140W PD power adapter

PD140-2C1A

■ Features

- Support PD 3.0/3.1, with EPR mode, output 5V 9V 12V 15V 20V 24V 28V, 140W max.
- Support PPS & EPR AVS Mode, adjustable output from 3.3V ~ 28V
- World Wide AC input power line 90-264Vac
- Active PFC circuits, PF >0.95
- Two fast charge ports USB-type C and One standard port USB-type A
- one year guarantee

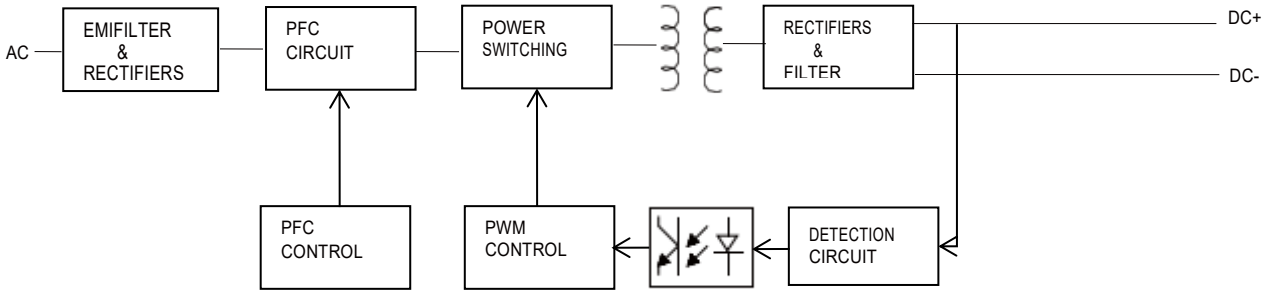
■ Applications

- Power tools and drones
- Portable electronics devices
- Laptops, PADs and smart phones

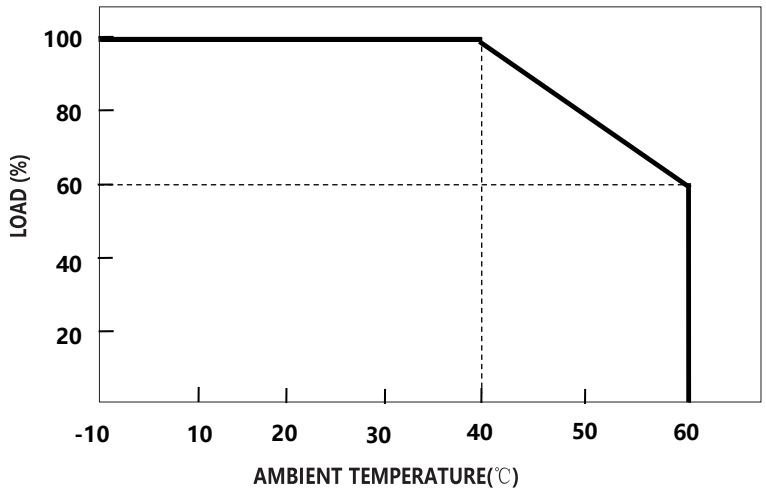
Specification

Model		PD140-2C1A		
Output	USB PD Protocol	PD3.0, PD3.1, ERP AVS, PPS, QC2.0, QC3.0, QC4+, AFC, Apple2.4, BC1.2		
	Output supported	5V3A; 9V3A; 10V3A; 11V3A; 12V3A; 15V3A; 20V5A; 28V5A; PPS 3.3~21V 5A;		
	Maximum output power	140W for USB-type C1 port single (USB-type C2 and USB-A are no load) 65W for USB-type C2 18W for USB-type A 140W for all C1+C2+A using at same time		
	Output voltage regulation	1%		
	Load regulation	5%		
	Start-up time	< 3000mS		
	Rise time	<200mS		
	Hold-on time	> 3mS		
	Output voltage ripple	<Vout*1% (at AC 230V input, full load condition， test device band 20MHz and using a 47UF E-Cap and a 0.1uF C-cap between test terminals)		
Input	Rating input voltage	100 - 240VAC 50 / 60Hz		
	Input voltage range	90 - 264VAC		
	Power factor	PF>0. 95@AC220V and full load condition		
	Rating input current	1.8A@100VAC		
	Inrush current (cold)	< 60A @230VAC		
	Standby power	< 0.5W		
	Efficiency	93%@AC230V and full load		
Protection	Shorted output	Yes		
	Output over voltage	Yes		
	Output over current	Yes		
Environment	Operating temperature	-10 - +60℃ (see temperature derating curve)		
	Operating humidity	0 - 90% RH		
	Storage temp & humidity	-40 - +70℃, 0 - 95% RH		
	Cooling	Natural convection		
	Vibration resistance	10 - 50Hz, 2G 10min. 1cycle, 60min. each along X, Y, Z axes		
EMC & LVD	Max. temperature rise	< 40℃ on casing		
	Hi-Pot Insulation	i/p to o/p: 3000V (1 min)		
	Safety approval	CE/CCC/cTUVus/CB		
	EMC Emission	Parameter	Standard	Test Level I Note
		Conducted	EN55032 FCC PART15	Class B
		Radiated	EN55032 FCC PART15	Class B
		Harmonic Current	EN61000-3-2	.....
		Voltage Flicker	EN61000-3-3	.....
	EMC IMMUNITY	EN61000-4-2，EN61000-4-3，EN61000-4-4，EN61000-4-5，EN61000-4-6，EN61000-4-8，EN61000-4-11		
Others	MTBF	30000H		
	Size	80*80*28.6mm (L*W*H)		
	Weight	240g		
Notes	1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25℃of ambient temperature. 2. Derating may be needed under low input voltages. Please check the derating curve for more details. 3. The power unit is considered as an independent unit, but the final equipment still need to re-confirm that the whole system complies with the EMC directives.。 4. Four different AC input plug can be selected: USA, EU, CCC, and UK			

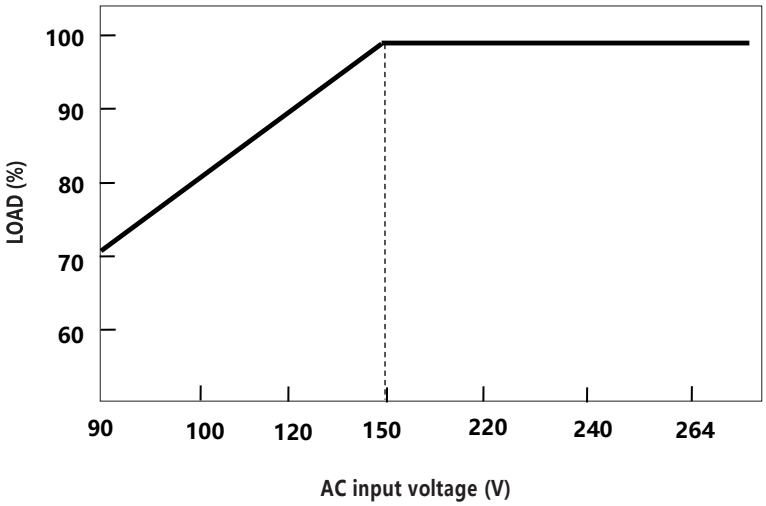
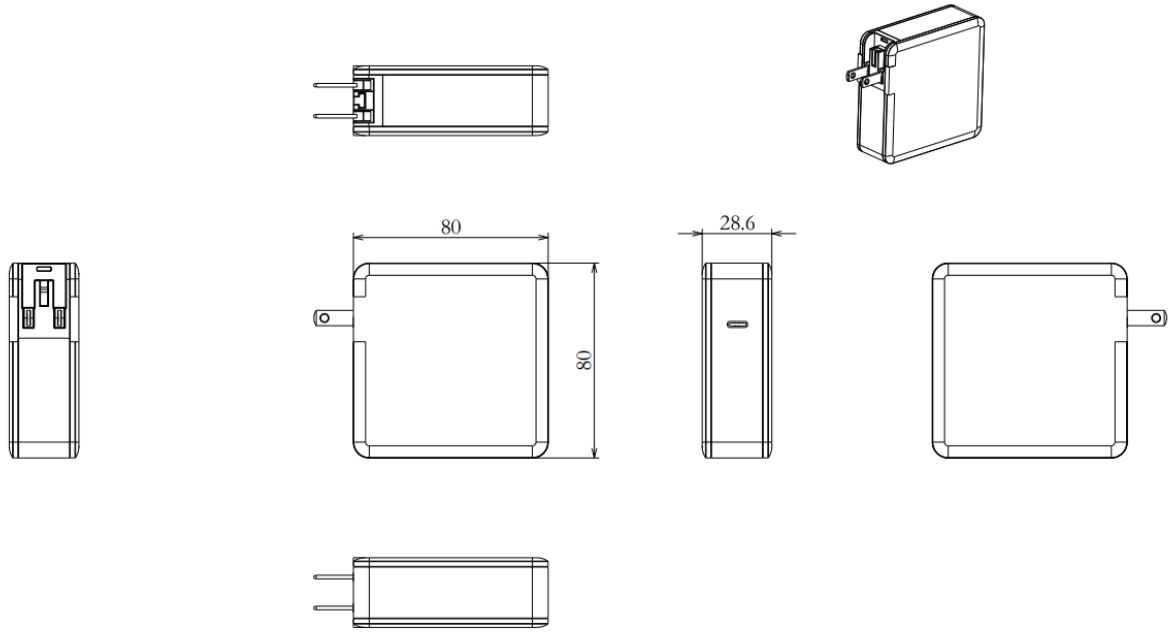
Diagram circuits



Temperature derating curve



Input voltage derating curve



■ Mechanical drawing