



Constant Current Dimming able Driver

Model: XC15W100-500 NFC
XC23W100-700 NFC
XC44W300-1050 NFC
XC70W350-1400 NFC



Model	Output Current	Input Current	Input Power	Output Power Range	PF	Efficiency	Output Voltage	No load Voltage
XC15W100-500 NFC	100-500mA	≤0.10A	19W	0.25-15.05W	≥0.95	≥86%	2.5-46V	59V
XC23W100-700 NFC	100-700mA	≤0.14A	27W	0.25-23.00W	≥0.95	≥86%	2.5-46V	59V
XC44W300-1050 NFC	300-1050mA	≤0.26A	51W	2.70-44.10W	≥0.95	≥89%	9.0-49V	59V
XC70W350-1400 NFC	350-1400mA	≤0.40A	78W	3.50-70.00W	≥0.95	≥89.5%	10-50V	59V

* Test result @230V, 50Hz, Full Load. Current setting@1mA-steps(NFC)

1. Parameters

Category	Item	Technical Norm
Features	Output Type	Constant Current
	Output Features	Isolation
	IP Grade	IP67
	Insulation Class	Class II
Input	Rated Input Voltage	220-240VAC
	Range of Input Voltage	198-264VAC or 180-280VDC
	Frequency	0/50/60Hz
	Input Current	≤0.10A max@15W (230VAC,full load) ≤0.14A max@23W (230VAC,full load) ≤0.26A max@44W (230VAC,full load) ≤0.40A max@70W (230VAC,full load)
	Input Power	≤19W max@15W (230VAC,full load) ≤27W max@23W (230VAC,full load) ≤51W max@44W (230VAC,full load) ≤78W max@70W (230VAC,full load)
	Power Factor	≥0.95 @230VAC ,full load
	THD	≤12% @230VAC ,full load @15W ≤10% @230VAC ,full load @23W,44W,70W
	No-load Power Consumption	≤0.5W @230VAC
Inrush Current		≤15A/50uS @15W,23W (230VAC,full load) ≤20A/50uS @44W,70W (230VAC,full load)
Output	Output Voltage Range	15W 2.5-46VDC @100-300mA 2.5-43VDC @301-350mA

			2.5-38VDC @351-400mA 2.5-33VDC @401-450mA 2.5-30VDC @451-500mA	
		23W	2.5-46VDC @100-500mA 2.5-41VDC @501-550mA 2.5-38VDC @551-600mA 2.5-35VDC @601-650mA 2.5-32VDC @651-700mA	
		44W	9.0-49VDC @300-750mA 9.0-45VDC @751-950mA 9.0-42VDC @951-1050mA	
		70W	10-50VDC @350-1400mA	
	No Load Voltage		59VDC Max.	
	Output Current	15W	100-500mA (by NFC setting)	
		23W	100-700mA (by NFC setting)	
		44W	300-1050mA (by NFC setting)	
		70W	350-1400mA (by NFC setting)	
	Max. Output Power	15W	15.05W	
		23W	23.00W	
		44W	44.10W	
		70W	70.00W	
	Efficiency	15W	≥86% (230V full load@max current)	
23W		≥86% (230V full load@max current)		
44W		≥89% (230V full load@max current)		
70W		≥89.5% (230V full load@max current)		
Current ripple(< 120 Hz)		±5% (Imax-Imin) / (Imax+Imin)		
PstLM		≤ 1		
SVM		≤ 0.4		
Current Accuracy		±5%		
Line Regulation		±5%		
Load Regulation		±5%		
Started Delay Time		≤0.5S (230VAC,full load)		
Protection	Short Circuit Protection		Auto Recovery	
	Overload Protection		Auto Recovery (not be hot swap)	
	No-load Protection		Auto Recovery	
	Insulation voltage		3000V/5mA/60S between P-S	
	Insulation resistance		>100M ohm @ 500VDC	
	Leakage current		< 0.7mA, I/P to O/P	
Environment	Ta/ Operation Temperature		-25 ...+50°C	
	Ts/ Storage Temperature		-25 ...+85°C	
	Tc/ Enclosure Temperature		+85°C	
	Humidity		10%.... 90%RH	
	Atmosphere		86- 108KPa	
Construction	Connection Method		Cable	
	Installation		Built-in & Independent	

	PRI Wire preparation	2*∅ 1.00mm ² / 400mm		
	SEC Wire preparation	2*∅ 0.75mm ² / 400mm		
	Dimension	15W,23W	103*47*26mm (L*W*H)	
		44W	110*52*28.5mm (L*W*H)	
70W		109*69.5*32.5mm (L*W*H)		
Standards	Certification	CE EAC TUV		
	Safety Standards	EN61347-1:2015/A1:2021; EN61347-2-13:2014/A1:2017; EN62384:2006/A1:2009; AS 61347.2.13:2018; AS/NZS61347.1:2016; BS EN61347-1:2015/A1:2021; BS EN61347-2-13:2014/A1:2017		
	EMC Standards	EN55015; EN61000-3-2 Class C; EN61000-3 EN 61547; EN 61000-4-2; EN 61000-4-5		
	RED	EN 300 330 V2.1.1:2017 EN 301 489-1 V2.2.3:2019 EN 301 489-3 V2.3.2:2023 EN 62479:2010 EN 50663:2017		
	Performance	EN62384		
	Surge	L-N:2kV L/N-PE:4kV		
Others	RoHS	Complied to 2011/65/EU		
	REACH	EU Regulation(EC)No 1907/2006		
	Life Time	70000h @Tc< +85°C		
	Warranty	5years		
	Noise	<20dB @ 30cm distance, 18dB background		
Remark: 1. All Parameters, if not specified, are measured at 230VAC/50Hz and +25°C 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. Do not install upside down.				

2. Connected quantities of different current Breaker

TYPE	Connected quantities of different current Breaker@15W						Input Voltage	Inrush Current(A)	Time(μs)
	current (A)	10	13	16	20	25			
	Installation wire diameter	1.5mm ²	2.5mm ²	2.5mm ²	4mm ²	4mm ²			
TYPE B	40	52	64	80	100	@230VAC	15	50us	
TYPE C	64	83	102	128	160				
TYPE D	102	133	164	205	256				

TYPE	Connected quantities of different current Breaker@23W						Input Voltage	Inrush Current(A)	Time(μs)
	current (A)	10	13	16	20	25			
	Installation wire diameter	1.5mm ²	2.5mm ²	2.5mm ²	4mm ²	4mm ²			
TYPE B	40	52	64	80	100	@230VAC	15	50us	
TYPE C	64	83	102	128	160				
TYPE D	102	133	164	205	256				

TYPE	Connected quantities of different current Breaker@44W						Input Voltage	Inrush Current(A)	Time(μs)
	current (A)	10	13	16	20	25			
	Installation wire diameter	1.5mm ²	2.5mm ²	2.5mm ²	4mm ²	4mm ²			
TYPE B	30	39	48	60	75	@230VAC	20	50us	
TYPE C	48	62	77	96	120				
TYPE D	77	100	123	154	192				

TYPE	Connected quantities of different current Breaker@70W						Input Voltage	Inrush Current(A)	Time(μs)
	current (A)	10	13	16	20	25			
	Installation wire diameter	1.5mm ²	2.5mm ²	2.5mm ²	4mm ²	4mm ²			
TYPE B	30	39	48	60	75	@230VAC	20	50us	
TYPE C	48	62	77	96	120				
TYPE D	77	100	123	154	192				

3. Label

- Black SEC
+ Red

N Blue PRI~
L Brown

KGP
KGP Electronics GmbH
Hueckstraße 19
DE-58511 Lüdenscheid

LED Driver
XC15W100-500 NFC
Constant Current Type for LED only
UN= 220-240VAC
IN= 0.10A Max.
fn= 50/60Hz
PF ≥ 0.95
ta: -25...+50°C

EAC

↑
NFC







TUV
TUV - applied for







CE IP67







•tc:85°C

SELV

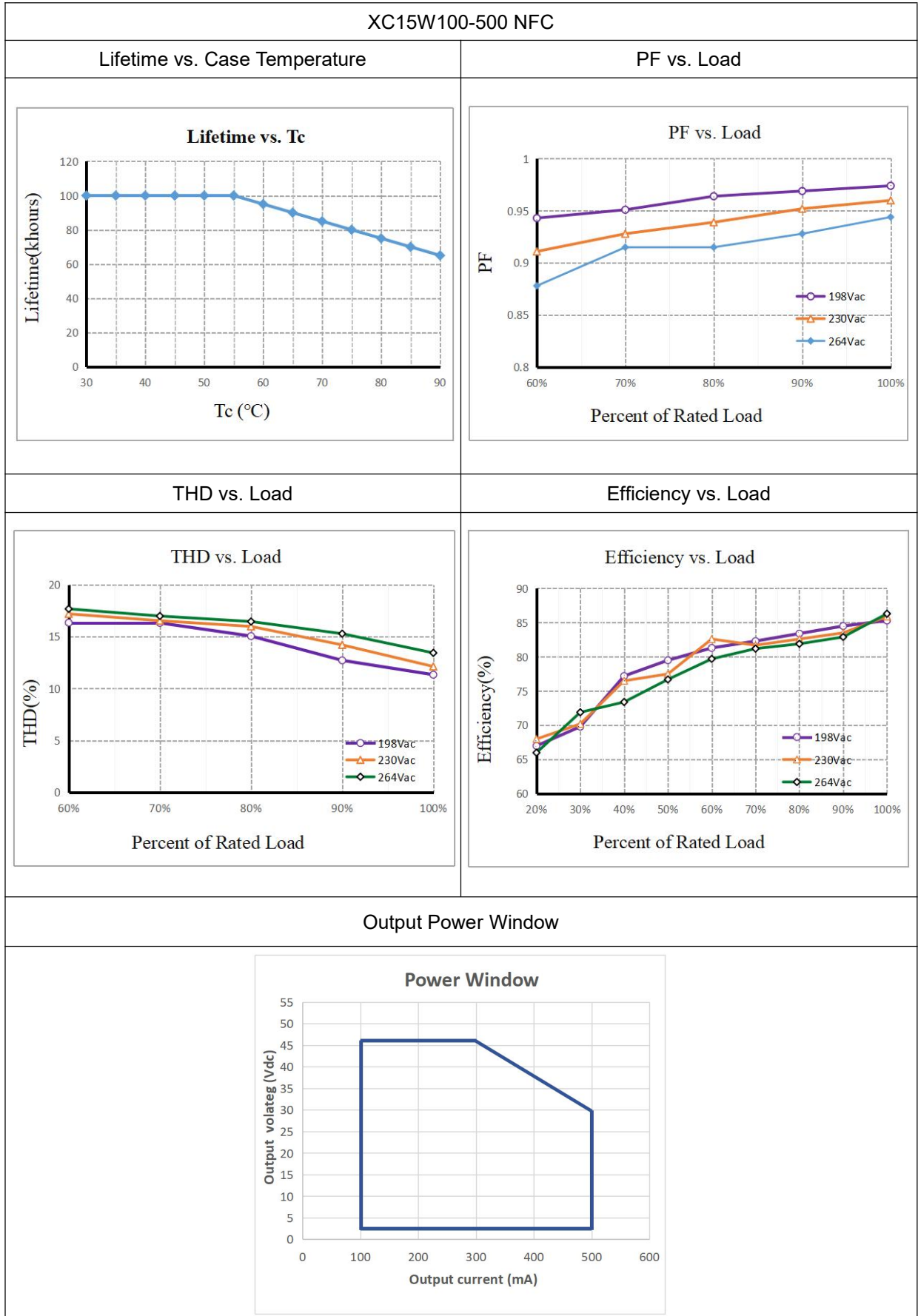
Irang= 100-500mA
Urange= 2.5-46VDC
Prated= 15W Max.
Uout= 59VDC Max.
Current Setting by NFC, step 1 mA

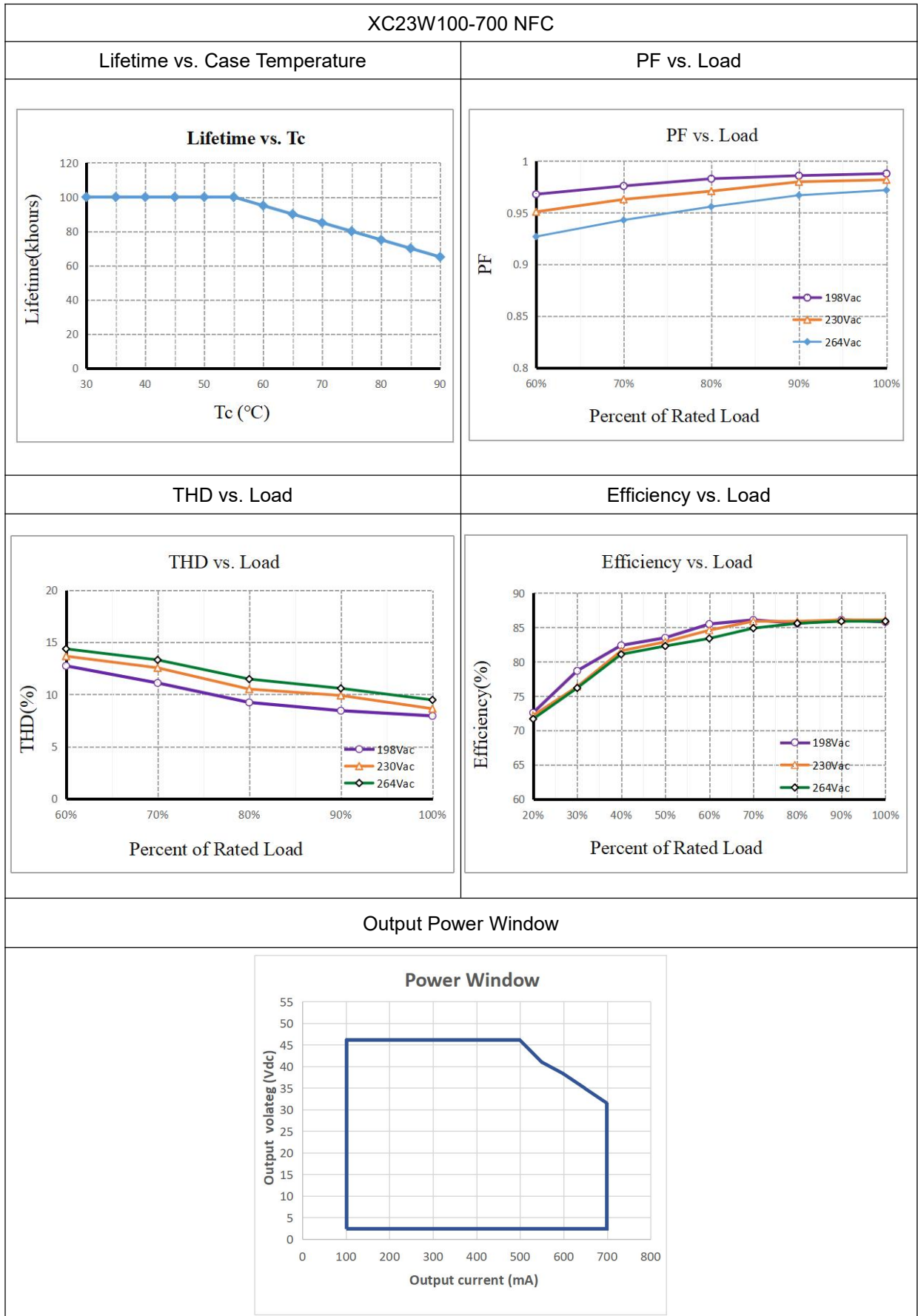
- Black + Red	SEC	KGP KGP Electronics GmbH Hueckstraße 19 DE-58511 Lüdenscheld	EAC	 NFC	 TUV - applied for	CE	IP67	 •tc:85°C
		LED Driver XC23W100-700 NFC Constant Current Type for LED only	Irange= 100-700mA Urange= 2.5-46VDC Prated= 23W Max. Uout= 59VDC Max. Current Setting by NFC, step 1 mA	UN= 220-240VAC IN= 0.14A Max. fn= 50/60Hz PF ≥ 0.95 ta: -25...+50°C	SELV	  		
N Blue L Brown	PRI~							

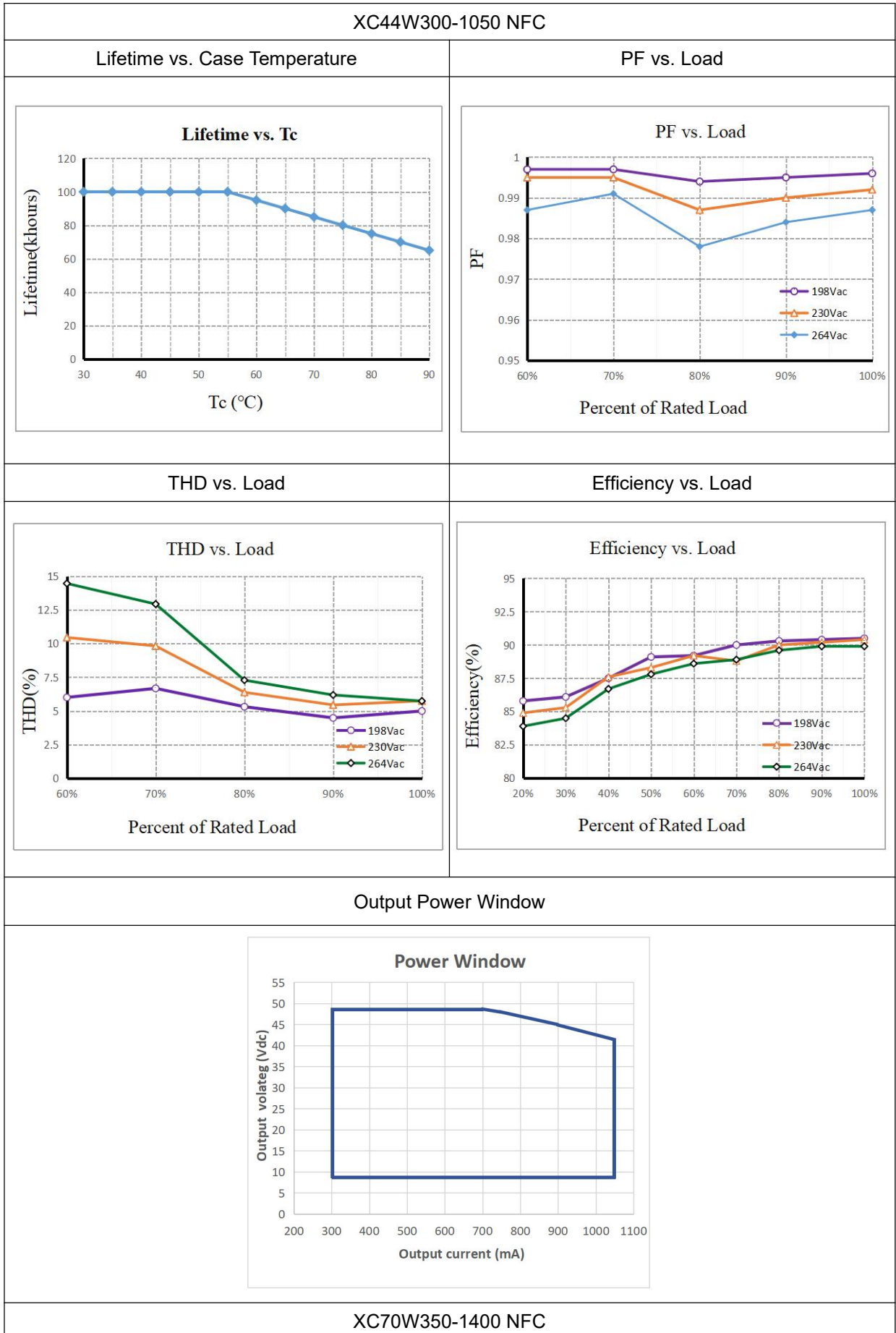
- Black + Red	SEC	KGP KGP Electronics GmbH Hueckstraße 19 DE-58511 Lüdenscheld	EAC	 NFC	 TUV - applied for	CE	IP67	 •tc:85°C
		LED Driver XC44W300-1050 NFC Constant Current Type for LED only	Irange= 300-1050mA Urange= 9.0-49VDC Prated= 44W Max. Uout= 59VDC Max. Current Setting by NFC, step 1 mA	UN= 220-240VAC IN= 0.26A Max. fn= 50/60Hz PF ≥ 0.95 ta: -25...+50°C	SELV	  		
N Blue L Brown	PRI~							

+ Red - Black	SEC	KGP KGP Electronics GmbH Hueckstraße 19 DE-58511 Lüdenscheld	 NFC	 TUV - applied for	CE	IP67	EAC	 •tc:85°C
		LED Driver XC70W350-1400 NFC Constant Current Type for LED only	Irange= 350-1400mA Urange= 10-50VDC Prated= 70W Max. Uout= 59VDC Max. Current Setting by NFC, step 1 mA	UN= 220-240VAC IN= 0.4A Max. fn= 50/60Hz PF ≥ 0.95 ta: -25...+50°C	SELV	  		
N Blue L Brown	PRI~							

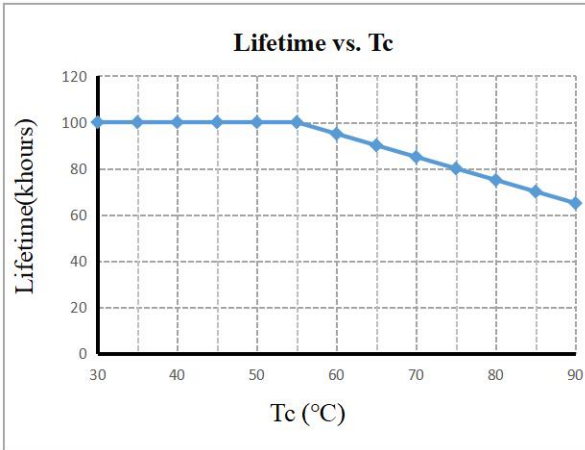
4. Electrical values



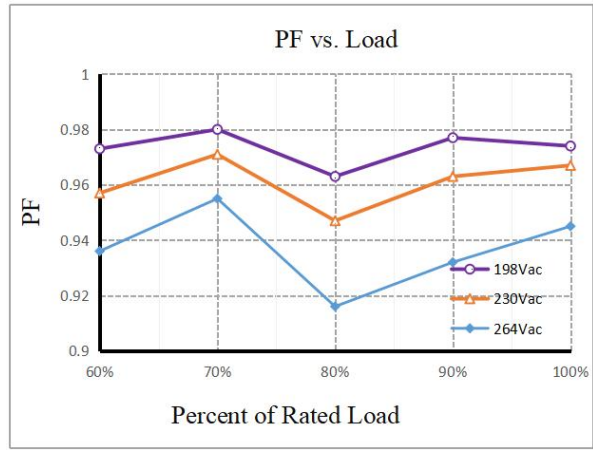




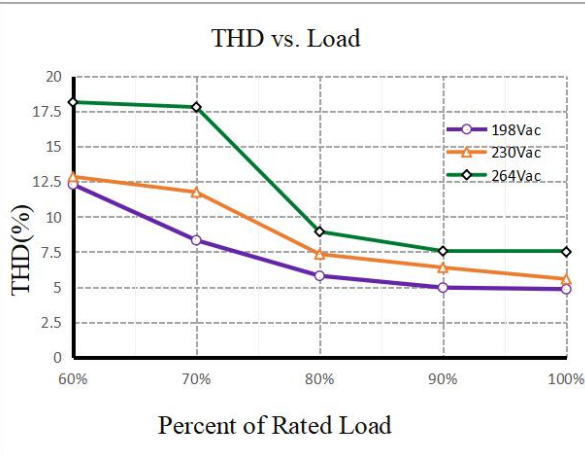
Lifetime vs. Case Temperature



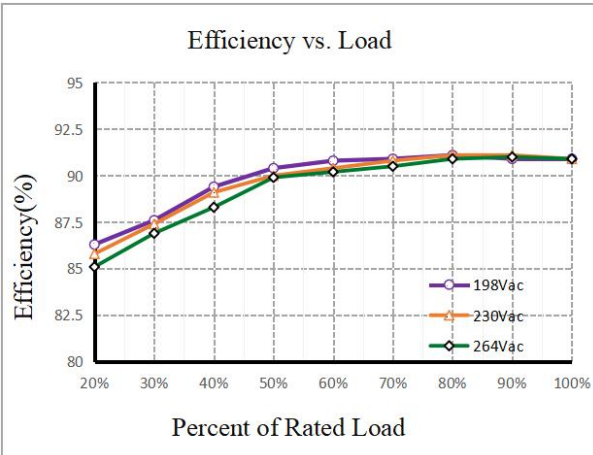
PF vs. Load



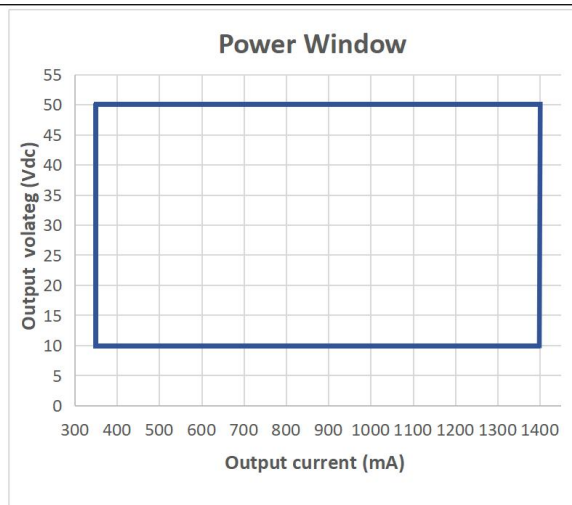
THD vs. Load



Efficiency vs. Load

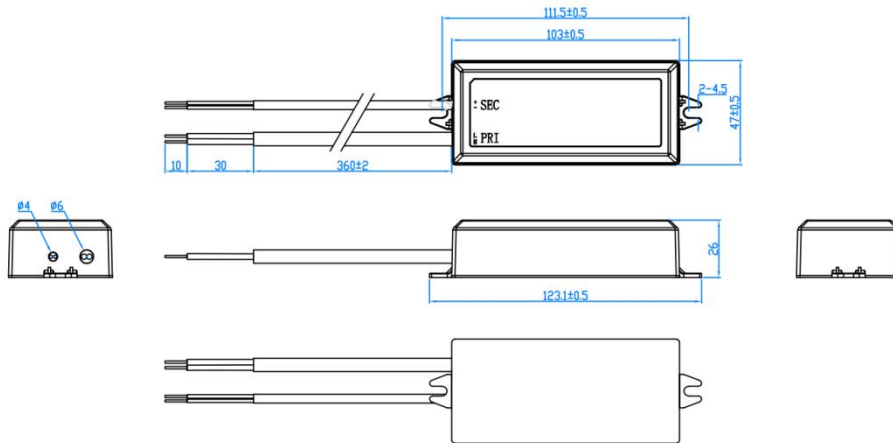


Output Power Window

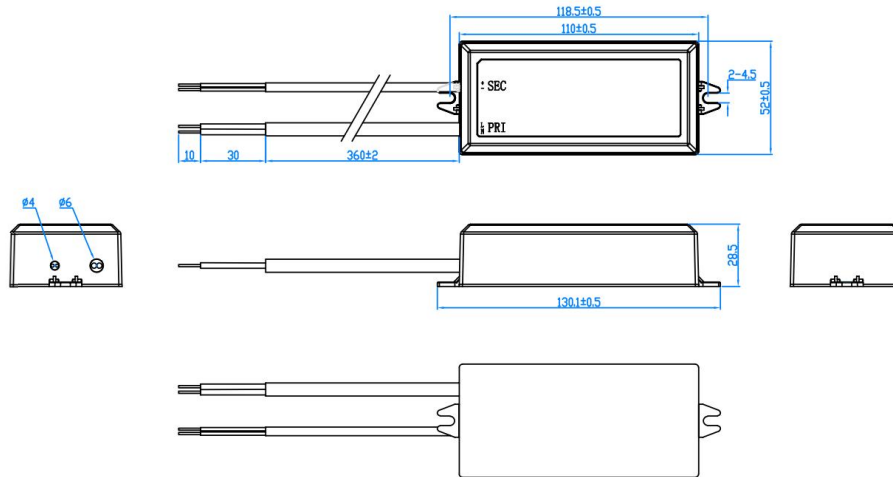


5. Dimension (Unit: mm)

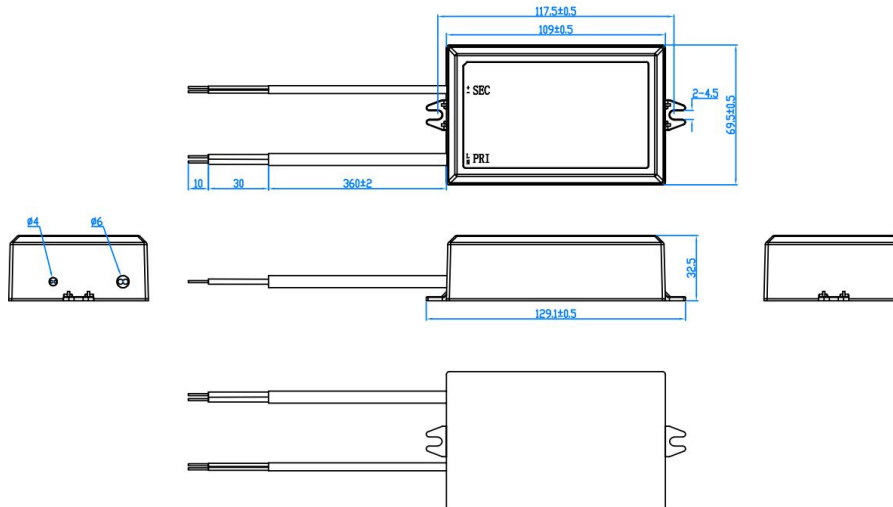
XC15W100-500 DALI NFC & XC23W100-700 DALI NFC



XC44W300-1050 DALI NFC

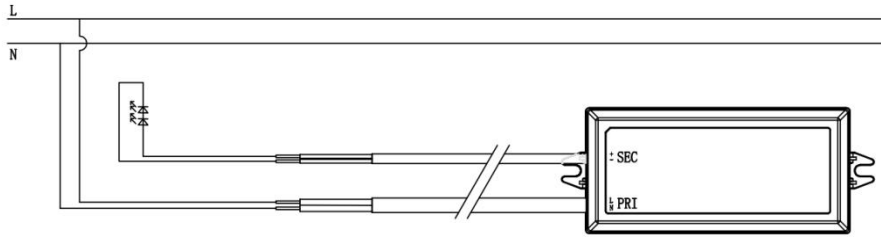


XC70W350-1400 DALI NFC



6. Wiring Diagram

220-240Vac 50/60 Hz



7. Packing information

Packing way	Model	Carton L*W*H(mm)	Pcs/Carton	Net weight/ Pcs(kg)	Net weight/ Carton(kg)	Gross weight/ Carton(kg)
Industrial	XC15W100-500 NFC	345*310*158	100	0.21	8.3	8.9
	XC23W100-700 NFC	345*310*158	100	0.21	8.6	9.2
	XC44W300-1050 NFC	345*310*158	100	0.29	11.4	12.0
	XC70W350-1400 NFC	440*345*155	80	0.42	12.7	13.3

8. Wiring instructions

- All connections must be kept as short as possible to ensure good EMI behaviour
- Mains leads should be kept apart from LED Driver and other leads (ideally 5 – 10 cm distance)
- Advice the maximum length of output wires is 0.5 m
- Secondary switching is not permitted (Except for constant voltage)
- Incorrect wiring can damage LED modules.
- The wiring must be protected against short circuits to earth (sharp edged metals parts, metal cable clips, louver, etc.)
- Hot plug-in is not supported due to residual output voltage of > 0 V up to mains voltage. Danger to life.
- When connecting an LED load, restart the device to activate the LED output.
- This can be done via mains reset or via interface (DALI, DSI, switch DIM).

9. Replace LED module

- Mains off
- Remove LED module
- Wait for 30 seconds
- Connect LED module again
- Hot plug-in or secondary switching of LEDs is not permitted and may cause a very high current to the LEDs

10. REVISION HISTORY

DATE	REV	Modification details
2025-01-10	V1.0	Initial release.
