



## TDW Series 500W



ICES-005 Class P TYPE HL SELV RoHS



### Features

Output:	Constant Voltage
Range:	110-277VAC
PFC design:	Built-in active PFC function
Efficiency:	Up to 93%
Protections:	Short circuit / Over load / Over temperature
Heat dissipation:	Cooling by free air convection
Waterproof performance:	Driver built in junction box, for dry, damp & wet locations.
Dimming function:	Phase dimming : work with Forward phase, MLV and Reverse phase, ELV, TRIAC dimmers.
Dimming range:	0-100% dimmingdepth0.1%
Min load:	Min load is 10%.
Application:	Suitable for the application of LED lighting
Warranty:	2 years warranty
Others:	PWM output, High power factor PF>0.95, Flicker-free dimming



## Specification

Model		KVF-12500-TDWJ	KVF-24500-TDWJ	KVF-36500-TDWJ	KVF-48500-TDWJ
<b>Certificate</b>		UL / FCC / ICES-005 / Class P / TYPE HL / SELV / ROHS / REACH			
<b>Output</b>	DCVoltage	12V ±0.5V	24V	36V	48V
	VoltageTolerance	≤0.5%			±1V
	VoltageRegulation	41.67A			
	Ratedcurrent	500W ≤1%	20.83A	13.89A	10.42A
	Ratedpower	110 ~			
	LoadRegulation	277VAC			
<b>Input</b>	VoltageRange	50/60Hz			
	FrequencyRange				
	Power Factor (Typ.)@ full load	>0.95			
	THD(Typ.)@fullload	≤10%@120VAC@fullload			
	Efficiency(Typ.) @ full load	90%@120VAC 92.5%@277VAC	90.5%@120VAC 93%@277VAC	90.5%@120VAC 93%@277VAC	90.5%@120VAC 93%@277VAC
	Standbypower	<0.5W			
	ACCurrent(Max.)	5.03A			
	InrushCurrent(Typ.)	52A,810us@50%Ipeak110VAC 76A,148us@50%Ipeak277VAC			
	Leakagecurrent	<0.5mA			
<b>Protection</b>	ShortCircuit	Hiccupmode,recoversautomaticallyafterfaultconditionisremoved.			
	OverLoad	105%~120%Hiccupmode,recoversautomaticallyafterfaultconditionisremoved.			
	Overtemperature	100°C±10°Cshutdownno/pvoltage,automaticallyrecoveraftercooling.			
<b>Environment</b>	WorkingTEMP.	-40~+40°C(seebelowderatingcurve)			
	WorkingHumidity	20-95%RH non-condensing			
	StorageTEM.,Humidity	-40~+80°C,10-95%RHnon-condensing			
	TEMP.coefficient	±0.03%/°C(0-50°C)			
	Vibration	10~500Hz,5G10min./1cycle,periodfor60min.eachalongX,Y,Zaxes			
<b>Safety &amp; EMC</b>	Safetystandards	UL8750; CAN/CSA-C22.2No.250.13			
	Withstandvoltage	I/P-O/P:1.88KVAC I/P-FG:1.88KVAC O/P-FG:0.5KVAC			
	Isolationresistance	I/P-O/P:100MΩ/500VDC/25°C/70%RH			
	EMCImmunity	FCC/ICESdonotrequestthistest.			
	EMCEmission	FCCPart15SubpartB; ANSIC63.4a-2017; ICES-005Issue5			
<b>Others</b>	NetWeight	2.7KG			
	Dimension	280*140.2*50.2mm(L*W*H)			
	Packing	342*285*170mm 5pcs/CTN			
<b>Notes</b>	1. AllparametersNOTspeciallymentionedaremeasuredatratedloadand25°Cofambienttemperature. 2. Tolerance:includessetuptoleranceandloadregulation.				



### MCB recommendation

When the input voltage is 120Vac, the number of LED Driver matched by circuit breakers is as follows:		
MCBType	Level	ThenumberofLEDDriver
Ctype	10A	2
	13A	2
	16A	3
	20	3
	A	4
When the input voltage is 277Vac, the number of LED Driver matched by circuit breakers is as follows:		
MCBType	Level	ThenumberofLEDDriver
Ctype	10A	4
	13A	5
	16A	6
	20	8
	A	9

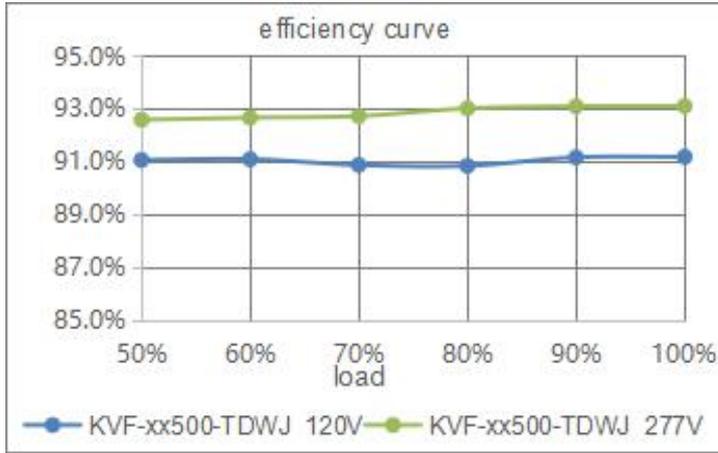
**Note:**

1. The above quantities of the led drivers connected on the Type C is recommended base on the maximum ambient temperature is 50 °C.
2. The breaker should be selected according to the input rated voltage, input rated current, ambient temperature, and trip characteristic curve.

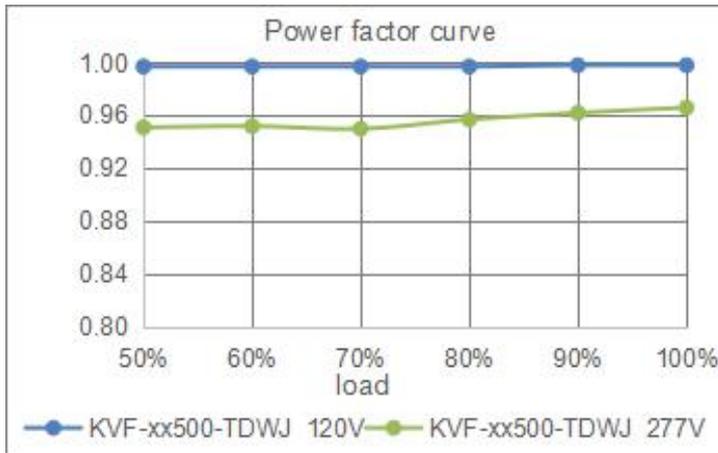




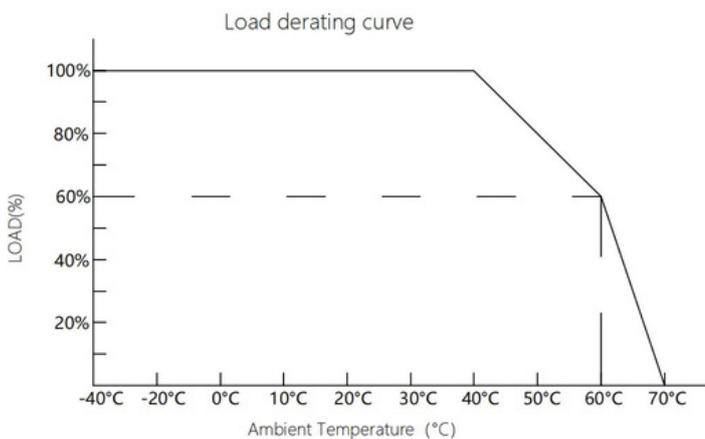
### Efficiency Curve (efficiency vs output load)



### Power Factor Curve (power factor vs output load)



### Derating Curve (output load vs TEMP.)



To extend their life, please refer to the Derating Curve and derate according to the temperature.



## Mechanical Specification

序号 NO.	内容 DESCRIPTION	原因 REASON	日期 DATE	修改人 MODIFIER
△				
△				
△				

Dimensions (mm): 10.3150 (262.0), 9.9606 (253.0), 11.0236 (280.0), 10.1482 (257.8), 1.9746 (50.2), 1.9094 (48.5), 0.0591 (1.5), 0.1673 (4.3), 0.1575 (4.0), 0.8661 (22.0), 13-∅22.0, 3.9370 (100.0), 2.7559 (70.0), 5.5197 (140.2), 1.6821 (42.7), 1.2657 (32.2), 2.9528 (75.0), 1.7913 (45.5), 5.0197 (127.5)

产品名称: PRODUCT NAME	X		产品编码: PRODUCT No.	X	
设计: DESIGNED	侯超 2022-03-09	零件名称: PART NAME	JM600 安装图	页码: SHEET	1 of 1
审核: CHECKED		材料: MATERIAL	X	版本号: REV	A0
批准: APPROVED		图号: DRAWING No	X	比例: SCALE	FIT
表面处理 TREATMENT	X	视角: PROJ		单位: UNIT	mm/in

Zhuhai Shengchang Electronics Co., Ltd.  
珠海市圣昌电子有限公司

American wire gauge	
JM600	
Inputwire	Black(L)White(N)Green(G)(3*18AWG)
Outputwire(12V)	Red(V+)Black(V-)(2*14AWG)*3
Outputwire(24V&36V)	Red(V+)Black(V-)(2*14AWG)*2
Outputwire(48V)	Red(V+)Black(V-)(2*14AWG)*1
Remarks: Please make sure you connect these correctly otherwise your product will not function correctly and could be damaged.	

### Warm tips:

- Recommended Max. Carrying Current (A) = wire diameter(mm<sup>2</sup>) x 10A/mm<sup>2</sup>  
For example: 1mm<sup>2</sup> output cable, Recommended Max. Carrying Current (A) = 1mm<sup>2</sup> x 10A/mm<sup>2</sup>=10A
- Any other requests for cable, we can customize.



### Dimming Operation and Connecting Diagram

#### Using one dimming ---TRIAC/Phase cut dimming

1. The Pulse-Width Modulation (PWM) of output voltage can be adjusted through input terminal of the AC phase line(L) by connection a phase /Triac dimmer or lighting system.
2. Working with forward phase /leading edge, MLV and Reverse phase /trailing edge, ELV, TRIAC dimmers or light system.  
Min. loading is about 10%
3. Please try to use dimmers with power at least 1.5 times as the output power of the driver.

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### Instructions

- This driver should be installed by qualified and professional person.
- Please make sure the driver is installed with adequate ventilation around it to allow for heat dissipation.
- Ensure that wiring is correct before test in order to avoid light and power supply damage.
- If driver Cannot work normally, don't maintain privately.

