

# PRODUCT DATASHEET

## NAV 100 LED FILAMENT V 7000LM 41W 727 E40

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



VALUE  
CLASS

### 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)



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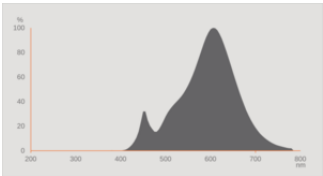
**TECHNICAL DATA****Electrical data**

Nominal wattage	41 W
Construction wattage	41.00 W
Nominal voltage	220...240 V
Operating mode	CCG, AC Mains
Claimed equiv. conventional lamp power	100 W
Nominal current	175 mA
Type of current	AC
Inrush current	9.1 A
Operating frequency	50/60 Hz
Mains frequency	50/60 Hz
Max. lamp number on MCB B10 A	3
Max. lamp number on MCB B10 A - CCG without compensation	3
Max. lamp number on MCB B10 A - CCG with compensation	3
Max. lamp number on MCB B16 A	6
Max. lamp number on MCB B16 A - CCG without compensation	6
Max. lamp number on MCB B16 A - CCG with compensation	4
Total harmonic distortion	10 %
Power factor $\lambda$	> 0.90
Surge capability (L-N)	2 kV

**Photometrical data**

Luminous intensity	Not relevant
Luminous flux	7000 lm
Nominal useful luminous flux 90°	7000 lm
Luminous efficacy	170 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
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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	225.00 mm
Diameter	46.00 mm
Maximum diameter	46 mm
Product weight	170.00 g

Temperatures & operating conditions

Ambient temperature range	-20...+50 °C <sup>1)</sup>
Maximum temperature at tc test point	90 °C

<sup>1)</sup> 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
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### Additional product data

Base (standard designation)	E40
Mercury content	0.0 mg
Mercury-free	Yes

### Capabilities

Dimmable	No
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### Certificates & Standards

Energy efficiency class	C <sup>1)</sup>
Energy consumption	41.00 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 100 LED FIL
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### LOGISTICAL DATA

Temperature range at storage	-20...+80 °C
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### 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)	E40
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	225.00 mm





Height	46.00 mm
Width	46.00 mm
Chromaticity coordinate x	0,463
Chromaticity coordinate y	0,42
R9 Colour rendering index	1
Beam angle correspondence	SPHERE_360
Survival factor	0.9
Displacement factor	0.9
LED light source replaces a fluorescent light source	No
EPREL ID	1371173
Model number	AC46364,AC46364,AC46364,AC46364

### 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 100 LED FIL V 7000LM 41W 727E40LEDV
	LDT file (Eulumdat)	NAV 100 LED FIL V 7000LM 41W 727E40LEDV

Photometric and lighting design files		Document name
	UGR file (UGR table)	NAV 100 LED FIL V 7000LM 41W 727E40LEDV
	Light distribution curve type polar	NAV 100 LED FIL V 7000LM 41W 727E40LEDV
	Spectral power distribution	EPREL data spectral diagram PROF LEDr 2700K
Tender texts		Document name
	Tender documents	NAV LED FILAMENT V 7000LM 41W 727 E40-en

## LOGISTICAL DATA

Product code	Packaging unit (Pieces/Unit)	Dimensions (length x width x height)	Gross weight	Volume
4099854072055	Folding box 1	52 mm x 52 mm x 311 mm	241.00 g	0.84 dm <sup>3</sup>
4099854072062	Shipping box 6	329 mm x 176 mm x 133 mm	1634.00 g	7.70 dm <sup>3</sup>
4099854319723	Shipping box 6	235 mm x 180 mm x 340 mm	1893.00 g	14.38 dm <sup>3</sup>

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

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