

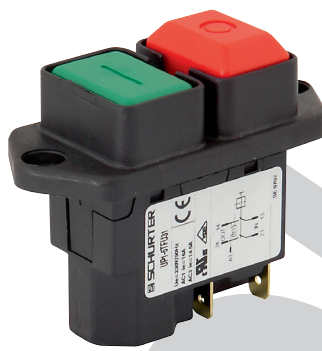
**Undervoltage protection switch, rocker or push button actuated, 2-pole**



UP1-1WF...



UP1-3TF...



UP1-5TF...



UP1-8TF...



**Description**

- 2-pole switch with undervoltage release and restart protection
- Remote trip version
- Rocker and push button types
- Snap-in or screw-on version
- Protection covers for IP 54 or IP 65

**Approvals**

IEC 60947-4-1  
UL 508  
CSA 22.2 No. 14-95

**References**

- Last order Date: **31.03.2014**
- Availability: On request
- This type is Phase-Out without alternate type.

**Applications**

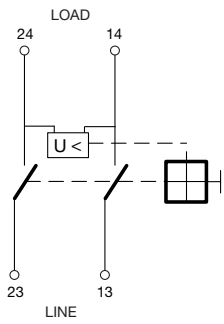
- Electric power tools such as circular saw, band saw, band grinder, miter-box saw, drilling machine, stone/masonry saw
- Chain grinder
- Floor grinder
- Floor cleaning equipments
- Concrete mixers

**Technical Data**

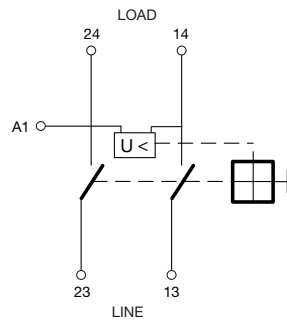
|                                             |                                                                                       |
|---------------------------------------------|---------------------------------------------------------------------------------------|
| Rated voltage                               | AC 240 V / 50/60 Hz<br>AC 230 V / 50/60 Hz<br>AC 120 V / 60 Hz<br>AC 115 V / 50/60 Hz |
| Rated current                               | 16 A (AC-1)<br>14.5 A (AC-3)<br>10 A (1.5 HP)                                         |
| Conditional short circuit Capacity $I_{nc}$ | AC 2000 A @ PC 1                                                                      |
| Fuse                                        | CB 16 A, char. B                                                                      |
| Dielectric strength                         | 50 Hz: 1500 V<br>Impulse: 2500 V                                                      |
| Overvoltage category                        | II                                                                                    |
| Method of operation                         | Switch type (S)                                                                       |
| Mode of tripping                            | Undervoltage release (UV)                                                             |
| - Manual ON:                                | 35% ... 85% $U_n$ (and higher)                                                        |
| - Automatic release:                        | 35% ... 70% $U_n$ (and lower)                                                         |
| Type of tripping                            | Non-trip-free                                                                         |

|                         |                                                                                                                   |
|-------------------------|-------------------------------------------------------------------------------------------------------------------|
| Endurance               | 50 000 cycles mechanical<br>50 000 cycles 16 A / AC-1<br>50 000 cycles 10 A / AC-3<br>35 000 cycles 14.5 A / AC-3 |
| Ambient temperature     |                                                                                                                   |
| Operation               | -10 °C ... +60 °C                                                                                                 |
| Storage                 | -20 °C ... +80 °C                                                                                                 |
| Resistance to vibration | IEC 60068-2-6, Test Fc<br>10 ... 60 Hz: 0.75 mm<br>60 ... 500 Hz: 10 G                                            |
| Shock resistance        | IEC 60068-2-27, Test Ea<br>30 G / 18 ms (half-sine)                                                               |
| Degree of protection:   |                                                                                                                   |
| Accessible range:       | Rocker types IP 40<br>Push button types IP 54                                                                     |
| Terminals side:         | IP 00                                                                                                             |

## Wiring Diagram





Sub-type U  
coil fix wired



Sub-type E  
coil with external connection  
for remote trip release

## Approvals

| Relay wiring        | AC voltage [V] | Frequency [Hz] |  IEC 60947-4-1 |  UL 508<br>CSA 22.2 No. 14-95 |
|---------------------|----------------|----------------|---------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|
| Type U              | 115            | 50             | •                                                                                                 | •                                                                                                                |
| Type U              | 115            | 60             | •                                                                                                 | •                                                                                                                |
| Type U              | 120            | 60             | •                                                                                                 | •                                                                                                                |
| Type U              | 230            | 50             | •                                                                                                 | •                                                                                                                |
| Type U              | 230            | 60             | •                                                                                                 | •                                                                                                                |
| Type U              | 240            | 50-60          | •                                                                                                 | •                                                                                                                |
| Type E, remote trip | 115            | 50             | •                                                                                                 | •                                                                                                                |
| Type E, remote trip | 115            | 60             | •                                                                                                 | •                                                                                                                |
| Type E, remote trip | 120            | 60             | •                                                                                                 | •                                                                                                                |
| Type E, remote trip | 230            | 50             | •                                                                                                 | •                                                                                                                |
| Type E, remote trip | 230            | 60             | •                                                                                                 | •                                                                                                                |
| Type E, remote trip | 240            | 50-60          | •                                                                                                 | •                                                                                                                |

Actual information about approvals can be found on: [www.schurter.com/approvals](http://www.schurter.com/approvals)

## Preference Types

| Actuation   | Mounting | Remote trip | Voltage [V] | Frequency [Hz] | Cover IP 54 | Cover IP 65 | Order Code       | Part Number |
|-------------|----------|-------------|-------------|----------------|-------------|-------------|------------------|-------------|
| Rocker      | Snap-in  |             | 230         | 50             |             |             | UP1-1WFU31       | 4431.1001   |
| Rocker      | Snap-in  |             | 230         | 50             | •           |             | UP1-1WFU31-UZZ11 | 4431.1010   |
| Rocker      | Snap-in  | •           | 230         | 50             |             |             | UP1-1WFE31       | 4431.1004   |
| Rocker      | Snap-in  |             | 120         | 60             |             |             | UP1-1WFU42       | 4431.1003   |
| Rocker      | Snap-in  |             | 120         | 60             | •           |             | UP1-1WFU42-UZZ11 | 4431.1036   |
| Rocker      | Snap-in  |             | 115         | 50             |             |             | UP1-1WFU51       | 4431.1002   |
| Rocker      | Snap-in  |             | 115         | 50             | •           |             | UP1-1WFU51-UZZ11 | 4431.1031   |
| Rocker      | Snap-in  |             | 115         | 60             | •           |             | UP1-1WFU52-UZZ11 | 4431.1012   |
| Push button | Snap-in  |             | 230         | 50             |             |             | UP1-3TFU31       | 4431.1009   |
| Push button | Snap-in  |             | 230         | 50             |             | •           | UP1-3TFU31-UZZ31 | 4431.1011   |
| Push button | Snap-in  | •           | 230         | 50             |             | •           | UP1-3TFE31-UZZ31 | 4431.1007   |
| Push button | Snap-in  |             | 120         | 60             |             | •           | UP1-3TFU42-UZZ31 | 4431.1035   |
| Push button | Snap-in  |             | 115         | 50             |             | •           | UP1-3TFU51-UZZ31 | 4431.1032   |
| Push button | Snap-in  |             | 115         | 60             |             | •           | UP1-3TFU52-UZZ31 | 4431.1015   |
| Push button | Flange   |             | 230         | 50             |             |             | UP1-5TFU31       | 4431.1005   |
| Push button | Flange   |             | 230         | 50             |             | •           | UP1-5TFU31-UZZ51 | 4431.1024   |
| Push button | Flange   | •           | 230         | 50             |             |             | UP1-5TFE31       | 4431.1016   |
| Push button | Flange   | •           | 230         | 50             |             | •           | UP1-5TFE31-UZZ61 | 4431.1034   |
| Push button | Flange   |             | 120         | 60             |             |             | UP1-5TFU42       | 4431.1030   |
| Push button | Flange   |             | 115         | 60             |             |             | UP1-5TFU52       | 4431.1006   |
| Push button | Flange   |             | 115         | 60             |             | •           | UP1-5TFU52-UZZ51 | 4431.1025   |
| Push button | Flange   |             | 230         | 50             |             |             | UP1-8TFU31       | 4431.1041   |
| Push button | Flange   |             | 230         | 50             |             | •           | UP1-8TFU31-UZZ81 | 4431.1013   |
| Push button | Flange   |             | 115         | 60             |             | •           | UP1-8TFU52-UZZ81 | 4431.1014   |

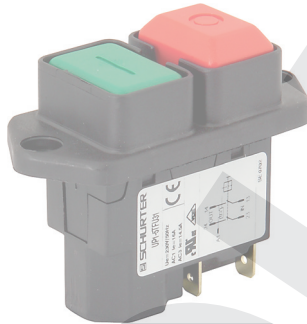
Protection Covers



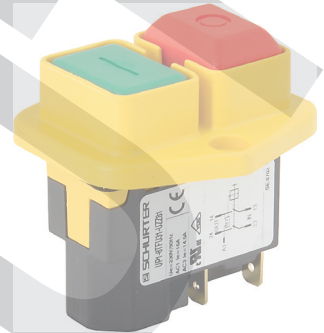
UP1-1WF ...



UP1-3TF ...



UP1-5TF ...



UP1-7/8TF ...



UZZ11  
IP 54 for types UP1-1WF ...  
(factory mounted)



UZZ31  
IP 65 for types UP1-3TF ...  
(factory mounted)



UZZ51  
IP 65 for types UP1-5TF ...



UZZ71  
IP 65 for types UP1-7TF ...  
or UP1-8TF ...



UZZ61  
IP 65 for types UP1-5TF ...



UZZ81  
IP 65 for types UP1-7TF ...  
or UP1-8TF ...



UZZ91  
Frontside IP 65, backside IP 40,  
for types UP1-7TF ...  
or UP1-8TF ...

## Order Code



basic type  
**UP1** 2-pole appliance switch with undervoltage release and restart protection

mounting style/actuation type  
**1W** Snap-in type black/rocker white  
**1B** Snap-in type black/rocker black  
**3T** Snap-in type black/push buttons green-red  
**5T** Flange type 62 black/push buttons green-red  
**7T** Flange type 42 black/push buttons green-red  
**8T** Flange type 42 yellow/push buttons green-red

push button/rocker legend  
**F** relief I-0

wiring diagram/sub-type  
**U** coil fix wired  
**E** coil with external connection

rated voltage/frequency  
**51** 115 V/50 Hz  
**52** 115 V/60 Hz  
**42** 120 V/60 Hz  
**31** 230 V/50 Hz  
**32** 230 V/60 Hz  
**21** 240 V/50-60 Hz

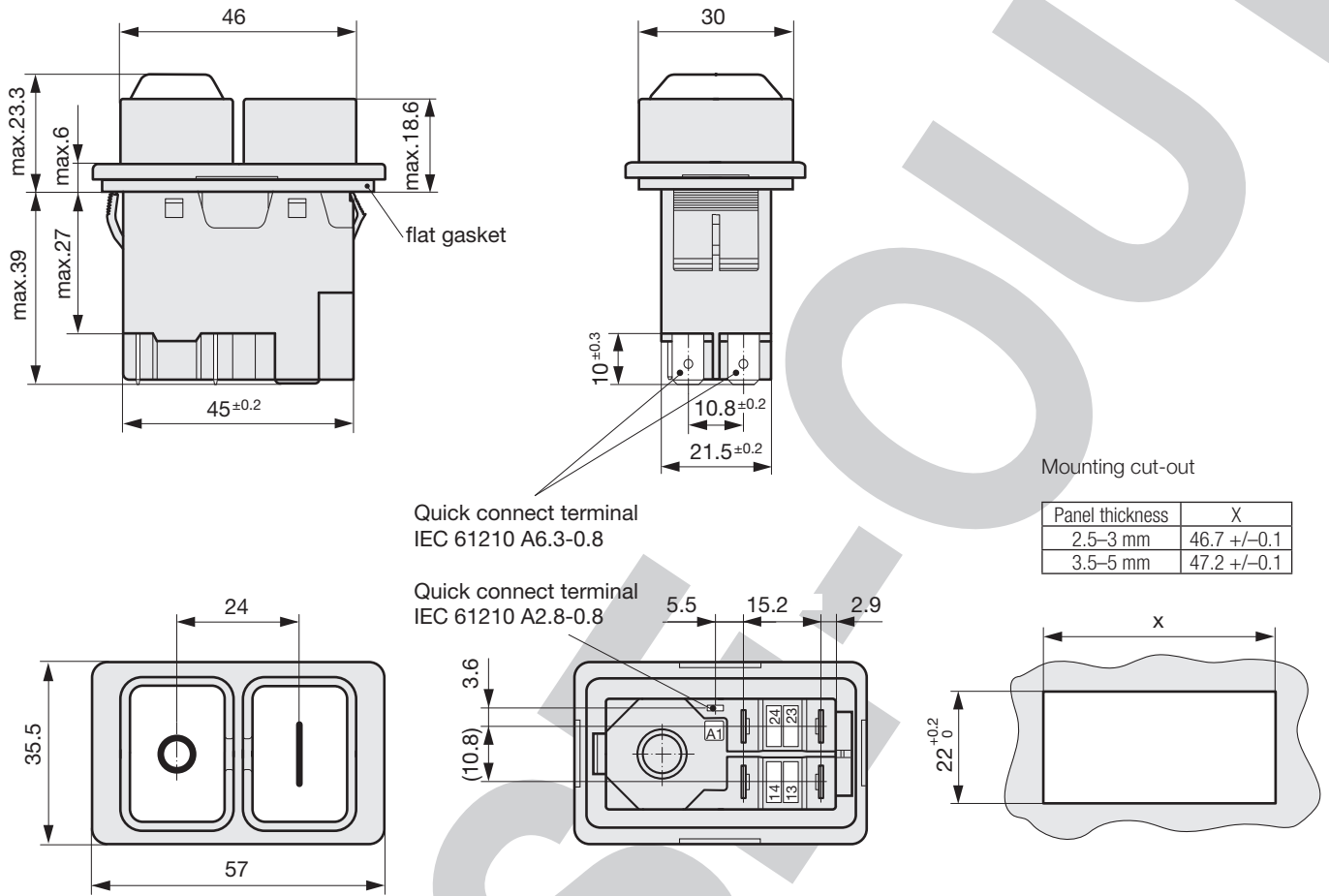
special marking, label or packaging (optional)  
**XXX** special marking, label or packaging on request

accessories  
**UZZ11** protection cover black for rocker types (IP 54)  
**UZZ31** protection cover black for push buttons snap-in (IP 65)  
**UZZ51** protection cover 62 black for push buttons (IP 65)  
**UZZ61** protection cover 62 yellow for push buttons (IP 65)  
**UZZ71** protection cover 42 black for push buttons (IP 65)  
**UZZ81** protection cover 42 yellow for push buttons (IP 65)  
**UZZ91** protection cap backside (IP 65 front/IP 40 back)

**UP1** - **3T** **F** **U** **31** - **XXX** - **UZZ31**



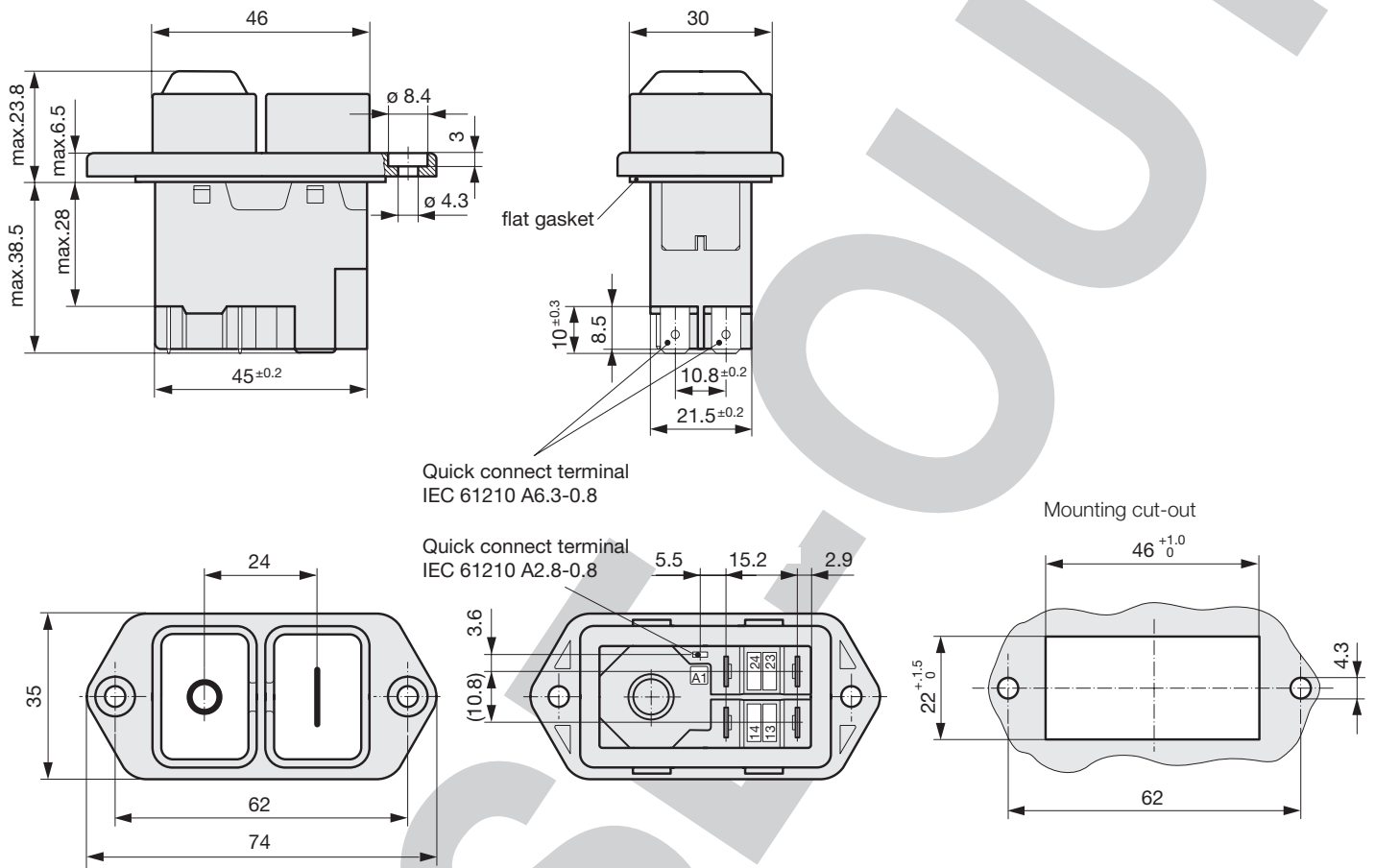
## UP1-3TF...



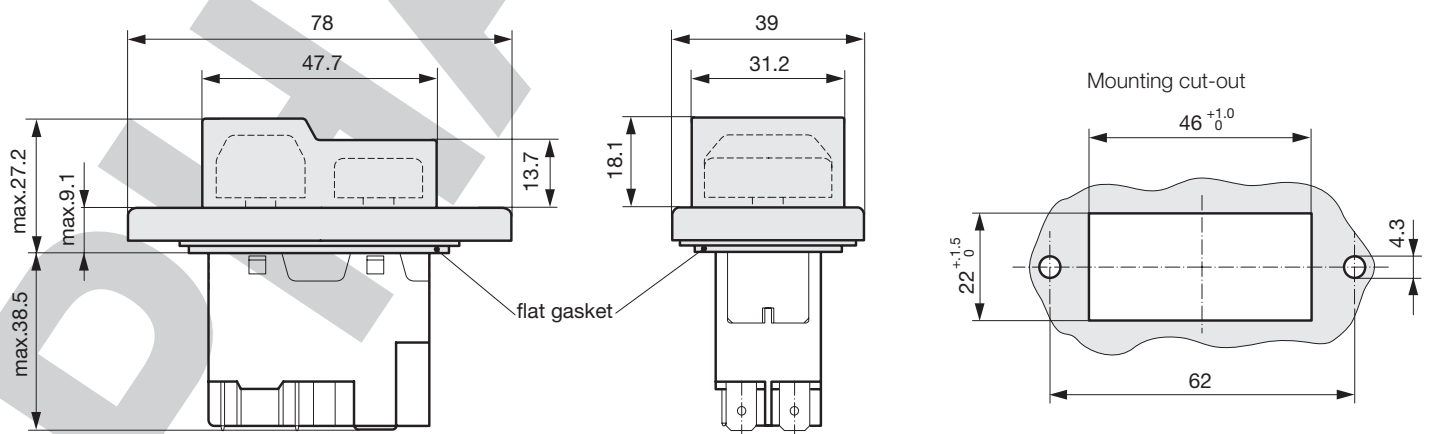
## UP1-3TF... with UZZ31



UP1-5TF...



UP1-5TF... with UZZ51/UZZ61



UP1-7TF ... /UP1-8TF ...

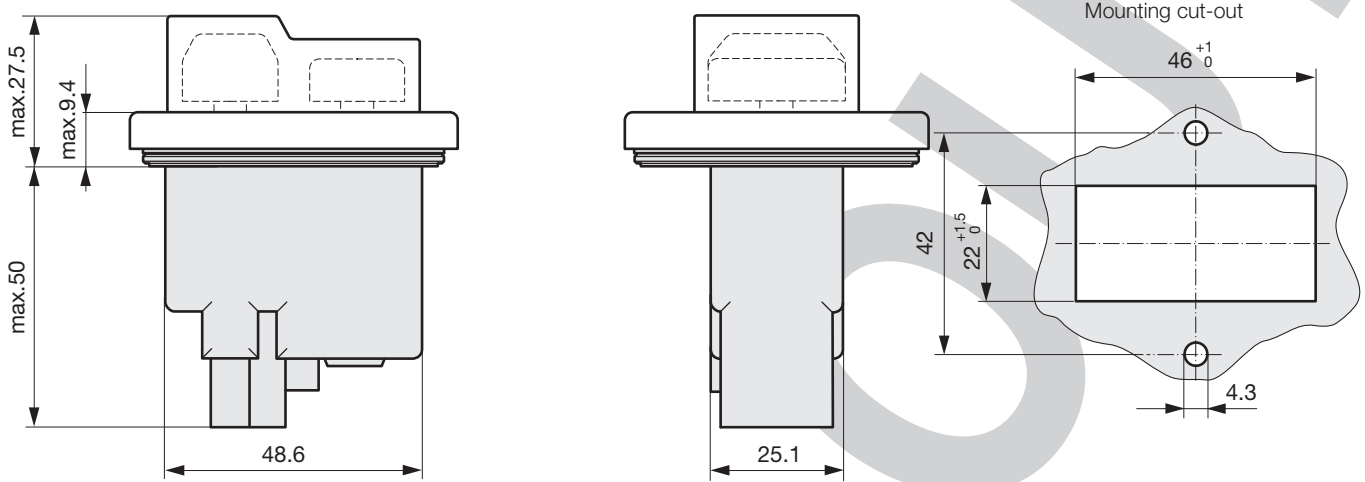


UP1-7TF ... /UP1-8TF ... with UZZ71/UZZ81





UP1-7TF... /UP1-8TF... with UZZ91



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