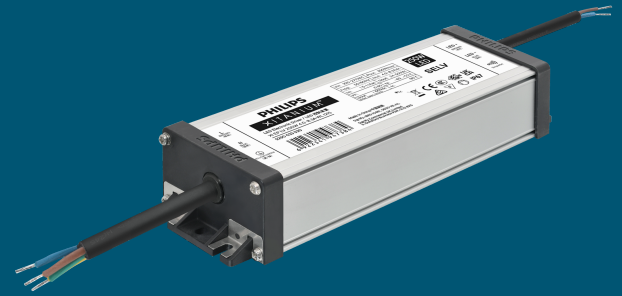


Xitanium Outdoor Essential Programmable Low Voltage LED Drivers



Xi EP LV 250W 4.0-8.3A WL I215
9290 033 93080

Xitanium Essential Programmable (EP) LED drivers are designed for maximum reliability and flexibility, making it a preferred choice for different Outdoor applications. The key feature AOC (Adjustable Output Current) can be programmed with the new e-set tool, a simple and fast way to configure the driver without the need to power on the driver and without the need for any software configuration.

Xitanium EP Low Voltage (LV) drivers are specifically designed for low voltage Outdoor applications. Having high surge immunity, these durable, independently housed drivers deliver consistent, high performance to luminaires. It is an ideal solution for OEMs who need reliable, adjustable output current in a rugged independent form factor.

Benefits

- Low voltage/high current output fits low voltage outdoor applications
- AOC (Adjustable Output Current) gives full flexibility to output different currents to spec-in different projects
- Compact housing saves luminaire space
- Easy adjustment of output current/voltage saves time and labor cost
- Robust design offers peace of mind and saves maintenance cost
- IP rated housing allows use in a non-fully sealed gearbox

Application

- Road and street lighting
- Area and flood lighting
- Tunnel lighting
- High-bay lighting

Features

- Low voltage/high current output
- 1-10V dimming capability
- Adjustable Output Current (AOC)
- Compact housing dimensions
- Digital way to adjust output current called e-set tool
- Robust specifications for moisture, vibration, and temperature protection
- IP67
- 1-10V dimming capability

Logistical data

Specification item	Value
Product name	Xi EP LV 250W 4.0-8.3A WL I215
Logistic code 12NC	9290 033 93080
Pieces per box	12
Weight	940 gram

Electrical input data

Specification item	Value	Unit	Condition
Rated input voltage range	200...254	V _{ac}	Performance range
Rated input voltage	230	V _{ac}	
Rated input frequency	47...63	Hz	Performance range
Rated input current	1.2	A	@ rated output power @ rated input voltage
Max. input current	1.4	A	@ rated output power @ minimum performance input voltage
Rated input power	275.0	W	@ rated output power @ rated input voltage
Power factor performance range	≥ 0.95		@ rated output power @ rated input voltage@ rated output power @ rated input voltage
Total harmonic distortion	10	%	@ rated output power @ rated input voltage
Efficiency	92.0	%	@ rated output power @ rated input voltage @max. Uout
Input voltage AC	85...305	V _{ac}	Operational range
Input frequency AC	45...66	Hz	Operational range
Isolation input to output	Double		

Electrical output data

Specification item	Value	Unit	Condition
Regulation method	Constant Current		
Output voltage	24...50	V _{dc}	
Output voltage max.	60	V	Maximum output voltage (rms)
Output current	4000...8300	mA	
Output current min programmable	4000	mA	
Output current tolerance ±	5	%	At max. output currentt, Ta=25°C
Output current ripple LF	≤ 5	%	Ripple = peak / average, < 1kHz
Output current ripple HF	≤ 5	%	
Output P _{st} ^{LM}	≤ 0.3		In entire operating window
Output SVM	≤ 0.3		In entire operating window
Output power	96.0...250.0	W	Rated output power is 250W

Control interfaces

Specification item	Value	Unit	Condition
Control method	Fixed		

Wiring and Connections

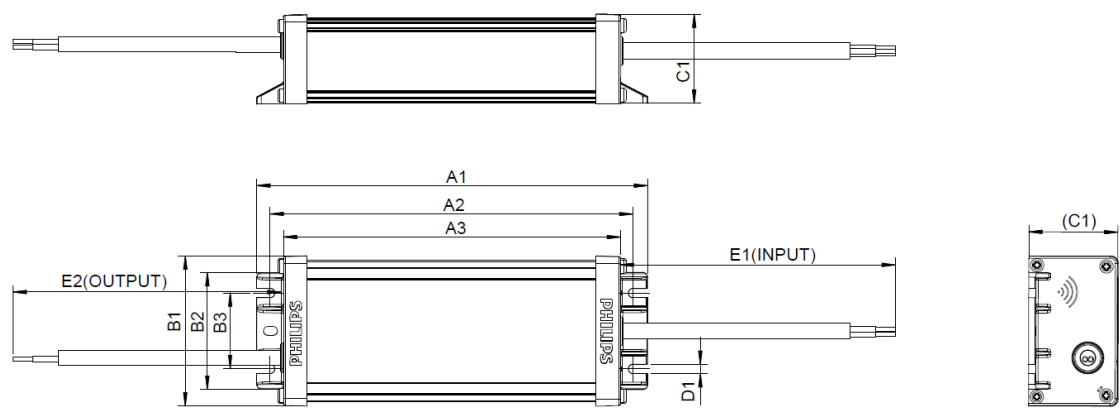
Specification item	Value	Unit	Type
Input wire cross-section	1	mm ²	3x 1.0mm ² stranded wires, waterproof cable
Output wire cross-section	1	mm ²	2x 1.0mm ² stranded wires, waterproof cable
Maximum cable length	2	m	Total length of wiring including LED module, one way

Isolation

Insulation per IEC61347-1	Input	Output	Ground
Input	-	Double	Basic
Output	Double	-	Basic
Ground	Basic	Basic	-

Dimensions and weight

Specification item	Value	Unit	Tolerance (mm)
Length (A1)	215	mm	± 2
Mounting hole distance (A2)	204	mm	± 2
Length (A3)	192.5	mm	± 2
Width (B1)	67	mm	± 1
Width (B2)	52.5	mm	± 1
Width (B3)	34	mm	± 1
Height (C1)	40	mm	± 1
Mounting hole diameter (D1)	4	mm	± 0.3
Input cable length (E1)	450	mm	± 30
Output cable length (E2)	450	mm	± 30
Weight	940	gram	

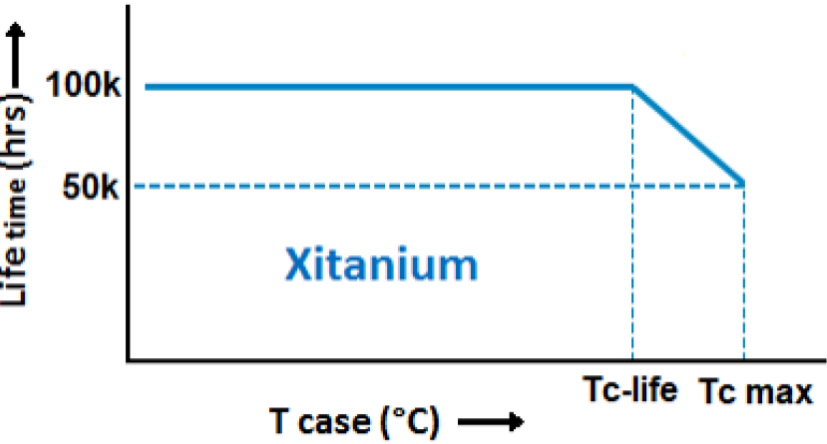


Operational temperatures and humidity

Specification item	Value	Unit	Condition
Ambient temperature	-40...+55	°C	Higher ambient temperature allowed as long as Tcase-max is not exceeded
Tcase-max	90	°C	Maximum temperature measured at Tcase-point
Relative humidity	10...90	%	Non-condensing

Lifetime

Specification item	Value	Unit	Condition
Driver lifetime	50,000	hours	Measured temperature at Tcase-point is 85°C. Maximum failures = 10%



Maximum failures = 10%

Temperature [°C]	Lifetime	Unit	Condition
90	25000	hr	Temperature measured @Tc point
45	33000	hr	
	50000	hr	
-5	>50000	hr	
-10	>50000	hr	

Storage temperature and humidity

Specification item	Value	Unit	Condition
Ambient temperature	-40...+80	°C	Non-condensing
Relative humidity	5...95	%	

Programmable features

Specification item	Available	Default setting	Condition
Set Adjustable Output Current (AOC)	NFC	5000 mA	

Non-programmable features

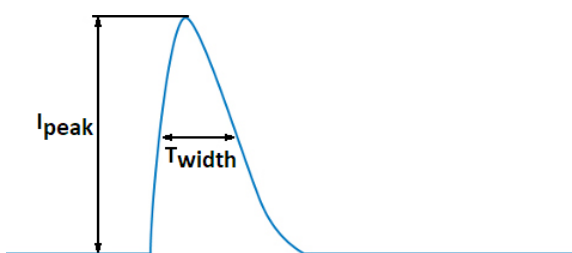
Specification item	Value	Condition
Open load protection	Yes	Automatic recovering
Short circuit protection	Yes	Automatic recovering
Over power protection	Yes	Automatic recovering
Hot wiring	No	
Suitable for fixtures with protection class	I	per IEC60598
Overtemperature protection	Yes	Automatic recovering, refer to thermal guard curve

Inrush current

Specification item	Value	Unit	Condition
Inrush current	77	A	Input voltage 230V
Inrush peak width	296	μs	Input voltage 230V, measured at 50% height
Drivers / MCB 16A type B @230V AC	≤ 3	pcs	Input voltage 230V

Please refer to the driver design in guide if you use other MCB-types.

If several mini circuit breakers are used directly side-by-side (without distance piece) a correction factor of 80% has to be applied to the rated current



Driver touch current / protective conductor current / earth leakage current

Specification item	Value	Unit	Condition
Typical Protective Conductor Current (ins. Class I)	0.7	mA rms	Acc. IEC60598-1. LED module contribution not included

Surge immunity

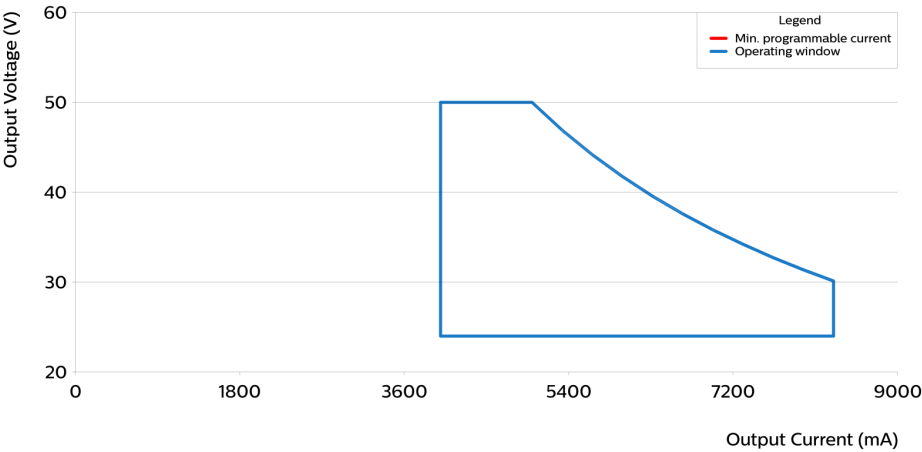
Specification item	Value	Unit	Condition
Mains surge immunity (diff. mode)	6	kV	Acc. IEC61000-4-5. 2 Ohm, 1.2/50us, 8/20us
Mains surge immunity (comm. mode)	6	kV	Acc. IEC61000-4-5. 12 Ohm 1.2/50us, 8/20us

Application Info (Approbation)

Specification item	Value
Approval marks and Certifications	CB / CCC / CE / ENEC / RCM / SELV / UKCA
Ingress Protection classification (IP)	67
Application	Outdoor
Mounting Type	Independent

Graphs

Operating window

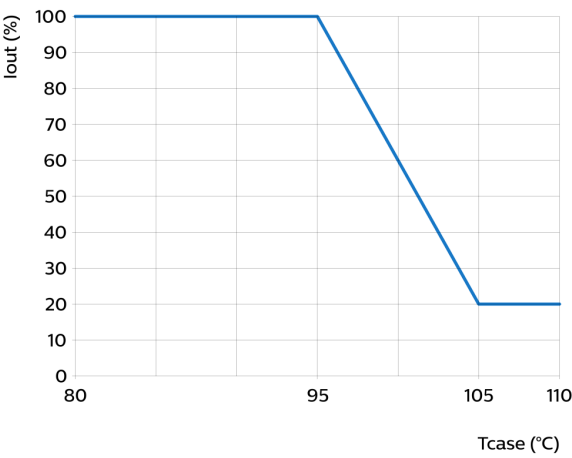


Type	Output current (mA)	Min. output voltage (V)	Max. output voltage (V)	Max. output power (W)
Xi EP LV 250W 4.0-8.3A WL I215	4000	24	50	200
Xi EP LV 250W 4.0-8.3A WL I215	4050	24	50	202.5
Xi EP LV 250W 4.0-8.3A WL I215	4100	24	50	205
Xi EP LV 250W 4.0-8.3A WL I215	4150	24	50	207.5
Xi EP LV 250W 4.0-8.3A WL I215	4200	24	50	210
Xi EP LV 250W 4.0-8.3A WL I215	4250	24	50	212.5
Xi EP LV 250W 4.0-8.3A WL I215	4300	24	50	215
Xi EP LV 250W 4.0-8.3A WL I215	4350	24	50	217.5
Xi EP LV 250W 4.0-8.3A WL I215	4400	24	50	220
Xi EP LV 250W 4.0-8.3A WL I215	4450	24	50	222.5
Xi EP LV 250W 4.0-8.3A WL I215	4500	24	50	225
Xi EP LV 250W 4.0-8.3A WL I215	4550	24	50	227.5
Xi EP LV 250W 4.0-8.3A WL I215	4600	24	50	230
Xi EP LV 250W 4.0-8.3A WL I215	4650	24	50	232.5
Xi EP LV 250W 4.0-8.3A WL I215	4700	24	50	235
Xi EP LV 250W 4.0-8.3A WL I215	4750	24	50	237.5
Xi EP LV 250W 4.0-8.3A WL I215	4800	24	50	240
Xi EP LV 250W 4.0-8.3A WL I215	4850	24	50	242.5

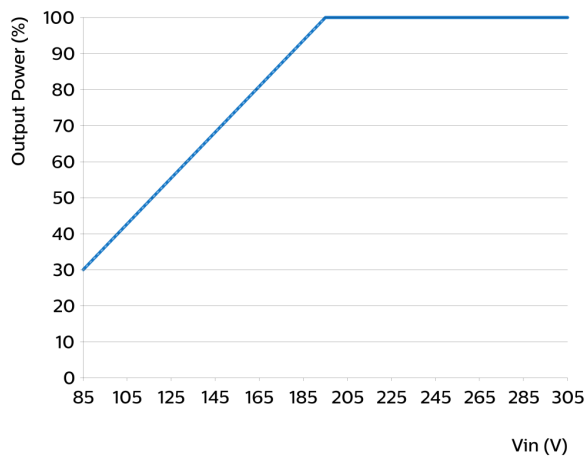
Xi EP LV 250W 4.0-8.3A WL I215	4900	24	50	245
Xi EP LV 250W 4.0-8.3A WL I215	4950	24	50	247.5
Xi EP LV 250W 4.0-8.3A WL I215	5000	24	50	250
Xi EP LV 250W 4.0-8.3A WL I215	5050	24	49	250
Xi EP LV 250W 4.0-8.3A WL I215	5100	24	49	250
Xi EP LV 250W 4.0-8.3A WL I215	5150	24	48	250
Xi EP LV 250W 4.0-8.3A WL I215	5200	24	48	250
Xi EP LV 250W 4.0-8.3A WL I215	5250	24	47	250
Xi EP LV 250W 4.0-8.3A WL I215	5300	24	47	250
Xi EP LV 250W 4.0-8.3A WL I215	5350	24	46	250
Xi EP LV 250W 4.0-8.3A WL I215	5400	24	46	250
Xi EP LV 250W 4.0-8.3A WL I215	5450	24	45	250
Xi EP LV 250W 4.0-8.3A WL I215	5500	24	45	250
Xi EP LV 250W 4.0-8.3A WL I215	5550	24	45	250
Xi EP LV 250W 4.0-8.3A WL I215	5600	24	44	250
Xi EP LV 250W 4.0-8.3A WL I215	5650	24	44	250
Xi EP LV 250W 4.0-8.3A WL I215	5700	24	43	250
Xi EP LV 250W 4.0-8.3A WL I215	5750	24	43	250
Xi EP LV 250W 4.0-8.3A WL I215	5800	24	43	250
Xi EP LV 250W 4.0-8.3A WL I215	5850	24	42	250
Xi EP LV 250W 4.0-8.3A WL I215	5900	24	42	250
Xi EP LV 250W 4.0-8.3A WL I215	5950	24	42	250
Xi EP LV 250W 4.0-8.3A WL I215	6000	24	41	250
Xi EP LV 250W 4.0-8.3A WL I215	6050	24	41	250
Xi EP LV 250W 4.0-8.3A WL I215	6100	24	40	250
Xi EP LV 250W 4.0-8.3A WL I215	6150	24	40	250
Xi EP LV 250W 4.0-8.3A WL I215	6200	24	40	250
Xi EP LV 250W 4.0-8.3A WL I215	6250	24	40	250
Xi EP LV 250W 4.0-8.3A WL I215	6300	24	39	250
Xi EP LV 250W 4.0-8.3A WL I215	6350	24	39	250
Xi EP LV 250W 4.0-8.3A WL I215	6400	24	39	250
Xi EP LV 250W 4.0-8.3A WL I215	6450	24	38	250
Xi EP LV 250W 4.0-8.3A WL I215	6500	24	38	250
Xi EP LV 250W 4.0-8.3A WL I215	6550	24	38	250
Xi EP LV 250W 4.0-8.3A WL I215	6600	24	37	250
Xi EP LV 250W 4.0-8.3A WL I215	6650	24	37	250
Xi EP LV 250W 4.0-8.3A WL I215	6700	24	37	250
Xi EP LV 250W 4.0-8.3A WL I215	6750	24	37	250
Xi EP LV 250W 4.0-8.3A WL I215	6800	24	36	250
Xi EP LV 250W 4.0-8.3A WL I215	6850	24	36	250
Xi EP LV 250W 4.0-8.3A WL I215	6900	24	36	250
Xi EP LV 250W 4.0-8.3A WL I215	6950	24	35	250
Xi EP LV 250W 4.0-8.3A WL I215	7000	24	35	250
Xi EP LV 250W 4.0-8.3A WL I215	7050	24	35	250
Xi EP LV 250W 4.0-8.3A WL I215	7100	24	35	250
Xi EP LV 250W 4.0-8.3A WL I215	7150	24	34	250
Xi EP LV 250W 4.0-8.3A WL I215	7200	24	34	250
Xi EP LV 250W 4.0-8.3A WL I215	7250	24	34	250
Xi EP LV 250W 4.0-8.3A WL I215	7300	24	34	250

Xi EP LV 250W 4.0-8.3A WL I215	7350	24	34	250
Xi EP LV 250W 4.0-8.3A WL I215	7400	24	33	250
Xi EP LV 250W 4.0-8.3A WL I215	7450	24	33	250
Xi EP LV 250W 4.0-8.3A WL I215	7500	24	33	250
Xi EP LV 250W 4.0-8.3A WL I215	7550	24	33	250
Xi EP LV 250W 4.0-8.3A WL I215	7600	24	32	250
Xi EP LV 250W 4.0-8.3A WL I215	7650	24	32	250
Xi EP LV 250W 4.0-8.3A WL I215	7700	24	32	250
Xi EP LV 250W 4.0-8.3A WL I215	7750	24	32	250
Xi EP LV 250W 4.0-8.3A WL I215	7800	24	32	250
Xi EP LV 250W 4.0-8.3A WL I215	7850	24	31	250
Xi EP LV 250W 4.0-8.3A WL I215	7900	24	31	250
Xi EP LV 250W 4.0-8.3A WL I215	7950	24	31	250
Xi EP LV 250W 4.0-8.3A WL I215	8000	24	31	250
Xi EP LV 250W 4.0-8.3A WL I215	8050	24	31	250
Xi EP LV 250W 4.0-8.3A WL I215	8100	24	30	250
Xi EP LV 250W 4.0-8.3A WL I215	8150	24	30	250
Xi EP LV 250W 4.0-8.3A WL I215	8200	24	30	250
Xi EP LV 250W 4.0-8.3A WL I215	8250	24	30	250
Xi EP LV 250W 4.0-8.3A WL I215	8300	24	30	250

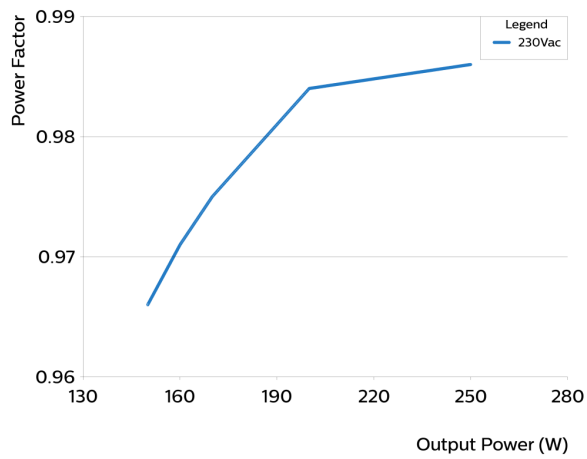
Thermal Guard



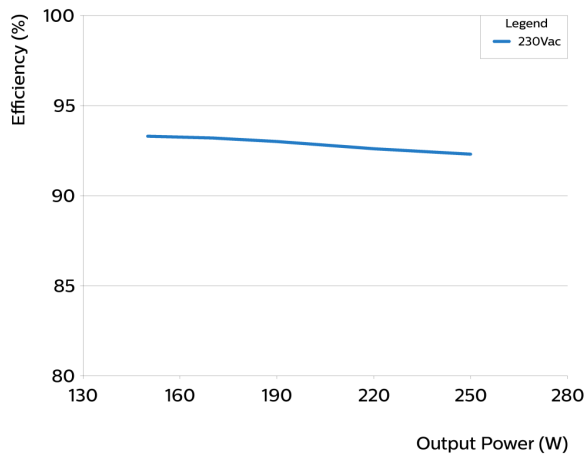
Mains Guard



Power factor versus output power



Efficiency versus output power



THD versus output power

