



EDITION 1  
PRODUCT  
CATALOGUE



# TECHNOLOGY

applicable for office, household,  
industrial, architectural, decorative  
and advertising lighting

**2024**

LED'S START UP THE LIGHT 



Electrostart is a recognizable brand and leader in the changing lighting business. Although times of transition are difficult, our new mission and vision for the future are our motivator for development and will lay the foundations of the new history of Electrostart.

We believe that success is about being flexible and changing according to the requirements of our clients and partners, we believe in our values and respect the established traditions.

We are taking steps towards a change and a new future by adopting a new mission and vision for the company. Each one of us is a part of this future and we will work together to build a stable and developing company.

**ELECTROSTART NOW** Production has been modernized with new production lines, which allow the deployment of production capabilities and the expansion of our product range.

**MISION** Our mission is to give light for a better and more healthy life.

Driven by the global development of technologies and in close collaboration with our partners, we create, produce, and deliver competitive, high-quality, sustainable lighting products and services.

**VISION** At Electrostart JSCo, we are determined to make modern lighting technologies accessible to everyone.

With generations of experience and worldwide recognition for more than 55 years, we produce high-quality and efficient lighting products with the “Electrostart” brand.

We strive to expand our global presence by offering efficient LED solutions and intelligent light management.

Our vision for achieving success is expressed in continuous development and applying standards for environmental sustainability, high professionalism, corporate integrity, and transparency in our actions.

Through our activities, we contribute to the general well-being, to the development of our employees, and to the socio-economic progress of the region and Bulgaria.

*Innovation is the flame that lights the way for  
business, revealing new opportunities.*

## LED Arrow

### Application

LED Arrow lighting fixture is suitable for:

- > office lighting
- > schools
- > commercial areas
- > workshops
- > kitchens
- > bathrooms
- > corridors
- > hospitals



### Electrical characteristics

Supply voltage	200-240VAC WW 100-240VAC
Frequency	50/60 Hz
Power factor	≥0.95/230VAC models 18/28W ≥0.90/230VAC models 10/12W ≥0.99/110VAC models 10/12/18/28W

### Lighting characteristics

Efficiency	up to 120 lm/W
Color rendering index (CRI)	>80
Color temperature (CCT)	3000K/4000K/6500K
Flicker	Flicker free

### Protection

Ingress protection	IP21/IP54
Safety class	Class I

### Warranty conditions

Lifespan	30 000/50 000 h on request
Warranty	3 Y/5 Y on request

Ambient temperature	-10 ~ 40°C
Storage temperature	-20 ~ 60°C

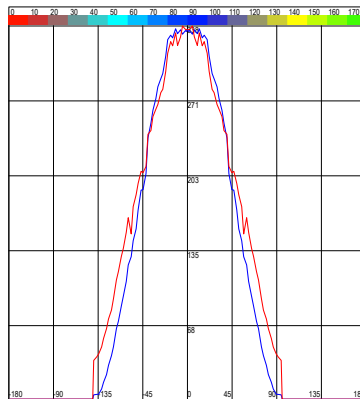
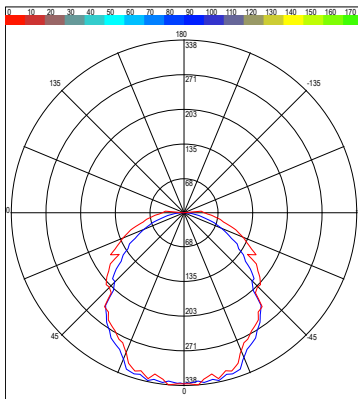
### Mounting version

Surface	Yes
Suspended	Yes
Recessed	No
Linear up to 25 meters	Yes

### Standards

Harmonics	EN 61000-3-2
EMC Immunity	EN 61547
Conducted Emission Test	EN 55015
Luminaires	EN 60598-1
LED Luminaire performance	EN 62722-2-1
Photobiological safety	EN 62471

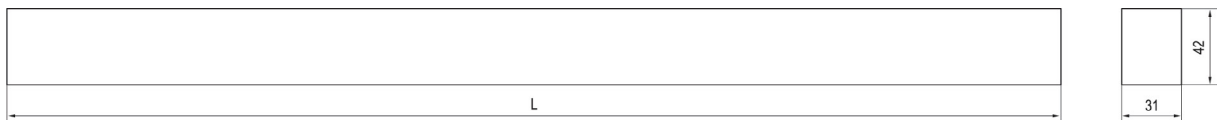
### Photometric curve



### Advantages:

- High quality and stylish design
- IP21 and IP54 options
- No flickering
- Can be connected several fixtures in one line up to 25 meters
- PMMA diffuser with high transparency
- EU made product
- Quality in accordance to all EU standards and directives
- Energy efficiency class – D

### Schemes



Product	Rated Power	Luminous Flux	CCT	Efficiency	Material of Body	IP Rating	Material of Diffuser	Length (mm)	Width (mm)	Height (mm)
LED Arrow 10W	10W	1100lm	3000K/4000K/6500K	110lm/W	Aluminium	IP21/IP54	PMMA/PC	586	31	42
LED Arrow 12W	12W	1350lm	3000K/4000K/6500K	112lm/W	Aluminium	IP21/IP54	PMMA/PC	874	31	42
LED Arrow 18W	18W	2100lm	3000K/4000K/6500K	116lm/W	Aluminium	IP21/IP54	PMMA/PC	1162	31	42
LED Arrow 28W	28W	3250lm	3000K/4000K/6500K	116lm/W	Aluminium	IP21/IP54	PMMA/PC	1450	31	42

### Additional information:

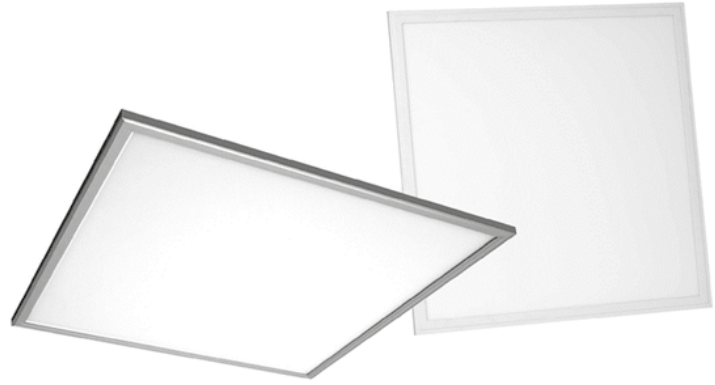
- Luminous guaranteed at 25° ambient temperature
- The given light parameters are for color temperature 4000K

# LED Edge

## Application

LED Edge lighting fixture is suitable for:

- > office lighting
- > schools
- > commercial areas
- > workshops
- > hospitals



## Electrical characteristics

Supply voltage	220-240VAC
	WW 100-240VAC
Frequency	50/60 Hz
Power factor	≥0.95

## Lighting characteristics

Efficiency	up to 100 lm/W
Color rendering index (CRI)	>80
Color temperature (CCT)	3000K/4000K/6500K
Flicker	Flicker free
Beam angle	120°/UGR<19 on request

## Protection

Ingress protection	IP40 (Below)
Safety class	Class II

## Warranty conditions

Lifespan	50 000 h
Warranty	3 Y (MS)/5 Y (PMMA)
Ambient temperature	-10 ~ 40°C
Storage temperature	-20 ~ 60°C

## Mounting version

Surface	With frame
Suspended	Yes
Recessed	Yes

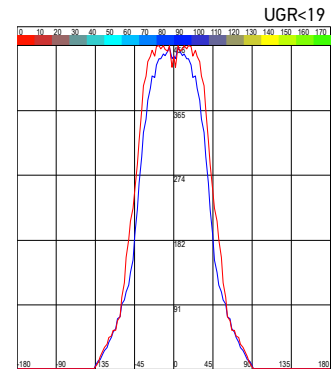
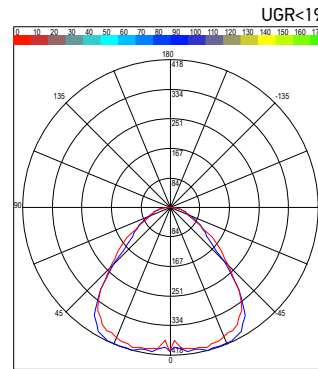
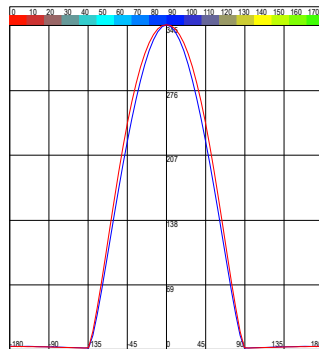
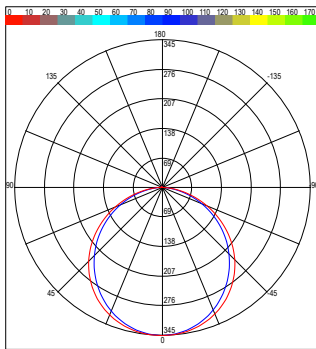
## Other information

Material of diffuser	PS
Material of LGP	MS/PMMA
Body material	Aluminium
Dimensions	595x595x10mm – D66 1195x295x10mm – D312

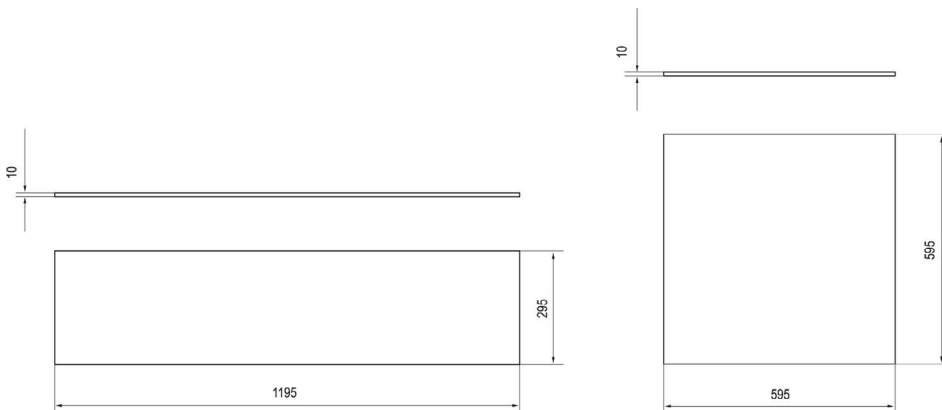
## Standards

Harmonics	EN 61000-3-2
EMC Immunity	EN 61547
Conducted Emission Test	EN 55015
Luminaires	EN 60598-1
LED Luminaire performance	EN 62722-2-1
Photobiological safety	EN 62471

## Photometric curve



## Schemes



## Advantages:

- High quality
- No flickering
- High quality LED driver – 50 000 h
- PMMA LGP without yellowing
- Direct replacement for luminaires with fluorescent lamps
- Suitable for recessed ceiling systems with a grid size of 600x600mm and 1200x300mm
- Suitable for suspended and recessed mounting
- Easy and quick installation
- Energy savings of up to 70%
- EU made product
- Quality in accordance to all EU standards and directives
- Energy efficiency class – E

Product	Rated Power	Luminous Flux	CCT	Efficiency	LGP	UGR<19	Length (mm)	Width (mm)	Height (mm)
LED Edge 36W PMMA 100lm/W	36W	3 600lm	3000K/4000K/6500K	100lm/W	PMMA	No	595	595	10
LED Edge 36W PMMA 100lm/W UGR	36W	3 600lm	3000K/4000K/6500K	100lm/W	PMMA	Yes	595	595	10
LED Edge 36W PS 100lm/W	36W	3 600lm	3000K/4000K/6500K	100lm/W	MS	No	595	595	10
LED Edge 36W PS 100lm/W UGR	36W	3 600lm	3000K/4000K/6500K	100lm/W	MS	Yes	595	595	10
LED Edge 36W PS 80lm/W	36W	2 880lm	3000K/4000K/6500K	80lm/W	MS	No	595	595	10
LED Edge 36W PS 80lm/W UGR	36W	2 880lm	3000K/4000K/6500K	80lm/W	MS	Yes	595	595	10
LED Edge 36W PMMA D312 100lm/W	36W	3 600lm	3000K/4000K/6500K	100lm/W	PMMA	No	1195	295	10
LED Edge 36W PMMA D312 100lm/W UGR	36W	3 600lm	3000K/4000K/6500K	100lm/W	PMMA	Yes	1195	295	10
LED Edge 40W PMMA 100lm/W	40W	4 000lm	3000K/4000K/6500K	100lm/W	PMMA	No	595	595	10
LED Edge 40W PMMA 100lm/W UGR	40W	4 000lm	3000K/4000K/6500K	100lm/W	PMMA	Yes	595	595	10
LED Edge 40W PS 100lm/W	40W	4 000lm	3000K/4000K/6500K	100lm/W	MS	No	595	595	10
LED Edge 40W PS 100lm/W UGR	40W	4 000lm	3000K/4000K/6500K	100lm/W	MS	Yes	595	595	10
LED Edge 40W PS 80lm/W	40W	3 200lm	3000K/4000K/6500K	80lm/W	MS	No	595	595	10
LED Edge 40W PS 80lm/W UGR	40W	3 200lm	3000K/4000K/6500K	80lm/W	MS	Yes	595	595	10
LED Edge 40W PMMA D312 100lm/W	40W	4 000lm	3000K/4000K/6500K	100lm/W	PMMA	No	1195	295	10
LED Edge 40W PMMA D312 100lm/W UGR	40W	4 000lm	3000K/4000K/6500K	100lm/W	PMMA	Yes	1195	295	10
LED Edge 48W PMMA 100lm/W	48W	4 800lm	3000K/4000K/6500K	100lm/W	PMMA	No	595	595	10
LED Edge 48W PS 100lm/W	48W	4 800lm	3000K/4000K/6500K	100lm/W	MS	No	595	595	10
LED Edge 48W PS 80lm/W	48W	3 840lm	3000K/4000K/6500K	80lm/W	MS	No	595	595	10
LED Edge 48W PMMA D312 100lm/W	48W	4 800lm	3000K/4000K/6500K	100lm/W	PMMA	No	1195	295	10

#### Additional information:

- Luminous flux guaranteed at 25° ambient temperature
- Accessory Emergency Kit up to 3 hours – available on request
- The given light parameters are for color temperature 4000K

# LED Glow Economy

## Application

LED Glow Economy lighting fixture is suitable for:

- > office lighting
- > schools
- > commercial areas
- > workshops
- > hospitals



## Electrical characteristics

Supply voltage	220-240VAC WW 100-240VAC
Frequency	50/60 Hz
Power factor	≥0.95

## Protection

Ingress protection	IP40
Safety class	Class II

## Mounting version

Surface	With frame
Suspended	Yes
Recessed	Yes

## Lighting characteristics

Efficiency	up to 130 lm/W
Color rendering index (CRI)	>80, >85, >90
Color temperature (CCT)	3000K/4000K/6500K
Flicker	Flicker free
Beam angle	120°/UGR<19 on request
Diffuser	PS/UGR<19 on request

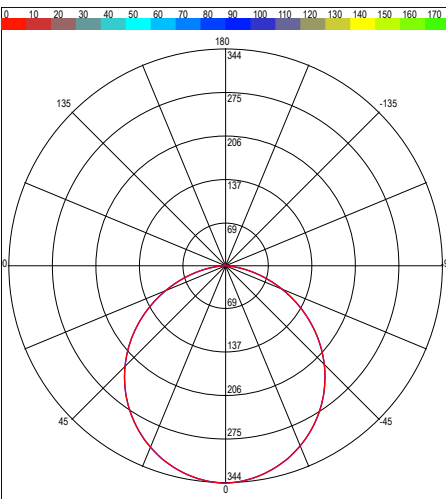
## Warranty conditions

Lifespan	50 000 h
Warranty	5 Y
Ambient temperature	-10 ~ 40°C
Storage temperature	-20 ~ 60°C

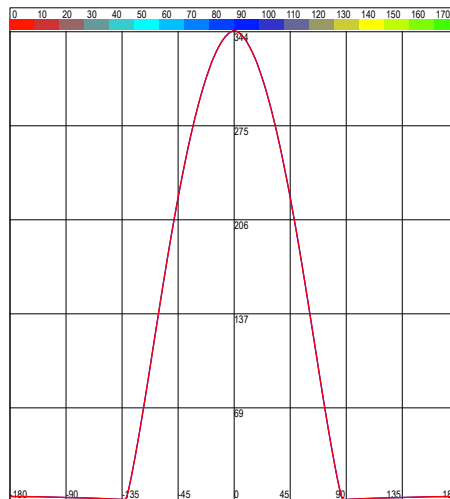
## Standards

Harmonics	EN 61000-3-2
EMC Immunity	EN 61547
Conducted Emission Test	EN 55015
Luminaires	EN 60598-1
LED Luminaire performance	EN 62722-2-1
Photobiological safety	EN 62471

## Photometric curve



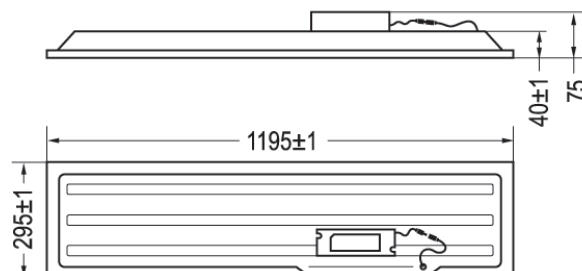
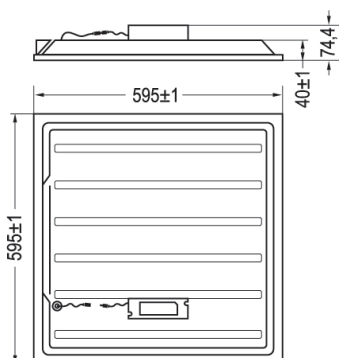
Standard models



## Advantages:

- Light distributed directly using PMMA lens, so lighting effect is uniform and soft
- High quality
- No flickering
- Driver outside the body
- Option for built-in and surface mounting
- Cheaper price compared to other designs
- No LGP
- EU made product
- Quality in accordance to all EU standards and directives
- Energy efficiency class – C, D

## Schemes



Product	Rated Power	Supply voltage	Efficiency	Luminous Flux	CRI	UGR<19	Length (mm)	Width (mm)	Height (mm)
LED Glow Economy 36W D66	36W	220-240VAC	3 600lm	100lm/W	>80	No	595	595	35
LED Glow Economy 36W D66 UGR	36W	220-240VAC	3 600lm	100lm/W	>80	Yes	595	595	35
LED Glow Economy 36W D66	36W	220-240VAC	4 320lm	120lm/W	>80	No	595	595	35
LED Glow Economy 36W D66 UGR	36W	220-240VAC	4 320lm	120lm/W	>80	Yes	595	595	35
LED Glow Economy 36W D66	36W	220-240VAC	4 680lm	130lm/W	>85	No	595	595	35
LED Glow Economy 40W D66	40W	220-240VAC	4 000lm	100lm/W	>80	No	595	595	35
LED Glow Economy 40W D66 UGR	40W	220-240VAC	4 000lm	100lm/W	>80	Yes	595	595	35
LED Glow Economy 40W D66	40W	220-240VAC	4 800lm	120lm/W	>80	No	595	595	35
LED Glow Economy 40W D66 UGR	40W	220-240VAC	4 800lm	120lm/W	>80	Yes	595	595	35
LED Glow Economy 36W D312	36W	220-240VAC	4 320lm	120lm/W	>80	No	1195	295	35
LED Glow Economy 36W D312 UGR	36W	220-240VAC	4 320lm	120lm/W	>80	Yes	1195	295	35
LED Glow Economy 40W D312	40W	220-240VAC	4 800lm	120lm/W	>80	No	1195	295	35
LED Glow Economy 40W D312 UGR	40W	220-240VAC	4 800lm	120lm/W	>80	Yes	1195	295	35

#### Additional information:

- Luminous flux guaranteed at 25° ambient temperature
- Accessory Emergency Kit up to 3 hours – available on request
- The given light parameters are for color temperature 4000K

# LED Tri-Proof

## Application

LED Tri-Proof lighting fixture is suitable for:

- > manufacturing plants
- > warehouse lighting
- > car parking lots
- > under canopy lighting
- > petrol/bus/train stations



## Electrical characteristics

Supply voltage	200-240VAC WW 100-240VAC
Frequency	50/60 Hz
Power factor	≥0.95

## Lighting characteristics

Efficiency	up to 151 lm/W
Color rendering index (CRI)	>80, >85, >90
Color temperature (CCT)	3000K/4000K/6500K
Flicker	No Flicker/Flicker <30%

## Protection

Ingress protection	IP65/IP66
Safety class	Class I

## Warranty conditions

Lifespan	50 000 h
Warranty	5 Y
Ambient temperature	-20 ~ 35°C/on request 40°C
Storage temperature	-20 ~ 60°C

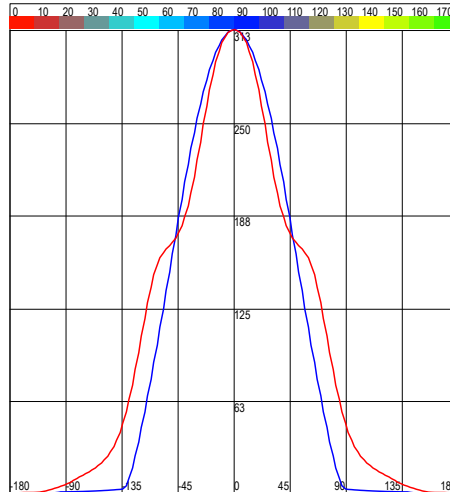
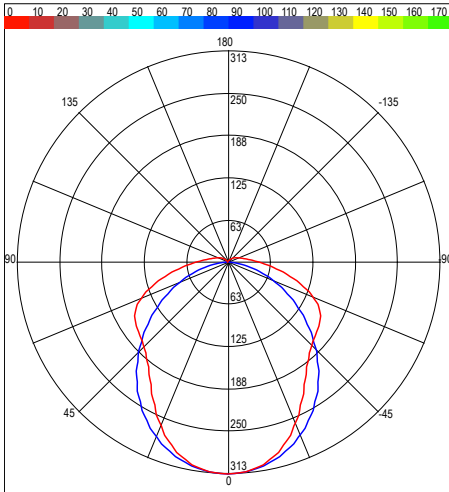
## Body characteristics

Housing	GRP (Glass fiber reinforced polyester)
Diffuser	PMMA/PC on request

## Standards

Harmonics	EN 61000-3-2
EMC Immunity	EN 61547
Conducted Emission Test	EN 55015
Luminaires	EN 60598-1
LED Luminaire performance	EN 62722-2-1
Photobiological safety	EN 62471

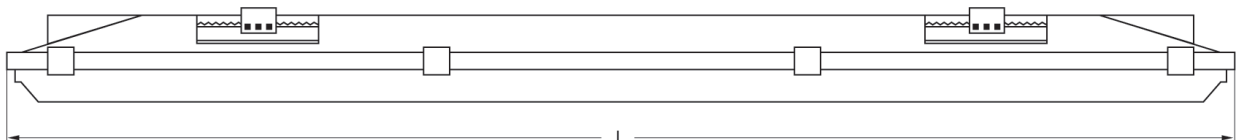
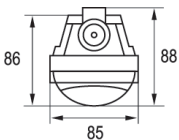
## Photometric curve



## Advantages:

- Easy and quick installation – option for fast connectors
- Energy savings of up to 50% (compared to luminaires that use fluorescent lamps)
- High luminous efficiency of >150 lm/W
- High grade of protection IP65/IP66
- Option for NH3 resistant body
- EU made product
- Quality in accordance to all EU standards and directives
- Energy efficiency class – C, D

## Schemes





Product	Supply voltage	Rated power	Luminous flux	Efficiency	CCT	CRI	Flicker	Length (mm)	Width (mm)	Height (mm)
LED Tri-Proof 23W	200-240VAC	23W	3 400lm	148lm/W	3 000K/4000K/6500K	>80	No FF	1185	85	88
LED Tri-Proof 23W	200-240VAC	23W	3 100lm	134lm/W	3 000K/4000K/6500K	>85	No FF	1185	85	88
LED Tri-Proof 23W FF	200-240VAC	23W	3 400lm	148lm/W	3 000K/4000K/6500K	>80	FF	1185	85	88
LED Tri-Proof 23W FF	200-240VAC	23W	3 100lm	134lm/W	3 000K/4000K/6500K	>85	FF	1185	85	88
LED Tri-Proof 23W WW	100-240VAC	23W	3 400lm	148lm/W	3 000K/4000K/6500K	>80	No FF	1185	85	88
LED Tri-Proof 23W WW	100-240VAC	23W	3 100lm	134lm/W	3 000K/4000K/6500K	>85	No FF	1185	85	88
LED Tri-Proof 23W WW FF	100-240VAC	23W	3 400lm	148lm/W	3 000K/4000K/6500K	>80	FF	1185	85	88
LED Tri-Proof 23W WW FF	100-240VAC	23W	3 100lm	134lm/W	3 000K/4000K/6500K	>85	FF	1185	85	88
LED Tri-Proof 29W	200-240VAC	29W	4 400lm	151lm/W	3 000K/4000K/6500K	>80	No FF	1477	85	88
LED Tri-Proof 29W	200-240VAC	29W	4 000lm	137lm/W	3 000K/4000K/6500K	>85	No FF	1477	85	88
LED Tri-Proof 29W FF	200-240VAC	29W	4 400lm	151lm/W	3 000K/4000K/6500K	>80	FF	1477	85	88
LED Tri-Proof 29W FF	200-240VAC	29W	4 000lm	137lm/W	3 000K/4000K/6500K	>85	FF	1477	85	88
LED Tri-Proof 29W WW	100-240VAC	29W	4 400lm	151lm/W	3 000K/4000K/6500K	>80	No FF	1477	85	88
LED Tri-Proof 29W WW	100-240VAC	29W	4 000lm	137lm/W	3 000K/4000K/6500K	>85	No FF	1477	85	88
LED Tri-Proof 29W WW FF	100-240VAC	29W	4 400lm	151lm/W	3 000K/4000K/6500K	>80	FF	1477	85	88
LED Tri-Proof 29W WW FF	100-240VAC	29W	4 000lm	137lm/W	3 000K/4000K/6500K	>85	FF	1477	85	88
LED Tri-Proof 37W	200-240VAC	37W	5 000lm	135lm/W	3 000K/4000K/6500K	>80	No FF	1185	85	88
LED Tri-Proof 37W	200-240VAC	37W	4 850lm	131lm/W	3 000K/4000K/6500K	>85	No FF	1185	85	88
LED Tri-Proof 37W FF	200-240VAC	37W	5 000lm	135lm/W	3 000K/4000K/6500K	>80	FF	1185	85	88
LED Tri-Proof 37W FF	200-240VAC	37W	4 850lm	131lm/W	3 000K/4000K/6500K	>85	FF	1185	85	88
LED Tri-Proof 37W WW	100-240VAC	37W	5 000lm	135lm/W	3 000K/4000K/6500K	>80	No FF	1185	85	88
LED Tri-Proof 37W WW	100-240VAC	37W	4 850lm	131lm/W	3 000K/4000K/6500K	>85	No FF	1185	85	88
LED Tri-Proof 37W WW FF	100-240VAC	37W	5 000lm	135lm/W	3 000K/4000K/6500K	>80	FF	1185	85	88
LED Tri-Proof 37W WW FF	100-240VAC	37W	4 850lm	131lm/W	3 000K/4000K/6500K	>85	FF	1185	85	88
LED Tri-Proof 40W	200-240VAC	40W	5 240lm	131lm/W	3 000K/4000K/6500K	>85	No FF	1185	85	88
LED Tri-Proof 50W	200-240VAC	50W	7 200lm	144lm/W	3 000K/4000K/6500K	>80	No FF	1477	85	88
LED Tri-Proof 50W	200-240VAC	50W	6 600lm	132lm/W	3 000K/4000K/6500K	>85	No FF	1477	85	88
LED Tri-Proof 50W FF	200-240VAC	50W	7 200lm	144lm/W	3 000K/4000K/6500K	>80	FF	1477	85	88
LED Tri-Proof 50W FF	200-240VAC	50W	6 600lm	132lm/W	3 000K/4000K/6500K	>85	FF	1477	85	88
LED Tri-Proof 50W WW	100-240VAC	50W	7 200lm	144lm/W	3 000K/4000K/6500K	>80	No FF	1477	85	88
LED Tri-Proof 50W WW	100-240VAC	50W	6 600lm	132lm/W	3 000K/4000K/6500K	>85	No FF	1477	85	88
LED Tri-Proof 50W WW FF	100-240VAC	50W	7 200lm	144lm/W	3 000K/4000K/6500K	>80	FF	1477	85	88
LED Tri-Proof 50W WW FF	100-240VAC	50W	6 600lm	132lm/W	3 000K/4000K/6500K	>85	FF	1477	85	88
LED Tri-Proof 54W	200-240VAC	54W	7 130lm	132lm/W	3 000K/4000K/6500K	>85	No FF	1477	85	88
LED Tri-Proof 58W	200-240VAC	58W	7 656lm	132lm/W	3 000K/4000K/6500K	>85	No FF	1477	85	88
LED Tri-Proof 48WS	200-240VAC	48W	6 600lm	132lm/W	3 000K/4000K/6500K	>85	No FF	1185	85	88
LED Tri-Proof 50WS	200-240VAC	50W	7 000lm	140lm/W	3 000K/4000K/6500K	>80	No FF	1185	85	88
LED Tri-Proof 50WS	200-240VAC	50W	6 600lm	132lm/W	3 000K/4000K/6500K	>85	No FF	1185	85	88
LED Tri-Proof 50WS WW	100-240VAC	50W	7 000lm	140lm/W	3 000K/4000K/6500K	>80	No FF	1185	85	88
LED Tri-Proof 50WS WW	100-240VAC	50W	6 600lm	132lm/W	3 000K/4000K/6500K	>85	No FF	1185	85	88

Models legend: FF-Flicker free, WW – compatible with World range of mains supply voltage, WS – models with short body

### Additional information:

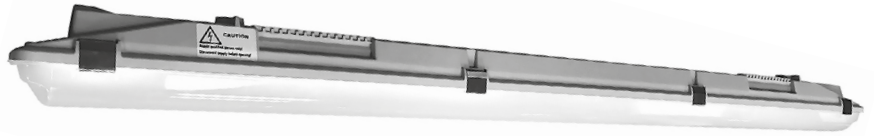
- Luminous flux guaranteed at 25° ambient temperature
- Option for NH3 Chemical Resistant
- The given light parameters are for color temperature 4000K

# LED Tri-Proof Premium

## Application

LED Tri-Proof Premium lighting fixture is suitable for:

- > manufacturing plants
- > warehouse lighting
- > car parking lots
- > under canopy lighting
- > petrol/bus/train stations



### Electrical characteristics

Supply voltage	100-240VAC
Frequency	50/60 Hz
Power factor	≥0.95
Control Protocol(s)	DALI (optional)

### Lighting characteristics

Efficiency	up to 173 lm/W
Color rendering index (CRI)	>80, >85 (optional) >90 (optional)
Color temperature (CCT)	3000K/4000K/6500K
Flicker	Flicker free
LED Chips	SAMSUNG

### Protection

Ingress protection	IP66
Safety class	Class I

### Warranty conditions

Lifespan	50 000 h
Warranty	5 Y
Ambient temperature	-20 ~ 35°C/on request 40°C
Storage temperature	-20 ~ 60°C

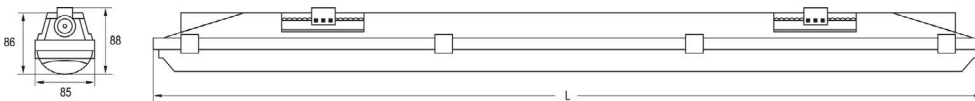
### Body characteristics

Housing	GRP (Glass fiber reinforced polyester)
Diffuser	PMMA/PC on request

### Standards

Harmonics	EN 61000-3-2
EMC Immunity	EN 61547
Conducted Emission Test	EN 55015
Luminaires	EN 60598-1
LED Luminaire performance	EN 62722-2-1
Photobiological safety	EN 62471

### Schemes



## Advantages:

- Easy and quick installation – option for fast connectors
- Energy savings of up to 50% (compared to luminaires that use fluorescent lamps)
- High luminous efficiency up to 173 lm/W
- High grade of protection IP66
- Option for NH3 resistant body
- EU made product
- Quality in accordance to all EU standards and directives
- Energy efficiency class – A, B

Product	Supply voltage	Rated power	Luminous flux	Efficiency	CCT	CRI	Flicker	Length (mm)	Width (mm)	Height (mm)
LED Tri-Proof Premium 23W	100-240VAC	22W	3 810lm	173.2lm/W	3 000K/4000K/6500K	>80	FF	1185	85	88
LED Tri-Proof Premium 29W	100-240VAC	28W	4 870lm	173.9lm/W	3 000K/4000K/6500K	>80	FF	1477	85	88
LED Tri-Proof Premium 37W	100-240VAC	36W	6 000lm	166.6lm/W	3 000K/4000K/6500K	>80	FF	1185	85	88
LED Tri-Proof Premium 50W	100-240VAC	49W	8 100lm	165.3lm/W	3 000K/4000K/6500K	>80	FF	1477	85	88
LED Tri-Proof Premium 54W	100-240VAC	54W	8 830lm	163.5lm/W	3 000K/4000K/6500K	>80	FF	1477	85	88

### Additional information:

- Luminous flux guaranteed at 25° ambient temperature
- Option for NH3 Chemical Resistant
- The given light parameters are for color temperature 4000K
- Emergency kit 3h
- Fast connector option

## LED UFO Ultimate

### Application

LED UFO Ultimate lighting fixture is suitable for:

- > manufacturing plants
- > warehouse lighting
- > stations



### Electrical characteristics

Supply voltage	100-240VAC
Frequency	50/60 Hz
Power factor	≥0.95
Dimmable	Yes, 1-10V
Control Protocol(s)	DALI2 (optional)
Sensor	Motion sensor (optional)

### Protection

Body material	Aluminium Color 9006 Grey
Optic material	Polycarbonate (PC)
Ingress protection	IP65
IK Rating	IK 09
Safety class	Class I
Surge protection	L-N:6KV; L/N-GND:6KV

### Standards

Harmonics (THD)	EN 61000-3-2 Class C <20%
EMC Immunity	EN 61547
Conducted Emission Test	EN 55015
Luminaires	EN 60598-1
LED Luminaire performance	EN 62722-2-1
Photobiological safety	EN 62471

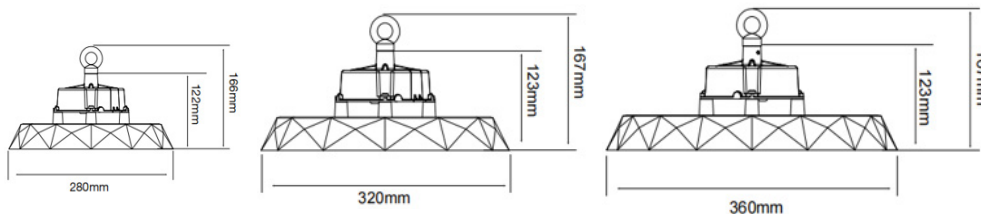
### Lighting characteristics

Efficiency	up to 190 lm/W
Color rendering index (CRI)	>80 (standard) >70, >90 (on request)
Color temperature (CCT)	4000K/5000K/6500K
Beam angle	60°/90°/120°
Flicker	Flicker free

### Warranty conditions

Lifespan of the LEDs @ Ta 25°	L70B10 -> 100 000h L80B10 -> 50 000h L90B10 -> 30 000h
Warranty	5 Y
Ambient temperature	-30 ~ 45°C
Storage temperature	-20 ~ 60°C

### Schemes



### Advantages:

- Easy and quick installation
- Water proof fixture - High grade of protection IP65
- Energy savings of up to 80% (compared to luminaires that use HID lamps)
- Optics change option- 60/90/120 Degrees
- High luminous efficiency of up to 190 lm/W
- EU made product
- Quality in accordance to all EU standards and directives
- Energy efficiency class – A (180/190lm/W), B (165lm/W), C (155lm/W)

Product	Rated Power	VAC	Efficiency	CCT	Luminous Flux	CRI	# LEDs	Diameter (mm)	Height (mm)
<b>Standard Models</b>									
LED UFO Ultimate 100W	100W	100-240VAC	165lm/W	4000K/5000K/6500K	16 500lm	>80	200	280	166
LED UFO Ultimate 150W	150W	100-240VAC	165lm/W	4000K/5000K/6500K	24 750lm	>80	300	320	167
LED UFO Ultimate 200W	200W	100-240VAC	165lm/W	4000K/5000K/6500K	33 000lm	>80	400	360	167
<b>High Lumen Models</b>									
LED UFO Ultimate 100W	100W	100-240VAC	180lm/W	4000K/5000K/6500K	18 000lm	>80	320	280	166
LED UFO Ultimate 100W CRI70	100W	100-240VAC	190lm/W	4000K/5000K/6500K	19 000lm	>70	320	280	166
LED UFO Ultimate 150W	150W	100-240VAC	180lm/W	4000K/5000K/6500K	27 000lm	>80	480	320	167
LED UFO Ultimate 150W CRI70	150W	100-240VAC	190lm/W	4000K/5000K/6500K	28 500lm	>70	480	320	167
LED UFO Ultimate 200W	200W	100-240VAC	180lm/W	4000K/5000K/6500K	36 000lm	>80	640	360	167
LED UFO Ultimate 200W CRI70	200W	100-240VAC	190lm/W	4000K/5000K/6500K	38 000lm	>70	640	360	167
<b>High CRI Models</b>									
LED UFO Ultimate 100W CRI90	100W	100-240VAC	155lm/W	4000K/5000K/6500K	15 500lm	>90	320	280	166
LED UFO Ultimate 150W CRI90	150W	100-240VAC	155lm/W	4000K/5000K/6500K	23 250lm	>90	480	320	167
LED UFO Ultimate 200W CRI90	200W	100-240VAC	155lm/W	4000K/5000K/6500K	31 000lm	>90	640	360	167

### Additional information:

- The given light parameters are for color temperature 4000K
- Luminous flux guaranteed at 25° ambient temperature

### Accessories:

- Universal surface mounting bracket
- Aluminium reflector for UGR
- Sensor
- Safe guard

# LED Street Balance

## Application

LED Street Balance lighting fixture is suitable for:

- > street lighting
- > areal lighting



### Electrical characteristics

Supply voltage	100-277VAC
Frequency	50/60 Hz
Power factor	>0.95

### Lighting characteristics

Efficiency	up to 135 lm/W up to 170 lm/W on request
Color rendering index (CRI)	>70, >80 on request
Color temperature (CCT)	4000K/5000K/6500K
LEDs	Philips LED SMD3030
LED driver	Meanwell HLG-XLG/ Electrostart JSCo
Beam angle lens options	T2-65°x145° – 44°x155° T3-70°x150° – 80°x150° T4-85°x160° – 80°x160°

### Protection

Ingress protection	IP65/IP66 on request
Safety class	Class I
Surge protection	L-N:4KV: L/N-GND:6KV

Recommended usage Electrostart SPD 10/20kV for countries with lots of lightning/thundering

### Warranty conditions

Lifespan	50 000 h 70 000 h on request
Warranty	5 Y/ 7 Y on request
Operating temperature	-20 ~ 40°C
Storage temperature	-20 ~ 60°C

### Body characteristics

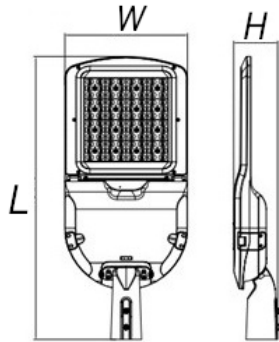
Body material	Die-casting aluminum alloy
Mounting hole diameter	60 mm
Angle of movement	168°-192°

### Standards

Harmonics	EN 61000-3-2
EMC Immunity	EN 61547
Conducted Emission Test	EN 55015
Luminaires	EN 60598-1
LED Luminaire performance	EN 62722-2-1
Photobiological safety	EN 62471

### Schemes & Dimensions

Rated Power	L,mm	W,mm	H,mm
50W	570	200	110
100W	615	240	110
150W	680	260	110
200W	700	300	110
240W	700	300	110
300W	790	300	110



### Advantages:

- Easy and quick installation
- High light efficiency, low energy consumption  
High luminous efficiency of >170 lm/W
- They are light-emitting diodes, so they do not have filaments or burn out quickly (they have incredibly long lives)
- Built-in level for LED Street Balance
- EU made product
- Quality in accordance to all EU standards and directives

Product	Rated Power	Luminous Flux	CRI	CCT	Efficiency	Optics	Material of Body
LED Street Balance	50W	6 750 lm	>70	4000K/5000K/6500K	135lm/W	T2/T3/T4	Die-casting aluminum alloy
LED Street Balance	100W	13 500 lm	>70	4000K/5000K/6500K	135lm/W	T2/T3/T4	Die-casting aluminum alloy
LED Street Balance	150W	20 250 lm	>70	4000K/5000K/6500K	135lm/W	T2/T3/T4	Die-casting aluminum alloy
LED Street Balance	200W	27 000 lm	>70	4000K/5000K/6500K	135lm/W	T2/T3/T4	Die-casting aluminum alloy
LED Street Balance	240W	32 400 lm	>70	4000K/5000K/6500K	135lm/W	T2/T3/T4	Die-casting aluminum alloy
LED Street Balance	300W	40 500 lm	>70	4000K/5000K/6500K	135lm/W	T2/T3/T4	Die-casting aluminum alloy

# LED Street Ultimate

## Application

LED Street Ultimate lighting fixture is suitable for:

- > urban and residential streets
- > bridges
- > car parks
- > areal lighting



## Electrical characteristics

Supply voltage	90-305VAC
Frequency	50/60 Hz
Power factor	≥0.95
Control Protocol(s)	1-10V, Photocell (optional)
LED driver	Constant current (CC)
Socket	Zhaga (optional) NEMA 3/5/7-pin (optional)

## Protection

Ingress protection	IP 66
IK Rating	IK 08
Safety class	Class I
Surge protection	L-N:10KV; L/N-GND:10KV (optional)
Recommended usage for countries with lots of lightning/thundering	Electrostart SPD 10/20KV

## Body characteristics

Body material	Die-casting aluminum alloy
Color	RAL 7040
Optic material	Polycarbonate (PC)
Protector	Glass
Mounting hole diameter	60/70 mm
Angle of movement	168°-192°

## Lighting characteristics

Efficiency	up to 160 lm/W
Color rendering index (CRI)	>70, >80 on request
Color temperature (CCT)	3000K/4000K/ 5000K/6500K
LEDs	LED SMD3030
Beam angle lens options	T2-65°x145° – 44°x155° T3-70°x150° – 80°x150° T4-85°x160° – 80°x160°

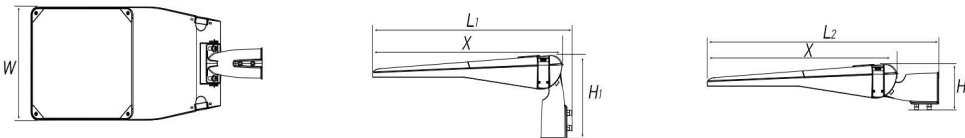
## Warranty conditions

Lifespan of the LEDs @ Ta 25°	L70B10 -> 100 000h L80B10 -> 50 000h L90B10 -> 30 000h
Warranty	5 Y/7 Y (optional)
Operating temperature	-35 ~ 50°C
Storage temperature	-20 ~ 60°C

## Standards

Harmonics (THD)	EN 61000-3-2 Class C <20%
EMC Immunity	EN 61547
Conducted Emission Test	EN 55015
Luminaires	EN 60598-1
LED Luminaire performance	EN 62722-2-1
Photobiological safety	EN 62471

## Schemes & Dimensions



Rated Power	W,mm	L1,mm	H1,mm	L2,mm	H2,mm	X
20W, 30W, 40W	208.8	387.5	237.7	506.9	102	362.4
50W, 60W, 70W	208.8	457	237.7	575.8	118.9	432
80W, 100W	244.9	530.7	221.6	632.3	120.3	530.3
150W	244.9	581.2	221.6	682.3	120.3	553.3
200W	298.9	631.1	221.6	732.3	120.3	603.3
240W	298.9	631.1	221.6	732.3	120.3	603.3

## Advantages:

- Easy and quick installation
- High light efficiency, low energy consumption
- High luminous efficiency of >150 lm/W
- They are light-emitting diodes, so they do not have filaments or burn out quickly (they have incredibly long lives)
- Built-in level for LED Street Balance
- EU made product
- Quality in accordance to all EU standards and directives

Product	Rated Power	Luminous Flux	CRI	CCT	Efficiency	Optics	Material of Body
LED Street Ultimate 20W	20W	3 200 lm	>70	3000K/4000K/5000K/6500K	160lm/W	T2/T3/T4	Die-casting aluminum
LED Street Ultimate 30W	30W	4 800 lm	>70	3000K/4000K/5000K/6500K	160lm/W	T2/T3/T4	Die-casting aluminum
LED Street Ultimate 40W	40W	6 400 lm	>70	3000K/4000K/5000K/6500K	160lm/W	T2/T3/T4	Die-casting aluminum
LED Street Ultimate 50W	50W	8 000 lm	>70	3000K/4000K/5000K/6500K	160lm/W	T2/T3/T4	Die-casting aluminum
LED Street Ultimate 60W	60W	9 600 lm	>70	3000K/4000K/5000K/6500K	160lm/W	T2/T3/T4	Die-casting aluminum
LED Street Ultimate 70W	70W	11 200 lm	>70	3000K/4000K/5000K/6500K	160lm/W	T2/T3/T4	Die-casting aluminum
LED Street Ultimate 80W	80W	12 800 lm	>70	3000K/4000K/5000K/6500K	160lm/W	T2/T3/T4	Die-casting aluminum
LED Street Ultimate 100W	100W	16 000 lm	>70	3000K/4000K/5000K/6500K	160lm/W	T2/T3/T4	Die-casting aluminum
LED Street Ultimate 150W	150W	24 000 lm	>70	3000K/4000K/5000K/6500K	160lm/W	T2/T3/T4	Die-casting aluminum
LED Street Ultimate 200W	200W	32 000 lm	>70	3000K/4000K/5000K/6500K	160lm/W	T2/T3/T4	Die-casting aluminum
LED Street Ultimate 240W	240W	38 400 lm	>70	3000K/4000K/5000K/6500K	160lm/W	T2/T3/T4	Die-casting aluminum

## LED Street Nano

### Application

LED Street Nano lighting fixture is suitable for:

- > Urban and residential streets
- > bridges
- > car parks
- > areal lighting
- > parks



### Electrical characteristics

Supply voltage	100-277VAC
Frequency	50/60 Hz
Power factor	≥0.95

### Lighting characteristics

Efficiency	126-128lm/W
Energy efficiency class	B
Color rendering index (CRI)	>70
Color temperature (CCT)	4000K
LED driver	Constant current (CC), ENEC certified
LEDs	PCB
Beam angle lens options	T2/T3/T4

### Protection

Ingress protection	IP 66
IK Rating	Body: IK09, Glass: IK08
Safety class	Class I
Surge protection	L-N:10KV: L/N-GND:10KV (optional)
Recommended usage	Electrostart SPD 10/20kV for countries with lots of lightning/thundering

### Warranty conditions

Lifespan of the LEDs	60000h
Warranty	5 Y/7 Y (optional)
Operating temperature	-40 ~ 45°C
Storage temperature	-20 ~ 60°C

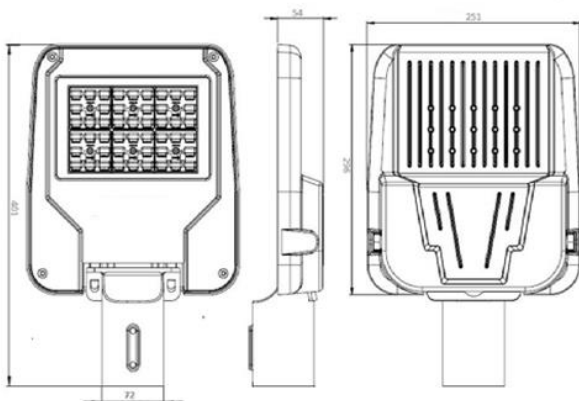
### Body characteristics

Body material	Die-casting aluminum alloy
Color Texture	Gray
Protector Glass	4 mm Transparent Tempered
Mounting hole diameter	42/60 mm
Angle of movement	from -15° to +15°
Angle of movement	168°-192°

### Standards

Harmonics	EN 61000-3-2
EMC Immunity	EN 61547
Conducted Emission Test	EN 55015
Luminaires	EN 60598-2-3
LED Luminaire performance	EN 62722-2-1
Photobiological safety	EN 62471

### Schemes & Dimensions



### Advantages:

- Easy and quick installation
- High light efficiency, low energy consumption
- They are light-emitting diodes, so they do not have filaments or burn out quickly (they have incredibly long lives)
- EU made product
- Quality in accordance to all EU standards and directives

Rated Power	W, mm	L, mm	H, mm	X
50W	251	401	54	296
80W	251	401	54	296

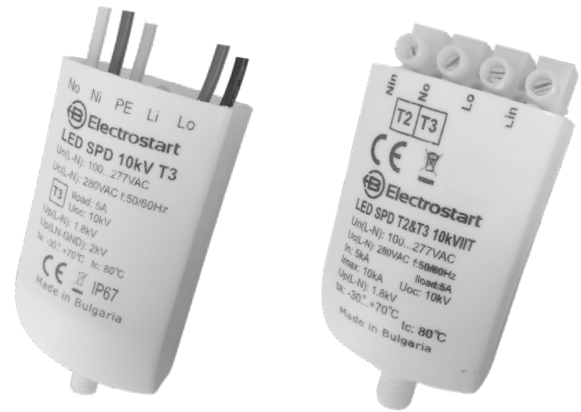
## LED Surge Protective Device

Surge Protective Devices can be installed in an electrical switchboard and prevents the spread of spikes and transients in electrical installations and protect the loads.

### Application

LED Surge Protective Device are suitable for:

- > street lighting
- > outdoor lighting



### Electrical characteristics

Supply voltage	100-277VAC
Frequency	50/60 Hz
Max. continuous operating voltage	280VAC 50/60Hz
Uc (L-N, LN-GND)	up to 280VAC

### Working conditions

Operating ambient temperature (Ta)	-30~70°C
Highest temperature point (Tc)	80°C
Storage conditions	-30~80°C
Relative humidity	5%~85%
	Non-condensing

### Protection

Protection mode	Diff. mode & Comm. mode
Type of surge protection device according IEC/EN 61643-11	T2, T3, T2&T3
Ingress protection	IP 20, IP67
Power grids	TNC, TNC-S, TNS, TT
Max. voltage protection at In&Imax	2kV
Up(L-N)/(LN-GND)	
Safety Class	Class I, Class II

### Connections and body

Wiring	3 wires x 16AWG (Line, Neutral, PE/GND) 5 wires x 16AWG (Lin, Lo, Nin, No, PE/GND) Terminal block & PE/GND
Fixing screw type	M8x10
Material of body	Plastic

### Warranty conditions

Lifespan at Tc <85°C	Up to 100 000 h according strikes
Warranty	3 Y/5 Y according strikes and Tc

SPD model	Supply voltage 50/60Hz	Uc max	Up (L-N)	Up (L/NP E)	In, 8/20uS		Imax, 8/20uS		Uoc, 1.2/50uS	Load current	Length	Width	Height	Fixing
	VAC	VAC	kV	kV	kA	Strikes min	kA	Strikes min	kV	A	(mm)	(mm)	(mm)	
<b>Models with Cables for Safety Class I devices</b>														
LED SPD 20kA T2	100 ... 264	275	1.5	1.8	10	20	20	1	x	x	85	43	35	M8x10
LED SPD 10kA T2	100 ... 264	275	1.5	1.8	5	20	10	1	x	x	68	34	30	M8x10
LED SPD T2&T3 10kVW	100 ... 277	280	1.8	2.0	5	20	10	1	10	5	68	34	30	M8x10
<b>Models with Terminal blocks for Safety Class I devices</b>														
LED SPD T2&T3 10kVT	100 ... 277	280	1.8	2.0	5	20	10	1	10	5	77	34	30	M8x10
LED SPD 10kVL T3	100 ... 277	280	1.8	2.0	5	20	10	1	10	5	77	34	30	M8x10
LED SPD T2&T3 10kVT3	100 ... 277	280	1.8	2.0	5	20	10	1	10	5	77	34	30	M8x10
<b>Models with Terminal blocks for Safety Class II devices</b>														
LED SPD 10kVIIT T3	100 ... 277	280	1.8	x	5	20	10	1	10	5	77	34	30	M8x10
LED SPD T2&T3 10kVIIT	100 ... 277	280	1.8	x	5	20	10	1	10	5	77	34	30	M8x10

## Advantages:

- Maximize the lifetime of outdoor lighting products
- Suitable for Safety Class I & Class II luminaires
- Long lifetime
- Provides high surge protection for all lighting technologies

## Industrial LED Pack

### Application

Industrial LED Packs are:

- > suitable for Tri-proof luminaires and other linear application
- > only for built-in usage
- > sets of modules and driver applicable for LED lighting usage



### Electrical characteristics

Mains voltage	200-240VAC optional 100-127VAC
Frequency	50/60 Hz
Power factor	≥0.95
Ambient temperature	-20~50°C

### Lighting characteristics

Efficiency	up to 160 lm/W
Color rendering index (CRI)	>80, >85
Color temperature (CCT)	3000K/4000K/6500K

### Warranty conditions

Lifespan	50 000 h
Warranty	5 Y

Product	Rated Power	Luminous Flux	CCT	Efficiency	Type of Modules	Number of Modules	LED Driver	Total length of modules (mm)
Industrial LED Pack 23W 280	23W	3 800lm	3000K/4000K/6500K	>160lm/W	LED 60-36M1	4	LED-210-25PWNI	1119.2
Industrial LED Pack 29W 280	29W	4 750lm	3000K/4000K/6500K	>160lm/W	LED 150-36M1	5	LED-270-32PWNI	1399
Industrial LED Pack 37W 280	37W	5 500lm	3000K/4000K/6500K	>148lm/W	LED 60-36M1	4	LED-330-39PWNI	1119.2
Industrial LED Pack 50W 280	50W	7 500lm	3000K/4000K/6500K	>150lm/W	LED 150-36M1	5	LED-450-54PWNI	1399
Industrial LED Pack 23W FF280	23W	3 800lm	3000K/4000K/6500K	>160lm/W	LED 60-36M1	4	LED-210-25PWNI	1119.2
Industrial LED Pack 29W FF280	29W	4 750lm	3000K/4000K/6500K	>160lm/W	LED 150-36M1	5	LED-270-32PWNI	1399
Industrial LED Pack 37W FF 280	37W	5 500lm	3000K/4000K/6500K	>148lm/W	LED 60-36M1	4	LED-330-39PWNI	1119.2
Industrial LED Pack 50W FF280	50W	7 500lm	3000K/4000K/6500K	>150lm/W	LED 150-36M1	5	LED-450-54PWNI	1399
Industrial LED Pack 23W WW280	23W	3 800lm	3000K/4000K/6500K	>160lm/W	LED 60-36M1	4	LED-210-25PWNI	1119.2
Industrial LED Pack 29W WW280	29W	4 750lm	3000K/4000K/6500K	>160lm/W	LED 150-36M1	5	LED-270-32PWNI	1399
Industrial LED Pack 37W WW280	37W	5 500lm	3000K/4000K/6500K	>148lm/W	LED 60-36M1	4	LED-330-39PWNI	1119.2
Industrial LED Pack 50W WW280	50W	7 500lm	3000K/4000K/6500K	>150lm/W	LED 150-36M1	5	LED-450-54PWNI	1399
Industrial LED Pack 23W WWFF280	23W	3 800lm	3000K/4000K/6500K	>160lm/W	LED 60-36M1	4	LED-210-25PWNI	1119.2
Industrial LED Pack 29W WWFF280	29W	4 750lm	3000K/4000K/6500K	>160lm/W	LED 150-36M1	5	LED-270-32PWNI	1399
Industrial LED Pack 37W WWFF 280	37W	5 500lm	3000K/4000K/6500K	>148lm/W	LED 60-36M1	4	LED-330-39PWNI	1119.2
Industrial LED Pack 50W WWFF280	50W	7 500lm	3000K/4000K/6500K	>150lm/W	LED 150-36M1	5	LED-450-54PWNI	1399
Industrial LED Pack 54W 280	55W	8 000lm	3000K/4000K/6500K	>145lm/W	LED 60-36M1	4	LED-480-60PWNI	1119.2
Industrial LED Pack 40W 300	40W	5 700lm	3000K/4000K/6500K	>142lm/W	LED 60-38M1	4	LED-330-39PWNI	1198.4
Industrial LED Pack 54W 300	54W	7 800lm	3000K/4000K/6500K	>144lm/W	LED 150-38M1	5	LED-450-54PWNI	1498
Industrial LED Pack 40W FF300	40W	5 700lm	3000K/4000K/6500K	>142lm/W	LED 60-38M1	4	LED-330-39PWNI	1198.4
Industrial LED Pack 54W FF300	54W	7 800lm	3000K/4000K/6500K	>144lm/W	LED 150-38M1	5	LED-450-54PWNI	1498
Industrial LED Pack 40W WW300	40W	5 700lm	3000K/4000K/6500K	>142lm/W	LED 60-38M1	4	LED-330-39PWNI	1198.4
Industrial LED Pack 54W WW300	54W	7 800lm	3000K/4000K/6500K	>144lm/W	LED 150-38M1	5	LED-450-54PWNI	1498
Industrial LED Pack 40W WWFF300	40W	5 700lm	3000K/4000K/6500K	>142lm/W	LED 60-38M1	4	LED-330-39PWNI	1198.4
Industrial LED Pack 54W WWFF300	54W	7 800lm	3000K/4000K/6500K	>144lm/W	LED 150-38M1	5	LED-450-54PWNI	1498

Models legend: FF-Flicker free, WW – compatible with World range of mains supply voltage

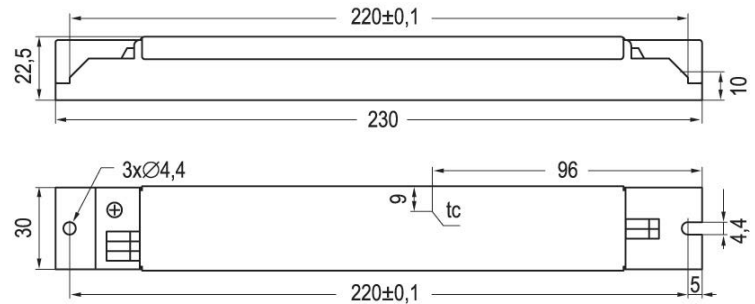


## LED Driver Constant Current, Tri-Proof Series

### Characteristics

Supply voltage	200-240VAC WW 100-240VAC
Frequency	50/60 Hz
Safety class	Class I
Ingress protection	IP20
Protection against output short circuit	Yes
Protection against no load operation	Yes
Protection against overload operation	Yes
Integrated over temperature protection	Yes
Output not mains isolated	Yes
Dimmable	Not
Ripple	<30%/Ripple free
Ambient temperature	-20~50°C
Lifetime	50 000 h

### Schemes



Model type	Nominal Current	Power factor	Rated Output Power (at 230VAC/50Hz)	Output current	Output voltage range	Efficiency (at 230VAC/50Hz)	Weight (g)	Length (mm)	Width (mm)	Height (mm)
LED-210-25PWNI	0.120A/230VAC	≥0.96	25.2W	210mA	90-120VDC	93%	161	230	30	22.5
LED-270-32PWNI	0.160A/230VAC	≥0.96	32.4W	270mA	90-120VDC	93%	164	230	30	22.5
LED-330-39PWNI	0.190A/230VAC	≥0.97	39.6W	330mA	90-120VDC	93%	165	230	30	22.5
LED-375-45PWNI	0.210A/230VAC	≥0.97	43.6W	375mA	90-120VDC	93%	165	230	30	22.5
LED-450-54PWNI	0.260A/230VAC	≥0.97	54W	450mA	90-120VDC	93%	168	230	30	22.5
LED-500-60PWNI	0.290A/230VAC	≥0.97	60W	500mA	90-125VDC	93%	168	230	30	22.5
LED-210-25PWNI FF	0.120A/230VAC	≥0.96	25.2W	210mA	90-120VDC	93%	161	230	30	22.5
LED-270-32PWNI FF	0.160A/230VAC	≥0.96	32.4W	270mA	90-120VDC	93%	164	230	30	22.5
LED-330-39PWNI FF	0.190A/230VAC	≥0.97	39.6W	330mA	90-120VDC	93%	165	230	30	22.5
LED-450-54PWNI FF	0.260A/230VAC	≥0.97	54W	450mA	90-120VDC	93%	168	230	30	22.5
LED-210-25PWNI WW	0.240A/100VAC	≥0.96	25.2W	210mA	90-120VDC	93%	161	230	30	22.5
LED-270-32PWNI WW	0.300A/100VAC	≥0.96	32.4W	270mA	90-120VDC	93%	164	230	30	22.5
LED-330-39PWNI WW	0.370A/100VAC	≥0.97	39.6W	330mA	90-120VDC	93%	165	230	30	22.5
LED-450-54PWNI WW	0.500A/100VAC	≥0.97	54W	450mA	90-120VDC	93%	168	230	30	22.5
LED-210-25PWNI WWFF	0.240A/100VAC	≥0.96	25.2W	210mA	90-120VDC	93%	161	230	30	22.5
LED-270-32PWNI WWFF	0.300A/100VAC	≥0.96	32.4W	270mA	90-120VDC	93%	164	230	30	22.5
LED-330-39PWNI WWFF	0.370A/100VAC	≥0.97	39.6W	330mA	90-120VDC	93%	165	230	30	22.5
LED-450-54PWNI WWFF	0.500A/100VAC	≥0.97	54W	450mA	90-120VDC	93%	168	230	30	22.5

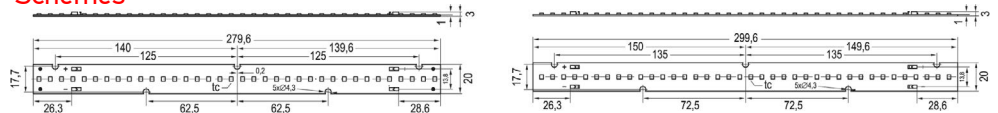
Models legend: FF-Flicker free, WW – compatible with World range of mains supply voltage

## Linear FR4 LED Modules

### Characteristics

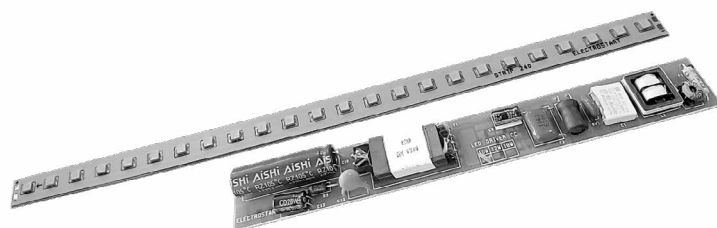
Ingress protection	IP00
Efficiency	>150 lm/W
Color rendering index (CRI)	>80
Color temperature (CCT)	3000K/4000K

### Schemes



Model type	Working voltage range	Working current	Nominal Power	CCT	Luminous Efficiency	Beam angle	Ambient temperature range, Ta	Number of LEDs	Length (mm)	Width (mm)
LED 60-36M1	100-119VDC	60mA	6.69W	3000K/4000K/6500K	>160 lm/W	120°	-20°C ÷ 55°C	36	279.6	20
LED 60-38M1	105-120VDC	60mA	7.06W	3000K/4000K/6500K	>160 lm/W	120°	-20°C ÷ 55°C	38	299.6	20
LED 150-36M1	100-119VDC	150mA	16.74W	3000K/4000K/6500K	>150 lm/W	120°	-20°C ÷ 55°C	36	279.6	20
LED 150-38M1	105-120VDC	150mA	17.67W	3000K/4000K/6500K	>150 lm/W	120°	-20°C ÷ 55°C	38	299.6	20

## Linear LED Sets



### Application

Linear LED Sets are:

- > suitable for linear LED luminaires
- > only for build-in usage

### Electrical characteristics

Mains voltage	200-240VAC optional 100-127VAC
Frequency	50/60 Hz
Power factor	>0.95

### Lighting characteristics

Efficiency	up to 150 lm/W
Color rendering index (CRI)	>80
Color temperature (CCT)	3000K/4000K/6500K
Flicker	<10%

### Warranty condition

Lifespan	30 000 h/50 000 h
Warranty	3 Y/5 Y

Product	Rated Power	Luminous Flux	CCT	Efficiency	Type of Modules	Number of Modules	LED Driver	Total length of modules (mm)
Linear LED Set 10W	10W	1 500lm	3000K/4000K	150lm/W	LED-120-12M2-288	2	LED 10W CC	576
Linear LED Set 12W	12W	1 800lm	3000K/4000K	150lm/W	LED-120-12M2-288	3	LED 12W CC	864
Linear LED Set 18W	18W	2 700lm	3000K/4000K	150lm/W	LED-120-12M2-288	4	LED 18W CC	1,152
Linear LED Set 28W	28W	4 000lm	3000K/4000K	150lm/W	LED-120-12M2-240	6	LED 28W CC	1,440

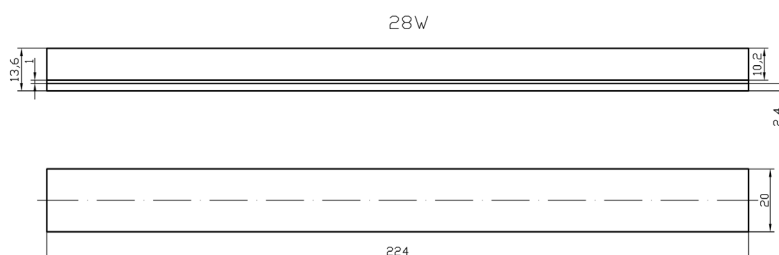
Luminous flux guaranteed at 25° ambient temperature

## Linear LED Driver

### Characteristics

Supply voltage	200-240VAC optional 100-127VAC
Frequency	50/60 Hz
Protection against output short circuit	Yes
Protection against no load operation	Yes
Integrated over temperature protection	Yes
Dimmable	Not
Ripple	Ripple free
Ambient temperature	-10~40°C
Lifetime	50 000 h

### Schemes



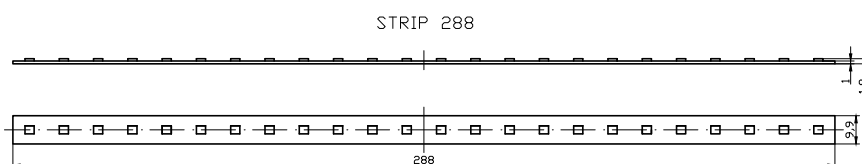
Model type	Nominal Current	Power factor	Rated Output Power (at 230VAC/50Hz)	Output current	Output voltage range	Efficiency (at 230VAC/50Hz)	Length (mm)	Width (mm)
LED 10W CC	0.047A/230VAC	≥0.95	9.5W	240mA	30-40VDC	85%	200	20
LED 12W CC	0.061A/230VAC	≥0.95	11.8W	315mA	30-40VDC	86%	200	20
LED 18W CC	0.082A/230VAC	≥0.95	17W	430mA	30-40VDC	85%	200	20
LED 28W CC	0.140A/230VAC	≥0.95	27W	722mA	30-40VDC	85%	224	20

## Aluminium LED Modules

### Characteristics

Ingress protection	IP00
Efficiency	>150 lm/W
Color rendering index (CRI)	>80
Color temperature (CCT)	3000K/4000K

### Schemes



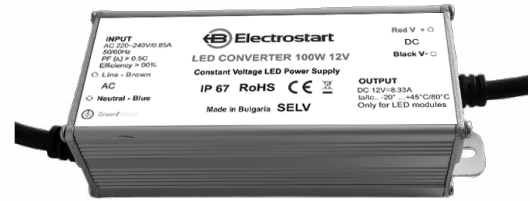
Model type	Working voltage range	Working current	Nominal Power	CCT	Luminous Efficiency	Beam angle	Ambient temperature range, Ta	Number of LEDs	Length (mm)	Width (mm)	Height (mm)
LED-120-12M2-288	35-37VDC	120mA	4.44W	3000K/4000K	>150lm/W	120°	-20°C ÷ 55°C	24	288	9.9	1
LED-120-12M2-240	35-37VDC	120mA	4.44W	3000K/4000K	>150lm/W	120°	-20°C ÷ 55°C	24	240	9.9	1

## Constant Voltage Power Supply IP67

### Application

Constant Voltage Power Supply is designed:

- > to power 12VDC/24VDC LED modules
- > to operate lighting systems which have multiple LED modules connected in parallel
- > independent usage



### Electrical characteristics

Supply voltage	220-240VAC
Frequency	50/60 Hz
Two model types	PF $\geq$ 0.5 and PF $\geq$ 0.95
Output voltage	12V/24VDC

### Protection

Ingress protection	IP67 design for outdoor installations
Safety class	Class I
Overload protection	Yes
Short circuit protection	Yes
Material of the case	Aluminum

### Warranty conditions

Lifespan	30 000 h (PF $\geq$ 0.5)
	50 000 h (PF $\geq$ 0.9)
Warranty	3 Y (PF $\geq$ 0.5)
	5 Y (PF $\geq$ 0.9)
Ambient temperature	-20-45 <sup>0</sup> /50 <sup>0</sup> C
Highest temperature point	80 <sup>0</sup> /85 <sup>0</sup> C

Model type PF $\geq$ 0.5	Nominal Current	Power factor	Output voltage	Output current	Output Power	Efficiency (at 230VAC/50Hz)	Weight (g)	Length (mm)	Width (mm)	Height (mm)
CV LED 60W 12V	0.61/230VAC	$\geq$ 0.50	12V	5A	60W	>90%	400	114	54	35
CV LED 100W 12V	0.85/230VAC	$\geq$ 0.50	12V	8.33A	100W	>92%	425	118	54	35
CV LED 150W 12V	1.20/230VAC	$\geq$ 0.50	12V	12.50A	150W	>92%	425	118	54	35
CV LED 200W 12V	1.70/230VAC	$\geq$ 0.50	12V	16.67A	200W	>92%	510	150	54	35
CV LED 300W 12V	2.60/230VAC	$\geq$ 0.50	12V	25.00A	300W	>92%	680	200	54	35
CV LED 60W 24V	0.61/230VAC	$\geq$ 0.50	24V	2.5A	60W	>90%	400	114	54	35
CV LED 100W 24V	1.10/230VAC	$\geq$ 0.50	24V	4.17A	100W	>91%	425	118	54	35
CV LED 150W 24V	1.60/230VAC	$\geq$ 0.50	24V	6.25A	150W	>92%	425	118	54	35
CV LED 200W 24V	2.10/230VAC	$\geq$ 0.50	24V	8.34A	200W	>92%	510	150	54	35
CV LED 300W 24V	3.10/230VAC	$\geq$ 0.50	24V	12.50A	300W	>92%	680	200	54	35

### Application

CV Power Supply 12V PF 0.95 is designed:

- > to power 12VDC LED modules
- > to operate lighting systems which have multiple LED Modules connected in parallel
- > independent usage

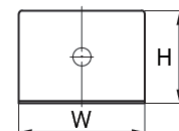


Model type PF $\geq$ 0.95	Nominal Current	Power factor	Output voltage	Output current	Output Power	Efficiency (at 230VAC/50Hz)	Weight (g)	Length (mm)	Width (mm)	Height (mm)
LED-12V CV 60W PF	0.30A/230VAC	$\geq$ 0.95	12V	5.00A	60W	>89%	510	140	48	45
LED-12V CV 100W PF	0.52A/230VAC	$\geq$ 0.95	12V	8.33A	100W	>89%	880	158	72	52
LED-12V CV 150W PF	0.76A/230VAC	$\geq$ 0.95	12V	12.50A	150W	>91%	1000	178	72	52
LED-12V CV 200W PF	1.02A/230VAC	$\geq$ 0.95	12V	16.67A	200W	>91%	1150	188	72	52

### Additional information:

- Application in illuminated advertisements and billboards
- IP67 design for outdoor usage
- High quality product

### Schemes



## CV Power Supply 12V PF 0.95 Slim

### Application

CV Power Supply 12V PF 0.95 is designed:

- > to power 12VDC LED modules
- > to operate lighting systems which have multiple LED Modules connected in parallel
- > independent usage



Model type PF $\geq$ 0.9	Nominal Current	Power factor	Output voltage	Output current	Output Power	Efficiency (at 230VAC/50Hz)	Weight (g)	Length (mm)	Width (mm)	Height (mm)
LED-12V CV 60W	0.32/230VAC	$\geq$ 0.95	12V	5A	60W	>90%	425	118	54	35
LED-12V CV 100W	0.55/230VAC	$\geq$ 0.95	12V	8.33A	100W	>90%	570	168	54	35
LED-12V CV 150W	0.80/230VAC	$\geq$ 0.95	12V	12.50A	150W	>90%	650	200	54	35
LED-12V CV 200W	1.00/230VAC	$\geq$ 0.95	12V	16.67A	200W	>90%	650	200	54	35
LED-12V CV 300W	1.50/230VAC	$\geq$ 0.95	12V	25.00A	300W	>90%	950	216	68	43

## CV Power Supply 24V PF 0.95 Slim

### Application

CV Power Supply 24V PF 0.95 is designed:

- > to power 24VDC LED modules
- > to operate lighting systems which have multiple LED Modules connected in parallel
- > independent usage



Model type PF $\geq$ 0.95	Nominal Current	Power factor	Output voltage	Output current	Output Power	Efficiency (at 230VAC/50Hz)	Weight (g)	Length (mm)	Width (mm)	Height (mm)
LED-24V CV 60W	0.32/230VAC	$\geq$ 0.95	24V	2.50A	100W	>90%	425	118	54	35
LED-24V CV 100W	0.55/230VAC	$\geq$ 0.95	24V	4.17A	100W	>90%	570	168	54	35
LED-24V CV 150W	0.80/230VAC	$\geq$ 0.95	24V	6.25A	150W	>90%	650	200	54	35
LED-24V CV 200W	1.00/230VAC	$\geq$ 0.95	24V	8.33A	200W	>90%	650	200	54	35
LED-24V CV 300W	1.50/230VAC	$\geq$ 0.95	24V	12.50A	300W	>90%	950	216	68	43

### Schemes



## Constant Voltage 12V LED Module

### Application

- > LED Module is designed for: SIGNATURE INDUSTRY usage
- > LED Module for sign letter lightbox



### Electrical characteristics

Voltage	12VDC
PCB type	CEM1 PCB
Cable Specifications	0.5mm <sup>2</sup> – 20AWG

### Protection

Ingress protection	IP67
Safety class	Class III
Recommended usage with Supply	Electrostart CV Power

### Body characteristics

Body material	PC
Viewing Angle	120°-160°
LED Quantity	3 Pcs
Max in Series	50 Pcs
Recommended Depth	5-25cm

### Lighting characteristics

Luminous efficiency (standard series)	up to 100lm/W
Luminous efficiency (high lumen series)	up to 155lm/W
Color temperature (CCT)	2700K/3000K/ 4000K/6500K/10000K
LEDs	2835 – 0.5W – White (Samsung)
Color Options	Red/Blue/Green/Yellow/White

### Warranty conditions

Warranty	5 Y
Operating temperature	-20° + 50°C

### Standards

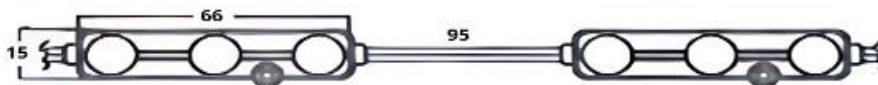
EN 55015: 2013+A1:2015
EN 61000-4-2:2009
IEC 60598-1:2020
EN IEC 60598-2-1:2021+ AMD11:2022

### Advantages:

- High grade of protection – IP 67
- Wide view angle
- Resistance to electrostatic discharges
- EU made product
- Quality in accordance to all EU standards and directives

### Dimension

Dimension diagram - W x L x H – 15 x 66 x 10.5 mm



Product	Rated Power	Voltage	Current	CCT	LEDs	LED Quantity	IP	Width (mm)	Length (mm)	Height (mm)
<b>Standart Models</b>										
CV 12V LED Module 1.00W	1.00W	12V	0.083A	6500K	2835-0.5W	3Pcs	67	15	66	10.5
CV 12V LED Module 1.08W	1.08W	12V	0.090A	6500K	2835-0.5W	3Pcs	67	15	66	10.5
CV 12V LED Module 1.20W	1.20W	12V	0.100A	6500K	2835-0.5W	3Pcs	67	15	66	10.5
<b>High Lumen Models</b>										
CV 12V LED Module 0.72W	0.72W	12V	0.060A	6500K	2835-0.5W	3Pcs	67	15	66	10.5
CV 12V LED Module 1.00W	1.00W	12V	0.083A	10 000K	2835-0.5W	3Pcs	67	15	66	10.5
CV 12V LED Module 1.08W	1.08W	12V	0.090A	10 000K	2835-0.5W	3Pcs	67	15	66	10.5
CV 12V LED Module 1.20W	1.20W	12V	0.100A	10 000K	2835-0.5W	3Pcs	67	15	66	10.5
CV 12V LED Module 1.50W	1.50W	12V	0.125A	10 000K	2835-0.5W	3Pcs	67	15	66	10.5

## Indoor LED Driver CC Series

### Application

LED Driver CC Series is suitable for:  
> indoor lighting



### Electrical characteristics

Supply voltage	200-240VAC optional 100-127VAC
Frequency	50/60 Hz
Efficiency	>86%

### Protection

Ingress protection	IP20
Protection against output short circuit	Yes
Protection against no load operation	Yes
Protection against overpower	Yes
Integrated over temperature protection	Yes

### Warranty conditions

Lifespan	30 000/50 000 h
Warranty	3 Y/5 Y

### Lighting characteristics

Dimmable	Not
Ripple	Ripple free (<1%)

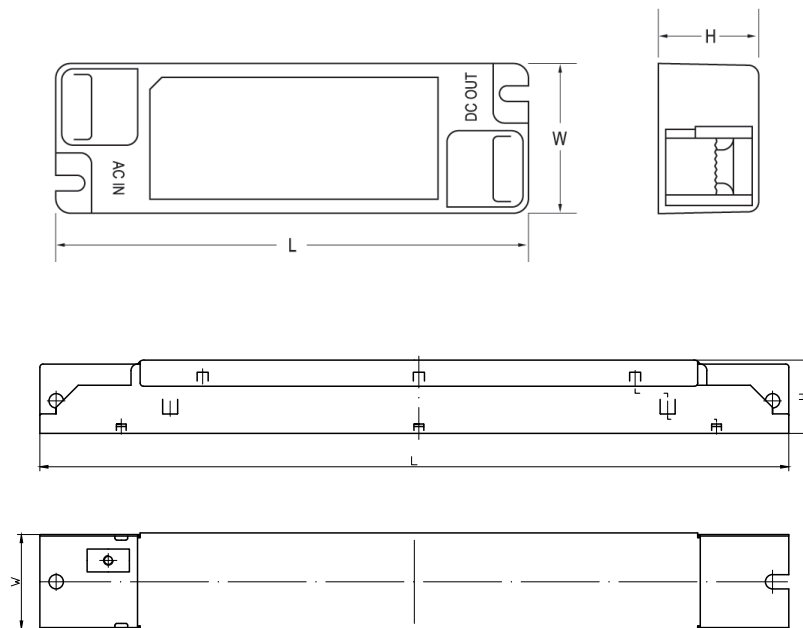
### Protection

Ambient temperature (Ta)	-20~45°C
Storage temperature (Tc)	-20~60°C
Operating humidity	20%RH ~90%RH
Storage humidity	10%RH ~90%RH
Connection type	Detachable terminal blocks

### Standards

Galvanic isolation	Yes
Certification	CE, ROHS, ENEC if required
EMC	Yes
LVD	Yes
Safety category	Yes

### Schemes



Model Type	Max Output Power	Output Current	Output Voltage, DC	Max Input Power	Power Factor	Efficiency	Isolation	Tc max, °C	Case Material	Length (mm)	Width (mm)	Height (mm)
LED CC 20WIP 500mA	20W	500mA	32-40V	25W	≥0.90	>88%	Yes	80	Plastic	115	41	28
LED CC 25WIP 600mA	25W	600mA	34-42V	32W	≥0.90	>88%	Yes	80	Plastic	115	41	28
LED CC 30WIP 700mA	30W	700mA	34-43V	37W	≥0.92	>88%	Yes	80	Plastic	115	41	28
LED CC 36WIP 350mA	36W	350mA	84-105V	43W	≥0.95	>88%	Yes	80	Plastic	140	43	29.5
LED CC 36WIP 700mA	36W	700mA	41-51V	43W	≥0.95	>88%	Yes	80	Plastic	140	43	29.5
LED CC 36WIP 800mA	36W	800mA	36-45V	43W	≥0.95	>88%	Yes	80	Plastic	140	43	29.5
LED CC 36WIP 900mA	36W	900mA	32-40V	43W	≥0.95	>88%	Yes	80	Plastic	140	43	29.5
LED CC 36WIP 1000mA	36W	1000mA	29-36V	43W	≥0.95	>88%	Yes	80	Plastic	140	43	29.5
LED CC 40WIP 350mA	40W	350mA	91-114V	48W	≥0.95	>88%	Yes	80	Plastic	140	43	29.5
LED CC 40WIP 500mA	40W	500mA	64-80V	48W	≥0.95	>88%	Yes	80	Plastic	140	43	29.5
LED CC 40WIP 700mA	40W	700mA	46-57V	48W	≥0.95	>88%	Yes	80	Plastic	140	43	29.5
LED CC 40WIP 800mA	40W	800mA	40-50V	48W	≥0.95	>88%	Yes	80	Plastic	140	43	29.5
LED CC 40WIP 900mA	40W	900mA	35-44V	48W	≥0.95	>88%	Yes	80	Plastic	140	43	29.5
LED CC 40WIP 950mA	40W	950mA	34-42V	48W	≥0.95	>88%	Yes	80	Plastic	140	43	29.5
LED CC 40WIP 1050mA	40W	1050mA	30-38V	48W	≥0.95	>88%	Yes	80	Plastic	140	43	29.5
LED CC 40WIP 1200mA	40W	1200mA	26-33V	48W	≥0.95	>88%	Yes	80	Plastic	140	43	29.5
LED CC 50WIP 900mA	50W	900mA	45-56V	60W	≥0.95	>88%	Yes	80	Plastic	140	43	29.5
LED CC 50WIP 1000mA	50W	1000mA	40-50V	60W	≥0.95	>88%	Yes	80	Plastic	140	43	29.5
LED CC 50WIP 1200mA	50W	1200mA	34-42V	60W	≥0.95	>88%	Yes	80	Plastic	140	43	29.5
LED CC 50WIP 1400mA	50W	1400mA	29-36V	60W	≥0.95	>88%	Yes	80	Plastic	140	43	29.5
LED CC 25WIM 600mA	25W	600mA	30-42V	31W	≥0.85	>86%	Yes	70	Metal	202	30	27
LED CC 30WIM 700mA	30W	700mA	30-43V	37W	≥0.95	>88%	Yes	70	Metal	202	30	27
LED CC 36WIM 900mA	36W	900mA	28-40V	44W	≥0.95	>88%	Yes	70	Metal	202	30	27
LED CC 40WIM 900mA	40W	900mA	31-44V	49W	≥0.90	>88%	Yes	70	Metal	202	30	27
LED CC 45WIM 1050mA	45W	1050mA	30-43V	54W	≥0.90	>88%	Yes	70	Metal	202	30	27
LED CC 50WIM 1200mA	50W	1200mA	29-42V	60W	≥0.90	>88%	Yes	70	Metal	202	30	27
LED CC 20WNIM 350mA	20W	350mA	40-57V	23W	≥0.95	>91%	No	65	Metal	210	26	22
LED CC 30WNIM 350mA	30W	350mA	60-86V	35W	≥0.95	>91%	No	65	Metal	210	26	22
LED CC 36WNIM 350mA	36W	350mA	75-105V	42W	≥0.95	>91%	No	70	Metal	210	26	22
LED CC 40WNIM 350mA	40W	350mA	80-114V	47W	≥0.95	>91%	No	70	Metal	210	26	22
LED CC 50WNIM 350mA	50W	350mA	100-143V	58W	≥0.95	>91%	No	70	Metal	240	30	22
LED CC 60WNIM 350mA	60W	350mA	120-171V	70W	≥0.95	>91%	No	70	Metal	240	30	22
LED CC 75WNIM 350mA	75W	350mA	150-215V	88W	≥0.95	>91%	No	70	Metal	240	30	22

#### Additional information:

- All parameters are measured at 25°C
- Data are given at 230VAC, 50Hz Max output power

## **WARRANTY TERMS**

### **for LED Luminaires and Components**

These warranty terms apply to LED Luminaires and LED components, manufactured by Electrostart JSCo.

Electrostart offers a guarantee for its following LED Products for a period of:

#### **5 years:** \_\_\_\_\_

- LED Edge PMMA
- LED Tri-Proof
- LED Glow Economy
- LED UFO Professional
- LED Arrow
- LED Street Balance
- Industrial LED Packs
- LED Driver CC Series
- Constant Voltage Power Supply IP67 12/24V PF 0.9
- LED Tri-Proof Premium
- LED UFO Ultimate
- LED Street Ultimate
- LED Surge Protective Device
- Constant Voltage 12V LED Module
- LED Street Nano

#### **3 years:** \_\_\_\_\_

- LED Edge MS
- Linear LED Sets
- Constant Voltage Power Supply IP67 12V/24V PF 0.5.

The guarantee is valid after the invoice date. In the event of defects before the expiry of this deadline and in condition for complying with all requirements mentioned in the instructions for exploitation and technical specification(s) Electrostart JSCo will replace, repair or issue a credit note for defective products.

The company ensures the quality of manufactured products and certifies their compliance with the requirements of the applicable European safety standards, performance and electromagnetic compatibility as well as the quality and compatibility of used materials and components.

Electrostart JSCo reserves its right to alter the materials or components used for product manufacturing when ensuring their quality in accordance with the requirements of applicable industry standards.

In case of warranty complaint, the customer is required to send information for non-conforming products to: [warranty@electrostart.com](mailto:warranty@electrostart.com), indicating the product type, its wattage, date of production and type of defect if known.

Warranty service might be denied in the following cases:

- For defects occurring during improper transportation, bad depository, incorrect installation or mechanical damage.
- When defects are provoked when non-complying with work regulations, service or installation, improper or inappropriate use.
- If the product is opened, disassembled or in the event of unauthorized attempt for repair or change of components.

With the present warranty terms, Electrostart JSCo is aiming to provide objective procedures for warranty service and maintenance of its products in the event of a failure in their functioning.

email: [warranty@electrostart.com](mailto:warranty@electrostart.com)





**Electrostart JSCo** is a company established in 1967. Since 2017, the company has focused on the production of not only lighting components, but also ready-made lighting solutions.

Our mission is to give light for a better life.

With more than 50 years of experience, Electrostart combines constant development, ambition and desire for leadership in its business.

Guided by the global development of technology and in close cooperation with our customers, we create high quality and sustainable solutions in the field of lighting.

**Electrostart** is a reliable partner and applies the most modern technologies in business and its management.

The company has a reputation as a high quality manufacturer in markets in more than 40 countries.

### ENERGY AUDIT SERVICES

**Energy Audit** is an energy efficient solution in the field of lighting. Electrostart recommends the service to its customers, as it has a positive effect on the quality of work, productivity and the company's image.

**Energy Audit service** reduces electricity consumption, and Electrostart also provides up to 5 years warranty and maintenance under normal exploitation conditions. In this way, the investment for new LED lighting produced by Electrostart can be refund in a short period of time, accompanied by long-term exploitation.

**Representatives of Electrostart** visit on-place production plants, office buildings, buildings of public importance and others throughout the whole country. They analyze existing lighting luminaires and the available electrical network and after that offering replacement with new, modern and energy efficient LED lighting fixtures manufactured by Electrostart JSCo. For already completed projects there is a refund on investment for 1-2 years, for production and storage facilities.

**In the work process** our team uses specialized software for precise calculations and visualizations in 3D model. The analysis are in accordance with all requirements for lighting standards and norms, as well as lighting fixtures for the needs and specifics of the site.

**Electrostart JSCo** can offer flexible financing solutions that can be adapted to your individual needs.



Detailed information about the "Energy Audit" can be viewed by clicking on the logo of "Electrostart" or scanning the QR code with your smartphone.

[www.electrostart.com](http://www.electrostart.com)



Electrostart is an independent European manufacturer of fixtures and components for the lighting industry, established in 1967. Ever since providing the highest standards of products and customer service is the Electrostart's primary goal.

Today the company has a well-established supply chain in more than 40 countries worldwide. Our main focus for the future is produce and develop different LED fixtures for different applications interior, industrial and outdoor. Also Electrostart offers LED Drivers, LED Modules and project based solution, apart from the long year conventional business of the company. All our products meet the latest design, reliability and energy-efficiency requirements. The lighting business environment is very dynamic and the present is the time for change to new more efficient and ecologically friendly lighting sources. Business environment changes as well and companies start to cooperate more in order to develop their product range. Electrostart always aims to be close to its customers and provide solutions that meet the expectations of both the customer and final user.

We have been working responsibly for over 55 years. All our actions are driven by the principles of professional competence, corporate honesty and transparency. We set up sustainable practices for corporate development and this is reflected in our integrated quality management system ISO 9001:2015, environmental policy tailored to ISO 14001:2015 and Occupational health & safety under OHSAS 18001:2007.

Electrostart's products comply with all applicable European Directives. During the years our company has established very good cooperation with certifying companies providing different type of certifications for all customer needs.

[www.electrostart.com](http://www.electrostart.com)



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### Registered office and Factory

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