

ArTu PB Panelboard

1STC802005D0203





ArTu PB Panelboard

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ArTu PB Panelboard

Three-step selection process

STEP 1 Select the fixed Panelboard required from page 5
or
Select the Custom Panelboard required from page 7
or
Select the Custom Pan Assembly required from page 9

STEP 2 Select the incoming device and the inner door required from page 10

STEP 3 Select the outgoing device required from page 11

Remember

- a) 18 way 4 pole T3 Fixed/Custom Panelboard & Pan Assembly equals 16 outgoing ways
- b) When ordering the incoming breaker do not forget to order the connection kit
- c) For T3 outgoing devices front connection terminal sets are required
- d) For breaker terminal shrouds see breaker accessories
- e) As standard no panelboard is fitted with a plinth (see panelboard accessories)
- f) For T2 outgoing breakers see Tmax technical catalogue (1SDC210004D0203)
- g) For the custom panelboard fill the usable space with plug-in module bases. Any left over busbar / equivalent space on the inner door should be shrouded (see custom panelboard accessories)



ArTu PB Panelboard

General information

The ArTu distribution switchboards are enriched by the new ArTu PB Panelboard series, which offers incoming options up to 800 A and outgoing ways up to 250 A. The ArTu PB panelboard is extremely sturdy, due to the newly designed metalwork system.

The ArTu PB panelboard is available wall mounted as standard, and in three configurations of 6, 12 and 18 outgoing ways, with the option of building your own custom panelboard.

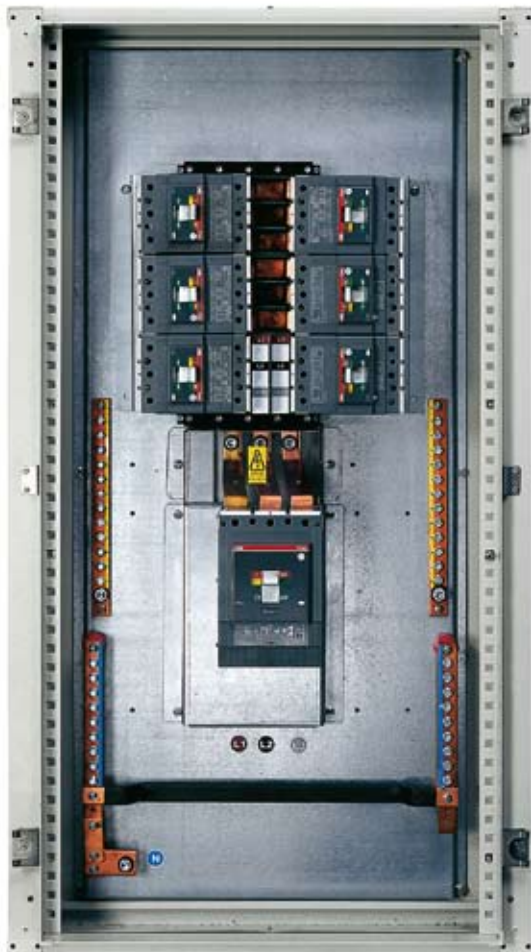
The new system allows you to fit T1 and T3, three or four pole

and the single pole MCCB's to the same copper system using the new plug in base system designed by ABB.

An extension box is available with a width of 390mm which can be fitted on both sides of the structure.

There is also an option of adding top and bottom extension boxes, and metering extension boxes are also available.

As standard the panelboard is fitted with a plain door but, as an option, it can be fitted with a glazed one.



Technical characteristics

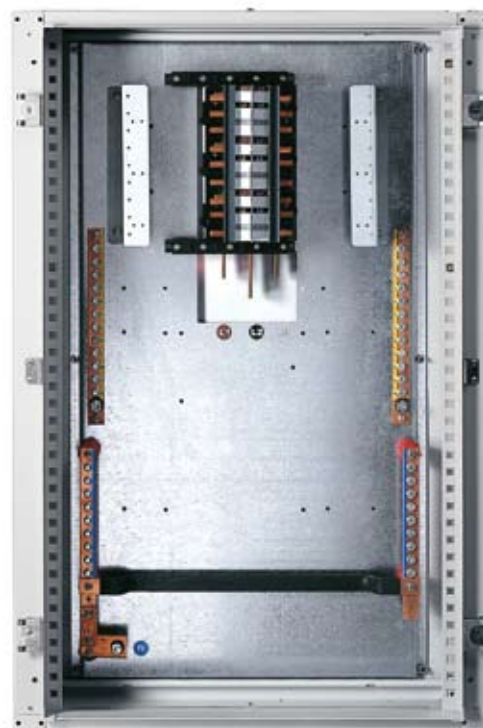
Compliance with Standards	CEI EN 60439-1
Rated service voltage - Ue	up to 690 V
Rated insulation voltage - Ui	up to 1000 V
Rated frequency	50-60 Hz
Rated impulse withstand voltage - Uimp	8 kV
Rated current - In	up to 800 A
Rated short-circuit short-time Withstand current - Icw	up to 50 kA
Rated short-circuit peak current - Ipk	up to 110 kA
IP degree of protection	43 with door

ArTu PB Panelboard

Selection

STEP 1

Select the fixed capacity Panelboard required from the table below.



Panelboard fixed capacity

Ways	Copper Rating	MCCB Type	Order code	
			3 Pole	4 Pole
6	400A	T1 outgoing 160A	640T1PB3	640T1PB4
6	400A	T3 outgoing 250A	640T3PB3	640T3PB4
6	800A	T3 outgoing 250A	680T3PB3	680T3PB4
12	400A	T1 outgoing 160A	124T1PB3	124T1PB4
12	400A	T3 outgoing 250A	124T3PB3	124T3PB4
12	800A	T1 outgoing 160A	128T1PB3	128T1PB4
12	800A	T3 outgoing 250A	128T3PB3	128T3PB4
18	400A	T1 outgoing 160A	184T1PB3	184T1PB4
18	800A	T1 outgoing 160A	188T1PB3	188T1PB4
18*	800A	T3 outgoing 250A	188T3PB3	188T3PB4

* T3 4 pole Panelboard equals 16 outgoing ways.

ArTu PB Custom Panelboard

General information

The new ArTu PB panelboard system gives you the flexibility to design your own custom panelboard.

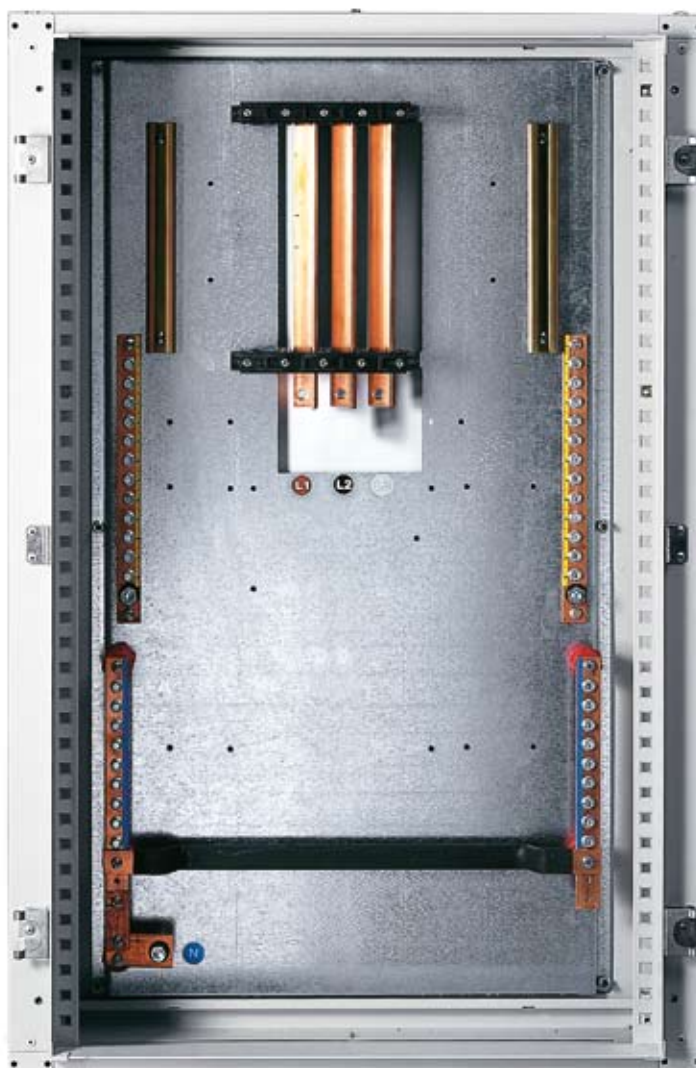
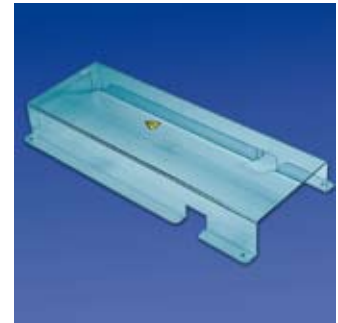
There are three sizes for the fixed panelboard, 6, 12 and 18 outgoing ways, and each one can be equipped with an incoming breaker from 250 A to 800 A, three or four pole.

Each panelboard has a fixed dimension of copper depending on

the quantity of outgoing ways you require.

All you have to do is select the plug-in bases and fill up the copper bar to suit the breakers you need.

Any left over copper can be shrouded and MCB blanking plates can be used to fill out the inner door.

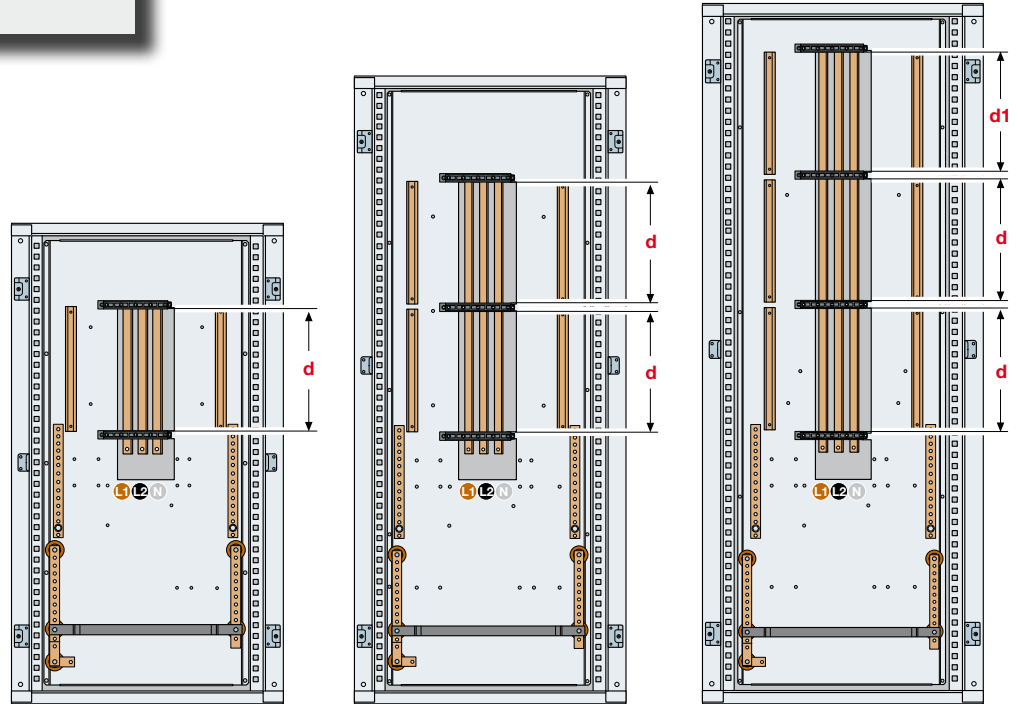


ArTu PB Custom Panelboard

Selection

STEP 1

Select the Custom Panelboard required from the table below.



Ways	6		12		18	
N°poles	3	4	3	4	3	4
Usable copper [d=mm]	315	420	315	420	315	420
Usable copper [d1=mm]	-	-	-	-	315	280
Code	CU640PB3 CU680PB3 CU680PB4		CU124PB3 CU128PB3 CU128PB4		CU184PB3 CU188PB3 CU188PB4	

Custom Panelboard

Ways	Copper Rating	MCCB Type	Order code	
			3 Pole	4 Pole
6	400A	T1 single pole - T1 - T2 - T3	CU640PB3	
6	800A	T1 single pole - T1 - T2 - T3	CU680PB3	CU680PB4
12	400A	T1 single pole - T1 - T2 - T3	CU124PB3	
12	800A	T1 single pole - T1 - T2 - T3	CU128PB3	CU128PB4
18*	400A	T1 single pole - T1 - T2 - T3	CU184PB3	
18*	800A	T1 single pole - T1 - T2 - T3	CU188PB3	CU188PB4

* T3 4 poles breakers equals 16 outgoing ways.

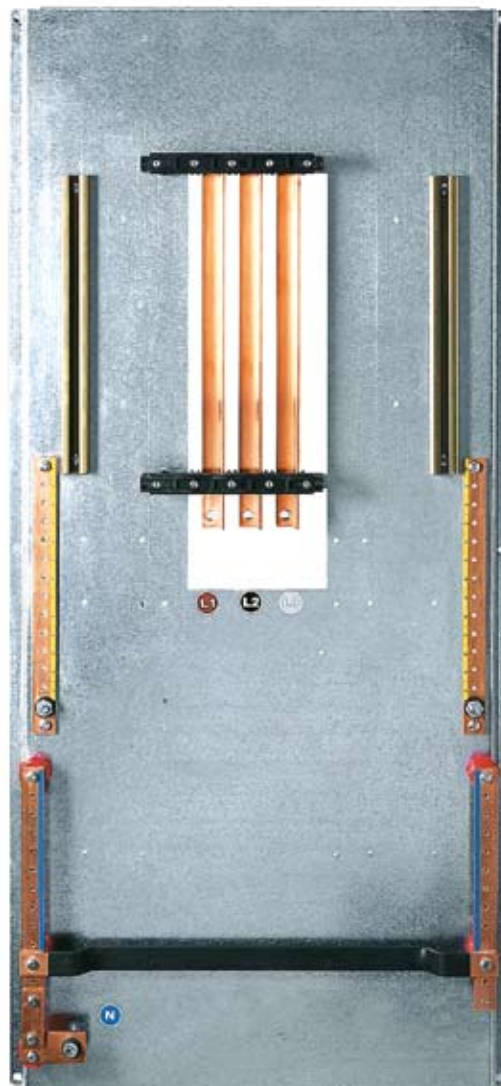
ArTu PB Custom Pan Assembly

General information

The pan assembly option allows you to design your own customized switchboard. As for the panelboard, it is available in three sizes with 6, 12 and 18 outgoing ways, each of which can be equipped with an incoming breaker from 250 A to 800 A, three or four pole.

As standard the pan assembly is supplied as a three or four pole.

Each pan assembly has a fixed dimension of copper depending on the quantity of outgoing ways you require. All you have to do is select the plug-in bases and fill up the copper bar to suit the breakers. Any left over copper can be shrouded and MCB blanking

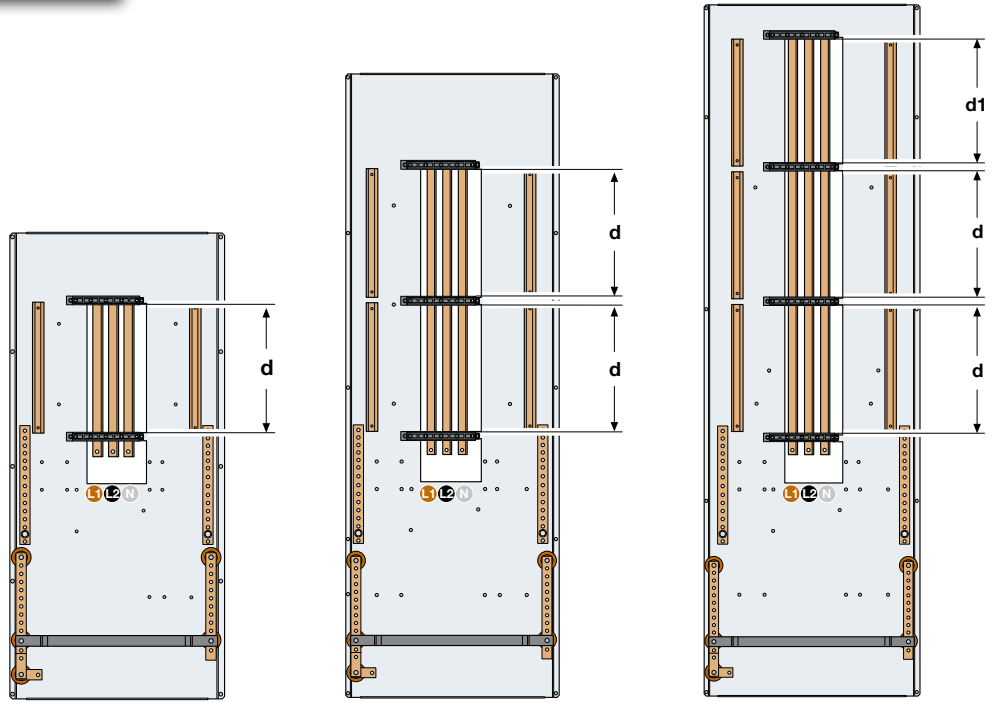


ArTu PB Custom Pan Assembly

Selection

STEP 1

Select the Custom Pan Assembly required from the table below.



Ways	6		12		18	
N° poles	3	4	3	4	3	4
Usable copper [d=mm]	315	420	315	420	315	420
Usable copper [d1=mm]	-	-	-	-	315	280
Code	CU640PA3		CU124PA3		CU184PA3	
	CU680PA3	CU680PA4	CU128PA3	CU128PA4	CU188PA3	CU188PA4

Custom Pan Assembly

Ways	Copper Rating	MCCB Type	Order code	
			3 Pole	4 Pole
6	400A	T1 single pole - T1 - T2 - T3	CU640PA3	
6	800A	T1 single pole - T1 - T2 - T3	CU680PA3	CU680PA4
12	400A	T1 single pole - T1 - T2 - T3	CU124PA3	
12	800A	T1 single pole - T1 - T2 - T3	CU128PA3	CU128PA4
18*	400A	T1 single pole - T1 - T2 - T3	CU184PA3	
18*	800A	T1 single pole - T1 - T2 - T3	CU188PA3	CU188PA4

* T3 4 poles beakers equals 16 outgoing ways.

ArTu PB Panelboard

Incoming selection kit

STEP 2

Select the incoming connection kit required from the table below.



Direct connection kit

Type	Order code		
	3 Pole	4 Pole	Inner door
400A Busbar rating	400DC3/4P	400DC3/4P	P6X6DC
800A Busbar rating	800DC3P	800DC4P	P6X6DC

Incomer options

(Connection kits must be ordered with each incoming breaker)

Type	Order code		
	3 Pole	4 Pole	Inner door
250A MCCB connection Kit T3	250T33P	250T34P	P6X6T3
250A Switch disconnecter T3D250	1SDA051327R1	1SDA051328R1	
250A MCCB T3N250	1SDA051247R1	1SDA051306R1	
400A MCCB connection Kit T5	400T53P	400T54P	P6X6T5
T5N 400 PR221DS-I In=400 F F	1SDA054319R1	1SDA054327R1	
T5N 400 PR221DS-LS In=400 F F	1SDA054317R1	1SDA054325R1	
630A MCCB connection kit T5	630T53P	630T54P	P6X6T5
T5N 630 PR221DS-I In=630 F F	1SDA054397R1	1SDA054401R1	
T5N 630 PR221DS-LS In=630 F F	1SDA054396R1	1SDA054400R1	
T5S 630 PR221DS-LS In=630 F F	1SDA054404R1	1SDA054408R1	
800A MCCB connection kit T6	800T63P	800T64P	P6X6T6
800A Switch disconnecter T6D800	1SDA060345R1	1SDA060346R1	
800A MCCB T6N800	1SDA060268R1	1SDA060273R1	
800A MCCB T6S800	1SDA060278R1	1SDA060283R1	

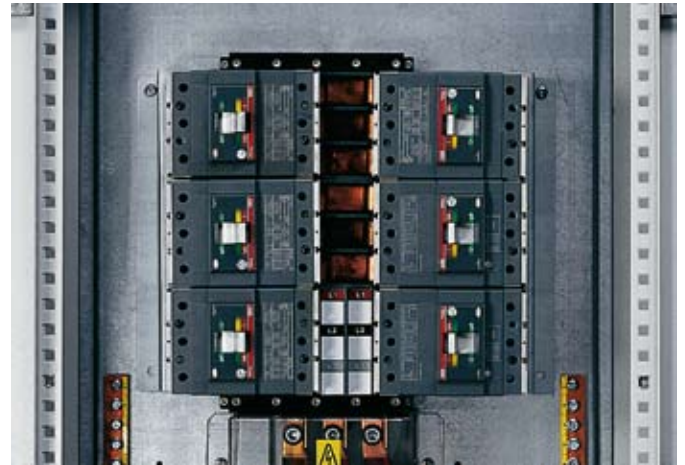
For terminal shrouds see accessories.

ArTu PB Panelboard

MCCB Outgoing breaker selection

STEP 3

Select the outgoing devices required from the table below.



T1B Single pole MCCB

(Thermomagnetic release)

Current rating	kA rating	Order code 1 Pole
16	25	1SDA052616R1
20	25	1SDA052617R1
25	25	1SDA052618R1
32	25	1SDA052619R1
40	25	1SDA052620R1
50	25	1SDA052621R1
63	25	1SDA052622R1
80	25	1SDA052623R1
100	25	1SDA052624R1
125	25	1SDA052625R1
160	25	1SDA052626R1

T1B Three pole MCCB

(Thermomagnetic release)

Current rating	kA rating	Order code 3 Pole	Order code 4 Pole
16	16	1SDA050870R1	1SDA050881R1
20	16	1SDA050871R1	1SDA050882R1
25	16	1SDA050872R1	1SDA050883R1
32	16	1SDA050873R1	1SDA050884R1
40	16	1SDA050874R1	1SDA050885R1
50	16	1SDA050875R1	1SDA050886R1
63	16	1SDA050876R1	1SDA050887R1
80	16	1SDA050877R1	1SDA050888R1
100	16	1SDA050878R1	1SDA050889R1
125	16	1SDA050879R1	1SDA050890R1
160	16	1SDA050880R1	1SDA050936R1

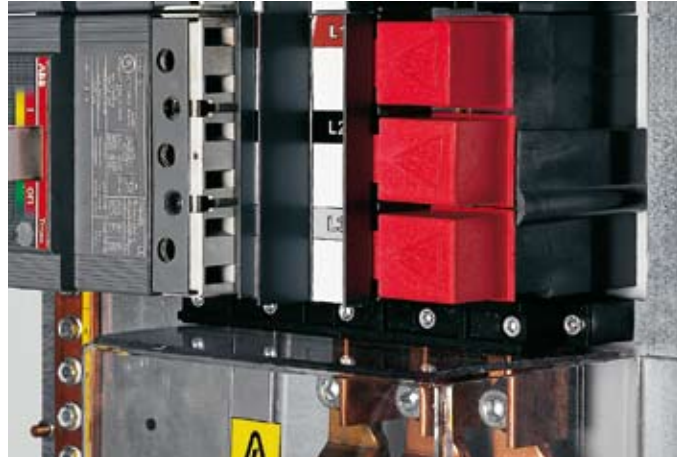
T1C Three pole MCCB

(Thermomagnetic release)

Current rating	kA rating	Order code 3 Pole	Order code 4 Pole
25	25	1SDA050894R1	1SDA050905R1
32	25	1SDA050895R1	1SDA050906R1
40	25	1SDA050896R1	1SDA050907R1
50	25	1SDA050897R1	1SDA050908R1
63	25	1SDA050898R1	1SDA050909R1
80	25	1SDA050899R1	1SDA050910R1
100	25	1SDA050900R1	1SDA050911R1
125	25	1SDA050901R1	1SDA050912R1
160	25	1SDA050902R1	1SDA050937R1

ArTu PB Panelboard

MCCB Outgoing breaker selection



T1N Three pole MCCB

(Thermomagnetic release)

Current rating	kA rating	Order code	
		3 Pole	4 Pole
32	36	1SDA050917R1	1SDA050928R1
40	36	1SDA050918R1	1SDA050929R1
50	36	1SDA050919R1	1SDA050930R1
63	36	1SDA050920R1	1SDA050931R1
80	36	1SDA050921R1	1SDA050932R1
100	36	1SDA050922R1	1SDA050933R1
125	36	1SDA050923R1	1SDA050934R1
160	36	1SDA050924R1	1SDA050938R1

T3N Three pole MCCB

(Thermomagnetic release)

Current rating	kA rating	Order code	
		3 Pole	4 Pole
63	36	1SDA051241R1	1SDA051252R1
80	36	1SDA051242R1	1SDA051253R1
100	36	1SDA051243R1	1SDA051254R1
125	36	1SDA051244R1	1SDA051303R1
160	36	1SDA051245R1	1SDA051304R1
200	36	1SDA051246R1	1SDA051305R1
250	36	1SDA051247R1	1SDA051306R1

Front connection terminal sets are required for all T3 outgoing devices.

T3S Three pole MCCB

(Thermomagnetic Release)

Current rating	kA rating	Order code	
		3 Pole	4 Pole
63	50	1SDA051263R1	1SDA051274R1
80	50	1SDA051264R1	1SDA051275R1
100	50	1SDA051265R1	1SDA051276R1
125	50	1SDA051266R1	1SDA051307R1
160	50	1SDA051267R1	1SDA051308R1
200	50	1SDA051268R1	1SDA051309R1
250	50	1SDA051269R1	1SDA051310R1

Front connection terminal sets are required for all T3 outgoing devices.

ArTu PB Panelboard

MCCB accessories



Shunt opening release - SOR

(cabled version)

Voltage

SOR 24V AC/DC
SOR 48...60V AC/DC
SOR 110...120V AC - 110...125V DC
SOR 220...240V AC - 220...250V DC
SOR 380...440V AC

Order code

1SDA051339R1
1SDA051340R1
1SDA051341R1
1SDA051342R1
1SDA051343R1

Undervoltage release - UVR

(cabled version)

Voltage

UVR 24...30V AC/DC
UVR 48V AC/DC
UVR 60V AC/DC
UVR 110...127V AC - 110...125V DC
UVR 220...240V AC - 220V DC
UVR 380...440V AC

Order code

1SDA051351R1
1SDA051352R1
1SDA052335R1
1SDA051353R1
1SDA051354R1
1SDA051355R1

Auxiliary contacts - AUX

(cabled version)

Voltage

1 open/closed change-over and 1 release tripped change-over
3 open/closed change-over and 1 release tripped change-over

Order code

1SDA051370R1
1SDA051371R1

High terminal cover HTC

Type

HTC T1
HTC T3
HTC S5
HTC S6
T1 single pole shroud

1 Pole

3 Pole

4 Pole

	1SDA051415R1	1SDA051416R1
	1SDA051419R1	1SDA051420R1
	1SDA013897R1	1SDA013898R1
	1SDA014040R1	1SDA014041R1
ED0001		

Front terminal for copper cables - FC CU

Type

PLL T1-T2-T3 padlocks device OP/CL
PLL T1-T2-T3 padlocks device OP position
PLL T1 1P padlocks device OPEN
PLL T1-T2-T3 remov. padlocks device OPEN

Order code

1SDA051394R1
1SDA060534R1
1SDA060199R1
1SDA051393R1

¹⁾ not to be used with glazed door

ArTu PB Panelboard

Accessories



Glazed door for panelboard

Type	Order code
640T1PB3	PV1000
640T3PB3 - 640T1PB4 - 680T3PB3 - CU680PB3 - CU640PB3	PV1200
640T3PB4 - 680T3PB4 - 124T1PB3 - 128T1PB3 - CU680PB4	PV1400
124T1PB4 - 124T3PB3 - 128T3PB3 - 128T1PB4 - CU128PB3 - CU124PB3	PV1600
124T3PB4 - 128T3PB4 - 184T1PB3 - 188T1PB3 - CU128PB4	PV1800
184T1PB4 - 188T1PB4 - 188T3PB3 - 188T3PB4 - CU188PB3 - CU188PB4 - CU184PB3	PV2000

Plinth

Type	Order code
Four corner feet 100mm height for main structure	ZL1000
Finishing profile for above plinth	ZL1001
Two feet 100mm high for side extension box	ZL3000
Finishing profile for side extension box	ZL2001

Top/Bottom extension modules

Type	Order code
200x690x204mm HeightxWidthxDepth	2EXMODD204
200x390x204mm HeightxWidthxDepth	2EXMODDCW204
200x690x240mm HeightxWidthxDepth (panelboards ≥1450mm High)	200EXMOD
385x690x240mm HeightxWidthxDepth (panelboards ≥1450mm High)	RC1000
385x390x240mm HeightxWidthxDepth (panelboards ≥1450mm High)	RC2000

Side extension modules for panelboard

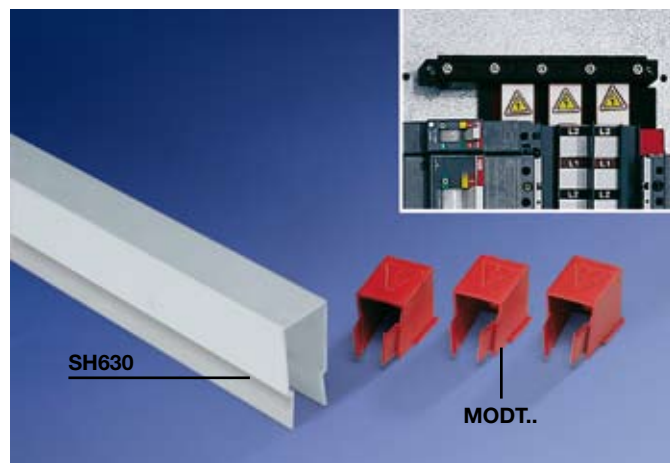
Type	Order code		
	1 Pole	3 Pole	4 Pole
640T1PB3	MI1000	VC1000	PC1002
640T3PB3 - 640T1PB4 - 680T3PB3 - CU680PB3 - CU640PB3	MI1200	VC1200	PC1202
640T3PB4 - 680T3PB4 - 124T1PB3 - 128T1PB3 - CU680PB4	MI1400	VC1400	PC1402
124T1PB4 - 124T3PB3 - 128T3PB3 - 128T1PB4 - CU128PB3 - CU124PB3	MI1600	VC1600	PC1602
124T3PB4 - 128T3PB4 - 184T1PB3 - 188T1PB3 - CU128PB4	MI1800	VC1800	PC1802
184T1PB4 - 188T1PB4 - 188T3PB3 - 188T3PB4 - CU188PB3 - CU188PB4 - CU184PB3	MI2000	VC2000	PC2002

Metering extension modules

Type	Order code
250A Metering module	250METMOD
400A Metering module	400METMOD
630A Metering module	630METMOD
800A Metering module	800METMOD

ArTu PB Panelboard

Accessories

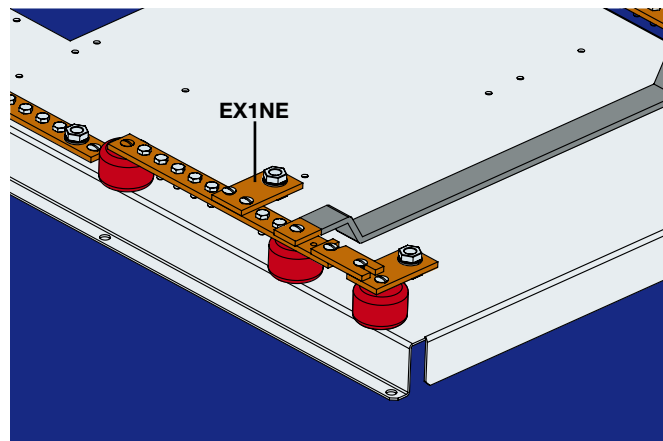
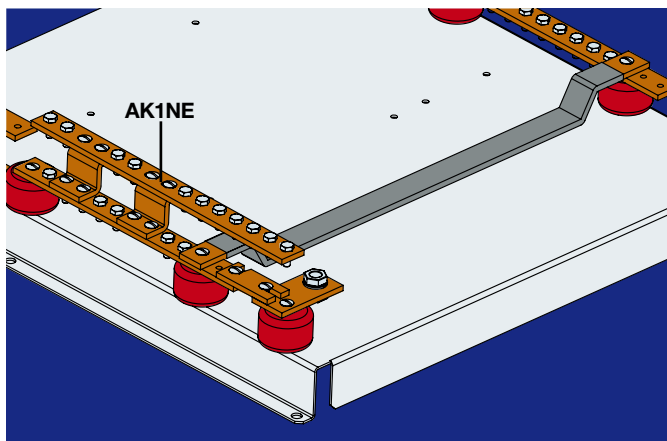


Plug In device

Type	Width	Order code
T1 single pole (L1) & (L3)	25.4mm	PLT11L1/L3P
T1 single pole (L2)	25.4mm	PLT11L2P
T1 three pole	76.2mm	PLT13P
T1 four pole (N)	25.4mm	PLT14P
T2 three pole	90mm	PLT23P
T2 four pole (N)	30mm	PLT24P
T3 three pole	105mm	PLT33P
T3 four pole (N)	35mm	PLT34P
Dummy base for T1 with RCD	30mm	PLRCDT1
Dummy base for T2 with RCD	30mm	PLRCDT2
Dummy base for T3 with RCD	30mm	PLRCDT3

Accessories

Type	Order code
Busbar shroud 630mm long 3 pcs	SH630
Busbar module shroud for T1 10 pcs	MODT1
Busbar module shroud for T2 10 pcs	MODT2
Busbar module shroud for T3 10 pcs	MODT3
Spares kit	SPARE1
Mounting brackets for T1 single pole 6 pcs	6MBT11P
Additional kit for neutral and earth	AK1NE
Extension kit for neutral and earth	EX1NE
Wall fixing brackets	AL2000
Covers for doors holes RAL 7035	AD1086



ArTu PB Panelboard

Panelboard interiors and accessories
(UL Category Code QEUY2/QEUY8)



General information

The ArTu PB UL series are suitable for applications up to 800A as incoming current. The ArTu PB UL is available in two configurations of 6 and 10 outgoing ways.

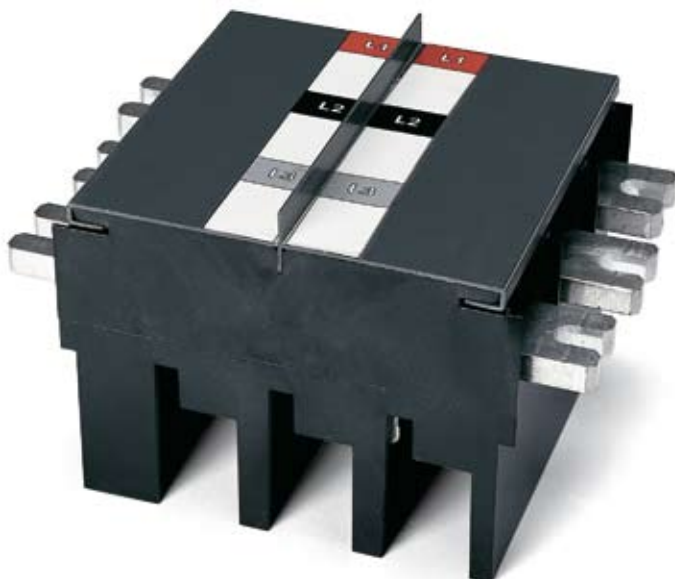
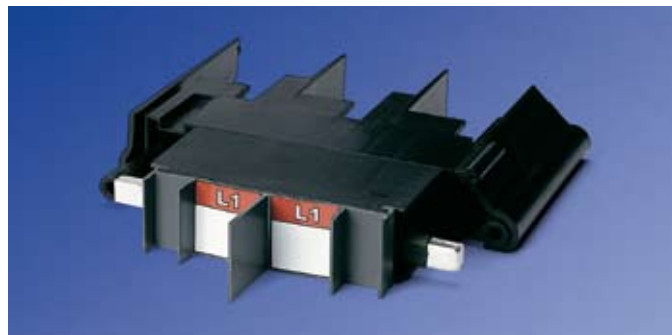
The interiors are intended to mount and provide electrical connections for circuit breakers.

The main busbar system is mounted in vertical position and the busbars finish is made of electrodeposited tin plate. The new system

allows fitting T1 single pole MCCB and T1, T2, T3, T4 and T5 three poles MCCB using the plug-in devices. The dimension of the plug-in breaker base is equivalent to a 3 poles MCCB and the single pole base is the same width as the Tmax T1 single pole MCCB.

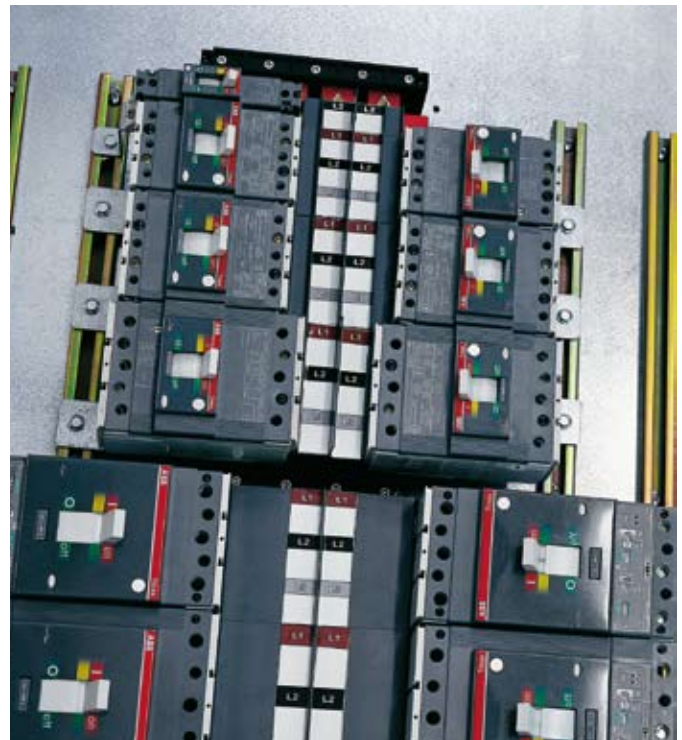
It is possible to mount equal MCCB's on the left and on the right side of the main busbar system.

Any empty ways can be fitted with a cover to insulate the live parts.



Technical characteristics

Compliance with Standards	UL67
UL category code	QEUY2, QEUY8
UL File No.	E242144
Rated voltage	up to 480 V
Rated frequency	50-60 Hz
Rated current - in	up to 800 A
Rated short-circuit short-time Withstand current - I _{cw}	up to 50 kA

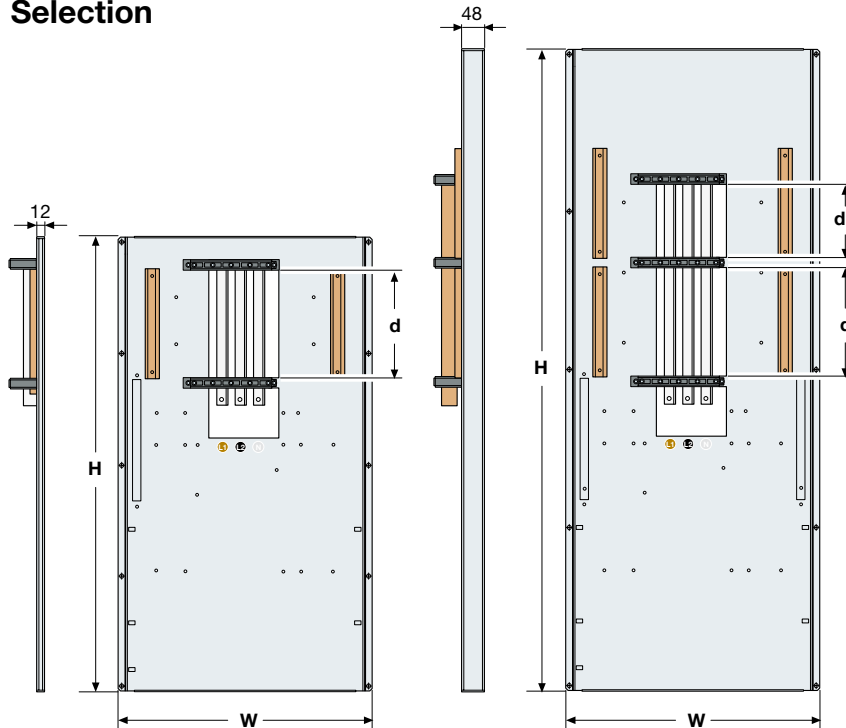


ArTu PB Panelboard

Panelboard interiors and accessories
(UL Category Code QEUY2/QEUY8)



Selection



Part. Number	Usable copper [d=mm]	Usable copper [d1=mm]	H [mm]	W [mm]
640T1PU3	229	-	977	544
640T2PU3	270	-	1177	544
640T3PU3	315	-	1177	544
680T3PU3	315	-	1177	544
1040T1PU3	229	153	1377	544
1040T2PU3	270	180	1577	544
1040T3PU3	315	210	1577	544
1060T1PU2	229	153	1377	544
1060T2PU3	270	180	1577	544
1080T3PU3	315	210	1577	744

Panelboard Interiors

Ways	Copper Rating	Type	Order code
6	400A	Busbar system for 6 positions max of T1 3P	640T1PU3
6	400A	Busbar system for 6 positions max of T2 3P	640T2PU3
6	400A	Busbar system for 6 positions max of T3 3P	640T3PU3
6	800A	Busbar system for 6 positions max of T3 3P	680T3PU3
10	400A	Busbar system for 10 positions max of T1 3P	1040T1PU3
10	400A	Busbar system for 10 positions max of T2 3P	1040T2PU3
10	400A	Busbar system for 10 positions max of T3 3P	1040T3PU3
10	600A	Busbar system for 10 positions max of T1 3P	1060T1PU3
10	600A	Busbar system for 10 positions max of T2 3P	1060T2PU3
10	800A	Busbar system for 10 positions max of T3 3P	1080T3PU3(*)

(*) allow the fitting of any kind of Plug In Device

UL Plug In Device

Type	Width	Order code
T1 single pole "L1" or "L3"	25,4mm	PLT11L1/L3T
T1 single pole "L2"	25,4mm	PLT11L2T
T1 three pole	76,2mm	PLT13PT
T2 three pole	90mm	PLT23PT
T3 three pole	105mm	PLT33PT
T4 three pole	105mm	PLT43PT
T5 three pole	139,5mm	PLT53PT

Accessories

Type	Order code
Busbar module shroud for T1 (10 pcs)	MODT1
Busbar module shroud for T2 (10 pcs)	MODT2
Busbar module shroud for T3 (10 pcs)	MODT3
Busbar module shroud for T4 (10 pcs)	MODT4
Busbar module shroud for T5 (10 pcs)	MODT5
Main busbar shroud 630mm long (3pcs)	SH630

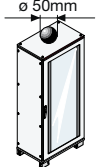
ArTu PB

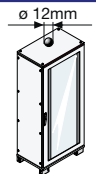
In-depth technical information

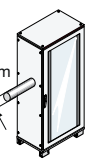
1st NUMBER: protection against solid bodies

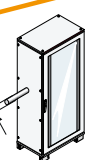
IP

0 No protection

1  Protected against solid bodies larger than 50mm (accidental contact with hands)

2  Protected against solid bodies larger than 12mm (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)

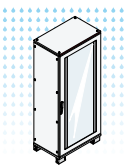
6  Totally protected against dust

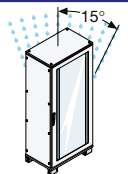
1st number defined by the CEI 70-1 – IEC 529 Standards

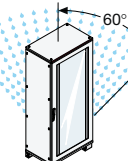
2nd NUMBER: protection against liquids

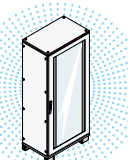
IP

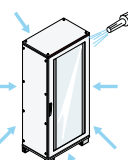
0 No protection

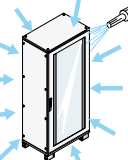
1  Protected against vertical fall of drops of water (condensation)

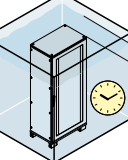
2  Protected against drops of water up to 15° from vertical

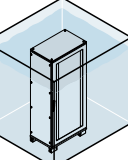
3  Protected against drops of water up to 60° from vertical

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 70-1 – IEC 529 Standards

1STC802095F0001

ArTu PB

In-depth technical information

IK mechanical resistance


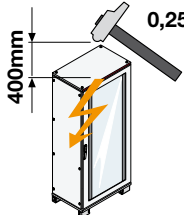
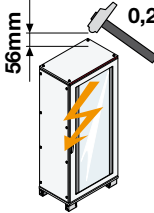
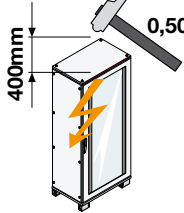
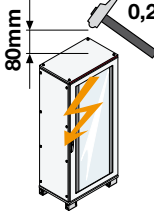
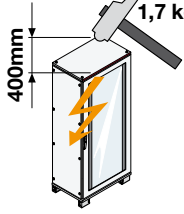
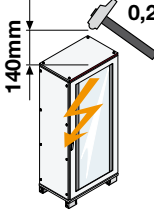
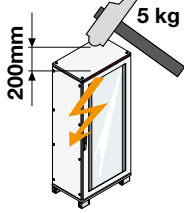
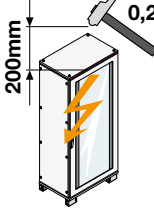
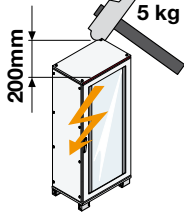
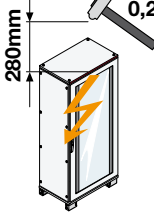
<p>IK 0</p>  <p>Unprotected</p>	<p>IK 06</p>  <p>Impact energy in Joules: 1,00</p>
<p>IK 01</p>  <p>Impact energy in Joules: 0,150</p>	<p>IK 07</p>  <p>Impact energy in Joules: 2,00</p>
<p>IK 02</p>  <p>Impact energy in Joules: 0,200</p>	<p>IK 08</p>  <p>ArTu PB Impact energy in Joules: 5,00</p>
<p>IK 03</p>  <p>Impact energy in Joules: 0,350</p>	<p>IK 09</p>  <p>Impact energy in Joules: 10,00</p>
<p>IK 04</p>  <p>Impact energy in Joules: 0,500</p>	<p>IK 10</p>  <p>Impact energy in Joules: 20,00</p>
<p>IK 05</p>  <p>Impact energy in Joules: 0,700</p>	

Figure defined by the CEI EN 50102 Standard

ArTu PB Panelboard

In-depth technical information

Compliance with CEI EN 60439-1 Standard

The ArTu PB Panelboards have undergone type tests in accordance with the CEI EN 60439-1 Standards. The results of these tests guarantee the performances of the ArTu switchboards and, by using the metalwork structures, ABB SACE air, modular and moulded-case circuit-breakers, means that the end switchboard constructor does not have to carry out any further type tests when following the selection criteria and assembly instructions for the various components. These results, which are indicated below, can be referred to for the declaration of conformity of the switchboard.

Dielectric properties (Ref. par. 8.2.2 of the Standard)

	ArTu PB
Rated service voltage:	up to 690V AC
Rated insulation voltage:	up to 1000V AC
Rated impulse withstand voltage:	8kV

Short-circuit withstand current (Ref. par. 8.2.3 of the Standard)

		ArTu PB up to 400A	ArTu PB up to 800A
Short-circuit withstand current:	phase-phase	35kA (1s)	50kA (1s)
	phase-neutral	21kA (1s)	30kA (1s)
Rated max. peak short-circuit current:		73,5kA	110kA

Short-circuit efficiency (Ref. par. 8.2.4 of the Standard)

		ArTu PB up to 400A	ArTu PB up to 800A
(Rif. par. 8.2.4.1)	Following the assembly indications of the metal components, the effective electrical continuity between the exposed conductive parts is verified, with negligible resistance values.		
(Rif par. 8.2.4.2)	Protection circuit short-circuit withstand current: phase-earthing busbar	21kA (1s)	30kA (1s)

Insulation distances (Ref. par. 8.2.5. of the Standard)

The insulation distances are guaranteed by following the ABB SACE metalwork structure and circuit-breaker assembly and mounting instructions.

Mechanical operation (Ref. par. 8.2.6 of the Standard)

Mechanical operation is verified by following the assembly and mounting instructions of the ABB SACE metalwork structures and circuit-breakers.

Degree of protection (Ref. par. 8.2.7 of the Standard) According to CEI EN 60529 (CEI 70-1 publication IEC 529)

	ArTu PB
With door	IP 43

ArTu PB Panelboard

In-depth technical information

Mechanical characteristics

Material

ArTu PB structure	12/10mm thick pickled steel sheet
Panels	12/15/10mm thick steel sheet
Doors	15/10mm hot galvanised steel sheet. 4mm thick glass tempered from inside

Painting

Structure	Colour Grey orange-peel RAL 7035	
Base strip colour	Grey 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:	epoxy polyester
	Specific gravity:	1.61 g/cm ³
	Theoretical coverage:	10.4 m ² /kg with average film thickness 60 micron
	Melting point:	85-95°C (Kofler bench method)
	Granulometry:	standard distribution between 5 and 100 micron with average size of the particles between 30 and 40 micron. Hardening: 12 min. at 190°C
	Hardness:	1H - 2H
	DIN 53152 bending elasticity:	unaltered on 1/4" spindle
	DIN 53151 reticular adherence:	GT O (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	Wall / Floor	
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 +40°C
	storage	-25°C +55°C

ABB SACE declaration of conformity

ArTu PB with the following rated characteristics:

Rated service voltage	up to 690 V	
Rated insulation voltage	up to 1000V	
Rated current / I _{cw}	ArTu PB	up to 400A / 35kA flat busbar
	ArTu PB	up to 800A / 50kA profiled busbar
Degree of protection	ArTu PB IP 43 (with door)	

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

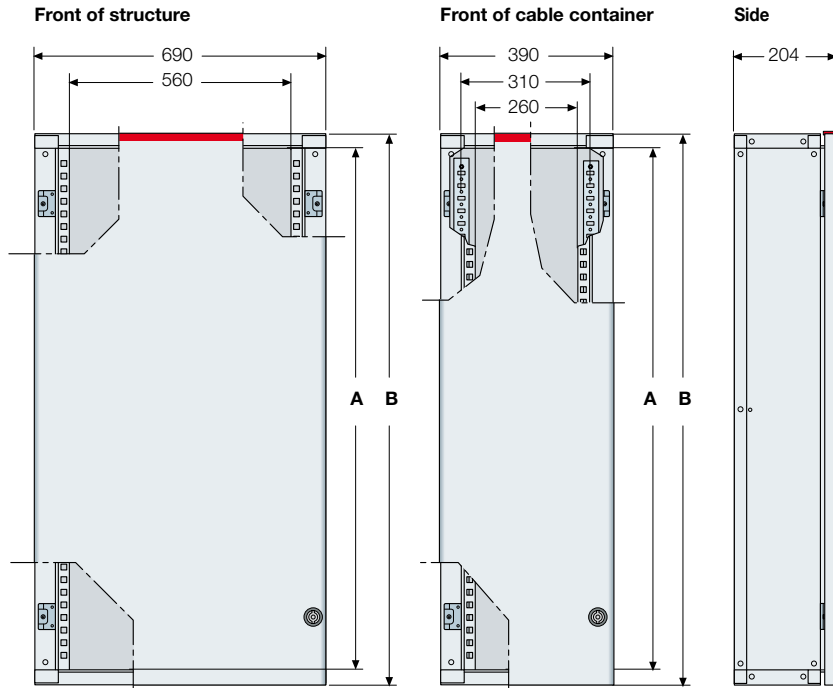
The above is only valid if the switchboard is designed and constructed when:

- selecting the materials according to the performances indicated in the ABB catalogues;
- sizing the conductors according to the prescriptions of the EN 60439-1 and CEI 64-8 Standards;
- carrying out the individual tests foreseen under the EN 60439-1 Standard successfully.

ArTu PB Panelboard

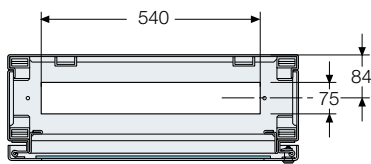
Overall Dimensions

ArTu PB

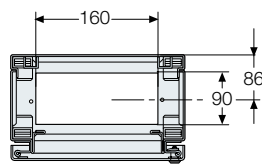


	A	B
Structure		
640T1PB3	1000	1050
640T3PB3		
680T3PB3		
640T1PB4	1200	1250
CU680PB3		
CU640PB3		
Cable container		
VC1000	1000	1050
VC1200	1200	1250

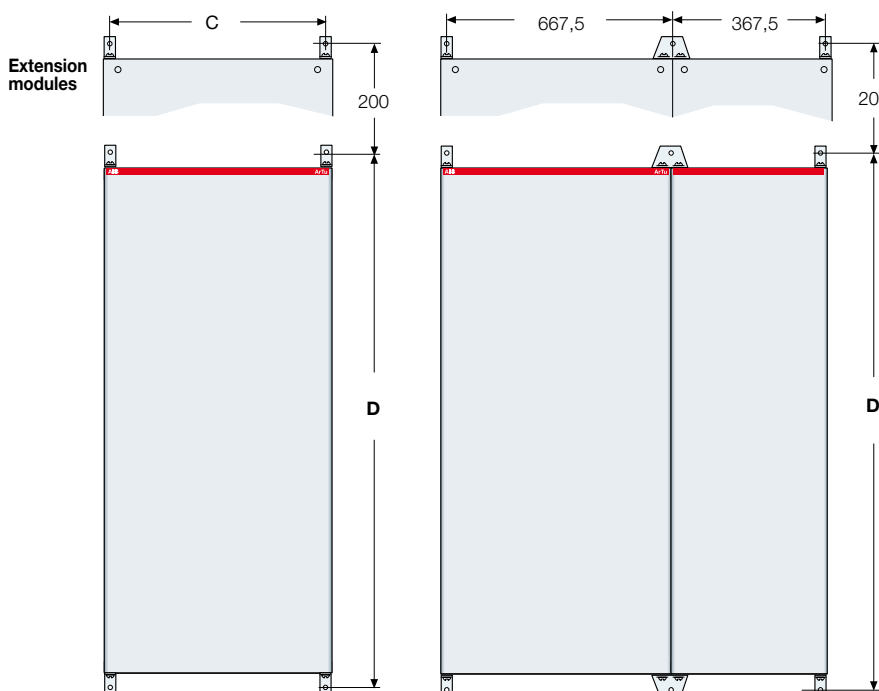
Base of structure



Base of cable container



Fixing to wall



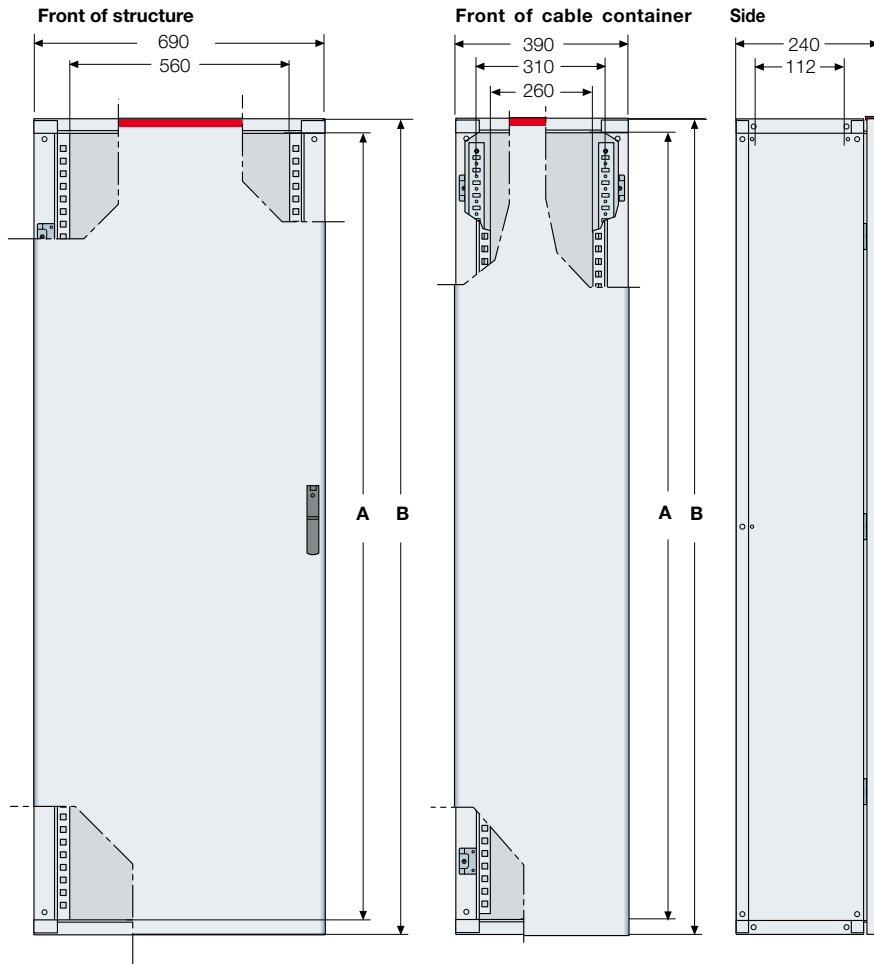
	C	D
Structure		
640T1PB3	645	1100
640T3PB3		
680T3PB3		
640T1PB4	645	1300
CU680PB3		
CU640PB3		
Cable container		
VC1000	345	1100
VC1200	345	1300

The measurements are in millimetres

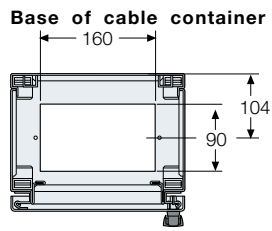
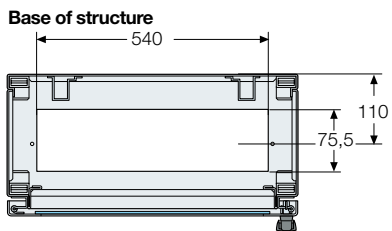
ArTu PB Panelboard

Overall Dimensions

ArTu PB



	A	B
Structure		
640T3PB4		
680T3PB4		
124T1PB3	1400	1450
128T1PB3		
CU680PB4		
124T3PB3		
128T3PB3		
124T1PB4	1600	1650
128T1PB4		
CU124PB3		
CU128PB3		
124T3PB4		
128T3PB4	1800	1850
184T1PB3		
188T1PB3		
CU128PB4		
188T3PB3		
184T1PB4	2000	2050
188T1PB4		
188T3PB4		
CU188PB3		
CU188PB4		
CU184PB3		
Cable container		
VC1400	1400	1450
VC1600	1600	1650
VC1800	1800	1850
VC2000	2000	2050



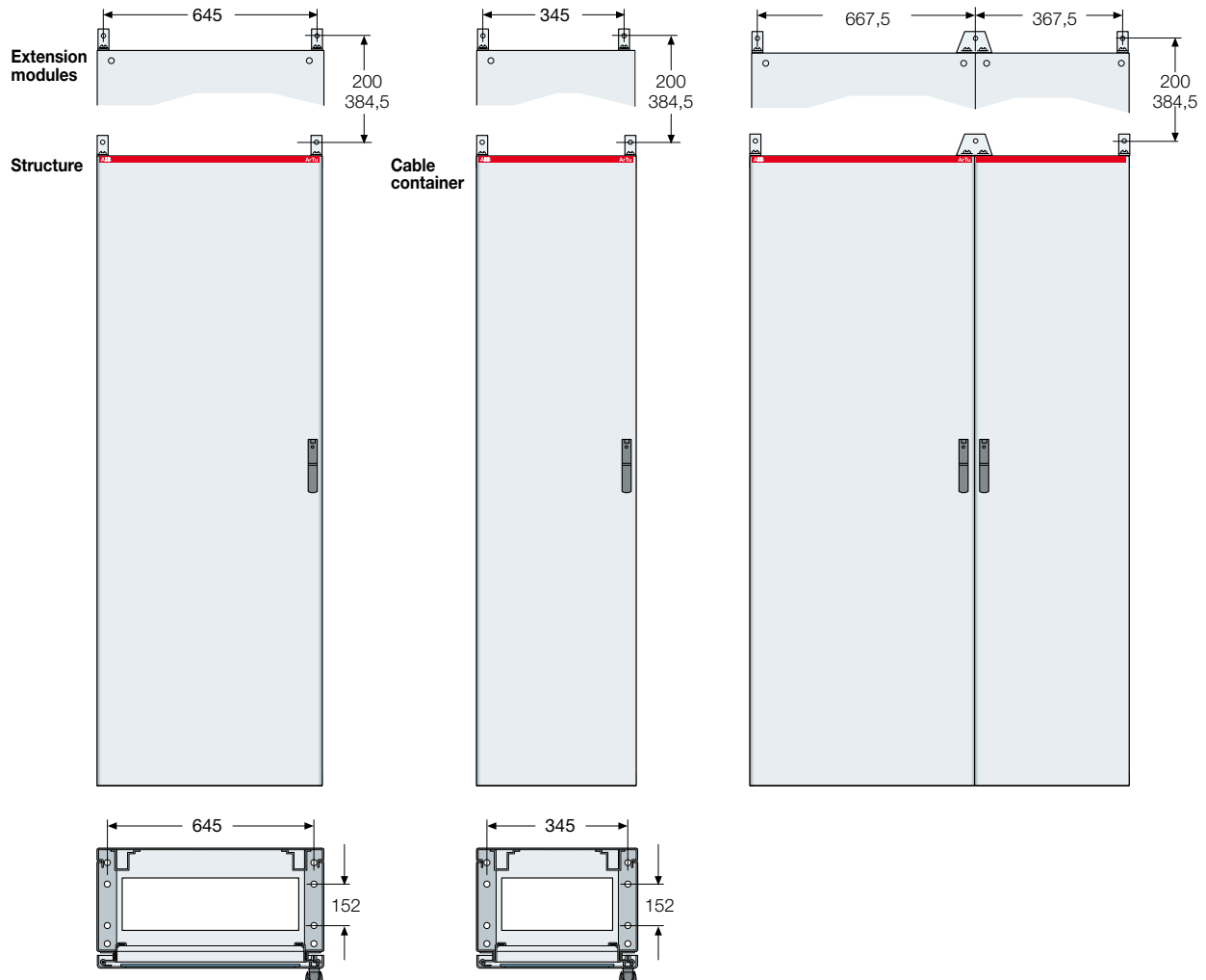
The measurements are in millimetres

ArTu PB Panelboard

Overall Dimensions

ArTu PB

Fixing to wall

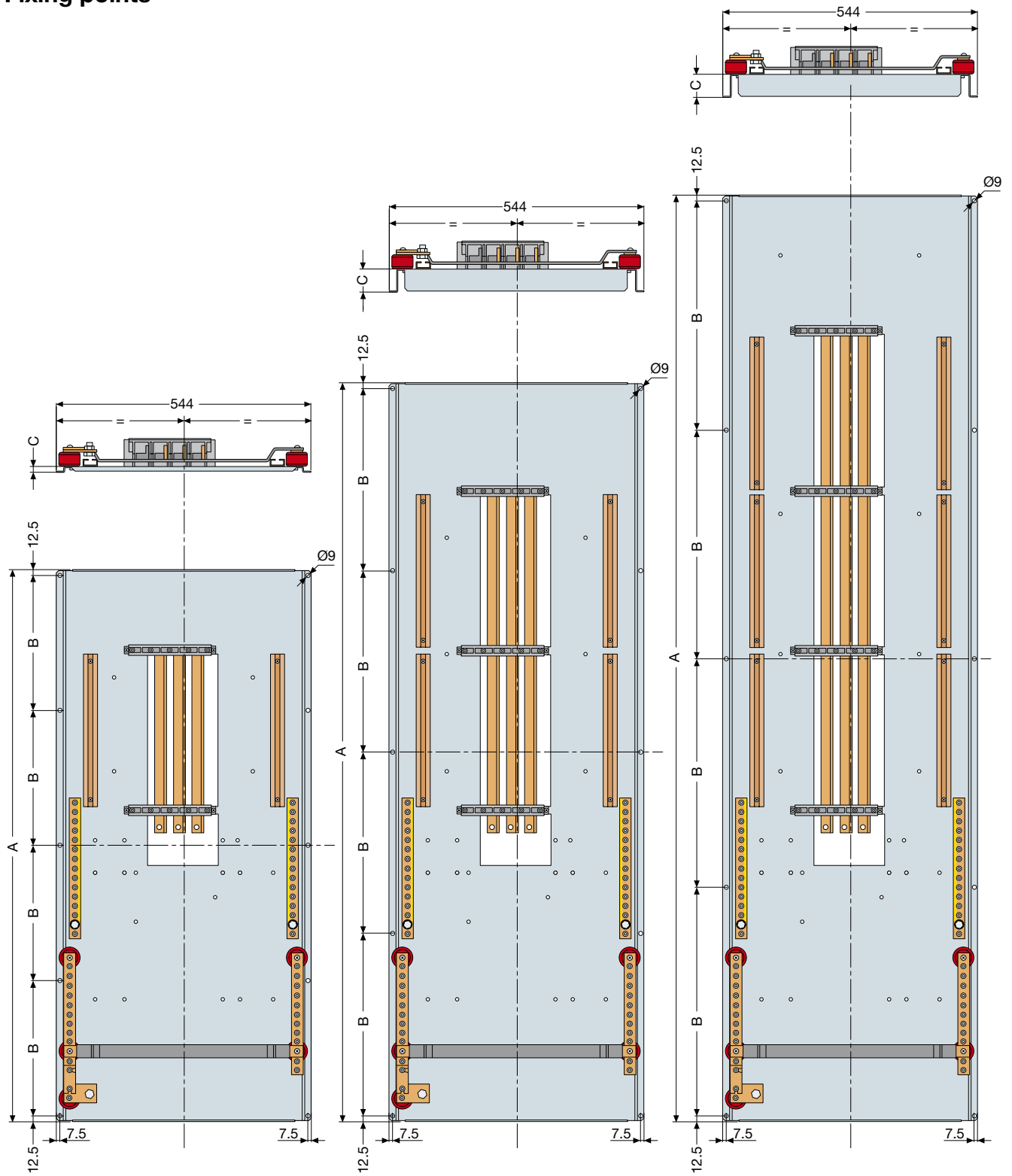


The measurements are in millimetres

ArTu PB Pan Assembly

Overall Dimensions

Fixing points



Code	A	B	C
CU640PA3	1177	288	12
CU680PA3	1177	288	12
CU680PA4	1377	338	48

Code	A	B	C
CU124PA3	1577	388	48
CU128PA3	1577	388	48
CU128PA4	1777	438	48

Code	A	B	C
CU184PA3	1977	488	48
CU188PA3	1977	488	48
CU188PA4	1977	488	48

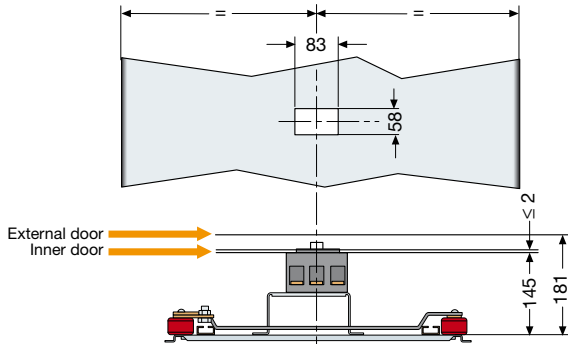
The measurements are in millimetres

ArTu PB Pan Assembly

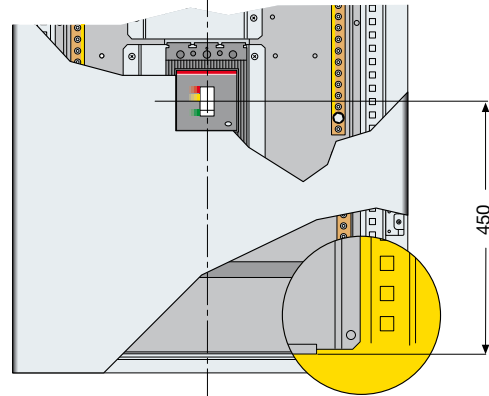
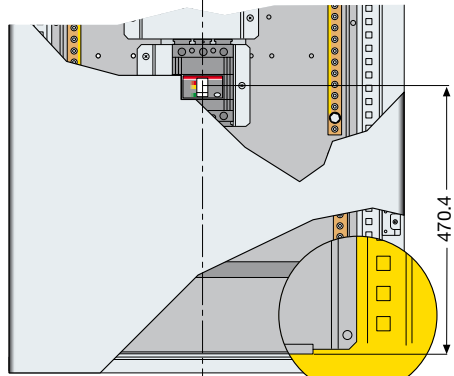
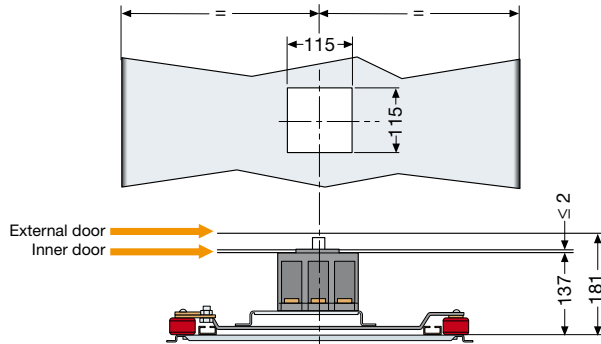
Overall Dimensions

Drilling template of the compartment door

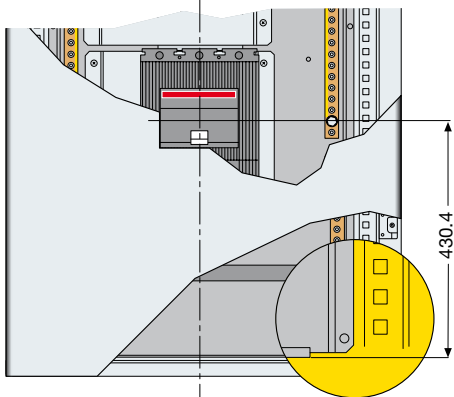
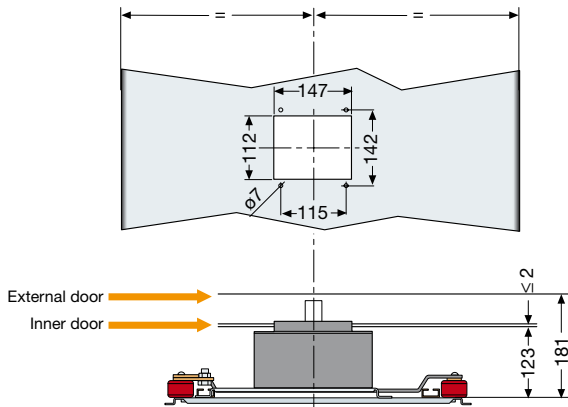
Drilling template of the Tmax T3 inner door with flange



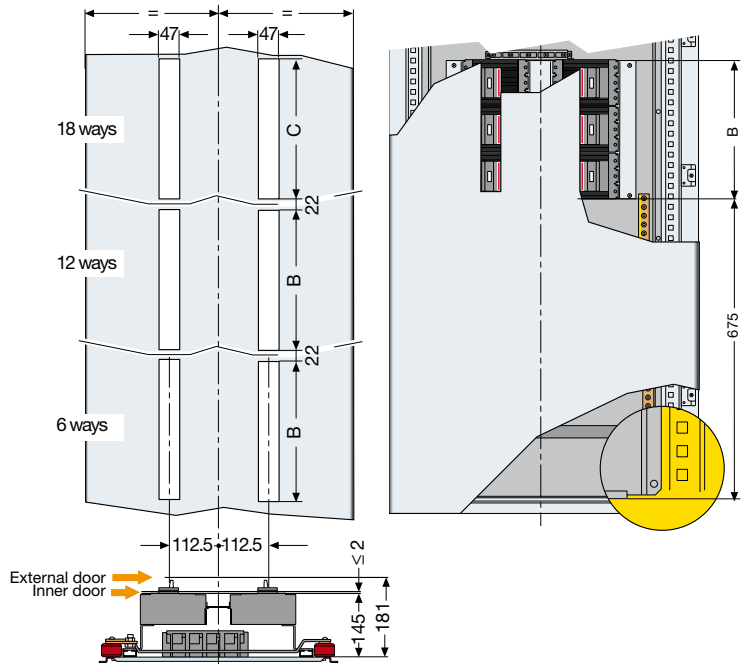
Drilling template of the Tmax T5 inner door with flange



Drilling template of the Isomax S6 inner door with flange



Drilling template for outgoing ways



Code	B	C
CU640PA3	319	-
CU680PA3	319	-
CU680PA4	424	-
CU124PA3	319	-
CU128PA3	319	-

Code	B	C
CU128PA4	424	-
CU184PA3	319	319
CU188PA3	319	319
CU188PA4	424	284

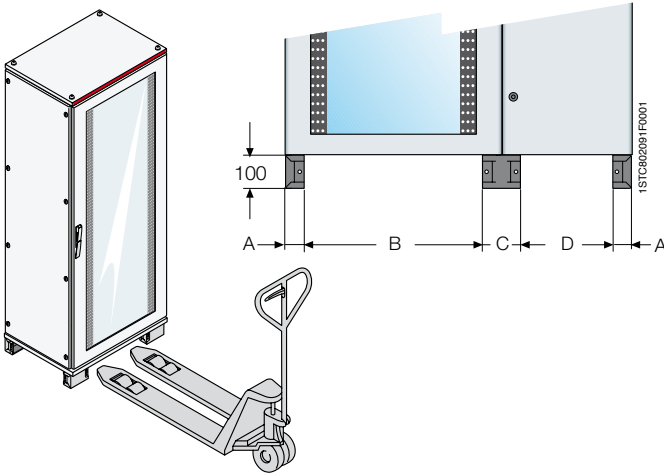
The measurements are in millimetres

ArTu PB Panelboard

Lifting and overhead travelling

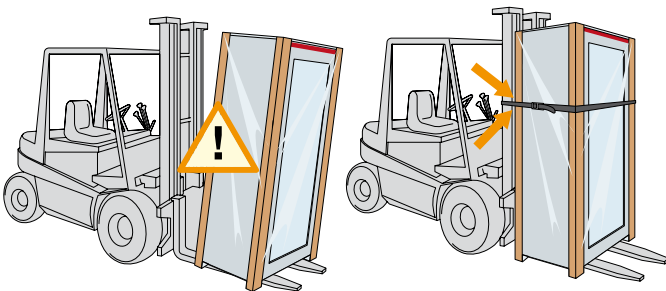
With transpallet

Palletisable base strip for ArTu PB

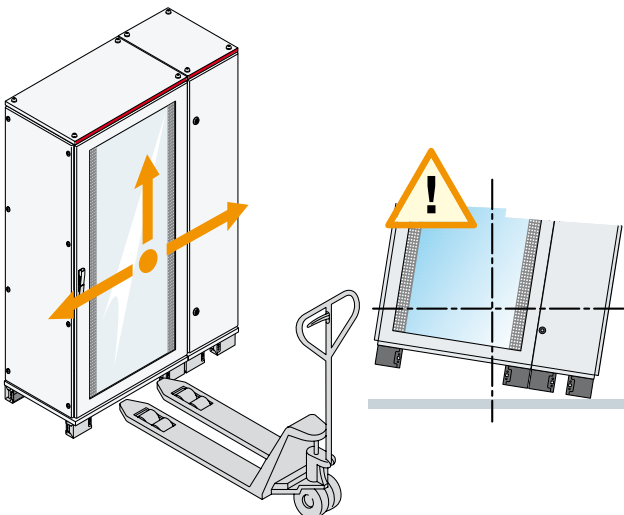


Structure	A (mm)	B (mm)	C (mm)	D (mm)
ArTu PB				
Width 600mm	47	596	97	296

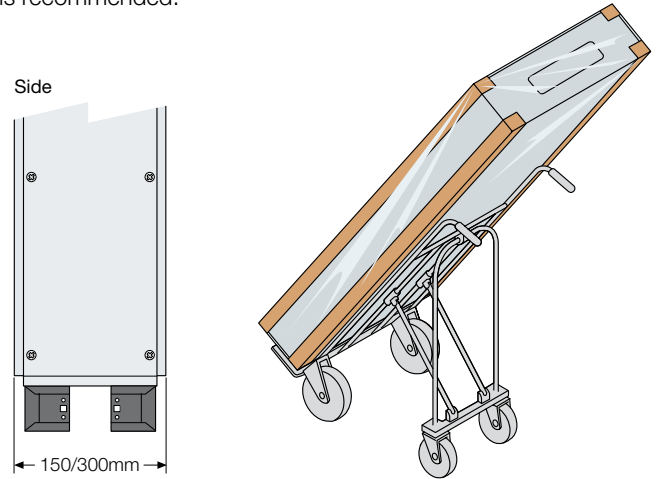
For greater safety during transport using a fork-lift truck, it is advisable to anchor the switchboard to the truck:



In the case of structures W=900mm (with internal or external cable container) containing busbar systems, check the centre of gravity before handling.



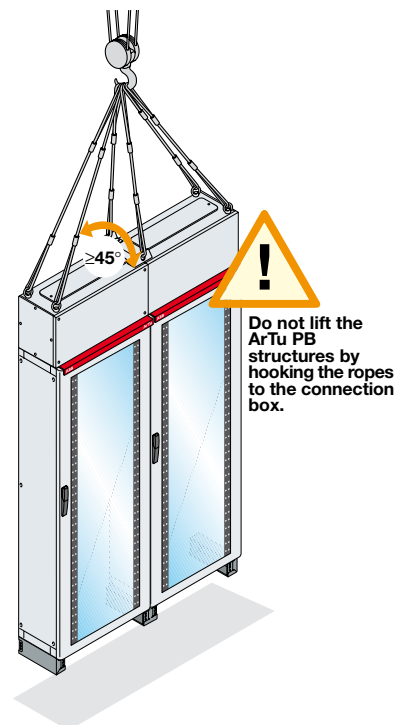
For switchboards with reduced depth, the following type of handling is recommended:



To handle using a crane or overhead travelling crane, check the following conditions before lifting the switchboard: excellent state of the ropes or chains;

- the angle between the lifting ropes and the switchboard roof must be $\geq 45^\circ$;
- the maximum number of columns transported is 3;
- ArTu PB maximum weight lifted as per DIN 580 (M8).

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



ArTu PB Panelboard

List of codes

Part Number	Description	Dimensions hxxxd [mm]	Weights [Kg]	Page
Panelboard				
640T1PB3	400A 6 way 3 pole T1 outgoing 160A	1050x690x204	74.9	5
640T3PB3	400A 6 way 3 pole T3 outgoing 250A	1250x690x204	86.3	5
680T3PB3	800A 6 way 3 pole T3 outgoing 250A	1250x690x204	87.2	5
640T1PB4	400A 6 way 4 pole T1 outgoing 160A	1250x690x204	85.6	5
640T3PB4	400A 6 way 4 pole T3 outgoing 250A	1450x690x240	99.6	5
680T3PB4	800A 6 way 4 pole T3 outgoing 250A	1450x690x240	101.0	5
124T1PB3	400A 12 way 3 pole T1 outgoing 160A	1450x690x240	100.1	5
124T3PB3	400A 12 way 3 pole T3 outgoing 250A	1650x690x240	109.5	5
128T1PB3	800A 12 way 3 pole T1 outgoing 160A	1450x690x240	101.3	5
128T3PB3	800A 12 way 3 pole T3 outgoing 250A	1650x690x240	111.1	5
124T1PB4	400A 12 way 4 pole T1 outgoing 160A	1650x690x240	112.0	5
124T3PB4	400A 12 way 4 pole T3 outgoing 250A	1850x690x240	125.9	5
128T1PB4	800A 12 way 4 pole T1 outgoing 160A	1650x690x240	114.1	5
128T3PB4	800A 12 way 4 pole T3 outgoing 250A	1850x690x240	128.7	5
184T1PB3	400A 18 way 3 pole T1 outgoing 160A	1850x690x240	127.6	5
188T1PB3	800A 18 way 3 pole T1 outgoing 160A	1850x690x240	130.0	5
188T3PB3	800A 18 way 3 pole T3 outgoing 250A	2050x690x240	138.6	5
184T1PB4	400A 18 way 4 pole T1 outgoing 160A	2050x690x240	139.9	5
188T1PB4	800A 18 way 4 pole T1 outgoing 160A	2050x690x240	143.0	5
188T3PB4	800A 18 way 4 pole T3 outgoing 250A	2050x690x240	145.1	5

Custom Panelboard

CU640PB3	6 Way 3 pole (400A Busbar)	1250x690x204	84.1	7
CU680PB3	6 Way 3 pole (800A Busbar)	1250x690x204	85.7	7
CU124PB3	12 Way 3 pole (400A Busbar)	650x690x240	104.2	7
CU128PB3	12 Way 3 pole (800A Busbar)	1650x690x240	105.9	7
CU184PB3	18 Way 3 pole (400A Busbar)	2050x690x240	127.2	7
CU188PB3	18 Way 3 pole (800A Busbar)	2050x690x240	128.7	7
CU680PB4	6 Way 4 pole (800A Busbar)	1450x690x240	95.3	7
CU128PB4	12 Way 4 pole (800A Busbar)	1850x690x240	117.3	7
CU188PB4	18 Way 4 pole (800A Busbar)	2050x690x240	131.3	7

Custom Pan Assembly

CU640PA3	6 Way 3 pole (400A Busbar)	1177x544x105	17.0	9
CU680PA3	6 Way 3 pole (800A Busbar)	1177x544x105	18.0	9
CU124PA3	12 Way 3 pole (400A Busbar)	1577x544x105	23.0	9
CU128PA3	12 Way 3 pole (800A Busbar)	1577x544x105	24.0	9
CU184PA3	18 Way 3 pole (400A Busbar)	1977x544x105	29.0	9
CU188PA3	18 Way 3 pole (800A Busbar)	1977x544x105	27.9	9
CU680PA4	6 Way 4 pole (800A Busbar)	1377x544x105	19.0	9
CU128PA4	12 Way 4 pole (800A Busbar)	1777x544x105	25.8	9
CU188PA4	18 Way 4 pole (800A Busbar)	1977x544x105	30.5	9

Direct connection kit

400DC3/4P	400A Direct connection kit 3 and 4 pole	N/A	1.0	10
800DC3P	800A Direct connection kit 3 pole	N/A	2.2	10
800DC4P	800A Direct connection kit 4 pole	N/A	2.6	10
P6X6DC	Direct connection inner door	N/A	4.8	10

Incomer options

250T33P	250A T3 3 pole MCCB connection kit	N/A	3.0	10
250T34P	250A T3 4 pole MCCB connection kit	N/A	3.4	10
P6X6T3	T3 inner door	N/A	7.53	10
400T53P	400A T5 3 pole MCCB connection kit	N/A	3.6	10
400T54P	400A T5 4 pole MCCB connection kit	N/A	4.2	10
630T53P	630A T5 3 pole MCCB connection kit	N/A	3.7	10
630T54P	630A T5 4 pole MCCB connection kit	N/A	4.4	10
P6X6T5	T5 inner door	N/A	7.53	10
400T53P	400A T5 3 pole MCCB connection kit	N/A	3.8	10
400T54P	400A T5 4 pole MCCB connection kit	N/A	3.9	10
630T53P	630A T5 3 pole MCCB connection kit	N/A	4.2	10
630T54P	630A T5 4 pole MCCB connection kit	N/A	4.3	10
P6X6T5	T5 inner door	N/A	7.7	10
800T63P	800A T6 3 pole MCCB connection kit	N/A	3.1	10
800T64P	800A T6 4 pole MCCB connection kit	N/A	3.5	10
P6X6T6	T6 inner door	N/A	7.53	10

Part Number	Description	Dimensions hxxxd [mm]	Weights [Kg]	Page
Enclosure accessories				
PV1000	Glazed Door 1000mm	1000h x 690w	10.3	14
PV1200	Glazed Door 1200mm	1200h x 690w	12.3	14
PV1400	Glazed Door 1400mm	1400h x 690w	14.4	14
PV1600	Glazed Door 1600mm	1600h x 690w	16.3	14
PV1800	Glazed Door 1800mm	1800h x 690w	18.3	14
PV2000	Glazed Door 2000mm	2000h x 690w	20.3	14
ZL1000	Four Corner Feet 100mm High For Main Structure	N/A	2.5	14
ZL1001	Finishing Profile For Above Plinth	N/A	1.1	14
ZL3000	Two Feet 100mm High For Side Extension Box	N/A	1.5	14
ZL2001	Finishing Profile For Side Extension Box	N/A	0.7	14
200EXMOD	200mm High top & bottom extension box D=240mm	200x690x240	12.5	14
2EXMODCW204	200mm high cable way extension box D=204mm	200x390x204	7.5	14
2EXMODD204	200mm high extension box D=204mm	200x690x204	10.5	14
MI1000	Side Extension Box Uprights 1000mm	1000mm	2.8	14
VC1000	Side Extension Box Cable Container 1000mm	1000mm	9.8	14
PC1002	Side Extension Box Front Door 1000mm	1000mm	5.7	14
MI1200	Side Extension Box Uprights 1250mm	1250mm	3.4	14
VC1200	Side Extension Box Cable Container 1250mm	1250mm	11.7	14
PC1202	Side Extension Box Front Door 1250mm	1250mm	7.2	14
MI1400	Side Extension Box Uprights 1450mm	1450mm	4.0	14
VC1400	Side Extension Box Cable Container 1450mm	1450mm	13.7	14
PC1402	Side Extension Box Front Door 1450mm	1450mm	8.4	14
MI1600	Side Extension Box Uprights 1650mm	1650mm	4.5	14
VC1600	Side Extension Box Cable Container 1650mm	1650mm	15.0	14
PC1602	Side Extension Box Front Door 1650mm	1650mm	9.5	14
MI1800	Side Extension Box Uprights 1850mm	1850mm	5.1	14
VC1800	Side Extension Box Cable Container 1850mm	1850mm	16.2	14
PC1802	Side Extension Box Front Door 1850mm	1850mm	10.6	14
MI2000	Side Extension Box Uprights 2050mm	2050mm	5.7	14
VC2000	Side Extension Box Cable Container 2050mm	2050mm	18.0	14
PC2002	Side Extension Box Front Door 2050mm	2050mm	11.8	14

Plug In devices

PLT11L1/L3P	T1 Single Pole L1 & L3 plug in base	N/A	0.3	15
PLT11L2P	T1 Single Pole L2 plug in base	N/A	0.3	15
PLT13P	T1 Three Pole plug in base	N/A	0.9	15
PLT14P	T1 Four Pole "N" plug in base	N/A	0.4	15
PLT23P	T2 Three Pole plug in base	N/A	1.0	15
PLT24P	T2 Four Pole "N" plug in base	N/A	0.4	15
PLT33P	T3 Three Pole plug in base	N/A	1.1	15
PLT34P	T3 Four Pole "N" plug in base	N/A	0.5	15
PLRCDT1	Dummy Base For T1 with RCD	N/A	1.2	15
PLRCDT2	Dummy Base For T2 with RCD	N/A	1.3	15
PLRCDT3	Dummy Base For T3 with RCD	N/A	1.3	15

Accessories

SH630	Busbar Shroud 630mm Long 3 pcs	630mm Long	0.3	15
MODT1	T1 Busbar Shroud 10pcs	N/A	0.1	15
MODT2	T2 Busbar Shroud 10pcs	N/A	0.1	15
MODT3	T3 Busbar Shroud 10pcs	N/A	0.1	15
SPARE1	Spares Kit	N/A	0.8	15
6MBT11P	six mounting brackets for T1 single pole	N/A	1.0	15
AK1NE	additional kit for neutral and earth	N/A	1.3	15
EX1NE	extension kit for neutral and earth	N/A	0.3	15
AL2000	Wall fixing brackets	N/A	0.1	15

Certificato N°OHS-015



Certificato N°1612/98/S



Certificato N° EMS-051



Certificato N°SGI004



Due to possible developments of standards as well as of materials, the characteristics and dimensions specified in the this document may only be considered binding after confirmation by ABB SACE.

ABB SACE

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