

Surge Protection Device

Application:
Street lighting, Outdoor lighting

Expected Q4 2022

T2 type Surge Protection Device can be installed in an electrical switchboard and prevents the spread of spikes and transients in electrical installations and protect the loads.



Advantages:

- Maximize the lifetime of outdoor lighting products
- lower maintenance costs
- Suitable for insulation class I luminaires only
- Long lifetime
- Provides high surge protection of up to 20kV/20kA for all lighting technologies

Protection

| | |
|---|--------------------------------|
| Protection mode | Diff.mode & Comm. mode |
| Type of surge protection device according IEC/EN 61643-11 | T2 |
| Ingress protection | IP67 |
| Power grids | TN, TN-C, TN-C-S, TN-S, TT, IT |
| Insulation class | Class I |

Connections and Body

| | |
|-------------------|--|
| Wiring | 3 Wires x 1.5mm ² (Line/Neutral/PE) |
| Fixing screw type | M8 |
| Material of Body | Plastic |

Working Conditions

| | |
|------------------------------------|-------------------------|
| Operating ambient temperature (Ta) | -30 ~ 80°C |
| Highest Temperature Point (Tc) | 85°C |
| Storage conditions | -30 ~ 80°C |
| Relative humidity | 5% ~ 85% Non-Condensing |

Warranty conditions

| | |
|-----------------------|----------------------------------|
| Lifespan at tc < 85°C | Up to 100 000h according strikes |
| Warranty | 3 - 5 Years |

| Durability | LED SPD 10kV T2 | LED SPD 20kV T2 |
|----------------------------|---|--|
| Surge withstand capability | 1 Strike at 10kA 50 Strikes at 5kA 100 Strikes at 3kA | 1 Strike at 20kA 50 Strikes at 10kA 100 Strikes at 4kA |

| Product models | Mains supply voltage Un(L-N) | Max. continuous operating voltage Ucov(L-N, L,N-GND) | Nominal discharge current In(L-N, LN-GND) | Max. voltage protection level at In Up(L-N, LN-GND) | Length (mm) | Width (mm) | Height (mm) |
|-----------------|------------------------------|--|---|---|-------------|------------|-------------|
| LED SPD 10kV T2 | 100-277VAC | 320VAC 50/60Hz | 5kA 8/20uS | < 1.5kV/<2kV | 66.5 | 34.5 | 29 |
| LED SPD 20kV T2 | 100-277VAC | 320VAC 50/60Hz | 10kA 8/20uS | < 1.5kV/<2kV | 84.5 | 43.4 | 34.7 |

CV Power Supply 12V PF 0.5 - Optimization

Expected Q4 2022



Advantages:

- Designed to power 12VDC LED Modules
- Constant voltage LED Power Supplies are designed to operate lighting systems which have multiple LED Modules connected in parallel
- Independent usage
- **New Smaller Design with More Competitive Price**

Electrical characteristics

| | |
|----------------|------------|
| Supply voltage | 220-240VAC |
| Power Factor | > 0.50 |
| Frequency | 50/60Hz |
| Output Voltage | 12VDC |

Protection

| | |
|--------------------------|-----------|
| Ingress protection | IP67 |
| Safety Class | Class I |
| Over load Protection | Yes |
| Short Circuit Protection | Yes |
| Material of the case | Aluminium |

Warranty conditions

| | |
|---------------------------|------------|
| Lifespan | 30 000h |
| Warranty | 3Y |
| Ambient temperature | -20 ~ 50°C |
| Highest Temperature Point | 85°C |

| Model Type PF>0.5 12V | Input Current | PF | Output voltage | Output current | Output Power | Efficiency (at 230VAC/50Hz) | Weight (g) | Length (mm) | Width (mm) | Height (mm) | Warranty |
|---------------------------------|---------------|-------|----------------|----------------|--------------|-----------------------------|------------|-------------|------------|-------------|----------|
| CV Power Supply 100W 12V PF 0.5 | 0.9A/230VAC | >0.50 | 12V | 8.3A | 100W | >90% | 450 | 143 | 54 | 36 | 3Y |
| CV Power Supply 150W 12V PF 0.5 | 1.2A/230VAC | >0.50 | 12V | 12.5A | 150W | >90% | 450 | 143 | 54 | 36 | 3Y |
| CV Power Supply 200W 12V PF 0.5 | 1.7A/230VAC | >0.50 | 12V | 16.6A | 200W | >90% | 560 | 175 | 54 | 36 | 3Y |
| CV Power Supply 300W 12V PF 0.5 | 2.60A/230VAC | >0.50 | 12V | 25A | 300W | >90% | 650 | 224 | 54 | 36 | 3Y |

CV Power Supply 24V PF 0.95

Expected Q2 2023



Electrical characteristics

| | |
|-------------------|------------|
| Supply voltage | 220-240VAC |
| High Power Factor | > 0.95 |
| Frequency | 50/60Hz |
| Output Voltage | 24VDC |

Protection

| | |
|--------------------------|-----------|
| Ingress protection | IP67 |
| Safety Class | Class I |
| Over load Protection | Yes |
| Short Circuit Protection | Yes |
| Material of the case | Aluminium |

Warranty conditions

| | |
|---------------------------|------------|
| Lifespan | 50000h |
| Warranty | 5Y |
| Ambient temperature | -20 ~ 50°C |
| Highest Temperature Point | +75°C |

Advantages:

- Designed to power 24VDC LED Modules
- Constant voltage LED Power Supplies are designed to operate lighting systems which have multiple LED Modules connected in parallel
- Independent usage

| Model Type PF>0.9 24V | Input Current | Power factor | Output voltage | Output current | Output Power | Efficiency (at 230VAC/50Hz) | Weight (g) | Length (mm) | Width (mm) | Height (mm) | Warranty |
|---------------------------------|---------------|--------------|----------------|----------------|--------------|-----------------------------|------------|-------------|------------|-------------|----------|
| CV Power Supply 60W 24V PF 0.9 | 0.30A/230VAC | >0.95 | 24V | 2.5A | 60W | > 88% | 510 | 140 | 48 | 45 | 5Y |
| CV Power Supply 100W 24V PF 0.9 | 0.5A/230VAC | >0.95 | 24V | 4.15A | 100W | > 89% | 880 | 152 | 72 | 52 | 5Y |
| CV Power Supply 150W 24V PF 0.9 | 0.76A/230VAC | >0.95 | 24V | 6.25A | 150W | > 89% | 980 | 178 | 72 | 52 | 5Y |
| CV Power Supply 200W 24V PF 0.9 | 1.02A/230VAC | >0.95 | 24V | 8.33A | 200W | > 89% | 1000 | 188 | 72 | 52 | 5Y |

LED Street Economy and LED Street Balance

Expected Q2 2023



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)
- Quality in accordance to all EU standards and directives
- Built-in level for LED Street Balance
- EU Made Product

Electrical characteristics

| | |
|----------------|------------|
| Supply voltage | 100-240VAC |
| Frequency | 50/60Hz |
| Power factor | >0.95 |

Lighting characteristics

| | |
|-----------------------------|---|
| Efficiency | Up to 135lm/W |
| Color rendering index (CRI) | >70 |
| LEDs | Philips LED SMD3030 |
| LED Driver | Meanwell HLG-XLG / Electrostart JSC0 T2 - 65x145° - 44x155° |
| Beam Angle | T3 - 70x150° - 80x150° T4 - 85x160° - 80x160° |
| Color temperature (CCT) | 3000K - 6500K |

Body characteristics

| | |
|---------------|----------------------------|
| Body Material | Die-casting aluminum alloy |
|---------------|----------------------------|

Protection

| | |
|--------------------|---------|
| Ingress protection | IP65 |
| Safety Class | Class I |

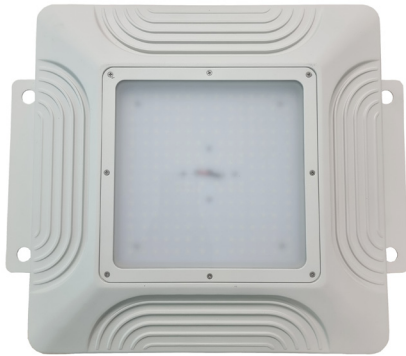
Warranty conditions

| | |
|----------|---------|
| Lifespan | 50 000h |
| Warranty | 5Y |

| Product | Rated Power | Luminous Flux | CCT | Efficiency | Material of Body | Length (mm) | Width (mm) | Height (mm) |
|-------------------------|-------------|---------------|---------------|------------|----------------------------|-------------|------------|-------------|
| LED Street Economy 50W | 50W | 6 500lm | 3000K - 6500K | 130lm/W | Die-casting aluminum alloy | 575 | 200 | 110 |
| LED Street Economy 100W | 100W | 13 000lm | 3000K - 6500K | 130lm/W | Die-casting aluminum alloy | 626 | 233 | 150 |
| LED Street Economy 150W | 150W | 19 500lm | 3000K - 6500K | 130lm/W | Die-casting aluminum alloy | 690 | 260 | 115 |
| LED Street Balance 50W | 50W | 6 750lm | 3000K - 6500K | 135lm/W | Die-casting aluminum alloy | 570 | 200 | 135 |
| LED Street Balance 100W | 100W | 13 500lm | 3000K - 6500K | 135lm/W | Die-casting aluminum alloy | 615 | 240 | 140 |
| LED Street Balance 150W | 150W | 20 250lm | 3000K - 6500K | 135lm/W | Die-casting aluminum alloy | 690 | 260 | 130 |
| LED Street Balance 200W | 200W | 27 000lm | 3000K - 6500K | 135lm/W | Die-casting aluminum alloy | 695 | 305 | 155 |
| LED Street Balance 240W | 240W | 32 400lm | 3000K - 6500K | 135lm/W | Die-casting aluminum alloy | 700 | 305 | 125 |
| LED Street Balance 300W | 300W | 40 500lm | 3000K - 6500K | 135lm/W | Die-casting aluminum alloy | 795 | 300 | 130 |

LED Canopy Light

Expected Q2 2023



Electrical characteristics

| | |
|----------------|------------|
| Supply voltage | 100-240VAC |
| Frequency | 50/60Hz |
| Power factor | >0.95 |
| THD | <10% |

Lighting characteristics

| | |
|-----------------------------|---|
| Efficiency | Up to 120lm/W |
| Color rendering index (CRI) | >70 |
| LEDs | Philips LED SMD3030 |
| LED Driver | 40-50W Sosen / Electrostart JSCo |
| LED Driver | 80-150W Meanwell XLG/ Electrostart JSCo |
| Beam Angle | 90 °, option for Optical PC Lens |
| Color temperature (CCT) | 3000K - 6500K |

Body characteristics

| | |
|---------------|----------------------------|
| Body Material | Die-casting aluminum alloy |
|---------------|----------------------------|

Protection

| | |
|--------------------|---------|
| Ingress protection | IP65 |
| Safety Class | Class I |

Warranty conditions

| | |
|----------|---------|
| Lifespan | 50 000h |
| Warranty | 5Y |

Advantages:

- Easy and quick installation
- For built-in and surface mounting
- Quality in accordance to all EU standards and directives
- EU Made Product

| Product | Rated Power | Luminous Flux | CCT | Efficiency | Material of Body | Length (mm) | Width (mm) | Height (mm) |
|-----------------------|-------------|---------------|---------------|------------|----------------------------|-------------|------------|-------------|
| LED Canopy Light 40W | 40W | 4 800lm | 3000K - 6500K | 120lm/W | Die-casting aluminum alloy | 350 | 195 | 125 |
| LED Canopy Light 50W | 50W | 6 000lm | 3000K - 6500K | 120lm/W | Die-casting aluminum alloy | 350 | 195 | 125 |
| LED Canopy Light 80W | 80W | 9 600lm | 3000K - 6500K | 120lm/W | Die-casting aluminum alloy | 350 | 280 | 120 |
| LED Canopy Light 100W | 100W | 12 000lm | 3000K - 6500K | 120lm/W | Die-casting aluminum alloy | 350 | 280 | 120 |
| LED Canopy Light 120W | 120W | 14 400lm | 3000K - 6500K | 120lm/W | Die-casting aluminum alloy | 365 | 350 | 125 |
| LED Canopy Light 150W | 150W | 18 000lm | 3000K - 6500K | 120lm/W | Die-casting aluminum alloy | 365 | 350 | 125 |

www.electrostart.com



Headquarters

Bulgaria, Sofia 1404
 81 Bulgaria Blvd.City General
 Business Center, b. 2, floor 3, office 6
 phone: +359 2 400 77 71
 fax: +359 2 400 77 84

Registered office and Factory

Electrostart JSCo
 Bulgaria, Varshets 3540
 2 Republica Blvd.
 phone: +359 2 400 70 11
 fax: +359 2 400 70 12