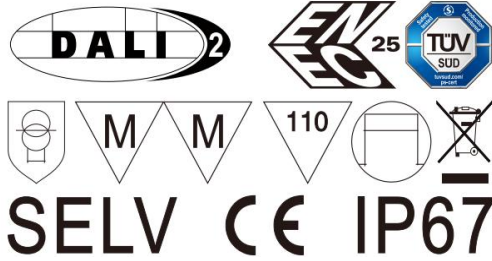




Constant Voltage LED Driver

Constant Voltage Driver

Model: XSV Series



Model	Item Code	Rated Input Voltage	Output current	Input current	Input power	Output power range	PF	Efficiency	Output voltage
XSV60W48-DALI-NX	159120	220-240VAC	1.25A	≤0.40A	≤72.00W	0.00-60.00W	≥0.95	88%	48V
XSV100W48-DALI-NX	159130		2.10A	≤0.60A	≤115.00W	0.00-100.00W		90%	
XSV160W48-DALI-NX	159140		3.34A	≤0.90A	≤180.00W	0.00-160.00W		92%	
XSV240W48-DALI-NX	159150		5.00A	≤1.50A	≤265.00W	0.00-240.00W		92%	
XSV400W48-DALI-NX	159160		8.34A	≤2.30A	≤435.00W	0.00-400.00W		93%	

* Test result @230V, 50Hz, Full Load.

1. Parameters

Category	Item	Technical Norm						
Features	Output Type	Constant Voltage						
	Dimming Type	DALI-2						
	Output Features	Isolation SELV						
	IP Grade	IP67						
	Installation	Independent						
	Insulation Class	Class I						
Input	Rated Input Voltage	220-240VAC						
	Range of AC Input Voltage	176-264VAC						
	Range of DC Input Voltage	175-280VDC (EMI not evaluated)						
	Frequency	Rate: 50/60Hz, Range: 47~63Hz						
	Power Factor	≥0.95, 220-240VAC, Rated Load, see graphs						
	THD	≤10%, 230VAC, Rated Load, see graphs						
	Standby Power Consumption	≤0.5W, @230VAC, Dim to OFF						
	Inrush Current	Model	IP	IP (typ.)	Duration time	240Vac/50Hz, 90-degree phase, full load, cold start-up, duration time measure from 50%I _{pk} to 50%I _{pk}		
		60W	<30A	26A	220us			
		100W	<50A	45A	250us			
		160W	<60A	56A	250us			
		240W	<80A	76A	320us			
		400W	<100A	88A	430us			

Constant Voltage LED Driver

	Connected quantity of 10A Breaker	60W	10pcs,10A type B / 16pcs 10A type C		
		100W	6pcs,10A type B / 10pcs 10A type C		
		160W	5pcs,10A type B / 8pcs 10A type C		
		240W	4pcs,10A type B / 6pcs 10A type C		
		400W	3pcs,10A type B / 4pcs 10A type C		
	Connected quantity of 16A Breaker	60W	16pcs,16A type B / 26pcs 16A type C		
		100W	10pcs,16A type B / 16pcs 16A type C		
		160W	8pcs,16A type B / 13pcs 16A type C		
		240W	6pcs,16A type B / 8pcs 16A type C		
		400W	4pcs,16A type B / 5pcs 16A type C		
Output	Output Voltage	48VDC±3%			
	Rated Load Range	60W	24-60W		
		100W	30-100W		
		160W	48-160W		
		240W	72-240W		
		400W	120-400W		
	Output Voltage Ripple	<480mV _{PK-PK} (0.5%)			
	Line Regulation	±1%			
	Load Regulation	±2%			
	Overshoot	<105%Vo			
	Start-up Time	0.6S(typ.) (220-240VAC)			
	Efficiency	60W	≥86%	88% typ.	230VAC, Rated Load, at output terminals, see graphs
		100W	≥90%	92% typ.	
		160W	≥90%	92% typ.	
240W		≥90%	92% typ.		
400W		≥91%	93% typ.		
Protection	Short Circuit Protection	Auto Recovery			
	Over Current Protection	120%-200%Io, Auto Recovery			
	Over Voltage Protection	120%-150%Vo, Auto Recovery			
	Over Temperature Protection	90<Tc<110℃, Auto Recovery			
	Insulation voltage	I/P to O/P, 3KVac/5mA/1min			
	Insulation resistance	>100M ohm @ 500VDC			
	Leakage current	I/P to O/P < 250μA			
Control Method	PUSH dimming	PUSH dimming (Max. lead wire length: 20m, same port of DALI)			
	PUSH Dimming Synchronization	The power connected to the same PUSH switch can be synchronized by pressing and holding the PUSH switch for longer than 10S.			
	DALI function	DALI dimming (Max. lead wire length: 300m) logarithm or linear dimming curve selectable			
	Dimming range	DALI dimming: 1%-100%, (1KHz)			
Environment	Ta/Operation Temperature	-25....+50℃			
	Ts/Storage Temperature	-40....+85℃			
	Humidity	5%....85%RH			
	Atmosphere	86-108KPa			

Constant Voltage LED Driver

	Tc/Enclosure Temperature For Safety	60W/100W	75℃
		160W	85℃
		240W/400W	90℃
Standards	Certification	CE/ENEC	
	Safety Standards	EN61347-1:2015, EN61347-2-13:2014/A1:2017,EN62493:2015, AS61347.2.13:2018,AS/NZS 61347.1:2016 Inc A1	
	EMC Standards	EN55015:2013/A1:2015, EN61000-3-2:2014, EN61000-3-3:2013, EN61547:2009	
	Performance	EN62384;IEC 62386-101 Edition2.0 2014-11; BS EN 62386-102:2014 ; BS EN 62386-207:2009	
	Surge	L-N:4KV, L/N-PE:6KV	
Others	RoHS	2011/65/EU	
	MTBF	≥250KHours,Ta=25℃(MIL-HDBK-217F)	
	Audible Noise	<25dB @ 10cm distance, 20dB background	
	Life Time	30W/60W/100W/160W	≥100K Hrs 65℃ case temperature, refer to life vs. Tc curve
		240W/400W	≥100K Hrs 75℃ case temperature, refer to life vs. Tc curve
	Warranty	5years	
	Dimensions (L*W*H)	30W	235*30*21MM (body), 250*30*21MM (endcaps included)
		60W	275*30*21MM (body), 290*30*21MM (endcaps included)
		100W	305*30*21MM (body), 320*30*21MM (endcaps included)
		160W	335*30*21MM (body), 350*30*21MM (endcaps included)
		240W	385*30*21MM (body), 400*30*21MM (endcaps included)
		400W	380*55*22MM (body), 400*55*22MM (endcaps included)
	Wiring	Input	H05RN-F/3X1.0mm ² , Brown/Blue/(Yellow/Green)
		Output	H05RN-F/2X1.0mm ² , Red/Black
		DALI	H05RN-F/2X0.75mm ² , Purple/Gray
	Output Cable Length	Max. 1M	

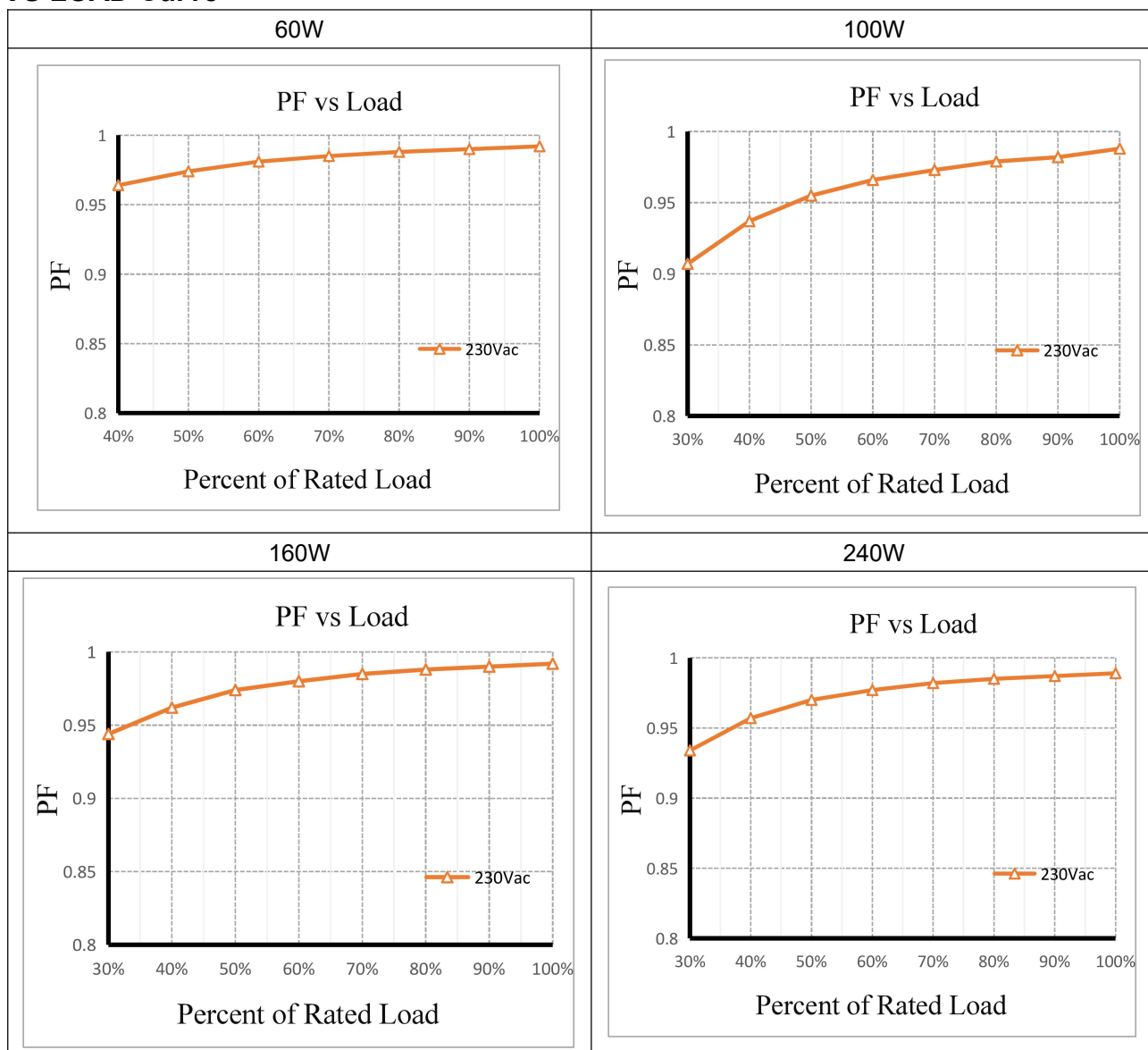
Remark:

1. All Parameters, if not specified, are measured at 230VAC/50Hz and 25℃ ambient temperature.
2. LED Driver is a component of the luminaires, Luminaires and wire layout will affect the EMC, please check the EMC with end products again.
3. Output ripple should be measured at the output end which has with 0.1uF/100V ceramic capacitance and 10uF/100V Aluminum capacitance connected in parallel. Measured using oscilloscope with bandwidth limited to 20MHz.
4. When connecting the DALI controller, need to reset the power supply.

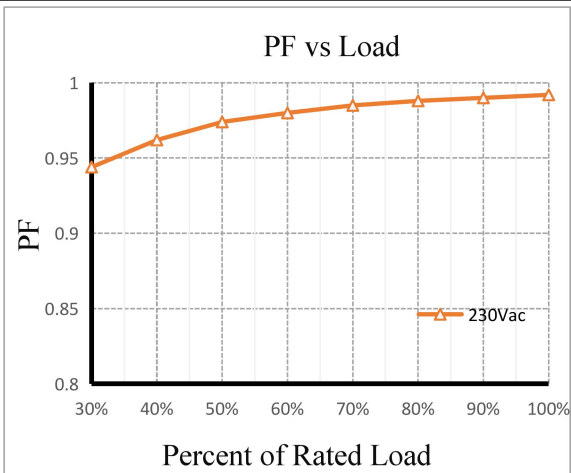
Model	Cable selection	Distance
XSV60W48-NX-DALI	0.75mm ²	30M
	1.00mm ²	50M
XSV100W48-NX-DALI	1.00mm ²	50M
XSV160W48-NX-DALI	1.00mm ²	50M
XSV240W48-NX-DALI	1.00mm ²	50M
XSV400W48-NX-DALI	1.50mm ²	50M

2.Graph

PF VS LOAD Curve

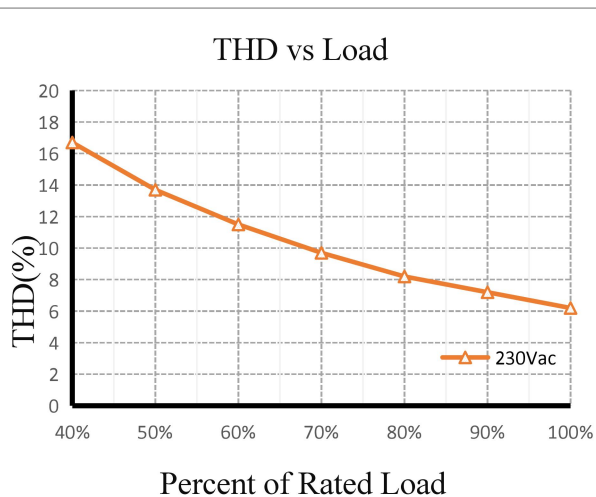


400W

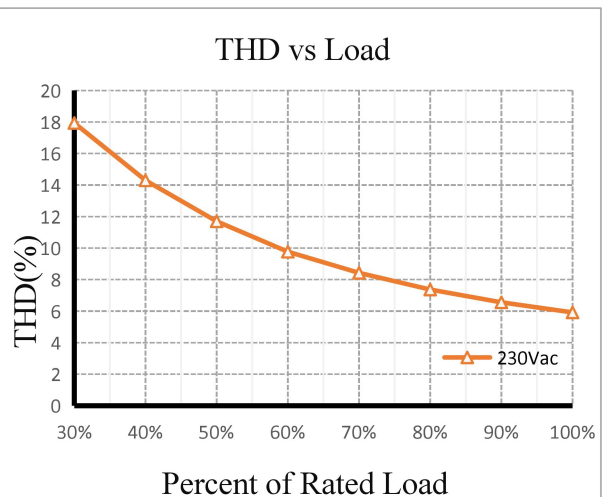


THD VS LOAD Curve

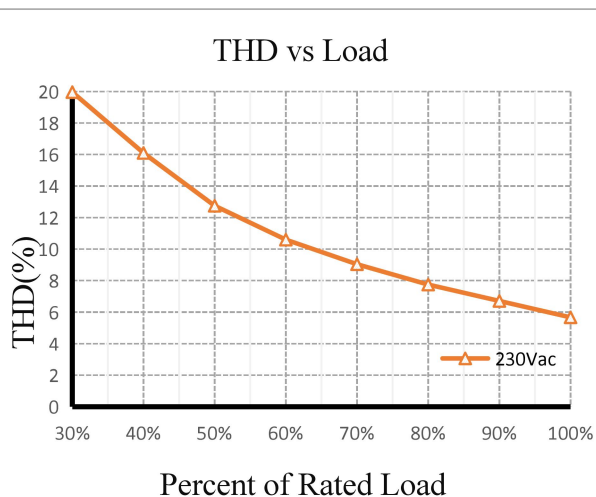
60W



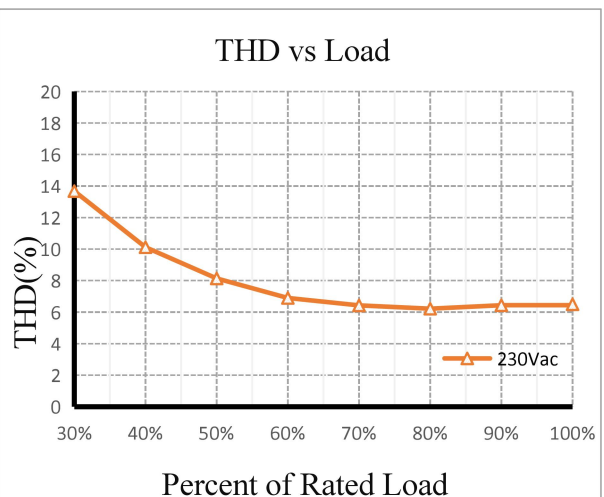
100W



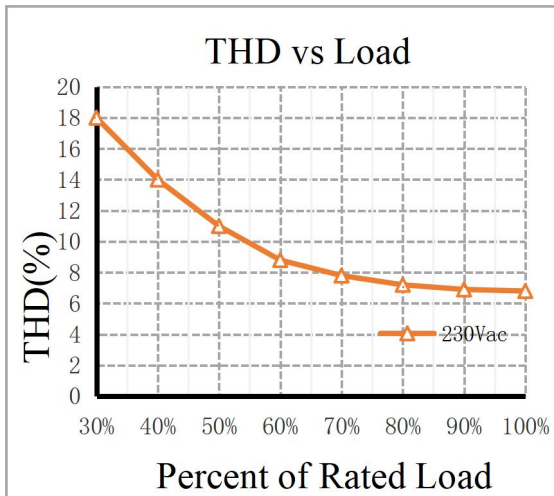
160W



240W

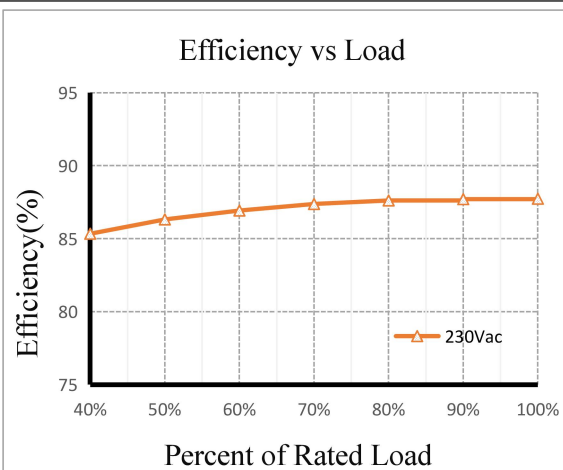


400W

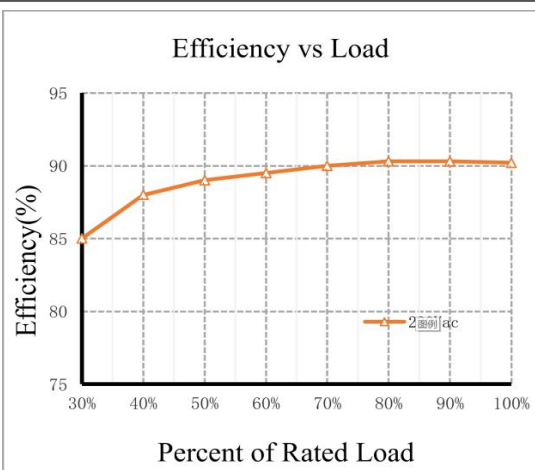


Efficiency VS LOAD Curve

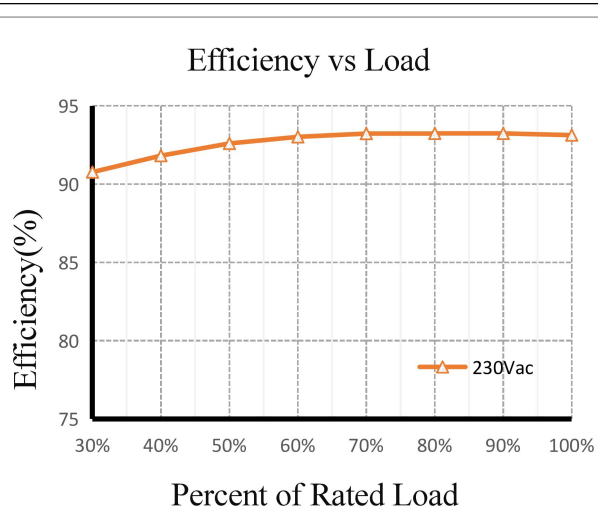
60W



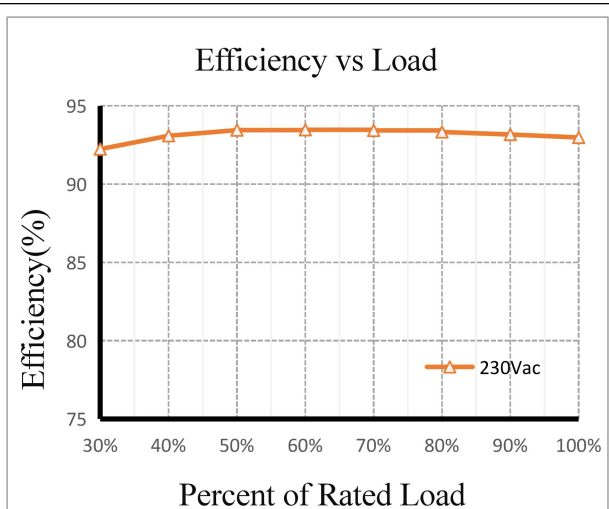
100W

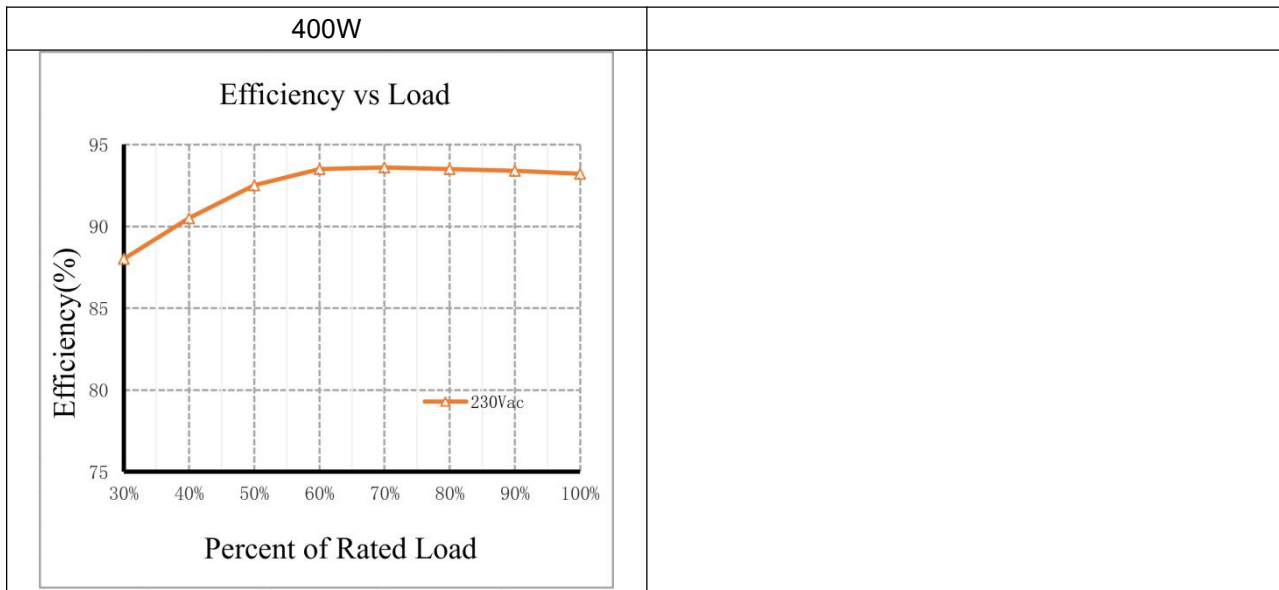


160W

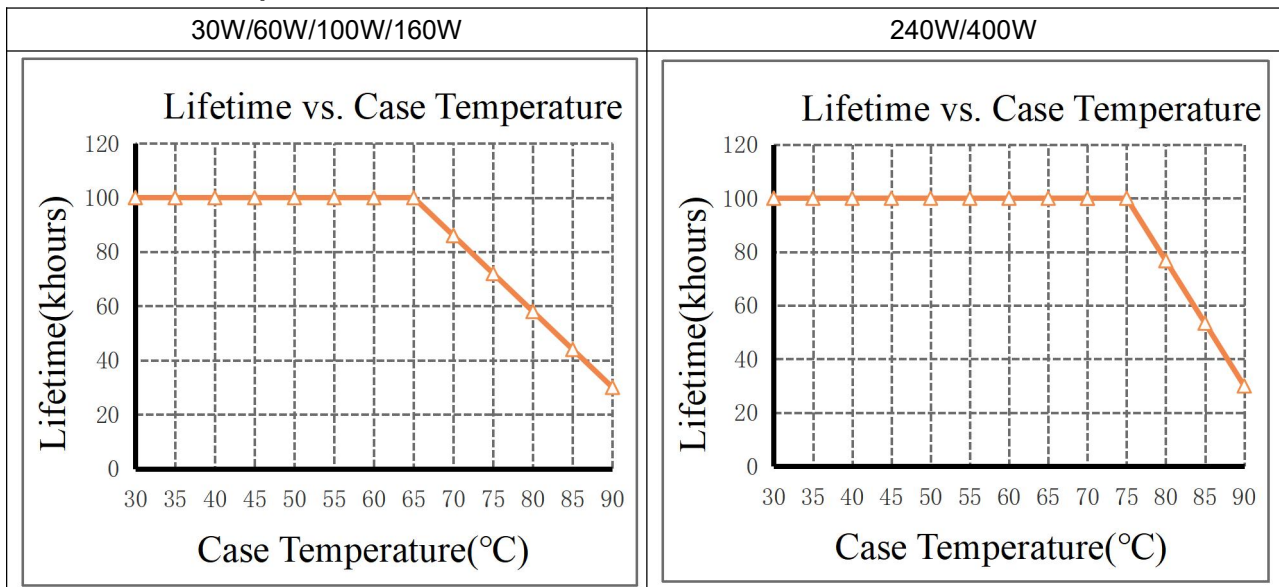


240W





Lifetime vs. Case Temperature



(End of Life: Maximum Failure Rate=10%)

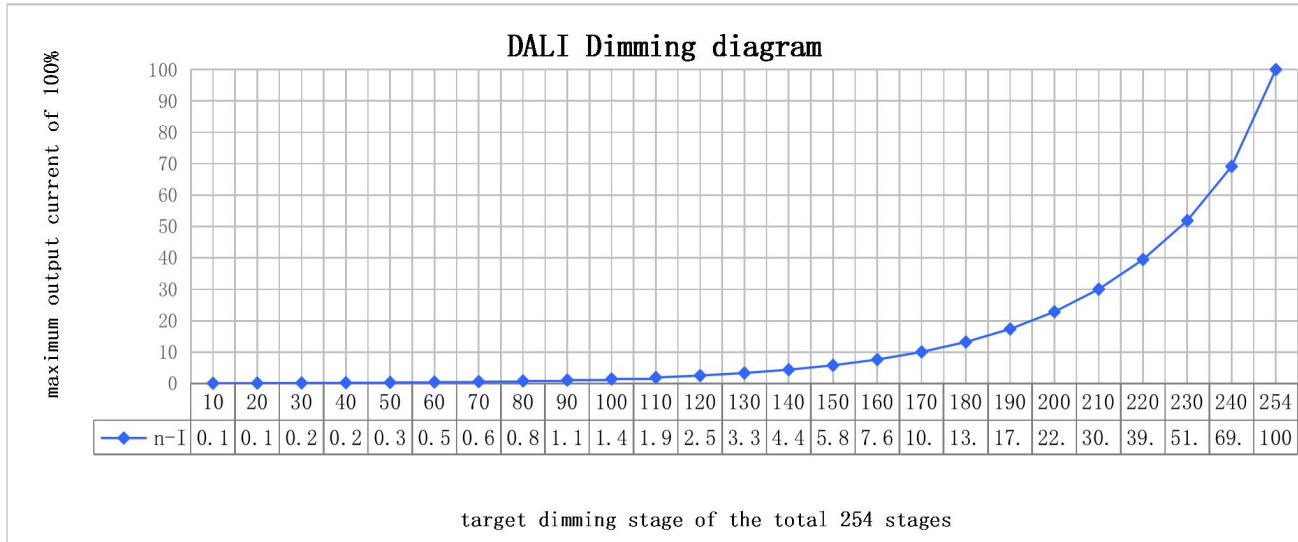
3.DALI dimming curve

3.1 formula for DALI dimming.

$$X(n)=10^{\left\{\left[\frac{(n-1)}{(253/3)}\right]-1\right\}},$$

Here, n means the target dimming stage of the total 254 stages.

X(n) means the percent of the maximum output current



4.Label

INPUT
 ○ L (Brown)
 ○ N (Blue)
 ⊕ (Yellow-green)

NEXIVO
 by KGP Electronics GmbH
 Hueckstraße 19
 DE-58511 Lüdenscheid

XSV60W48-DALI-NX
159120
 Dimmable LED Driver
 Constant Voltage Type
 For LED modules only

Input: 220-240V~, 50/60Hz, 0.4A, λ:0.95
 Output: 48V- 0-1.25A Max.60W
 •tc Ta: -25 ~ +50°C Tc:75°C

SELV CE ENEC IP67

OUTPUT
 (Blue) ○
 (Brown) +
 (Purple) DA
 (Gray) DIM

INPUT
 ○ L (Brown)
 ○ N (Blue)
 ⊕ (Yellow-green)

NEXIVO
 by KGP Electronics GmbH
 Hueckstraße 19
 DE-58511 Lüdenscheid

XSV100W48-DALI-NX
159130
 Dimmable LED Driver
 Constant Voltage Type
 For LED modules only

Input: 220-240V~, 50/60Hz, 0.6A, λ:0.95
 Output: 48V- 0-2.1A Max.100W
 •tc Ta: -25 ~ +50°C Tc:75°C

SELV CE ENEC IP67

OUTPUT
 (Blue) ○
 (Brown) +
 (Purple) DA
 (Gray) DIM

INPUT
 ○ L (Brown)
 ○ N (Blue)
 ⊕ (Yellow-green)

NEXIVO
 by KGP Electronics GmbH
 Hueckstraße 19
 DE-58511 Lüdenscheid

XSV160W48-DALI-NX
159140
 Dimmable LED Driver
 Constant Voltage Type
 For LED modules only

Input: 220-240V~, 50/60Hz, 0.9A, λ:0.95
 Output: 48V- 0-3.34A Max.160W
 •tc Ta: -25 ~ +50°C Tc:85°C

SELV CE ENEC IP67

OUTPUT
 (Blue) ○
 (Brown) +
 (Purple) DA
 (Gray) DIM

INPUT
 ○ L (Brown)
 ○ N (Blue)
 ⊕ (Yellow-green)

NEXIVO
 by KGP Electronics GmbH
 Hueckstraße 19
 DE-58511 Lüdenscheid

XSV240W48-DALI-NX
159150
 Dimmable LED Driver
 Constant Voltage Type
 For LED modules only

Input: 220-240V~, 50/60Hz, 1.5A, λ:0.95
 Output: 48V- 0-5A Max.240W
 •tc Ta: -25 ~ +50°C Tc:90°C

SELV CE ENEC IP67

OUTPUT
 (Blue) ○
 (Brown) +
 (Purple) DA
 (Gray) DIM

INPUT
 ○ L (Brown)
 ○ N (Blue)
 ⊕ (Yellow-green)

NEXIVO
 by KGP Electronics GmbH
 Hueckstraße 19
 DE-58511 Lüdenscheid

XSV400W48-DALI-NX
159160
 Dimmable LED Driver
 Constant Voltage Type
 For LED modules only

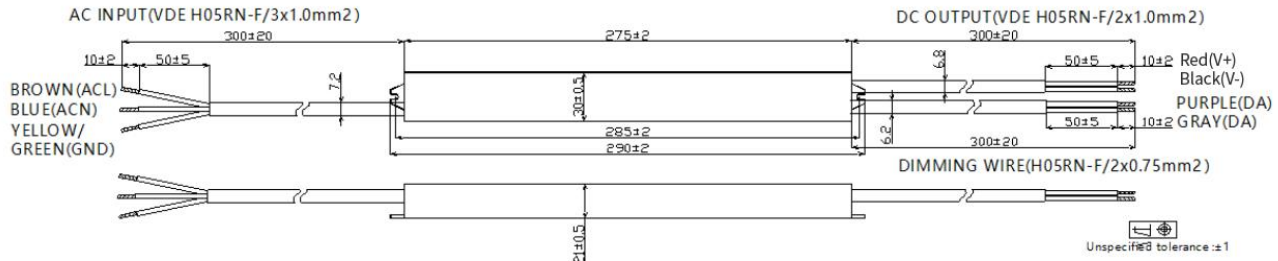
Input: 220-240V~, 50/60Hz, 2.3A, λ:0.95
 Output: 48V- 0-8.34A Max.400W
 •tc Ta: -25 ~ +50°C Tc:90°C

SELV CE ENEC IP67

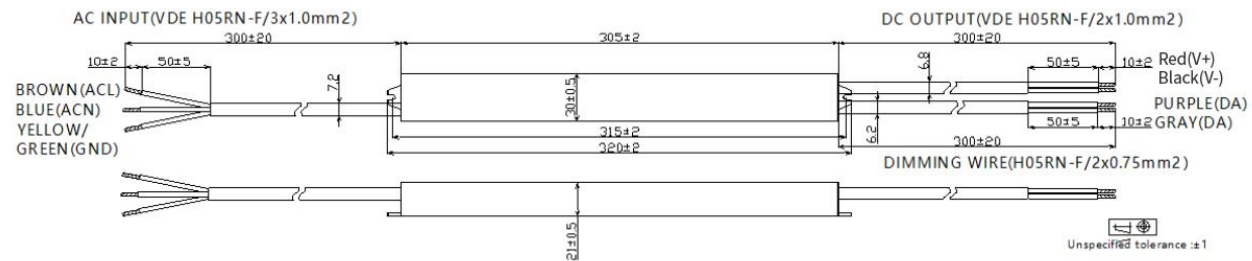
OUTPUT
 (Blue) ○
 (Brown) +
 (Purple) DA
 (Gray) DIM

5.Dimension (Unit: mm)

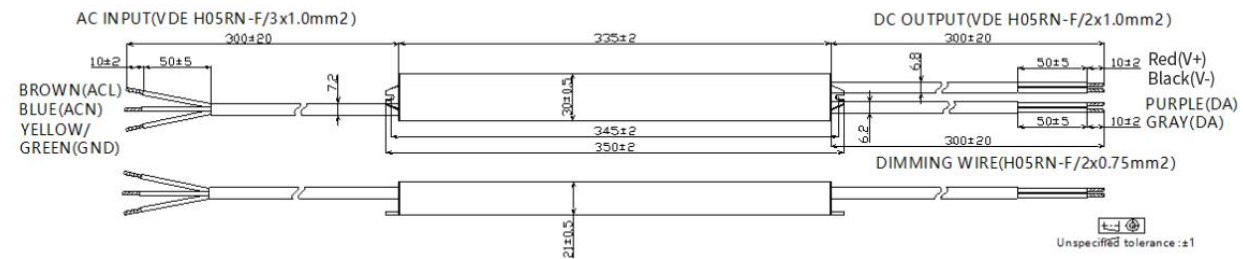
XSV60W48 DALI-NX



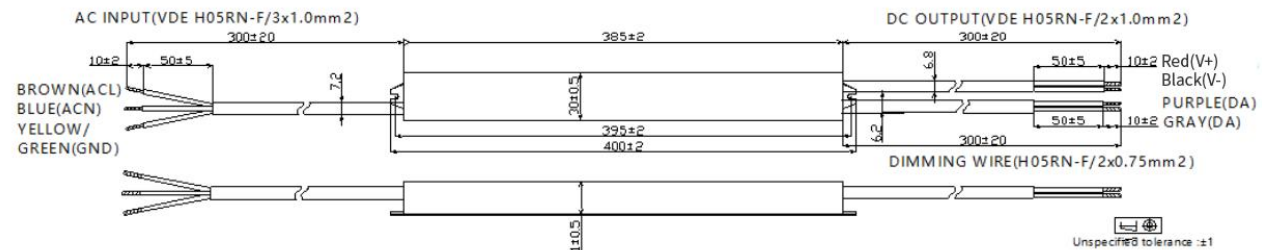
XSV100W48-DALI-NX



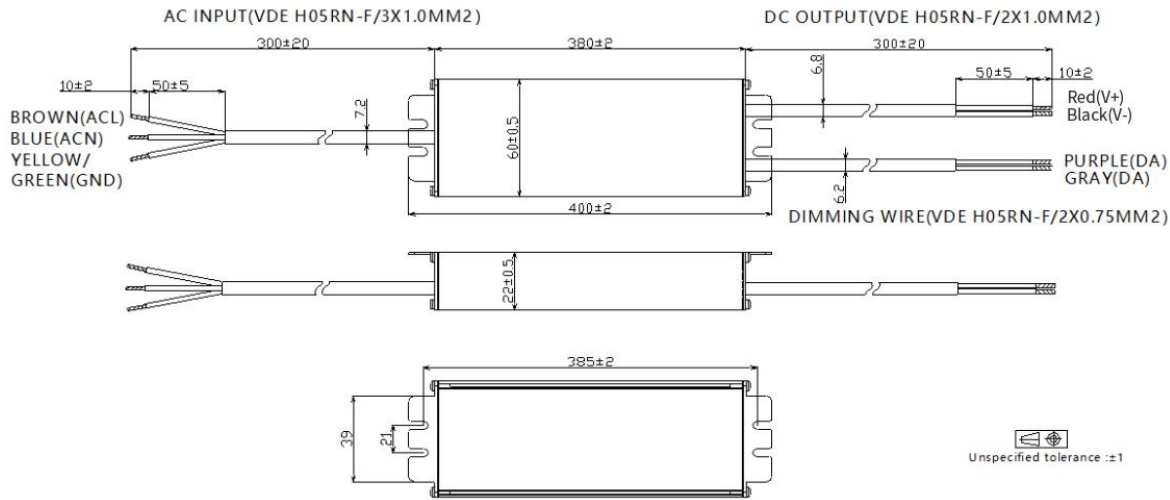
XSV160W48-DALI-NX



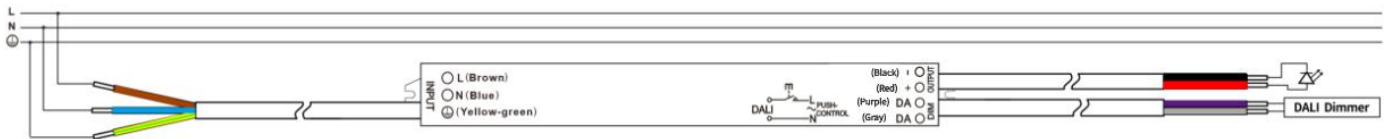
XSV240W48-DALI-NX



XSV400W48-DALI-NX



6. Wiring Diagram



7. Packing information

Model	Carton L*W*H(cm)	Pcs/ Carton	Net weight/ Pcs(g)	Net weight/ Carton(kg)	Gross weight/ Carton(kg)
XSV60W48-DALI-NX	34*29*20	30	390	11.70	13.30
XSV100W48-DALI-NX	39*29*20	30	420	12.60	14.30
XSV160W48-DALI-NX	39*29*20	30	470	14.10	15.80
XSV240W48-DALI-NX	44*29*14	20	530	10.60	11.90
XSV400W48-DALI-NX	44*29*14	12	1050	12.60	13.60

8. Ordering data

Model No	Item code
XSV60W48-DALI-NX	159120
XSV100W48-DALI-NX	159130
XSV160W48-DALI-NX	159140
XSV240W48-DALI-NX	159150
XSV400W48-DALI-NX	159160

9. REVISION HISTORY

Date	Revision	Remark
2026.16.03	V0.01	Product release
2026.16.06	V0.02	Add cable section and distance information