PHILIPS

Xitanium

LED driver

Datasheet

Xitanium non-Isolated DALI Dip Switch

Xitanium 75W 0.25-0.5A 230V DALI DS 230V

9290 040 07006

Xitanium LED non-isolated DALI Dipswitch drivers are ideal for high-voltage (HV) systems. They are based on three pillars: quality of light, reliability, and flexibility. Our drivers' robustness is based on in-depth electronics knowledge and extensive testing. Finally, application-oriented operating windows offer the flexibility required to provide the stable lumen output and quality levels that lighting specifiers and architects demand.

Features

- High efficiency
- Low Ripple less than 5%
- 4 selectable output currents by programmable Dip switches
- 50,000 hours lifetime @ Tc-max
- DC Emergency
- DALI dimmable and programmable

Benefits

- High quality of light
- Peace of mind with proven reliability
- Selectable and programmable output current enables flexibility and SKU reduction

Application

- Offices
- Waterproof
- Retail: supermarkets, shopping malls

September 2025

Logistical data

Specification item	Value
Product name	Xitanium 75W 0.25-0.5A 230V DALI DS 230V
EOC	872790097667000
Logistic code 12NC	9290 040 07006
EAN1 (GTIN)	8727900976670
EAN3 (box)	8727900976687
Pieces per box	24

Electrical input data

Specification item	Value	Unit	Condition
Rated input voltage range	220…240	V_{ac}	Performance range
Rated input voltage	230	V_{ac}	
Rated input frequency	50…60	Hz	Rated range
Rated input current	0.36	A	@ rated output power @ rated input voltage
Rated input power	82.0	W	@ rated output power @ rated input voltage
Power factor	0.98		@maximum output power @ rated input voltage
Total harmonic distortion	20	%	@ rated output power @ rated input voltage
Efficiency	91.0	%	@ maximum output power @ rated input voltage @ max. Uout
Rated input voltage DC	186…250	V_{dc}	Performance range; EOFi = 60%
Rated input current DC	0.2…0.26	A_{dc}	Performance range
Input voltage AC	198…264	V_{ac}	Operational range
Input frequency AC	47.5…63	Hz	Performance range
Input voltage DC	168…275	V_{dc}	Operational range
Standby Power (W)	< 0.50	W	
Isolation input to output	No		

Electrical output data

Specification item	Value	Unit	Condition
Regulation method	Constant Current		
Output voltage	115…230	V_{dc}	
Output voltage max.	250	V	Maximum output voltage (rms)
Output current	250…500	mA	Via programmable dipswitches
Min output current	15	mA	
Output current tolerance ±	5	%	@Iout range 300…500mA
Output current tolerance ±	7	%	@Iout range 250…300mA
Output current ripple LF	≤ 5	%	Ripple = peak / average, < 3kHz, ≤ 6% @ DC input
Output P_{st}^{LM}	≤ 0.6		In entire voltage range for each choice of output current
Output SVM	≤ 0.3		In entire voltage range for each choice of output current
Output power	28.75…75.0	W	Performance range: 28.75…75W
Number of output channels	1		

Control interfaces

Specification item	Value	Unit	Condition
Control method	DALI		Output current can be set via dip switches
Dimming range	5…100	%	Default range

Wiring and Connections

Specification item	Value	Unit	Type
Input wire cross-section	0.5…1.5 / 20…16	mm^2 / AWG	WAGO744, solid wire
Input wire strip length	8…9	mm	
Output wire cross-section	0.5…1.5 / 20…16	mm^2 / AWG	WAGO744, solid wire
Output wire strip length	8…9	mm	
Maximum cable length	2	m	CISPR15: between driver and LED module

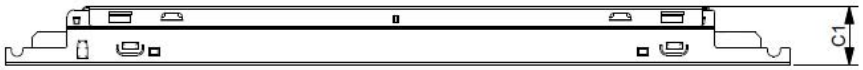
pin1	pin2	setting	Io
off	off	0	350mA
off	on	1	400mA
on	off	2	450mA
on	on	3	500mA

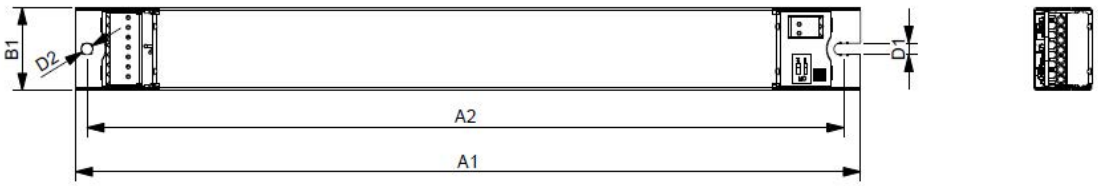
Isolation

Insulation per IEC61347-1	Input	Output	DALI	Housing
Input	-	No	Basic	Basic
Output	No	-	Basic	Basic
DALI	Basic	Basic	-	Basic
Housing	Basic	Basic	Basic	-

Dimensions and weight

Specification item	Value	Unit	Tolerance (mm)
Length (A1)	280	mm	± 0.3
Mounting hole distance (A2)	270	mm	± 0.3
Width (B1)	30	mm	± 0.5
Height (C1)	21	mm	± 0.5
Mounting hole diameter (D1)	4.1	mm	± 0.2
Mounting hole diameter (D2)	4.1	mm	± 0.2
Weight	225	gram	
Housing color	White		



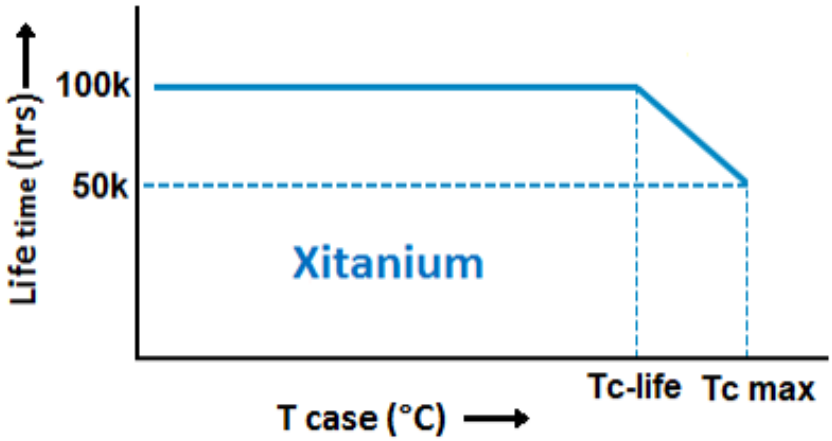


Operational temperatures and humidity

Specification item	Value	Unit	Condition
Ambient temperature	-25…+50	°C	Higher ambient temperature allowed as long as Tcase-max is not exceeded
Tcase-max	80	°C	Maximum temperature measured at T_{case}-point
Tcase-life	70	°C	Measured at T_{case}-point
Maximum housing temperature	110	°C	In case of a failure, inherent by design
Relative humidity	10…90	%	Non-condensing

Lifetime

Specification item	Value	Unit	Condition
Driver lifetime	50,000	hours	Measured temperature at Tcase-point is Tcase-max. Maximum failures = 10%
Driver lifetime	100,000	hours	Measured temperature at Tcase-point is Tcase-max -10 degrees. Maximum failures = 10%



Maximum failures = 10%

Storage temperature and humidity

Specification item	Value	Unit	Condition
Ambient temperature	-25…+85	°C	
Relative humidity	5…95	%	Non-condensing

Programmable features

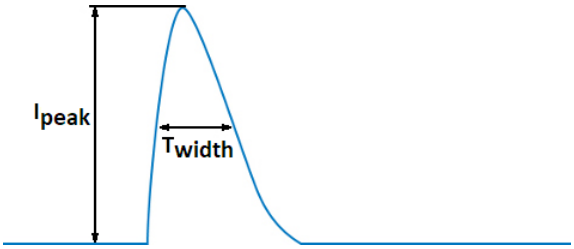
Specification item	Available	Default setting	Condition
Set Adjustable Output Current (AOC)	Yes	OFF	Programmable via MultiOne; AOC enable overrides DipSwitch
DipSwitch	Yes	Setting 0: 350mA, see wiring	Set the output current via the dipswitch; for output current, configurable via MultiOne
Adjustable Light Output (ALO)	Yes	OFF	
Constant Light Output (CLO)	Yes	OFF	
Min Dim Level (%)	Yes	5 %	
DC emergency (DCemDim)	Yes	ON	max emergency level: 60%
OEM Write Protection (OWP)	Yes	OFF	
Luminaire Info (DALI part 251)	Yes		
Luminaire maintenance (DALI part 253)	Yes		

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
Output Overvoltage Detection	Yes		
Diagnostics (DALI part 253)	Yes		
Touch & Dim (TD)	No		

Inrush current

Specification item	Value	Unit	Condition
Inrush current	27.7	A	Input voltage 230V
Inrush peak width	230	µs	Input voltage 230V, measured at 50% height
Drivers / MCB 16A type B @230V AC	≤ 20	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 pieces) 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

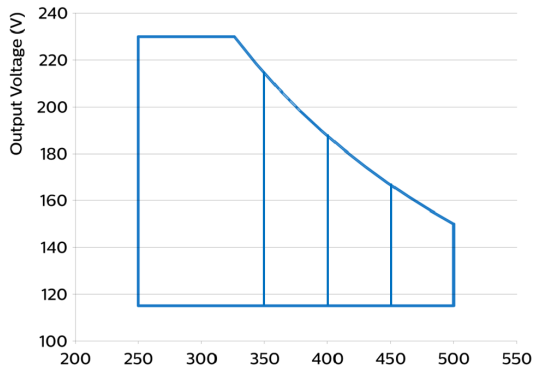
Specification item	Value	Unit	Condition
Mains surge immunity (diff. mode)	1	kV	L- N Acc. IEC61000-4-5. 2 Ohm, 1.2/50us, 8/20us
Mains surge immunity (comm. mode)	2	kV	L/N - PE Acc. IEC61000-4-5. 12 Ohm, 1.2/50us, 8/20us
Control surge immunity (diff. mode)	0.8	kV	DA - DA Acc. IEC61000-4-5. 40 Ohm, 1.2/50us, 8/20u
Control surge immunity (comm. mode)	2	kV	DA/DA- PE, Acc. IEC61000-4-5. 12 Ohm, 1.2/50us,8/20us

Application Info (Approbation)

Specification item	Value
Approval marks and Certifications	CB / CCC / CE / DALI 2 / EAC / EL / ENEC / RCM / UA / UKCA
Ingress Protection classification (IP)	20
Application	Indoor Linear
Mounting Type	Built-in

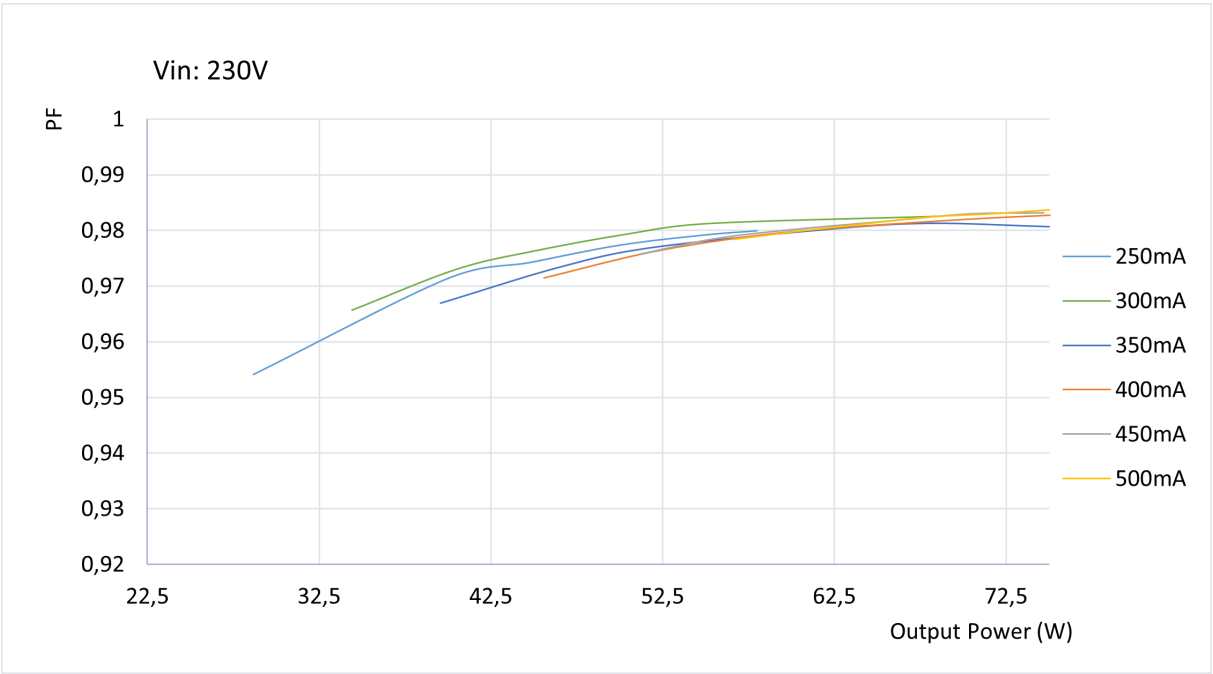
Graphs

Operating window

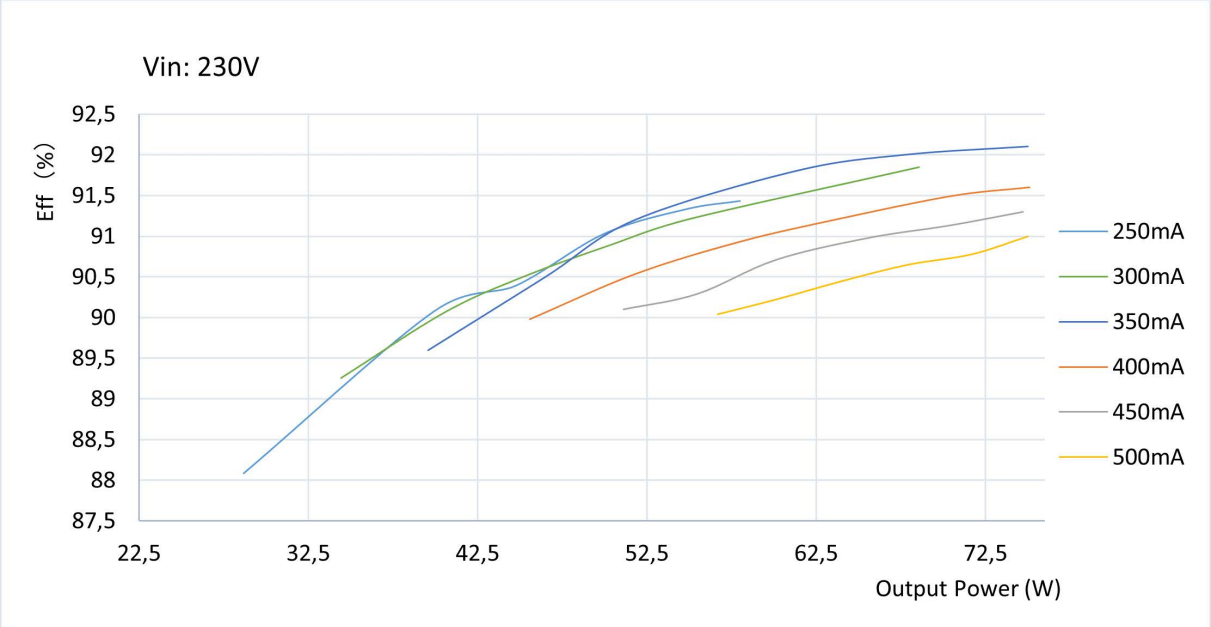


Type	Output current (mA)	Min. output voltage (V)	Max. output voltage (V)	Max. output power (W)
Xitanium 75W 0.25-0.5A 230V DALI DS 230V	250	115	230	57.5
Xitanium 75W 0.25-0.5A 230V DALI DS 230V	300	115	230	69
Xitanium 75W 0.25-0.5A 230V DALI DS 230V	350	115	214	75
Xitanium 75W 0.25-0.5A 230V DALI DS 230V	400	115	187	75
Xitanium 75W 0.25-0.5A 230V DALI DS 230V	450	115	166	75
Xitanium 75W 0.25-0.5A 230V DALI DS 230V	500	115	150	75

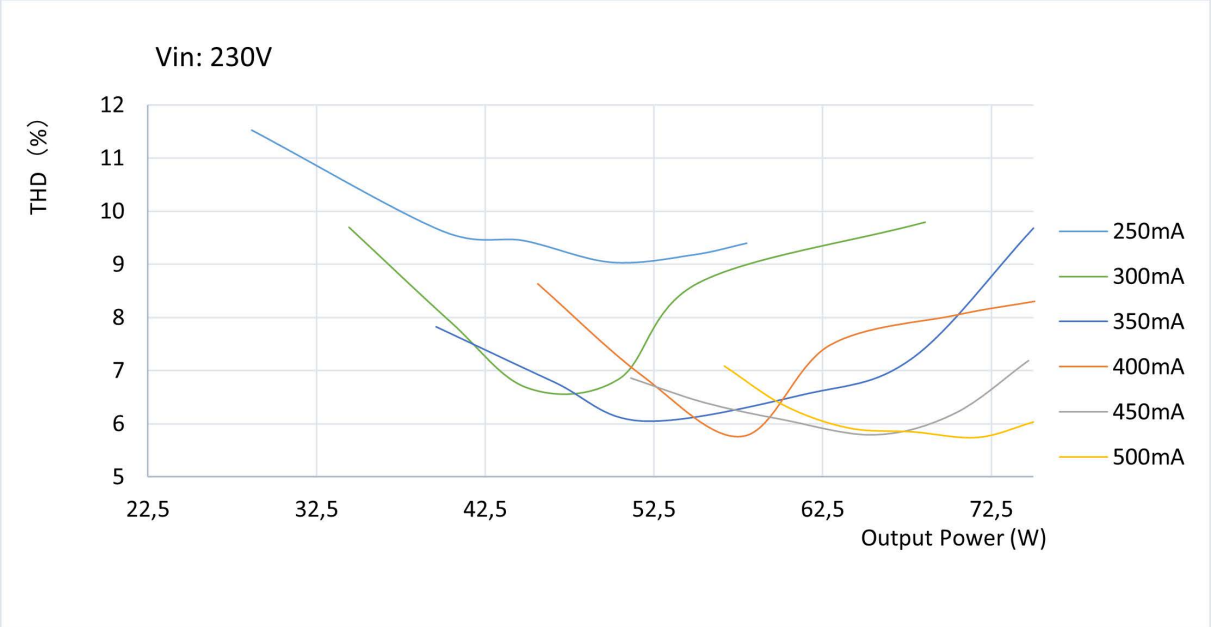
Power factor versus output power



Efficiency versus output power



THD versus output power



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