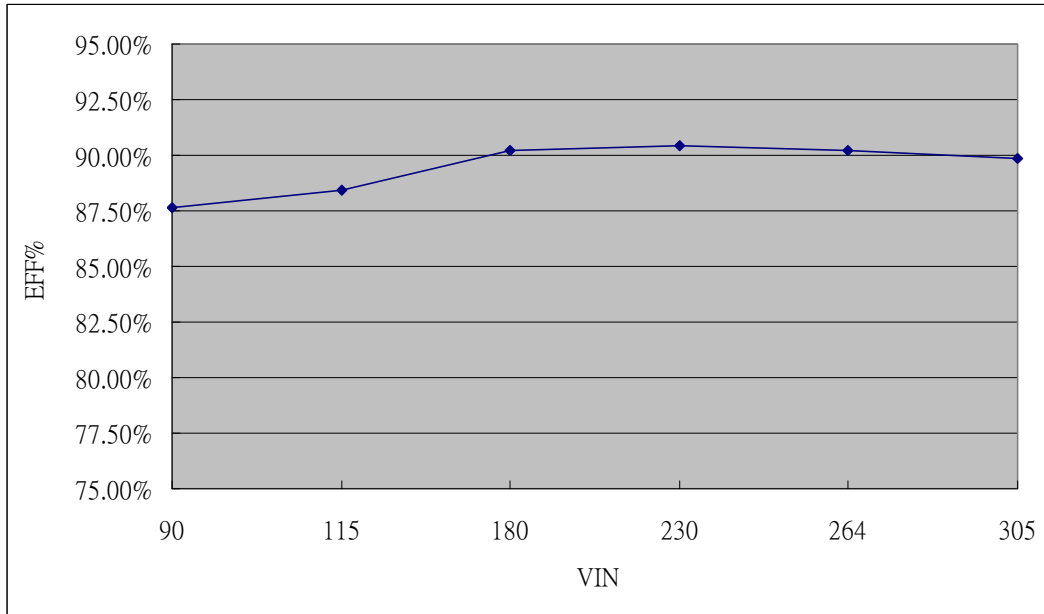
Digital Power Corporation designs and manufactures full custom, value-added, and standard comprehensive power solutions for the most demanding applications in the defense, healthcare, telecom, and industrial markets.

EFFICIENCY VERSUS LOAD

DPATC30-12S

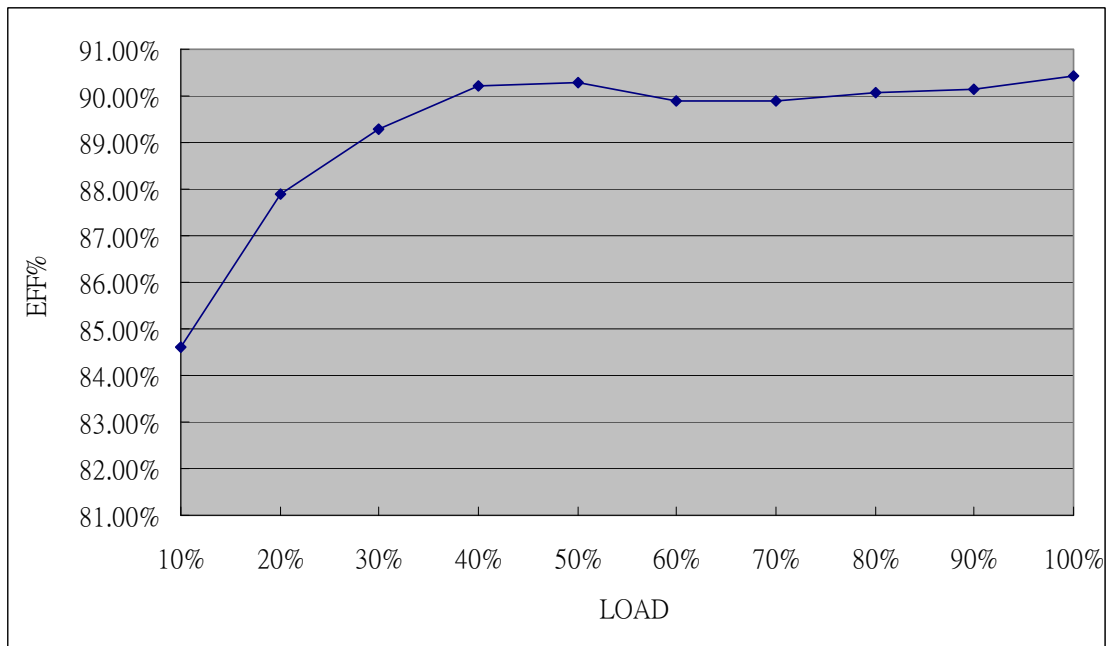
VIN VS Efficiency

Input Voltage (V)	90	115	180	230	264	305
Efficiency (%)	87.6	88.4	90.2	90.4	90.2	89.9



LOAD VS Efficiency

Load (%)	10	20	30	40	50	60	70	80	90	100
230V (%)	84.6	87.9	89.3	90.2	90.3	89.9	89.9	90.1	90.1	90.4



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