

PRODUCT DATASHEET

NAV 50 LED FILAMENT V 3600LM 21W 727 E27

NAV LED FILAMENT V | LED replacement for NAV lamps in design-oriented outdoor applications



Areas of application

- Streets
- Area lighting
- Pedestrian zones
- Parks
- Outdoor applications only in suitable luminaires

Product benefits

- Same design as traditional NAV lamps with clear, tubular full glass bulb
- Full use of reflector of existing luminaire thanks to 360 degree beam angle
- Saves up to 78 % energy when used as replacement for sodium vapor lamps (NAV)
- Instant 100 % light, no warm-up time
- Similar light distribution as traditional NAV lamps

Product features

- Suitable for operation with conventional control gear (CCG) or 230 V AC mains
- Very high efficiency of up to 190 lm/W
- Power factor: 0.9
- Type of protection: IP65
- Surge protection: up to 2 kV (L-N)



TECHNICAL DATA**Electrical data**

| | |
|----------------------------------------------------------|---------------|
| Nominal wattage | 21 W |
| Construction wattage | 21.00 W |
| Nominal voltage | 220...240 V |
| Operating mode | CCG, AC Mains |
| Claimed equiv. conventional lamp power | 50 W |
| Nominal current | 90 mA |
| Type of current | AC |
| Inrush current | 6.3 A |
| Operating frequency | 50/60 Hz |
| Mains frequency | 50/60 Hz |
| Max. lamp number on MCB B10 A | 22 |
| Max. lamp number on MCB B10 A - CCG without compensation | 27 |
| Max. lamp number on MCB B10 A - CCG with compensation | 8 |
| Max. lamp number on MCB B16 A | 27 |
| Max. lamp number on MCB B16 A - CCG without compensation | 34 |
| Max. lamp number on MCB B16 A - CCG with compensation | 13 |
| Total harmonic distortion | 15 % |
| Power factor λ | > 0.90 |
| Surge capability (L-N) | 2 kV |

Photometrical data

| | |
|-----------------------------------------|--------------|
| Luminous intensity | Not relevant |
| Luminous flux | 3600 lm |
| Nominal useful luminous flux 90° | 3600 lm |
| Luminous efficacy | 171 lm/W |
| Lumen main.fact.at end of nom.life time | 0.70 |
| Light color (designation) | Warm White |
| Color temperature | 2700 K |
| Color rendering index Ra | 70 |
| Light color | 727 |
| Standard deviation of color matching | ≤6 sdcn |
| Rated LLMF at 6,000 h | 0.80 |
| Flickering metric (Pst LM) | 1 |

| | |
|---------------------------------|-----|
| Stroboscope effect metric (SVM) | 0,4 |
|---------------------------------|-----|



EPREL data spectral diagram PROF
LEDr 2700K

Light technical data

| | |
|---------------------|----------|
| Beam angle | 360 ° |
| Warm-up time (60 %) | < 0.50 s |
| Starting time | < 0.5 s |

Dimensions & Weight



| | |
|------------------|-----------|
| Overall length | 170.00 mm |
| Diameter | 38.00 mm |
| Maximum diameter | 38 mm |
| Product weight | 80.00 g |

Temperatures & operating conditions

| | |
|--------------------------------------|----------------------------|
| Ambient temperature range | -20...+50 °C ¹⁾ |
| Maximum temperature at tc test point | 80 °C |

1) Temperature surrounding the lamp - for enclosed luminaires: temperature inside of the luminaire

Lifespan

| | |
|----------------------------------------------|---------|
| Lifespan L70/B50 at 25 °C | 25000 h |
| Number of switching cycles | 100000 |
| Lumen maintenance at end of service lifetime | 0.70 |

| | |
|---------------------------------------|--------|
| Rated lamp survival factor at 6,000 h | ≥ 0.90 |
|---------------------------------------|--------|

Additional product data

| | |
|-----------------------------|--------|
| Base (standard designation) | E27 |
| Mercury content | 0.0 mg |
| Mercury-free | Yes |

Capabilities

| | |
|----------|----|
| Dimmable | No |
|----------|----|

Certificates & Standards

| | |
|----------------------------------------------|-----------------|
| Energy efficiency class | C ¹⁾ |
| Energy consumption | 21.00 kWh/1000h |
| Type of protection | IP65 |
| Standards | CE / EAC / UKCA |
| Photobiological safety group acc. to EN62778 | RG1 |

¹⁾ Energy efficiency class (EEC) on a scale of A (highest efficiency) to G (lowest efficiency)

Country-specific categorizations

| | |
|-----------------|----------------|
| Order reference | NAV 50 LED FIL |
|-----------------|----------------|

LOGISTICAL DATA

| | |
|------------------------------|--------------|
| Temperature range at storage | -20...+80 °C |
|------------------------------|--------------|

Energy labelling regulation data acc EU 2019/2015







| | |
|-----------------------------------------------------|--------------|
| Lighting technology used | LED |
| Non-directional or directional | NDLS |
| Mains or non-mains | MLS |
| Light source cap-type (or other electric interface) | E27 |
| Connected light source (CLS) | No |
| Color-tuneable light source | No |
| Envelope | No |
| High luminance light source | No |
| Anti-glare shield | No |
| Correlated colour temperature type | SINGLE_VALUE |
| Claim of equivalent power | No |
| Length | 170.00 mm |





| | |
|------------------------------------------------------|-------------------------|
| Height | 38.00 mm |
| Width | 38.00 mm |
| Chromaticity coordinate x | 0.458 |
| Chromaticity coordinate y | 0.41 |
| R9 Colour rendering index | 0.00 |
| Beam angle correspondence | SPHERE_360 |
| Survival factor | 0.9 |
| Displacement factor | 0.9 |
| LED light source replaces a fluorescent light source | No |
| EPREL ID | 1371175 |
| Model number | AC46360,AC46360,AC46360 |

Safety advice

- Not suitable for operation with ignitors.
- Operation on the capacitor can lead to a reduction of the power factor of the system.
- When installed horizontally, the t_c point of the lamp is located on the top side of the lamp.
- Use in tight luminaires and luminaires with tight reflectors not recommended.
- Only suitable for temperatures of up to 50 °C inside of the luminaire. Use in tight luminaires and luminaires with tight reflectors not recommended.
- All electrical connections must be made by a qualified person.

DOWNLOAD DATA

| Documents and certificates | | Document name |
|------------------------------------------------------------------------------------|----------------------------------------|-----------------------------------------|
|  | User instruction / safety instructions | NAV LED FILAMENT V |
|  | Legal information | Informationstext 18 Abs 4 ElektroG |
|  | Declarations of conformity | HID LED FILAMENT |
|  | Declarations of conformity UKCA | HID LED FILAMENT |
| Photometric and lighting design files | | Document name |
|  | IES file (IES) | NAV 50 LED FIL V 3600LM 21W 727 E27LEDV |
|  | LDT file (Eulumdat) | NAV 50 LED FIL V 3600LM 21W 727 E27LEDV |

| Photometric and lighting design files | | Document name |
|-----------------------------------------------------------------------------------|-------------------------------------|---------------------------------------------|
|  | UGR file (UGR table) | NAV 50 LED FIL V 3600LM 21W 727 E27LEDV |
|  | Light distribution curve type polar | NAV 50 LED FIL V 3600LM 21W 727 E27LEDV |
|  | Spectral power distribution | EPREL data spectral diagram PROF LEDr 2700K |
| Tender texts | | Document name |
|  | Tender documents | NAV LED FILAMENT V 3600LM 21W 727 E27-en |

LOGISTICAL DATA

| Product code | Packaging unit (Pieces/Unit) | Dimensions (length x width x height) | Gross weight | Volume |
|---------------|------------------------------|--------------------------------------|--------------|----------------------|
| 4099854071973 | Folding box 1 | 44 mm x 44 mm x 256 mm | 123.00 g | 0.50 dm ³ |
| 4099854071980 | Shipping box 6 | 274 mm x 152 mm x 117 mm | 860.00 g | 4.87 dm ³ |

The mentioned product code describes the smallest quantity unit which can be ordered. One shipping unit can contain one or more single products. When placing an order, for the quantity please enter single or multiples of a shipping unit.

DISCLAIMER

Subject to change without notice. Errors and omission excepted. Always make sure to use the most recent release.