

## DRIESCHER - Outdoor Disconnectors, Earthing devices, Fuse holders

- Rated voltage  $U_r$   
12 kV, 24 kV and 38,5 kV
- Rated current  $I_r$   
400 A, 630 A, 1600 A, 2500 A  
and 4000 A



# FT<sub>r</sub>

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## DRIESCHER - Outdoor Disconnectors, Earthing devices and Fuse holders

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### General

The 1- and 3-pole **Outdoor Disconnectors FTr** are applicable for a rated voltage range of 12 kV to 38,5 kV and a rated current range from 400 A to 4000 A. The rated short time current upto 50 kA for a duration of 3s depending on the type has been tested.

The 3-pole **Earthing Devices FES** are useable for a rated voltage range of 12 kV to 38,5 kV.

A rated short time current up to 63 kA is depending

on type specified.

All switches are type-tested according to EN 62271-102 and are suitable either for vertical mounting (90° operating angle) or horizontal mounting (110° operating angle).

**For each switch an instruction manual for transportation, mounting and commissioning is included. This instruction manual should be strictly followed.**

### Operating conditions

Installation can be carried out at heights of up to 1000 m above sea level.

The switches are designed for normal operating conditions according to IEC 62271-1.

According to this the following limiting values applies:

Ambient temperature:

Peak value of the ambient temperature +40°C

Average value over 24 hours +35°C

Min. value of the ambient temperature - 25°C  
(class "minus 25 Outdoor")

### Technical description

#### General

The disconnectors and earthing devices are able to carry its rated short time and rated withstand current according to the data as the type plate. The base frames of the switches are hot-dip galvanized. The main contact system is made of electrolytic copper and the surface is silver plated acc. to QTL 0200.

Rustproof pressure springs maintain the required contact force over the whole mechanical life.

#### Equipments

Basically all DRIESCHER disconnectors and earthing devices are equipped with a continuous operating shaft ( $\varnothing=30$  mm).

This enables the optional mounting of the drive on the left or right side.

The disconnector switches with a rated current of 2500 A and more, have contact elements with self lubricating coat silver-graphite on the impact side.

## DRIESCHER - 3-pole Outdoor Earthing Devices

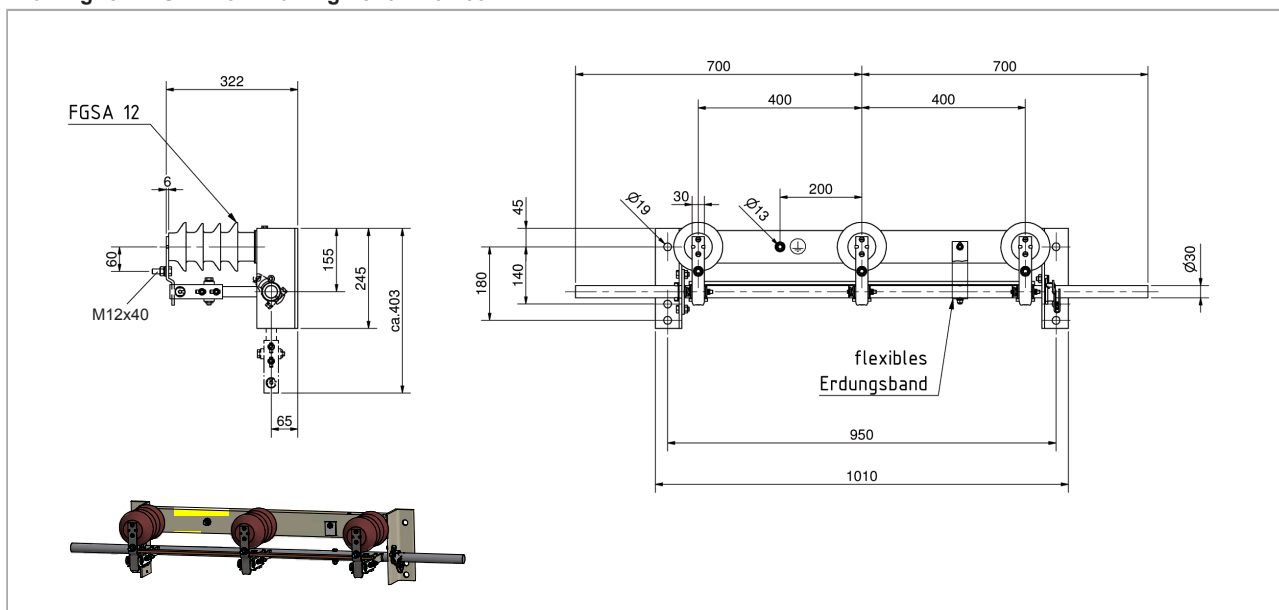
### 3-pole Outdoor Earthing Devices Type FES 12-.. ; (Ur 12 kV)

| Type                                    |       | FES 12-20   | FES 12-31,5 |
|-----------------------------------------|-------|-------------|-------------|
| Rated voltage                           | $U_r$ | 12 kV       | 12 kV       |
| Rated frequency                         | $f_r$ | 50 Hz       | 50 Hz       |
| Rated short time current                | $I_k$ | 20 kA       | 31,5 kA     |
| Rated duration of short-time circuit    | $t_k$ | 3 s         | 3 s         |
| Rated peak withstand current            | $I_p$ | 50 kA       | 80 kA       |
| Rated impulse withstand voltage         | $U_p$ |             |             |
| - Phase to Earth                        |       | 75 kV       | 75 kV       |
| Rated power frequency withstand voltage | $U_d$ |             |             |
| - Phase to Earth                        |       | 28 kV       | 28 kV       |
| Weight approx.                          |       | 31 kg       | 33 kg       |
| Pollution degree of the insulator       |       | PD 3        | PD 3        |
| Electrical class                        |       | E0          | E0          |
| Drawing no.                             |       | FT3-44202/1 | FT3-108395  |
| Part no.                                |       | 2-75314304  | 2-75314400  |

**Accessories:** • auxiliary switch  
• motor drive UM 90

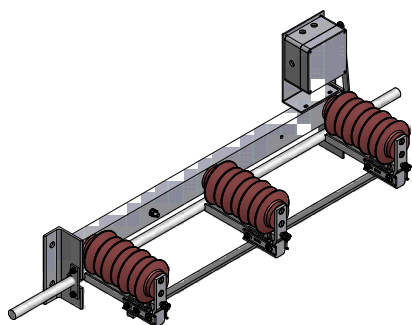
**All switches are available with higher pollution degree on request!**

Drawing for FES 12-20 / Drawing no. 044202-001



## DRIESCHER - 3-pole Outdoor Earthing Devices

### 3-pole Outdoor Earthing Devices Type FES 24-.. ; (Ur 24 kV)



FES 24-31,5

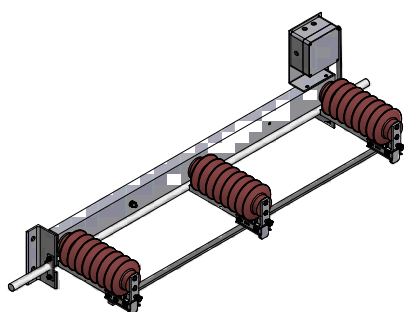
| Type                                    |       | FES 24-20   | FES 24-31,5 | FES 24-63   |
|-----------------------------------------|-------|-------------|-------------|-------------|
| Rated voltage                           | $U_r$ | 24 kV       | 24 kV       | 24 kV       |
| Rated frequency                         | $f_r$ | 50 Hz       | 50 Hz       | 50 Hz       |
| Rated short time current                | $I_k$ | 20 kA       | 31,5 kA     | 63 kA       |
| Rated duration of short-time circuit    | $t_k$ | 3 s         | 3 s         | 1 s         |
| Rated peak withstand current            | $I_p$ | 50 kA       | 80 kA       | 160 kA      |
| Rated impulse withstand voltage         | $U_p$ |             |             |             |
| - Phase to Earth                        |       | 125 kV      | 125 kV      | 125 kV      |
| Rated power frequency withstand voltage | $U_d$ |             |             |             |
| - Phase to Earth                        |       | 50 kV       | 50 kV       | 50 kV       |
| Weight approx.                          |       | 37 kg       | 46 kg       | 49 kg       |
| Pollution degree of the insulator       |       | PD 3        | PD 3        | PD 3        |
| Electrical class                        |       | E0          | E0          | E0          |
| Drawing no.                             |       | FT3-44202/5 | FT3-108050  | FT3-44203/5 |
| Part no.                                |       | 2-75344305  | 2-75344405  | 2-75344605  |

**Accessories:**

- auxiliary switch
- motor drive UM 90

**All switches are available with higher pollution degree on request!**

### 3-pole Outdoor Earthing Devices Type FES 38,5-.. ; (Ur 38,5 kV)



FES 38,5-31,5

| Type                                    |       | FES 38,5-20 | FES 38,5-31,5 | FES 38,5-63 |
|-----------------------------------------|-------|-------------|---------------|-------------|
| Rated voltage                           | $U_r$ | 38,5 kV     | 38,5 kV       | 38,5 kV     |
| Rated frequency                         | $f_r$ | 50 Hz       | 50 Hz         | 50 / 60 Hz  |
| Rated short time current                | $I_k$ | 20 kA       | 31,5 kA       | 63 kA       |
| Rated duration of short-time circuit    | $t_k$ | 3 s         | 3 s           | 1 s         |
| Rated peak withstand current            | $I_p$ | 50 kA       | 80 kA         | 160 kA      |
| Rated impulse withstand voltage         | $U_p$ |             |               |             |
| - Phase to Earth                        |       | 180 kV      | 180 kV        | 250 kV      |
| Rated power frequency withstand voltage | $U_d$ |             |               |             |
| - Phase to Earth                        |       | 80 kV       | 80 kV         | 80 kV       |
| Weight approx.                          |       | 56 kg       | 65 kg         | 80 kg       |
| Pollution degree of the insulator       |       | PD 3        | PD 3          | PD 3        |
| Electrical class                        |       | E0          | E0            | E0          |
| Drawing no.                             |       | FT3-44202/9 | FT3-108051    | 124654-002  |
| Part no.                                |       | 2-75374307  | 2-75374408    | 2-75374476  |

**Accessories:**

- auxiliary switch
- motor drive UM 90

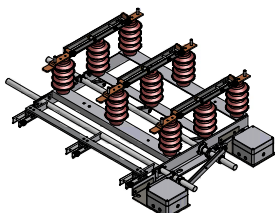
**All switches are available with higher pollution degree on request!**

## DRIESCHER - 3-pole Outdoor Disconnectors

### 3-pol. Outdoor Disconnector Type FTr 12-..... ; (Ur 12 kV)

| Type                                    |       | FTr 12-630-25 | FTr 12-1600-40 | FTr 12-2500-40 | FTr 12-4000-40 |
|-----------------------------------------|-------|---------------|----------------|----------------|----------------|
| Rated voltage                           | $U_r$ | 12 kV         | 12 kV          | 12 kV          | 12 kV          |
| Rated frequency                         | $f_r$ | 50 Hz         | 50 Hz          | 50 Hz          | 50 Hz          |
| Rated current                           | $I_r$ | 630 A         | 1600 A         | 2500 A         | 4000 A         |
| Rated short time current                | $I_k$ | 25 kA         | 40 kA          | 40 kA          | 40 kA          |
| Rated duration of short-time circuit    | $t_k$ | 3 s           | 3 s            | 3 s            | 3 s            |
| Rated peak withstand current            | $I_p$ | 63 kA         | 100 kA         | 100 kA         | 100 kA         |
| Rated impulse withstand voltage         | $U_p$ |               |                |                |                |
| - Phase to Earth                        |       | 75 kV         | 75 kV          | 75 kV          | 75 kV          |
| - Across the Open Gap                   |       | 85 kV         | 85 kV          | 85 kV          | 85 kV          |
| Rated power frequency withstand voltage | $U_d$ |               |                |                |                |
| - Phase to Earth                        |       | 28 kV         | 28 kV          | 28 kV          | 28 kV          |
| - Across the Open Gap                   |       | 32 kV         | 32 kV          | 32 kV          | 32 kV          |
| Weight approx.                          |       | 45 kg         | 65 kg          | 100 kg         | 140 kg         |
| Mechanical life                         |       | M2            | M2             | M1             | M1             |
| Pollution degree of the insulator       |       | PD 3          | PD 3           | PD 3           | PD 3           |

All switches are available with higher pollution degree on request!

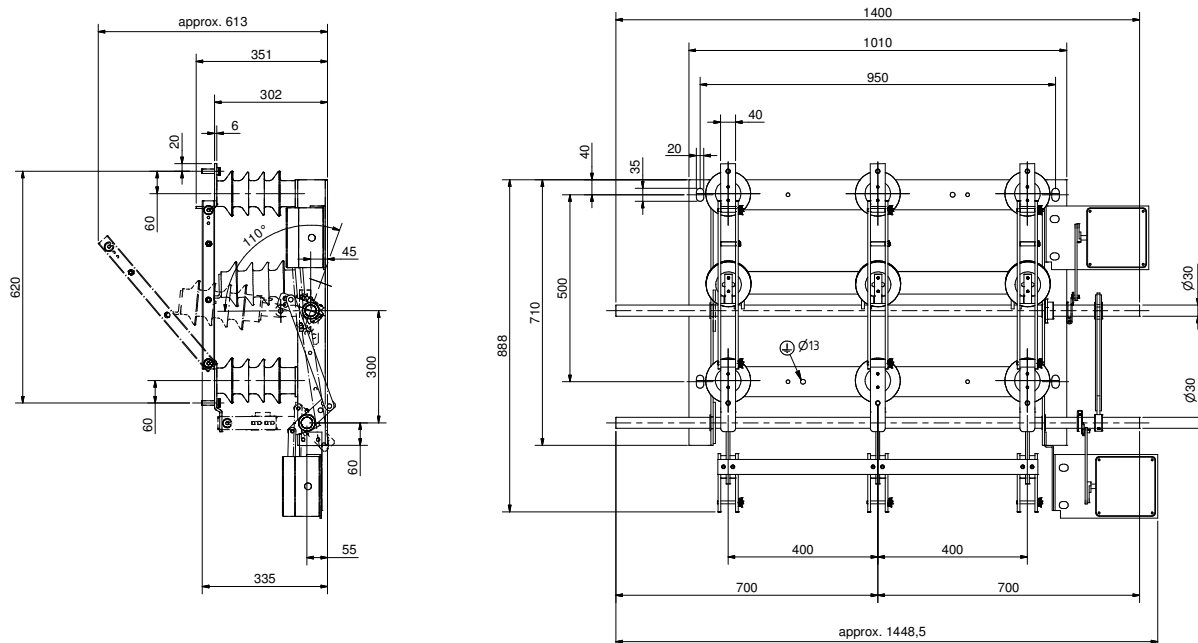


FTr 12-630-25

#### Accessories:

- auxiliary switches
- Motor drive UM 90
- earthing device automatically
- earthing device with mech. interlocking
- operating angle 90° suitable for vertical mounting
- operating angle 110° suitable for horizontal mounting

Drawing for FTr 12-630-25 / Drawing no. FT3-106943 horizontal mounting, operating angle 110°



Drawing for vertical mounting, operating angle 90° on request.

| Mounting type    | Disconnector | with earthing device below |
|------------------|--------------|----------------------------|
| vertical, 90°    | 2-75134023   | 2-75134123                 |
| horizontal, 110° | 2-75134026   | 2-75134126                 |











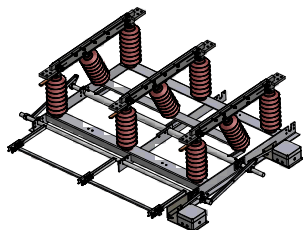
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## DRIESCHER - 3-pole Outdoor Disconnectors

### 3-pole Outdoor Disconnecter Type FTr 38,5-....-.. ; (Ur 38,5 kV)

| Type                                                |                | FTr 38,5-400-20 | FTr 38,5-630-25 | FTr 38,5-1600-31,5 | FTr 38,5-2500-40 | FTr 38,5-4000-40 |
|-----------------------------------------------------|----------------|-----------------|-----------------|--------------------|------------------|------------------|
| Rated voltage                                       | U <sub>r</sub> | 38,5 kV         | 38,5 kV         | 38,5 kV            | 38,5 kV          | 38,5 kV          |
| Rated frequency                                     | f <sub>r</sub> | 50 Hz           | 50 Hz           | 50 Hz              | 50 Hz            | 50 Hz            |
| Rated current                                       | I <sub>r</sub> | 400 A           | 630 A           | 1600 A             | 2500 A           | 4000 A           |
| Rated short time current                            | I <sub>k</sub> | 20 kA           | 25 kA           | 31,5 kA            | 40 kA            | 40 kA            |
| Rated duration of short-time circuit                | t <sub>k</sub> | 3 s             | 3 s             | 3 s                | 3 s              | 3 s              |
| Rated peak withstand current                        | I <sub>p</sub> | 50 kA           | 63 kA           | 80 kA              | 100 kA           | 100 kA           |
| Rated impulse withstand voltage                     | U <sub>p</sub> |                 |                 |                    |                  |                  |
| - Phase to Earth                                    |                | 180 kV          | 180 kV          | 180 kV             | 180 kV           | 180 kV           |
| - Across the Open Gap                               |                | 210 kV          | 210 kV          | 210 kV             | 210 kV           | 210 kV           |
| Rated power frequ. withstand voltage U <sub>d</sub> |                |                 |                 |                    |                  |                  |
| - Phase to Earth                                    |                | 80 kV           | 80 kV           | 80 kV              | 80 kV            | 80 kV            |
| - Across the Open Gap                               |                | 90 kV           | 90 kV           | 90 kV              | 90 kV            | 90 kV            |
| Weight approx.                                      |                | 105 kg          | 110 kg          | 150 kg             | 165 kg           | 165 kg           |
| Mechanical life                                     |                | M2              | M2              | M2                 | M1               | M1               |
| Pollution degree of the insulator                   |                | PD 3            | PD 3            | PD 3               | PD 3             | PD 3             |

**All switches are available with higher pollution degree on request!**

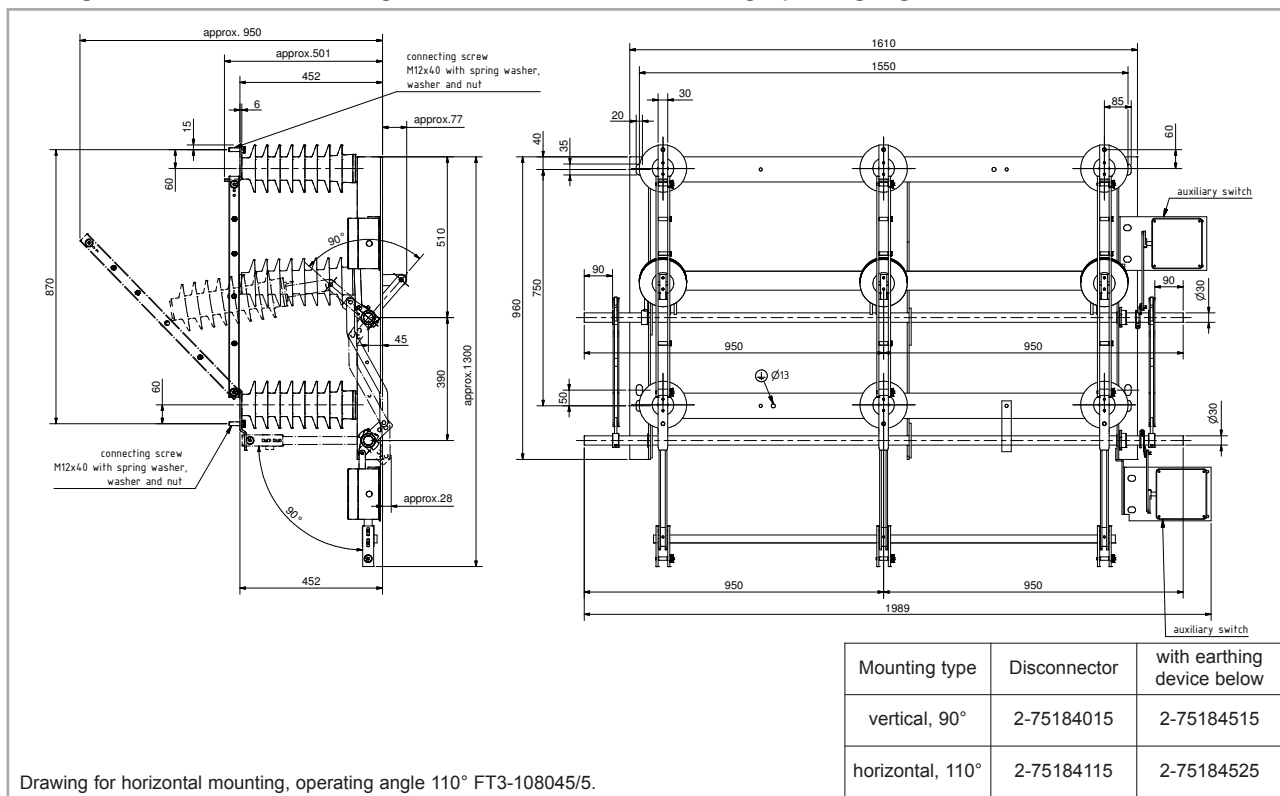


### Accessories:

- auxiliary switches
- Motor drive UM 90
- earthing device automatically
- earthing device with mech. interlocking
- operating angle 90° suitable for vertical mounting
- operating angle 110° suitable for horizontal mounting

FTTr 38,5-2500-40

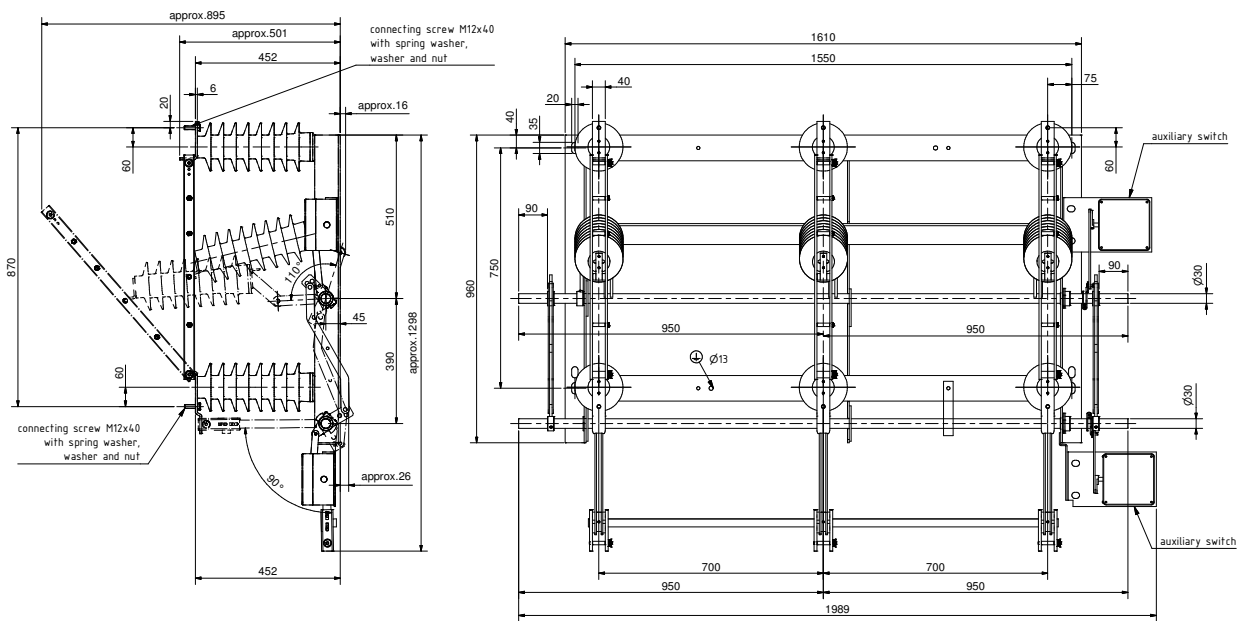
**Drawing for FTr 38,5-400-20 / Drawing no. FT3-106367/5 vertical mounting, operating angle 90°**



## DRIESCHER - 3-pole Outdoor Disconnectors

### 3-pole Outdoor Disconnector Type FTr 38,5-....-.. ; (Ur 38,5 kV)

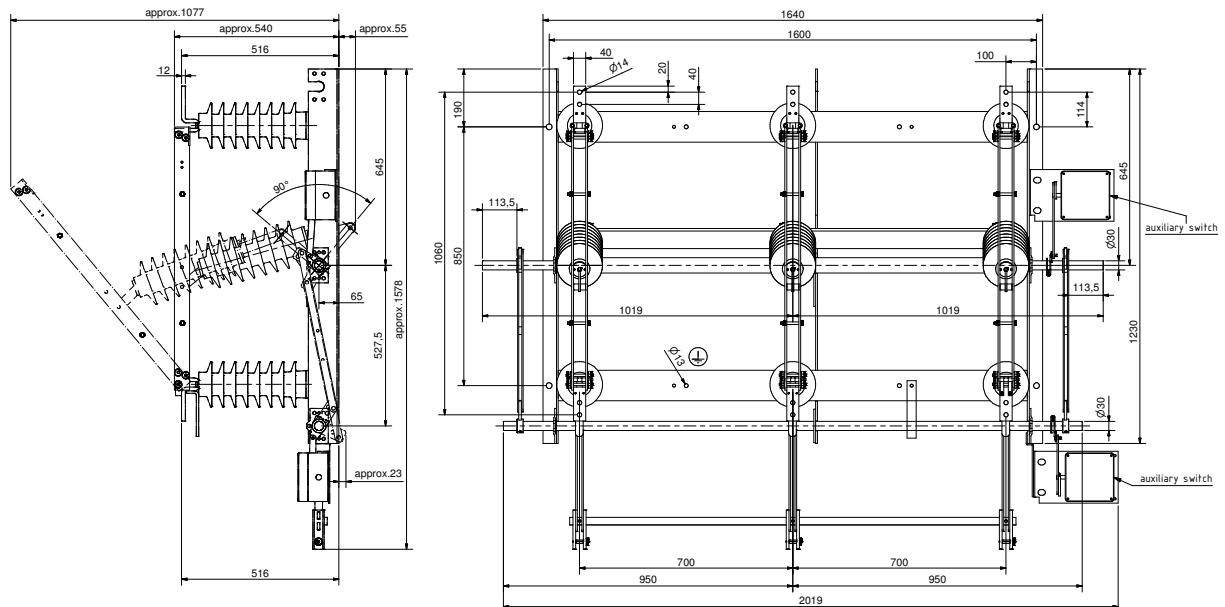
Drawing for FTr 38,5-630-25 / Drawing no. FT3-106942/5 horizontal mounting, operating angle 110°



| Mounting type    | Disconnector | with earthing device below |
|------------------|--------------|----------------------------|
| vertical, 90°    | 2-75194015   | 2-75194515                 |
| horizontal, 110° | 2-75194115   | 2-75194525                 |

Drawing for vertical mounting, operating angle 90° FT3-106368/5.

Drawing for FTr 38,5-1600-31,5 / Drawing no. FT3-106795/5 vertical mounting, operating angle 90°



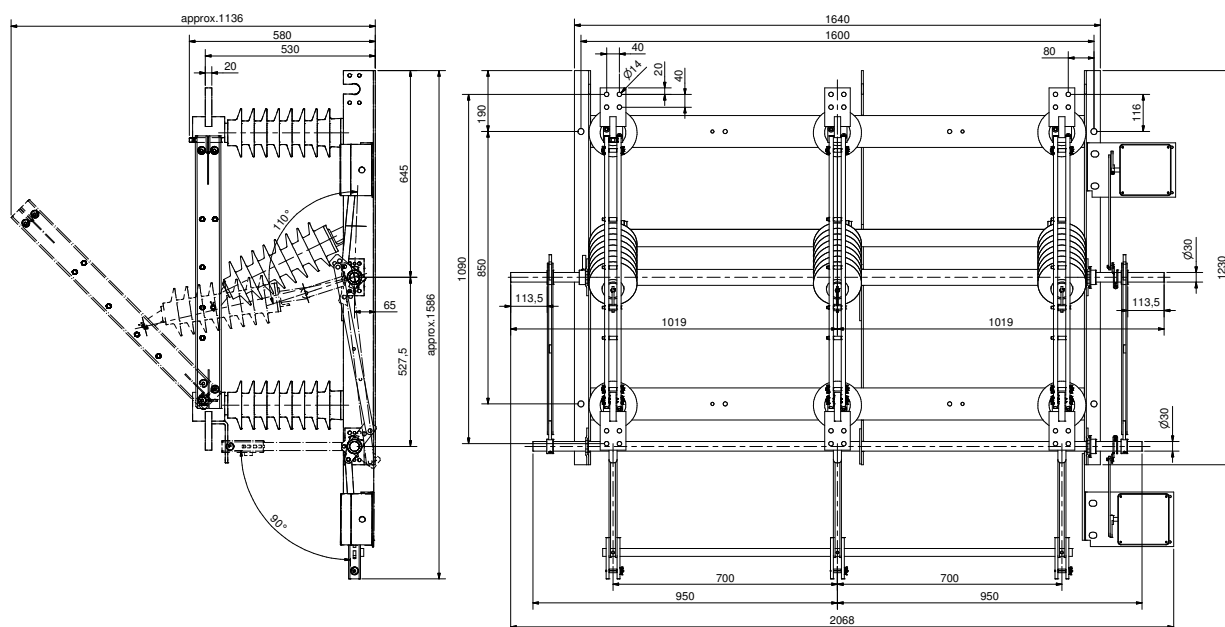
| Mounting type    | Disconnector | with earthing device below |
|------------------|--------------|----------------------------|
| vertical, 90°    | 2-75632100   | 2-75632500                 |
| horizontal, 110° | 2-75632900   | 2-75632905                 |

Drawing for horizontal mounting, operating angle 110° FT3-105585/5.

## DRIESCHER - 3-pole Outdoor Disconnectors

### 3-pole Outdoor Disconnector Type FTr 38,5-....-40 ; (Ur 38,5 kV)

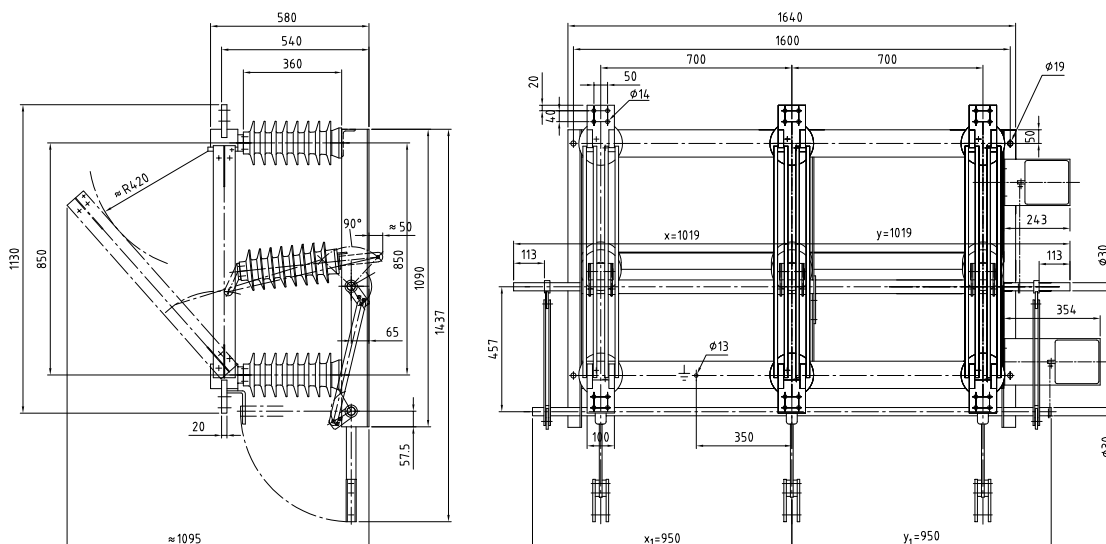
Drawing for FTr 38,5-2500-40 / Drawing no. FT3-107278/5 horizontal mounting, operating angle 110°



Drawing for vertical mounting, operating angle 90° FT3-106369/5.

| Mounting type    | Disconnector | with earthing device below |
|------------------|--------------|----------------------------|
| vertical, 90°    | 2-75633000   | 2-75633005                 |
| horizontal, 110° | 2-75633100   | 2-75633105                 |

Drawing for FTr 38,5-4000-40 / Drawing no. FT3-098171 vertical mounting, operating angle 90°



| Mounting type    | Disconnector | with earthing device below |
|------------------|--------------|----------------------------|
| vertical, 90°    | 2-75634000   | 2-75633900                 |
| horizontal, 110° | 2-75634010   | 2-75634020                 |

## DRIESCHER - 3-pole Outdoor-Fuse-Disconnectors

### 3-pole Outdoor-Fuse-Disconnecter Type FTr ..-400-20-SU ; (Ur 24 kV a. 38,5 kV)

| Type                                    |       | FTr 24-400-20-SU | FTr 38,5-400-20-SU |
|-----------------------------------------|-------|------------------|--------------------|
| Rated voltage                           | $U_r$ | 24 kV            | 38,5 kV            |
| Rated frequency                         | $f_r$ | 50 Hz            | 50 Hz              |
| Rated current                           | $I_r$ | 400/125 A        | 400/125 A          |
| Rated short time current                | $I_k$ | 20 kA            | 20 kA              |
| Rated duration of short-time circuit    | $t_k$ | 3 s              | 3 s                |
| Rated peak withstand current            | $I_p$ | 50 kA            | 50 kA              |
| Rated impulse withstand voltage         | $U_p$ |                  |                    |
| - Phase to Earth                        |       | 125 kV           | 180 kV             |
| - Across the Open Gap                   |       | 145 kV           | 210 kV             |
| Rated power frequency withstand voltage | $U_d$ |                  |                    |
| - Phase to Earth                        |       | 50 kV            | 80 kV              |
| - Across the Open Gap                   |       | 60 kV            | 90 kV              |
| Weight approx.                          |       | 80 kg            | 125 kg             |
| Mechanical life                         |       | M2               | M2                 |
| Pollution degree of the insulator       |       | PD 3             | PD 3               |

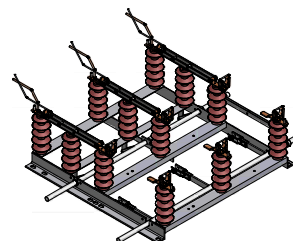
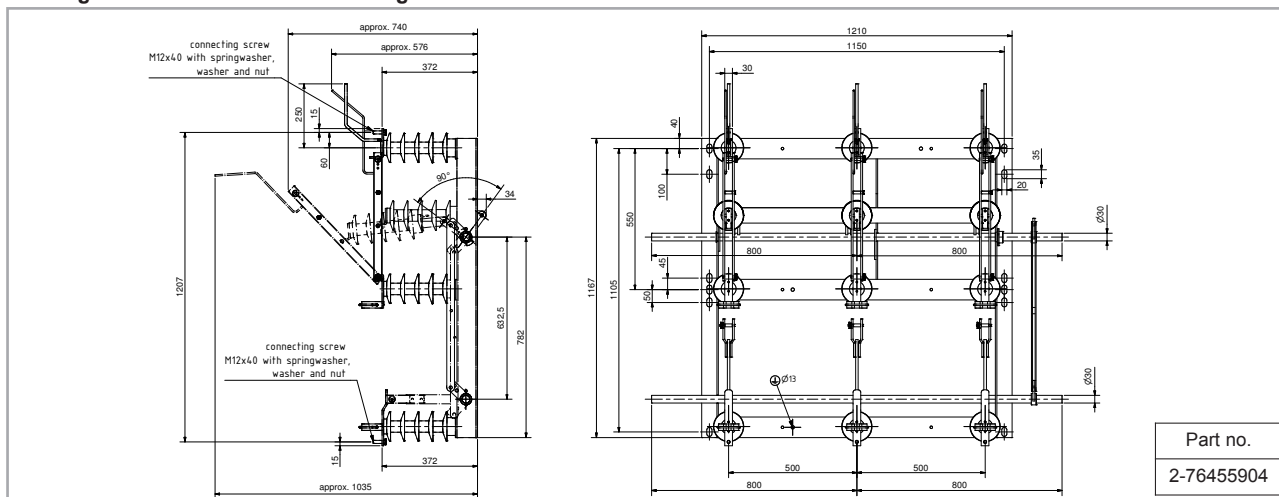


Fig.: FTr 24-400-20-SU

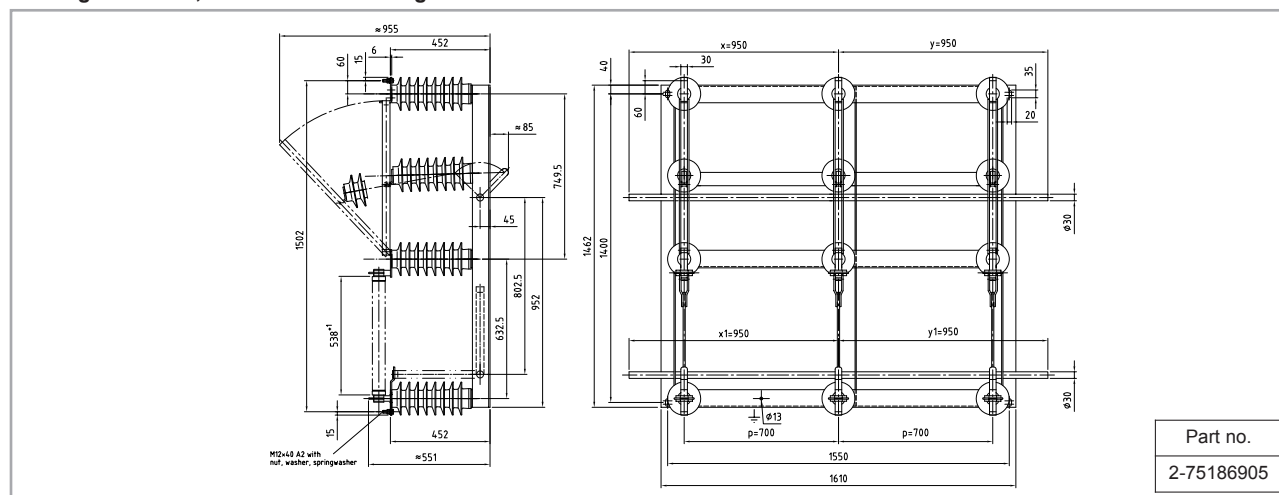
#### Accessories:

- auxiliary switches
- Motor actuator UM 90
- earthing device automatically
- earthing device with mech. interlocking
- fuse base up to 200 A rated current
- spark arcing horns
- h.v.h.b.c. fuses
- operating angle 90° suitable for vertical mounting

Drawing for FTr 24-400-20-SU / Drawing no. FT3-106785



Drawing for FTr 38,5-400-20-SU / Drawing no. FT3-107506



## DRIESCHER - 1-pole Outdoor Disconnectors

### 1-pole Outdoor Disconnector Type FTTr ...-...-...-1 ; (Ur 12 kV- 38,5 kV; Ir 630 a. 1600 A)

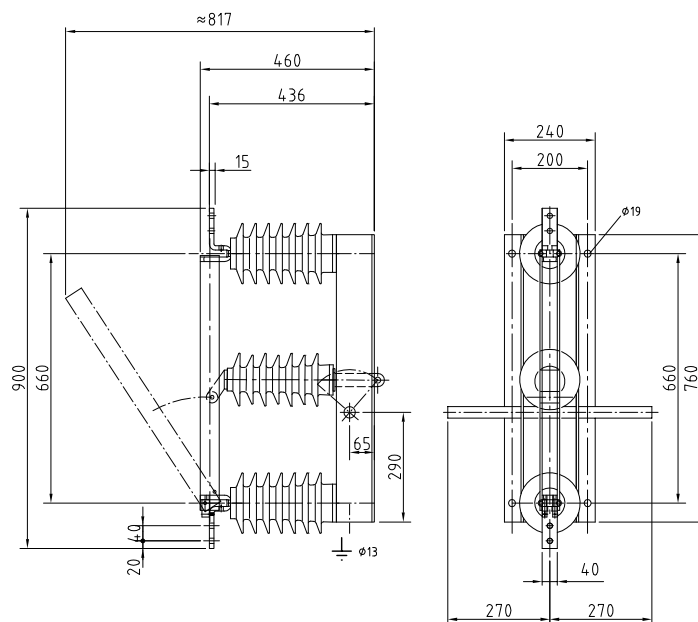
| Type                                    |       | FTTr 12-630-25-1  | FTTr 24-630-25-1  | FTTr 24-1600-40-1 | FTTr 38,5-630-25-1  |
|-----------------------------------------|-------|-------------------|-------------------|-------------------|---------------------|
| Rated voltage                           | $U_r$ | 12/ $\sqrt{3}$ kV | 24/ $\sqrt{3}$ kV | 24/ $\sqrt{3}$ kV | 38,5/ $\sqrt{3}$ kV |
| Rated frequency                         | $f_r$ | 50 Hz             | 50 Hz             | 50 Hz             | 50 Hz               |
| Rated current                           | $I_r$ | 630 A             | 630 A             | 1600 A            | 630 A               |
| Rated short time current                | $I_k$ | 25 kA             | 25 kA             | 40 kA             | 25 kA               |
| Rated duration of short-time circuit    | $t_k$ | 3 s               | 3 s               | 3 s               | 3 s                 |
| Rated peak withstand current            | $I_p$ | 63 kA             | 63 kA             | 100 kA            | 63 kA               |
| Rated impulse withstand voltage         | $U_p$ |                   |                   |                   |                     |
| - Phase to Earth                        |       | 75 kV             | 125 kV            | 125 kV            | 180 kV              |
| - Across the Open Gap                   |       | 85 kV             | 145 kV            | 145 kV            | 210 kV              |
| Rated power frequency withstand voltage | $U_d$ |                   |                   |                   |                     |
| - Phase to Earth                        |       | 28 kV             | 50 kV             | 50 kV             | 80 kV               |
| - Across the Open Gap                   |       | 32 kV             | 60 kV             | 60 kV             | 90 kV               |
| Weight approx.                          |       | 12 kg             | 25 kg             | 42 kg             | 38 kg               |
| Mechanical life                         |       | M2                | M2                | M2                | M2                  |
| Pollution degree of the insulator       |       | PD 3              | PD 3              | PD 3              | PD 3                |

All switches are available with higher pollution degree on request!

#### Accessories:

- auxiliary switches
- Motor drive UM 90
- earthing device automatically
- earthing device with mech. interlocking
- operating angle 90° suitable for vertical mounting
- operating angle 110° suitable for horizontal mounting
- technical data of the earthing device 1s up to  $I_k$  31,5 kA

Drawing for FTTr 24-1600-40-1 / Drawing no. FT4-093647 vertical mounting, operating angle 90°



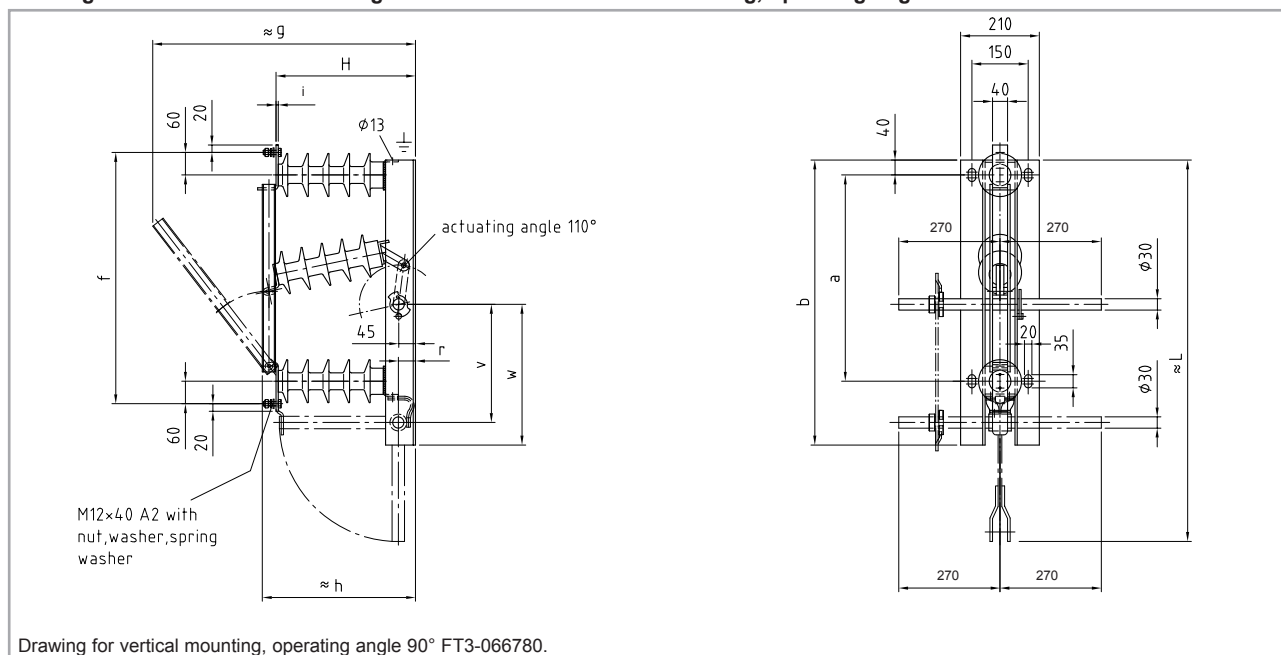
| Mounting type    | Disconnector | with earthing device below |
|------------------|--------------|----------------------------|
| vertical, 90°    | 2-75671000   | 2-75671005                 |
| horizontal, 110° | 2-75671008   | 2-75671505                 |

Drawing for horizontal mounting, operating angle 110° FT3-094444.

## DRIESCHER - 1-pole Outdoor Disconnectors

### 1-pole Outdoor Disconnector Type FTr ...-630-25-1 ; (Ur 12 kV- 38,5 kV; Ir 630 A)

Drawing for FTr ...-630-25-1 / Drawing no. FT3-059090 horizontal mounting, operating angle 110°



| Type              | Rated voltage | Rated current | a   | b   | f   | ≈g  | ≈h  | H   | i | ≈L   | r  | v   | w   | Drawing-no. |
|-------------------|---------------|---------------|-----|-----|-----|-----|-----|-----|---|------|----|-----|-----|-------------|
| FTr 12-630-25-1   | 12/√3 kV      | 630 A         | 500 | 710 | 620 | 596 | 338 | 302 | 6 | 887  | 55 | 300 | 360 | FT3-059090  |
| FTr 24-630-25-1   | 24/√3 kV      | 630 A         | 550 | 760 | 670 | 720 | 408 | 372 | 6 | 1017 | 45 | 315 | 375 | FT3-059090  |
| FTr 38,5-630-25-1 | 38,5/√3 kV    | 630 A         | 750 | 960 | 870 | 925 | 488 | 452 | 6 | 1297 | 45 | 430 | 490 | FT3-059090  |

#### Vertical mounting, 90°

#### Horizontal mounting, 110°

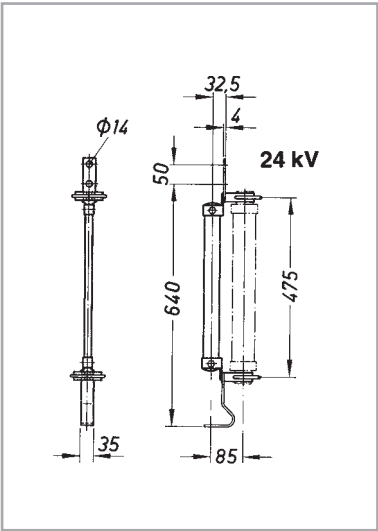
| Type              | Part-no<br>Disconnector | Part-no<br>with earthing<br>device below | Part-no<br>Disconnector | Part-no<br>with earthing<br>device below |
|-------------------|-------------------------|------------------------------------------|-------------------------|------------------------------------------|
| FTr 12-630-25-1   | 2-75132002              | 2-75132102                               | 2-75132902              | 2-75132508                               |
| FTr 24-630-25-1   | 2-75162002              | 2-75162502                               | 2-75162902              | 2-75162508                               |
| FTr 38,5-630-25-1 | 2-75192002              | 2-75192102                               | 2-75192902              | 2-75192508                               |



DRIESCHER - 1-pole Outdoor Fuse Holders

1-pole Outdoor Fuse Base

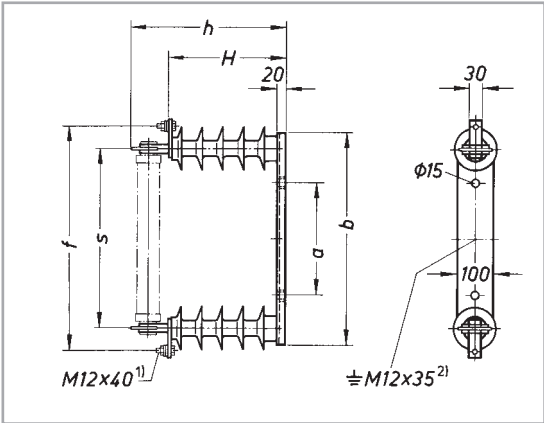
for h.v.h.b.c. fuse-links up to 125 A rated current for direct mounting on the transformer bushing



| Rated voltage | Part-no.  | Weight approx. kg | Drawing-no. |
|---------------|-----------|-------------------|-------------|
| 24 kV         | 752 40001 | 3                 | FT4-17281/2 |

1-pole Outdoor Fuse Holders

for h.v.h.b.c. fuse-links up to 125 A rated current



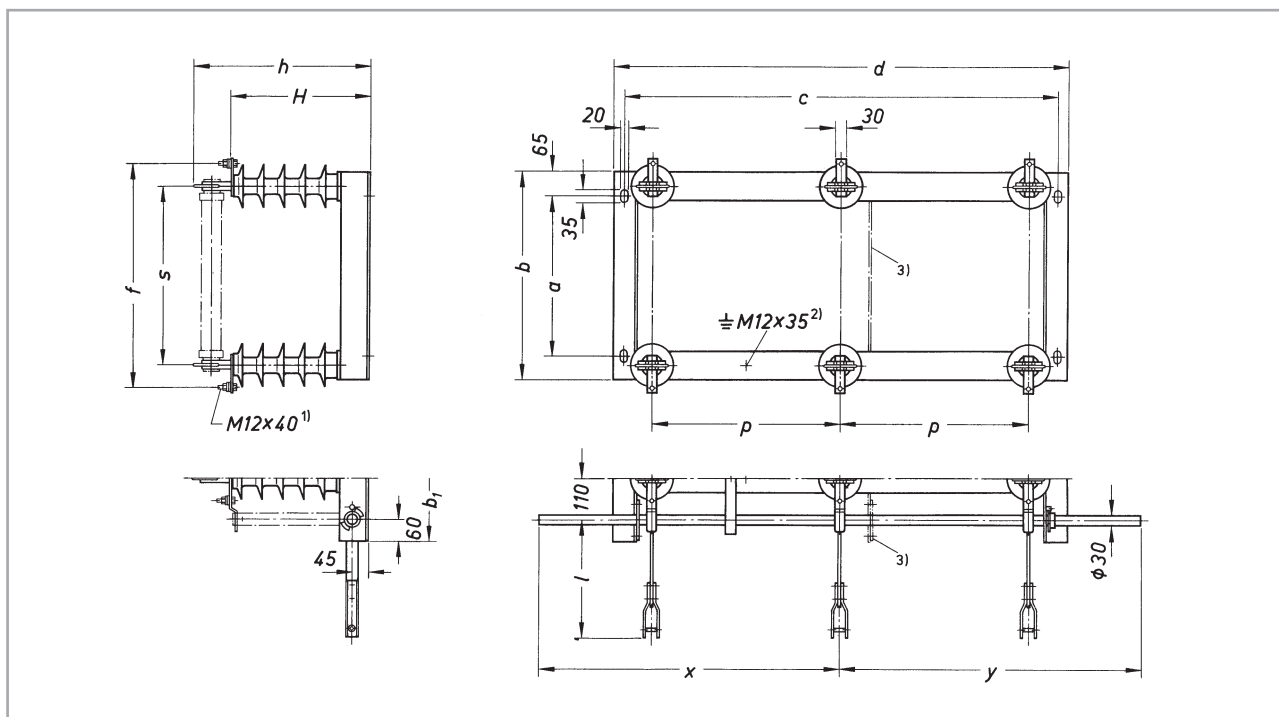
- 1) Hexagon head screw with nut, washer and spring washer  
2) Hexagon head screw with nut, washer and spring washer

| Rated voltage | Part-no.  | a   | b   | f   | ≈ h | ≈ H | s   | Weight approx. kg | Drawing-no. |
|---------------|-----------|-----|-----|-----|-----|-----|-----|-------------------|-------------|
| 12 kV         | 752 12001 | 180 | 405 | 445 | 335 | 236 | 325 | 8                 | FT4-5092/1  |
| 24 kV         | 752 42001 | 300 | 565 | 595 | 405 | 306 | 475 | 8                 | FT4-5092/2  |
| 36 kV         | 752 72001 | 380 | 670 | 690 | 485 | 386 | 570 | 17                | FT4-5092/3  |

## DRIESCHER - 3-pole Outdoor Fuse Holders

### 3-pole Outdoor Fuse Holders

for h.v.h.b.c. fuse-links up to 125 A rated current



1) Hexagon head screw with nut, washer and spring washer

2) Hexagon head screw with nut, washer and spring washer

3) Strut and supporting bearing only for 36 kV with mounted earthing device

#### • without earthing device

| Rated voltage | Part-no.  | p   | a   | b   | c    | d    | f   | h   | H   | s   | Weight approx. kg | Drawing-no. |
|---------------|-----------|-----|-----|-----|------|------|-----|-----|-----|-----|-------------------|-------------|
| 24 kV         | 752 44003 | 500 | 425 | 555 | 1150 | 1210 | 595 | 471 | 372 | 475 | 33                | FT3-7156/2  |
| 36 kV         | 752 74004 | 700 | 520 | 650 | 1550 | 1610 | 690 | 551 | 452 | 570 | 63                | FT3-7156/5  |

#### • with earthing device

| Rated voltage | Part-no.  | p   | a   | b   | b <sub>1</sub> | c    | d    | f   | h   | H   | l   | s   | x/y | Weight approx. kg | Drawing-no. |
|---------------|-----------|-----|-----|-----|----------------|------|------|-----|-----|-----|-----|-----|-----|-------------------|-------------|
| 24 kV         | 752 44103 | 500 | 425 | 555 | 685            | 1150 | 1210 | 595 | 471 | 372 | 317 | 475 | 800 | 49                | FT3-7156/11 |
| 36 kV         | 752 74104 | 700 | 520 | 650 | 780            | 1550 | 1610 | 690 | 551 | 452 | 397 | 570 | 950 | 80                | FT3-7156/12 |

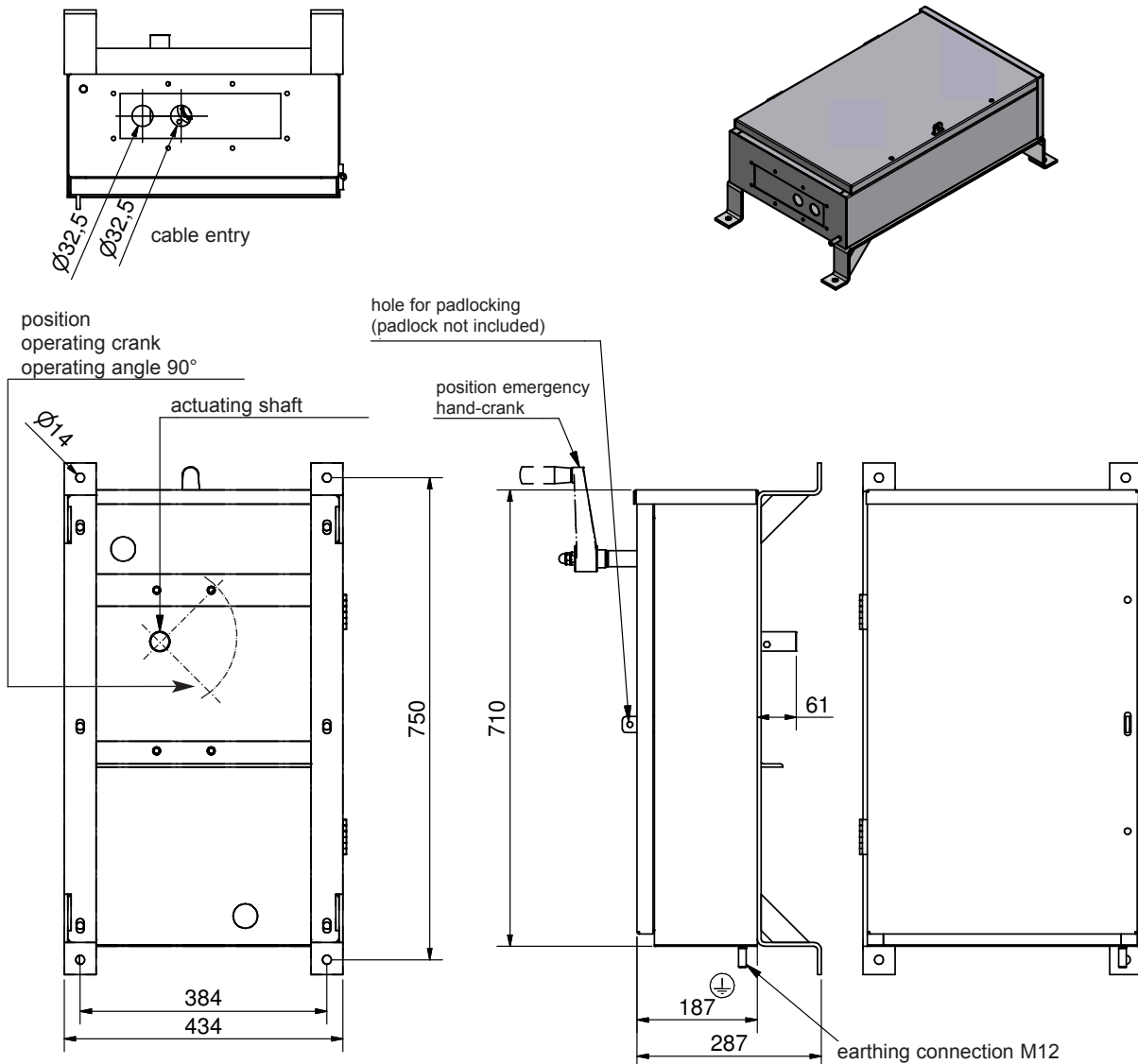
## DRIESCHER - Outdoor Universal Motor drive type UM 90

### Outdoor Universal Motor drive type UM 90

Stainless steel or aluminium case encapsulated; protection class IP 55; according drawing AZ4-107886; max. torque 350 Nm; total weight approx. 40 kg, exactly data in *brochure 776*.

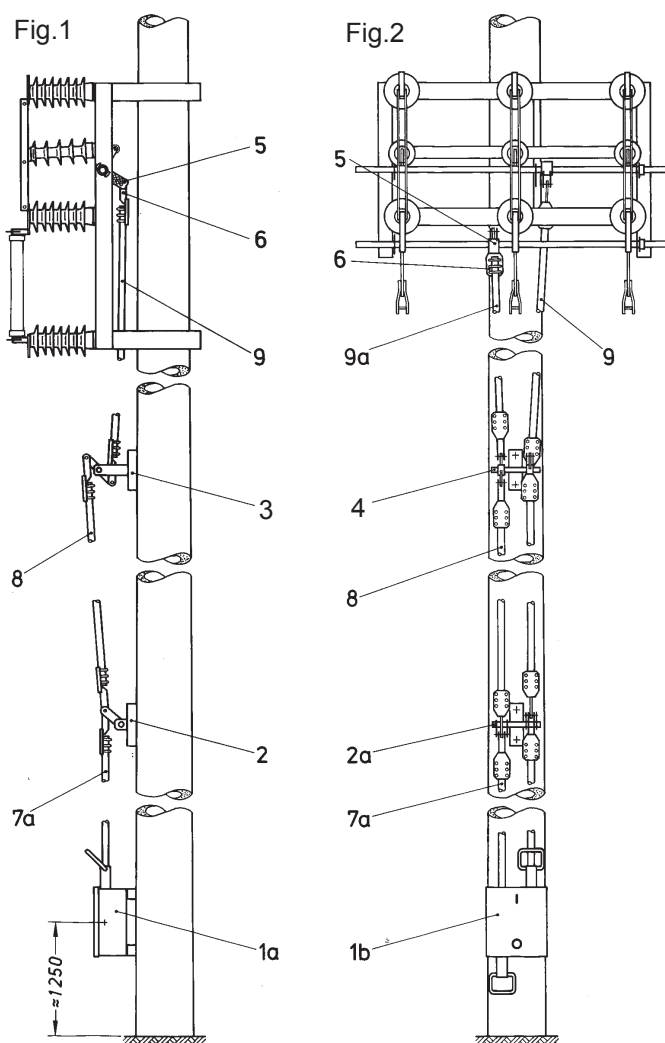
#### Possible Equipment:

- Operating angle 90°
- for DC, alternatively 24 V, 60 V, 110 V or 220 V
- for AC, alternatively 110 V, 230 V
- Contactor, Motor protecting switch, auxilliary switches
- heating 230V AC, 60 W, with temperatur regulator and hygrostat
- key interlocked remote control (local / OFF / remote)
- ON/OFF button for local operation
- Signalling switch for the door position
- auxilliary relays for supervision of voltage
- Signalling switch for interrupting motor voltage for emergency hand operation
- terminal blocks
- brass or plastic cups to seal the hole for cable entrance
- In compliance attached circuit diagramm EM3B 066A D121 06C
- emergency handcrank with slipping clutch part-no. 2-77601001, drawing AZ4-036348



## DRIESCHER - 3-pole Outdoor Disconnectors

### Arrangement of manual drives for Outdoor Disconnector



#### Figure

1. Outdoor disconnector with fuse holders mounted below, with single drive
2. Outdoor disconnector with earthing device mounted below, with double drive

#### Item

- |                                                              |                                                                                    |
|--------------------------------------------------------------|------------------------------------------------------------------------------------|
| 1a Single box-type actuator AZ4-7530/1, stroke 110 or 140 mm | 5 Forked clamping crank AZ3-9610/1 (gauge from 73 to 132.5 mm; hole matrix 8.5 mm) |
| 1b Double box-type actuator AZ4-7530/2**                     | 6 Single rod head AZ3-9609/7 (with link bush)                                      |
| 2 Single intermediate bearing AZ3-15936/1                    | 7 Lower linkage rod, with bearing bush                                             |
| 2a Double intermediate bearing AZ3-15936/2                   | 8 Linkage rod                                                                      |
| 3 Single reversible bearing AZ3-17130/1                      | 9 Upper linkage rod for disconnecting switch or load-break switch                  |
| 4 Double reversible bearing AZ3-17130/2                      | 9a Upper linkage rod for earthing switch                                           |
- \*) Stroke settable to 110 or 140 mm.  
Earthing device operating lever (left-hand lever) mechanically locked to the disconnecting switch operating lever. Drawing no. AZ4-38848

## DRIESCHER - 3-pole Outdoor Disconnectors and Earthing Devices

### Examples mounted on motor drives

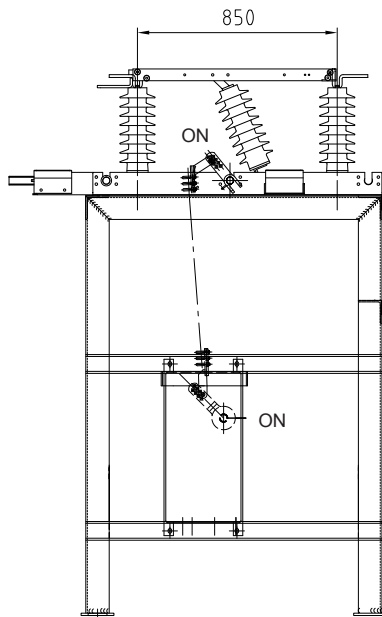
All disconnectors and earthing devices can be equipped with motor drives UM 90.

Here the type of mounting must be taken into account, as there are different types of actuators available.

Exact details about the application can be seen in the brochure 776 for actuators.

Example for horizontal mounting, 110° operating angle

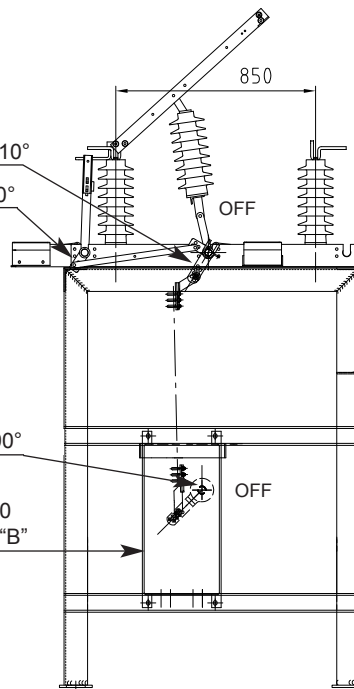
motor operated  
acc. to AZ3-107611



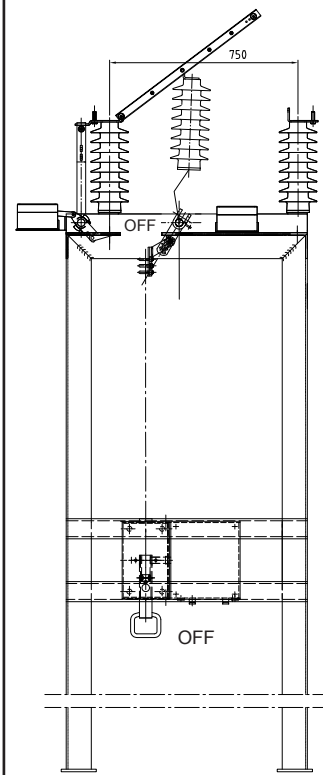
operating angle 110°  
operating angle 90°

operating angle 90°

motor drive UM 90  
sense of rotation "B"



manuell operated  
acc. to AZ2-107612



Dimensions, weights, diagrams and descriptions in this brochure are non-binding. Subject to change without notice.

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