Constant Current Dimmable Driver

Model:XC50W530-1400 3IN1
XC50W1450-2100 3IN1
XC75W700-1050 3IN1
XC75W1300-2100 3IN1
XC100W700-1050 3IN1
XC100W1750-2780 3IN1
XC150W500-1150 3IN1
XC150W1800-4200 3IN1

Model	Output Current	Input Current	Input Power	Output Power Range	PF	**Efficiency (*Typical)**	Output Voltage	No load Voltage
XC50W530-1400 3IN1	1400mA	≤0.30A	56W	11.7-50W	0.95	89%	22~54V	64V
XC50W1450-2100 3IN1	2100mA	≤0.30A	56W	31.9-50W	0.95	88%	22~34V	46V
XC75W700-1050 3IN1	1050mA	≤0.45A	89W	37-75W	0.95	91%	53~107V	119V
XC75W1300-2100 3IN1	2100mA	≤0.45A	89W	35-75W	0.95	89%	27-56V	64V
XC100W700-1050 3IN1	1050mA	≤0.60A	115W	49.7-100W	0.95	91%	71-142V	155V
XC100W1750-2780 3IN1	2780mA	≤0.60A	115W	47.25-100W	0.95	90%	27-56V	64V
XC150W500-1150 3IN1	1150mA	≤0.80A	175W	47.5-150W	0.95	91%	95-214V	250V
XC150W1800-4200 3IN1	4200mA	≤0.80A	175W	45-150W	0.95	90%	25-56V	64V

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

*** The efficiencies were all tested under steady state**

1. Parameters

Category	Item	Technical Norm
Features	Output Type	Constant Current
	Dimming Type	3 in 1: 0-10VDC, PWM signal, Resistance
	Output Features	Isolation
	IP Grade	IP67
	Insulation Class	Class Ⅰ
Input	Rated Input Voltage	100-277VAC
	Range of Input Voltage	100-305VAC or 142-431VDC
	Frequency	50-60Hz
	Input Current	≤0.30A @50W(230VAC，full load) ≤0.45A @75W(230VAC，full load) ≤0.60A @100W(230VAC，full load) ≤0.80A @150W(230VAC，full load)
	Input Power	≤56W @50W(230VAC，full load) ≤89W @75W(230VAC，full load) ≤115W @100W(230VAC，full load) ≤175W @150W(230VAC，full load)
	Power Factor	≥0.95 (230VAC，full load)

	THD	≤10% (230VAC，full load)
	Standby Power Consumption	≤0.5W @230VAC
Output	Output Voltage Range	22-54VDC@XC50W530-1400 3IN1 22-34VDC@XC50W1450-2100 3IN1 53-107VDC@XC75W700-1050 3IN1 27-56VDC@XC75W1300-2100 3IN1 71-142VDC@XC100W700-1050 3IN1 27-56VDC@XC100W1750-2780 3IN1 95-214VDC@XC150W500-1150 3IN1 25-56VDC@XC150W1800-4200 3IN1
	No Load Voltage	64VDC Max.@XC50W530-1400 3IN1 46VDC Max.@XC50W1450-2100 3IN1 119VDC Max.@XC75W700-1050 3IN1 64VDC Max.@XC75W1300-2100 3IN1 155VDC Max.@XC100W700-1050 3IN1 64VDC Max.@XC100W1750-2780 3IN1 250VDC Max.@XC150W500-1150 3IN1 64VDC Max.@XC150W1800-4200 3IN1
	Output Current	530-1400mA @XC50W530-1400 3IN1(adjustable) 1450-2100mA @XC50W1450-2100 3IN1(adjustable) 700-1050mA @XC75W700-1050 3IN1(adjustable) 1300-2100mA @XC75W1300-2100 3IN1(adjustable) 700-1050mA@XC100W700-1050 3IN1(adjustable) 1750-2780mA@XC100W1750-2780 3IN1(adjustable) 500-1150mA@XC150W500-1150 3IN1(adjustable) 1800-4200mA@XC150W1800-4200 3IN1(adjustable)
	Max. Output Power	50W@XC50W530-1400 3IN1 50W@XC50W1450-2100 3IN1 75W@XC75W700-1050 3IN1 75W@XC75W1300-2100 3IN1 100W@XC100W700-1050 3IN1 100W@XC100W1750-2780 3IN1 150W@XC150W500-1150 3IN1 150W@XC150W1800-4200 3IN1
	Efficiency	≥89%@XC50W530-1400 3IN1 (230VAC，full load) ≥88%@XC50W1450-2100 3IN1 (230VAC，full load) ≥91%@XC75W700-1050 3IN1 (230VAC，full load) ≥89%@XC75W1300-2100 3IN1 (230VAC，full load) ≥91%@XC100W700-1050 3IN1 (230VAC，full load) ≥90%@XC100W1750-2780 3IN1 (230VAC，full load) ≥91%@XC150W500-1150 3IN1 (230VAC，full load) ≥90%@XC150W1800-4200 3IN1 (230VAC，full load)
	Current Ripple(< 120 Hz)	±5%
	PstLM	≤1

	SVM	≤0.4
	Current Accuracy	±5%（Minimum current deviation -5%, maximum current deviation + 5%）
	Line Regulation	±5%
	Load Regulation	±5%
	Started Delay Time	≤0.5S(230VAC，full load) ≤1.2S(115VAC，full load)
Control Method	1-10V(0-10V)dimming	0-10Vdc, Port source current 0.1mA typical
	PWM dimming	PWM Signal dimming Duty: 10-99%, 400Hz-2KHz
	Resistance dimming	10-100/N Kohm (N=driver quantity for synchronized dimming operation)
	Output Dimming range	Dimming: 10%-99%,Dim to off.
Protection	Short Circuit Protection	Auto Recovery
	Over-temperature protection	When the TC point temperature of the casing exceeds 90℃, it switches to a current reduction mode, and the current automatically resumes once the over-temperature is cleared.
	AC Over Voltage Protection	320-380Vac（When the input voltage exceeds the protection voltage, the output voltage will be shut off, and it can automatically recover after the abnormal input condition is removed）
	AC Under Voltage protection	75-85Vac（When the input voltage falls below the protection voltage, the output voltage will be cut off and can automatically recover after the abnormal input condition is removed）
	Output overload protection	Protection mode:Flicker restart mode, can automatically recover after abnormal conditions are removed
	No-load Protection	Auto Recovery
	Insulation voltage	I/P-O/P: 3750Vac/5mA/60S I/P-FG: 1800Vac/5mA/60S O/P-FG: 1500Vac/5mA/60S
	Insulation resistance	>100M ohm @ 500VDC/+25℃/70%RH
	Leakage current	I/P-FG: <0.75mA
Environment	Ta/Operation Temperature	-40….+50℃@Vin100-200V -40….+60℃@Vin200-277V
	Ts/Storage Temperature	-40….+85℃
	Tc/Enclosure Temperature	+90 ℃
	Humidity	10%....90%RH
	Atmosphere	86-108KPa
Construction	Connection Method	Cable
	Installation	Independent

	PRI Wire preparation	3*0.75mm² /290mm
	SEC Wire preparation	2*0.75mm² /290mm
	Signal Wire preparation	2*22AWG/290mm
	Dimension	143*49*33mm (L*W*H)@50W,75W 164*53*33mm (L*W*H)@100W 186*60*38mm (L*W*H)@150W
Standards	Certification	CE
	Safety Standards	EN 61347-1:2015/A1:2021 EN 61347-2-13:2014/A1:2017 EN IEC 62384:2020 EN 62493:2015 AS61347.2.13:2018 AS/NZS61347.1:2016 Inc A1 BS EN 61347-1:2015/A1:2021 BS EN 61347-2-13:2014/A1:2017 BS EN 62493:2015 BS EN IEC 62384:2020
	EMC Standards	EN IEC 55015:2019 EN IEC 55015:2019/A11:2020 EN IEC 61000-3-2:2019/A1:2021 EN 61000-3-3:2013/A2:2021 EN 61547:2009
	Performance	EN62384:2020
	Surge	L-N/:6kV @50W,75W,100W,150W L/N-Earth:6kV @50W L/N-Earth:10kV @75W,100W,150W
Others	RoHS	complied to 2011/65/EU
	REACH	EU Regulation (EC) No 1907/2006
	Life Time	50000h @Tc<+80℃
	Warranty	5years ,F.R. < 100ppm
	Noise	≤ 24dB @Background noise ≤15dB ,Interval≥20cm

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. Do not install upside down.

2. Connected quantities of different current Breaker

XC50W530-1400 3IN1&XC50W1450-2100 3IN1

TYPE	Connected quantities of different current Breaker						Input Voltage（V）	Inrush Current(A)	Time（μs）
	current（A）	10	13	16	20	25			
	Installation wire diameter	1.5mm²	2.5mm²	2.5mm²	4mm²	4mm²			
TYPE B		11	14	17	22	27	@230VAC	55	200
TYPE C		17	23	28	35	44			
TYPE D		28	36	45	56	70			

XC75W700-1050 3IN1&XC75W1300-2100 3IN1

TYPE	Connected quantities of different current Breaker						Input Voltage（V）	Inrush Current(A)	Time（μs）
	current（A）	10	13	16	20	25			
	Installation wire diameter	1.5mm²	2.5mm²	2.5mm²	4mm²	4mm²			
TYPE B		9	12	15	18	23	@230VAC	65	200
TYPE C		15	19	24	30	37			
TYPE D		24	31	38	47	59			

XC100W700-1050 3IN1&XC100W1750-2780 3IN1

TYPE	Connected quantities of different current Breaker						Input Voltage（V）	Inrush Current(A)	Time（μs）
	current（A）	10	13	16	20	25			
	Installation wire diameter	1.5mm²	2.5mm²	2.5mm²	4mm²	4mm²			
TYPE B		8	10	13	16	20	@230VAC	75	200
TYPE C		13	17	20	26	32			
TYPE D		20	27	33	41	51			

XC150W500-1150 3IN1&XC150W1800-4200 3IN1

TYPE	Connected quantities of different current Breaker						Input Voltage（V）	Inrush Current(A)	Time（μs）
	current（A）	10	13	16	20	25			
	Installation wire diameter	1.5mm²	2.5mm²	2.5mm²	4mm²	4mm²			
TYPE B		7	9	11	14	18	@230VAC	85	200
TYPE C		11	15	18	23	28			
TYPE D		18	23	29	36	45			

3. Label

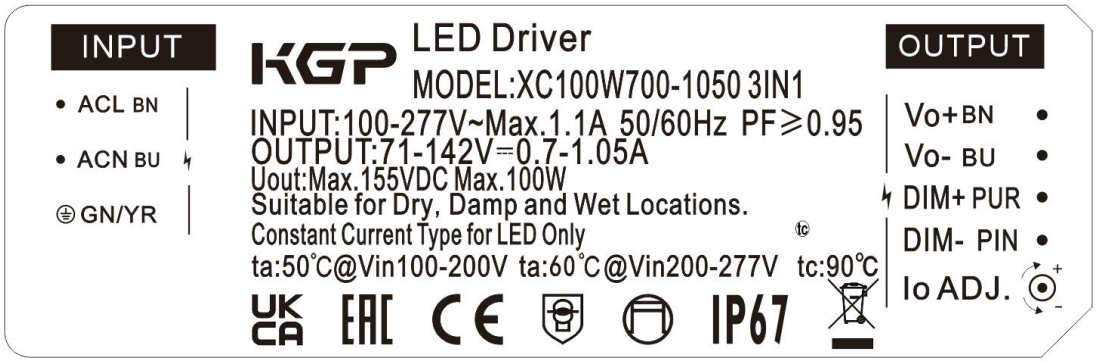
XC50W530-1400 3IN1

XC50W1450-2100 3IN1

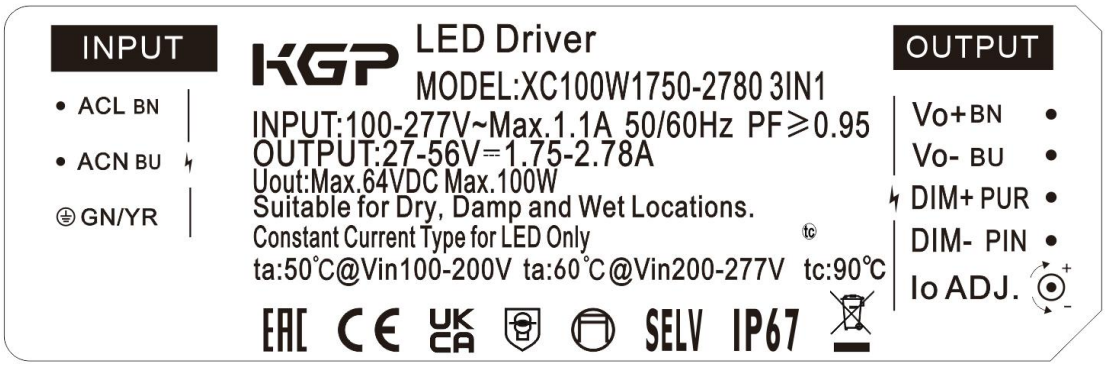
XC75W700-1050 3IN1

XC75W1300-2100 3IN1

XC100W700-1050 3IN1



XC100W1750-2780 3IN1



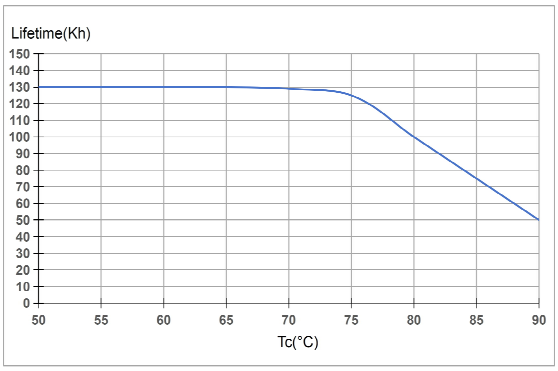
XC150W500-1150 3IN1

XC150W1800-4200 3IN1

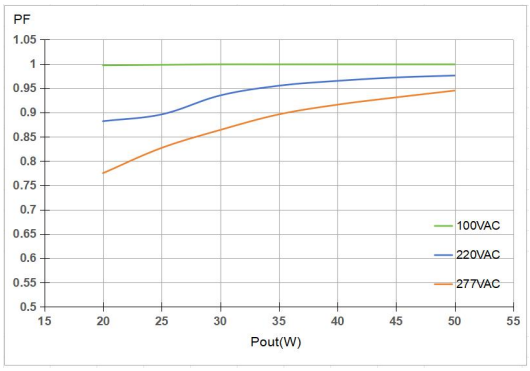
4. Electrical values

XC50W530-1400 3IN1:

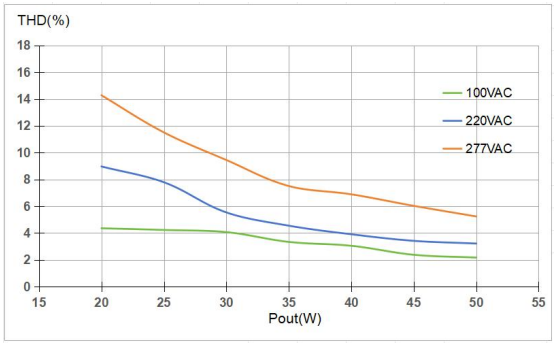
Lifetime vs. Case Temperature



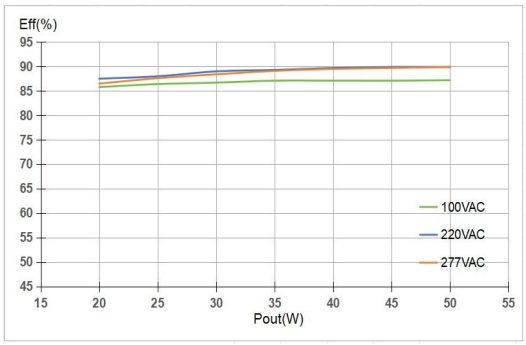
PF vs. Load



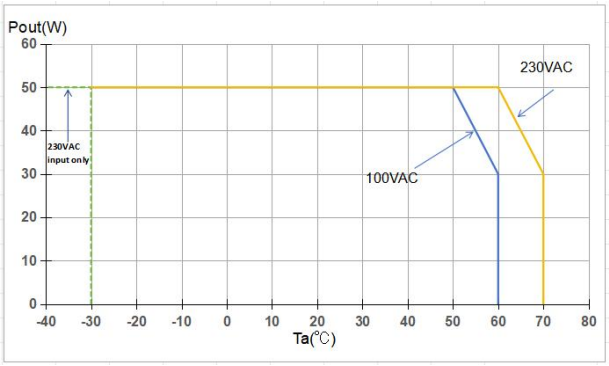
THD vs. Load



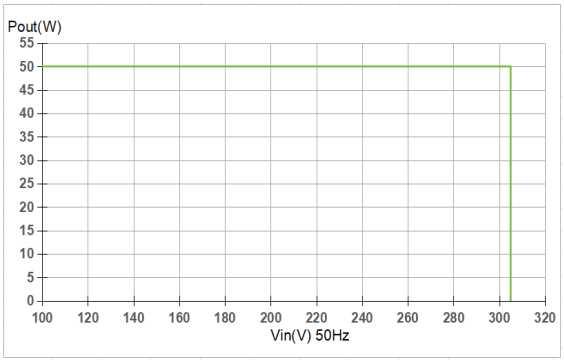
Efficiency vs. Load



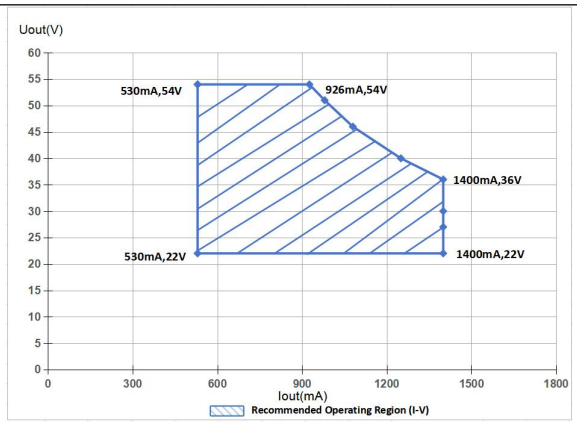
Load vs. Ta



Static characteristic curve

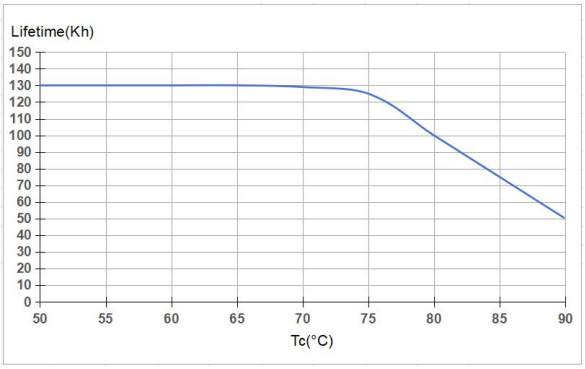


I-V operating range

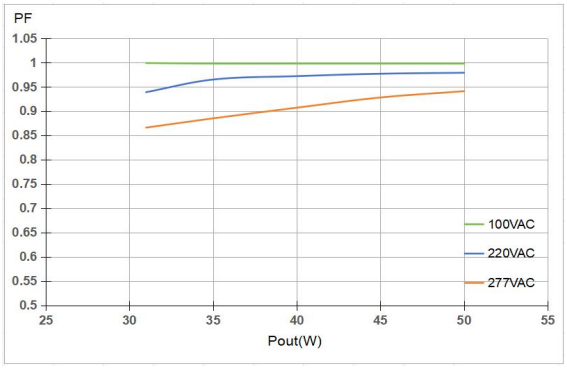


XC50W1450-2100 3IN1:

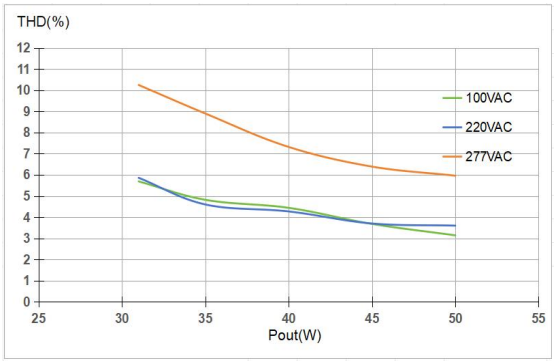
Lifetime vs. Case Temperature



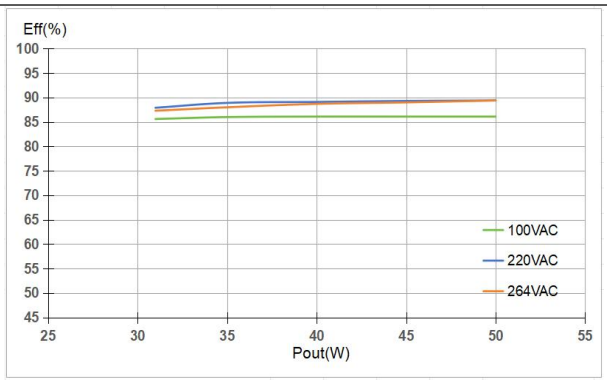
PF vs. Load



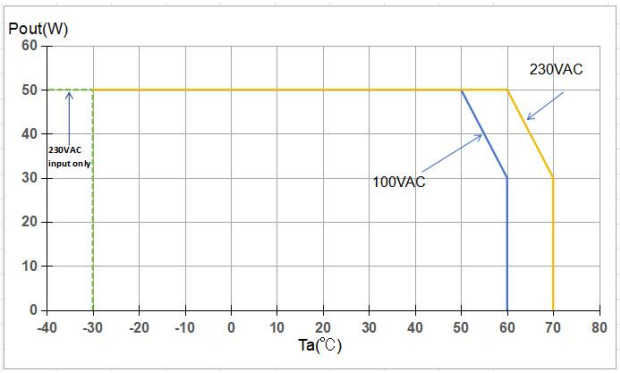
THD vs. Load



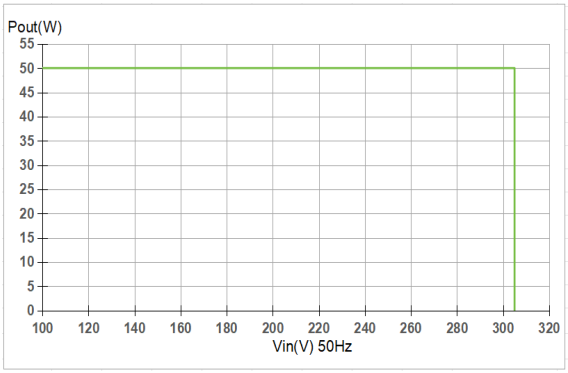
Efficiency vs. Load



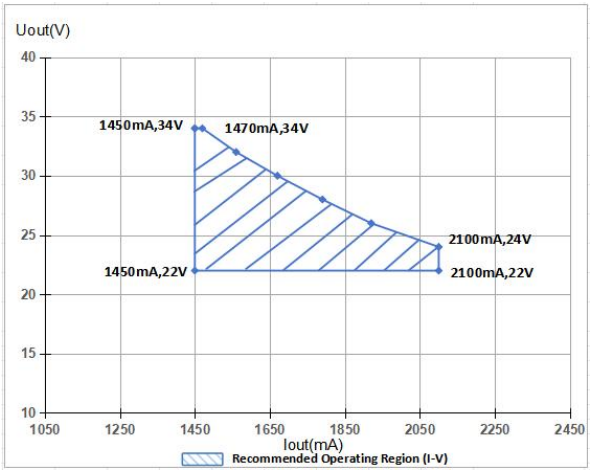
Load vs. Ta



Static characteristic curve

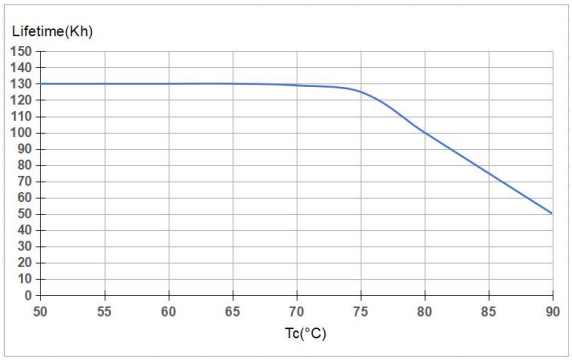


I-V operating range

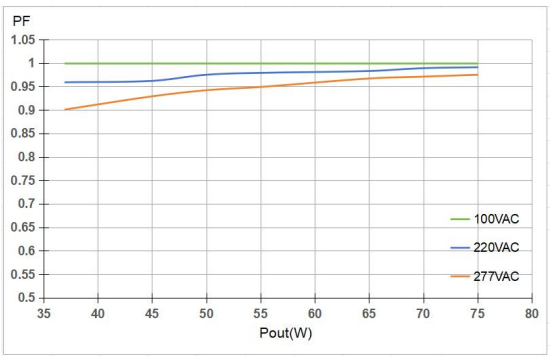


XC75W700-1050 3IN1:

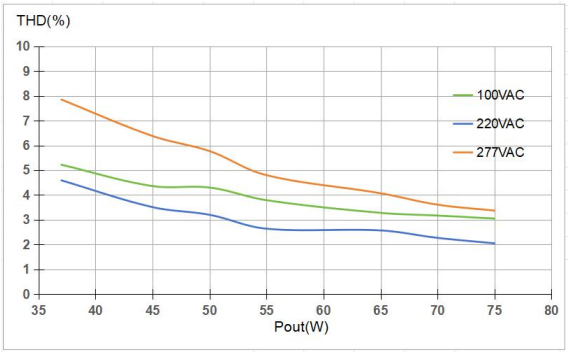
Lifetime vs. Case Temperature



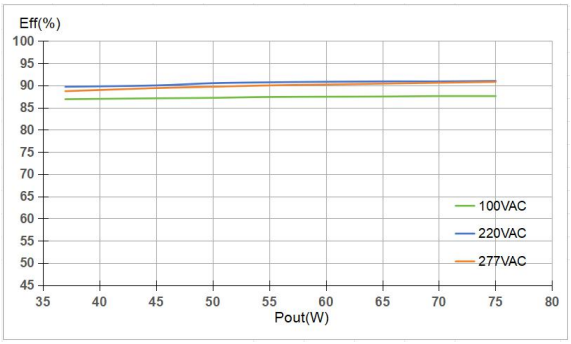
PF vs. Load



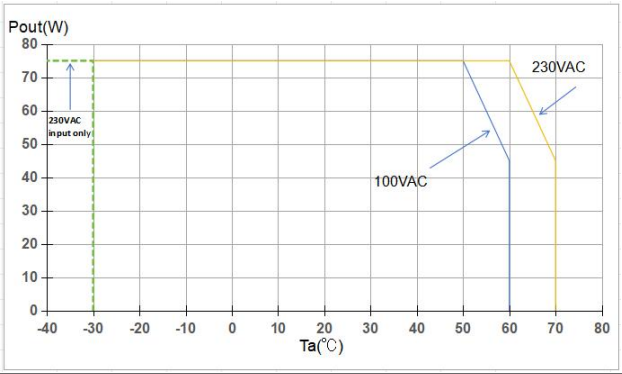
THD vs. Load



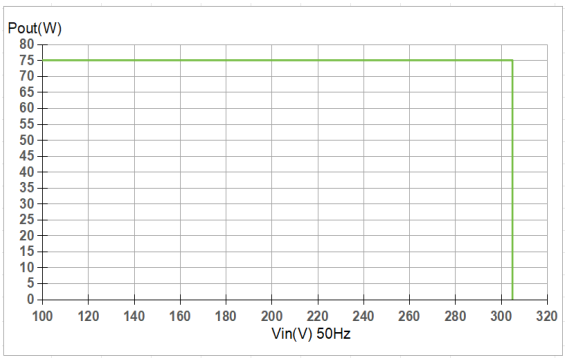
Efficiency vs. Load

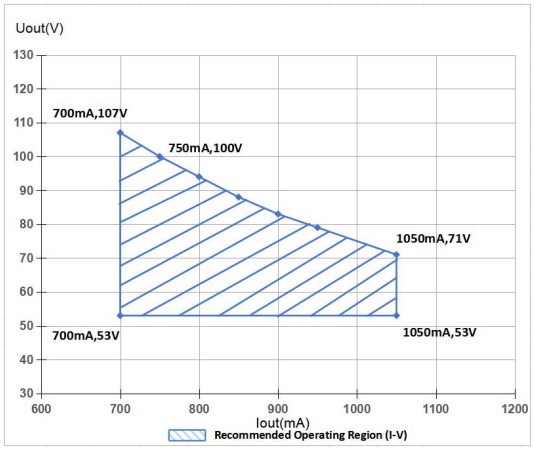


Load vs. Ta

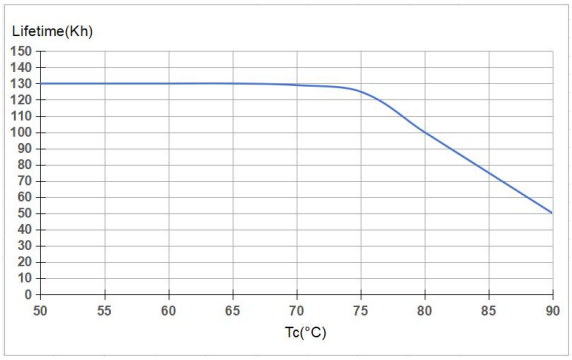
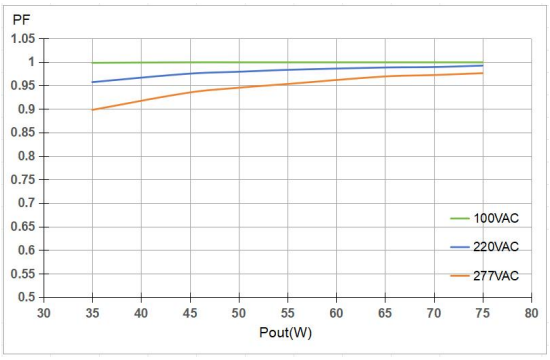
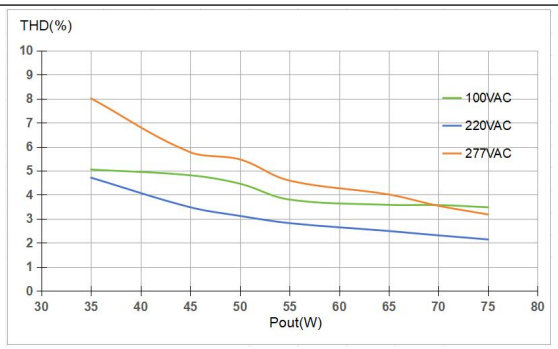
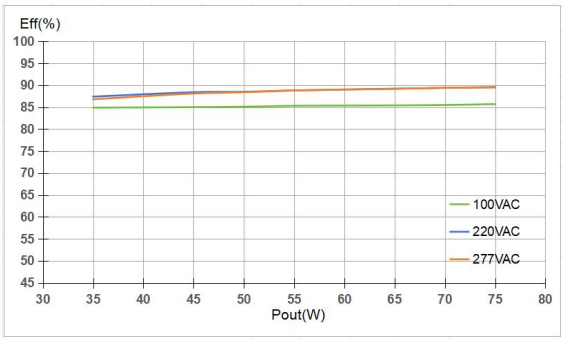
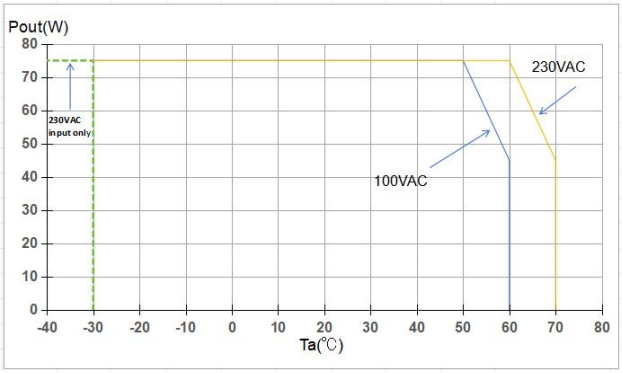
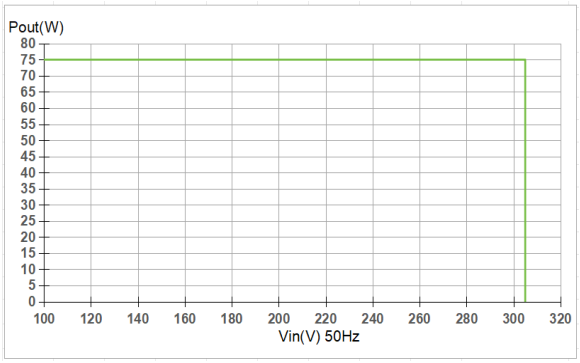


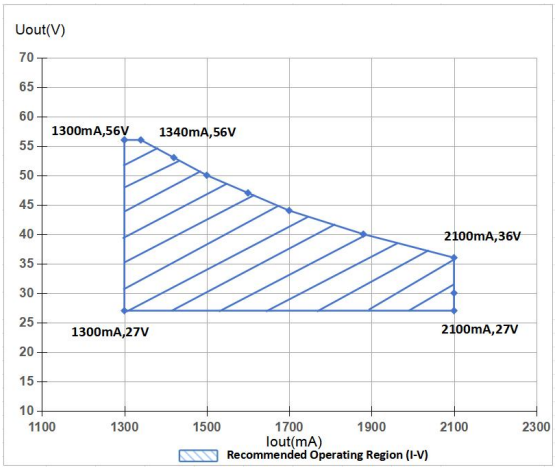
Static characteristic curve



I-V operating range	
	

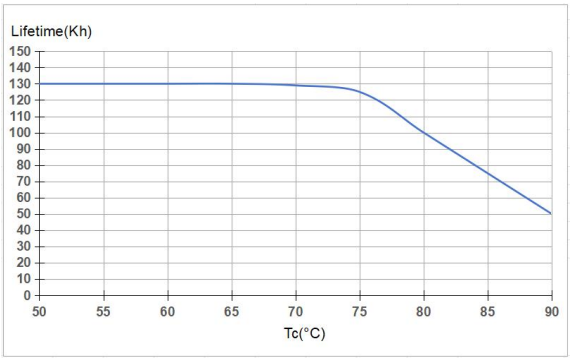
XC75W1300-2100 3IN1:

Lifetime vs. Case Temperature	PF vs. Load
	
THD vs. Load	**Efficiency vs. Load**
	
Load vs. Ta	**Static characteristic curve**
	
I-V operating range	

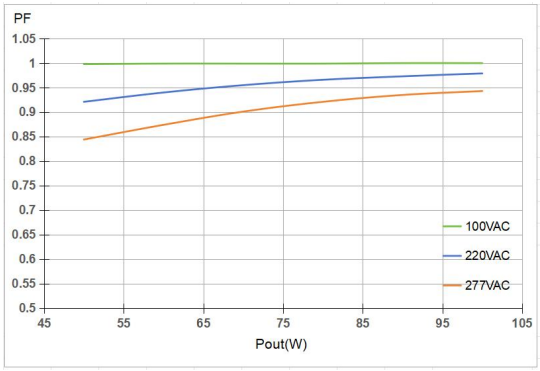


XC100W700-1050 3IN1:

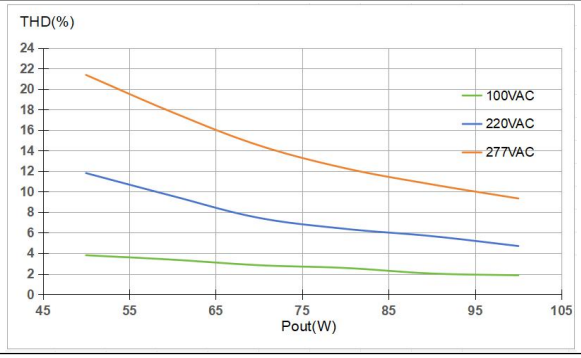
Lifetime vs. Case Temperature



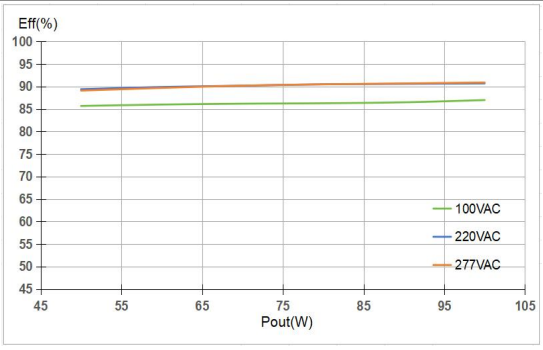
PF vs. Load



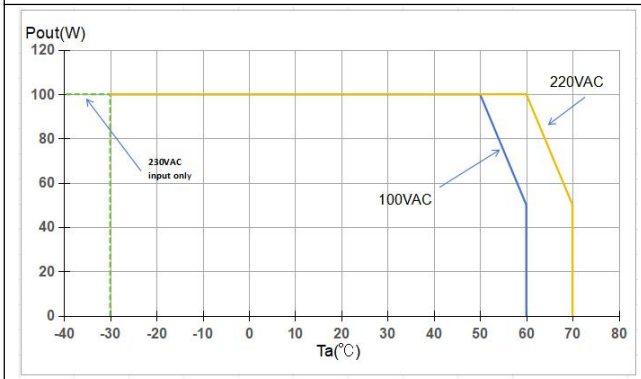
THD vs. Load



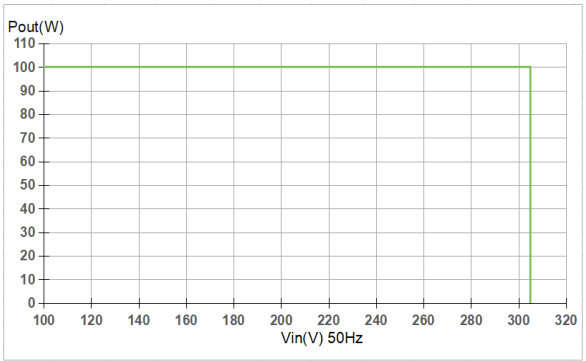
Efficiency vs. Load



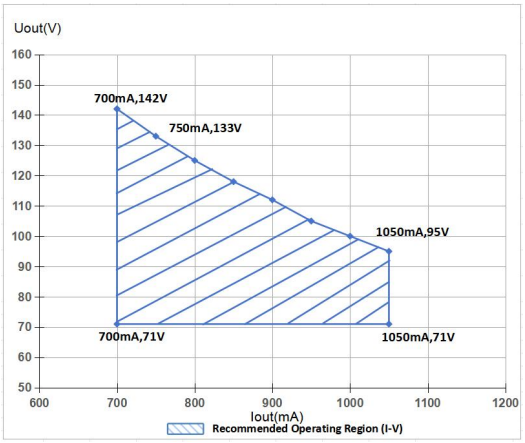
Load vs. Ta



Static characteristic curve

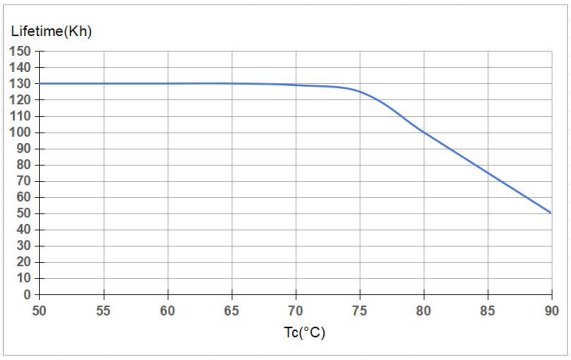


I-V operating range

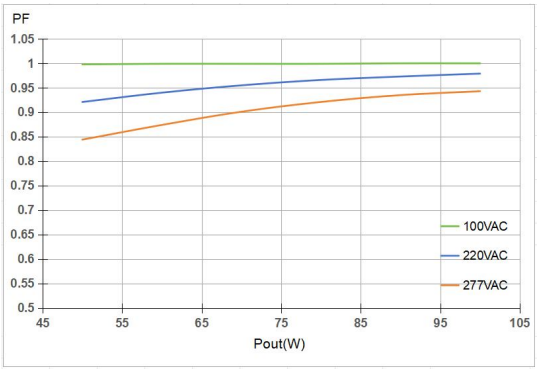


XC100W1750-2780 3IN1:

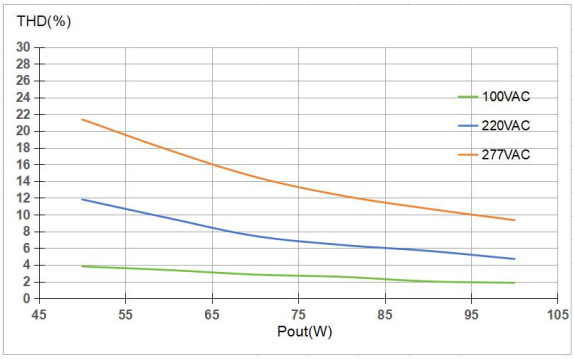
Lifetime vs. Case Temperature



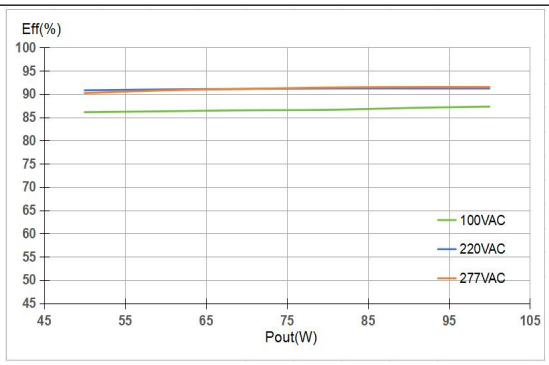
PF vs. Load



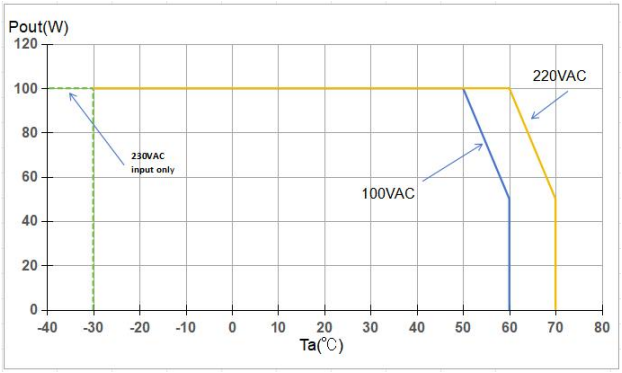
THD vs. Load



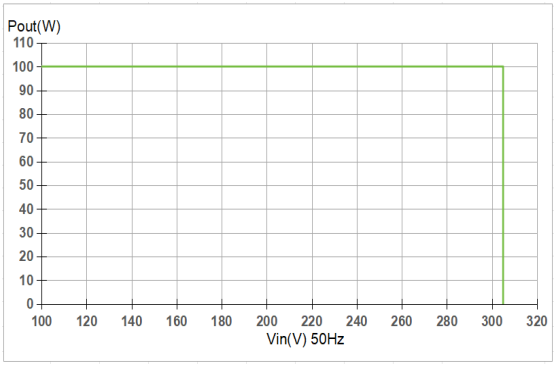
Efficiency vs. Load



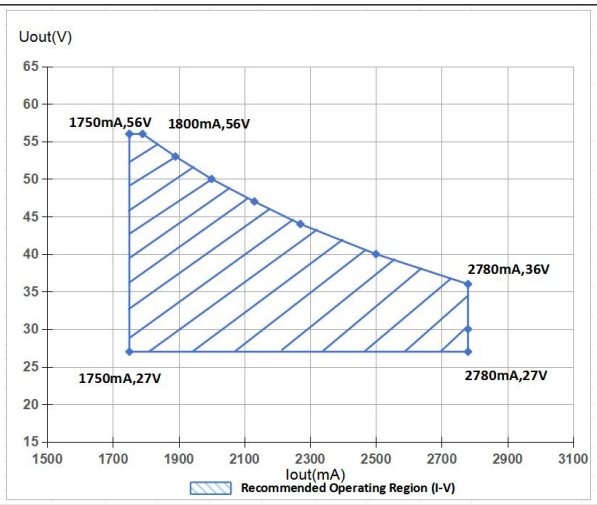
Load vs. Ta



Static characteristic curve

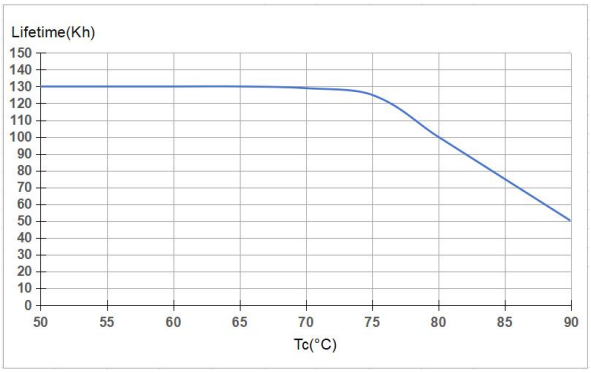


I-V operating range

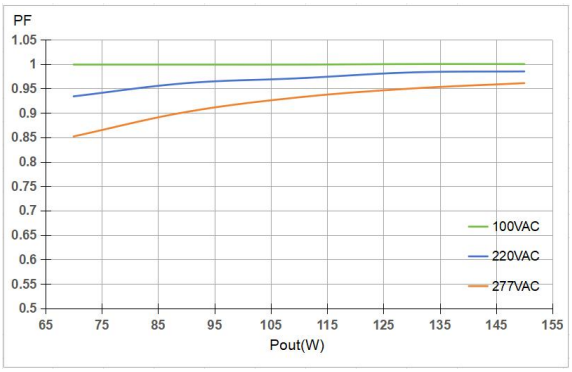


XC150W500-1150 3IN1:

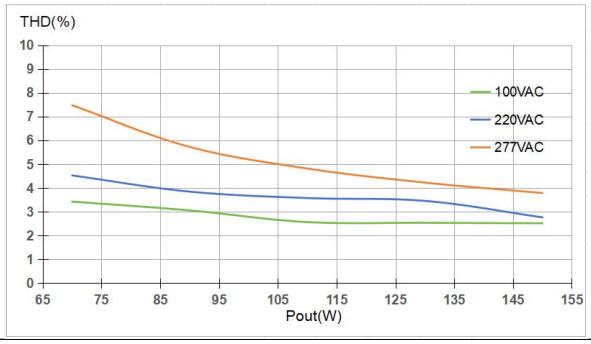
Lifetime vs. Case Temperature



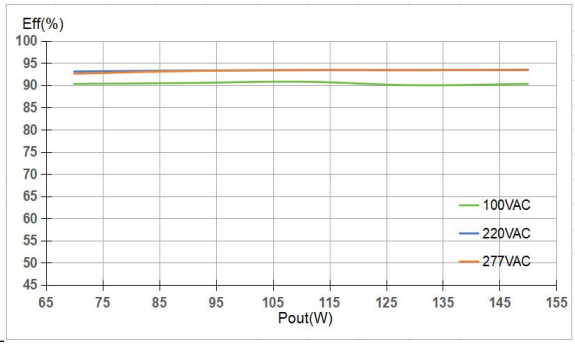
PF vs. Load



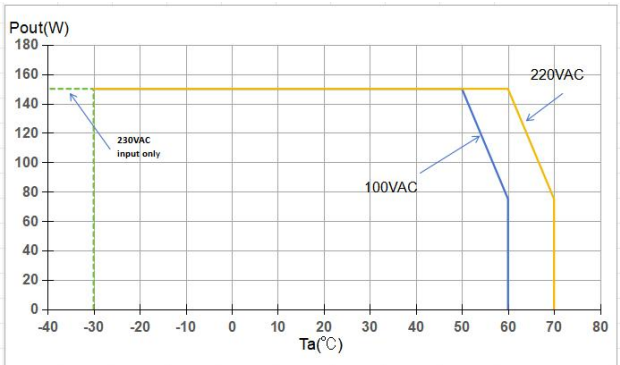
THD vs. Load



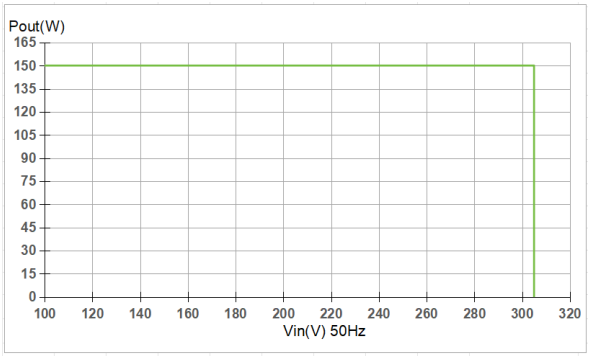
Efficiency vs. Load



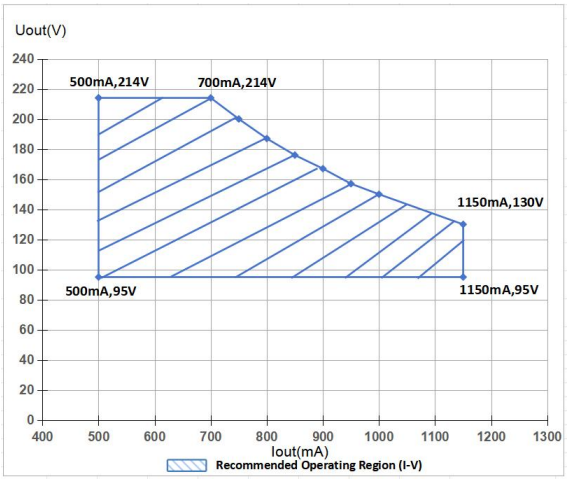
Load vs. Ta



Static characteristic curve

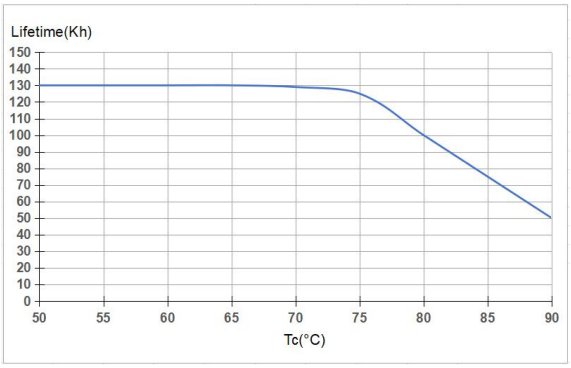


I-V operating range

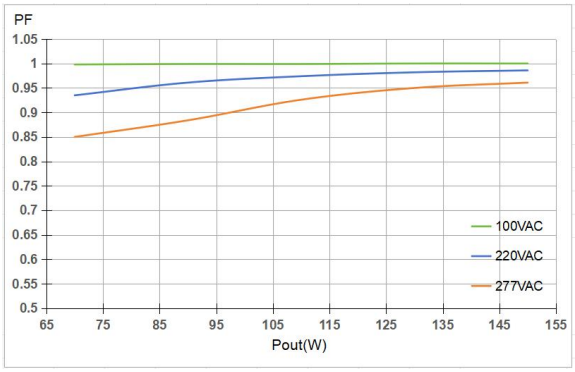


XC150W1800-4200 3IN1:

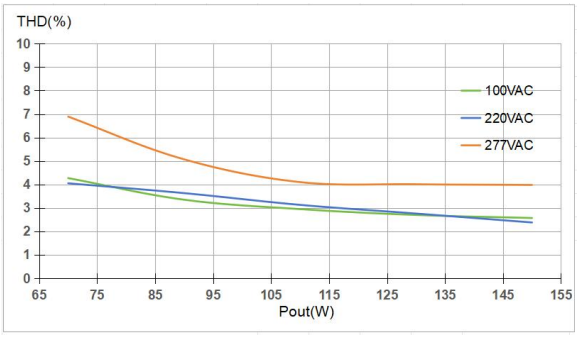
Lifetime vs. Case Temperature



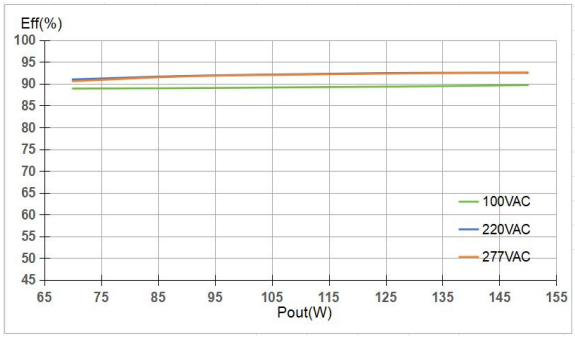
PF vs. Load



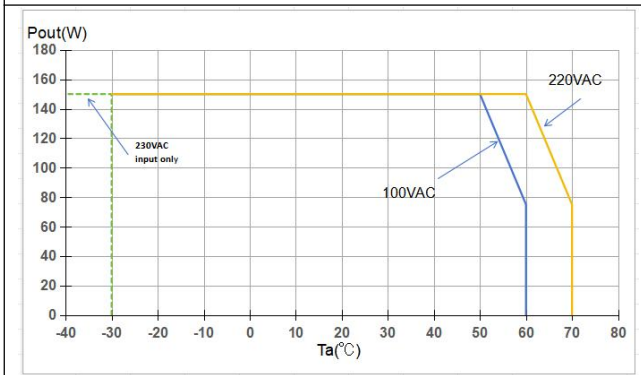
THD vs. Load



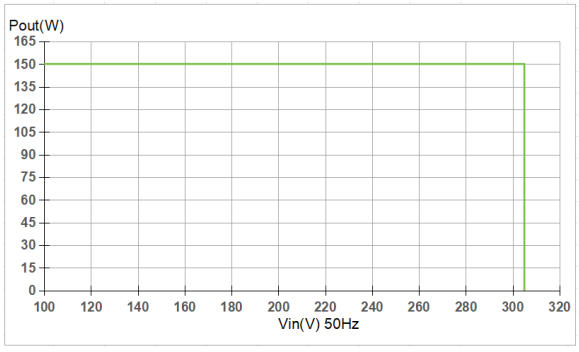
Efficiency vs. Load



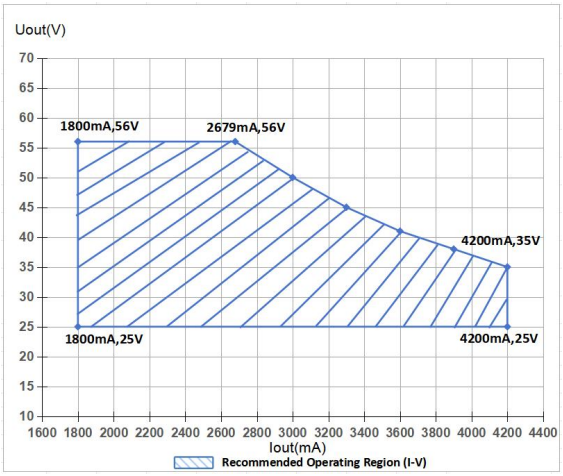
Load vs. Ta



Static characteristic curve



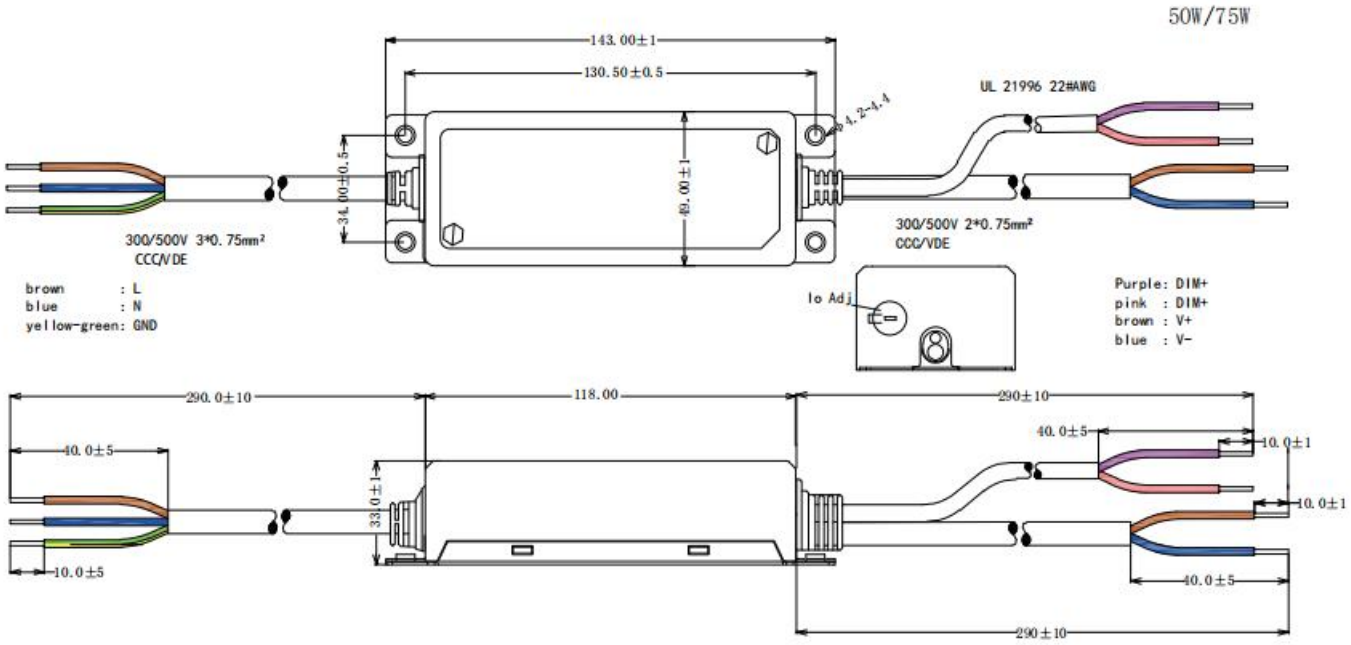
I-V operating range



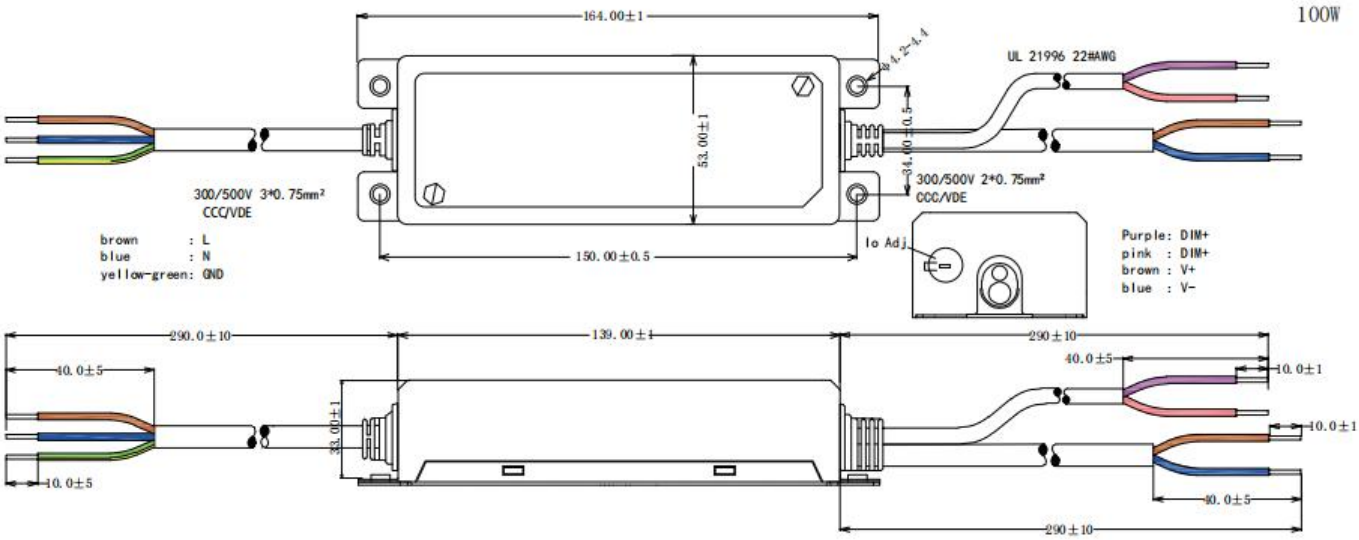
5. Dimension （Unit：mm）

XC50W530-1400 3IN1 & XC50W1450-2100 3IN1

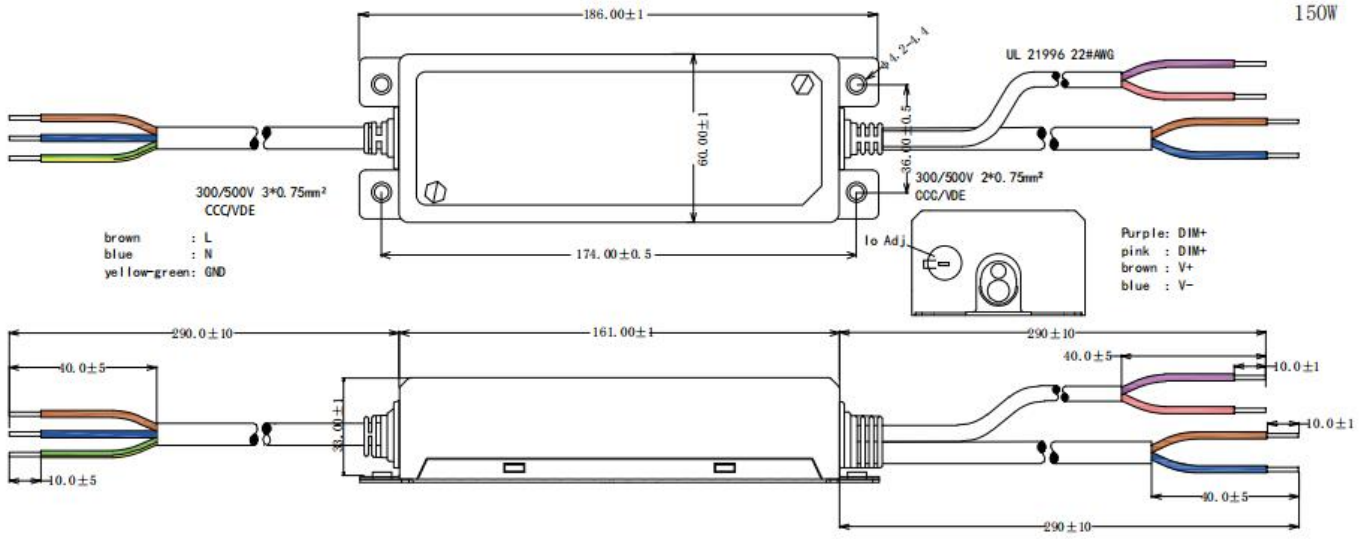
XC75W700-1050 3IN1 & XC75W1300-2100 3IN1



XC100W700-1050 3IN1 & XC100W1750-2780 3IN1

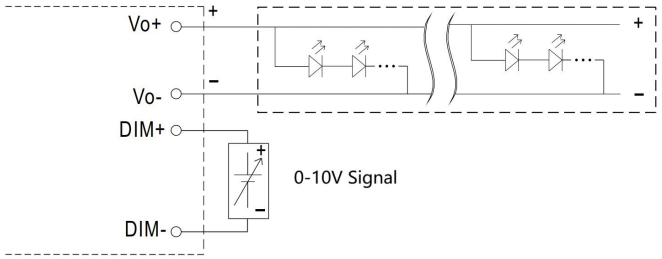
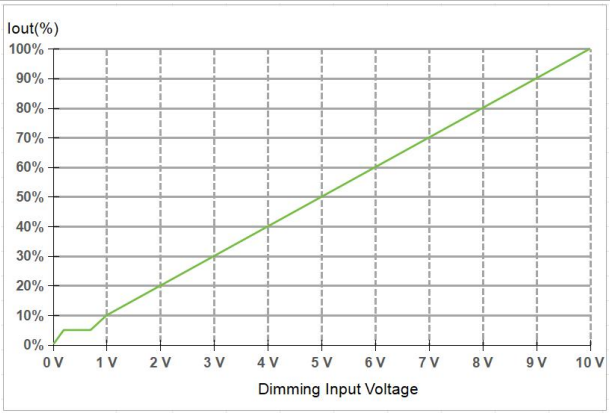


XC150W500-1150 3IN1 & XC150W1800-4200 3IN1

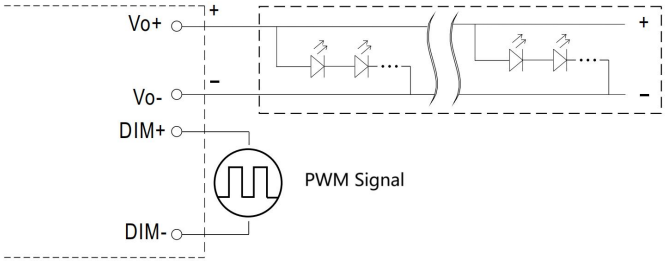
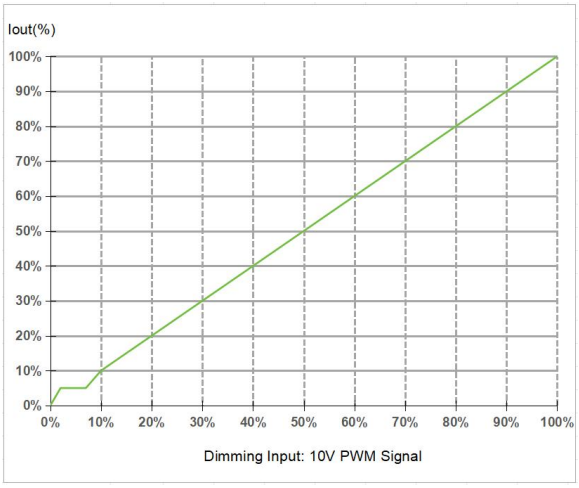


6. Dimming Characteristic Curve

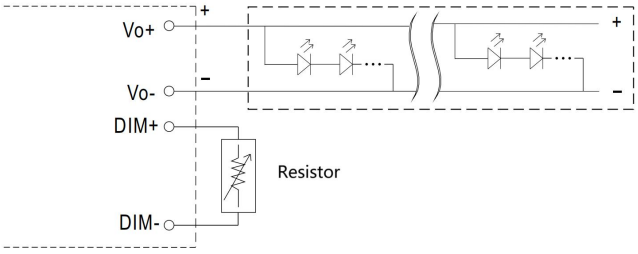
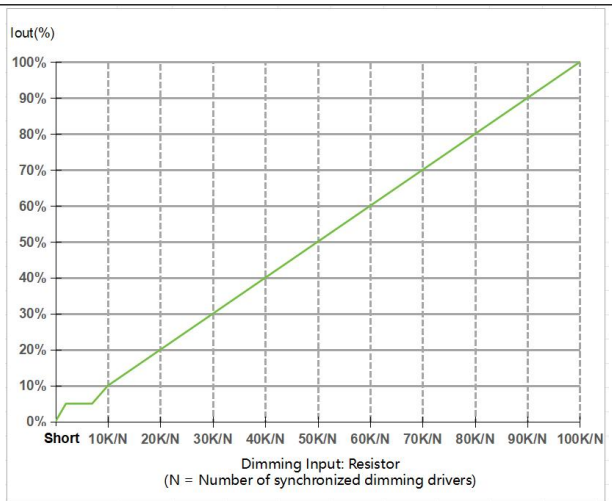
0–10 VDC dimming：

	Dimming curve
	

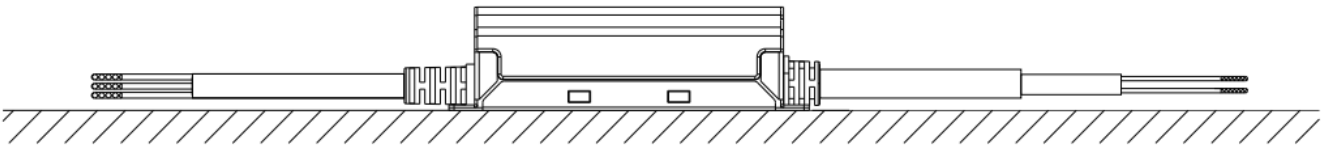
10 V PWM dimming (400 Hz – 2 kHz)：

	Dimming curve
	

Resistive dimming：

	Dimming curve
	

7. Recommended mounting method



8. Packing information

Packing way	Model	Colour	Carton L*W*H(mm)	Pcs/ Carton	Net weight/ Pcs(kg)	Net weight/ Carton(kg)	Gross weight/ Carton(kg)
Industrial	XC50W530-1400 3IN1	Silver-white	L345*W310*H158	32	0.37	11.8	12.9
Industrial	XC50W1450-2100 3IN1	Silver-white	L345*W310*H158	32	0.37	11.8	12.9
Industrial	XC75W700-1050 3IN1	Silver-white	L375*W245*H220	30	0.44	13.2	14.4
Industrial	XC75W1300-2100 3IN1	Silver-white	L375*W245*H220	30	0.44	13.2	14.4
Industrial	XC100W700-1050 3IN1	Silver-white	L420*W280*H210	30	0.59	17.7	18.9
Industrial	XC100W1750-2780 3IN1	Silver-white	L420*W280*H210	30	0.59	17.7	18.9
Industrial	XC150W500-1150 3IN1	Silver-white	L457*W250*H220	20	0.72	14.4	15.6
Industrial	XC150W1800-4200 3IN1	Silver-white	L457*W250*H220	20	0.72	14.4	15.6

9. 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.

10. 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

11. REVISION HISTORY

DATE	REV	Modification details
2026-6-24	V1.0	Initial release.