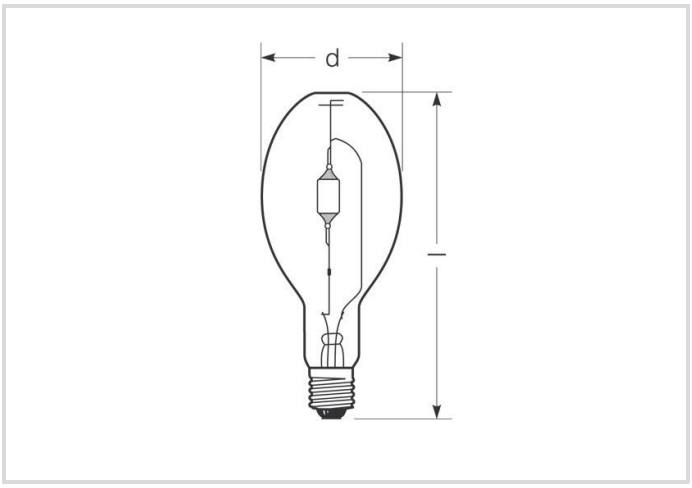
Metal halide lamp with quartz burner
HRI-E 400W/NSC/S/230/C/E40

Radium

Product Datasheet Date: 30.10.2026





A+	42000	4000K	12 000h

General Data

Article No.	32416561
Code	HRI-E 400W/NSC/S/230/C/E40
Product EAN	4008597165610
Box quantitiy (pcs.)	12
EAN Box	4008597465611
Gross weight of box in kg	5.03
Length of box in m	0.55
Width of box in m	0.41
Height of box in m	0.41
Product weight	250 g
Product status	Inactive

Electric Parameters

Wattage	441.6 W
Lamp nominal wattage	400 W
Lamp voltage	110-120 V
Lamp voltage	115 V
Mains voltage	230 V

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Electric Parameters

Ignition voltage	4.0 up to 5.0
Lamp's nominal current	4 A
Nominal choke current	4.6 A
Compensation capacitor for 50Hz operation	45 µF
Running up current max.	190%
Fuse	Daelay-action; min. double nominal current
dimmable	No
Controllable (in suitable circuit)	No

Light Application Parameters

Luminous flux	42000 lm
Rated lamp luminous flux	42000 lm
Efficacy / Luminous efficiency	95.11 lm/W
Total mains efficacy	92 lm/W
Light colour	Neutral white
Colour temperature	4000 K
Color rendering index	62
Lumen maintenance at 2000h	0.86
Lumen maintenance at 4000h	0.75
Lumen maintenance at 6000h	0.68
Lumen maintenance at 8000h	0.64

Service Life

Average life	12000 h
Lamp survival factor at 2000h	0.99
Lamp survival factor at 4000h	0.99
Lamp survival factor at 6000h	0.93
Lamp survival factor at 8000h	0.83
Lamp survival factor at 12000h	0.50

Specification

Energylabel notice	old label, no EPREL registration, no EU data sheet
Energylabel (E -> A++)	A+
Diameter	120 mm
Length	290 mm
Total length max.	290 mm

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Specification

Burning position	h45
Mercury content	60.0 mg
Lamp shape	Ellipsoid
Model	Clear
Base	E40
Colour	White

Notes on Operation

Burning position	h45

Information especially for EPREL

Energylabel notice	old label, no EPREL registration, no EU data sheet

Miscellaneous

EU Directive	TIM

Notes

Metal halide lamp with quartz burner, elliptical bulb clear, high luminous flux, base E40. Operation in enclosed luminaire, with ballast and ignitor.

Please, refer to www.radium.de/recycling for notes on disposal of burned-out lamps as well as lamp breakage.
The "lifespan L70" described for LED lamps indicates the number of hours when the luminous flux has decreased to 70% of its initial value.
The optinal field 'info about service life' contains the frame conditions according to standards based on which the specific service life has been determined. So, for example, "12B50, 50Hz" means that the mean service life (B50) has been determined with a 12h switching cycle at mains (frequency 50Hz), "3B50, HF" is based on a 3h switching cycle at electronic control gear (high frequency).

Base

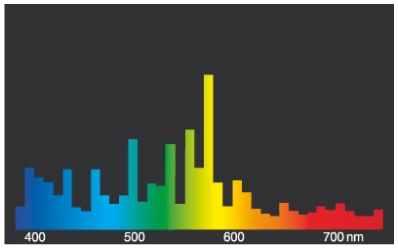


E40
IEC/EN 60061-1
sheet 7004-24-6

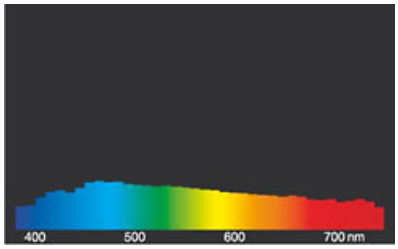
Spectrum

Natural daylight is a mixture of direct sunlight and the light of the sky. Therefore, its spectral composition changes permanently due to the changing time of day. The standardised light classification D65 corresponds to a daylight with a colour temperature of approximately 6500 K.
Every discharge lamp type has got an individual spectral power distribution according to its chemical filling. From this result important properties light colour or colour rendering.
Should the spectral lines be very close together the lamp presumably has got a very good colour rendering index, so, Ra might be near 100. Does the spectrum rather look like single lines or frayed out the colour rendering of the lamp will probably be not as good.
If number and height of the spectral lines within the blue range (around 400 nm) prevails it might be a lamp with a rather cold light colour like for example daylight. On the other hand, should the red (around 700 nm) or the red and yellow (around 600 nm) range be dominant one can assume that the lamp will be a rather warm light colour like WDL.
After the lamp start a metal hlide lamp needs about 2-4 minutes time to reach its full luminous flux, all colours in the spectrum are within the discharge arc then.
Visible region from 380 to 780 nm; height of graph corresponding with relative spectral emission (400mW/klm) per 10nm.

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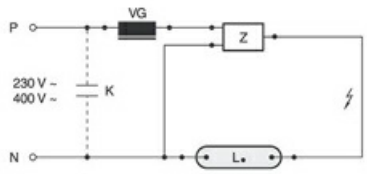


HRI.../NSc



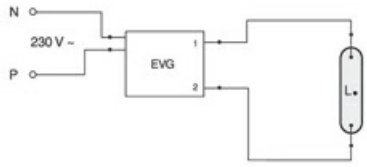
daylight(D 65)

Circuit diagram(s)



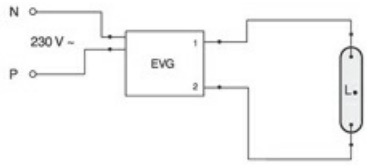
Standard circuit HID with external ignitor
Key:
L. = lamp
VG = electromagnetic ballast (KVG/VVG)
P = phase
N = zero potential
K = p. f. correction capacitor
Z = ignitor

The required control gear (here ignitor and ballast) for the lamps operation is usually mounted in the suitable luminaire in an appropriate electric circuit. Changes of any kind are to be conducted by qualified and specialised staff, only. Thus, this circuit example is to be understood merely as a technical background information for interested users.



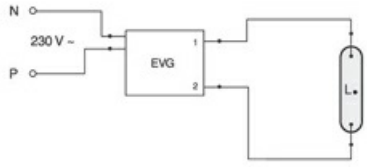
ECG-operation
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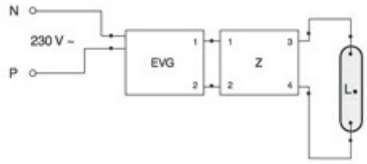
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ECG-operation with additional ignitor
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L. = lamp
EVG = electronic ballast
P = phase
N = zero potential
Z = ignitor

The required control gear (here ignitor and electronic ballast) for the lamps operation is usually mounted in the suitable luminaire in an appropriate electric circuit. Changes of any kind are to be conducted by qualified and specialised staff, only. Thus, this circuit example is to be understood merely as a technical background information for interested users.

Special features

MADE IN GERMANY.

General notes

The technical design data in accordance with DIN and IEC. The producer does not take any responsibility for damage to persons or property in case of unsuitable operation or handling of the product. Operating data and dimensions are valid within the usual tolerances. Related lamp types (different bases, mains voltages) may be available on request. Sale and delivery are effected in accordance with the Radium Terms of Delivery and Payment valid on the day of conclusion of contract. Packing units offer economical advantages to the purchase and logistic department. Please match your quantity volume accordingly. For orders of a minimum quantity (clefts) with a lamp model the amount lower than the volume of each packaging unit, we will invoice 10 % additional charge per lamp type. Technical changes and terms of delivery are reserved. Manipulation of any kind to packaging or product is not permissible as this will violate Radium brand rights. Furthermore, technical properties of the product can change to its disadvantage or even destruction. Therefore, Radium cannot be responsible for consequential damages.
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All technical data without guarantee.