



Technical catalog - Edition 2015

SACE Tmax PV

Adaptability, versatility and complete freedom continue

SACE Tmax PV automatic molded case circuit-breakers and molded case switch-disconnectors

The Tmax PV line of IEC switch-disconnectors and UL switch-disconnectors and molded case circuit-breakers expands upon Tmax T Generation's history of offering complete adaptability, versatility and freedom for any type of application.

Using the Tmax PV line, the customer is able to select the most appropriate device for any Solar PV need.

Under IEC 60947-3, Tmax PV offers switch-disconnectors to meet standard 1100V DC applications. In addition, it offers the versatility of extended capacities to 1500V DC for the increasingly demanding solar applications of today's market. Finally, connection jumpers are an available option for the IEC switch-disconnectors to increase safety and ease of installation.

Tmax Automatic Circuit-breakers according to IEC up to 1000V DC are available as a special version of the standard Tmax line. Information about that range can be found in the Tmax technical catalogue.

Common data

Operating temperature	[°C]	-25 °C ... +70 °C
Storage temperature	[°C]	-40 °C ... +70 °C
Numbers of poles		4
Version		fixed

Altitude derating

Altitude [mt]	In [%]	Ue [%]
2000	100	100
3000	98	88
4000	95	78
5000	85	68



Under UL 489B, Tmax PV offers adaptability in the form of the availability of both switch-disconnectors and molded case circuit-breakers. Multiple formats allows for the ability of a uniform end product and shared accessories. In addition, ABB offers connection jumpers as a mandatory accessory to Tmax PV UL. The jumpers provide simple, safe use and ensured compliance to new UL regulations.

Common data

Operating temperature	[°C]	-25 °C ... +70 °C
Storage temperature	[°C]	-40 °C ... +70 °C
Numbers of poles		3 - 4
Version		fixed

Altitude derating

Altitude [mt]	In [%]	Ue [%]
2000	100	100
3000	98	88
4000	95	78
5000	85	68



SACE Tmax PV automatic molded case circuit-breakers and molded case switch-disconnectors



Thanks to the extremely low short-circuit current generated by PV panels, the use of molded-case switch-disconnectors is widely adopted both in combiner boxes and in the DC side of the inverters:

Molded case switch-disconnectors up to 1100V DC in compliance with IEC 60947-3

Electrical characteristics

Tmax PV switch-disconnectors in compliance with the IEC60947-3		T1D/PV	T3D/PV	T4D/PV	T5D/PV	T6D/PV	T7D/PV ¹⁾
Rated service current in category DC22 B, Ie	(A)	160	200	250	500	800	1250-1600
Number of poles	(No.)	4	4	4	4	4	4
Rated service voltage, Ue		1100V DC	1100V DC	1100V DC	1100V DC	1100V DC	1100V DC
Rated impulse withstand voltage, Uimp	(kV)	8	8	8	8	8	8
Rated insulation voltage, Ui	(V)	1150V DC	1150V DC	1150V DC	1150V DC	1150V DC	1150V DC
Test voltage at industrial frequency for 1 minute	(V)	3500	3500	3500	3500	3500	3500
Rated short-circuit making capacity, switch-disconnector only, Icm	(kA)	1.92	2.4	3	6	9.6	19.2
Rated short-time withstand current for 1s, Icw	(kA)	1.92	2.4	3	6	9.6	19.2
Versions		F	F	F	F	F	F
Standard terminals		FC Cu	FC Cu	F	F	F	F
Mechanical life	(No. Operations)	15000	15000	7500	7500	7500	20000
Electrical life (operations @ 1100V DC)	(No. Operations)	500	500	500*	500*	500*	500*
Basic dimensions	W (mm/in)	102/4.02	140/5.52	140/5.52	186/7.33	280/11.02	280/11.02
	D (mm/in)	70/2.76	70/2.76	103.5/4.07	103.5/4.07	103.5/4.07	154/6.06 (manual) 178/7.01 (motorized)
	H (mm/in)	130/5.12	150/5.91	205/8.07	205/8.07	268/10.55	268/10.55
Weight (with standard terminals only)	(kg/lbs)	1.2/2.65	2/4.41	3.05/6.72	4.15/9.15	12/26.46	12.5/27.56 (manual) 14/30.86 (motorized)

¹⁾ installation in vertical position only

* openings with SOR or UVR

Molded case switch-disconnectors up to 1500V DC in compliance with IEC 60947-3

Electrical characteristics

Tmax PV switch-disconnectors in compliance with the IEC60947-3		T4D/PV-E	T5D/PV-E	T7D/PV-E ¹⁾
Rated service current in category DC22 A, Ie	(A)	250	500	1250-1600
Number of poles	(No.)	4	4	4
Rated service voltage, Ue		1500V DC	1500V DC	1500V DC
Rated impulse withstand voltage, Uimp	(kV)	8	8	8
Rated insulation voltage, Ui	(V)	1500V DC	1500V DC	1500V DC
Test voltage at industrial frequency for 1 minute	(V)	3500	3500	3500
Rated short-circuit making capacity, switch-disconnector only, Icm	(kA)	3	6	19.2
Rated short-time withstand current for 1s, Icw	(kA)	3	6	19.2
Versions		F	F	F
Standard terminals		F	F	F
Mechanical life	(No. Operations)	7500	7500	20000
Electrical life (operations @ 1500V DC)	(No. Operations)	1000*	1000*	500*
Basic dimensions	W (mm/in)	140/5.52	186/7.33	280/11.02
	D (mm/in)	103.5/4.07	103.5/4.07	178/7.01
	H (mm/in)	205/8.07	205/8.07	268/10.55
Weight (with standard terminals only)	(kg/lbs)	3.05/6.72	3,15/9.15	14/30.86

¹⁾ installation in vertical position only

* openings with SOR or UVR



Molded case switch-disconnectors up to 1000V DC in compliance with UL 489B

Electrical characteristics

Tmax PV UL switch-disconnectors		T1N-D/PV	T4N-D/PV	T5N-D/PV	T6N-D/PV	T7N-D/PV ¹⁾
Frame size	(A)	100	200	400	600-800	1000
Rated service current	(A)	100	200	400	600-800	1000
Number of poles	(No.)	4	3	3	4	4
Rated service voltage	(V)	1000V DC	1000V DC	1000V DC	1000V DC	1000V DC
Short-circuit current withstand	(kA)	1.2	3	5	10	18
Magnetic override	(kA)	-	3	5	10	-
Versions		F	F	F	F	F
Connections*		Jumpers	Jumpers	Jumpers	Jumpers	Jumpers
Terminals provided with Jumper kit		FCCu	FCCuAl	FCCu-ES	FCCuAl-EF	FCCuAl-F
Mechanical life	(No. Operations)	15000	7500	7500	7500	20000
Electrical life (operations @ 1000V DC)	(No. Operations)	1000	1000**	500**	500**	500**
Basic dimensions	W (mm/in)	102/4.02	105/4.13	140/5.52	280/11.02	280/11.02
	D (mm/in)	70/2.76	103.5/4.07	103.5/4.07	103.5/4.07	178/7.01
	H (mm/in)	130/5.12	205/8.07	205/8.07	268/10.55	268/10.55
Weight (with standard terminals only)	(kg/lbs)	1.2/2.65	2.35/5.18	3.25/7.17	12/26.46	14/30.86

1) installation in vertical position only

* Selection of one of the jumper connection options is mandatory for Tmax PV UL

** openings with SOR or UVR

Whenever a consistent short-circuit current can be found (like in recombiner boxes), 1000V DC automatic circuit-breakers are available in the Tmax range. Below is the UL489B automatic circuit-breaker offering:

Molded case circuit-breakers up to 1000V DC in compliance with UL 489B

Electrical characteristics

Tmax PV UL MCCBs		T4N/PV	T5N/PV	T6N/PV
Frame size	(A)	200	400	600-800
Rated service current	(A)	40-200	225-400	600-800
Number of poles	(No.)	3	3	4
Rated service voltage	(V)	1000V DC	1000V DC	1000V DC
Short-circuit interrupting rating @ 1000V DC	(kA)	7.5	5	10
Trip Unit		TMD/TMA	TMF/TMA	TMA
Versions		F	F	F
Standard terminals		F	F	F
Connections*		Jumpers	Jumpers	Jumpers
Terminals provided with Jumper kit		FCCuAl	FCCuAl-FCCu-ES	FCCuAl-EF
Mechanical life	(No. Operations)	7500	7500	7500
Electrical life (operations @ 1000 VDC)	(No. Operations)	1000**	500**	500**
Basic dimensions	W (mm/in)	105/4.13	140/5.52	280/11.02
	D (mm/in)	103.5/4.07	103.5/4.07	103.5/4.07
	H (mm/in)	205/8.07	205/8.07	268/10.55
Weight (with standard terminals only)	(kg/lbs)	2.35/5.18	3.25/7.17	12/26.46

* Selection of one of the jumper connection options is mandatory for Tmax PV UL

** openings with SOR or UVR

SACE Tmax PV automatic molded case circuit-breakers and molded case switch-disconnectors

The UL circuit-breaker range is divided into three different frames, T4, T5 and T6, with an application range from 40A to 800A and breaking capacities up to 10kA at 1000V DC.

The circuit-breakers are fitted with thermal magnetic trip units and are used for protection of direct current in solar networks. They allow the protection against overload with a thermal device that uses the bimetal technique, and protection against short-circuit with a magnetic device.

The range of T4, T5 and T6 circuit-breakers for photovoltaic applications includes the following:

- **T4 (up to 50A) circuit-breakers equipped with TMD thermal magnetic trip units** with adjustable thermal threshold ($I_1 = 0.7...1 \times I_n$) and fixed magnetic threshold ($I_3 = 10 \times I_n$).
- **T4, T5 and T6 circuit-breakers equipped TMA thermal magnetic trip units** with adjustable thermal threshold ($I_1 = 0.7...1 \times I_n$) and adjustable magnetic threshold

($I_3 = 5...10 \times I_n$). Only for T5 225, 250 and 300 A a special TMF trip unit is given: this TMF unit has fixed thermal threshold and adjustable magnetic threshold as indicated in the dedicated table ($I_3 = 1500...3000 \text{ A}$).

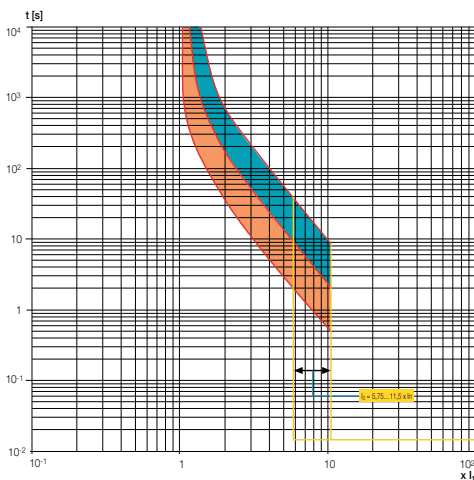
The magnetic threshold for Tmax T4, Tmax T5 and Tma T6 is affected by a corrective factor of 15% because the TMD and TMA releases were originally calibrated to be used in AC networks. The curves for the PV line are shown below.

T5/PV UL - Magnetic Threshold

I_n	I_3
225	7.5 ... 15xI _n
250	7 ... 14xI _n
300	5.75 ... 11.5xI _n
400	5.75 ... 11.5xI _n

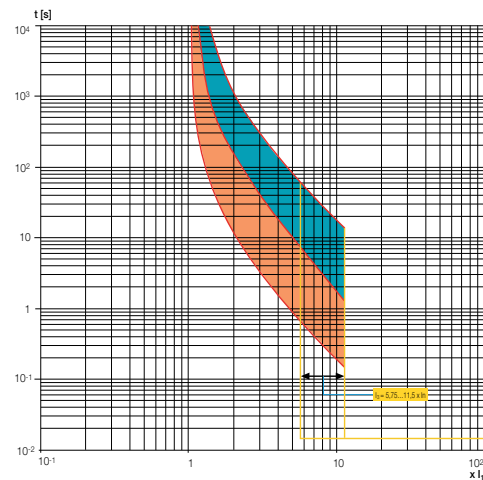
T4N/PV UL 200

$I_n = 40 \dots 200\text{A}$



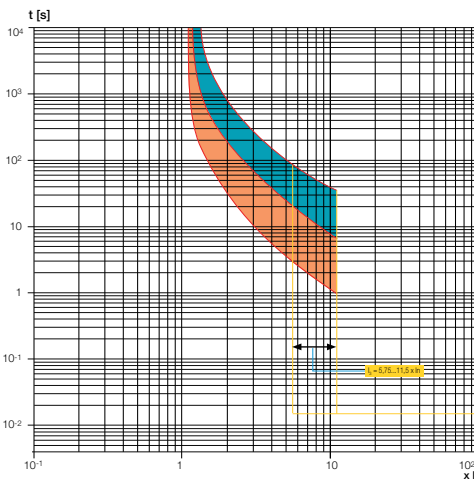
T5N/PV UL 400

$I_n = 225, 250, 300, 400\text{A}$



T6N/PV UL 600

$I_n = 600\text{A}$



T6N/PV UL 800

$I_n = 800\text{A}$

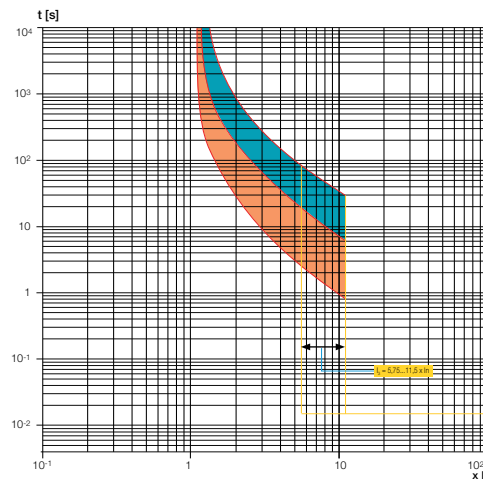


ABB jumpers for pole-to-pole connection are the tested solution for a simplified and safe installation.

As already mentioned, another innovation of the Tmax PV series is the possibility of accessorizing the breakers and switch-disconnectors with suitable jumpers.

Tmax PV are 3 or 4 pole breakers: in order to break the direct current is necessary to put these poles in series on one, or both, the polarities. Jumpers between poles are therefore necessary: for example a 4PS (PS = Poles in Series) jumper kit puts all 4 poles of a breaker in series on one polarity.

One jumper kit ordering code includes 1, 2 or 3 jumpers, plus required lugs and accessories if needed. The jumpers are realized with or without heat sinks, depending on the breaker frame and regulating standard, and UL and IEC kits for the same frames can be different.


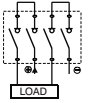
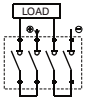
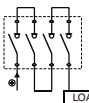
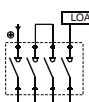

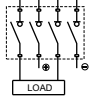
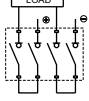
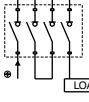
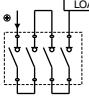
Jumper kits are divided into two versions: one for cabling all the poles on one single polarity (identified as 4PS or 3PS) and one for dividing the poles on both polarities (identified as 2+2PS or 2+1PS).



Quick reference tables

Tmax PV offers a wide choice of terminals for connection with busbars and cables. In the following tables, all the different options (related to the pole connections) are given:

Tmax PV switch-disconnectors up to 1100V DC in compliance with IEC60947-3

IEC MCS	Configuration & Supply	EF	FCCu	FCCuAl	HR	ES	F
Size							
T1 (160 A) 	2+2 - lower 	Compatible	Standard Supply	Not Compatible	Compatible	Not Compatible	Not Compatible
	2+2 - upper 						
	4PS - lower 						
	4PS - upper 						
T3 (200 A) 	2+2 - lower 	Compatible	Standard Supply	Compatible	Not Compatible	Not Compatible	Compatible
	2+2 - upper 						
	4PS - lower 						
	4PS - upper 						




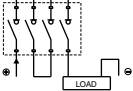
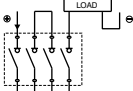



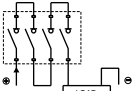
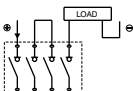
Tmax PV switch-disconnectors up to 1100V DC in compliance with IEC60947-3

IEC MCS	Configuration & Supply	EF	FCCu	FCCuAl	HR	ES	F
Size T4 (250 A)							
	2+2 - lower 						
	2+2 - upper 						
	4PS - lower 	Compatible	Compatible	Compatible	Not Compatible	Not Compatible	Standard Supply
	4PS - upper 						
T5 (500 A)							
	2+2 - lower 						
	2+2 - upper 						
	4PS - lower 	Compatible	Compatible	Not Compatible	Not Compatible	Not Compatible	Standard Supply
	4PS - upper 						

Quick reference tables




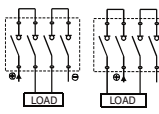
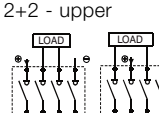
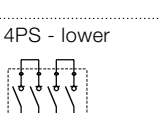
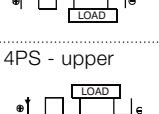

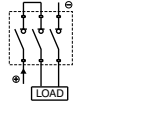
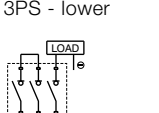
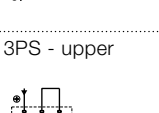
Tmax PV switch-disconnectors up to 1100V DC in compliance with IEC60947-3

IEC MCS	Configuration & Supply	EF	FCCu	FCCuAI	HR	ES	F
Size							
T6 (800 A) 	2+2 - lower 	Compatible					
	2+2 - upper 	Not Compatible					
	4PS - lower 	Compatible	Not Compatible	Compatible	Not Compatible	Not Compatible	Standard Supply
	4PS - upper 	Not Compatible					
T7 (1600 A) 	2+2 - lower 				Compatible *	Compatible	
	2+2 - upper 			Compatible		Not compatible	
	4PS - lower 	Compatible	Not compatible			Compatible	Standard Supply
	4PS - upper 			Not compatible		Not compatible	

* Vertical (VR) terminals can be used too


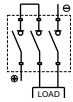
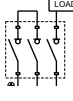
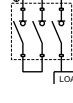

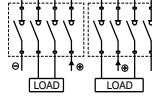
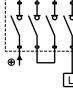


Tmax PV switch-disconnectors and automatic circuit-breakers up to 1000V DC in compliance with UL 489B

UL MCS and automatic circuit-breakers	Configuration & Supply	EF	FCCu	FCCuAI	ES	F
<p>Size</p> <p>T1 (100 A)</p> 	<p>2+2 - lower</p>  <p>2+2 - upper</p>  <p>4PS - lower</p>  <p>4PS - upper</p> 	<p>Not compatible</p>	<p>Standard supply</p>	<p>Not compatible</p>	<p>Not compatible</p>	<p>Not compatible</p>
<p>T4 (200 A)</p> 	<p>2+1 - lower</p>  <p>3PS - lower</p>  <p>3PS - upper</p> 	<p>Not compatible</p>	<p>Not compatible</p>	<p>Included with jumpers kit</p>	<p>Not compatible</p>	<p>Not compatible</p>

Quick reference tables


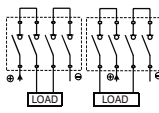
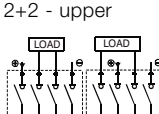
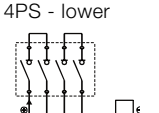
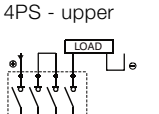
Tmax PV switch-disconnectors and automatic circuit-breakers up to 1000V DC in compliance with UL 489B

UL MCS and automatic circuit-breakers	Configuration & Supply	EF	FCCu	FCCuAI	ES	F
Size						
T5 (225-250-300-400A) 	2+1 - lower  <hr/> 3PS - lower  <hr/> 3PS - upper 	Not compatible	Included with jumpers kit "lug type" *	Included with jumpers kit "lug type" **	Included with jumpers kit "busbar type"	Not compatible
T6 (800 A) 	2+2 - lower  <hr/> 4PS - lower 	Included with jumpers kit "busbar type"	Not compatible	Included with jumpers kit "lug type"	Not compatible	Not compatible

* T5 300 and 400A only
 ** T5 225 and 250A only



Tmax PV switch-disconnectors and automatic circuit-breakers up to 1000V DC in compliance with UL 489B

UL MCS and automatic circuit-breakers	Configuration & Supply	EF	FCCu	FCCuAI	ES	F
<p>Size</p> <p>T7 (1000 A)</p> 	<p>2+2 - lower</p>  <p>2+2 - upper</p>  <p>4PS - lower</p>  <p>4PS - upper</p> 	<p>Not compatible</p>	<p>Not compatible</p>	<p>Included with jumpers kit "lug type"</p>	<p>Not compatible</p>	<p>Included with jumpers kit "busbar type"</p>

Quick reference tables



Tmax PV switch-disconnectors up to 1500V DC in compliance with IEC 60947-3

IEC 1500V DC MCS	Configuration & Supply	FCCu 	FCCuAI 	F 
Size T4 	2+2 - lower  2+2 - upper  4PS - lower  4PS - upper 	Compatible	Compatible	Standard Supply
T5 	2+2 - upper 	Compatible	Not compatible	Standard Supply
T7 	2+2 - upper  2+2 - lower  4PS - lower 	Not compatible	Compatible	Standard Supply

(* Valid only when 1250 A jumpers are used)

Derating



Temperature performances of Tmax PV at temperatures other than 40 °C and for different altitude are reported in the following tables:

T1D/PV IEC		FCCu		T3D/PV IEC		FCCu		T4D/PV IEC		F-FCCu		T5D/PV IEC		F-FCCu	
Temperature [°C]	I [A]	Temperature [°C]	I [A]	Temperature [°C]	I [A]	Temperature [°C]	I [A]	Temperature [°C]	I [A]	Temperature [°C]	I [A]	Temperature [°C]	I [A]	Temperature [°C]	I [A]
40	160	40	200	40	250	40	500								
45	160	45	200	45	250	45	500								
50	160	50	200	50	250	50	500								
55	160	55	200	55	250	55	500								
60	153	60	200	60	250	60	500								
65	145	65	190	65	237	65	474								
70	138	70	179	70	224	70	447								

T6D/PV IEC		F-FCCuAl		T7D/PV 1250 IEC		F-FCCuAl		T7D/PV 1600 IEC		F-FCCuAl	
Temperature [°C]	I [A]	Temperature [°C]	I [A]	Temperature [°C]	I [A]	Temperature [°C]	I [A]	Temperature [°C]	I [A]	Temperature [°C]	I [A]
40	800	40	1250	35	1600						
45	771	45	1225	40	1600						
50	741	50	1199	45	1600						
55	709	55	1171	50	1600						
60	676	60	1141	55	1542						
65	641	65	1109	60	1481						
70	605	70	1074	65	1418						
				70	1352						

Sum-Up table for temperature derating

Temperature [°C] / In [A]	T1D/PV IEC	T3D/PV IEC	T4D/PV IEC	T5D/PV IEC	T6D/PV IEC	T7D/PV 1250 IEC	T7D/PV 1600 IEC
40	160	200	250	500	800	1250	1600
45	160	200	250	500	771	1225	1600
50	160	200	250	500	741	1199	1600
55	160	200	250	500	709	1171	1542
60	153	200	250	500	676	1141	1481
65	145	190	237	474	641	1109	1418
70	138	179	224	447	605	1074	1352

Derating



Derating T1 MCS PV UL

With 40 °C Cables	
40	100
50	100
60	87
70	71

Derating T4 MCS PV UL

With 40 °C Cables	
40	200
50	200
60	184
70	167

Derating T5 MCS PV UL

With 40 °C Cables	
40	400
50	400
60	386
70	372

Derating T6 MCS PV UL

With 40 °C Cables	
40	800
50	800
60	700
70	600

Derating T7 MCS PV UL

With 40 °C Cables	
40	1000
50	1000
55	935
60	866
65	791
70	707

Derating T4 PV UL (MCCB)

With 40 °C Cables refer to page 17 for cable dimensions		With 50 °C Cables refer to page 17 for cable dimensions	
40	200	40	200
50	180	50	200
60	166	60	181
70	150	70	160

Derating T5 PV UL (MCCB), 225A version

With 40 °C Cables refer to page 17 for cable dimensions		With 50 °C Cables refer to page 17 for cable dimensions	
40	225	40	225
50	200	50	225
60	175	60	200
70	160	70	175

Derating T5 PV UL (MCCB), 250A version

With 40 °C Cables refer to page 17 for cable dimensions		With 50 °C Cables refer to page 17 for cable dimensions	
40	250	40	250
50	225	50	250
60	195	60	220
70	165	70	190

Derating T5 PV UL (MCCB), 300A version

With 40 °C Cables refer to page 17 for cable dimensions		With 50 °C Cables refer to page 17 for cable dimensions	
40	300	40	300
50	270	50	300
60	240	60	265
70	210	70	230

Derating T5 PV UL (MCCB), 400A version

With 40 °C Cables refer to page 17 for cable dimensions		With 50 °C Cables refer to page 17 for cable dimensions	
40	400	40	400
50	387	50	400
60	373	60	380
70	300	70	360

Derating T6 PV UL (MCCB), 600A version

With 40 °C Cables refer to page 17 for cable dimensions		With 50 °C Cables refer to page 17 for cable dimensions	
40	600	40	600
50	600	50	600
60	525	60	525
70	450	70	450

Derating T6 PV UL (MCCB), 800A version

40	800
50	800
60	700
70	600

Test performed by busbars

Sum-Up table for temperature derating

UL switch-disconnector

Temperature [°C] / In [A]	T1	T4	T5	T6	T7
40	100	200	400	800	1000
50	100	200	400	800	1000
60	87	184	386	700	866
70	71	167	372	600	707

UL automatic circuit-breakers: 40°C cables

Temperature [°C] / In [A]	T4	T5	T6
40	200	400	800
50	180	360	800
60	166	232	700
70	150	213	600

UL automatic circuit-breakers: 50°C cables

Temperature [°C] / In [A]	T4	T5	T6
40	200	400	800
50	200	400	800
60	181	380	700
70	160	360	600

Please note that for UL MCCBs two deratings are given, according to UL489B: one when 40 °C cables are used, and one when 50 °C cables are used.

Cables dimensions are given by UL489B.

Below, please find the relevant cabling info:

Wire options for Tmax PV - UL

T1 100A

Ambient temp	40°C	50°C
In (A)	required wires (number x section)	required wires (number x section)
100	1 x 3 AWG	1 x 1/0 AWG

T4 200A

Ambient temp	40°C	50°C
In (A)	required wires (number x section)	
40	1 x 8 AWG	1 x 6 AWG
50	1 x 8 AWG	1 x 4 AWG
80	1 x 4 AWG	1 x 2 AWG
100	1 x 3 AWG	1 x 1/0 AWG
125	1 x 1 AWG	1 x 2/0 AWG
150	1 x 1/0 AWG	1 x 3/0 AWG
200	1 x 3/0 AWG	1 x 300 kcmil

T5 400A

Ambient temp	40°C	50°C
In (A)	required wires (number x section)	
225	1 x 4/0 AWG	1 x 350 kcmil
250	1 x 250 kcmil	1 x 400 kcmil
300	1 x 350 kcmil	2 x 3/0 AWG
400	2 x 3/0 AWG or 1 x 500 kcmil	2 x 300 kcmil

T6 600A

Ambient temp	40°C	50°C
In (A)	required wires (number x section)	
600	2 x 350 kcmil	3 x 300 kcmil

T7 1000A

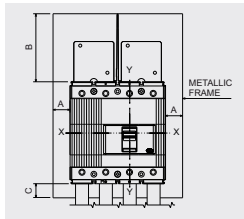
Ambient temp	40°C	50°C
In (A)	required wires (number x section)	
1000	3 x 400 kcmil	4 x 400 kcmil

Power Losses and Insulation Distances

When a current passes through a molded case circuit-breaker or switch-disconnector, it dissipates heat. The Tmax series is well known for having very few power losses.

Below, please find a table with information for both UL and IEC power losses.

Type	Trip Unit	Version	In (A)	P (W/pole)
T1	MCS	UL	100	7,5
		IEC	160	15
T3	MCS	IEC	200	19
T4	MCS	UL	200	8,9
		IEC	250	14
	TMD	UL	40	3,8
			50	3,9
	TMA	UL	80	6,4
			100	7,6
			125	7,9
			150	8
T5	MCS	UL	400	19
		IEC	500	30
	TMA	UL	400	29
T6	MCS	UL	600	31
		UL	800	48
		IEC		48
	TMA	UL	600	33
			800	50
T7	MCS	UL	1000	30
		IEC	1250	47
			1600	77



IEC 60947-3 Insulation distances for installation in metallic cubicle

	A [mm]		B [mm]		C [mm]	
	With jumpers	No jumpers	With jumpers	No jumpers	With jumpers	No jumpers
T1D/PV	55	20	100	50	100	20
T3D/PV	25	25	100	100	20	20
T4D/PV	50	50	120	120	120	120
T4D/PV-E						
T5D/PV	57	25	120	120	105	105
T5D/PV-E	57	57	122,5	122,5	122,5	122,5
T6D/PV	50	50	100	100	110	110
T7D/PV 1250	100	100	200	200	200	200
T7D/PV-E 1250						
T7D/PV 1600	130	130	200	200	200	200
T7D/PV-E 1600						

UL489 Insulation distances for installation in metallic cubicle

	A [mm]	B [mm]	C [mm]
T1N-D/PV	55	100	100
T4N-D/PV	50	200	200
T4N/PV			
T5N-D/PV	57	200	200
T5N/PV			
T6N-D/PV*	70	220	110
T6N/PV*			
T7N-D/PV	165	236	200

* switchgear protruded 35 mm

Insulation distances in air between two Tmax PV with jumpers put side by side*

[mm]	IEC	UL
T1	60	55
T3	50	-
T4	100	100
T5	100	100
T6	100	265
T7	200	330

* insulation distances can be reduced using suitable insulation barriers between breakers

UL489B cubicle dimensions for Tmax PV

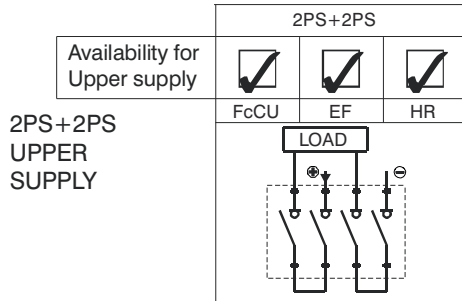
	H [mm]	W [mm]	D [mm]
T1/PV UL	370	245	72
T4/PV UL	520	420	200
T5/PV UL	710	550	175
T6/PV UL	704	540	173
T7/PV UL	704	610	173

Dimensions T1D/PV

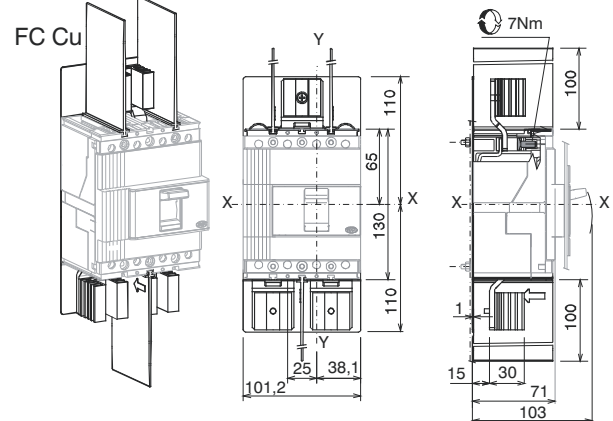
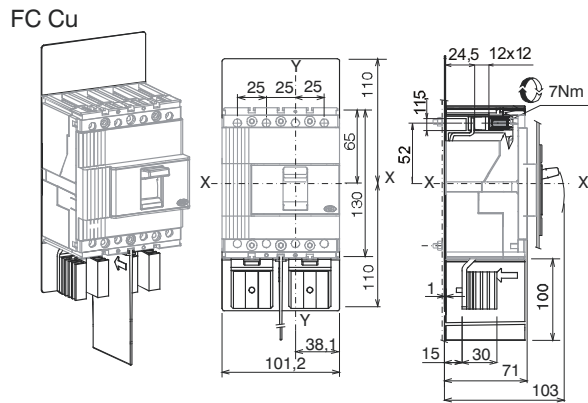
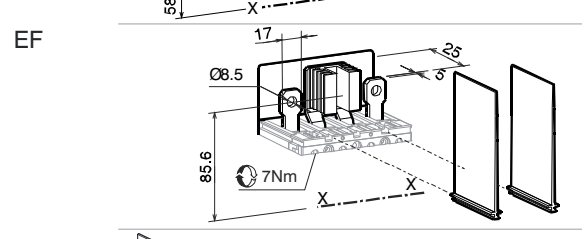
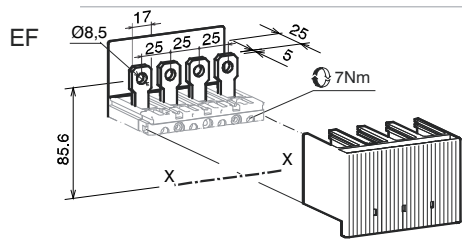
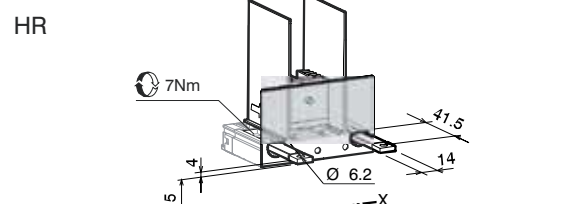
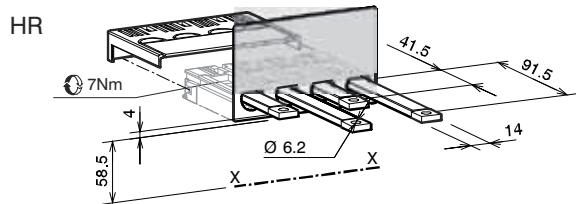
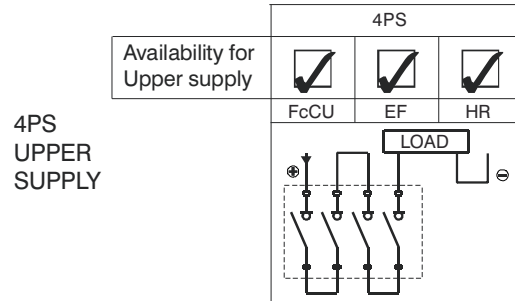


According to IEC 60947-3

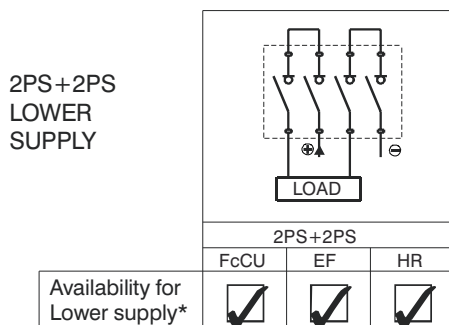
2PS+2PS solution, terminals for Upper Supply



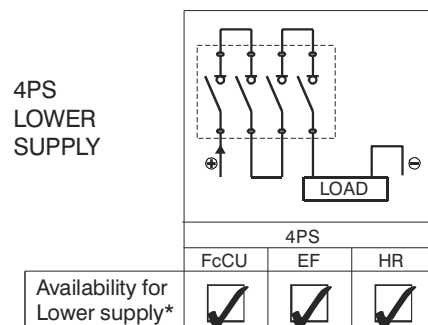
4PS solution, Terminals for Upper Supply



2PS+2PS solution, Lower Supply



4PS solution, Lower Supply



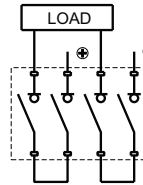
* Terminals configurations must be symmetrical with respect to x-x CB axis when CB is supplied from below.

Dimensions T3D/PV

According to IEC 60947-3

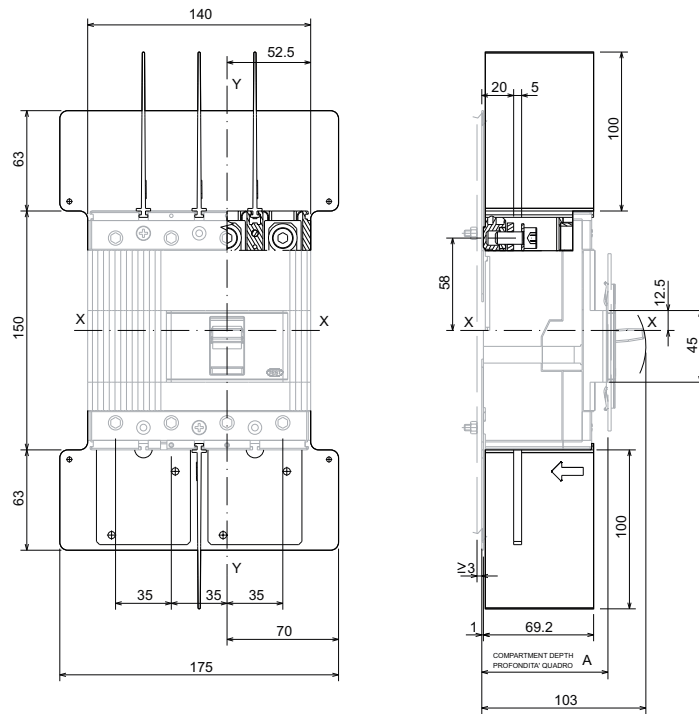
2PS+2PS solution, Upper Supply

	F	FCCu	EF	FCCuAl
Availability for Upper supply	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

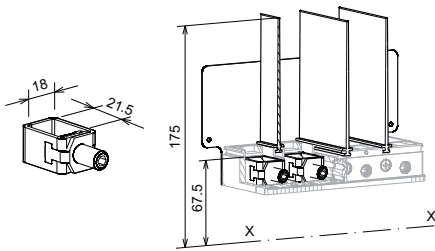


2PS+2PS
UPPER SUPPLY

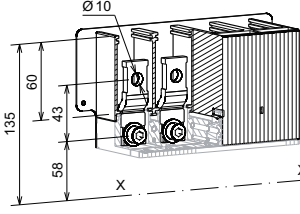
F



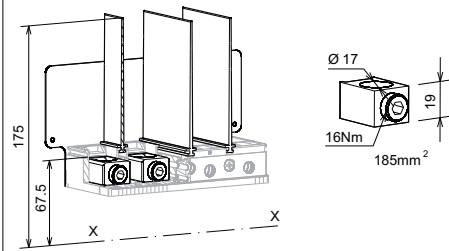
FCCu



EF

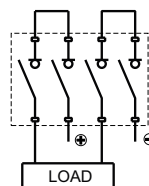


FC CuAl



2PS+2PS solution, Lower Supply

	F	FCCu	EF	FCCuAl
Availability for Lower supply	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

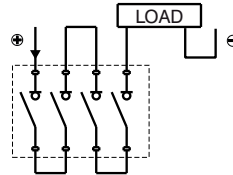


2PS+2PS
LOWER SUPPLY

* Terminals configurations must be symmetrical with respect to x-x CB axis when CB is supplied from the top

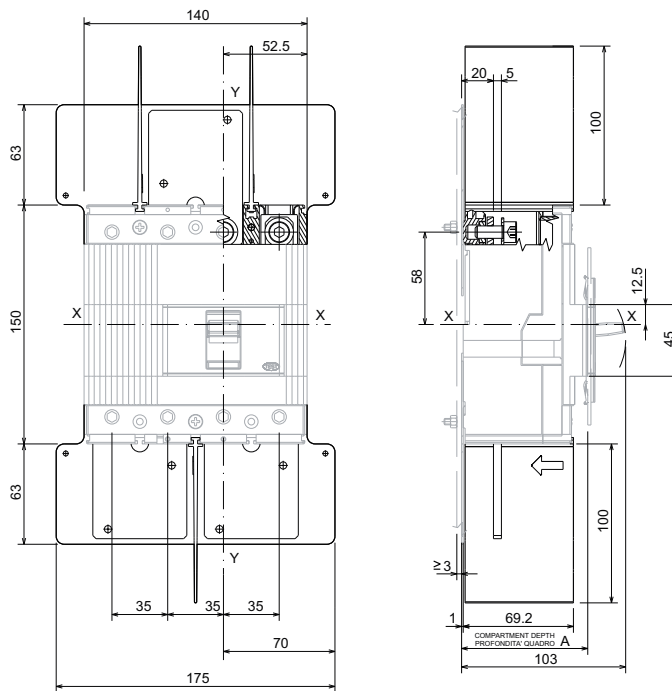
4PS solution, Upper Supply

	F	FCCu	EF	FCCuAl
Availability for Upper supply	✓	✓	✓	✓

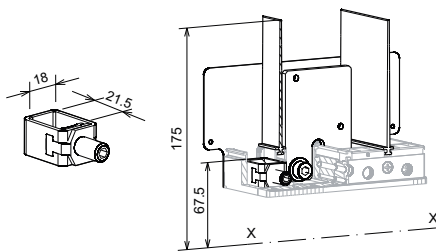


4PS
UPPER SUPPLY

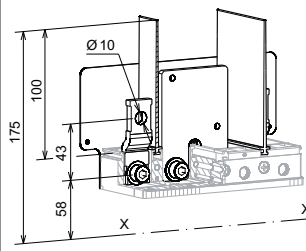
F



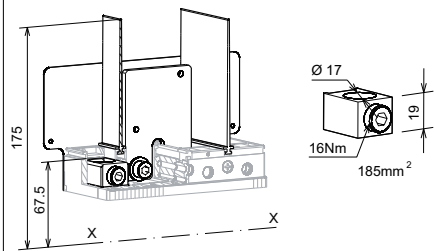
FCCu



EF

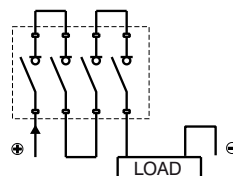


FC CuAl



4PS solution, Lower Supply

	F	FCCu	EF	FCCuAl
Availability for Lower supply	✓	✓	✓	✓



4PS
LOWER SUPPLY

* Terminals configurations must be symmetrical with respect to x-x CB axis when CB is supplied from the top

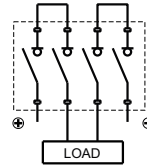
Dimensions

T4D/PV - T4D/PV-E

According to IEC 60947-3

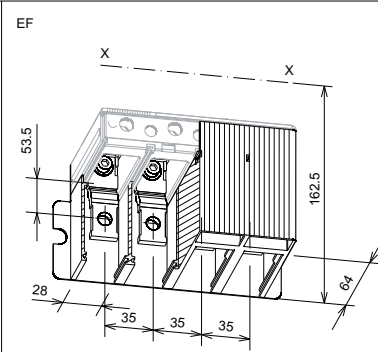
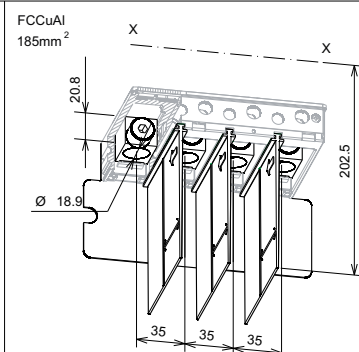
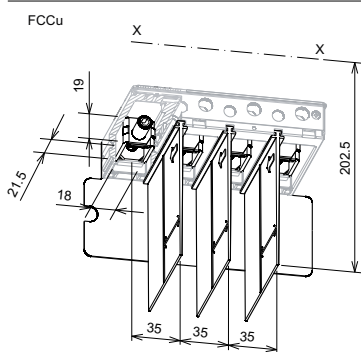
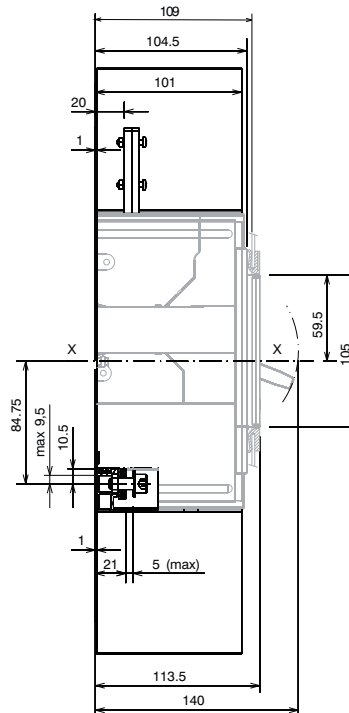
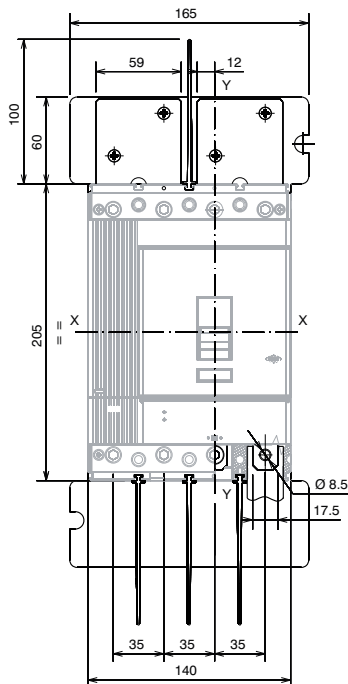
2PS+2PS solution, Lower Supply

		2PS+2PS				
		F	FCCu	FCCuAl 185mm ²	EF	
	UP TO 1100V	Availability for Lower supply	✓	✓	✓	✓
T4D/PV-E only	UP TO 1500V	Availability for Lower supply	✓	✓	✓	



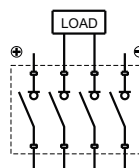
2PS+2PS
LOWER
SUPPLY

F



2PS+2PS solution, Upper Supply

		2PS+2PS				
		F	FCCu	FCCuAl 185mm ²	EF	
	UP TO 1100V	Availability for Upper supply	✓	✓	✓	✓
T4D/PV-E only	UP TO 1500V	Availability for Upper supply	✓	✓	✓	

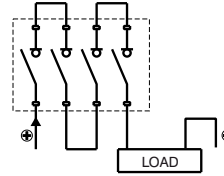


2PS+2PS
UPPER
SUPPLY

* Terminals configurations must be symmetrical with respect to x-x CB axis when CB is supplied from the top

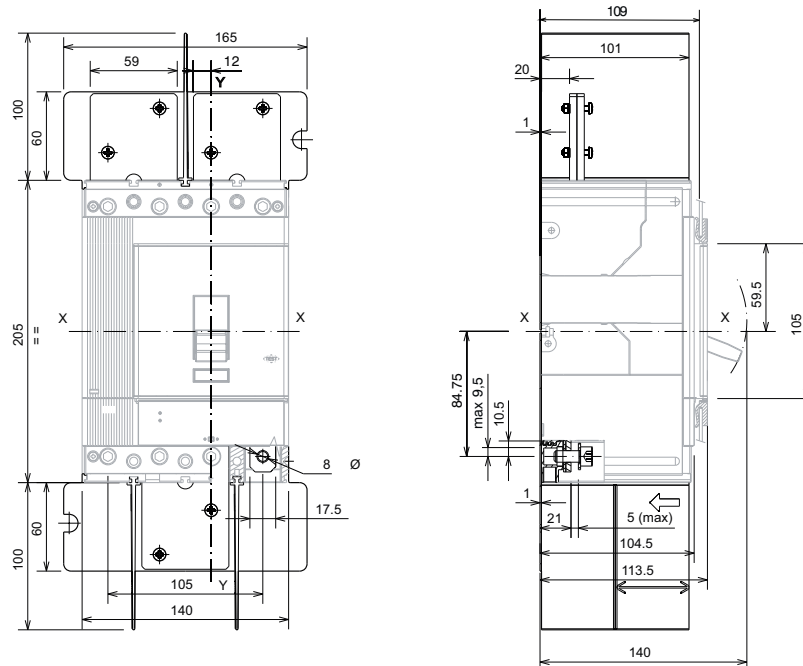
4PS solution, Lower Supply

		2PS+2PS				
		F	FCCu	FCCuAl 185mm ²	EF	
	UP TO 1100V	Availability for Lower supply	✓	✓	✓	✓
T4D/PV-E only	UP TO 1500V	Availability for Lower supply	✓	✓	✓	

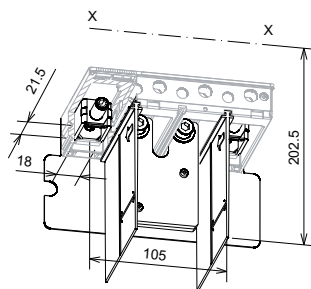


4PS
LOWER
SUPPLY

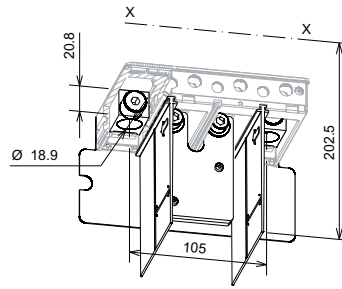
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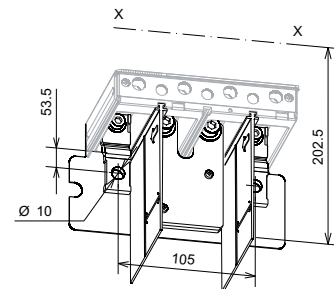
FCCu



FCCuAl
185mm²

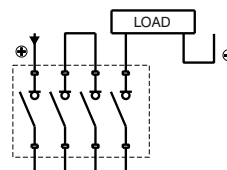


EF



2PS+2PS solution, Upper Supply

		2PS+2PS				
		F	FCCu	FCCuAl 185mm ²	EF	
	UP TO 1100V	Availability for Upper supply	✓	✓	✓	✓
T4D/PV-E only	UP TO 1500V	Availability for Upper supply	✓	✓	✓	



4PS
UPPER
SUPPLY

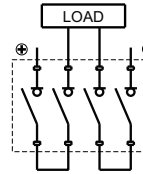
* Terminals configurations must be symmetrical with respect to x-x CB axis when CB is supplied from the top

Dimensions T5D/PV

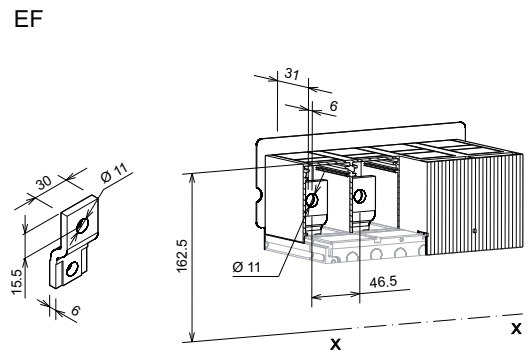
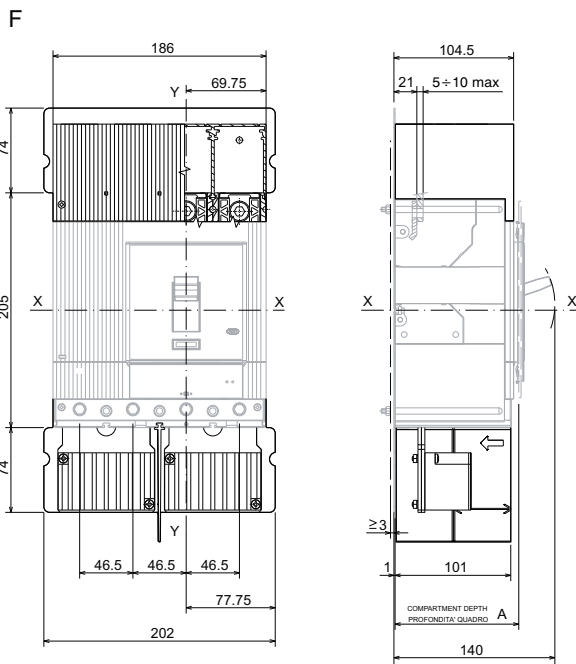
According to IEC 60947-3

2PS+2PS solution, Upper Supply

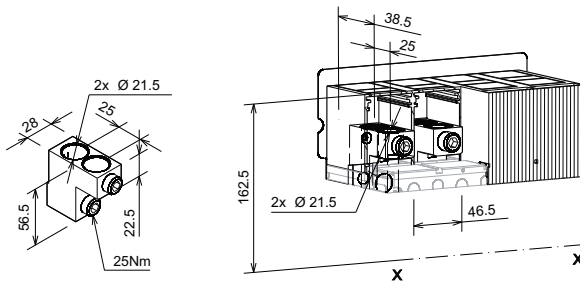
	F	FCCu	EF
Availability for Upper supply	✓	✓	✓



2PS+2PS
UPPER SUPPLY

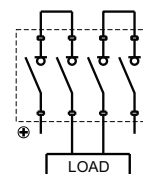


FCCu



2PS+2PS solution, Lower Supply

	F	FCCu	EF
Availability for Lower supply	✓	✓	✓

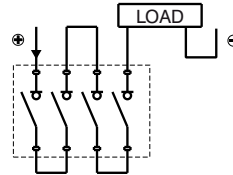


2PS+2PS
LOWER SUPPLY

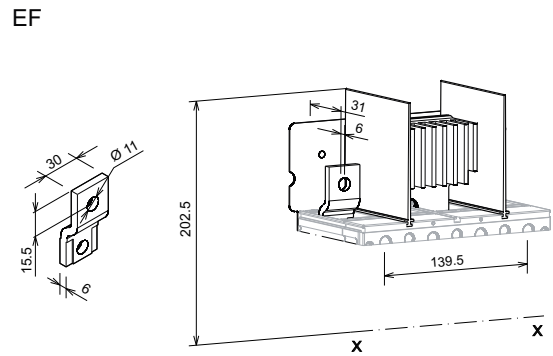
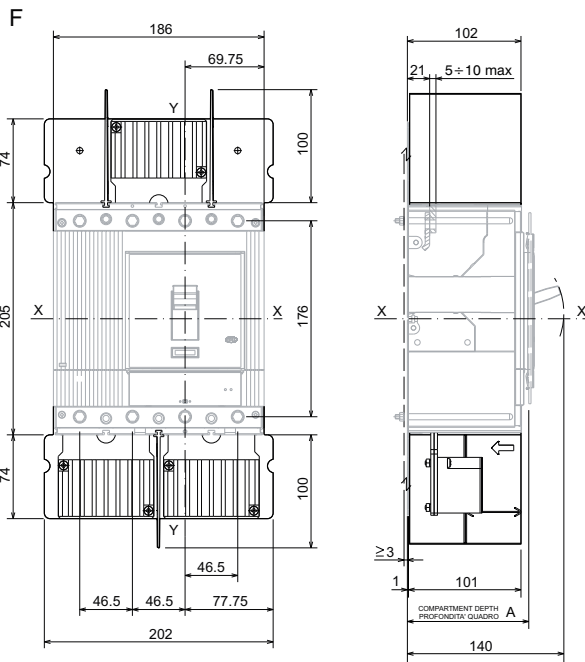
* Terminals configurations must be symmetrical with respect to x-x CB axis when CB is supplied from the top

4PS solution, Upper Supply

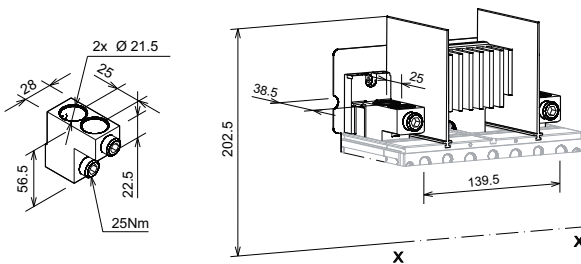
	F	FCCu	EF
Availability for Upper supply	✓	✓	✓



4PS
UPPER SUPPLY

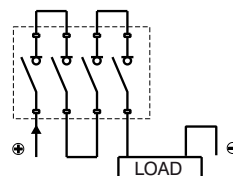


FCCu



4PS solution, Lower Supply

	F	FCCu	EF
Availability for Lower supply	✓	✓	✓



4PS
LOWER SUPPLY

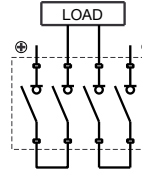
* Terminals configurations must be symmetrical with respect to x-x CB axis when CB is supplied from the top

Dimensions T5D/PV-E

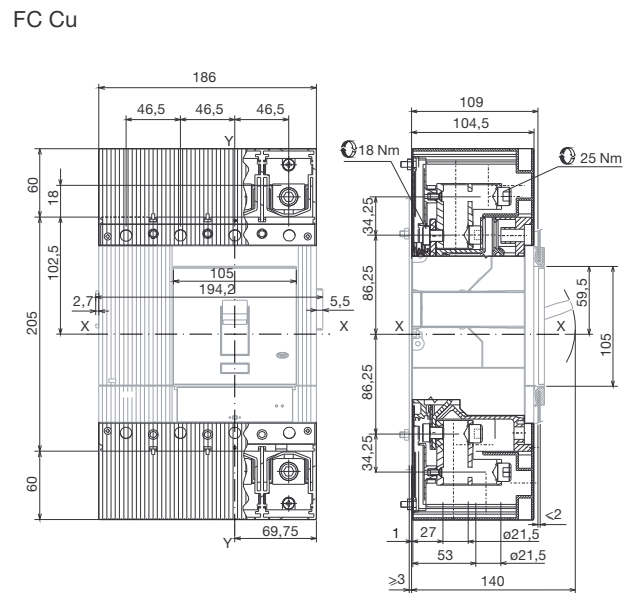
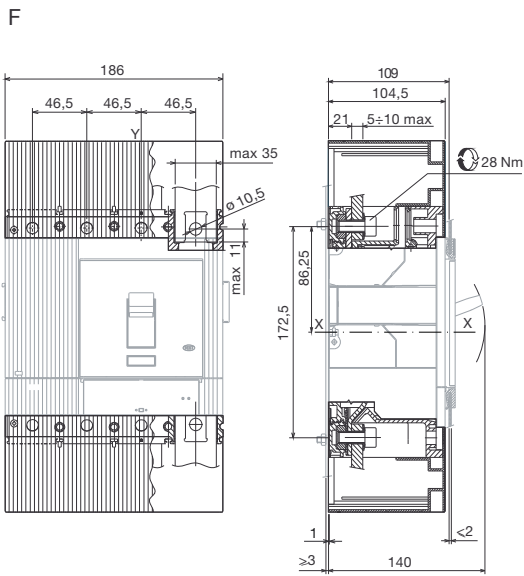
According to IEC 60947-3

Configurations without jumpers

	F	FCCu
Availability for Upper supply ONLY	☑	☑

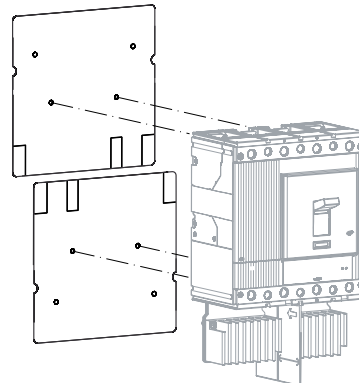
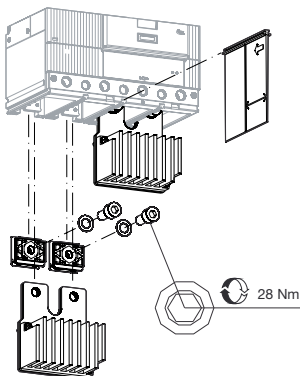


2PS+2PS
UPPER SUPPLY
ONLY



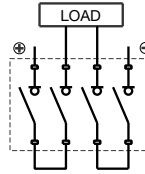
Jumper examples

Example with jumper
(4PS Upper Supply)

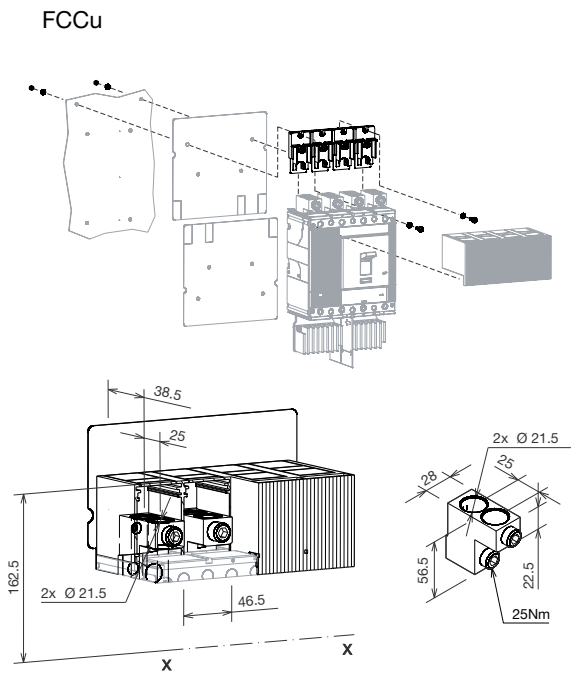
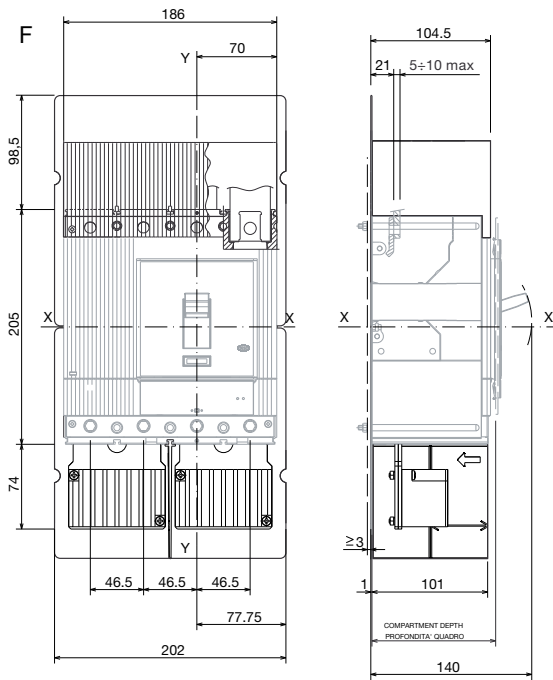


2PS+2PS solution, Upper Supply

	F	FCCu
Availability for Upper supply ONLY	✓	✓



2PS+2PS
UPPER SUPPLY
ONLY

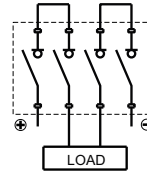


Dimensions T6D/PV

According to IEC 60947-3

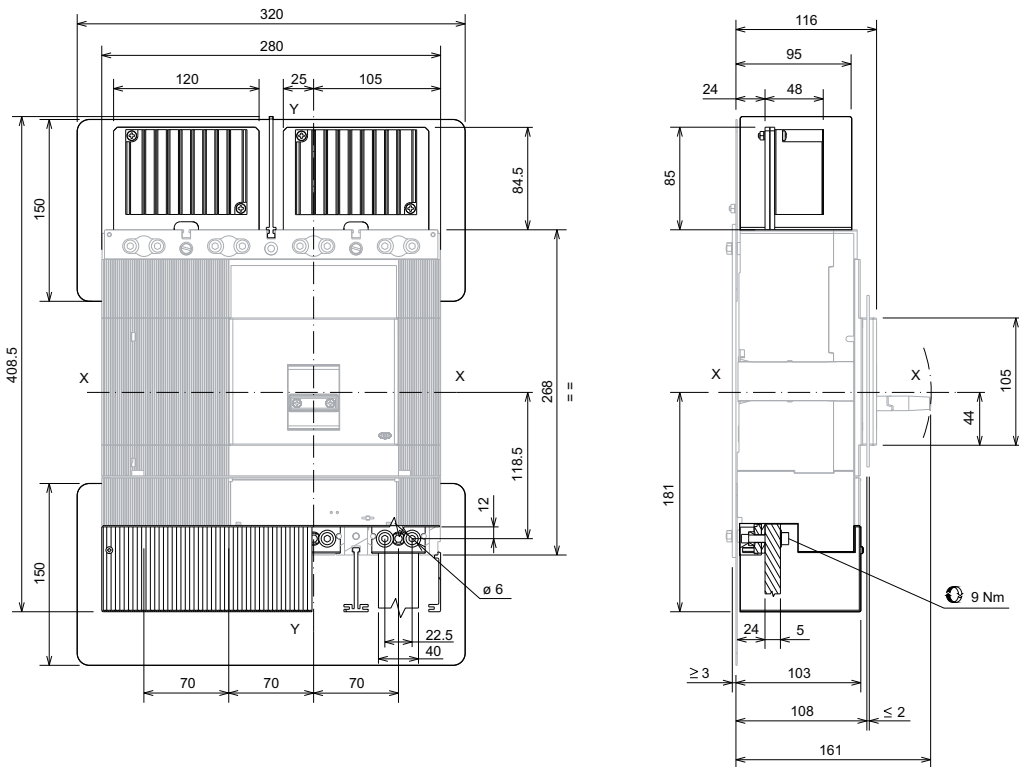
2PS+2PS solution, Lower Supply

	F	FCCuAl	EF
Availability for Lower supply	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

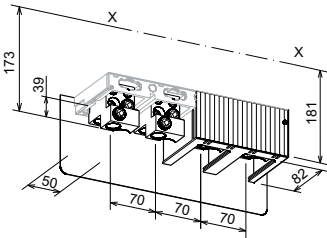
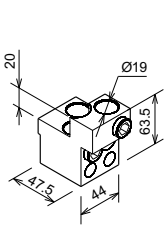


2PS+2PS
LOWER SUPPLY

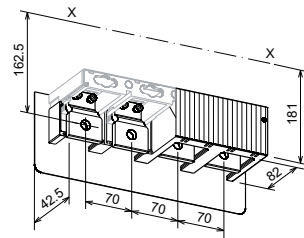
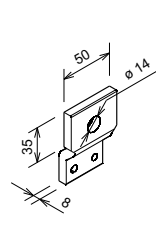
F



FCCuAl

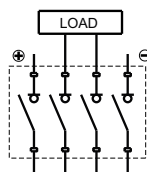


EF



2PS+2PS solution, Upper Supply

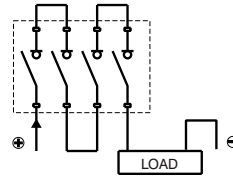
	F	FCCuAl
Availability for Upper supply	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>



2PS+2PS
UPPER SUPPLY

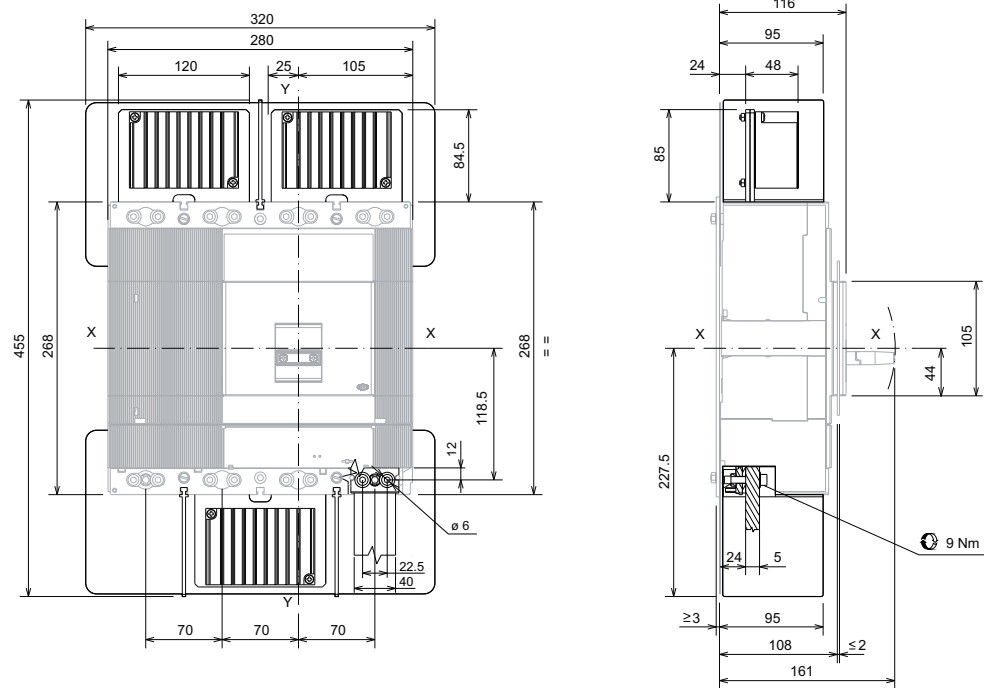
4PS solution, Lower Supply

	F	FCCuAI	EF
Availability for Lower supply	✓	✓	✓

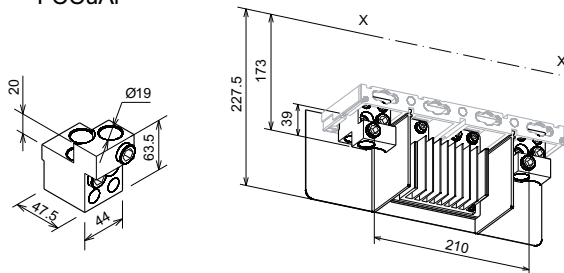


4PS
LOWER SUPPLY

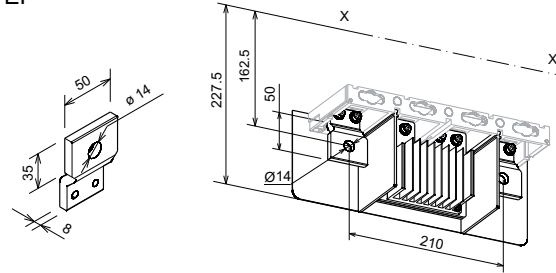
F



FCCuAI

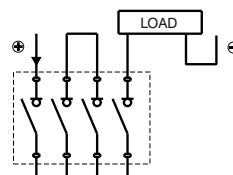


EF



4PS solution, Upper Supply

	F	FCCuAI
Availability for Upper supply	✓	✓



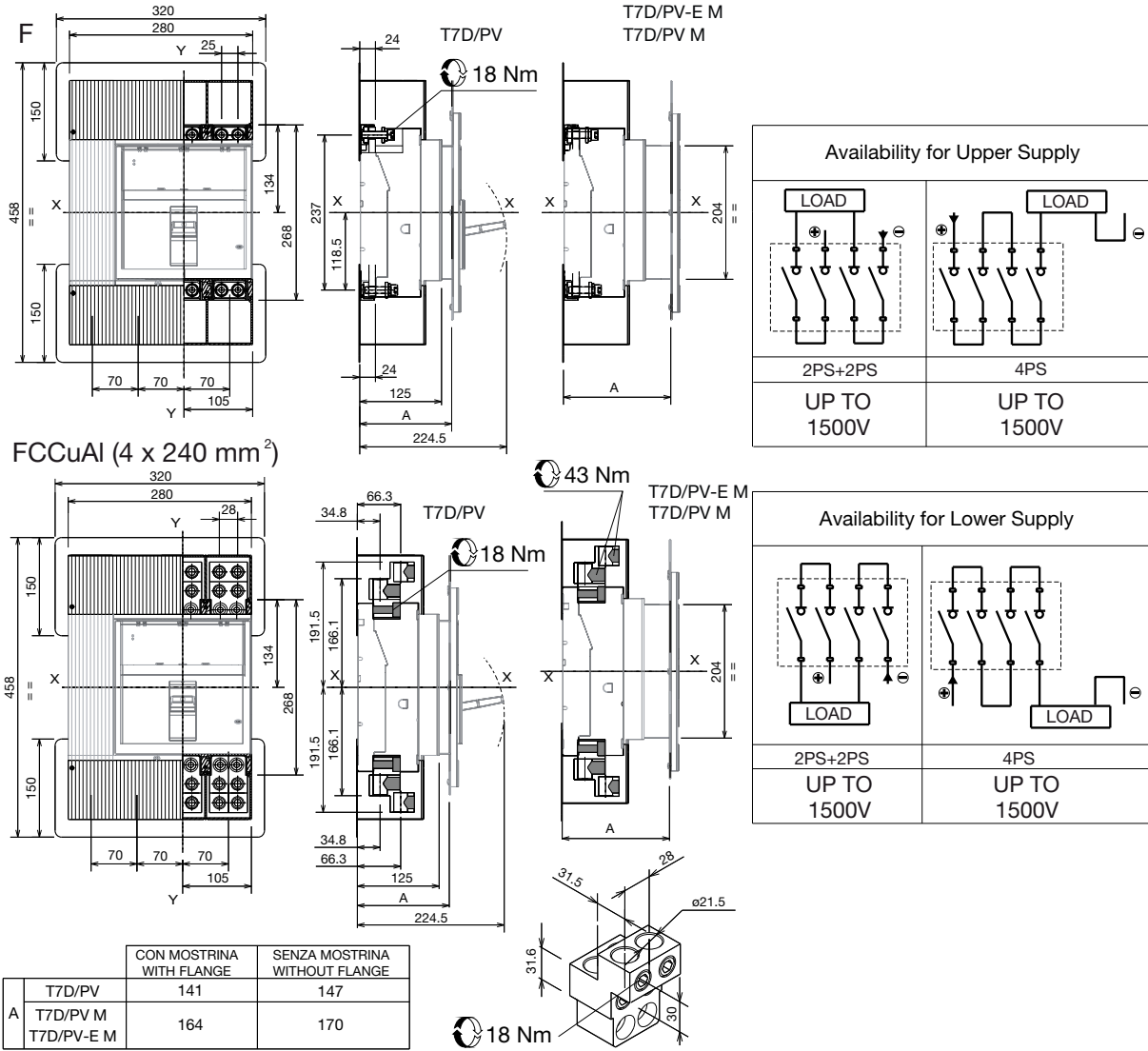
4PS
UPPER SUPPLY

Dimensions

T7D/PV - T7D/PV-E

According to IEC 60947-3

Configurations without jumpers (cables)



Configurations with jumpers (possible solutions)

1250 A				2PS+2PS UPPER SUPPLY	1600 A			
EF	FCCuAl	F				F	FCCuAl	EF
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1100 V		1100 V	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1500 V		1500 V	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

1250 A							2PS+2PS LOWER SUPPLY	1600 A							
VR	HR	ES	EF	FCCuAl	F				F	FCCuAl	EF	ES	HR	VR	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1100 V		1100 V	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1500 V		1500 V	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

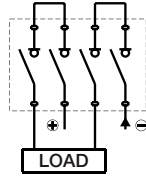
1250 A			4PS UPPER SUPPLY	1600 A		
EF	F				F	EF
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1100 V		1100 V	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	1500 V		1500 V	<input type="checkbox"/>	<input type="checkbox"/>

1250 A					4PS LOWER SUPPLY	1600 A				
ES	EF	FCCuAl	F				F	FCCuAl	EF	ES
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1100 V		1100 V	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1500 V		1500 V	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

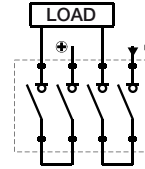
Dimensions T7D/PV

According to IEC 60947-3

2PS+2PS
LOWER
SUPPLY

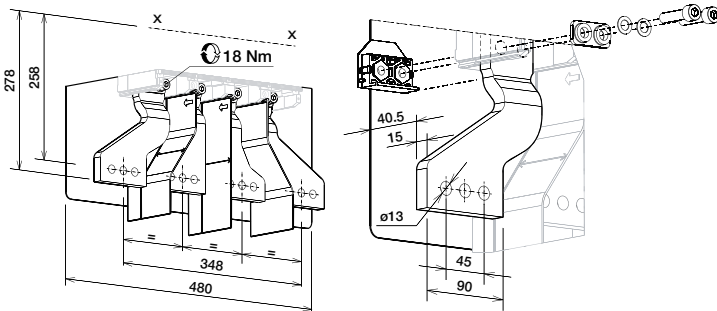


2PS+2PS
UPPER
SUPPLY

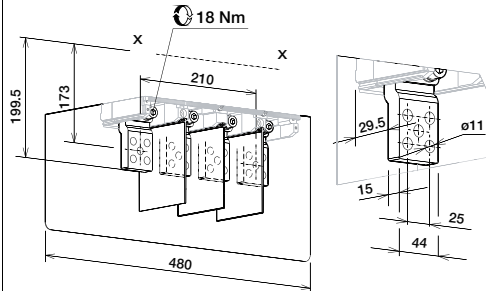


LOWER SUPPLY

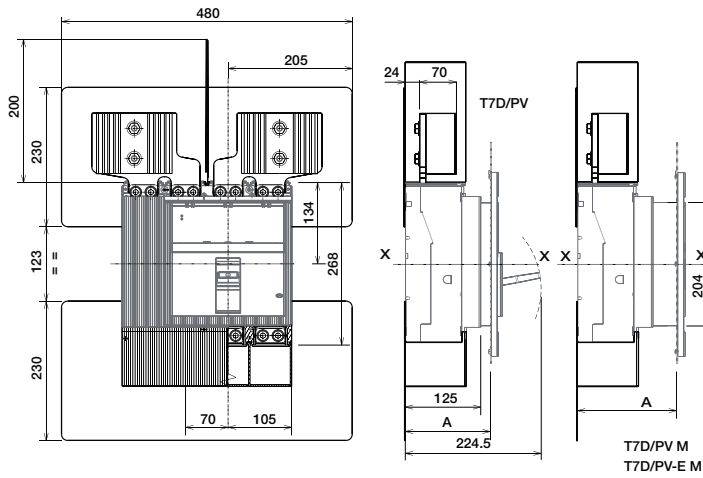
ES



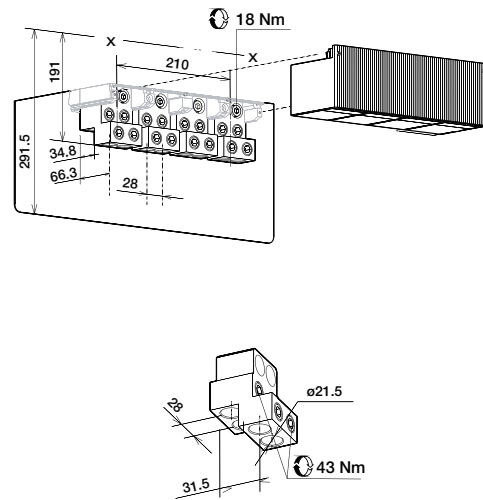
EF



F

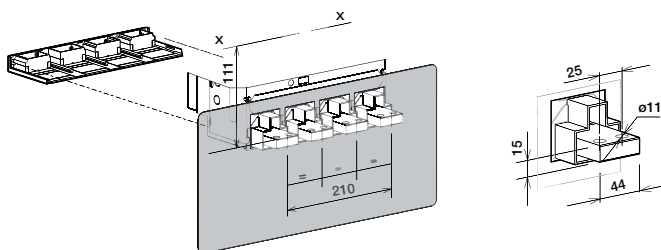


FC Cu Al
(4 x 240 mm²)

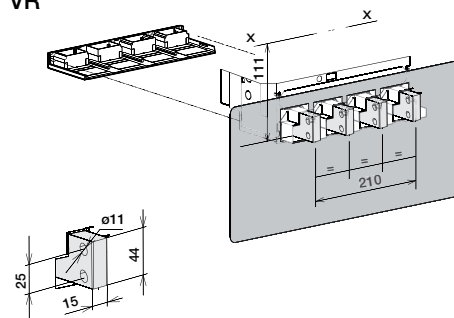


	CON MOSTRINA WITH FLANGE	SENZA MOSTRINA WITHOUT FLANGE
A	T7D/PV 141	147
	T7D/PV M T7D/PVE- M	170

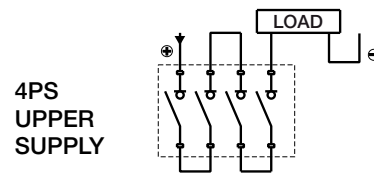
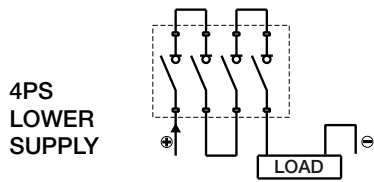
HR



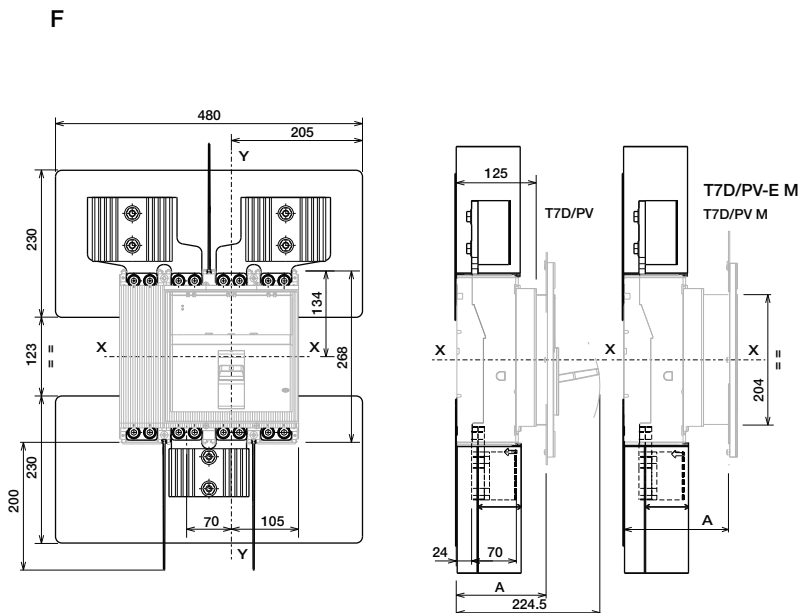
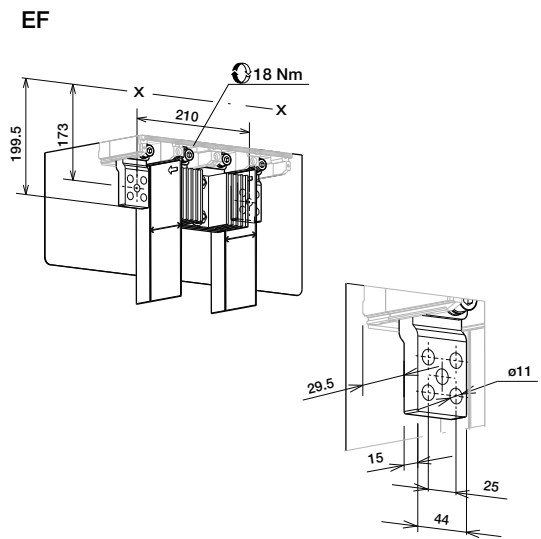
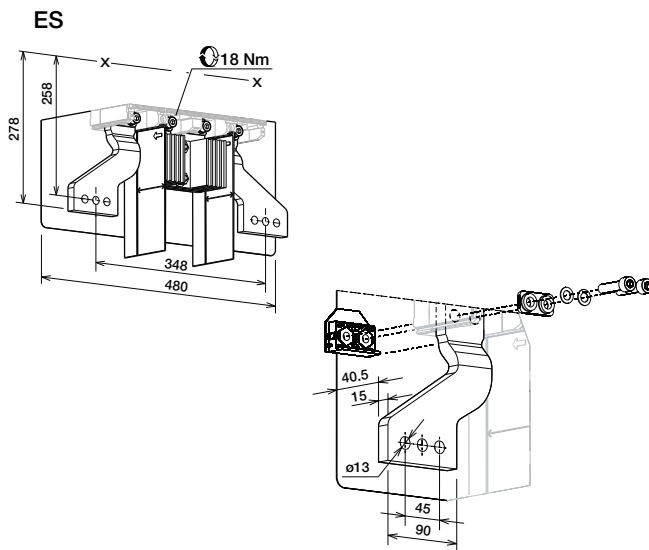
VR



* UPPER SUPPLY - According to scheme K, terminals configurations must be symmetrical respect to x-x CB axis

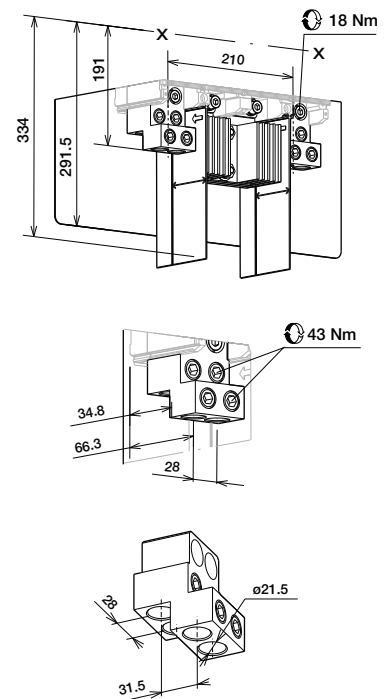


LOWER SUPPLY



		CON MOSTRINA WITH FLANGE	SENZA MOSTRINA WITHOUT FLANGE
A	T7D/PV	141	147
	T7D/PV M	164	170
	T7D/PV-E M		

FC Cu Al
(4 x 240 mm²)



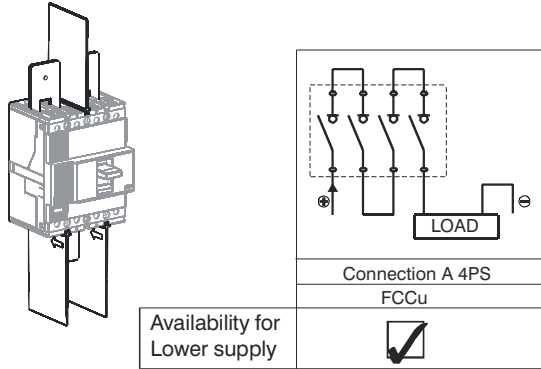
* UPPER SUPPLY - According to scheme K, terminals configurations must be symmetrical respect to x-x CB axis

Dimensions T1/PV

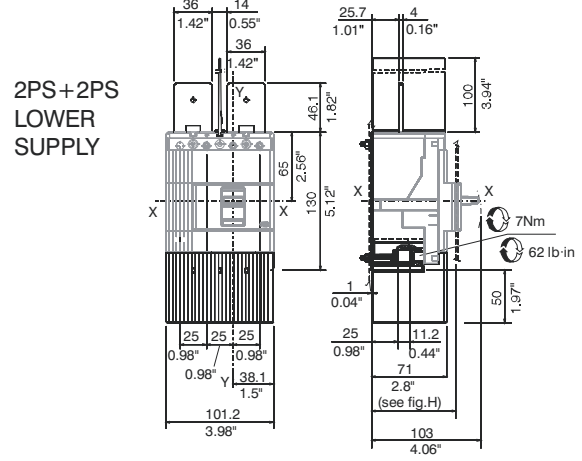
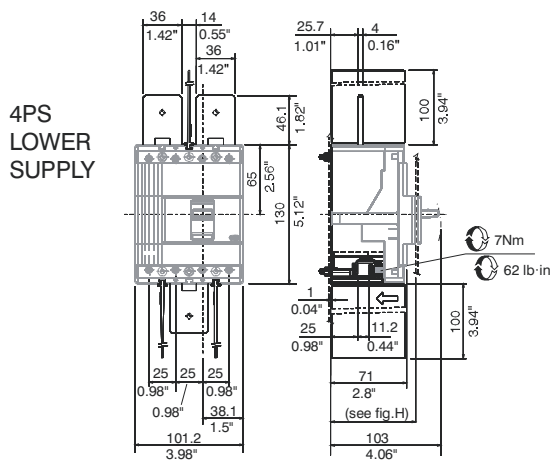
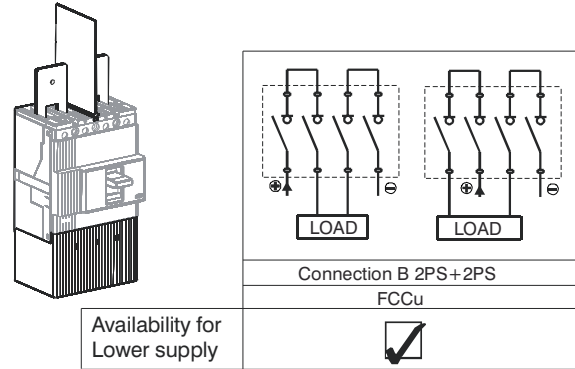


According to UL 489B

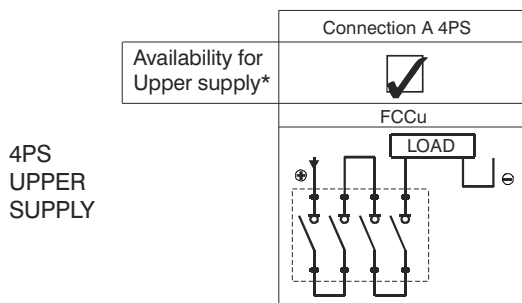
Jumper Kit T1N-D/PV-A for connection A grounded system wiring 4PS, lower supply



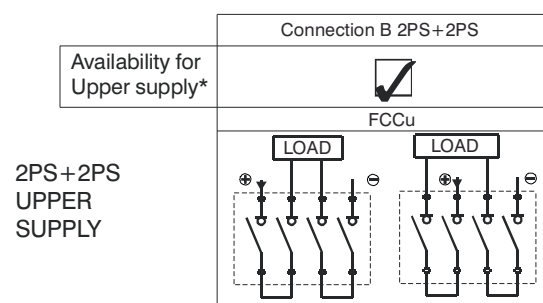
Jumper Kit T1N-D/PV-B for connection B ungrounded system wiring 2PS+2PS, lower supply



Jumper Kit T1N-D/PV-A for connection A grounded system wiring 4PS, upper supply



Jumper Kit T1N-D/PV-B for connection B ungrounded system wiring 2PS+2PS, upper supply



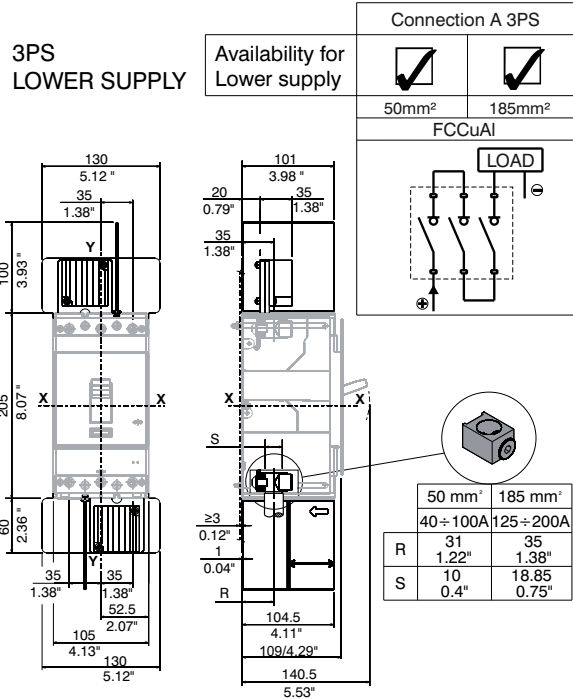
* Terminals configurations must be symmetrical with respect to x-x CB axis when CB is supplied from the top.

Dimensions T4/PV

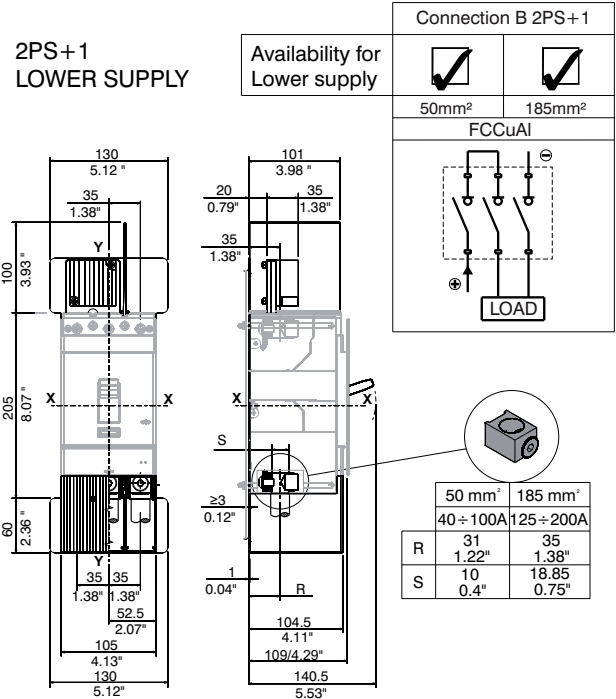


According to UL 489B

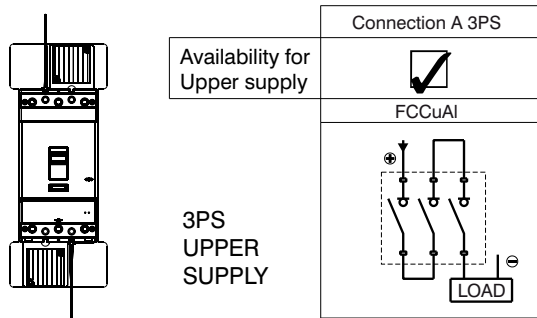
Jumper Kit T4N/PV-A for connection A grounded system wiring 3PS, lower supply



Jumper Kit T4N/PV-B for connection B ungrounded system wiring 2PS+1, lower supply



Jumper Kit T4N/PV-A for connection A grounded system wiring 3PS, upper supply



Jumper Kit T4N/PV-B for connection B ungrounded system wiring 2PS+1, upper supply

**2PS+1 UPPER SUPPLY
NOT AVAILABLE**

Terminals configurations must be symmetrical with respect to x-x CB axis when CB is supplied from the top

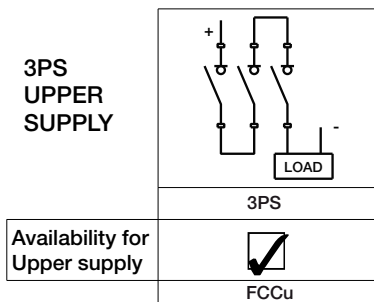
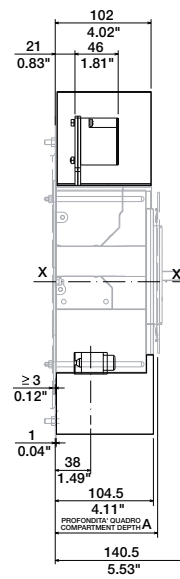
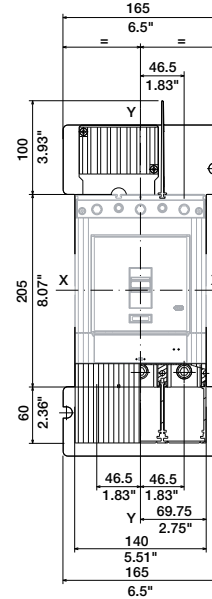
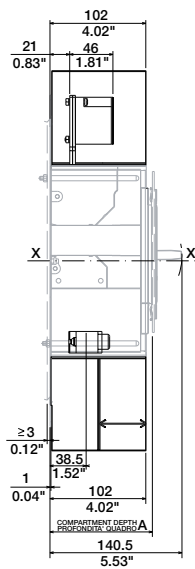
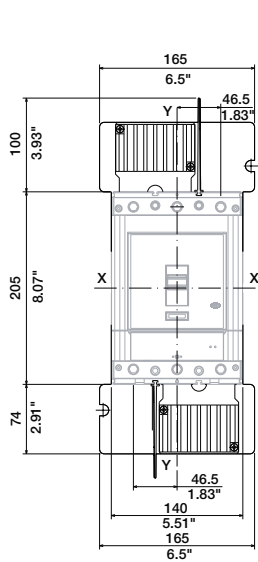
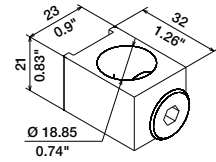
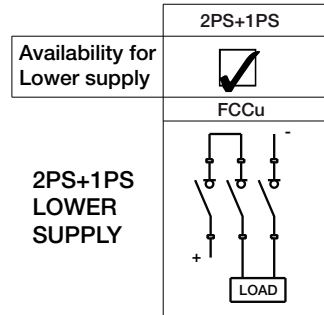
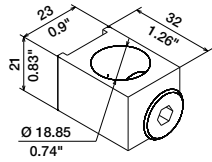
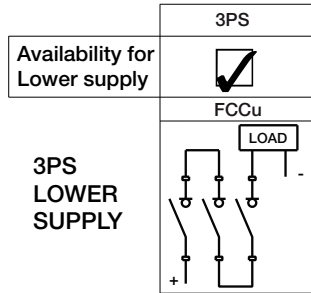
Dimensions

T5/PV

According to UL 489B

Jumper FCCuAI Kit T5N/PV UL-A for connection A grounded system wiring 3PS, lower supply 225A

Jumper FCCuAI Kit T5N/PV UL-B for connection B ungrounded system wiring 2PS+1PS, lower supply 225A

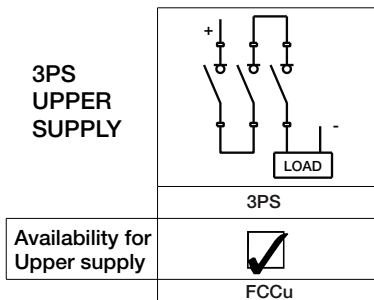
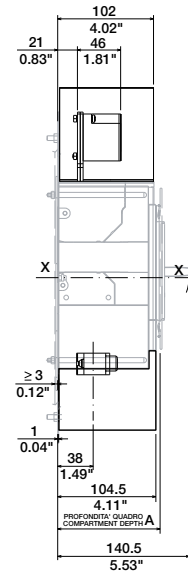
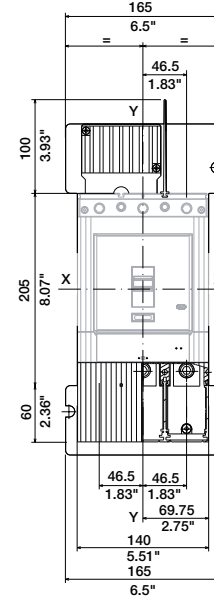
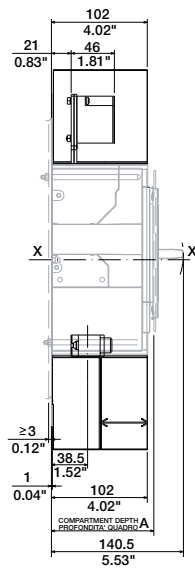
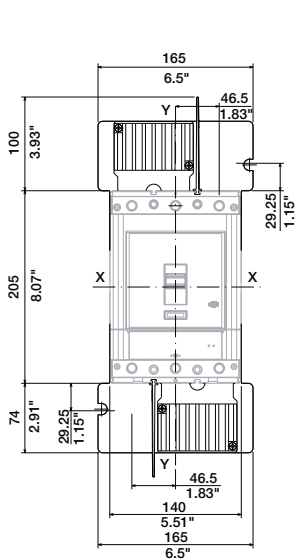
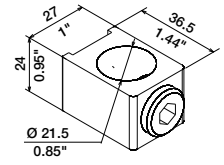
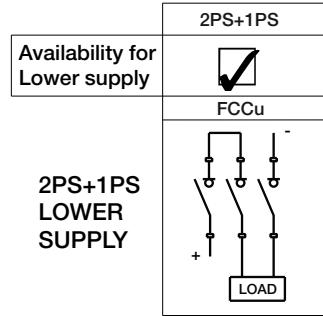
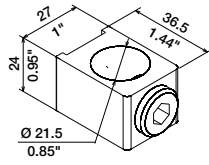
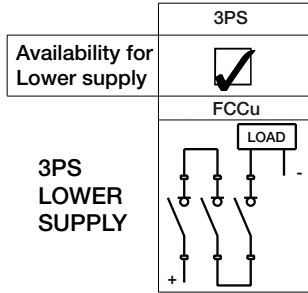


UPPER SUPPLY NOT AVAILABLE



Jumper FCCuAI Kit T5N/PV UL-A for connection A grounded system wiring 3PS, lower supply 250A

Jumper FCCuAI Kit T5N/PV UL-B for connection B ungrounded system wiring 2PS+1PS, lower supply 250A

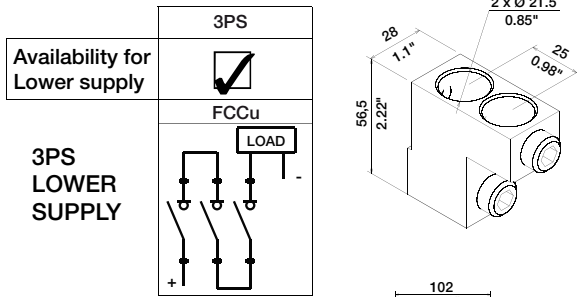


UPPER SUPPLY NOT AVAILABLE

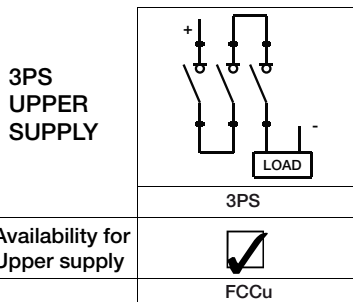
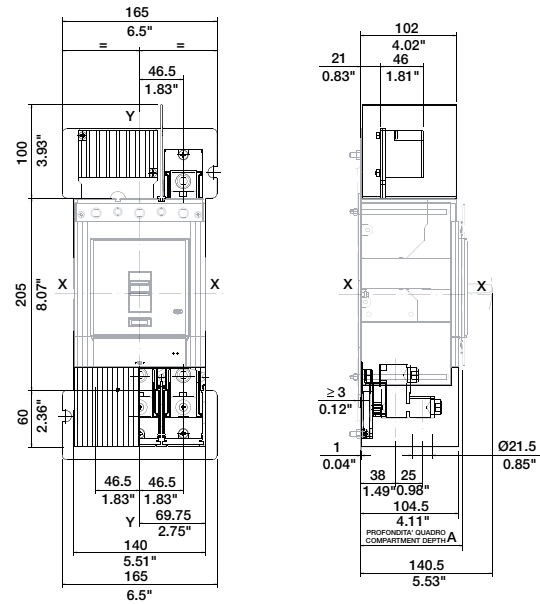
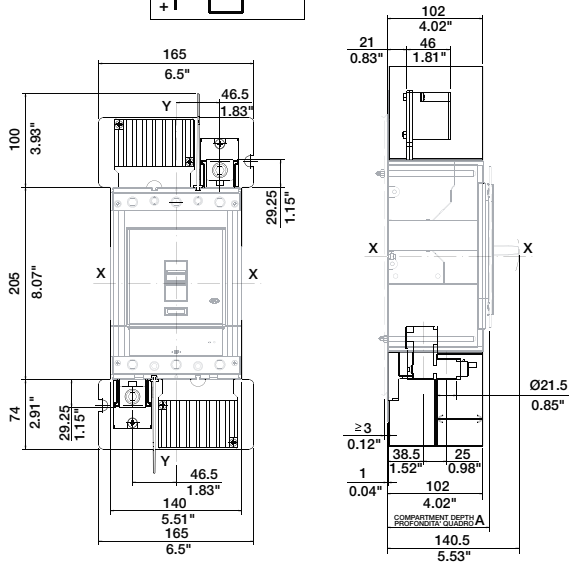
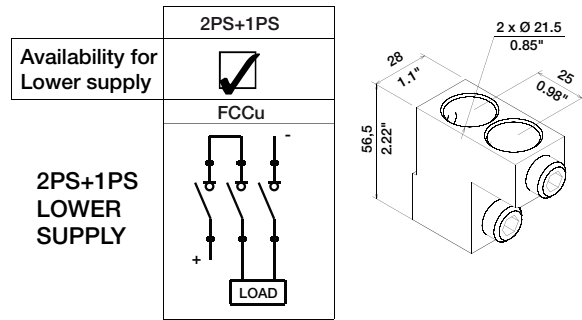
Dimensions T5/PV

According to UL 489B

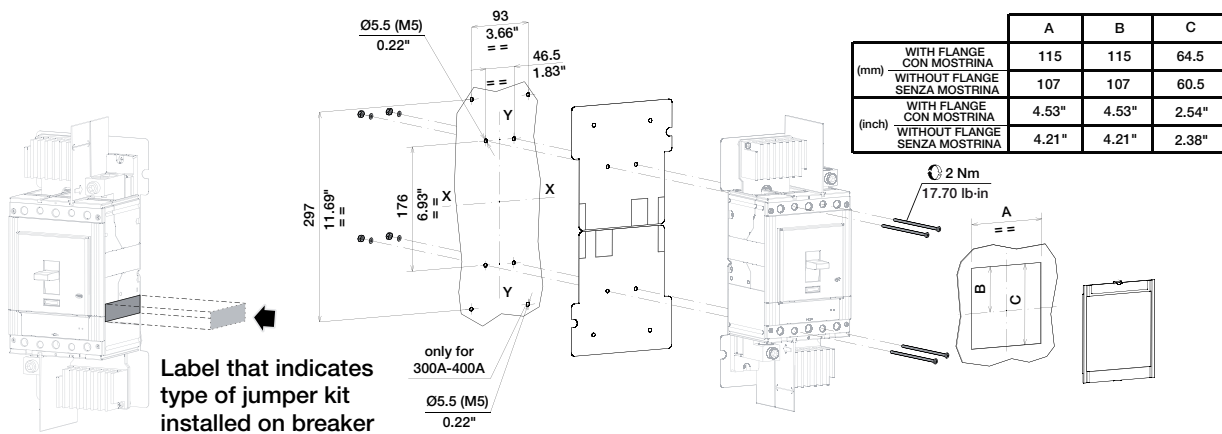
Jumper FCCu Kit T5N/PV UL-A for connection A grounded system wiring 3PS, lower supply 300A-400A



Jumper FCCu Kit T5N/PV UL-B for connection B ungrounded system wiring 2PS+1PS, lower supply 300A-400A

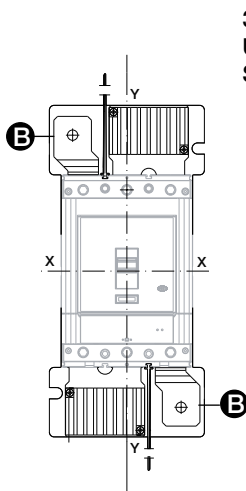
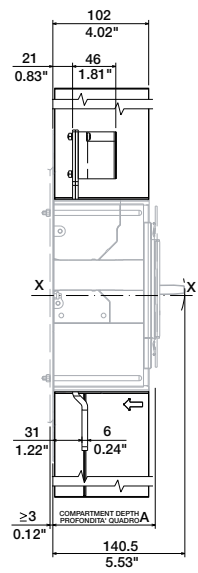
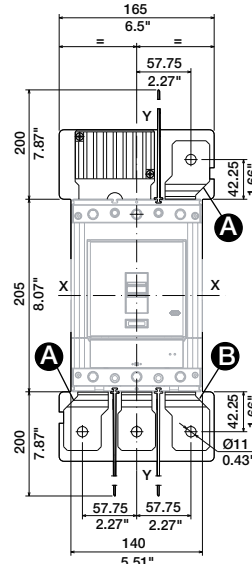
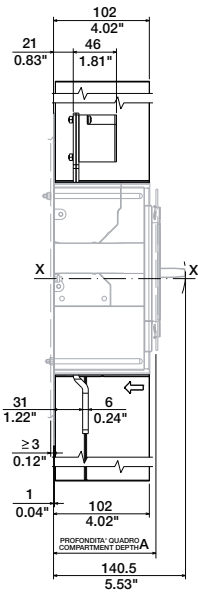
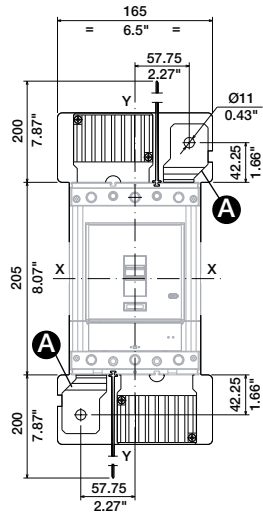
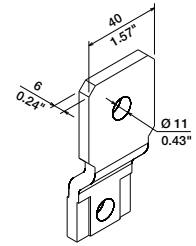
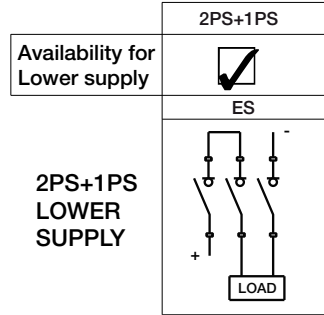
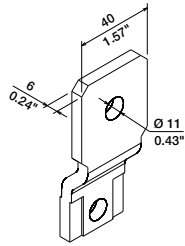
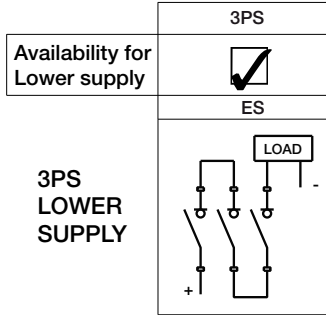


UPPER SUPPLY NOT AVAILABLE

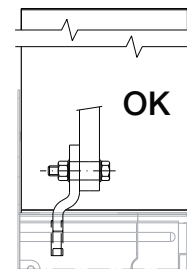
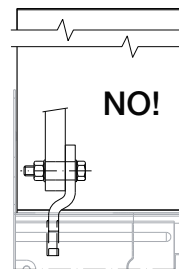
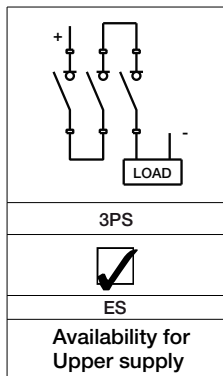


Busbar Jumper ES Kit T5N/PV UL-A for connection A grounded system wiring 3PS, lower supply

Busbar Jumper ES Kit T5N/PV UL-B for connection B ungrounded system wiring 2PS+1PS, lower supply



3PS UPPER SUPPLY

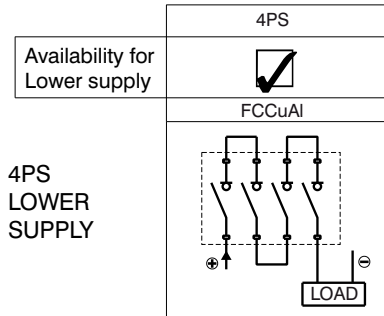


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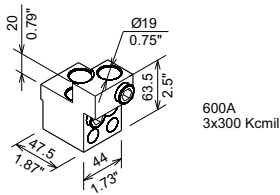
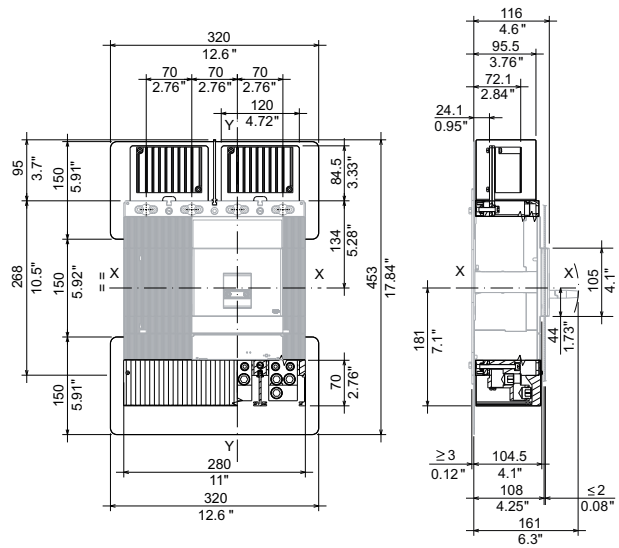
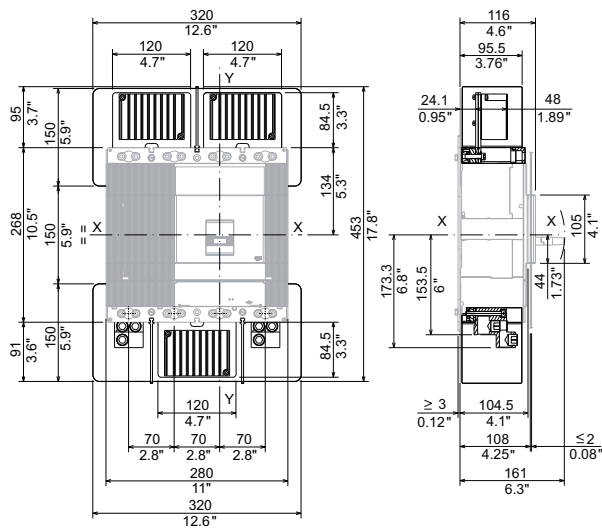
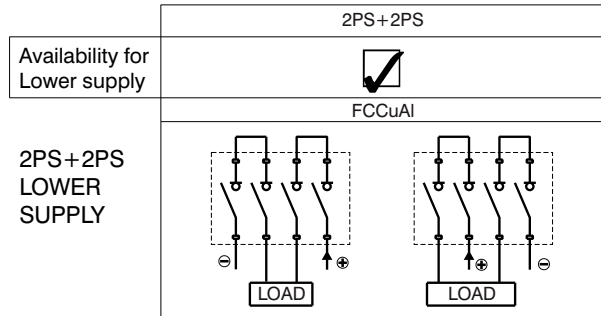
Dimensions T6/PV 600A

According to UL 489B

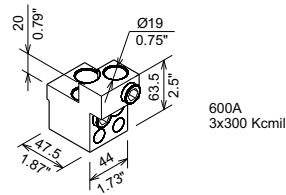
Jumper Kit T6N/PV-A for connection A
grounded system wiring 4PS, lower supply



Jumper Kit T6N/PV-B for connection B
ungrounded system wiring 2PS+2PS, lower supply



UPPER SUPPLY
NOT AVAILABLE



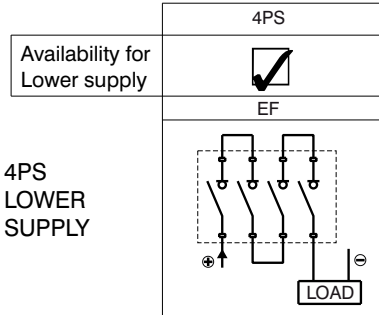
UPPER SUPPLY
NOT AVAILABLE

Dimensions T6/PV 800A

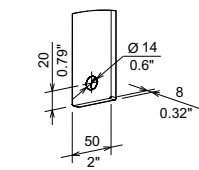
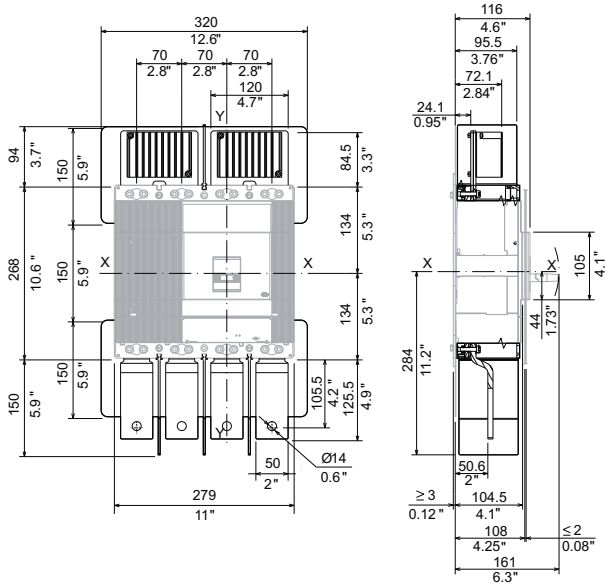
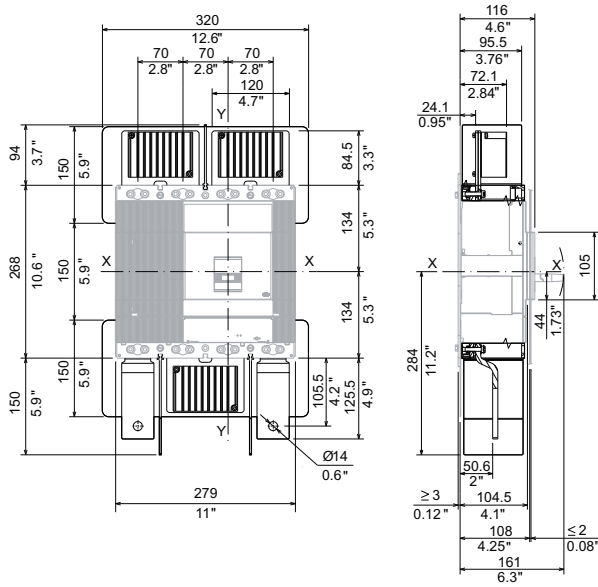
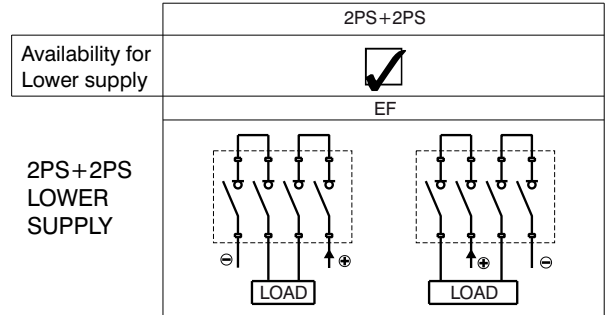


According to UL 489B

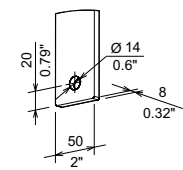
4PS solution, terminals for Lower Supply



2PS+2PS solutions, terminals for Lower Supply



**UPPER SUPPLY
NOT AVAILABLE**

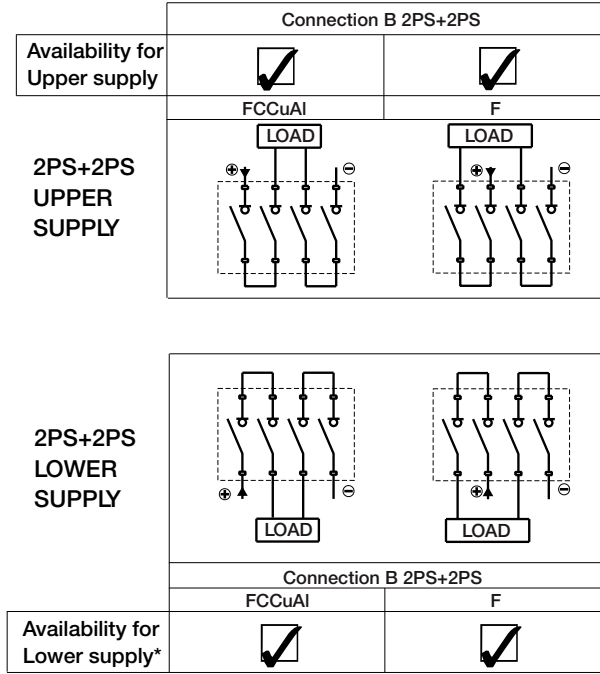
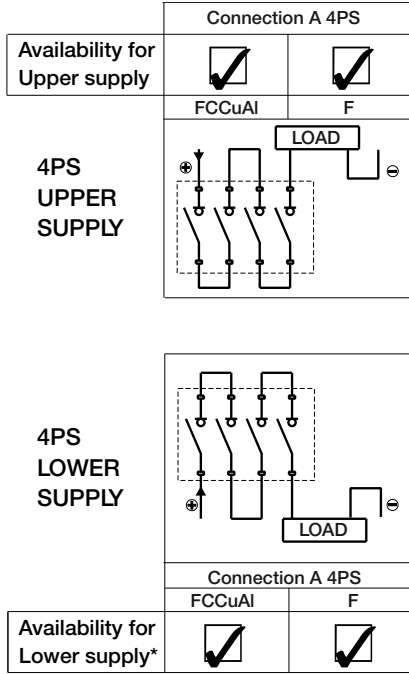


**UPPER SUPPLY
NOT AVAILABLE**

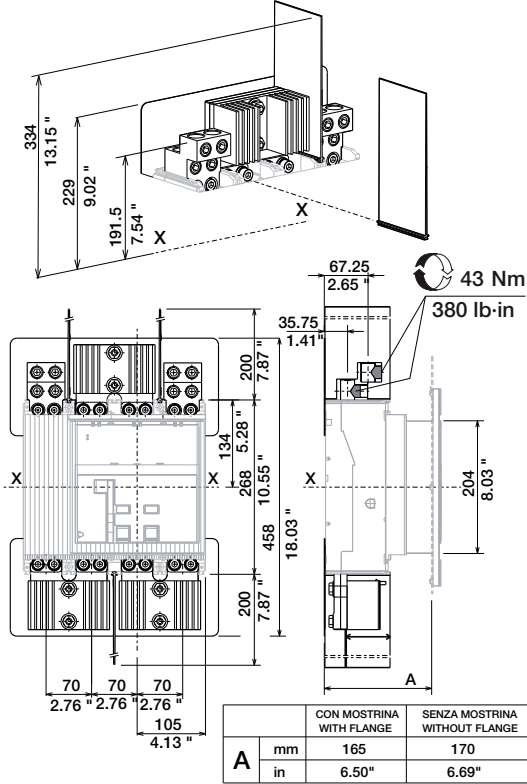
Dimensions

T7/PV

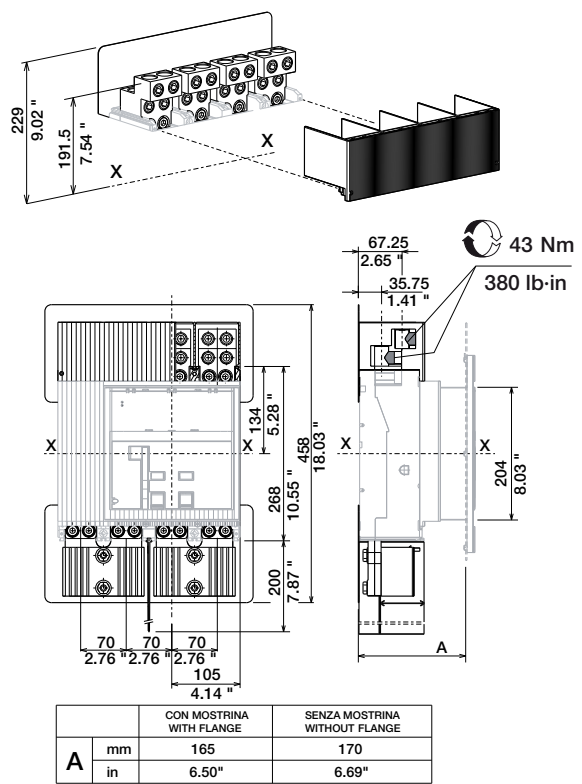
According to UL 489B



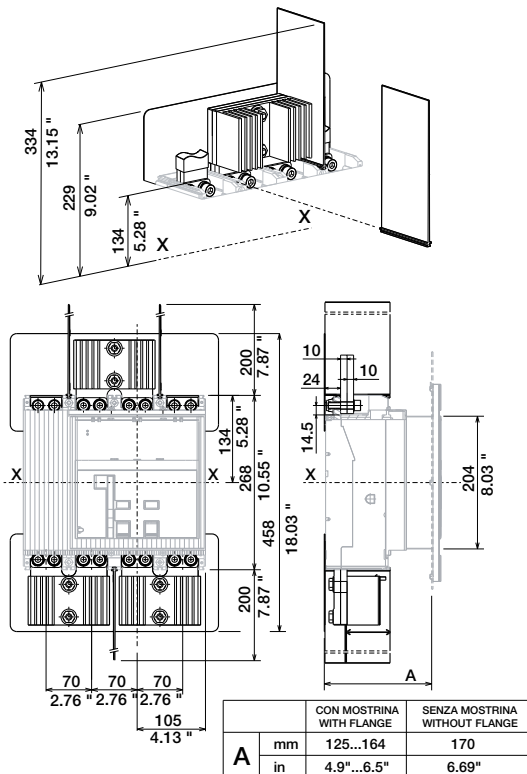
Kit T7N-D/PV-A for connection A grounded system wiring 4PS
FCCuAl - Example for Upper Supply



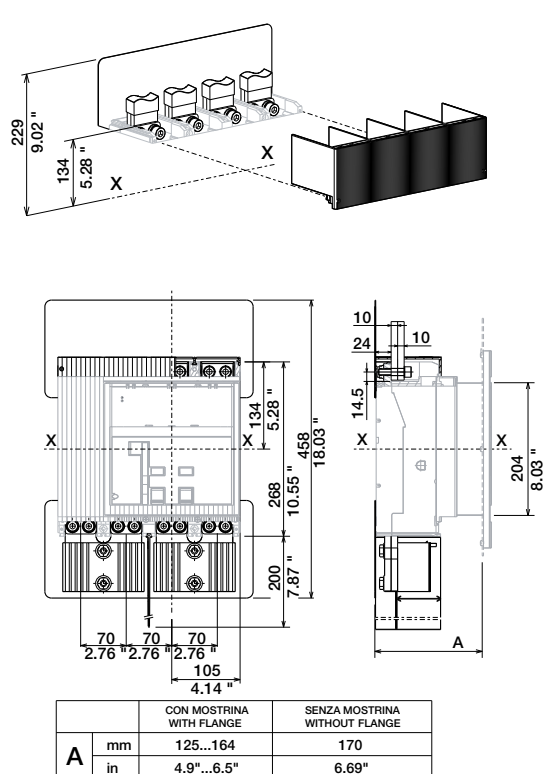
Kit T7N-D/PV-B for connection B ungrounded system wiring 2PS+2PS
FCCuAl - Example for Upper Supply



F - Example for Upper Supply



F - Example for Upper Supply



* LOWER SUPPLY - According to indicated schemes, terminals configurations must be symmetrical respect to x-x CB axis

Tmax PV IEC 1100V & 1500V switch-disconnectors

Breakers

Code	Description
1SDA069816R1	T1D/PV 160 4p F FC Cu 1100V DC
1SDA069822R1	T3D/PV 200 4p F FC Cu 1100V DC
1SDA069823R1	T4D/PV 250 4p F F 1100V DC
1SDA069824R1	T5D/PV 500 4p F F 1100V DC
1SDA069825R1	T6D/PV 800 4p F F 1100V DC
1SDA069826R1	T7D/PV 1250 4p F F 1100V DC
1SDA069827R1	T7D/PV 1250 4p F F M 1100V DC
1SDA069828R1	T7D/PV 1600 4p F F 1100V DC
1SDA069829R1	T7D/PV 1600 4p F F M 1100V DC
1SDA073559R1	T4D/PV-E 250 4p F F 1500V DC
1SDA076898R1	T5D/PV-E 500 4p FF 1500V DC
1SDA073560R1	T7D/PV-E 1250 4p F F M 1500V DC
1SDA073561R1	T7D/PV-E 1600 4p F F M 1500V DC

Kit Jumpers

Code	Description
1SDA069876R1	KIT 2 JUMPER 2+2PS T1D/PV 160 4p
1SDA069877R1	KIT 3 JUMPER 4PS T1D/PV 160 4p
1SDA076162R1	KIT 2JUMPER U 2+2PS T3D/PV 200
1SDA076163R1	KIT 3JUMPER U 4PS T3D/PV 200
1SDA070454R1	KIT 2JUMPER U 2+2PS T4D/PV 250
1SDA070455R1	KIT 3JUMPER U 4PS T4D/PV 250
1SDA070456R1	KIT 2JUMPER U 2+2PS T5D/PV 500
1SDA070457R1	KIT 3JUMPER U 4PS T5D/PV 500
1SDA076899R1	KIT 2JUMPER U 2+2PS T5D/PV-E 500 1500V DC
1SDA070491R1	KIT 2JUMPER U 2+2PS T6D/PV 800
1SDA070492R1	KIT 3JUMPER U 4PS T6D/PV 800
1SDA070429R1	KIT JUMPER U 2+2PS T7D/PV 1250
1SDA070431R1	KIT JUMPER U 2+2PS T7D/PV 1600
1SDA070430R1	KIT JUMPER U 4PS T7D/PV 1250
1SDA070432R1	KIT JUMPER U 4PS T7D/PV 1600

Tmax PV can be accessoried with Tmax series accessories, except for the following exceptions:

Frame size	Incompatibilities
T1D PV	Interlocks, KLC, PLL
T3D PV	Interlocks, KLC, PLL
T4D PV	Interlocks
T5D PV	Interlocks
T6D PV	Interlocks
T7D PV	Interlocks
T7D PV M	Interlocks

Accessories part number, wirings and data can be found in the Tmax IEC Technical Catalogue and Tmax UL489 Technical Catalogue.



Tmax PV UL489B 1000V switch-disconnectors & automatic circuit-breakers

Breakers

Code	Description
1SDA070004R1	T1N-D/PV 100 MCS UL 4p F FC Cu 1000V DC
1SDA070460R1	T4N-D/PV 200 MCS UL 3p F F 1000V DC
1SDA070461R1	T4N/PV 200 UL TMD 40 3p F F 1000V DC
1SDA070462R1	T4N/PV 200 UL TMD 50 3p F F 1000V DC
1SDA070463R1	T4N/PV 200 UL TMA 80-800 3p F F 1000V DC
1SDA070467R1	T4N/PV 200 UL TMA 100-1000 3p FF 1000V DC
1SDA070468R1	T4N/PV 200 UL TMA 125-1250 3p FF 1000V DC
1SDA070469R1	T4N/PV 200 UL TMA 150-1500 3p FF 1000V DC
1SDA070470R1	T4N/PV 200 UL TMA 200-2000 3p FF 1000V DC
1SDA079819R1	T5N/PV 250 UL TMD 1500-3000 3p FF 1000V DC
1SDA079820R1	T5N/PV 225 UL TMD 1500-3000 3p FF 1000V DC
1SDA079818R1	T5N/PV 300 UL TMD 1500-3000 3p FF 1000V DC
1SDA070472R1	T5N/PV 400 UL TMA 400-4000 3p FF 1000V DC
1SDA070471R1	T5N-D/PV 400 MCS UL 3p F 1000V DC
1SDA070493R1	T6N-D/PV 600 MCS UL 4p F F 1000V DC
1SDA070494R1	T6N-D/PV 800 MCS UL 4p F F 1000V DC
1SDA070495R1	T6N/PV 800 UL TMA 600-6000 4p FF 1000V DC
1SDA070496R1	T6N/PV 800 UL TMA 800-8000 4p FF 1000V DC
1SDA070448R1	T7N-D/PV 1000 MCS UL 4p F F M 1000V DC

Kit Jumpers

Code	Description
1SDA070424R1	KIT 2 JUMPER 2+2PS T1N-D/PV-B 100 UL 4p
1SDA070425R1	KIT 3 JUMPER 4PS T1N-D/PV-A 100 UL 4p
1SDA070483R1	KIT 1 JUMPER 2+1PS T4N/PV-B 100A UL 3p
1SDA070484R1	KIT 1 JUMPER 2+1PS T4 PV-B 200A UL 3p
1SDA070485R1	KIT 2 JUMPER 3PS T4N/PV-A 100A UL 3p
1SDA070486R1	KIT 2 JUMPER 3PS T4 PV-A 200A UL 3p
1SDA070487R1	KIT 1 JUMPER 2+1PS T5 PV-B 400 UL 3p cables
1SDA070488R1	KIT 2 JUMPER 3PS T5 PV-A 400 UL 3p cables
1SDA074504R1	KIT 1 JUMPER 2+1PS T5 PV-B 400 UL 3p busbars
1SDA074505R1	KIT 2 JUMPER 3PS T5 PV-A 400 UL 3p busbars
1SDA079821R1	KIT 1 JUMPER 2+1PS T5 PV-B 225 UL 3p
1SDA079823R1	KIT 1 JUMPER 2+1PS T5 PV-B 250 UL 3p
1SDA079824R1	KIT 2 JUMPER 3PS T5 PV-A 225 UL 3p
1SDA079825R1	KIT 2 JUMPER 3PS T5 PV-A 250 UL 3p
1SDA070499R1	KIT 2 JUMPER 2+2PS T6 PV-B 600 UL 4p
1SDA070500R1	KIT 3 JUMPER 4PS T6 PV-A 600 UL 4p
1SDA070501R1	KIT 2 JUMPER 2+2PS T6 PV-B 800 UL 4p
1SDA070502R1	KIT 3 JUMPER 4PS T6 PV-A 800 UL 4p
1SDA070451R1	KIT 2 JUMPER 2+2PS T7N-D/PV-B 1000 UL 4p cables
1SDA070452R1	KIT 3 JUMPER U 4PS T7N-D/PV-A 1000 UL 4p cables
1SDA081762R1	KIT 2 JUMPER 2+2PS T7N-D/PV-B 1000 UL 4p busbars
1SDA081763R1	KIT 3 JUMPER U 4PS T7N-D/PV-A 1000 UL 4p busbars

Tmax PV can be accessoried with Tmax series accessories, except for the following exceptions:

Frame size	Incompatibilities
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T3D PV	Interlocks, KLC, PLL
T4D PV	Interlocks
T5D PV	Interlocks
T6D PV	Interlocks
T7D PV	Interlocks
T7D PV M	Interlocks

Accessories part number, wirings and data can be found in the Tmax IEC Technical Catalogue and Tmax UL489 Technical Catalogue.

Contact us

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