

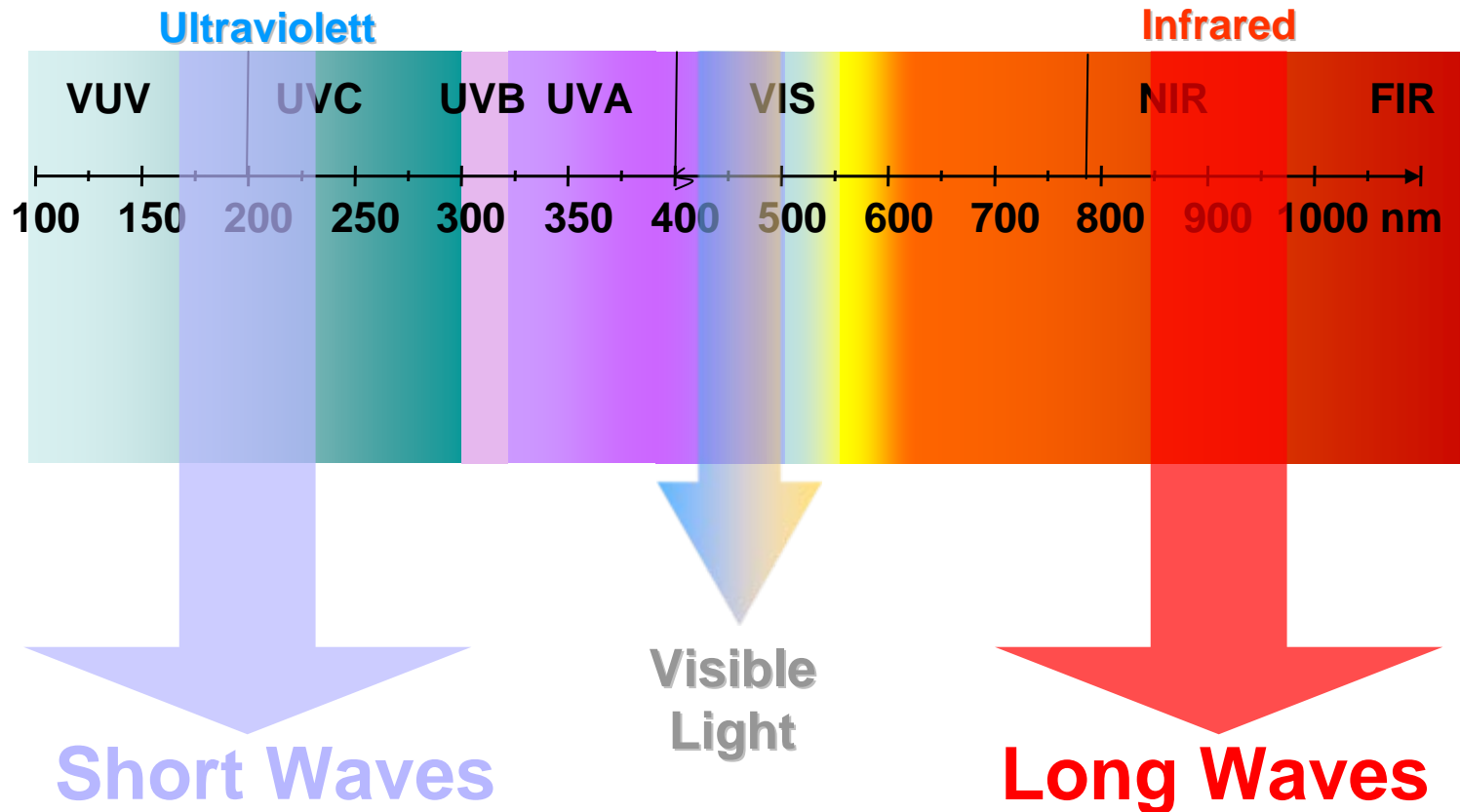
HALOTHERM lamps

Basics, applications, products, market



Beyond illumination: UV/IR

Marketing UV / IR
Ultraviolet / Infrared



Infrared radiation is part of the optical spectrum and split into three parts:

- Short wave **IR-A** 780 – 1400 nm
- Medium wave **IR-B** 1400 – 3000 nm
- Long wave **IR-C** 3000 – 15000 nm

These waves are part of the sunlight.
They heat up objects and bodies.

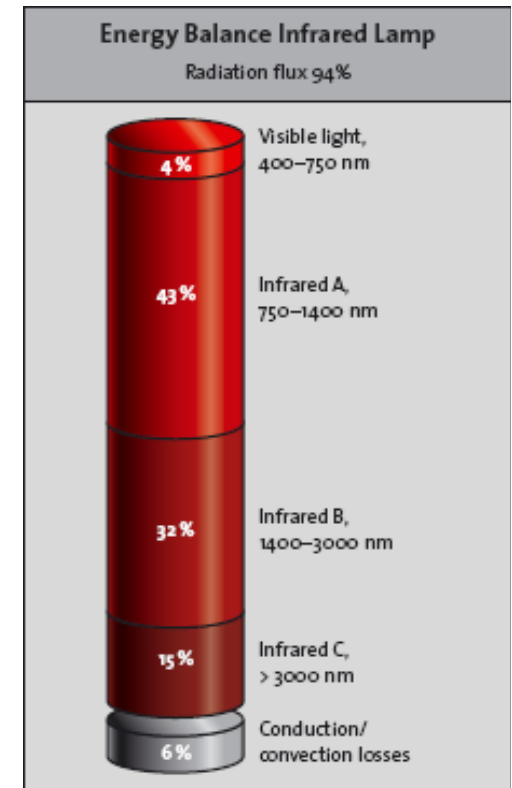
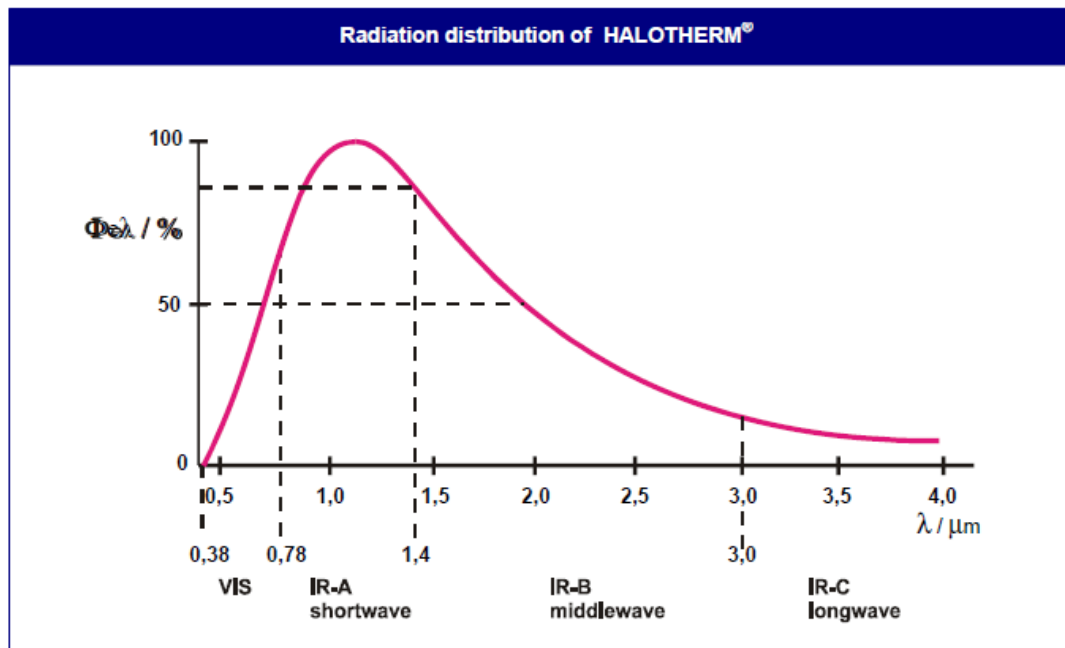
Key arguments for OSRAM HALOTHERM lamps:

- High efficiency > emitted about 90% of the total power into infrared heat
- Quick reaction time, instant full output after switching on
- Radiation can be focused by reflectors like visible light
- Optimum adjustment and controllability
- Installation with low space and maintenance requirements
- Long lamp life, predominantly 5000 h

Spectral power distribution

Marketing UV / IR
Ultraviolet / Infrared

The main part of radiation, emitted by a **HALOTHERM** lamp, falls into the IR-A short wave range. Mostly the maximum radiation is emitted at 1100nm (2400 K).



HALOTHERM Versions

Marketing UV / IR
Ultraviolet / Infrared

HALOTHERM ITT

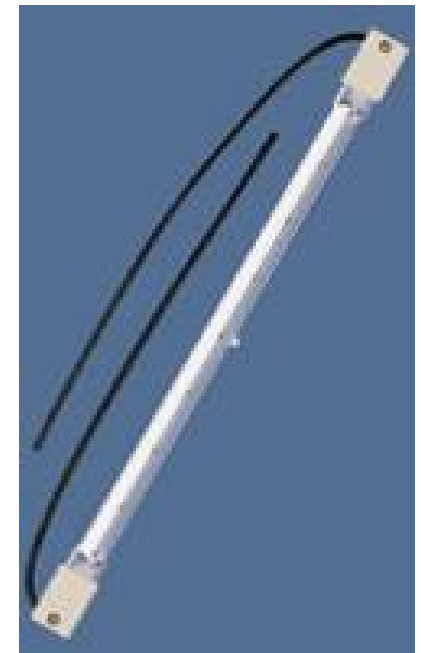
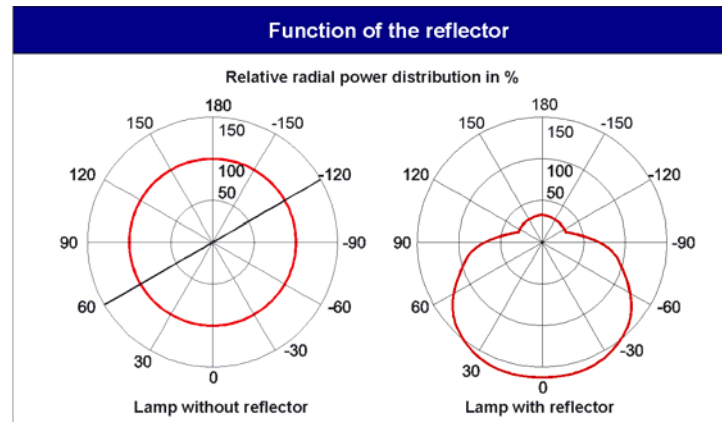
- clear bulb
- wattages from 200W – 3300W
- different bases or connectors available



special lamps with colour temperature ~3000K
(NIR „Near Infrared Radiation”)

HALOTHERM ITT with reflector

- clear bulb
- with integrated reflector
- wattages from 500W – 3000W
- different bases or connectors available



Advantages:

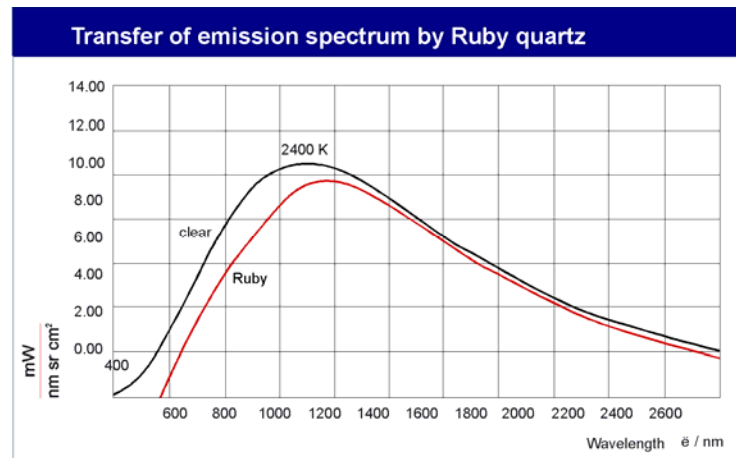
- focused radiation power = more efficient and controlled heating of the heating target
- reduced heating-up of system components behind the lamp and surrounding areas

HALOTHERM Versions

Marketing UV / IR
Ultraviolet / Infrared

RUBYSTAR™

- red colored bulb
- wattages from 1000 – 2000W
- different bases or connectors available



Advantages:

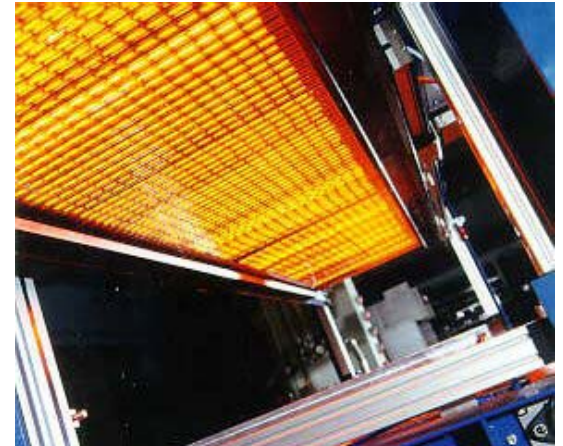
- Reduced transmission of the visible light. Used where typically visible light would interfere.
- Predominantly used for body heating (outdoor and indoor) or car repair shops for drying/curing paint

HALOTHERM Applications

Marketing UV / IR
Ultraviolet / Infrared

Main applications:

- Processing of plastic and thermoforming
- Outdoor and indoor zone-heating
- Paper and printing industry
- Paint drying
- Coil coating
- Catering (Ceran cooking hubs, heated counter tops for food preparation or display)
- Infrared cabins



Other applications:

- Activation of glue
- Barbecue
- Food processing
- Textile processing
- Therapy
- Treating liquid
- Treating rubber
- Wood processing



Application Example: Processing of plastic and thermoforming

Marketing UV / IR
Ultraviolet / Infrared

Products: HALOTHERM with white reflector 1KW – 3KW



pre-forms for PET bottles



Bottles and flasks for drinks,
mineral water, cosmetics or
household chemicals.

Interesting replacement business. In most countries the big bottling plants of the beverage industry have an online process for bottles production and filling.

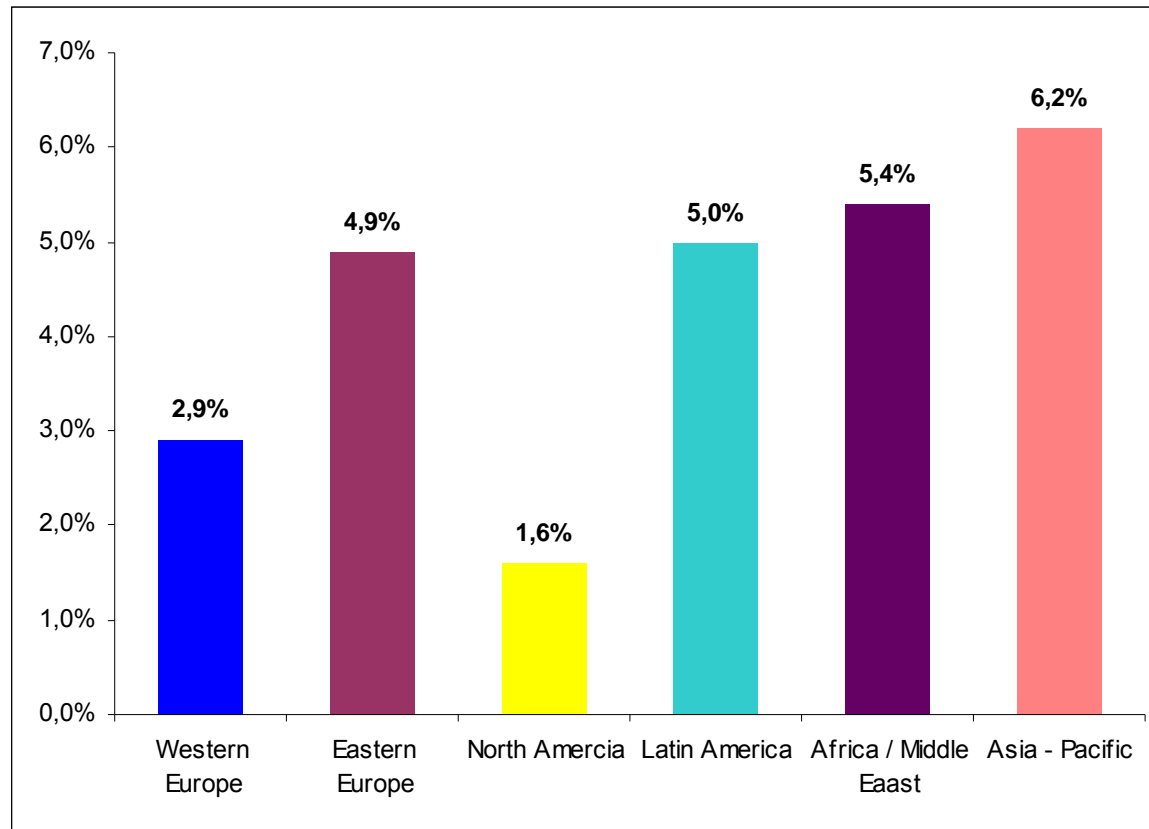
IR lamps 2400K – 2700K are standard



Application Example: Processing of plastic and thermoforming

Marketing UV / IR
Ultraviolet / Infrared

PET packaging: market growth 2008 - 2012 CAGR %



OSRAM range for PET industry

Marketing UV / IR
Ultraviolet / Infrared

product code	W	V	base	colour temp. K	EAN 10 CODE	EAN 40 Code	IC CODE	packaging
HALOTHERM quartz tube, white reflector								
ITT 1000/235-0826 S	1000	235	K9x15/21	2350	4008321206275	4008321206282	A424761011D	12x1
ITT 1000/235-0826 S 600CL	1000	235	K9x15/21	2350	4008321259738	4008321259745	A522216001D	60x1
ITT 1200/235-0826	1200	235	K9x15/21	2700	4008321206374	4008321206381	A47005A001D	12x1
ITT 1600/235-0826	1600	235	K9x15/21	2700	4008321206398	4008321206404	A470066001D	12x1
ITT 2000/235-0826 K/S	2000	235	K9x15/21	2350	4008321206350	4008321206367	A470072001D	12x1
ITT 2000/235-0826 K/S 600CL	2000	235	K9x15/21	2350	4008321259790	4008321259806	A522222001D	60x1
ITT 2500/400-0826 K	2500	400	K9x15/21	2500	4008321206336	4008321206343	A47008F001D	12x1
ITP 2500/235V-0826 K/S	2500	235	K9x15/21	2700	4008321252944	4008321252951	A47535A001D	12x1
ITT 3000/400-0826 K	3000	400	K9x15/21	2500	4008321206312	4008321206329	A47009B001D	30

Application Example: Outdoor and indoor zone-heating

Marketing UV / IR
Ultraviolet / Infrared

Products: RUBYSTAR 1200 – 2000 W



Heating systems with IR-A lamps:
Market size 250. – 300.000 pcs
Market growth 25%

HALOTHERM range for heating systems

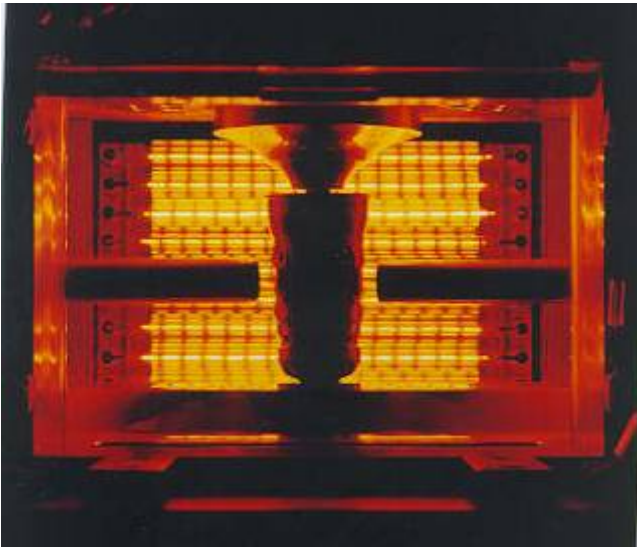
Marketing UV / IR
Ultraviolet / Infrared

product code	W	V	base	colour temp. K	EAN 10 CODE	EAN 40 Code	IC CODE	packaging
HALOTHERM ruby quartz tube								
RubyStar 1200/235-0026 / PH	1000	235	K9x15/21	2350	4008321204233	4008321204240	A427691011D	12x1
RubyStar 1300/235-0070	1000	235	R7s	2350	4008321203618	4008321203625	A42477E011D	12x1
RubyStar 1500/235-0026	1200	235	K9x15/21	2350	4008321120557	4008321120564	A426365011D	12x1
RubyStar 2000/235-0026	1600	235	K9x15/21	2350	4008321289537	4008321289544	A427718011D	12x1

Application Example: Car paint drying

Marketing UV / IR
Ultraviolet / Infrared

Products: **RUBYSTAR** or **HALOTHERM** clear version 0.7KW – 1.5KW



Car repair shops

HALOTHERM range for car paint drying

Marketing UV / IR
Ultraviolet / Infrared

product code	W	V	base	colour temp. K	EAN 10 CODE	EAN 40 Code	IC CODE	packaging
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HALOTHERM quartz tube, clear								
ITT 700/235-0170	700	235	R7s	2350	4008321203533	4008321203540	A323557021D	12x1
ITT 1000/235-0170	1000	235	R7s	2350	4008321203557	4008321203564	A323571021D	12x1
ITT 1200/235-0170	1200	235	R7s	2350	4008321916716	4008321916709	A32358C021D	12x1

HALOTHERM ruby quartz tube								
RubyStar 1200/235-0026 / PH	1200	235	K9x15/21	2350	4008321204233	4008321204240	A427691011D	12x1
RubyStar 1300/235-0070	1300	235	R7s	2350	4008321203618	4008321203625	A42477E011D	12x1
RubyStar 1500/235-0026	1500	235	K9x15/21	2350	4008321120557	4008321120564	A426365011D	60x1

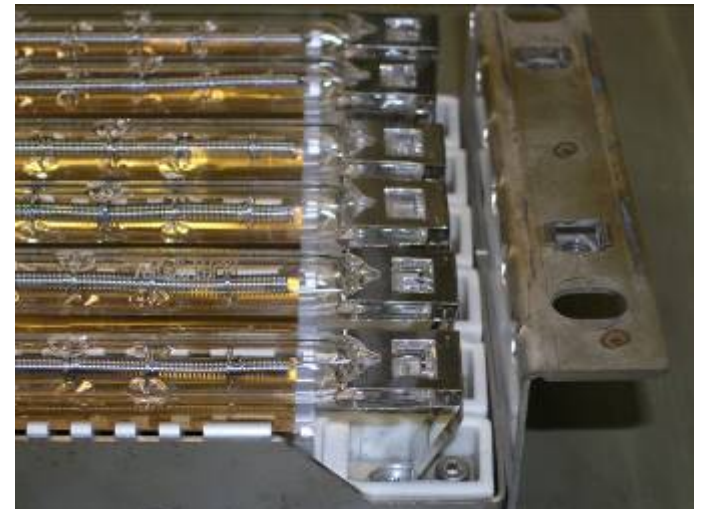
Application Example: Paper mill + finishing, Paper drying

Marketing UV / IR
Ultraviolet / Infrared

Products: HALOTHERM clear version 2KW – 3.3KW



Paper drying



Module with 6 lamps ITT 3000/235-01Y0 Z/K

HALOTHERM range for paper industry

Marketing UV / IR
Ultraviolet / Infrared

product code	W	V	base	colour temp. K	EAN 10 CODE	EAN 40 Code	IC CODE	packaging
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HALOTHERM quartz tube, clear

ITT 2000/235-01Y0 K	2000	235	Y metal strip	2350	4008321203595	4008321203601	A409048011D	60
ITT 2000/235-0103 K	2000	235	Y metal strip	2350	4008321203571	4008321203588	A40907D011D	60
ITT 2200/235-0102	2200	235	without, cable only	2350	4008321203298	4008321203304	A410463011D	60
ITT 3000/235-01Y0 K	3000	235	Y metal strip	2350	4008321203458	4008321203465	A41065C011D	60
ITT 3000/235-01Y0 Z/K	3000	235	Y metal strip	2350	4008321206725	4008321206725	A444150001D	30
ITT 3000/235-0102 K	3000	235	without, cable only	2350	4008321387127	4008321387134	A62029E001D	60
ITT 3300/235-01Y0 Z/K	3300	235	Y metal strip	2350	4008321300874	4008321300881	A53700B001D	30

HALOTHERM Product information

Marketing UV / IR
Ultraviolet / Infrared

- E-catalog via: [www.osram.com/Catalog/Special lamps/](http://www.osram.com/Catalog/Special%20lamps/)
- Product overview
- Application notes for HALOTHERM IR lamps (in the pipeline)
- Data sheets

www.osram.com/uv-ir

OSRAM HALOTHERM®

Your benefits:

- Highest full output
- Space saving, maintenance friendly installation
- Superior reliability
- System adjustment and control
- Low operating costs
- Long service life
- Lamps with reflector coating for directional heat
- Anti-glass coating on the lamps, alternatively with quartz glass

OSRAM HALOTHERM®
Powerful short-wave halogen heat lamp with deep-acting heat for fast and efficient results.

OSRAM

OSRAM

HALOTHERM®
Infrared lamps

OSRAM

OSRAM

Halotherm Infrarot-Strahler
Halotherm Infrared Lamp

ITT 1000/235-0R26 S
EAN 40033100875

Elektrische Größen / electrical data	
Leistungsaufnahme lamp power (W)	1000
Bezugsleistung reference power (W)	235
Strahlstrom lamp current (A)	4.28

Strahlungsphysikalische Größen / spectral data	
Farbtemperatur color temperature (K)	2350
Mittlere Lebensdauer average rated life (h)	8000

Betriebsbedingungen / operating conditions	
Max. Kühlmitteltemperatur (Kühlmittel) max. fluid temperature (cooling medium) (°C)	900
Max. Querschichttemperatur max. shield temperature (°C)	350

Abmessungen / geometric data	
Gesamtlänge overall length (mm)	353
Flanschkreisweite flange diameter (mm)	63.7
Leuchtröhrenlänge light pipe length (mm)	279.8
Socket base	K13x12/21
Kabelhöhe cable height (mm)	208
Kabelanschluss cable fitting	Kabelschuh
Kühlblechfläche cooling surface	30mm
Kühlblechdicke heat pipe thickness	3mm
Kühlblechbreite heat pipe width	12mm

Anwendungen / applications
Elektronik, Dämmung, Materialprüfung, Trocknung
Electronics, Heating, Material testing, Drying

Warnung / notice
Die spezifizierten Daten sind Nennwerte. Einzelanfertigungen können Abweichungen von bis zu 1% aufweisen. Die technischen Daten gelten als verbindlich. Verträge sind zu 1% mit Einzelanfertigungen möglich.

Hinweise / advice
Sichtbarstrahlung auf Aufträge
Visible types of electrical contact are available on demand.

01/18 01.07
Elektronenstrahlröhre
subject to change