

Installation equipment

125 A wall-mounting socket



8581/31-406 Art. No. 277859



- Reliable load disconnect switch with easily visible, lockable handle and display of the switch position
- An integrated auxiliary contact for control and signalling purposes, can be optionally enhanced using pluggable Ex e or Ex i auxiliary contacts that are easily retrofittable
- Large temperature range of use
- High mechanical impact and shock resistance
- Perfect protection against penetration of liquids and dusts
- 3D data for download on the website

MY R. STAHL 8581A



The R. STAHL Series 8581/31 sockets for Zone 1/21 in 4- and 5-pole versions have full AC-3 switching capacity up to 125 A. The high degree of protection (IP66) ensures maximum protection against the ingress of dust and water in any application situation. Self-cleaning lamellar contacts provide optimum contact and the plugs can be inserted and removed in the zero position quickly and easily. The load disconnect switch, with a mechanical locking device and a handle that can be locked in the 0 or I position, is an additional safety feature.

Technical Data

Explosion Protection

Area of application	European Union (ATEX) IECEX China (CQST)
Area of application Note	Other country markings available on request
Application range (zones)	1, 2, 21, 22
IECEX gas certificate	IECEX PTB 06.0034
IECEX gas explosion protection	Ex db eb IIC T6 ... T5 Gb
IECEX dust certificate	IECEX PTB 06.0034
IECEX dust explosion protection	II tb IIIC T65 °C ... T85 °C Db
ATEX gas explosion protection	Ⓔ II 2 G Ex db eb IIC T6 ... T5 Gb
ATEX dust explosion protection	Ⓔ II 2 D Ex tb IIIC T65 °C ... T85 °C Db
Certificates	ATEX (PTB), Brazil (ULB), China (CQST), IECEX (PTB), Korea (KGS), Taiwan (ITRI)
Declaration of conformity	ATEX (EGK), China (CCC)

Electrical Data

Type of voltage	Low voltage
AC rated operational voltage	380 ... 415 V AC
Rated operational current	max. 125 A
Rated operational current	125 A
Electrical service life	> 2x10 ⁴ switching cycles
Mechanical service life	> 2x10 ⁴ switching cycles
Switching capacity main contacts	AC-3: 690 V, 125 A
Auxiliary contacts	2 (1 NO + 1 NC)
Frequency range	50 / 60 Hz

Device Specific Data

Back-up fuse with thermal protection	160 A gG
--------------------------------------	----------

Installation equipment

125 A wall-mounting socket



8581/31-406 Art. No. 277859

Device Specific Data

Back-up fuse without thermal protection	125 A gG
---	----------

Ambient Conditions

Ambient temperature	-45 °C to +60 °C				
Ambient temperature	-49 °F to +140 °F				
Operating temperature range	Assignment of temperature class / ambient temperature / rated operational current / rated connection cross-section				
	Temperature class		Rated operational current	Rated connection cross-section	
	T6	T5		Socket	Plug
		≤ +45 °C	125 A	≥ 70 mm ²	≥ 50 mm ²
	≤ +40 °C	≤ +55 °C	110 A		
	≤ +45 °C	≤ +60 °C	100 A		
		≤ +40 °C	125 A	50 ... 70 mm ²	35 mm ² Only heat-resistant conductors ≥ 85 °C, e.g. use the NSSHÖU type!
	≤ +45 °C	115 A			
≤ +40 °C	≤ +55 °C	100 A	50 ... 70 mm ²	35 mm ²	

Mechanical Data

Degree of protection IP (IEC 60529)	IP66
IP degree of protection (IEC 60079)	IP66
Enclosure material	Polyester, Glass fibre reinforced
Silicone-free	No
Multiple conductor connection	2 x 35 mm ² to 2 x 50 mm ²
Multiple conductor connection AWG	2 x AWG 2 ... 2 x AWG 1/0
Finely stranded connection cross-section	1 x 50 mm ² ... 1 x 150 mm ²
Finely stranded connection cross-section AWG	1 x AWG 1/0 ... 1 x AWG 300 kcmi
Stranded connection cross-section	1 x 35 mm ² ... 1 x 150 mm ²
Stranded connection cross-section AWG	1 x AWG 2 ... 1 x AWG 300 kcmil
Width	270 mm
Width, inches	10.63 in
Height	296 mm
Height in inches	11.65 in
Length	563 mm
Length in inches	22.18 in
Impact strength (IEC 60079)	7 J
Impact strength (IEC 62262)	IK10
Colour code	Red
Coding (clock hour position)	6
Lockable in	in 0- and I-position
Series	SolConeX
Detailed number of poles	3 P + PE
Weight	19.2 kg
Weight	42.34 lb

Installation equipment

125 A wall-mounting socket



8581/31-406 Art. No. 277859

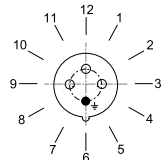
Mounting / Installation

Connection	Screw terminal
------------	----------------

Components

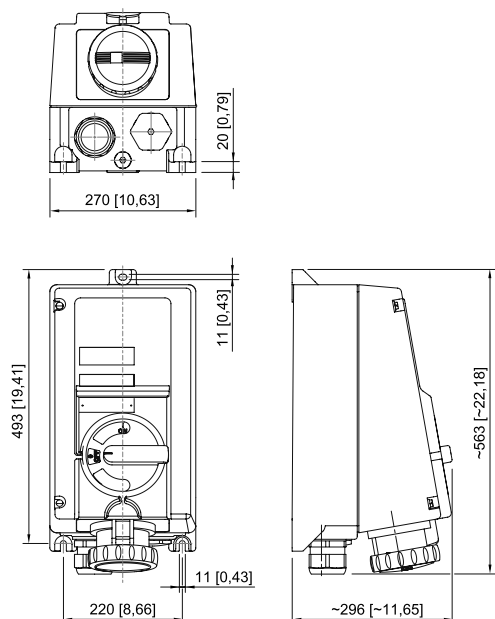
Cable entry note	Entry 1: Bottom left Entry 2: Bottom right
Entry 1 model	8161/7-M63-4828-LT
Entry 1 type	Polyamide cable gland
Entry 1	M63 x 1.5
Entry 1 clamping range	28 – 48 mm
Entry 1 clamping range, inch	1.1 – 1.89 in
Metal entry possible 1	No
Entry 2 model	8290/3-M63
Entry 2 type	Polyamide stopping plug
Entry 2	M63 x 1.5
Metal entry possible 2	No
Entry 3 model	8290/3-M25
Entry 3 type	Polyamide stopping plug
Entry 3	M25
Metal entry possible 3	No

Technical Drawings – Subject to Alterations



Position of clock hour position
Example: 6 h position

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

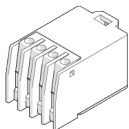


Wall-mounting socket

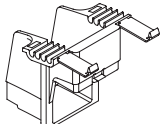
8581/31-406 Art. No. 277859

Accessories


Auxiliary contact

		Art. No.
	2 NC (8080/1-3) 250 V AC/DC Max. 6 A 1.5 to 2.5 mm ² , solid/finely stranded The switching function of the auxiliary contact depends on the installation slot used. Left and right: Synchronising	168356
	1 NC + 1 NO (8080/1-1) 250 V AC/DC Max. 6 A 1.5 to 2.5 mm ² , solid/finely stranded The switching function of the auxiliary contact depends on the installation slot used. Left: Delayed (ON), leading (OFF) Right: Synchronising	168351
	2 NO (8080/1-4) 250 V AC/DC Max. 6 A 1.5 to 2.5 mm ² , solid/finely stranded The switching function of the auxiliary contact depends on the installation slot used. Left and right: Synchronising	168353


Ex i cover

		Art. No.
	Ex i cover for auxiliary contacts for use in Ex i electrical circuits	168855


Plastic cable gland

		Art. No.
	8161/7-M25-1707, Ex e Plastic, M25 x 1.5, cable outer diameter 7 to 17 mm Lot size 50 pieces	239157
	8161/7-M63-4828, Ex e Plastic, M63 x 1.5, cable outer diameter 28 to 48 mm Lot size 1 pieces	239161

Plug

		Art. No.
	8581/12-406 4-pole plug, 380 to 415 V AC, 50/60 Hz, 125 A	277864

Stopping plug

		Art. No.
	8290/3-M25 Plastic, M25 x 1.5 Lot size 1 piece	143524
	8290/3-M63 Plastic, M63 x 1.5 Lot size 1 piece	143548

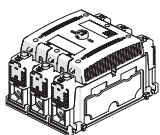
Installation equipment

125 A wall-mounting socket



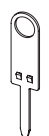
8581/31-406 Art. No. 277859

Switch insert

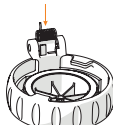
		Art. No.
	8549/1-31L load and motor switch	168776

Spare Parts

Auxiliary contact key

		Art. No.
	For removing installed auxiliary contacts	201909

Repair set for Series 8581 sockets

		Art. No.
	Repair set 8581 hinged cover, red	275510

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.