## LED floodlight



#### 6125/2122-3501-6015-331 Art. No. 284564



- LED high-power floodlight with power consumption of up to 225 W
- Wide-range voltage input between 110 V and 277 V (50 Hz and 60 Hz)
- Suitable for operation in central battery systems and DC mains (176 V to 264 V DC)
- Three wattage classes are available: 100 W, 160 W and 225 W
- An enclosure made from stainless steel 316L is also available for marine and offshore applications.
- · Optionally available with DALI interface

## MY R. STAHL 6125B



The new generation of LED floodlights for Zone 1 also relies on the tried-and-tested, robust stainless steel enclosure (optionally seawater-resistant stainless steel 316L). However, thanks to their smaller design and a new generation of drivers, they weigh significantly less, thereby improving ergonomics during installation and operation. Now with three power classes and the three tried-and-tested light distribution curves, the LED floodlight generates three colours of LED light – warm white, neutral white and cold white.

#### **Technical Data**

| Explosion Protection            |   |
|---------------------------------|---|
| Application range (zones)       | 1, 2, 21, 22  |
| IECEx gas certificate           | IECEx EPS 15.0087                                     |
| IECEx gas explosion protection  | Ex db eb op is IIC T4 Gb                              |
| IECEx dust certificate          | IECEx EPS 15.0087                                     |
| IECEx dust explosion protection | Ex tb op is IIIC T100 °C Db                           |
| ATEX gas certificate            | EPS 15 ATEX 1 114                                     |
| ATEX gas explosion protection   |   |
| ATEX dust certificate           | EPS 15 ATEX 1 114                                     |
| ATEX dust explosion protection  |   |
| Certificates                    | ATEX (BVIS), Brazil (ULB), IECEx (BVIS), India (PESO) |
| Declaration of Conformity       | ATEX (EUK)  |
| Electrical Data                 |   |
| Rated operational voltage AC    | 110 277 V   |
| Frequency range                 | 50 – 60 Hz  |
| Lighting Data                   |   |
| Lamp wattage                    | 160 W   |
| Lamp type                       | LED   |
| Lamp                            | LED   |
| Light colour                    | Neutral white   |
| Light distribution              | Medium-beam   |
| Luminaire efficacy              | 99 lm/W   |
| Luminous flux                   | 15413 lm  |
| Colour rendering                | ≥ 80  |
| Colour temperature              | 5000 K  |

1/6

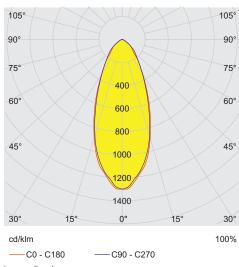
# LED floodlight



## 6125/2122-3501-6015-331 Art. No. 284564

| Ambient Conditions                        |  |
|---|--|
| Ambient temperature                       | -60 °C +60 °C  |
| Storage temperature                       | -40 °C +75 °C  |
| Mechanical Data                           |  |
| Degree of protection (IP)                 | IP66   |
| Class                                     | I  |
| Enclosure material                        | Stainless steel 1.4301, Powder-coated Single-layer powder-coated |
| Enclosure colour                          | Similar to RAL 9010  |
| Sealing material                          | Silicone   |
| Pane material                             | Reinforced glass   |
| Max. solid connection terminals           | 6 mm <sup>2</sup>  |
| Max. finely stranded connection terminals | 4 mm <sup>2</sup>  |
| Type of connection cable                  | Finely stranded Solid  |
| Width                                     | 400 mm   |
| Height                                    | 84 mm  |
| Length                                    | 520 mm   |
| Impact strength (IEC 62262)               | IK10   |
| Fastening                                 | With bracket, SS304  |
| Weight                                    | 18.5 kg  |
| Weight                                    | 40.79 lb   |
| Mounting / Installation                   |  |
| Note about mounting                       | Provided   |
| Components                                |  |
| Drilled holes                             | 3 x M25  |
| Cable glands and entries                  | 1 x M25 x 1.5<br>CMP-25A2F                                       |
| Material cable gland                      | Nickel-plated brass  |
| Stopping plugs                            | 2 x M25 x 1.5  |
| Stopping plug material                    | Polyamide, black   |
|   |  |

#### **Light Distribution Curves**

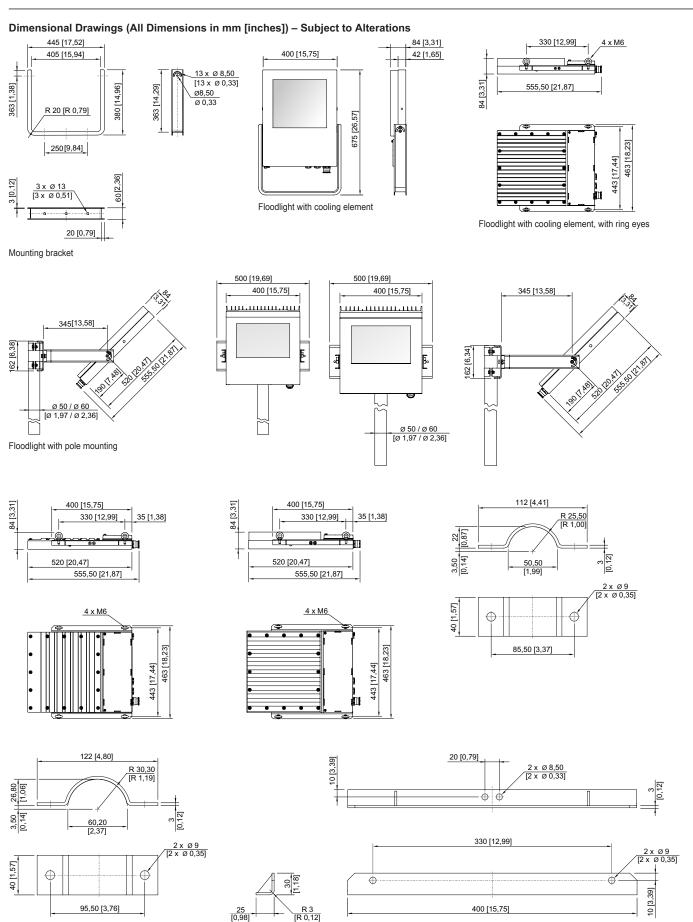


typ. medium beam

## LED floodlight



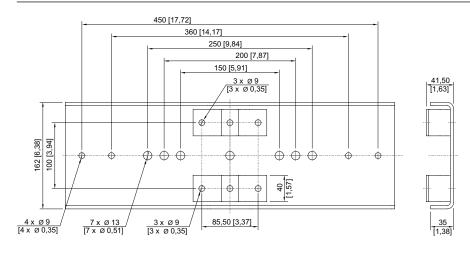
## 6125/2122-3501-6015-331 Art. No. 284564

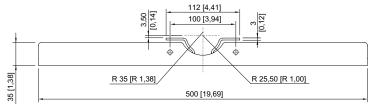


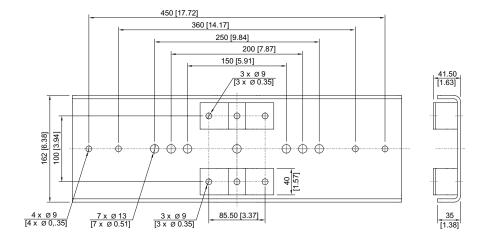
3/6

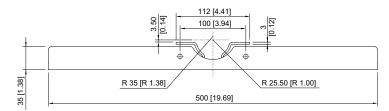


## 6125/2122-3501-6015-331 Art. No. 284564





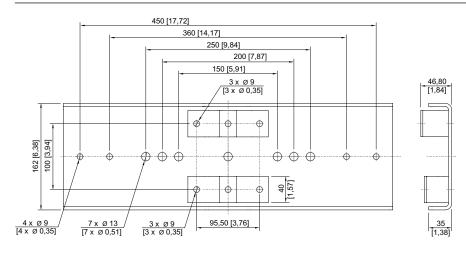


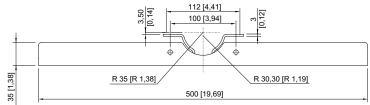


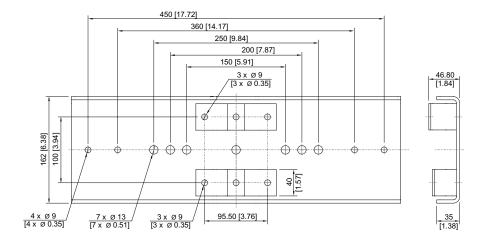
# LED floodlight

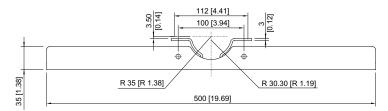


## 6125/2122-3501-6015-331 Art. No. 284564









#### **Accessories**

| Mounting set |   | Art. No. |
|--------------|---|----------|
|              | for pendant mounting with ring bolts included - stainless steel SS316L (1.4404 or V4A) without powder coating | 257464   |

# LED floodlight



# 6125/2122-3501-6015-331 Art. No. 284564

|                 | for pole mounting with pole diameter of 50 mm - stainless steel SS316L (1.4404 or V4A) without powder coating | 283361   |
|-----------------|---|----------|
|                 | for pole mounting with pole diameter of 60 mm - stainless steel SS316L (1.4404 or V4A) without powder coating | 263824   |
| ng bolt         |   | Art. No. |
|                 | M6 (4 pieces), direct mounting in insert nuts   | 254234   |
| ounting bracket |   | Art. No. |
| ő               | Sheet steel, single powder coated   | 244604   |
|                 | Stainless steel SS316L (1.4404 or V4A) without powder coating   | 221589   |

We reserve the right to make alterations to the technical data, dimensions, weights, designs and products available without notice. The illustrations cannot be considered binding.



# Floodlight LED

Series 6125/2



# Contents

| 1   | General Information                              | 3  |
|-----|--|----|
| 1.1 | Manufacturer                                     | 3  |
| 1.2 | Information regarding the operating instructions | 3  |
| 1.3 | Further documents                                |    |
| 1.4 | Conformity with standards and regulations        | 3  |
| 2   | Explanation of the symbols                       |    |
| 2.1 | Symbols in these operating instructions          |    |
| 2.2 | Warning notes                                    |    |
| 2.3 | Symbols on the device                            | 5  |
| 3   | Safety notes                                     | 5  |
| 3.1 | Operating instructions storage                   | 5  |
| 3.2 | Safe use   | 5  |
| 3.3 | Intended Use                                     | 6  |
| 3.4 | Modifications and alterations                    | 6  |
| 4   | Function and device design                       | 6  |
| 4.1 | Function   | 6  |
| 4.2 | Device design                                    | 7  |
| 5   | Technical data                                   | 8  |
| 6   | Transport and storage                            | 13 |
| 7   | Mounting and installation                        | 14 |
| 7.1 | Dimensions / fastening dimensions                | 15 |
| 7.2 | Mounting / dismounting, operating position       | 16 |
| 7.3 | Installation                                     | 18 |
| 8   | Commissioning                                    | 22 |
| 9   | Maintenance, Overhaul, Repair                    | 23 |
| 9.1 | Maintenance                                      | 23 |
| 9.2 | Repair   | 24 |
| 9.3 | Returning the device                             | 24 |
| 10  | Cleaning   | 25 |
| 11  | Disposal   | 25 |
| 12  | Accessories and Spare parts                      | 25 |



## 2 Explanation of the symbols

## 2.1 Symbols in these operating instructions

| Symbol | Meaning  |
|--------|--|
| i      | Tips and recommendations on the use of the device      |
| EX     | Danger due to explosive atmosphere                     |
| 4      | Danger due to live components                          |
|        | Risk of damage to the eyes caused by optical radiation |

## 2.2 Warning notes

Warnings must be observed under all circumstances, in order to minimize the risk due to construction and operation. The warning notes have the following structure:

- Signalling word: DANGER, WARNING, CAUTION, NOTICE
- Type and source of danger/damage
- · Consequences of danger
- · Taking countermeasures to avoid the danger or damage



#### **DANGER**

Danger to persons

Non-compliance with the instruction results in severe or fatal injuries to persons.



#### WARNING

Danger to persons

Non-compliance with the instruction can result in severe or fatal injuries to persons.



#### **CAUTION**

Danger to persons

Non-compliance with the instruction can result in light injuries to persons.

## **NOTICE**

Avoiding material damage

Non-compliance with the instruction can result in material damage to the device and / or its environment.



### 2.3 Symbols on the device

| Symbol                   | Meaning   |
|--------------------------|---|
| <b>C €</b> 0158          | CE marking according to the currently applicable directive.   |
| UK<br>CA8505<br>23486E00 | UKCA marking according to the currently applicable directive. |
| <b>⟨£x⟩</b> 02198E00     | According to marking, device approved for hazardous areas.    |

## 3 Safety notes

## 3.1 Operating instructions storage

- · Read the operating instructions carefully.
- Store the operating instructions at the mounting location of the device.
- Observe applicable documents and operating instructions of the devices to be connected.

#### 3.2 Safe use

#### Before mounting

- · Read and observe the safety notes in these operating instructions!
- Ensure that the contents of these operating instructions are fully understood by the personnel in charge.
- Use the device in accordance with its intended and approved purpose only.
- Always consult R. STAHL Schaltgeräte GmbH if using the device under operating conditions which are not covered by the technical data.
- We cannot be held liable for damage to the device caused by incorrect or unauthorised use or non-compliance with these operating instructions.

#### For assembly and installation

- Observe national assembly and installation regulations (e.g. IEC/EN 60079-14).
- Observe national safety and accident prevention regulations.
- During installation and operation, observe the information (characteristic values and rated operating conditions) on the type plates and data plates and information signs located on the device.
- Before installation, make sure that the device is not damaged.

#### Maintenance, repair, commissioning

- Before commissioning, make sure that the device is not damaged.
- Work on the device, such as installation, maintenance, overhaul, repair, may only be carried out by appropriately authorised and trained personnel.
- Perform only maintenance work or repair described in these operating instructions.

#### 3.3 Intended Use

The luminaire is equipment

- · for lighting areas, work spaces and objects
- · can be used indoors and outdoors
- · for stationary mounting
- for use in Zones 1, 21, 2, 22 and in the safe area

#### 3.4 Modifications and alterations



#### **DANGER**

Explosion hazard due to modifications and alterations to the device! Non-compliance results in severe or fatal injuries.

Do not modify or alter the device.



No liability or warranty for damage resulting from modifications and alterations.

## 4 Function and device design



#### **DANGER**

Explosion hazard due to improper use!

Non-compliance results in severe or fatal injuries.

- Use the device only in accordance with the operating conditions described in these operating instructions.
- Use the device only for the intended purpose specified in these operating instructions.

#### 4.1 Function

#### **Application range**

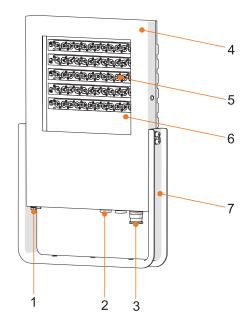
The LED floodlight 6125/2 is equipment used for lighting areas, work equipment and objects.

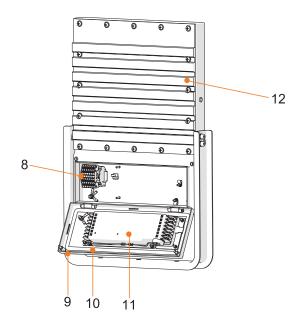
It can be used indoors and outdoors.

The floodlight is certified for use in Zones 1, 2, 21 and 22 hazardous areas.



# 4.2 Device design





22206E00

- 1 External PE connection
- 2 Stopping plug
- 3 Cable entry
- 4 Enclosure
- 5 LED
- 6 Luminaire glass cover

- 7 Mounting bracket
- 8 Connection terminal
- 9 Cover connection enclosure
- 10 Seal connection enclosure
- 11 Control gear
- 12 Heat sink

#### **Explosion Protection**

#### Global (IECEx)

Gas and dust IECEx EPS 15.0087

Ex db eb op is IIC T4 Gb Ex tb op is IIIC T100 °C Db

#### Europe (ATEX, UKEX)

Gas and dust

EPS 15 ATEX 1 114, CML 21UKEX1558

⟨ II 2 G Ex db eb op is IIC T4 Gb⟨ II 2 D Ex tb op is IIIC T100 °C Db

#### Certifications and certificates

Certificates

IECEx, ATEX, UKEX

#### **Technical Data**

#### Electrical data

Control gear

Rated voltage

without DALI:

AC: 110 to 277 V ±10%; 50 to 60 Hz

DC: 196 to 250 V ±10%

with DALI:

AC: 100 to 277 V ±10%; 50 to 60 Hz

DC: 110 to 250 V ±10%

Rated current

|          | Variant 100 W | Variant 160 W | Variant 225 W |
|----------|---------------|---------------|---------------|
| 110 V AC | ≤ 1.05 A      | ≤ 1.61 A      | ≤ 2.38 A      |
| 230 V AC | ≤ 0.50 A      | ≤ 0.74 A      | ≤ 1.10 A      |
| 277 V AC | ≤ 0.42 A      | ≤ 0.63 A      | ≤ 0.91 A      |

Inrush current

|         |          | Inrush            | light fittings per circuit breaker |     |     |     |     |     |     |     |     |
|---------|----------|-------------------|------------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|
| Variant | Voltage  | I <sub>peak</sub> | Δt                                 | B10 | B16 | B20 | B25 | C10 | C16 | C20 | C25 |
| 100 W   | 110 V AC | 0 A               | > 100 µs                           | 6   | 10  | 13  | 16  | 7   | 11  | 14  | 17  |
|         | 230 V AC | 0 A               | > 100 µs                           | 15  | 24  | 30  | 37  | 16  | 25  | 31  | 38  |
|         | 277 V AC | 0 A               | > 100 µs                           | 19  | 31  | 39  | 49  | 20  | 32  | 40  | 50  |
| 160 W   | 110 V AC | 0 A               | > 100 µs                           | 4   | 7   | 8   | 11  | 5   | 8   | 9   | 12  |
|         | 230 V AC | 0 A               | > 100 µs                           | 10  | 16  | 20  | 25  | 11  | 17  | 21  | 26  |
|         | 277 V AC | 0 A               | > 100 µs                           | 13  | 21  | 26  | 32  | 14  | 22  | 27  | 33  |
| 225 W   | 110 V AC | 0 A               | > 100 µs                           | 3   | 5   | 6   | 8   | 4   | 6   | 7   | 9   |
|         | 230 V AC | 0 A               | > 100 µs                           | 7   | 11  | 14  | 17  | 8   | 12  | 15  | 18  |
|         | 277 V AC | 0 A               | > 100 µs                           | 9   | 15  | 18  | 23  | 10  | 16  | 19  | 24  |



Power factor > 0.95
THD ≤ 13%

Surge Protection N - PE: 4 kV

L - PE: 4 kV L - N: 2 kV

Protection class I (with internal PE connection)

#### **Luminous characteristics**

Standard Light colour: Warm white

Colour temperature [K]: 2,700 K

Colour rendering R<sub>a</sub>: ≥80 Application example: lighting of desktops

|                           | 6125/21<br>3 | 6125/23<br>3 | 6125/25<br>3 |
|---------------------------|--------------|--------------|--------------|
| Variant                   | 100 W        | 160 W        | 225 W        |
| Power consumption [W]     | 100          | 155          | 220          |
| Wide-beam                 |              |              |              |
| Luminous flux [lm]        | 8,816        | 12,605       | 17,222       |
| Luminaire efficacy [lm/W] | 88           | 81           | 78           |
| Medium-beam               |              |              |              |
| Luminous flux [lm]        | 9,242        | 13,311       | 18,058       |
| Luminaire efficacy [lm/W] | 92           | 86           | 82           |
| Narrow-beam               |              |              |              |
| Luminous flux [lm]        | 9,576        | 13,665       | 18,559       |
| Luminaire efficacy [lm/W] | 96           | 88           | 84           |

Values apply to  $T_a = +25$  °C.



Light colour: Neutral white Colour temperature [K]: 5,000 K Colour rendering R<sub>a</sub>: ≥80

Application example: lighting of desktops

|                           | 6125/21<br>5 | 6125/23<br>5 | 6125/25<br>5 |
|---------------------------|--------------|--------------|--------------|
| Variant                   | 100 W        | 160 W        | 225 W        |
| Power consumption [W]     | 100          | 155          | 220          |
| Wide-beam                 |              |              |              |
| Luminous flux [lm]        | 10,208       | 14,595       | 19,941       |
| Luminaire efficacy [lm/W] | 102          | 94           | 91           |
| Medium-beam               |              |              |              |
| Luminous flux [lm]        | 10,701       | 15,413       | 20,909       |
| Luminaire efficacy [lm/W] | 107          | 99           | 95           |
| Narrow-beam               |              |              |              |
| Luminous flux [lm]        | 11,088       | 15,822       | 21,490       |
| Luminaire efficacy [lm/W] | 111          | 102          | 98           |

Alternative

Light colour: Warm neutral white Colour temperature [K]: 4,000 K

Colour rendering R<sub>a</sub>: ≥80 Application example: lighting of desktops

| 6125/21<br>4 | 6125/23<br>4  | 6125/25<br>4  |
|--------------|---|---|
| 100 W        | 160 W   | 225 W   |
| 100          | 155   | 220   |
|              |   |   |
| 9,860        | 14,097  | 19,261  |
| 99           | 91  | 88  |
|              |   |   |
| 10,336       | 14,888  | 20,196  |
| 103          | 96  | 92  |
|              |   |   |
| 10,710       | 15,283  | 20,757  |
| 107          | 99  | 94  |
|              | <b>4-</b><br>100 W<br>100<br>9,860<br>99<br>10,336<br>103 | 100 W 160 W 100 155 9,860 14,097 99 91 10,336 14,888 103 96 10,710 15,283 |

Values apply to  $T_a = +25 \,^{\circ}\text{C}$ .



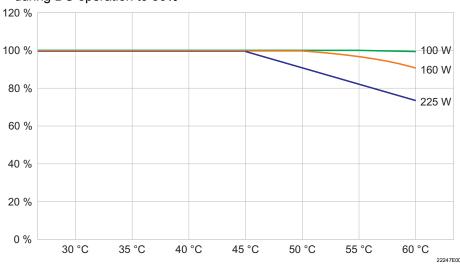
Light colour: Cool white Colour temperature [K]: 5,700 K Colour rendering  $R_a$ : ≥70

Application example: Lighting outside areas

|                           | 6125/21<br>1 | 6125/23<br>1 | 6125/25<br>1 |
|---------------------------|--------------|--------------|--------------|
| Variant                   | 100 W        | 160 W        | 225 W        |
| Power consumption [W]     | 100          | 155          | 220          |
| Wide-beam                 |              |              |              |
| Luminous flux [lm]        | 11,574       | 16,631       | 22,654       |
| Luminaire efficacy [lm/W] | 116          | 107          | 103          |
| Medium-beam               |              |              |              |
| Luminous flux [lm]        | 12,160       | 17,444       | 23,806       |
| Luminaire efficacy [lm/W] | 122          | 113          | 108          |
| Narrow-beam               |              |              |              |
| Luminous flux [lm]        | 12,565       | 18,022       | 24,562       |
| Luminaire efficacy [lm/W] | 126          | 116          | 111          |

Values apply to  $T_a$  = +25 °C.

• during DC operation to 50%



Luminous flux decline

#### **Ambient conditions**

Functional ambient temperature range

**4,000 K, 5,000 K, 5,700 K:**Variant 100 W: -50\* to +60 °C
Variant 160 W: -60\* to +60 °C
Variant 225 W: -60\* to +60 °C

2,700 K:

Variant 100 W: -50\* to +55 °C Variant 160 W: -60\* to +55 °C Variant 225 W: -60\* to +55 °C

\* Note: Possible to operate the luminaire below -40 °C, provided the luminaire is switched on at -40 °C. Delay of 10 seconds below -40 °C.

Storage temperature

-40 to +75 °C

#### Service life

**LED** 

 $L_{90}B_{50}$ : 66,000 h at  $T_a$ max.

 $L_xB_v$ 

At the end of the service life:

- · Luminous flux declines to "x" percent
- Up to "y" percent of all luminaires fall below "x"

LED control gear

|   | C10       |
|---|-----------|
| T <sub>a</sub> ≤ +25 °C   | 100,000 h |
| $+25 ^{\circ}\text{C} \le \text{T}_{\text{a}} \le +40 ^{\circ}\text{C}$ | 60,000 h  |
| +40 °C ≤ T <sub>a</sub> ≤ +60 °C  | 50,000 h  |

#### Mechanical data

Degree of protection

IP66

IP67 (optionally according to IEC 60598-1) 1) Do not loosen any of the screws on the heat sink.

Impact strength

IK10 (IEC 62262)

(IK code)

Material Enclosure.

cover and bracket

**6125/2...-....-331** Stainless steel SS304 (1.4301 or V2A),

Enclosure, cover with single powder coating,

bracket without powder coating

**6125/2...-...-242** Stainless steel SS316L (1.4404 or V4A),

Enclosure, cover with double powder coating (offshore coating), bracket without powder

coating

Enclosure colours

Seal (cover)

Colour white, similar to RAL 9010 Foamed silicone in luminaire cover

Luminaire glass

cover

Toughened glass

Luminaire locking

Cheese-head screws TORX M6



#### Mounting / Installation

1 x cable gland Series CMP A2F Cable entry

2 x stopping plugs Series 8290

Spring clamp terminals Connection

Standard: 5-pole: L1, L2, L3, N, PE

with DALI: 7-pole: L1, L2, L3, N, PE, D1, D2

Clamping range:

1x 1.5 to 4 mm<sup>2</sup> (finely stranded)
1x 1.5 to 6 mm<sup>2</sup> (solid and finely stranded with core end sleeve)

(2 free clamping units per pole available)

Loop in/loop out

wiring

max. 16 A

Optional

**DALI-connection** DALI-interface in accordance with IEC 62386-207:2009-08

The maximum permissible voltage drop on the DALI conductor is defined with

a maximum of 2 V.

This corresponds with a maximum conductor length of 300 m, with a conductor

cross-section of 1.5 mm<sup>2</sup>.

For further technical data, see r-stahl.com.

#### 6 Transport and storage

- Transport and store the device only in the original packaging.
- Store the device in a dry place (no condensation) and vibration-free.
- Do not drop the device.



#### Mounting and installation 7



#### **DANGER**

Explosion hazard due to electrostatic discharge! Non-complicance results in severe or fatal injuries.

Do not use the device in strong charge generating environments!

The following processes/activities should be avoided:

- accidental friction
- particle currents



#### **DANGER**

Explosion hazard due to incorrect installation of the device! Non-compliance results in severe or fatal injuries.

- · Carry out installation strictly according to the instructions and national safety and accident prevention regulations to maintain the explosion protection.
- Select and install the electrical device so that explosion protection is not affected due to external influences, i.e. pressure conditions, chemical, mechanical, thermal and electric impact such as vibration, humidity and corrosion (see IEC/EN 60079-14).
- The device must only be installed by trained qualified personnel who is familiar with the relevant standards.

#### NOTICE

Malfunction or device damage caused by condensation.

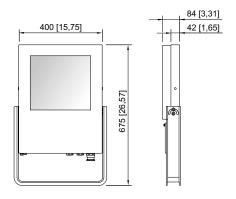
Non-compliance can result in material damage!

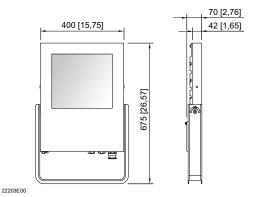
- operate the luminaire continuously or periodically over extended periods of time.
- avoid thermal bridges, use suitable installation accessories.



## 7.1 Dimensions / fastening dimensions

## Dimensional drawings (all dimensions in mm [inches]) – Subject to modification





## **Floodlights**

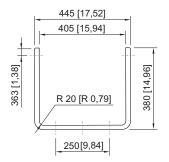
Heat sink with fins

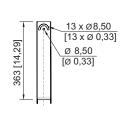
6125/2...-3...-3.. (Variant 160 W) 6125/2...-3...-2.. (Variant 160 W) 6125/2...-5...-3.. (Variant 225 W) 6125/2...-5...-2.. (Variant 225 W)

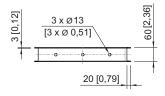
## **Floodlights**

Heat sink without fins

6125/2...-1...-3.. (Variant 100 W) 6125/2...-1...-2.. (Variant 100 W)







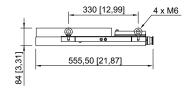
17561E00

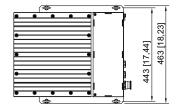
22204E00

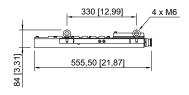
## Mounting bracket

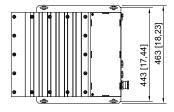
## **Dimensional drawings** (all dimensions in mm [inches]) – Subject to modification

22209E00









Floodlights with ring eyes Heat sink with fins

6125/2...-3...-0.. (Variant 160 W) 6125/2...-5...-0.. (Variant 225 W)

## Floodlights with ring eyes

Heat sink without fins 6125/2...-1...-0.. (Variant 100 W)

#### 7.2 Mounting / dismounting, operating position



#### **DANGER**

Explosion hazard due to inadmissible heating!

Non-compliance results in severe or fatal injuries.

- Avoid external heat sources comply with the ambient temperature range (risk of change of temperature class or change of maximum permissible surface temperature).
- Do not exceed the maximum ambient temperature due to external heat sources (premature failure of equipment).



#### CAUTION

Risk of damage to the eyes caused by optical radiation! Non-compliance can result in light injuries!

A minimum distance of 7.751 m between the luminaire and the eye of the viewer must be maintained for the version with narrow-beam light distribution.



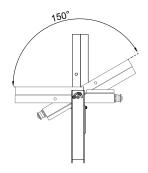
The luminaire is suitable for wall, ceiling mounting and pole mounting with a mounting bracket.

Do not install the luminaire so that light is emitted upward and/or so that the cable entry is pointing upward.

- Maximum tightening torque of 10 Nm for connection screw of the mounting bracket and floodlight.
- Pendant mounting with ring eyes (M6).

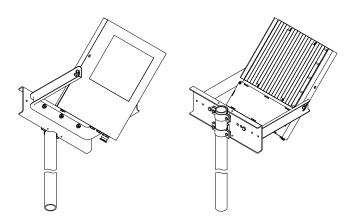


## Mounting alignment



22244E00

## Pole mounting

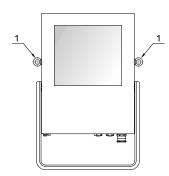


22243E00

# Mounting with fall protection



The floodlight can be further protected in unexpected situations by mounting 2 ring eyes (1).



22242E00

#### 7.3 Installation

## 7.3.1 Opening and Closing of the Enclosure



## **DANGER**

Risk of electric shock due to improper opening! Non-compliance results in severe or fatal injuries.

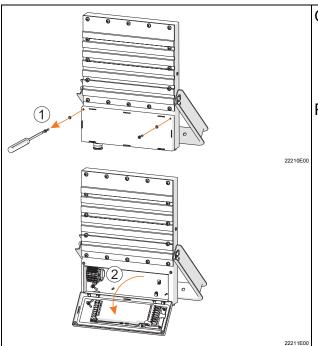
· Only open luminaires in a de-energised state.

## **NOTICE**

Danger due to electrostatic discharge.

Electronic components can be destroyed if touched.

· Do not touch the LED-PCBs!



#### Opening:

- Loosen the two mounting screws (TORX 6) of the enclosure cover (1).
- Carefully swivel down the enclosure cover (2).

Proceed in reverse order to close:

- Carefully close the enclosure cover (2).
- Tighten the enclosure cover with two mounting screws (TORX 6, tightening torque 5 Nm) (1).



#### EN

#### 7.3.2 Electrical connections

## **Electrical connection**

Observe the maximum clamping possibility of the connection terminals (see chapter "Technical data").

Observe the following when connecting to the electrical connection:

- · Clamping must be carried out precisely.
- Do not clamp any part of the conductor insulation.
- Do not mix up the conductors.
- Observe the technical regulations when connecting the conductor.
- Clamp the conductor firmly.

#### Connection terminals

#### Clamping range:

1 x 1.5 to 4 mm<sup>2</sup> (finely stranded)

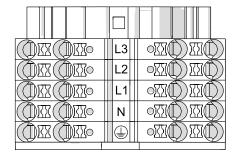
1 x 1.5 to 6 mm<sup>2</sup> (solid and finely stranded with core end sleeve)

(2 free clamping units per pole available)

#### Stripping length:

10 to 12 mm

#### Standard:



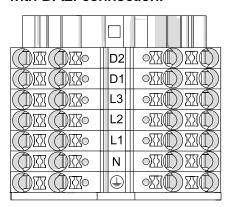
L1, L2, L3 = phase

N = neutral conductor

= protective conductor

20219E00

#### with DALI connection:



D1, D2 = DALI connection

L1, L2, L3 = phase

N = neutral conductor

= protective conductor

20221E00

#### Loop in/loop out wiring of the mains connection



#### **DANGER**

Explosion hazard due to wrong electrical lines and/or cable entries and cable glands!

Non-compliance results in severe or fatal injuries.

• Only use electrical lines, cable entries and cable glands which meet the special requirements for the service temperature.

Special requirements for the service temperature of electrical lines, cable entries and cable glands for loop in/loop out wiring:

| Version                        |       | at ambient<br>temperature | I <sub>N</sub> ≤ 10 A | 10 A ≤ I <sub>N</sub> ≤ 16 A |                          |
|--------------------------------|-------|---------------------------|-----------------------|------------------------------|--------------------------|
| (4,000 K, 5,000 K,<br>5,700 K) |       |                           | Electrical lines      |                              | Cable entry, cable gland |
| 6125/2                         | 100 W | -50* to +60 °C            | _                     | ≥ +95 °C                     | ≥ +85 °C                 |
|                                |       | -50* to +50 °C            | _                     | ≥ +85 °C                     | ≥ +75 °C                 |
|                                | 160 W | -60* to +60 °C            | ≥ +70 °C              | ≥ +100 °C                    | ≥ +85 °C                 |
|                                |       | -60* to +50 °C            | _                     | ≥ +90 °C                     | ≥ +80 °C                 |
|                                | 225 W | -60* to +60 °C            | ≥ +75 °C              | ≥ +95 °C                     | ≥ +85 °C                 |
|                                |       | -60* to +50 °C            | _                     | ≥ +85 °C                     | ≥ +80 °C                 |

| Version   |       | at ambient<br>temperature | I <sub>N</sub> ≤ 10 A | 10 A ≤ I <sub>N</sub> ≤ 16 A |                          |
|-----------|-------|---------------------------|-----------------------|------------------------------|--------------------------|
| (2,700 K) |       |                           | Electrical lin        | es                           | Cable entry, cable gland |
| 6125/2    | 100 W | -50* to +55 °C            | _                     | ≥ +95 °C                     | ≥ +85 °C                 |
|           |       | -50* to +45 °C            | _                     | ≥ +85 °C                     | ≥ +75 °C                 |
|           | 160 W | -60* to +55 °C            | ≥ +70 °C              | ≥ +100 °C                    | ≥ +85 °C                 |
|           |       | -60* to +45 °C            | _                     | ≥ +90 °C                     | ≥ +80 °C                 |
|           | 225 W | -60* to +55 °C            | ≥ +75 °C              | ≥ +95 °C                     | ≥ +85 °C                 |
|           |       | -60* to +45 °C            | _                     | ≥ +85 °C                     | ≥ +80 °C                 |

<sup>\*</sup> Note: Possible to operate the luminaire below -40 °C, provided the luminaire is switched on at -40 °C. Delay of 10 seconds below -40 °C.





#### Recommendation

Use the following cable glands:

- 243464 CMP-20A2F NB M20 screw connection
- 107642 CMP-25A2F NB M25 screw connection

#### 7.3.3 Cable entries

Luminaires with cable entries, cable glands and stopping plugs which are not supplied by R. STAHL Schaltgeräte GmbH



#### **DANGER**

Explosion hazard due to impermissible cable entries, cable glands and stopping plugs!

Non-compliance results in severe or fatal injuries.

 Only use separately certified cable glands and stopping plugs which have been tested and certified according to Directive 2014/34/EU (ATEX) or IECEx (CoC) and which comply with the standard version stated in the certificate of the luminaire.

Please observe the following:

- · the required dust resistance!
- the required type of protection!
- · the required temperature resistance!
- the IP degree of protection according to the rating plate!
- · the operating instructions of the cable entries and stopping plugs!
- · the required tightening torques!
- the range of the permissible cable diameter!
- Insert the metal cable entries and/or stopping plugs into the PE!



Cable glands and stopping plugs must be approved for the following types of protection:

increased safety (e) and dust (IIIC)

## 8 Commissioning



#### **DANGER**

Explosion hazard due to incorrect installation!

Non-compliance results in severe or fatal injuries.

- Check the device for proper installation before commissioning.
- · Comply with national regulations.

#### NOTICE

Malfunction or device damage caused by condensation.

Non-compliance can result in material damage!

- operate the luminaire continuously or periodically over extended periods of time.
- · avoid thermal bridges, use suitable installation accessories.

Before commissioning, ensure the following:

- Check the mounting and installation.
- · Check the device for damage.
- If necessary, remove foreign bodies.
- · If necessary, clean the connection chamber.
- · Check if the conductors have been inserted correctly.
- · Check if all screws and nuts have been tightened firmly.
- Check if all drilled holes are closed.
- Check whether all the cable entries and stopping plugs have been tightened firmly.
- · Check if all conductors have been clamped firmly.
- Check if the line voltage and the rated operational voltage are consistent.
- Check if the permissible conductor diameter for the corresponding cable entries have been used.
- Check if the device is closed according to regulations.
- Check whether the bracket mounting & cover mounting screws are tightened with proper torque.



## 9 Maintenance, Overhaul, Repair

# EX

#### **DANGER**

Explosion hazard due to hot built-in components! Non-compliance results in severe or fatal injuries.

· Only open the enclosure in switched-off state.

# 4

## **CAUTION**

Risk of electric shock or malfunction of the device due to unauthorized work! Non-compliance can result in light injuries!

- Before carrying out work on the device, switch off voltage supply.
- Work performed on the device must only be carried out by authorized and appropriately trained qualified electricians.

#### **NOTICE**

Danger due to electrostatic discharge.

Electronic components can be destroyed if touched.

· Do not touch the LED-PCBs!

#### 9.1 Maintenance

- Consult the relevant national regulations to determine the type and extent of inspections.
- Adapt inspection intervals to the operating conditions.
- Perform maintenance and repair work in accordance with IEC 60079-17 and IEC 60079-19.



Observe the relevant national regulations in the country of use.

During maintenance/overhaul of the device, the following points must be checked:

- · Whether the clamping screws holding the cables are securely seated
- · Whether the device has cracks or other visible signs of damage
- Whether the seal shows signs of ageing or damage (completely replace enclosure components with damaged foamed seal)
- · Whether the device is clean inside and out
- Whether the permissible temperatures (in accordance with EN 60079) are complied with
- Whether the cable entry is intact and securely tightened
- Whether the cables and lines show signs of ageing and damage
- Intended use and function.



## NOTICE

Moisture on the inside of the luminaire can result in damage to electric and electronic components.

- Remove moisture with a cloth!
- Determine the source and eliminate the cause!
- · Avoid condensation and thermal bridges!

#### 9.2 Repair



#### **DANGER**

Explosion hazard due to improper repair! Non-compliance results in severe or fatal injuries.

 Repair work on the devices must be performed only by R. STAHL Schaltgeräte GmbH.

#### 9.3 Returning the device

- Only return or package the devices after consulting R. STAHL! Contact the responsible representative from R. STAHL.
- R. STAHL's customer service is available to handle returns if repair or service is required.
- Contact customer service personally.

or

- · Go to the r-stahl.com website.
- Under "Support" > "RMA" > select "RMA-REQUEST".
- Fill out the form and send it. You will automatically receive an RMA form via email. Please print this file off.
- · Send the device along with the RMA form in the packaging to R. STAHL Schaltgeräte GmbH (refer to chapter 1.1 for the address).



## 10 Cleaning



#### **DANGER**

Explosion hazard due to heavy deposits of combustible dusts! Non-compliance results in severe or fatal injuries.

- Deposits of combustible dusts through regular cleaning according to IEC/EN 60079-14.
- To avoid electrostatic charging, the devices located in potentially explosive areas may only be cleaned using a damp cloth.
- When cleaning with a damp cloth, use water or mild, non-abrasive, non-scratching cleaning agents.
- Do not use aggressive detergents or solvents.

## 11 Disposal

- Observe national and local regulations and statutory regulation regarding disposal.
- Separate materials when sending it for recycling.
- Ensure environmentally friendly disposal of all components according to the statutory regulations.
- Removal of components at the end of their service life:
  - Remove and open luminaires according to the operating instructions.
  - · Disconnect cables from the LED PCB and control gear.
  - · Control gear: Loosen the mounting screws and remove the device.
  - LED PCB: Push the barbs on the underside together using suitable pliers and remove the PCB upwards.

# 12 Accessories and Spare parts

## **NOTICE**

Malfunction or damage to the device due to the use of non-original components. Non-compliance can result in material damage.

Use only original accessories and spare parts from R. STAHL Schaltgeräte GmbH.



For accessories and spare parts, see data sheet on our homepage r-stahl.com.

# EU-Konformitätserklärung

# EU Declaration of Conformity Déclaration de Conformité UE



# R. STAHL Schaltgeräte GmbH • Am Bahnhof 30 • 74638 Waldenburg, Germany

erklärt in alleiniger Verantwortung, declares in its sole responsibility, déclare sous sa seule responsabilité,

dass das Produkt: that the product:

que le produit:

LED Scheinwerfer

LED Floodlight

LED Projecteur

Typ(en), type(s), type(s):

6125/2

mit den Anforderungen der folgenden Richtlinien und Normen übereinstimmt.

is in conformity with the requirements of the following directives and standards. est conforme aux exigences des directives et des normes suivantes.

| Richtlinie(n) / I                             | Directive(s) / Directive(s)  | Norm(en) / Standard(s) / Norme(s)  |
|---|--|--|
| <b>2014/34/EU</b><br>2014/34/EU<br>2014/34/UE | ATEX-Richtlinie ATEX Directive Directive ATEX  | EN IEC 60079-0:2018<br>EN 60079-1:2014<br>EN IEC 60079-7:2015 + A1:2018<br>EN 60079-28:2015<br>EN 60079-31:2014              |
| Kennzeichnun                                  | g, marking, marquage:  | II 2 G Ex db eb op is IIC T4 Gb II 2 D Ex tb op is IIIC T100°C Db  C € 0158  |
| EU-Type Exami                                 | prüfbescheinigung:<br>ination Certificate:<br>amen UE de type:   | EPS 15 ATEX 1 114<br>(Bureau Veritas Consumer Products Services Germany GmbH,<br>Businesspark A96, 86842 Tuerkheim, Germany) |
| Product standar                               | n nach Niederspannungsrichtlinie:<br>rds according to Low Voltage Directive:<br>oduit pour la Directive Basse Tension: | EN 60598-1:2015 + A1:2018<br>EN 62471:2008   |
| <b>2014/30/EU</b><br>2014/30/EU<br>2014/30/UE | EMV-Richtlinie<br>EMC Directive<br>Directive CEM   | EN 55015:2013 + A1:2015<br>EN 61547:2009<br>EN 61000-3-2:2014<br>EN 61000-3-3:2013   |
| <b>2011/65/EU</b><br>2011/65/EU<br>2011/65/UE | RoHS-Richtlinie<br>RoHS Directive<br>Directive RoHS  | EN IEC 63000:2018  |

Waldenburg, 2020-11-04

Ort und Datum Place and date Lieu et date

i.V.

Dr. A. Kaufmann

Senior Vice President Marketing & Innovation Vice-Président directeur Marketing & Innovation

i.V.

J. Freimüller Vice President global Quality Management Vice-Président globale Gestion de Qualité

FO.DSM-E-330 Version: 2.0 6125 6 002 003 0 -00 1 von 1

## **UK Declaration of Conformity**

# UK-Konformitätserklärung



## R. STAHL Schaltgeräte GmbH • Am Bahnhof 30 • 74638 Waldenburg, Germany

represented locally by, lokal vertreten durch

R. STAHL LTD. • 2nd Floor, Bromwich Court, Gorsey Lane, Coleshill • Birmingham B46 1JU, UK declares in its sole responsibility, erklärt in alleiniger Verantwortung,

that the product:

**LED Floodlight** 

dass das Produkt:

LED Scheinwerfer

Type(s), Typ(en):

6125/2.

is in conformity with the requirements of the following regulations and standards. mit den Anforderungen der folgenden Verordnungen und Normen übereinstimmt.

| Regulation(s) / Verordnung(en)  | Standard(s) / Norm(en)   |  |  |
|---|--|--|--|
| S.I. 2016/1107 Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres Regulations S.I. 2016/1107 Verordnung für Geräte und Schutzsysteme zur bestimmungsgemäßen Verwendung in explosionsgefährdeten Bereichen | EN IEC 60079-7:2015 + A1: 2018<br>EN 60079-28:2015   |  |  |
| Marking, Kennzeichnung:   | II 2G Ex db eb op is IIC T4 Gb II 2D Ex tb op is IIIC T100 °C Db   |  |  |
| UK Type Examination Certificate: UK-Baumusterprüfbescheinigung:   | CML 21UKEX1558<br>(Eurofins E&E CML Limited, Newport Business Park, New<br>Port Road, Ellesmere Port, Cheshire, CH65 4LZ, UK,<br>AB2503) |  |  |
| Product standards according to<br>S.I. 2016/1101 Electrical Equipment (Safety) Regulation<br>Produktnormen nach S.I. 2016/1101 (Sicherheits-)<br>Verordnung für elektronische Geräte  | EN 60598-1:2015 + A1:2018<br>EN 62471:2008   |  |  |
| S.I. 2016/1091  | EN 61547:2009<br>EN IEC 55015:2019 + A11:2020<br>EN 61000-3-2:2014<br>EN 61000-3-3: 2013   |  |  |
| S.I. 2012/3032 RoHS Regulations S.I. 2012/3032 RoHS-Verordnung  | EN IEC 63000:2018  |  |  |

Waldenburg, 2023-06-19

Place and date Ort und Datum S. Holtz

Head of R&D - BU Lighting & Signalling Leiter Entwicklung Leuchten und Signalgerät D. Groth

**Director Quality Management Systems** Leiter Qualitätsmanagementsysteme

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FO.DSM-E-348 Version: 1.0 Gültig ab: 01.04.2022 6125 6 002 004 0\_00 1/