

DOWNLIGHT FIXTURES K L



DOWNLIGHT PRIME K L

LED Recessed Mounted Downlight

Use of modern LED technology in conventional downlight applications provides an optimal light distribution and extended life time all at an affordable price.

VS LED downlights are fully compatible with existing conventional downlight infrastructure, and are the perfect choice for both new and replacement markets.

■ PRIME K L

- COB technology
- High efficiency of up to 148 lm/W
- Slim design for easy installation in low false ceiling
- High colour rendering index CRI: ≥ 85



Downlight Prime K L - Gen. 7

- **LONG SERVICE LIFE TIME: UP TO 100,000 hrs.**
- **UP TO 148 LM/W**
- **HIGH QUALITY COB TECHNOLOGY**
- **5 YEARS GUARANTEE**
more information under www.vossloh-schwabe.com
- **MADE IN GERMANY**



Prime K L – 4"

Indoor LED recessed mounted downlight with aluminium reflector

Reflector: Ø 118 mm, aluminium
 Material: aluminium diecast, powder coating: epoxid
 Flange colour: white (RAL 9003)
 Front part: glass
 Degree of protection: IP44
 (casing: IP20, front part: IP44)

Use of external LED constant current driver
 Operating current range: up to 700 mA
 Voltage range: 30–40 V DC
 Typ. colour accuracy initially: 2 SDCM
 Operating life at $t_a = 25\text{ °C}$

| Lumen maintenance | 350 mA in hrs. | 500 mA in hrs. | 700 mA in hrs. |
|-------------------|-------------------|-------------------|-------------------|
| L90/B10 | > 100,000 | 93,000 | 71,000 |
| L80/B10 | > 100,000 | > 100,000 | > 100,000 |
| L70/B10 | > 100,000 | > 100,000 | > 100,000 |

Applied Standards

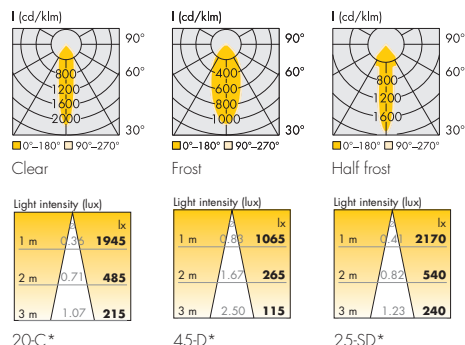
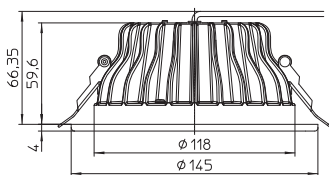
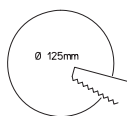
- EN 60598-1:2015
- EN 60598-2-2:1989
- EN 60598-2-2:2012
- EN 62471:2008



IP44
(front)

MADE IN GERMANY

CE
EAC



* $E_{true} = \Phi_{data\ sheet} \cdot E_{nominal} : 1000$
 E_{true} for example 566392 at 500 mA / 3 m distance
 $215\text{ lx} \cdot 2240\text{ lm} : 1000 = 481\text{ lx}$

Electrical Characteristics

| Type | Typ. voltage DC [V] | | | Typ. power consumption [W] | | |
|-----------|---------------------|--------|--------|----------------------------|--------|--------|
| | 350 mA | 500 mA | 700 mA | 350 mA | 500 mA | 700 mA |
| All types | 33.3 | 34.2 | 35.4 | 11.7 | 17.1 | 24.8 |

Voltage and power tolerance: $\pm 10\%$

Maximum Ratings

Exceeding the maximum ratings can lead to reduction of service life or destruction of the modules.

| Type | Max. operating current mA | Ambient temperature range °C min. °C max. | | Storage temperature range °C min. °C max. | | Max. allowed repetitive peak current mA |
|-----------|------------------------------|--|-----|--|------|--|
| | | 0 | +30 | -40 | +105 | |
| All types | 700 | 0 | +30 | -40 | +105 | 1200 |

Optical Characteristics

| Type | Ref. No. | Colour | Correlated colour temperature K | Typ. luminous flux* (lm) and efficiency* (lm/W) at | | | | | | Beam angle ° | Typ. CRI R_a | UGR** |
|------|----------|--------|------------------------------------|--|------|--------|------|--------|------|-----------------|-------------------|-------|
| | | | | 350 mA | | 500 mA | | 700 mA | | | | |
| | | | | lm | lm/W | lm | lm/W | lm | lm/W | | | |

Clear glass

| | | | | | | | | | | | | |
|-------------------------|--------|---------------|------|------|-----|------|-----|------|-----|----|----|----|
| DL-PRIME-K-4-L-830-20-C | 566391 | warm white | 3000 | 1602 | 137 | 2200 | 129 | 2945 | 119 | 20 | 85 | 24 |
| DL-PRIME-K-4-L-840-20-C | 566392 | neutral white | 4000 | 1654 | 141 | 2272 | 133 | 3041 | 123 | 20 | 85 | 24 |
| DL-PRIME-K-4-L-850-20-C | 566393 | cool white | 5000 | 1670 | 143 | 2295 | 134 | 3069 | 124 | 20 | 85 | 24 |

Frost glass

| | | | | | | | | | | | | |
|-------------------------|--------|---------------|------|------|-----|------|-----|------|-----|----|----|----|
| DL-PRIME-K-4-L-830-45-D | 566394 | warm white | 3000 | 1456 | 124 | 1999 | 117 | 2676 | 108 | 45 | 85 | 26 |
| DL-PRIME-K-4-L-840-45-D | 566395 | neutral white | 4000 | 1503 | 128 | 2064 | 121 | 2763 | 111 | 45 | 85 | 26 |
| DL-PRIME-K-4-L-850-45-D | 566396 | cool white | 5000 | 1517 | 130 | 2086 | 122 | 2788 | 112 | 45 | 85 | 26 |

Half frost glass

| | | | | | | | | | | | | |
|--------------------------|--------|---------------|------|------|-----|------|-----|------|-----|----|----|----|
| DL-PRIME-K-4-L-830-25-SD | 566397 | warm white | 3000 | 1550 | 133 | 2129 | 124 | 2850 | 115 | 25 | 85 | 23 |
| DL-PRIME-K-4-L-840-25-SD | 566398 | neutral white | 4000 | 1600 | 137 | 2198 | 129 | 2943 | 119 | 25 | 85 | 23 |
| DL-PRIME-K-4-L-850-25-SD | 566399 | cool white | 5000 | 1616 | 138 | 2221 | 130 | 2970 | 120 | 25 | 85 | 23 |

* Production tolerance of luminous flux and efficiency: $\pm 10\%$ | ** at operating current of 500 mA

The values contained in this data sheet can change due to technical innovations. Any such changes will be made without separate notification.

Prime K L – 6"

Indoor LED recessed mounted downlight with aluminium reflector

Reflector: Ø 165 mm, aluminium
 Material: aluminium diecast, powder coating: epoxid
 Flange colour: white (RAL 9003)
 Front part: glass
 Degree of protection: IP44
 (casing: IP20, front part: IP44)

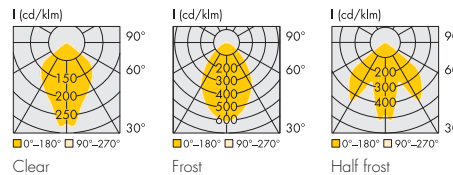
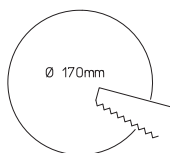
Use of external LED constant current driver
 Operating current range: up to 700 mA
 Voltage range: 30–40 V DC
 Typ. colour accuracy initially: 2 SDCM
 Operating life at $t_a = 25^\circ\text{C}$



IP44
(front)

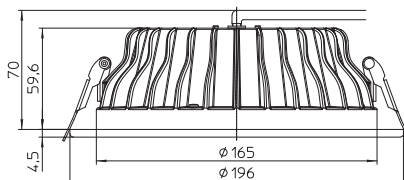
MADE IN GERMANY

CE
EAC



| Light intensity (lux) | 75-C* | 75-D* | 100-SD* |
|-----------------------|--------|--------|---------|
| 1 m | 675 lx | 610 lx | 485 lx |
| 2 m | 165 lx | 150 lx | 120 lx |
| 3 m | 75 lx | 65 lx | 50 lx |

* $E_{true} = \Phi_{data\ sheet} \cdot E_{nominal} : 1000$
 E_{true} for example 566401 at 700 mA / 3 m distance
 $75\text{ lx} \cdot 3010\text{ lm} : 1000 = 226\text{ lx}$



| Lumen maintenance | 350 mA in hrs. | 500 mA in hrs. | 700 mA in hrs. |
|-------------------|----------------|----------------|----------------|
| L90/B10 | > 100,000 | > 100,000 | 82,000 |
| L80/B10 | > 100,000 | > 100,000 | > 100,000 |
| L70/B10 | > 100,000 | > 100,000 | > 100,000 |

Applied Standards

- EN 60598-1:2015
- EN 60598-2-2:1989
- EN 60598-2-2:2012
- EN 62471:2008

Electrical Characteristics

| Type | Typ. voltage DC (V) | | | Typ. power consumption (W) | | |
|-----------|---------------------|--------|--------|----------------------------|--------|--------|
| | 350 mA | 500 mA | 700 mA | 350 mA | 500 mA | 700 mA |
| All types | 33.3 | 34.2 | 35.4 | 11.7 | 17.1 | 24.8 |

Voltage and power tolerance: $\pm 10\%$

Maximum Ratings

Exceeding the maximum ratings can lead to reduction of service life or destruction of the modules.

| Type | Max. operating current mA | Ambient temperature range $^\circ\text{C}$ | | Storage temperature range $^\circ\text{C}$ | | Max. allowed repetitive peak current mA |
|-----------|---------------------------|--|------|--|------|---|
| | | min. | max. | min. | max. | |
| All types | 700 | 0 | +30 | -40 | +105 | 1200 |

Optical Characteristics

| Type | Ref. No. | Colour | Correlated colour temperature K | Typ. luminous flux* (lm) and efficiency* (lm/W) at | | | | | | Beam angle $^\circ$ | Typ. CRI R_a | UGR** |
|------|----------|--------|---------------------------------|--|------|--------|------|--------|------|---------------------|----------------|-------|
| | | | | 350 mA | | 500 mA | | 700 mA | | | | |
| | | | | lm | lm/W | lm | lm/W | lm | lm/W | | | |

Clear glass

| | | | | | | | | | | | | |
|-------------------------|---------------|---------------|------|------|-----|------|-----|------|-----|----|----|----|
| DL-PRIME-K-6-L-830-75-C | 566400 | warm white | 3000 | 1661 | 142 | 2280 | 133 | 3053 | 123 | 75 | 85 | 25 |
| DL-PRIME-K-6-L-840-75-C | 566401 | neutral white | 4000 | 1714 | 147 | 2355 | 138 | 3152 | 127 | 75 | 85 | 25 |
| DL-PRIME-K-6-L-850-75-C | 566402 | cool white | 5000 | 1731 | 148 | 2380 | 139 | 3181 | 128 | 75 | 85 | 25 |

Frost glass

| | | | | | | | | | | | | |
|-------------------------|---------------|---------------|------|------|-----|------|-----|------|-----|----|----|----|
| DL-PRIME-K-6-L-830-75-D | 566403 | warm white | 3000 | 1444 | 123 | 1983 | 116 | 2654 | 107 | 75 | 85 | 26 |
| DL-PRIME-K-6-L-840-75-D | 566404 | neutral white | 4000 | 1491 | 127 | 2047 | 120 | 2741 | 111 | 75 | 85 | 26 |
| DL-PRIME-K-6-L-850-75-D | 566405 | cool white | 5000 | 1505 | 129 | 2069 | 121 | 2766 | 112 | 75 | 85 | 26 |

Half frost glass

| | | | | | | | | | | | | |
|---------------------------|---------------|---------------|------|------|-----|------|-----|------|-----|-----|----|----|
| DL-PRIME-K-6-L-830-100-SD | 566406 | warm white | 3000 | 1568 | 134 | 2152 | 126 | 2882 | 116 | 102 | 85 | 26 |
| DL-PRIME-K-6-L-840-100-SD | 566407 | neutral white | 4000 | 1618 | 138 | 2223 | 130 | 2975 | 120 | 102 | 85 | 26 |
| DL-PRIME-K-6-L-850-100-SD | 566408 | cool white | 5000 | 1634 | 140 | 2246 | 131 | 3003 | 121 | 102 | 85 | 26 |

* Production tolerance of luminous flux and efficiency: $\pm 10\%$ | ** at operating current of 700 mA

The values contained in this data sheet can change due to technical innovations. Any such changes will be made without separate notification.

Prime K L – 8"

Indoor LED recessed mounted downlight with aluminium reflector

Reflector: Ø 206 mm, aluminium
 Material: aluminium diecast, powder coating: epoxid
 Flange colour: white (RAL 9003), Front part: glass
 Degree of protection: IP44

(casing: IP20, front part: IP44)

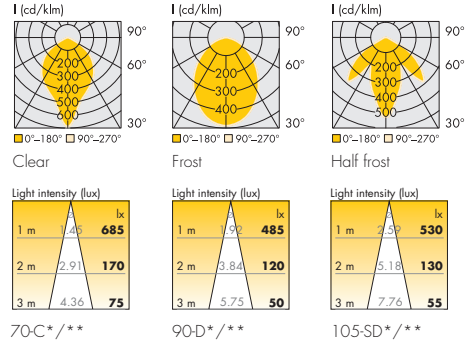
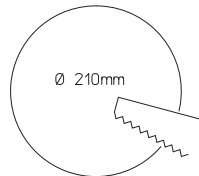
Use of external LED constant current driver

Operating current range: up to 1050 mA

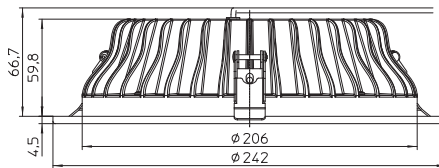
Voltage range: 30–40 V DC

Typ. colour accuracy initially: 2 SDCM

Operating life at $t_a = 25\text{ °C}$



* $E_{true} = \Phi_{data\ sheet} \cdot E_{nominal} : 1000$
 E_{true} for example 566410 at 900 mA / 3 m distance
 $75\text{ lx} \cdot 4050\text{ lm} : 1000 = 304\text{ lx}$



Applied Standards

- EN 60598-1:2015
- EN 60598-2-2:1989
- EN 60598-2-2:2012
- EN 62471:2008

Electrical Characteristics

| Type | Typ. voltage DC (V) | | | Typ. power consumption (W) | | |
|-----------|---------------------|--------|---------|----------------------------|--------|---------|
| | 700 mA | 900 mA | 1050 mA | 700 mA | 900 mA | 1050 mA |
| All types | 35.7 | 34.4 | 34.9 | 23.6 | 31 | 36.7 |

Voltage and power tolerance: $\pm 10\%$

Maximum Ratings

Exceeding the maximum ratings can lead to reduction of service life or destruction of the modules.

| Type | Max. operating current mA | Ambient temperature range °C min. / °C max. | | Storage temperature range °C min. / °C max. | | Max. allowed repetitive peak current mA |
|-----------|------------------------------|--|-----|--|------|--|
| | | 0 | +30 | -40 | +105 | |
| All types | 1050 | 0 | +30 | -40 | +105 | 1200 |

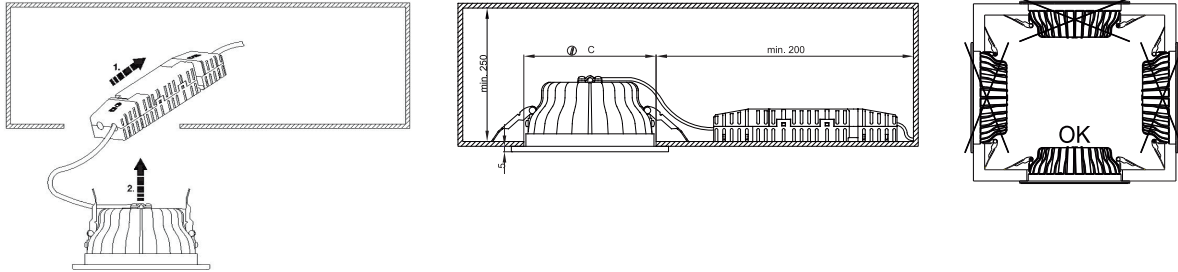
Optical Characteristics

| Type | Ref. No. | Colour | Correlated colour temperature K | Typ. luminous flux* (lm) and efficiency* (lm/W) at | | | | | | Beam angle ° | Typ. CRI R_a | UGR** |
|---------------------------|---------------|---------------|------------------------------------|--|------|--------|------|---------|------|-----------------|-------------------|-------|
| | | | | 700 mA | | 900 mA | | 1050 mA | | | | |
| | | | | lm | lm/W | lm | lm/W | lm | lm/W | | | |
| Clear glass | | | | | | | | | | | | |
| DL-PRIME-K-8-L-830-70-C | 566409 | warm white | 3000 | 3154 | 134 | 3936 | 127 | 4488 | 122 | 70 | 85 | 25 |
| DL-PRIME-K-8-L-840-70-C | 566410 | neutral white | 4000 | 3261 | 138 | 4066 | 132 | 4639 | 126 | 70 | 85 | 25 |
| DL-PRIME-K-8-L-850-70-C | 566411 | cool white | 5000 | 3297 | 140 | 4106 | 133 | 4687 | 128 | 70 | 85 | 25 |
| Frost glass | | | | | | | | | | | | |
| DL-PRIME-K-8-L-830-90-D | 566412 | warm white | 3000 | 2747 | 116 | 3303 | 107 | 3910 | 107 | 88 | 85 | 27 |
| DL-PRIME-K-8-L-840-90-D | 566413 | neutral white | 4000 | 2841 | 120 | 3424 | 111 | 4041 | 110 | 88 | 85 | 27 |
| DL-PRIME-K-8-L-850-90-D | 566414 | cool white | 5000 | 2872 | 122 | 3454 | 112 | 4083 | 111 | 88 | 85 | 27 |
| Half frost glass | | | | | | | | | | | | |
| DL-PRIME-K-8-L-830-105-SD | 566415 | warm white | 3000 | 2968 | 125 | 3790 | 123 | 4225 | 115 | 105 | 85 | 27 |
| DL-PRIME-K-8-L-840-105-SD | 571119 | neutral white | 4000 | 3069 | 130 | 3916 | 127 | 4367 | 119 | 105 | 85 | 27 |
| DL-PRIME-K-8-L-850-105-SD | 571123 | cool white | 5000 | 3103 | 131 | 3951 | 128 | 4412 | 120 | 105 | 85 | 27 |

* Production tolerance of luminous flux and efficiency: $\pm 10\%$ | ** at operating current of 900 mA

The values contained in this data sheet can change due to technical innovations. Any such changes will be made without separate notification.

Downlights Prime K L – Safety and Assembly Information



LED Constant Current Drivers

| Max. output W | Ref. No. | Version | Output current mA | Output voltage DC V | Casing | Dimensions LxBxH (mm) | Max. service lifetime/casing temperature | |
|--------------------|-----------------|--------------------|-------------------|---------------------|--------|-----------------------|--|---------------------|
| | | | | | | | Std. | t _c (°C) |
| PrimeLine | | | | | | | | |
| 24 | 186465 | DALI/PUSH | 350 | 14–34 | K2.1 | 103.6 x 67.4 x 31 | 100,000 | 65 |
| | 186573 | DALI/PUSH | 500 | 14–34 | K2.1 | 103.6 x 67.4 x 31 | 100,000 | 65 |
| | 186574 | DALI/PUSH | 700 | 14–34 | K2.1 | 103.6 x 67.4 x 31 | 100,000 | 65 |
| 37 | 186503 | DALI/PUSH | 350 | 30–53 | K3.2 | 123.4 x 79.4 x 32.6 | 100,000 | 65 |
| | 186571 | DALI/PUSH | 500 | 30–53 | K3.2 | 123.4 x 79.4 x 32.6 | 100,000 | 65 |
| | 186572 | DALI/PUSH | 700 | 30–53 | K3.2 | 123.4 x 79.4 x 32.6 | 100,000 | 65 |
| 38 | 186763 | DALI/PUSH | 1050 | 10–36 | K33.3 | 146.5 x 43.2 x 30.1 | 100,000 | 75 |
| ComfortLine | | | | | | | | |
| 21 | 186843** | on/off, DIP switch | 250–500 | 25–42 | K25 | 97 x 43 x 29.5 | 50,000 | 70 |
| 24 | 186279 | 1–10 V | 700 | 14–34 | K2.1 | 103.6 x 67.4 x 31 | 100,000 | 65 |
| 22 | 186651* | on/off | 400–500 | 25–43 | K33.1 | 169 x 43 x 30 | 100,000 | 60 |
| 29 | 186842** | on/off, DIP switch | 500–700 | 23–42 | K25 | 97 x 43 x 29.5 | 50,000 | 70 |
| 30 | 186652* | on/off | 600–700 | 25–43 | K33.1 | 169 x 43 x 30 | 100,000 | 65 |
| 39 | 186653* | on/off | 800–900 | 25–43 | K33.1 | 169 x 43 x 30 | 100,000 | 70 |
| 44 | 186841** | on/off, DIP switch | 800–1050 | 25–42 | K25 | 97 x 43 x 29.5 | 50,000 | 70 |
| 45 | 186654* | on/off | 950–1050 | 25–43 | K33.1 | 169 x 43 x 30 | 100,000 | 70 |
| EasyLine | | | | | | | | |
| 28,5 | 186531 | on/off | 500 | 25–57 | K2.1 | 103.6 x 67.4 x 31 | 50,000 | 70 |
| 34,2 | | | 600 | | | | | |
| 40 | | | 700 | | | | | |
| 34,4 | 186532 | on/off | 800 | 25–43 | K2.1 | 103.6 x 67.4 x 31 | 50,000 | 70 |
| 39,8 | | | 925 | | | | | |
| 45 | | | 1050 | | | | | |

* Cord grip 186690 for protection class II required | ** Cord grip 186845 for protection class II required

Downlights Prime K L

Comparison with Compact Fluorescent Lamps



| Type | LED | CFL |
|------------------|--------------|-------------|
| Service lifetime | 100,000 hrs. | 10,000 hrs. |
| Prime K L – 4" | 17 W | 2 x 13 W |
| Prime K L – 6" | 25 W | 2 x 18 W |
| Prime K L – 8" | 31 W | 2 x 26 W |

Safety and Installation Instructions

The following instructions must be observed. Non-observance can result in personal injury and damage to property or can destroy both luminaire and/or control gear. In such cases, the manufacturer's liability and any entitlement to warranty claims will be invalidated.


General Instructions

- Please read these instructions prior to installation/commissioning and keep them safe for future use.
- Any modification carried out on the luminaire itself will invalidate the manufacturer's liability.
- The luminaire contains integrated and non-exchangeable LED light sources.
- Care must be taken to ensure the luminaire is operated only using the supplied Vossloh-Schwabe control gear and accessories or using an alternative brand of approved control gear.
- Given functional problems, please contact your Vossloh-Schwabe representative.


Installation and Operating Instructions


- Depending on the site of operation, the degree of protection will have to be observed during installation.
- Installation of this luminaire may be undertaken only by authorised and suitably trained staff in accordance with any country-specific regulations.
- Installation must be carried out only after disconnecting the device from mains voltage, i.e. in a voltage-free state.
- For trouble-free operation, it is important to ensure that the permissible ambient temperature range is not exceeded.
- Only ever operate the luminaire with all protective covers in place.
- Should the power supply cable be damaged, please scrap the luminaire and/or contact your VS representative.
- Please ensure that the correct supply voltage is applied by checking it against the voltage requirements of the luminaire and the driver.
- Connecting luminaires (LED modules) to supply units that are already connected to the mains can result in long-term damage.
- Touchable luminaire parts can reach high temperatures (risk of burning)!
- Highly flammable materials (e.g. cladding or insulation material) must be kept away from the luminaire.

Safety Symbols


 Specifies the minimum clearance to flammable materials in the direction of radiation.

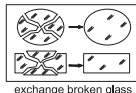
 Indoor operation

 Please ensure that the way the luminaire is positioned means there is no reason to expect anyone could look into it for a longer period of time with less clearance than stated in the datasheet

 Caution: risk of electric shock

 **ESD Schutzmaßnahmen einhalten / Comply with ESD protection measures** Caution: components with a risk of electrostatic charging

 Luminaire/voltage supply unit must not be covered with any thermally insulating materials or similar.

 Any cover with damage must be replaced
exchange broken glass

Cleaning Instructions

- Depending on the conditions on site, the luminaire must be cleaned on a regular basis.
- Prior to cleaning the luminaire, please ensure it is disconnected from the mains and is given time to cool down.
- Never use any flammable, abrasive, harsh or corrosive cleaning liquids.
- Once it has cooled down, the luminaire can be cleaned with a damp cloth.
- Let the luminaire dry fully before switching it back on.

Answers to technical questions can be found on our website at www.vossloh-schwabe.com or ask your Vossloh-Schwabe representative.

Product guarantee

- 5 years
- The conditions for the Product Guarantee of the Vossloh-Schwabe Group shall apply as published on our homepage (www.vossloh-schwabe.com). We will be happy to send you these conditions upon request.

The values contained in this data sheet can change due to technical innovations. Any such changes will be made without separate notification.