



Technical catalogue |

Distribution switchgear

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ABB SACE Division – Environmental and Ethics Quality certificated

Among the companies in the Group, ABB SACE is up front in dedicating considerable resources to achieving sustainable development and environmental protection objectives. Confirmation of this is provided by all the company production sites having obtained ISO 9001 quality certification and ISO 14001 environmental management system certifications.

Using analysis tools such as LCA (Life Cycle Analysis), ABB SACE's design activities already include assessment and improvement of the environmental performances of its products over their whole life cycle during the initial stage, in order to guarantee optimisation of the technical and energy performances during service, to control and reduce environmental impact during the production stage and to define the end of life management scenarios.

The Garbagnate Monastero site has also obtained the certification of integrated management system QAS (Quality, Environment and Safety management system.)

All company sectors are, in fact, actively involved in implementing improvement policies for environmental management through rationalisation of consumption of raw materials and energy, prevention of pollution, respect of water and air, limitation of noise emission and reduction in waste from production processes, as well as carrying out periodic environmental audits at major suppliers' premises.

Each of these objectives and activities is the result of farsightedness in adopting ecological policies and methods for reducing the environmental loads and, within the panorama of Italian companies, ABB SACE is a leader from this viewpoint, too, just as it is for the quality of its products.



ABB: Energy Efficiency for a sustainable development.



ABB takes care of its commitment in promoting environmental protection and development, providing sustainable products and solutions that contribute to improving energy efficiency and plant productivity, reducing at the same time CO₂ emissions.

Selection and design tools

Technical softwares

DOC 2

DOC 2 is a program for the design and calculation of single-line diagrams of low- and medium-voltage electrical systems, for selection of switching and protection devices and for testing and co-ordination of protection devices.

Thanks to the design functions provided by the integrated CAD, the new switchboard configuration module makes it possible to develop ABB electrical switchboard projects and produce commercial technical quotations with CAT.

CAT 7

CAT 7 is a tool allowing ABB SACE products to be easily chosen and fitted with accessories in order to rapidly and accurately prepare estimates and quotes.

With CAT 7 choosing and adding accessories to ABB SACE products is now easier and faster than ever, thanks to the new product selection mask and accessory module.

Curves

Curves is the most direct software for verifying the characteristics of protection devices and system components intervention.

Setting, verifying and documenting the calibration of release devices and co-ordinations is easier than ever before.

OTC

The OTC thermal calculation module makes it possible to verify the thermal performance of ABB switchboards and to size fans and air conditioning units to install on the panel.

Front CAD

FrontCAD is a CAD application for drawing the electric boards design and layouts.

FrontCAD contains a big library of blocks, shapes of many ABB products, like enclosures and other electrical devices; those draws can be used to create the CAD layout of distribution and automation switchboards.



FrontCAD is compatible with different type of CAD application.

“DOC & CAT” is the technical software suite which helps to bring projects and quotes to fruition easily, quickly and completely.

The entire software collection is available to download for free from the Online Business portal.

ABB Software Desktop is a platform for installing and managing these Softwares.

ABB Software Desktop automatically detects which programs are installed on the computer, allowing them to be updated.

ArTu.

Go ahead and select the switchgear you need.

ArTu. A great offer, really high performances

ABB proposes three series of switchgear with different characteristics thought up to make it possible to select the most suitable switchgear for the installation requirements. Different sizes for optimal use of the spaces available. Great savings in storage space is ensured by the rapid assembly kit containing so few pieces that skilled personnel is not required. IP degrees of protection for all types of application up to IP65 - the only switchgear to reach such a high value. Extremely sturdy and flexible, it is made for plants up to 6300A.

ArTu. Born certified.

Fully checked and certified (IEC 60439-1 and IEC 61439-1 and 2 Standard) by an external independent organisation (DEKRA), the ArTu switchgear is a synonym of safety and quality. The certification is the fruit of severe tests carried out on the whole configuration, consisting of metalwork structures, circuit-breakers and busbar system.



Certificato N°OHS-015



Certificato N°1612/98/S



Certificato N° EMS-051



Certificato N°SGI004



ArTu K.

New horizons up to 6300A.

ArTu. High performances? No problem

The ArTu K series switchgear is ideal for primary distribution switchgear (Power Center type) with air and moulded-case circuit-breakers and any internal segregations up to Form 4, and for floor-mounted secondary distribution switchgear with moulded-case and modular circuit-breakers.

The ArTu K series consists of modular switchgear for floor-mounted installation with depths of 300, 500, 700 and 900mm, with IP43, IP54 and IP65 degrees of protection - the highest value available on the market.



Within the ArTu K series switchgear, like all the series in the range, it is possible to install ABB apparatus (System Pro M modular circuit-breakers, Tmax moulded-case circuit-breakers, T and XT series and Emax air circuit-breakers) with an excellent and certified level of integration. The switchgear is available in four functional widths (390, 600, 700mm, 800mm 1000mm and 1200mm) and in two functional heights (1800 and 2000mm), which allow installation of 9 and 10 modules 200mm in height respectively.



ArTu K Modular Structures

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ArTu K Modular Structures

General

The structure is made entirely of hot galvanised steel sheet, which guarantees the equipotentiality of the switchgear.

The K series of ArTu switchgear consists of a series of components for configuration of floor-standing kit switchgear, with the following dimensions:

- **two heights (useful)**

1800 mm (18 modules of 100 mm) and 2000 mm (20 modules of 100 mm) to which the h=100mm base strip measurement fitted with removable flanges must always be added;

- **four widths (useful)**

390mm (12 DIN modules), 600 mm (24 DIN modules), 700mm, 800 mm (36 or 24 DIN) and 1000 mm (48 or 36 DIN modules + cable riser) and 1200mm;

- **three depths (useful)**

500 mm (for Tmax to fixed T71250A), 700mm (for E2.2 up to withdrawable E2.2 2500A) and 900mm (for Emax up to withdrawable E6 6300A). Tmax XT series can be installed in each one of the above-mentioned depths.

The structure is made entirely of hot galvanised steel sheet, which guarantees the equipotentiality of the switchgear. Base and top are supplied pre-mounted by means of a three-way joint, which is able to provide considerable structural rigidity. Base and top



The ArTu switchgear doors are made of 15/10 steel sheet for blind versions or with 4 mm thick glass fitted with gasket able to grant IP65 degree of protection.

are supplied pre-mounted by means of a three-way joint, which is able to provide considerable structural rigidity. The base is fitted with removable flanges which allow entry into the areas reserved for the cables and a pre-mounted (H=100mm) base strip, consisting of four angle irons with removable over the whole perimeter. The four uprights are fitted with a multi-purpose hinge used to assemble the door and to couple the structures, both laterally and at the rear.

The structure is completed with two types of functional frames, fitted with reference nicks (at 100 mm pitch) to avoid annoying measurements during assembly of the apparatus kits:

- open functional frame (can be used in switchgear where no form of segregation is required);
- closed functional frame (can be used in switchgear where forms 2-3 and 4 segregation are required).

The switchgear is completed with:

- blind (IP43/54/65) and side panels;
- blind and transparent doors, fitted with safety glass which can be mounted on all sides (IP54/65).
- kit for installing the apparatus, designed to integrate enclosure structures and circuit-breaker perfectly .

The mounting positions are established previously so as to guarantee the insulation distances and perfect alignment of the apparatus on the front panel. Furthermore, the kit plates are of the self-centring type and are fitted with threaded bushings to provide easy assembly of the apparatus from the front.

2



ArTu K Modular Structures

General

Additional structure 300mm wide are available, which can be used as cable containers placed side by side laterally with all the ArTu K switchgear.

(patented), preset to house the vertical and horizontal cabling duct. The aluminium DIN rail has three established mounting positions, corresponding respectively to the, T and XT series depths of the System Pro M, Tmax and Isomax circuit-breakers. It is fitted with double DIN 35 section (front and rear), and the rear part can be used to support the duct, up to 60x80mm;

- kit for air circuit-breakers consisting of sturdy supporting crosspieces and of the front panel;
- universal kits, consisting of back plates and blind front panels, which allow assembly of generic apparatus.

The panels have vertical 100mm modularity and are fitted with an invisible hinge on the outside, which can be mounted either on the

right or on the left, and which guarantees panel earthing, making the equipotential connection superfluous.

The DIN panels are also available in the versions for one, two or three rows, corresponding to heights of 200, 300 and 600mm respectively and can have 150/200mm centre distance between the rows.

In the case of modular and moulded-case circuit-breakers placed side by side in the same row, the special section must be used which allows the assembly position of the circuit-breakers to be adapted correctly so that the same modular panel can be used. When the circuit-breakers do not take up the whole window of the panel, the spaces can be closed using the hole covers.

Within the K series of ArTu switchgear with 500, 700 900 and 1000mm

2



Within the K series of ArTu switchgear with 500, 700 and 900mm depths, segregation compartments of Form 2, 3 and 4 can be made in conformity with the IEC 60439-1 Standard.

depths, segregation compartments of Form 2, 3 and 4 can be made in conformity with the IEC 61439-1 Standard, for the whole range of moulded-case circuit-breakers with rear terminals, simply by using the closed functional frame, the installation kits in the segregated version and the special segregations.

The distribution systems, which can be used inside the ArTu switchgear, consist of:

- flat busbars up to 6300A;

The extremely compact dimensions of the system allow the busbars to be mounted directly inside the switchgear, positioning them horizontally or vertically, on the back or on the side of the structure, keeping front access, also thanks to the practicality of the scaled type busbar holder.



The panels have vertical 100mm modularity and are fitted with an invisible hinge on the outside, which can be mounted either on the right or on the left, and which guarantees panel earthing, making the equipotential connection superfluous.



The extremely compact dimensions of the system allow the busbars to be mounted directly inside the switchgear, positioning them horizontally or vertically, on the back or on the side of the structure.

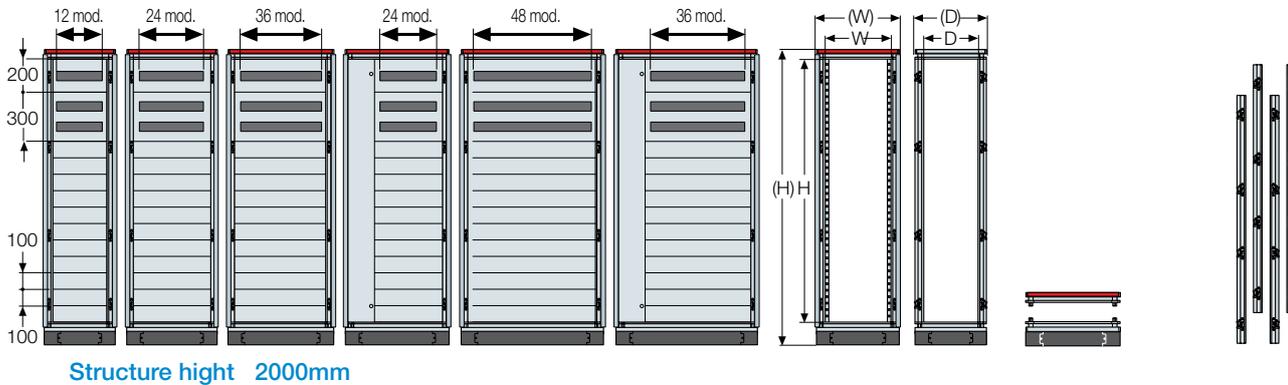
Technical characteristics

Compliance with Standards	CEI EN 60439-1/IEC 61439-1-2
Test of vibration for structure ArTu K	according to IEC 60068-2-57 Standard
Test of antiseismic	according to IEE Std 693 Standard
Rated service voltage Ue	up to 690 V
Rated insulation voltage Ui	up to 1000 V
Rated frequency	50 Hz
Rated impulse withstand voltage Uimp	12/8 kV
Rated current In	up to 6300 A
Rated short-time short-circuit withstand current Icw	up to 100 kA
Rated peak short-circuit current Ipk	up to 220 kA
Degree of protection IP	31 without door
	54 with door up to 5000A
	43 with door up to 5500A
	43 with door up to 6300A (FV)

ArTu K Modular Structures

Selection of the structure

Rapid selection tables



Structure height 2000mm

No. mod. vert.mod H=100mm	No. DIN modules installable		External overall dimensions ⁽¹⁾			Functional dimensions ⁽²⁾			Base Top Base strip	Side flangers base strip	Upright
	DIN panel 150mm centre dist.	DIN panel 200mm centre dist.	(H) mm	(W) mm	(D) ⁽³⁾ mm	H mm	W mm	D ⁽³⁾ mm			
20	156 (12x13)	120 (12x10)	2231	538	362	2000	390	225	SK4040	ZD1025	SK2000
				538	437		390	300	SK4050	ZD1030	
				538	637		390	500	SK4060	ZD1050	
				538	837		390	700	SK4080	ZD1070	
				538	1037		390	900	SK4010	ZD1090	
	312 (24x13)	240 (24x10)		748	287		600	150	SK6025	ZD1015	
				748	362		600	225	SK6040	ZD1025	
				748	437		600	300	SK6050	ZD1030	
				748	637		600	500	SK6060	ZD1050	
				748	837		600	700	SK6080	ZD1070	
	468 (36x13)	360 (36x10)		948	287		800	150	SK8025	ZD1015	
				948	362		800	225	SK8040	ZD1025	
				948	437		800	300	SK8050	ZD1030	
				948	637		800	500	SK8060	ZD1050	
				948	837		800	700	SK8080	ZD1070	
		480 (48x10)			1148		1037	1000	900	SK1010	

⁽¹⁾ The overall external dimensions of the ArTu K switchgear include the base strip h=100mm and the side panels, each 14mm wide.

⁽²⁾ The functional dimensions represent the useful space for installing the apparatus.

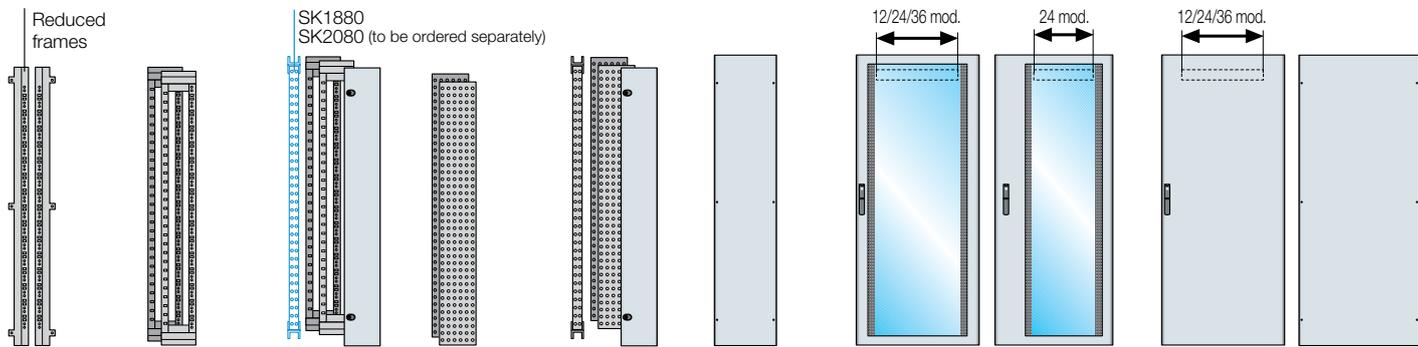
⁽³⁾ In this catalogue, reference is always made to the following depths: functional 150/225/300/500/700/900 mm external 287/362/437/637/837/1037 mm.

⁽⁴⁾ The VC... code is already complete with the functional frame, therefore it is not necessary to order other open or closed functional frames. Furthermore, the internal cable container is only built with 800/1000mm wide structures. The rear intermediate upright SK1880 (H=1800mm) in switchgear without segregation must be ordered separately if necessary for fixing onto the back of crosspieces, accessories, busbars, etc.

The positioning of two structures or a structure and a cable container side-by-side is realized by the AD1014 kit. When selecting the components, the characteristics of the apparatus to be mounted inside the switchgear must be taken into consideration, opting for the open frame and cable container when no form of segregation is required and, on the contrary, for the closed frame and cable container when forms of segregation from 2 to 4 are required. According to the type of covering selected, the degree of protection varies from IP31 (switchgear without front door) to IP65 (switchgear with front door and blind side panels).

The functional frames of ArTu K switchgear are available in two versions:

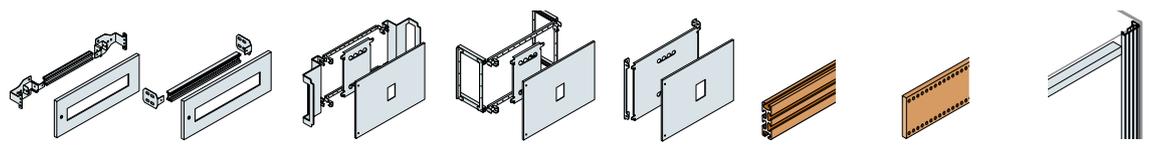
- switchgear without segregation (open frame) in cases where no form of segregation is required;
- segregated switchgear (closed frame) in cases where forms 2-3 and 4 segregation are required



Functional frames switchgear without segregation			Functional frames for segregated switchgear		Side coverings front and rear coverings IP65				
Solution 1 Open frame	Solution 2 Open frame	Solution 3 ⁽⁴⁾ Internal cable container	Solution 1 Closed frame	Solution 2 ⁽⁴⁾ Internal cable container	Side panel	Glass door 12/24/36/48 mod.	Glass door 24/36 mod. + int. cable cont.	Blind door 12/24/36/48 mod.	Rear panel
SK2004 ⁽⁶⁾	SK2003	-	-	-	LF2040	PV2041	-	P02041	RF2040
SK2004 ⁽⁶⁾	SK2003	-	-	-	LF2050	PV2041	-	P02041	RF2040
SK2004 ⁽⁶⁾	SK2003	-	SK2002	-	LF2060	PV2041	-	P02041	RF2040
SK2004 ⁽⁶⁾	SK2003	-	SK2002	-	LF2080	PV2041	-	P02041	RF2040
SK2004 ⁽⁶⁾	SK2003	-	SK2002	-	LF2010	PV2041	-	P02041	RF2040
SK2004 ⁽⁵⁾	-	-	-	-	LF2026	PV2061	-	P02061	RF2060
SK2004 ⁽⁶⁾	SK2003	-	-	-	LF2040	PV2061	-	P02061	RF2060
SK2004 ⁽⁶⁾	SK2003	-	-	-	LF2050	PV2061	-	P02061	RF2060
SK2004 ⁽⁶⁾	SK2003	-	SK2002	-	LF2060	PV2061	-	P02061	RF2060
SK2004 ⁽⁶⁾	SK2003	-	SK2002	-	LF2080	PV2061	-	P02061	RF2060
SK2004 ⁽⁶⁾	SK2003	-	SK2002	-	LF2010	PV2061	-	P02061	RF2060
SK2004 ⁽⁵⁾	-	VC2024	-	-	LF2026	PV2082	PV2081	P02081	RF2080
SK2004 ⁽⁶⁾	SK2003	VC2024	-	-	LF2040	PV2082	PV2081	P02081	RF2080
SK2004 ⁽⁶⁾	SK2003	VC2024	-	-	LF2050	PV2082	PV2081	P02081	RF2080
SK2004 ⁽⁶⁾	SK2003	VC2023	SK2002	VC2020	LF2060	PV2082	PV2081	P02081	RF2080
SK2004 ⁽⁶⁾	SK2003	VC2023	SK2002	VC2020	LF2080	PV2082	PV2081	P02081	RF2080
SK2004 ⁽⁶⁾	SK2003	VC2023	SK2002	VC2020	LF2010	PV2082	PV2081	P02081	RF2080
SK2004 ⁽⁶⁾	SK2003	VC2023	SK2002	VC2020	LF2010	PV2012	PV2011	P02011	RF2010

⁽⁵⁾ Reduced functional frame, only for fixed Tmax T and XT series breakers ≤T6
⁽⁶⁾ With the reduced functional frame for fixed Tmax T and XT series circuit-breakers ≤ T6 or with standard functional frame for all the circuit-breakers.

To complete the structure

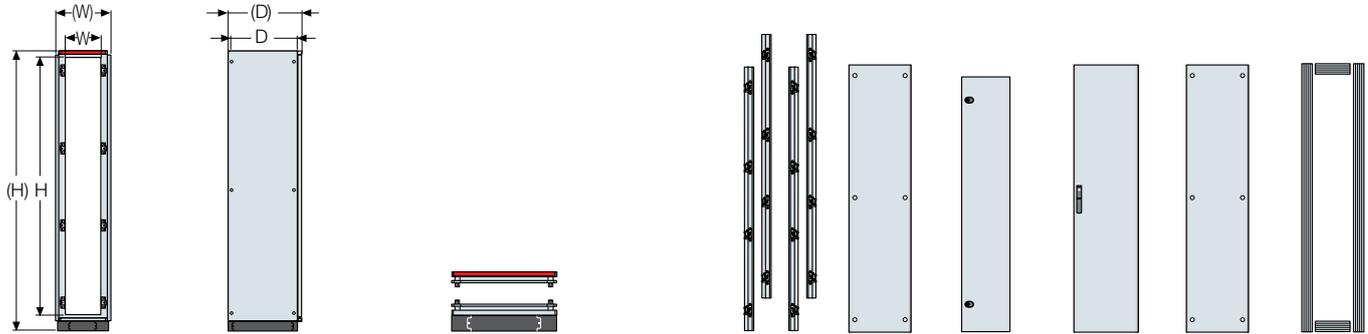


	DIN rail and panels	Tmax kits for ArTu reduced functional frame	Tmax kits for ArTu standard functional frame P≥225mm	Tmax kits for ArTu segregated functional frame	Distribution System		IP31/IP41 finishing section
					Busbars with shaped section	Flat busbars	
Switchgears without segregation	Page 5/16	Page 5/18	Page 5/20		Page 5/42	Page 5/46	Page 5/59
Segregated switchgears	Page 5/28			Page 5/30			

ArTu K Modular Structures

Selection of the structure

Rapid selection tables



Additional cable container

2

Overall external dimensions ⁽¹⁾			Functional dimensions ⁽²⁾			Base/Top Base strip	Side flanges for base strip	Uprights	Side covers, front and rear covers				
(H) mm	(W) mm	(D) ⁽³⁾ mm	H mm	W mm	D ⁽³⁾ mm		Ordered separately		Blind side door IP65	Internal front door IP31	External front door IP65	Rear panel IP65	Finishing section IP31/41
2231	448	287	2000	300	150	VC3025	ZD1015	SK2000	LF2026	P02031	P02033	RF2030	See page 5/59
		362			225	VC3040	ZD1025		LF2040				
		437			300	VC3050	ZD1030		LF2050				
		637			500	VC3060	ZD1050		LF2060				
		837			700	VC3080	ZD1070		LF2080				
		1037			900	VC3010	ZD1090		LF2010				

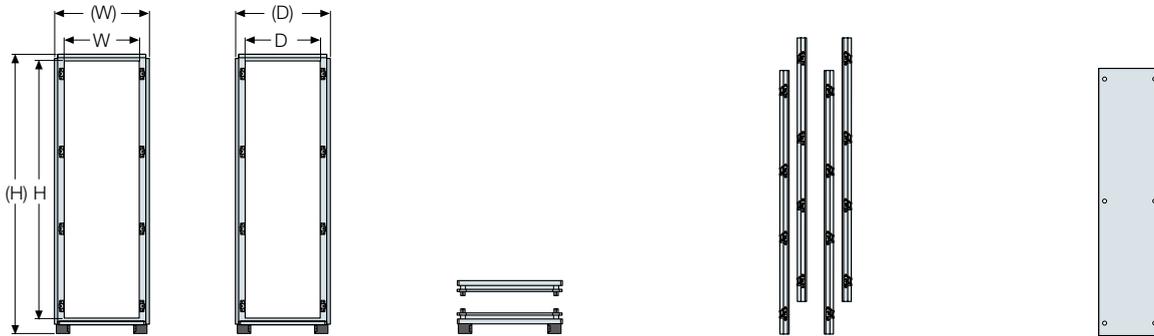
⁽¹⁾ The overall external dimensions of the ArTu K switchgear include the base strip h=100mm and the side panels, each 14mm wide.

⁽³⁾ In this catalogue, reference is always made to depths 287/362/437/637/837/1037mm corresponding to overall external dimensions 150/225/300 500/700/900mm.

⁽²⁾ The functional dimensions represent the useful space for installing the apparatus.

Additional structure 300mm wide are available, which can be used as cable containers placed side by side laterally with all the ArTu K switchgear. In the same way as the structures, the additional cable container is made up of a base, top, base strip and uprights and is fixed to the structures using the side-byside kits (AD1014). It is completed with the side panels and the doors (to be ordered separately). The external doors are used on the additional cable container to be placed side by side with an ArTu structure with door (IP65); the internal doors are used on the additional cable container placed side by side with an ArTu IP31 version structure (i.e. without door and with finishing sections). This ensures uniformity of appearance between the structure and additional cable container. Furthermore, the internal doors can be used as internal segregations of the cable container: should a segregation with door open of the additional cable container be requested, it is possible to mount both the internal and external door at the same time.

Rapid selection tables



Angle square

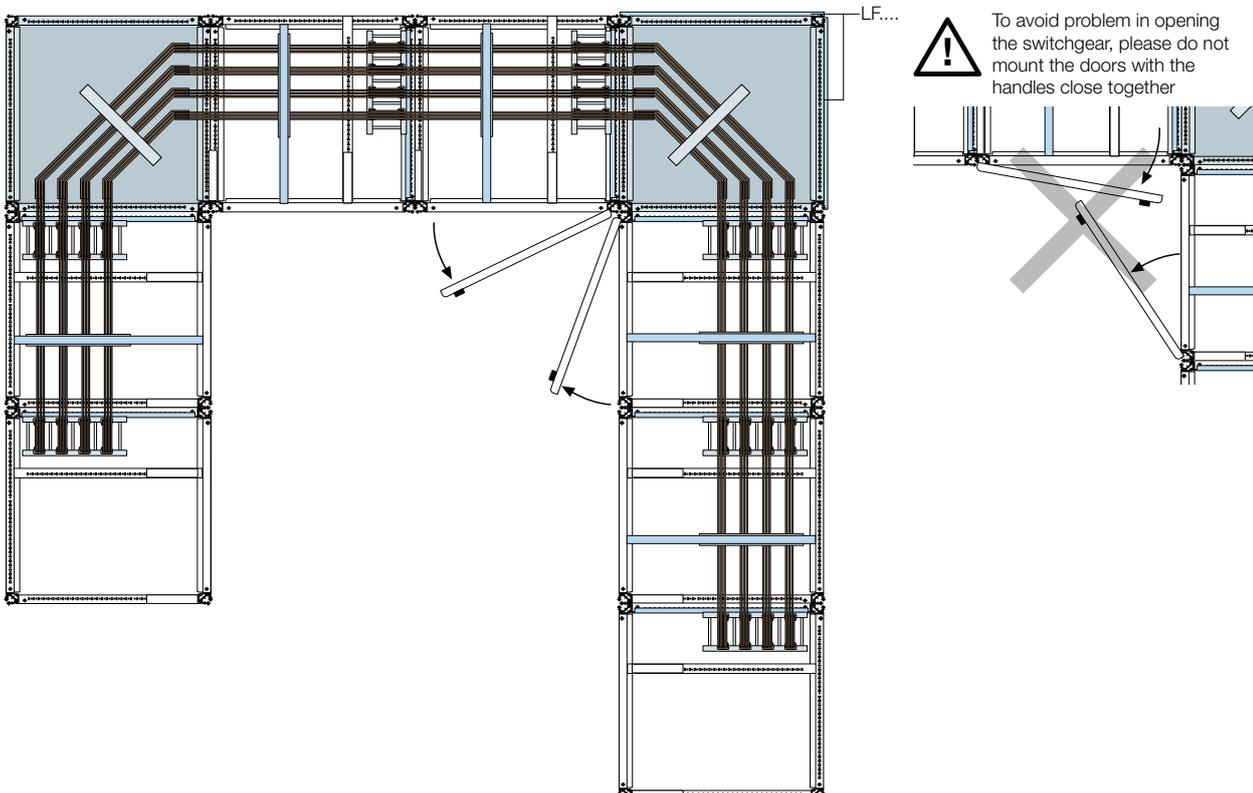
Overall external dimensions ⁽¹⁾			Functional dimensions ⁽²⁾			Base/Top/ Base strip	Uprights	Side covers
(H) mm	(W) mm	(D) ⁽³⁾ mm	H mm	W mm	D ⁽³⁾ mm			Blind side panel IP65
2231	637	637	2000	500	500	SK6600	SK2015	LF2060
	837	837		700	700	SK8800		LF2080
	1037	1037		900	900	SK1100		LF2010

⁽¹⁾ The overall external dimensions of the ArTu K switchgear include the base strip h=100mm.

⁽²⁾ The functional dimensions represent the useful space for installing the apparatus.

⁽³⁾ In this catalogue reference is always made to the following depth: functional 500/700mm external 637/837mm.

Example of use

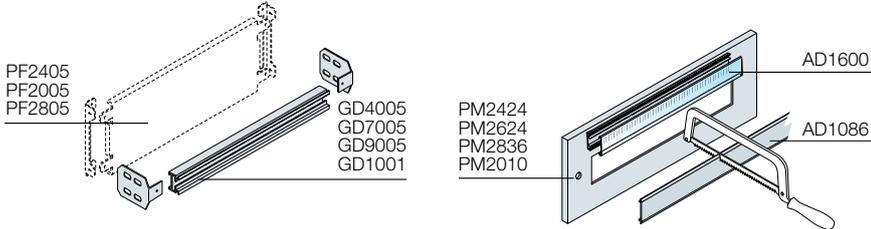


ArTu K Modular Structures

Selection of the structure

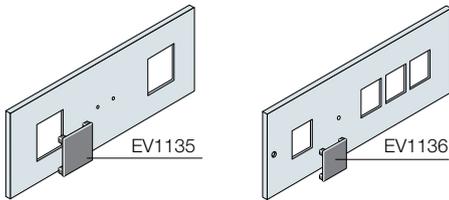
SEGREGATED STRUCTURES - Kit for switchgear D \geq 500mm

Installation on DIN rail



	W=390mm		W=600mm		W=800mm		W=1000mm	
H (mm)	DIN rail kit 12 DIN mod.	Panel 1 DIN row 12 DIN mod.	DIN rail kit 24 DIN mod.	Panel 1 DIN row 24 DIN mod.	DIN rail kit 36 DIN mod.	Panel 1 DIN row 36 DIN mod.	DIN rail kit 48 DIN mod.	Panel 1 DIN row 48 DIN mod.
200	GD4005	PM2424	GD7005	PM2624	GD9005	PM2836	GD1001	PM2010

Panels for square measuring instruments



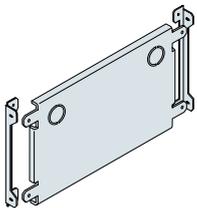
H (mm)	2-instrument panel				4-instrument panel					
	72x72mm		96x96mm		72x72mm		96x96mm			
	24 DIN mod. W=600mm	36 DIN mod. W=800mm	24 DIN mod. W=600mm	36 DIN mod. W=800mm	24 DIN mod. W=600mm	36 DIN mod. W=800mm	48 DIN mod. W=1000mm	24 DIN mod. W=600mm	36 DIN mod. W=800mm	48 DIN mod. W=1000mm
200	PS2720	PS2728	PS2960	PS2968	PS4720	PS4728	PS2017	PS4960	PS4968	PS2019

These allow installation of measuring instruments and relative changeover switches.

Square instrument hole covers

Code	Description
EV1135	Hole cover of 72x72mm instrument black RAL 9005
EV1136	Hole cover of 96x96mm instrument black RAL 9005

Modular back plate

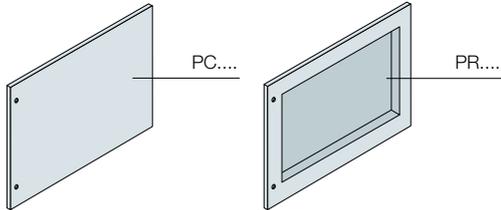


H (mm)	Back plates			
	Blind flat			
	12 DIN mod. W=390mm	24 DIN mod. W=600mm	36 DIN mod. W=800mm	48 DIN mod. W=1000mm
200	PF2405	PF2005	PF2805	PF2090
300	PF3405	PF3005	PF3805	PF3090
400	PF4405	PF4005	PF4805	PF4090
600	PF6405	PF6005	PF6805	PF6090
		PF8005	PF8805	

Can be used to mount all the apparatus.

SEGREGATED STRUCTURES - Kit for switchgear D≥500mm

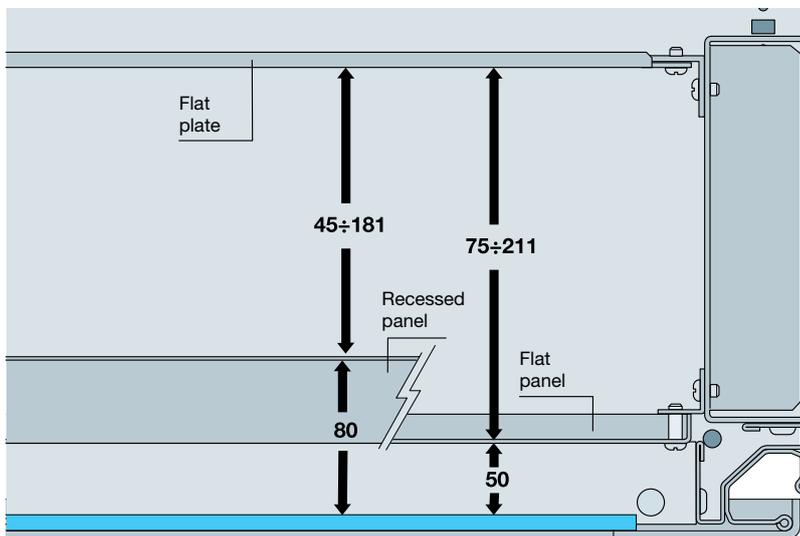
Modular blind panel



H (mm)	Panels					
	Flat				Recessed	
	12 DIN mod. W=390mm	24 DIN mod. W=600mm	36 DIN mod. W=800mm	48 DIN mod. W=1000mm	24 DIN mod. W=600mm	36 DIN mod. W=800mm
100	PC1400	PC1600	PC1800	PC1210		
200	PC2400	PC2600	PC2800	PC1220	PR2600	PR2800
300	PC3400	PC3600	PC3800	PC1230		
400	PC4400	PC4600	PC4800	PC1240	PR4600	PR4800
500				PC1250		
600	PC6400	PC6600	PC6800	PC1260	PR6600	PR6800
800		PC8600	PC8800			

2

Useful internal space

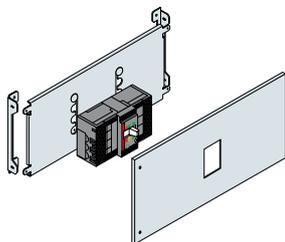


ArTu K Modular Structures

Selection of the structure

SEGREGATED STRUCTURES - Kit for switchgear D \geq 500mm

Horizontal installation



2

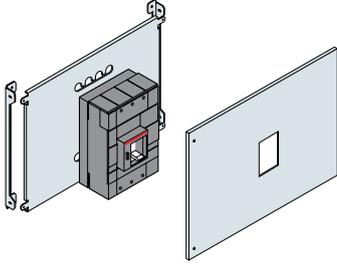
Front or rear circuit-breaker terminals	No. poles	Dimensions H (mm)	Fixed		Fixed+RCD mod. undern.	Plug-in		Withdrawable	
			12 DIN mod W=390mm	24 DIN mod W=600mm	24 DIN mod W=600mm	12 DIN mod W=390mm	24 DIN mod W=600mm	12 DIN mod W=390mm	24 DIN mod W=600mm
Tmax T1	3-4	200	KT1410	KT1110	KT1100 ⁽¹⁾				
Tmax T2	3-4	200	KT2410	KT2110		KT2420	KT2120		
Tmax T3	3-4	200	KT3410	KT3110		KT3420	KT3120		
Tmax T4	3-4	200	KT4120	KT4124			KT4113		
Tmax T4	3-4	300							KT4130
Tmax T5 (400A)	3-4	300	KT5122	KT5136			KT5420		KT5430
Tmax T5 (630A)	3-4	300	KT5122	KT5136			KT5421		KT5431
Tmax T6	3-4	500		KT6110					KT6130
Tmax T7 - Emax X1	3-4	400		KT7115					
	3-4	500							KT7561
Tmax XT1	3 ² -4	200	KY1411	KY1611			KY1621		
Tmax XT1	4	200			KY1601				
Tmax XT2	3 ² -4	200	KY2411	KY2611		KY2421	KY2621		
Tmax XT2	3 ² -4	300							KY2631
Tmax XT2	4	200			KY2601				
Tmax XT3	3 ² -4	200	KY3411	KY3611					
Tmax XT3	4	300			KY3601				
Tmax XT3	3 ² -4	300				KY3421	KY3621		
Tmax XT4	3 ² -4	200	KY4411	KY4611			KY4621		
Tmax XT4	4	200			KY4601				
Tmax XT4	3 ² -4	300							KY4631

⁽¹⁾ Version for Tmax with differential module underplaced RC 221/222 (only 4P).

⁽²⁾ For 3 poles breakers please order accessory flange Code: AD3305 XT1 3P Flange for plate-mounting - AD3306 XT2 3P Flange for plate-mounting - AD3307 XT3 3P Flange for plate-mounting - AD3308 XT4 3P Flange for plate-mounting.

SEGREGATED STRUCTURES - Kit for switchgear D \geq 500mm

Installation of apparatus vertically



Front or rear circuit-breaker terminals	No. poles	Dimensions H (mm)	Fixed			Fixed+RCD mod. undern.		Withdrawable	
			12 DIN mod W=390mm	24 DIN mod W=600mm	36 DIN mod W=800mm	12 DIN mod W=390mm	24 DIN mod W=600mm	12 DIN mod W=390mm	24 DIN mod W=600mm
Tmax T1-T2-T3-XT1-XT3 on DIN Rail 35		200	(see page 5/29)						
Tmax T4	3-4	400	KT4129	KT4121			KT4222		KT4128
Tmax T5 (400A)	3-4	400	KT5137	KT5128			KT5129		KT5223
Tmax T5 (630A)	3-4	400	KT5137	KT5128		KT5125	KT5123	KT5126	KT5124
Tmax T6	3-4	500		KT6210					KT6230
Tmax T7	3-4	500		KT7215					KT7230
Tmax T8	3-4	900			KT8210				
Tmax XT4	3 ⁽¹⁾ -4	300	KY4412	KY4612					

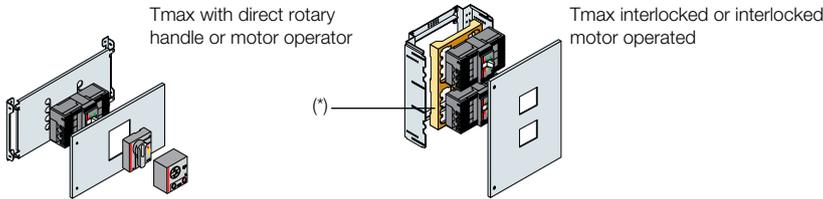
⁽¹⁾ For 3 poles breakers please order accessory flange Code: AD3305 XT1 3P Flange for plate-mounting - AD3306 XT2 3P Flange for plate-mounting - AD3307 XT3 3P Flange for plate-mounting - AD3308 XT4 3P Flange for plate-mounting.

ArTu K Modular Structures

Selection of the structure

SEGREGATED STRUCTURES - Kit for switchgear D≥500mm

Installation of equipped apparatus horizontally



2

Front or rear circuit-breaker terminals	No. poles	Dimensions H (mm)	Fixed				Plug-in				Withdrawable						
			24 DIN mod. W=600mm				24 DIN mod. W=600mm				24 DIN mod. W=600mm						
			Direct rotary handle	Motor operator	Interlocked	Interlocked motor operated	Direct rotary handle	Motor operator	Interlocked	Interlocked motor operated	Direct rotary handle	Motor operator	Interlocked	Interlocked motor operated			
Tmax T5 (400A)	3-4	300	KT5136	KT5310						KT5420				KT5430	KT5320 ⁽²⁾		
Tmax T5 (630A)	3-4	300	KT5136	KT5310						KT5421				KT5431	KT5321 ⁽²⁾		
Tmax T5	3-4	600				KI5116	KI5116					KI5116	KI5119			KI5117	KI5118
Tmax T6	3-4	500	KT6220	KT6221										KT6130	KT6134 ⁽²⁾		
Tmax T6	3-4	800				KT6142	KT6143									KT6144	KT6145
Tmax T7** - Emax X1	3-4	400	KT7115 ⁽³⁾	KT7115	KT7115	KT7115											
Tmax XT1	3/4	200	KY1605	KY1607													
Tmax XT2	3/4	200	KY2605	KY2607													
Tmax XT3	3/4	200	KY3605	KY3607													
Tmax XT3 + XT1	3 ⁽⁴⁾ /4	500				KY1131											
Tmax XT3	3 ⁽⁴⁾ /4	500				KY3131											
Tmax XT4	3 ⁽⁴⁾ /4	500				KY4141											
Tmax XT4	3/4	200	KY4607	KY4604													

(*) Interlock plate to be ordered with the circuit-breakers.

(**) Kit for a single circuit-breaker.

⁽¹⁾ Kit for 390mm width for T1 KT1410, T2 KT2410, T3 KT3410.

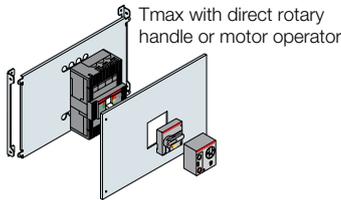
⁽²⁾ Only Form 2 segregation.

⁽³⁾ Use with protruding door PV.63 - PV.83.

⁽⁴⁾ For 3 poles breakers please order accessory flange Code: AD3305 XT1 3P Flange for plate-mounting - AD3306 XT2 3P Flange for plate-mounting - AD3307 XT3 3P Flange for plate-mounting - AD3308 XT4 3P Flange for plate-mounting.

SEGREGATED STRUCTURES - Kit for switchgear D≥500mm

Installation of equipped apparatus vertically (Form 2 only)

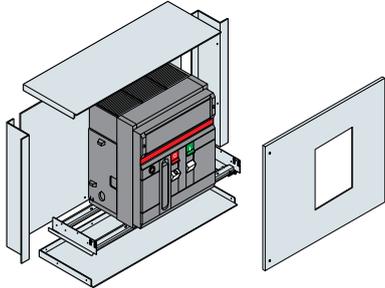


Front or rear circuit-breaker terminals	No. poles	Dimensions H (mm)	Fixed				Plug-in				Withdrawable			
			24 DIN mod. W=600mm				24 DIN mod. W=600mm				24 DIN mod. W=600mm			
			Direct rotary handle	Motor operator	Interlocked	Interlocked motor operated	Direct rotary handle	Motor operator	Interlocked	Interlocked motor operated	Direct rotary handle	Motor operator	Interlocked	Interlocked motor operated
Tmax T6	3-4	500	KT6132	KT6133						KT6230	KT6141			
Tmax T7** - Emax X1	3-4	500		KT7215	KT7215	KT7215					KT7230	KT7230	KT7230	

(*) Interlock plate to be ordered with the circuit-breakers.

(**) Kit for a single circuit-breaker.

Installation of Emax circuit-breakers vertically



Circuit-breaker	No. poles	Dimensions H (mm)	Fixed			Withdrawable		
			24 DIN mod. W=600mm	36 DIN mod. W=800mm	48 DIN mod. W=1000mm	24 DIN mod. W=600mm	36 DIN mod. W=800mm	48 DIN mod. W=1000mm
Emax X1/X1 interlocked**	3-4	500	KT7215 ⁽¹⁾			KT7230 ⁽¹⁾		
Emax E1.2-E2.2	3-4	600	KE2215			KE2235		
Emax E2.2	3-4	600	KE3205			KE3236		
Emax E2.2 interlocked**	3/4	600		KE4214			KE4234	
Emax E4/E4 interlocked**	3-4 ⁽²⁾	600				KE5234		
Emax E4 Full size	4	600			KE4100			KE5236
Emax E6 50% Neutral	3-4	600			KE6340			KE6343

The kit for installing Emax air circuit-breakers in the versions of switchgear indicated includes the pre-drilled front panel and the resting crosspieces. To install Emax E1...E3 circuit-breakers, always use with 700mm depth (therefore also depth 900mm with kit SK..81), for Emax E4 use structures with 900mm depth or several structures placed side by side at the rear. It is necessary to install one E6 breaker per column (depth D=900 mm), at a maximum height of H=1100 mm; moreover, under the E6 breaker it is not possible to install any other device.

To complete the 36 module structure, ask for the special back plates (PF... see page 5/28).

⁽¹⁾ This kit can also be used for the motor operated version.

⁽²⁾ This kit can also be used for the motor operated, interlocked and interlocked motor operated versions.

^(*) Kit for a single circuit-breaker.

ArTu K Modular Structures

Selection of the structure

Form 2-3-4 segregations for structures $D \geq 500\text{mm}$

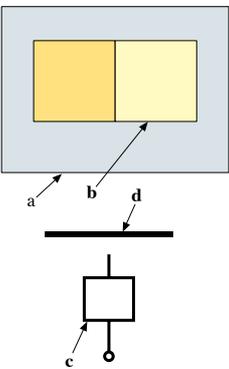
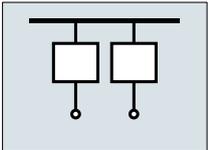
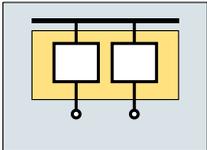
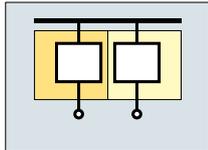
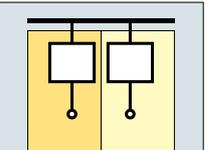
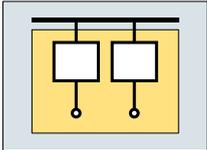
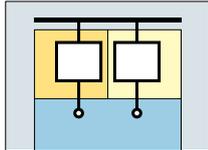
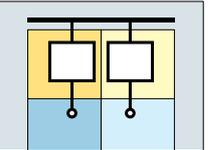
Segregations according to the IEC 60439-1 and IEC 61439 -1 -2 Standards

By form of segregation, the type of subdivision provided inside the switchgear is meant. Segregation by means of barriers or partitions (metallic or insulating) can have the purpose of:

- Ensuring protection against direct contacts (at least IPXXB), in the case of accessing a part of the switchgear with the power turned off, in relation to the rest of the switchgear left live.
- Reducing the probability of an internal arc striking and propagating.
- Preventing passage of solid bodies between different parts of the switchgear (at least IP2X degree of protection).

By partition, the separation element between two compartments is meant, whereas the barrier protects the operator against direct contacts and the effects of an arc of the breaking apparatus in the normal access direction.

2

Symbol	Form 1	Form 2	Form 3	Form 4
	(no internal segregation) 	(segregation of the busbars from the functional units) Form 2a Terminals not separated from the busbars 	(separation of the busbars from the functional units + separation of the functional units from each other) Form 3a Terminals not separated from the busbars 	(separation of the busbars from the functional units + separation of the functional units from each other + separation of the terminals from each other) Form 4a Terminals in the same compartment as the associated functional unit 
		Form 2b Terminals separated from the busbars 	Form 3b Terminals separated from the busbars 	Form 4b Terminals not in the same compartment as the associated functional unit 

Caption

- a Housing
 b Internal segregation
 c Functional units including the terminals for the associated external conductors
 d Busbars, including the distribution busbars

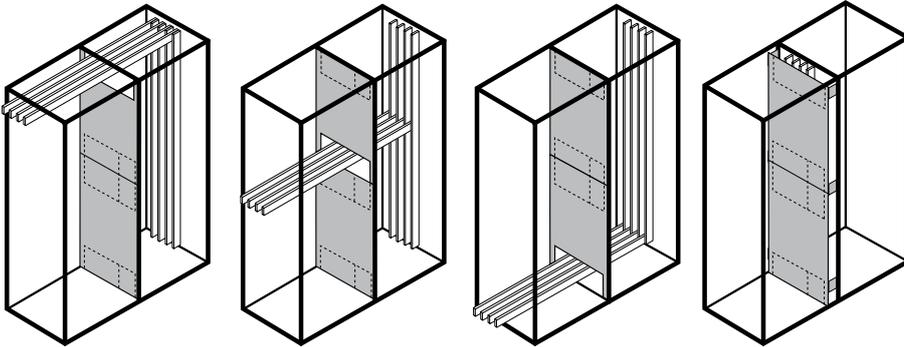
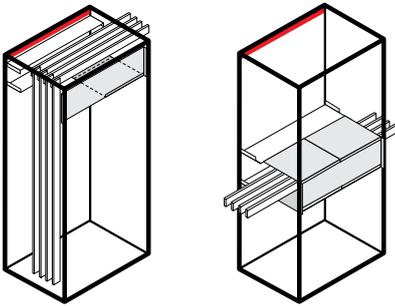
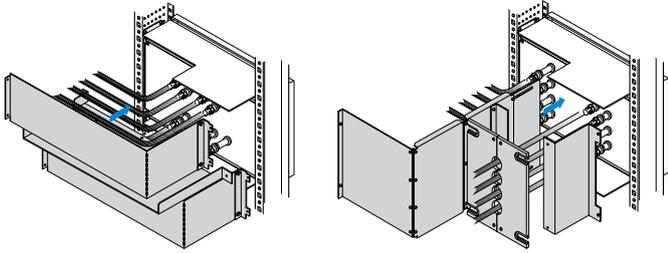
Note

The segregations can be made in ArTu K 390 and 600mm wide switchgear in 500/700/900mm depths with closed functional frame and segregated kits. Form 2 is obtained automatically using the segregated type kits.

To obtain the desired form of segregation, the segregations kits relative to the previous forms must be ordered (e.g. Form 4 = Form 2 kit + Form 3 kit + Form 4 kit).

Form 2-3-4 segregations for structures $D \geq 500\text{mm}$

Examples of segregation

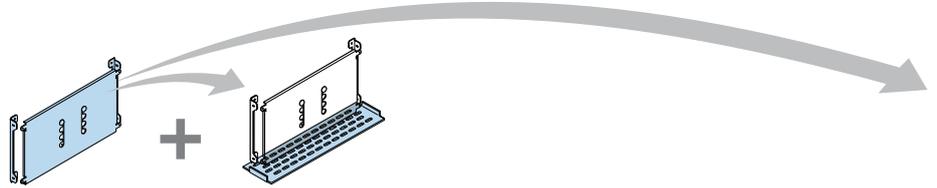


ArTu K Modular Structures

Selection of the structure

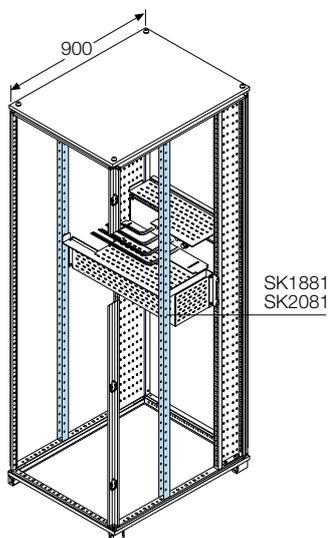
Form 2-3-4 segregations for structures $D \geq 500\text{mm}$

Forms of segregation

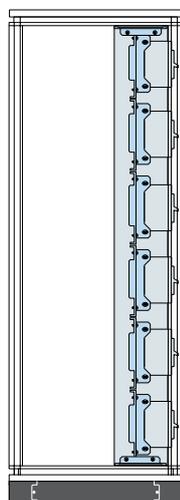


Selection of segregation according to the height of the kit		Form 2a	Form 3a			
Installation	Height kit (mm)		12 DIN mod. W=390mm	24 DIN mod. W=600mm	36 DIN mod. W=800mm	48 DIN mod. W=1000mm
Horizontal moulded-case circuit-breaker 	200		SH4000	SH6000	SH8000	SH1100
	300		SH4000	SH6000	SH8000	SH1100
	400			SH6000	SH8000	SH1100
	500			SH6000	SH8000	SH1100
	500	Tma T7-Emax X1 withdr.		Included in Form 2 kit	SH8000	SH1100
	600			SH6000	SH8000	SH1100
	600	T4-T5 interlocked		SH6000	SH8000	SH1100
Vertical moulded-case circuit-breaker 	400					
	500	Emax X1-Tmax T6, T7 fixed				
	600					
	800					
Vertical air circuit-breaker 	500	Emax X1-Tmax T7 withdr.		Included in Form 2 kit	Included in Form 2 kit	
	600	Emax E1-E2-E3 fixed		Included in Form 2 kit	Included in Form 2 kit	
	600	Emax E1-E2-E3 withdr.		Included in Form 2 kit	Included in Form 2 kit	
	600	Emax E4 fixed	See kit on page 5/33	Included in Form 2 kit	Included in Form 2 kit	
	600	Emax E4 withdr.	See kit on page 5/33	Included in Form 2 kit	Included in Form 2 kit	
	600	Emax E6 fixed	See kit on page 5/33			Included in Form 2 kit
	600	Emax E6 withdr.	See kit on page 5/33			Included in Form 2 kit

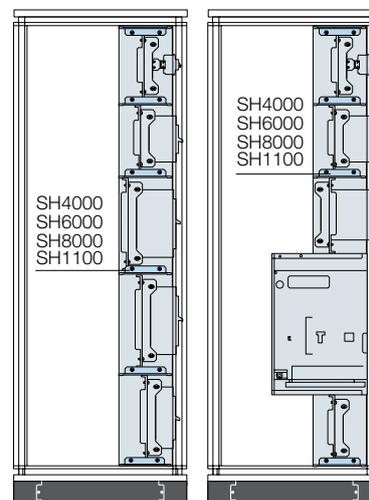
Uprights for switchgear $D=900\text{mm}$

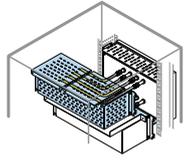
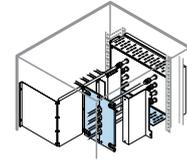
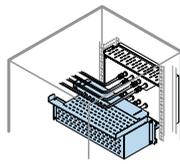
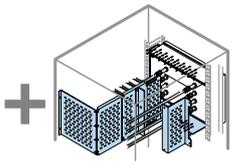


Example of Form 2a segregation



Example of Form 3a segregation





Form 3b

Horizontal circuit-breaker

12 DIN mod.
W=390mm

24 DIN mod.
W=600mm

D=500/700mm

D=500/700

D=700mm

D=900mm

Vertical circuit-breaker

24 DIN mod.
W=600mm
D=900mm

24 DIN mod.
W=600mm
D=500mm

24 DIN mod.
W=600mm
D=700mm

24 DIN mod.
W=600mm
D=900mm

36 DIN mod.
W=800mm
D=900mm

48 DIN mod.
W=1000mm
D=900mm

Form 4b

Horizz. CB

Structure
D=500/700/
900mm

Vertical CB

24mod.DIN
W=600mm
P=500mm

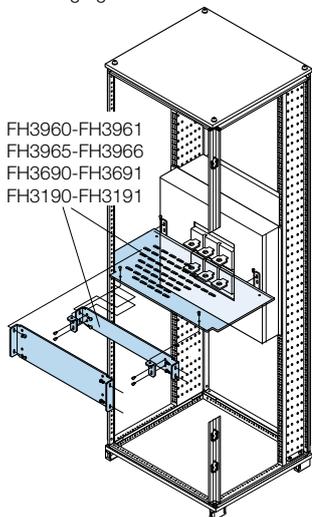
24mod.DIN
W=600mm
P=700mm

FH3224	FH3220			FH1020						FH4220		
FH3434	FH3430			FH1030						FH4430		
FH3544	FH3540			FH1040						FH4540		
	FH3650			FH1050						FH4650		
		FH7580	FH7510									
FH3764 ⁽¹⁾	FH3760			FH1060						FH4760		
	FV4557 ⁽²⁾			FV4557 ⁽²⁾						Incluso nel kit Forma 3D		
	FH3680 ⁽²⁾									4 x FH4220		
					FV3456	FV3458					FV4456	FV4458
					FV3556	FV3558					FV4556	FV4558
						FV3668						FV4668
						FV3788						FV4788
						FH3960	FH3690					
						FH3960	FH3690					
						FH3961	FH3691					
								FH3965	FH3190			
								FH3966	FH3191			
									FH3190			
									FH3191			

⁽¹⁾ Only for blind back plate H=600mm. - ⁽²⁾ Only for Tmax T6 interlocked in fixed/plug-in/withdrawable/motor operated versions. - ⁽³⁾ For use with Tmax T4 - T5.

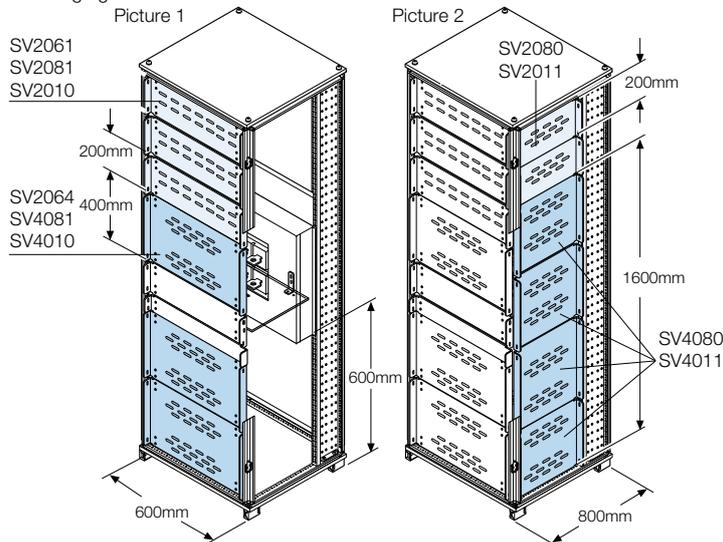
Emax segregation Form 3b

Rear segregation



Example of Emax segregation Form 4b

Rear segregation



Picture 1

Rear segregation

Structure height

1800mm	2000mm	Emax installed
No.3 SV2064	No.3 SV2064	No.1
No.2 SV2061	No.3 SV2061	

Picture 2

Side segregation

Side segregation

1800mm	2000mm	Emax installed
No.1 SV4080	No.1 SV4080	No.1
No.1 SV2080	No.2 SV2080	

ArTu K Modular Structures

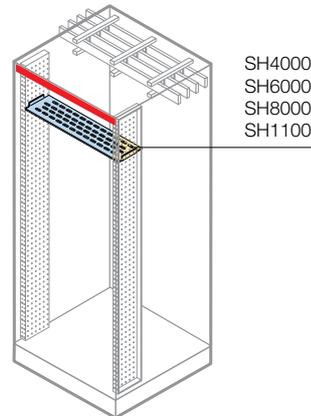
Selection of the structure

Form 2-3-4 segregations for structures $D \geq 500\text{mm}$

Busbar segregation

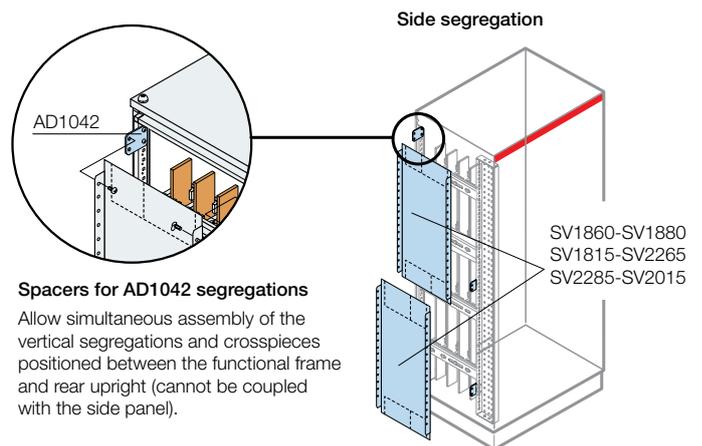
The SH2030, SH4030, SH1030, SH8570, SH1090 ed SV2061, SV4061, SV3060, SV2064, SV2081, SV3080, SV4081, SV2010, SV3010, SV4010 versions are reciprocally indispensable for assembly.

The SH4030, SH1030, SH8570, SH1090 model must also be used in combination with shelves SH4000, SH6000, SH8000, SH1100 to make complete horizontal segregations of the busbar system.



2

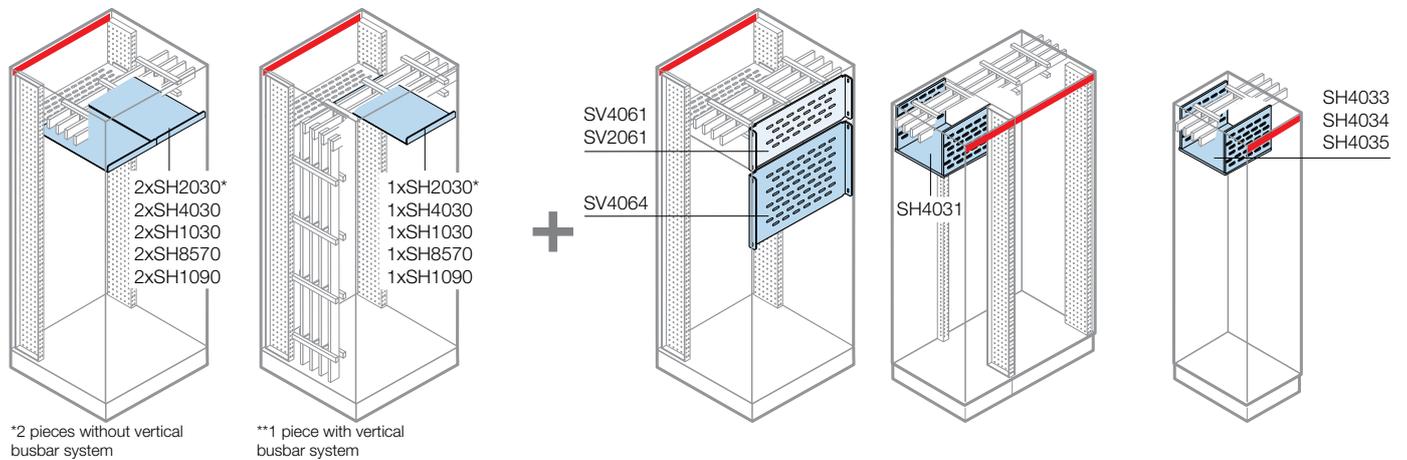
Horizontal Busbars	12 DIN mod. W=390mm	24 DIN mod. W=600mm	36 DIN mod. W=800mm	48 DIN mod. W=1000mm
Universal horizontal shelf	SH4000 ⁽¹⁾	SH6000 ⁽¹⁾	SH8000 ⁽¹⁾	SH1100
Horizontal busbar segregation				
Vertical busbar segregation $\leq 4000\text{A}$ H=200mm				
Vertical busbar segregation $> 4000\text{A}$ H=300mm				
Vertical busbar segregation H=400mm				
Horizontal segregation for internal cable container W=200mm				
Horizontal segregation for external cable container W=300mm				
Horizontal segregation for structure used as busbar container W=390mm				
Horizontal segregation for structure used as busbar container W=600mm				



Spacers for AD1042 segregations

Allow simultaneous assembly of the vertical segregations and crosspieces positioned between the functional frame and rear upright (cannot be coupled with the side panel).

Vertical Busbars	Structure D=500mm	Structure D=700mm	Structure D=900mm
Vertical segregation for structure H=1600mm - No. 4 pieces		SV4080	SV4011
Vertical segregation for structure H=1800mm - No. 2 pieces	SV1860	SV1880	SV1815
Vertical segregation for structure H=2000mm	SV2265	SV2285	SV2015
Rear segregation for internal cable container			
Segregation/front door for external cable container W=300mm			
Vertical segregation modular for structure H=200mm		SV2080	SV2011

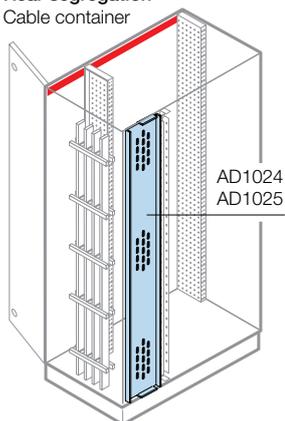


*2 pieces without vertical busbar system

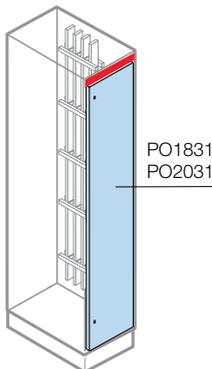
**1 piece with vertical busbar system

12 DIN mod. W=390mm D=500/700	24 DIN mod. W=600mm D=500/700	24 DIN mod. W=600mm D=900	36 DIN mod. WL=800mm D=500/700	48 DIN mod. W=1000mm D=900	12 DIN mod. W=390mm	24 DIN mod. W=600mm	36 DIN mod. W=800mm	48 DIN mod. W=1000mm	Structure D=500mm	Structure D=700mm
SH4030	SH2030	SH1030	SH8570	SH1090						
					SV4061	SV2061	SV2081	SV2010		
						SV3060	SV3080	SV3010		
						SV2064	SV4081	SV4010		
									SH4031	SH4031
									SH4033	SH4033
									SH4034	SH4034
									SH4035	SH4035

Rear segregation
Cable container

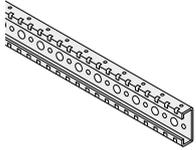


Front segregation
External cable container



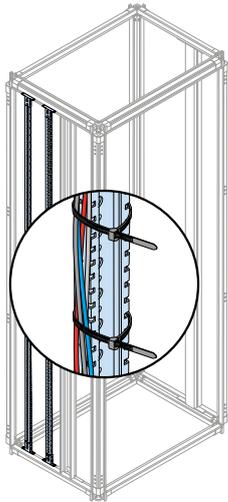
Structure H=1800mm	Structure H=2000mm	Structure H=1800mm	Structure H=2000mm
AD1024	AD1025		
		PO1831	PO2031

Order codes

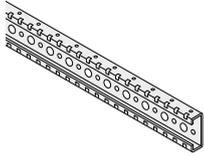


Crosspieces – Galvanized sheet metal

Crosspieces in 20/10 thick hot-dip galvanized sheet metal, for < than 4000A current values. They are fixed directly inside the cubicle using a purpose-made bracket to form busbar holders or as universal crosspieces. Equipped with 12.5mm pitch rectangular holes, they are able to house insulating supports for thermoplastic busbar holders with snap-fit mechanism.



Description	Dimensions (mm)			Type	Order code	Pkg/ No. pcs
	D	W	H			
Depth galvanized sheet metal crosspieces for structures without intermediate upright						
No.2 crosspieces	200			PCRM0188	1STQ007375A0000	1/2
No.2 crosspieces	300			PCRM0288	1STQ007376A0000	1/2
No.2 crosspieces	500			PCRM0488	1STQ007378A0000	1/2
No.2 crosspieces	700			PCRM0688	1STQ007380A0000	1/2
No.2 crosspieces	900			PCRM0888	1STQ007382A0000	1/2
Depth galvanized sheet metal crosspieces for structures with intermediate upright or PCKI.... crosspieces						
No.2 crosspieces	500			PCRM0238	1STQ007384A0000	1/2
No.2 crosspieces	700			PCRM0438	1STQ007386A0000	1/2
No.2 crosspieces	900			PCRM0638	1STQ007388A0000	1/2
Width galvanized sheet metal crosspieces for structures with or without intermediate upright						
No.2 crosspieces		300		PCRM0288	1STQ007376A0000	1/2
No.2 crosspieces		400		PCRM0388	1STQ007377A0000	1/2
No.2 crosspieces		600		PCRM0588	1STQ007379A0000	1/2
No.2 crosspieces		800		PCRM0788	1STQ007381A0000	1/2
No.2 crosspieces		1000		PCRM0988	1STQ007383A0000	1/2
No.2 crosspieces		1250		PCRM1238	1STQ007390A0000	1/2
Universal crosspieces						
No.2 crosspieces L=2013mm				PCRM2013	1STQ007391A0000	1/2
Closing galvanized sheet metal crosspieces with rear intermediate upright						
No.2 crosspieces	600			PCRM0338	1STQ007385A0000	1/2
No.2 crosspieces	800			PCRM0538	1STQ007387A0000	1/2
No.2 crosspieces	1000			PCRM0738	1STQ007389A0000	1/2
Crosspieces total height						
No.2 galvanized sheet metal crosspieces for total height of enclosures			1800	PCRM1788	1STQ002007B0000	1/2
No.2 galvanized sheet metal crosspieces for total height of enclosures			2000	PCRM1988	1STQ002006B0000	1/2

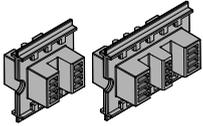


Crosspieces – AISI 304 stainless steel

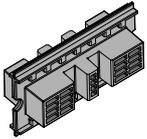
Crosspieces in 25/10 thick AISI 304 stainless steel for \geq than 4000A current values. They are fixed directly inside the cubicle using a purpose-made bracket to form busbar holders or as universal crosspieces. Equipped with 12.5mm pitch rectangular holes, they are able to house insulating supports for thermoplastic busbar holders with snap-fit mechanism. Since the components are modular, the center distance between the phases can be increased by spacing the insulating supports at a 12.5mm pitch.

Description	Dimensions (mm)		Type	Order code	Pkg/ No. pcs
	W	H			
Depth stainless steel crosspieces for structures without intermediate upright					
No. 2 crosspieces	900		PCRS0888	1STQ007395A0000	1/2
Depth stainless steel crosspieces for structures with intermediate upright or PCKI.... crosspieces					
No. 2 crosspieces	700		PCRS0438	1STQ007398A0000	1/2
No. 2 crosspieces	900		PCRS0638	1STQ007399A0000	1/2
Width stainless steel crosspieces for structures with or without intermediate upright					
No. 2 crosspieces		400	PCRS0388	1STQ007392A0000	1/2
No. 2 crosspieces		600	PCRS0588	1STQ007393A0000	1/2
No. 2 crosspieces		800	PCRS0788	1STQ007394A0000	1/2
No. 2 crosspieces		1000	PCRS0988	1STQ007396A0000	1/2
No. 2 crosspieces		1250	PCRS1238	1STQ007400A0000	1/2
Closing stainless steel crosspieces					
No. 2 crosspieces			PCRS0338	1STQ007397A0000	1/2
No. 2 crosspieces			PCRS0438	1STQ007398A0000	1/2
1/2 Universal crosspieces					
No. 2 crosspieces L=2013mm			PCRS2013	1STQ001335B0000	1/2

Busbar Supports



PBHB1125 PBHB2145



PBHB3121

Insulating supports for busbars

Insulating supports for busbars in polyamide 6.6 with 30% fiberglass, equipped with shaped grooves for housing busbars and pins for fixing to the crosspieces. Able to house both flat and shaped profile busbars.

Description	Dimensions		Type	Order code	Pkg/ No. pcs
	W (mm)				
No.24 insulating supports for busbars	50		PBHB1125	1STQ007426A0000	1/24
No.24 insulating supports for busbars	75		PBHB2145	1STQ007427A0000	1/24
No.24 insulating supports for busbars	100		PBHB3121	1STQ007428A0000	1/24

Tie rods in AISI 304 stainless steel

Tie rods in AISI 304 stainless steel to used to connect Top and Bottom set of supports. Length of the rod is busbar thickness + 90mm.

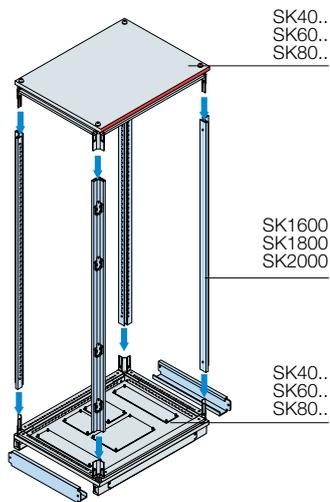


Description	Type	Order code	Pkg/ No. pcs
No. 10 Tie rods in AISI 304 stainless steel W=120mm	PTRS1201	1STQ007434A0000	1/10
No. 10 Tie rods in AISI 304 stainless steel W=160mm	PTRS1601	1STQ007435A0000	1/10
No. 10 Tie rods in AISI 304 stainless steel W=200mm	PTRS2001	1STQ007436A0000	1/10

Busbar Size (MBB)	In	lcw/s	IP	Busbar support
1 Run Busbar				
1x30x10	400A	36kA/1	IP54	PBHB1125
1x50x10	800A	36kA/3	IP54	PBHB1125
1x80x10	1250A	50kA/3	IP54	PBHB1125
2 Run Busbar				
2x60x10	1600A	65kA/3	IP54	PBHB2415
2x80x10	2500A	65kA/3	IP43/54	PBHB2415
3 Run Busbar				
3x100x10	3200A	65kA/3	IP43/54	PBHB3121
3x120x10	4000A	65kA/3	IP43/54	PBHB3121
3x160x10	5000A	100kA/1	IP43/54	PBHB3121
3x160x10	5500A	100kA/1	IP43/54	PBHB3121
3x160x10	6300A	100kA/1	IP43/54	PBHB3121
Busbar Size (VBB)	In	lcw/s		Busbar support
1x40x10	400A	36kA/1		PBHB1125
1x60x10	900A	50kA/3		PBHB1125
2x50x10	1250A	65kA/1		PBHB2415

ArTu K Modular Structures

Ordering codes



STRUCTURES SEGREGATED

Structure

Base-Top-Base

Preassembled structure complete with cable input flange, base strip angle pieces and front flanges – the lateral ones must be ordered separately.

Description	Dimensions (mm)		Code	Package/ No. of pieces
	D			
12 DIN mod - W=390mm				
Base-Top-Base strip	225		SK4040	1/1
Base-Top-Base strip	300		SK4050	1/1
Base-Top-Base strip	500		SK4060	1/1
Base-Top-Base strip	700		SK4080	1/1
Base-Top-Base strip	900		SK4010	1/1
24 DIN mod - W=600mm				
Base-Top-Base strip	150		SK6025	1/1
Base-Top-Base strip	225		SK6040	1/1
Base-Top-Base strip	300		SK6050	1/1
Base-Top-Base strip	500		SK6060	1/1
Base-Top-Base strip	700		SK6080	1/1
Base-Top-Base strip	900		SK6010	1/1
24 DIN mod - W=800mm				
Base-Top-Base strip	150		SK8025	1/1
Base-Top-Base strip	225		SK8040	1/1
Base-Top-Base strip	300		SK8050	1/1
Base-Top-Base strip	500		SK8060	1/1
Base-Top-Base strip	700		SK8080	1/1
Base-Top-Base strip	900		SK8010	1/1
24 DIN mod - W=1000mm				
Base-Top-Base strip	900		SK1010	1/1

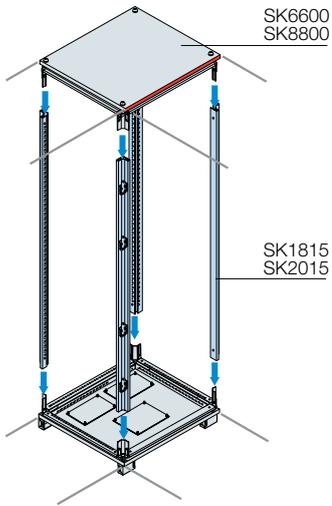
Uprights

Description	Dimensions (mm)		Code	Package/ No. of pieces
	H			
No. 4 uprights	1600		SK1600	1/4
No. 4 uprights	1800		SK1800	1/4
No. 4 uprights	2000		SK2000	1/4

Note: For other dimensions please contact ABB Dubai office

ArTu K Modular Structures

Ordering codes



STRUCTURES SEGREGATED

Structure

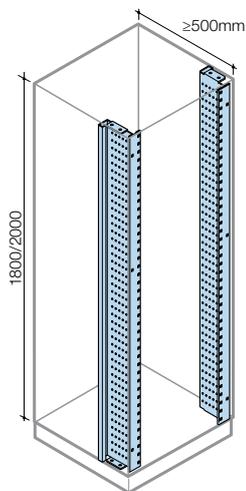
Base-Top-Base strip for corner switchgear

Description	Dimensions (mm)		Code	Package/ No. of pieces
	W	W		
Corner base-Top-Base strip	500	500	SK6600	1/1
Corner base-Top-Base strip	700	700	SK8800	1/1
Corner base-Top-Base strip	900	900	SK1100	1/1

Uprights for corner switchgears

Description	Dimensions (mm)		Code	Package/ No. of pieces
	H			
No. 4 corner uprights	1800		SK1815	1/4
No. 4 corner uprights	2000		SK2015	1/4

Note: For other dimensions please contact ABB Dubai office



STRUCTURES SEGREGATED

Structure

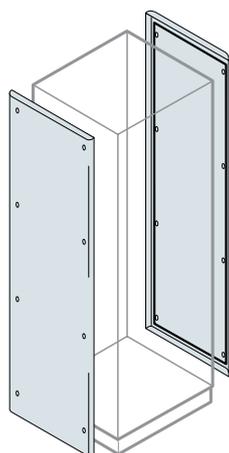
Functional frames for segregated switchgear (closed frame)

Description	Dimensions (mm)		Code	Package/ No. of pieces
	H			
No.2 segregated functional frames	1800		SK1802	1/2
No.2 segregated functional frames	2000		SK2003	1/2

To make structures with internal cable container (switchgear W=800mm), the functional frame is already included in the kit for internal cable container (see page 5/61).

IP65 Side panels

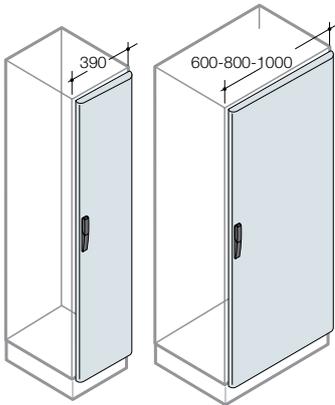
Description	Dimensions (mm)		Code	Package/ No. of pieces
	D			
H=1600mm				
No.2 side panels IP65	150		LF1626	1/2
H=1800mm				
No.2 side panels IP65	150		LF1826	1/2
No.2 side panels IP65	225		LF1840	1/2
No.2 side panels IP65	300		LF1850	1/2
No.2 side panels IP65	500		LF1860	1/2
No.2 side panels IP65	700		LF1880	1/2
No.2 side panels IP65	900		LF1810	1/2
H=2000mm				
No.2 side panels IP65	150		LF2026	1/2
No.2 side panels IP65	225		LF2040	1/2
No.2 side panels IP65	300		LF2050	1/2
No.2 side panels IP65	500		LF2060	1/2
No.2 side panels IP65	700		LF2080	1/2
No.2 side panels IP65	900		LF2010	1/2



Note: For other dimensions please contact ABB Dubai office

ArTu K Modular Structures

Ordering codes



PV1841-
PO2041

PO1661-PO1861
PO2061-PO1681
PO1881-PO2081
PO1811-PO2011

STRUCTURES SEGREGATED

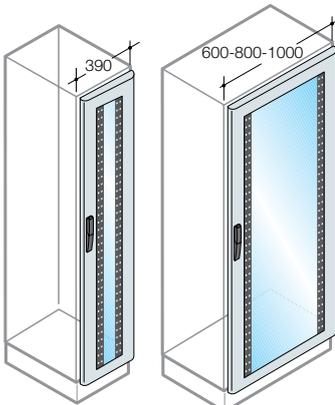
Structure

IP65 Front or rear blind doors IP65

12/24/36/48 mod. blind doors

Door made of 15/10 thick steel sheet fitted with polyurethane gasket complete with handle with key with double tab. Reversible, can be hinged on the right or left.

Description	Dimensions (mm)		Code	Package/ No. of pieces
	W	H		
12 DIN mod.				
Blind door IP65	390	1800	PO1841	1/1
Blind door IP65	390	2000	PO2041	1/1
24 DIN mod.				
Blind door IP65	600	1600	PO1661	1/1
Blind door IP65	600	1800	PO1861	1/1
Blind door IP65	600	2000	PO2061	1/1
36 DIN mod.				
Blind door IP65	800	1600	PO1681	1/1
Blind door IP65	800	1800	PO1881	1/1
Blind door IP65	800	2000	PO2081	1/1
48 DIN mod.				
Blind door IP65	1000	1800	PO1811	1/1
Blind door IP65	1000	2000	PO2011	1/1



PV1841-PV2041

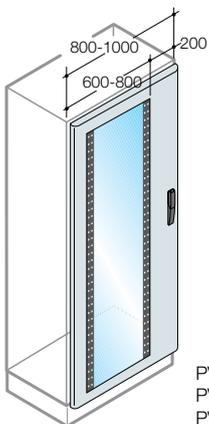
PV1661-PV1861
PV2061-PV1682
PV1882-PV2082
PV1811-PV2011

IP65 Front or rear glass doors

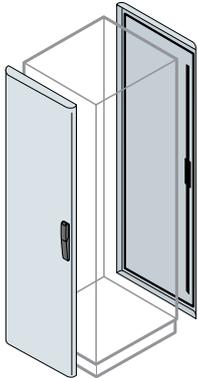
Glass doors 12/24/36 mod.

Door made of 15/10 thick steel sheet with 4 mm thick safety glass fitted with polyurethane gasket complete with handle with key with double tab. Reversible, can be hinged on the right or left.

Description	Dimensions (mm)		Code	Package/ No. of pieces
	W	H		
12 DIN mod.				
Glass door IP65	390	1800	PV1841	1/1
Glass door IP65	390	2000	PV2041	1/1
24 DIN mod.				
Glass door IP65	600	1600	PV1661	1/1
Glass door IP65	600	1800	PV1861	1/1
Glass door IP65	600	2000	PV2061	1/1
36 DIN mod.				
Glass door IP65	800	1600	PV1682	1/1
Glass door IP65	800	1800	PV1882	1/1
Glass door IP65	800	2000	PV2082	1/1
36 DIN mod. + internal cablr container (Only for structures W=800mm consisting of 24 mod. + internal cable container).				
Glass door IP65 + cale cont.	800	1600	PV1681	1/1
Glass door IP65 + cale cont.	800	1800	PV1881	1/1
Glass door IP65 + cale cont.	800	2000	PV2081	1/1
48 DIN mod.				
Glass door IP65	1000	1800	PV1811	1/1
Glass door IP65	1000	2000	PV2011	1/1
48 DIN mod. + internal cablr container (Only for structures W=1000mm consisting of 48 mod. + internal cable container).				
Glass door IP65 + cale cont.	1000	1800	PV1812	1/1
Glass door IP65 + cale cont.	1000	2000	PV2012	1/1



PV1681-PV1881
PV2081-PV1812
PV2012



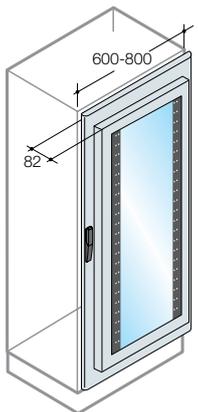
STRUCTURES SEGREGATED

Structure

IP65 Blind side doors

Description	Dimensions (mm)		Code	Package/ No. of pieces
	D			
H=1800mm				
No.2 side doors IP65	225		LI1840	1/2
No.2 side doors IP65	500		LI1860	1/2
No.2 side doors IP65	700		LI1880	1/2
H=2000mm				
No.2 side doors IP65	225		LI2040	1/2
No.2 side doors IP65	500		LI2060	1/2
No.2 side doors IP65	700		LI2080	1/2

2



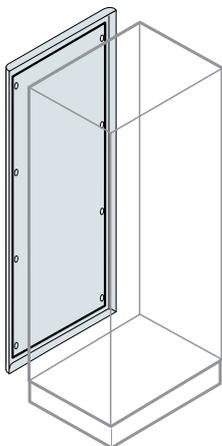
IP65 Front extending glass doors

Description	Dimensions (mm)		Code	Package/ No. of pieces
	W	H		
24 DIN mod.				
External extending glass door IP65	600	1800	PV1863	1/1
External extending glass door IP65	600	2000	PV2063	1/1
36 DIN mod.				
External extending glass door IP65	800	1800	PV1883	1/1
External extending glass door IP65	800	2000	PV2083	1/1

Note: For other dimensions please contact ABB Dubai office

ArTu K Modular Structures

Ordering codes



2

STRUCTURES SEGREGATED

Structure

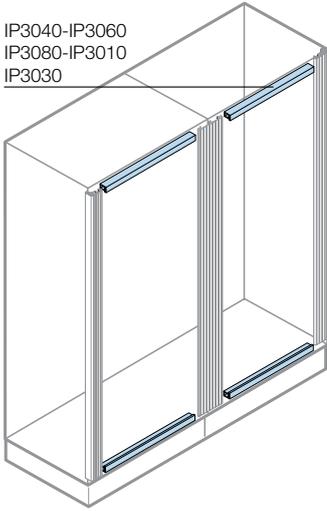
IP65 Rear panels

Description	Dimensions (mm)		Code	Package/ No. of pieces
	W	H		
12 DIN mod.				
Rear panel IP65	390	1800	RF1840	1/1
Rear panel IP65	390	2000	RF2040	1/1
24 DIN mod.				
Rear panel IP65	600	1600	RF1660	1/1
Rear panel IP65	600	1800	RF1860	1/1
Rear panel IP65	600	2000	RF2060	1/1
36 DIN mod.				
Rear panel IP65	800	1600	RF1680	1/1
Rear panel IP65	800	1800	RF1880	1/1
Rear panel IP65	800	2000	RF2080	1/1
48 DIN mod.				
Rear panel IP65	1000	1800	RF1810	1/1
Rear panel IP65	1000	2000	RF2010	1/1

Note: For other dimensions please contact ABB Dubai office

Rear cover with cutout are available in dedicated ordering codes

IP3040-IP3060
IP3080-IP3010
IP3030



STRUCTURES SEGREGATED

Structure

IP 31 Finishing section

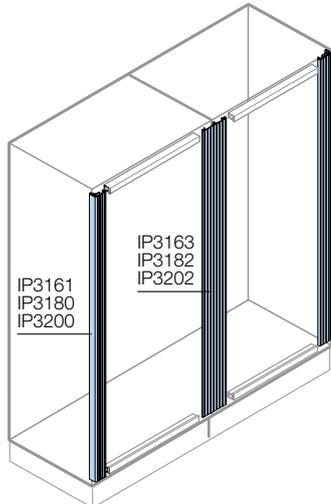
For IP31 version switchgear (without door), use the special finishing kits already sized for the standard heights and widths of ArTu switchgear. In the case of switchgear placed side by side, use the special double IP31 kit on the joining uprights.

Horizontal section

Description	Dimensions (mm)		Code	Package/ No. of pieces
	W			
12 DIN mod.				
No.2 IP31 horizontal finishing sections	390		IP3040	1/2
24 DIN mod.				
No.2 IP31 horizontal finishing sections	600		IP3060	1/2
36 DIN mod.				
No.2 IP31 horizontal finishing sections	800		IP3080	1/2
48 DIN mod.				
No.2 IP31 horizontal finishing sections	1000		IP3010	1/2
External cable container W=300mm				
No.2 IP31 horizontal finishing sections	300		IP3030	1/2

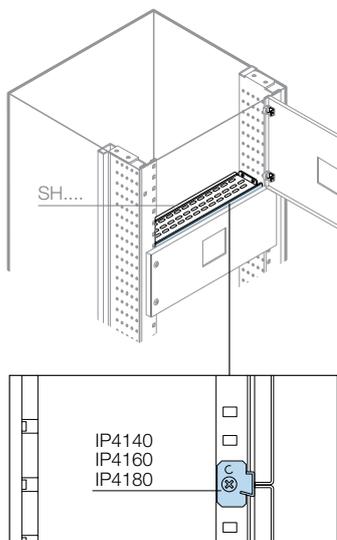
Vertical section

Description	Dimensions (mm)		Code	Package/ No. of pieces
	H			
No.2 IP31 vertical finishing sections	1600		IP3161	1/2
No.2 IP31 vertical finishing sections	1800		IP3180	1/2
No.2 IP31 vertical finishing sections	2000		IP3200	1/2
Double vertical finishing profile IP31 for side-by-side switchgear	1600		IP3163	1/2
Double vertical finishing profile IP31 for side-by-side switchgear	1800		IP3182	1/2
Double vertical finishing profile IP31 for side-by-side switchgear	2000		IP3202	1/2



ArTu K Modular Structures

Ordering codes



2

STRUCTURES SEGREGATED

Structure

Kit IP41

Not segregated structures

Description	Dimensions (mm)		Code	Package/ No. of pieces
	W			
12 DIN mod.				
No.4 IP41 horizontal kits for not segregated structures	390		IP4140	1/4
24 DIN mod.				
No.4 IP41 horizontal kits for not segregated structures	600		IP4160	1/4
36 DIN mod.				
No.4 IP41 horizontal kits for not segregated structures	800		IP4180	1/4

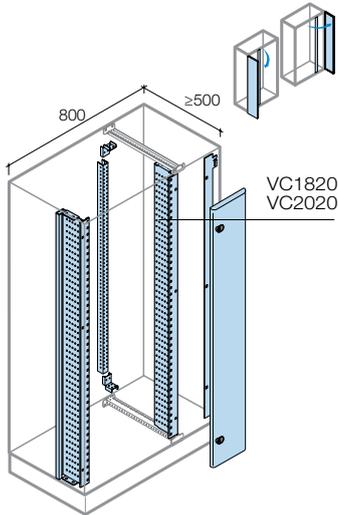
Segregated structures⁽¹⁾

Description	Dimensions (mm)		Code	Package/ No. of pieces
	W			
12 DIN mod.				
No.4 IP41 horizontal kits for segregated structures	390		IP4141	1/4
24 DIN mod.				
No.4 IP41 horizontal kits for segregated structures	600		IP4161	1/4
36 DIN mod.				
No.4 IP41 horizontal kits for segregated structures	800		IP4181	1/4

⁽¹⁾ To complete with universal segregation SH 4000, SH 6000, SH 8000 (see page 5/86).

STRUCTURES SEGREGATED

Structure



Internal cable container for segregated switchgear (closed frame)

Only to be ordered for the W=800mm structures. Kit consisting of 2 functional segregated frames, a blind door and a rear upright for fixing onto the back of crosspieces, accessories, busbars, etc. Can be mounted either on the right or left.

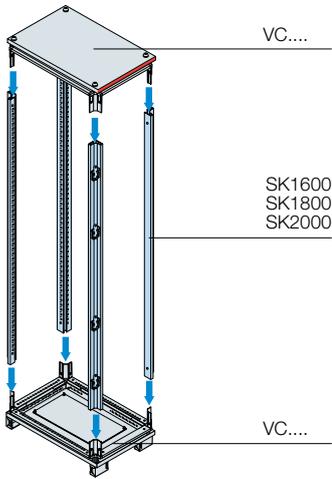
Description	Dimensions (mm)		Code	Package/ No. of pieces
	H	W		
Internal cable container for segregated switchgear D\geq500mm				
Segregated cable container	1800	200	VC1820	1/1
Segregated cable container	2000	200	VC2020	1/1

**Note: For other dimensions or other type please contact
ABB Dubai office**

ArTu K Modular Structures

Ordering codes

2



STRUCTURES SEGREGATED

Structure

Base-Header-Plinth for external cable container

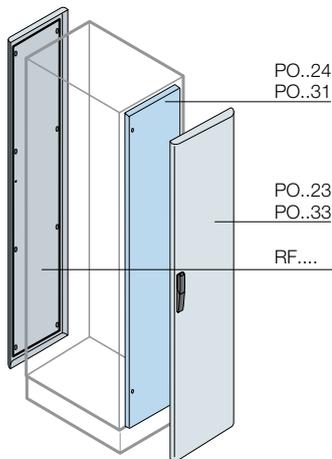
Pre-mounted structure complete with cable entry flanges, plinth channels and front flanges – the lateral ones must be ordered separately.

Description	Dimensions (mm)		Code	Package/ No. of pieces
	D	W		
Base, top and base strip for external cable container	150	300	VC3025	1/1
Base, top and base strip for external cable container	225	300	VC3040	1/1
Base, top and base strip for external cable container	300	300	VC3050	1/1
Base, top and base strip for external cable container	500	300	VC3060	1/1
Base, top and base strip for external cable container	700	300	VC3080	1/1
Base, top and base strip for external cable container	900	300	VC3010	1/1

Front and rear coverings for additional cable container

The additional cable container can be completed in the following ways:

- IP65 version with external door (internal optional)
- IP31 version with internal door and finishing section (see table on page 5/58).



IP65 External door

Description	Dimensions (mm)		Code	Package/ No. of pieces
	H	W		
External door for cable container	1600	300	PO1633	1/1
External door for cable container	1800	300	PO1833	1/1
External door for cable container	2000	300	PO2033	1/1

IP65 Rear panel

Description	Dimensions (mm)		Code	Package/ No. of pieces
	H	W		
Rear panel for external cable container	1600	300	RF1630	1/1
Rear panel for external cable container	1800	300	RF1830	1/1
Rear panel for external cable container	2000	300	RF2030	1/1

ArTu K Modular Structures

Ordering codes

STRUCTURES SEGREGATED

Kit for apparatus

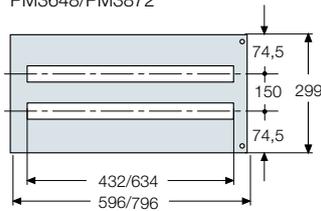
Modular panel

Steel sheet panels complete with hinges placed on the right or left

Description	Dimensions (mm)		Code	Package/ No. of pieces
	H	W		
12 DIN mod.				
Modular panel 1 DIN row	200	390	PM2424	1/1
Modular panel 2 DIN rows	300		PM3424	1/1
24 DIN mod.				
Modular panel 1 DIN row	200	600	PM2624	1/1
Modular panel 1 DIN row - Tmax RC	300		PM2312	1/1
Modular panel 1 DIN row only for Unifix H	300		PM3624	1/1
Modular panel 2 DIN rows interaxis 150mm	300		PM3648	1/1
Modular panel 3 DIN rows	600		PM6672	1/1
36 DIN mod.				
Modular panel 1 DIN row	200	800	PM2836	1/1
Modular panel 1 DIN row - Tmax RC	300		PM2315	1/1
Modular panel 1 DIN row only for Unifix H	300		PM3836	1/1
Pannello modulare 2 file DIN	300		PM3872	1/1
48 DIN mod.				
Modular panel 1 DIN row	200	1000	PM2010	1/1

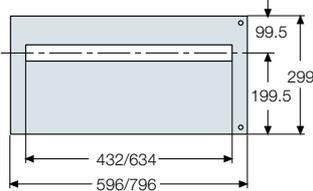
Width 600/800/1000mm

PM3648/PM3872

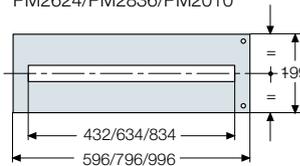


Version for Tmax with mod. diff.

PM2312/PM2315



PM2624/PM2836/PM2010



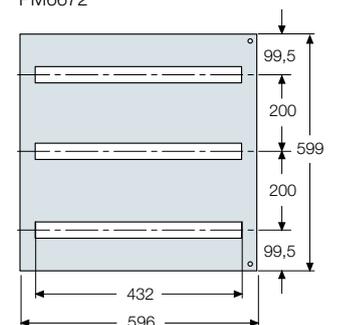
Version for Unifix H

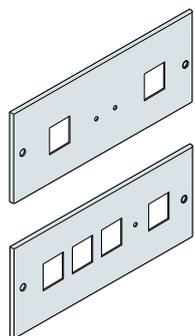
PM3624/PM3836



Width 600mm

PM6672





STRUCTURES SEGREGATED

Kit for apparatus

Panels for square measuring instruments

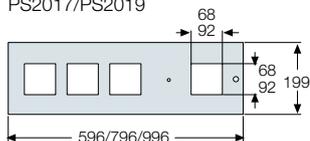
Steel sheet panels complete with hinges placed on the right or left.

Description	Dimensions (mm)		Code	Package/ No. of pieces
	H	W		
24 DIN mod - W=600mm				
Panel for 2 instruments 72x72mm	200	600	PS2720	1/1
Panel for 2 instruments 72x72mm			PS2960	1/1
Panel for 4 instruments 72x72mm			PS4720	1/1
Panel for 4 instruments 96x96mm			PS4960	1/1
36 DIN mod - W=800mm				
Panel for 2 instruments 72x72mm	200	800	PS2728	1/1
Panel for 2 instruments 72x72mm			PS2968	1/1
Panel for 4 instruments 72x72mm			PS4728	1/1
Panel for 4 instruments 96x96mm			PS4968	1/1
48 DIN mod. - L=1000mm				
Panel for 4 instruments 72x72mm	200	1000	PS2017	1/1
Panel for 4 instruments 96x96mm			PS2019	1/1

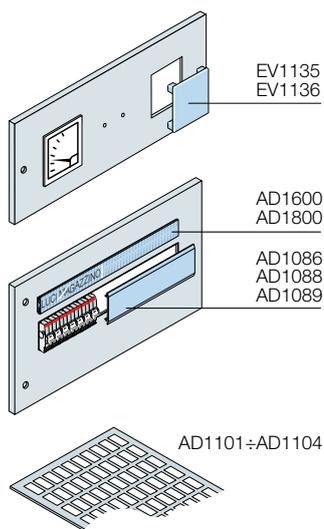
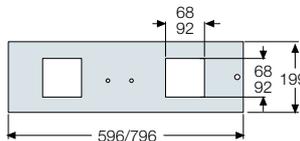
2

Leght 600/800/1000mm

PS4720/PS4728/PS4960/PS4968/
PS2017/PS2019



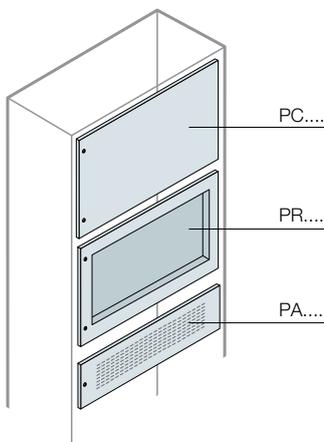
PS2720/PS2728/PS2960/PS2968



Accessories for panels

Description	Code	Package/ No. of pieces
No.10 holes covers W=2000mm grey RAL 7035 colour	AD1086	1/10
No.3 holes covers 24 Din modules grey RAL 7035 colour	AD1088	1/3
No.3 holes covers 36 Din modules grey RAL 7035 colour	AD1089	1/3
No.10 closing caps for instrument panel 72x72mm	EV1135	1/10
No.5 closing caps for instrument panel 96x96mm	EV1136	1/5
No.20 label-holders 24 DIN mod.	AD1600	1/20
No.20 label-holders 36 DIN mod.	AD1800	1/20
No.288 labels 1 mod. 15x17mm (HxW)	AD1101 ⁽¹⁾	1/288
No.192 labels 2 mod. 15x27mm (HxW)	AD1102 ⁽¹⁾	1/192
No.96 labels 3 mod. 15x50mm (HxW)	AD1103 ⁽¹⁾	1/96
No.96 labels 4 mod. 15x67mm (HxW)	AD1104 ⁽¹⁾	1/96

⁽¹⁾ Labels can be written with Grafoplast compatible plotter system.

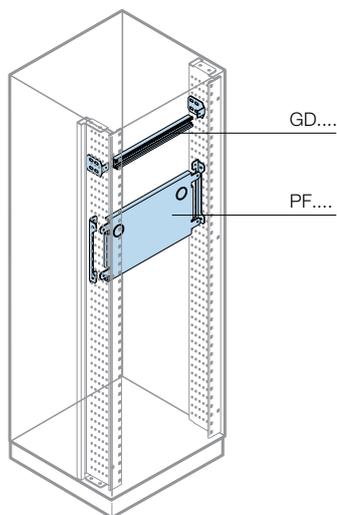


STRUCTURES SEGREGATED

Kit for apparatus

Blind, recessed and ventilated panels for general apparatus

Description	Dimensions (mm)		Code	Package/ No. of pieces	
	W	H			
12 DIN mod. - W=390mm					
Blind panel	390	100	PC1400	1/1	
Blind panel		200	PC2400	1/1	
Blind panel		300	PC3400	1/1	
Blind panel		400	PC4400	1/1	
Blind panel		600	PC6400	1/1	
Blind panel		1800	PC1840	1/1	
Blind panel		2000	PC2040	1/1	
24 DIN mod. - W=600mm					
Blind panel	600	100	PC1600	1/1	
Blind panel		200	PC2600	1/1	
Blind panel		300	PC3600	1/1	
Blind panel		400	PC4600	1/1	
Blind panel		600	PC6600	1/1	
Blind panel		800	PC8600	1/1	
Blind panel		1600	PC1660	1/1	
Blind panel		1800	PC1860	1/1	
Blind panel		2000	PC2060	1/1	
Blind recessed panel		200	PR2600	1/1	
Blind recessed panel		400	PR4600	1/1	
Blind recessed panel		600	PR6600	1/1	
Ventilated panel		100	PA1600	1/1	
Ventilated panel		200	PA2600	1/1	
36 DIN mod. - W=800mm					
Blind panel	800	100	PC1800	1/1	
Blind panel		200	PC2800	1/1	
Blind panel		300	PC3800	1/1	
Blind panel		400	PC4800	1/1	
Blind panel		600	PC6800	1/1	
Blind panel		800	PC8800	1/1	
Blind panel		1600	PC1680	1/1	
Blind panel		1800	PC1880	1/1	
Blind panel		2000	PC2080	1/1	
Blind recessed panel		200	PR2800	1/1	
Blind recessed panel		400	PR4800	1/1	
Blind recessed panel		600	PR6800	1/1	
48 DIN mod. - W=1000mm					
Blind panel		1000	100	PC1210	1/1
Blind panel	200		PC1220	1/1	
Blind panel	300		PC1230	1/1	
Blind panel	400		PC1240	1/1	
Blind panel	500		PC1250	1/1	
Blind panel	600		PC1260	1/1	
Ventilated panel	100		PA1010	1/1	
Ventilated panel	200		PA2010	1/1	



SEGREGATED STRUCTURES- Kit for switchgear with segregated frame $D \geq 500\text{mm}$

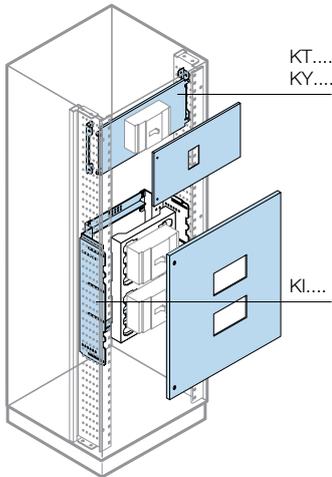
Kit for apparatus

Blind back plates for general apparatus

Description	Dimensions (mm)		Code	Package/ No. of pieces
	W	H		
12 DIN mod. - W=390mm				
Blind back plate	390	200	PF2405	1/1
Blind back plate		300	PF3405	1/1
Blind back plate		400	PF4405	1/1
Blind back plate		600	PF6405	1/1
24 DIN mod. - W=600mm				
Blind back plate	600	200	PF2005	1/1
Blind back plate		300	PF3005	1/1
Blind back plate		400	PF4005	1/1
Blind back plate		600	PF6005	1/1
Blind back plate		800	PF8005	1/1
36 DIN mod. - W=800mm				
Blind back plate	800	200	PF2805	1/1
Blind back plate		300	PF3805	1/1
Blind back plate		400	PF4805	1/1
Blind back plate		600	PF6805	1/1
Blind back plate		800	PF8805	1/1
48 DIN mod. - W=1000mm				
Blind back plate	1000	200	PF2090	1/1
Blind back plate		300	PF3090	1/1
Blind back plate		400	PF4090	1/1
Blind back plate		600	PF6090	1/1

ArTu K Modular Structures

Ordering codes



SEGREGATED STRUCTURES- Kit for switchgear with segregated frame $D \geq 500\text{mm}$

Kit for apparatus

Kit for installing Tmax circuit-breakers

Horizontal installation (rear terminals)

Description	Dimensions (mm)		Code	Package/ No. of pieces
	H	W		
12 DIN mod. - W=390mm				
Kit for T1 3/4 poles fixed	200	390	KT1410	1/1
Kit for T2 3/4 poles fixed	200		KT2410	1/1
Kit for T2 3/4 poles plug-in	200		KT2420	1/1
Kit for T3 3/4 poles fixed	200		KT3410	1/1
Kit for T3 3/4 poles plug-in	200		KT3420	1/1
Kit for T4 3/4 poles fixed	200		KT4120	1/1
Kit for T5 3/4 poles fixed	300		KT5122	1/1
Kit for XT1 3/4 poles fixed	200		KY1411 ⁽²⁾	1/1
Kit for XT2 3/4 poles fixed	200		KY2411 ⁽²⁾	1/1
Kit for XT2 3/4 poles plug-in	200		KY2421 ⁽²⁾	1/1
Kit for XT3 3/4 poles fixed	200		KY3411 ⁽²⁾	1/1
Kit for XT3 3/4 poles plug-in	300		KY3421 ⁽²⁾	1/1
Kit for XT4 3/4 poles fixed	200		KY4411 ⁽²⁾	1/1
24 DIN mod. - W=600mm				
Kit for T1 3/4 poles fixed	200	600	KT1110	1/1
Kit for T1 4 poles fixed + RC mod.	200		KT1100	1/1
Kit for T2 3/4 poles fixed	200		KT2110	1/1
Kit for T2 3/4 poles fixed (MRD)	200		KT2210	1/1
Kit for T2 3/4 poles plug-in	200		KT2120	1/1
Kit for T3 3/4 poles fixed	200		KT3110	1/1
Kit for T3 3/4 poles fixed (MRD)	200		KT3115	1/1
Kit for T3 3/4 poles plug-in	200		KT3120	1/1
Kit for T3 3/4 poles plug-in (MRD)	200		KT3124	1/1
Kit for T3 3/4 poles fixed (I-IM)	600		KT3132	1/1
Kit for T4 3/4 poles fixed (MRD)	200		KT4124	1/1
Kit for T4 3/4 poles fixed (CM)	200		KT4310	1/1
Kit for T4 3/4 poles plug-in	200		KT4113	1/1
Kit for T4 3/4 poles fixed and plug-in (I-IM)	600		KI4116	1/1
Kit for T4 3/4 poles plug-in (I-IM)	600		KI4119	1/1
Kit for T4 3/4 poles withdrawable (MRD)	300		KT4130	1/1
Kit for T4 3/4 poles withdrawable (CM)	300		KT4320*	1/1
Kit for T4 3/4 poles withdrawable (I)	600		KI4117	1/1
Kit for T4 3/4 poles withdrawable (IM)	600		KI4118	1/1
Kit for T5 3/4 poles fixed (MRD)	300		KT5136	1/1
Kit for T5 3/4 poles fixed (CM)	300		KT5310	1/1
Kit for T5 3/4 poles fixed and plug-in (I-IM)	600		KI5116	1/1
Kit for T5 3/4 poles plug-in (I-IM)	600		KI5119	1/1
Kit for T5 (400A) 3/4 poles plug-in	300		KT5420	1/1
Kit for T5 (630A) 3/4 poles plug-in	300		KT5421	1/1
Kit for T5 (400A) 3/4 poles withdrawable (MRD)	300		KT5430	1/1
Kit for T5 (630A) 3/4 poles withdrawable (MRD)	300		KT5431	1/1

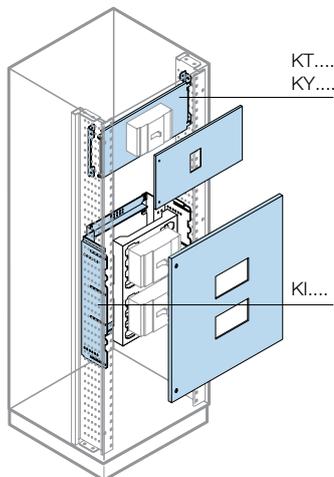
* Only segregation Form 2

⁽¹⁾ If used with rotary handle, use the protruding door PV..63 and PV..83.

⁽²⁾ For 3 poles breakers please order accessory flange code AD3305 XT1 3P Flange for plate-mounting; AD3306 XT2 3P Flange for plate-mounting, AD3307 XT3 3P Flange for plate-mounting, AD3308 XT4 3P Flange for plate-mounting.

(DRH) = Direct rotary handle; (MO) = Motor operator; (I) = Interlocked; (IM) = Interlocked motor operated.

CONTINUED



SEGREGATED STRUCTURES- Kit for switchgear with segregated frame $D \geq 500\text{mm}$

Kit for apparatus

Kit for installing Tmax circuit-breakers

Horizontal installation (rear terminals)

Description	Dimensions (mm)		Code	Package/ No. of pieces
	H	W		
24 DIN mod. - W=600mm				
Kit for T5 (400A) 3/4 poles withdrawable (CM)	300		KT5320*	1/1
Kit for T5 (630A) 3/4 poles withdrawable (CM)	300		KT5321*	1/1
Kit for T5 3/4 poles withdrawable (I)	600		KI5117	1/1
Kit for T5 3/4 poles withdrawable (IM)	600		KI5118	1/1
Kit for T6 3/4 poles fixed	500		KT6110	1/1
Kit for T6 3/4 poles fixed (MRD)	500		KT6220	1/1
Kit for T6 3/4 poles fixed (CM)	500		KT6221	1/1
Kit for T6 3/4 poles fixed (I)	800		KT6142	1/1
Kit for T6 3/4 poles fixed (IM)	800		KT6143	1/1
Kit for T6 3/4 poles withdrawable	500		KT6130	1/1
Kit for T6 3/4 poles withdrawable (CM)	500		KT6134*	1/1
Kit for T6 3/4 poles withdrawable (I)	800		KT6144	1/1
Kit for T6 3/4 poles withdrawable (IM)	800		KT6145	1/1
Kit for T7 3/4 poles fixed	400		KT7115 ⁽¹⁾	1/1
Kit for T7M 3/4 poles fixed (CM)				
Kit for T7M-X1 3/4 poles withdrawable	500		KT7561	1/1
Kit for XT1 3/4 poles fixed	200		KY1611 ⁽²⁾	1/1
Kit for XT1 poles fixed + RC mod.	200		KY1601	1/1
Kit for XT1 3/4 poles plug-in	200		KY1621 ⁽²⁾	1/1
Kit for XT1 3/4 poles fixed (MRD)	200		KY1605	1/1
Kit for XT1 3/4 poles fixed (CM)	200	600	KY1607	1/1
Kit for XT2 3/4 poles fixed	200		KY2611 ⁽²⁾	1/1
Kit for XT2 poles fixed + RC mod.	200		KY2601	1/1
Kit for XT2 3/4 poles plug-in	200		KY2621 ⁽²⁾	1/1
Kit for XT2 3/4 poles withdrawable	300		KY2631 ⁽²⁾	1/1
Kit for XT2 3/4 poles fixed (MRD)	200		KY2605	1/1
Kit for XT2 3/4 poles fixed (CM)	200		KY2607	1/1
Kit for XT3 3/4 poles fixed	200		KY3611 ⁽²⁾	1/1
Kit for XT3 poles fixed + RC mod.	300		KY3601	1/1
Kit for XT3 3/4 poles plug-in	300		KY3621 ⁽²⁾	1/1
Kit for XT3 3/4 poles fixed (MRD)	200		KY3605	1/1
Kit for XT3 3/4 poles fixed (CM)	200		KY3607	1/1
Kit for XT3 - XT1 3/4 poles fixed (I)	500		KY1131 ⁽²⁾	1/1
Kit for XT3 3/4 poles fixed (I)	500		KY3131 ⁽²⁾	1/1
Kit for XT4 3/4 poles fixed	200		KY4611 ⁽²⁾	1/1
Kit for XT4 poles fixed + RC mod.	200		KY4601	1/1
Kit for XT4 3/4 poles plug-in	200		KY4621 ⁽²⁾	1/1
Kit for XT4 3/4 poles withdrawable	300		KY4631 ⁽²⁾	1/1
Kit for XT4 3/4 poles fixed (MRD)	200		KY4607	1/1
Kit for XT4 3/4 poles fixed (CM)	200		KY4604	1/1
Kit for XT4 3/4 poles fixed (I)	500		KY4141 ⁽²⁾	1/1

* Only segregation Form 2

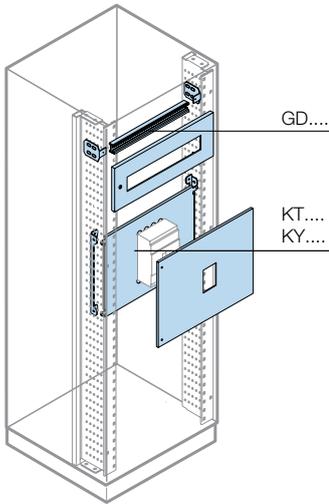
⁽¹⁾ If used with rotary handle, use the protruding door PV..63 and PV..83.

⁽²⁾ For 3 poles breakers please order accessory flange code AD3305 XT1 3P Flange for plate-mounting; AD3306 XT2 3P Flange for plate-mounting, AD3307 XT3 3P Flange for plate-mounting, AD3308 XT4 3P Flange for plate-mounting.

(DRH) = Direct rotary handle; (MO) = Motor operator; (I) = Interlocked; (IM) = Interlocked motor operated.

ArTu K Modular Structures

Ordering codes



SEGREGATED STRUCTURES- Kit for switchgear with segregated frame $D \geq 500\text{mm}$

Kit for apparatus

Kit for installation of Tmax circuit-breakers

Vertical installation (rear terminals)

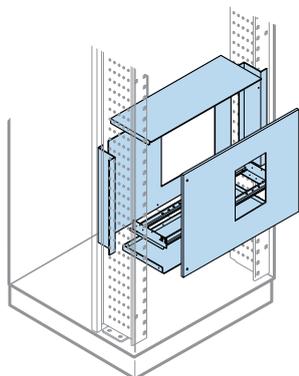
Description	Dimensions (mm)		Code	Package/ No. of pieces
	H	W		
12 DIN mod. - W=390mm				
Kit DIN T1-T2-T3-XT1-XT3, 3/4 poles fixed+RC mod.	200	390	GD.... ⁽¹⁾	1/1
Kit for T4 3/4 poles fixed	400		KT4129	1/1
Kit for T5 3/4 poles fixed	400		KT5137	1/1
Kit for T5 (630A) 3/4 poles plug-in	400		KT5125	1/1
Kit for T5 (630A) 3/4 poles withdrawable	400		KT5126	1/1
Tmax XT4 3/4 poles fixed	300		KY4412 ⁽³⁾	1/1
24 DIN mod. - W=600mm				
Kit DIN T1-T2-T3-XT1-XT3, 3/4 poles fixed+RC mod.	200	600	GD.... ⁽¹⁾	1/1
Kit for T4 3/4 poles fixed	400		KT4121	1/1
Kit for T4 3/4 poles plug-in	400		KT4222	1/1
Kit for T4 3/4 poles withdrawable	400		KT4128	1/1
Kit for T5 3/4 poles fixed	400		KT5128	1/1
Kit for T5 (400A) 3/4 poles plug-in	400		KT5129	1/1
Kit for T5 (630A) 3/4 poles plug-in	400		KT5123	1/1
Kit for T5 (400A) 3/4 poles withdrawable	400		KT5223	1/1
Kit for T5 (630A) 3/4 poles withdrawable	400		KT5124	1/1
Kit for T6 3/4 poles fixed	500		KT6210	1/1
Kit for T6 3/4 poles withdrawable (MRD)	500		KT6230	1/1
Kit for T6 3/4 poles fixed (MRD)	500		KT6132	1/1
Kit for T6 3/4 poles fixed (CM)	500		KT6133	1/1
Kit for T6 3/4 poli estraibile (CM)	500		KT6141	1/1
Kit for T7 3/4 poles fixed	500		KT7215 ⁽²⁾	1/1
Kit for T7M 3/4 poles fixed (CM-I-IM)				
Kit for T7 3/4 poles withdrawable	500		KT7230	1/1
Kit for T7M 3/4 poles withdrawable (CM-I-IM)				
Kit for XT4 3/4 poles fixed	300	KY4612 ⁽³⁾	1/1	
36 DIN mod. - W=800mm				
Kit DIN T1-T2-T3-XT1-XT3, 3/4 poles fixed+RC mod.	200	800	GD.... ⁽¹⁾	1/1
Kit for T8 3/4 poles fixed	900		KT8210	1/1

⁽¹⁾ For the selection of kit for installation on DIN rail see page 5/79.

⁽²⁾ If used with rotary handle, use the protruding door PV.63 and PV.83.

⁽³⁾ For 3 poles breakers please order accessory flange code AD3305 XT1 3P Flange for plate-mounting; AD3306 XT2 3P Flange for plate-mounting, AD3307 XT3 3P Flange for plate-mounting, AD3308 XT4 3P Flange for plate-mounting.

(DRH) = Direct rotary handle; (MO) = Motor operator; (I) = Interlocked; (IM) = Interlocked motor operated.



SEGREGATED STRUCTURES- Kit for switchgear with segregated frame $D \geq 500\text{mm}$

Kit for apparatus

Kit for installation of Emax circuit-breakers X1, E1, E2, E3, E4, E6

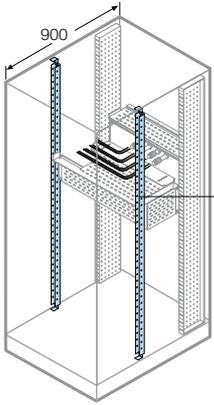
Vertical installation (rear terminals)

Description	Dimensions (mm)		Code	Package/ No. of pieces
	H	W		
24 DIN mod. - W=600mm				
Kit for X1 3/4 poles fixed	500	600	KT7215	1/1
Kit for X1 3/4 poles withdrawable	500		KT7230	1/1
Kit for E1-E2 3/4 poles fixed	600		KE2215	1/1
Kit for E1-E2 3/4 poles withdrawable	600		KE2235	1/1
Kit for E3 3/4 poles fixed	600		KE3205	1/1
Kit for E3 3/4 poles withdrawable	600		KE3236	1/1
36 DIN mod. - W=800mm				
Kit for E3 3/4 poles fixed	600		KE4214	1/1
Kit for E3 3/4 poles withdrawable	600		KE4234	1/1
Kit for E4 3/4 poles fixed (I) 50% neutral	600		KE5214	1/1
Kit for E4 3/4 poles withdrawable (I) 50% neutral	600		KE5234	1/1
48 DIN mod. - W=1000mm				
Kit for E6 3/4 poles fixed 50% neutral	600		KE6340	1/1
Kit for E6 3/4 poles withdrawable 50% neutral	600		KE6343	1/1
Kit for E4 4 poles fixed 100% neutral	600		KE4100	1/1
Kit for E4 4 poles withdrawable 100% neutral	600		KE5236	1/1

(I) = Interlocked.

ArTu K Modular Structures

Ordering codes



SK1881
SK2081

SEGREGATED STRUCTURES- Kit for switchgear with segregated frame $D \geq 500\text{mm}$

Segregation

Intermediate upright for segregated structures $D=900\text{mm}$

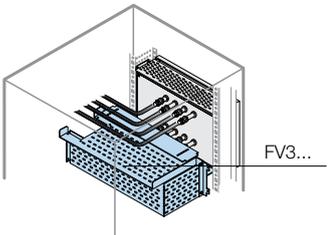
Description	Dimensions (mm)		Code	Package/ No. of pieces
	H			
No.2 lateral intermediate uprights	1800		SK1881	1/2
No.2 lateral intermediate uprights	2000		SK2081	1/2

Horizontal circuit-breakers segregation

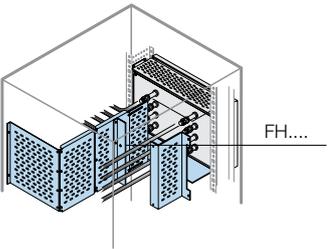
Form 3

Description	Dimensions (mm)		Code	Package/ No. of pieces
	H	D		
12 DIN mod. - W=390mm				
Segregation kit Form 3	200	500/700	FH3224	1/1
Segregation kit Form 3	300	500/700	FH3434	1/1
Segregation kit Form 3	400	500/700	FH3544	1/1
Segregation kit Form 3	600	500/700	FH3764	1/1
24 DIN mod. - W=600mm				
Segregation kit Form 3	200	500/700	FH3220	1/1
Segregation kit Form 3	300	500/700	FH3430	1/1
Segregation kit Form 3	400	500/700	FH3540	1/1
Segregation kit Form 3	500	500/700	FH3650	1/1
Segregation kit Form 3	800	500/700	FH3680	1/1
Segregation kit Form 3	600	500/700	FH3760	1/1
Segregation kit Form 3	800	500/700	FH3780	1/1
Segregation kit Form 3	200	900	FH1020	1/1
Segregation kit Form 3	300	900	FH1030	1/1
Segregation kit Form 3	400	900	FH1040	1/1
Segregation kit Form 3	500	900	FH1050	1/1
Segregation kit Form 3	600	900	FH1060	1/1
Segregation kit T7-X1 withdrawable ⁽¹⁾	500	700	FH7580	1/1
	500	900	FH7510	1/1

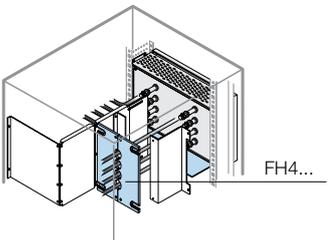
Form 4 (to add to Form 3 kits)
to be arranged by PB



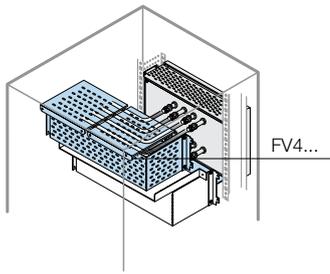
FV3...



FH...



FH4...



SEGREGATED STRUCTURES- Kit for switchgear with segregated frame $D \geq 500\text{mm}$

Segregation

Vertical circuit-breakers segregation

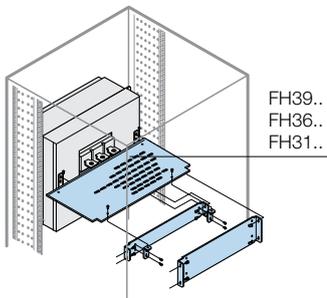
Form 3

Description	Dimensions (mm)		Code	Package/ No. of pieces
	H	D		
Segregation kit Form 3	400	500	FV3456	1/1
Segregation kit Form 3	400	700	FV3458	1/1
Segregation kit Form 3	500	500	FV3556	1/1
Segregation kit Form 3	500	700	FV3558	1/1
Segregation kit Form 3	600	700	FV3668	1/1
Segregation kit Form 3	800	700	FV3788	1/1
Segregation kit Form 3	600	700	FV4557	1/1

Form 4 (to add to Form 3 kits)

Description	Code	Package/ No. of pieces
Kit segregation form 4 to combine to FV3456	FV4456	1/1
Kit segregation form 4 to combine to FV3458	FV4458	1/1
Kit segregation form 4 to combine to FV3556	FV4556	1/1
Kit segregation form 4 to combine to FV3558	FV4558	1/1
Kit segregation form 4 to combine to FV3668	FV4668	1/1
Kit segregation form 4 to combine to FV3788	FV4788	1/1

Form 3 only

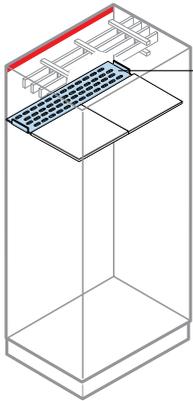


Description	Dimensions (mm)		Code	Package/ No. of pieces
	W	D		
24 DIN mod. - W=600mm				
Segregation kit Emax X1-Tmax T7 withdrawable	600	700	FH3960	1/1
Segregation kit Emax E1-E2-E3 fixed	600	700	FH3960	1/1
Segregation kit Emax E1-E2-E3 withdrawable	600	700	FH3961	1/1
Segregation kit Emax E4 fixed	800	900	FH3965	1/1
Segregation kit Emax E4 withdrawable	800	900	FH3966	1/1
Segregation kit E1-E2-E3 fixed - T7M-X1 withdrawable	600	900	FH3690	1/1
Segregation kit E1-E2-E3 withdrawable	600	900	FH3691	1/1
48 DIN mod. - W=1000mm				
Segregation kit E4/E6 fixed	600	900	FH3190	1/1
Segregation kit E4/E6 withdrawable	600	900	FH3191	1/1

To select the proper kit, please see page 5/36.

ArTu K Modular Structures

Ordering codes



SH4000
SH6000
SH8000
SH1100

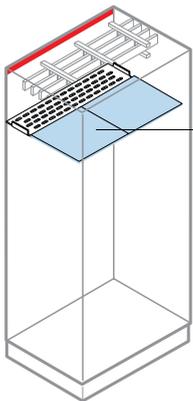
SEGREGATED STRUCTURES- Kit for switchgear with segregated frame $D \geq 500\text{mm}$

Segregation

Universal shelf

Description	Code	Package/ No. of pieces
12 DIN mod. - W=390mm		
Universal busbar segregation shelf	SH4000	1/1
24 DIN mod. - W=600mm		
Universal busbar segregation shelf	SH6000	1/1
36 DIN mod. - W=800mm		
Universal busbar segregation shelf	SH8000	1/1
48 DIN mod. - W=1000mm		
Universal busbar segregation shelf	SH1100	1/1

2

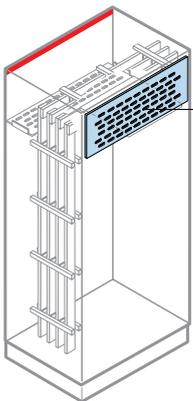


2xSH4030
2xSH2030
2xSH1030
2xSH8570
2xSH1090

Busbar segregation Form 3

Horizontal busbar segregation down

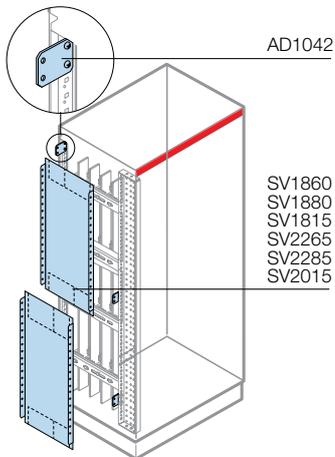
Description	Dimensions (mm)		Code	Package/ No. of pieces
	W	D		
12 DIN mod. - W=390mm				
Horizontal busbar segregation (down)	390	500/700	SH4030	1/1
24 DIN mod. - W=600mm				
Horizontal busbar segregation (down)	600	500/700	SH2030	1/1
Horizontal busbar segregation (down)		900	SH1030	1/1
36 DIN mod. - W=800mm				
Horizontal busbar segregation (down)	800	500/700	SH8570	1/1
48 DIN mod. - W=1000mm				
Horizontal busbar segregation (down)	1000	900	SH1090	1/1



SV....

Horizontal busbar segregation rear

Description	Dimensions (mm)	Code	Package/ No. of pieces
	H		
12 DIN mod. - W=390mm			
Horizontal busbar segregation (rear)	200	SV4061	1/1
24 DIN mod. - W=600mm			
Horizontal busbar segregation (rear)	200	SV2061	1/1
Horizontal busbar segregation (rear)	300	SV3060	1/1
36 DIN mod. - W=800mm			
Horizontal busbar segregation (rear)	200	SV2081	1/1
Horizontal busbar segregation (rear)	300	SV3080	1/1
Horizontal busbar segregation (rear)	400	SV4081	1/1
48 DIN mod. - W=1000mm			
Horizontal busbar segregation (rear)	200	SV2010	1/1
Horizontal busbar segregation (rear)	300	SV3010	1/1
Horizontal busbar segregation (rear)	400	SV4010	1/1



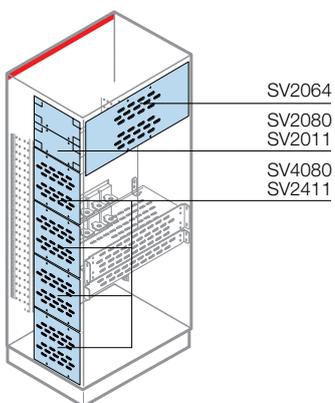
SEGREGATED STRUCTURES- Kit for switchgear with segregated frame $D \geq 500\text{mm}$

Segregation

Busbar segregation Form 3

Vertical busbar segregation side

Description	Dimensions (mm)		Code	Package/ No. of pieces
	H	D		
Vertical busbar segregation (side)	1800	500	SV1860	1/1
Vertical busbar segregation (side)		700	SV1880	1/1
Vertical busbar segregation (side)		900	SV1815	1/1
Vertical busbar segregation (side)	2000	500	SV2265	1/1
Vertical busbar segregation (side)		700	SV2285	1/1
Vertical busbar segregation (side)		900	SV2015	1/1

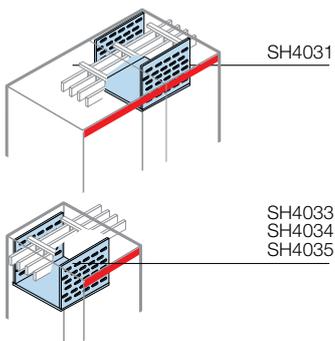


Vertical segregation Emax (side)

Description	Dimensions (mm)		Code	Package/ No. of pieces
	H	D		
Vertical segregation Emax (side)	200	700	SV2080	1/1
Vertical segregation Emax (side)	400	700	SV4080	1/1
Vertical segregation Emax (side)	200	900	SV2011	1/1
Vertical segregation Emax (side)	400	900	SV4011	1/1

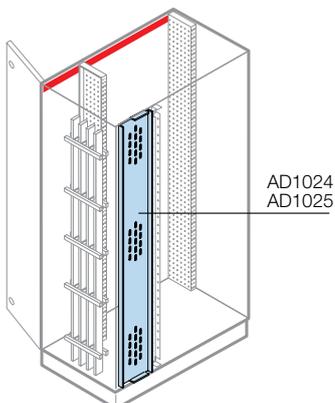
Vertical segregation Emax (rear)

Description	Dimensions (mm)		Code	Package/ No. of pieces
	H	D		
Vertical segregation Emax (rear)	400	600	SV2064	1/1



Busbar segregation in the cable container

Description	Dimensions (mm)		Code	Package/ No. of pieces
	W	D		
Horizontal busbar segregation in internal cable container	200	500/700	SH4031	1/1
Horizontal busbar segregation in additional cable container	300	500/700	SH4033	1/1
Horizontal busbar segregation in structure W=390 used as busbar container	400	500/700	SH4034	1/1
Horizontal busbar segregation in structure W=390 used as busbar container	600	500/700	SH4035	1/1



Internal cable container rear segregation

Description	Dimensions (mm)		Code	Package/ No. of pieces
	H	D		
Internal cable container rear segregation	1800		AD1024	1/1
Internal cable container rear segregation	2000		AD1025	1/1

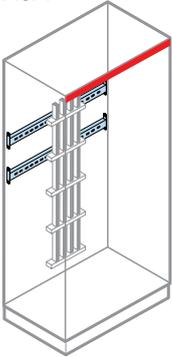
Accessories

Description	Code	Package/ No. of pieces
No.4 spacers for lateral segregation	AD1042	1/4

ArTu K Modular Structures

Ordering codes

Pic. 1



STRUCTURES WITHOUT SEGREGATION/SEGREGATED

Distribution system

Fixing crosspieces for busbars with shaped section

Pic. 1 - Busbars vertically on back of structure

Description	Code	Package/ No. of pieces
12 DIN mod. - W=390mm		
No.2 crosspieces structure for PB0803/PB0802	TV4001	1/2
No.2 crosspieces structure for PB1600/PB1601/PB1603	TV4000	1/2
24 DIN mod. - W=600mm		
No.2 crosspieces structure for PB0803	TV6202	1/2
No.2 crosspieces structure for PB1601/PB1603	TV6201	1/2
36 DIN mod. - W=800mm		
No.2 crosspieces structure for PB0803	TV8202	1/2
No.2 crosspieces structure for PB1601/PB1603	TV8201	1/2

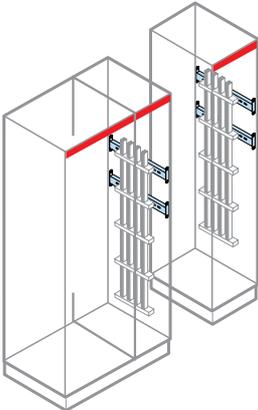
Pic. 2



Pic. 2 - Busbars vertically on back of external/internal cable container

Description	Code	Package/ No. of pieces
Internal cable container - W=200mm		
No.2 crosspieces for PB0802/PB1600	TV3201	1/2
External cable container - W=300mm		
No.2 crosspieces for PB0802	TV3000	1/2

Pic. 3



Pic. 3 - Vertical busbars on side of the internal/external cable container

Description	Dimensions (mm)		Code	Package/ No. of pieces
	D			
No.2 crosspieces internal cable container PB0802	225		TV3101	1/2
	300		TV5101	1/2
No.2 Internal/external cable container crosspieces for PB1600/PB1601/PB1603	500		TV6101 ⁽¹⁾	1/2
No.2 Internal/external cable container crosspieces for PB1600/PB1601/PB1603/PB3201	700		TV8101	1/2
	900		TV1101	1/2

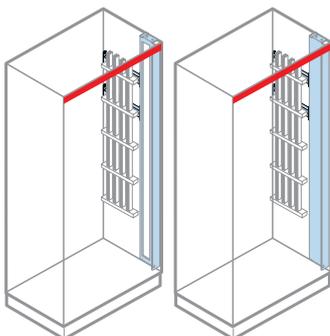
⁽¹⁾ With PB1600 only in the additional cable container.

Pic. 4 - Busbars vertically on side of structure

Pic. 4

Structure without segregation

Segregation structure

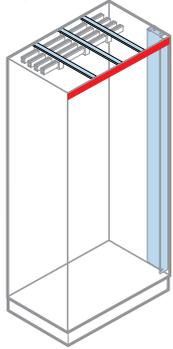


TV6001-TV8001
TV1001

TV6005-TV8005
TV1005

Description	Dimensions (mm)		Code	Package/ No. of pieces
	P			
No.2 crosspieces for PB1603 - open frame	500		TV6001	1/2
No.2 crosspieces for PB1603 - closed frame	500		TV6005	1/2
No.2 crosspieces for PB1600/PB01601/PB1603/PB3201 - open frame	700		TV8001	1/2
No.2 crosspieces for PB1600/PB01601/PB1603/PB3201 - closed frame	700		TV8005	1/2
No.2 crosspieces for PB1600/PB01601/PB1603/PB3201 - open frame	900		TV1001	1/2
No.2 crosspieces for PB1600/PB01601/PB1603/PB3201 - closed frame	900		TV1005	1/2

Fig. 5



STRUCTURES SEGREGATED

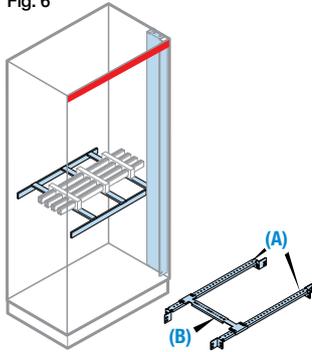
Distribution system

Fixing crosspieces for busbars with shaped section

Pic. 5 - Horizontal busbars at the top under the roof or down to the bottom

Description	Dimensions (mm)		Code	Package/ No. of pieces
	D			
No.2 crosspieces for PB1603	500		TV1261	1/2
No.2 crosspieces for PB1601/ PB1603/PB3201	700		TV8211	1/2
	900		TV8211	1/2

Fig. 6



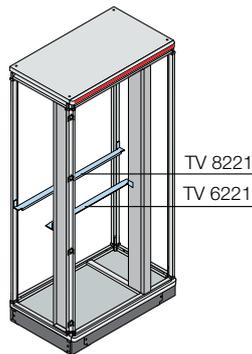
Pic. 6 - Busbar horizontal at any height

Description	Code (A)	Package/ No. of pieces
12 DIN mod. - W=390mm		
No.2 crosspieces for PB1601/PB1603	TV4221 ⁽¹⁾	1/2
24 DIN mod. - W=600mm		
No.2 crosspieces for PB1601/PB1603/PB3201	TV6221 ⁽¹⁾	1/2
36 DIN mod. - W=800mm		
No.2 crosspieces for PB1601/PB1603/PB3201	TV8221 ⁽¹⁾	1/2

Description	Dimensions (mm)		Code (B)	Package/ No. of pieces
	D			
No.2 crosspieces for PB1603	500		TV6011	1/2
No.2 crosspieces for PB1601/ PB1603/PB3201	700		TV8011	1/2
	900		TV1011	1/2

⁽¹⁾ With structures W=800mm with internal cable container, use a TV6221 crosspiece plus a TV8221 crosspiece as in Pic. 6a or two TV6221 crosspieces with the intermediate upright SK1880 or SK2080, as in Pic. 6b.

Pic. 6.a



Pic. 6.b

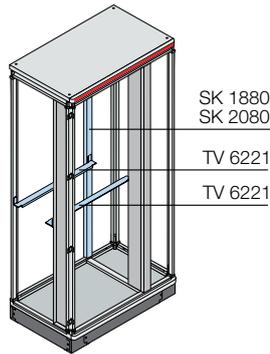
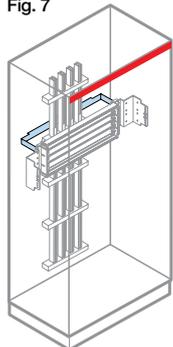


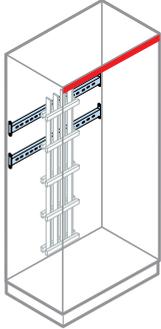
Fig. 7



Pic. 7 - Connection to the Unifix H system

Description	Code	Package/ No. of pieces
12 DIN mod. - W=390mm		
No.2 crosspieces for PB1603	TV6203	1/2
24 DIN mod. - W=600mm		
No.2 crosspieces for PB1603	TV8203	1/2

Pic. 1



STRUCTURES SEGREGATED

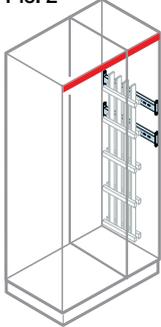
Distribution system

Fixing crosspieces for flat busbars

Pic. 1 - Busbars vertically on back of structure

Description	Code	Package/ No. of pieces
24 DIN mod. - W=600mm		
No.2 crosspieces for BP1250/BP1600/BP2500/ BP3200	TR7005	1/2
36 DIN mod. - W=800mm		
No.2 crosspieces for BP1250/BP1600/BP2500/ BP3200	TR8000	1/2

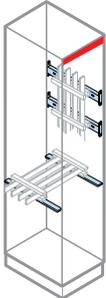
Pic. 2



Pic. 2 - Busbars vertically on side of internal/additional cable container

Description	Dimensions (mm)		Code	Package/ No. of pieces
	D			
No.2 crosspieces on side of cable container	500		TR6101	1/2
No.2 crosspieces on side of cable container	700		TR8101	1/2
No.2 crosspieces on side of cable container	900		TV1101	1/2

Pic. 3



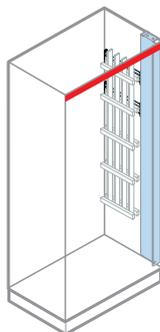
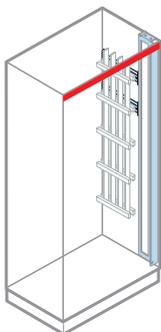
Pic. 3 - Busbar in horizontally on external cable container

Description	Dimensions (mm)		Code	Package/ No. of pieces
	D			
No.2 Crosspieces for horizontal busbars in the cable container	500		TR6301	1/2
No.2 Crosspieces for horizontal busbars in the cable container	700		TR8301	1/2

Pic. 4

Structure without segregation

Segregation structure



TV6001-TV8001
TV1001

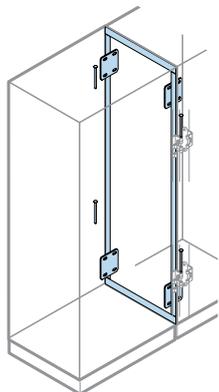
TV6005-TV8005
TV1005

Pic. 4 - Busbars vertically on side of structure

Description	Dimensions (mm)		Code	Package/ No. of pieces
	D			
No.2 crosspieces on side of structure-open frame	500		TR6001	1/2
No.2 crosspieces on side of structure-closed frame	500		TR6005	1/2
No.2 crosspieces on side of structure-open frame	700		TR8001	1/2
No.2 crosspieces on side of structure-closed frame	700		TR8005	1/2
No.2 crosspieces on side of structure-open frame	900		TV1001	1/2
No.2 crosspieces on side of structure-closed frame	900		TV1005	1/2

ArTu K Modular Structures

Ordering codes



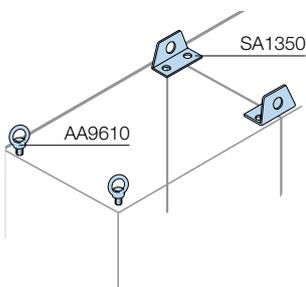
STRUCTURES SEGREGATED

Accessories

Structure side-by-side kit

The ArTu K switchgear can be placed side by side both laterally and at the rear. The IP65 side-by-side kit consists of a set of supports and a gasket for keeping the degree of protection. In the IP31 version, in addition to the AD1014 kit, order the double finishing section (see page 5/59).

Description	Code		Package/ No. of pieces
Kit for placing structures H=1600-1800-2000mm side by side laterally	AD1014		1/1



Lifting eyebolts

These allow cabled switchgear to be lifted. They are made of steel treated with white passivated galvanisation.

Description	Code		Package/ No. of pieces
No.4 steel M12 lifting eyebolts	AA9600		1/4

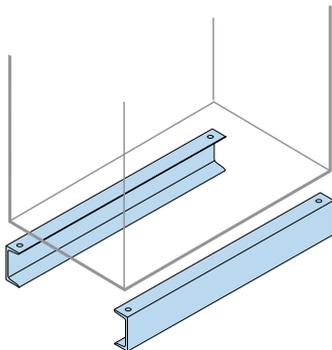
Lifting reinforcements

These allow handling of several ArTu K switchgear placed side by side.

Description	Code		Package/ No. of pieces
lifting reinforcements for side-by-side structures	SA1350		1/2

ArTu K Modular Structures

Ordering codes

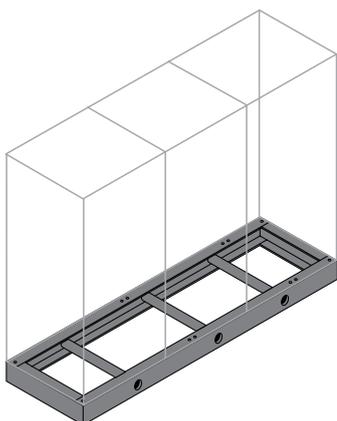


STRUCTURES SEGREGATED

Accessories

Reinforced base strip H=100mm

Description	Code	Package/ No. of pieces
12 DIN mod. - W=390mm		
Front and rear profile	ZR4000	1/2
24 DIN mod. - W=600mm		
Front and rear profile	ZR6000	1/2
36 DIN mod. - W=800mm		
Front and rear profile	ZR8000	1/2
Additional cable container - W=300mm		
Front and rear profile	ZR3000	1/2

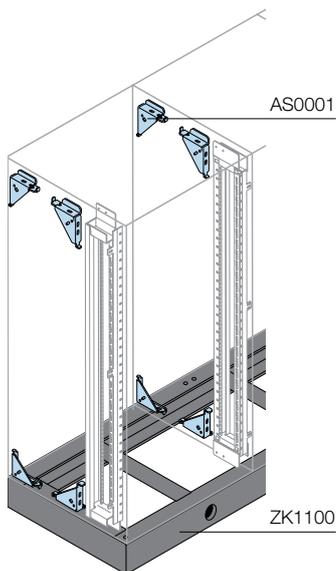


One-piece quake-proof base compartment

Base compartment in a single piece with reinforcing tubes installed at depth. Allows adjacent switchgear accessorized with particularly heavy components to be lifted. Height 100 mm, length up to 6 meters. RAL7012 grey colour with orange-peel finish. The number of reinforcing tubes depends on the length of the bank.

Description	Code	Package/ No. of pieces
One-piece base compartment H=100 mm for adjacent switchgear	ZK1100	1/1

- Must be designed in a special dedicated way for each configuration. Always attach the drawing of the front view of the switchgear bank and specify the width, depth and switchgear sequence of each column.
- Unit of measurement for ordering: METER.
- Available in lengths of up to 6 m.



STRUCTURES SEGREGATED

Accessories

Kits for seismic hazard zones

Anti-quake tests performed

The tests provide a reference for comparison with dimensionally similar configurations and with regard to the load distributed within them. They concern 3 columns measuring 2 x 2231x910x636 mm (including base compartment) + 1 x 2231x720x636 mm (including base compartment). Total length=2540 mm with busbar system and internal electrical components weighing about 1,500 kg (fig. 1), and points for fixing to the floor with M12 bolts.

The switchgear was tested in accordance with standard IEC 60068-2-57 "Environmental testing Part. 2: Test method. Vibration - Time history method" and standard IEE Std 693 "Recommended Practice for Seismic Design of Substation".

Similar fields of use*

Cabinet without specific accessories

According to standards IEC 60068-2-57 - IEEE Std 693	According to Seismic Zone IEC 68-3-3	Magnitude according to Richter scale	Intensity according to Mercalli scale
Resistance capacity up to 0.5 g	Zone 4	7	9

Cabinet with specific accessories AS0001 + reinforced base compartment

According to standards IEC 60068-2-57 - IEEE Std 693	According to Seismic Zone IEC 68-3-3	Magnitude according to Richter scale	Intensity according to Mercalli scale
Resistance capacity up to 0.75 g	Zone 4	7,5	10

* The references to the intensity scales are indicative.

Product codes for creating structures for seismic hazard zones

The product reaches 0.75 g resistance capacity with special base compartment ZK1100 and kit AS0001 comprising 12 reinforcing plates. Reinforced base compartment ZR... can be used as an alternative to the one-piece base compartment.

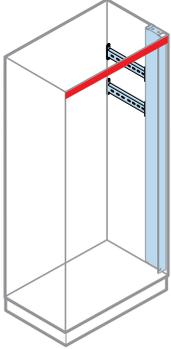
Description	Code	Package/ No. of pieces
No. 12 (twelve) anti-quake reinforcing plates	AS0001	1/12
Reinforced base compartment H=100 mm (see above)	ZR...	1/1

The segregation partitions replace the reinforcing kit.

ArTu K Modular Structures

Ordering codes

Pic. 1



STRUCTURES SEGREGATED

Accessories

Crosspieces for accessories

Can be mounted on the structure to anchor cables or to mount accessories. The crosspieces for accessories can be mounted on the side, on the rear or in the cable container of the structure.

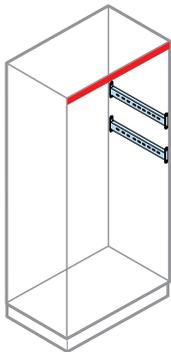
STRUCTURES WITHOUT SEGREGATION

Side crosspieces

Description	Dimensions (mm)	Mounting position	Code	Package/ No. of pieces
	D	Pic.		
No.2 side crosspieces	500	1	TR6001	1/2
No.2 side crosspieces	700	1	TR8001	1/2

2

Pic. 2



SEGREGATED STRUCTURES

Side crosspieces

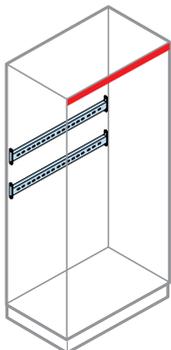
Description	Dimensions (mm)	Mounting position	Code	Package/ No. of pieces
	D	Pic.		
No.2 side crosspieces	500	1	TR6005	1/2
No.2 side crosspieces	700	1	TR8005	1/2

STRUCTURES WITHOUT SEGREGATION/SEGREGATED

Side crosspieces

Description	Dimensions (mm)	Mounting position	Code	Package/ No. of pieces
	D	Pic.		
No.2 side crosspieces	225	2	TR4101	1/2
No.2 side crosspieces	300	2	TV5101	1/2
No.2 side crosspieces	500	2	TR6101	1/2
No.2 side crosspieces	700	2	TR8101	1/2

Pic. 3

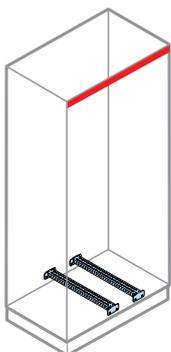


STRUCTURES WITHOUT SEGREGATION/SEGREGATED

Rear crosspieces

Description	Dimensions (mm)	Mounting position	Code	Package/ No. of pieces
	W	Pic.		
No.2 rear crosspieces	600	3	TR7005	1/2
No.2 rear crosspieces	800	3	TR8000	1/2

Pic. 4

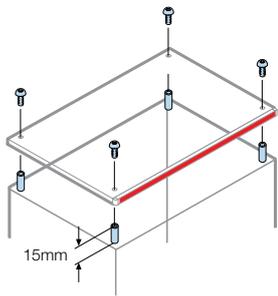


STRUCTURES WITHOUT SEGREGATION/SEGREGATED

Reinforcement crosspieces

Recommended for installation of fuse bases or transformers.

Description	Dimensions (mm)	Mounting position	Code	Package/ No. of pieces
	D	Pic.		
No.2 reinforcement crosspieces	225	4	TR8400	1/2
No.2 reinforcement crosspieces	300	4	TR8500	1/2
No.2 reinforcement crosspieces	500	4	TR8600	1/2
No.2 reinforcement crosspieces	700	4	TR8800	1/2
No.2 reinforcement crosspieces	900	4	TR8900	1/2



STRUCTURES SEGREGATED

Accessories

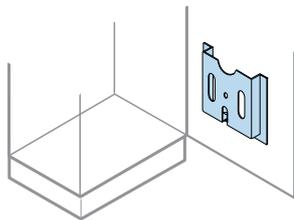
Roof ventilation

Allows the roof of the cabinet to be raised thereby increasing ventilation and therefore the power which can be dissipated. The degree of protection is IP20. The ventilation kit must not be mounted if the cabinet has to be lifted using the eyebolts. In this case, the kit must be mounted when installation has been completed.

Description	Code	Package/ No. of pieces
No.4 Roof ventilation kit	AD1015	1/4

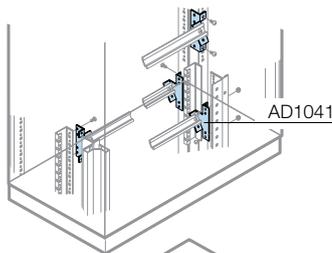
Diagram pocket holder

The diagram pocket holder (made of RAL 2004 colour plastic, dim. HxL 237x265mm type A4) is applied to the inside of doors/blind panels of suitable size using the adhesive provided.



Description	Code	Package/ No. of pieces
Plastic diagram pocket holder	AA5600	1/1

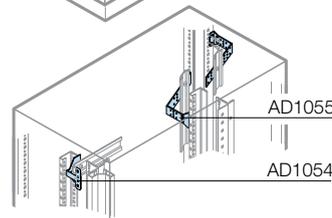
Supports for terminal boxes



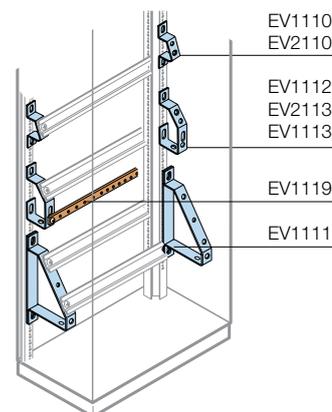
Description	Code	Package/ No. of pieces
Structure		
No. 2 supports for horizontal 45° angled terminal box for ArTu K	AD1041	1/2
No. 2 supports for horizontal terminal box for ArTu K	AD1054	1/2

Additional cable container

No. 4 supports for vertical terminal box in internal/ additional ArTu K cable container	AD1055	1/4
---	--------	-----



Angled supports for terminal boxes and earthing busbars



Description	Code	Package/ No. of pieces
No.50 angled supports 1 row of terminals	EV1110	1/50
No.10 angled supports 1 row of terminals	EV2110	1/10
No.10 angled supports double row of terminals	EV1111	1/10
No.50 angled supports 1 row of terminals + earth	EV1112	1/50
No.10 angled supports 1 row of terminals + earth	EV2112	1/10
No.2 angled supports 1 row of terminals + earth	EV1113	1/2

Insulators and copper busbars for neutral/earthing



Description	Code	Package/ No. of pieces
No.2 busbars 20x5 mm drilled and threaded M6*	EV1122	1/50
No.2 busbars 25x5 mm drilled and threaded M6*	EV1123	1/50
No.2 busbars 50x5 mm drilled and threaded M6*	EV1124	1/25
No.50 hexagonal insulators 30x30mm M6	EV1125	1/25
No.50 hexagonal insulators 30x30mm M8	EV1122	1/50
No.50 hexagonal insulators 36x50mm M6	EV1123	1/50
No.50 hexagonal insulators 36x50mm M8	EV1124	1/25
No.25 isolatori esagonali 36x50mm M8	EV1125	1/25

* Length 2000mm

ArTu K Modular Structures

Ordering codes

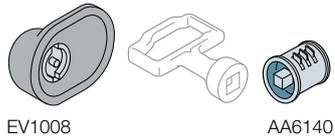
STRUCTURES SEGREGATED

Accessories

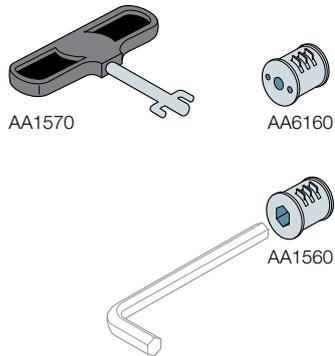
Inserts and keys



AA1560 AA6120 AA6200



EV1008 AA6140 AA6140



AA1570 AA6160 AA1560

Description	Code		Package/ No. of pieces
Cable container			
Box+ Yale insert (without tab)	EV1008		1/1
Insert + Yale key for EV1008	EV1036		1/1
Ronis 455 insert + key for EV1008	EV1037		1/1
3mm double-tab insert + key for EV1008	EV1039		1/1
Structures			
Double-tab insert	AA6100		1/1
Double-tab Zn+Al+Mg alloy key	AD1058		1/1
Yale insert + key	AA6200		1/1
Male 6.4 triangular insert on ø 7.6	AA6120		1/1
Triangular key	AA1560		1/1
Male 7square type insert; key not available	AA6140		1/1
Hexagonal 8 type insert embedded; key not available	AA6180		1/1
FIST type insert (FIAT)	AA6160		1/1
Fiat key	AA1570		1/1
Ronis E739 insert + key	AA8004		1/1

2

STRUCTURES SEGREGATED

Accessories

Spare parts

Description	Code		Package/ No. of pieces
No.10 hinges + screws for panels (spare part ACP468)	AD1090		1/10
No.10 plug + door key kits (spare part APT002)	AD1091		1/10
No.5 FP fixing accessories H=1800/2000mm (spare part A210)	AD1092		1/5
Chimes for door H=1600mm (spare part)	CA1600		1/1
Chimes for door H=1800mm (spare part)	CA1800		1/1
Chimes for door H=2000mm (spare part)	CA2000		1/1
No.2 DIN rail fixing brackets for open frame (switchgear without segregation)	AD1047		1/2
No.2 DIN rail fixing brackets for closed frame (segregated switchgear)	AD1048		1/2
ArTu Survival Kit* - Accessories and small items for spare parts	AD1057		1/1
No.10 ArTu handle covers	AD1070		1/10
ArTu handle complete with lock and cover	AD1022		1/1
No.4 base strip angle pieces H=100mm	AZ4000		1/4
Internal finishing tape for IP31 Ral 7035 colour	AD1001		1/1
No.20 cage nuts	AD1036		1/20
No.50 three-lobed M6 spare screws	AD1033		1/50
RAL 7035 colour spray paint for touching up (400 ml spray can)	VB7035		1/1
Polished flange for XT1 3P mounted on DIN rail	AD3301		1/1
Polished flange for XT1 4P mounted on DIN rail	AD3302		1/1
Polished flange for XT3 3P mounted on DIN rail	AD3303		1/1
Polished flange for XT3 4P mounted on DIN rail	AD3304		1/1

In-depth technical information

ArTu distribution switchgear

Mechanical and electrical characteristics	3/2
Declaration of conformity	3/3
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Equipotential conductors	3/7
Degrees of protection	3/9
IK mechanical resistance to impact	3/11

Segregations

Examples of ArTu segregation	3/12
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Special painting

RAL colour	3/13
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Mechanical characteristics

Material		
ArTu L structure	12/10mm thick pickled steel sheet	
ArTu M structure	15/10mm thick pickled steel sheet (floor-mounted) / 15/10mm hot galvanised sheet (wall-mounted)	
ArTu K structure	15/10mm thick steel sheet	
Panels	12/15/10mm thick steel sheet	
Doors	15/10mm hot galvanised steel sheet. 4mm thick glass tempered from inside	
Plates	hot galvanised steel sheet, thickness: Plates 20/25/10mm	
Painting		
Structure colour	Grey orange-peel RAL 7035	
Base strip colour	Grey orange-peel RAL 7012	
Standard cycle	Sheet washing Phosphating with iron salt base Drying in tunnel at 100°C External and internal painting with electrostatic application of thermosetting powder enamel with epoxy polyester binders. Grey orange-peel RAL 7035 colour, total thickness: 60/70 micron. Polymerisation in oven at 180°C.	
Paint characteristics	Binder:	epossipoliestere
	Specific gravity:	1,61g/cm3
	Theoretical coverage:	10,4 m2/Kg. con film di spessore medio 60 micron
	Melting point:	85-95 °C (Metodo banco Kofler)
	Granulometry:	standard distribution between 5 and 100 micron with average size particles between 30 and 40 micron. Hardening: 12 min. at 190 °C (temperature of object)
	Hardness:	1H - 2H
	DIN 53152 bending elasticity:	unaltered on 1/4" spindle
	DIN 53151 reticular adherence:	GT 0 (100%)
	Erichem elasticity:	SEN DIN 53156: > 6mm
	Gardner resistance to impact:	25 Kg. x cm.
Tests carried out on degreased and phosphated sheets with film thickness of 60/70 micron. The painting has passed the resistance tests to saline fog (193 hours).		
Ambient characteristics		
Type of installation	indoors	
Installation conditions	Floor-mounted	
Service climate (t° / r.h. %)	constant	23°C/83% - 40°C/93%
	variable	23°C/98% - 40°C/98%
Ambient temperature limits	operating	-5°C +50°C
	storage	-25°C +55°C

In-depth technical information

ArTu distribution switchgear

ABB SACE declaration of conformity

ArTu switchgear with the following rated characteristics:

Rated service voltage	up to 690V ArTu K	
Rated insulation voltage	up to 1000V	
Rated current / ICW	ArTu K	6700 A / 100 kA
	ArTu K System	6300 A / 100 kA
	ArTu K	1600-4000 A / 65 kA
	ArTu K	1250 A / 50 kA
	ArTu M D=150/200mm	up to 800 A / 36 kA
Degree of protection	ArTu K IP43 (with door), IP 54 (with door)	

When correctly selected and assembled, as per the indications given in this catalogue and in the instruction manual, allow construction of switchgear complying with the IEC 60439-1/IEC 61439-1-2 Standard, on the basis of what is foreseen by the Low Voltage Directive of the European Community (Directive 73/23/EEC, Law 791/1977).

The above is valid if the switchgear is designed and constructed:

- selecting the materials according to the performances indicated in the ABB catalogues;
- sizing the conductors according to the prescriptions of the IEC 61439-1 Standards;
- carrying out the individual tests foreseen under the IEC 61439-1 Standard successfully.

Technical information

Information regarding the methods for disposal and end of product life

ABB SACE has carried out a study on the end of product life. Evaluation is made by means of applying the LCA (Life Cycle Assessment) method according to ISO 14040 - 1997 and in conformity with the requirements established by the SEMC in the document ISO TR 14025 TYPE III Environmental Declarations (MSR 1999:2 – “Guidelines for the Environmental Product Declaration”).

The study was carried out taking into consideration the disposal and recycling processes of the main materials making up a typical switchboard.

Starting from the basic list, the facility of dismantling and separating each piece, as well as recyclability of the materials was considered, and the product results as being almost completely recyclable.

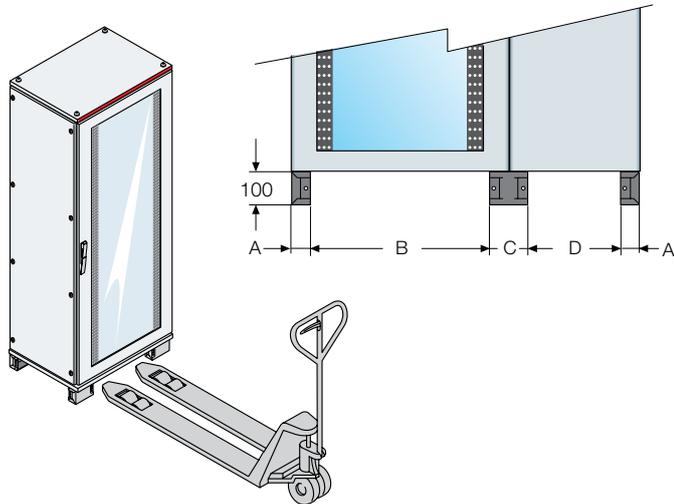
Again starting from the basic list reduced to the significant components, the end of life of each of these was evaluated.

The flows of recyclable materials, materials to be recovered (or for incineration), given in the Table resulted. According to the hypotheses made, no material should end up directly in the dump.

Substance	Destination	
Aluminium waste	Recycling	
Copper waste	Recycling	
Polyurethane gaskets	Incineration	
Glass fibres	Recycling	
Glass waste	Recycling	
Paper/cardboard	Recycling	
Plastic Insulators	Recycling	
Sheet metal waste	Recycling	

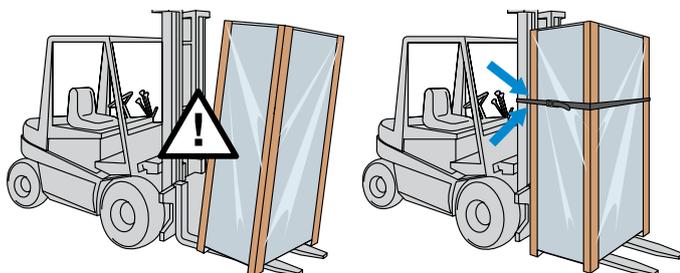
Handling

Handling with transpallet



Dimensions	A (mm)	B (mm)	C (mm)	D (mm)
ArTu L				
Width 600mm	47	596	97	296
ArTu M				
Width 600mm	125,5	469	251	
Width 800mm	125,5	669	251	
ArTu K				
Width 400mm	125,5	259	251	
Width 600mm	125,5	469	251	
Width 800mm	125,5	669	251	
Width 1000mm	125,5	869	251	
Width 200mm (cable container)	125,5		251	69
Width 300mm (cable container)	125,5		251	169

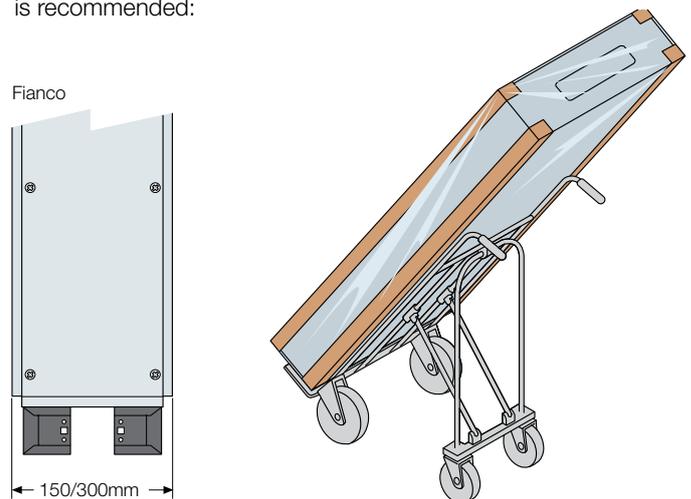
For greater safety during transport using a fork-lift truck, it is advisable to anchor the switchgear to the truck:



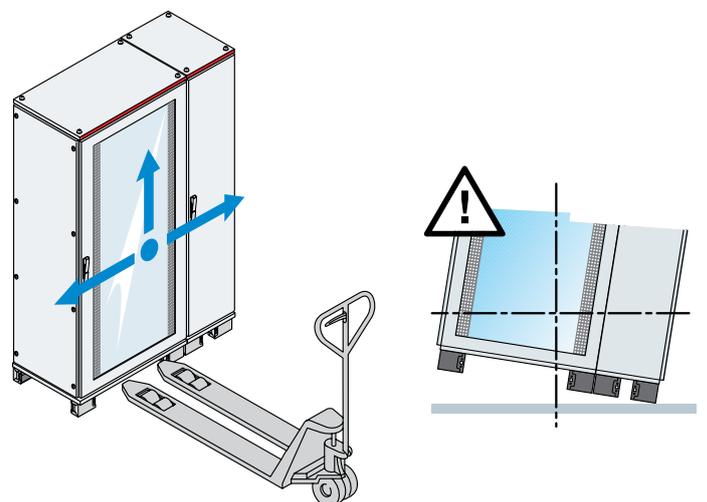
Handling ArTu K structures by means of rollers: only with ZR... reinforced plinth



For switchgear with reduced depth, the following type of handling is recommended:



In the case of structures W=1000mm (with internal or external cable container) containing busbar systems, check the centre of gravity before handling.



In-depth technical information

ArTu distribution switchgear

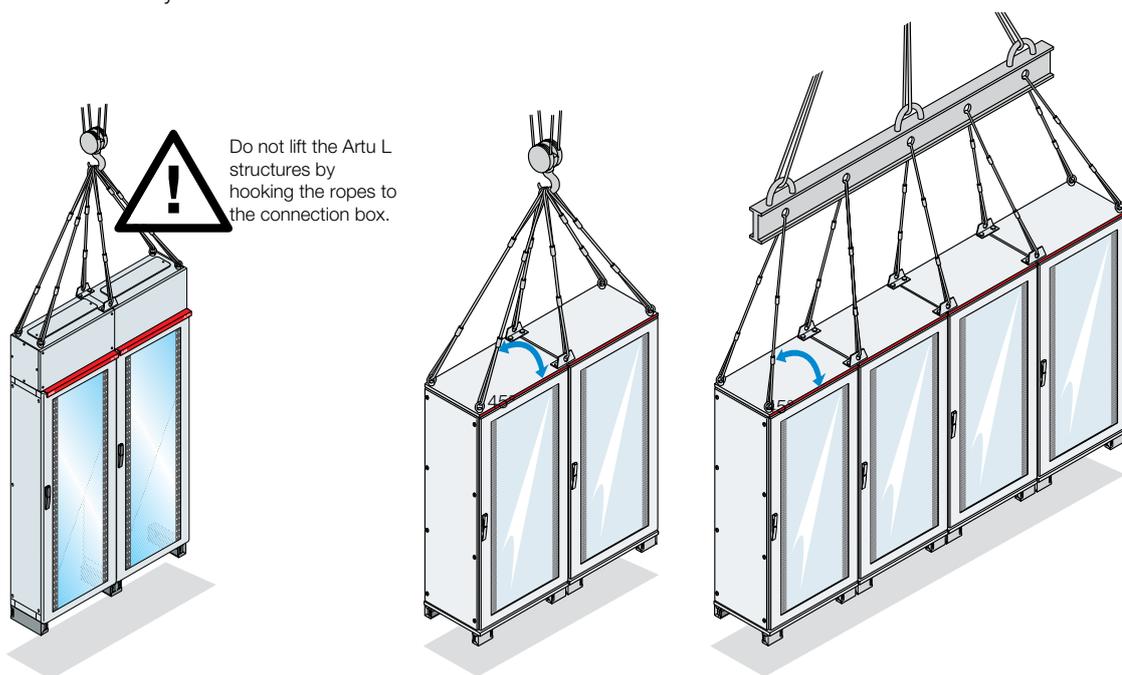
Handling

Handling with overhead travelling crane

To handle using a crane or overhead travelling crane, check the following conditions before lifting the switchgear:

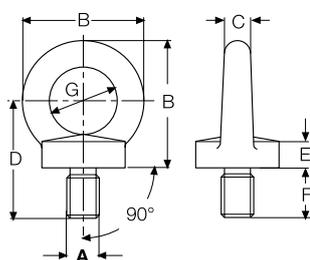
- excellent state of the ropes or chains;
- the angle between the lifting ropes and the switchgear roof must be $\geq 45^\circ$;
- the maximum number of columns transported is 3;
- ArTu L maximum weight lifted as per DIN 580 (M8);
- ArTu M - K maximum weight lifted as per DIN 580 (M12) Standard.

To respect the conditions described above, a lifting beam with appropriate characteristics can be used when there are several columns side by side.

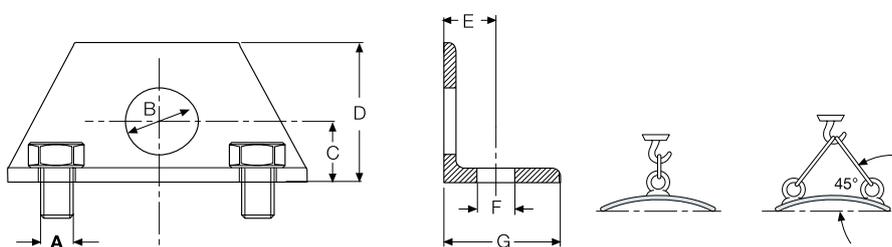


DIN 580 Standard regarding mechanical connection elements (only for lifting eyebolts)

Lifting eyebolts



Lifting reinforcements

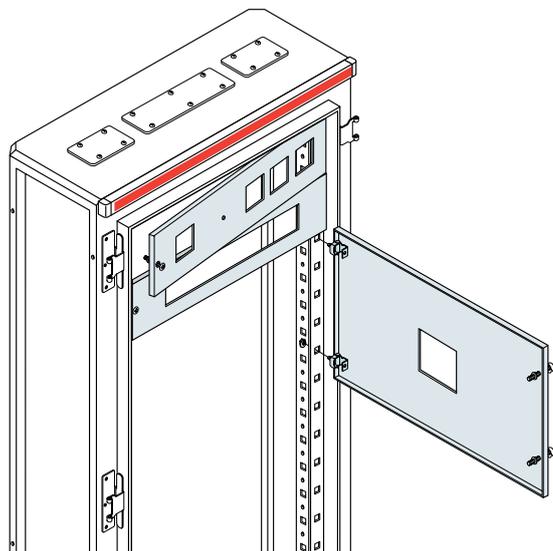


	A	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	Load 1 (kg)	Load 2 (kg)	Tightening (Nm)
Lifting eyebolts										
ArTu L	M8	30	8	18	6	15	20	140	95	8*
ArTu M-K	M12	54	12	28	10	22	30	340	240	8*
Lifting reinforcements										
ArTu L	M8	Ø20	30	60	28	Ø10	40	210	140	22
ArTu M-K	M12	Ø40	37	80	25	Ø14	60	510	350	40

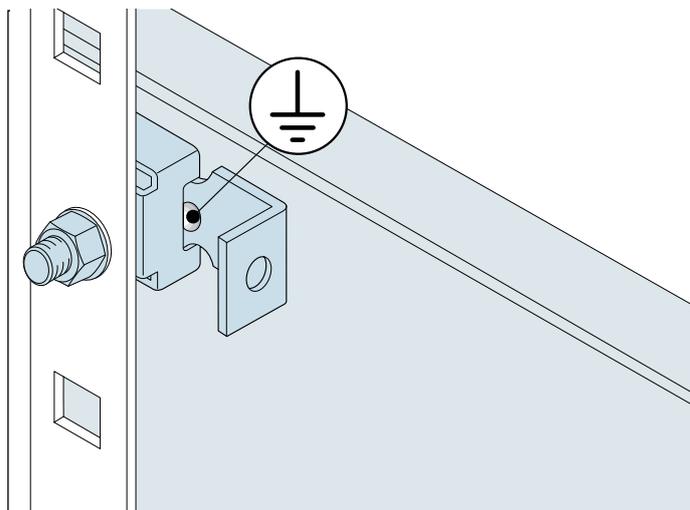
* Close by hand without mechanical elements in order to avoid overvoltage in the stem that will reduce the capacity of the lifting eyebolts

Electrical continuity of the structure and of the fixed and mobile parts

Electrical continuity in ArTu switchgear is guaranteed automatically just with assembly of the structure without the use of dedicated accessories.



In the case of mobile parts (e.g. front panels), electrical continuity is guaranteed in the closed position by the special shape of the hinge (ABB patent) which is always supplied with the panels.



3

The blind door, side panels and rear panels are fitted with copper M6 captive screws. Panel earthing is obtained thanks to the fixing screws.

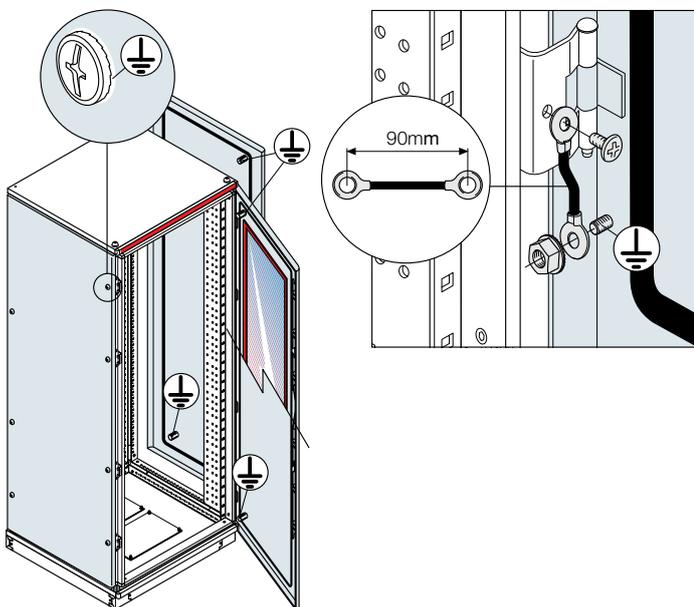
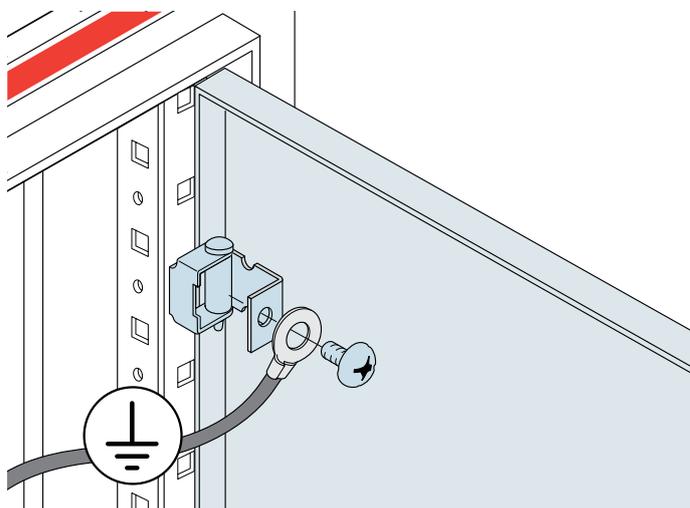
Standard 61439-1

Part 8.4.2.2.2

Prescriptions for earth continuity for protection against the consequences of a fault within the switchgear

b) For covers, doors, closing plates and similar, the ordinary connections with metal screws and metal hinges are considered sufficient for electrical continuity so long as electrical devices that exceed the low voltage limits (ELV) are not installed on them.

The special shape of the hinge allows connection even using a traditional copper braid.



In-depth technical information

ArTu distribution switchgear

Calculation of the PE protection conductor

The IEC 60439-1 Standard indicates the methods of calculation for the cross-section of the PE protection conductor which must be suitably sized to withstand the thermal and dynamic components of the fault currents. In identifying the fixing position of the busbar, check the following conditions:

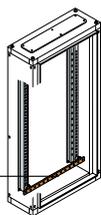
- the busbar must be connected directly to the switchgear exposed conductive parts (structure);
- the busbar must be connected in an easily accessible position.

For sizing, use the values in the table, taken from the IEC 60439-1 Standard CEI EN60439-1, IEC 61439-1-2.

S (mm ²)				Sp (mm ²)	
		S	≤	16	S
16	<	S	≤	35	16
35	<	S	≤	400	S/2
400	<	S	≤	800	200
		S	≤	800	S/4

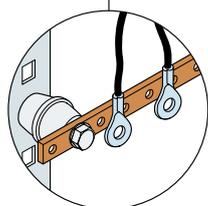
Wall-mounted ArTu L

Protection conductor section (25x4) 100mm²
(art. BR0400)

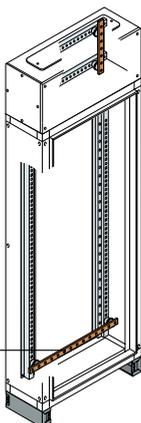


Floor-mounted ArTu L

Protection conductor section (25x4) 100mm²
(art. BR0400)

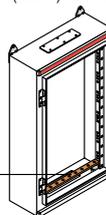


The conductors must be connected singly.



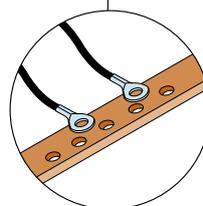
Wall-mounted ArTu M

Certified ACAE/LOVAG No. IT 11.078
with protection conductor section
(25x4) 100 mm² (art. BR0400)

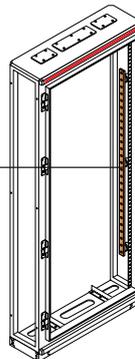


Floor-mounted ArTu M

Certified ACAE-LOVAG IT 11.076 with protection
conductor section (25x4) 100mm²

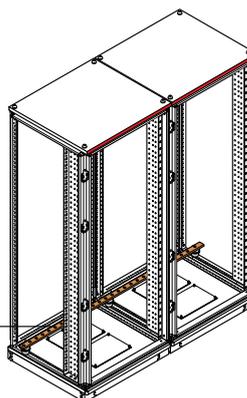


The conductors must be connected singly.



ArTu K

Certified ACAE/LOVAG No. IT 11.079 with protection
conductor section (50x5) 250mm² (art. BR6305)



Equipotentiality

The accessible conductive parts of a device, which cannot be connected to the protection circuit by their own means of connection, must be connected to the protection circuit of the apparatus for equipotentiality of the protection by means of an equipotential conductor, whose section must be selected according to the table given below.

Rated service current I_e (A)				Minimum section of the equipotential protective conductor (mm ²)	
		I_e	\leq	20	S
20	<	I_e	\leq	25	2,5
25	<	I_e	\leq	32	4
32	<	I_e	\leq	63	6
63	<	I_e			10

S = section of the phase conductor (mm²)

PEN conductor

The section of the PEN conductors of the apparatus must be determined using the same procedure followed for the neutral conductor (N). The minimum section of a copper conductor must be 10mm².

The PEN conductor does not need to be insulated.

The parts of the structure must not be used as a PEN conductor.

However, the assembly tracks, made of copper or aluminium, can be used as PEN conductors.

For conductors not made of copper, the sections above are replaced with equivalent conductivity sections, which may require larger sized terminals.

In-depth technical information

ArTu distribution switchgear

IP degrees of protection

1st NUMBER: protection against solid bodies

0	No protection
1	Protected against solid bodies larger than 50mm (accidental contact with hands)
2	Protected against solid bodies larger than 12 mm (fingers)
3	Protected against solid bodies larger than 2.5mm (tools, wires)
4	Protected against solid bodies larger than 1 mm
5	Protected against dust (no harmful deposit)
6	Totally protected against dust

1st number defined by the CEI EN 60529 – IEC 529 Standards

2nd NUMBER: protection against liquids

0	No protection
1	Protected against vertical fall of drops of water (condensation)
2	Protected against drops of water up to 15° from vertical
3	Protected against drops of water up to 60° from vertical
4	Protected against splashes of water from all directions
5	Protected against jets of water from all directions by means of a hose
6	Protection against jets of water similar to sea waves
7	Protected against the effects of temporary immersion
8	Protected against the effects of continual immersion

2nd number defined by the CEI EN 60529 – IEC 529 Standards

IP degree of protection

Protection against penetration of solid bodies

1st characteristic number	Brief description	Complete description
0	Unprotected	No particular protection
1	Protected against solid bodies larger than 50mm	No large surface of the human must be able to penetrate, for example a hand (voluntary protection is not provided) or solid bodies larger than 50mm in diameter.
2	Protected against solid bodies larger than 12mm	Fingers or similar objects of length not exceeding 80mm or solid bodies of diameter higher than 12 mm must not penetrate
3	Protected against solid bodies larger than 2.5mm	Tools, wires, etc. with diameter or thickness greater than 2.5mm or solid bodies with diameter greater than 2.5mm must not be able to penetrate
4	Protected against solid bodies larger than 1.0mm	Wires or plates thicker than 1.0mm or solid bodies with diameter greater than 1.0mm must not be able to penetrate
5	Protected against dust	Penetration of dust is not totally excluded, but the amount penetrating is not enough to harm correct operation of the material
6	Totally protected against dust	No penetration of dust is allowed

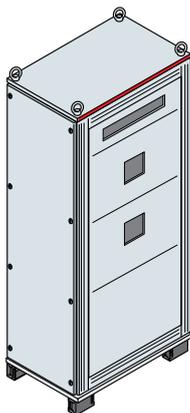
Protection against penetration of water

2nd characteristic number	Brief description	Complete description
0	Unprotected	No particular protection
1	Protected against vertical fall of drops of water	The drops of water which fall vertically must not cause harmful effects
2	Protected against drops of water up to 15° from vertical	The drops of water which fall vertically must not cause harmful effects when the housing is leant at any angle up to 15° in relation to its normal position
3	Protected against rain	The water which falls like rain from a direction with an angle of up to 60° to vertical must not cause harmful effects
4	Protected against the splashes of water	Water splashed over the housing from all directions must not cause harmful effects
5	Protected against jets	Water sprayed with a nozzle onto the housing from all direction must not cause harmful effects
6	Protected against waves	In the case of waves or strong jets of water, the water must not enter the housing in a harmful amount
7	Protected against the effects of temporary immersion	Water in a harmful amount must not be able to penetrate inside the housing immersed in certain pressure and duration conditions
8	Protected against the effects of continual immersion	The material is suited to remaining immersed in water in

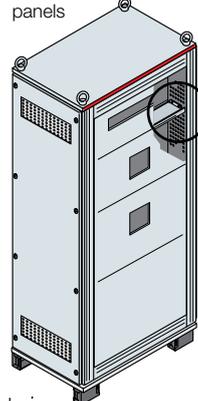
3

Degrees of protection which can be obtained with ArTu switchgear

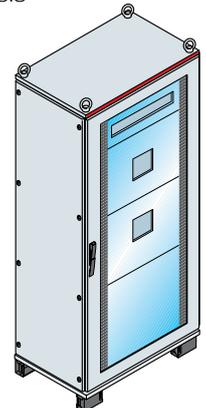
ArTu M/K - IP31
Without door



ArTu K - IP41
Without door with IP41 kit and side ventilated panels



ArTu K - IP43/54
With door and blind panels

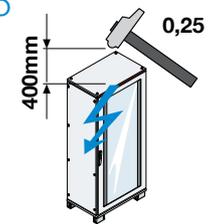
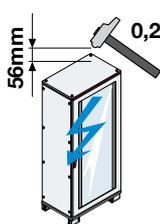
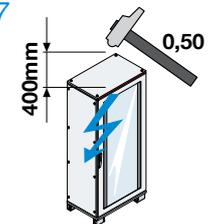
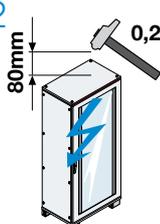
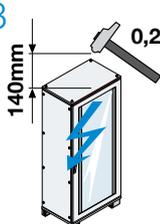
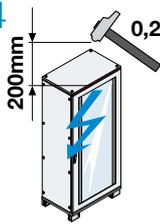
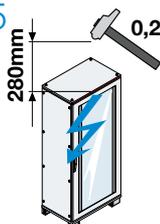


In-depth technical information

ArTu distribution switchgear

IK mechanical resistance

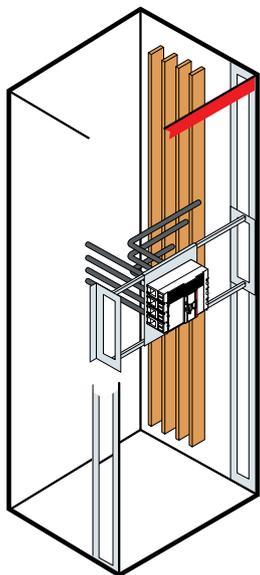
The IK degree is expressed in Joules in compliance with Standard IEC 62262.

<p>IK 0</p> 	<p>Unprotected</p>	<p>IK 06</p> 	<p>Impact energy in Joule 1,00</p>
<p>IK 01</p> 	<p>Impact energy in Joule 0,140</p>	<p>IK 07</p> 	<p>Impact energy in Joule 2,00</p>
<p>IK 02</p> 	<p>Impact energy in Joule 0,200</p>	<p>IK 08</p> 	<p>ArTu L Impact energy in Joule 5,00</p>
<p>IK 03</p> 	<p>Impact energy in Joule 0,350</p>	<p>IK 09</p> 	<p>ArTu K Impact energy in Joule 10,00</p>
<p>IK 04</p> 	<p>Impact energy in Joule 0,500</p>	<p>IK 10</p> 	<p>ArTu K Impact energy in Joule 20,00</p>
<p>IK 05</p> 	<p>Impact energy in Joule 0,700</p>		

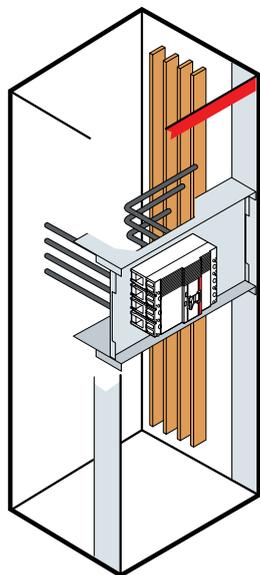
In-depth technical information

ArTu distribution switchgear

Examples of ArTu segregation



Form 1
(no internal segregation)



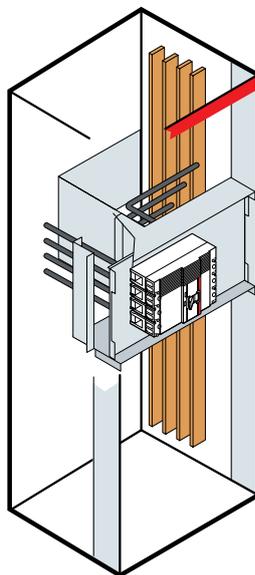
Form 2
(segregation of the busbars from the functional units)

Form 2a

Terminals not separated from the busbar

Form 2b

Terminals separated from the busbar



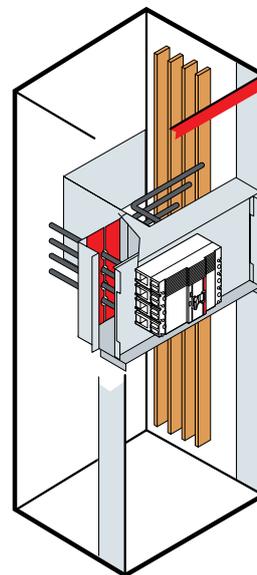
Form 3
(separation of the busbars from the functional units + separation of the functional units from each other)

Form 3a

Terminals not separated from the busbar

Form 3b

Terminals separated from the busbar



Form 4
(separation of the busbars from the functional units + separation of the functional units from each other + separation of the terminals from each other)

Form 4a

Terminals in the same the associated functional unit

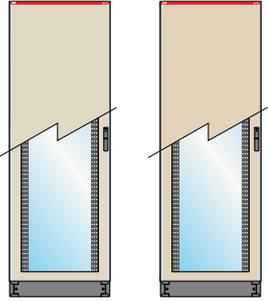
Form 4b

Terminals not in the same the associated functional unit

Standardised RAL colours (on request)

On request, colours other than the standard RAL 7035 orange peel one are available, using the same painting cycle (for other types of colours or paints, please contact ABB).

Beige



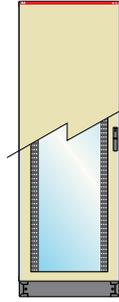
RAL 1013

Smooth	Orange p.
●	●

RAL 1015

Smooth	Orange p.
●	●

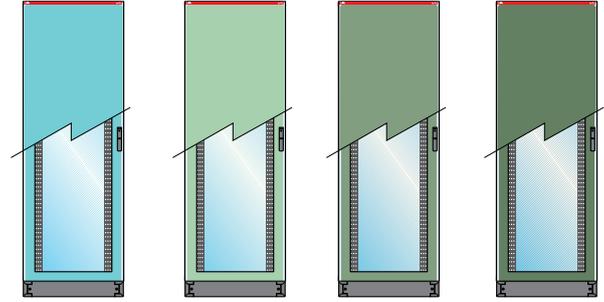
Ivory



RAL 1014

Smooth	Orange p.
●	●

Green



RAL 6027

Smooth	Orange p.
●	●

RAL 6019

Smooth	Orange p.
●	●

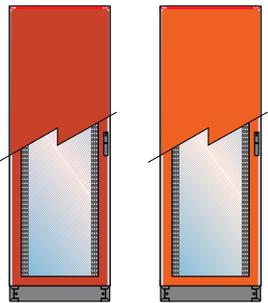
RAL 6021

Smooth	Orange p.
●	●

RAL 6011

Smooth	Orange p.
●	●

Orange



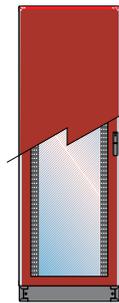
RAL 2002

Smooth	Orange p.
●	●

RAL 2004

Smooth	Orange p.
●	●

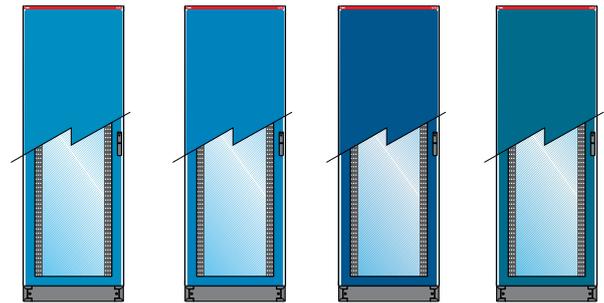
Red



RAL 3000

Smooth	Orange p.
●	●

Blue



RAL 5012

Smooth	Orange p.
●	●

RAL 5015

Smooth	Orange p.
●	●

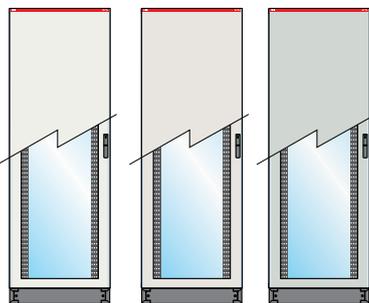
RAL 5010

Smooth	Orange p.
●	●

RAL 5009

Smooth	Orange p.
●	●

White



RAL 9010

Smooth	Orange p.
●	●

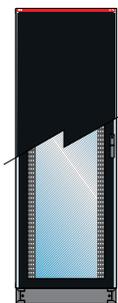
RAL 9001

Smooth	Orange p.
●	●

RAL 9002

Smooth	Orange p.
●	●

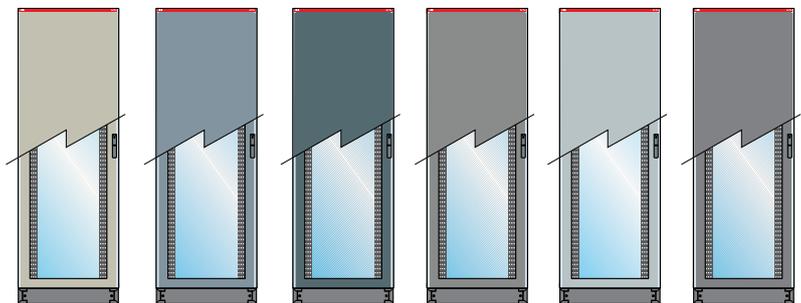
Black



RAL 9005

Smooth	Orange p.
●	●

Grey



RAL 7032

Smooth	Orange p.
●	●

RAL 7001

Smooth	Orange p.
●	●

RAL 7031

Smooth	Orange p.
●	●

RAL 7030

Smooth	Orange p.
●	●

RAL 7035

Smooth	Orange p.
●	●

RAL 7012

Smooth	Orange p.
●	●

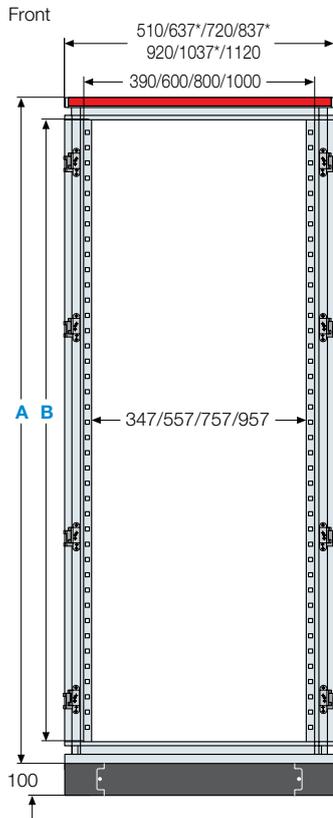
Overall dimensions

ArTu K	4/2
ArTu K - Kit for apparatus	4/8
ArTu K - Distribution systems	4/11

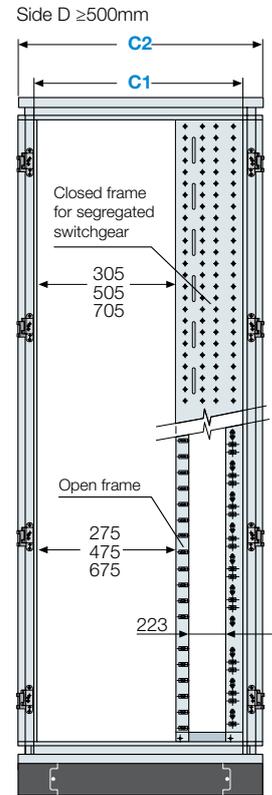
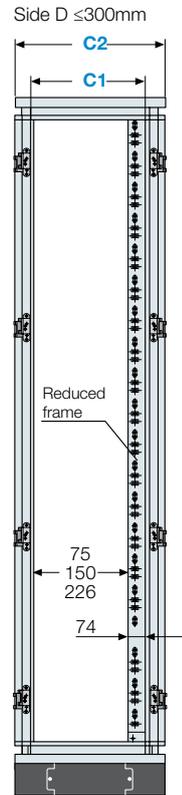
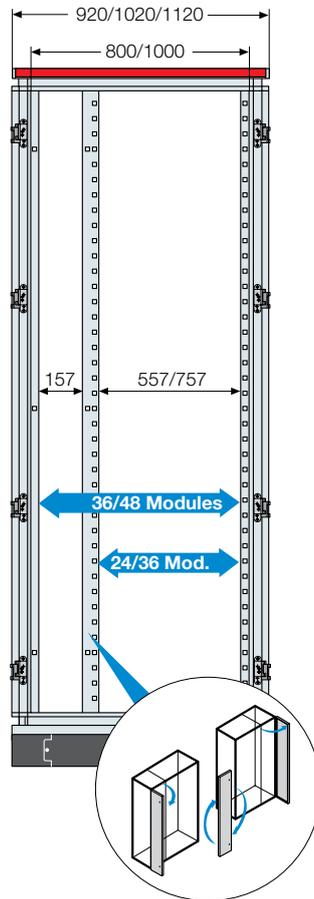
Overall dimensions ArTu K structures

ArTu K

Structure without
cable container



Structure with
cable container



4

	A	B	C1	C2
Structure height 1600mm				
SK6025/SK8025	1731	1600	150	270
Structure height 1800mm				
SK6025/SK8025	1931	1800	150	270
SK4040/SK6040/SK8040	1931	1800	225	345
SK4050/SK6050/SK8050	1931	1800	300	420
SK4060/SK6060/SK8060/SK6600*	1931	1800	500	620
SK4080/SK6080/SK8080/SK8800*	1931	1800	700	820
SK4010/SK6010/SK8010	1931	1800	900	1020
SK1010	1931	1800		1020
Structure height 2000mm				
SK6025/SK8025	2131	2000	150	270
SK4040/SK6040/SK8040	2131	2000	225	345
SK4050/SK6050/SK8050	2131	2000	300	420
SK4060/SK6060/SK8060/SK6600*	2131	2000	500	620
SK4080/SK6080/SK8080/SK8800*	2131	2000	700	820
SK4010/SK6010/SK8010	2131	2000	900	1020
SK1010	2131	2000		1020

* Angled structures

Overall dimensions for several
structures side by side

$$W \times N + 28 = X\text{mm}$$

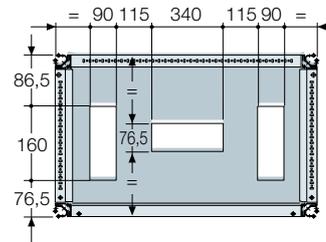
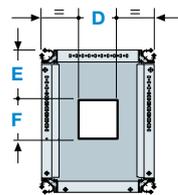
W = Column width
N = Number of columns
28 = Overall dimensions 2 side panels

> The measurements are in millimetres

ArTu K Bases (supplied without cutouts)

SK4040 (W390xD225)
SK6040 (W600xD225)
VC3040 (W300xD225)

SK8040 (W800xD225)



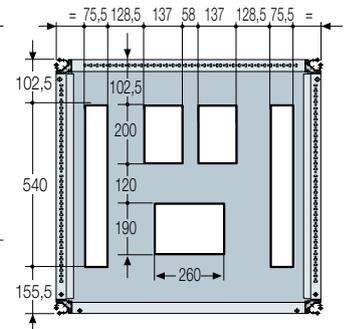
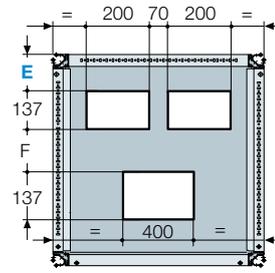
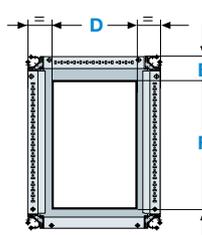
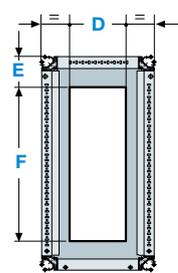
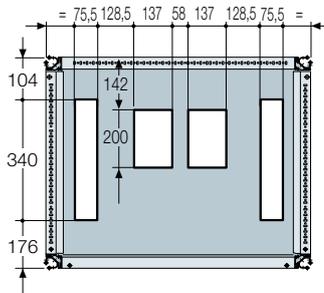
SK8060 (W800xD500)

VC3060 (W300xD500)
VC3080 (W300xD700)

SK4060 (W390xD500)
SK4080 (W390xD700)

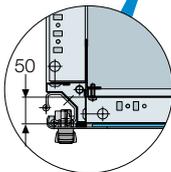
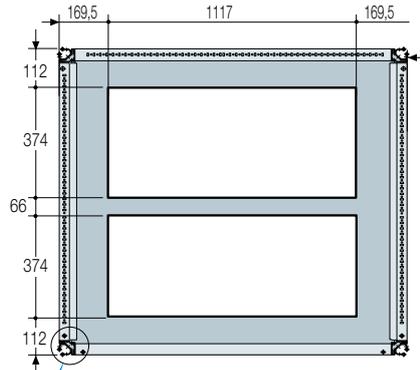
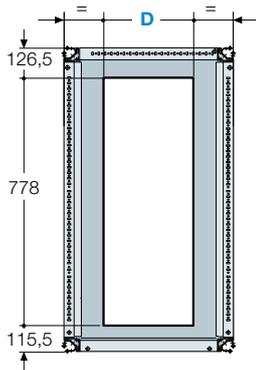
SK6060 (W600xD500)
SK6080 (W600xD700)

SK8080 (W800xD700)



SK4010 (W390xD900)
SK6010 (W600xD900)
SK8010 (W800xD900)
VC3010 (W300xD900)

SK1010 (W1000xD900)



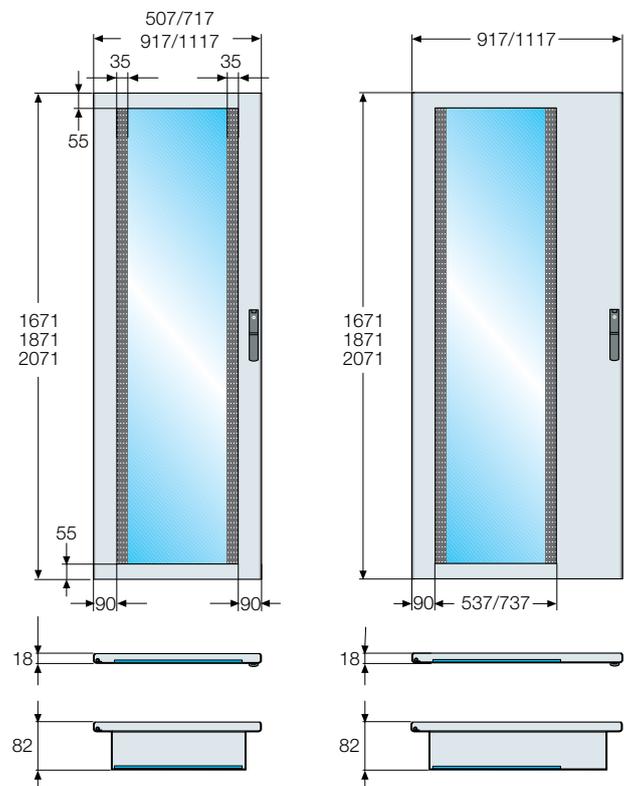
	D	E	F
SK6025 (W600xD150)	320	140	70
SK8025 (W800xD150)	320	140	70
SK4040 (W390xD225)	200	108	137
SK4050 (W390xD300)	320	94,5	235
SK4060 (W390xD500)	320	99	420
SK4080 (W390xD700)	320	99	620
SK4010 (W390xD900)	270	125	780
SK6040 (W600xD225)	540	123,5	70
SK6050 (W600xD300)	530	94,5	235
SK6060 (W600xD500)		93	163
SK6080 (W600xD700)		123	333
SK6010 (W600xD900)	467	125	780
SK8050 (W800xD900)	730	94,5	235
SK8010 (W800xD300)	467	125	780
VC3025 (W300xD150)	180	140	57
VC3040 (W300xD225)	200	103	137
VC3050 (W300xD300)	230	99	235
VC3060 (W300xD500)	230	99	420
VC3080 (W300xD700)	230	99	620
VC3010 (W390xD900)	200		

> The measurements are in millimetres

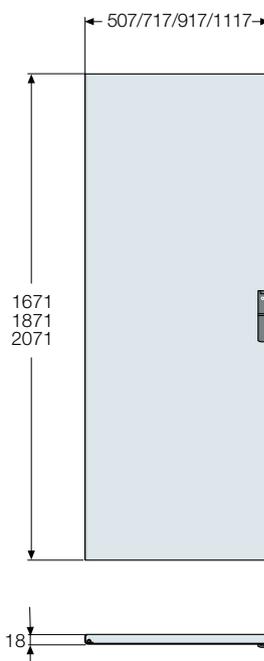
Overall dimensions ArTu K structures

ArTu K

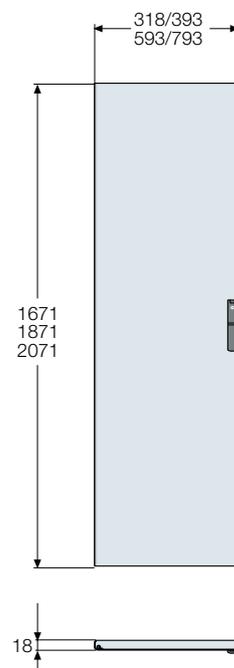
Transparent front doors



Side door

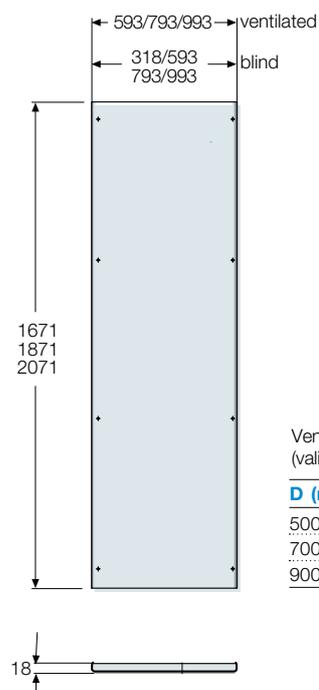


Side door

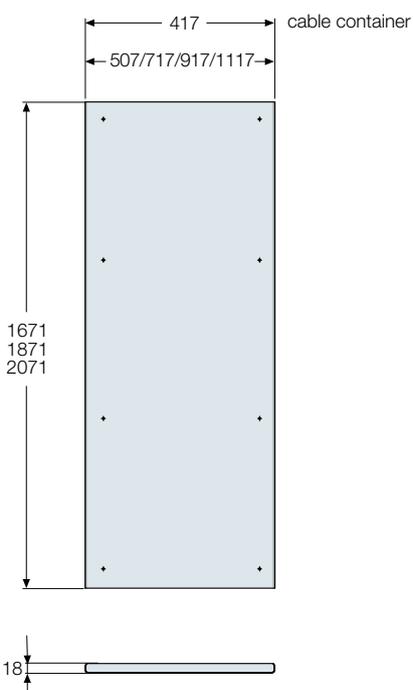


4

Blind side



Rear panels



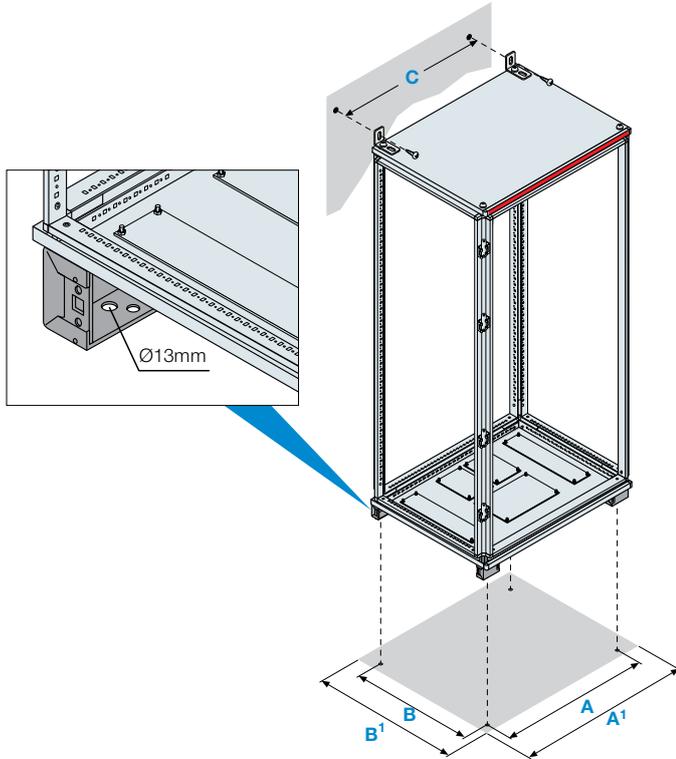
Ventilation area air inlet side
(valid for a single panel)

D (mm)	cm ²
500	75
700	113
900	170

> The measurements are in millimetres

ArTu K

Fixing to wall/floor



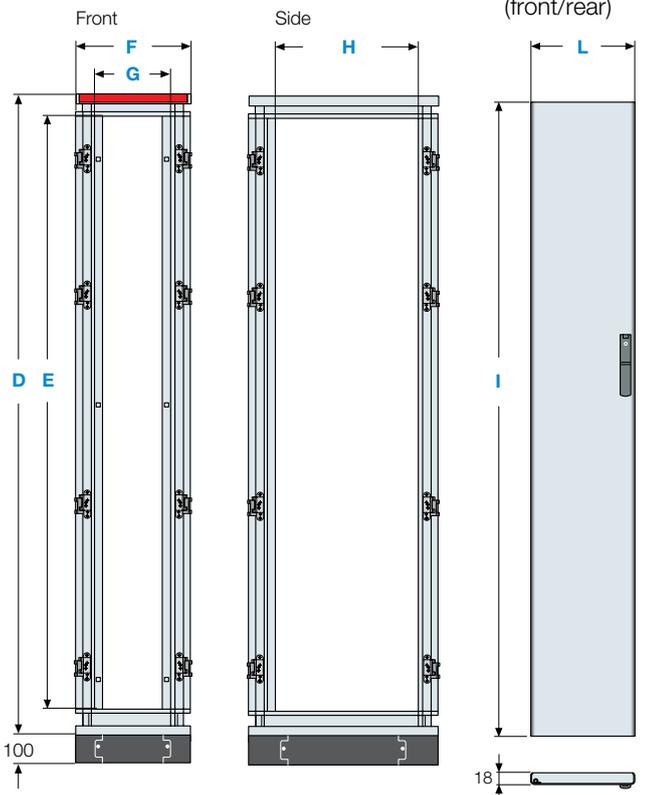
Structure

Dimensions	Code	A	A'	B	B'	C
L600xP150	SK6025	546	720	189	287	620
L800xP150	SK8025	746	920	189	287	820
L390xP225	SK4040	336	510	264	362	410
L390xP300	SK4050	336	510	339	437	410
L390xP500	SK4060	336	510	539	637	410
L390xP700	SK4080	336	510	739	837	410
L390xP900	SK4010	336	510	939	1037	410
L600xP225	SK6040	546	720	264	362	620
L600xP300	SK6050	546	720	339	437	620
L600xP500	SK6060	546	720	539	637	620
L600xP700	SK6080	546	720	739	837	620
L600xP900	SK6010	546	720	939	1037	620
L800xP225	SK8040	746	920	264	362	820
L800xP300	SK8050	746	920	339	437	820
L800xP500	SK8060	746	920	539	637	820
L800xP700	SK8080	746	920	739	837	820
L800xP900	SK8010	746	920	939	1037	820
L1000xP900	SK1010	946	1120	939	1037	1020

Additional cable container

Code	W (mm)	A	D (mm)	B
ZR3000	420	320	287	170
ZR4000	510	410	362	245
ZR6000	720	620	437	320
ZR8000	920	820	637	520
			837	720
			1037	920

Additional cable container



External door (front/rear)

Additional cable container

Dimensions	Code	D	E	F	G	H	I	L
H=1600mm								
L300xP150	VC3025	1731	1600	420	300	150	1671	417
H=1800mm								
L300xP150	VC3025	1931	1800	420	300	150	1871	417
L300xP225	VC3040	1931	1800	420	300	225	1871	417
L300xP300	VC3050	1931	1800	420	300	300	1871	417
L300xP500	VC3060	1931	1800	420	300	500	1871	417
L300xP700	VC3080	1931	1800	420	300	700	1871	417
L300xP900	VC3010	1931	1800	420	300	900	1871	417
H=2000mm								
L300xP150	VC3025	2131	2000	420	300	150	1871	417
L300xP225	VC3040	2131	2000	420	300	225	1871	417
L300xP300	VC3050	2131	2000	420	300	300	1871	417
L300xP500	VC3060	2131	2000	420	300	500	1871	417
L300xP700	VC3080	2131	2000	420	300	700	1871	417
L300xP900	VC3010	2131	2000	420	300	900	1871	417

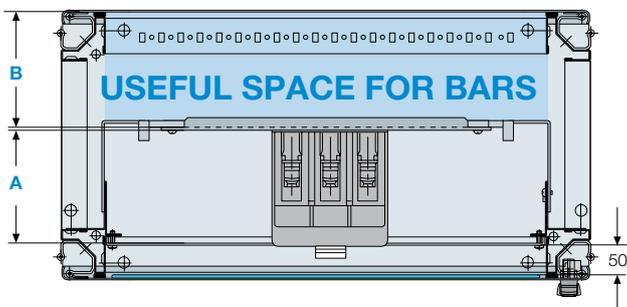
> The measurements are in millimetres

Overall dimensions ArTu K structures

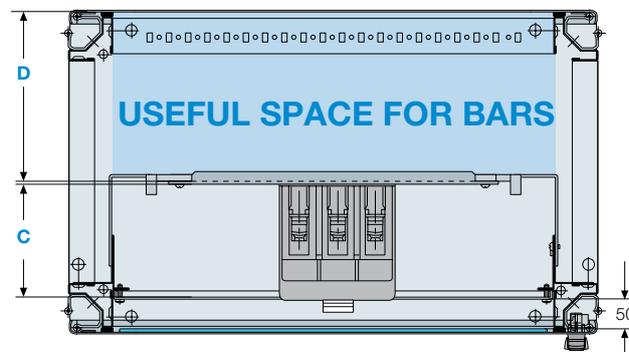
ArTu K

Useful space inside the switchgear

Depth 150mm



Depth 225/300mm



4

	FIXED		PLUG-IN		WITHDR.	
	A	B	A	B	A	B
T1-T2-T3	78	146	-	-	-	-
T4-T5-T6	107	117	-	-	-	-
XT1-XT3	74	150	-	-	-	-
XT2-XT4	86	138	-	-	-	-

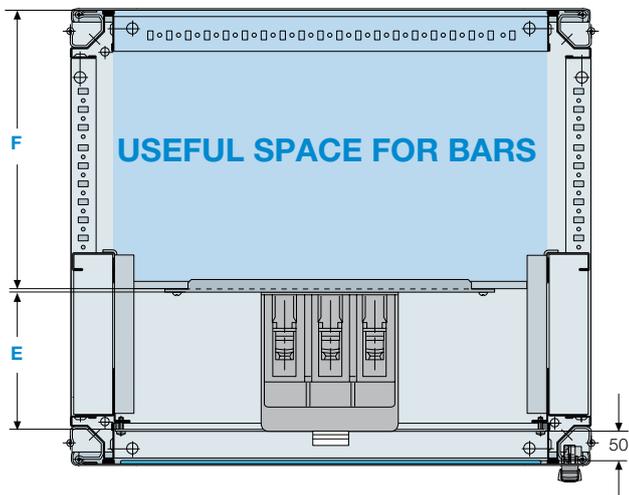
	FIXED		PLUG-IN		WITHDR.	
	C	D	C	D	C	D
Depth 225mm						
T1-T2-T3	78	221	149	150	-	-
T4-T5-T6	107	192	157	142	190	109
XT1-XT3	74	225	124	175	-	-
XT2-XT4	86	213	136	163	170	129
Depth 300mm						
T1-T2	78	296	149	225	-	-
T4-T5-T6	107	267	157	217	190	184
XT1-XT3	74	300	124	250	-	-
XT2-XT4	86	288	136	238	170	204

> The measurements are in millimetres

ArTu K

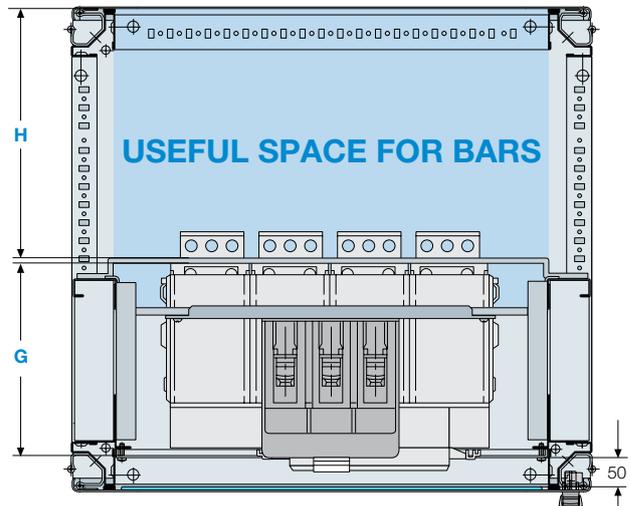
Useful space inside the switchgear

Depth 500mm



	FIXED		PLUG-IN		WITHDR.	
	E	F	E	F	E	F
T1-T2-T3	78	493	149	425	-	-
T4-T5-T6	107	467	157	417	190	384
T7-X 1	146	428	-	-	251	323
XT1-XT3	74	500	124	450	-	-
XT2-XT4	86	488	136	438	170	404

Depth 700/900mm



	FIXED		PLUG-IN		WITHDR.	
	G	H	G	H	G	H
Depth 700mm						
T1-T2-T3	78	696	149	625	-	-
T4-T5-T6	107	667	157	617	190	584
T7-X 1	146	628	-	-	251	523
E1-E2-E3-E4	266	508	-	-	378	396
XT1-XT3	74	700	124	650	-	-
XT2-XT4	86	688	136	638	170	604
Depth 900mm						
T1-T2	78	896	149	825	-	-
T4-T5-S6	107	867	157	817	190	784
T7-X 1	146	828	-	-	251	723
E1-E2-E3-E4-E6	266	708	-	-	378	596
XT1-XT3	74	900	124	850	-	-
XT2-XT4	86	888	136	838	170	804

> The measurements are in millimetres

Overall dimensions

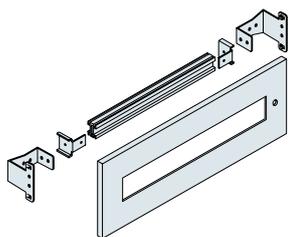
ArTu L-M-K structures

Kit for apparatus

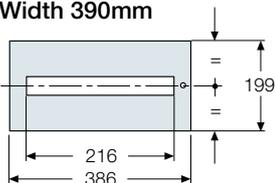
Panels for apparatus mounted on DIN rail

1 DIN row

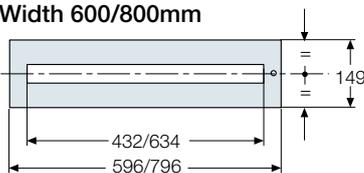
W=390mm (12 DIN mod.)
 W=600mm (24 DIN mod.)
 W=800mm (36 DIN mod.)
 W=1000mm (48 DIN mod.)



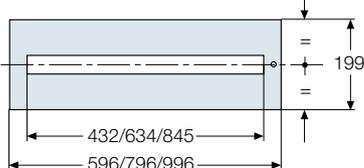
Width 390mm



Width 600/800mm



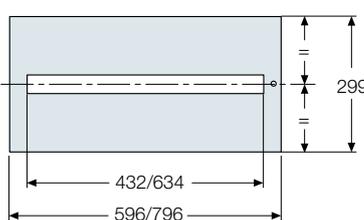
Width 600/800/1000mm



Version for Tmax with diff. mod.

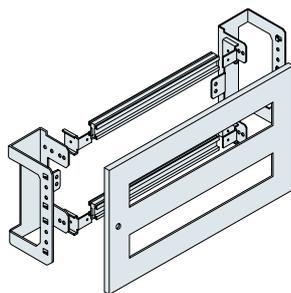


Version for Unifix H

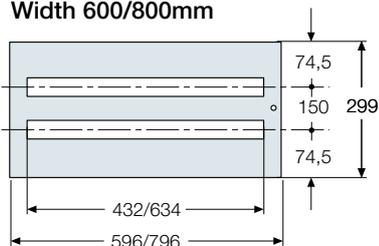


2 DIN rows

W=600mm (48 DIN mod.)
 W=800mm (72 DIN mod.)

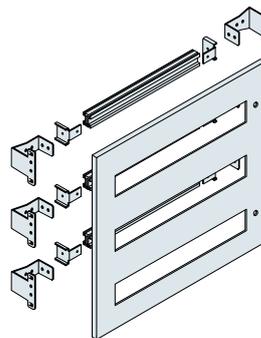


Width 600/800mm

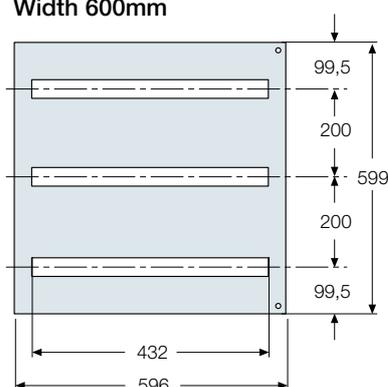


3 DIN rows

W=600mm (72 mod.DIN)



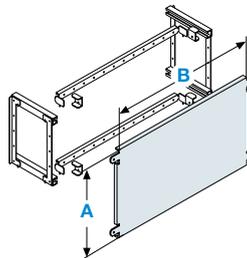
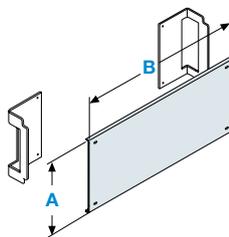
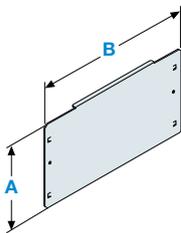
Width 600mm



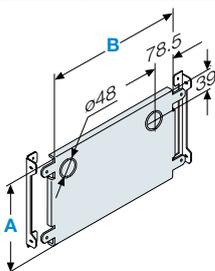
4

> The measurements are in millimetres

Kit for apparatus
Blind flat plates - PF
Useful dimensions



H functional (mm)	ArTu L		ArTu M-K d=150m				ArTu K without segregation									
	W=600mm		W=800mm		W=600mm		W=800mm		W=390mm		W=600mm		W=800mm		W=1000mm	
	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B
200	175	440	175	592	184	449	184	649	184	284	184	440	184	650	184	850
300	275	440	275	592	-	-	-	-	284	284	284	440	284	650	284	850
400	375	440	375	592	384	449	384	649	384	284	384	440	384	650	384	850
600	575	440	575	592	-	-	-	-	584	284	584	440	584	650	584	850
800	775	440	775	592	-	-	-	-	-	-	-	-	-	-	775	850



H functional (mm)	ArTu K segregated		W=600mm		W=800mm		W=1000mm	
	W=390mm		A	B	A	B	A	B
200	190	374	190	584	190	784	190	984
300	290	374	290	584	290	784	290	984
400	390	374	390	584	390	784	390	984
600	590	374	590	584	590	784	590	984
800	-	-	790	584	790	784	-	-

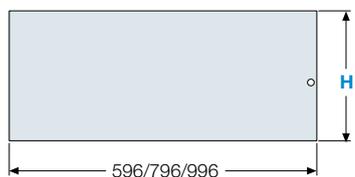
> The measurements are in millimetres

Overall dimensions

ArTu L-M-K structures

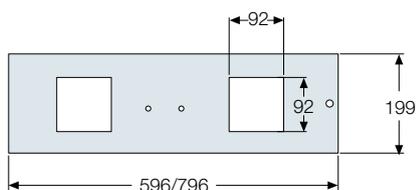
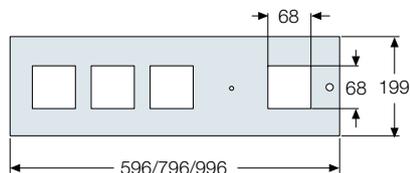
Kit for apparatus

ArTu L-M-K Blind and ventilated panels

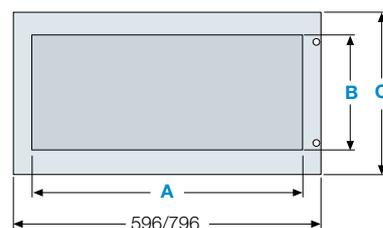
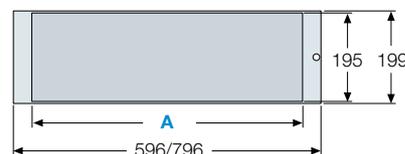


Blind H (mm)	Ventilated H (mm)
99	99
199	199
299	
399	
499	
599	
799	

ArTu L-M-K Panels for instruments



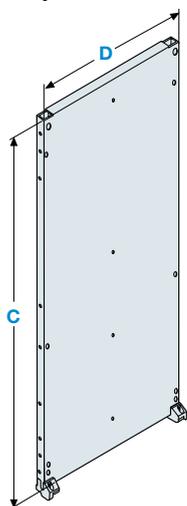
ArTu L-M-K Blind and recessed panels



Code	A	B	C
PR2600	506		
PR2800	706		
PR4600	506	308	399
PR4800	706	308	399
PR6600	506	508	599
PR6800	706	508	599

4

ArTu K Adjustable back plate

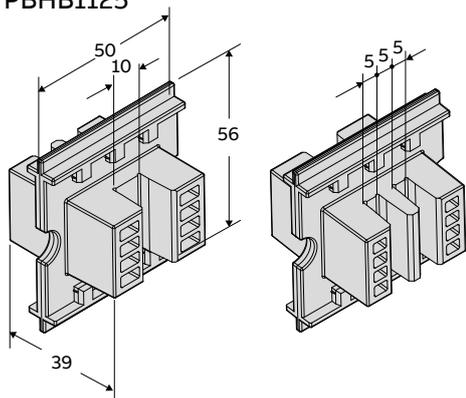


Code	C	D
PF1806	1776	580
PF1808	1776	780
PF2006	1966	580
PF2008	1966	780

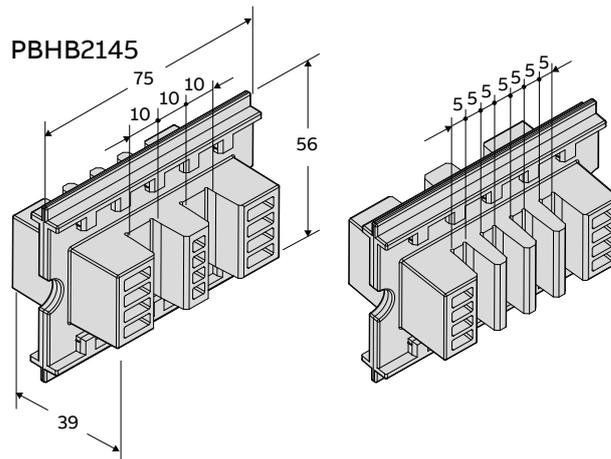
> The measurements are in millimetres

Linear busbar rails

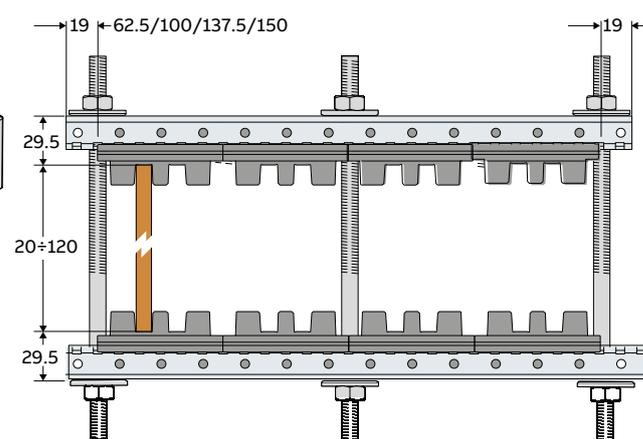
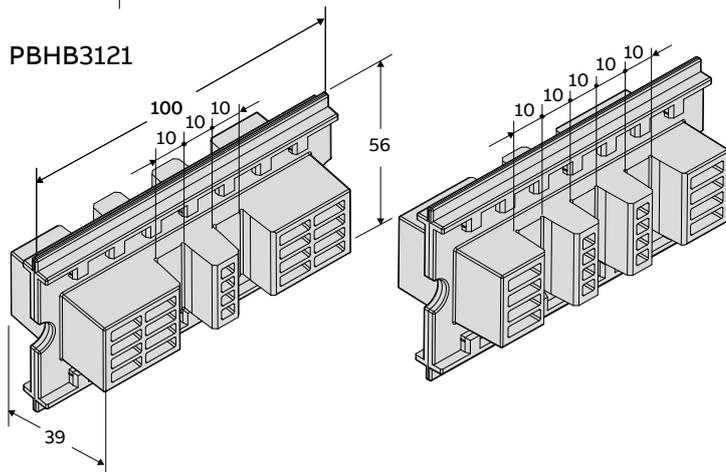
PBHB1125



PBHB2145



PBHB3121

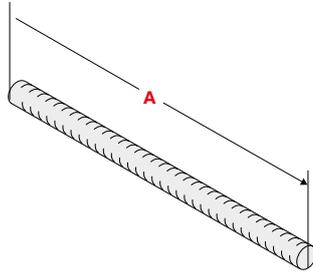


Distance between insulating supports

Distance between insulating supports refer the details in the drawings

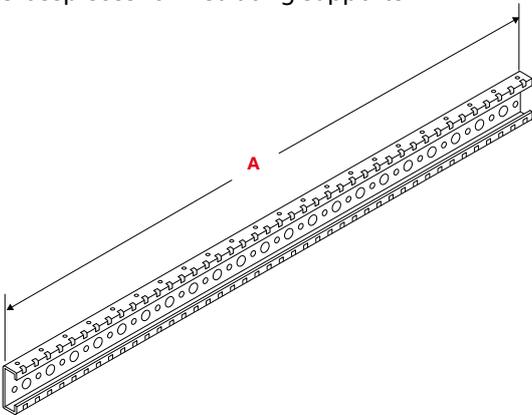
> The measurements are in millimetres

Stainless steel tie rods



	A
Stainless steel tie rods	210
	250
	290

Crosspieces for insulating supports



Galvanized sheet metal	Stainless steel	A
PCRM0188		88
PCRM0238		238
PCRM0288		288
PCRM0338	PCRS0338	338
PCRM0388	PCRS0388	388
PCRM0438	PCRS0438	438
PCRM0488		488
PCRM0538		538
PCRM0588	PCRS0338	588

Galvanized sheet metal	Stainless steel	A
PCRM0638	PCRS0388	638
PCRM0688	PCRS0438	688
PCRM0738		738
PCRM0788		788
PCRM0888	PCRS0588	888
PCRM0988	PCRS0638	988
PCRM1238		1238
PCRM2013		2013

> The measurements are in millimetres

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