

# **320W WSZA 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 94%) .
- 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

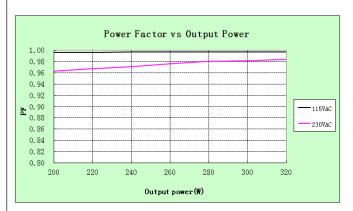
Optional Function:	e e	3 in one dimming function via signal cable (Built-in 3 in 1 dimming function, control the output current via connecting the control signal cable to resistor, PWM sign or DC voltage (0~10V) separately)				
			olled dimming function, PWM signal	(5V or 10V), initial output current de	efinition)	
<b>SPECIFIC</b>						
Basic Model		WSZA-320-020VN	WSZA-320-062VN	WSZA-320-230VN	WSZA-320-235VN	
OUTPUT	Output Current Range	1A~10A	0.82A~8.2A	0.21A~2.1A	0.11A~1.1A	
	Output Voltage	20~41Vdc	20~62Vdc	120~230Vdc	235~457Vdc	
	Rated Power	320W	320W	320W	320W	
	Ripple Current 1(max.)	250mA	200mA	250mA	250mA	
	Output current regulation	±3%	±3%	±3%	±3%	
	Turn-on Delay time		oad, 5Smax.@100Vac input & Full lo			
	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>0.99 at 115VAC	PF>0.99 at 115VAC	PF>0.99 at 115VAC	
	rowerraetor(rjp.)	PF>0.97 at 230VAC	PF>0.97 at 230VAC	PF>0.97 at 230VAC	PF>0.97 at 230VAC	
	Efficiency (Typ.)	93% at 230VAC	93% at 230VAC	93% at 230VAC	94% at 230VAC	
	AC Current	4.0Amax@100Vac-277Vac & F				
	Inrush Current	200A max @ 230Vac input	200A max @ 230Vac input	200A max @ 230Vac input	200A max @ 230Vac input	
	Standby input power (max.)	4Wmax.@ Nominal input	4Wmax.@ Nominal input	4Wmax.@ Nominal input	4Wmax.@ Nominal input	
PROTECTION	Over Voltage	<44Vdc	<68Vdc	<255Vdc	<475Vdc	
	over voluge	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 condition is removed.				
FROTECTION		condition is removed.				
rotection	Over Temperature	When Tc > 85 °C, the output cu product will self-recovery. The	rrent will be decreased to protect the minimum output current will be lin or 2hrs.	1		
ROTECTION		When $Tc > 85$ °C, the output cu product will self-recovery. The driver could survive in 125 °C f	minimum output current will be lim	nited to 30% (typ.) of the rated outp	ut current in OTP function. The	
	Operating Temp.	When Tc > 85 °C, the output cu product will self-recovery. The driver could survive in 125 °C f -40~60 °C	minimum output current will be lim or 2hrs. -40~60°C	-40~60°C	ut current in OTP function. The	
	Operating Temp. Operating Humidity	When Tc > 85 °C, the output cu product will self-recovery. The driver could survive in 125 °C f -40~60 °C 95% RH	minimum output current will be lim or 2hrs. -40~60°C 95% RH	.40~60°C       95% RH	ut current in OTP function. The -40~60°C 95% RH	
	Operating Temp. Operating Humidity Storage Temp	When Tc > 85 °C, the output cu product will self-recovery. The driver could survive in 125 °C f -40~60 °C 95% RH -40~85C	minimum output current will be lim or 2hrs. -40~60°C 95% RH -40~85C	-40~60°C       95% RH       -40~85C	-40~60°C       95% RH       -40~85C	
ENVIORNMENT	Operating Temp. Operating Humidity	When Tc > 85 °C, the output cu     product will self-recovery. The     driver could survive in 125 °C     -40~60 °C     95% RH     -40~85C     IP67     The LED power supply can su	minimum output current will be lim or 2hrs. -40~60°C 95% RH -40~85C IP67 rvive vibration towards three mutua	-40~60°C 95% RH -40~85C IP67 Illy perpendicular direction (X, Y, Z	-40~60°C 95% RH -40~85C IP67 :), each direction for 72 minutes	
ENVIORNMENT	Operating Temp. Operating Humidity Storage Temp Water proof Vibration	When Tc > 85 °C, the output cu     product will self-recovery. The     driver could survive in 125 °C     -40~60 °C     95% RH     -40~85C     IP67     The LED power supply can su     vibration is in accordance with	minimum output current will be lim or 2hrs. -40~60°C 95% RH -40~85C IP67	-40~60°C 95% RH -40~85C IP67 Illy perpendicular direction (X, Y, Z	-40~60°C   95% RH   -40~85C   IP67   :), each direction for 72 minutes	
	Operating Temp. Operating Humidity Storage Temp Water proof Vibration MTBF	When Tc > 85 °C, the output cuproduct will self-recovery. The driver could survive in 125 °C f     -40~60 °C     95% RH     -40~85C     IP67     The LED power supply can suvibration is in accordance with the second secon	minimum output current will be lim or 2hrs. -40~60°C 95% RH -40~85C IP67 rrvive vibration towards three mutua the sine wave with 2mm amplitude, a	-40~60°C 95% RH -40~85C IP67 Illy perpendicular direction (X, Y, Z nd its frequency range from 10Hz to	-40~60°C   95% RH   -40~85C   IP67   2), each direction for 72 minutes.   500Hz with 5G acceleration	
ENVIORNMENT	Operating Temp. Operating Humidity Storage Temp Water proof Vibration MTBF SAFETY STANDARDS	When Tc > 85 °C, the output cuproduct will self-recovery. The driver could survive in 125 °C f     -40~60 °C     95% RH     -40~85C     IP67     The LED power supply can suvibration is in accordance with b     >200Khours @ 25 °C     UL8750, EN61347-1/A2:2013,	minimum output current will be lim or 2hrs. -40-60°C 95% RH -40~85C IP67 rrvive vibration towards three mutua the sine wave with 2mm amplitude, a EN61347-2-13: 2006, IEC61347-1,	-40~60°C 95% RH -40~85C IP67 Illy perpendicular direction (X, Y, Z nd its frequency range from 10Hz to IEC61347-2-13, EN62493: 2010, 0	-40~60°C   95% RH   -40~85C   IP67   2), each direction for 72 minutes.   500Hz with 5G acceleration	
ENVIORNMENT	Operating Temp. Operating Humidity Storage Temp Water proof Vibration MTBF SAFETY STANDARDS WITHSTAND VOLTAGE	When Tc > 85 °C, the output cuproduct will self-recovery. The driver could survive in 125 °C f     -40~60 °C     95% RH     -40~85C     IP67     The LED power supply can suvibration is in accordance with >200Khours @ 25 °C     UL8750, EN61347-1/A2:2013, I/P-O/P: 3750VAC	minimum output current will be lin or 2hrs. -40-60°C 95% RH -40-85C IP67 rvive vibration towards three mutua the sine wave with 2mm amplitude, a EN61347-2-13: 2006, IEC61347-1, I/P-FG: 1650VAC	-40~60°C 95% RH -40~85C IP67 Illy perpendicular direction (X, Y, Z nd its frequency range from 10Hz to	-40~60°C   95% RH   -40~85C   IP67   2), each direction for 72 minutes.   500Hz with 5G acceleration	
ENVIORNMENT RELIABILITY	Operating Temp. Operating Humidity Storage Temp Water proof Vibration MTBF SAFETY STANDARDS WITHSTAND VOLTAGE LEAKAGE CURRENT	When Tc > 85 °C, the output cuproduct will self-recovery. The driver could survive in 125 °C f     -40~60 °C     95% RH     -40~85C     IP67     The LED power supply can suvibration is in accordance with >200Khours @ 25 °C     UL8750, EN61347-1/A2:2013, I/P-O/P: 3750VAC     0.75mA max @ 277Vac 50Hz	minimum output current will be lin or 2hrs. -40-60°C 95% RH -40-85C IP67 rvive vibration towards three mutua the sine wave with 2mm amplitude, a EN61347-2-13: 2006, IEC61347-1, I/P-FG: 1650VAC	-40~60°C 95% RH -40~85C IP67 Illy perpendicular direction (X, Y, Z nd its frequency range from 10Hz to IEC61347-2-13, EN62493: 2010, 0	-40~60°C   95% RH   -40~85C   IP67   2), each direction for 72 minutes.   500Hz with 5G acceleration	
ENVIORNMENT	Operating Temp. Operating Humidity Storage Temp Water proof Vibration MTBF SAFETY STANDARDS WITHSTAND VOLTAGE LEAKAGE CURRENT SURGE IMMUNITY	When Tc > 85 °C, the output cuproduct will self-recovery. The driver could survive in 125 °C f     -40~60 °C     95% RH     -40~85C     IP67     The LED power supply can suvibration is in accordance with     >200Khours @ 25 °C     UL8750, EN61347-1/A2:2013,     I/P-O/P: 3750VAC     0.75mA max @ 277Vac 50Hz     DM 5kV, CM 10KV	minimum output current will be lim or 2hrs. 40~60°C 95% RH 40~85C IP67 IP67 Irvive vibration towards three mutua the sine wave with 2mm amplitude, a EN61347-2-13: 2006, IEC61347-1, I/P-FG: 1650VAC input	-40~60°C 95% RH -40~85C IP67 Illy perpendicular direction (X, Y, Z nd its frequency range from 10Hz to IEC61347-2-13, EN62493: 2010, 0	-40~60°C   95% RH   -40~85C   IP67   2), each direction for 72 minutes   500Hz with 5G acceleration	
ENVIORNMENT RELIABILITY	Operating Temp. Operating Humidity Storage Temp Water proof Vibration MTBF SAFETY STANDARDS WITHSTAND VOLTAGE LEAKAGE CURRENT SURGE IMMUNITY ISOLATION RESISTANCE	When Tc > 85 °C, the output cuproduct will self-recovery. The driver could survive in 125°C f     -40~60°C     95% RH     -40~85C     IP67     The LED power supply can suvibration is in accordance with >200Khours @ 25°C     UL8750, EN61347-1/A2:2013, I/P-O/P: 3750VAC     0.75mA max @ 277Vac 50Hz     DM 5kV, CM 10KV     50MΩ min. at primary to second	minimum output current will be lim or 2hrs. 40-60°C 95% RH 40-85C IP67 IP67 Irvive vibration towards three mutua the sine wave with 2mm amplitude, a EN61347-2-13: 2006, IEC61347-1, I/P-FG: 1650VAC input dary with 500Vdc test voltage	-40~60°C     95% RH     -40~85C     IP67     Illy perpendicular direction (X, Y, Z     nd its frequency range from 10Hz to     IEC61347-2-13, EN62493: 2010, O     O/P-FG: 1600VAC	-40~60°C   95% RH   -40~85C   IP67   2), each direction for 72 minutes   500Hz with 5G acceleration	
ENVIORNMENT RELIABILITY	Operating Temp. Operating Humidity Storage Temp Water proof Vibration MTBF SAFETY STANDARDS WITHSTAND VOLTAGE LEAKAGE CURRENT SURGE IMMUNITY ISOLATION RESISTANCE EMC EMISSION	When Tc > 85 °C, the output cuproduct will self-recovery. The driver could survive in 125°C f     -40~60°C     95% RH     -40~85C     IP67     The LED power supply can suvibration is in accordance with >200Khours @ 25°C     UL8750, EN61347-1/A2:2013, I/P-O/P: 3750VAC     0.75mA max @ 277Vac 50Hz     DM 5kV, CM 10KV     50MΩ min. at primary to secon     Compliance to EN55015 (CIS	minimum output current will be lim or 2hrs. 40-60°C 95% RH 40-85C IP67 rvive vibration towards three mutua the sine wave with 2mm amplitude, a EN61347-2-13: 2006, IEC61347-1, I/P-FG: 1650VAC input dary with 500Vdc test voltage PR15), EN61000-3-2; EN61000-3-3,	-40~60°C     95% RH     -40~85C     IP67     Illy perpendicular direction (X, Y, Z)     nd its frequency range from 10Hz to     IEC61347-2-13, EN62493: 2010, O     O/P-FG: 1600VAC     , GB17743, GB17625.1	-40~60°C   95% RH   -40~85C   IP67   2), each direction for 72 minutes   500Hz with 5G acceleration	
ENVIORNMENT RELIABILITY	Operating Temp.     Operating Humidity     Storage Temp     Water proof     Vibration     MTBF     SAFETY STANDARDS     WITHSTAND VOLTAGE     LEAKAGE CURRENT     SURGE IMMUNITY     ISOLATION RESISTANCE     EMC EMISSION     EMC IMMUNITY	When Tc > 85 °C, the output cu product will self-recovery. The driver could survive in 125 °C f $-40~60$ °C95% RH $-40~85C$ IP67The LED power supply can su vibration is in accordance with >200Khours @ 25 °CUL8750, EN61347-1/A2:2013, I/P-O/P: 3750VAC0.75mA max @ 277Vac 50Hz DM 5kV, CM 10KV50MΩ min. at primary to secon Compliance to EN61547; EN55	minimum output current will be lim or 2hrs. 40-60°C 95% RH 40-85C IP67 IP67 Irvive vibration towards three mutua the sine wave with 2mm amplitude, a EN61347-2-13: 2006, IEC61347-1, I/P-FG: 1650VAC input dary with 500Vdc test voltage	-40~60°C     95% RH     -40~85C     IP67     Illy perpendicular direction (X, Y, Z)     nd its frequency range from 10Hz to     IEC61347-2-13, EN62493: 2010, O     O/P-FG: 1600VAC     , GB17743, GB17625.1	-40~60°C   95% RH   -40~85C   IP67   2), each direction for 72 minutes   500Hz with 5G acceleration	
ENVIORNMENT RELIABILITY GAFETY &EMC	Operating Temp.     Operating Humidity     Storage Temp     Water proof     Vibration     MTBF     SAFETY STANDARDS     WITHSTAND VOLTAGE     LEAKAGE CURRENT     SURGE IMMUNITY     ISOLATION RESISTANCE     EMC EMISSION     EMC IMMUNITY     DIMENSION	When Tc > 85 °C, the output cu product will self-recovery. The driver could survive in 125 °C f       -40~60 °C       95% RH       -40~85C       IP67       The LED power supply can su vibration is in accordance with 1       >200Khours @ 25 °C       UL8750, EN61347-1/A2:2013, I/P-O/P: 3750VAC       0.75mA max @ 277Vac 50Hz       DM 5kV, CM 10KV       50MΩ min. at primary to secon Compliance to EN61547; EN55       234*98*40mm	minimum output current will be lim or 2hrs. 40-60°C 95% RH 40-85C IP67 rvive vibration towards three mutua the sine wave with 2mm amplitude, a EN61347-2-13: 2006, IEC61347-1, I/P-FG: 1650VAC input dary with 500Vdc test voltage PR15), EN61000-3-2; EN61000-3-3,	-40~60°C     95% RH     -40~85C     IP67     Illy perpendicular direction (X, Y, Z)     nd its frequency range from 10Hz to     IEC61347-2-13, EN62493: 2010, O     O/P-FG: 1600VAC     , GB17743, GB17625.1	-40~60°C   95% RH   -40~85C   IP67   2), each direction for 72 minutes   500Hz with 5G acceleration	
ENVIORNMENT RELIABILITY	Operating Temp.     Operating Humidity     Storage Temp     Water proof     Vibration     MTBF     SAFETY STANDARDS     WITHSTAND VOLTAGE     LEAKAGE CURRENT     SURGE IMMUNITY     ISOLATION RESISTANCE     EMC EMISSION     EMC IMMUNITY     DIMENSION     WIGHT	When Tc > 85 °C, the output cu product will self-recovery. The driver could survive in 125 °C f $-40-60$ °C95% RH $-40-85C$ IP67The LED power supply can su vibration is in accordance with 1>200Khours @ 25 °CUL8750, EN61347-1/A2:2013, I/P-O/P: 3750VAC0.75mA max @ 277Vac 50Hz DM 5kV, CM 10KV50MΩ min. at primary to secon Compliance to EN61547; EN55 234*98*40mm 1500±100g	minimum output current will be lin or 2hrs. 40-60°C 95% RH 40-85C IP67 rvive vibration towards three mutua the sine wave with 2mm amplitude, a EN61347-2-13: 2006, IEC61347-1, I/P-FG: 1650VAC : input dary with 500Vdc test voltage SPR15), EN61000-3-2; EN61000-3-3, 1042, EN61000-4-2,3,4,5,6,8,11, GB/	-40~60°C     95% RH     -40~85C     IP67     Illy perpendicular direction (X, Y, Z     nd its frequency range from 10Hz to     IEC61347-2-13, EN62493: 2010, O     O/P-FG: 1600VAC     , GB17743, GB17625.1     T18595, GB17626	ut current in OTP function. The -40~60°C 95% RH -40~85C IP67 ), each direction for 72 minutes. 500Hz with 5G acceleration GB19510.1-2009, GB19510.14-2	
ENVIORNMENT RELIABILITY BAFETY &EMC MECHANICAL	Operating Temp.     Operating Humidity     Storage Temp     Water proof     Vibration     MTBF     SAFETY STANDARDS     WITHSTAND VOLTAGE     LEAKAGE CURRENT     SURGE IMMUNITY     ISOLATION RESISTANCE     EMC EMISSION     EMC IMMUNITY     DIMENSION	When Tc > 85 °C, the output cu product will self-recovery. The driver could survive in 125 °C f       -40~60 °C       95% RH       -40~85C       IP67       The LED power supply can su vibration is in accordance with 1       >200Khours @ 25 °C       UL8750, EN61347-1/A2:2013, I/P-O/P: 3750VAC       0.75mA max @ 277Vac 50Hz       DM 5kV, CM 10KV       50MΩ min. at primary to secon Compliance to EN61547; EN55       234*98*40mm	minimum output current will be lim or 2hrs. 40-60°C 95% RH 40-85C IP67 rvive vibration towards three mutua the sine wave with 2mm amplitude, a EN61347-2-13: 2006, IEC61347-1, I/P-FG: 1650VAC input dary with 500Vdc test voltage PR15), EN61000-3-2; EN61000-3-3,	-40~60°C     95% RH     -40~85C     IP67     Illy perpendicular direction (X, Y, Z)     nd its frequency range from 10Hz to     IEC61347-2-13, EN62493: 2010, O     O/P-FG: 1600VAC     , GB17743, GB17625.1	-40~60°C   95% RH   -40~85C   IP67   2), each direction for 72 minutes   500Hz with 5G acceleration	
ENVIORNMENT RELIABILITY	Operating Temp.     Operating Humidity     Storage Temp     Water proof     Vibration     MTBF     SAFETY STANDARDS     WITHSTAND VOLTAGE     LEAKAGE CURRENT     SURGE IMMUNITY     ISOLATION RESISTANCE     EMC EMISSION     EMC IMMUNITY     DIMENSION     WIGHT     COLOR     /	$\label{eq:constraint} \begin{array}{l} \mbox{When } Tc > 85^\circ C, \mbox{ the output cu} \\ \mbox{product will self-recovery. The } \\ \mbox{driver could survive in } 125^\circ C \mbox{ff} \\ \mbox{-} 40\mbox{-} 60^\circ C \\ \mbox{95\% RH} \\ \mbox{-} 40\mbox{-} 85C \\ \mbox{IP67} \\ \mbox{The LED power supply can su} \\ \mbox{vibration is in accordance with } \\ \mbox{-} 200Khours @ 25^\circ C \\ \mbox{UL8750, EN61347-1/A2:2013, } \\ \mbox{I/P-O/P: 3750VAC} \\ \mbox{0.75mA max @ 277Vac 50Hz} \\ \mbox{DM 5kV, CM 10KV} \\ \mbox{50M}\Omega \mbox{ min. at primary to secon } \\ \mbox{Compliance to EN55015 (CIS Compliance to EN51547; EN55 \\ \mbox{234*98*40mm} \\ \mbox{1500 $\pm$ 100g} \\ \mbox{BLACK} \\ \mbox{/} \end{array}$	minimum output current will be lin or 2hrs. 40-60°C 95% RH 40-85C IP67 rvive vibration towards three mutua the sine wave with 2mm amplitude, a EN61347-2-13: 2006, IEC61347-1, I/P-FG: 1650VAC : input dary with 500Vdc test voltage SPR15), EN61000-3-2; EN61000-3-3, 1042, EN61000-4-2,3,4,5,6,8,11, GB/	-40~60°C     95% RH     -40~85C     IP67     Illy perpendicular direction (X, Y, Z     nd its frequency range from 10Hz to     IEC61347-2-13, EN62493: 2010, O     O/P-FG: 1600VAC     , GB17743, GB17625.1     T18595, GB17626     BLACK     /	ut current in OTP function. The -40~60°C 95% RH -40~85C IP67 ), each direction for 72 minutes 500Hz with 5G acceleration GB19510.1-2009, GB19510.14-2	



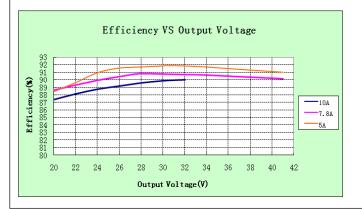
## Characteristic Curve

#### Model: WSZA-320-020VN

## POWER FACTOR vs OUTPUT POWER



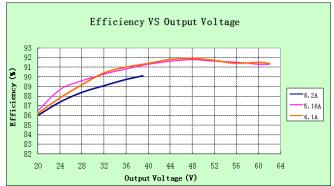
## **EFFICIENCY vs Voutput** (Vin=115Vac, Ta=25°C)



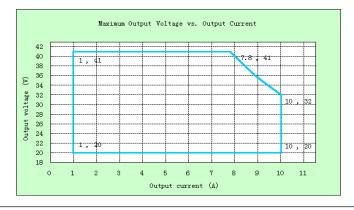
### Model: WSZA-320-062VN

#### **POWER FACTOR vs OUTPUT POWER** Power Factor vs Output Power 1.00 0.98 0.96 0.94 0.92 -115VAC 뷥 0.90 0.88 230VAC 0.86 0.84 0.82 0.80 164 180 197 213 230 246 262 279 295 320 Output power(W)

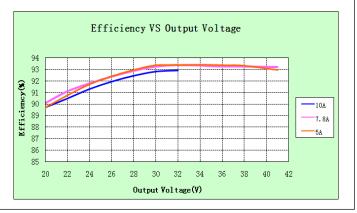
## **EFFICIENCY vs Voutput** (Vin=115Vac, Ta= $25^{\circ}$ C)



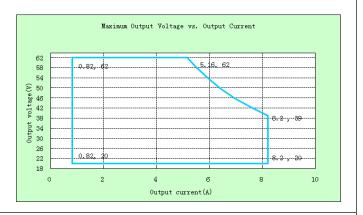
## **OUTPUT V-I OPERATING AREA**



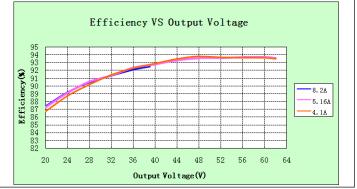
## **EFFICIENCY vs Voutput** (Vin=230Vac, Ta=25°C)



### **OUTPUT V-I OPERATING AREA**



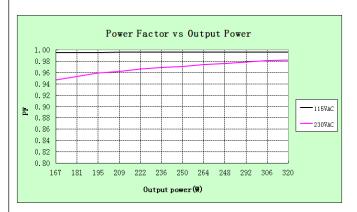
### **EFFICIENCY vs Voutput** (Vin=230Vac, Ta=25°C)



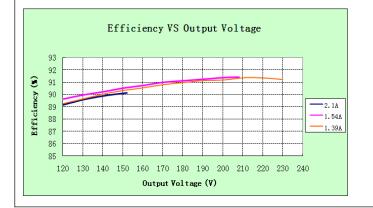


#### Model: WSZA-320-120VN

#### **POWER FACTOR vs OUTPUT POWER**

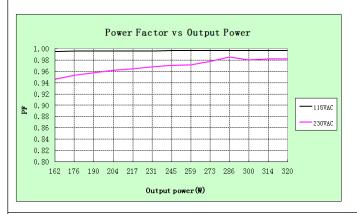


## **EFFICIENCY vs Voutput** (Vin=115Vac, Ta=25°C)

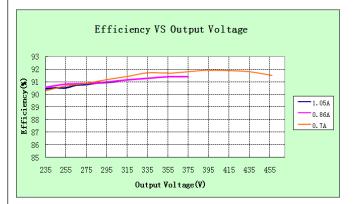


### Model: WSZA-320-235VN

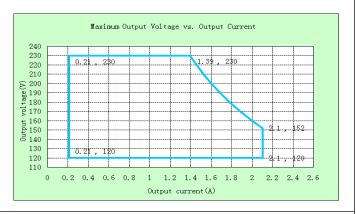
### **POWER FACTOR vs OUTPUT POWER**



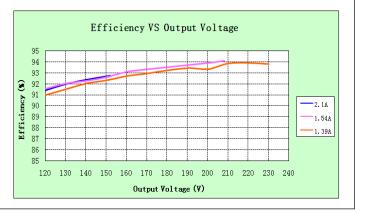
### **EFFICIENCY vs Voutput** (Vin=115Vac, Ta= $25^{\circ}$ C)



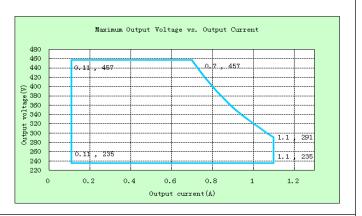
### **OUTPUT V-I OPERATING AREA**



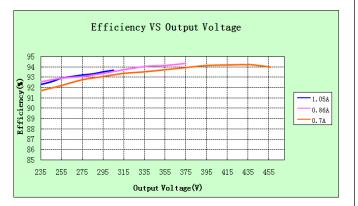




#### **OUTPUT V-I OPERATING AREA**

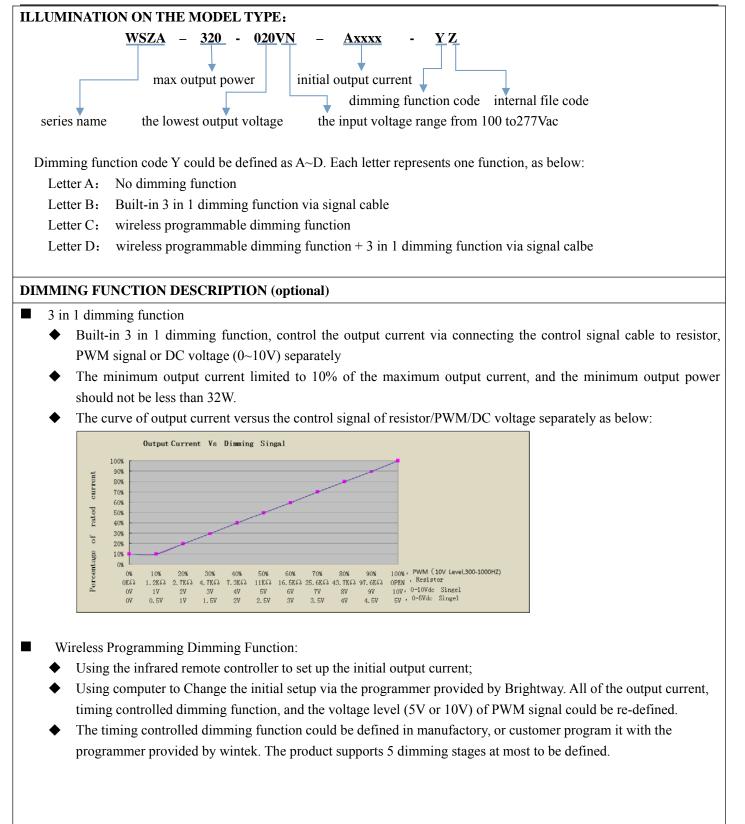


#### **EFFICIENCY vs Voutput** (Vin=230Vac, Ta=25°C)

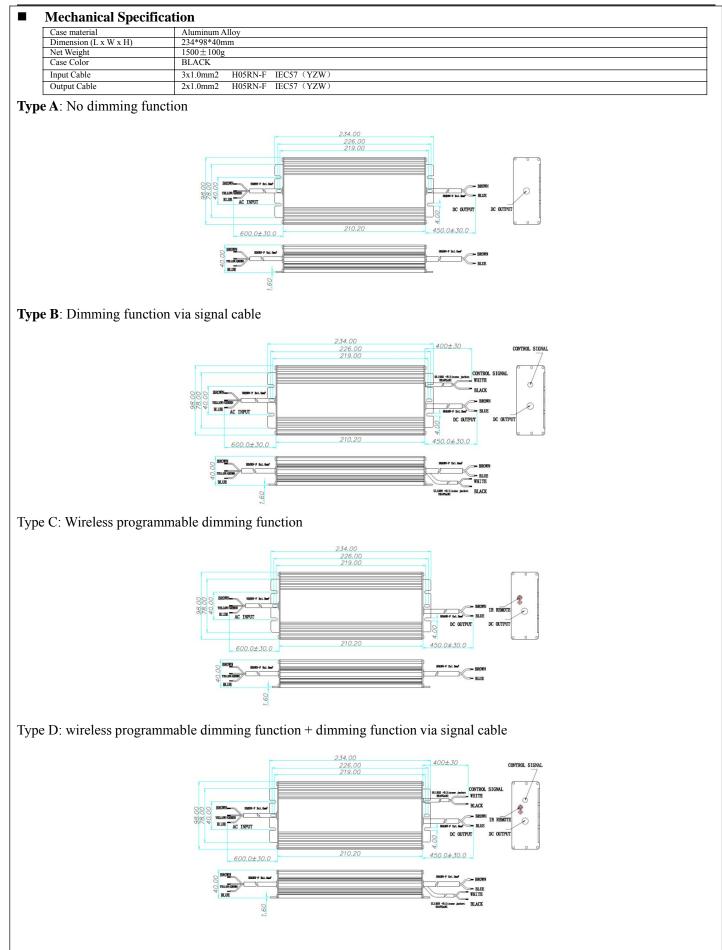




# 320W WSZA SERIES







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