

AAP320-C1050



Product Features

- Can start and operate at -60°C
- Efficiency up to 94%, PF>0.97,THD<7%
- Full power output within recommended operating voltage range
- Constant Current output
- Output current is manually adjustable
- 3 in 1 Dimming Function: 0-10V、PWM、 Resistor
- 12V Auxiliary Cable
- Lightning protection level : Difference module 6kV , Common mode 15 kV
- Protections: BOP、 OTP、 SCP、 OVP- Dimming Interface
- IP67 rating for indoor and outdoor
- Warranty: 5 Years



Technical data

Product model	Max. output Power (W)	Input Voltage (Vdc)	Output current (mA)	Output Voltage (Vdc)	PF	Efficiency	size/mm
AAP320-1100	320	120-277	500-1100	228-457	0.97	94%	216*63*32
AAP320-1100-S	320	120-277	500-1100	228-457	0.97	94%	216*63*32
AAP320-1100-X	320	120-277	500-1100	228-457	0.97	94%	216*63*32

※ The model number does not have a tail vertebral letter to indicate the basic model
※ The 'S' Indicates with dimming function
※ The 'X' Indicates with dimming function and 12V auxiliary output
※ If you have other parameter requirements, you can consult the corresponding sales staff

Technical data

Electrical Specifications

category project		Technical Indicators		
Output parameters	Constant way	Constant current		
	Rated output current	500-1100mA		
	Output voltage range	228-457V	@At the rated output voltage, the maximum output power Po=Vo*Io=320W	
	Rated output voltage	293-457Vdc		
	Default factory output current	0.7A		
	Maximum no-load output voltage	500V		
	Efficiency	93%	@Input 230Vac, Output 293V/1.1A	
		94%	@Input 277Vac, Output 293V/1.1A	
		94%	@Input 230Vac, Output 457V/0.7	
		94.5%	@Input 277Vac, Output 457V/0.7A	
	Current accuracy	±5% @100% load Constant Power Range		
	Output current ripple	10% @ΔI=Ipk-pk/2/Io*100%		
	Startup current overshoot	10% @LED Load		
	Startup time	500~1000ms @100%Load@120-277Vac		
	Linear regulation rate	±2% @100%Load		
	Load regulation rate	±3% @100%Load		
	Over temperature protection	90℃	@Casing temperature: Prolonged operation atthe highest temperature will reduce the reliability of the power supply. Pay attention to heat dissipation when in use	
	Short circuit protection	15W	@Not damaged by prolonged short circuits, automatic recovery upon fault resolution	
Input undervoltage protection	165-175V	@ Derated output, returns to normal after the abnormal condition is resolved		
Input overvoltage protection	320Vac			
Input parameters	Rated input voltage	120-277VAC		
	Input voltage range	108-305VAC		
	Input frequency range	47-63HZ		
	Input current	1.6A	@120Vac, Full Load	
		2.3V	@176Vac, Full Load	
	Input power	180W	@120Vac, Full Load	
		360W	@176Vac, Full Load	
	Input surge current peak value	40A	@120Vac, Cold Start	
	Power factor	85A	@230Vac, Cold Start	
		100A	@277Vac, Cold Start	
		0.99	@120Vac, Full Load	
		0.97	@230Vac, Full Load	
	Total harmonic distortion	0.95	@277Vac, Full Load	
		0.9	@120-277Vac 50/60Hz, 70-100% Load	
		5%	@120Vac, Full Load	
		9%	@230Vac, Full Load	
		12%	@277Vac, Full Load	
		15%	@120-277Vac 50/60Hz, 70-100% Load	

Technical data

category project		Technical Indicators
12Vdc Auxiliary	Rated output voltage	12V @DIM+ output 100uA current
	Rated output current	0.25A
0-10V Dimming	External voltage range	0-12V @DIM+ output 100uA current
	Recommended dimming voltage	1-10V
	Dimming output range	10-100% @DIM+/DIM-reverse connection prohibited.
	Dimming cutoff voltage	0.48-0.58V
	Dimming start voltage	0.6-0.7V
PWM Dimming	PWM High	9.8-10.2V @DIM+ output 100uA current
	PWM Low	0-0.3V @DIM+/DIM-reverse connection prohibited.
	PWM Frequency	500-2000Hz
	Recommended dimming duty cycle	10-100%
	Dimming output range	10-100%
	Dimming cutoff duty cycle	7-8% @Typical 7.5%
	Dimming start duty cycle	8.2-9.2% @Typical 8.7%
Resistor Dimming	External resistor	0-100KΩ @DIM+ output 100uA current
	Dimming output range	10-100%
	Dimming cutoff resistance	4.8-5.8KΩ @Typical 5.3KΩ
	Dimming start resistance	6-7KΩ @Typical 6.5KΩ
Interface protection	DIM+/DIM- Reversal	Main Output Shutdown @Interface not damaged within 30minutes
	Interface over voltage protection	400Vdc or 277Vac @Interface not damaged within 30minutes
Environment	Operating temperature	-60...90°C @Typical 75°C
	Operating humidity	10-90%RH @No condensation
	Storage temperature	-40...90°C @Typical 25°C
	Storage humidity	10-90%RH @No condensation
Other	Estimation of Mean Time Between Failures (MTBF)	210000 hours @230Vac, full load, ambient temperature 25°C
	Lifetime	50,000 hours @230Vac, full load, Tc=75°C
	International Protection	IP67 @Suitable for dry and humid environments, avoid prolonged exposure to rain
	Maximum casing temperature	90°C
	Warranty	5 Years @Casing temperature (Tc point) not exceeding 75°C
	Weight	850g @Net weight
	Dimension	216mm*63mm*32mm

Remarks:

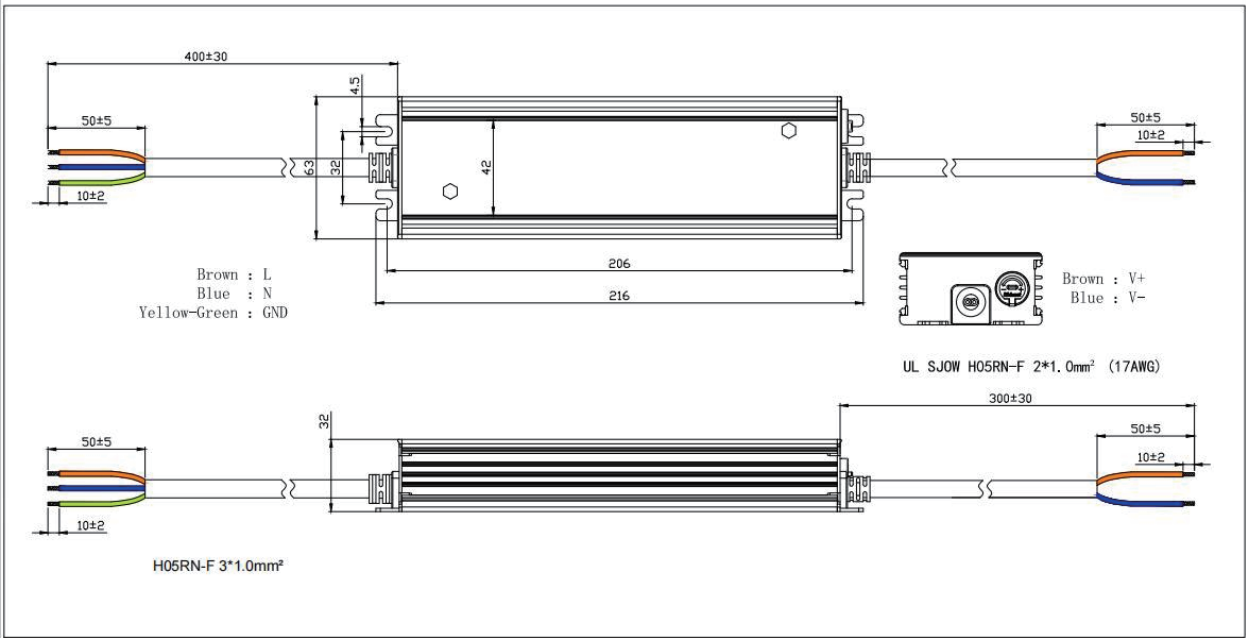
1. The dimming interface can withstand voltages within 277Vac for a short period of time (within 30 minutes) without damage, and returns to normal after the fault is resolved; when the dimming interface is connected to AC mains power, the output current drops to half of the set current value. Construction workers can quickly identify and resolve faults based on this phenomenon to avoid permanent damage to the interface;
2. All performance parameters are typical values measured at an ambient temperature of 25°C and using an LED load, unless otherwise specified;
3. When the dimming line is not in use, please seal the dimming line connector with an insulating sleeve to prevent interference signals from causing damage to the dimming line and affecting the normal operation of the power supply;

category project		Technical Indicators	
Safety and EMC	CCC	GB 19510.14-2009、 GB/T 17743-2021、 GB 17625.1-2022	
	ENEC	EN 61347-1:2015 EN 61347-2-13:2014 EN 61347-2-13:2014/A1:2017	
	CB	IEC 61347-1, IEC 61347-2-13-2016	
	CE	EN 61347-2-13:2014 EN61347- 1:2008+A1:2011+A2:2013	
	Conducted emission	EN 55015/GB 17743	@Conducted emission Test &Radiated emission Test
	Radiated emission		
	Harmonics Current	EN 61000-3-2 @Harmonic current emissions	
	Voltage flicker	EN 61000-3-3 @Voltage Fluctuations & Flicker	
	ESD	EN 61000-4-2	@Electrostatic Discharge (ESD): 8 kV air discharge, 4 kV contact discharge
	Radiated Susceptibility	EN 61000-4-3	@Radio-Frequency Electromagnetic Field Susceptibility Test-RS
	Surge (transient)	EN 61000-4-5	@Surge Immunity Test:Differential Mode 6 kV, Common Mode 20 kV
	Conducted immunity	EN 61000-4-6	@Conducted Radio Frequency Disturbances Test-CS
	Power frequency magnetic field	EN 61000-4-8	@Power Frequency Magnetic Field Test
	Voltage dips and interruption	EN 61000-4-11	@Voltage Dips
	Immunity of lighting equipment	EN 61547	@Electromagnetic Immunity Requirements Applies To Lighting Equipment
	Oscillatory wave immunity	EN 61000-4-12	@Oscillatory Waves Immunity Test
	Insulation	I/P-O/P, I/P-FG, O/P-FG:100MΩ / 500VDC / 25℃ /70% RH	
	Dielectric strength	I/P-O/P:3.75kVac I/P-FG:1.5kVac O/P-FG:500Vac I/P-DIM&Vaux:3.75kVac O/P-DIM&Vaux:1.5kVac DIM&Vaux-FG:1.5kV	
	Ground resistance	<0.1Ω, 25A/1min	
	Leakage current	<0.75mA 277Vac	

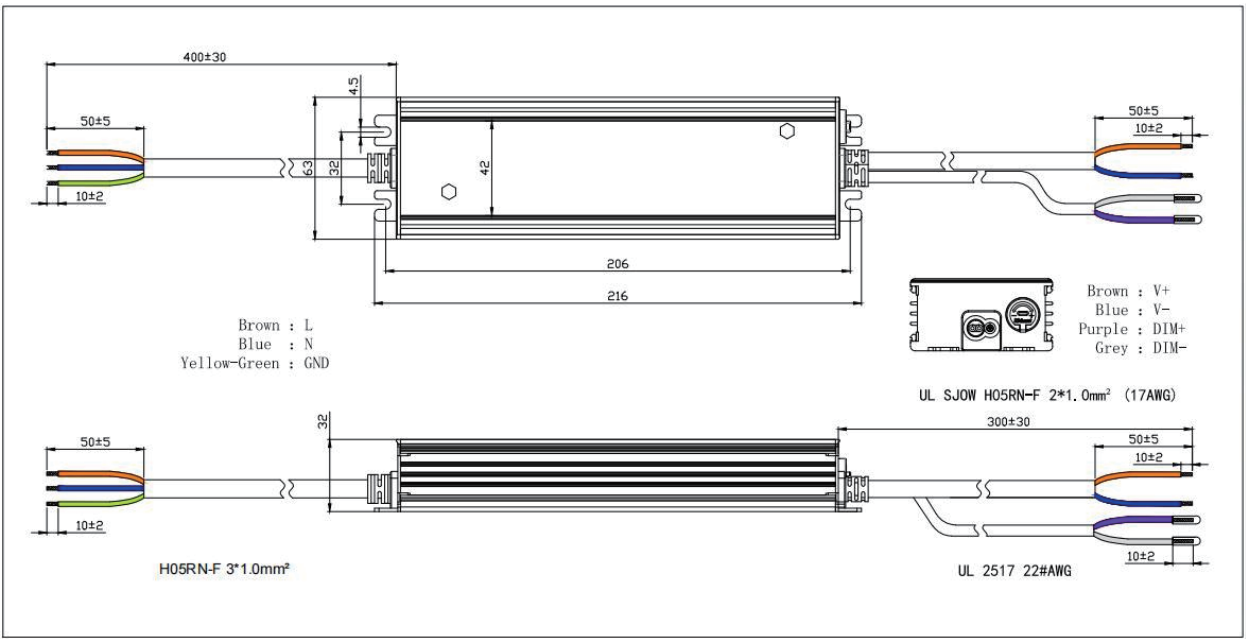
Product datasheet

Exterior dimensions (unit: mm)

Note: AAP320-1050



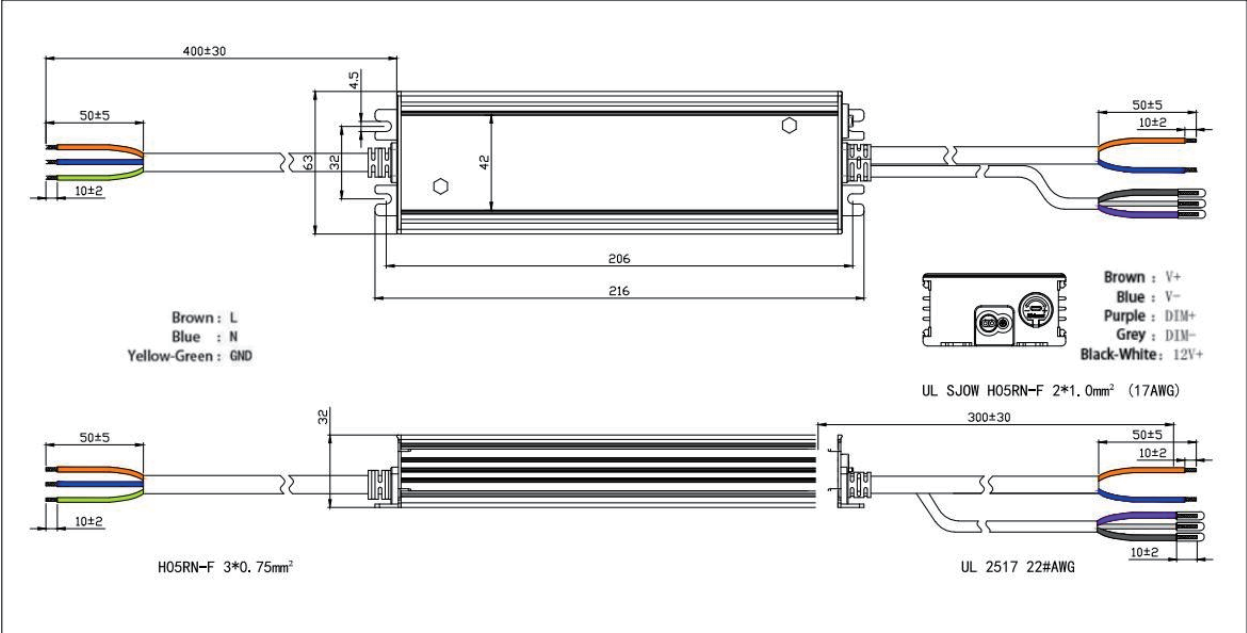
Note: AAP320-1050-S



Product datasheet

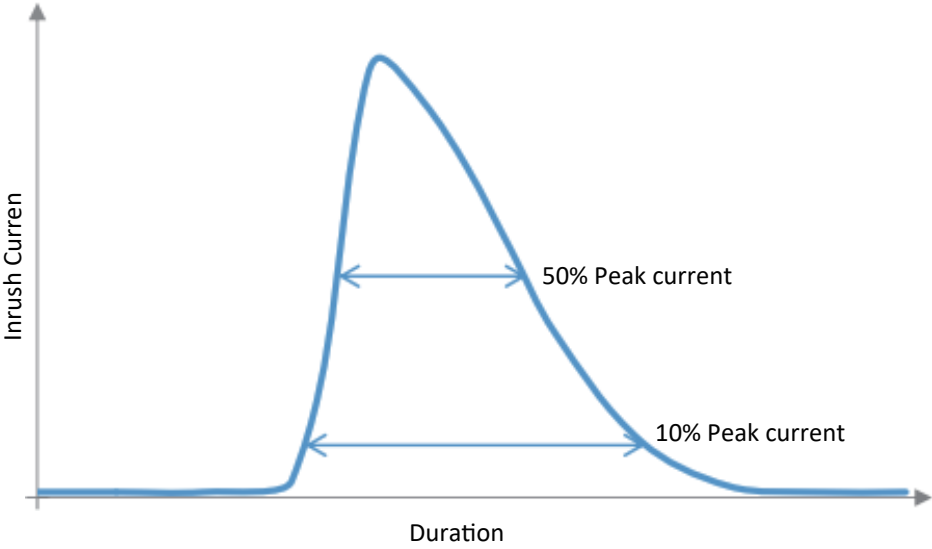
Exterior dimensions (unit: mm)

Note: AAP320-1050-X

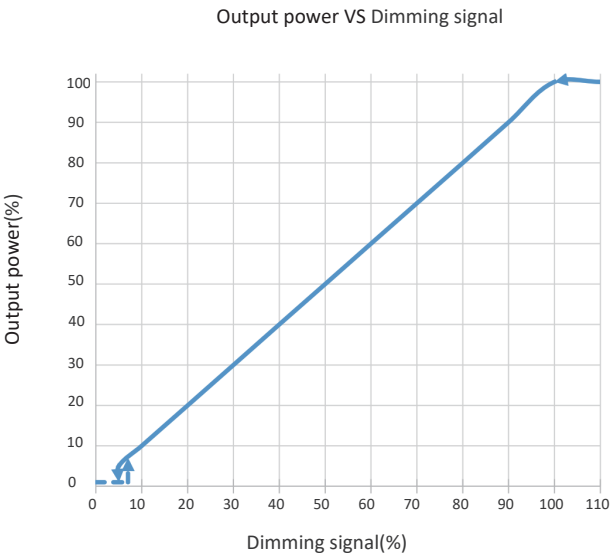
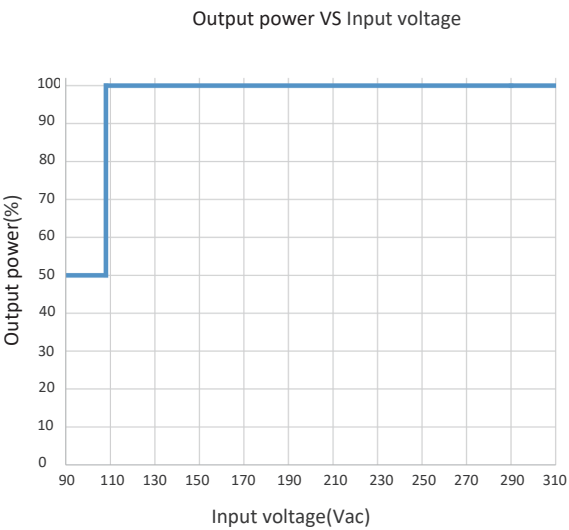
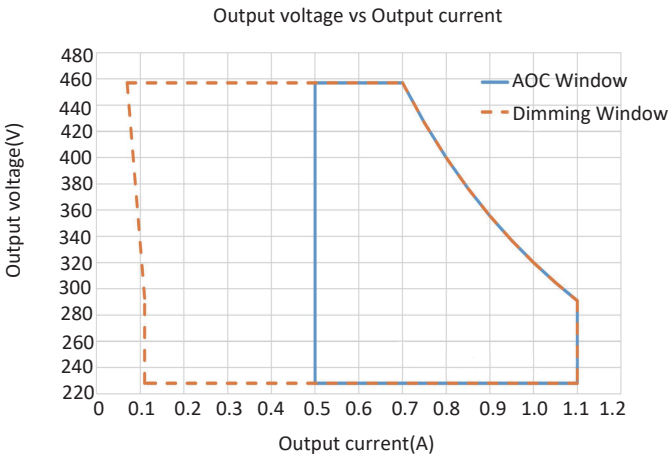
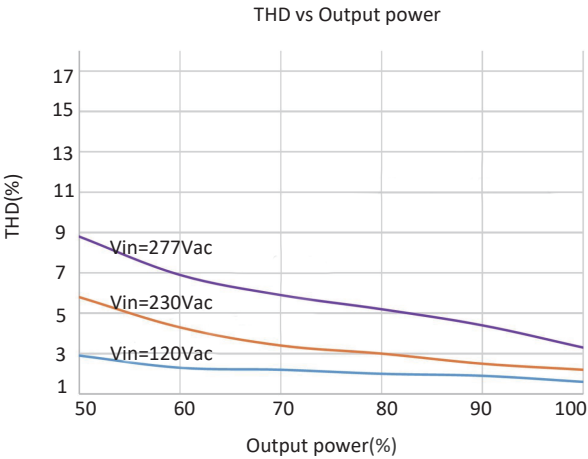
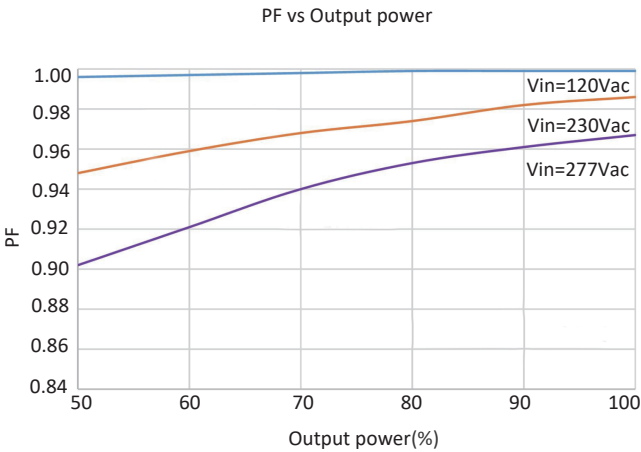
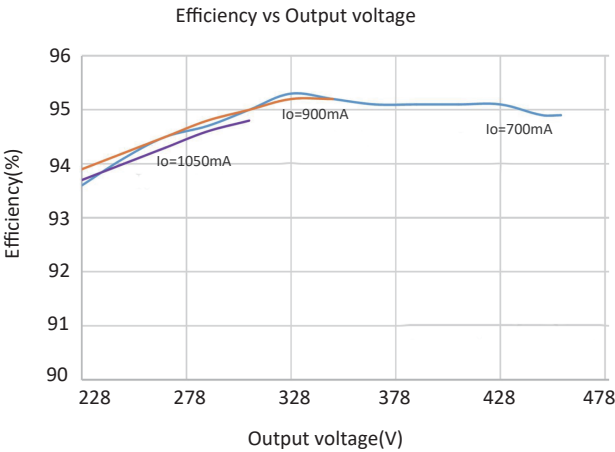


Characteristic curves

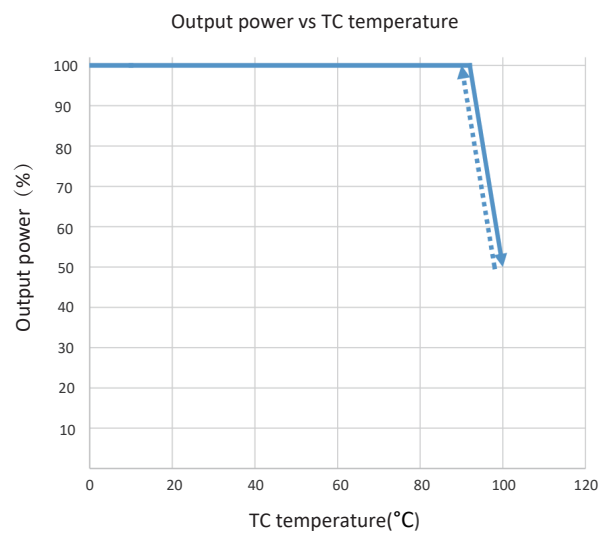
Vin	Peak current	Duration (@10% peak current)	Duration (@50% peak current)
120Vac	40A	1300us	292us
230Vac	81.6A	964us	420us
277Vac	97.6A	980us	420us



Characteristic curves



Characteristic curves



Life curve

