



LED floodlight

Series 6525/2

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1 General Information

1.1 Manufacturer

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1.2 Information regarding the operating instructions

ID no.: 282892 / 652560300080

Publication code: 2026-07-13·BA00·III·en·09

The original instructions are the German edition.
This is legally binding in all legal affairs.

1.3 Further documents

- Data sheet

For documents in other languages, see r-stahl.com.

1.4 Conformity with standards and regulations

For certificates and declaration of conformity, see r-stahl.com.

2 Explanation of symbols

2.1 Symbols used in these operating instructions

Symbol	Meaning
	Tips and recommendations on the use of the device
	Explosive atmosphere hazard
	Danger due to live components
	Risk of damage to the eyes caused by optical radiation

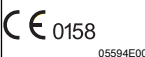
2.2 Warning notes

Warning notes must be observed under all circumstances, in order to minimise the risk resulting from design engineering 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 this instruction results in severe or fatal injuries to persons.
	WARNING Danger to persons Non-compliance with this instruction can result in severe or fatal injuries to persons.
	CAUTION Danger to persons Non-compliance with this instruction can result in minor injuries to persons.
NOTICE Avoiding material damage Non-compliance with this instruction can result in material damage to the device and/or its surroundings.	

2.3 Symbols on the device

Symbol	Meaning
 0158 05594E00	CE marking according to the current applicable directive.
 02198E00	Device certified for hazardous areas according to the marking.

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 caused by incorrect or unauthorised use of the device or non-compliance with these operating instructions.

For mounting and installation

- Observe national mounting 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 rating, data and information plates 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.
- Only perform the maintenance work and repairs described in these operating instructions.

3.3 Intended Use

The luminaire is equipment

- for lighting areas, work spaces and objects.
- that can be used indoors and outdoors.
- for stationary mounting.
- for use in Zones 21, 2, 22 and in safe areas.

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 change the device.
	We accept no liability and provide no 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 according to the operating conditions described in these operating instructions. • Use the device only for the intended purpose specified in these operating instructions.
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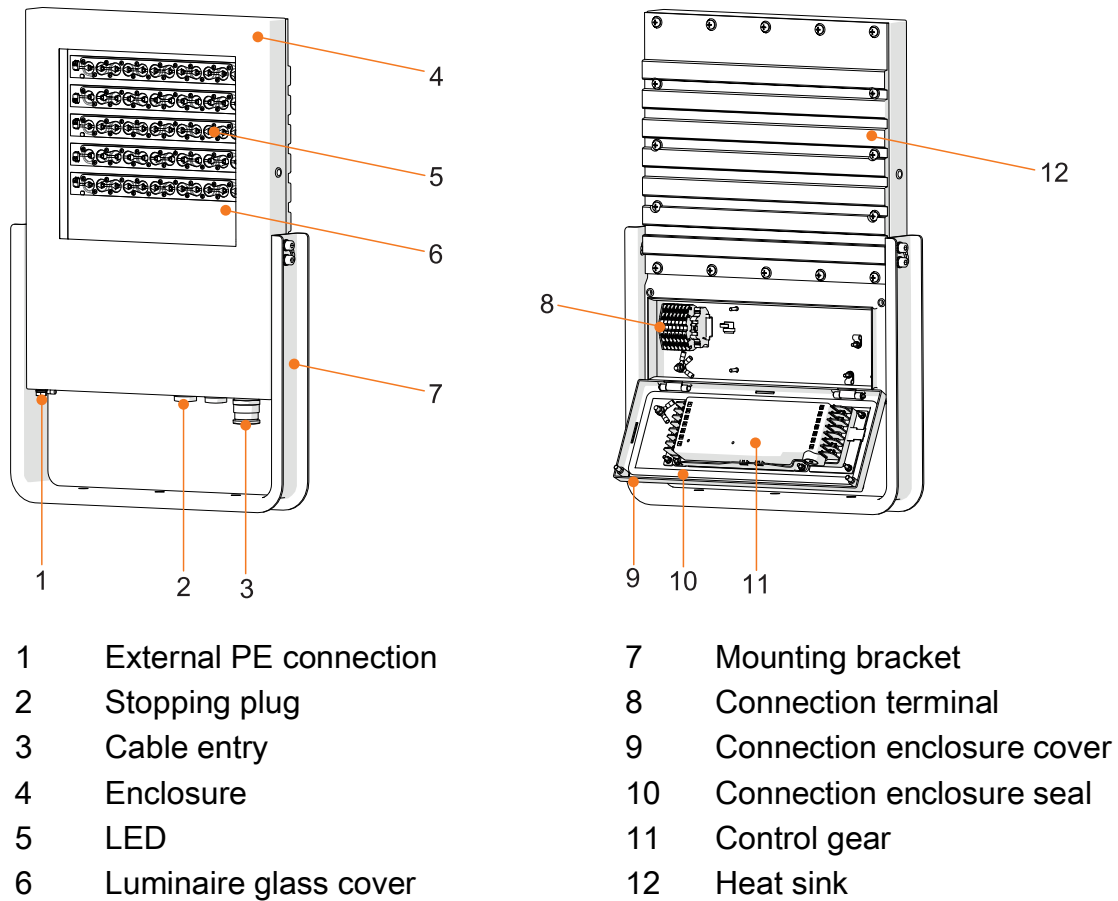
4.1 Function

Application range

The 6525/2 LED floodlight is equipment used to light areas, work equipment and objects. It can be used indoors and outdoors.

The floodlight is approved for use in hazardous areas of Zones 2, 21 and 22.

4.2 Device design



22206E00

5 Technical data

Explosion protection

Global (IECEX)

Gas and dust

IECEX EPS 15.0032
Ex nR IIC T6 to T4 Gc (type 6525/21..)
Ex db ec IIC T4 Gc (type 6525/22..)
Ex tb op is IIIC T80 °C to T100 °C Db

Europe (ATEX)

Gas and dust

EPS 15 ATEX 1 991
Ex II 3 G Ex nR IIC T6 to T4 Gc (type 6525/21..)
Ex II 3 G Ex db ec IIC T4 Gc (type 6525/22..)
Ex II 2 D Ex tb op is IIIC T80 °C to T100 °C Db

	Variant	Ambient temperature	Temperature class	max. surface temperature
6525/21...-17...-...-...	100 W	≤ +60 °C	T6 ¹⁾ /T5	100 °C
6525/21...-17...-...-...	100 W	≤ +50 °C	T6	100 °C
6525/2...-15...-...-...	100 W	≤ +60 °C	T4	100 °C
6525/2...-16...-...-...				
6525/21...-15...-...-...	100 W	≤ +50 °C	T6	80 °C
6525/21...-16...-...-...				
6525/21...-35...-...-...	160 W	≤ +60 °C	T5	100 °C
6525/21...-36...-...-...				
6525/21...-37...-...-...				
6525/22...-35...-...-...	160 W	≤ +60 °C	T4	100 °C
6525/22...-36...-...-...				
6525/21...-57...-...-...	225 W	≤ +60 °C	T5	100 °C
6525/2...-55...-...-...	225 W	≤ +60 °C	T4	100 °C
6525/2...-56...-...-...				

¹⁾ if through wiring I_N is ≤ 10 A and the luminaire is not mounted facing upwards (in the position of the control gear)

Certifications and certificates

Certificates

IECEX, ATEX

Technical data

Electrical data

Control gear

Rated voltage

6525/21..:AC: 110 to 277 V $\pm 10\%$; 50 to 60 HzDC: 140 to 225 V $\pm 10\%$ **6525/22..:**

without DALI

AC: 110 to 277 V $\pm 10\%$; 50 to 60 HzDC: 196 to 250 V $\pm 10\%$

with DALI

AC: 100 to 277 V $\pm 10\%$; 50 to 60 HzDC: 110 to 250 V $\pm 10\%$

Rated current

	100 W variant	160 W variant	225 W variant
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

Start-up current

6525/21..:

Variant	Voltage	Start-up current		Number of luminaires per miniature circuit breaker							
		I_{peak}	Δt	B10	B16	B20	B25	C10	C16	C20	C25
100 W, 160 W	110 V AC	32 A	560 μs	3	5	6	7	3	5	9	9
	230 V AC	57 A	500 μs	2	4	5	6	4	7	9	11
	277 V AC	75.5 A	550 μs	1	2	3	4	2	4	7	7
225 W	110 V AC	36 A	500 μs	2	4	5	6	3	4	7	7
	230 V AC	64 A	500 μs	2	3	4	6	4	6	8	10
	277 V AC	78.5 A	550 μs	1	3	3	4	3	5	8	8

6525/22..: $I_{\text{peak}} = 23$ A; $dt = 200 \mu\text{s}$ Maximum number of luminaires per miniature circuit breaker¹⁾

Variant	Type	10 A	16 A	20 A	25 A
100 W	B, C, K	16	25	32	40
160 W	B, C, K	10	17	21	27
225 W	B, C, K	7	11	14	18

¹⁾Typical values for 1-pole miniature circuit breakers at +25 °C and nominal voltage of 230 V AC; the exact number depends on the miniature circuit breaker used.

Technical data

Power factor	> 0.95
THD	≤ 13%
Surge protection	6525/21.. (nR version): N – PE: 10 kV L – PE: 10 kV L – N: 6 kV 6525/22.. (ec version): N – PE: 4 kV L – PE: 4 kV L – N: 2 kV
Class	I (with internal PE connection)

Technical data

Luminous characteristics

Standard	Light colour: Warm white Colour temperature [K] = 2700 K Colour rendering R_a : ≥ 80 Application example: Lighting of work areas		
	6525/ 2...-1...-...3-...	6525/ 2...-3...-...3-...	6525/ 2...-5...-...3-...
Variant	100 W	160 W	225 W
Power consumption [W]	100	155	220
Wide-beam			
Luminous flux [lm]	11750	16950	23100
Luminaire efficacy [lm/W]	118	107	104
Medium-beam			
Luminous flux [lm]	11050	15850	21600
Luminaire efficacy [lm/W]	110	100	97
Narrow-beam			
Luminous flux [lm]	11350	16300	22250
Luminaire efficacy [lm/W]	114	103	100
Values apply to $T_a = +25\text{ °C}$.			

Technical data

Alternative

Light colour: Neutral white			
Colour temperature [K] = 5000 K			
Colour rendering R_a : ≥ 80			
Application example: Lighting of work areas			
	6525/ 2...-1...-...5-...	6525/ 2...-3...-...5-...	6525/ 2...-5...-...5-...
Variant	100 W	160 W	225 W
Power consumption [W]	100	155	220
Wide-beam			
Luminous flux [lm]	13400	19250	26250
Luminaire efficacy [lm/W]	135	122	118
Medium-beam			
Luminous flux [lm]	13100	18800	25600
Luminaire efficacy [lm/W]	131	119	115
Narrow-beam			
Luminous flux [lm]	13500	19350	26400
Luminaire efficacy [lm/W]	135	123	119
Values apply to $T = +25^\circ\text{C}$			
Light colour: Neutral white			
Colour temperature [K] = 4000 K			
Colour rendering R_a : ≥ 80			
Application example: Lighting of work areas			
	6525/ 2...-1...-...4-...	6525/ 2...-3...-...4-...	6525/ 2...-5...-...4-...
Variant	100 W	160 W	225 W
Power consumption [W]	100	155	220
Wide-beam			
Luminous flux [lm]	13400	19250	26250
Luminaire efficacy [lm/W]	135	122	118
Medium-beam			
Luminous flux [lm]	13100	18800	25600
Luminaire efficacy [lm/W]	131	119	115
Narrow-beam			
Luminous flux [lm]	13500	19350	26400
Luminaire efficacy [lm/W]	135	123	119
Values apply to $T_a = +25^\circ\text{C}$.			

Technical data

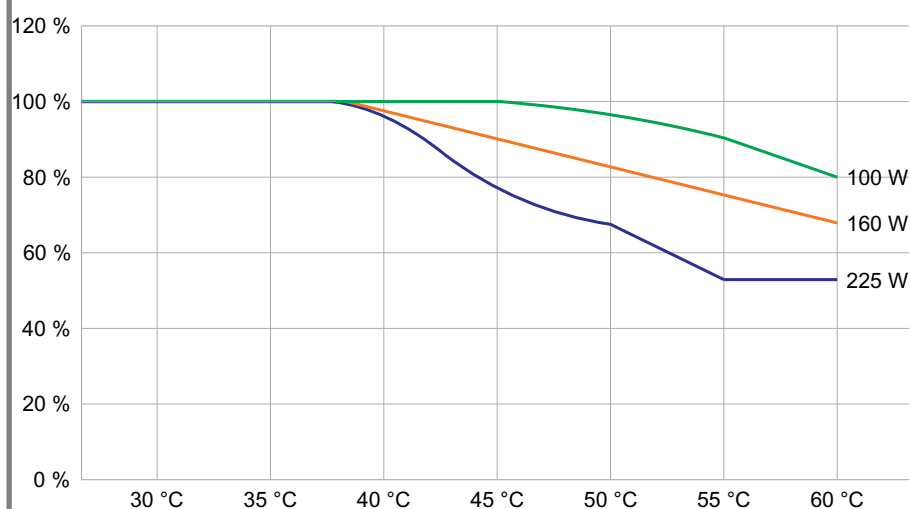
Light colour: Cool white			
Colour temperature [K]: 5700 K			
Colour rendering R_a : ≥ 70			
Application example: Lighting of outside areas			
	6525/ 2...-1...-...1-...	6525/ 2...-3...-...1-...	6525/ 2...-5...-...1-...
Variant	100 W	160 W	225 W
Power consumption [W]	100	155	220
Wide-beam			
Luminous flux [lm]	14250	20450	27850
Luminaire efficacy [lm/W]	142	129	125
Medium-beam			
Luminous flux [lm]	13344	19104	26112
Luminaire efficacy [lm/W]	133	121	118
Narrow-beam			
Luminous flux [lm]	13728	19728	26880
Luminaire efficacy [lm/W]	137	125	121
Values apply to $T_a = +25^\circ\text{C}$.			
Energy efficiency class of the light source	The device contains a light source in energy efficiency class D (4,000 K, 5,000 K, 5,700 K) or E (2,700 K). (according to the Energy Labelling Regulation for light sources)		

Technical data

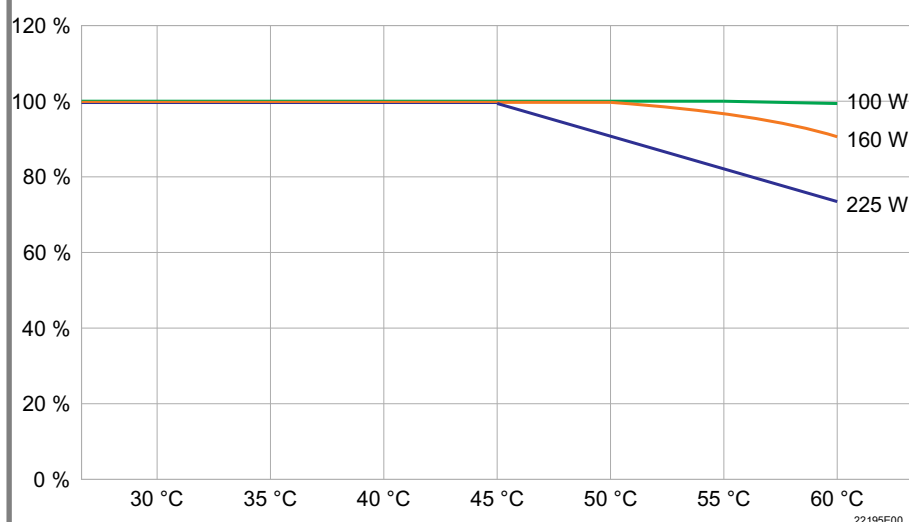
Luminous flux decline as a function of the ambient temperature of the luminaire

- during DC operation to 50% (only type 6525/22..)

6525/21..-



6525/22..-



22195E00

Technical data

Ambient conditions

Functional ambient temperature range

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

2700 K:
100 W variant: -50* to +55 °C
160 W variant: -60* to +55 °C
225 W variant: -60* to +55 °C

* Note: It is possible to operate the luminaire below -40 °C, provided the luminaire is switched on at -40 °C. Switch-on delay 10 s below -40 °C.

Storage temperature

-40 to +75 °C

Service life

LED

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

$L_x B_y$

At the end of the service life:

- Luminous flux declines to "x" per cent
- Up to "y" per cent of all luminaires do not reach "x"

LED control gear

C10

$T_a \leq +25$ °C 100,000h

$+25$ °C $\leq T_a \leq +40$ °C 60,000h

$+40$ °C $\leq T_a \leq +60$ °C 50,000h

Mechanical data

Degree of protection

IP66

Impact strength (IK code)

IK10 (IEC 62262)

Material

Enclosure, cover and bracket

6525/.....-331

Stainless steel SS304 (1.4301 or V2A), enclosure, cover with single powder coating, bracket without powder coating

6525/.....-242

Stainless steel SS316L (1.4404 or V4A), Enclosure, cover with double powder coating (offshore coating), bracket without powder coating

Enclosure colours

White colour, similar to RAL 9010

Seal (cover)

Foamed silicone in luminaire cover

Luminaire glass cover

Reinforced glass

Luminaire lock

TORX M6 cheese-head screws

Weight

15.6 to 19.0 kg

Technical data

Mounting/installation

Cable entry	6525/21...: 1 x Series CMP A2F cable entry 1 x Series 8161 cable entry with red stopping plug (test opening for the restricted breathing test) 1 x Series 8290 stopping plug 6525/22...: 1 x Series CMP A2F cable entry 2 x Series 8290 stopping plugs
Connection	Spring clamp terminals Standard: 5-pole: L1, L2, L3, N, PE with DALI: 7-pole: L1, L2, L3, N, PE, DA, DA Clamping range: 1 x 1.5 to 4 mm ² (finely stranded) 1 x 1.5 to 6 mm ² (solid and finely stranded with core end sleeve) (2 spare clamping units are available for each pole)
Loop in/loop out wiring	Max. 16 A

Optional

DALI connection	DALI interface in accordance with IEC 62386-207:2009-08 The maximum permitted voltage drop on the DALI conductor is defined as a maximum of 2 V. This corresponds to a maximum conductor length of 300 m, with a conductor cross-section of 1.5 mm ² .
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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) free of vibrations.
- Do not drop the device.
- Devices which have been installed and commissioned but are not operated during a period exceeding the maximum storage period (see table below) must be continuously operated for at least six hours every month.

Average storage temperature	Average humidity	Maximum storage period
≤ 25 °C	≤ 65% r.h.	9 months
≤ 25 °C	> 65% r.h.	6 months*
> 25 °C	> 65% r.h.	4 months*
> 25 °C	≤ 65% r.h.	6 months

* Storage at > 90% r.h. is not permissible

7 Mounting and installation

	DANGER Explosion hazard due to electrostatic discharge! Non-compliance 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 flows
	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 explosion protection. • Select and install the electrical device so that explosion protection is not affected by external influences, i.e. pressure conditions, chemical, mechanical, thermal and electrical influences and also vibration, humidity and corrosion (see IEC/EN 60079-14). • The device must only be installed by trained qualified personnel who are familiar with the relevant standards.

NOTICE

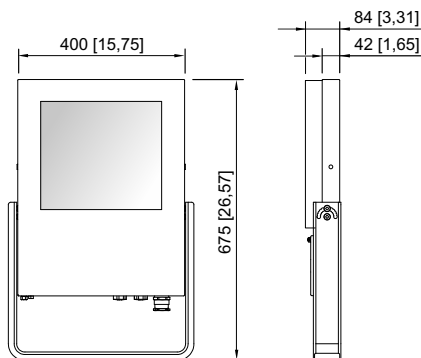
Malfunction or device damage caused by condensation.

Non-compliance may lead to 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 [inch]) – Subject to change



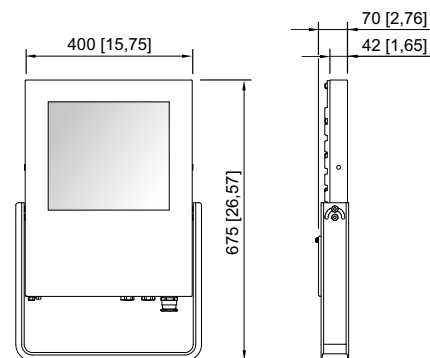
22203E00

Floodlight

Heat sink with fins

(6525/21...: 225 W variant

6525/22...: 160 W and
225 W variants)



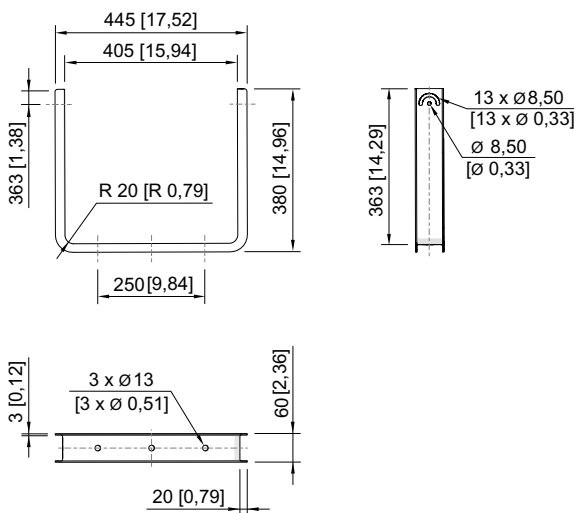
22204E00

Floodlight

Heat sink without fins

(6525/21...: 100 W and 160 W variants

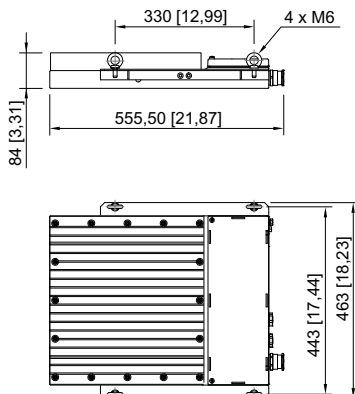
6525/22...: 100 W variant)



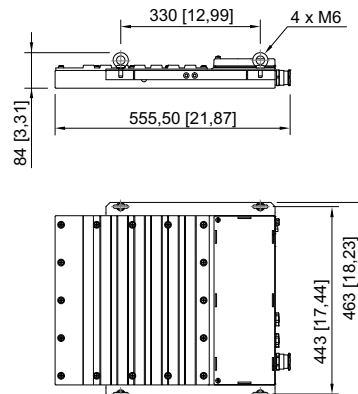
17561E00

Dimensional drawings (all dimensions in mm [inch]) – Subject to change

Mounting bracket



Floodlight with ring eyes
Heat sink with fins
(6525/21...: 225 W variant
6525/22...: 160 W and
225 W variants)



Floodlight with ring eyes
Heat sink without fins
(6525/21...: 100 W and 160 W variants
6525/22...: 100 W variant)

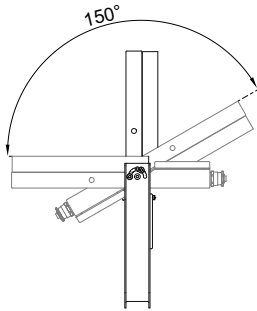
7.2 Mounting/dismounting, operating position

	DANGER Explosion hazard due to impermissible 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).
	The luminaire is only approved for wall mounting, ceiling mounting or pole mounting if a mounting bracket is used. Do not install the luminaire so that light is emitted upwards and/or so that the cable entry is pointing upwards. Securely fit the mounting bracket at its specified fastening points only. Do not align the luminaire until the mounting bracket has been securely fastened.

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

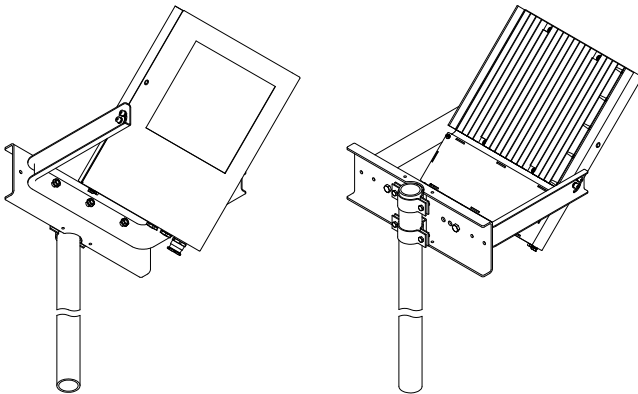
	Mount the floodlight at all three mounting holes of the mounting bracket.
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Mounting alignment



22244E00

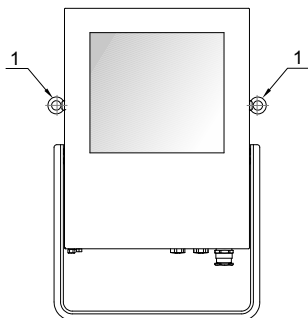
Pole mounting



22243E00

Mounting with fall protection

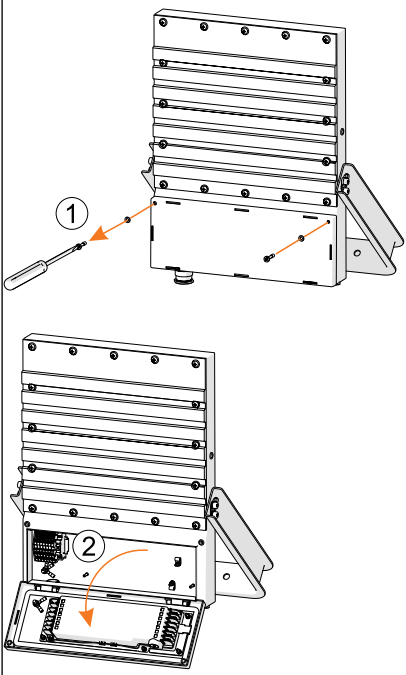
	The floodlight can be further protected from unexpectedly falling by mounting two ring eyes (1).
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22242E00

7.3 Installation

7.3.1 Opening and closing 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.
	DANGER Explosion hazard due to intense heating and ignition! Non-compliance results in severe or fatal injuries. • Do not reprogram the control gear.
NOTICE Danger due to electrostatic discharge. Electronic components can be destroyed if touched. • Do not touch the LED PCBs!	
 22210E00 22211E00	Opening: • Loosen the two mounting screws (TORX 6) of the enclosure cover (1). • Carefully pull the enclosure cover open (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 of 5 Nm) (1).

7.3.2 Electrical connections

Mains connection

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

Observe the following when connecting to the mains 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 mm² (finely stranded)

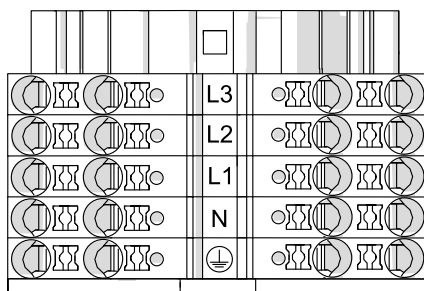
1 x 1.5 to 6 mm² (solid and finely stranded with core end sleeve)

(2 spare clamping units are available for each pole)

Stripping length:

10 to 12 mm

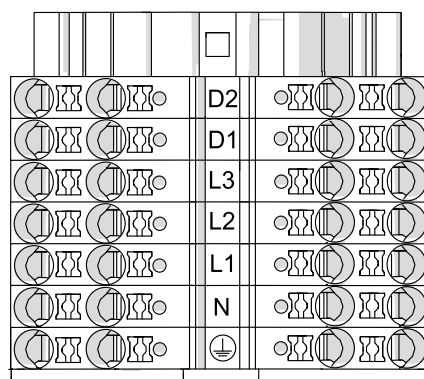
Standard:



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 conductors and/or cable entries and cable glands! Non-compliance results in severe or fatal injuries. Only use conductors, cable entries and cable glands which meet the specific requirements for the service temperature.	

Do not use the connection with the Series 8161 screw connection (with red stopping plug) for the loop-out wiring. This is reserved for the restricted breathing test. Replace the Series 8290 stopping plug with a certified screw connection and use this for the loop-out wiring.

Specific requirements for the service temperature of conductors, cable entries and cable glands for loop in/loop out wiring:

Version (4,000 K, 5,000 K, 5,700 K)	Variant	at ambient temperature	$I_N \leq 10 \text{ A}$		$10 \text{ A} \leq I_N \leq 16 \text{ A}$	
			Conductors		Cable entry, cable gland	
6525/21..-17..-.....	100 W	+50 to +60 °C	$\geq +75 \text{ °C}$	$\geq +90 \text{ °C}$	$\geq +80 \text{ °C}$	
6525/21..-15..-.....		+50 to +60 °C	$\geq +75 \text{ °C}$	$\geq +95 \text{ °C}$	$\geq +85 \text{ °C}$	
6525/21..-16..-.....		$\leq +50 \text{ °C}$	–	$\geq +85 \text{ °C}$	$\geq +75 \text{ °C}$	
6525/21..-35..-.....	160 W	+50 to +60 °C	$\geq +70 \text{ °C}$	$\geq +100 \text{ °C}$	$\geq +85 \text{ °C}$	
6525/21..-36..-.....		$\leq +50 \text{ °C}$	–	$\geq +90 \text{ °C}$	$\geq +80 \text{ °C}$	
6525/21..-37..-.....						
6525/21..-55..-.....	225 W	+50 to +60 °C	$\geq +75 \text{ °C}$	$\geq +95 \text{ °C}$	$\geq +85 \text{ °C}$	
6525/21..-56..-.....		$\leq +50 \text{ °C}$	–	$\geq +85 \text{ °C}$	$\geq +80 \text{ °C}$	
6525/21..-57..-.....		$\leq +60 \text{ °C}$	$\geq +85 \text{ °C}^*$	$\geq +110 \text{ °C}$	$\geq +95 \text{ °C}$	
6525/22..-15..-.....	100 W	+50 to +60 °C	–	$\geq +95 \text{ °C}$	$\geq +85 \text{ °C}$	
6525/22..-16..-.....		$\leq +50 \text{ °C}$	–	$\geq +85 \text{ °C}$	$\geq +75 \text{ °C}$	
6525/22..-35..-.....	160 W	+50 to +60 °C	$\geq +70 \text{ °C}$	$\geq +100 \text{ °C}$	$\geq +85 \text{ °C}$	
6525/22..-36..-.....		$\leq +50 \text{ °C}$	–	$\geq +90 \text{ °C}$	$\geq +80 \text{ °C}$	
6525/22..-55..-.....	225 W	+50 to +60 °C	$\geq +75 \text{ °C}$	$\geq +95 \text{ °C}$	$\geq +85 \text{ °C}$	
6525/22..-56..-.....		$\leq +50 \text{ °C}$	–	$\geq +85 \text{ °C}$	$\geq +80 \text{ °C}$	

Version (2,700 K)			$I_N \leq 10 \text{ A}$	$10 \text{ A} \leq I_N \leq 16 \text{ A}$	
	Variant	at ambient temperature	Conductors	Cable entry, cable gland	
6525/21..-17..-.....-	100 W	+50 to +55 °C	$\geq +75 \text{ °C}$	$\geq +90 \text{ °C}$	$\geq +80 \text{ °C}$
6525/21..-15..-.....-		+50 to +55 °C	$\geq +75 \text{ °C}$	$\geq +95 \text{ °C}$	$\geq +85 \text{ °C}$
6525/21..-16..-.....-		$\leq +45 \text{ °C}$	–	$\geq +85 \text{ °C}$	$\geq +75 \text{ °C}$
6525/21..-35..-.....-	160 W	+50 to +55 °C	$\geq +70 \text{ °C}$	$\geq +100 \text{ °C}$	$\geq +85 \text{ °C}$
6525/21..-36..-.....-		$\leq +45 \text{ °C}$	–	$\geq +90 \text{ °C}$	$\geq +80 \text{ °C}$
6525/21..-37..-.....-					
6525/21..-55..-.....-	225 W	+50 to +55 °C	$\geq +75 \text{ °C}$	$\geq +95 \text{ °C}$	$\geq +85 \text{ °C}$
6525/21..-56..-.....-		$\leq +45 \text{ °C}$	–	$\geq +85 \text{ °C}$	$\geq +80 \text{ °C}$
6525/21..-57..-.....-		$\leq +55 \text{ °C}$	$\geq +85 \text{ °C}^*$	$\geq +110 \text{ °C}$	$\geq +95 \text{ °C}$
6525/22..-15..-.....-	100 W	+50 to +55 °C	–	$\geq +95 \text{ °C}$	$\geq +85 \text{ °C}$
6525/22..-16..-.....-		$\leq +45 \text{ °C}$	–	$\geq +85 \text{ °C}$	$\geq +75 \text{ °C}$
6525/22..-35..-.....-	160 W	+50 to +55 °C	$\geq +70 \text{ °C}$	$\geq +100 \text{ °C}$	$\geq +85 \text{ °C}$
6525/22..-36..-.....-		$\leq +45 \text{ °C}$	–	$\geq +90 \text{ °C}$	$\geq +80 \text{ °C}$
6525/22..-55..-.....-	225 W	+50 to +55 °C	$\geq +75 \text{ °C}$	$\geq +95 \text{ °C}$	$\geq +85 \text{ °C}$
6525/22..-56..-.....-		$\leq +45 \text{ °C}$	–	$\geq +85 \text{ °C}$	$\geq +80 \text{ °C}$

* Cable entry, cable gland with a permissible service temperature of $\geq 80 \text{ °C}$ is required.



Recommendation

Use the following cable glands:

- 243464 – CMP-20A2F cable gland NB M20
- 107642 – CMP-25A2F cable gland NB M25

7.3.3 Cable entries

	DANGER
	Explosion hazard due to short circuit caused by moisture ingress! Non-compliance results in severe or fatal injuries. • Ensure that cable entries are only located on the side or underside of the device (not on the top).

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. • Use cable entries and stopping plugs which have been separately tested and certified according to Directive 2014/34/EU (ATEX) or IECEx (CoC), and which technically correspond to the version of the standard specified 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 label on the device!
- the operating instructions of the cable entries and stopping plugs!
- the required tightening torques!
- the area for the permissible conductor diameter!
- insert the metal cable entries and/or stopping plugs into the PE!

	DANGER
	Explosion hazard if breathers are used! Non-compliance results in severe or fatal injuries. • Do not use breathers for Series 6525/21 (nR version).

	Cable entries and stopping plugs must be approved for the following types of protection: a) Restricted breathing (nR) and dust (IIIC); applies to Series 6525/21 (nR version) b) Increased safety (e) and dust (IIIC)
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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.
	DANGER Explosion hazard due to incorrect installation! Non-compliance results in severe or fatal injuries. • Carry out the restricted breathing test prior to initial commissioning for Series 6525/21 (nR version). (See the "Restricted breathing test" chapter)
NOTICE Malfunction or device damage caused by condensation. Non-compliance may lead to 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.
- Remove any foreign objects.
- If necessary, clean the connection chamber.
- Check whether the electrical lines have been inserted correctly.
- Monitor whether all screws and nuts have been tightened securely.
- Monitor whether all drilled holes are closed.
- Check whether all cable entries and stopping plugs have been tightened securely.
- Check whether all conductors have been clamped firmly.
- Check whether the protective conductor is connected.
- Check whether the line voltage and the rated operational voltage are the same.
- Check whether the permissible conductor diameters for the corresponding cable entries have been used.
- Check whether the device has been sealed according to regulations.
- Check whether all screws and nuts on the bracket and enclosure cover have been tightened securely.

Position the luminaire so it is unlikely that anyone will look into it for a prolonged period from less than 8 m away.

After commissioning

- Once commissioned, the device must be continuously operated for at least six hours every month.

9 Maintenance, overhaul, repair

	DANGER Explosion hazard due to hot built-in components! Non-compliance results in severe or fatal injuries. • Only open the enclosure when the device is switched off.
	CAUTION Risk of electric shock or malfunction of the device due to unauthorised work! Non-compliance can result in minor injuries! • Switch off the voltage supply before working on the device. • Only authorised and appropriately trained qualified electricians are permitted to carry out work on the device.
NOTICE Danger due to electrostatic discharge. Electronic components can be destroyed if touched. • Do not touch the LED PCBs!	

9.1 Maintenance and overhaul

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

	Observe the national regulations which apply in the country of use.
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During maintenance/overhaul of the device, the following points must be checked:

- Whether the clamping screws holding the electrical lines fit securely
- Whether the device has cracks or other visible signs of damage
- Whether the seal shows signs of ageing or damage (if the foamed seal is damaged, completely replace the enclosure components)
- Whether the device is clean inside and out
- Whether the permissible temperatures are complied with (according to EN 60079)
- Whether the cable entry is intact and securely tightened
- Whether the cables and electrical lines show signs of ageing and damage
- Whether the device is used as intended and functions properly
- The restricted breathing of the enclosure (see the "Restricted breathing test" chapter).



If the restricted breathing test has failed, take the device out of operation!

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!



WARNING

Restricted breathing is no longer guaranteed!
Explosion protection compromised!

- After replacing seals or enclosure components, carry out the restricted breathing test according to IEC/EN 60079-15.

9.1.1 Restricted breathing test (variant 6525/21..) only

The luminaire is equipped with a device for testing restricted breathing.

Restricted breathing must be tested after installation and during regular maintenance according to IEC/EN 60079-15.

Test according to IEC/EN 60079-15

i	Recommendation Test the luminaire using the handheld testing device for restricted breathing from R. STAHL Schaltgeräte GmbH (see data sheet).
i	The test should only be carried out at constant temperature conditions.
i	If the luminaire is only marked with the "dust" type of protection (IIIC), the cable entries and stopping plugs do not need to meet the requirements for restricted breathing (nR).

Preparing the luminaire for testing:

- Remove the red stopping plug.

Test:

- Insert the hose of the testing device for restricted breathing into the cable entry.
- Hand-tighten the cable entry.
- Use the hand pump to create a vacuum of 0.3 kPa (3 mbar).

The test has been passed if after 90 seconds a vacuum of at least 0.15 kPa (1.5 mbar) is still present in the luminaire.

After the test:

- Remove the hose of the testing device for restricted breathing from the cable entry.
- Seal the luminaire using the red stopping plug.

Alternative pressure and time specifications:

	Alternative 1	Alternative 2
Vacuum at start of test	3.0 kPa (30 mbar)	0.3 kPa (3 mbar)
Test duration	14 seconds	14 seconds
Vacuum after test duration	2.7 kPa (27 mbar)	0.27 kPa (2.7 mbar)

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 assigned 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.

- Remove deposits of combustible dusts through regular cleaning according to IEC/EN 60079-14.

- To prevent electrostatic charge, only use a damp cloth to clean devices located in hazardous areas.
- When cleaning with a damp cloth, use water or mild, non-abrasive, non-scratching cleaning agents.
- Do not use abrasive cleaning agents or solvents.

11 Disposal

- Observe national, local and statutory regulations regarding disposal.
- Separate materials for recycling.
- Ensure environmentally friendly disposal of all components according to 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 pull the PCB upwards to remove it.

12 Accessories and spare parts

NOTICE

Malfunction or damage to the device due to the use of non-original components.
Non-compliance may lead to material damage!

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



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