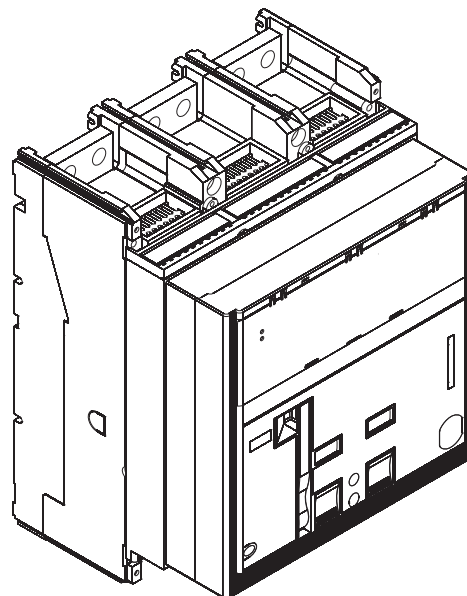
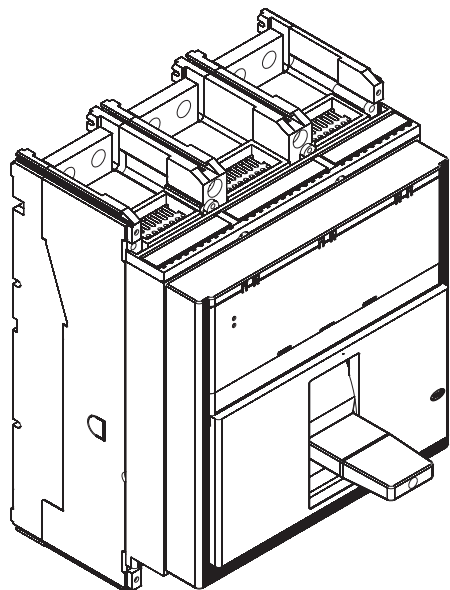


Tmax T7-T7M

DOC. N.° 1SDH000606R0001

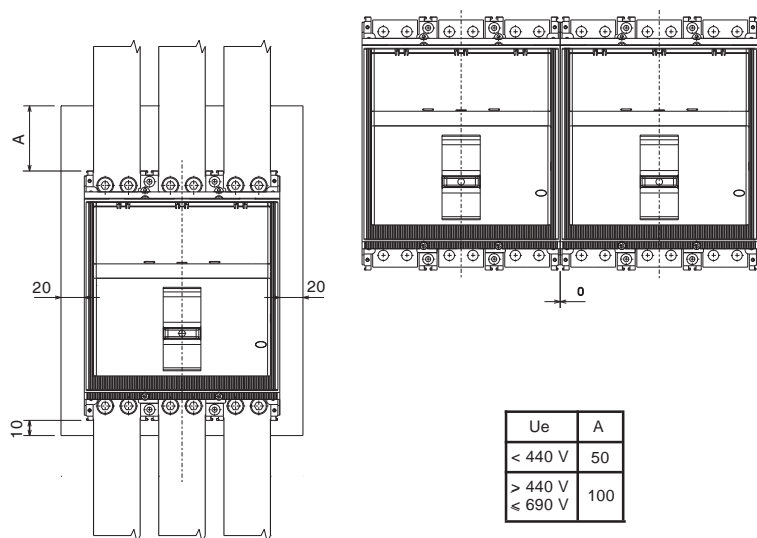
L4765



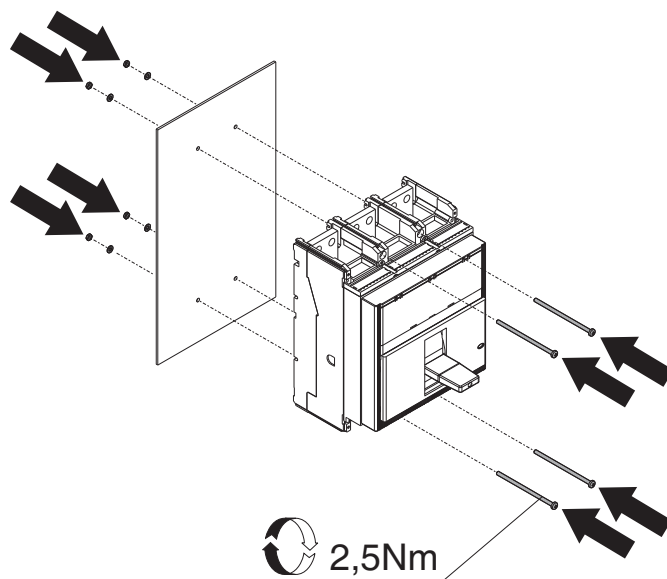
1÷5

Installation directions

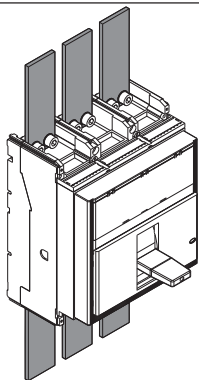
1



2



3



Usare cavi o barre isolate/o eseguire prove di tipo specifiche sull' installazione.

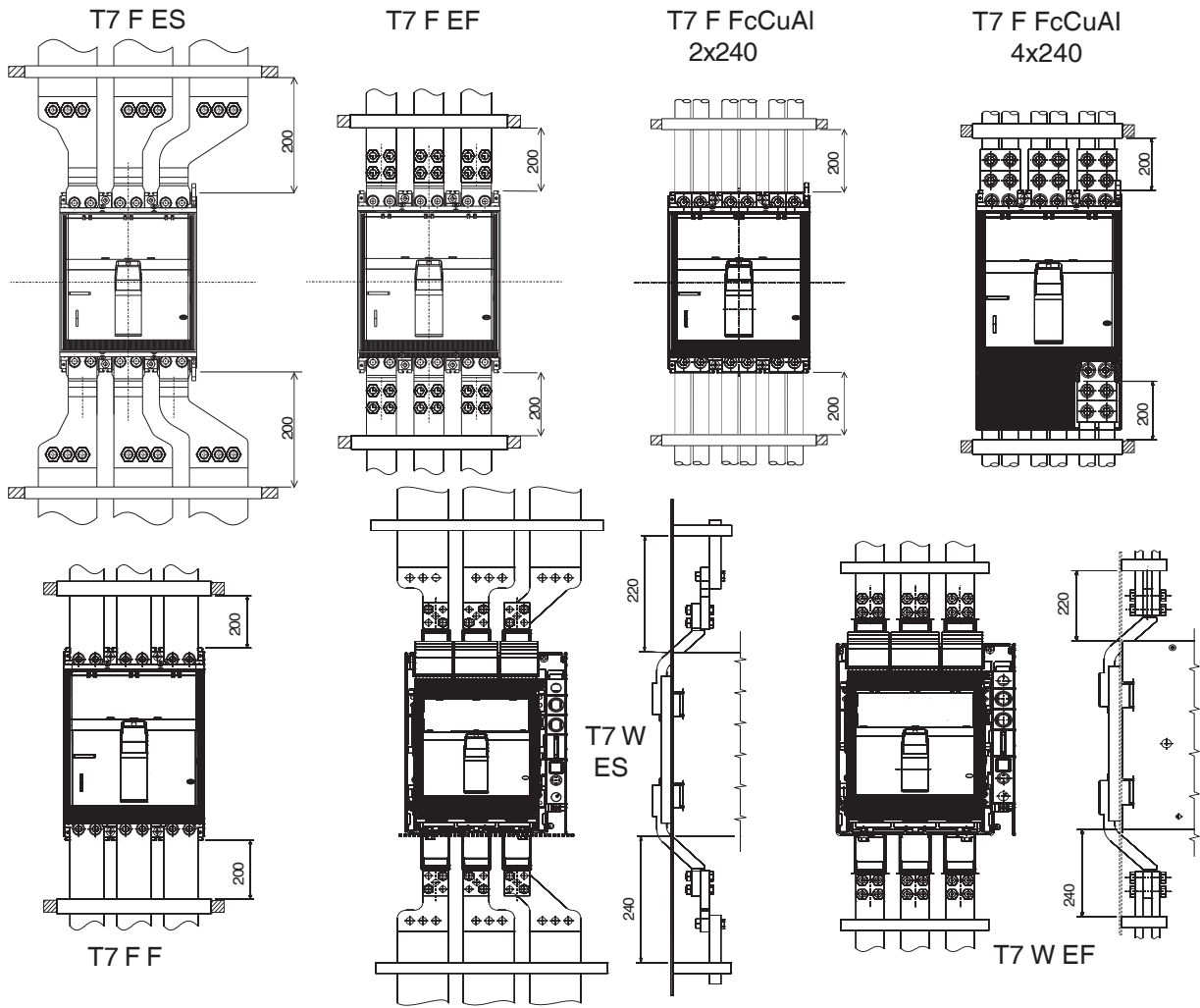
Use cable or insulated busbars/or perform specific type test on the installation.

Kabel oder isolierte Sammelschienen verwenden /oder die spezifische Typprüfung auf der Installation durchführen.

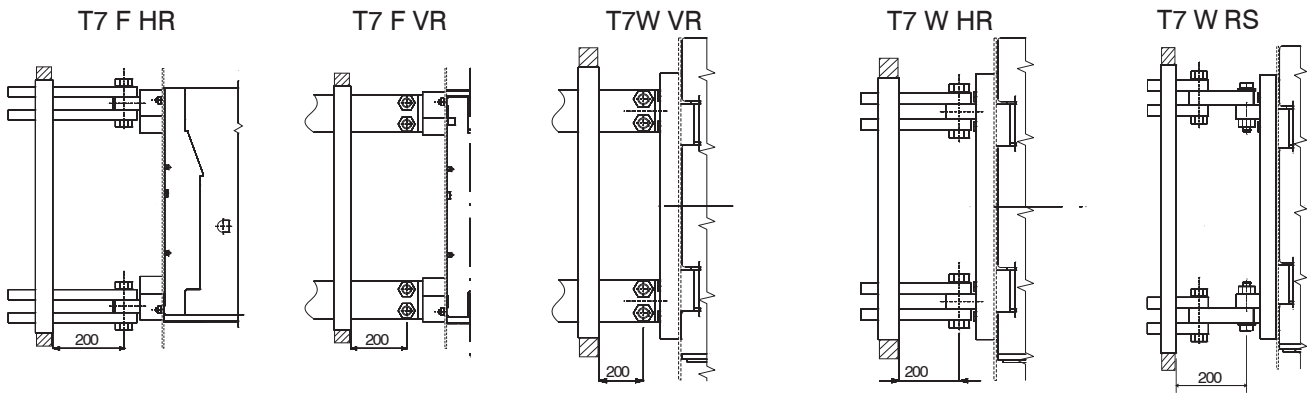
Utiliser un câble ou des barres isolées/ou réaliser un test de type spécifique sur installation.

Utilizar un cable o barras aisladas /o efectuar una prueba de tipo específico sobre instalación

4



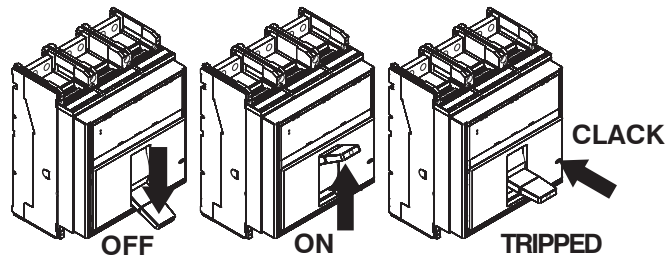
5



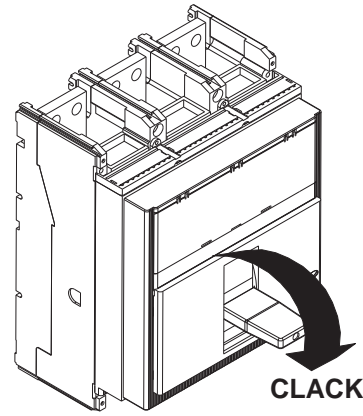
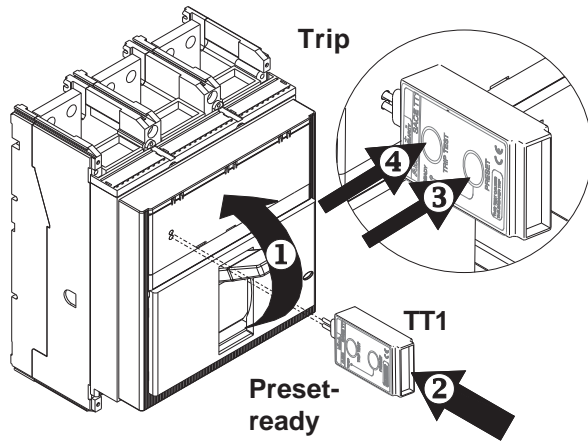
6÷9

Operating sequences and resetting due to tripping of release

6



7



Trip test
Trip test
Auslöseprüfung
Test de déclenchement
Test de disparo

T7
PR231
PR232

8

		SEQUENZA DI MANOVRA OPERATING SEQUENCE SCHALTSEQUENZ SÉQUENCE DE MANŒUVRES SECUENCIA DE MANIOBRA	T7M
BIANCO WHITE WEISS BLANC BLANCO		APERTO OPEN AUS-STELLUNG OUVERT ABIERTO	
			Carica molle Spring loading Federn spannen Réarmement resorts Carga resortes
GIALLO YELLOW GELB JAUNE AMARILLO			Molle cariche Springs loaded Federn gespannt Ressorts armés Resortes cargados
		CHIUSURA CLOSING EINSCHALTEN FERMETURE CIERRE	Chiusura interruttore Circuit breaker closing Leistungsschalter einschalten Fermeture disjoncteur Cierre interruptor
BIANCO WHITE WEISS BLANC BLANCO		CHIUSO CLOSED EINGESCHALTET FERMÉ CERRADO	Interruttore chiuso, molle scariche Circuit breaker closed, springs unloaded Leistungsschalter geschlossen, Federn entspannt Disjoncteur fermé, ressorts désarmés Interruptor cerrado, resortes descargados
APERTURA OPENING AUSSCHALTEN OUVERTURE APERTURA			Apertura interruttore Circuit breaker opening Ausschaltung Leistungsschalter Ouverture disjoncteur Apertura interruptor
		APERTO OPEN AUS-STELLUNG OUVERT ABIERTO	Interruttore aperto, molle scariche Circuit breaker open, springs unloaded Leistungsschalter ausgeschaltet, Federn entspannt Disjoncteur ouvert, ressorts désarmés Interruptor abierto, resortes descargados

9

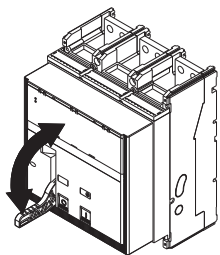
BIANCO
WHITE
WEISS
BANC
BLANC



APERTO
OPEN
AUS-STELLUNG
OUVERT
ABIERTO

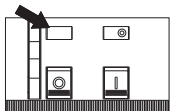
RIPRISTINO PER INTERVENTO SGANCIATORE
RESETTING DUE TO TRIPPING OF RELEASE
RÜCKSETZUNG WEGEN AUSLÖSUNG DES AUSLÖSERS
RÉTABLISSEMENT APRÈS DÉCLENCHEMENT DU DÉCLENCHÉUR
RESTABLECIMIENTO POR ACTUACIÓN DEL RELÉ

T7M



Carica molle
Spring loading
Federn spannen
Réarmement resorts
Carga resortes

GIALLO
YELLOW
GELB
JAUNE
AMARILLO



Molle cariche
Springs loaded
Federn gespannt
Ressorts armés
Resortes cargados



CHIUSURA
CLOSING
EINSCHALTEN
FERMETURE
CIERRE

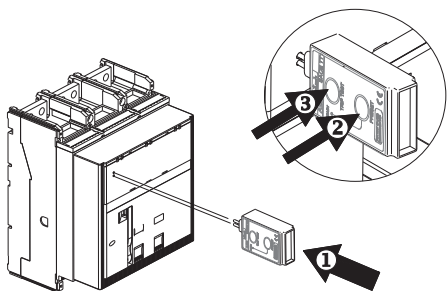
Chiusura interruttore
Circuit breaker closing
Leistungsschalter einschalten
Fermeture disjoncteur
Cierre interruptor

BIANCO
WHITE
WEISS
BANC
BLANC



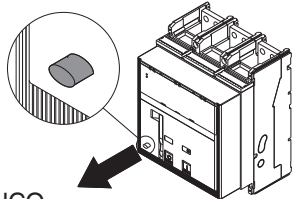
CHIUSO
CLOSED
EINGESCHALTET
FERMÉ
CERRADO

Interruttore chiuso, molle scariche
Circuit breaker closed, springs unloaded
Leistungsschalter geschlossen, Federn entspannt
Disjoncteur fermé, ressorts désarmés
Interruptor cerrado, resortes descargados



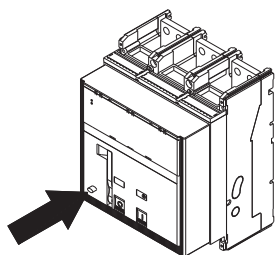
Inserire unità di test ed eseguire come in figura, premendo i pulsanti 2 e 3 in sequenza.
Connect test unit and perform as shown in the figure by pressing keys 2 and 3 in sequence.
Das Prüfgerät einstecken und die Prüfung wie in der Abbildung gezeigt ausführen. Hierzu nacheinander die Tasten 2 und 3 drücken.
Brancher l'unité de test et agir comme indiqué sur la figure, en appuyant sur les boutons 2 et 3 en sequence.
Insertar la unidad de prueba y seguir los pasos que se muestran en la figura, pulsando los botones 2 y 3 en secuencia.

BIANCO
WHITE
WEISS
BANC
BLANC

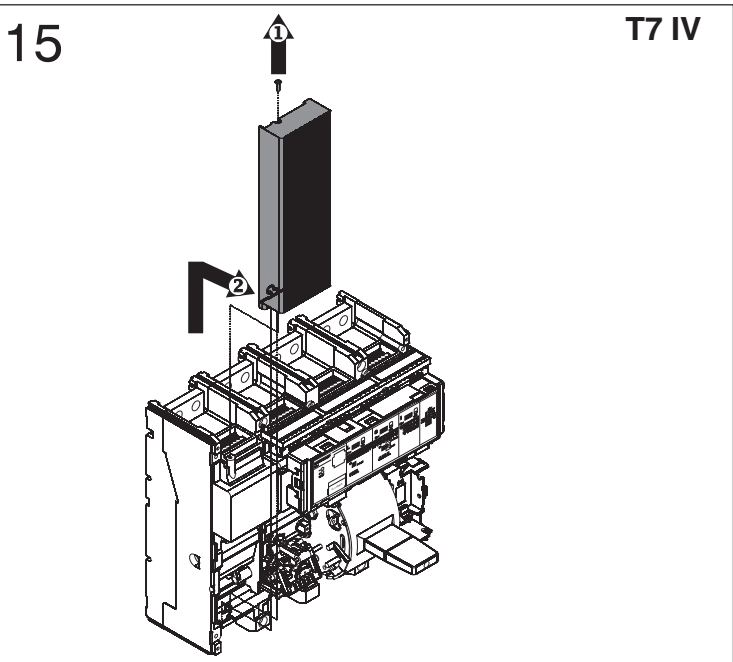
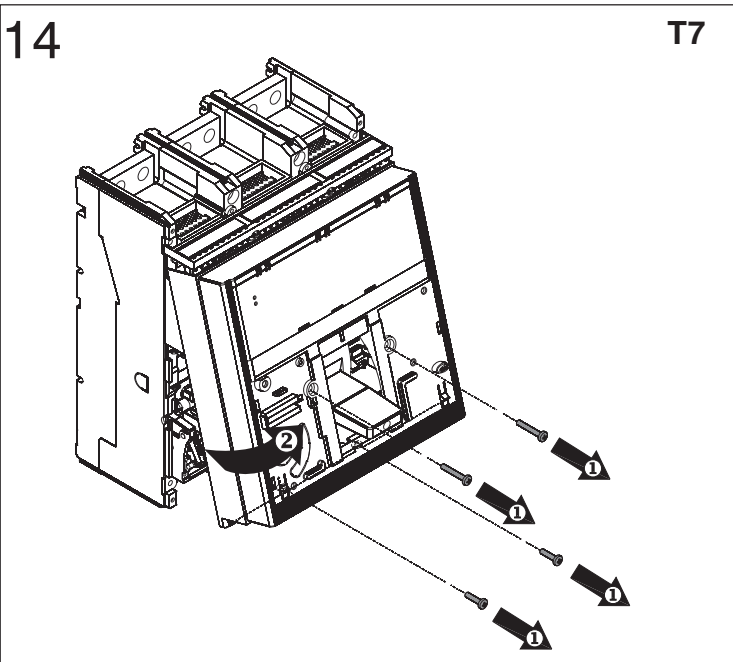
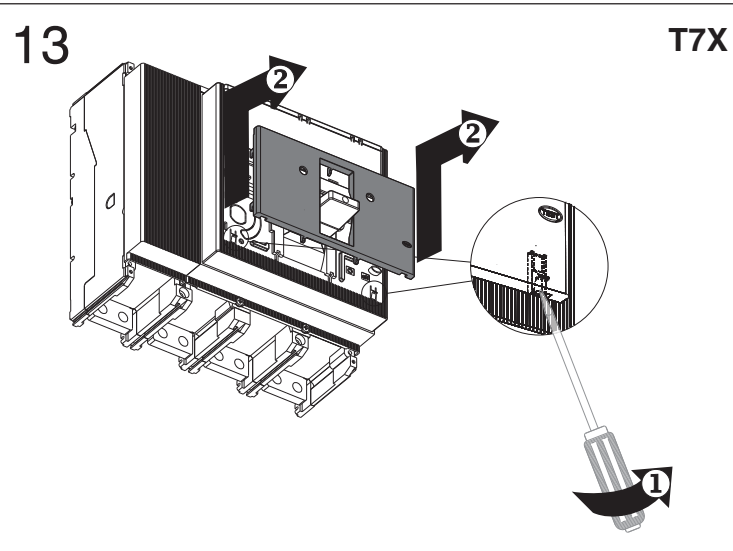
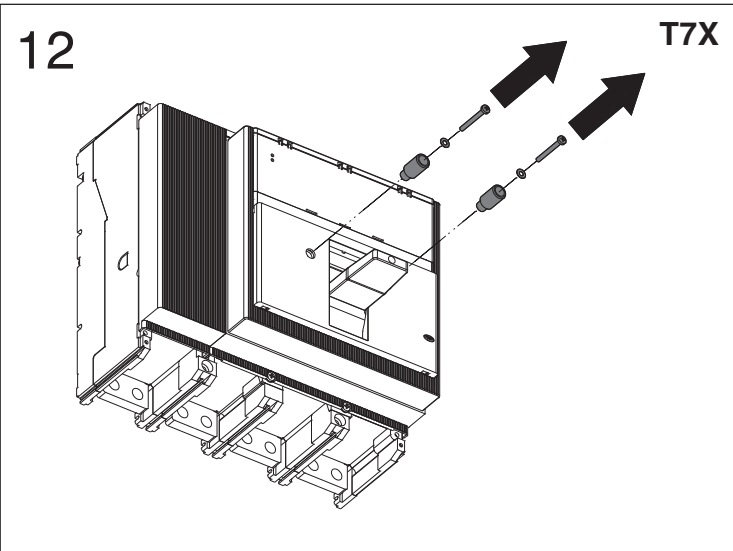
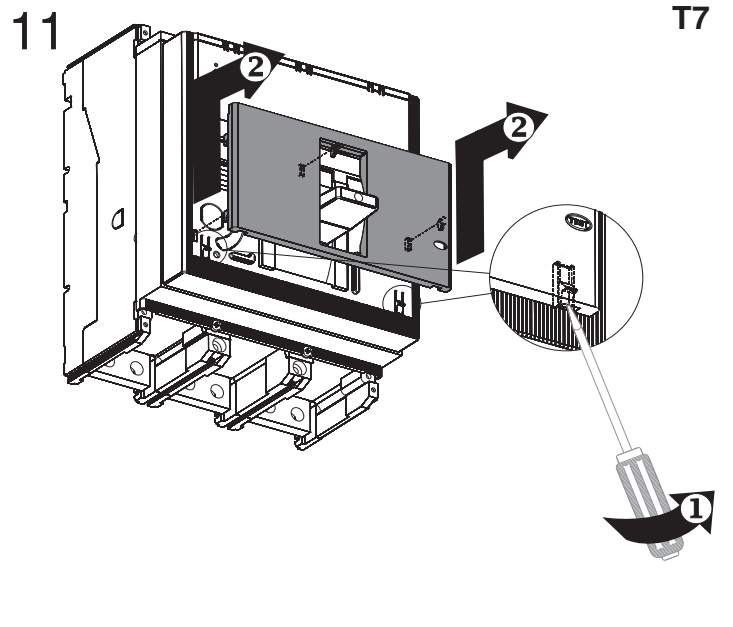
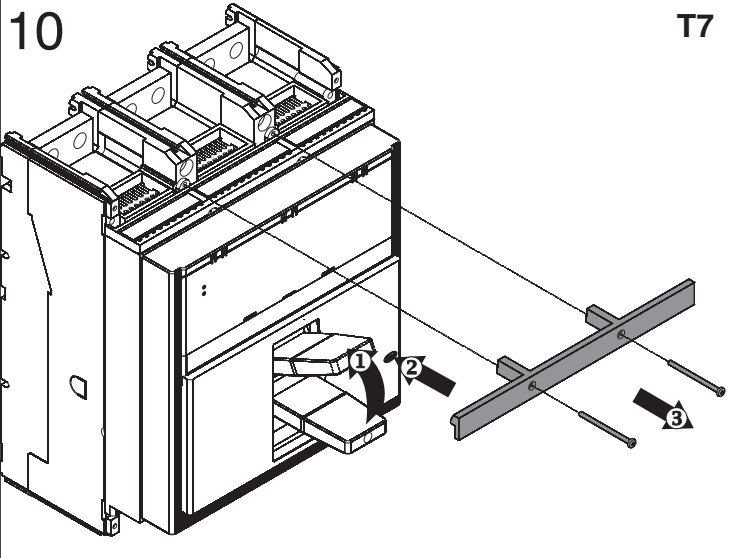


APERTO
OPEN
AUS-STELLUNG
OUVERT
ABIERTO

Quando avviene lo sgancio fuoriesce come indicato l'indicazione meccanica di trip.
When tripping takes place, the mechanical trip indicator comes out.
Wenn die Auslösung erfolgt, tritt wie gezeigt die mechanische Auslösungsanzeige aus.
Comme illustré, quand le déclenchement se produit, on a la sortie de l'indicateur mécanique.
Cuando se cumple el desenganche, sale -tal y como se muestra en la indicación mecánica de disparo.

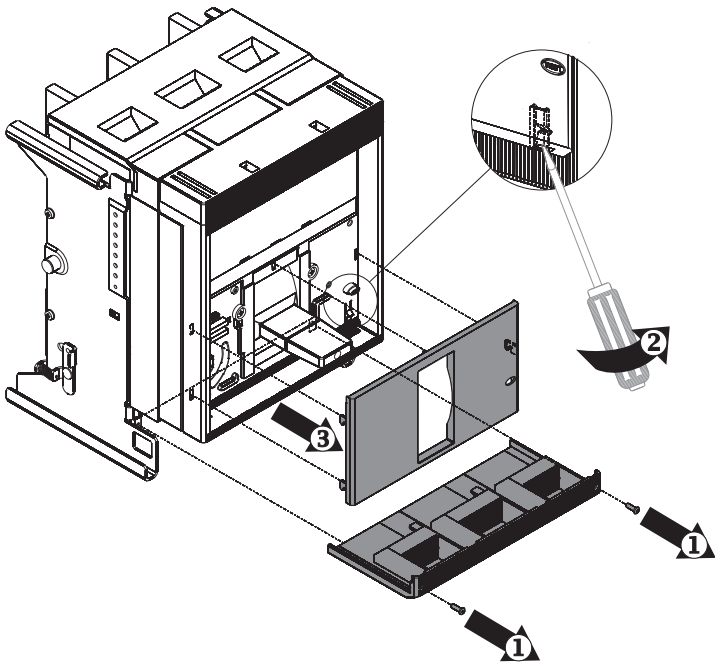


Per ricominciare la sequenza reinserire manualmente l'indicatore.
To restart the sequence, the indicator should be re-introduced by hand.
Für den erneuten Beginn der Sequenz die Anzeige von Hand wieder hineindrücken.
Pour recommencer la séquence, enfoncer de nouveau manuellement l'indicateur.
Para reiniciar la secuencia, reinsertar manualmente el indicador.



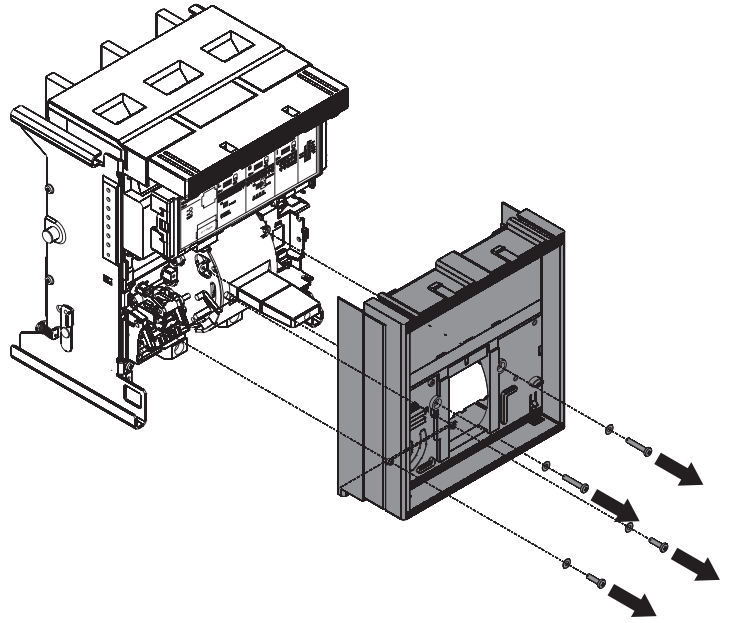
16

T7/W



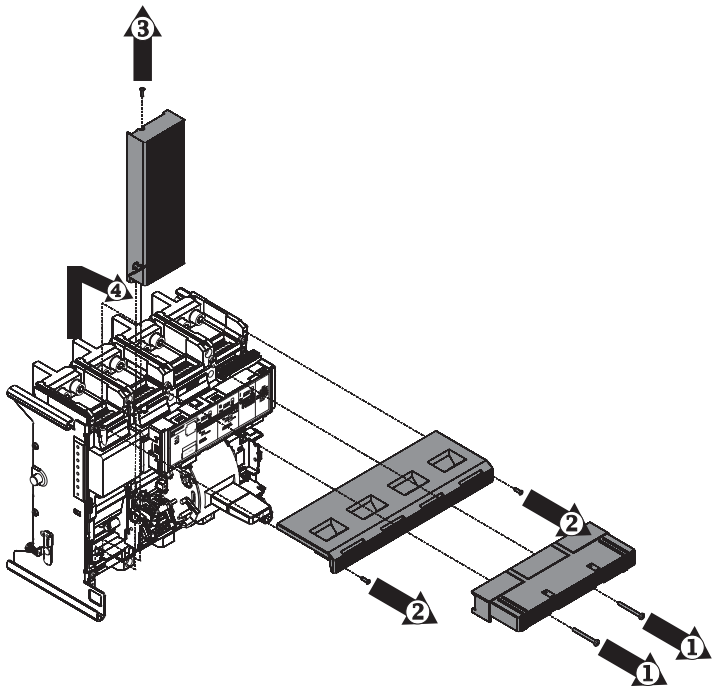
17

T7/W



18

T7 IV/W

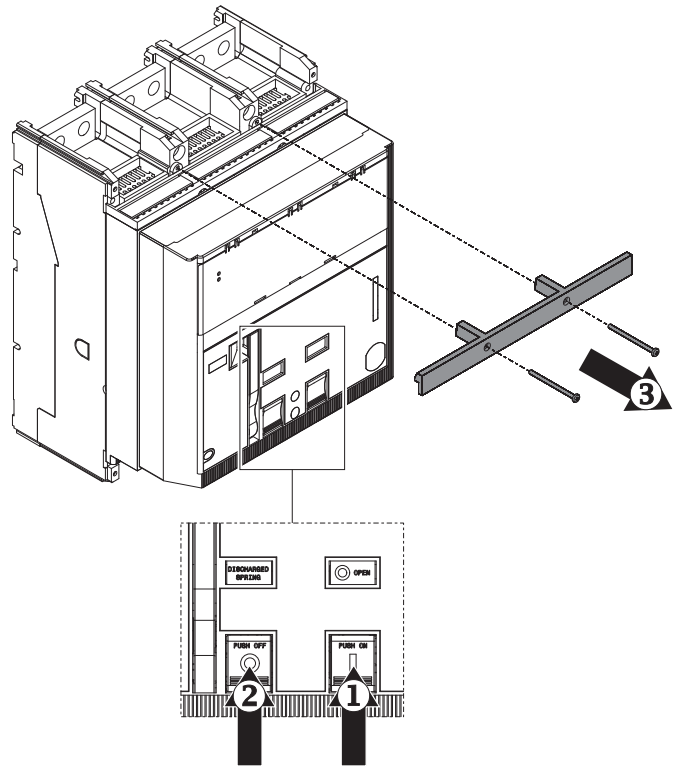


19:24

Disassembly sequence to install internal accessories T7M

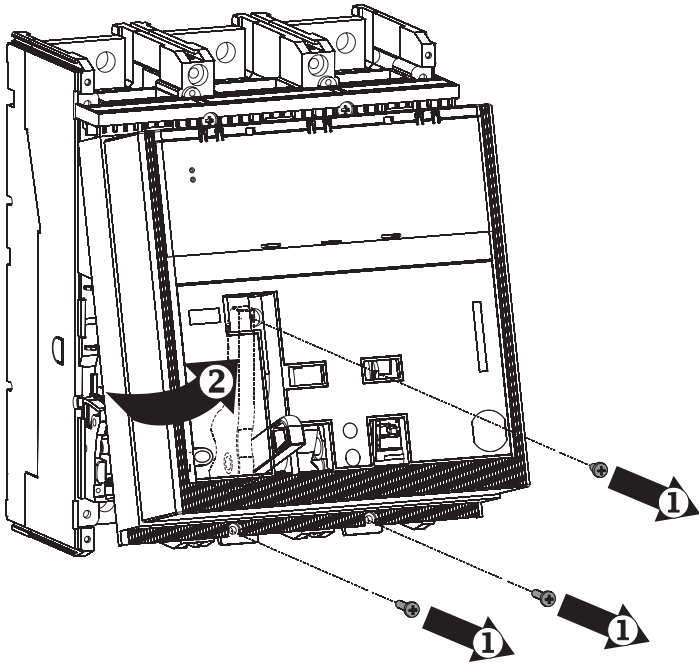
19

T7M



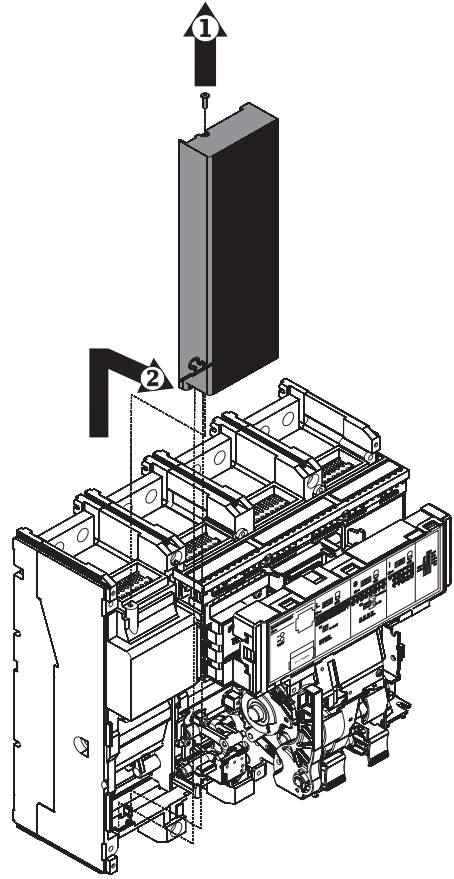
20

T7M



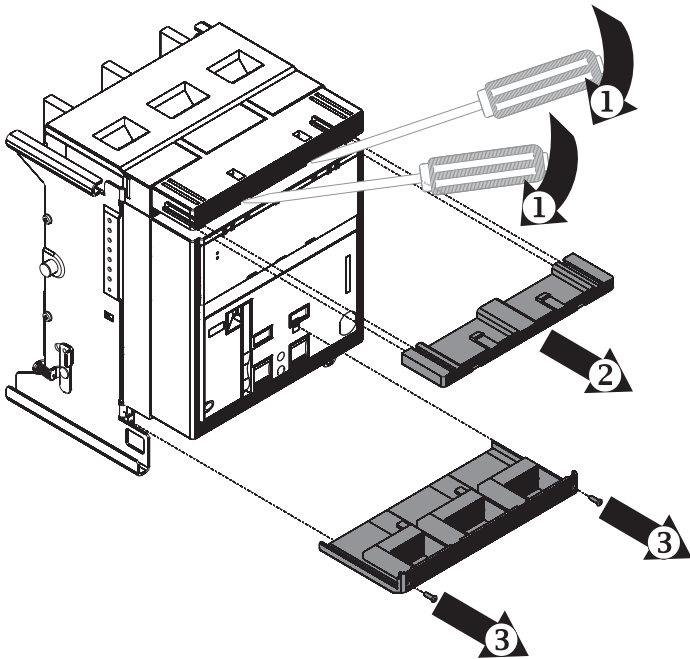
21

T7M IV



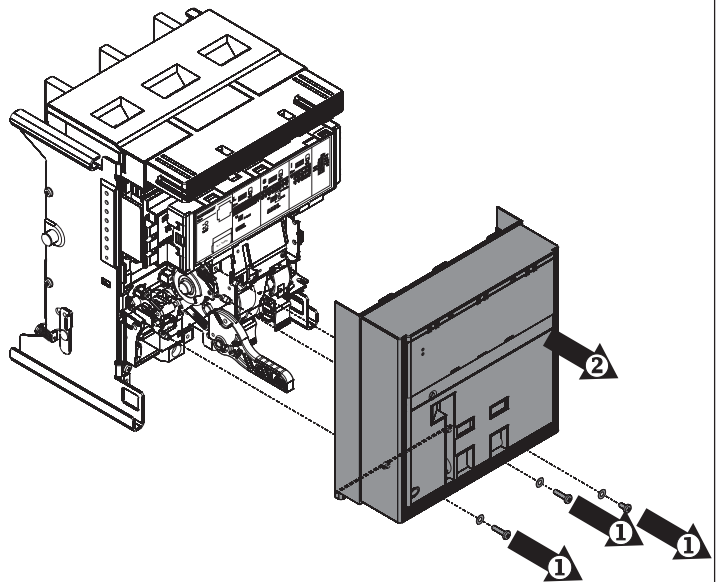
22

T7M/W



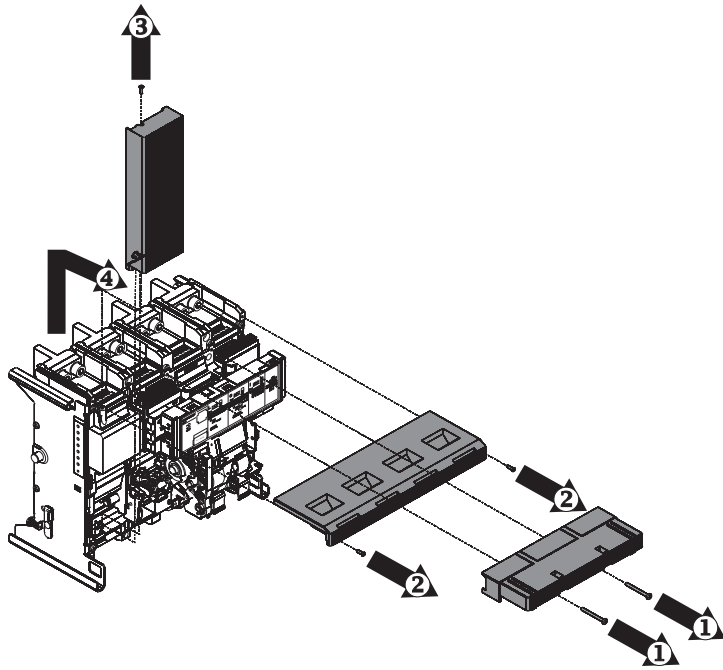
23

T7M/W



24

T7M IV/W



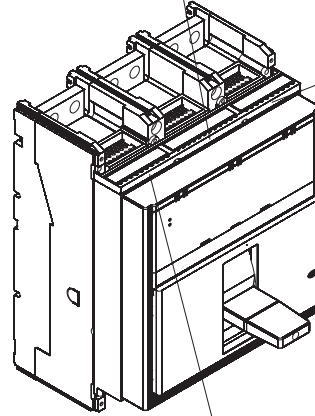
25-32

Connection to auxiliary circuits

25

T7

D1	C1	C13	C12	42	11	12	22	31	32		
D2	C2	C3	C11	44	41	14	24	21	34		
T9	T7	T6	W4	98S	W2	K15	K13	K21	K2	T3	T4
T10	T8	T5	W3	95S	W1	K14	K12	K11	K1	T2	T1



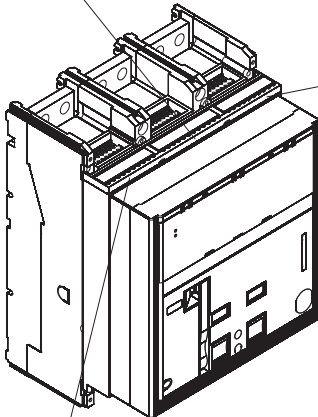
77	67	57	98						
78	68	58	95	96					

26

T7M

D1	C1	C13	C12	42	11	12	22	31	32
D2	C2	C3	C11	44	41	14	24	21	34

T9	T7	T6	W4	98S	W2	K15	K13	K21	K2	T3	T4
T10	T8	T5	W3	95S	W1	K14	K12	K11	K1	T2	T1



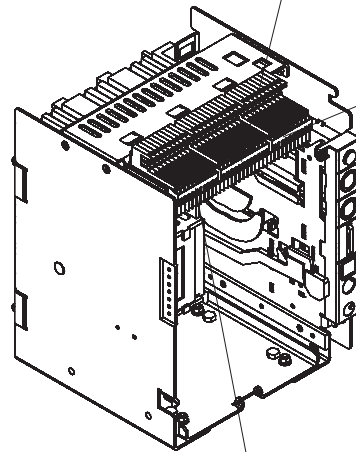
U1	38		98		R1	48			
U2	36	35	95	96	R2	46	45		

25

T7-T7M/W

D1	C1	C13	C12	42	11	12	22	31	32
D2	C2	C3	C11	44	41	14	24	21	34

T9	T7	T6	W4	98S	W2	K15	K13	K21	K2	T3	T4
T10	T8	T5	W3	95S	W1	K14	K12	K11	K1	T2	T1



U1	38		98		R1	48			
U2	36	35	95	96	R2	46	45		

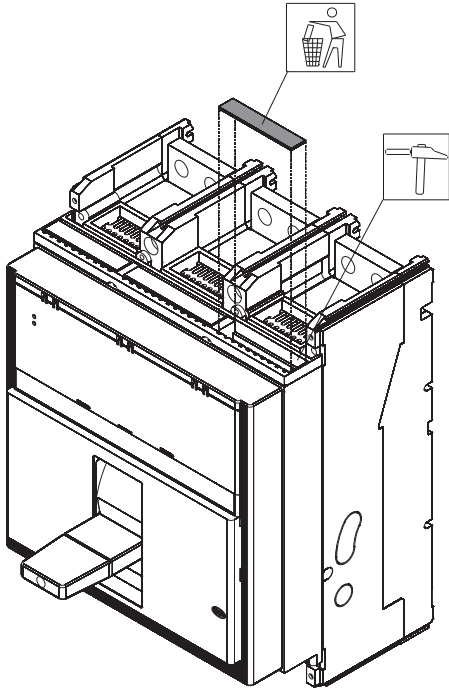
T7M

77	67	57	98						
78	68	58	95	96					

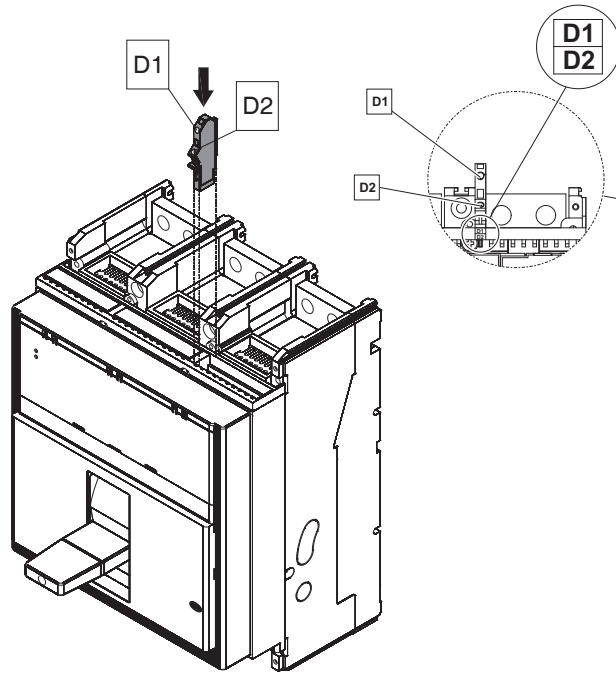
T7

28

T7-T7M

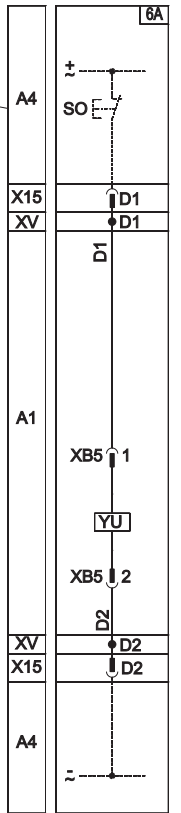


29



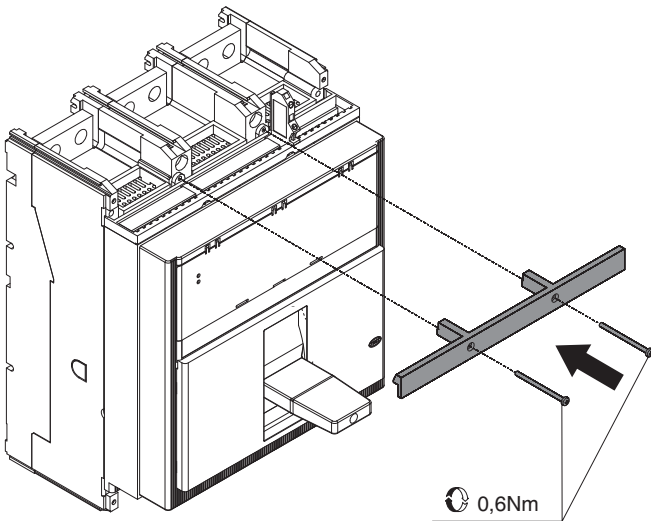
Esempio di cablaggio per interruttore fisso
 Wiring example for fixed circuit breaker
 Verdrahtungsbeispiel für festen Leistungsschalter
 Exemple de câblage pour disjoncteur fixe
 Ejemplo de cableado para interruptor fijo

T7-T7M

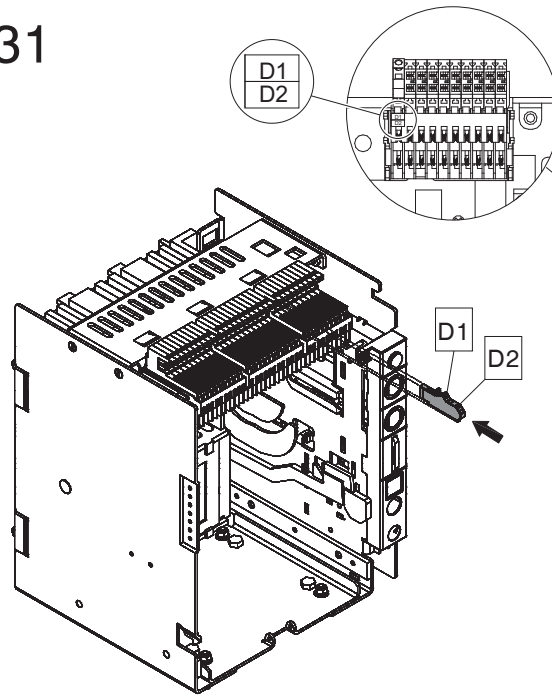


30

T7-T7M

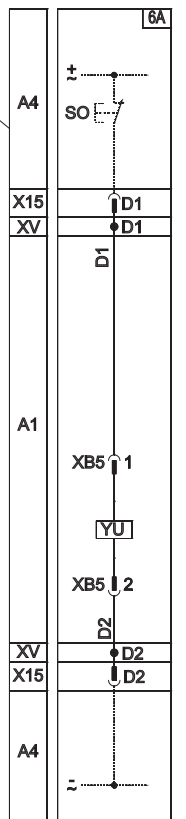


31

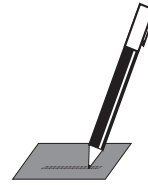
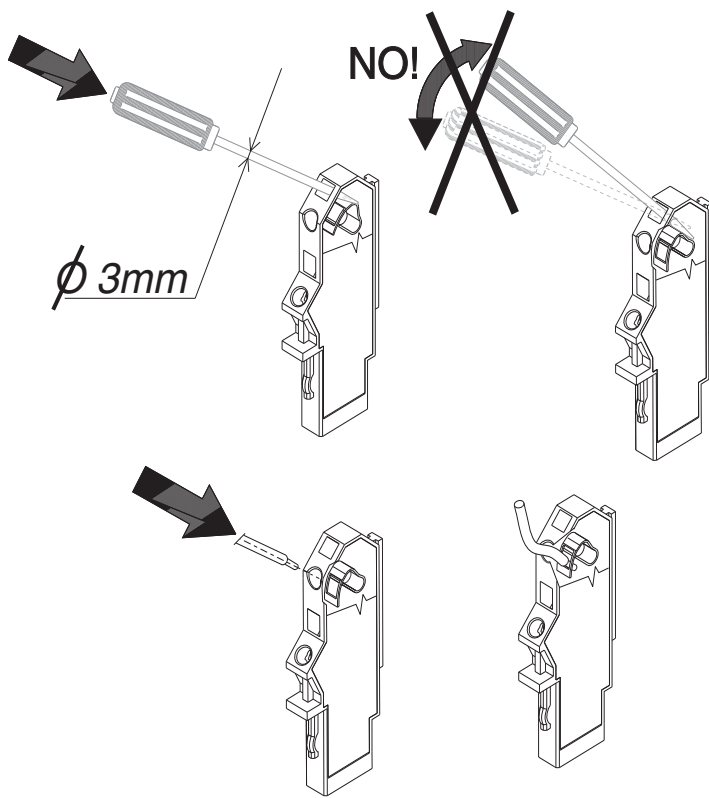


Esempio di cablaggio per parte fissa
 Wiring example for fixed part
 Verdrahtungsbeispiel für Unterteil
 Exemple de câblage pour partie fixe
 Ejemplo de cableado para parte fija

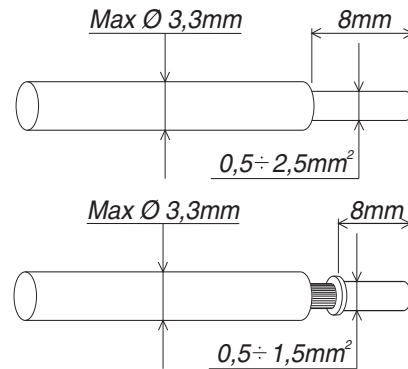
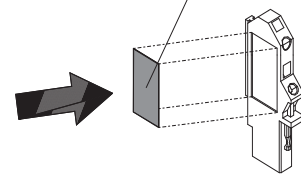
T7-T7M/W



32



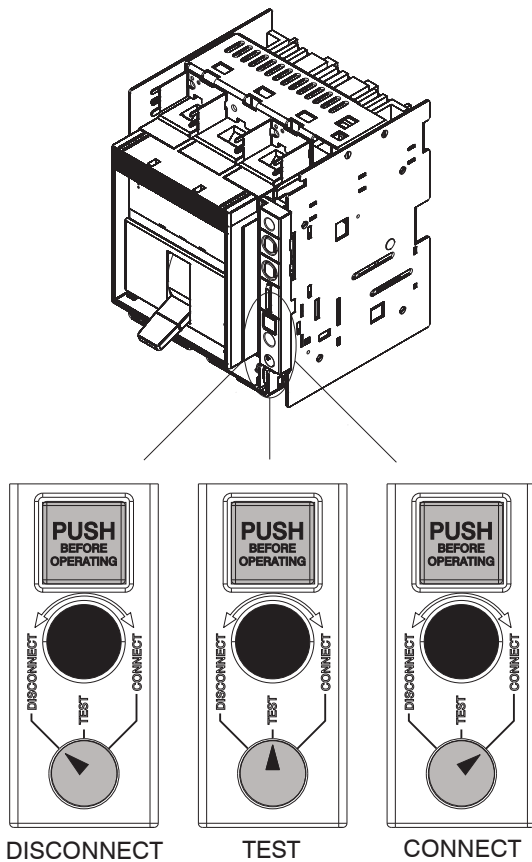
OPZIONALE ! DATI DEI CABLAGGI RIPORTABILI A CURA DEL CLIENTE
 OPTIONAL ! WIRING DATA TO BE GIVEN BY CUSTOMER
 OPTIONAL - DIE DATEN DER VERDRAHTUNG KÖNNEN VOM KUNDEN VERMERKT WERDEN.
 OPTION ! INDICATION DES DONNÉES DES CÂBLAGES À LA CHARGE DU CLIENT
 OPCIONAL ! DATOS DE LOS CABLEADOS REALIZABLES POR CUENTA DEL CLIENTE



33÷44

Connection and disconnection of withdrawable-type CBs

33



L'interruttore si può manovrare soltanto se il pulsante "PUSH BEFORE OPERATE" non è premuto, e cioè soltanto quando l'interruttore è in una di queste tre posizioni.

The circuit breaker can operate only when the "PUSH BEFORE OPERATE" button is not pressed, i.e. only when the CB is set to one of the following three positions.

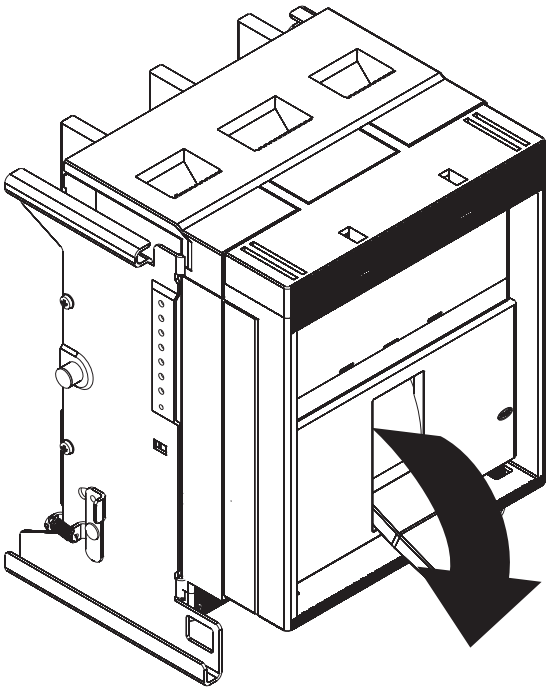
Das Schalten des Leistungsschalters ist nur dann möglich, wenn die Taste "PUSH BEFORE OPERATE" nicht gedrückt ist, d.h. wenn sich der Leistungsschalter in einer dieser drei Stellungen befindet.

Le disjoncteur ne peut être manœuvré que si le bouton "PUSH BEFORE OPERATE" n'est pas enfoncé, c'est-à-dire uniquement quand le disjoncteur est dans l'une de ces trois positions.

El interruptor puede manipularse sólo si el botón "PUSH BEFORE OPERATE" no ha sido pulsado; es decir, sólo cuando el interruptor se encuentra en una de las siguientes tres posiciones.

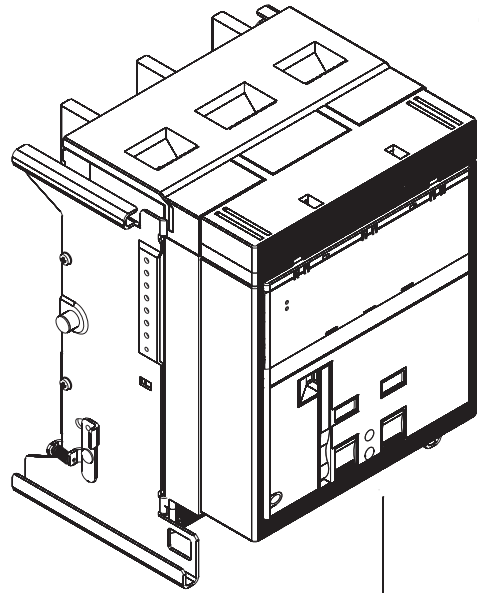
34

T7/W



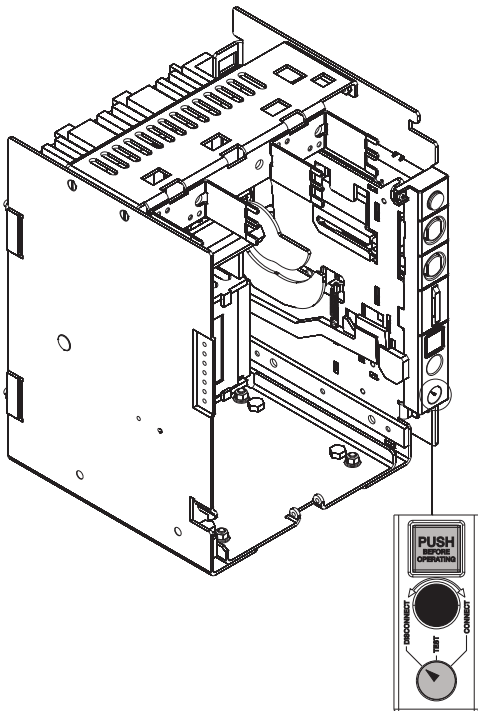
35

T7M/W

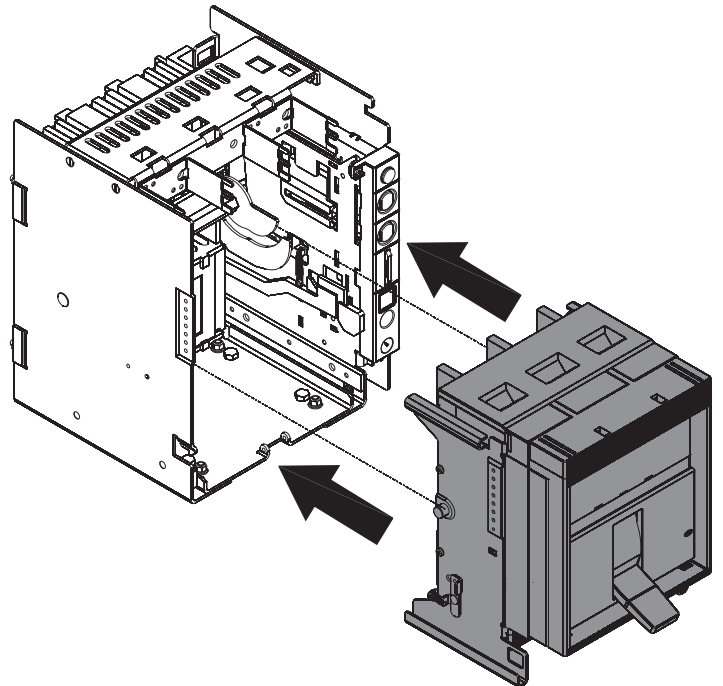


36

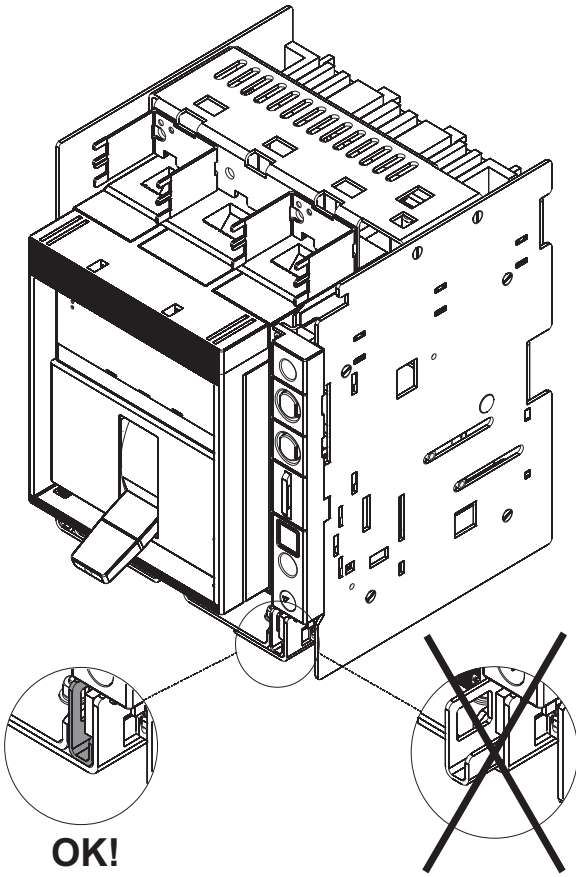
Posizione di partenza (estratto)
 Starting position (disconnected)
 Ausgangsstellung (Trennstellung)
 Position de départ (débroché)
 Posición de salida (extraído)



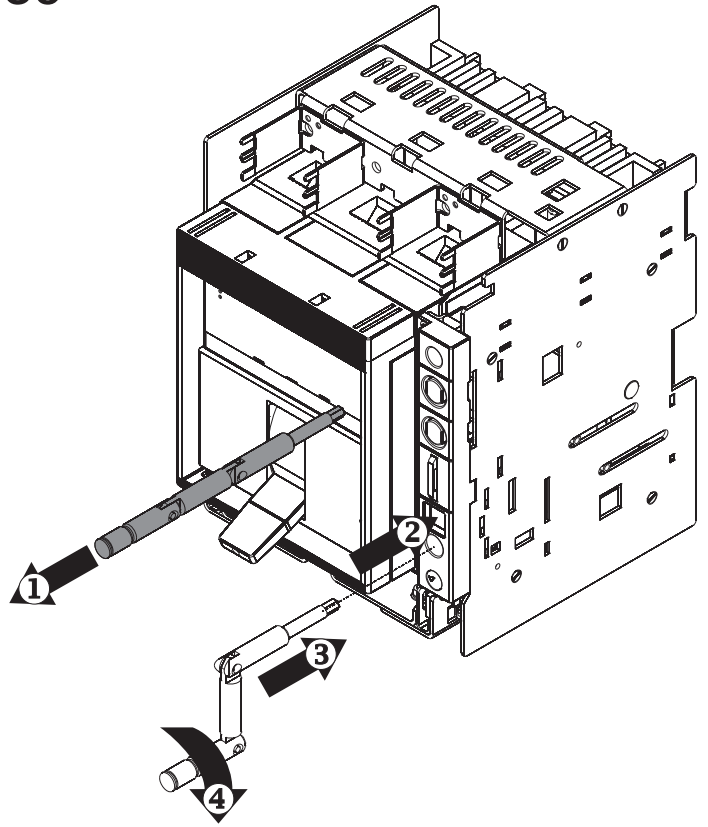
37



38

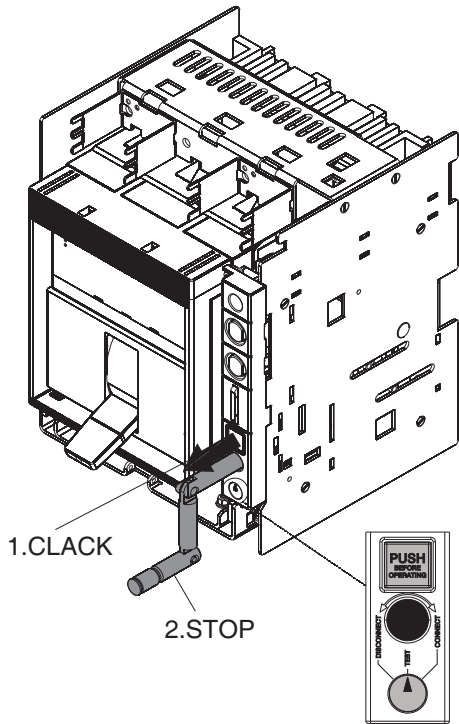


39

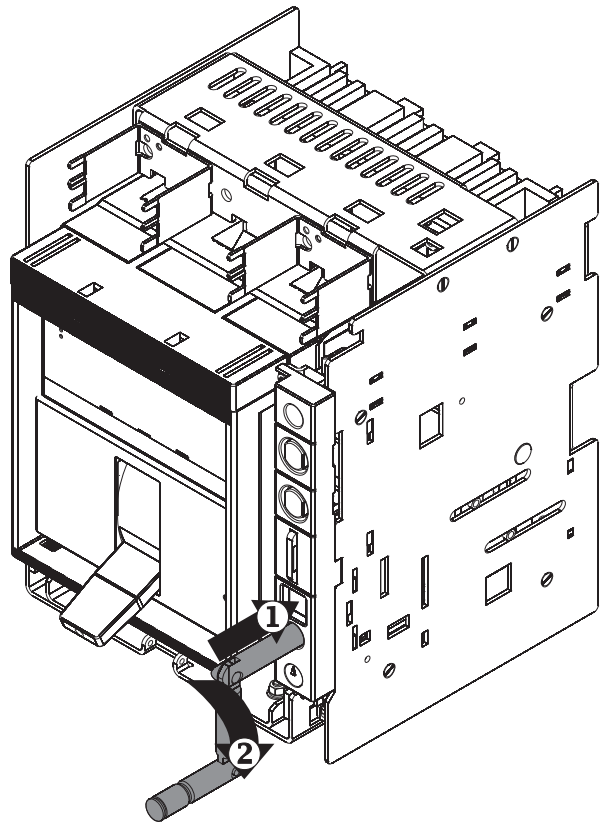


40

Posizione test
 Test position
 Prüfstellung
 Position de test
 Posición de prueba

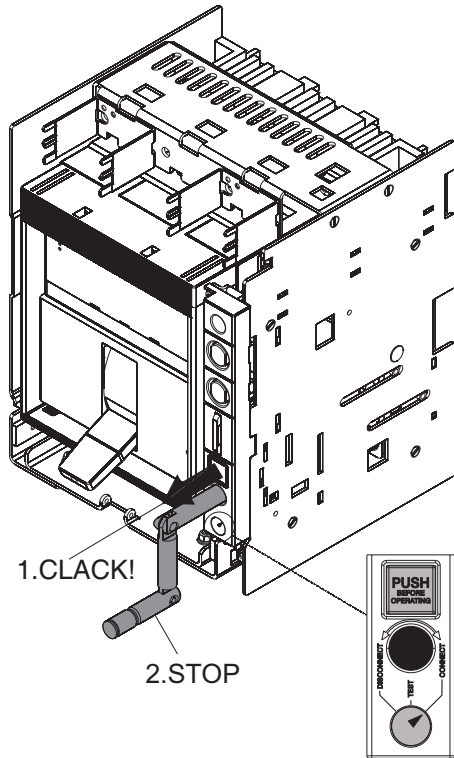


41

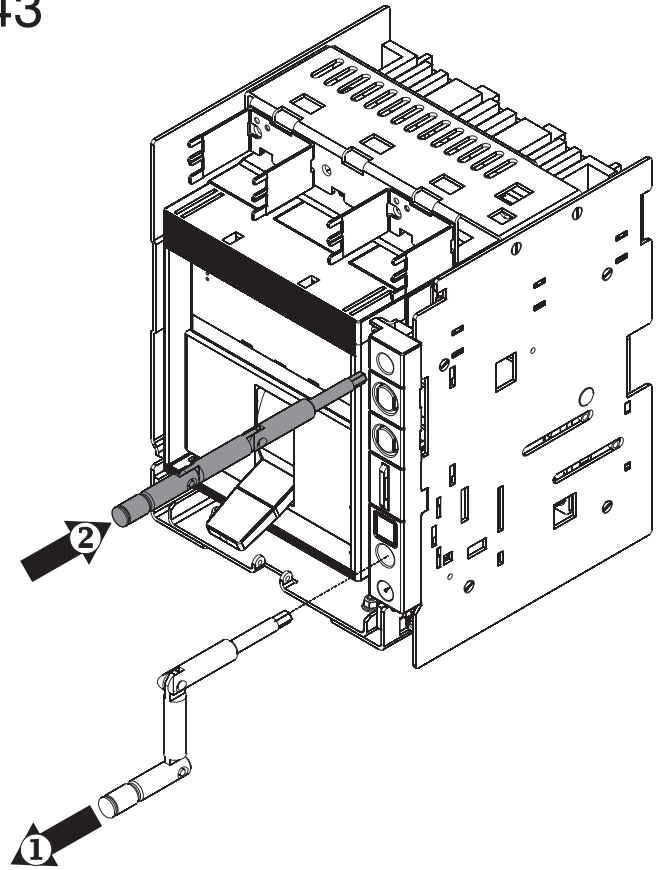


42

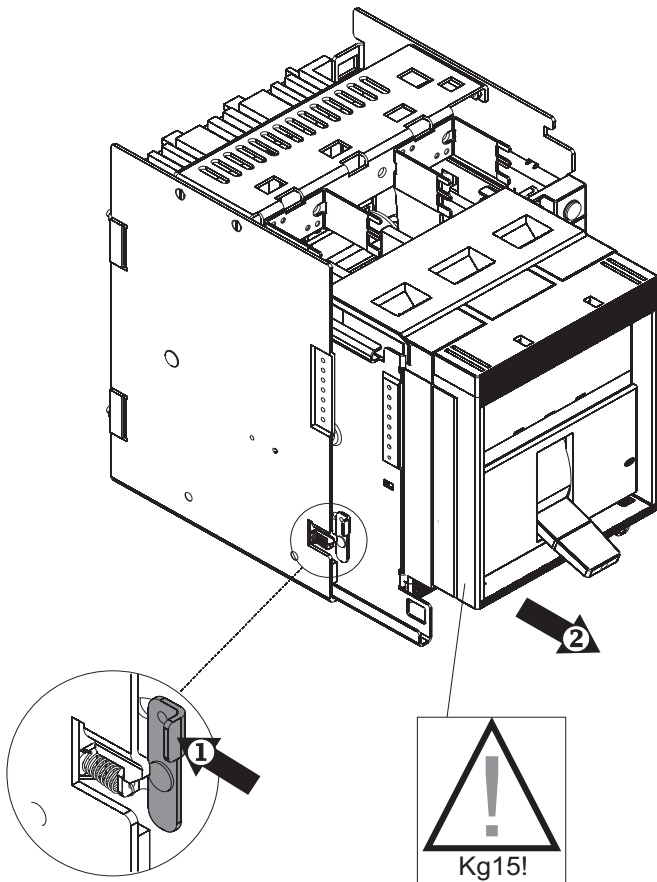
Posizione di inserito
 Connected
 Betriebsstellung
 Position embroché
 Posición de insertado



43



44



Per estrarre la parte mobile dalla parte fissa ripercorrere le operazioni descritte nelle fig. 39-43 in senso inverso. Al termine effettuare le due operazioni illustrate nella figura a lato.

To remove the moving part from fixed part, repeat the operations described in figures 39 to 43 in reverse order. When accomplished, perform the two operations shown in the figure.

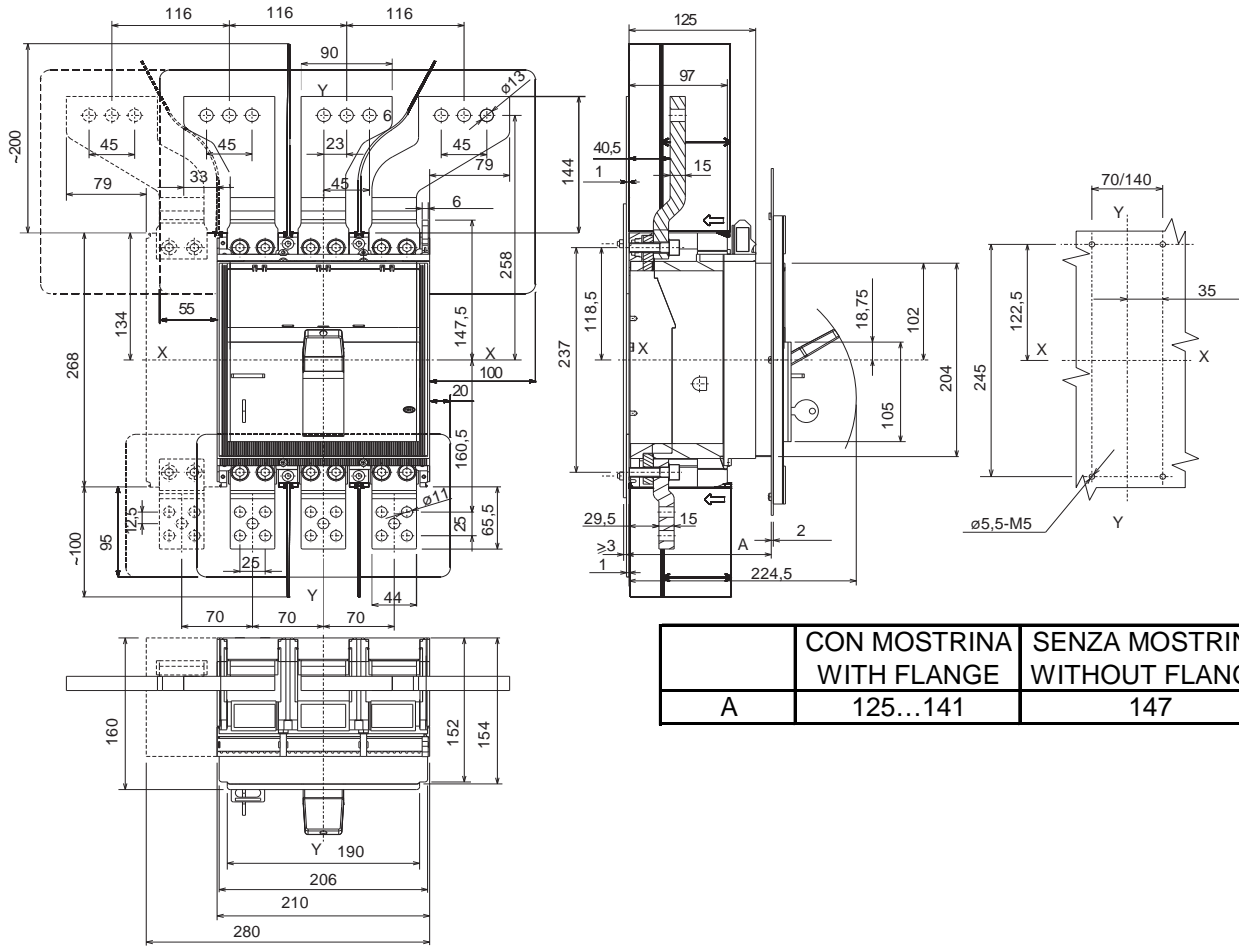
Zum Herausnehmen des beweglichen Teils aus dem Unterteil die in den Abb. 39 - 43 gezeigten Vorgänge in der umgekehrten Reihenfolge ausführen. Zum Schluss die zwei in der nebenstehenden Abbildung gezeigten Vorgänge ausführen.

Pour débrocher la partie mobile de la partie fixe, refaire à l'inverse les opérations décrites sur les fig. 39 - 43. Pour finir, effectuer les deux opérations illustrées sur la figure ci-contre.

Para extraer la parte móvil de la parte fija, repetir -en sentido inverso- las operaciones que han sido descritas en las figs. 39-43. Al terminar, realizar las dos operaciones que se muestran en la figura puesta a un lado.

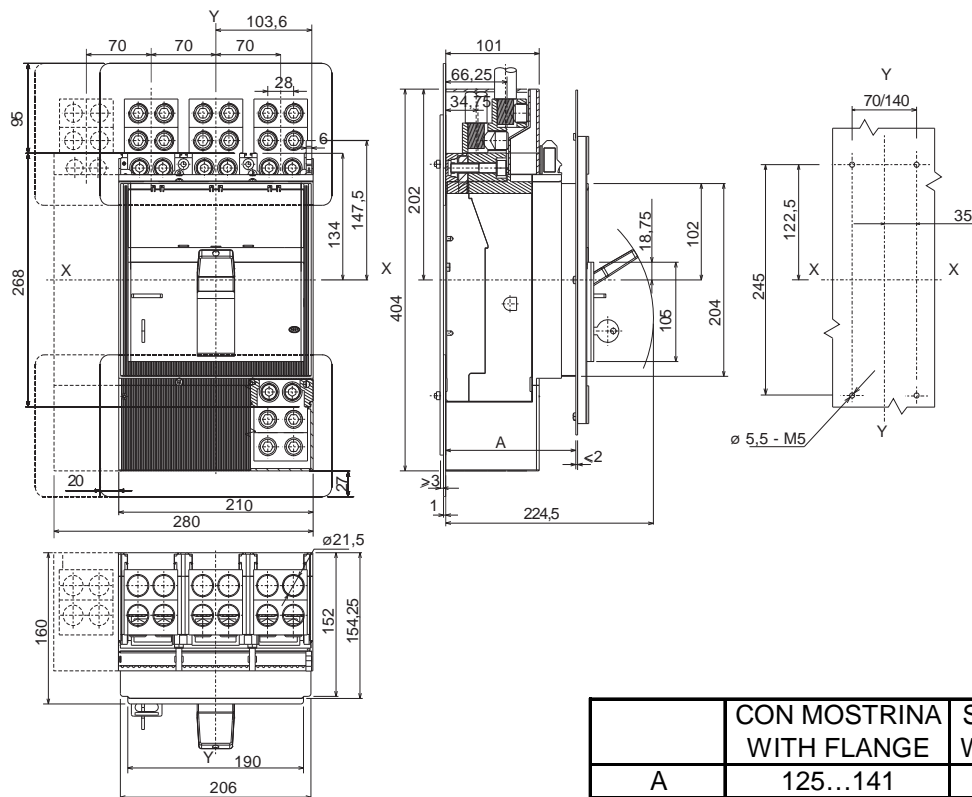
47

F-ES/EF

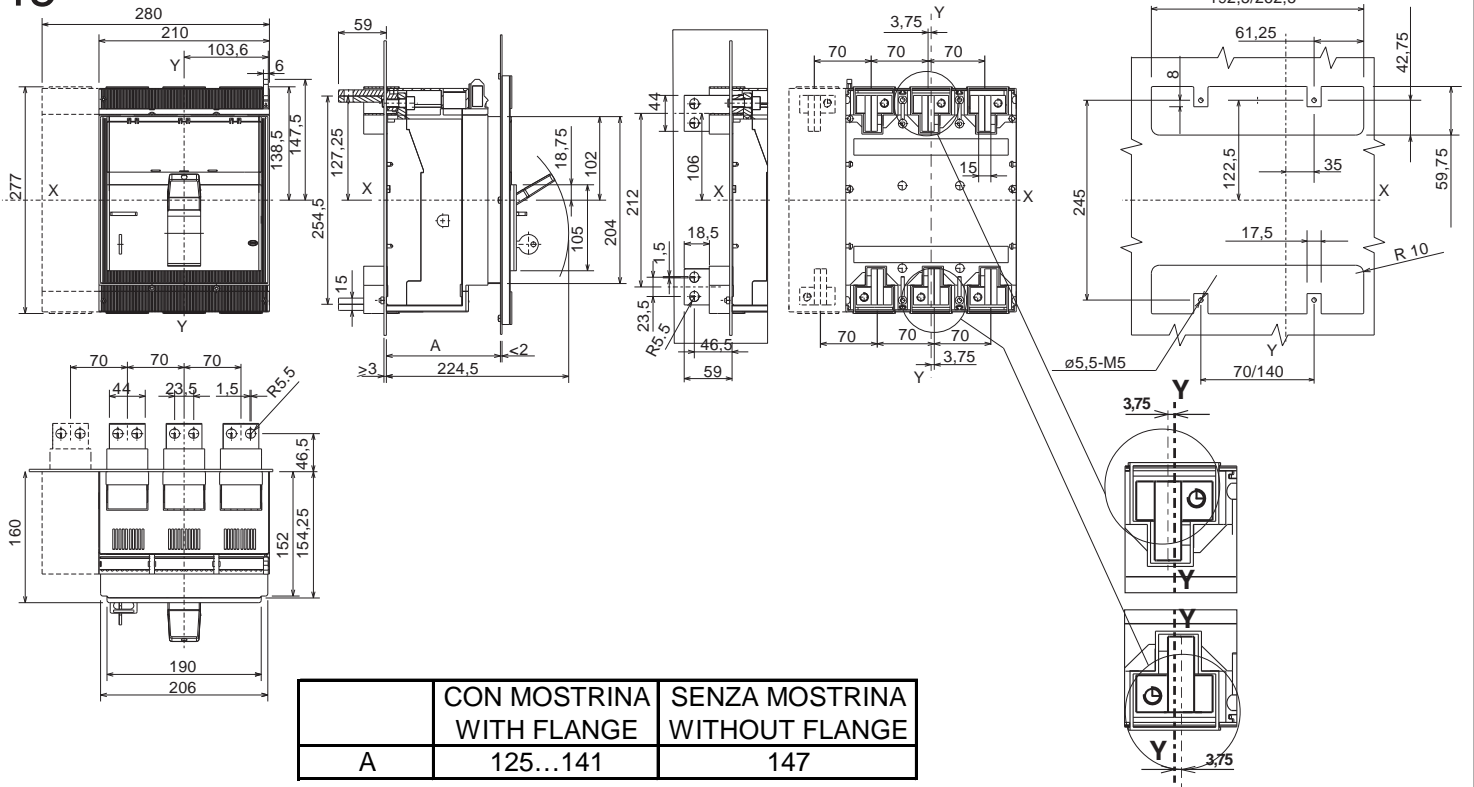


48

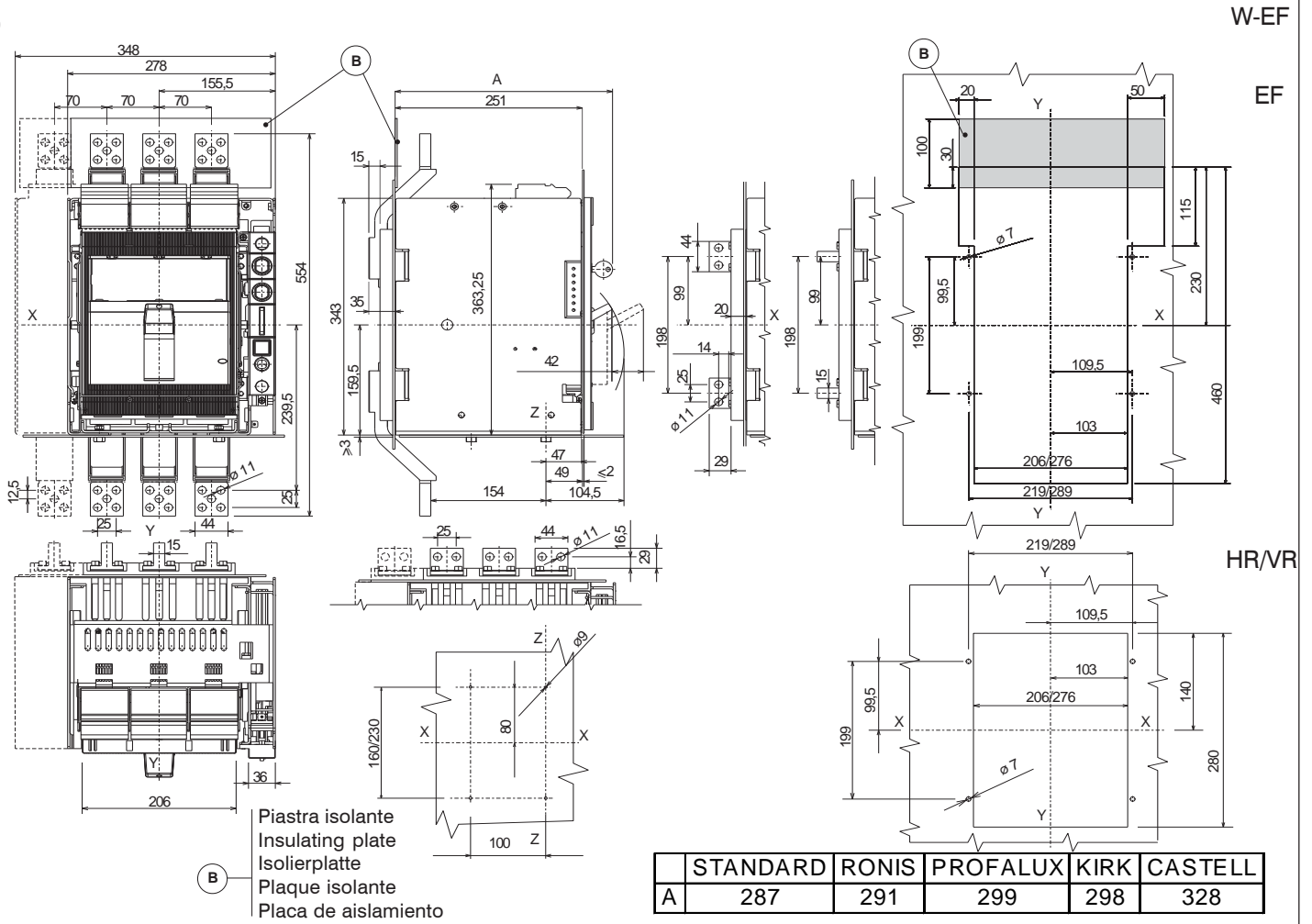
F-FcCuAl
4x240



49



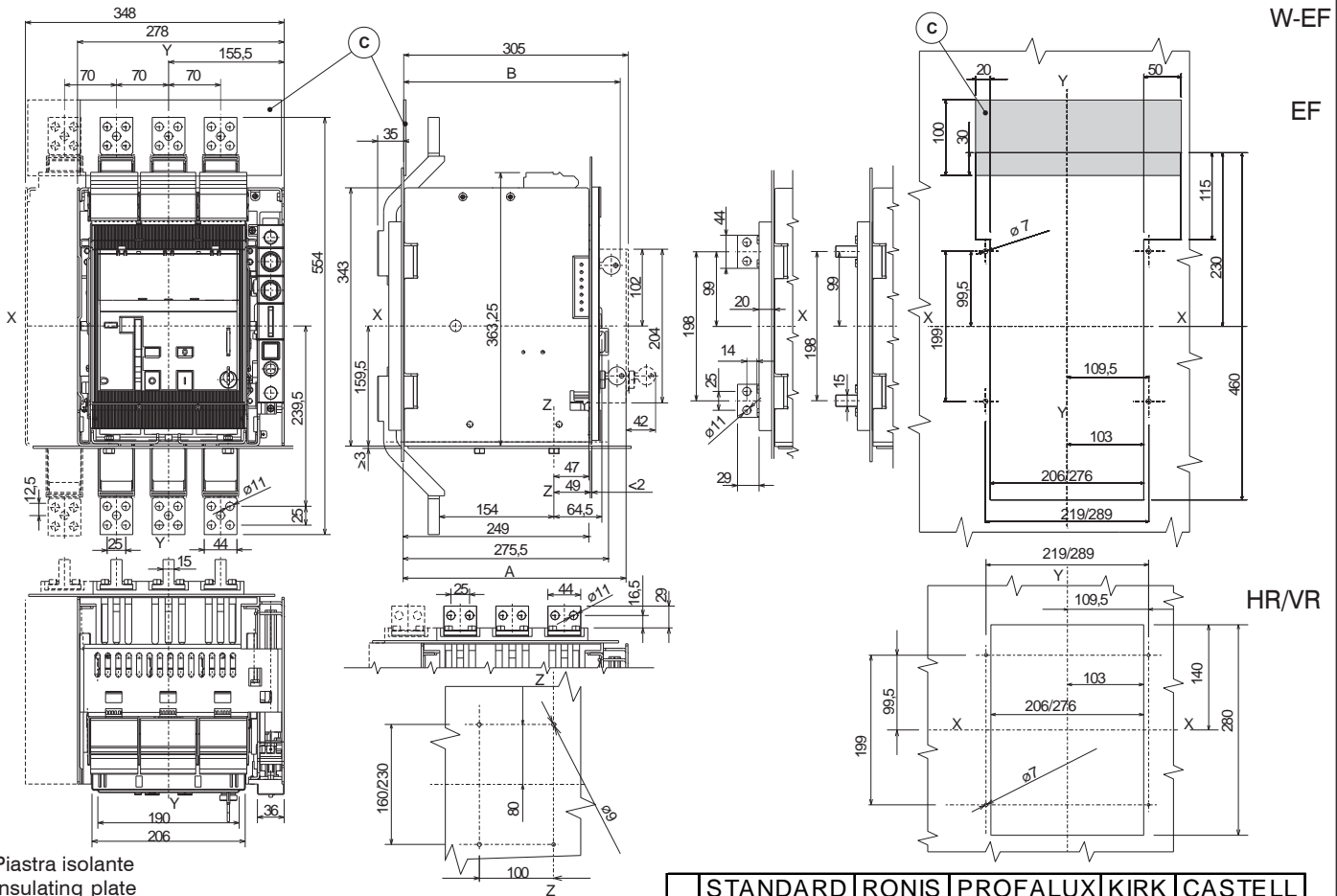
50



51

W-EF

EF

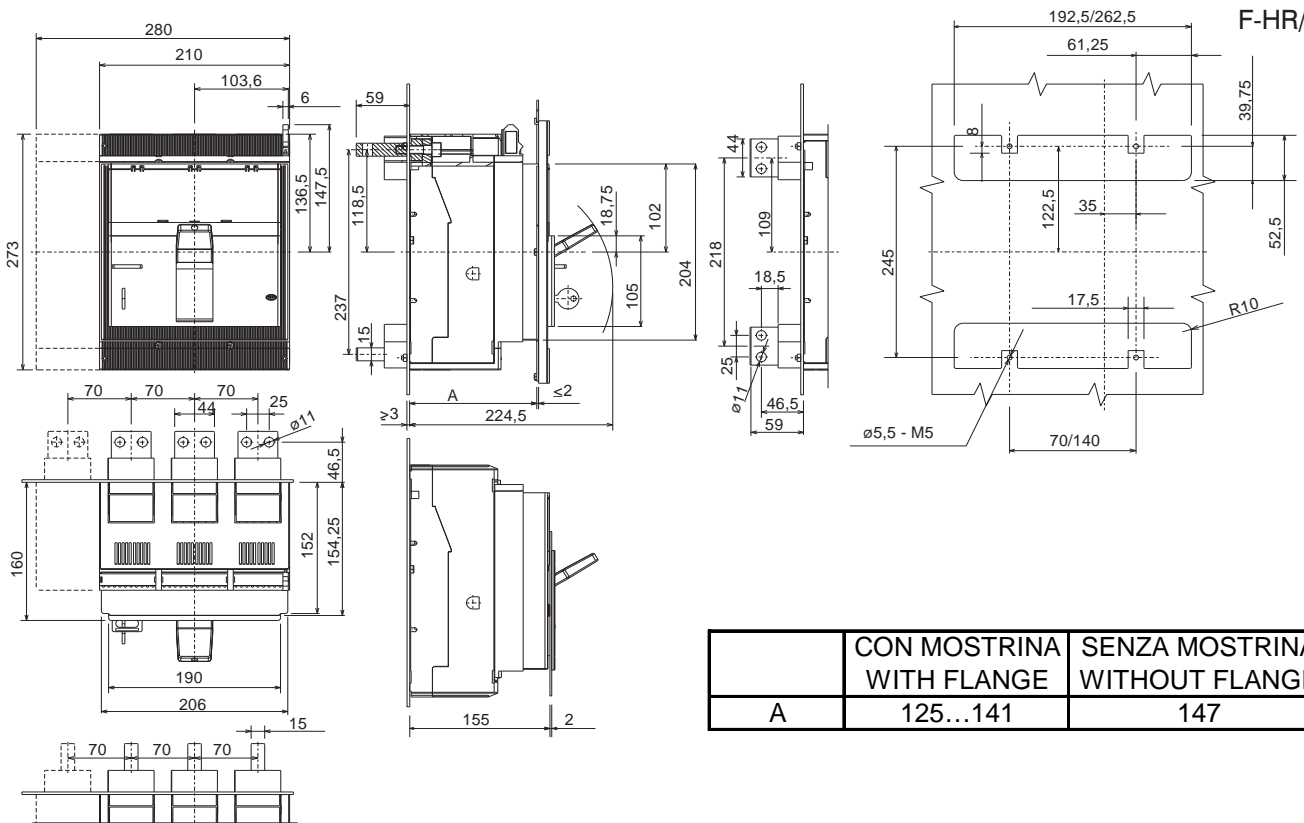


Piastra isolante
Insulating plate
Isolierplatte
Plaque isolante
Placa de aislamiento

	STANDARD	RONIS	PROFALUX	KIRK	CASTELL
A	290	298	306	NO	NO
B	307	311	319	318	348

52

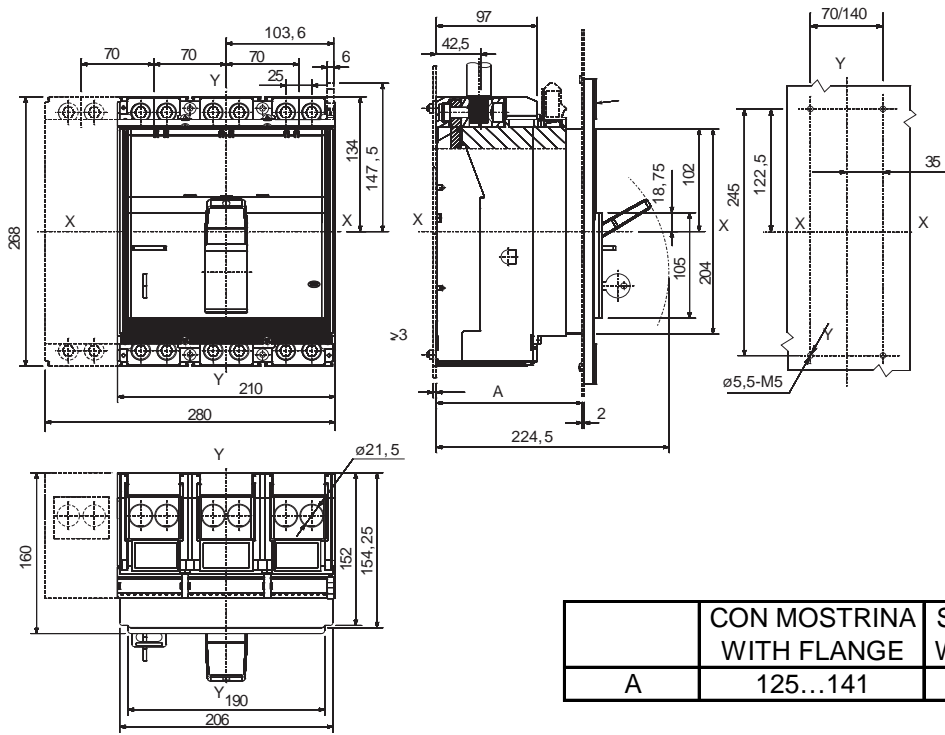
F-HR/VR



	CON MOSTRINA WITH FLANGE	SENZA MOSTRINA WITHOUT FLANGE
A	125...141	147

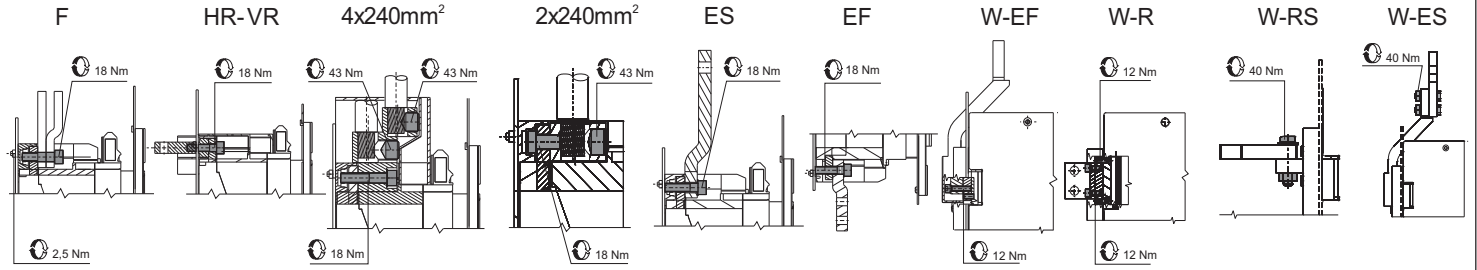
55

F - FCCuAl
2x240

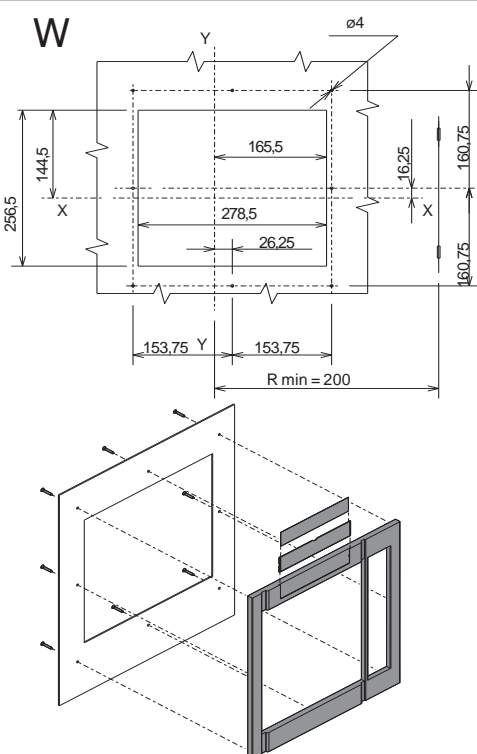
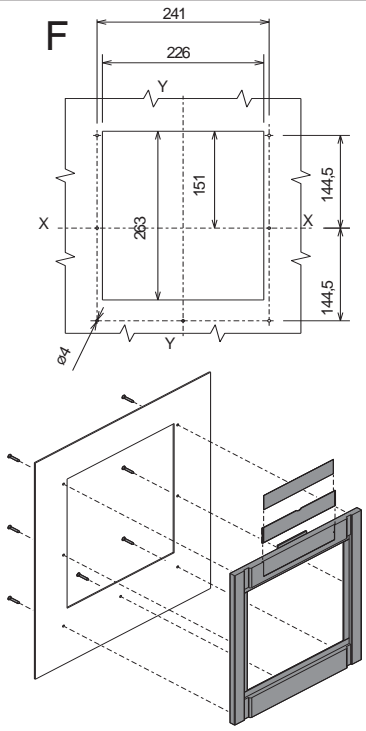


	CON MOSTRINA WITH FLANGE	SENZA MOSTRINA WITHOUT FLANGE
A	125...141	147

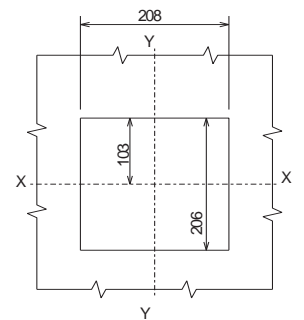
56



57

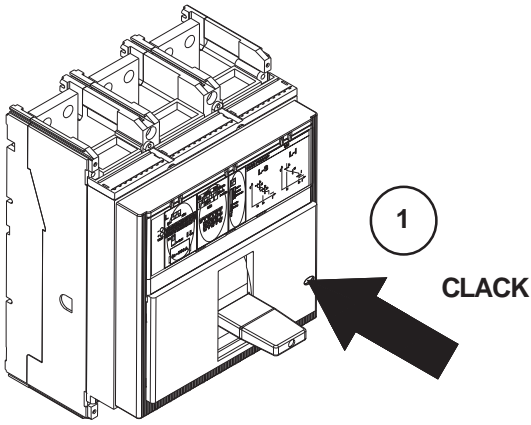


Senza mostrina
Whithout Flange



58

PR231/P

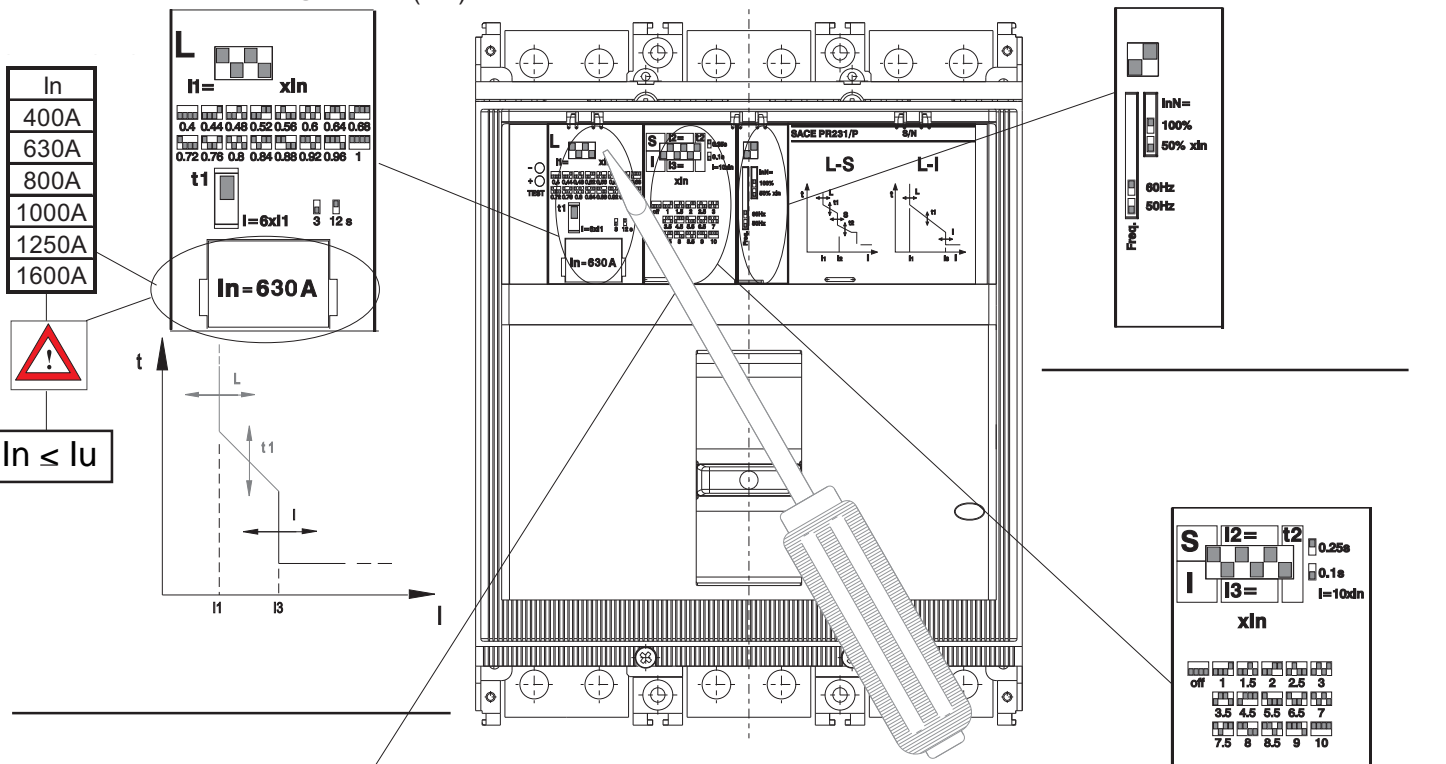


Esempio-Example-Beispiel-Exemple-Ejemplo

In = 630 A
 I1 = 630 x 0,8 = 504A
 t1 = 12 s @3024 A (6I1)

Esempio-Example-Beispiel-Exemple-Ejemplo

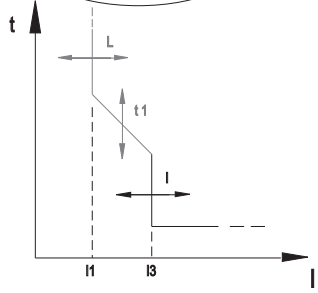
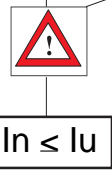
InN=100% In
 Freq.=50Hz



In
400A
630A
800A
1000A
1250A
1600A

I1=	xIn
0.4	0.44 0.48 0.52 0.56 0.6 0.64 0.68
0.72	0.78 0.8 0.84 0.88 0.92 0.96 1
t1	I=6xI1 3 12 s
In=630A	

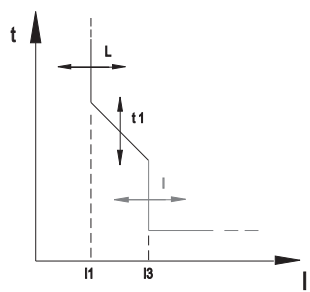
InN=
100%
50% xIn
Freq.
60Hz
50Hz



S	I2=	t2
		0.25s
I	I3=	0.1s
xIn		
off	1 1.5 2 2.5 3	
	3.5 4.5 5.5 6.5 7	
	7.5 8 8.5 9 10	

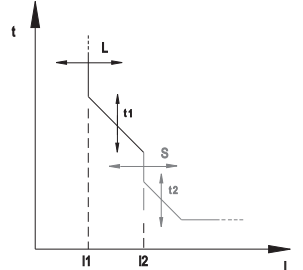
In=630 A
 I3=630x 7=4410A
 I2=OFF

S	I2=	t2
		0.25s
I	I3=	0.1s
xIn		
off	1 1.5 2 2.5 3	
	3.5 4.5 5.5 6.5 7	
	7.5 8 8.5 9 10	



In=630A
 I2 =630 x 3=1890A
 t2= 0,1 s @6300 A (10In)
 I3=OFF

2



Esempio-Example-Beispiel-Exemple-Ejemplo

Esempio-Example-Beispiel-Exemple-Ejemplo

Prescrizioni per l'installazione	1 ÷ 5
Sequenze di manovra e ripristino per intervento sganciatore	6 ÷ 9
Sequenza di smontaggio per installazione accessori interni T7	10 ÷ 18
Sequenza di smontaggio per installazione accessori interni T7M	19 ÷ 24
Connessione ai circuiti ausiliari	25 ÷ 32
Inserzione ed estrazione degli interruttori in esecuzione estraibile	33 ÷ 44
Tabelle dimensionali	45 ÷ 57
Getting started per PR231/P	58
Installation directions	1 ÷ 5
Operating sequences and resetting due to tripping of release	6 ÷ 9
Disassembly sequence to install internal accessories T7	10 ÷ 18
Disassembly sequence to install internal accessories T7M	19 ÷ 24
Connection to auxiliary circuits	25 ÷ 32
Connection and disconnection of withdrawable-type CBs	33 ÷ 44
Dimensions table	45 ÷ 57
Getting started for PR231/P	58
Installationsvorschriften	1 ÷ 5
Schaltsequenzen und Rücksetzung wegen Auslösung des Auslösers	6 ÷ 9
Demontagesequenz für den Einbau interner Zubehöreinrichtungen T7	10 ÷ 18
Demontagesequenz für den Einbau interner Zubehöreinrichtungen T7M	19 ÷ 24
Anschluss an die Hilfsstromkreise	25 ÷ 32
Einschieben und herausfahren der Leistungsschalter in ausfahrbarer Ausführung	33 ÷ 44
Maßtabellen	45 ÷ 57
Erste Schritte für PR231/P	58
Prescriptions pour l'installation	1 ÷ 5
Séquences de manœuvre et rétablissement pour déclenchement du déclencheur	6 ÷ 9
Séquence de démontage pour installation des accessoires internes T7	10 ÷ 18
Séquence de démontage pour installation des accessoires internes T7M	19 ÷ 24
Connexion aux circuits auxiliaires	25 ÷ 32
Embrochage et débrochage des disjoncteurs en version débrochable sur chariot	33 ÷ 44
Tableaux des dimensions	45 ÷ 57
Guide de démarrage pour PR231/P	58
Disposiciones para la instalación	1 ÷ 5
Secuencias de maniobra y restablecimiento para actuación del relé	6 ÷ 9
Secuencia de desmontaje para instalación accesorios internos T7	10 ÷ 18
Secuencia de desmontaje para instalación accesorios internos T7M	19 ÷ 24
Conexión con los circuitos auxiliares	25 ÷ 32
Inserción y extracción de los interruptores en ejecución extraíble	33 ÷ 44
Tablas dimensionales	45 ÷ 57
Getting started para PR231/P	58

