



LOAD DISCONNECTED SWITCHES AND MOTOR STARTERS

Product	Installation in Zone						Series	Page	WebCode
	0	1	2	20	21	22			
Motor Protection Circuit Breakers									
Motor Protection Circuit Breaker		•	•		•	•	8146/5-V27	619	8146N
Safety Switches									
Safety Switches		•	•		•	•	8537	617	8537A
Safety Switches made of Polyester Resin		•	•		•	•	8146/5-V37	609	8146L
Safety Switches made of Stainless Steel		•	•		•	•	8150/5-V37	614	8150F
Standard Motor Starters									
Standard Motor Starters		•	•		•	•	8220	625	8220A
Standard Motor Starters CUBEx		•	•		•	•	8264/5	622	8264D
Dimensional Drawings									
Safety Switches Series 8146/5-V37, 8150/5-V37 Dimensional Drawings								616	

For additional products and information please refer to r-stahl.com

Safety Switches made of Polyester Resin

Series 8146/5-V37

STAHL



- Can be used with conventional drives and drives controlled by frequency converters
- Intelligent design: A single rotary actuator for actuating both main and auxiliary contacts, ≥ 20 ms leading auxiliary contact for safely disconnecting the frequency converter
- Version complies with IEC/EN 62626-1, Class 1
- The rotary actuator can be locked with 3 padlocks in the 0-position

WebCode **8146L**



R. STAHL's 8146/5-V37 series safety switches safely disconnect the power supply to machinery and system components for cleaning and repair as prescribed. They can be used at frequencies from 5 to 400 Hz. All of the installed load disconnect switches have an AC-3 switching capacity. The switches can be locked in the 0-position using padlocks.

	ATEX / IECEx					
Zone	0	1	2	20	21	22
Installation in		•	•		•	•

Selection Table									
Rated operational current				10 A					
Rated operational voltage AC				690 V					
Gas temperature class				T6					
Colour of handle	Additional terminal	Entry type	Cable gland	Auxiliary contact NC	Auxiliary contact NO	Product Type	Art. No.	PS	Weight kg
Black shroud and handle	Standard (without)	Brass plate with 8161	2 x M25 Ø 7 ... 17 mm 1 x M20 Ø 4 ... 13 mm	Without	1 NO / delayed	8146/5-V37-300-50-0050	220275 ▲	12	1.700
Yellow collar, red handle	Standard (without)	Brass plate with 8161	2 x M25 Ø 7 ... 17 mm 1 x M20 Ø 4 ... 13 mm	Without	1 NO / delayed	8146/5-V37-300-50-1050	220277	12	1.700
Rated operational current				12 A / 16 A					
Rated operational voltage AC				690 V / 690 V					
Gas temperature class				T6					
Colour of handle	Additional terminal	Entry type	Cable gland	Auxiliary contact NC	Auxiliary contact NO	Product Type	Art. No.	PS	Weight kg
Black shroud and handle	Standard (without)	Brass plate with 8161	2 x M25 Ø 7 ... 17 mm 1 x M20 Ø 4 ... 13 mm	Without	1 NO / delayed	8146/5-V37-301-50-0050	147855 ▲	12	0.962
Yellow collar, red handle	Standard (without)	Brass plate with 8161	2 x M25 Ø 7 ... 17 mm 1 x M20 Ø 4 ... 13 mm	Without	1 NO / delayed	8146/5-V37-301-50-1050	147856 ▲	12	0.958

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Selection Table

Rated operational current		16 A							
Rated operational voltage AC		690 V							
Gas temperature class		T4							
Colour of handle	Additional terminal	Entry type	Cable gland	Auxiliary contact NC	Auxiliary contact NO	Product Type	Art. No.	PS	Weight kg
Yellow collar, red handle	Main contact on terminals	Standard 8161, moulded material	2 x M32 Ø 9 ... 21 mm 1 x M20 Ø 4 ... 13 mm	Without	Without	8146/5-V37-302-00-1510	226354	12	2.500
Rated operational current		16 A							
Rated operational voltage AC		690 V							
Gas temperature class		T6							
Colour of handle	Additional terminal	Entry type	Cable gland	Auxiliary contact NC	Auxiliary contact NO	Product Type	Art. No.	PS	Weight kg
Black shroud and handle	Standard (without)	Brass plate with 8161	2 x M25 Ø 7 ... 17 mm 1 x M20 Ø 4 ... 13 mm	Without	1 NO / delayed	8146/5-V37-302-50-0050	201404 ▲	12	1.590
	With PTC resistor terminal	Brass plate with 8161	2 x M25 Ø 7 ... 17 mm 1 x M20 Ø 4 ... 13 mm	Without	1 NO / delayed	8146/5-V37-302-50-0250	222088	12	1.590
	Standard (without)	Standard 8161, moulded material	4 x M25 Ø 7 ... 17 mm 1 x M20 Ø 4 ... 13 mm	Without	2 NO / 1x delayed	8146/5-V37-602-60-0010	201420 ▲	12	2.640
Yellow collar, red handle	Standard (without)	Brass plate with 8161	2 x M25 Ø 7 ... 17 mm 1 x M20 Ø 4 ... 13 mm	Without	1 NO / delayed	8146/5-V37-302-50-1050	201405 ▲	12	1.590
		Standard 8161, moulded material	4 x M25 Ø 7 ... 17 mm 1 x M20 Ø 4 ... 13 mm	Without	2 NO / 1x delayed	8146/5-V37-602-60-1010	201421	12	2.640
Rated operational current		20 A							
Rated operational voltage AC		690 V							
Gas temperature class		T6							
Colour of handle	Additional terminal	Entry type	Cable gland	Auxiliary contact NC	Auxiliary contact NO	Product Type	Art. No.	PS	Weight kg
Black shroud and handle	Standard (without)	Standard 8161, moulded material	2 x M32 Ø 13 ... 21 mm 1 x M20 Ø 4 ... 13 mm	Without	1 NO / delayed	8146/5-V37-303-50-0010	220278 ▲	12	2.020
Rated operational current		25 A							
Rated operational voltage AC		690 V							
Gas temperature class		T6							
Colour of handle	Additional terminal	Entry type	Cable gland	Auxiliary contact NC	Auxiliary contact NO	Product Type	Art. No.	PS	Weight kg
Black shroud and handle	Standard (without)	Standard 8161, moulded material	2 x M32 Ø 9 ... 21 mm 1 x M20 Ø 4 ... 13 mm	Without	1 NO / delayed	8146/5-V37-304-50-0010	201422 ▲	12	1.960
Yellow collar, red handle	Standard (without)	Standard 8161, moulded material	2 x M32 Ø 9 ... 21 mm 1 x M20 Ø 4 ... 13 mm	Without	1 NO / delayed	8146/5-V37-304-50-1010	201423 ▲	12	2.020
		Standard 8161, moulded material	4 x M25 Ø 7 ... 17 mm 1 x M20 Ø 4 ... 13 mm	Without	2 NO / 1x delayed	8146/5-V37-604-60-1010	201447	12	2.790

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Selection Table									
Rated operational current		40 A							
Rated operational voltage AC		690 V							
Gas temperature class		T4							
Colour of handle	Additional terminal	Entry type	Cable gland	Auxiliary contact NC	Auxiliary contact NO	Product Type	Art. No.	PS	Weight kg
Yellow collar, red handle	Main contact on terminals	Standard 8161, moulded material	2 x M40 Ø 12 ... 28 mm 1 x M20 Ø 4 ... 13 mm	Without	Without	8146/5-V37-305-00-1510	226355	12	7.500
Rated operational current		40 A							
Rated operational voltage AC		690 V							
Gas temperature class		T6							
Colour of handle	Additional terminal	Entry type	Cable gland	Auxiliary contact NC	Auxiliary contact NO	Product Type	Art. No.	PS	Weight kg
Black shroud and handle	Standard (without)	Standard 8161, moulded material	2 x M40 Ø 12 ... 28 mm	Without	Without	8146/5-V37-305-00-0010-K	242415	12	5.520
		Standard 8161, moulded material	2 x M40 Ø 12 ... 28 mm 1 x M20 Ø 4 ... 13 mm	1 NC	1 NO / delayed	8146/5-V37-305-51-0010-K	200206 ▲	12	5.560
		Standard 8161, moulded material	4 x M40 Ø 12 ... 28 mm 1 x M20 Ø 4 ... 13 mm	1 NC	1 NO / delayed	8146/5-V37-605-51-0010-K	200290	12	10.960
Yellow collar, red handle	Standard (without)	Standard 8161, moulded material	2 x M40 Ø 12 ... 28 mm 1 x M20 Ø 4 ... 13 mm	1 NC	1 NO / delayed	8146/5-V37-305-51-1010-K	200207	12	5.520
		Standard 8161, moulded material	2 x M40 Ø 12 ... 28 mm 1 x M20 Ø 4 ... 13 mm	1 NC	1 NO / delayed	8146/5-V37-605-51-1010-K	200321	12	10.960
Rated operational current		63 A							
Rated operational voltage AC		690 V							
Gas temperature class		T4							
Colour of handle	Additional terminal	Entry type	Cable gland	Auxiliary contact NC	Auxiliary contact NO	Product Type	Art. No.	PS	Weight kg
Yellow collar, red handle	Main contact on terminals	Standard 8161, moulded material	2 x M50 Ø 16 ... 35 mm 1 x M20 Ø 4 ... 13 mm	Without	Without	8146/5-V37-306-00-1510	226356	12	10.700
Rated operational current		63 A / 80 A							
Rated operational voltage AC		690 V / 500 V							
Gas temperature class		T6							
Colour of handle	Additional terminal	Entry type	Cable gland	Auxiliary contact NC	Auxiliary contact NO	Product Type	Art. No.	PS	Weight kg
Black shroud and handle	Standard (without)	Standard 8161, moulded material	2 x M50 Ø 16 ... 35 mm	Without	Without	8146/5-V37-306-00-0010-K	242416	12	5.680
		Standard 8161, moulded material	2 x M50 Ø 16 ... 35 mm 1 x M20 Ø 4 ... 13 mm	1 NC	1 NO / delayed	8146/5-V37-306-51-0010-K	200558	12	5.680
		Standard 8161, moulded material	2 x M50 Ø 16 ... 35 mm 1 x M20 Ø 4 ... 13 mm	1 NC	1 NO / delayed	8146/5-V37-306-51-0010	213395	12	7.550
Yellow collar, red handle	Standard (without)	Standard 8161, moulded material	2 x M50 Ø 16 ... 35 mm 1 x M20 Ø 4 ... 13 mm	1 NC	1 NO / delayed	8146/5-V37-306-51-1010	213396	12	7.550

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▲ Preferred products – in stock or available at short notice
25-Oct-2019- PK-en

Selection Table

Rated operational current		80 A							
Rated operational voltage AC		500 V							
Gas temperature class		T4							
Colour of handle	Additional terminal	Entry type	Cable gland	Auxiliary contact NC	Auxiliary contact NO	Product Type	Art. No.	PS	Weight kg
Yellow collar, red handle	Main contact on terminals	Standard 8161, moulded material	2 x M63 Ø 28 ... 48 mm 1 x M20 Ø 4 ... 13 mm	Without	Without	8146/5-V37-307-00-1510	226357	12	14.400
Rated operational current		125 A / 160 A							
Rated operational voltage AC		690 V / 400 V							
Gas temperature class		T6							
Colour of handle	Additional terminal	Entry type	Cable gland	Auxiliary contact NC	Auxiliary contact NO	Product Type	Art. No.	PS	Weight kg
Black shroud and handle	Standard (without)	Standard 8161, moulded material	2 x M63 Ø 28 ... 48 mm 1 x M20 Ø 4 ... 13 mm	1 NC	1 NO / delayed	8146/5-V37-308-51-0010-K	201397	12	14.350
		Standard 8161, moulded material	2 x M63 Ø 28 ... 48 mm 1 x M20 Ø 4 ... 13 mm	1 NC	1 NO / delayed	8146/5-V37-308-51-0010	212209	12	18.500
Yellow collar, red handle	Standard (without)	Standard 8161, moulded material	2 x M63 Ø 28 ... 48 mm 1 x M20 Ø 4 ... 13 mm	1 NC	1 NO / delayed	8146/5-V37-308-51-1010-K	201398	12	14.350
Rated operational current		180 A							
Rated operational voltage AC		400 V							
Gas temperature class		T4							
Colour of handle	Additional terminal	Entry type	Cable gland	Auxiliary contact NC	Auxiliary contact NO	Product Type	Art. No.	PS	Weight kg
Black shroud and handle	Standard (without)	Standard 8161, moulded material	2 x M63 Ø 28 ... 48 mm 1 x M20 Ø 4 ... 13 mm	1 NC	1 NO / delayed	8146/5-V37-310-51-0010-K	213476	12	14.360
		Brass plate with drilled holes	2 x M63 1 x M20	1 NC	1 NO / delayed	8146/5-V37-310-51-0040-K	213479	12	15.140

Technical Data

Variant	Gas temperature class T6	Gas temperature class T4
Explosion Protection		
IECEX gas explosion protection	Ex db eb IIC T6 Gb	Ex db eb IIC T4 Gb
IECEX dust explosion protection	Ex tb IIIC T80 °C Db	Ex tb IIIC T130 °C Db
ATEX gas explosion protection	⊕ II 2 G Ex db eb IIC T6 Gb	⊕ II 2 G Ex db eb IIC T4 Gb
ATEX dust explosion protection	⊕ II 2 D Ex tb IIIC T80 °C Db	⊕ II 2 D Ex tb IIIC T130 °C Db
Certificates	ATEX (PTB), IECEX (PTB)	ATEX (PTB), IECEX (PTB)
Electrical Data		
Notes	Auxiliary contact NO (1 x ON delayed - OFF leading)	
Ambient Conditions		
Notes	Information regarding ambient conditions can be found on the Internet at r-stahl.com. WebCode 8146L	
Mechanical Data		
Degree of protection (IP)	IP66	IP66
Degree of protection note	acc. to EN/IEC 60529	acc. to EN/IEC 60529
Enclosure material	Polyester resin, Glass fibre reinforced	Polyester resin, Glass fibre reinforced
Type of connection cable	Solid Finely stranded	Finely stranded Solid
Seal	Silicone, foamed	Silicone, foamed
Seal Notes	Seal optional: EPDM	Seal optional: EPDM
Lockable in	3x in 0	3x in 0
Detailed number of poles	3-pole	3-pole

Safety Switches made of Polyester Resin

Series 8146/5-V37



Accessories and spare parts on the Internet r-stahl.com

Dimensional Drawings see page 616

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- Can be used with conventional drives and drives controlled by frequency converters
- Intelligent design: A single rotary actuator for actuating both main and auxiliary contacts, ≥ 20 ms leading auxiliary contact for safely disconnecting the frequency converter
- Version complies with IEC/EN 62626-1, Class 1
- The rotary actuator can be locked with 3 padlocks in the 0-position

WebCode **8150F**



R. STAHL's 8150/5-V37 series safety switches safely disconnect the power supply to machinery and system components for cleaning and repair as prescribed. They can be used at frequencies from 5 to 400 Hz. All of the installed load disconnect switches have an AC-3 switching capacity. The switches can be locked in the 0-position using padlocks.

	ATEX / IECEx					
Zone	0	1	2	20	21	22
Installation in		•	•		•	•

Selection Table

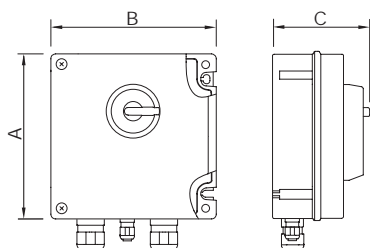
Rated operational current		16.00 A					
Colour of handle	Auxiliary contact NC	Auxiliary contact NO	Cable gland	Product Type	Art. No.	PS	Weight kg
Black shroud and handle	Without	1 NO / delayed	2 x M25 Ø 7 ... 17 mm 1 x M20 Ø 4 ... 13 mm	8150/5-V37-302-50-0010	214171	12	3.250
Rated operational current		25.00 A					
Colour of handle	Auxiliary contact NC	Auxiliary contact NO	Cable gland	Product Type	Art. No.	PS	Weight kg
Black shroud and handle	Without	1 NO / delayed	2 x M32 Ø 9 ... 21 mm 1 x M20 Ø 4 ... 13 mm	8150/5-V37-304-50-0010	214172	12	3.300
Rated operational current		40.00 A					
Colour of handle	Auxiliary contact NC	Auxiliary contact NO	Cable gland	Product Type	Art. No.	PS	Weight kg
Black shroud and handle	1 NC	1 NO / delayed	2 x M40 Ø 12 ... 28 mm 1 x M20 Ø 4 ... 13 mm	8150/5-V37-305-51-0010-K	214173	12	8.360
Rated operational current		63.00 A / 80.00 A					
Colour of handle	Auxiliary contact NC	Auxiliary contact NO	Cable gland	Product Type	Art. No.	PS	Weight kg
Black shroud and handle	1 NC	1 NO / delayed	2 x M50 Ø 16 ... 35 mm 1 x M20 Ø 4 ... 13 mm	8150/5-V37-306-51-0010-K	214174	12	12.600

Technical Data

Explosion Protection	
IECEx gas explosion protection	Ex db eb IIC T6 Gb
IECEx dust explosion protection	Ex tb IIIC T80 °C Db
ATEX gas explosion protection	⊕ II 2 G Ex db eb IIC T6 Gb
ATEX dust explosion protection	⊕ II 2 D Ex tb IIIC T80 °C Db

Technical Data	
Explosion Protection	
Certificates	ATEX (PTB), IECEx (PTB)
Electrical Data	
Rated operational voltage AC	690 V
Notes	Auxiliary contact NO (1 x ON delayed - OFF leading)
Ambient Conditions	
Notes	Information regarding ambient conditions can be found on the Internet at r-stahl.com. WebCode 8150F
Mechanical Data	
Degree of protection (IP)	IP66
Degree of protection note	acc. to EN/IEC 60529
Enclosure material	1.4404 stainless steel, (AISI 316L), brush finished
Additional terminal	Standard (without)
Type of connection cable	Finely stranded Solid
Seal	Silicone, foamed
Lockable in	3x in 0
Detailed number of poles	3-pole
Components	
Entry type	Standard 8161, moulded material
Accessories and spare parts on the Internet r-stahl.com	
Dimensional Drawings see page 616	

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



Version	Rated operational current	Product Type	Dimension A [mm]	Dimension B [mm]	Dimension C [mm]
3-pole	10, 12 / 16 A	8146/5-V37-300-50-...	112.5	112.5	131
		8146/5-V37-301-50-...	112.5	112.5	131
	16 A	8146/5-V37-302-50-...	170	112.5	132
		8146/5-V37-302-...-5..	340.5	170	132
		8150/5-V37-302-50-...	176.5	176.5	132
		8146/5-V37-302-50-0250	227	112.5	172
	20 A	8146/5-V37-303-50-...	170	170	132
	25 A	8146/5-V37-304-50-...	170	170	132
		8150/5-V37-304-50-...	176.5	176.5	132
	40 A	8146/5-V37-305-...-K	340.5	170	176.5
		8146/5-V37-305-...-5..	340.5	340.5	195
		8150/5-V37-305-...-K	360	176.5	194
	63 / 80 A	8146/5-V37-306-...-K	340.5	170	195
		8146/5-V37-306-...	340.5	340.5	195
8146/5-V37-306-...-5..		681.5	340.5	195	
8150/5-V37-306-S1-...		360	360	196	
80 A	8146/5-V37-307-...-5..	681.5	340.5	195	
125 / 160 A	8146/5-V37-308-...-K	681.5	340.5	205	
	8146/5-V37-308-...	681.5	681.5	205	
180 A	8146/5-V37-310-...-K	681.5	340.5	205	
	8146/5-V37-310-...	681.5	681.5	205	
6-pole	16 A	8146/5-V37-602-60-...	170	170	172
	25 A	8146/5-V37-604-60-...	227	170	172
	40 A	8146/5-V37-605-...-K	340.5	340.5	205
	63 / 80 A	8146/5-V37-606-...	681.5	340.5	205
	125 / 160 A	8146/5-V37-608-...	1023	681.5	243
	180 A	8146/5-V37-610-...	1023	681.5	243



- Motor switching capacity AC-3 and AC-23 acc. to IEC 60947-3, EN 60947, DIN VDE 0660 Part 107
- With or without load-shedding contact
- Positive opening operation of the main contacts
- Isolating characteristics acc. to DIN VDE 0660
- Padlockable in "OFF" position with padlocks
- Rotary actuator with clear switching position
- High level of corrosion resistance in external components
- Marked with signal orange label "Safety Switch"

WebCode **8537A**



Safety switches ensure the obligatory disconnection of the machines and installations from the energy supply during cleaning and repair work. Usual preparatory work such as removal of fuses or disconnection of motors, which can be performed only by electrically skilled persons, is no longer required.

	ATEX / IECEx					
Zone	0	1	2	20	21	22
Installation in		•	•		•	•

Selection Table						
Rated operational current		250 A				
Rated operational voltage AC		690 V				
Figure	Cable gland	Product Type	Art. No.	PS	Weight kg	
	2 x M63 Ø 28 ... 48 mm 1 x M20 Ø 4 ... 13 mm	8537/7-712-7000	147467	13	55.000	

Further versions (160, 315, 400, 500 A) on request.

Technical Data	
Explosion Protection	
IECEx gas explosion protection	Ex db eb IIC T5 Gb
IECEx dust explosion protection	Ex tb IIIC T95 °C
ATEX gas explosion protection	⊕ II 2 G Ex db eb IIC T5 Gb
ATEX dust explosion protection	⊕ II 2 D Ex tb IIIC T95 °C
Certificates	ATEX (PTB), IECEx (PTB)
Electrical Data	
Switching capacity note	according to IEC/EN 60947-3; DIN VDE 0660, Part 107
Switching capacity AC-3	U _e 230 V ~ = 75 kW U _e 400 V ~ = 132 kW U _e 500 V ~ = 160 kW U _e 690 V ~ = 160 kW
Switching capacity AC-23	U _e 230 V ~ = 75 kW U _e 400 V ~ = 132 kW U _e 500 V ~ = 160 kW U _e 690 V ~ = 200 kW
Auxiliary contact NO	1 NO / delayed
Notes	Auxiliary contact NO (1 x ON delayed - OFF leading)

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Technical Data

Ambient Conditions

Ambient temperature -20 °C ... +40 °C

Notes Information regarding ambient conditions can be found on the Internet at r-stahl.com. WebCode 8537A

Mechanical Data

Degree of protection (IP) IP54

Degree of protection note IP65 with seal (accessory)

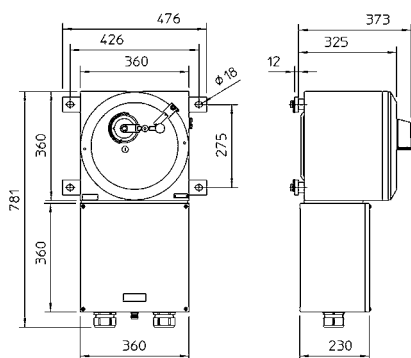
Enclosure material Sheet steel, painted

Colour of handle Standard black

Lockable in 3x in 0

Detailed number of poles 3-pole

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





- Electric line and system protection for Ex e and Ex d motors
- Robust enclosure made from glass fibre-reinforced polyester resin
- Optional: Undervoltage release, shunt trip, ammeter, auxiliary contact

WebCode **8146N**



R. STAHL's 8146/5-V27 series moulded case circuit breakers for motor protection protect Ex e and Ex d motors and their associated electric lines and systems. The standard variants feature an adjustable, phase-sensitive thermal overcurrent release or electromagnetic tripping mechanism, which has to be specified during the ordering process. They cannot be retrofitted.

	ATEX / IECEx					
Zone	0	1	2	20	21	22
Installation in		•	•		•	•

Selection Table							
Current-setting range		0.10 - 0.16 A					
Auxiliary contacts	Release	Release voltage AC	Gas temperature class	Product Type	Art. No.	PS	Weight kg
1 NC 1 NO	Undervoltage release	400 V	T6	8146/5-V27-208-015-12-21-1	249193	12	2.610
Current-setting range		0.40 - 0.63 A					
Auxiliary contacts	Release	Release voltage AC	Gas temperature class	Product Type	Art. No.	PS	Weight kg
Without	Undervoltage release	400 V	T5	8146/5-V27-108-045-10-21-1	249161	12	2.630
Current-setting range		0.63 - 1.00 A					
Auxiliary contacts	Release	Release voltage AC	Gas temperature class	Product Type	Art. No.	PS	Weight kg
1 NO 1 NC	Without	0 V	T5	8146/5-V27-201-055-02-21-1	249242	12	2.600
Current-setting range		1.00 - 1.60 A					
Auxiliary contacts	Release	Release voltage AC	Gas temperature class	Product Type	Art. No.	PS	Weight kg
1 NC 1 NO	Undervoltage release	230 V	T5	8146/5-V27-207-065-12-21-1	249207	12	2.700
Without	Undervoltage release	400 V	T5	8146/5-V27-108-065-10-21-1	249167	12	2.700
Current-setting range		1.60 - 2.50 A					
Auxiliary contacts	Release	Release voltage AC	Gas temperature class	Product Type	Art. No.	PS	Weight kg
1 NC 1 NO	Undervoltage release	400 V	T5	8146/5-V27-208-075-12-21-1	249211	12	2.700
		500 V	T5	8146/5-V27-210-075-12-21-1	249212	12	2.700
Without	Undervoltage release	400 V	T5	8146/5-V27-108-075-10-21-1	249170	12	2.700

E7

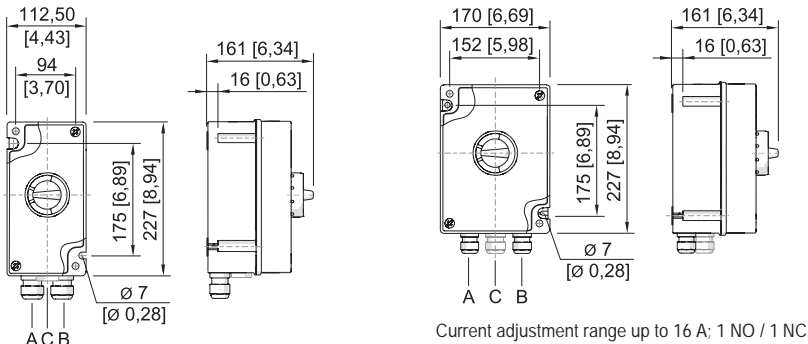
Selection Table

Current-setting range		2.50 - 4.00 A					
Auxiliary contacts	Release	Release voltage AC	Gas temperature class	Product Type	Art. No.	PS	Weight kg
1 NO 1 NC	Without	0 V	T5	8146/5-V27-201-085-02-21-1	249245	12	2.630
Without	Undervoltage release	400 V	T5	8146/5-V27-108-085-10-21-1	249173	12	2.800
Current-setting range		4.00 - 6.30 A					
Auxiliary contacts	Release	Release voltage AC	Gas temperature class	Product Type	Art. No.	PS	Weight kg
Without	Undervoltage release	400 V	T5	8146/5-V27-108-095-10-21-1	249176	12	2.800
Current-setting range		6.30 - 9.00 A					
Auxiliary contacts	Release	Release voltage AC	Gas temperature class	Product Type	Art. No.	PS	Weight kg
1 NO 1 NC	Without	0 V	T5	8146/5-V27-201-105-02-21-1	249247	12	2.850
Without	Undervoltage release	400 V	T5	8146/5-V27-108-105-10-21-1	249179	12	3.000

Technical Data

Variant	Gas temperature class T6	Gas temperature class T5
Explosion Protection		
IECEX gas explosion protection	Ex db eb IIC T6 Gb	Ex db eb IIC T5 Gb
IECEX dust explosion protection	Ex tb IIIC T80 °C Db	Ex tb IIIC T95 °C Db
ATEX gas explosion protection	Ⓜ II 2 G Ex db eb IIC T6 Gb	Ⓜ II 2 G Ex db eb IIC T5 Gb
ATEX dust explosion protection	Ⓜ II 2 D Ex tb IIIC T80 °C Db	Ⓜ II 2 D Ex tb IIIC T95 °C Db
EAC gas explosion protection	Ⓜ 1 Ex e * IIA ... IIC T6 ... T3 Gb X	Ⓜ 1 Ex e * IIA ... IIC T6 ... T3 Gb X
EAC dust explosion protection	Ⓜ Ex tb IIIC T80 °C ... T130 °C Db X	Ⓜ Ex tb IIIC T80 °C ... T130 °C Db X
Certificates	ATEX (PTB), Canada (FM), China (NEPSI), EAC (LPE), IECEX (PTB)	ATEX (PTB), Canada (FM), China (NEPSI), EAC (LPE), IECEX (PTB)
Electrical Data		
No. of poles	3	3
Ambient Conditions		
Ambient temperature	-20°C ... +40°C	-20°C ... +40°C
Notes	Information regarding ambient conditions can be found on the Internet at r-stahl.com. WebCode 8146N	
Mechanical Data		
Degree of protection (IP)	IP66	IP66
Degree of protection note	acc. to EN/IEC 60529	acc. to EN/IEC 60529
Enclosure material	Polyester resin, Glass fibre reinforced	Polyester resin, Glass fibre reinforced
Colour of handle	Black	Black
Colour of protective collar	Black	Black
Labelling rotary actuator	0 - I	0 - I
Seal	Silicone, foamed	Silicone, foamed
Lockable in	3x in 0	3x in 0
Components		
Cable glands	3 x M25 Ø 7 - 17 mm	3 x M25 Ø 7 - 17 mm
Entry type	Standard 8161, moulded material	Standard 8161, moulded material

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



Current adjustment range up to 16 A; without auxiliary contact

Cable entries

Version	Auxiliary contacts	Cable glands Series 8161		Stopping plugs Series 8290
		M25 x 1.5	M32 x 1.5	M25 x 1.5
Current adjustment range up to 16 A	without	A, B	--	C
	with	A, B, C	--	--
Current adjustment range 16 ... 20 A, 20 ... 22.5 A	without	--	A, B	C
	with	C	A, B	--



- Motor starters with international approval
- Robust design: seawater-resistant enclosure, can be used in a large temperature range
- Control panels: Direct-On-Line Motor Starter DOL, star-delta contactor combinations YD, reversing contactor combinations

WebCode **8264D**



R. STAHL Series 8264/5 "CUBEx" standard motor starters are installed in a seawater-resistant Ex d enclosure and are suitable for a large temperature range. They are available in various control variants. As an option, the control panels can be fitted with main switches, main and control fuses and control devices as per the customer's requirements.

	ATEX / IECEx					
Zone	0	1	2	20	21	22
Installation in		•	•		•	•

Selection Table

Direct-on-line motor starter (DOL)						
Product Description	Terminal	Threaded holes on bottom	Product Type	Art. No.	PS	Weight kg
8264/5212	4 x 16 mm ² 3 x 6 mm ²	1 x M32 3 x M25	8264/5-SM-ES15kW400V-T	143165	13	30.000
	4 x 35 mm ² 3 x 10 mm ²	1 x M40 1 x M32 2 x M25	8264/5-SM-ES22kW400V-T	143169	13	30.000
8264/5222	4 x 35 mm ² 3 x 10 mm ²	1 x M40 1 x M32 2 x M25	8264/5-SM-ES30kW400V-T	143171	13	39.000
	4 x 50 mm ² 3 x 35 mm ²	1 x M50 1 x M40 2 x M25	8264/5-SM-ES45kW400V-T	143175	13	39.000
8264/5323	4 x 50 mm ² 3 x 35 mm ²	1 x M50 1 x M40 2 x M25	8264/5-SM-ES75kW400V-T	143179	13	69.000
Reversing starter combination						
Product Description	Terminal	Threaded holes on bottom	Product Type	Art. No.	PS	Weight kg
8264/5222	4 x 10 mm ² 3 x 6 mm ²	2 x M32 2 x M25	8264/5-SM-WS11kW400V-T	143221	13	39.000
	4 x 35 mm ² 3 x 16 mm ²	1 x M40 1 x M32 2 x M25	8264/5-SM-WS22kW400V-T	143224	13	39.000
8264/5323	4 x 95 mm ² 3 x 35 mm ²	1 x M50 1 x M40 2 x M25	8264/5-SM-WS45kW400V-T	143227	13	69.000
8264/5333	4 x 95 mm ² 3 x 95 mm ²	1 x M63 1 x M50 2 x M25	8264/5-SM-WS75kW400V-T	143229	13	87.000

E7

Selection Table						
Product Description		YD star-delta contactor combination				
Enclosure	Terminal	Threaded holes on bottom	Product Type	Art. No.	PS	Weight kg
8264/5222	4 x 6 mm ² 6 x 4 mm ²	3 x M32 2 x M25	8264/5-SM-SS15kW400V-T	143184	13	39.000
8264/5323	4 x 50 mm ² 6 x 35 mm ²	1 x M50 2 x M40 2 x M25	8264/5-SM-SS55kW400V-T	143196	13	69.000
8264/5933	4 x 150 mm ² 6 x 95 mm ²	1 x M63 2 x M50 2 x M25	8264/5-SM-SS110kW400V-T	143202	13	152.000
8264/5993	4 x 150 mm ² 6 x 95 mm ²	1 x M63 2 x M50 2 x M25	8264/5-SM-SS132kW400V-T	143204	13	236.000
	4 x 240 mm ² 6 x 150 mm ²	3 x M63 2 x M25	8264/5-SM-SS200kW400V-T	143208	13	236.000

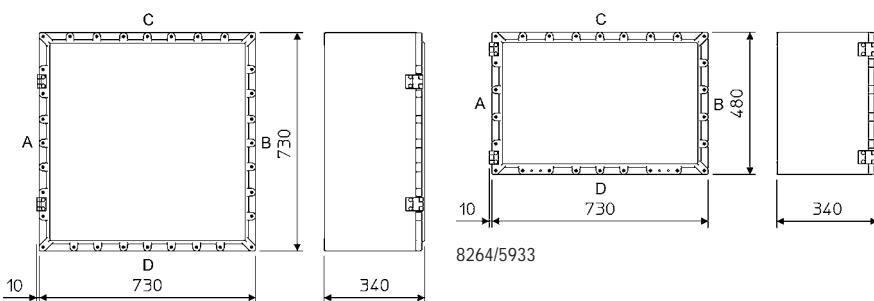
Standard motor starters with threaded holes; please order cable glands separately.

Cable glands, see chapter E10 - Installation Equipment and Accessories.

Technical Data	
Explosion Protection	
IECEx gas explosion protection	Ex db IIB+H2 T6 Gb
IECEx dust explosion protection	Ex tb IIIC T80 °C Db
ATEX gas explosion protection	Ⓔ II 2 G Ex db IIB+H2 T6 Gb
ATEX dust explosion protection	Ⓔ II 2 D Ex tb IIIC T80 °C Db
Certificates	ATEX (DEK), Brazil (ULB), Canada / USA (UL), China (CQST), IECEx (DEK), India (PESO), Korea (KGS), Taiwan (ITRI)
Electrical Data	
Rated operational voltage AC	400 V
Ambient Conditions	
Ambient temperature	-20 °C ... +40 °C
Notes	Others on request
Mechanical Data	
Degree of protection IP (IEC 60529)	IP66
Enclosure material	Aluminium, copper-free, Seawater-resistant
Notes	Special: Enclosure made of stainless steel

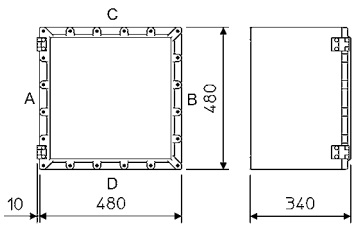
Dimensional Drawings (All Dimensions in mm [inches]) – Subject to Alterations

E7

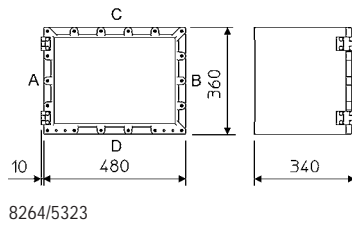


8264/5993

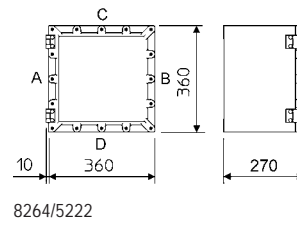
8264/5933



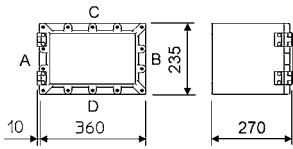
8264/5333



8264/5323



8264/5222



8264/5212



- Modular motor starters for all gas groups
- Control panels: Direct-On-Line Motor Starter DOL, YD, reversing contactor combinations
- Optional customer-specific equipping with main switches, main fuses and control devices

WebCode **8220A**



R. STAHL Series 8220 standard motor starters are installed in Ex d enclosures and have an Ex e connection chamber enclosure. They are available in various control variants for rapid delivery. As an option, the control panels can be fitted with main switches, main fuses and control devices as per the customer's requirements.

	ATEX / IECEx					
Zone	0	1	2	20	21	22
Installation in		•	•		•	•

Selection Table						
Product Description						
Direct-on-line motor starter (DOL)						
Enclosure	Terminal	Threaded holes on bottom	Product Type	Art. No.	PS	Weight kg
8225/112	4 x 6 mm ² 3 x 4 mm ²	2 x M32 2 x M25	8220/5-SM-ES5,5kW400V-T	142431	13	45.000
	4 x 35 mm ² 3 x 10 mm ²	1 x M40 1 x M32 2 x M25	8220/5-SM-ES22kW400V-T	142438	13	45.000
8225/122	4 x 50 mm ² 3 x 35 mm ²	1 x M50 1 x M40 2 x M25	8220/5-SM-ES45kW400V-T	142441	13	76.000
Product Description						
Reversing starter combination						
Enclosure	Terminal	Threaded holes on bottom	Product Type	Art. No.	PS	Weight kg
8225/122	4 x 35 mm ² 3 x 16 mm ²	1 x M40 1 x M32 2 x M25	8220/5-SL-WS30kW400V-T	142464	13	76.000
	8225/133	4 x 95 mm ² 3 x 95 mm ²	1 x M63 1 x M50 2 x M25	8220/5-SL-WS75kW400V-T	142468	13
Product Description						
YD star-delta contactor combination						
Enclosure	Terminal	Threaded holes on bottom	Product Type	Art. No.	PS	Weight kg
8225/122	4 x 6 mm ² 6 x 4 mm ²	3 x M32 2 x M25	8220/5-SL-SS15kW400V-T	142445	13	76.000
	8225/132	4 x 50 mm ² 6 x 35 mm ²	1 x M50 2 x M40 2 x M25	8220/5-SL-SS55kW400V-T	142451	13
8225/133	4 x 95 mm ² 6 x 50 mm ²	1 x M63 2 x M40 2 x M25	8220/5-SL-SS90kW400V-T	142453	13	141.000

E7

Selection Table

Product Description		YD star-delta contactor combination				
Enclosure	Terminal	Threaded holes on bottom	Product Type	Art. No.	PS	Weight kg
8225/172	4 x 16 mm ² 6 x 6 mm ²	3 x M40 2 x M25	8220/5-SL-SS30kW400V-T	142448	13	96.000
8225/196	4 x 240 mm ² 6 x 150 mm ²	3 x M63 2 x M25	8220/5-SL-SS200kW400V-T	142457	13	383.000

Standard motor starters with threaded holes; please order cable glands separately.

Cable glands, see chapter E10 - Installation Equipment and Accessories.

Technical Data

Explosion Protection

IECEx gas explosion protection	Ex db eb IIC T6 Gb
IECEx dust explosion protection	Ex tb IIIC T80 °C Db
ATEX gas explosion protection	Ⓔ II 2 G Ex db eb IIC T6 Gb
ATEX dust explosion protection	Ⓔ II 2 D Ex tb IIIC T80 °C Db

Electrical Data

Rated operational voltage AC	400 V
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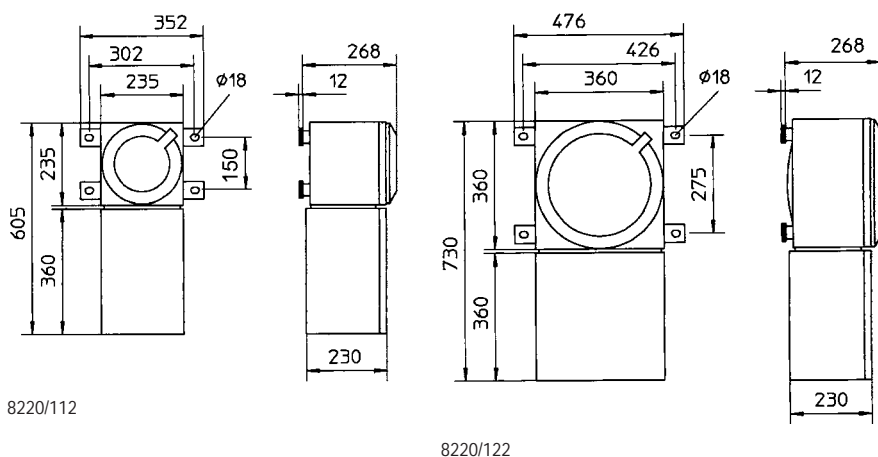
Ambient Conditions

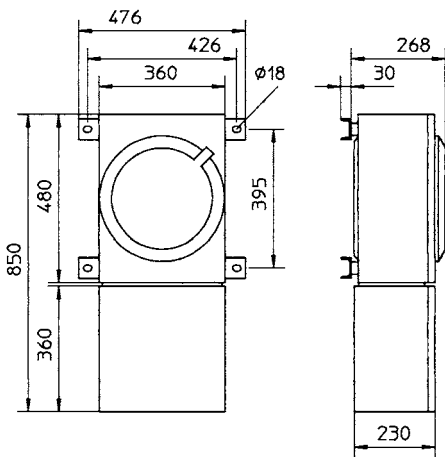
Ambient temperature	-20 °C ... +40 °C
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Mechanical Data

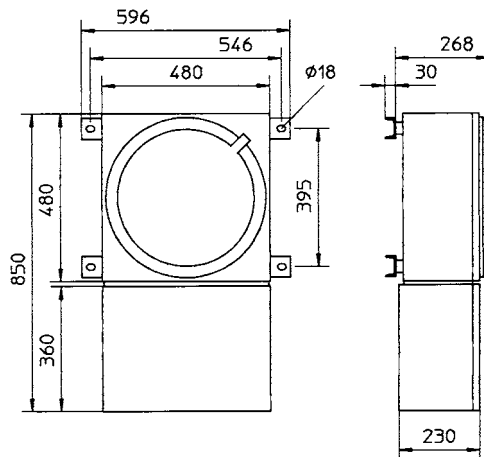
Degree of protection IP (IEC 60529)	IP66
Enclosure material	Sheet steel, painted
Enclosure colour	Light grey (RAL 7035)

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

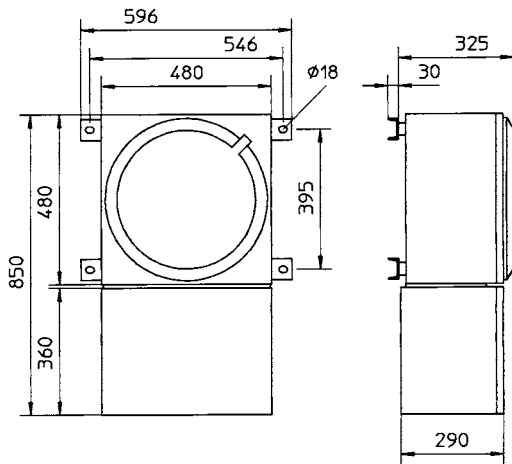




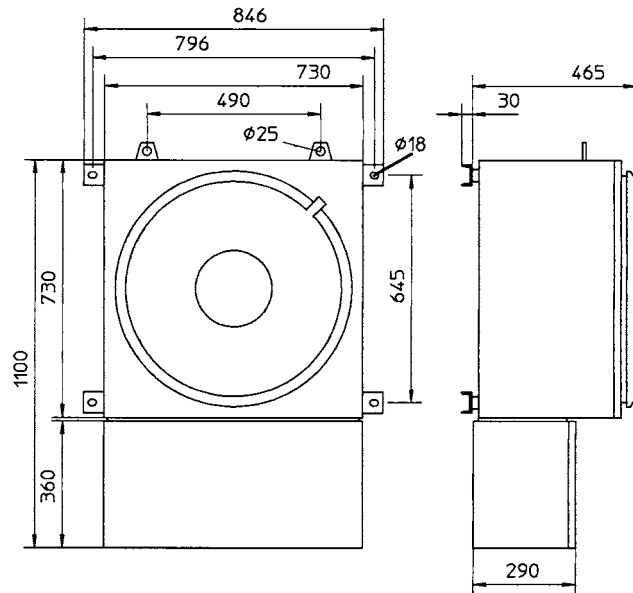
8220/172



8220/132



8220/133



8220/196