



- Large current range from 10 A to 180 A
- Can be used with conventional drives or with variable-frequency drives
- Intelligent design: A single rotary actuator for actuating the main and auxiliary contacts, ≥ 20 ms leading auxiliary contact for safe disconnection
- Designed in accordance with IEC/EN 62626-1, class 1
- The rotary actuator can be locked in the 0-position with three padlocks
- Cover can only be removed in the I-position

E7

MY R. STAHL 8146L



R. STAHL Series 8146/5-V37 safety switches safely disconnect machines and system parts from the energy supply for cleaning and repair as prescribed. All of the installed load disconnect switches have AC-3 switching capacity. The switches can be locked in the 0-position using padlocks.

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

| Selection Table | | | | | | | | | | |
|-------------------------------|---------------------------|---------------------|---------------------|---------------------------------|--|----------------------|----------------------|------------------------|----------|--------|
| Rated operational current | | 10 A | | | | | | | | |
| Rated operational voltage AC | | 690 V | | | | | | | | |
| Switching capacity AC-3 230 V | | 2.2 kW | | | | | | | | |
| Switching capacity AC-3 400 V | | 4 kW | | | | | | | | |
| Switching capacity AC-3 440 V | | 4 kW | | | | | | | | |
| Switching capacity AC-3 500 V | | 5.5 kW | | | | | | | | |
| Switching capacity AC-3 690 V | | 7.5 kW | | | | | | | | |
| Detailed number of poles | Handle colour and handle | Additional terminal | Additional device | Entry type | Cable gland | Auxiliary contact NC | Auxiliary contact NO | Product Type | Art. No. | Weight |
| 3-pole | Black shroud and handle | – | Drilled brass plate | Standard 8161, moulded material | 2 x M25 \varnothing 7 ... 17 mm 1 x M20 \varnothing 4 ... 13 mm | without | 1 NO/delayed | 8146/5-V37-300-50-0050 | 220275 | 1.7 kg |
| | Yellow shroud, red handle | – | Drilled brass plate | Standard 8161, moulded material | 2 x M25 \varnothing 7 ... 17 mm 1 x M20 \varnothing 4 ... 13 mm | without | 1 NO/delayed | 8146/5-V37-300-50-1050 | 220277 | 1.7 kg |

Selection Table

| Rated operational current | | 12 A / 16 A | | | | | | | | |
|-------------------------------|---------------------------|---------------------------|---------------------|---------------------------------|--|----------------------|----------------------|------------------------|----------|---------|
| Rated operational voltage AC | | 690 V / 690 V | | | | | | | | |
| Switching capacity AC-3 230 V | | 3 kW / 4 kW | | | | | | | | |
| Switching capacity AC-3 400 V | | 5.5 kW / 7.5 kW | | | | | | | | |
| Switching capacity AC-3 440 V | | 5.5 kW / 7.5 kW | | | | | | | | |
| Switching capacity AC-3 500 V | | 7.5 kW / 7.5 kW | | | | | | | | |
| Switching capacity AC-3 690 V | | 7.5 kW / 11 kW | | | | | | | | |
| Detailed number of poles | Handle colour | Additional terminal | Additional device | Entry type | Cable gland | Auxiliary contact NC | Auxiliary contact NO | Product Type | Art. No. | Weight |
| 3-pole | Black shroud and handle | – | Drilled brass plate | Standard 8161, moulded material | 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 | 962 g |
| | | N-terminal | Drilled brass plate | Standard 8161, moulded material | 2 x M25 Ø 7 ... 17 mm 1 x M20 Ø 4 ... 13 mm | without | 1 NO/delayed | 8146/5-V37-301-50-0150 | 147857 | 982 g |
| | Yellow shroud, red handle | – | Drilled brass plate | Standard 8161, moulded material | 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 | 958 g |
| | | N-terminal | Drilled brass plate | Standard 8161, moulded material | 2 x M25 Ø 7 ... 17 mm 1 x M20 Ø 4 ... 13 mm | without | 1 NO/delayed | 8146/5-V37-301-50-1150 | 147858 | 978 g |
| Rated operational current | | 16 A | | | | | | | | |
| Rated operational voltage AC | | 690 V | | | | | | | | |
| Switching capacity AC-3 230 V | | 4 kW | | | | | | | | |
| Switching capacity AC-3 400 V | | 7.5 kW | | | | | | | | |
| Switching capacity AC-3 440 V | | 7.5 kW | | | | | | | | |
| Switching capacity AC-3 500 V | | 7.5 kW | | | | | | | | |
| Switching capacity AC-3 690 V | | 11 kW | | | | | | | | |
| Detailed number of poles | Handle colour | Additional terminal | Additional device | Entry type | Cable gland | Auxiliary contact NC | Auxiliary contact NO | Product Type | Art. No. | Weight |
| 3-pole | Black shroud and handle | – | Drilled brass plate | Standard 8161, moulded material | 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 | 1.59 kg |
| | | PTC resistor terminal | Drilled brass plate | Standard 8161, moulded material | 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 | 1.59 kg |
| | Yellow shroud, 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 | 2.5 kg |
| | | – | Drilled brass plate | Standard 8161, moulded material | 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 | 1.59 kg |
| | | N-terminal | Drilled brass plate | Standard 8161, moulded material | 2 x M25 Ø 7 ... 17 mm 1 x M20 Ø 4 ... 13 mm | without | 1 NO/delayed | 8146/5-V37-302-50-1150 | 201406 | 1.59 kg |
| 6-pole | Black shroud and handle | – | – | 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 | 2.64 kg |
| | | – | – | 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 | 2.64 kg |

| Selection Table | | | | | | | | | | |
|--------------------------------|---------------------------|---------------------|-------------------|---------------------------------|---|----------------------|----------------------|------------------------|----------|---------|
| Rated operational current | | | | 20 A | | | | | | |
| Rated operational voltage AC | | | | 690 V | | | | | | |
| Switching capacity AC-3 230 V | | | | 5.5 kW | | | | | | |
| Switching capacity AC-3 400 V | | | | 7.5 kW | | | | | | |
| Switching capacity AC-3 440 V | | | | 11 kW | | | | | | |
| Switching capacity AC-3 500 V | | | | 11 kW | | | | | | |
| Switching capacity AC-3 690 V | | | | 18.5 kW | | | | | | |
| Detailed number of poles | Handle colour | Additional terminal | Additional device | Entry type | Cable gland | Auxiliary contact NC | Auxiliary contact NO | Product Type | Art. No. | Weight |
| 3-pole | Black shroud and handle | – | – | 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 | 2.02 kg |
| | Yellow shroud, red handle | – | – | Standard 8161, moulded material | 2 x M25 Ø 7 ... 17 mm 1 x M20 Ø 4 ... 13 mm | without | 1 NO/delayed | 8146/5-V37-303-50-1010 | 220279 | 2.02 kg |
| Rated operational current | | | | 25 A | | | | | | |
| Rated operational voltage AC | | | | 690 V | | | | | | |
| Switching capacity AC-3 230 V | | | | 5.5 kW | | | | | | |
| Switching capacity AC-3 400 V | | | | 11 kW | | | | | | |
| Switching capacity AC-3 440 V | | | | 11 kW | | | | | | |
| Switching capacity AC-3 500 V | | | | 15 kW | | | | | | |
| Switching capacity AC-3 690 V | | | | 22 kW | | | | | | |
| Detailed number of poles | Handle colour | Additional terminal | Additional device | Entry type | Cable gland | Auxiliary contact NC | Auxiliary contact NO | Product Type | Art. No. | Weight |
| 3-pole | Black shroud and handle | – | – | 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 | 1.96 kg |
| | Yellow shroud, red handle | – | – | 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 | 2.02 kg |
| | | N-terminal | – | Standard 8161, moulded material | 2 x M32 Ø 9 ... 21 mm 1 x M20 Ø 4 ... 13 mm | without | 1 NO/delayed | 8146/5-V37-304-50-1110 | 201462 | 2.02 kg |
| Rated operational current | | | | 25 A | | | | | | |
| Rated operational voltage AC | | | | 690 V | | | | | | |
| Switching capacity AC-3 230 V | | | | 5.5 kW | | | | | | |
| Switching capacity AC-3 400 V | | | | 11 kW | | | | | | |
| Switching capacity AC-3 440 V | | | | 11 kW | | | | | | |
| Switching capacity AC-3 500 V | | | | 15 kW | | | | | | |
| Switching capacity AC-23 690 V | | | | 22 kW | | | | | | |
| Detailed number of poles | Handle colour | Additional terminal | Additional device | Entry type | Cable gland | Auxiliary contact NC | Auxiliary contact NO | Product Type | Art. No. | Weight |
| 6-pole | Black shroud and handle | – | – | 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-V37-604-60-0010 | 201464 | 2.79 kg |
| | Yellow shroud, red handle | – | – | 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 | 2.79 kg |

Selection Table

| Rated operational current | | 40 A | | | | | | | | |
|-------------------------------|---------------------------|---------------------------|---------------------------------|---|---|----------------------|--------------------------|--------------------------|----------|---------|
| Rated operational voltage AC | | 690 V | | | | | | | | |
| Switching capacity AC-3 230 V | | 11 kW | | | | | | | | |
| Switching capacity AC-3 400 V | | 22 kW | | | | | | | | |
| Switching capacity AC-3 440 V | | 22 kW | | | | | | | | |
| Switching capacity AC-3 500 V | | 22 kW | | | | | | | | |
| Switching capacity AC-3 690 V | | 37 kW | | | | | | | | |
| Detailed number of poles | Handle colour | Additional terminal | Additional device | Entry type | Cable gland | Auxiliary contact NC | Auxiliary contact NO | Product Type | Art. No. | Weight |
| 3-pole | Black shroud and handle | – | – | Standard 8161, moulded material | 2 x M40 Ø 12 ... 28 mm 1 x M20 Ø 4 ... 13 mm | without | without | 8146/5-V37-305-00-0010-K | 242415 | 5.52 kg |
| | | – | – | 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 | 5.56 kg |
| | Yellow shroud, 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 | 7.5 kg |
| | – | – | 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 | 5.52 kg | |
| | N-terminal | – | 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-V37-305-51-1110-K | 200208 | 5.9 kg | |
| 3-pole + N | Black shroud and handle | – | – | 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-V37-405-51-0010-K | 256841 | 6.2 kg |
| 6-pole | Black shroud and handle | – | – | Standard 8161, moulded material | 2 x M40 Ø 12 ... 28 mm 1 x M20 Ø 4 ... 13 mm | without | without | 8146/5-V37-605-00-0010-K | 200311 | 11 kg |
| | | – | – | 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 | 11 kg |
| | Yellow shroud, red handle | – | – | 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-V37-605-51-1010-K | 200321 | 11 kg |
| Rated operational current | | 63 A | | | | | | | | |
| Rated operational voltage AC | | 690 V | | | | | | | | |
| Switching capacity AC-3 230 V | | 18.5 kW / 22 kW | | | | | | | | |
| Switching capacity AC-3 400 V | | 30 kW / 45 kW | | | | | | | | |
| Switching capacity AC-3 440 V | | 37 kW / 45 kW | | | | | | | | |
| Switching capacity AC-3 500 V | | 37 kW / 55 kW | | | | | | | | |
| Switching capacity AC-3 690 V | | 55 kW / -- kW | | | | | | | | |
| Detailed number of poles | Handle colour | Additional terminal | Additional device | Entry type | Cable gland | Auxiliary contact NC | Auxiliary contact NO | Product Type | Art. No. | Weight |
| 3-pole | Yellow shroud, 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 | 10.7 kg |

| Selection Table | | | | | | | | | | | | | |
|-------------------------------|---------------------------|--------------------------|-------------------|------------------------|---------------------------|---------------------------|----------------------|--------------------------|--------------------------|--------------|------------------------|--------|---------|
| Rated operational current | | 63 A / 80 A | | | | | | | | | | | |
| Rated operational voltage AC | | 690 V / 500 V | | | | | | | | | | | |
| Switching capacity AC-3 230 V | | 18.5 kW / 22 kW | | | | | | | | | | | |
| Switching capacity AC-3 400 V | | 30 kW / 45 kW | | | | | | | | | | | |
| Switching capacity AC-3 440 V | | 37 kW / 45 kW | | | | | | | | | | | |
| Switching capacity AC-3 500 V | | 37 kW / 55 kW | | | | | | | | | | | |
| Switching capacity AC-3 690 V | | 55 kW / -- kW | | | | | | | | | | | |
| Detailed number of poles | Handle colour and handle | Additional terminal | Additional device | Entry type | Cable gland | Auxiliary contact NC | Auxiliary contact NO | Product Type | Art. No. | Weight | | | |
| 3-pole | Black shroud and handle | - | - | Standard | 2 x M50 Ø 16 ... 35 mm | without | without | 8146/5-V37-306-00-0010-K | 242416 | 5.68 kg | | | |
| | | | | 8161, moulded material | 1 x M20 Ø 4 ... 13 mm | | | | | | | | |
| | | | | Standard | 2 x M50 Ø 16 ... 35 mm | without | without | 8146/5-V37-306-00-0010 | 213115 | 7.55 kg | | | |
| | | | | 8161, moulded material | 1 x M20 Ø 4 ... 13 mm | | | | | | | | |
| | | | | Standard | 2 x M50 Ø 16 ... 35 mm | 1 NC | 1 NO/delayed | 8146/5-V37-306-51-0010-K | 200558 | 5.68 kg | | | |
| | 8161, moulded material | 1 x M20 Ø 4 ... 13 mm | | | | | | | | | | | |
| | Yellow shroud, red handle | - | - | - | Standard | 2 x M50 Ø 16 ... 35 mm | 1 NC | 1 NO/delayed | 8146/5-V37-306-51-0010 | 213395 | 7.55 kg | | |
| | | | | | 8161, moulded material | 1 x M20 Ø 4 ... 13 mm | | | | | | | |
| | | | | | - | Drilled brass plate | Only drilled holes | 2 x M50 1 x M20 | 1 NC | 1 NO/delayed | 8146/5-V37-306-51-0040 | 213398 | 11.8 kg |
| | | | | | Standard | 2 x M50 Ø 16 ... 35 mm | 1 NC | 1 NO/delayed | 8146/5-V37-306-51-1010-K | 200559 | 5.68 kg | | |
| 8161, moulded material | | | | | 1 x M20 Ø 4 ... 13 mm | | | | | | | | |
| 3-pole + N | Black shroud and handle | - | - | Standard | 2 x M50 Ø 16 ... 35 mm | 1 NC | 1 NO/delayed | 8146/5-V37-406-51-0010-K | 256842 | 7.96 kg | | | |
| | | | | 8161, moulded material | 1 x M20 Ø 4 ... 13 mm | | | | | | | | |
| | | | | Standard | 2 x M50 Ø 16 ... 35 mm | 1 NC | 1 NO/delayed | 8146/5-V37-306-51-1010 | 213396 | 7.55 kg | | | |
| | | | | 8161, moulded material | 1 x M20 Ø 4 ... 13 mm | | | | | | | | |
| 6-pole | Black shroud and handle | - | - | Standard | 4 x M50 Ø 16 ... 35 mm | without | without | 8146/5-V37-606-00-0010 | 200573 | 10.1 kg | | | |
| | | | | 8161, moulded material | 1 x M20 Ø 4 ... 13 mm | | | | | | | | |
| | Yellow shroud, red handle | - | - | - | Standard | 4 x M50 Ø 16 ... 35 mm | 1 NC | 1 NO/delayed | 8146/5-V37-606-51-0010 | 200574 | 10.1 kg | | |
| | | | | | 8161, moulded material | 1 x M20 Ø 4 ... 13 mm | | | | | | | |
| | | | | N-terminal | 2 x M50 Ø 16 ... 35 mm | 1 NC | 1 NO/delayed | 8146/5-V37-306-51-1110-K | 200560 | 5.68 kg | | | |
| | | | | N-terminal | 2 x M50 Ø 16 ... 35 mm | 1 NC | 1 NO/delayed | 8146/5-V37-306-51-1110 | 213397 | 7.55 kg | | | |

Selection Table

| Rated operational current | | 80 A | | | | | | | | |
|-------------------------------|---------------------------|---------------------------|---------------------|---------------------------------|---|----------------------|----------------------|--------------------------|----------|---------|
| Rated operational voltage AC | | 500 V | | | | | | | | |
| Switching capacity AC-3 230 V | | 22 kW | | | | | | | | |
| Switching capacity AC-3 400 V | | 45 kW | | | | | | | | |
| Switching capacity AC-3 440 V | | 45 kW | | | | | | | | |
| Switching capacity AC-3 500 V | | 55 kW | | | | | | | | |
| Detailed number of poles | Handle colour | Additional terminal | Additional device | Entry type | Cable gland | Auxiliary contact NC | Auxiliary contact NO | Product Type | Art. No. | Weight |
| 3-pole | Yellow shroud, 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 | 14.4 kg |
| Rated operational current | | 125 A / 160 A | | | | | | | | |
| Rated operational voltage AC | | 690 V / 400 V | | | | | | | | |
| Switching capacity AC-3 230 V | | 37 kW / 45 kW | | | | | | | | |
| Switching capacity AC-3 400 V | | 55 kW / 90 kW | | | | | | | | |
| Switching capacity AC-3 440 V | | 75 kW / 90 kW | | | | | | | | |
| Switching capacity AC-3 500 V | | 75 kW / 90 kW (150 A) | | | | | | | | |
| Switching capacity AC-3 690 V | | 110 kW / – kW | | | | | | | | |
| Detailed number of poles | Handle colour | Additional terminal | Additional device | Entry type | Cable gland | Auxiliary contact NC | Auxiliary contact NO | Product Type | Art. No. | Weight |
| 3-pole | Black shroud and handle | – | – | Standard 8161, moulded material | 2 x M63 Ø 28 ... 48 mm 1 x M20 Ø 4 ... 13 mm | without | without | 8146/5-V37-308-00-0010-K | 201396 | 14.4 kg |
| | | – | – | Standard 8161, moulded material | 2 x M63 Ø 28 ... 48 mm 1 x M20 Ø 4 ... 13 mm | without | without | 8146/5-V37-308-00-0010 | 212478 | 18.5 kg |
| | | – | – | 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 | 14.4 kg |
| | | – | – | 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 | 18.5 kg |
| | | – | Drilled brass plate | Only drilled holes | 2 x M63 1 x M20 | 1 NC | 1 NO/delayed | 8146/5-V37-308-51-0040-K | 201400 | 21.3 kg |
| | | – | Drilled brass plate | Only drilled holes | 2 x M63 1 x M20 | 1 NC | 1 NO/delayed | 8146/5-V37-308-51-0040 | 212212 | 22.8 kg |
| | Yellow shroud, red handle | – | – | 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 | 14.4 kg |
| | | – | – | 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 | 212210 | 18.5 kg |
| | | N-terminal | – | 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-V37-308-51-1110-K | 201399 | 14.4 kg |
| | | N-terminal | – | 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-V37-308-51-1110 | 212211 | 23.2 kg |

Selection Table

| Rated operational current | | 125 A / 160 A | | | | | | | | | |
|-------------------------------|---------------------------|-----------------------|-------------------|---------------------------------|---|----------------------|----------------------|--------------------------|--------------------------|---------|---------|
| Rated operational voltage AC | | 690 V / 400 V | | | | | | | | | |
| Switching capacity AC-3 230 V | | 37 kW / 45 kW | | | | | | | | | |
| Switching capacity AC-3 400 V | | 55 kW / 90 kW | | | | | | | | | |
| Switching capacity AC-3 440 V | | 75 kW / 90 kW | | | | | | | | | |
| Switching capacity AC-3 500 V | | 75 kW / 90 kW (150 A) | | | | | | | | | |
| Switching capacity AC-3 690 V | | 110 kW / – kW | | | | | | | | | |
| Detailed number of poles | Handle colour | Additional terminal | Additional device | Entry type | Cable gland | Auxiliary contact NC | Auxiliary contact NO | Product Type | Art. No. | Weight | |
| 6-pole | Black shroud and handle | – | – | Standard 8161, moulded material | 4 x M63 Ø 28 ... 48 mm 1 x M20 Ø 4 ... 13 mm | without | without | 8146/5-V37-608-00-0010 | 201401 | 22.8 kg | |
| | | – | – | Standard 8161, moulded material | 4 x M63 Ø 28 ... 48 mm 1 x M20 Ø 4 ... 13 mm | 1 NC | 1 NO/delayed | 8146/5-V37-608-51-0010 | 201402 | 22.8 kg | |
| | Yellow shroud, red handle | – | – | Standard 8161, moulded material | 4 x M63 Ø 28 ... 48 mm 1 x M20 Ø 4 ... 13 mm | 1 NC | 1 NO/delayed | 8146/5-V37-608-51-1010 | 201403 | 22.8 kg | |
| | | N-terminal | – | Standard 8161, moulded material | 4 x M63 Ø 28 ... 48 mm 1 x M20 Ø 4 ... 13 mm | 1 NC | 1 NO/delayed | 8146/5-V37-608-51-1110 | 212766 | 22.8 kg | |
| Rated operational current | | 180 A | | | | | | | | | |
| Rated operational voltage AC | | 400 V | | | | | | | | | |
| Switching capacity AC-3 230 V | | 55 kW | | | | | | | | | |
| Switching capacity AC-3 400 V | | 90 kW | | | | | | | | | |
| Detailed number of poles | Handle colour | Additional terminal | Additional device | Entry type | Cable gland | Auxiliary contact NC | Auxiliary contact NO | Product Type | Art. No. | Weight | |
| 3-pole | Black shroud and handle | – | – | Standard 8161, moulded material | 2 x M63 Ø 28 ... 48 mm 1 x M20 Ø 4 ... 13 mm | without | without | 8146/5-V37-310-00-0010-K | 213475 | 14.4 kg | |
| | | – | – | Standard 8161, moulded material | 2 x M63 Ø 28 ... 48 mm 1 x M20 Ø 4 ... 13 mm | without | without | 8146/5-V37-310-00-0010 | 213482 | 19.6 kg | |
| | | – | – | 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 | 14.4 kg | |
| | | – | – | 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 | 213483 | 19.6 kg | |
| | Yellow shroud, red handle | – | – | Drilled brass plate | Only drilled holes | 2 x M63 1 x M20 | 1 NC | 1 NO/delayed | 8146/5-V37-310-51-0040-K | 213479 | 15.1 kg |
| | | – | – | Drilled brass plate | Only drilled holes | 2 x M63 1 x M20 | 1 NC | 1 NO/delayed | 8146/5-V37-310-51-0040 | 213486 | 22.8 kg |
| | | – | – | 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-V37-310-51-1010-K | 213477 | 14.4 kg | |
| | | – | – | 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-V37-310-51-1010 | 213484 | 19.6 kg | |

Selection Table

| | |
|-------------------------------|-------|
| Rated operational current | 180 A |
| Rated operational voltage AC | 400 V |
| Switching capacity AC-3 230 V | 55 kW |
| Switching capacity AC-3 400 V | 90 kW |

| Detailed number of poles | Handle colour | Additional terminal | Additional device | Entry type | Cable gland | Auxiliary contact NC | Auxiliary contact NO | Product Type | Art. No. | Weight |
|--------------------------|-------------------------|---------------------|-------------------|---------------------------------|---|----------------------|----------------------|------------------------|----------|---------|
| 6-pole | Black shroud and handle | – | – | Standard 8161, moulded material | 4 x M63 Ø 28 ... 48 mm 1 x M20 Ø 4 ... 13 mm | without | without | 8146/5-V37-610-00-0010 | 213489 | 37.4 kg |
| | | – | – | Standard 8161, moulded material | 4 x M63 Ø 28 ... 48 mm 1 x M20 Ø 4 ... 13 mm | 1 NC | 1 NO/delayed | 8146/5-V37-610-51-0010 | 213490 | 37.4 kg |

NO auxiliary contact (ON delayed – OFF leading)

8146/5-V37-...-...-K: Versions with smaller design size; see dimensional drawings

In this context, particular attention must be paid to bending radii, temperature classes and permissible ambient temperatures.

Technical Data

Variant 8146/5-V37

Explosion Protection

| | |
|---------------------------------|--|
| IECEX gas explosion protection | Ex db eb IIC T6 / T4 Gb |
| IECEX dust explosion protection | Ex tb IIIIC T80 °C / T130 °C Db |
| ATEX gas explosion protection | Ⓜ II 2 G Ex db eb IIC T6 / T4 Gb |
| ATEX dust explosion protection | Ⓜ II 2 D Ex tb IIIIC T80 °C / T130 °C Db |

Declaration of conformity

ATEX (EUK), China (CCC)

Certificates

ATEX (PTB), China (NEPSI), IECEX (PTB), India (PESO)

Notes

Product label may vary. Series devices are labelled with ATEX and IECEX.

Electrical Data

Notes

NO auxiliary contact (1 x ON delayed – OFF leading)

Mechanical Data

| | |
|---------------------------|---|
| Degree of protection (IP) | IP66 |
| Enclosure material | Polyester resin, Glass fibre reinforced |
| Seal | Silicone, foamed |
| Lockable in | Three times in 0 position |

Ambient conditions

| Type | Number of poles | | Max. current (A) | Conductor cross-section ¹⁾ (mm ²) | | Temperature class/ perm. ambient temperature |
|-------------------------|-----------------|--------------------|------------------|--|------|---|
| | Main contacts | Auxiliary contacts | | min. | max. | |
| 8146/5-V37-300-...* | 3 | 1 | 10 | 2.5 | 4 | T6: -40 °C to +51 °C T6: -40 °C to +54 °C ²⁾ T5: -40 °C to +69 °C ²⁾ |
| 8146/5-V37-301-...* | 3 | 1 | 12/16 | 2.5 | 4 | T6: -40 °C to +51 °C T6: -40 °C to +54 °C ²⁾ T5: -40 °C to +69 °C ²⁾ |
| 8146/5-V37-302-...* | 3 | 1 | 16 | 2.5 | 6 | T6: -40 °C to +51 °C T6: -40 °C to +54 °C ²⁾ T5: -40 °C to +69 °C ²⁾ |
| 8146/5-V37-302-...-5* | 3 | 0 | 16 | 2.5 | 10 | T4: -40 °C to +60 °C |
| 8146/5-V37-602-...* | 6 | 2 | 16 | 2.5 | 6 | T6: -40 °C to +47 °C T5: -40 °C to +62 °C ²⁾ |
| 8146/5-V37-303-...* | 3 | 1 | 20 | 4 | 6 | T6: -40 °C to +40 °C T5: -40 °C to +55 °C ²⁾ |
| 8146/5-V37-304-...* | 3 | 1 | 25 | 4 | 6 | T6: -40 °C to +40 °C T5: -40 °C to +55 °C ²⁾ |
| 8146/5-V37-604-... | 6 | 2 | 25 | 4 | 6 | T5: -40 °C to +49 °C ²⁾ |
| | 6 | 2 | 25 | 6 | 6 | T6: -40 °C to +42 °C T5: -40 °C to +50 °C T5: -40 °C to +57 °C ²⁾ |
| | 6 | 0 | 25 | 4 | 6 | T5: -40 °C to +45 °C |
| | 6 | 0 | 25 | 6 | 6 | T5: -40 °C to +52 °C ²⁾ T5: -40 °C to +48 °C |
| 8146/5-V37-305-...-K | 3 | 2 | 40 | 10 | 25 | T6: -40 °C to +48 °C T6: -40 °C to +51 °C ²⁾ T5: -40 °C to +66 °C ²⁾ |
| 8146/5-V37-305-00-...-K | 3 | 0 | 40 | 10 | 25 | |
| 8146/5-V37-305-...-5 | 3 | 0 | 40 | 10 | 35 | T4: -40 °C to +60 °C |
| 8146/5-V37-605-...-K | 6 | 2 | 40 | 10 | 25 | T6: -40 °C to +47 °C T5: -40 °C to +51 °C T5: -40 °C to +62 °C ²⁾ |
| 8146/5-V37-605-00-...-K | 6 | 0 | 40 | 10 | 25 | |
| 8146/5-V37-306-...-K | 3 | 2 | 50 | 10 | 25 | T6: -40 °C to +43 °C |
| | 3 | 2 | 63 | 16 | 25 | T6: -40 °C to +42 °C T5: -40 °C to +57 °C ²⁾ |
| | 3 | 2 | 80 | 25 | 25 | T6: -40 °C to +40 °C T5: -40 °C to +44 °C T5: -40 °C to +55 °C ²⁾ |
| 8146/5-V37-306-00-...-K | 3 | 0 | 50 | 10 | 25 | T6: -40 °C to +43 °C |
| | 3 | 0 | 63 | 16 | 25 | T6: -40 °C to +42 °C T5: -40 °C to +57 °C ²⁾ |
| | 3 | 0 | 80 | 25 | 25 | T6: -40 °C to +40 °C T5: -40 °C to +44 °C T5: -40 °C to +55 °C ²⁾ |
| 8146/5-V37-306-... | 3 | 2 | 63 | 35 | 50 | T6: -40 °C to +58 °C T5: -40 °C to +73 °C ²⁾ |
| | 3 | 2 | 63 | 50 | 50 | T6: -40 °C to +60 °C T5: -40 °C to +75 °C ²⁾ |
| | 3 | 2 | 80 | 35 | 50 | T6: -40 °C to +48 °C T5: -40 °C to +53 °C T5: -40 °C to +63 °C ²⁾ |
| | 3 | 2 | 80 | 50 | 50 | T6: -40 °C to +53 °C T5: -40 °C to +57 °C T5: -40 °C to +68 °C ²⁾ |

| Type | Number of poles | | Max. current (A) | Conductor cross-section ¹⁾ (mm ²) | | Temperature class/ perm. ambient temperature |
|-----------------------|-----------------|--------------------|------------------|--|------|---|
| | Main contacts | Auxiliary contacts | | min. | max. | |
| 8146/5-V37-306-00-... | 3 | 0 | 63 | 35 | 50 | T6: -40 °C to +58 °C T5: -40 °C to +73 °C ²⁾ |
| | 3 | 0 | 63 | 50 | 50 | T6: -40 °C to +60 °C T5: -40 °C to +75 °C ²⁾ |
| | 3 | 0 | 80 | 3 | 50 | T6: -40 °C to +48 °C T5: -40 °C to +53 °C T5: -40 °C to +63 °C ²⁾ |
| | 3 | 0 | 80 | 50 | 50 | T6: -40 °C to +53 °C T5: -40 °C to +57 °C T5: -40 °C to +68 °C ²⁾ |
| 8146/5-V37-306-...-5 | 3 | 0 | 63 | 25 | 95 | T4: -40 °C to +60 °C |
| 8146/5-V37-307-...-5 | 3 | 0 | 80 | 50 | 150 | T4: -40 °C to +60 °C |
| 8146/5-V37-606-... | 6 | 2 | 50 | 10 | 50 | T6: -40 °C to +41 °C T5: -40 °C to +56 °C ²⁾ |
| | 6 | 2 | 63 | 16 | 50 | T6: -40 °C to +41 °C T5: -40 °C to +56 °C ²⁾ |
| | 6 | 2 | 63 | 25 | 50 | T6: -40 °C to +47 °C T5: -40 °C to +62 °C ²⁾ |
| | 6 | 2 | 80 | 25 | 50 | T5: -40 °C to +51 °C ²⁾ |
| | 6 | 2 | 80 | 35 | 50 | T6: -40 °C to +43 °C T5: -40 °C to +58 °C ²⁾ |
| 8146/5-V37-606-00-... | 6 | 0 | 50 | 10 | 50 | T6: -40 °C to +41 °C T5: -40 °C to +56 °C ²⁾ |
| | 6 | 0 | 63 | 16 | 50 | T6: -40 °C to +41 °C T5: -40 °C to +56 °C ²⁾ |
| | 6 | 0 | 63 | 25 | 50 | T6: -40 °C to +47 °C T5: -40 °C to +62 °C ²⁾ |
| | 6 | 0 | 80 | 25 | 50 | T5: -40 °C to +51 °C ²⁾ |
| | 6 | 0 | 80 | 35 | 50 | T6: -40 °C to +43 °C T5: -40 °C to +58 °C ²⁾ |
| 8146/5-V37-308-...-K | 3 | 1 | 125 | 95 | 120 | T6: -40 °C to +46 °C T5: -40 °C to +62 °C ²⁾ T4: -40 °C to +72 °C ²⁾ |
| | 3 | 1 | 125 | 120 | 120 | T6: -40 °C to +46 °C T5: -40 °C to +62 °C ²⁾ T4: -40 °C to +72 °C ²⁾ |
| | 3 | 1 | 160 | 95 | 120 | T5: -40 °C to +40 °C T5: -40 °C to +50 °C ²⁾ T4: -40 °C to +55 °C ²⁾ |
| | 3 | 1 | 160 | 120 | 120 | T5: -40 °C to +45 °C T5: -40 °C to +49 °C T4: -40 °C to +60 °C ²⁾ |
| 8146/5-V37-308-... | 3 | 1 | 125 | 95 | 150 | T6: -40 °C to +47 °C T5: -40 °C to +62 °C ²⁾ T4: -40 °C to +72 °C ²⁾ |
| | 3 | 1 | 160 | 95 | 150 | T5: -40 °C to +40 °C T5: -40 °C to +47 °C ²⁾ T4: -40 °C to +55 °C ²⁾ |
| | 3 | 1 | 160 | 120 | 150 | T5: -40 °C to +45 °C T5: -40 °C to +51 °C ²⁾ T4: -40 °C to +60 °C ²⁾ |

| Type | Number of poles | | Max. current (A) | Conductor cross-section ¹⁾ (mm ²) | | Temperature class/ perm. ambient temperature |
|----------------------|-----------------|--------------------|------------------|--|------|---|
| | Main contacts | Auxiliary contacts | | min. | max. | |
| 8146/5-V37-608-... | 6 | 2 | 125 | 95 | 150 | T6: -40 °C to +40 °C T5: -40 °C to +55 °C ²⁾ T4: -40 °C to +72 °C ²⁾ |
| | 6 | 2 | 160 | 95 | 150 | T4: -40 °C to +40 °C T4: -40 °C to +55 °C ²⁾ |
| | 6 | 2 | 160 | 120 | 150 | T4: -40 °C to +45 °C T4: -40 °C to +55 °C ²⁾ |
| 8146/5-V37-310-...-K | 3 | 1 | 180 | 95 | 120 | T4: -40 °C to +40 °C ²⁾ |
| | 3 | 1 | 180 | 120 | 120 | T4: -40 °C to +50 °C ²⁾ |
| 8146/5-V37-310-... | 3 | 1 | 180 | 95 | 150 | T4: -40 °C to +40 °C ²⁾ |
| | 3 | 1 | 180 | 120 | 150 | T4: -40 °C to +50 °C ²⁾ |
| 8146/5-V37-610-... | 6 | 2 | 180 | 120 | 150 | T4: -40 °C to +50 °C ²⁾ |

¹⁾ When using a conductor cross-section of min. 1.5 mm², the temperature class and ambient temperature are reduced to T4: -40 °C to +40 °C

²⁾ Project engineering note:

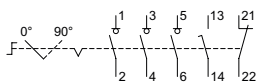
The maximum conductor cross-sections given were determined using the H07V.

The minimum bending radius was assumed to be 4 x outer diameter in accordance with VDE 0298-3.

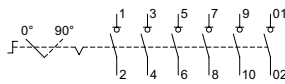
²⁾ Only with heat-resistant conductor > 70 °C at cable entries and/or > 85 °C at clamping units

Bold: Information on the rating plate

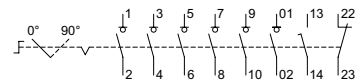
Technical Drawings – Subject to Alterations



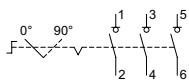
81.../5-V...-3...-51-..
3-pole + 1 NO
(1x ON delayed – OFF leading), 1 NC



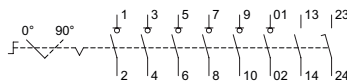
8146/5-V...-6...-00-010
6-pole



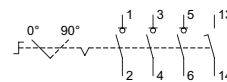
8146/5-V...-6...-51-..
6-pole + 1 NO
(ON delayed – OFF leading), 1 NC



8146/5-V...-3...-00-...
3-pole



8146/5-V...-6...-60-...10
6-pole + 1 NO
(1x ON delayed – OFF leading/1 x switching normally)



81.../5-V...-3...-50-..
3-pole + 1 NO
(ON delayed – OFF leading)


Accessories

| Figure | Description | Art. No. | Weight |
|--------------------------|--|----------|--------|
| Auxiliary contact | | | |
| | 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 | 26 g |
| | 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 | 26 g |
| | 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 | 26 g |

Accessories

| Figure | Description | Art. No. | Weight |
|---|--------------------------------------|----------|--------|
| Brass plate | | | |
|  | SZ 041 A 2 x M25, 1 x M20 | 202079 | 81 g |
|  | SZ 071 A/B 2 x M40, 1 x M20 | 200215 | 190 g |
|  | SZ 073 A/B 2 x M50, 1 x M20 | 201948 | 370 g |
|  | SZ 051/061 2xM32, 1xM20 | 226934 | 155 g |
|  | SZ 031 2 x M25, 1 x M20 | 148207 | 81 g |
|  | SZ S73/83/93 2xM40, 1xM20 | 226935 | 840 g |
|  | SZ S73/083/093 2 x M63, 1 x M20 | 227586 | 750 g |
|  | size S73/083/093 2 x M50, 1 x M20 | 226936 | 800 g |

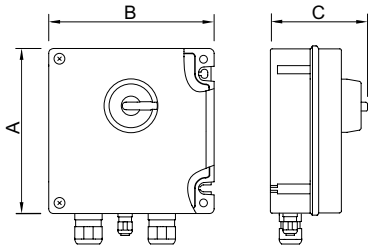
Spare Parts

| Figure | Description | Art. No. | Weight |
|---|---|----------|--------|
| Auxiliary contact key | | | |
|  | For removing installed auxiliary contacts | 201909 | 35 g |

For the brass plate, see the individual data sheet at r-stahl.com, or available on request

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

E7



| 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-V37-306-51-.... | | 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 | |
| | 8150/5-V37-308-51-....-K | 727 | 360 | 203 | |
| 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 |
| | | 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 |