

ECV600(XYZ)DC-UD-2G

Whole Family: ECV-XXX(xyz)=24/36/48VDC) [30W 60W 80W 96W 100W 120W 150W 200W 300W 500W 600W]



ICES-005 Class P SELV RoHS



Dimming Mode



PWM Output



Voltage Reduce



Output Volt. Adjustment

Volt. Adj.
- +

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.
Design features:	Output mode selection: Pulse-Width Modulation (PWM) & Voltage Reduce (VR) mode can be switched.



Dimming function:	Phase dimming: work with Forward phase, MLV and Reverse phase, ELV, TRIAC dimmers. 0-10V dimming: 0-10V/1-10V/Potentiometer/10V PWM 4 in 1.
Min load	Min load is 15%
Dimming range:	PWM: 0-100% VR: 24V: 0~24V 36V: 0~36V 48V: 0~48V
Dimming depth:	PWM: 0.1% VR: 24V: 14V±0.5V 36V: 21V±1V 48V: 28V±1V
Application:	Suitable for the application of LED lighting
Warranty:	5 years warranty

Specification

Model		ECV600-24DC-UD-2G	ECV600-36DC-UD-2G	ECV600-48DC-UD-2G
Certificate		UL / FCC / ICES-005 / Class P / SELV / ROHS / REACH		
Output	DC Voltage	24V	36V	48V
	Voltage Tolerance	±1.5%	±1%	±1%
	Voltage Regulation	≤0.5%	≤0.5%	≤0.5%
	Rated current	25A	16.67A	12.5A
	Rated power	600W		
	Load Regulation	±1%		
	Output volt Adjustment	24-25.5V 	36-37.5V 	48-49.5V 
	Output mode selection	The DIP switch at the "ON" position represents the PWM (Pulse - Width Modulation) mode, and at the "1" position represents the VR (Modulation of DC Voltage) mode. Switching the output mode requires the power to be cut off for 3 seconds and then powered on again for the mode switching to take effect.		
Input	Voltage Range	110-277VAC		
	Frequency Range	50 / 60Hz		
	Power Factor @ full load	>0.95		
	Efficiency @ full load	90.5%@120VAC 93%@277VAC	90.5%@120VAC 93%@277VAC	90.5%@120VAC ; 93%@277VAC
	AC Current (Max.)	5.97A		
	THD(Typ.)@full load	<20%@120VAC & 277VAC		
	Inrush Current (Typ.)	43A,810us@50%Ipeak110VAC 76A,148us@50%Ipeak277VAC		
	Leakage current	<0.5mA		
Protection	Short Circuit	Hiccup mode, automatically recovers after an exception is removed.		
	Over Load	105%~120% Hiccup mode, automatically recovers after an exception is removed.		
	Over Temperature	100°C±10°C shut down o/p voltage, automatically recover after cooling.		
Environment	Working TEMP	-40~+40°C (see below derating curve)		
	Working Humidity	20 -95%RH non-condensing		
	Storage TEM.,Humidity	-40 - +80°C,10 - 95% RH non-condensing		
	TEMP.coefficient	±0.03%/°C(0 - 50°C)		
	Vibration	10 ~ 500Hz, 5G 12 minutes/cycle, X Y Z axis 72 minutes each		
Safety & EMC	Safety standards	UL8750; CAN/CSA-C22.2 No.250.13		
	Withstand voltage	I/P-O/P: 1.88KVac I/P-FG: 1.88KVac O/P-FG: 0.5KVac		
	Isolation resistance	I/P-O/P: 100MΩ/ 500VDC/ 25°C/ 70% RH		
	Surge Immunity Test	AC Power Line:Differential Mode 2KV,Common Mode 4KV		
	EMC Immunity	FCC/ICES do not request this test.		
	EMC Emission	FCC Part 15 Subpart B; ANSI C63.4a-2017; ICES-005 Issue 5		
Others	Net Weight	2.58KG		

	Dimension	280*140.2*48.5mm(L*W*H)
	Packing	342*285*170mm 5pcs/CTN
Notes	- All parameters NOT specially mentioned are measured at 120VAC input, rated load and 25°C of ambient temperature. - Under low input voltage, derating output is required to ensure a long life. - Default states: The output mode is PWM mode. The dimming curve is a gamma2.2 curve. - Regarding LED driver load types where the driver meets the harmonic emissions requirements of ANSI C82.77-10.	

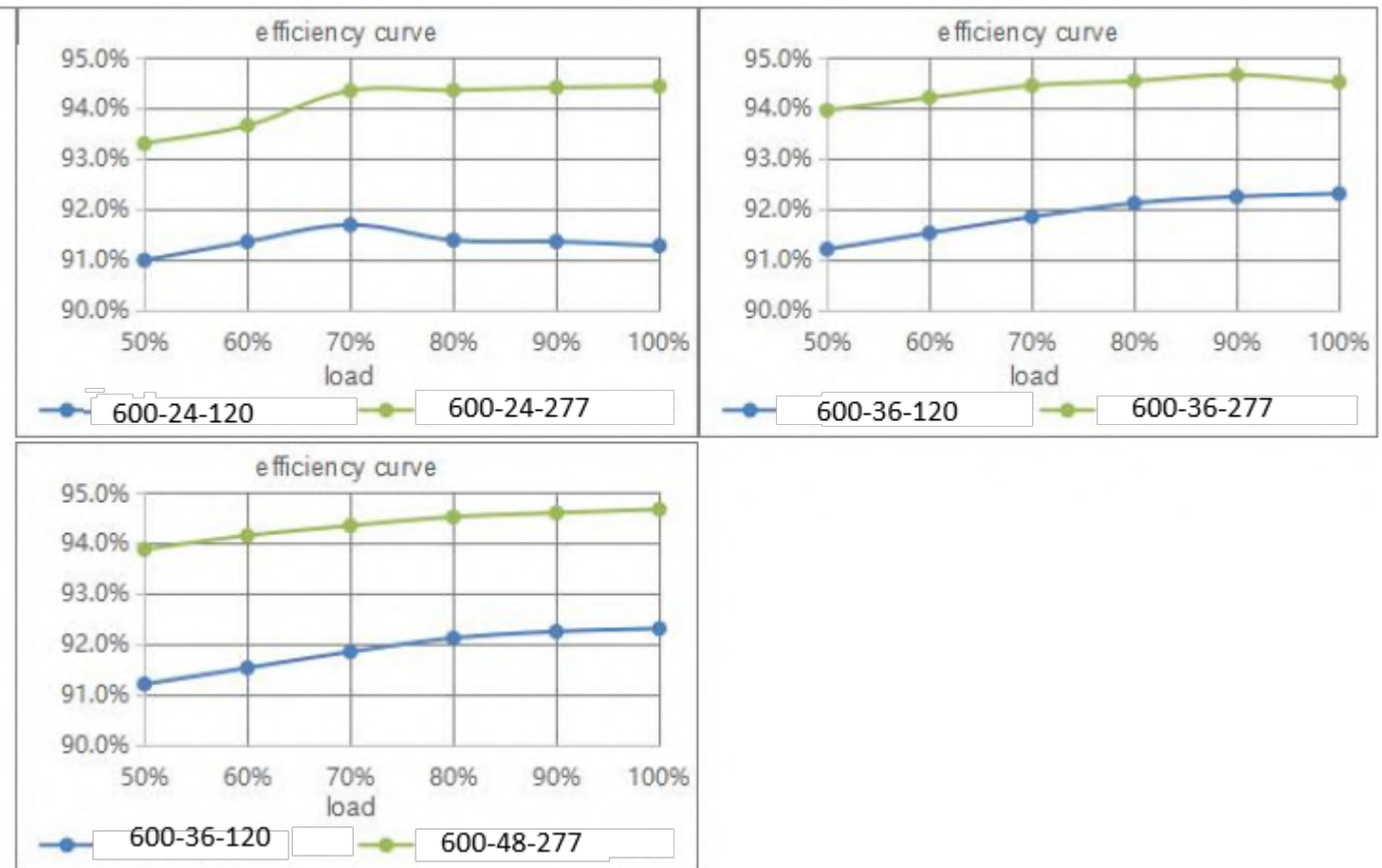
MCB recommendation

When the input voltage is 110Vac, the number of LED Driver matched by circuit breakers is as follows:		
MCB Type	Level	The number of LED Driver
C type	10A	1
	13A	2
	16A	2
	20A	3
	25A	3
When the input voltage is 277Vac, the number of LED Driver matched by circuit breakers is as follows:		
MCB Type	Level	The number of LED Driver
C type	10A	3
	13A	4
	16A	5
	20A	7
	25A	9

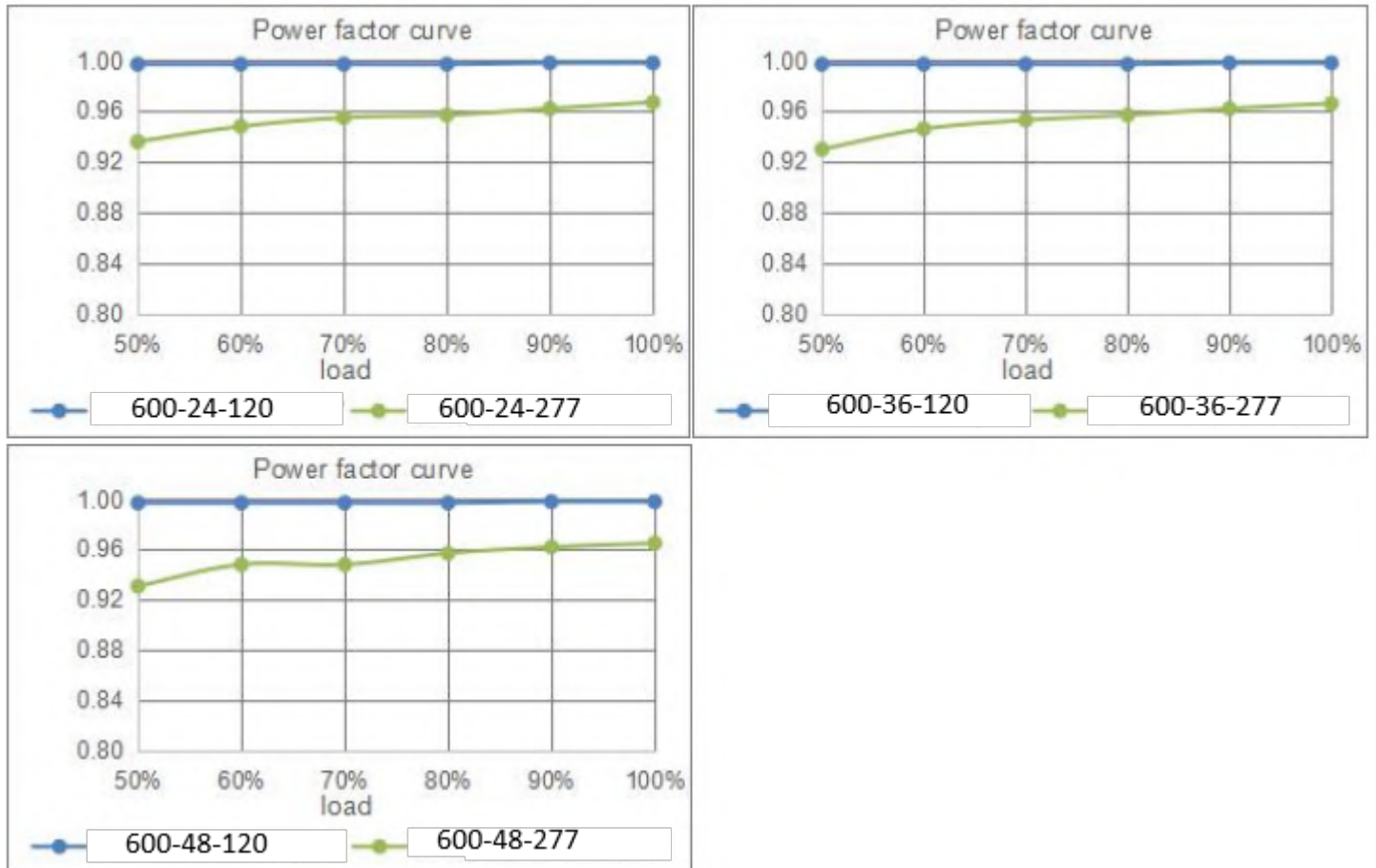
Note:

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

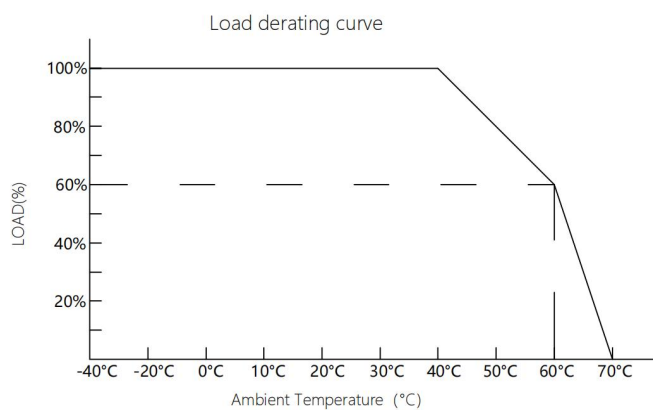
Efficiency Curve (efficiency vs output load)



Power Factor Curve (power factor vs output load)

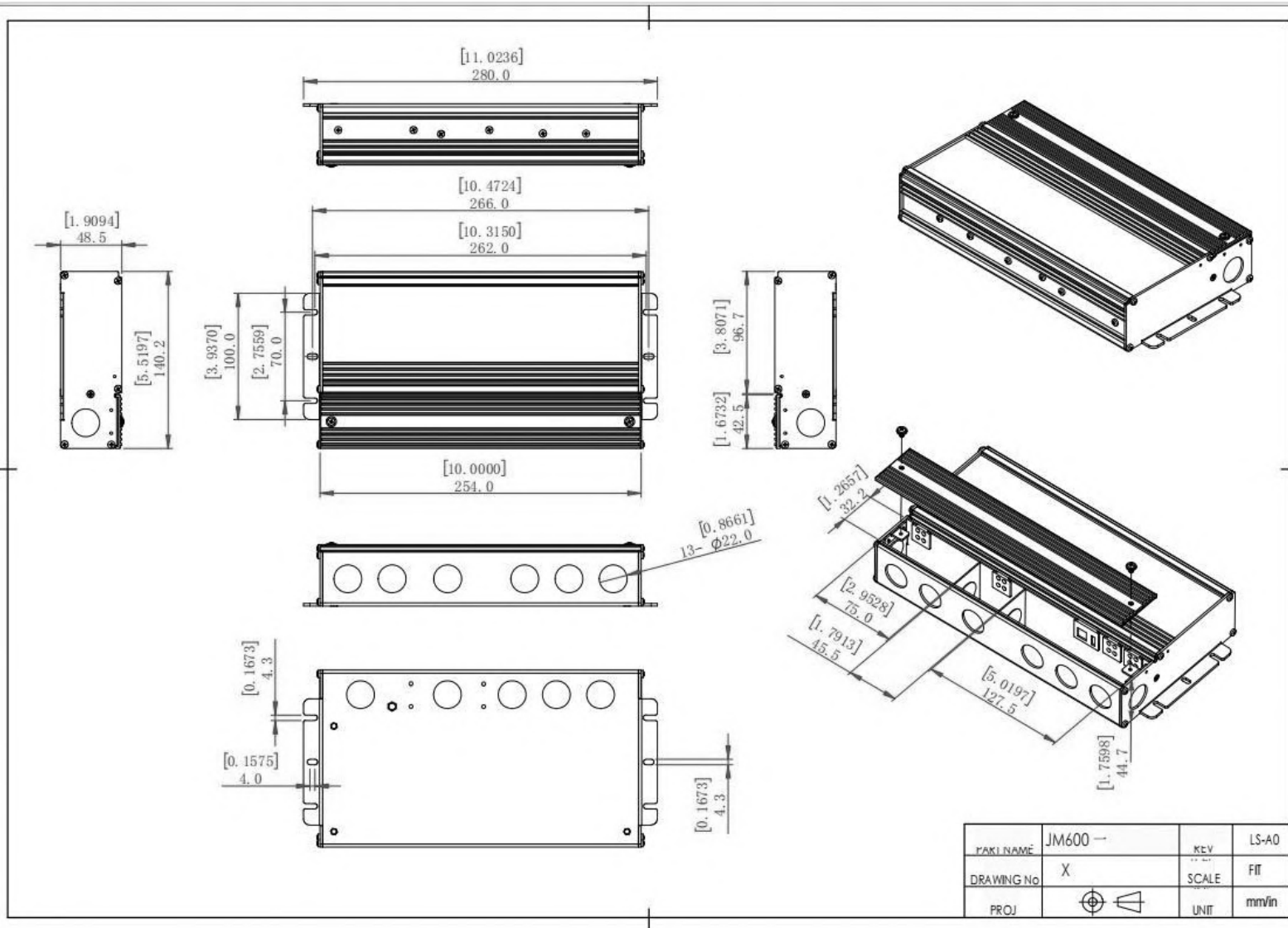


Derating Curve (output load vs TEMP.)



1. To extend their life, please refer to the Derating Curve and derate according to the temperature.
2. Please note that the rise in temperature of LED fixtures over a long period of time will cause their power to rise. Therefore, we recommend the power supply to reserve a certain amount of load to avoid overloading.

Mechanical Specification



American wire gauge

JM600

Input wire	Black(L) White(N) Green(G) (3*18AWG)
Output wire	24V&36V: Red(V+) Black(V-) (2*14AWG)*2 48V: Red(V+) Black(V-) (2*14AWG)
Dimming wire	Purple(DIM+) Pink(DIM-) (2*18AWG)

Instructions

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

Have any questions, please contact EMCOD INC

Please visit our website or contact us for more information: www.emcod.com

