

# PRODUCT DATASHEET

## HID LED HIGHBAY UNIVERSAL P 14000 LM 105W 840 E40

HID LED Highbay Universal P | LED replacement for HID lamps for high-bay luminaires



PERFOR-  
MANCE  
CLASS

### Areas of application

- LED alternative for applications requiring a high luminous flux
- Industrial and storage facilities
- Outdoor applications only in suitable luminaires

### Product benefits

- Direct replacement for traditional HID lamps thanks to CCG and ignitor compatibility
- Operation on AC mains for highest energy efficiency possible
- Energy savings of up to 68 % when replacing traditional HQI lamps
- Effective thermal management for wide operating temperature range
- Low maintenance costs thanks to long lifetime
- Instant 100 % light, no warm-up time

### Product features

- Type of protection: IP40
- High surge protection: up to 4 kV (L-N)



## TECHNICAL DATA

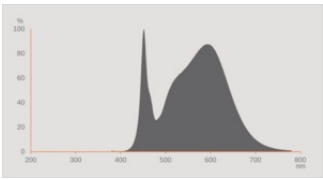
## Electrical data

Nominal wattage	105 W
Construction wattage	105.00 W
Nominal voltage	220...240 V
Operating mode	CCG, AC Mains, ignitor
Claimed equiv. conventional lamp power	250 W
Nominal current	500 mA
Type of current	AC
Inrush current	4.56 A
Operating frequency	50/60 Hz
Mains frequency	50/60 Hz
Max. lamp number on MCB B10 A	12
Max. lamp number on MCB B10 A - CCG without compensation	10
Max. lamp number on MCB B10 A - CCG with compensation	9
Max. lamp number on MCB B16 A	19
Max. lamp number on MCB B16 A - CCG without compensation	14
Max. lamp number on MCB B16 A - CCG with compensation	9
Total harmonic distortion	20 %
Power factor $\lambda$	> 0.90
Surge capability (L-N)	4 kV

## Photometrical data

Luminous intensity	6636 cd
Luminous flux	14000 lm
Nominal useful luminous flux 90°	14000 lm
Luminous efficacy	133 lm/W
Lumen main.fact.at end of nom.life time	0.70
Light color (designation)	Cool White
Color temperature	4000 K
Color rendering index Ra	80
Light color	840
Standard deviation of color matching	≤6 sdcn
Rated peak intensity	6636 cd
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 4000K

Light technical data

Beam angle	100 °
Warm-up time (60 %)	< 0.50 s
Starting time	< 0.5 s

Dimensions & Weight



Overall length	263.00 mm
Diameter	250.00 mm
Product weight	1400.00 g

Temperatures & operating conditions

Ambient temperature range	-40...+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	50000 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	E <sup>1)</sup>
Energy consumption	105.00 kWh/1000h
Type of protection	IP40
Standards	CE / EAC / UKCA
Photobiological safety group acc. to EN62778	RG1

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

### Country-specific categorizations

Order reference	HID LED HB UN P
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### LOGISTICAL DATA

Temperature range at storage	-40...+80 °C
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### Energy labelling regulation data acc EU 2019/2015

Lighting technology used	LED
Non-directional or directional	DLS
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
Standby power	0.00 W
Claim of equivalent power	No

Length	263.00 mm
Height	250.00 mm
Width	250.00 mm
Chromaticity coordinate x	0.382
Chromaticity coordinate y	0.38
R9 Colour rendering index	1
Beam angle correspondence	WIDE_CONE_120
Survival factor	0,90
Displacement factor	0.9
LED light source replaces a fluorescent light source	No
EPREL ID	1160649
Model number	AC41484,AC41484





## EQUIPMENT / ACCESSORIES







- Safety sling for lamp included

## Safety advice

- The bulb may be larger and heavier than the replaced bulb. Before installation it must be checked, if the luminaire and especially the holder is capable of carrying the weight of the lamp. Safety sling has to be installed.
- To ensure full light efficiency and product lifetime, it is recommended to detach any glass or cover of the luminaire.
- Only suitable for temperatures of up to 50 °C inside of the luminaire.
- Not suitable for operation with electronic control gear.
- All electrical connections must be made by a qualified person.

## DOWNLOAD DATA

	Documents and certificates	Document name
	User instruction / safety instructions	HID LED HIGHBAY UNIVERSAL
	Legal information	Informationstext 18 Abs 4 ElektroG
	Declarations of conformity	CE Declaration HID LED HB UN Ledvance
	Declarations of conformity UKCA	HID LED HIGHBAY UN

Photometric and lighting design files		Document name
	IES file (IES)	HID LED HB 105W-840 230VUN E40
	LDT file (Eulumdat)	HID LED HB 105W 840 230VUN E40
	UGR file (UGR table)	HID LED HB 105W-840 230VUN E40
	Light distribution curve type cone	HID LED HB 105W-840 230VUN E40
	Light distribution curve type polar	HID LED HB 105W-840 230VUN E40
	Spectral power distribution	EPREL data spectral diagram PROF LEDr 4000K

## LOGISTICAL DATA

Product code	Packaging unit (Pieces/Unit)	Dimensions (length x width x height)	Gross weight	Volume
4058075780385	Folding box 1	255 mm x 255 mm x 320 mm	1720.00 g	20.81 dm <sup>3</sup>
4058075780392	Shipping box 4	530 mm x 530 mm x 348 mm	8554.00 g	97.75 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

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