TD elektronics

LED DRIVER
CATALOG

CONTENT

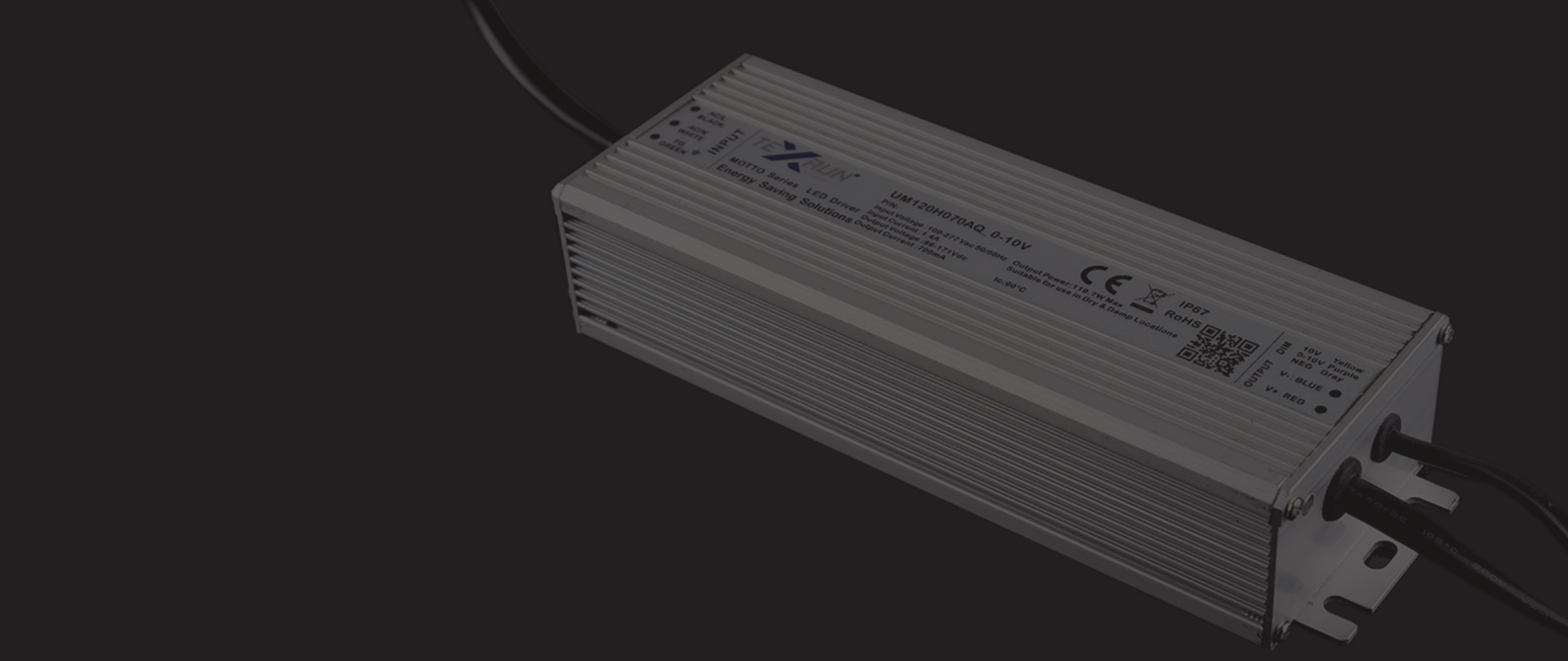
ABOUT US

TD Electronic has been established as JV Company together with our Italian partner Tecnika Due SRL in 2008 for serving product and services of LED Lighting Applications. In a short time, TD Electronics got leadership position by oeringindustry-leading products to our partners.

TD Electronic A.S, acquired the shares of Italian partner's in 2010 and today continuing our activities as %100 Turkishcompany. We expanded our product portfolio to other industries to, Wireless communication, PCB Printed Circuit Board design and supply, Signage and LED Lighting Modules, and LED Lighting Solutions. We are hardly working to follow our motto "Leading by Design and Service" to reinforce our position in the industry.

In 2012, TD Electronics established a company called TD Lighting Solutions, TLS Technology, to serve, fast, reliable, longlasting and tailor-made designs and production of LED lighting modules. To do so, we invested on in-line fully automatic SMT Line, testing Photometric laboratory with fully ESD protected area according to EN standards.
TD Electronics, top management and employees are hardly working with our customers as real partners. Therefore, we prefer to say partners instead of customers.

TD Electronics' core competence is demand creation. We accept our partners' success as our success. We are continuously searching for best, high qualied and reliable products to be supplied on time to our partners every single day.



DRIVER SELECTION CONSIDERATIONS

We need to convert AC Load to DC load to drive LEDs with constant current solutions. While converting from AC to DC there exist a loss. These losses are varying from drivers' manufacturers to manufacturers. To obtain ecient LED application, LED driver should be selected with high eciency and long lifetime. As most of the design get failed due to bad LED Driver selection.
Choosing the right LED driver is like choosing the right tool for the job. First, you need to know what that job is! Here are the main questions you should have the answers to before choosing a driver:

- What type of LEDs are being used and how many?
- What type is needed, constant current or constant voltage?
- What is required voltage range in system?
- What are the size limitations, if any?
- Do you need isolation?
- What are the main design goals? (size, cost, efficiency, performance, indoor or outdoor etc)
- What features are desired? (dimming, pulsing, microprocessor control, etc)
- What is the budget for driver?

Once these questions have been answered, choosing the correct driver is a matter is nding
what is currently available and determining if it is suitable for your application.

KEY POINTS FOR DRIVER SELECTION

Efficiency

Driver eciencies can range from 75% to 93% for switch-mode power supplies depending on the design and manufacturer. Losses are typically due to switching, internal resistances, and
transformer selection. Efficiency for LED Drivers should be greater than 85%.

Power Factor (PFC)

Power Factor is a measure of how eciently electrical power is consumed. In the ideal world Power Factor would be unity (or 1). Unfortunately in the real world Power Factor is reduced by highly inductive loads to 0.7 or less.
The introduction of Power Factor Correction capacitors is a widely recognized method of reducing an electrical load, thus minimizing wasted energy and hence improving the eciency of a plant and reducing the electricity bill.
It is not usually necessary to reach unity, ie Power Factor 1, since most supply companies are happy with a PF of greater than 0.9.

Reliability

The expected life of the driver should match that of the LED over the required operating temperature
range of the lighting system. Vibration, heat, moisture, and other environmental conditions can have negative eects on components that comprise the LED driver.

Total Harmonic Distortion(THD)

The total harmonic distortion, or THD, of a signal is a measurement of the harmonic distortion present and is dened as the ratio of the sum of the powers of all harmonic components to the power of the fundamental frequency. THD is used to characterize the power quality of electric power systems. In power systems, lower THD means reduction in peak currents. THD value is recommended to be less than 20%.

TEXRUN

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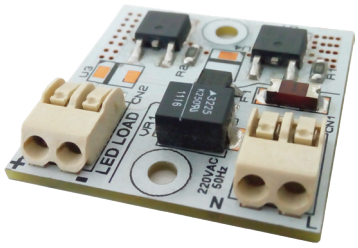
ALFA SERIES

Alfa

AC - DC LOW COST DRIVER



General specification

Cost effective solution
Negative temperature coefficient to protect LEDs from thermal runaway at extreme voltages and currents
Eliminates Additional Regulation
Wide Operating Voltage Range (200-240 V AC)
Adjustable up to 160/320 mA
Voltage Surge Suppressing - Protecting LEDs
UL94-V0 Certified
SBT (Self-Biased Transistor) Technology

Technical specification

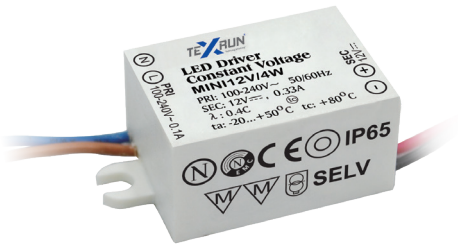
	AC MEASUREMENT OF LED DRIVER CCRX1								CCT VAK VOLTAGE			LED STRIP (V)		
AC	AC IN	S VA	POWER (W)	PF	THD %	CCR tc °C	LED QUANTITY	LED CURRENT	PEAK MAX	AVERAGE	PEAK MIN	PEAK MAX	AVERAGE	PEAK MIN
200	0,079	15,8	13	82	71	39,1	42	0,047	13,90	2,200	0,18	272,9	196,9	106,4
210	0,093	19,5	16	84	64	39	42	0,056	23,42	4,440	0,12	276,3	202,7	109,3
220	0,102	22,4	18	86	58	56	42	0,064	36,39	8,040	0,18	278,0	214,2	114,9
225	0,100	22,5	19	88	55	39,2	42	0,065	48,50	11,280	0,18	275,1	210,0	114,9
230	0,104	23,9	21	89	53	40,5	42	,068	52,33	13,580	0,12	276,8	212,4	116
240	0,103	24,7	22	90	48	42,3	42	0,700	68,58	19,320	0,06	272,9	214,8	120,6

	AC MEASUREMENT OF LED DRIVER CCRX1								CCT VAK VOLTAGE			LED STRIP (V)		
AC	AC IN	S VA	POWER (W)	PF	THD %	CCR tc °C	LED QUANTITY	LED CURRENT	PEAK MAX	AVERAGE	PEAK MIN	PEAK MAX	AVERAGE	PEAK MIN
200	0,090	18	14	80	75	35,0	42	0,052	1,42	0,34	0,20	281,3	198,1	105,9
210	0,119	25	20	82	69	38,0	42	0,072	2,36	0,57	0,20	294,4	206,6	109,8
220	0,150	33	28	85	62	38,5	42	0,095	7,23	1,38	0,18	308,0	220,7	113,8
225	0,162	36,5	31	85	61	44,2	42	0,103	8,53	1,66	0,12	331,4	219,2	116,0
230	0,174	40	34	86	58	36,0	42	0,111	12,98	2,32	0,18	318,1	228,2	117,2
240	0,194	46,6	41	88	53	52,4	42	0,140	25,37	5,30	0,12	319,3	234,2	120,0

MINI SERIES

General specification

Super compact design
Universal AC input
Primary and secondary sides come with leads
Open circuit, short circuit over load and overheating protection
Simple installation
IP65 design



Technical specification

MODEL NO	INPUT VOLTAGE	MAX. OUTPUT POWER	OUTPUT CURRENT	OUTPUT VOLTAGE	EFFICIENCY	IP	DIMENSIONS
MINI350mA/4W	100-240V	4W	350mA	2-12V	78%	IP65	38x27x21mm
MINI500mA/4W	100-240V	4W	500mA	2-8V	76%	IP65	38x27x21mm
MINI700mA/4W	100-240V	4W	700mA	2-6V	73%	IP65	38x27x21mm
MINI160mA/6W	100-240V	6W	160mA	12-38V	80%	IP20	50x38.5x18.5mm
MINI350mA/6W	100-240V	6W	350mA	3-17V	80%	IP20	50x38.5x18.5mm
MINI500mA/6W	100-240V	6W	500mA	3-12V	79%	IP20	50x38.5x18.5mm
MINI700mA/6W	100-240V	6W	700mA	3-8V	73%	IP20	50x38.5x18.5mm
MINI260mA/12W	100-240V	12W	260mA	15-46V	83%	IP65	50x48x24mm
MINI350mA/12W	100-240V	12W	350mA	12-35V	83%	IP65	50x48x24mm
MINI500mA/12W	100-240V	12W	500mA	8-24V	82%	IP65	50x48x24mm
MINI700mA/12W	100-240V	12W	700mA	6-17V	82%	IP65	50x48x24mm

Alfa

Q4 SERIES

General specification

Independent compact design
Easy press cable lock
Captured terminal screws
Safe no-load operation
Overload protection
Short circuiting protection
Overheating protection
Simple installation
SELV equivalent
Protection class II
RI suppression is accordance with the new EMC standard
(EN55015:2006+A1:2007+A2:2009)

Technical specification

MODEL NO	INPUT VOLTAGE	MAX. OUTPUT POWER	OUTPUT CURRENT	OUTPUT VOLTAGE	EFFICIENCY	IP	DIMENSIONS
Q4-160mA-6W	220-240V	6W	160mA	18-39V	82%	IP20	81x39x22mm
Q4-350mA-6W	220-240V	6W	350mA	9-18V	80%	IP20	81x39x22mm
Q4-500mA-6W	220-240V	6W	500mA	6-12V	78%	IP20	81x39x22mm
Q4-700mA-6W	220-240V	6W	700mA	6-9V	77%	IP20	81x39x22mm
Q4-1050mA-6W	220-240V	6W	1050mA	2-6V	75%	IP20	81x39x22mm
Q4-240mA-12W	220-240V	12W	240mA	2-50V	82%	IP20	98x39x22mm
Q4-260mA-12W	220-240V	12W	260mA	2-46V	82%	IP20	98x39x22mm
Q4-300mA-12W	220-240V	12W	300mA	2-40V	82%	IP20	98x39x22mm
Q4-350mA-12W	220-240V	12W	350mA	2-34V	81%	IP20	98x39x22mm
Q4-500mA-12W	220-240V	12W	500mA	2-24V	82%	IP20	98x39x22mm
Q4-500mA-12W	220-240V	12W	500mA	2-24V	82%	IP20	98x39x22mm
Q4-500mA-12W	220-240V	12W	500mA	2-24V	82%	IP20	98x39x22mm
Q4-500mA-12W	220-240V	12W	500mA	2-24V	82%	IP20	98x39x22mm
Q4-500mA-12W	220-240V	12W	500mA	2-24V	82%	IP20	98x39x22mm
Q4-500mA-12W	220-240V	12W	500mA	2-24V	82%	IP20	98x39x22mm

EP SERIES UP TO 12W

General specification

Super compact design
Universal AC input
Primary and secondary sides come with leads
High PF and efficiency
Open circuit, short circuit over load and overheating protection
Simple installation
Protection class II
Low THD
IP20 design

Technical specification

MODEL NO	INPUT VOLTAGE	MAX. OUTPUT POWER	OUTPUT CURRENT	OUTPUT VOLTAGE	EFFICIENCY	IP	DIMENSIONS
EP006A035AQ	180-264VAC	6W	350mA	8-18VDC	75%	IP20	72 x 33 x 22mm
EP006A070AQ	180-264VAC	6W	700mA	5-9VDC	75%	IP20	72 x 33 x 22mm
EP009A035AQ	180-264VAC	9W	350mA	15-25VDC	75%	IP20	72 x 33 x 22mm
EP009A070AQ	180-264VAC	9W	700mA	8-12VDC	75%	IP20	72 x 33 x 22mm
EP012A035AQ	180-264VAC	12W	350mA	20-34VDC	80%	IP20	72 x 33 x 22mm
EP012A070AQ	180-264VAC	12W	700mA	9-18VDC	80%	IP20	72 x 33 x 22mm

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MLA6 SERIES

General specification

Overload protection
Short circuiting protection
Overheating protection
Life time: >30,000h @40˚C
SELV equivalent
Safety standards: EN 61347-1; EN61347-2-13 EN60598-1; EN60598-2-6
EMI: EN55015; EN61000-3-2 Class C EN61000-3-3
EMS: EN61547; Performance Criteria B EN 61000-4-5 1000V; Performance Criteria C

Technical specification

MODEL NO	INPUT VOLTAGE	MAX. OUTPUT POWER	OUTPUT CURRENT	OUTPUT VOLTAGE	EFFICIENCY	IP	DIMENSIONS
MLA6-350	180-264VAC	6W	350mA	11-17VDC	80%	IP20	67.5 x 31 x 21mm
MLA6-500	180-264VAC	6W	500mA	6-12VDC	80%	IP20	67.5 x 31 x 21mm
MLA6-700	180-264VAC	6W	700mA	4-8VDC	80%	IP20	67.5 x 31 x 21mm
MLA6-1050	180-264VAC	6W	1050mA	3.5-6VDC	80%	IP20	67.5 x 31 x 21mm

MLA12 SERIES

General specification

IP67 design
Super compact design
Overload protection
Short circuiting protection
Overheating protection
Life time: >30,000h @50˚C
SELV equivalent
Safety standards: EN 61347-1; EN61347-2-13 EN60598-1; EN60598-2-6
EMI: EN55015; EN61000-3-2 Class C EN61000-3-3
EMS: EN61547; Performance Criteria B EN 61000-4-5 —1000V;
Performance Criteria C

Technical specification

MODEL NO	INPUT VOLTAGE	MAX. OUTPUT POWER	OUTPUT CURRENT	OUTPUT VOLTAGE	EFFICIENCY	IP	DIMENSIONS
MLA12-260-IPC	180-264VAC	12W	260mA	28-46VDC	70%	IP67	57 x 40 x 26mm
MLA12-350-IPC	180-264VAC	12W	350mA	17-34VDC	70%	IP67	57 x 40 x 26mm
MLA12-500-IPC	180-264VAC	12W	500mA	12-24VDC	70%	IP67	57 x 40 x 26mm
MLA12-700-IPC	180-264VAC	12W	700mA	11-18VDC	70%	IP67	57 x 40 x 26mm

Alfa

EP020 SERIES

General specification

Super compact design
Universal AC input
Primary and secondary sides come with leads
High PF and efficiency
Open circuit, short circuit over load and overheating protection
Simple installation
SELV equivalent
Protection class II
Low THD
IP20 design

Technical specification

MODEL NO	INPUT VOLTAGE	MAX. OUTPUT POWER	OUTPUT CURRENT	OUTPUT VOLTAGE	EFFICIENCY	IP	DIMENSIONS
EP020A035AQ	180-264VAC	9.5-14.7W	350mA	27-42VDC	88%	IP20	121 x 41 x 29mm
EP020A040AQ	180-264VAC	10.8-16.8W	400mA	27-42VDC	86%	IP20	121 x 41 x 29mm
EP020A045AQ	180-264VAC	12.2-18.9W	450mA	27-42VDC	87%	IP20	121 x 41 x 29mm
EP020A050AQ	180-264VAC	13.5-21W	500mA	27-42VDC	88%	IP20	121 x 41 x 29mm
EP020A070AQ	180-264VAC	14-21.8W	700mA	18-28VDC	88%	IP20	121 x 41 x 29mm

MLA35 SERIES

General specification

IP67 design
Overload protection
Short circuiting protection
Overheating protection
Power factor: >0,9 @Full Load, 240VAC
Life time: >30,000h @40˚C
SELV equivalent
Safety standards: EN 61347-1; EN61347-2-13 EN60598-1; EN60598-2-6
EMI: EN55015; EN61000-3-2 Class C EN61000-3-3
EMS: EN61547; Performance Criteria B EN 61000-4-5 —1000V;
Performance Criteria C

Technical specification

MODEL NO	INPUT VOLTAGE	MAX. OUTPUT POWER	OUTPUT CURRENT	OUTPUT VOLTAGE	EFFICIENCY	IP	DIMENSIONS
MLA35-700P-IPC	180-264VAC	35W	700mA	25-50VDC	85%	IP67	150 x 39 x 32mm
MLA35-1050P-IPC	180-264VAC	35W	1050mA	17-34VDC	85%	IP67	150 x 39 x 32mm
MLA35-1400P-IPC	180-264VAC	35W	1400mA	12-25VDC	85%	IP67	150 x 39 x 32mm

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EP040 SERIES

General specification

Super compact design
Universal AC input
Primary and secondary sides come with leads
High PF and efficiency
Open circuit, short circuit over load and overheating protection
Simple installation
SELV equivalent
Protection class II
Low THD
IP20 design

Technical specification

MODEL NO	INPUT VOLTAGE	MAX. OUTPUT POWER	OUTPUT CURRENT	OUTPUT VOLTAGE	EFFICIENCY	IP	DIMENSIONS
EP040A070AQ	180-264VAC	40W	700mA	28-51VDC	87%	IP20	121 x 41 x 29mm
EP040A105AQ	180-264VAC	40W	1050mA	28-40VDC	86%	IP20	121 x 41 x 29mm

MLA50 SERIES

General specification

IP67 design
Overload protection
Short circuiting protection
Overheating protection
Power factor: >0,9 @Full Load, 240VAC
Life time: >30,000h @40˚C
SELV equivalent
Safety standards: EN 61347-1; EN61347-2-13 EN60598-1; EN60598-2-6
EMI: EN55015; EN61000-3-2 Class C EN61000-3-3
EMS: EN61547; Performance Criteria B EN 61000-4-5 —1000V; Performance Criteria C

Technical specification

MODEL NO	INPUT VOLTAGE	MAX. OUTPUT POWER	OUTPUT CURRENT	OUTPUT VOLTAGE	EFFICIENCY	IP	DIMENSIONS
MLA50-700P-IPC	180-264VAC	50W	700mA	40-72VDC	85%	IP67	166 x 40 x 33mm
MLA50-1050P-IPC	180-264VAC	50W	1050mA	20-48VDC	85%	IP67	166 x 40 x 33mm

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MLA60 IP20 SERIES

General specification

IP20 design
Overload protection
Short circuiting protection
Overheating protection
Power factor: >0,9 @Full Load, 240VAC
Life time: >30,000h @40˚C
SELV equivalent
Safety standards: EN 61347-1; EN61347-2-13 EN60598-1; EN60598-2-6
EMI: EN55015; EN61000-3-2 Class C EN61000-3-3
EMS: EN61547; Performance Criteria B EN 61000-4-5 —1000V; Performance Criteria C

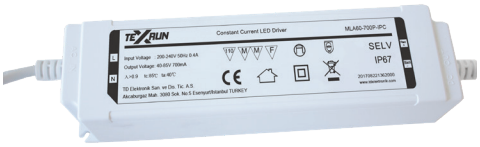
Technical specification

MODEL NO	INPUT VOLTAGE	MAX. OUTPUT POWER	OUTPUT CURRENT	OUTPUT VOLTAGE	EFFICIENCY	IP	DIMENSIONS
MLA60-700P	180-264VAC	60W	700mA	40-85VDC	85%	IP20	186 x 64 x 22mm
MLA60-1050P	180-264VAC	60W	1050mA	30-60VDC	85%	IP20	186 x 64 x 22mm
MLA60-1400P	180-264VAC	60W	1400mA	21-43VDC	85%	IP20	186 x 64 x 22mm

MLA60 IP67 SERIES

General specification

IP67 design
Overload protection
Short circuiting protection
Overheating protection
Power factor: >0,9 @Full Load, 240VAC
Life time: >30,000h @40˚C
SELV equivalent
Safety standards: EN 61347-1; EN61347-2-13 EN60598-1; EN60598-2-6
EMI: EN55015; EN61000-3-2 Class C EN61000-3-3
EMS: EN61547; Performance Criteria B EN 61000-4-5 —1000V; Performance Criteria C



Technical specification

MODEL NO	INPUT VOLTAGE	MAX. OUTPUT POWER	OUTPUT CURRENT	OUTPUT VOLTAGE	EFFICIENCY	IP	DIMENSIONS
MLA60-700P-IPC	180-264VAC	60W	700mA	40-85VDC	85%	IP67	166 x 40 x 33mm
MLA60-1050P-IPC	180-264VAC	60W	1050mA	30-60VDC	85%	IP67	166 x 40 x 33mm
MLA60-1400P-IPC	180-264VAC	60W	1400mA	21-43VDC	85%	IP67	166 x 40 x 33mm

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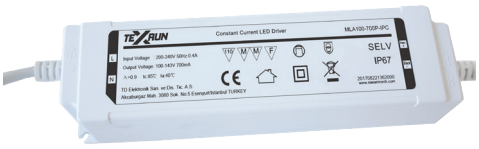
MLA100 SERIES



General specification

IP67 design
Overload protection
Short circuiting protection
Overheating protection
Life time: >30,000h @50˚C
SELV equivalent
Safety standards: EN 61347-1; EN61347-2-13 EN60598-1; EN60598-2-6
EMI: EN55015; EN61000-3-2 Class C EN61000-3-3
EMS: EN61547; Performance Criteria B EN 61000-4-5 —1000V; Performance Criteria C

Technical specification

MODEL NO	INPUT VOLTAGE	MAX. OUTPUT POWER	OUTPUT CURRENT	OUTPUT VOLTAGE	EFFICIENCY	IP	DIMENSIONS
MLA100-700P-IPC	180-264VAC	100W	700mA	100-143VDC	85%	IP67	194 x 52 x 37mm
MLA100-1050P-IPC	180-264VAC	100W	1050mA	50-95VDC	85%	IP67	194 x 52 x 37mm
MLA100-1400P-IPC	180-264VAC	100W	1400mA	36-72VDC	85%	IP67	194 x 52 x 37mm
MLA100-2100P-IPC	180-264VAC	100W	2100mA	24-48VDC	85%	IP67	194 x 52 x 37mm
MLA100-2400P-IPC	180-264VAC	100W	2400mA	21-42VDC	85%	IP67	194 x 52 x 37mm

TEXRUN

"Technology is Running"

MOTTO SERIES

Motto

SPD-277 SERIES

General specification

SPD-277 is for use on 277V or universal voltage drivers or ballasts
Protects against surges according to IEEE C62.41.2 C High (10kA and 10kV)
Surge current rating = 10,000 Amps using industry standard 8/20
High temperature, flameproof plastic enclosure, 85˚C max surface temp rating
Thermally Protected Transient Over-voltage Circuit
Meet EN61643-11, IEC61643-11

Technical specification

MODEL NO	WORKING VOLTAGE	MCOV (MAXIMUM CONTINUOUS OPERATING VOLTAGE)	UP (VOLTAGE PROTECTION LEVEL L-N, L-PG, N-PG)	SURGER RATING (2MS)	IMAX (MAX DISCHARGE CURRENT)	SURGE CURRENT LIFE (8/20US, 700A)
SPD-277	AC 277V, 47~63Hz	305V	1500V	360 Joules	10000A	1000 times

UP025H SERIES

General specification

Input voltage: 90-305VAC
High efficiency: 89% typical
Active PFC: 0.99 typical
Surge protection
IP66 compliant
Protections: OVP, OCP, SCP
Constant Current / 0-10V Dimming
Compliance to worldwide safety regulations for lighting
Suitable for dry / damp locations
CUL / CE / ENEC / CCC
Type HL for use in a class I, Division 2 hazardous (Classified) location luminaires
5-year warranty

Technical specification

MODEL NO		INPUT VOLTAGE	MAX. OUTPUT POWER	OUTPUT CURRENT	OUTPUT VOLTAGE	IP	EFFICIENCY		DIMENSIONS
Constant Current	Clock Dimming						110VAC	220VAC	
UP025H035AQ	UP025H035AQ_CLKS	90~305VAC	25W	350mA	36-72 VDC	IP66	88%	89%	80 x 78 x 27mm
UP025H045AQ	UP025H045AQ_CLKS	90~305VAC	25W	450mA	28-55 VDC	IP66	87%	88%	80 x 78 x 27mm
UP025H050AQ	UP025H050AQ_CLKS	90~305VAC	25W	500mA	25-50 VDC	IP66	86%	87%	80 x 78 x 27mm
UP025H053AQ	UP025H053AQ_CLKS	90~305VAC	25W	530mA	24-48 VDC	IP66	86%	87%	80 x 78 x 27mm
UP025H070AQ	UP025H070AQ_CLKS	90~305VAC	25W	700mA	18-36 VDC	IP66	85%	87%	80 x 78 x 27mm
UP025H105AQ	UP025H105AQ_CLKS	90~305VAC	25W	1050mA	12-24 VDC	IP66	85%	86%	80 x 78 x 27mm
UP025H120AQ	UP025H120AQ_CLKS	90~305VAC	25W	1200mA	10-21 VDC	IP66	84%	85%	80 x 78 x 27mm
UP025H140AQ	UP025H140AQ_CLKS	90~305VAC	25W	1400mA	9-18 VDC	IP66	83%	84%	80 x 78 x 27mm
UP025H175AQ	UP025H175AQ_CLKS	90~305VAC	25W	1750mA	7-14 VDC	IP66	82%	83%	80 x 78 x 27mm
UP025H210AQ	UP025H210AQ_CLKS	90~305VAC	25W	2100mA	6-12 VDC	IP66	81%	82%	80 x 78 x 27mm

Motto

UP040H SERIES

General specification

Input voltage: 90-305VAC
High efficiency: 91% typical
Active PFC: 0.99 typical
Surge protection
IP66 compliant
Protections: OVP, OCP, OTP, SCP
Constant Current / 0-10V Dimming
Compliance to worldwide safety regulations for lighting
Suitable for dry / damp locations
CUL / CE / ENEC
Type HL for use in a class I, Division 2 hazardous (Classified) location luminaires
5-year warranty

Technical specification

MODEL NO		INPUT VOLTAGE	MAX. OUTPUT POWER	OUTPUT CURRENT	OUTPUT VOLTAGE	IP	EFFICIENCY		DIMENSIONS
Constant Current	Clock Dimming						110VAC	220VAC	
UP040H035AQ	UP040H035AQ_CLKS	90~305VAC	40W	350mA	57-114VDC	IP66	89%	90%	95 x 70 x 32mm
UP040H045AQ	UP040H045AQ_CLKS	90~305VAC	40W	450mA	44-89VDC	IP66	88.5%	89.5%	95 x 70 x 32mm
UP040H070AQ	UP040H070AQ_CLKS	90~305VAC	40W	700mA	28-54VDC	IP66	87.5%	88.5%	95 x 70 x 32mm
UP040H105AQ	UP040H105AQ_CLKS	90~305VAC	40W	1050mA	19-37VDC	IP66	87%	88%	95 x 70 x 32mm
UP040H140AQ	UP040H140AQ_CLKS	90~305VAC	40W	1400mA	14-29VDC	IP66	86.5%	87.5%	95 x 70 x 32mm
UP040H175AQ	UP040H175AQ_CLKS	90~305VAC	40W	1750mA	11-23VDC	IP66	85%	86%	95 x 70 x 32mm
UP040H210AQ	UP040H210AQ_CLKS	90~305VAC	40W	2100mA	9-19VDC	IP66	84%	85%	95 x 70 x 32mm
UP040H245AQ	UP040H245AQ_CLKS	90~305VAC	40W	2450mA	8-16VDC	IP66	83.5%	84.5%	95 x 70 x 32mm
UP040H280AQ	UP040H280AQ_CLKS	90~305VAC	40W	2800mA	7-14VDC	IP66	82.5%	84%	95 x 70 x 32mm
UP040H315AQ	UP040H315AQ_CLKS	90~305VAC	40W	3150mA	6-12VDC	IP66	81.5%	83%	95 x 70 x 32mm

UM050H SERIES

General specification

Input voltage: 90-305VAC
High efficiency: 91% typical
Active PFC: 0.99 typical
High surge immunity
Low THD
IP67 compliant
Protections: OVP, OCP, OTP, SCP
Constant Current / 0-10V Dimming / Clock Dimming(CLKS) /
Adjustable Output Current (ADJ)
Compliance to worldwide safety regulations for lighting
Suitable for dry / damp locations
CUL / CE / CCC
Type HL for use in a class I, Division 2 hazardous (Classified) location luminaires
5-year warranty

Technical specification

MODEL NO		INPUT VOLTAGE	MAX. OUTPUT POWER	OUTPUT CURRENT	OUTPUT VOLTAGE	IP	EFFICIENCY		DIMENSIONS
Constant Current	Clock Dimming						110VAC	220VAC	
UM050H035AQ	UM050H035AQ_CLKS	90~305VAC	50W	350mA	71-142VDC	IP67	90%	91%	193 x 42.5 x 34.5mm
UM050H045AQ	UM050H045AQ_CLKS	90~305VAC	50W	450mA	55-111VDC	IP67	90%	91%	193 x 42.5 x 34.5mm
UM050H070AQ	UM050H070AQ_CLKS	90~305VAC	50W	700mA	36-72VDC	IP67	89%	90%	193 x 42.5 x 34.5mm
UM050H105AQ	UM050H105AQ_CLKS	90~305VAC	50W	1050mA	24-48VDC	IP67	89%	90%	193 x 42.5 x 34.5mm
UM050H140AQ	UM050H140AQ_CLKS	90~305VAC	50W	1400mA	18-36VDC	IP67	88%	89%	193 x 42.5 x 34.5mm
UM050H175AQ	UM050H175AQ_CLKS	90~305VAC	50W	1750mA	14-29VDC	IP67	88%	89%	193 x 42.5 x 34.5mm
UM050H210AQ	UM050H210AQ_CLKS	90~305VAC	50W	2100mA	12-24VDC	IP67	87%	88%	193 x 42.5 x 34.5mm
UM050H245AQ	UM050H245AQ_CLKS	90~305VAC	50W	2450mA	10-20VDC	IP67	87%	88%	193 x 42.5 x 34.5mm
UM050H280AQ	UM050H280AQ_CLKS	90~305VAC	50W	2800mA	9-18VDC	IP67	86%	87%	193 x 42.5 x 34.5mm
UM050H315AQ	UM050H315AQ_CLKS	90~305VAC	50W	3150mA	8-16VDC	IP67	84%	85%	193 x 42.5 x 34.5mm

Motto

EM075M SERIES

General specification

Input voltage: 176-305Vac
Built-in active PFC function 0.98 Typ.
High efficiency: up to 90% Typ.
Built-in Lightning protection
Waterproof (IP67)
Protection: OVP, SCP, OTP
Full Power at 65%Iomax~100%Iomax (Constant Power)

Technical specification

MODEL NO	INPUT VOLTAGE	MAX. OUTPUT POWER	OUTPUT CURRENT	OUTPUT VOLTAGE	IP	EFFICIENCY	DIMENSIONS
EM075M070AQ	176~305VAC	75W	700mA	43-108VDC	IP67	90%	173 x 67.5 x 37mm
EM075M105AQ	176~305VAC	75W	1050mA	43-72VDC	IP67	90%	173 x 67.5 x 37mm
EM075M150AQ	176~305VAC	75W	1500mA	30-50VDC	IP67	89%	173 x 67.5 x 37mm
EM075M210AQ	176~305VAC	75W	2100mA	22-36VDC	IP67	88%	173 x 67.5 x 37mm

MODEL NO	INPUT VOLTAGE	MAX. OUTPUT POWER	OUTPUT CURRENT	OUTPUT VOLTAGE	IP	EFFICIENCY	DIMENSIONS
EM075M105AQ_CP	176~305VAC	75W	700-1050mA	108-43VDC	IP67	90%	173 x 67.5 x 37mm
EM075M150AQ_CP	176~305VAC	75W	1000-1500mA	75-30VDC	IP67	89%	173 x 67.5 x 37mm
EM075M210AQ_CP	176~305VAC	75W	1400-2100mA	54-22VDC	IP67	88%	173 x 67.5 x 37mm
EM075M300AQ_CP	176~305VAC	75W	2000-3000mA	38-15VDC	IP67	88%	173 x 67.5 x 37mm
EM075M420AQ_CP	176~305VAC	75W	2800-4200mA	27-11VDC	IP67	87%	173 x 67.5 x 37mm

EM100M SERIES

General specification

Input voltage: 176-305Vac
Built-in active PFC function 0.98 Typ.
High efficiency: up to 90% Typ.
Built-in Lightning protection
Waterproof (IP67)
Constant Current / 0-10V Dimming / Clock Dimming(CLK)/ PWM Dimming
Protection: OVP, SCP, OTP
Full Power at 65%Iomax~100%Iomax (Constant Power)

Technical specification

MODEL NO	INPUT VOLTAGE	MAX. OUTPUT POWER	OUTPUT CURRENT	OUTPUT VOLTAGE	IP	EFFICIENCY	DIMENSIONS
EM100M070AQ	176~305VAC	100W	700mA	57-143VDC	IP67	90%	183 x 67.5 x 37 mm
EM100M105AQ	176~305VAC	100W	1050mA	57-95VDC	IP67	90%	183 x 67.5 x 37 mm
EM100M150AQ	176~305VAC	100W	1500mA	40-66VVDC	IP67	90%	183 x 67.5 x 37 mm
EM100M210AQ	176~305VAC	100W	2100mA	29-48VDC	IP67	89%	183 x 67.5 x 37 mm

MODEL NO	INPUT VOLTAGE	MAX. OUTPUT POWER	OUTPUT CURRENT	OUTPUT VOLTAGE	IP	EFFICIENCY	DIMENSIONS
EM100M105AQ_CP	176~305VAC	100W	700-1050mA	143-57VDC	IP67	90%	183 x 67.5 x 37 mm
EM100M150AQ_CP	176~305VAC	100W	1000-1500mA	100-40VDC	IP67	90%	183 x 67.5 x 37 mm
EM100M210AQ_CP	176~305VAC	100W	1400-2100mA	71-29VDC	IP67	89%	183 x 67.5 x 37 mm
EM100M320AQ_CP	176~305VAC	100W	2000-3200mA	50-19VDC	IP67	88%	183 x 67.5 x 37 mm
EM100M480AQ_CP	176~305VAC	100W	3000-4800mA	33-13VDC	IP67	87%	183 x 67.5 x 37 mm
EUM100A070AQ	200-305VAC	105W	700mA	75-150VDC	91%	IP67	164 x 68 x 39mm
EUM100A086AQ	200-305VAC	105W	860mA	61-123VDC	90%	IP67	164 x 68 x 39mm
EUM100A105AQ	200-305VAC	105W	1050mA	50-100VDC	90%	IP67	164 x 68 x 39mm

Motto

EM150H SERIES

General specification

Input voltage: 90-305Vac
Built-in active PFC function: 0.98 Typ.
High efficiency: 93% Typ.
Constant current/ 0-10V dimming/ clock dimming(CLK)/ PWM dimming
Full power at 65%Iomax~100%Iomax (constant power)
IP67 design for indoor or outdoor installations
High surge immunity
Compliance to worldwide safety regulations for lighting
Suitable for dry/damp locations

Technical specification

MODEL NO	INPUT VOLTAGE	MAX. OUTPUT POWER	OUTPUT CURRENT	OUTPUT VOLTAGE	IP	EFFICIENCY	DIMENSIONS
EM150H070AQ	176~305VAC	150W	700mA	86-214VDC	IP67	93%	202 x 67.5 x 40 mm
EM150H105AQ	176~305VAC	150W	1050mA	86-142VDC	IP67	93%	202 x 67.5 x 40 mm
EM150H0150AQ	176~305VAC	150W	1500mA	60-100VDC	IP67	91%	202 x 67.5 x 40 mm
EM150H210AQ	176~305VAC	150W	2100mA	43-72VDC	IP67	91%	202 x 67.5 x 40 mm

MODEL NO	INPUT VOLTAGE	MAX. OUTPUT POWER	OUTPUT CURRENT	OUTPUT VOLTAGE	IP	EFFICIENCY	DIMENSIONS
EM150H105AQ_CP	176~305VAC	150W	700-1050mA	214-86VDC	IP67	92%	202 x 67.5 x 40 mm
EM150H150AQ_CP	176~305VAC	150W	1000-1500mA	150-60VDC	IP67	91%	202 x 67.5 x 40 mm
EM150H210AQ_CP	176~305VAC	150W	1400-2100mA	107-43VDC	IP67	91%	202 x 67.5 x 40 mm
EM150H300AQ_CP	176~305VAC	150W	2000-3000mA	75-30VDC	IP67	90%	202 x 67.5 x 40 mm
EM150H420AQ_CP	176~305VAC	150W	2800-4200mA	54-21VDC	IP67	89%	202 x 67.5 x 40 mm
EM150H420AQ_CP	200-240Vac	150W	2800-4200mA	54-21VDC	IP67	90%	202 x 67.5 x 40 mm
EUM150A070AQ	120-305VAC	150W	700mA	107-214VDC	IP67	90%	179.2 x 68 x 43.5mm
EUM150A086AQ	120-305VAC	150W	860mA	87-174VDC	IP67	90%	179.2 x 68 x 43.5mm
EUM150A105AQ	120-305VAC	150W	1050mA	72-143VDC	IP67	88%	179.2 x 68 x 43.5mm

EM200H SERIES

General specification

Input voltage: 176-305Vac
Built-in active PFC function 0.98 Typ.
High efficiency: up to 94% Typ.
Built-in Lightning protection
Three dimming in one operation modes(0-10V Dimming / Clock Dimming(CLK) / PWM Dimming)
Protection: SCP, OTP
Full Power at 65%Iomax□100%Iomax (Constant Power)
IP67 design for indoor or outdoor installations

Technical specification

MODEL NO	INPUT VOLTAGE	MAX. OUTPUT POWER	OUTPUT CURRENT	OUTPUT VOLTAGE	IP	EFFICIENCY	DIMENSIONS
EM200H080AQ_CP	176~305VAC	200W	530-800mA	150-377VDC	IP67	94%	221 x 67.5 x 40 mm
EM200H105AQ_CP	176~305VAC	200W	700-1050mA	114-286VDC	IP67	94%	221 x 67.5 x 40 mm
EM200H150AQ_CP	176~305VAC	200W	1000-1500mA	80-200VDC	IP67	94%	221 x 67.5 x 40 mm
EM200H210AQ_CP	176~305VAC	200W	1400-2100mA	57-143VDC	IP67	94%	221 x 67.5 x 40 mm
EM200H300AQ_CP	176~305VAC	200W	2000-3000mA	40-100VDC	IP67	94%	221 x 67.5 x 40 mm
EM200H420AQ_CP	176~305VAC	200W	2800-4200mA	29-71VDC	IP67	93%	221 x 67.5 x 40 mm

Motto

EM250H SERIES

General specification

Input voltage: 176-305Vac
Built-in active PFC function 0.98 Typ.
High efficiency: up to 93% Typ.
Built-in Lightning protection
Three dimming in one operation modes(0-10V Dimming / Clock Dimming(CLK) / PWM Dimming)
Protection: OVP, SCP, OTP
Full Power at 65%Iomax~100%Iomax (Constant Power)
IP67 design for indoor or outdoor installation

Technical specification

MODEL NO	INPUT VOLTAGE	MAX. OUTPUT POWER	OUTPUT CURRENT	OUTPUT VOLTAGE	IP	EFFICIENCY	DIMENSIONS
EM250H105AQ	176~305VAC	250W	1050mA	143-357VDC	IP67	93%	234 x 74.5 x 40mm

MODEL NO	INPUT VOLTAGE	MAX. OUTPUT POWER	OUTPUT CURRENT	OUTPUT VOLTAGE	IP	EFFICIENCY	DIMENSIONS
EM250H105AQ_CP	176~305VAC	250W	700-1050mA	143-357VDC	IP67	93%	234 x 74.5 x 40mm

UM320H SERIES

General specification

Input voltage: 90-305Vac
Built-in active PFC function: 0.99 Typ.
High efficiency: 94% Typ.
Constant current / 0-10V dimming/
Clock dimming(CLK) / PWM dimming
Full power at 65%Iomax~100%Iomax (constant power)
IP67 design for indoor or outdoor installations
High surge immunity
Compliance to worldwide safety regulations for lighting
Suitable for dry/damp locations

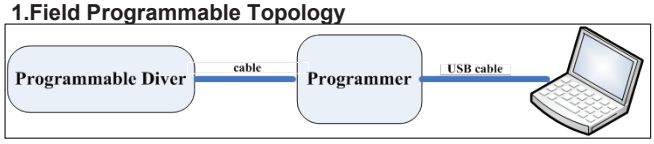
Technical specification

MODEL NO	INPUT VOLTAGE	MAX. OUTPUT POWER	OUTPUT CURRENT	OUTPUT VOLTAGE	IP	EFFICIENCY	DIMENSIONS
UM320H105AQ_CP	90~305VAC	320W	700-1050mA	457-183VDC	IP67	94%	251 x 90 x 44.5mm
UM320H150AQ_CP	90~305VAC	320W	1000-1500mA	320-128VDC	IP67	94%	251 x 90 x 44.5mm
UM320H210AQ_CP	90~305VAC	320W	1400-2100mA	228-91VDC	IP67	93%	251 x 90 x 44.5mm
UM320H300AQ_CP	90~305VAC	320W	2000-3000mA	160-64VDC	IP67	93%	251 x 90 x 44.5mm
UM320H420AQ_CP	90~305VAC	320W	2800-4200mA	114-46VDC	IP67	93%	251 x 90 x 44.5mm
UM320H600AQ_CP	90~305VAC	320W	4000-6000mA	80-32VDC	IP67	93%	251 x 90 x 44.5mm

Motto

HOW ARE CP SERIES DRIVERS PROGRAMMED?

1.Field Programmable Topology

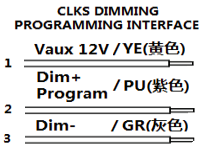


The programmable driver can be programmed by using special PC software and the programmer module.

2.Dimming Interface Description

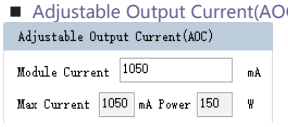
Pin description

Pin	Name	Value	Description
1	Vaux 12V	10.8V-13.2V	Passive dimmers power supply
2	Dim+/Program	0-10V	Dimming/Programming input
3	Dim-	0V	DC Ground



3.Dimming Software Function Instruction

■ Adjustable Output Current(AOC)

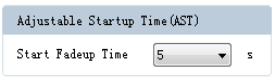


Users can set the rated current between 7%*Max Current and 100%*Max Current

■ PWM

Input a PWM signal from the 2nd pin(Dim+/Program) of the dimming interface to change the output current.User can set “Positive Logic” or “ Negative Logic” of the PWM signal. PWM duty circle: 1%~99%(it has both positive and negative logics), frequency: 500Hz~5kHz, 3V~10V is

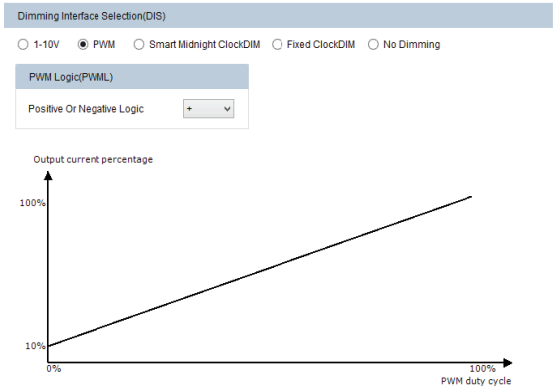
■ Adjustable Startup Time(AST)



Set driver’s “Start Fade up Time”. It means how much time the driver costs to achieve the “Module Current ” that the user set. The valid value is 0s, 1s, 2s, 5s, 10s, 20s, 40s.

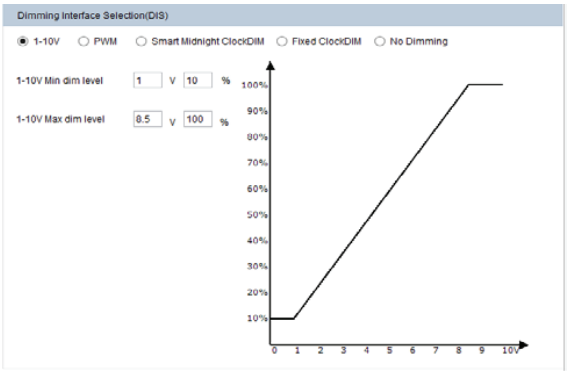
■ Fade Time(FT)

Set driver’s “Fade up Time”. This function is available in the Smart Midnight ClockDIM and Fixed ClockDIM mode; It means how much time the driver costs to achieve another dimming level from previous dimming level. The valid value is 0s, 1s, 2s, 5s, 10s, 20s, 40s.

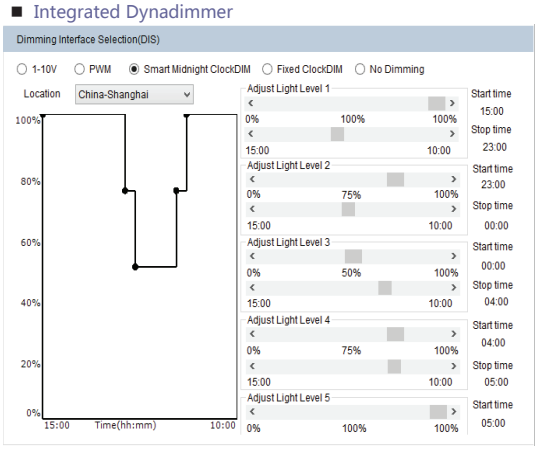


■ 1-10V

Allow users to set the max and min output current and corresponding output voltage to clarify the 1-10V dimming curve. Input a 0~10V signal from 2nd pin of the dimming interface. Default: input ≤1V, output current 10%; input ≥

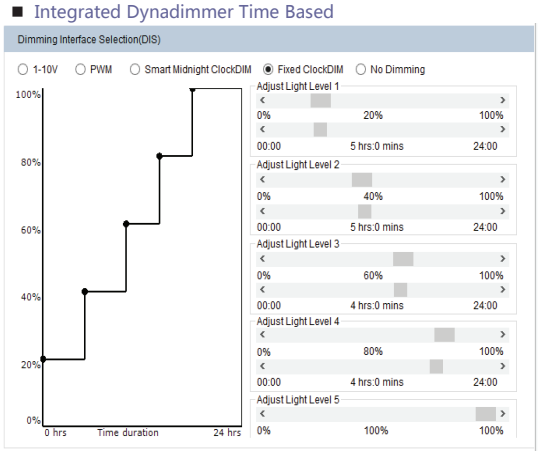


■ Integrated Dynadimmer



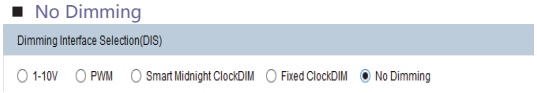
Integrated Dynadimmer allows dimming to predefined light levels based on the nightly operating time. With flexibility in setting time and light levels, the user can configure the driver for specific locations and application needs. Using Integrated Dynadimmer, it is possible to set up to 5 dim levels and time intervals. The driver does not have a real time clock. Instead it runs a virtual clock, determined by the length of nightly operating hours. After 3 ON-OFF cycles, the driver will calculate the virtual clock time. A valid ON-time is defined as a period during which the driver operates continuously for ⩾4 hours to ⩽24 hours. For example, if the requirement in summer is: 23:00-00:00: 75%, 00:00-04:00: 50%, 04:00-05:00: 75% (other time 100% or Off). The driver should be powered on for 7h, so it can calculate the virtual clock time as 22:00. Then we can set the dimming plan: 22:00~23:00: 100%, 23:00-00:00: 75%, 00:00-04:00: 50%, 04:00-05:00: 75%. From summer to winter, the valid ON-time changes day by day. The driver should be powered on for 17h in winter, and it also can calculate the virtual clock time as 17:00. Then the dimming plan is 17:00~23:00: 100%, 23:00-00:00: 75%, 00:00-04:00: 50%, 04:00-05:00: 75%, 05:00~10:00: 100%. From the above, if we set the dimming plan as shown in the picture, after repeating the driver ON-time for 3 consecutive days, the dimming plan takes effect from the 4th day onwards. Each day the driver powered on, it has a different start time according to the virtual clock

■ Integrated Dynadimmer Time Based



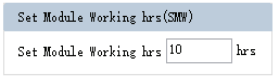
Allow users to separate 24hrs into 5 sections and corresponding output current.

■ No Dimming



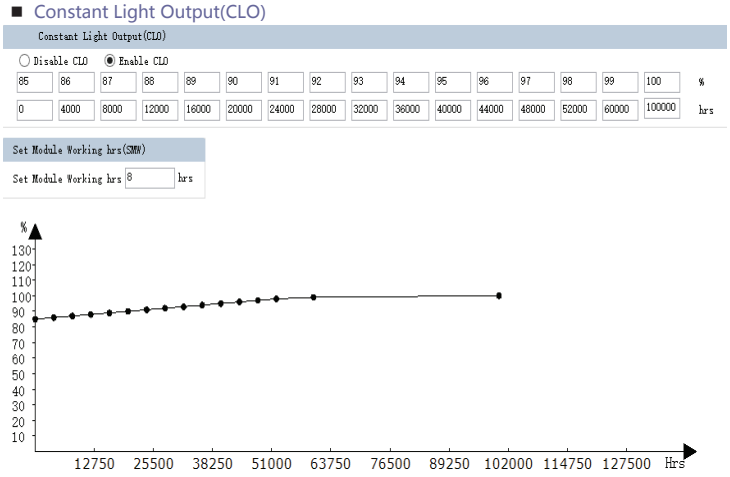
The driver will be in constant output mode.

■ Set MODULE Working hrs(SMW)



User can check how much time the driver works through this function.

■ Constant Light Output(CLO)



Traditional light sources suffer from depreciation in light output over time. This applies to LED light sources as well. The CLO feature enables LED solutions to deliver constant lumen output through the life of the light engine. Based on the type of LEDs used, heat sinking and driver current, it is possible to estimate the depreciation of light output for specific LEDs and this information can be entered into the driver. The driver counts the number of light source working hours and will increase output current based on this input to enable CLO.
When the CLO feature is enabled, the driver nominal output current will be defined by the CLO percentage as shown by the equation below: Driver target nominal output current = CLO percentage * AOC. For example, in the CLO profile shown in Figure, between 52,000-60,000 working hours, the CLO percentage is set at 98%. Assuming the nominal AOC is set to 500mA, the driver output current with CLO enabled will be 0.98 x 500 = 600 mA.

Smarter. Greener. Together.


DELTA

Delta

20W IP20 CC SERIES

General specification

IP Rating: IP20
Max. Case Temperature: 75˚C (measured at tc-point)
Lifetime: 50,000 hours @tc:75˚C
Power Factor : ≥0.95
Total Harmonic Distortion: THD<20%
Protection: SCP,OCP,OVP
Product Design: Class II (Independent type), SELV
Regular Standard: IEC 61347-1; IEC 61347-2-13
Approval Safety: CE, ENEC

Technical specification

MODEL NO	INPUT VOLTAGE	MAX. OUTPUT POWER	OUTPUT CURRENT	OUTPUT VOLTAGE	IP	EFFICIENCY	DIMENSIONS
EUCI-020035FCA	198-264V	20W	350mA	42-57VDC	IP20	89%	115 x 45 x 29mm
EUCI-020050FAA	198-264V	20W	500mA	31-42VDC	IP20	89%	115 x 45 x 29mm
EUCI-020070FAA	198-264V	20W	700mA	21-28.6VDC	IP20	89%	115 x 45 x 29mm

35-50W IP20 CC SERIES

General specification

IP Rating: IP20
Max. Case Temperature: 85˚C (measured at tc-point)
Lifetime: 50,000 hours @tc:80˚C
Power Factor : ≥0.95
Total Harmonic Distortion: THD<20%
Protection: SCP,OCP,OVP,OTP
Product Design: Class II (Independent type), SELV
Regular Standard: IEC 61347-1; IEC 61347-2-13
Approval Safety: CE, ENEC

Technical specification

MODEL NO	INPUT VOLTAGE	MAX. OUTPUT POWER	OUTPUT CURRENT	OUTPUT VOLTAGE	EFFICIENCY	IP	DIMENSIONS
EUCI-050070FA	198-264VAC	30W	700mA	24-43VDC	89%	IP20	105 x 68 x 32mm
EUCI-050090FA	198-264VAC	39W	900mA	24-43VDC	89%	IP20	105 x 68 x 32mm
EUCI-050105FA	198-264VAC	45W	1050mA	24-43VDC	89%	IP20	105 x 68 x 32mm
EUCI-050140FA	198-264VAC	50W	1400mA	24-36VDC	89%	IP20	105 x 68 x 32mm
EUCI-040070FB	198-264VAC	40W	700mA	39-57VDC	89%	IP20	115 x 45 x 29mm
EUCI-035090FAA	198-264VAC	34W	900mA	24-38VDC	89%	IP20	115 x 45 x 29mm
EUCI-035105FAA	198-264VAC	40W	1050mA	24-38VDC	89%	IP20	115 x 45 x 29mm

Delta

80-150W IP54 SERIES

General specification

IP Rating: IP54
Max. Case Temperature: 85˚C (measured at tc-point)
Lifetime: 50,000 hours @ta:40˚C
Power Factor : ≥0.9
Dimming Method:
0 ~ 10Vdc or 0 ~ 50k ohm variable resistor for 0 ~100% PWM Dimming (280Hz).
1V(10%) - 8V(100%); 2) Open (100%); 3) Short (Latch off) re-power on to recovery.
Protection: SCP, OCP, OVP
Product Design: Class II (Independent type)
Regular Standard: UL 8750, EN 61347-1, EN 61347-2-13
Approval Safety: UL, cUL (CULUS), CE

80W IP54 CV Dimming Series

MODEL NO	INPUT VOLTAGE	MAX. OUTPUT POWER	OUTPUT CURRENT	OUTPUT VOLTAGE	IP	EFFICIENCY	DIMENSIONS
USVI-080024DA	100-277V	80W	3.3A	23-25.5V	IP54	86%	241.3 x 43.1 x 30mm

IP Rating: IP54
Max. Case Temperature: 85˚CC (measured at tc-point)
Lifetime: 50,000 hours @ta:45˚C
Power Factor : ≥0.95
Dimming Method:
DALI, 1 – 254 Code for 5 - 100% Dimming range. Linear or Logarithmic variation.
Compliance with IEC 62386-102 & IEC 62386-207
Protection: SCP, OVP, OTP
Product Design: Class II (Built-in type)
Regular Standard: UL8750, EN 61347-1, EN613472-13
Approval Safety: UL, cUL (CULUS),CE

100W IP54 CV Series

MODEL NO	INPUT VOLTAGE	MAX. OUTPUT POWER	OUTPUT CURRENT	OUTPUT VOLTAGE	IP	EFFICIENCY	DIMENSIONS
USVI-100024FB	100-277V	99.6W	4.15A	15-24V	IP54	88%	241.3 x 43.1 x 30mm

150W IP54 CC DALI Series

MODEL NO	INPUT VOLTAGE	MAX. OUTPUT POWER	OUTPUT CURRENT	OUTPUT VOLTAGE	IP	EFFICIENCY	DIMENSIONS
USCI-150070LC	100-277V	150W	700mA	128 -214V	IP54	91%	240.5 x 60 x 37.8mm

IP20 PRO & DALI SERIES

General specification

Constant current design
Input voltage from 198-264Vac & 176-280Vdc
High efficiency up to 93%
Wide operating temperature range -40˚C ~ +55˚C
Built-in Active PFC and conforms to harmonic current
IEC/EN 61000-3-2, Class C
Adjustable constant current through wireless NFC
DALI & Switch DIM control Interface
Common mode 8/10kV and differential mode 6kV surge immunity
5 years warranty

Technical specification

MODEL NO	INPUT VOLTAGE	MAX. OUTPUT POWER	OUTPUT CURRENT	OUTPUT VOLTAGE	EFFICIENCY	IP	DIMENSIONS
EUCI-075105GLA	198-264VAC	75W	680mA-1050mA	35-110VDC	93%	IP20	133 x 77 x 40mm
EUCI-130105GLA	198-264VAC	130W	650mA-1050mA	60-200VDC	93%	IP20	130 x 90 x 40mm
EUCI-170105GLA	198-264VAC	170W	585mA-1050mA	80-290VDC	93%	IP20	170 x 100 x 40mm

Delta

IP67 PRO SERIES

General specification

Constant current design
Universal AC input voltage from 176-305Vac
High efficiency up to 94%
Wide operating temperature range -40˚C ~ +65˚C
With IP67 protection for most outdoor applications
Built-in Active PFC and conforms to harmonic current
IEC/EN 61000-3-2, Class C
Adjustable constant current level through program tool
Common mode 6kV and differential mode 6kV surge immunity
5 years warranty

Technical specification

MODEL NO	INPUT VOLTAGE	MAX. OUTPUT POWER	OUTPUT CURRENT	OUTPUT VOLTAGE	EFFICIENCY	IP	DIMENSIONS
EUCO-100140GA	176-305VAC	100W	700 – 1400mA	47-143VDC	94%	IP67	174 x 68 x 37mm
EUCO-150140GA	176-305VAC	150W	700 – 1400mA	72-214VDC	94%w	IP67	174 x 68 x 37mm
EUCO-200140GA	176-305VAC	200W	1050 – 1400mA	75-190VDC	94%	IP67	220 x 68 x 37mm
EUCO-250140GA	176-305VAC	250W	1050 – 1400mA	90-238VDC	94%	IP67	240 x 68 x 37mm

LED Driver

From The World's No.1* Power Supply Company

- LNE LED Driver
- LNV LED Driver

Brighter lives, better world

Big Four Bridge / Louisville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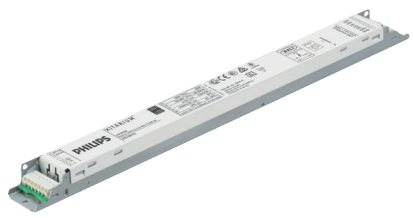
XITANIUM LINEAR DRIVERS NON-ISOLATED



General specification

Xitanium LED isolated drivers are ideal for professional general lighting applications such as low voltage (LV) linear office systems. The isolated drivers are available in DALI dimmable and programmable, 1-10 V dimmable and fixed output. They are available in 17 W, 36 W, 75 W all in linear form factors but with various lengths. The DALI drivers and new fixed output drivers feature SimpleSet technology, low output current ripple of 4% for high and low frequencies and low standby specifications.

Technical specification

DALI dimmable & programmable

Product name	Housing	Dimming range	Output current range	Output voltage range	SimpleSet	Product code
	mm	%	A	V		GPC
Xitanium 17W/0.12-0.4A 54V TD 230V	360x30x22	100-10	0.12-0.4	27-54		929000684703
Xitanium 35W/0.08-0.35A 150V TD/16 230V	280x30x16	100-1	0.08-0.35	50-150	•	929000993106
Xitanium 36W/0.12-0.4A 110V TD 230V	360x30x22	100-1	0.12-0.4	50-110		929000852203
Xitanium 60W/0.08-0.35A 220V TD/16 230V	280x30x16	100-1	0.08-0.35	100-220	•	929001547206
Xitanium 60W/0.08-0.35A 300V TD/16 230V	280x30x16	100-1	0.08-0.35	100-300	•	929000993206
Xitanium 75W/0.12-0.4A 215V TD 230V	360x30x22	100-1	0.12-0.4	100-215		929000852103
Xitanium 100W/0.25-0.7A 220V TD16 230V	360x30x16	100-1	0.25-0.7	100-220	•	929001547306

DALI dimmable & programmable - for industry applications

Product name	Housing	Dimming range	Output current range	Output voltage range	SimpleSet	Product code
	mm	%	A	V		GPC
Xitanium 100W/0.15-0.5A 300V TD 230V iXt	360x30x21	100-1	0.15-0.5	100-300	•	929001516406
Xitanium 110W/0.2-0.6A 215V TD 230V iXt	360x30x21	100-1	0.2-0.6	100-215		929000877306
Xitanium 150W/0.2-0.7A 300V TD 230V iXt	360x30x21	100-1	0.2-0.7	100-300	•	929001516506
Xitanium 300W/0.5-1.4A 300V iXt TD 230V	360x50x28	100-1	0.5-1.4	100-300	•	929001608406

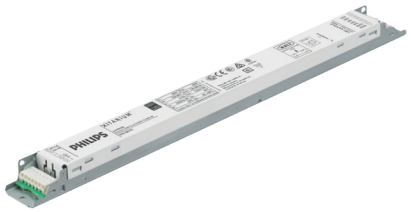
1-10 V dimmable

Product name	Housing	Dimming range	Output current range	Output voltage range	SimpleSet	Product code
	mm	%	A	V		GPC
Xitanium 17W/0.12-0.4A 54V 1-10V 230V	360x30x22	100-10	0.12-0.4	27-54		929000684803
Xitanium 36W/0.12-0.4A 115V 1-10V 230V	280x30x21	100-10	0.12-0.4	50-115		929000953606
Xitanium 75W/0.12-0.4A 220V 1-10V 230V	280x30x21	100-10	0.12-0.4	100-220		929000953706

XITANIUM LINEAR DRIVERS NON-ISOLATED

General specification

Xitanium LED isolated drivers are ideal for professional general lighting applications such as low voltage (LV) linear office systems. The isolated drivers are available in DALI dimmable and programmable, 1-10 V dimmable and fixed output. They are available in 17 W, 36 W, 75 W all in linear form factors but with various lengths. The DALI drivers and new fixed output drivers feature SimpleSet technology, low output current ripple of 4% for high and low frequencies and low standby specifications.



Technical specification

Fixed output

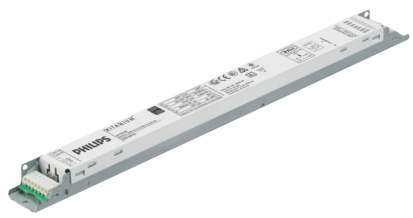
Product name	Housing	Dimming range	Output current range	Output voltage range	SimpleSet	Product code
	mm	%	A	V		GPC
Xitanium 35W/0.08-0.35A 150V 16 230V	280x30x16	n.a.	0.08-0.35	50-150		929001557606
Xitanium 35W/0.08-0.35A 150V S 230V	280x30x21	n.a.	0.08-0.35	50-150	•	929001506406
Xitanium 35W/0.08-0.35A 150V S/16 230V	280x30x16	n.a.	0.08-0.35	50-150	•	929001557306
Xitanium 36W/0.12-0.4A 115V 230V	280x30x21	n.a.	0.12-0.4	50-115		929000950606
Xitanium 60W/0.08-0.35A 220V 16 230V	280x30x16	n.a.	0.08-0.35	100-220		929001557806
Xitanium 60W/0.08-0.35A 300V 16 230V	280x30x16	n.a.	0.08-0.35	100-300		929001557706
Xitanium 60W/0.08-0.35A 220V S 230V	280x30x21	n.a.	0.08-0.35	100-220	•	929001509106
Xitanium 60W/0.08-0.35A 300V S 230V	280x30x21	n.a.	0.08-0.35	100-300	•	929001506506
Xitanium 60W/0.08-0.35A 220V S/16 230V	280x30x16	n.a.	0.08-0.35	100-220	•	929001557506
Xitanium 60W/0.08-0.35A 300V S/16 230V	280x30x16	n.a.	0.08-0.35	100-300	•	929001557406
Xitanium 75W/0.12-0.4A 220V 230V	280x30x21	n.a.	0.12-0.4	100-220		929000950706
Xitanium 100W/0.25-0.7A 220V S 230V	360x30x21	n.a.	0.25-0.7	50-220	•	929001529506
Xitanium 100W/0.25-0.7A 220V 16 230V	360x30x16	n.a.	0.25-0.7	50-220		929001613406

Fixed output - for industry applications

Product name	Housing	Dimming range	Output current range	Output voltage range	SimpleSet	Product code
	mm	%	A	V		GPC
Xitanium 100W/0.15-0.5A 300V iXt 230V	360x30x21	n.a.	0.15-0.5	100-300	•	929001506606
Xitanium 150W/0.2-0.7A 300V iXt 230V	360x30x21	n.a.	0.2-0.7	100-300	•	929001506706

Philips

XITANIUM LED LINEAR DRIVERS ISOLATED



General specification

Xitanium LED isolated drivers are ideal for professional general lighting applications such as low voltage (LV) linear office systems. The isolated drivers are available in DALI dimmable and programmable, 1-10 V dimmable and fixed output. They offer ease of design-in and make the approbation process simpler. They are available in 17 W, 36 W, 75 W all in linear form factors but with various lengths. The DALI drivers and new fixed output drivers feature SimpleSet technology, low output current ripple of 4% for high and low frequencies and low standby specifications. The better ripple current ensures no interference with security,cell phone- or webcameras and scanners.

Technical specification

DALI dimmable & programmable

Product name	Housing	Dimming range	Output current range	Output voltage range	SimpleSet	Product code
	mm	%	A	V		GPC
Xitanium 36W/0.3-1A 54V TD 230V	360x30x21	100-1	0.3-1	27-54	•	929001503606
Xitanium 75W/0.7-2A 54V TD 230V	360x30x21	100-1	0.7-2	27-54	•	929001503706

1-10 V dimmable

Product name	Housing	Dimming range	Output current range	Output voltage range	SimpleSet	Product code
	mm	%	A	V		GPC
Xitanium 36W/0.3-1A 54V 1-10V 230V	360x30x26.5	100-10	0.3-1	27-54		929000854003
Xitanium 75W/0.7-2A 54V 1-10V 230V	425x30x26.5	100-10	0.7-2	27-54		929000863503

Fixed output

Product name	Housing	Dimming range	Output current range	Output voltage range	SimpleSet	Product code
	mm	%	A	V		GPC
Xitanium 36W/0.3-1A 54V 230V	360x30x21	n.a.	0.3-1	27-54		929000958706
Xitanium 36W/0.3-1.05A 54V S 230V	360x30x21	n.a.	0.3-1.05	27-54	•	929001571406
Xitanium 65W/0.5-1.4A 54V S 230V	360x30x21	n.a.	0.5-1.4	27-54	•	929001571506
Xitanium 75W/0.7-2A 54V 230V	360x30x21	n.a.	0.7-2	27-54		929000958806

Module recommendation

For all suitable modules see Fortimo LED lines and Fortimo LED strips, see pages 52-55.

CERTADRIVE LED LINEAR DRIVERS

General specification

CertaDrive LED drivers are designed to fulfill the market need for essential lighting. They offer basic specifications such as specific current and voltage settings, optimal to operate CertaFlux LED modules. Lifetime of the driver is set at 50,000 hours and warranty period is three years. These LED drivers are also interesting for OEMs producing and selling their own LED-boards. If the specific V/A specifications of these CertaDrive LED linear drivers do not suit the LED board specifications of the OEM, Philips offers the possibility to create fast derivative LED drivers with the required V/A of the OEM. This process is called Fast Lane Release and enables customized driver development within 6 weeks for high volume driver needs (50 K pcs driver/year). The new drivers are produced in Poland ensuring fast and flexible supply.

Technical specification

Fixed output

Product name	Housing	Dimming range	Output current	Output voltage	Product code
	mm	%	mA	V	GPC
CertaDrive 30W 330mA 82V 230V	210x30x21	n.a.	330	82	929000974806
CertaDrive 30W 0.29A 102V 230V	210x30x21	n.a.	290	102	929001598606
CertaDrive 40W 360mA 110V 230V	210x30x21	n.a.	360	110	929000974906
CertaDrive 44W 0.32A 137V 230V	210x30x21	n.a.	320	137	929001598706
CertaDrive 60W 360mA 170V 230V	210x30x21	n.a.	360	170	929000975006

Philips

XITANIUM LED DOWNLIGHT AND SPOTLIGHT DRIVERS

General specification

Dimmable and fixed output LED drivers. Power ratings and related operating windows from 20 W to 75 W. Depending on the family drivers feature following specifications: operating window, SELV, improved ripple current, temperature derating, hot wiring, 12 V output for active cooling or decorative effects, central DC operation. The addition of SimpleSet technology in certain drivers will now also enable wireless configuration in manufacturing environments.

Technical specification

Product specification

Product name	Housing	Housing	Dimming range	Output current range	Output voltage range	Central DC operation	SELV	DALI / Touch&Dim & pro-grammable	SimpleSet	Product code
Dimmable and/or programmable drivers										
	type	mm	%	A	V					GPC
Xitanium 20W LH 0.15-0.5A 48V TD/Is 230V	1	150x46x32	100-1	0.15-0.5	24-48	•	•	•		929000904006
Xitanium 20W WH 0.15-0.5A 54V TD/Is 230V	5	200x74x32	100-1	0.15-0.5	24-54	•	•	•	•	929000991706
Xitanium 20W/m 0.15-0.5A 54V TD 230V	6	97x43x30	100-1	0.15-0.5	24-54	•	•	•		929001419006
Xitanium 25W LH 0.3-1A 36V TD/Is 230V	1	150x46x32	100-1	0.3-1.0	18-36	•	•	•		929000863703
Xitanium 36W LH 0.3-1A 48V TD/I 230V	2	190x46x32	100-1	0.3-1.0	24-48	•	•	•		929000870806
Xitanium 36W/s 0.3-1A 48V TD 230V	3	110x75x31	100-1	0.3-1.0	24-48	•	•	•		929000897606
Xitanium 36W WH 0.3-1.0A 54V TD/Is 230V	5	200x74x32	100-1	0.3-1.0	24-54	•	•	•	•	929000969906
Xitanium 36W/m 0.3-1.05A 54V TD 230V	6	97x43x30	100-1	0.3-1.05	24-54	•	•	•		929001419106
Xitanium 50W WH 0.7-1.5A 54V TD/Is 230V	5	200x74x32	100-1	0.7-1.5	24-54	•	•	•	•	929000991806
Xitanium 50W LH 0.7-1.5A 48V TD/I 230V	2	190x46x32	100-1	0.7-1.5	24-48	•	•	•		929000904106
Xitanium 50W LH 0.3-1A 62V TD/I 230V	2	190x46x32	100-1	0.3-1.0	31-62	•	•	•		929000863803
Xitanium 75W SH 0.3-1A 110V TDI 230V	4	220x83x35	100-1	0.3-1.0	55-110	•	•	•		929000870203

Product specification

Product name	Housing	Housing	Output current range	Output voltage range	Central DC operation	SELV	SimpleSet	Product code
Fixed output	type	mm	A	V				GPC
Xitanium 20W LH 0.15-0.5A 48V Is 230V	1	150x46x32	0.15-0.5	24-48	•	•	•	929000941306
Xitanium 20W/m 0.15-0.5A 48V 230V	5	97x43x30	0.15-0.5	24-48		•		929000893806
Xitanium 20W WH 0.15-0.5A 54V Is 230V	6	200x74x32	0.15-0.5	24-54	•	•	•	929001413906
Xitanium 20W WH 0.15-0.5A 54V S 230V	3	110x74x32	0.15-0.5	24-54	•	•	•	929001416506
Xitanium 20W/m 0.15-0.5A 54V 230V	5	97x43x30	0.15-0.5	24-54		•	•	929001415006
Xitanium 36W LH 0.3-1A 48V I 230V	2	190x46x32	0.3-1	24-48	•	•	•	929001404306
Xitanium 36W/m 0.3-1.05A 48V 230V	5	97x43x30	0.3-1.05	24-48		•		929000881806
Xitanium 36W WH 0.3-1.05A 54V Is 230V	6	200x74x32	0.3-1.05	24-54	•	•	•	929001414006
Xitanium 36W WH 0.3-1.05A 54V S 230V	3	110x74x32	0.3-1.05	24-54	•	•	•	929001416606
Xitanium 36W/m 0.3-1.05A 54V OffDiag 230V	5	97x43x30	0.3-1.05	24-54		•	•	929001423606
Xitanium 36W/m 0.3-1.05A 54V 230V	5	97x43x30	0.3-1.05	24-54		•	•	929001415106
Xitanium 43W/m 0.7-1.2A 54V 230V	5	97x43x30	0.7-1.2	24-54		•	•	929001415206
Xitanium 50W SH 0.3-1A 62V I 230V	4	220x83x35	0.3-1	31-62	•	•		929000853703
Xitanium 50W/s 0.3-1A 62V 230V	3	110x75x32	0.3-1	31-62	•	•		929000853603
Xitanium 50W LH 0.7-1.5A 48V I 230V	2	190x46x32	0.7-1.5	24-48	•	•	•	929000934706
Xitanium 50W WH 0.7-1.5A 54V Is 230V	6	200x74x32	0.7-1.5	24-54	•	•	•	929001416806
Xitanium 50W WH 0.7-1.5A 54V S 230V	3	110x74x32	0.7-1.5	24-54	•	•	•	929001416706
Xitanium 50W/m 0.7-1.5A 48V 230V	5	97x43x30	0.7-1.5	24-48		•		929000934606
Xitanium 50W/m 0.7-1.5A 54V 230V	5	97x43x30	0.7-1.5	24-54		•	•	929001415306
Xitanium 50W/s 0.9-1.4A 48V 230V	3	110x75x32	0.9-1.4	24-48	•	•		929000899306
Xitanium 75W SH 0.3-1A 110V I 230V	4	220x83x35	0.3-1	55-110	•	•		929000853803

XITANIUM LED DOWNLIGHT AND SPOTLIGHT DRIVERS

General specification

Dimmable and fixed output LED drivers. Power ratings and related operating windows from 20 W to 75 W. Depending on the family drivers feature following specifications: operating window, SELV, improved ripple current, temperature derating, hot wiring, 12 V output for active cooling or decorative effects, central DC operation. The addition of SimpleSet technology in certain drivers will now also enable wireless configuration in manufacturing environments.

Technical specification

Fixed output single current dimmable

Product specification

Product name	Housing	Housing	Dimming range	Output current range	Output voltage range	SELV	Trailing edge dim	Product code
	type	mm	%	A	V			GPC
Xitanium 4W 0.1A 40V TE SC 230V	7	85x50x19	5-100	0,10	29-40	•	•	929001420706
Xitanium 6W 0.15A 40V TE SC 230V	7	85x50x19	5-100	0,15	29-40	•	•	929001420806
Xitanium 7W 0.35A 20V TE SC 230V	7	85x50x19	5-100	0,35	8-20	•	•	929001420906
Xitanium 8W 0.2A 40V TE SC 230V	7	85x50x19	5-100	0,20	29-40	•	•	929001421006
Xitanium 10W 0.5A 20V TE SC 230V	7	100x50x19	5-100	0,50	8-20	•	•	929001421206
Xitanium 10W 0.25A 40V TE SC 230V	7	100x50x19	5-100	0,25	29-40	•	•	929001421106
Xitanium 14W 0.35A 40V TE SC 230V	7	100x50x19	5-100	0,35	29-40	•	•	929001421306
Xitanium 15W 0.75A 20V TE SC 230V	7	100x50x19	5-100	0,75	8-20	•	•	929001421406

Fixed output single current

Product specification

Product name	Housing	Housing	Output current range	Output voltage range	SELV	Product code
	type	mm	A	V		GPC
Xitanium 10W/m 0.35A 30V SC 230V	5	97x43x30	0.35	20-30	•	929001412280
Xitanium 16W/m 0.35A 46V SC 230V	5	97x43x30	0.35	31-46	•	929001412380
Xitanium 21W/m 0.7A 30V SC 230V	5	97x43x30	0.7	20-30	•	929001412580
Xitanium 23W/m 0.5A 46V SC 230V	5	97x43x30	0.5	31-46	•	929001412480
Xitanium 28W/m 0.6A 46V SC 230V	5	97x43x30	0.6	31-46	•	929001418706
Xitanium 32W/m 0.7A 46V SC 230V	5	97x43x30	0.7	31-46	•	929001412680
Xitanium 34W/m 0.8A 42V SC 230V	5	97x43x30	0.8	30-42	•	929001418806
Xitanium 38W/m 0.9A 42V SC 230V	5	97x43x30	0.9	30-42	•	929001418906
Xitanium 48W/m 1.05A 46V SC 230V	5	97x43x30	1.05	31-46	•	929001572806

Philips

CERTADRIVE LED DOWNLIGHT AND SPOTLIGHT DRIVERS

General specification

Power ratings are from 15 to 40 W with available current options from 0.35 to 1.05 A. With an optimized lifetime of 30,000 hours CertaDrive range is an ideal proposition for basic spot and downlight applications.

Technical specification

Fixed output

Product specification

Product name	Housing	Housing	Output current range	Output voltage range	Central DC operation	SELV	Product code
	type	mm	A	V			GPC
CertaDrive 15W 0.35A 42V I 230V	1	115x45x29	0.35	32-42		•	929000898106
CertaDrive 20W 0.5A 40V I 230V	1	115x45x29	0.50	32-40		•	929000898006
CertaDrive 30W 0.7A 42V I 230V	2	105x68x32	0.70	32-42		•	929000932006
CertaDrive 44W 1.05A 42V I 230V	2	105x68x32	1.05	32-42		•	929001410880

XITANIUM LED DRIVERS FULL PROGRAMMABLE XTREME

General specification

Philips Xitanium full programmable Xtreme LED drivers are designed to deliver the highest performance, reliability and configuration possibilities. The proven Xtreme technology ensures maximum robustness and protection for a very long lifetime. These drivers are the preferred choice for your demanding applications such as outdoor and industry. Configuration of these drivers can be done via both the universal DALI or with SimpleSet, which is the latest technology for reliable, fast and easy way to change and read-out the settings.

Technical specification

Product specification

Product name	Housing	Output current range	Min current	Output voltage range	Output power	Surge protection DM/CM	Efficiency @ 100% load	Inrush current peak	Inrush current width	Power factor. 100% load	Tc life	Simple Set	DALI	Line Switch	Dyna Dimmer	Module temp. protection	Driver temp. limit	MainsGuard	Product code
	type	mA	mA	V	W	kV	%	A	µs		°C								GPC
Xi FP 22W 0.2-0.7A SNLDAE 230V S175 sXt	S175	200-700	53	16-48	1-22	10/6	86	15	295	0.99	75	•	•	•	•	•		•	92900 1617806
Xi FP 22W 0.3-1.0A SNLDAE 230V S175 sXt	S175	300-1050	70	8-32	1-22	10/6	86	15	295	0.99	75	•	•	•	•	•		•	929000 991206
Xi FP 40W 0.2-0.7A SNLDAE 230V S175 sXt	S175	200-700	53	25-77	2-40	10/6	90	21	225	0.99	75	•	•	•	•	•		•	929000 989206
Xi FP 40W 0.3-1.0A SNLDAE 230V S175 sXt	S175	300-1050	70	20-54	2-40	10/6	90	21	225	0.99	75	•	•	•	•	•		•	929000 989306
Xi FP 75W 0.2-0.7A SNLDAE 230V S240 sXt	S240	200 - 700	53	50-150	3-75	10/6	92	46	250	0.98	75	•	•	•	•	•	•	•	929001 644006
Xi FP 75W 0.3-1.0A SNLDAE 230V S240 sXt	S240	300 - 1050	70	20-100	4-75	10/6	92	46	245	0.98	75	•	•	•	•	•	•	•	929001 644106
Xi FP 100W 0.3-1.0A SNLDAE 230V C165 sXt	C165	200 - 700	50	50-150	5-100	8/6	92	45	285	0.98	75	•	•	•	•	•		•	929001 522006
Xi FP 150W 0.2-0.7A SNLDAE 230V S240 sXt	S240	200 - 700	53	90-283	11-150	10/6	93	53	300	0.98	75	•	•	•	•	•	•	•	929001 644206
Xi FP 150W 0.3-1.0A SNLDAE 230V S240 sXt	S240	300 - 1050	70	70-214	11-150	10/6	93	53	300	0.98	75	•	•	•	•	•	•	•	929001 644306
Xi FP 22W 0.2-0.7A SNLDAE 230V C123 sXt	C123	200-700	53	16-48	1-22	10/6	86	15	360	0.99	75	•	•	•	•	•		•	929001 617706
Xi FP 22W 0.3-1.0A SNLDAE 230V C123 sXt	C123	300-1050	70	8-32	1-22	10/6	86	15	360	0.99	75	•	•	•	•	•		•	929001 518506
Xi FP 40W 0.2-0.7A SNLDAE 230V C123 sXt	C123	200-700	53	25-77	4-40	10/6	90	21	300	0.99	75	•	•	•	•	•		•	929001 518606
Xi FP 40W 0.3-1.0A SNLDAE 230V C123 sXt	C123	300-1050	70	20-54	4-40	10/6	90	21	300	0.99	75	•	•	•	•	•		•	929001 518706
Xi FP 75W 0.2-0.7A SNLDAE 230V C133 sXt	C133	200-700	50	50-150	2.5-75	10/6	92	43	260	0.99	70	•	•	•	•	•	•	•	929001 408406
Xi FP 75W 0.3-1.0A SNLDAE 230V C133 sXt	C133	300-1050	70	35-108	2.5-75	10/6	92	43	260	0.99	70	•	•	•	•	•	•	•	929001 408506
Xi FP 75W 0.5-1.5A SNLDAE 230V C133 sXt	C133	500-1500	100	25-71	2.5-75	10/6	91	43	260	0.99	70	•	•	•	•	•	•	•	929001 408606
Xi FP 110W 0.2-0.7A SNLDAE 230V C133 sXt	C133	200-700	50	70-220	4-110	10/6	93	47	250	0.99	75	•	•	•	•	•	•	•	929001 639006
Xi FP 110W 0.3-1.0A SNLDAE 230V C133 sXt	C133	300-1050	70	50-160	4-110	10/6	92	47	250	0.99	75	•	•	•	•	•	•	•	929001 639106
Xi FP 165W 0.2-0.7A SNLDAE 230V C170 sXt	C170	200-700	70	100-300	10-165	10/6	93	58	340	0.98	80	•	•	•	•	•	•	•	929000 976206
Xi FP 165W 0.3-1.0A SNLDAE 230V C170 sXt	C170	300-1050	70	80-235	10-165	10/6	93	58	340	0.98	80	•	•	•	•	•	•	•	929000 976306
Xi FP 330W 2:0.2-0.75A SNDAE 230V C240 sXt	C240	200-750 (x2)	50	100-300	5-165	10/6	93	19	300	0.99	75	•	•	•	•	•	•	•	929001 408306

Philips

XITANIUM LED DRIVERS LITE PROGRAMMABLE XTREME

General specification

Philips Xitanium lite programmable Xtreme LED drivers are value engineered to deliver a carefully selected feature set and high-end performance, making it a preferred choice for many outdoor applications. The portfolio offers high flexibility with a customizable operating window, enabling differentiation in LED lighting designs via system tuning and being prepared for LED efficacy upgrades. Configuration of programmable drivers has never been easier with the integrated SimpleSet feature, a fast and wireless way to change and read-out settings.

Technical specification

Product name	Housing	Output current range	Output voltage range	Output power	Surge protection CM/DM	Dimming range	Efficiency @, 100% load	Inrush current peak	Inrush current width to 50%	Power factor, 100% load	Tc life	SimpleSet	LineSwitch	1-10 V	DynaDimmer lite (1-step)	Dyna-Dimmer (5-step)	Module temp. Protection	Driver temp. limit	MainsGuard	Product code
	type	mA	V	W	kV	%	%	A	µs		°C									GPC
Xi LP 22W 0.2-0.7A S1 230V S175 sXt	S175	200-700	16-48	1-22	10/6	100-10	86	12	270	0.99	70	•		•		•		•	•	929001613606
Xi LP 22W 0.3-1.0A S1 230V S175 sXt	S175	300-1050	8-32	1-22	10/6	100-10	86	12	270	0.99	70	•		•		•		•	•	929001613706
Xi LP 40W 0.2-0.7A S1 230V S175 sXt	S175	200-700	23-77	2-40	10/6	100-10	89	16	240	0.98	70	•		•		•		•	•	929000930706
Xi LP 40W 0.2-0.7A SL 230V S175 sXt	S175	200-700	25-77	4-40	8/6	100-20	88	27	265	0.98	70	•	•		•					929000930806
Xi LP 40W 0.3-1.0A S1 230V S175 sXt	S175	300-1050	20-54	2-40	10/6	100-10	89	16	240	0.98	70	•		·		•		•	•	929000940806
Xi LP 40W 0.3-1.0A SL 230V S175 sXt	S175	300-1000	20-54	4-40	8/6	100-20	88	27	265	0.98	70	•	·		•					929000940906
Xi LP 40W 0.2-0.7A SN 230V S175 sXt	S175	200-700	25-77	4-40	8/6	100-20	89	27	265	0.98	70	•			•		•			929000930906
Xi LP 75W 0.2-0.7A S1 230V S240 sXt	S240	200-700	50-150	4-75	10/6	100-10	92	46	245	0.98	75	•		•		•		•	•	929000963206
Xi LP 75W 0.2-0.7A SL 230V S240 sXt	S240	200-700	50-150	4-75	8/6	100-10	92	46	245	0.98	75	•	•		•					929000963006
Xi LP 75W 0.3-1.0A S1 230V S240 sXt	S240	300-1050	35-108	4-75	10/6	100-10	92	46	245	0.98	75	•		•		•		•	•	929000963306
Xi LP 75W 0.3-1.0A SL 230V S240 sXt	S240	300-1050	35-108	4-75	8/6	100-10	92	46	245	0.98	75	•	·		•					929000963106
Xi LP 75W 0.5-1.5A S1 230V S240 sXt	S240	500- 1500	25-75	4-75	10/6	100-10	91	43	260	0.98	75	•		•		•		•	•	929001597606
Xi LP 75W 0.2-0.7A SN 230V S240 sXt	S240	200-700	50-150	4-75	8/6	100-10	92	46	250	0.98	75	•			•		•			929000963906
Xi LP 150W 0.2-0.7A S1 230V S240 sXt	S240	200-700	90-283	7-150	10/6	100-10	93	53	300	0.98	75	•		•		•		•	•	929000962806
Xi LP 150W 0.2-0.7A SL 230V S240 sXt	S240	200-700	90-283	7-150	8/6	100-10	93	53	300	0.98	75	•	•		•					929000962606
Xi LP 150W 0.3-1.0A S1 230V S240 sXt	S240	300-1050	70-214	7-150	10/6	100-10	93	53	300	0.98	75	•		•		•		•	•	929000962906
Xi LP 150W 0.3-1.0A SL 230V S240 sXt	S240	300-1050	70-214	7-150	8/6	100-10	93	53	300	0.98	75	•	·		•					929000962706
Xi LP 150W 0.2-0.7A SN 230V S240 sXt	S240	200-700	90-283	7-150	8/6	100-10	93	53	300	0.98	80	•			•		•			929000963806
Xi LP 150W 0.5-1.5A S1 230V S240 sXt	S240	500-1500	50-142	7-150	10/6	100-10	92	53	300	0.99	80	•		•		•		•	•	929001553806

XITANIUM LED DRIVERS LITE PROGRAMMABLE XTREME

General specification

Philips Xitanium lite programmable Xtreme LED drivers are value engineered to deliver a carefully selected feature set and high-end performance, making it a preferred choice for many outdoor applications. The portfolio offers high flexibility with a customizable operating window, enabling differentiation in LED lighting designs via system tuning and being prepared for LED efficacy upgrades. Configuration of programmable drivers has never been easier with the integrated SimpleSet feature, a fast and wireless way to change and read-out settings.

Technical specification

Product specification

Product name	Housing	Output current range	Output voltage range	Output power	Surge protection CM/DM	Dimming range	Efficiency @ 100% load	Inrush current peak	Inrush current width to 50%	Power factor, 100% load	SimpleSet	Line-Switch	1-10 V	Dyna-Dimmer lite (1-step)	Dyna-Dimmer (5-step)	Product code
	type	mA	V	W	kV	%	%	A	µs							GPC
Xi LP 22W 0.2-0.7A S1 230V C123 sXt	C123	200-700	16-48	1-22	10/6	100-10	87	TBD 15	TBD 320	0.99	•		•		•	929001627006
Xi LP 22W 0.3-1.0A S1 230V C123 sXt	C123	300-1050	8-32	1-22	10/6	100-10	87	TBD 15	TBD 320	0.99	•		•		•	929001532306
Xi LP 40W 0.2-0.7A S1 230V C123 sXt	C123	200-700	25-77	1.8-40	10/6	100-10	90	TBD 22	TBD 250	0.98	•		•		•	929001537106
Xi LP 40W 0.3-1.0A S1 230V C123 sXt	C123	300-1050	20-54	1.5-40	10/6	100-10	90	TBD 22	TBD 250	0.98	•		•		•	929001532406
Xi LP 70W 0.2-0.7A S1 230V C150 sXt	C150	200-700	50-150	4-70	8/6	100-10	90	37	290	0.98	•		•	•		929000964206
Xi LP 70W 0.2-0.7A SL 230V C150 sXt	C150	200-700	50-150	4-70	8/6	100-10	90	37	290	0.98	•	•		•		929000964006
Xi LP 70W 0.3-1.0A S1 230V C150 sXt	C150	300-1000	32-100	4-70	8/6	100-10	90	37	290	0.98	•		•	•		929000964306
Xi LP 70W 0.3-1.0A SL 230V C150 sXt	C150	300-1000	32-100	4-70	8/6	100-10	90	37	290	0.98	•	•		•		929000964106
Xi LP 110W 0.2-0.7A S1 230V C150 sXt	C150	200-700	70-220	6.5-110	8/6	100-10	91	37	290	0.98	•		•	•		929000964606
Xi LP 110W 0.2-0.7A SL 230V C150 sXt	C150	200-700	70-220	6.5-110	8/6	100-10	91	37	290	0.98	•	•		•		929000964406
Xi LP 110W 0.3-1.0A S1 230V C150 sXt	C150	300-1050	50-160	6.5-110	8/6	100-10	91	37	290	0.98	•		•	•		929000964706
Xi LP 110W 0.3-1.0A SL 230V C150 sXt	C150	300-1050	50-160	6.5-110	8/6	100-10	91	37	290	0.98	•	•		•		929000964506
Xi LP 165W 0.2-0.7A S1 230V C170 sXt	C170	200-700	100-300	7-165	10/6	100-10	93	41	440	0.98	•		•		•	929001535406
Xi LP 165W 0.3-1.0A S1 230V C170 sXt	C170	300-1000	80-235	7-165	10/6	100-10	93	41	440	0.98	•		•		•	929001535506
Xi LP 165W 0.5-1.5A S1 230V C170 sXt	C170	500-1500	54-157	7-165	10/6	100-10	93	41	440	0.98	•		•		•	929001571906

Philips

XITANIUM LED DRIVERS 1-10V DIMMABLE

General specification

Philips Xitanium Xtreme single current LED drivers bring performance, value for money, long life and reliability to demanding outdoor and industrial LED lighting applications. Ideal for road lighting, urban street lighting, area/flood lighting, high-bay lighting and tunnels, they are designed to be easy to integrate into your luminaires. The drivers are compact, and you can choose between build-in and independent versions that are protected against water and dust ingression to IP67. The range includes 75, 150 and 250 W versions with lifetimes up to 100,000 hours. The light output is fully adjustable via a 1 to 10 V analog dimming interface.

Technical specification

Product specification

Product name	Housing	Electrical class	Output current	Output voltage range	Output power	Surge protection CM/DM	Efficiency range @ 100% load	Inrush current peak	Inrush current width to 50%	Power factor, 100% load	Power factor, dimmed 50%	Tc life	Product code
	type		mA	V	W	kV	%	A	µs			°C	GPC
Xitanium 75W 0.70A 1-10V 230V C165 sXt	C165	Class I & II	700	52-107	3.7-75	8/6	91	31	390	0.98	0.94	75	929001405306
Xitanium 75W 1.05A 1-10V 230V C165 sXt	C165	Class I & II	1050	36-75	3.7-75	8/6	91	31	390	0.98	0.94	75	929001405406
Xitanium 150W 0.70A 1-10V 230V S240 sXt	S240	Class I & II	700	100-214	7-150	8/6	92	34	475	0.99	0.97	75	929001405506
Xitanium 150W 1.05A 1-10V 230V S240 sXt	S240	Class I & II	1050	72-150	8-150	8/6	91	34	475	0.99	0.97	75	929001405606
Xitanium 250W 0.70A 1-10V 230V Q	Q-can	Class I	700	158-357	25-250	6/6	94	38	625	0.98	0.95	80	929000838508
Xitanium 75W 0.70A 1-10V 230V I220	I220	Class I & II	700	52-107	4-75W	8/6	90	31	400	0.98	0.95	70	929001405706
Xitanium 150W 0.70A 1-10V 230V I220	I220	Class I & II	700	100-214	7-150W	8/6	92	34	475	0.99	0.98	70	929001405806
Xitanium Dim 250W 0.70A 1-10V 230V I220	I220	Class I	700	178-357	25-250	6/6	94	38	625	0.98	0.95	70	929001404706

SURGE PROTECTION DEVICES

General specification

The Philips surge protection devices are the ideal solution to the challenge of using LEDs in outdoor lighting. The SPD protects the complete system against high surges that can occur due to for example lightning strikes. Essential for LED systems installed in high-risk areas, the advantages of using the SPD are not limited only to LED systems. The product can be used in any new or existing lighting solution, regardless of technology.

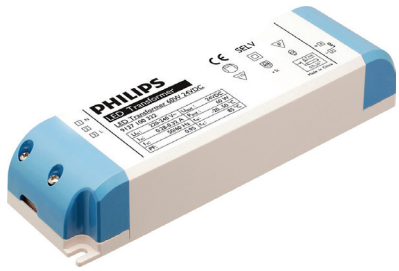
Technical specification

Product specification

Commercial name	Rated Input voltage range	Power grids	Discharge voltage	Discharge current (L-N)	Discharge current (L/N-GND)	Tc life	T amb	Product code
	Vac	Type	kV	kA	kA	°C	°C	GPC
Xtreme surge protector I	220-240	TN, TT, IT	10	5	5	80	-40, 85	929000886906
Surge protector class-I	230	TN, TT	10	5	5	80	-40, 85	929001607006
Surge protector class-II	230	TN, TT	10	5	5	80	-40, 85	929001607106

Philips

CONSTANT VOLTAGE LED DRIVERS



General specification

Philips constant voltage LED drivers and transformers are designed for safe operation and optimal performance in professional general lighting applications. With a high frequency, compact size and long lifetime, they are suitable for operation with 24VDC LED modules, LED strips and other LED applications that require 24VDC constant voltage. Each driver and transformer offers complete protection, overload, short circuit and overheat protection and is installation friendly.

Technical specification

Xitanium LED drivers

Product specification

Product name	Nominal voltage	Mains frequency	Nominal output voltage	Nominal output power	Ambiente temperature range	Protection class	IP rated	Product code
	Vac	Hz	VDC	W	°C			GPC
LED power driver 20W 24V	120-240	0/50/60	24	20	-30..+40	II	20	929000654006
LED power driver 80W 24V	120-240	0/50/60	24	80	-30..+60	I/II	20	929000653906
LED power driver 100W 24V	120-240	0/50/60	24	100	-30..+60	I/II	20	929001430080

Xitanium LED drivers

Product specification

Product name	Nominal voltage	Mains frequency	Nominal output voltage	Nominal output power	Ambiente temperature range	Protection class	IP rated	Product code
	Vac	Hz	VDC	W	°C			GPC
LED transformer 60W 24VDC	220-240	0/50/60	24	60	-20..+50	II	20	913710032267
LED transformer 60W 24VDC (w/Cable)	220-240	0/50/60	24	60	-20..+50	II	20	929001425206
LED transformer 120W 24VDC	220-240	0/50/60	24	120	-20..+50	II	20	913710032567

Xitanium LED drivers

Product specification

Product name	Nominal voltage	Mains frequency	Nominal output voltage	Nominal output power	Ambiente temperature range	Protection class	IP rated	Product code
	Vac	Hz	VDC	W	°C			GPC
CertaDrive 35W/24VDC 220-240V	220-240	0/50/60	24	35	-20..+50	II	40	929001424006
CertaDrive 60W/24VDC 220-240V	220-240	0/50/60	24	60	-20..+50	II	40	929001424106
CertaDrive 100W/24VDC 220-240V	220-240	0/50/60	24	100	-20..+50	II	40	929001424206
CertaDrive 120W/24VDC 220-240V	220-240	0/50/60	24	120	-20..+50	II	40	929001424306

New

Configuring has never **been easier.**

MultiOne Configurator Software

Simply install MultiOne Configurator Software, connect the MultiOne SimpleSet Interface and choose the configuration required for the Xitanium LED driver.

Xitanium LED driver

Xitanium LED drivers can be wirelessly configured, without a connection to mains power at any time during the manufacturing process.

MultiOne SimpleSet Interface

A small handheld device needs to be held near to the Xitanium LED driver which is to be configured.
The MultiOne Configurator Software will indicate a green tick to confirm a successful configuration of the Xitanium LED driver.

SimpleSet.
Simple, fast and wireless configuration

OVER 3 COUNTRIES

Being a solution provider-partner in energy, telecommunication and lighting industries over the regions of Eastern Europe, Turkey and Middle East.

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