

Floodlight Series 6121



www.stahl.de



18674E00

- > For use in
 - gas group IIC (-20°C ... +60°C)
 - gas group IIB + H₂ (-60°C ... +60°C)
- > Material
 - Enclosure in seawater resistant cast aluminium
 - Mounting components in stainless steel
- > Lamp options
 - halogen lamps (QT) 500 W
 - halogen metal halide lamps (HIT) up to 400 W
 - sodium vapour high pressure lamps (HST) up to 400 W



E2

	ATEX / IECEx					
Zone	0	1	2	20	21	22
For use in		x	x		x	x

Explosion Protection

Global (IECEx)

Gas and dust

IECEx BVS 14.0071X
 Ex de IIB + H₂ T* Gb
 Ex de IIC T* Gb
 Ex tb IIIC T* °C Db
 * temperature classes and surface temperatures see technical data

Europe (ATEX)

Gas and dust

BVS 14 ATEX E 110 X
 Ⓢ II 2 G Ex de IIB + H₂ T* Gb
 Ⓢ II 2 G Ex de IIC T* Gb
 Ⓢ II 2 D Ex tb IIIC T* °C Db
 * temperature classes and surface temperatures see technical data

Certifications and certificates

Certificates
 Ship approval

IECEx, ATEX, Kazakhstan (TR), Russia (TR), Belarus (TR), India (PESO)
 BV
 only for 6121/1312-2151-.....-3- and 6121/1312-2251-.....-3-
 150 W and 250 W HID, broad beam with specialised bracket and armoured cable between lamp enclosure and ballast enclosure.

WebCode 6121B

Floodlight

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Selection Table

Version	Connection cable between enclosure and connection box	Light aperture	Lamps 1)	Lamp wattage	Order number	Art. no.	Weight
							kg
Standard 220 ... 240 V AC/DC 0, 50, 60 Hz	without	broad beam	QT	500 W	6121/1312-1500-0101-102-514-2	226109	27.000
		narrow beam	QT	500 W	6121/1322-1500-0101-102-514-2	226110	27.000
Standard 230 V AC 50 Hz	standard	broad beam	HIT / HST	150 W	6121/1312-2151-1111-111-514-2	221505	33.500
				250 W	6121/1312-2251-1111-111-514-2	221506	34.500
				400 W	6121/1312-2401-1111-111-514-2	221507	36.900
	narrow beam	HIT / HST	150 W	6121/1322-2151-1111-111-514-2	221508	33.500	
			250 W	6121/1322-2251-1111-111-514-2	221509	34.500	
			400 W	6121/1322-2401-1111-111-514-2	221510	36.900	
Standard 240 V AC 50 Hz	standard	broad beam	HIT / HST	150 W	6121/1312-2151-1111-111-614-2	221606	33.500
				250 W	6121/1312-2251-1111-111-614-2	221607	34.500
				400 W	6121/1312-2401-1111-111-614-2	221608	36.900
	narrow beam	HIT / HST	150 W	6121/1322-2151-1111-111-614-2	221609	33.500	
			250 W	6121/1322-2251-1111-111-614-2	221610	34.500	
			400 W	6121/1322-2401-1111-111-614-2	221611	36.900	
Offshore 220 ... 240 V AC/DC 0, 50, 60 Hz	without	broad beam	QT	500 W	6121/1312-1500-0101-102-513-1	221621	27.000
		narrow beam	QT	500 W	6121/1322-1500-0101-102-513-1	221622	27.000
Offshore 230 V AC 50 Hz	armoured	broad beam	HIT / HST	150 W	6121/1312-2151-1111-311-513-1	221521	38.250
				250 W	6121/1312-2251-1111-311-513-1	221522	39.250
				400 W	6121/1312-2401-1111-311-513-1	221576	41.250
	narrow beam	HIT / HST	150 W	6121/1322-2151-1111-311-513-1	221577	38.250	
			250 W	6121/1322-2251-1111-311-513-1	221586	39.250	
			400 W	6121/1322-2401-1111-311-513-1	221605	41.250	
Offshore 240 V AC 50 Hz	armoured	broad beam	HIT / HST	150 W	6121/1312-2151-1111-311-613-1	221612	38.250
				250 W	6121/1312-2251-1111-311-613-1	221613	39.250
				400 W	6121/1312-2401-1111-311-613-1	221617	41.250
	narrow beam	HIT / HST	150 W	6121/1322-2151-1111-311-613-1	221618	38.250	
			250 W	6121/1322-2251-1111-311-613-1	221619	39.250	
			400 W	6121/1322-2401-1111-311-613-1	221620	41.250	

Order Number Supplement

Connection terminal	Terminal 3 x 4 mm ²	6121/1.....1-.....	
	Terminal 3 x 6 mm ²	6121/1.....2-.....	
Cable glands	3 x M20 with 1 cable gland and 2 stopping plugs (HIT / HST)	6121/1.....1-.....	
	2 x M20 with 1 cable gland and 1 stopping plug (QT)	6121/1.....2-.....	
	3 x M25 with 1 cable gland and 2 stopping plugs (HIT / HST)	6121/1.....3-.....	
	2 x M25 with 1 cable gland and 1 stopping plug (QT)	6121/1.....4-.....	

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Note	Variant	Enclosure	Bracket
	Standard	single powder-coated	sheet steel, single powder-coated
	Offshore	double powder-coated	stainless steel SS316L without powder-coating

The luminaires are supplied without lamps. Please order them as accessories.

1) QT ; Halogen lamps
 HIT ; Metal halide lamps
 HST ; High-pressure sodium lamps

Technical Data

Electrical data

Lamps

QT	IEC 60357
HIT	IEC 61167
HST	IEC 60662

Ballast

QT	without
HIT / HST	magnetical ballast

Rated operational voltage U_e

	Lamps						
	QT				HIT		
	500 W	150 W	250 W	400 W	150 W	250 W	400 W
230 (+/- 6%) V AC, 50 Hz	x	x	x	x	x	x	x
240 (+/- 6%) V AC, 50 Hz		x	x	x	x	x	x
208 (+/- 6%) V AC, 60 Hz		x		x	x		x
220 (+/- 6%) V AC, 60 Hz	x	x	x	x	x	x	x
240 (+/- 6%) V AC, 60 Hz		x	x	x	x	x	x

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Technical Data

Current consumption

Lamp		Lamp power	Supply current in A				
220 ... 230 V AC/DC 0, 50, 60Hz							
QT		500 W	2.17				
		Compensated			Uncompensated		
Lamp	Lamp power	Power factor cos ϕ	Supply current in A	Inrush current in A	Power factor cos ϕ	Supply current in A	Inrush current in A
230 V AC, 50 Hz							
HIT / HST	150 W	0.95	0.79	1.50	0.40	1.80	2.70
HIT / HST	250 W	0.92	1.30	2.00	0.40	3.00	4.20
HIT	400 W	0.93	2.00	2.40	0.43	4.20	5.80
HST	400 W	0.91	2.10	2.50	0.43	4.45	6.00
240 V AC, 50 Hz							
HIT / HST	150 W	0.96	0.76	1.50	0.40	1.80	2.70
HIT / HST	250 W	0.94	1.23	2.00	0.40	3.00	4.20
HIT	400 W	0.96	1.90	2.40	0.43	4.20	5.80
HST	400 W	0.92	2.00	2.50	0.43	4.45	6.00
208 V AC, 60 Hz							
HIT / HST	150 W	0.94	0,80	1.50	0.42	1.80	2.70
HIT	400 W	0.97	1,90	2.50	0.44	4.20	5.80
HST	400 W	0.96	2,30	2.80	0.44	4.45	6.00
220 V AC, 60 Hz							
HIT / HST	150 W	0.96	0.75	1.50	0.42	1.80	2.70
HIT / HST	250 W	0.90	1.50	2.00	0.40	3.00	4.20
HIT	400 W	0.98	1.80	2.40	0.44	4.20	5.80
HST	400 W	0.98	2.20	2.70	0.44	4.45	6.00
240 V AC, 60 Hz							
HIT / HST	150 W	0.97	0.68	1.50	0.42	1.80	2.70
HIT / HST	250 W	0.91	1.35	2.00	0.40	3.00	4.20
HIT	400 W	0.97	1.60	2.30	0.44	4.20	5.80
HST	400 W	0.98	2.00	2.60	0.44	4.45	6.00

Technical Data

Inrush current	max. light fittings per circuit breaker with the maximum network impedance of 1 Ohm:							
		compensated				uncompensated		
		QT	HIT/HST			HIT/HST		
		500 W	150 W	250 W	400 W	150 W	250 W	400 W
	B10A	4	5	3	2	2	1	1
	B16A	7	8	5	3	4	2	1
	B20A	9	10	6	4	5	3	2
	B25A	11	12	8	5	6	4	2
	C10A	4	7	5	3	4	2	1
	C16A	7	11	7	4	6	3	2
C20A	9	14	9	5	7	4	3	
C25A	11	17	11	7	9	5	4	
Energy efficiency class	EEI A2							
Connection cable between enclosure and connection box	prewired with special ignition silicone cable - armoured or unarmoured							

Ambient conditions

Temperature class, max. surface temperature	Lamp	Lamp power	Temperature class		max. surface temperature	
			$T_a \leq +50^\circ \text{C}$	$T_a \leq +60^\circ \text{C}$	$T_a = +40^\circ \text{C}$	$T_a = +60^\circ \text{C}$
	QT	500 W	T3	T3	+158° C	+178° C
	HIT / HST	150 W	T4	T4	+86° C	+106° C
	HIT / HST	250 W	T4	T3	+120° C	+140° C
	HIT / HST	400 W	T3	T3	+152° C	+172° C
Ambient temperature, gas group	Lamp	Lamp power	Ambient temperature		Gas group	Note
	QT	500 W	$T_a = -20 \dots +60^\circ \text{C}$		IIC	
			$T_a = -60 \dots +60^\circ \text{C}$		IIB + H ₂	
	HIT / HST	150 W, 250 W	$T_a = -20 \dots +60^\circ \text{C}$		IIC	
			$T_a = -60 \dots +60^\circ \text{C}$		IIB + H ₂	lamp start at $T_a \geq -35^\circ \text{C}$
		400 W	$T_a = -20 \dots +60^\circ \text{C}$		IIC	
$T_a = -60 \dots +60^\circ \text{C}$			IIB + H ₂	lamp start at $T_a \geq -35^\circ \text{C}$		

Mechanical data

Degree of protection	IP66 (IEC 60529)
Protection class	I
Enclosure material	seawater-resistant cast aluminium (AlSiMg) (LM25)
Material cover lamp enclosure	Brass powder-coated
Colour	Standard single powder-coated, Offshore double powder-coated, RAL 7032, other on request
Bracket	Standard: sheet steel, single powder coated Offshore: stainless steel SS316L (1.4404 or. V4A) without powder-coating

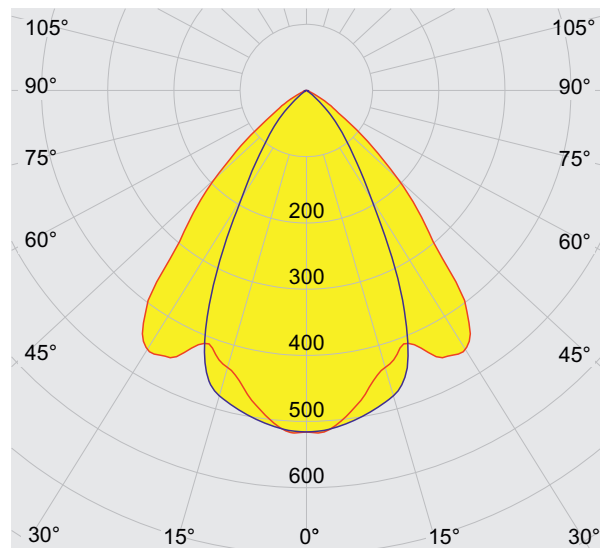
Mounting / Installation

Operating position	Horizontal mounting
Cable entry	HIT / HST 3x M20x1.5 with 1 cable gland and 2 stopping plugs or 3x M25x1.5 with 1 cable gland and 2 stopping plugs QT 2x M20x1.5 with 1 cable gland and 1 stopping plug or 2x M25x1.5 with 1 cable gland and 1 stopping plug
Connection	L + N + PE, max. 4 mm ² or max. 6mm ²

Floodlight Series 6121

Light distribution curve

typical broad beam



cd/klm

— C0 - C180

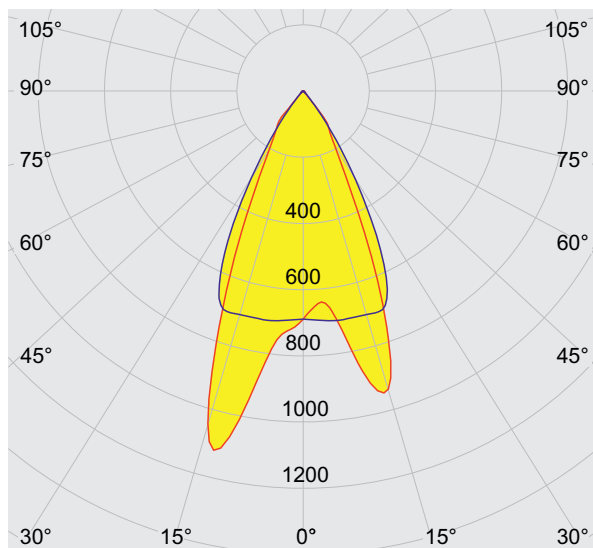
— C90 - C270

< 72%

16637E00

250 W HST broad beam

typical spot beam



cd/klm

— C0 - C180

— C90 - C270

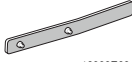





77%

16638E00

250 W HST spot beam

for further light distribution curves, see www.stahl-ex.com

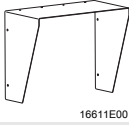

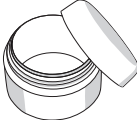
Accessories and Spare Parts

Designation	Figure	Description	Art. no.	Weight kg			
Socket key	 16990E00	Socket key for opening and closing of lamp enclosure and connection enclosure	223778	0.350			
Halogen lamps QT	 05355E00	Power	Lamp holder	Voltage	Lighting current		
		500 W	E40	230 V	10250 lm	108874	0.120
		150 W	E40	230 V	14500 lm	109130	0.135
Halogen metal halide lamps HIT	 05355E00	250 W	E40	230 V	20000 lm	109132	0.200
		400 W	E40	230 V	42000 lm	109134	0.135
		150 W	E40	230 V	17500 lm	109129	0.143
High pressure sodium lamps HST	 05355E00	250 W	E40	230 V	33200 lm	109131	0.149
		400 W	E40	230 V	56500 lm	109133	0.210
		Ring bolt	 05378E00	M10, direct mounting in insert nuts, 1 pair	118560	0.210	
Mounting bracket	 18198E00	Mounting bracket with accessories Material: sheet steel , single powder-coated	251923				
		Mounting bracket with accessories Material: stainless steel V4A (1.4404; X2Cr-Ni-Mo17-12-2; S31603)	251922				

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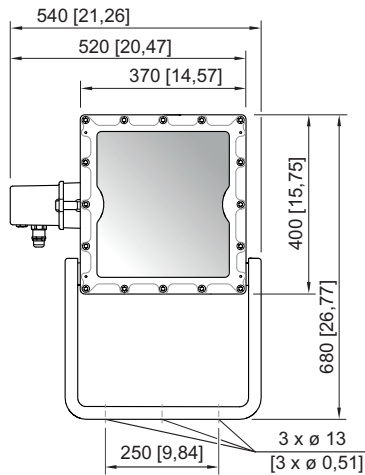
Accessories and Spare Parts

Designation	Figure	Description	Art. no.	Weight kg
Light visor	 16611E00	Anti-glare grid with accessories Material: stainless steel V2A (1.4301; X5Cr-Ni18-10; S 30400)	230041	2.300
Impact protection grid	 16612E00	Impact protection grid with accessories Material: stainless steel V2A (1.4301; X5Cr-Ni18-10; S 30400)	230045	0.500
Grease	 19599E00	Special grease BLASOLUBE 300; 1 tin	105077	1.070

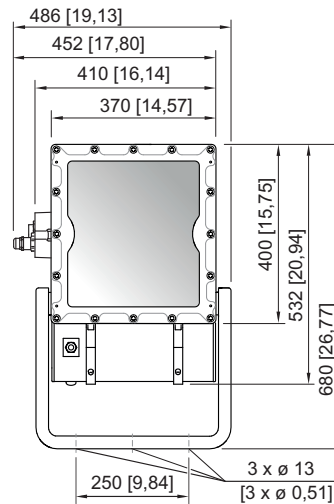
Dimensional Drawings (All Dimensions in mm [inches]) - Subject to Alterations

6121/1 Floodlight, Halogen (QT)

6121/1 Floodlight, Halogen metal halide lamps (HIT), High pressure sodium lamps (HST)



18558E00



18557E00

6121/13.....-3-
6121/13.....-4-

E2

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.