240W WSHA SERIES

Features:

- Universal AC input /Full range (up to 305Vac)
- Output Current could be programmed in customer side
- Self-adapting Output Voltage, and range is large enough to match different LED load
- High power factor, Low harmonic current
- High Efficiency (up to 93%)
- Protections: Short circuit, Over Current, Over Voltage, Over Temperature
- Compliance to the testing requirement of double 85
- Cooling by free air convection
- IP67 design for indoor or outdoor installations
- Suitable for LED lighting and street lighting application
- 5 years warranty

Optional Function:	3 in one dimming function via signal cable （Built-in 3 in 1 dimming function, control the output current via connecting the control signal cable to resistor, PWM signal or DC voltage (0~10V) separately） wireless programmable dimming function （timing controlled dimming function, PWM signal (5V or 10V), initial output current definition）

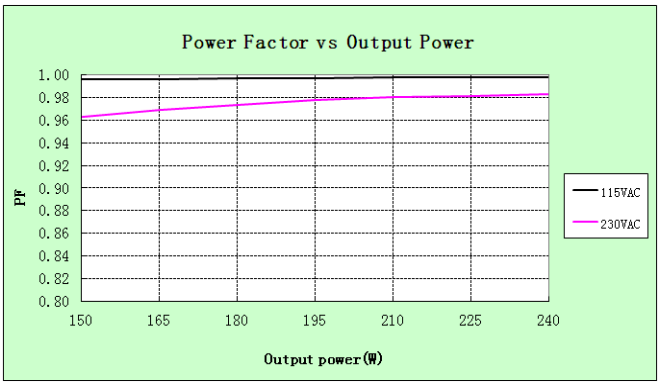
SPECIFICATION

Basic Model		WSHA-240-020VN	WSHA-240-062VN	WSHA-240-080VN	WSHA-240-190VN
OUTPUT	Output Current Range	0.75A~7.5A	0.52A~5.2A	0.21A~2.1A	0.105A~1.05A
	Output Voltage	20~41Vdc	20~62Vdc	80~180Vdc	190~368Vdc
	Rated Power	240W	240W	240W	240W
	Ripple Current [1](max.)	150mA	150mA	150mA	150mA
	Output current regulation	±3%	±3%	±3%	±3%
	Turn-on Delay time	3Smax.@220Vac input & Full load, 5Smax.@100Vac input & Full load.			
	Turn-on Rise time	300mSmax.@ Full load			
INPUT	Voltage ramge	90V~305VAC	90V~305VAC	90V~305VAC	90V~305VAC
	Frequency Range	47Hz~63Hz	47Hz~63Hz	47Hz~63Hz	47Hz~63Hz
	Power Factor(Typ.)	PF>0.99 at 115VAC PF>0.97 at 230VAC	PF>0.99 at 115VAC PF>0.97 at 230VAC	PF>0.99 at 115VAC PF>0.97 at 230VAC	PF>0.99 at 115VAC PF>0.97 at 230VAC
	Efficiency (Typ.)	92% at 230VAC	92% at 230VAC	93% at 230VAC	93% at 230VAC
	AC Current	3.3Amax@100Vac-277Vac & Full Load			
	Inrush Current	150A max @ 230Vac input	150A max @ 230Vac input	150A max @ 230Vac input	150A max @ 230Vac input
	Standby input power (max.)	4Wmax.@ Nominal input	3Wmax.@ Nominal input	3Wmax.@ Nominal input	3Wmax.@ Nominal input
PROTECTION	Over Voltage	<44Vdc	<68Vdc	<195Vdc	<385Vdc
		When the output voltage is over the limitation, the product will shut down output, it can recovery when the fault condition is removed.			
	Short Circuit	The input power shall decrease when the output rail is shorted, the power supply shall have no damage, and shall recovery when the fault condition is removed.			
	Over Temperature	When Tc > 85℃, the output current will be decreased to protect the LED driver. When the temperature of the case go down below 85℃, the product will self-recovery. The minimum output current will be limited to 30% (typ.) of the rated output current in OTP function. The LED driver could survive in 125℃ for 2hrs.			
ENVIORNMENT	Operating Temp.	-40~60℃	-40~60℃	-40~60℃	-40~60℃
	Operating Humidity	95% RH	95% RH	95% RH	95% RH
	Storage Temp	-40~85C	-40~85C	-40~85C	-40~85C
	Water proof	IP67	IP67	IP67	IP67
	Vibration	The LED power supply can survive vibration towards three mutually perpendicular direction (X, Y, Z), each direction for 72 minutes. The vibration is in accordance with the sine wave with 2mm amplitude, and its frequency range from 10Hz to 500Hz with 5G acceleration			
RELIABILITY	MTBF	>200Khours @ 25℃			
SAFETY &EMC	SAFETY STANDARDS	UL8750, EN61347-1/A2:2013, EN61347-2-13：2006, IEC61347-1, IEC61347-2-13, EN62493：2010， GB19510.1-2009, GB19510.14-2009,			
	WITHSTAND VOLTAGE	I/P-O/P: 3750VAC I/P-FG: 1650VAC O/P-FG: 1600VAC			
	LEAKAGE CURRENT	0.75mA max @ 277Vac 50Hz input			
	SURGE IMMUNITY	DM 5kV, CM 10KV			
	ISOLATION RESISTANCE	50MΩ min. at primary to secondary with 500Vdc test voltage			
	EMC EMISSION	Compliance to EN55015 (CISPR15), EN61000-3-2; EN61000-3-3, GB17743, GB17625.1			
	EMC IMMUNITY	Compliance to EN61547; EN55042, EN61000-4-2,3,4,5,6,8,11, GB/T18595, GB17626			
MECHANICAL	DIMENSION	247*68*43.5mm			
	WIGHT	1300±100g			
	COLOR	BLACK	BLACK	BLACK	BLACK
OTHERS	/	/	/	/	/
NOTE	1. Ripple current are measured at full bandwidth of the oscillator. The actual ripple current rely on the characteristic of LED load. 2.The power supply will be operated in combination with final equipment. Since EMC performance will be affected by the complete installation, the final equipment manufacturers must re-qualify EMCDirective on complete installation. 3. All parametric in this datasheet is typical value				

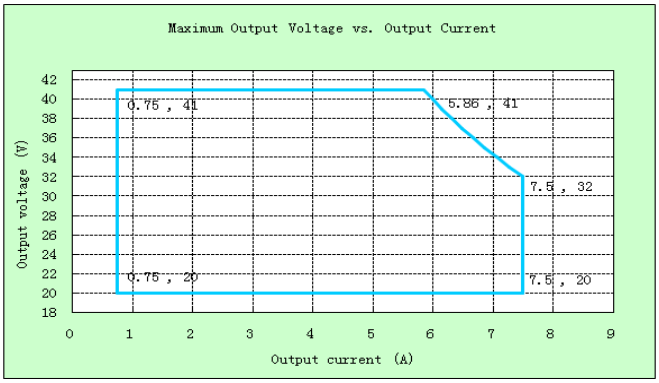
■ Characteristic Curve

Model: WSHA-240-020VN

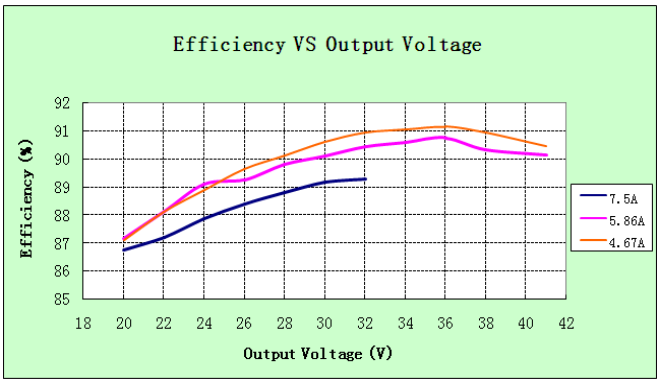
POWER FACTOR vs OUTPUT POWER



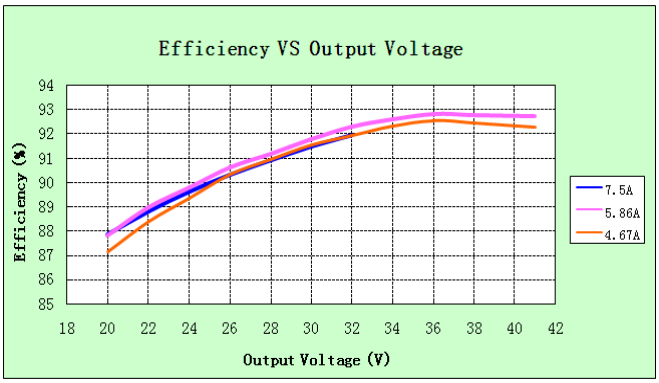
OUTPUT V-I OPERATING AREA



EFFICIENCY vs Voutput （Vin=115Vac, Ta=25℃）

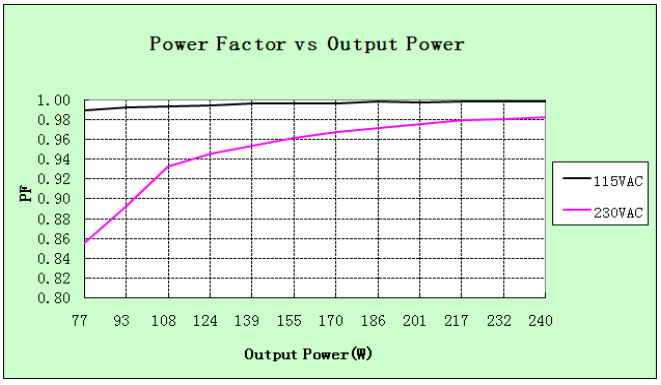


EFFICIENCY vs Voutput （Vin=230Vac, Ta=25℃）

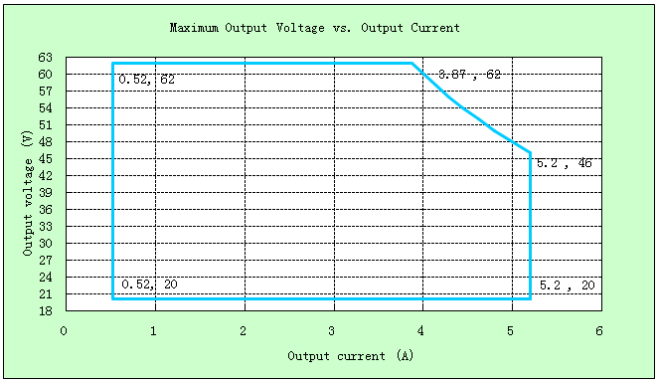


Model: WSHA-240-062VN

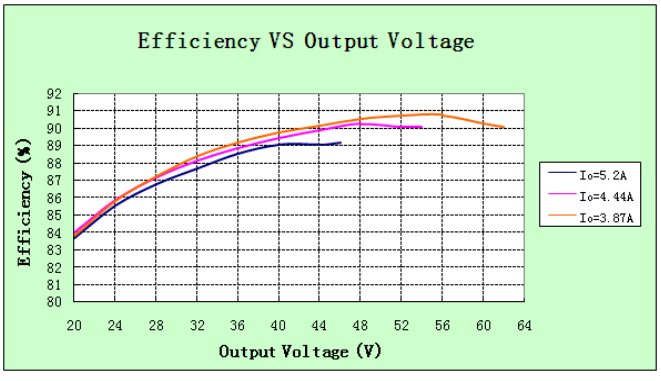
POWER FACTOR vs OUTPUT POWER



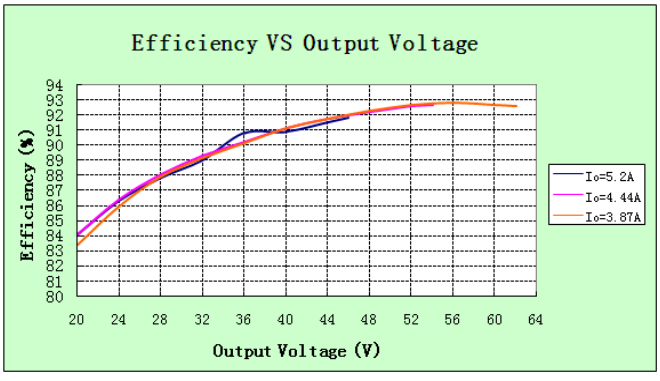
OUTPUT V-I OPERATING AREA



EFFICIENCY vs Voutput （Vin=115Vac, Ta=25℃）

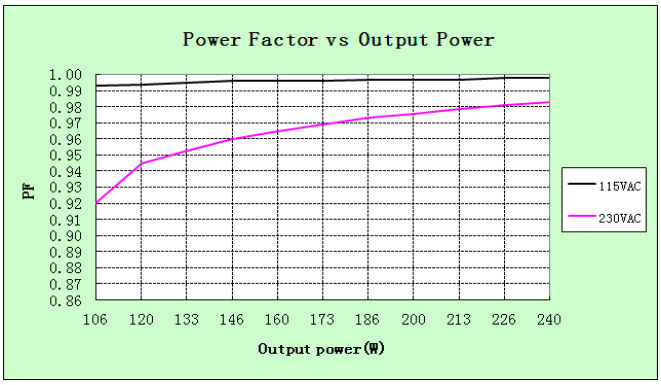


EFFICIENCY vs Voutput（Vin=230Vac, Ta=25℃）

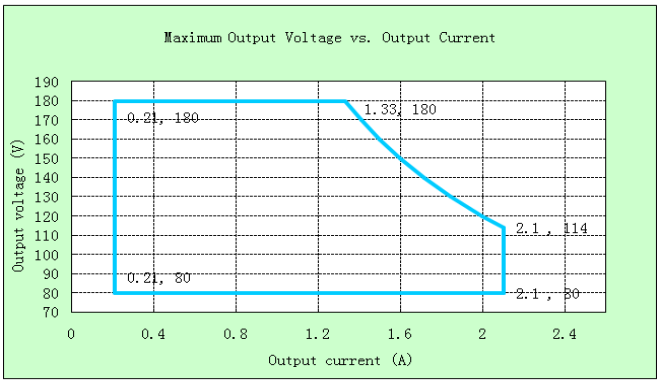


Model: WSHA-240-080VN

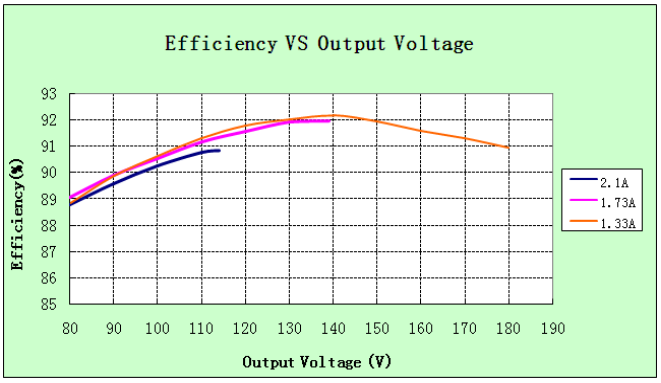
POWER FACTOR vs OUTPUT POWER



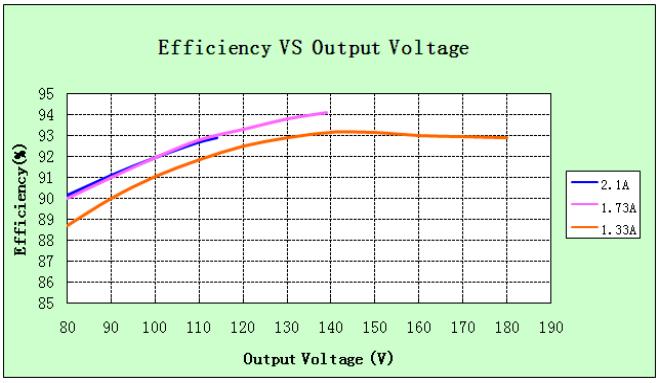
OUTPUT V-I OPERATING AREA



EFFICIENCY vs Voutput （Vin=115Vac, Ta=25℃）

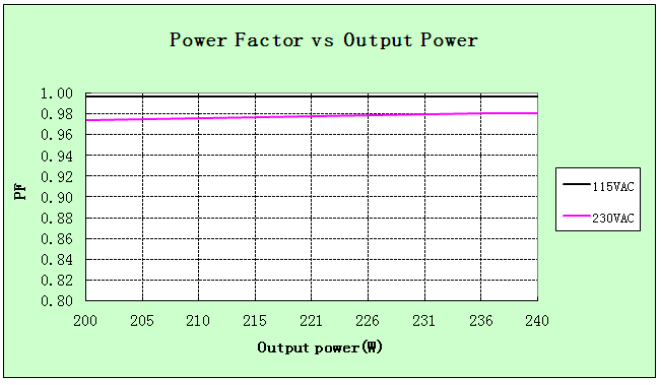


EFFICIENCY vs Voutput （Vin=230Vac, Ta=25℃）

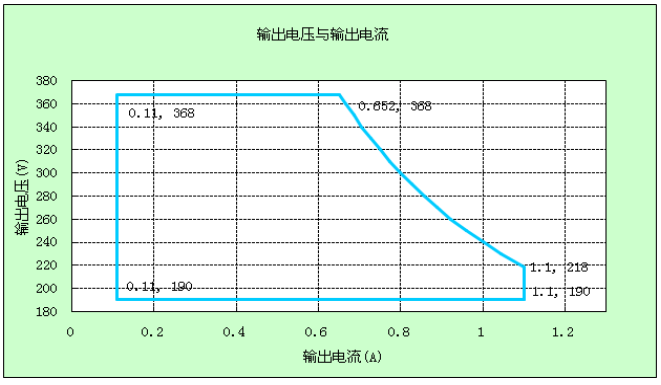


Model: WSHA-240-190VN

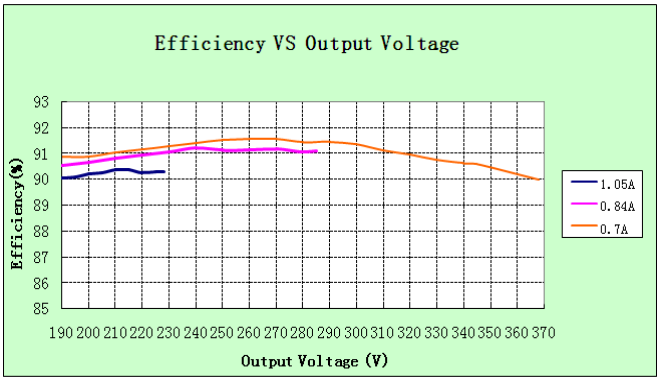
POWER FACTOR vs OUTPUT POWER



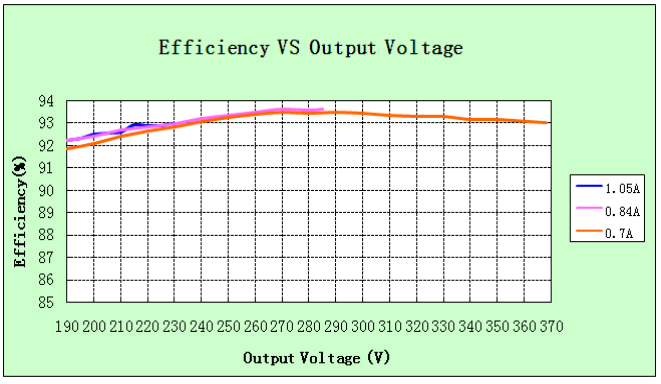
OUTPUT V-I OPERATING AREA



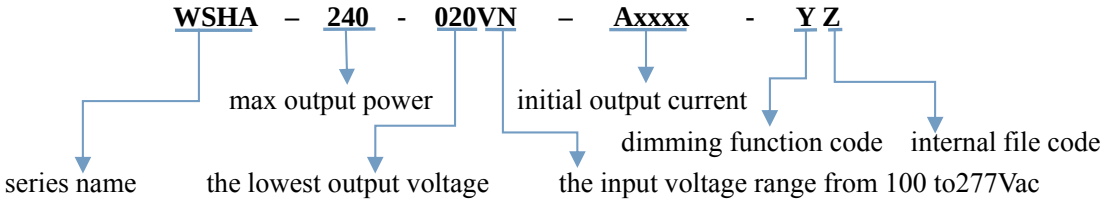
EFFICIENCY vs Voutput （Vin=115Vac, Ta=25℃）



EFFICIENCY vs Voutput （Vin=230Vac, Ta=25℃）



ILLUMINATION ON THE MODEL TYPE：



Dimming function code Y could be defined as A~D. Each letter represents one function, as below:

Letter A： No dimming function

Letter B： Built-in 3 in 1 dimming function via signal cable

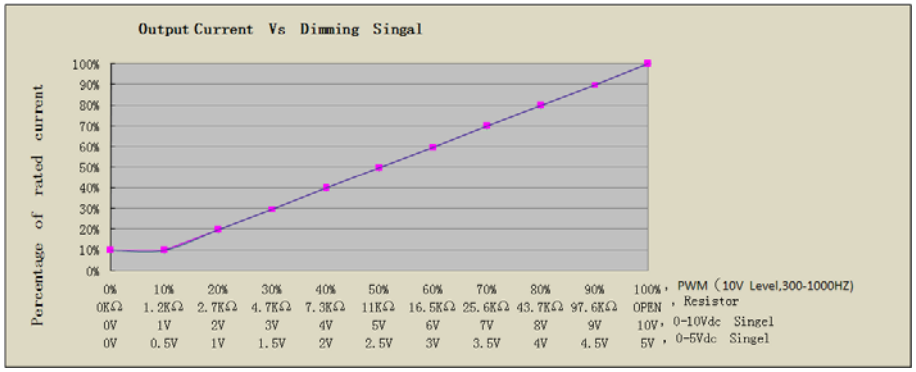
Letter C： wireless programmable dimming function

Letter D： wireless programmable dimming function + 3 in 1 dimming function via signal calbe

DIMMING FUNCTION DESCRIPTION (optional)

■ 3 in 1 dimming function

- Built-in 3 in 1 dimming function, control the output current via connecting the control signal cable to resistor, PWM signal or DC voltage (0~10V) separately
- The minimum output current limited to 10% of the maximum output current, and the minimum output power should not be less than 24W.
- The curve of output current versus the control signal of resistor/PWM/DC voltage separately as below:



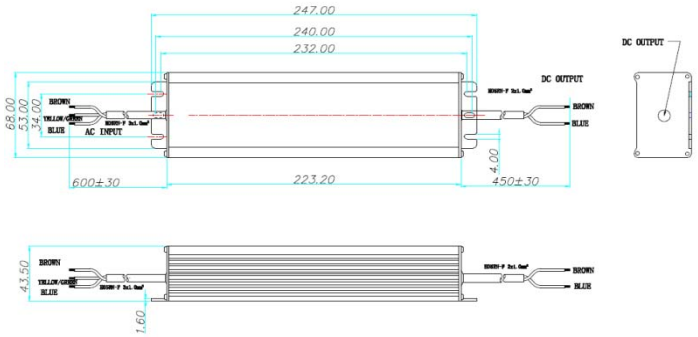
■ Wireless Programming Dimming Function:

- Using the infrared remote controller to set up the initial output current;
- Using computer to Change the initial setup via the programmer provided by Brightway. All of the output current, timing controlled dimming function, and the voltage level (5V or 10V) of PWM signal could be re-defined.
- The timing controlled dimming function could be defined in manufactory, or customer program it with the programmer provided by wintek. The product supports 5 dimming stages at most to be defined.

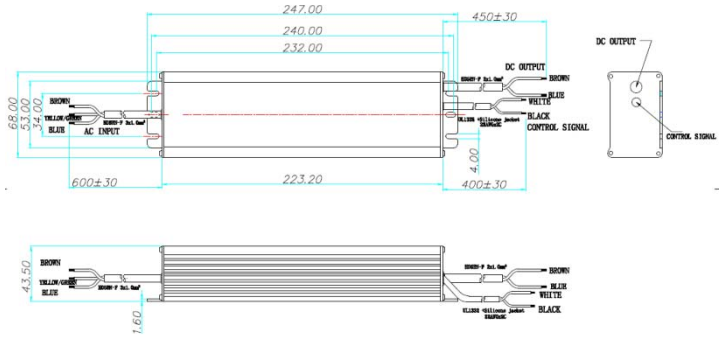
■ Mechanical Specification

Case material	Aluminum Alloy
Dimension (L x W x H)	247*68*43.5mm
Net Weight	1200±100g
Case Color	BLACK
Input Cable	3x1.0mm2 H05RN-F IEC57（YZW）
Output Cable	2x1.0mm2 H05RN-F IEC57（YZW）

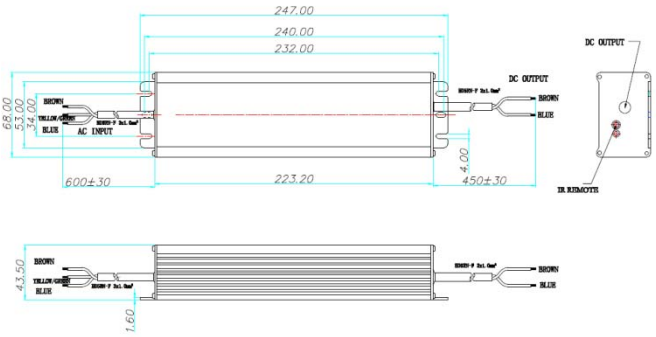
Type A: No dimming function



Type B: Dimming function via signal cable



Type C: Wireless programmable dimming function



Type D: wireless programmable dimming function + dimming function via signal cable