PHILIPS

Xitanium

LED driver

Outdoor LED driver
40 W

Perfectly match **each project's needs**

Philips introduced an additional 40 W driver in the Programmable LED driver category. The main features of this driver, compared to the already available 40 W versions, are external dimming via LineSwitch and an increased operating window with higher output voltage. LineSwitch offers configurable step dimming, which can be controlled via an extra mains input signal. The product is available in the existing J-can housing.

Logistical data

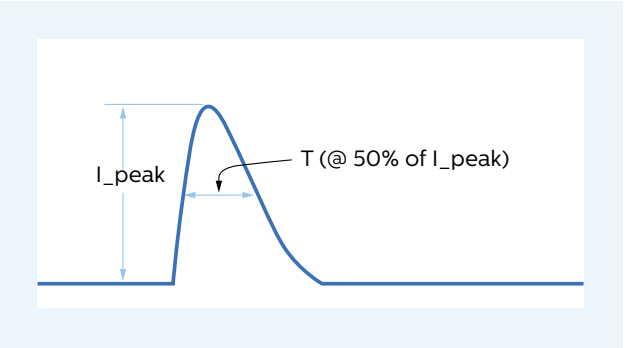
Specification item (designed for the board)	Value
Product name	XITANIUM 40 W 0.7 A PROG 230 V-J sXt
European order code	8718696 400968 00
Logistic code 12NC	9290 007 23003
Pieces per box	12

Electrical input data

Specification item	Value	Unit	Condition
Nominal input voltage	220…240	Vac	
Nominal input frequency	50…60	Hz	
Max input current @ 230 V	0,24	A	
Max. input power	49	W	
Power factor @ max load	>0.98		
THD @ max load	<20	%	
Efficiency @ 230 V	87	%	
Maximum output power	40	W	
Input voltage AC	198…264	Vac	Operational range
Input frequency AC	45…66	Hz	Operational range

Inrush current (softstart)

Specification item	Value	Unit	Condition
Inrush current (Apk/50%uS)	27A / 150uSec		
Max drivers on MCB 15A B-type	31	units	



Vin	I_peak	T(@ 50% of I_peak)
230 Vrms	27 A	150 µs

Electrical output data

Specification item	Value	Unit	Condition
Regulation method	Constant Current		
Output voltage	20…77	Vdc	
Output voltage max.	77	Vrms	Overvoltage limit, no load
Output current	0.1…0.7	A	Programmable
Min output current	0.07	A	Min dim level
Output current HF ripple	30	%	Peak peak / Avg
Output power	1.4 … 40	W	

Integrated controls

Specification item	Value	Unit	Condition
DALI	-0.5...15	V	According IEC62386-101, -102, -207
LineSwitch input voltage - low	0...60	VAC	Configurable via software
LineSwitch input voltage - high	100...264	VAC	Configurable via software
Adjustable Output Current (AOC)	0.1...0.7	A	With steps of 1 mA, configurable via software
Integrated Dynadimmer	Yes		Configurable via software
Constant Light Output (CLO)	Yes		Configurable via software
Module Temperature Protection (MTP)	Yes		Configurable via software
Adjustable Start-up time (AST)	0...30	Sec	Configurable via software
End of Life indication (EOL)	Yes		Module, configurable via software

Module temperature protection

Specification item	Detection	Temp range (°C)	Min△= stop-start dim	Dimming Range (°C)	Default values (°C)
NTC: 10 k - Murata NCP18XH103J03RB	Yes	50-85	5	100 - 10	-
NTC: 15 k + 390 Ω – Murata NCP15XW153E03RC	No	50-110	10	100 - 10	Warn: 80 - Max: 90
Philips LED light engines Depending on the used module connected to this driver					

Features

Specification item	Value	Unit	Condition
Open load protection	Yes		Automatic recovering
Short circuit protection	Yes		
Over power protection	Yes		
Temperature protection Driver	Yes		Automatic recovery, see thermal guard graph
Suitable for fixtures with protection class	Class I and II		Insulation Class acc. IEC60598
Outdoor use	Yes		Built-in use only

Environmental conditions

Specification item	Value	Unit	Condition
Ambient operational temperature	-40...55	°C	
Relative operational humidity	90	%	
Tcase-max.	80	°C	Measured at Tc-point
Tcase-life	75	°C	Measured at Tc-point
Storage temperature	-30...50	°C	
Relative storage humidity	90	%	EN/IEC 60068-2-78

Lifetime

Specification item	Value	Unit	Condition
Lifetime	100,000	hours	Measured@Tcase-life, with min 90% survival

Dimensions and weight

Specification item	Value	Unit	
Case length A1	140	mm	
Fixing Hole distance length A2	144	mm	
Case width B1	46	mm	
Fixing Hole distance width B2	27	mm	
Case height C1	28	mm	
Fixing hole diameter D1	4,5	mm	
Weight	0.4	kg	

Connectors

Specification item	Type	Condition
Mains, LineSwitch	Double-insulated lead wires	Lead wires are 18 AWG 105C/600 V, outside length 270 mm (+/-30 mm)
LED output, other	Double-insulated lead wires	Lead wires are 18 AWG 105C/600 V, outside length 270 mm (+/-30 mm)

Connector pin name	Colour
Mains input (Line)	Black
Mains input (Neutral)	White
LineSwitch (ref. to Neutral)	Red/Grey

Connector pin name	Colour
DALI1	Violet
DALI2	Violet / White
Functional Earth	Housing
NTC	Black/White
NTC common	Blue/White
LED [-]	Blue
LED [+]	Red

Certificates and standards

Specification item	Value
Approval marks	CE, ENEC

CE insulation

Insulation*	Mains, LineSwitch	Output wires (SELV)	DALI Wires	Chassis
Mains, LineSwitch	-	Double	Basic	Double
Output Wires (SELV)	Double	-	Double	Basic
DALI wires	Basic	Double	-	Double
Chassis	Double	Basic	Double	-

* The associated isolation test voltage for Basic = 2U + 1000 V, Reinforced = 4U + 2750 V

Earth leakage current

Specification item	Value	Unit
Earth leakage current	<0.7	mA peak

Surge capability

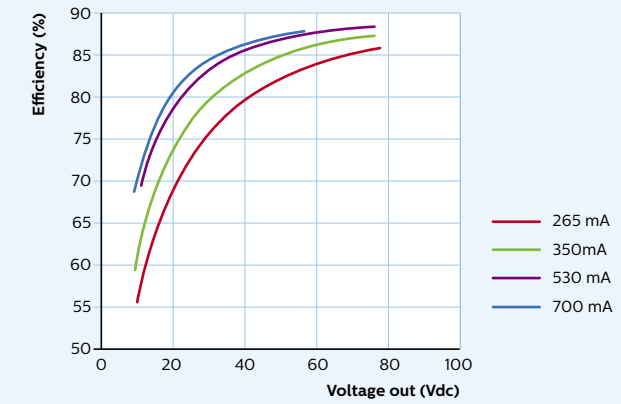
Specification item	Value	Unit
Surge protection, DM, (L-N)	4	kV
Surge protection, CM, (L+N-Ground)	4	kV
Surge protection, CM, (L/N-Ground)	4	kV

Default settings of the driver (can be changed with MultiOne configurator)

Specification item	Defaults	Condition
AOC	Enabled	Default Iout = 700 mA
LineSwitch	Enabled	Default High = 50% (220-240 V), Low = 100% (0 V)
DALI	Enabled	See instruction manual of MultiOne
ALO	Disabled	
DynaDimmer	Disabled	
MTP	Enabled	See MTP table
CLO	Disabled	
EOL	Disabled	

Performance graphs

Efficiency versus Voltage Output



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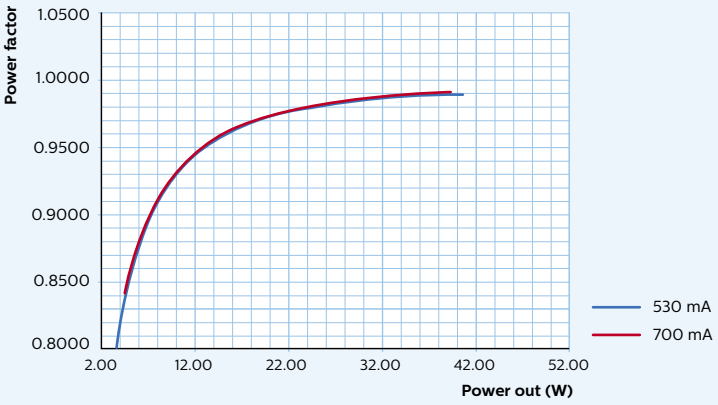
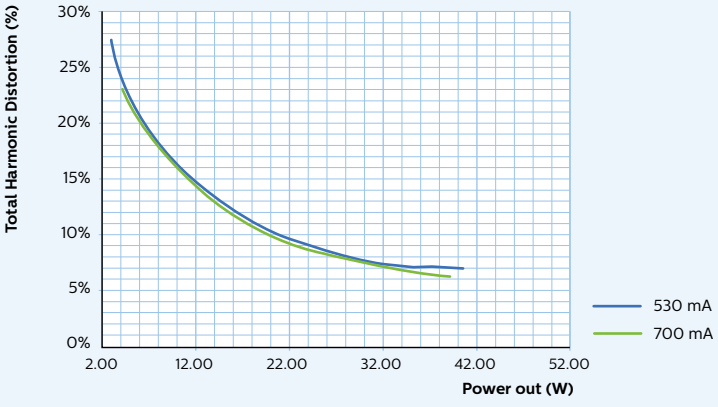
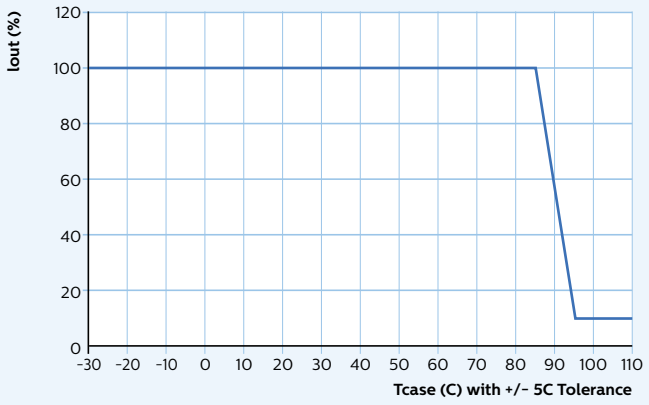


Total Harmonic Distortion versus Output Power

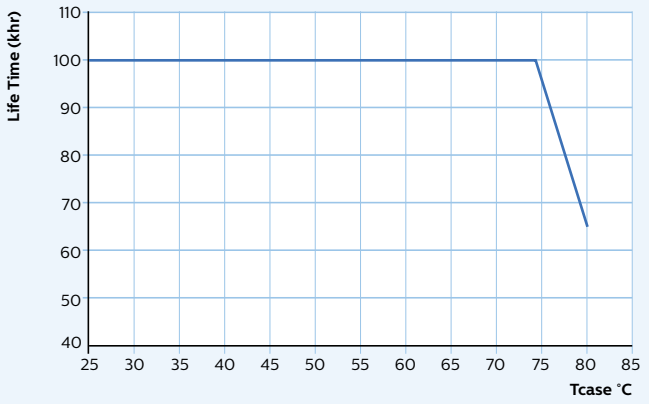


Performance graphs

Iout versus Tcase (driver)



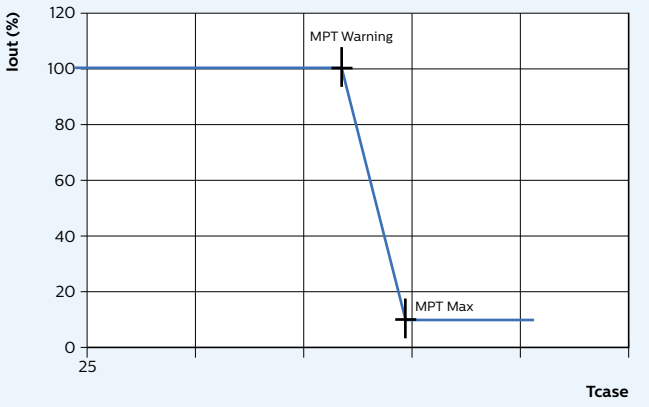
Lifetime versus Tcase of Driver



Failure Rate Info based upon MTBF modeling:

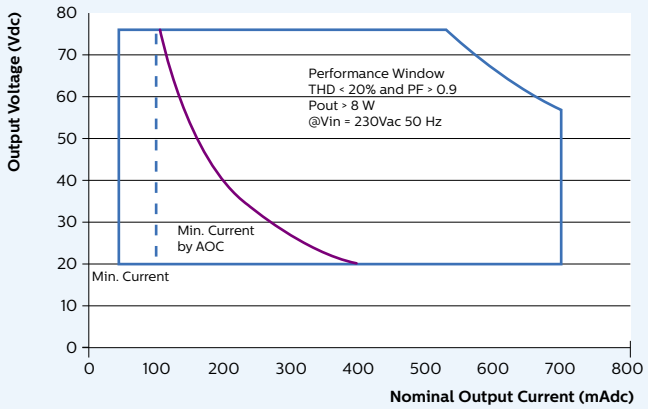
• 90% survivals at end of life @<= Tcase 75 °C

Iout (%) versus NTC-Temp



Performance graphs

Operating window: 929000723003



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