



FSP060-D1xR4

FEATURES

- USB Power Delivery Type-C Adapter
- Certified CB 60950-1
- Meet Energy Efficiency DOE Level VI
- High Reliability
- Low profile

SAFETY STANDARD APPROVAL



Tested to Comply
With FCC Standards
FOR HOME OR OFFICE USE

DESCRIPTION

This product is a 60 watts USB Power Delivery adapter use in Mobile Phones, Tablets, Automotive convenience ports, TV, Mass Storage, Expansion Ports, Laptops, Monitors, Payment terminal, Set-top boxes, Workstations.

INPUT SPECIFICATIONS

Input voltage:	90-264 VAC
Input frequency:	47-63 Hz
Input current:	100Vac, 240Vac / full load \leq 2A
No load power consumption	115Vac, 230Vac / 5Vdc_0A load \leq 0.1W
Touch current:	264Vac / 50Hz \leq 0.25mA

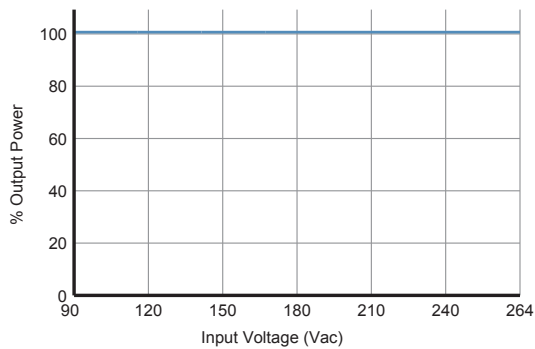
OUTPUT SPECIFICATIONS

Output voltage/current:	See rating chart
Total output power:	60W
Protection:	
Over voltage:	The adapter will enter into shut down that means no output while over voltage happened at output terminal that caused by internal fault, the output trip voltage shall not exceed 35 volts. That will be return to normal state by AC reset
Short circuit & Over current:	When an internal fault occurs, or an external fault is applied to the output, the power supply shall shut down and enter auto-recovery mode.
Over temperature:	The power supply will enter into shut down while the abnormal thermal rise occurs. That will be return to normal state by AC reset.
Brown-out	Set at 50Vac~60Vac
Environment	
Working TEMP.	0~70°C (> 40°C de-rating)
Storage TEMP.	-20~+80°C
Working Humidity	20~80% RH non-condensing
Storage Humidity	10~90% RH non-condensing

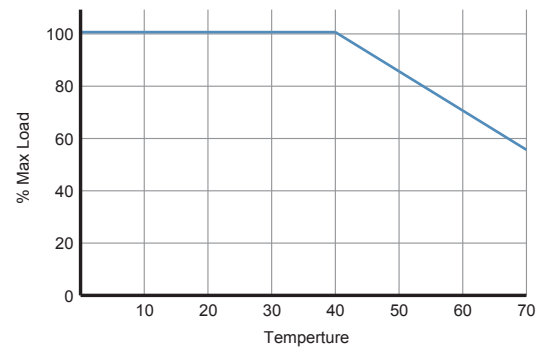
INPUT SPECIFICATIONS

Power factor:	Provisions for adding harmonic reduction per EN 61000-3-2 must be present.
Efficiency:	See rating chart
Power turn-on time	At 100Vac / full load, output voltage shall remain regulation \leq 3Sec
Hold-up time:	At 100Vac or 240Vac / full load, output voltage shall remain regulation \geq 5ms
Inrush current:	100Vac, 240Vac / full load, Shall be less than the rating of adapter critical component (including rectifiers, fuse surge and current limiting device)
Operating altitude:	5000 meters above sea level
Withstand voltage:	Between AC input and secondary applied DC 4242V, test time 1 minute, cut off current shall be less than 10mA
MTBF:	100Vac, 240Vac / full load, 300,000 hours at 25°C, standard SR332
EMC Performance:	Class B conducted, class B radiated
EN55032	Class B conducted, class B radiated
FCC	Class B conducted, class B radiated
VCCI	Meet class D
EN61000-3-2	Meet regulation
EN61000-3-3	Air discharge: \pm 15 KV, contact discharge: \pm 8KV, meet criterion A
EN61000-4-2	80 ~1000 MHz, 3V/m, 80% AM(1kHz), meet criterion A
EN61000-4-3	Impulse: \pm 1kV applied to L,N, meet criterion A
EN61000-4-4	\pm 1kV applied differential mode, \pm 2kV applied common mode, meet criterion A
EN61000-4-5	0.15 ~ 80 MHz, 3Vrms, 80% AM(1kHz), meet criterion A
EN61000-4-6	50 Hz or 60Hz, 1A/m, meet criterion A
EN61000-4-8	Voltage Dips :
EN61000-4-11	>95% reduction for 0.5 period, meet criterion B
	30% reduction for 25 period, meet criterion B
	Voltage Interruptions :
	>95% reduction for 250 period, meet criterion B
Power de-rating:	100Vac or 240Vac, 0°C to 40°C, 100% load.

INPUT VOLTAGE DERATING CURVE



OUTPUT POWER DERATING CURVE

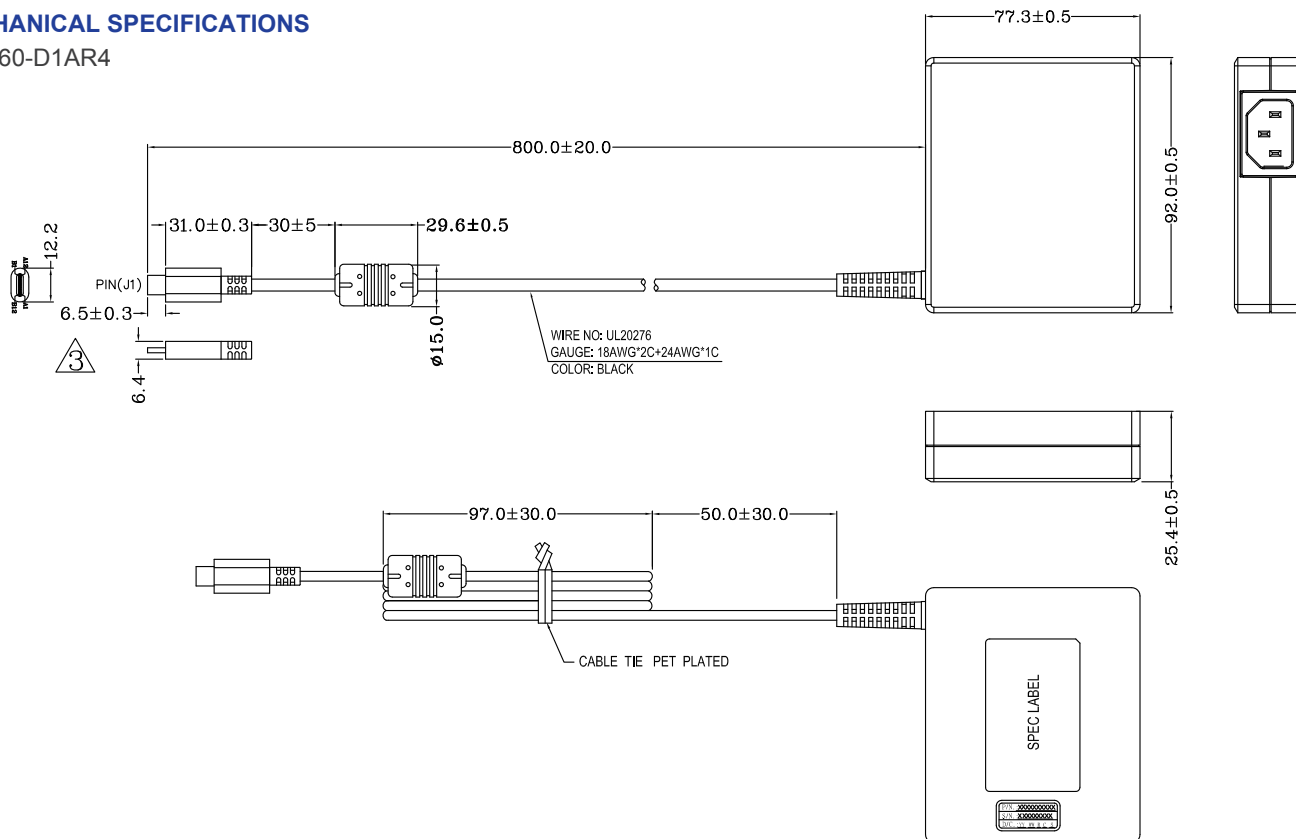


OUTPUT VOLTAGE/CURRENT RATING CHART

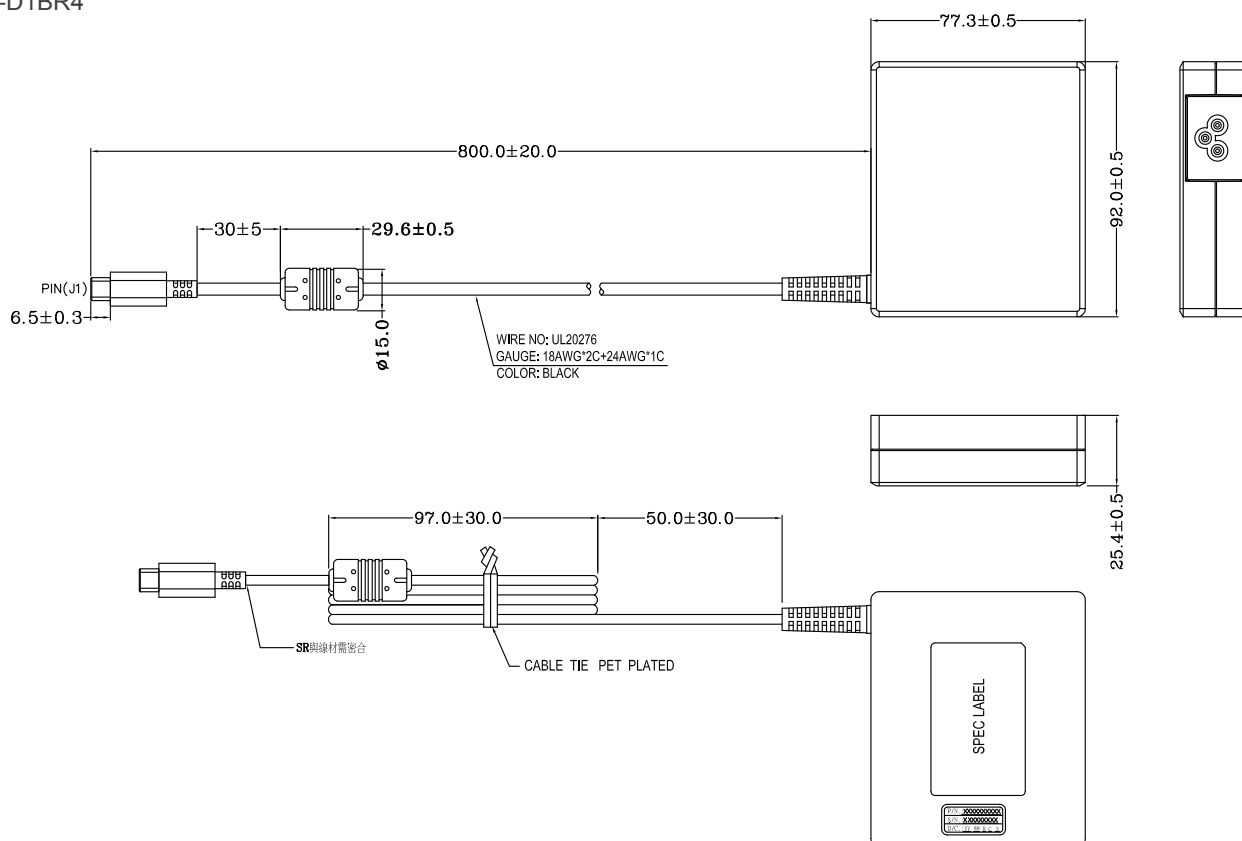
Model	Output Voltage	Output Current	AC Inlet	Efficiency	Over Voltage Protection
				DOE(Level VI)	
FSP060-D1AR4	5/9/12/15/20V	3/3/3/3/3A	C14	≥ 88%	35Volts
FSP060-D1BR4	5/9/12/15/20V	3/3/3/3/3A	C6		

MECHANICAL SPECIFICATIONS

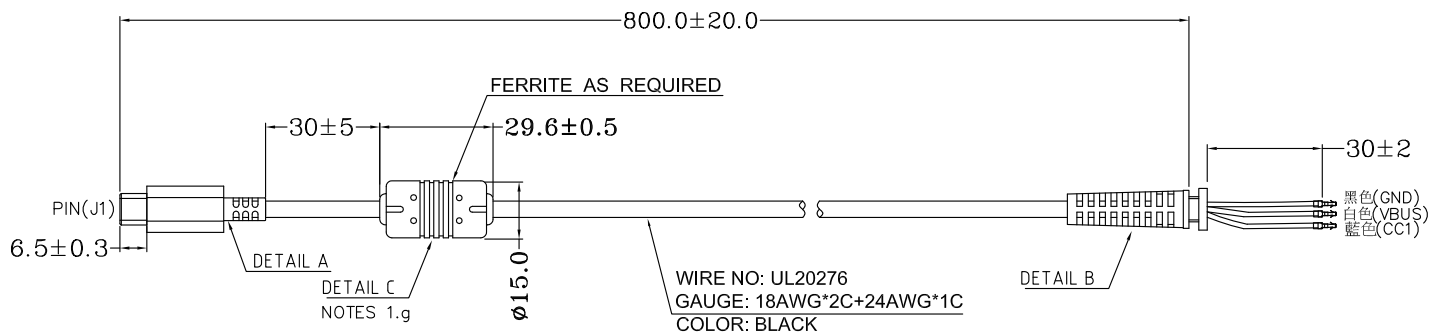
FSP060-D1AR4



FSP060-D1BR4



CONNECTOR SPECIFICATIONS



TYPE C PIN(J1)	COLOR/芯線
A1 A12 B1 B12 SHELL	黑色(GND)
A4 A9 B4 B9	白色(VBUS)
A5	藍色(CC1)

