

Load Disconnect and Manual Transfer Switches

Series 8146/5-V11



- 3-pole horsepower (hp) rated switch
- Non-fused
- Suitable for voltages up to 600 V AC / 240 V DC - restrictions may apply
- Pad lockable robust rotary handle
- Lightweight construction
- Fiberglass reinforced polyester (FRP)
- Suitable for low ambient temperatures
- Enclosure type 3, 4, 4X, IP66
- No conduit seals required
- Quad certified

MY R. STAHL 8146V



Our switches are specifically engineered for hazardous locations and harsh environments with a corrosion resistant enclosure and wide temperature range. Ideal for close proximity installation of field equipment such as control panels, motors, skids or machinery. Whether the requirement is for disconnect switches to completely de-energize for service or maintenance tasks, or transfer switches to ensure continuous power supply to essential equipment, our solutions offer unmatched reliability. With our standard solutions, entries are not pre-installed, providing users with the flexibility to customized their own entries based on size, location and type. Built to withstand demanding conditions while ensuring safety and ease of use in various applications.

	NEC® 500 CE Code Appendix J					
	Class I		Class II		Class III	
Division	1	2	1	2	1	2
Ex interface						
Installation in		•	•		•	•

	CE Code Section 18 NEC® 505 NEC® 506					
	Class I			Class I		
Zone	0	1	2	20	21	22
Ex interface						
Installation in		•			•	

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

Selection Table										
Product description Product variant		Load disconnect switch non-fused								
Rated operational voltage AC	Rated operational voltage DC	Horsepower rating	Temperature class cFMus	Gas temperature class / Dust surface temperature	Rated operational current	Short circuit protection (sym RMS)	Connection cross section, stranded	Product Type	Art. No.	Weight lb
480 V	1-pole: 60 V, 2-pole: 125 V, 3-pole: 240 V	60 hp	T5	T5 / 95 °C	80 A	20 kA	10 AWG ... 1/0 AWG	8146/5-V11-D07-00-0000-0	286763	17 lb
		100 hp	T4	T4 / 130°C	150 A	25 kA	10 AWG ... 300 kcmil	8146/5-V11-D09-00-0000-0	286769	40 lb
600 V	1-pole: 60 V, 2-pole: 125 V	10 hp	T5	T6 / 80 °C	15 A	10 kA	14 AWG ... 8 AWG	8146/5-V11-E01-00-0000-0	286756	4 lb
		10 hp	T5	T6 / 80 °C	16 A	10 kA	14 AWG ... 8 AWG	8146/5-V11-E02-00-0000-0	286758	4 lb
	1-pole: 60 V, 2-pole: 125 V, 3-pole: 240 V	15 hp	T5	T5 / 95 °C	25 A	20 kA	12 AWG ... 6 AWG	8146/5-V11-E03-00-0000-0	286759	8 lb
		40 hp	T5	T5 / 95 °C	63 A	20 kA	10 AWG ... 1/0 AWG	8146/5-V11-D06-00-0000-0	286761	17 lb
		75 hp	T4	T5 / 95 °C	100 A	25 kA	10 AWG ... 300 kcmil	8146/5-V11-D32-00-0000-0	286765	40 lb
		100 hp	T4	T5 / 95 °C	125 A	25 kA	10 AWG ... 300 kcmil	8146/5-V11-D08-00-0000-0	286767	40 lb
	-	20 hp	T5	T5 / 95 °C	32 A	10 kA	12 AWG ... 6 AWG	8146/5-V11-E04-00-0000-0	286760	8 lb

Selection Table

Product description Product variant			Manual transfer switch non-fused							
Rated operational voltage AC	Rated operational voltage DC	Horsepower rating	Temperature class cFMus	Gas temperature class / Dust surface temperature	Rated operational current	Short circuit protection (sym RMS)	Connection cross section, stranded	Product Type	Art. No.	Weight lb
480 V	1-pole: 60 V, 2-pole: 125 V, 3-pole: 240 V	60 hp	T4	T5 / 95 °C	80 A	20 kA	10 AWG ... 1/0 AWG	8146/5-V11- H07-00-0500-0	286764	33.07 lb
		100 hp	T4	T4 / 130°C	150 A	25 kA	10 AWG ... 300 kcmil	8146/5-V11- H09-00-0500-0	286770	77.16 lb
600 V	1-pole: 60 V, 2-pole: 125 V	10 hp	T4	T6 / 80 °C	15 A	20 kA	14 AWG ... 8 AWG	8146/5-V11- H01-00-0500-0	286757	8.82 lb
		40 hp	T5	T5 / 95 °C	63 A	20 kA	10 AWG ... 1/0 AWG	8146/5-V11- H06-00-0500-0	286762	28.66 lb
	75 hp	1-pole: 60 V, 2-pole: 125 V, 3-pole: 240 V	T4	T5 / 95 °C	100 A	25 kA	10 AWG ... 300 kcmil	8146/5-V11- H32-00-0500-0	286766	77.16 lb
			T4	T5 / 95 °C	125 A	25 kA	10 AWG ... 300 kcmil	8146/5-V11- H08-00-0500-0	286768	77.16 lb

Horsepower rating (hp) in relation to rated operating voltage 480 V AC

Technical Data


Variant	Load disconnect switch non-fused	Manual transfer switch non-fused
Explosion Protection		
Area of application	European Union (ATEX) Canada IECEX USA	European Union (ATEX) Canada IECEX USA
FMus certificate	FM18US0275X	FM18US0275X
cFM certificate	FM18CA0132X	FM18CA0132X
cFM certificate	FM18CA0132X	FM18CA0132X
Marking FMus	Class I, Div. 2, Groups A,B,C,D; Class II, III, Div. 1, Groups E,F,G, T*; Zone 1, AEx db eb IIC T* Gb; Enclosure Type 3, 4, 4X For the temperature class T*, see the Selection Table	Class I, Div. 2, Groups A,B,C,D; Class II, III, Div. 1, Groups E,F,G, T*; Zone 1, AEx db eb IIC T* Gb; Enclosure Type 3, 4, 4X For the temperature class T*, see the Selection Table
Marking cFM	Ex db eb IIC Gb; Class I, Div. 2, Groups A,B,C,D; Class II, III, Div. 1, Groups E,F,G, T*; Enclosure Type 3, 4, 4X For the temperature class T*, see the Selection Table	Ex db eb IIC Gb; Class I, Div. 2, Groups A,B,C,D; Class II, III, Div. 1, Groups E,F,G, T*; Enclosure Type 3, 4, 4X For the temperature class T*, see the Selection Table
Marking cFM note	Zone 2 IIC per Canadian Electrical Code Table 18	Zone 2 IIC per Canadian Electrical Code Table 18
IECEX gas explosion protection	Ex db eb IIC T.. Gb	Ex db eb IIC T.. Gb
IECEX dust explosion protection	Ex tb IIIC T.. Db	Ex tb IIIC T.. Db
Explosion protection note	Gas temperature class and Dust surface temperature T..., see selection table	Gas temperature class and Dust surface temperature T..., see selection table
Certificates	ATEX (PTB), Canada (FM), IECEX (PTB), USA (FM)	ATEX (PTB), Canada (FM), IECEX (PTB), USA (FM)
Electrical Data		
Auxiliary contact NC	without	without
Auxiliary contact NO	without	without
Additional short-circuit protection	Additional fuse necessary	Additional fuse necessary
Short-circuit protection note	Required back-up fuse in the electrical circuit	Required back-up fuse in the electrical circuit
Frequency range	50 – 60 Hz	50 – 60 Hz
Fuse	Required back-up fuse in the electrical circuit	Required back-up fuse in the electrical circuit
Auxiliary Power		
Nominal voltage V _{nom}	480 V AC	480 V AC
Ambient Conditions		
Ambient temperature °F	-58°F ... +131°F	-40°F ... +131°F

Technical Data		
Variant	Load disconnect switch non-fused	Manual transfer switch non-fused
Ambient Conditions		
Ambient temperature °C	-50°C ... +55°C	-40°C ... +55°C
Mechanical Data		
Degree of protection (IP)	IP66	IP66
Enclosure type (UL50 & UL50E)	3, 4, 4X	3, 4, 4X
Additional terminal	without	Main contact on terminals
Service life, min.	10 ⁵ operating cycles	10 ⁵ operating cycles
Handle color	Black	Black
Protective collar color	Black	Black
Seal	Silicone, foamed	Silicone, foamed
Lockable in	OFF – 3 positions	OFF – 3 positions
Components		
Entries	without	without


Accessories

Figure	Description	Product Type	Art. No.	Weight lb
Ex e cable glands for MC, MC-HL, combined and "TECK" armouring Series TMC				
	Thread size: NPT1/2 Clamping range: 8.7 ... 12.7 mm Clamping range inch: 0.34 ... 0.5 in Nickel-plated brass	CMP-050sTMC	254316	0.49
	Thread size: NPT1/2 Clamping range: 13 ... 17 mm Clamping range inch: 0.51 ... 0.67 in Nickel-plated brass	CMP-050TMC	254317	0.62
	Thread size: NPT3/4 Clamping range: 15 ... 23.3 mm Clamping range inch: 0.59 ... 0.92 in Nickel-plated brass	CMP-075TMC	106090	0.73
	Thread size: NPT1 Clamping range: 19.8 ... 29.2 mm Clamping range inch: 0.78 ... 1.15 in Nickel-plated brass	CMP-100TMC	106091	1.1
	Thread size: NPT1-1/4 Clamping range: 27.5 ... 35.2 mm Clamping range inch: 1.08 ... 1.39 in Nickel-plated brass	CMP-125TMC	254320	1.3
	Thread size: NPT1-1/2 Clamping range: 33.5 ... 41.1 mm Clamping range inch: 1.32 ... 1.62 in Nickel-plated brass	CMP-150TMC	254321	1.52
	Thread size: NPT2 Clamping range: 38.3 ... 47.1 mm Clamping range inch: 1.51 ... 1.85 in Nickel-plated brass	CMP-200sTMC	254322	2.65
	Thread size: NPT2 Clamping range: 45 ... 53 mm Clamping range inch: 1.77 ... 2.09 in Nickel-plated brass	CMP-200TMC	254323	2.43
	Thread size: NPT2-1/2 Clamping range: 52.1 ... 58.9 mm Clamping range inch: 2.05 ... 2.32 in Nickel-plated brass	CMP-250TMC	254324	3.75
	Thread size: NPT2-1/2 Clamping range: 57.1 ... 64.6 mm Clamping range inch: 2.25 ... 2.54 in Nickel-plated brass	CMP-250TMC	254325	3.53
	Thread size: NPT3 Clamping range: 64.6 ... 75.3 mm Clamping range inch: 2.54 ... 2.96 in Nickel-plated brass	CMP-300TMC	254326	7.72
	Thread size: NPT3-1/2 Clamping range: 74 ... 88.5 mm Clamping range inch: 2.91 ... 3.48 in Nickel-plated brass	CMP-350TMC	254327	14.77

Accessories

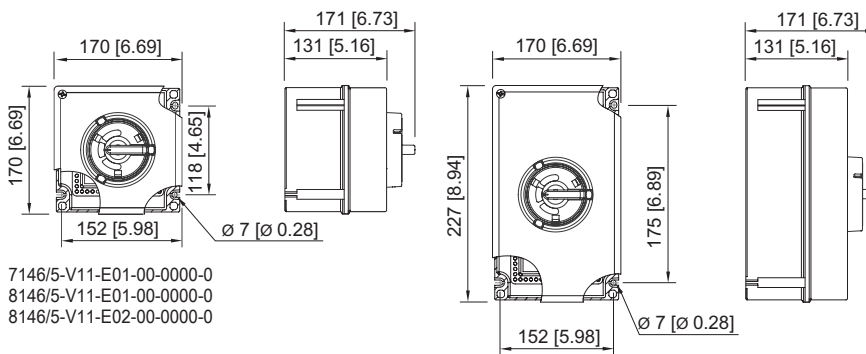
Figure	Description	Product Type	Art. No.	Weight lb
Auxiliary contact				
	<p>Note: The auxiliary contacts can only be retrofitted for 40 A, 63 A and 80 A versions. For all other versions, the auxiliary contact must be ordered separately when placing the order. Retrofitting is not possible for this.</p> <p>2 NC (8080/1-3) 250 V AC/DC Max. 6 A 1.5 to 2.5 mm², solid/finely stranded The switching function of the auxiliary contact depends on the installation slot used. Left and right: Synchronising</p>	8544C0302-1-6 aux. contact 2NC	168356	0.06
	<p>1 NC + 1 NO (8080/1-1) 250 V AC/DC Max. 6 A 1.5 to 2.5 mm², solid/finely stranded The switching function of the auxiliary contact depends on the installation slot used. Left: Delayed (ON), leading (OFF) Right: Synchronising</p>	8544C0302-2-6 aux. contact 1NO 1NC	168351	0.06
	<p>2 NO (8080/1-4) 250 V AC/DC Max. 6 A 1.5 to 2.5 mm², solid/finely stranded The switching function of the auxiliary contact depends on the installation slot used. Left and right: Synchronising</p>	8544C0302-3-6 aux. contact 2NO	168353	0.06

Spare Parts

Figure	Description	Product Type	Art. No.	Weight lb
Auxiliary contact key				
	For removing installed auxiliary contacts	Aux. Contact Key 8544	201909	0.08

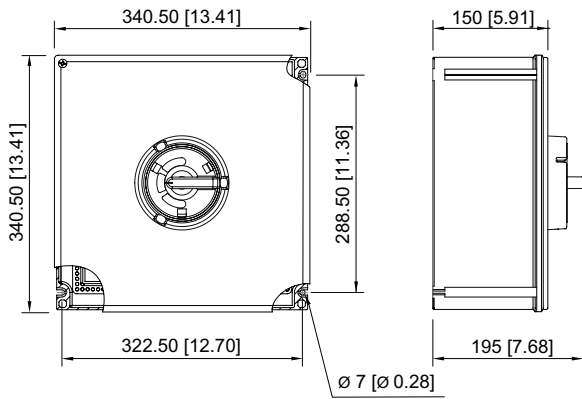
Further spare parts on request at r-stahl.com

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

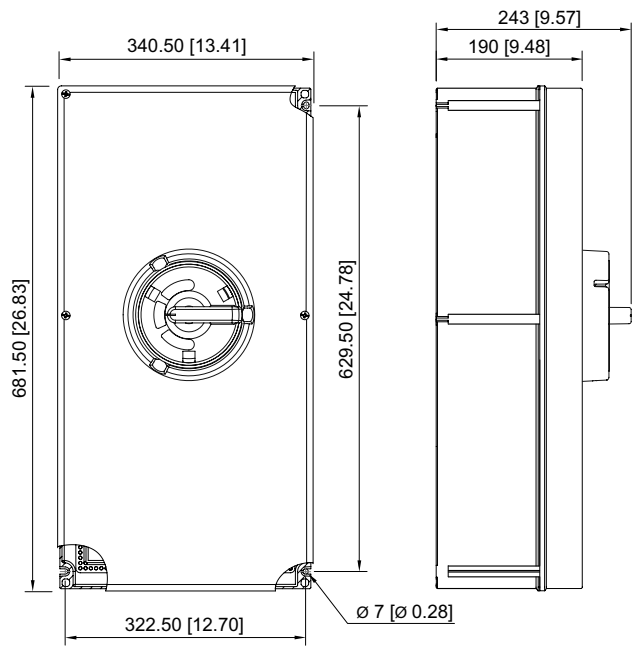


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8146/5-V11-E01-00-0000-0
8146/5-V11-E02-00-0000-0

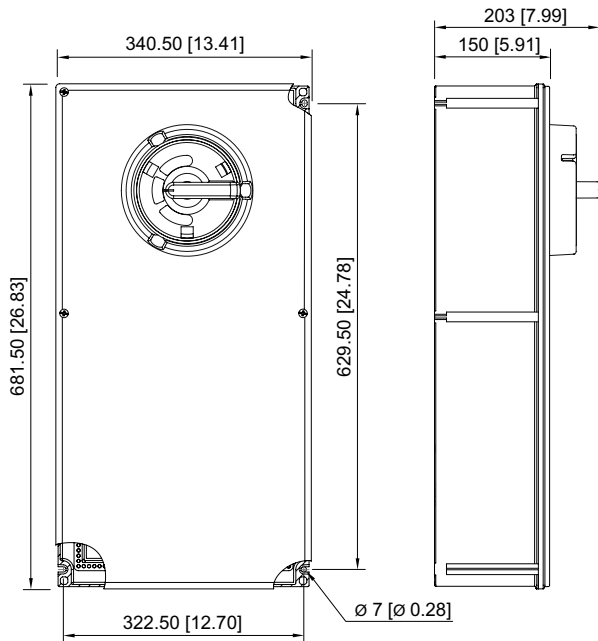
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8146/5-V11-H01-00-0500-0



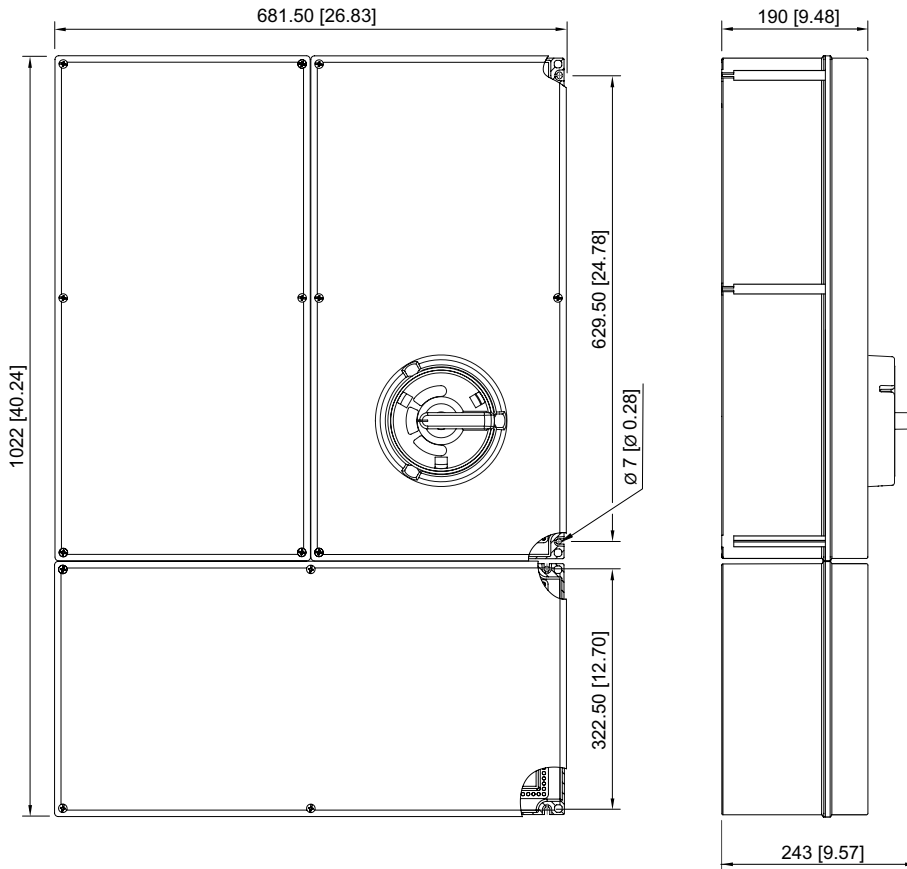
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 8146/5-V11-D07-00-0000-0



7146/5-V11-D32-00-0000-0
 7146/5-V11-D08-00-0000-0
 7146/5-V11-D09-00-0000-0
 7146/5-V11-D32-AA-0000-0
 7146/5-V11-D08-AA-0000-0
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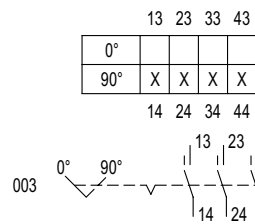


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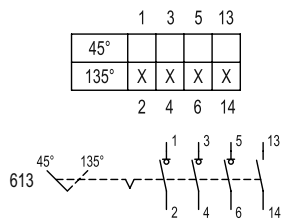


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- 7146/5-V11-H08-AA-0500-0
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- 7146/5-V11-H32-00-0500-0
- 7146/5-V11-H32-AA-0500-0
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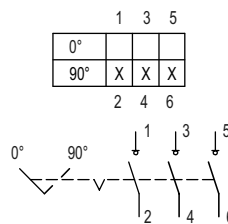
Switching Arrangements of Load Disconnect Switches
 Technical Drawings – Subject to Alterations



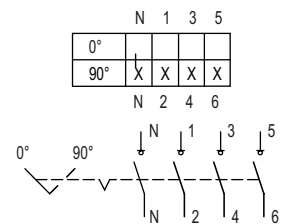
4-pole
25 A, 30 A and 32 A



4-pole
15 A and 16 A



3-pole
60 A, 63 A and 80 A



3-pole + N
100 A, 125 A and 150 A