

DRIESCHER - Air-Insulated Medium-Voltage Switchgears

- Type W 36 - 121526
- Rated voltage 36 kV
- Rated current 630 A / 1250 A



W 36

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DRIESCHER - 36 kV Switch Panels

in compliance with EN 62271-200

• 2

General, Operating Conditions, Technical Standards

• 3

Technical Data, Description of Switch Panels

• 4

Panel Variants W 36 - 121526

• 5

Panel Drawings

• 8

Insulating protective barriers, Auxiliary Equipment, Weights, Benefits

General

The compartment-type air-insulated medium-voltage switchgears of Type W 36 are used by our customers whenever a high security of supply has to be guaranteed and also for ensuring operator safety and operating convenience.

These medium-voltage switchgears are able to meet the specific user requirements in full and provide a satisfactory power distribution. With a switch panel width of 1200 mm it is possible, at a rated voltage of

36 kV, to omit the use of phase separator plates.

The main dimensions of the panels are W x D x H: 1200 x 1500 x 2600 mm.

These are delivered in the form of individual panels where the electrical equipment, panel order etc. can be determined by the customer.

Operating Conditions

The switch panels of type W 36 are installed in closed electrical operating areas which are only to be entered by skilled personnel and appropriately instructed persons.

The installation can be implemented up to an altitude of 1000 m above sea level.

For installations above an altitude of 1000 m the rated insulating level of the switchgear must be corrected accordingly. The switch panels are designed for use under normal operating conditions in compliance with EN 62271-1.

Technical Standards

The design of the air-insulated switch panels corresponds to the specifications of the EN 62271-200. The resistance to accidental arcs of the switch panels has been determined at 16 kA; 1 s by an independent testing institute. The installed switchgear electrical equipment are designed in compliance with EN 62271-1.

The degree of protection of the switch panels corresponds to IP 3x.

For technical data on the installed switchgear equipment please refer to our brochures:

- for switch-disconnector H 22 see 722
- for earthing and disconnecting switches see 731
- for circuit breakers see 747

Technical Data

Rated voltage	U_r 36 kV	Rated short-time current	I_k 16/(20) kA
Rated lightning impulse withstand voltage	U_p 170 kV	Rated short-circuit duration	t_k 3 s
Rated short-time withstand voltage	U_d 70 kV	Permissible short-circuit duration with internal faults	1 s
Rated operating current	I_r 630/1250 A	Rated frequency	f_r 50 Hz

Technical data for the installed switchgear equipment	Rated (operating) current I_r	Rated short-time current I_k	Rated peak current I_p
Switch-disconnector H 22	630 A	16 kA	40 kA
Circuit breaker	630 A and 1250 A	20 kA	50 kA

Switch Panels

Design of switch panels

The switch panels of Type W 36 are of compartment-type design using fibrous glass reinforced plastic partition plates with lead-in openings. Connecting cables are introduced from below into the switch panels where they are attached to the provided fastening straps.

All built-in switchgear equipment can be manually operated with closed panel door.

The switch panel housing

The framework of the switch panels is of a welded angular steel design.

The switch panels are fitted with a single-wing door of solid steel plate with door hinge optionally on the right or on the left. A window of compound glass is inserted in the door.

The cover in front of the bus bar area is designed as a door for the relay box behind. This relay box has the dimensions W x D x H: 1200 x 350 x 822 mm and can be fitted with one or several protection relays, as required by the customer.

The corrosion protection of the framework, doors and covers as well as the end covers on the side of the switchgear is provided by structural paint (color RAL-in accordance with customer's request).

The partition of the busbar area bordering the next panel is in the form of fibrous glass reinforced plastic plates with lead-in openings.

Each switch panel has a bolted-on rear wall of galvanized sheet metal.

Pressure relief is in upward direction. It is possible to insert an insulating protective barrier (in compliance with DIN VDE 0682, Part 552) with the panel door closed.

Equipment

The switch panels of Type W 36 - 121526 can be designed as cable or transformer feeder panels or also as circuit-breaker switch panels.

For this purpose they are fitted with switch-disconnector or fuse-switch-disconnectors (Type H 22) to which a short-circuit-proof earthing switch with quick-make operation can optionally be attached.

Spherical fixed points are available as an alternative for earthing and short-circuiting.

Switch-disconnectors and earthing switches are mechanically interlocked, if so requested by the customer.

It is possible to install corresponding surge voltage protectors in the panel if required.

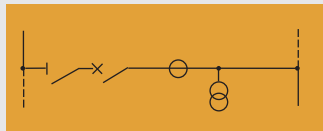
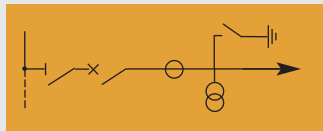
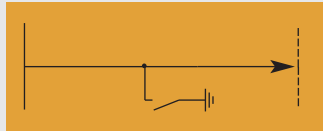
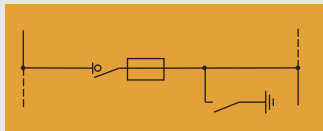
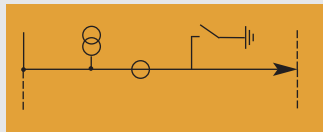
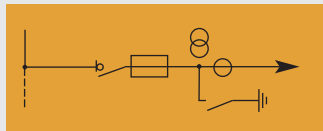
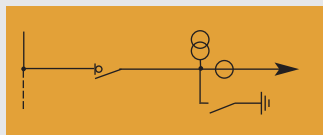
A special measuring panel equipped with current and voltage transformers completes the program.

Circuit-breaker panels are equipped with a bus isolator, a vacuum circuit-breaker as well as with a set of current transformers.

The equipment can be optionally supplemented with an earthing switch and a set of voltage transformers.

The interlocking conditions are in compliance with DIN VDE 0670, Part 6.

Air-Insulated Medium-Voltage Switch Panels 36 kV Type W 36 - 121526



Switch Panels Type W 36 - 121526	Cable switch panel (WK) Fig. 1, 2	Transformer feeder panel (WT) Fig. 3	Measuring panel (WM) Fig. 4	Bus sectionalizer panel (WÜ) Fig. 5	Riser panel (WH)	Circuit-breaker panel (WL) Fig. 6	Circuit-breaker feeder panel (WÜL) Fig. 7
Disconnecting switch	-	-	-	-	-		
Switch-disconnector / Circuit-breaker	H 22 EK/EA	H 22 SEA	-	H 22 EK/EA	-	V36 KUF/F-BK	V36 KUF/F-BK
Earthing switch							-
Current transformer		*		-	-		
Voltage transformer		*		-	-		-

= optional

- = not possible

* only possible with current or voltage transformer

Switch Panels Type W 36 - 121526

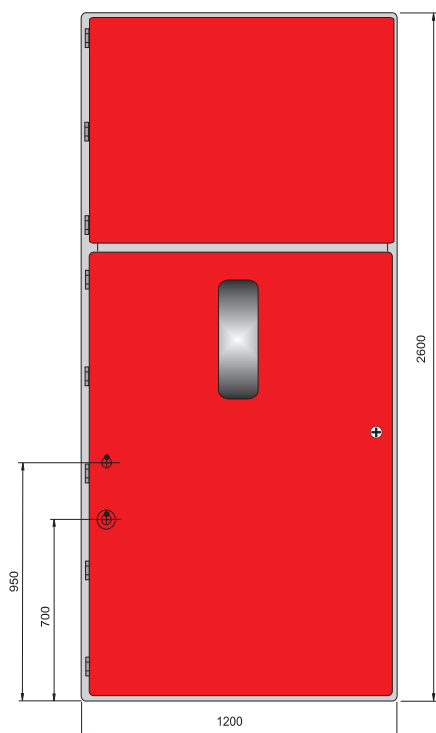


Fig. 1: 36 kV Switch panel

36 kV Switch-Disconnecter Panels

- Rated (operating) current 630 A
- Rated insulation level 170 kV
- Resistance to accidental arcs 16 kA; 1 s

36 kV Circuit-Breaker Panels

- Rated (operating) current 630 A / 1250 A
- Rated insulation level 170 kV
- Resistance to accidental arcs 16 kA (20 kA); 1 s

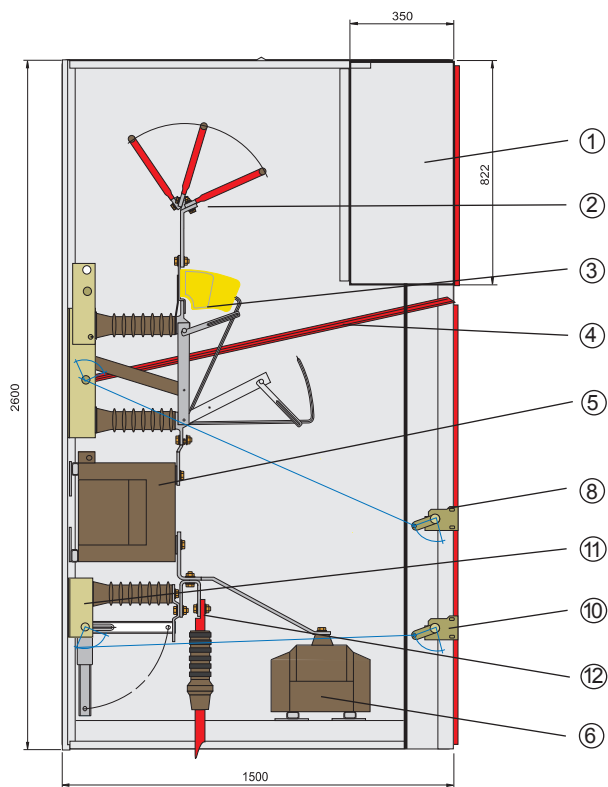


Fig. 2: 36 kV Cable panel

- ① Relay box
- ② Busbar connection
- ③ Switch-disconnector H 22
- ④ Insulating protective barrier *
- ⑤ Current transformer
- ⑥ Voltage transformer
- ⑦ Vacuum circuit-breaker
- ⑧ Operating and position indicator for switch-disconnector H 22
- ⑨ HV-HBC Fuse
- ⑩ Operating and position indicator for earthing switch
- ⑪ Earthing switch
- ⑫ Cable terminal
- ⑬ Disconnecting switch

* The insulating protective barrier can be inserted when the switchgear is switched off.

Switch Panels Type W 36 - 121526

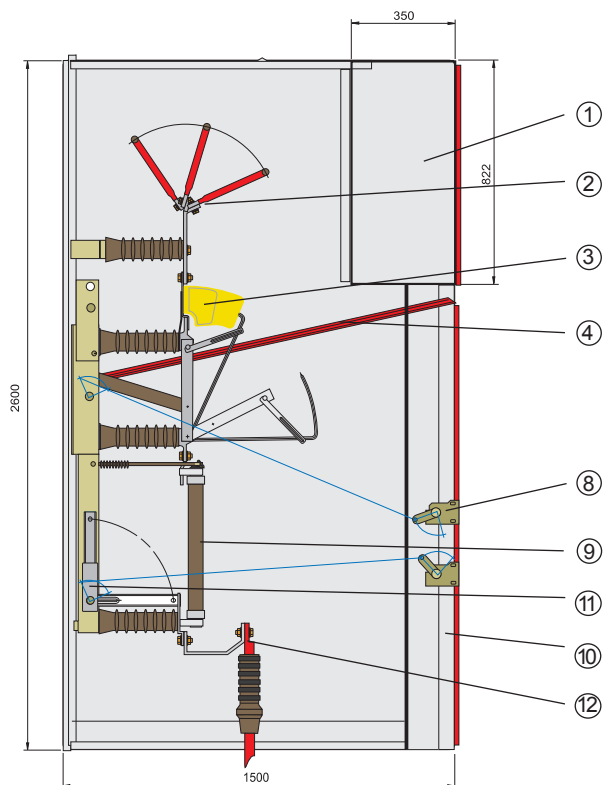


Fig. 3: 36 kV Transformer feeder panel with fuse-switch-disconnector H22 SEA

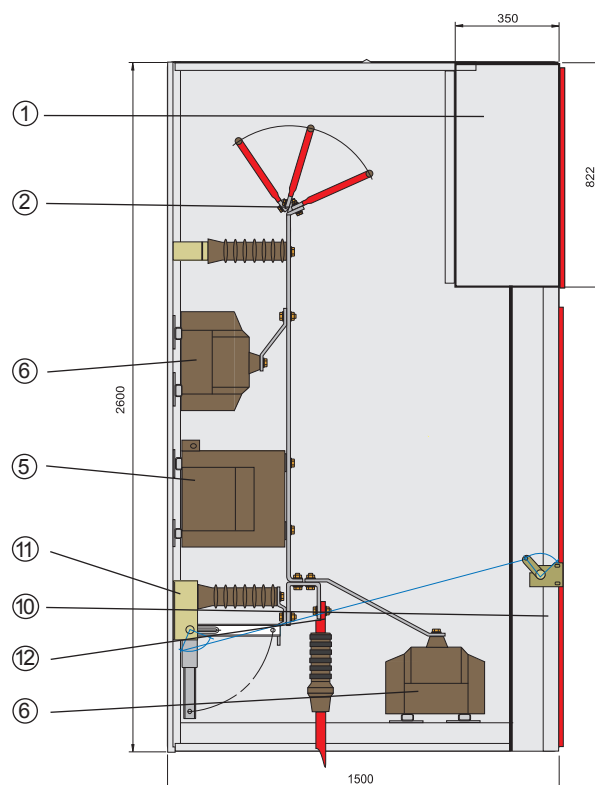


Fig. 4: 36 kV Measuring panel

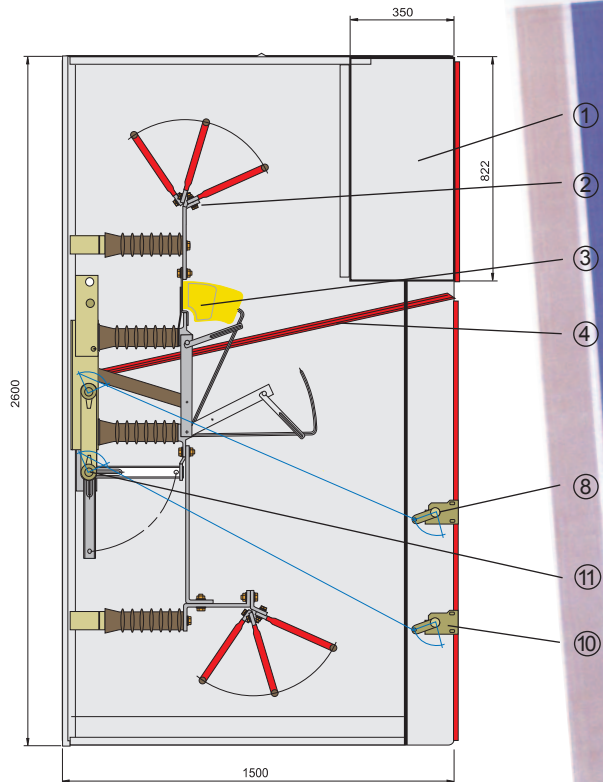
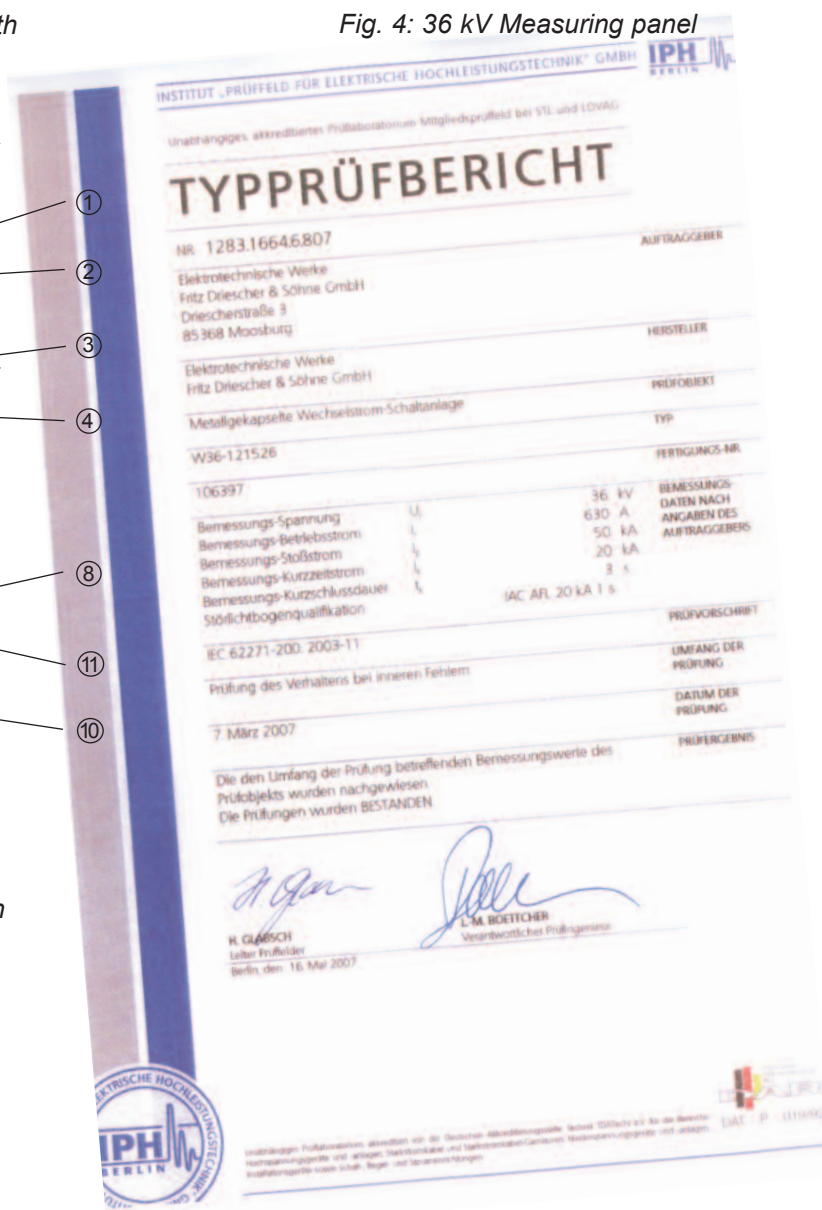


Fig. 5: 36 kV Bus sectionalizer panel with switch-disconnector H22 EK



Switch Panels Type W 36 - 121526

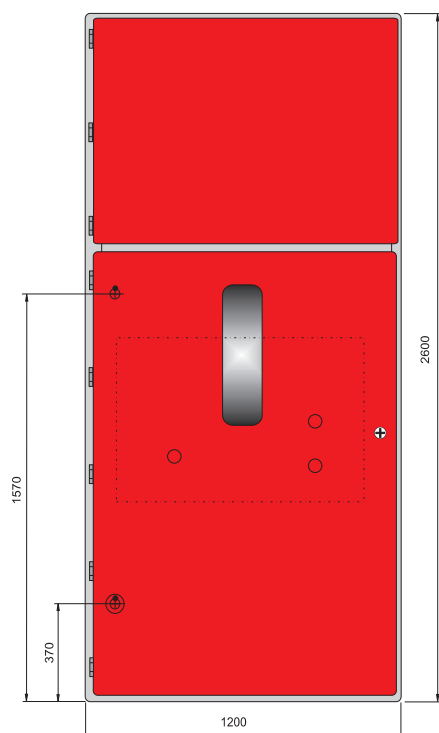


Fig. 6: 36 kV Circuit-breaker panel

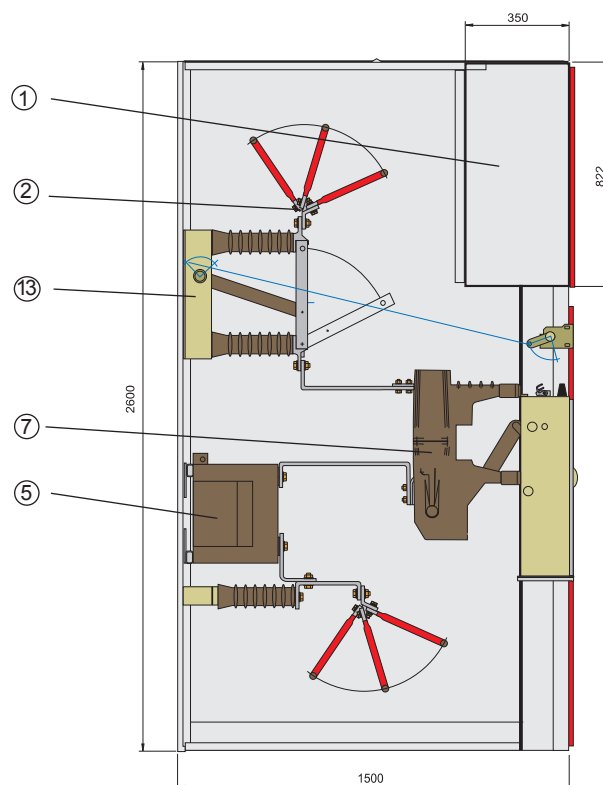


Fig. 7: 36 kV Circuit-breaker bus sectionalizer panel

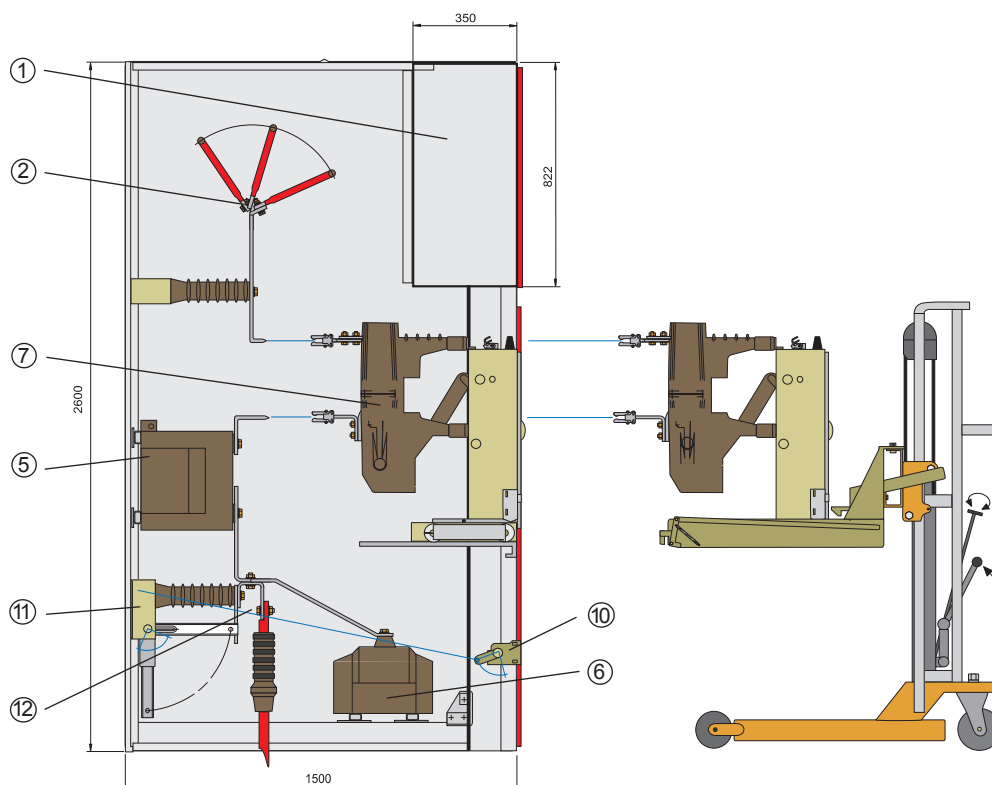
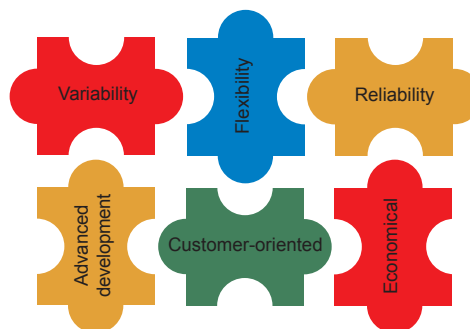


Fig. 8: 36 kV Switch panel with circuit-breaker V36-630-20 KUF and earthing switch in withdrawable design

Customer Benefits

- Reliability based on the high quality of our products
- Economic efficiency through continuous further development
- Flexibility
- Easy operation
- Long service life
- Minimum maintenance



Withdrawable Plates

This insulating barrier plate is to prevent any impermissible approach or accidental contact of live parts. It is to be inserted with the panel door closed, if work is to be carried out on the panel and the switchgear

cannot be switched completely dead. By pulling the grip hole the plate can be removed again after closing the panel door.

Accessories

- Insulating protective barrier in compliance with DIN VDE 0682 Part 552
- Panel lighting or capacitive voltage testing system in compliance with (E) DIN VDE 0682 Teil 415
- Short-circuit indicator
- Floor covers
- Surge voltage protector

Weights

Type	Designation	Weight approx.kg	Drawing-no.
WK 36-121526-22	Cable panel	350	HA1 - 100470
WT 36-121526-22	Transformer feeder panel	360	HA1 - 100470
WM 36-121526	Measuring panel	420	HA1 - 100470
WH 36-121526	Riser panel	250	HA1 - 100470
WÜ 36-121526-22	Bus sectionalizer panel	370	HA1 - 100470
WL 36-121526-V36	Circuit-breaker panel	800	HA1 - 100470

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

switching • electricity • safely

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