DALI-2 Dimmable LED Driver - Constant Voltage Output - KV-2G-DP2A Series 600W

KV-2G-DP2A Series 600W

Whole Family: KV-24600-2G-DP2A

CE IP66 SELV RoHS Reach NFC DALI-2



Features

Output:	Constant Voltage
Range:	110-277VAC
PFC design:	Built-in active PFC function
Efficiency:	Up to 94%
Protections:	Short circuit/ Over load/ Over temperature
Heat dissipation:	Cooling by free air convection
Waterproof performance:	IP66. (EU)
	Full aluminum protection housing, for dry, damp & wet locations. (US)
Design features:	The dimming curve is adjustable. Multi-Channel output. Multiple frequency options. DT6 and DT8
	Compatibility. Driver parameters can be adjusted by APP.
Dimming function:	DALI-2 dimming (PWM output)
Min load:	Min load is 10%.
Dimming range:	0.1-100% dimming depth 0.1%(244Hz)
	0.2-100% dimming depth 0.2%(800Hz)
	0.3-100% dimming depth 0.3%(4KHz)
	0.8-100% dimming depth 0.8%(20KHz)
Application:	Suitable for the application of lighting with digital dimming
Warranty:	5 years warranty
Other:	Flicker-free dimming

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Specification

Model		KV-24600-2G-DP2A
Certificate		CE / SELV / RoHS / Reach
Output	DC Voltage	24V
	Voltage Range (by NFC)	24-25.5V
	Rated current	25A
	Current Tolerance	±0.2V
	Rated power	600W
	Load Regulation	1%
	Voltage Regulation	0.5%
Input	Voltage Range	110-277VAC
	Frequency Range	50 / 60Hz
	Power Factor @ full load	>0.95
	THD(Typ.) @ full load	≤10%@120VAC ≤10%@230VAC ≤15%@277VAC
	Efficiency @ full load	92%@120VAC 93%@230VAC 94%@277VAC
	Standby power	≤0.5W
	AC Current (Max.)	7A
	Inrush Current (Typ.)	36.5A, 50%, 53us @120VAC 70A, 50%, 102us @230VAC 84A, 50%, 116us @277VAC
	Leakage current	<0.5mA
Protection	Short Circuit	Hiccup mode, recovers automatically after fault condition is removed.
	Over Load	105%~120% Hiccup mode, recovers automatically after fault condition is removed.
	Over temperature	Ambient temp.Over 45 ± 5℃, output current will be reduced to 50%. Ambient temp.Over 55 ± 5℃, shut down output, recovers automatically after temp. drops
Environment	Working TEMP.	-40~+40℃ (see below derating curve)
	Working Humidity	20 - 95%RH non-condensing
	Storage TEM.,Humidity	-40 - +80℃,10 - 95% RH non-condensing
	TEMP.coefficient	±0.03%/℃(0 - 50℃)
	Vibration	10 ~ 500Hz, 5G 12 minutes/cycle, X Y Z axis 72 minutes each
Safety & EMC	Safety standards	EN61347-1; EN61347-2-13 UL8750; CAN/CSA-C22.2 No.250.13
	Withstand voltage	I/P-O/P:3.75KVAC I/P-FG:1.88KVAC O/P-FG:0.5KVAC (EU) I/P-O/P:1.88KVAC I/P-FG:1.88KVAC O/P-FG:0.5KVAC (US)
	Isolation resistance	I/P-O/P: 100MΩ/ 500VDC/ 25℃/ 70% RH
	EMC Immunity	EN61547; EN61000-4-2,3,4,5,6,11 FCC/ICES do not request this test.
	EMC Emission	EN55015; EN61000-3-2,3 FCC Part 15 Subpart B
	Surge Immunity Test	AC Power Line:Differential Mode 4 kV, Common Mode 6 kV
Others	Net Weight	

	Dimension	277.2*115*49.5mm(L*W*H)
	Packing	370*375*260mm 10pcs/CTN
Notes	1. Unless otherwise specified, all specifications are measured at 120V input, rated load, and 25℃ ambient temperature. 2. Default states: Output voltage level is level 1. (see below NFC voltage regulation level table) Output frequency is 4KHZ. The dimming curve is a logarithmic curve.	

Channel Mode Description

Switch to different mode by NFC				
Output mode	CW max	WW max	Overall power	Dimming
DT6	600W	600W	CW+WW=600	Synchronous dimming
DT8-Tc	600W	600W	CW+WW=600	Color temperature dimming

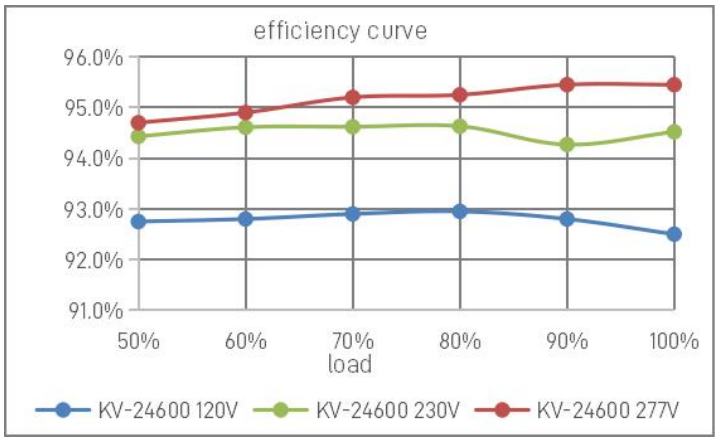
MCB recommendation

When the input voltage is 120Vac, the number of LED Driver matched by circuit breakers is as follows:		
MCB Type	Level	The number of LED Driver
C type(breaking capacity:6KA)	10A	1
	13A	1
	16A	1
	20A	2
	25A	2
When the input voltage is 230Vac, the number of LED Driver matched by circuit breakers is as follows:		
MCB Type	Level	The number of LED Driver
C type(breaking capacity:6KA)	10A	2
	13A	2
	16A	3
	20A	4
	25A	5
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(breaking capacity:6KA)	10A	2
	13A	3
	16A	4
	20A	5
	25A	6

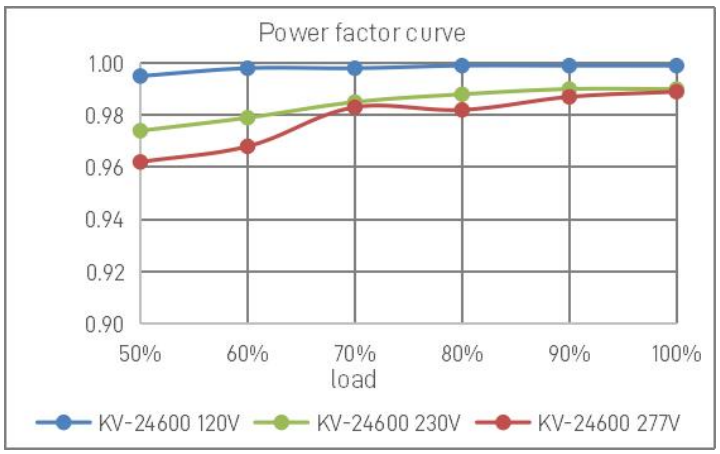
Note:

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.

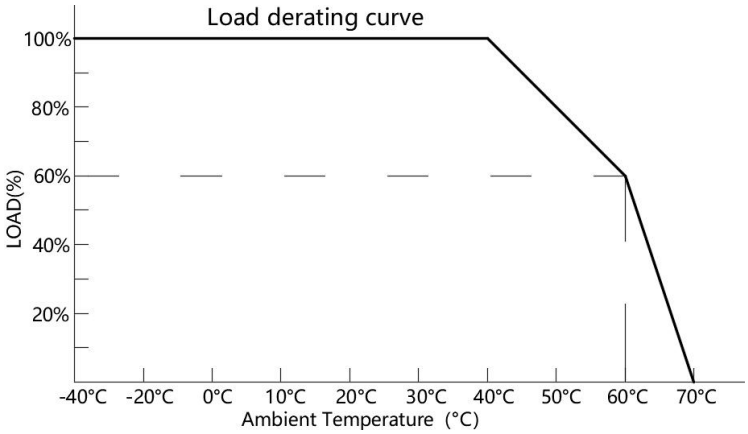
Efficiency Curve (efficiency vs output load)



Power Factor Curve (power factor vs output load)



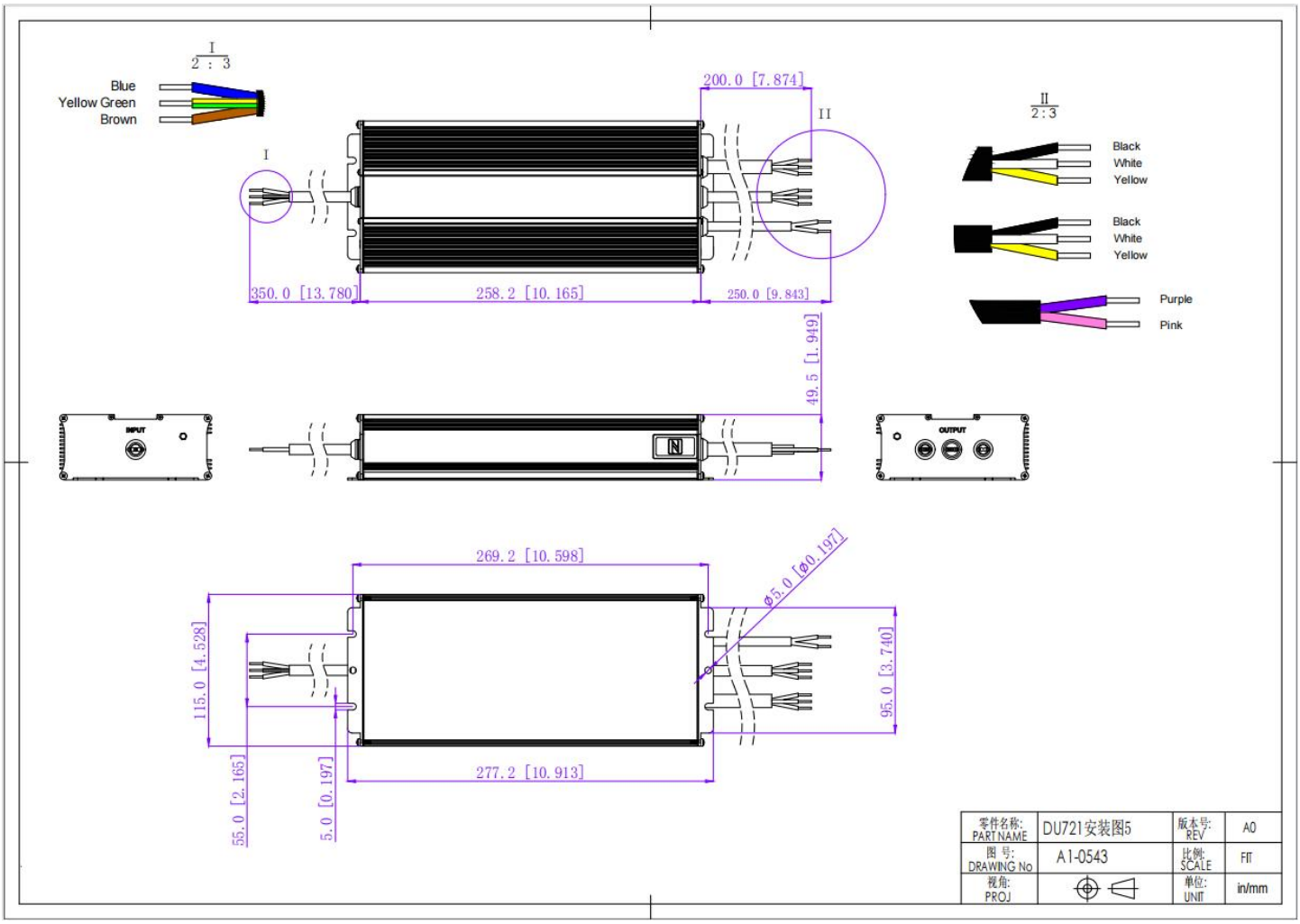
Derating Curve (output load vs TEMP.)



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.

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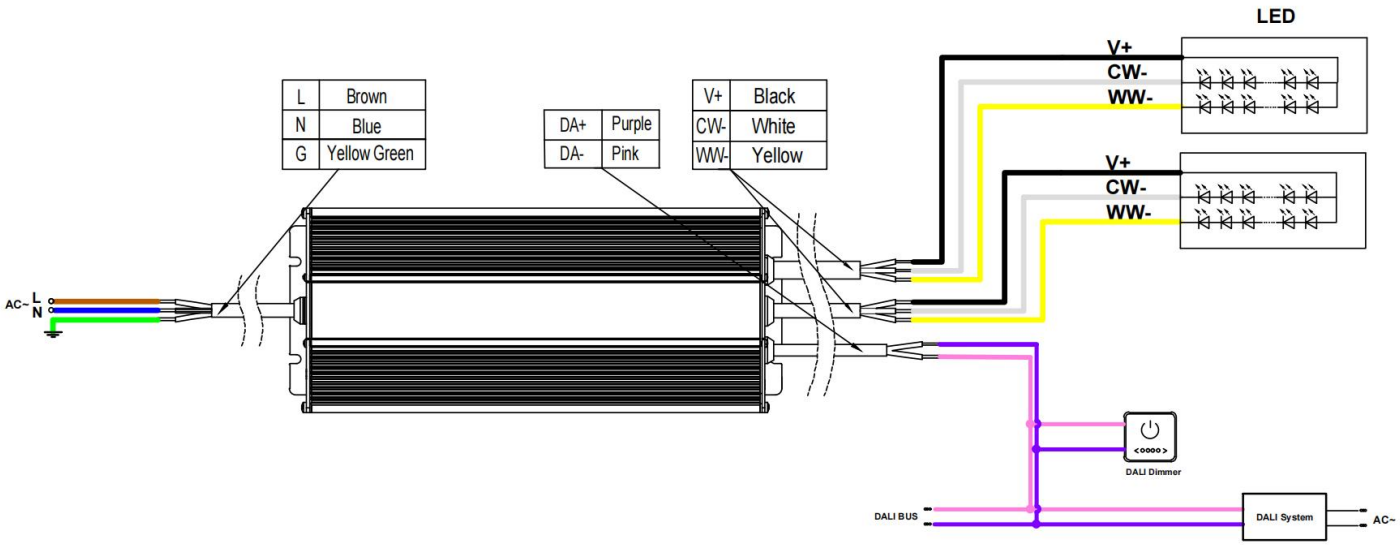
Mechanical Specification



Global wire gauge	
DU721	
Input wire	Brown (L) Blue (N) Yellow Green(G) (3*17AWG/1.04mm²)
Output wire	Black(V+) White(CW-) Yellow(WW-) (3*14AWG/2.08mm²)*2
Dimming wire	Purple(DA+) Pink(DA-) (2*18AWG/0.824mm²)
Remark: Please make sure you connect these correctly otherwise your product will not function correctly and could be damaged.	

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Connecting Diagram



NFC function



ProNFC APP



NFC Handheld devices

IOS Download

Android Download

Adjust output voltage slightly by NFC

The output voltage can be read and written by a mobile with ProNFC APP or NFC handheld device (NFC read & write device: NFC-RW) by close to the NFC signal area of the Dimmable LED driver.

NFC voltage regulation level										
	level 1	level 2	level 3	level 4	level 5	level 6	level 7	level 8	level 9	level 10
24V	24V	24.2V	24.3V	24.5V	24.7V	24.8V	25.0V	25.2V	25.3V	25.5V

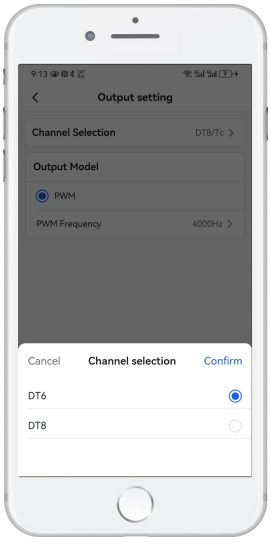
Set Address easily by NFC

The address can be read and written by a mobile with ProNFC APP or NFC handheld device (NFC read & write device: NFC-RW) by close to the NFC signal area of the Dimmable LED driver.

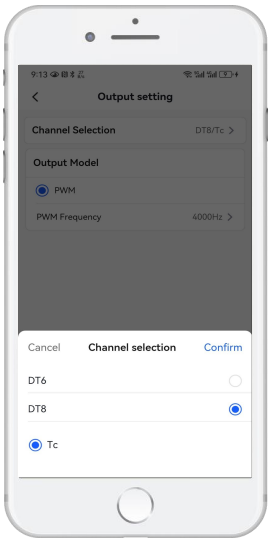
Set output mode easily by NFC

DALI DT6 for single color & DALI DT8 for CCT Tunable white can be chosen by ProNFC APP.

DT6:



DT8:



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 SCPOWER/SURETRON.

Please visit our website or contact us for more information! www.scpower.net.cn/en