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Fixed-Mounted Design (OFF)

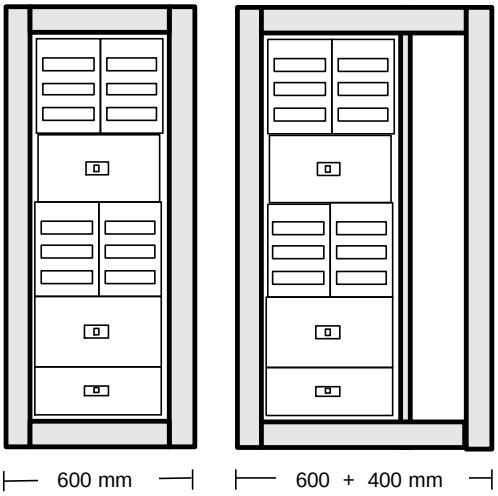
The cubicles for outgoing feeders in fixed-mounted design are intended for the installation of circuit-breakers (MCCB), fuse-switch disconnectors, rapid assembly kits as well as mounting plates.

Structure and Functions

The switching device compartment can be equipped up to a height of 1600 mm:

Cable supply optionally from below or top*
*Consider cable flange plates!

Cable connection front Cable connection front right-side

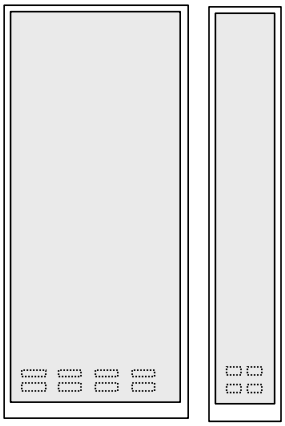


without door (front cover) or with door

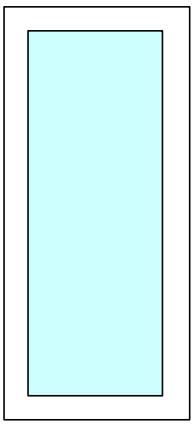
OFF

All switchgear can be mounted on mounting plates or rapid assembly kits and is connected at the line side to the vertical distribution bus.
At the front side the cubicle is covered by front covers and/or cubicle door (at cubicle width of 1000 mm with separate door of cable connection compartment). Cubicle doors are also with inspection window possible.

Internal separation/doors



Door before device/ cable connection compartment
unventilated IP54
ventilated ≤ IP41



Door with inspection window

unventilated IP40/54

With front cover ventilated ≤ IP31

Cubicle bus system

If the cubicle is 600 mm wide, the cubicle bus system with the phase conductors L1, L2, L3 + N (PEN) is located at the rear of the cubicle.
If the cubicle is 1000 mm wide, the PE, PEN and N conductor bars are located in the cable connection compartment.
For 4-pole switched systems, the N-conductor is located next to the phase conductors L1, L2, L3 in the rear of the cubicle.

PE cross section: 1 x 40 x 5
PEN, N cross section: 1 x 40 x 10, 1 x 80 x 10

The connection of the inserted devices to the cubicle bus system is performed with cables via bus-mounting terminals. Flexible connectors can optionally be used for higher currents. **The connecting material is not component of the delivery when ordering in partial stages.**

Rated current vertical distribution system

Cross-section	Rated current I_n as function of ambient temperature [A]						
	20°	25°	30°	**35°**	40°	45°	50°
Cubicle unventilated							
40x10	860	840	820	**800**	780	755	735
2x40x10	1290	1260	1230	**1200**	1170	1135	1100
Cubicle ventilated							
40x10	915	895	870	**850**	825	805	780
2x40x10	1505	1470	1435	**1400**	1365	1325	1285

Short-circuit strength 40x10
I_{pk} = 110 kA
I_{cw} = 50 kA, 1s

Cable Connection Compartment

The cable connection compartment, depending on cable connection direction, is situated optionally below or at top in the cubicle.
A separate 400 mm wide cable connection compartment is available for 1000 mm wide cubicles. The cable connection is performed directly at the switchgear. For the maximum connectable cross-sections see the belonging switchgear catalogues.
Devices with low rated current can be connected via terminals.

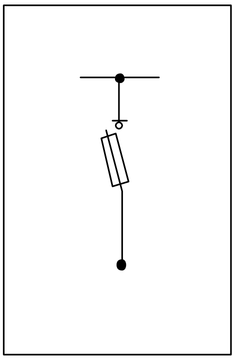
Rated currents of Outgoing Feeders (OFF) (Approximate value without test verification)

Device Type	Rated current [A]	Rated current I_n as a function of ambient temperature [A] unventilated							ventilated						
		20°	25°	30°	**35°**	40°	45°	50°	20°	25°	30°	**35°**	40°	45°	50°
Fused outgoing feeders 3 pole															
3NP40 10	160														
3NP40 70	160														
3NP42 70	250														
3NP43 70	400														
3NP44 70	630														
Non-fused outgoing feeders 3 pole															
3RV101	12														
3RV102	25														
3RV103	50														
3RV104	100														
Non-fused outgoing feeders 3 and 4 pole															
3VL1	160				**90**							**125**			
3VL2	160				**90**							**125**			
3VL3	250				**200**							**240**			
3VL4	400				**300**							**350**			
3VL5	630				**475**							**560**			

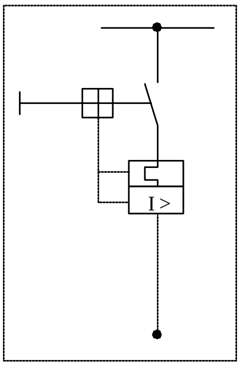
Space requirements of outgoing feeders (OFF)

Cubicle width 600 mm, vertical located devices
without separation to vertical busbars, adjacent outgoing feeders, cable connection
cable connection front

Fuse-switch disconnector



Circuit-breaker



Quantity per line	Rated current [A]	Type	Module height [mm]
Fused outgoing feeders 3 pole			
1 up to 4	160	3NP40 10	250
1 up to 4	160	3NP40 70	250
1 up to 2	250	3NP42 70	400
1	400	3NP43 70	400
1	630	3NP44 70	400
Non-fused outgoing feeders 3 pole			
1 up to 8	12	3RV101	200
1 up to 8	25	3RV102	200
1 up to 6	50	3RV103	250
1 up to 5	100	3RV104	300
Non-fused outgoing feeders 3 and 4 pole			
1 up to 2	160	3VL1	300
1 up to 2	160	3VL2	300
1 up to 2	250	3VL3	300
1 up to 2	400	3VL4	400
1 up to 2	630	3VL5	400
Mounting plates (usable mounting depth 310 mm)			
1			200
1			300
1			400
1			500
1			600
Rapid assembly kits			
1		8GK4	450
1		8GK4	600
1		8GK4	750
1		8GK4	900

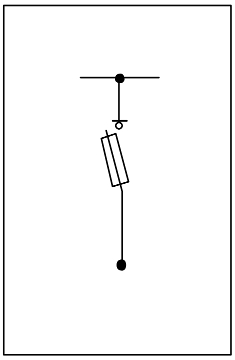
*) 4 pole: only one feeder per line is possible

All outgoing feeders can be integrated also in 1000 mm wide cubicles, though a separation to the vertical busbar, adjacent feeder and cable connection is not possible

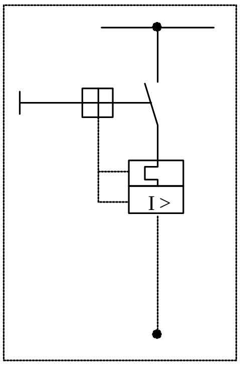
Space requirements of outgoing feeders (OFF)

Cubicle width 1000 mm, horizontal located devices
with / without separation to vertical busbars, adjacent outgoing feeders, cable connection compartment
Cable connection compartment right 400mm wide

Fuse-switch disconnector



Circuit-breaker



Quantity per line	Rated current [A]	Type	Module height [mm]
Fused outgoing feeders 3 pole			
1	160	3NP40 10	150
1	160	3NP40 70	150
1	250	3NP42 70	250
1	400	3NP43 70	250
1	630	3NP44 70	300
Non-fused outgoing feeders 3 pole			
1	12	3RV101	100
1	25	3RV102	100
1	50	3RV103	150
1	100	3RV104	150
Non-fused outgoing feeders 3 pole with / without plug-in socket			
1	160	3VL1	200
1	160	3VL2	200
1	250	3VL3	200
1	400	3VL4	200
1	630	3VL5	300
Non-fused outgoing feeders 4 pole with / without plug-in socket			
1	160	3VL1	200
1	160	3VL2	200
1	250	3VL3	200
1	400	3VL4	250
1	630	3VL5	350
Empty compartments			
1			100
1			200
1			300
1			400
1			500
1			600

Project planning support for OFF-cubicle

OFF-cubicle, 600 mm wide
Without separation to vertical busbars, adjacent outgoing feeders, cable compartment.
Outgoing feeders, rapid assembly kits as well as mounting plates with and without covers can be mounted. The assembling height is 1600 mm, the modular grid 50 mm.
Outgoing cable feeders up to 250 A can be optionally located in cubicle.
Outgoing cable feeders starting with 400 A can be installed at bottom and at top in the cubicle depending on the direction of the cable connection.

OFF-cubicle, 1000 mm wide
With and without separation to vertical busbars, adjacent outgoing feeders, cable connection.
Outgoing cable feeders and empty compartments can be mounted.
Outgoing feeders, rapid assembly kits as well as mounting plates for cubicle width of 600 mm can be integrated, though a separation to vertical busbars , adjacent outgoing feeders and cable connection is not possible here.

Cubicle high doors with inspection window

The use of doors with inspection window excludes arcing fault safety.
These doors are exclusively deliverable with release lever lock.

Order notice:
The single components of the rapid assembly kits are not component of the delivery when ordering in partial stages.
The cubicle design includes only the mounting for the rapid assembly kits.
Rapid assembly kits and accessories have to be ordered separately.

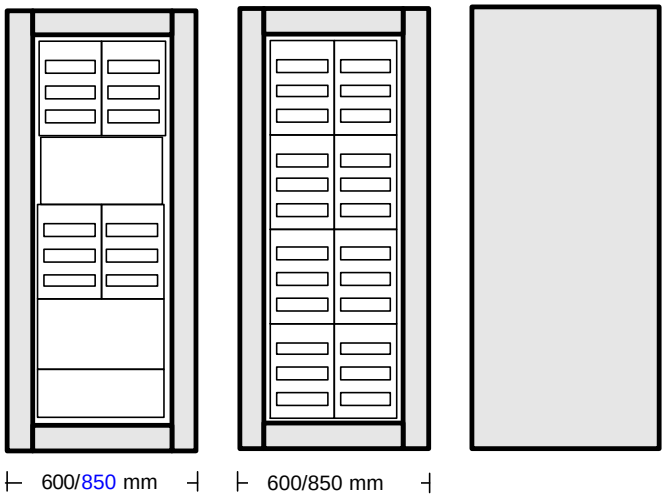
Cubicles for Customised Solutions (CCS)

The cubicles for customised solutions are intended for the installation of rapid assembly kits as well as unequipped mounting plates.

Structure and Functions

The switching device compartment can be equipped up to a height of 1600 mm:

Cable connection front
Cable supply optionally from bellow or top*
*Consider cable flange plates!

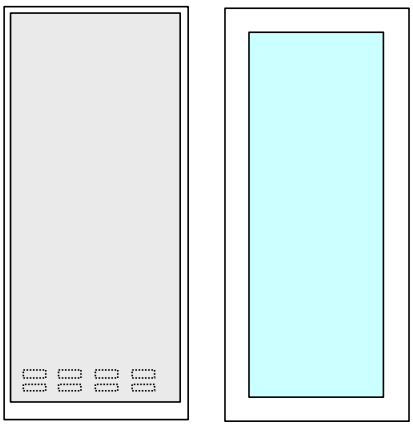


without door (front cover) **with door**

CCS

All switchgear can be mounted on assembly plates or rapid assembly kits and are connected with the supply line side to the vertical distribution bus.
At the front side the cubicle is covered by front covers and/or cubicle door. Cubicle doors are also possible with inspection window.

Internal Separation / Doors



With door
unventilated IP54
ventilated ≤ IP41

Door with inspection window
unventilated IP40/54

Without door
(front covers)
ventilated ≤ IP41

Cubicle bus system

The cubicle bus system with phase conductors L1, L2, L3 + N or PEN is located at the rear of the cubicle. It offers various connection possibilities.
The connection of the inserted devices to the cubicle bus system is performed with cables via bus-mounting terminals. Flexible connectors can optionally be used for higher currents. **The connecting material is not component of the delivery when ordering in partial stages!**

Rated current vertical distribution system

Cross section	Rated current I_n as function of ambient temperature [A]						
	20°	25°	30°	**35°**	40°	45°	50°
Cubicle unventilated							
40x10	860	840	820	**800**	780	755	735
2x40x10	1290	1260	1230	**1200**	1170	1135	1100
Cubicle ventilated							
40x10	915	895	870	**850**	825	805	780
2x40x10	1505	1470	1435	**1400**	1365	1325	1285

Short-circuit strength
I_{pk} = 110 kA
I_{cw} = 50 kA, 1s

Cable Connection Compartment

The cable connection compartment, depending on cable connection direction, is situated optionally below or at top in the cubicle.
The cable connection is performed directly at the switchgear. For the maximum connectable cross-sections see the belonging switchgear catalogues.
Devices with low rated current can be connected via terminals.

Space Requirements of mounting plates and rapid assembly kits

Cubicle width 600 and 850 mm

Quantity Per line	Rated current [A]	Type	Module height [mm]	Module width [mm]
Mounting plates (usable mounting depth 310 mm)				
1			200	
1			300	
1			400	
1			500	
1			600	
Rapid assembly kits				
1		8GK4	450	500 / 750*
1		8GK4	600	500 / 750*
1		8GK4	750	500 / 750*
1		8GK4	900	500 / 750*

Project planning support for CCS cubicle

CCS-cubicle, 600 mm width

Mountable are rapid assembly kits as well as mounting plates with or without covers. The assembling height is 1600 mm, the modular grid 50 mm.

Cubicle high doors with inspection window

The use of doors with inspection window excludes arcing fault safety. These doors are exclusively deliverable with release lever lock.

Mounting of cubicle high assembly kits for installation built-in devices

An assembling height of max. 1800 mm can be reached (see 8PT 16760) at CCS cubicles without PE-bar.
The cubicles are prepared for assembly of 1800 mm longitudinal beams to incorporate rapid assembly kits.
Recommendation
Mounting of 250 mm wide assembly kits
- for 600 mm wide cubicle = 4 pieces longitudinal beams of 1800 mm necessary
- for 850 mm wide cubicle = 6 pieces longitudinal beams of 1800 mm necessary

Order notice:
The single components of the rapid assembly kits are not component of the delivery when ordering in partial stages.
The cubicle design includes only the mounting for the rapid assembly kits.
Rapid assembly kits and accessories have to be ordered separately.