



# Product Description

## TORNADO

The Helix range is a twist-shape compact fluorescent lamp, with optimal light distribution. It is available in 11W, 15W, 20W and 23W (25W), with lumen equivalence of 60W, 75W, 100W and 125W incandescent light bulb. It is also available in two color temperatures: warm white (2700K) and cool daylight (6500K). It is available in both 220–240V and 120–127V and able to operate under a wide voltage range (Power supply fluctuation). It consumes up to 80% less energy than the incandescent light bulb and lasts for 3 years.

### Benefits

- Very compact size and wide range allowing easy replacement of most GLS lamps from 25 W up to 150 W
- More than 80% energy saving effect compared with incandescent lamps of similar light output
- Fewer lamp replacements. Fit & forget.

### Features

- Spiral-shaped alternative to incandescent lamps
- High energy efficiency
- Long-life alternative to incandescent lamps

### Application

- The Helix range is widely used to replace incandescent light bulb at all kinds of applications, especially where require intensive light output.
- It is not suitable for dimming and electronic devices

### Warnings and Safety

- Breaking a lamp is extremely unlikely to have any impact on your health. If a lamp breaks, ventilate the room for 30 minutes and remove the parts, preferably with gloves. Put them in a closed plastic bag and take it to your local waste facilities for recycling. Do not use a vacuum cleaner.
- Compact fluorescent lamps have to be treated as special waste, they must be taken to your local waste facilities for recycling. The European Lighting Industry has set up an infrastructure, capable of recycling mercury, other metals, glass etc.

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## Versions



8718291138150 - RFT



8718291138198 - RFT

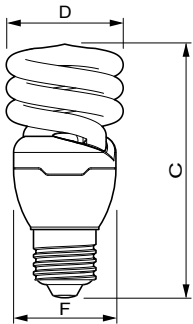


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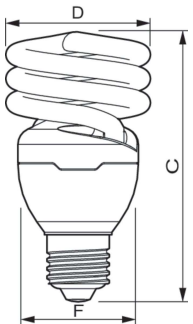


8718291138037 - RFT

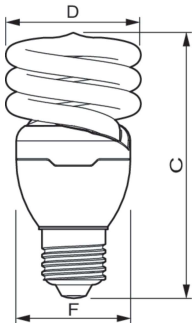
## Dimensional drawing



Product	D (max)	C (max)	F (max)
15 W (60 W) E27 cap Cool daylight Spiral energy saving bulb	51.5 mm	107.5 mm	42.5 mm



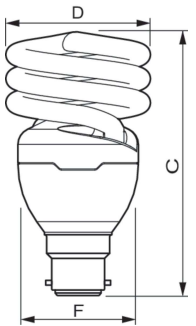
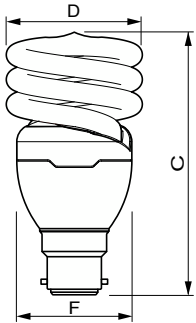
Product	D (max)	C (max)	F (max)
24 W (100 W) E27 cap Warm white Spiral energy saving bulb	61.5 mm	118.5 mm	50.5 mm



Product	D (max)	C (max)	F (max)
20 W (75 W) E27 cap Cool daylight Spiral energy saving bulb	56.5 mm	111.5 mm	47 mm
20 W (75 W) E27 cap Warm white Spiral energy saving bulb	56.5 mm	111.5 mm	47 mm

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## Dimensional drawing



Product	D (max)	C (max)	F (max)
20 W (75 W) B22 cap Cool daylight Spiral energy saving bulb	56.5 mm	110.0 mm	47 mm
20 W (75 W) B22 cap Warm white Spiral energy saving bulb	56.5 mm	110.0 mm	47 mm

Product	D (max)	C (max)	F (max)
24 W (100 W) B22 cap Warm white Spiral energy saving bulb	61.5 mm	117 mm	50.5 mm

### General Information

Rated Lifetime (Hours)	8,000 hour(s)
Switching Cycle	5,000
Nominal lifetime	8,000 hour(s)

### Light Technical

LLMF At End Of Nominal Lifetime (Nom)	70 %
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### Operating and Electrical

Input Frequency	50 or 60 Hz
Line Frequency	50 or 60 Hz
Voltage (Nom)	220-240 V
Starting Time (Nom)	0.3 s

### Controls and Dimming

Dimmable	No
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### Mechanical and Housing

Bulb Shape	Spiral
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### General Information

Order Code	Full Product Name	Cap-Base
929689858502	24 W (100 W) B22 cap Warm white Spiral energy saving bulb	B22
929689858302	20 W (75 W) B22 cap Warm white Spiral energy saving bulb	B22
929689858402	20 W (75 W) B22 cap Cool daylight Spiral energy saving bulb	B22
929689848506	24 W (100 W) E27 cap Warm white Spiral energy saving bulb	E27
929689848306	20 W (75 W) E27 cap Warm white Spiral energy saving bulb	E27
929689848405	20 W (75 W) E27 cap Cool daylight Spiral energy saving bulb	E27
929689848205	15 W (60 W) E27 cap Cool daylight Spiral energy saving bulb	E27

## Light Technical (1/2)

# TORNADO

Order Code	Full Product Name	Chromaticity Coordinate X (Nom)	Chromaticity Coordinate Y (Nom)	Color Designation	Correlated
					Color Temperature (Nom)
929689858502	24 W (100 W) B22 cap Warm white Spiral energy saving bulb	463	420	Warm White (WW)	2700 K
929689858302	20 W (75 W) B22 cap Warm white Spiral energy saving bulb	463	420	Warm White (WW)	2700 K
929689858402	20 W (75 W) B22 cap Cool daylight Spiral energy saving bulb	313	337	Cool Daylight	6500 K
929689848506	24 W (100 W) E27 cap Warm white	463	420	Warm White (WW)	2700 K

Order Code	Full Product Name	Chromaticity Coordinate X (Nom)	Chromaticity Coordinate Y (Nom)	Color Designation	Correlated
					Color Temperature (Nom)
	Spiral energy saving bulb				
929689848306	20 W (75 W) E27 cap Warm white Spiral energy saving bulb	463	420	Warm White (WW)	2700 K
929689848405	20 W (75 W) E27 cap Cool daylight Spiral energy saving bulb	313	337	Cool Daylight	6500 K
929689848205	15 W (60 W) E27 cap Cool daylight Spiral energy saving bulb	313	337	Cool Daylight	6500 K

## Light Technical (2/2)

Order Code	Full Product Name	Color		Luminous	Luminous Flux
		rendering index (CRI)	Color Code	Efficacy (rated) (Nom)	
929689858502	24 W (100 W) B22 cap Warm white Spiral energy saving bulb	82	827	67 lm/W	1,550 lm
929689858302	20 W (75 W) B22 cap Warm white Spiral energy saving bulb	82	827	65 lm/W	1,250 lm
929689858402	20 W (75 W) B22 cap Cool daylight Spiral energy saving bulb	80	865	61 lm/W	1,200 lm
929689848506	24 W (100 W) E27 cap Warm white	82	827	67 lm/W	1,550 lm

Order Code	Full Product Name	Color		Luminous	Luminous Flux
		rendering index (CRI)	Color Code	Efficacy (rated) (Nom)	
	Spiral energy saving bulb				
929689848306	20 W (75 W) E27 cap Warm white Spiral energy saving bulb	82	827	65 lm/W	1,250 lm
929689848405	20 W (75 W) E27 cap Cool daylight Spiral energy saving bulb	80	865	61 lm/W	1,200 lm
929689848205	15 W (60 W) E27 cap Cool daylight Spiral energy saving bulb	80	865	61 lm/W	900 lm

## Operating and Electrical

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Order Code	Full Product Name	Lamp	
		Current (Nom)	Power Consumption
929689858502	24 W (100 W) B22 cap Warm white Spiral energy saving bulb	170 mA	24 W
929689858302	20 W (75 W) B22 cap Warm white Spiral energy saving bulb	150 mA	20 W
929689858402	20 W (75 W) B22 cap Cool daylight Spiral energy saving bulb	150 mA	20 W
929689848506	24 W (100 W) E27 cap Warm white Spiral energy saving bulb	170 mA	24 W

Order Code	Full Product Name	Lamp	
		Current (Nom)	Power Consumption
929689848306	20 W (75 W) E27 cap Warm white Spiral energy saving bulb	150 mA	20 W
929689848405	20 W (75 W) E27 cap Cool daylight Spiral energy saving bulb	150 mA	20 W
929689848205	15 W (60 W) E27 cap Cool daylight Spiral energy saving bulb	110 mA	15 W

## Approval and Application

Order Code	Full Product Name	Energy	Mercury (Hg)
		Consumption kWh/1000 h	Content (Nom)
929689858502	24 W (100 W) B22 cap Warm white Spiral energy saving bulb	23 kWh	2 mg
929689858302	20 W (75 W) B22 cap Warm white Spiral energy saving bulb	20 kWh	1.5 mg
929689858402	20 W (75 W) B22 cap Cool daylight Spiral energy saving bulb	20 kWh	1.5 mg
929689848506	24 W (100 W) E27 cap Warm white Spiral energy saving bulb	23 kWh	2 mg

Order Code	Full Product Name	Energy	Mercury (Hg)
		Consumption kWh/1000 h	Content (Nom)
929689848306	20 W (75 W) E27 cap Warm white Spiral energy saving bulb	20 kWh	1.5 mg
929689848405	20 W (75 W) E27 cap Cool daylight Spiral energy saving bulb	20 kWh	1.5 mg
929689848205	15 W (60 W) E27 cap Cool daylight Spiral energy saving bulb	15 kWh	-

