Doc. N.° 1SDH002038A1001 - ECN000147827 - Rev.C

Emax 2 IEC 60947

Retrofitting tra interruttori Fissi Emax 2 E2.2, E4.2, E6.2 e Entelliguard G Env 1, Env 2, Env 3 & M-PACT plus/M-pact Frame size 1, size2
Retrofitting kit between Emax 2 E2.2, E4.2, E6.2 and Entelliguard G Env 1, Env 2, Env 3 M-PACT plus/M-PACT Frame size 1, size2 Fixed circuit breakers
Nachrüstung zwischen Feste Leistungsschaltern Emax 2 E2.2, E4.2, E6.2 und Entelliguard G Env 1, Env 2, Env 3 &M-PACT plus/MPact Frame size 1, size2
Reconfiguration entre disjoncteurs Fixes Emax 2 E2.2, E4.2, E6.2 et Entelliguard G Env 1, Env 2, Env 3 &M-PACt plus/M-PACT Frame size 1, size2
Retrofitting entre interruptores Fijos Emax 2 E2.2, E4.2, E6.2 y Entelliguard G Env 1, Env 2, Env 3& M-PACT plus/M-PACT Frame size 1, size2

Il presente kit di retrofitting, è costruito per la sostituzione totale di interruttori aperti Entelliguard G Envelope 1, Envelope 2 e Envelope 3 M-Pact plus/ M-Pact Frame size 1 &2 con interruttori aperti in esecuzione fissa di più moderna fattura tipo E2.2, E4.2, E6.2 IEC di medesima taglia, senza dover eseguire alcuna modifica alle parti attive del quadro.
E' garantita la totale corrispondenza delle caratteristiche elettriche (corrente nominale e potere di interruzione) a condizione che
1.La scelta sia effettuata in conformità a quanto riportato nei cataloghi tecnici relativi ai prodotti di retrofitting.
2.L'interruttore Entelliguard G Envelope 1, Envelope 2, Envelope 3 M-Pact plus/ M-Pact Frame size 1 &2 da sostituire sia installato in conformità al proprio manuale di installazione, rispettando le distanze di isolamento verso massa, il dimensionamento delle sbarre di connessione, il posizionamento del primo setto di ancoraggio.

IMPORTANTE
L'attività di retrofitting consente una sostituzione di un dispositivo di comando e protezione divenuto obsoleto ma non di alterare in maniera alcuna i dati di progetto originali del quadro esistente. Qualora il nuovo interruttore presentasse dati di targa superiori, i kit di retrofitting sono dimensionati per le prestazioni del vecchio dispositivo.
Per ulteriori chiarimenti contattare ABB.

Attenzione Istruzioni riguardanti il solo assemblaggio del kit di retrotitting, non sono da intendersi come sostitutive del manuale di installazione, uso e manutenzione del nuovo interruttore Emax 2 IEC.

MESSA IN SICUREZZA DELL'IMPIANTO
A) A garanzia dell'incolumità del personale addetti all'installazione del kit, prima di operare la sostituzione dell'interruttore, si raccomanda di seguire, scrupolosamente, le seguenti azioni:
- Mettere fuori servizio il quadro ospitante
- Portare l'interruttore da sostituire in posizione di aperto e molle scariche
- Disconnettere le applicazioni ausiliarie
- Prima di estrarre l'apparecchio, controllare nuovamente il fuori servizio dell'utenza

B) Smantellare completamente il vecchio interruttore conservando le viti di connessione dei poli del vecchio interruttore Entelliguard G Envelope 1, Envelope 2, Envelope 3,M-Pact plus/M-Pact Frame size 1 &2 alla barratura del quadro.

This retrofitting kit allows Env1 Env2 Env3 (Entelliguard G) M-pact plus/ M-pact Frame size 1,2 circuit-breakers to be fully replaced with the more modern E2.2, E4.2 and E6.2 IEC fixed circuit-breakers of the same size without having to modify the live parts of the switchgear in any way.
Full correspondence of the electrical characteristics is guaranteed (rated current and breaking capacity) so long as:
1.The kit is chosen in accordance with the indications in the technical catalogues dedicated to retrofitting products.
2.The Env1 Env2 Env3 (Entelliguard G)M-Pact plus/M-Pact Frame size 1 &2 circuit-breaker to be replaced has been installed in compliance with the instructions in the relative installation manual, and with the specified insulation clearance towards earth, connection busbar size and position of the first anchor plate.

IMPORTANT
Retrofitting allows an obsolete control and protection device to be replaced, but does not allow the data of the original project of the existing switchboardo to be altered in any way.
If the rating plate data of the new circuit-breaker are higher, the retrofitting kits are sized for the performance of the old device.
Consult ABB for further details.

Warning The instructions concern the sole assembly of the retrofitting kit. They do not substitute the instructions in the installation, operation and maintenance manual of the new Emax 2 IEC circuit-breaker.

SETTING THE INSTALLATION IN SAFE CONDITIONS
A) To ensure that the persons who install the kit work in safe conditions, strictly comply with the following instructions before replacing the the circuit breaker.
- Close down the switchboard in which the circuit-breaker is to be installed.
- Set the old circuit-breaker to the open position with the springs unloaded.
- Disconnect the auxiliary circuit applications.
- Check to make sure that the user is disconnected before removing the device.

B) Completely disassemble the old circuit-breaker, but keep the screws that connect the poles of the old Env 1 Env 2 Env 3 (Entelliguard G) M-Pact plus/M-Pact Frame size 1 &2 circuit-breaker to the switchboard bars.

Die offenen Leistungsschalter Megamax F1-F2 ganz durch die offenen Leistungsschalter in der ausfahrbaren Ausführung mit modernerer Bauart vom Typ Emax 2 der gleichen Baugröße auszutauschen, ohne irgendeine Änderung an den aktiven Teilen der Schaltanlage vornehmen zu müssen.
Die vollständige Übereinstimmung der elektrischen Eigenschaften (Bemessungs-Strom und Ausschaltvermögen) ist unter der Voraussetzung gewährleistet,
1.Dass die Wahl in Konformität mit dem erfolgt, was in den technischen Katalogen zu den Nachrüstprodukten angegeben ist.
2.Dass der zu ersetzende Leistungsschalter Megamax in Übereinstimmung mit dem eigenen Installationshandbuch installiert wird, d.h. dass die Isolationsabstände gegen Masse, die Dimensionierung der Anschlusssammelschienen, die Positionierung der ersten Verankerungswand wie vorgeschrieben installiert sind

WICHTIG
Die Nachrüstung gestattet das Austauschen einer nunmehr obsoleten Schalt- und Schutzeinrichtung, ohne die ursprünglichen Projektdaten der vorhandenen Schaltanlage auf irgendeine Weise ändern zu müssen.
Sollte der neue Leistungsschalter höhere Typenschildwerte aufweisen, sind die Nachrüstsätze auf die Leistungen der alten Einrichtung auszulegen.
Überprüfen Sie die tatsächliche Größe der Zelle vor dem Kauf.
Für die Abmessungen siehe dieses Handbuch.
Für weitere Erläuterungen wenden Sie sich bitte an ABB.

Achtung Anweisungen, die sich lediglich auf den Einbau des Nachrüstsatzes beziehen und nicht so zu verstehen sind, dass sie die Installations-, Betriebs- und Wartungsanleitungen des neuen Leistungsschalters Emax 2 ersetzen.
Die Hilfsstromkreise des neuen Schalters gemäß das Schaltbild Emax 2 1SDM00015R0001 verdrahten.

SICHERHEITSTECHNISCHE MASSNAHME FÜR DIE ANLAGE
A) Um die Sicherheit des Personals zu gewährleisten, das mit der Installation des Nachrüstsatzes beauftragt ist, sind vor dem Austausch des Leistungsschalters gewissenhaft die folgenden Vorgänge durchzuführen:
-Die Schaltanlage, in der sich der Leistungsschalter befindet, außer Betrieb setzen.
- Den auszutauschenden Leistungsschalter in die AUS-Stellung mit entspannten Federn bringen.
- Die Hilfsanwendungen abklemmen.
- Bevor man das Schaltgerät herauszieht, erneut sicherstellen, dass der Stromverbraucher außer Betrieb genommen ist.
B) Den alten Leistungsschalter ganz ausbauen und die Schrauben zum Anschluss der Pole des alten Leistungsschalters Megamax an der Sammelschienen der Schaltanlage aufbewahren.

Le présent kit de « retrofitting », est conçu pour la reconfiguration totale de disjoncteurs ouverts Megamax F1-F2 par des disjoncteurs ouverts dans la version débrochable sur chariot de conception plus moderne type Emax 2 de même taille, sans devoir effectuer aucune modification aux parties actives du tableau.
La correspondance totale des caractéristiques électriques est garantie (courant nominal et pouvoir de coupure) à condition que :
1.Le choix soit effectué conformément aux catalogues techniques relatifs aux produits de « retrofitting ».
2.Le disjoncteur Megamax à remplacer soit installé conformément à son manuel d'installation, en respectant les distances d'isolation vers la masse, le dimensionnement des barres de connexion, le positionnement du premier diaphragme d'ancrage.

IMPORTANT
L'activité de reconfiguration permet le remplacement d'un dispositif de commande et de protection devenu obsolète mais de ne pas altérer en aucune manière les données d'origine de projet du tableau existant.
Si le nouveau disjoncteur devait avoir des données de plaque supérieures, les kits de « retrofitting » sont dimensionnés pour les performances de l'ancien dispositif.
Vérifiez la taille réelle du compartiment avant l'achat. Pour les dimensions voir ce manuel.
Pour plus d'informations veuillez contacter ABB.

Attention Ces instructions concernent uniquement l'assemblage du kit de « retrofitting », elles ne remplacent en aucun cas celles du manuel d'installation, utilisation et entretien du nouveau disjoncteur Emax 2.
Câbler circuits auxiliairesi de nouveau disjoncteur comme montré le schéma électrique Emax 2 1SDM000105R0001.

MISE EN SÉCURITÉ DE L'INSTALLATION

A) En garantie de la sécurité du personnel préposé à la mise en place du kit, avant de remplacer le disjoncteur il est recommandé d'effectuer scrupuleusement les opérations suivantes :
- Mettre hors service le tableau d'accueil ;
- Placer le disjoncteur à remplacer en position ouvert et ressorts débandés ;
- Débrancher les applications auxiliaires;
- Avant d'extraire l'appareil contrôler de nouveau que l'utilisation est hors service.
B) Démanteler entièrement l'ancien disjoncteur en conservant les vis de connexion des pôles de l'ancien disjoncteur Megamax au jeu de barres du tableau.

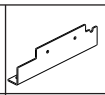
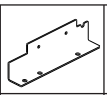
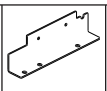
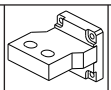
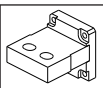
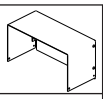
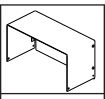
El presente kit de retrofitting, ha sido realizado para la sustitución totajl de interruptores Megamax F1-F2 con interruptores abiertos en ejecución extraíble de realización más moderna, tipo Emax 2, del mismo tamaño, sin tener que modificar ninguna parte activa del cuadro.
Está garantizada la total correspondencia entre las características eléctricas (corriente asignada y poder de corte):
1.Siempre que la selección se efectúe de conformidad con lo expuesto en los catálogos técnicos relativos a los productos de retrofitting.
2.El interruptor Megamax a sustituir esté instalado de conformidad con el respectivo manual de instalación, respetando las distancias de aislamiento hacia la masa, el dimensionamiento de las barras de conexión, la colocación del primer tabique de fijación.

IMPORTANTE
Las operaciones de retrofitting permiten sustitución de un dispositivo de mando y protección ya obsoleto sin alterar en ningún modo los datos de proyecto originales del cuadro existente.
Si el nuevo interruptor presentara características nominales superiores, los kits de retrofitting están dimensionados para las prestaciones del viejo dispositivo.
Verificar el tamaño real de la celda antes de la compra. Para conocer las dimensiones véase este manual.
Para ulteriores aclaraciones contactar ABB.

Atención Instrucciones relativas exclusivamente al ensamblado del kit di retrotitting. Estas instruciones no sustituyen aquellas presentes en el manual de instalación, uso y mantenimiento del nuevo interruptor Emax 2.
Cablear los circuitos auxiliares del nuevo interruptor siguiendo el esquema eléctrico Emax 2 1SDM000105R0001.

PUESTA EN SEGURIDAD DE LA INSTALACIÓN

A) Para garantizar la incolumnidad del personal encargado de la instalación del kit, antes de efectuar la sustitución del interruptor, se aconseja respetar escrupulosamente los siguientes pasos:
- Poner fuera de servicio el cuadro que alojará el interruptor
- Poner el interruptor a sustituir en posición de a bierto y con los resortes sin carga
- Desconectar las aplicaciones auxiliares
- Antes de extraer el aparato, controlar nuevamente la condición de fuera de servicio del respectivo circuito
B) Desmantelar completamente el viejo interruptor conservando los tornillos de conexión de los polos del viejo interruptor Megamax en las barras del cuadro.

RF Env1(S,N,H)-F 1600 HR -> E2.2(B,N,S,H)-A 1600													
													
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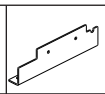
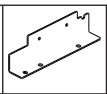
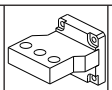
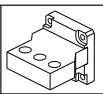
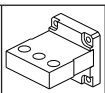
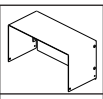
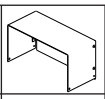
III	1	1	0	6	2	2	2	0	0	1	0	1	0
IV	1	0	1	8	2	2	2	1	1	0	1	0	1
			 M6X16	 M6X20	 M6X12	M4X6	 ø4	 M4X12	 M4				
	4C	4D	5A	5B	5F	5G	5H	5I	5J				
III	1	0	24	24	2	2	22	10	10				
IV	0	1	32	32	2	2	26	12	12				

RF Env1(S,N,H)-F 2000 HR ->E2.2(B,N,S,H) 2000													
													
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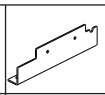
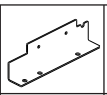
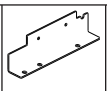
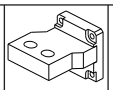
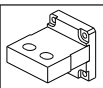
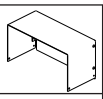
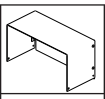
III	1	1	0	6	2	2	2	0	0	1	0	1	0
IV	1	0	1	8	2	2	2	1	1	0	1	0	1
			 M6X16	 M6X20	 M6X12	M4X6	ø4	M4X12	M4				
	4C	4D	5A	5B	5F	5G	5H	5I	5J				
III	1	0	24	24	2	2	22	10	10				
IV	0	1	32	32	2	2	26	12	12				

RF M-PACT Plus/M-PACT Frame Size1 (S,N)-F 2000 HR -> E2.2(B,N,S,H)-A 2000													
													
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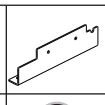
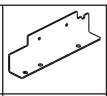
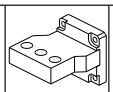
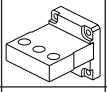
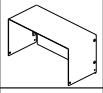
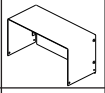
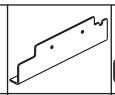
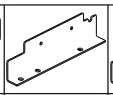
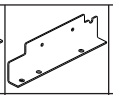
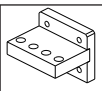
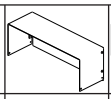
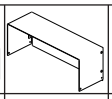
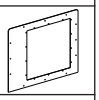
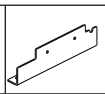
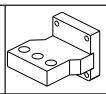
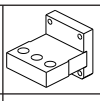
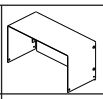
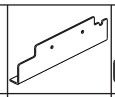
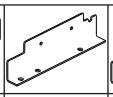
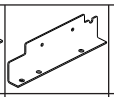
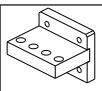
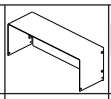
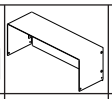
III	1	1	0	6	2	2	2	0	0	1	0	1	0
IV	1	0	1	8	2	2	2	1	1	0	1	0	1
			 M6X16	 M6X20	M6X12	M4X6	 ø4	 M4X12	 M4				
	5N	5P	5A	5B	5F	5G	5H	5I	5J				
III	1	0	24	24	2	2	22	10	10				
IV	0	1	32	32	2	2	26	12	12				

RF M-PACT Plus /M-PACT Frame size 1 (S)-F 1600 HR ->E2.2(B,N) 1600 RF M-PACT Plus /M-PACT Frame size 1(S,N,H)-F 2500 HR ->E2.2(B,N,S,H) 2500													
													
	1A	1B	1C	145	146	147	148	149	150	3A	3B	5L	5M
III	1	1	0	6	2	2	2	0	0	1	0	1	0
IV	1	0	1	8	2	2	2	1	1	0	1	0	1
			 M6X16	 M6X20	M6X12	M4X6	ø4	M4X12	M4				
	5N	5P	5A	5B	5F	5G	5H	5I	5J				
III	1	0	24	24	2	2	22	10	10				
IV	0	1	32	32	2	2	26	12	12				

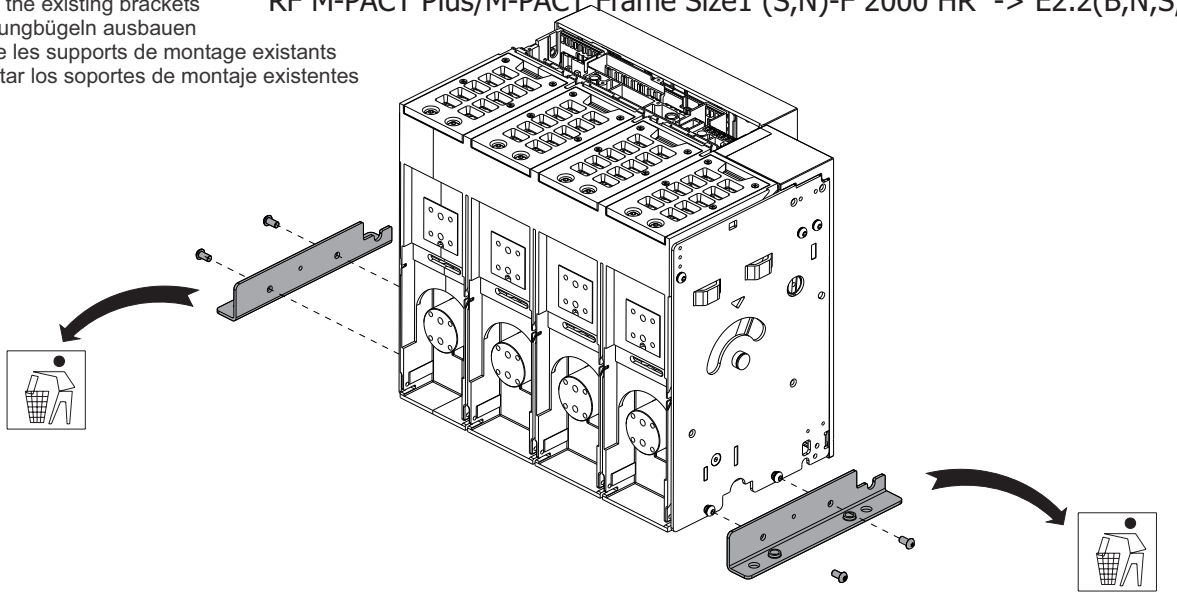
RF Env2(N,E,H,M)-F 3200 HR ->E4.2(N,S,H,V) 3200													
													
	1D	1E	1F	251	252	253	254	255	256	3C	3D	4A	4B
III	1	1	0	6	2	2	2	0	0	1	0	1	0
IV	1	0	1	8	2	2	2	1	1	0	1	0	1
			 M8X16	 M8X25	 M6X12	 M4X6	 ø4	 M4X12	 M4	 ø8			
	4C	4D	5C	5D	5F	5G	5H	5I	5J	5K			
III	1	0	24	24	2	2	22	10	10	48			
IV	0	1	32	32	2	2	26	12	12	64			

RF Env3(G,M,L)-F 5000 HR 3P->E6.2(H,V,X) 5000													
										 M8X15	 M8X25	 M10X25	M6X12
	1G	1H	251	346	347	348	3E	4B	4D	5C	5D	5E	5F
III	1	1	12	2	2	2	1	1	1	48	48	4	2
	M4X6	 ø4	 M4X12	 M4	ø8								
	5G	5H	5I	5J	5K								
III	2	26	12	12	48								

RF M-PACT plus/M-PACT Frame size 2 (S,N,H)-F 3200 HR ->E4.2(N,S,H,V) 3200													
													
	1D	1E	1F	251	252	253	254	255	256	3C	3D	5L	5M
III	1	1	0	6	2	2	2	0	0	1	0	1	0
IV	1	0	1	8	2	2	2	1	1	0	1	0	1
			 M8X16	 M8X25	M6X12	M4X6	 ø4	 M4X12	 M4	 ø8			
	5Q	5R	5C	5D	5F	5G	5H	5I	5J	5K			
III	1	0	24	24	2	2	22	10	10	48			
IV	0	1	32	32	2	2	26	12	12	64			

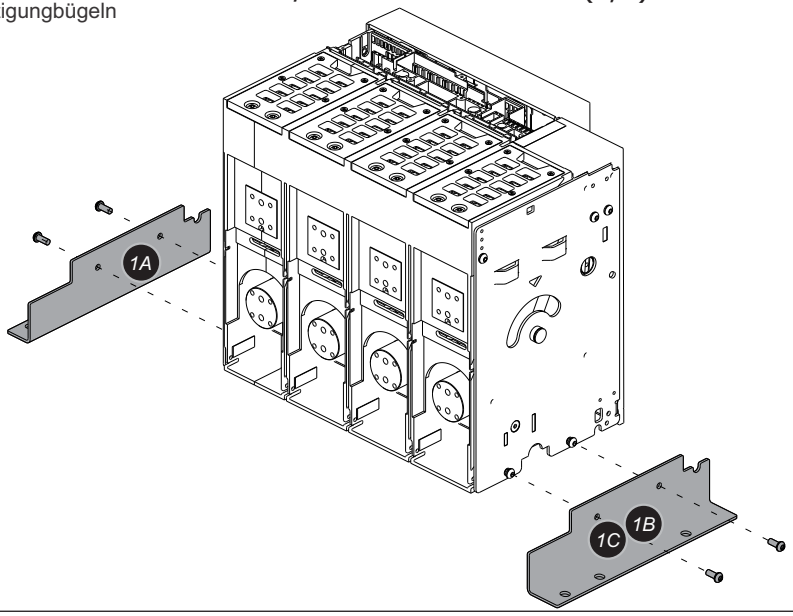
RF Env1(S,N,H)-F 1600 HR -> E2.2(B,N,S,H)-A 1600
RF M-PACT Plus/M-PACT Frame Size1 (S,N)-F 2000 HR -> E2.2(B,N,S,H)-A 2000

1
- Smontare le staffe esistenti
- Remove the existing brackets
- Befestigungbügeln ausbauen
- Démonte les supports de montage existants
- Desmontar los soportes de montaje existentes



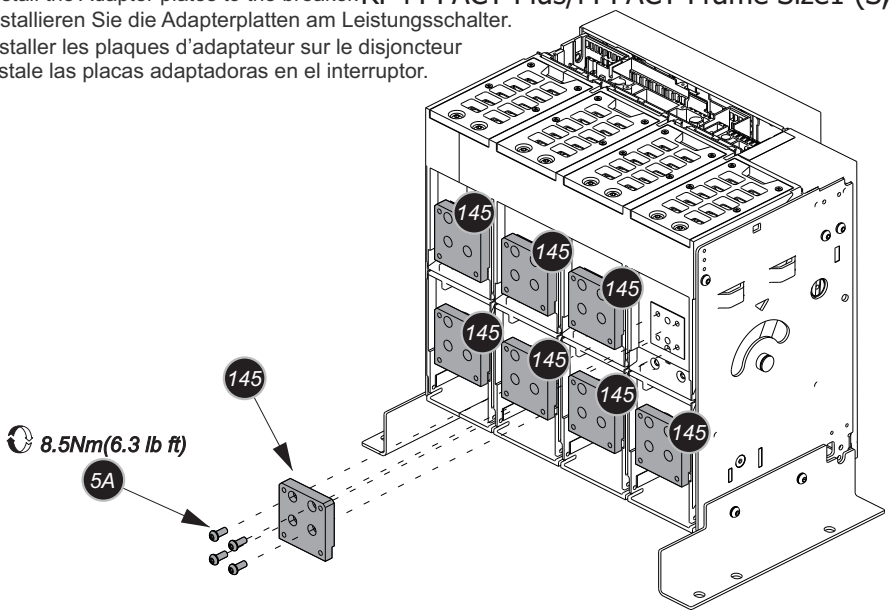
RF Env1(S,N,H)-F 1600 HR -> E2.2(B,N,S,H)-A 1600
RF M-PACT Plus/M-PACT Frame Size1 (S,N)-F 2000 HR -> E2.2(B,N,S,H)-A 2000

2
- Montare le nuove staffe
- Assemble new brackets
- Montieren Sie die neuen Befestigungbügeln
- Ajuster les nouveaux supports
- Montar los nuevos soportes.



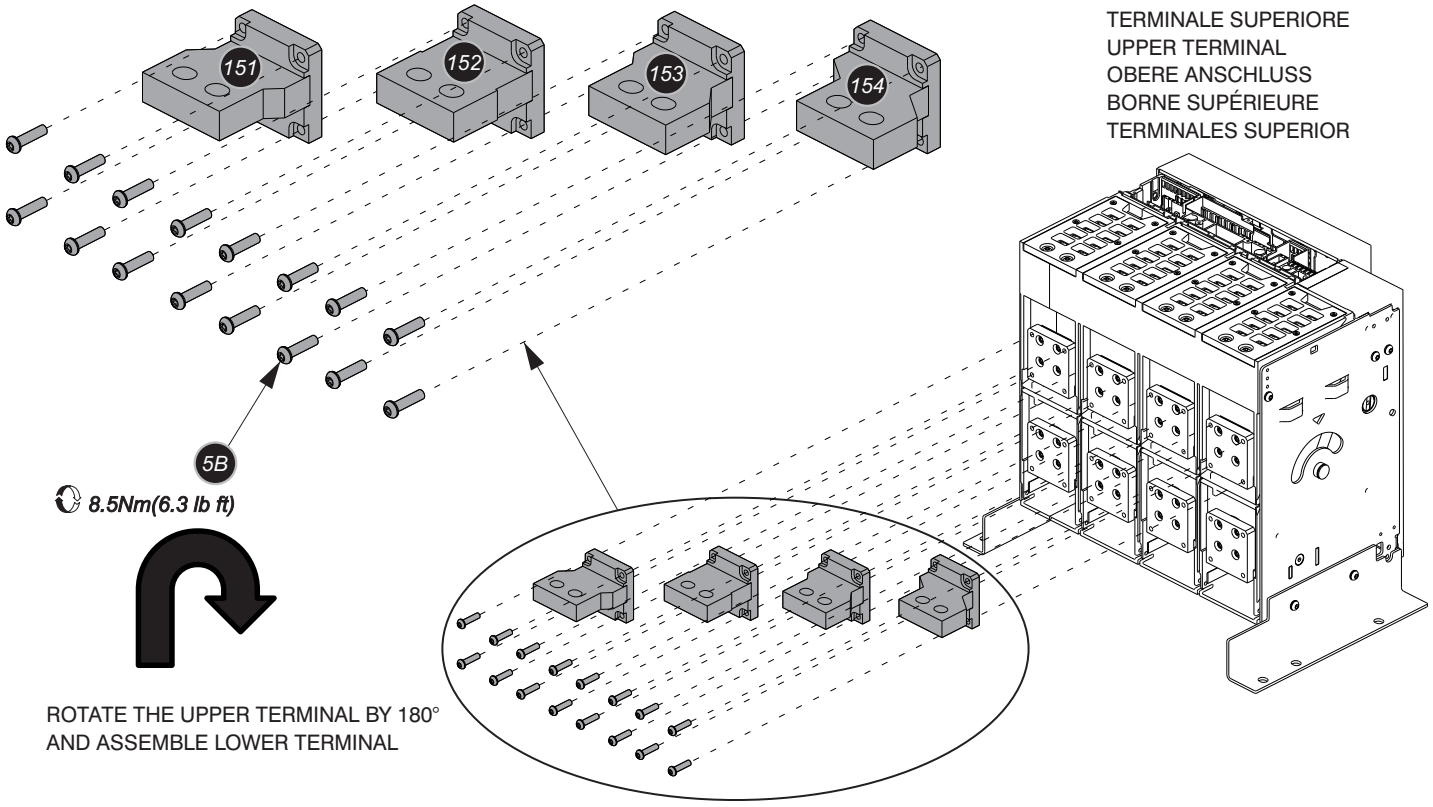
RF Env1(S,N,H)-F 1600 HR -> E2.2(B,N,S,H)-A 1600
RF M-PACT Plus/M-PACT Frame Size1 (S,N)-F 2000 HR -> E2.2(B,N,S,H)-A 2000

3
- Installare le piastre di adattamento sull'interruttore.
- Install the Adapter plates to the breaker.
- Installieren Sie die Adapterplatten am Leistungsschalter.
- Installer les plaques d'adaptateur sur le disjoncteur
- Instale las placas adaptadoras en el interruptor.

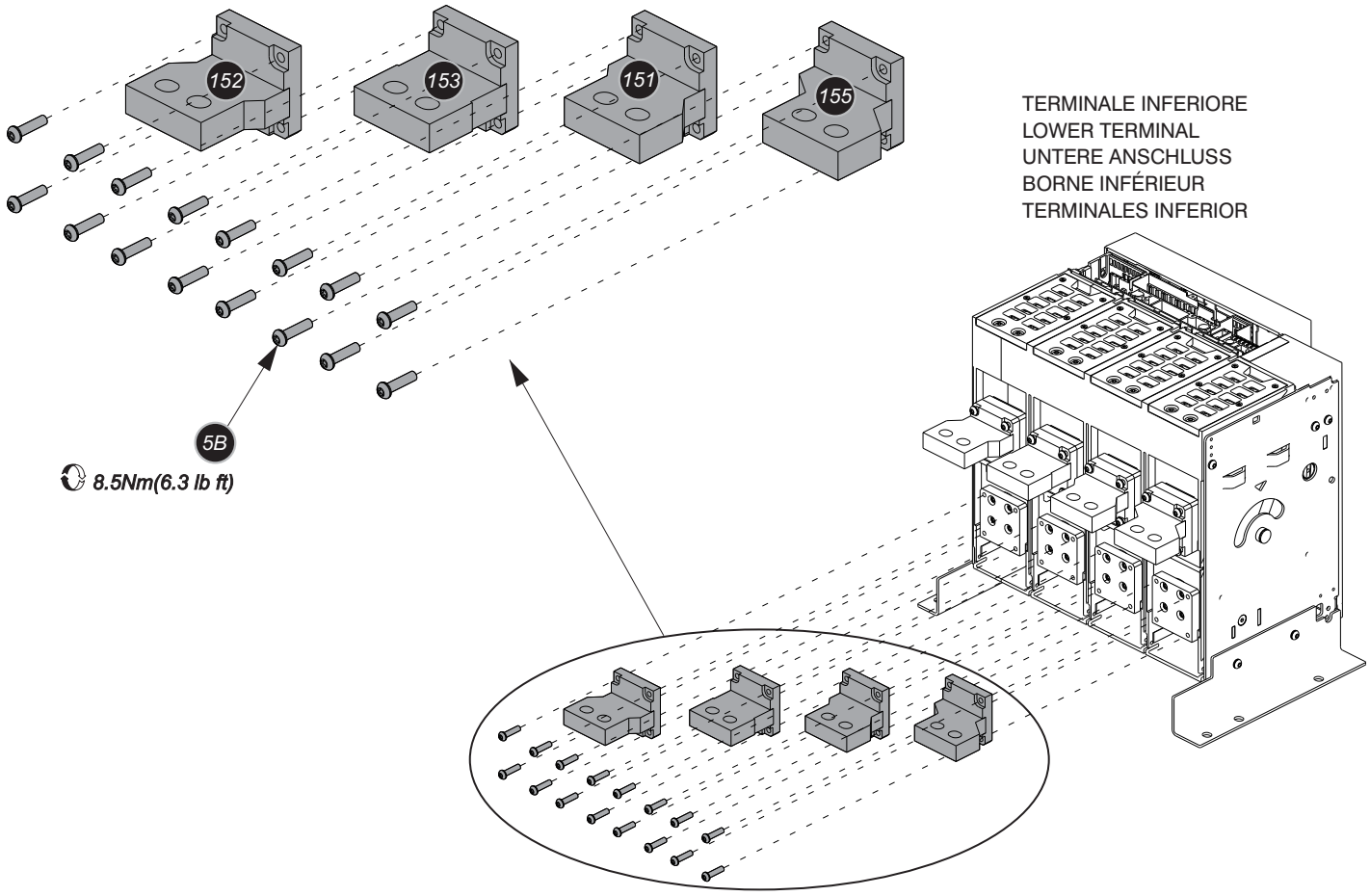


4 - Installare i terminali sull'interruttore .
- Install the terminals to the breaker
- Installieren Sie die Klemmen am Leistungsschalter
- Installer les prises sur le disjoncteur
- Instale los terminales al interruptor

RF Env1(S,N,H)-F 1600 HR -> E2.2(B,N,S,H)-A 1600
RF M-PACT Plus/M-PACT Frame Size1 (S,N)-F 2000 HR -> E2.2(B,N,S,H)-A 2000



TERMINALE SUPERIORE
UPPER TERMINAL
OBERE ANSCHLUSS
BORNE SUPÉRIEURE
TERMINALES SUPERIOR

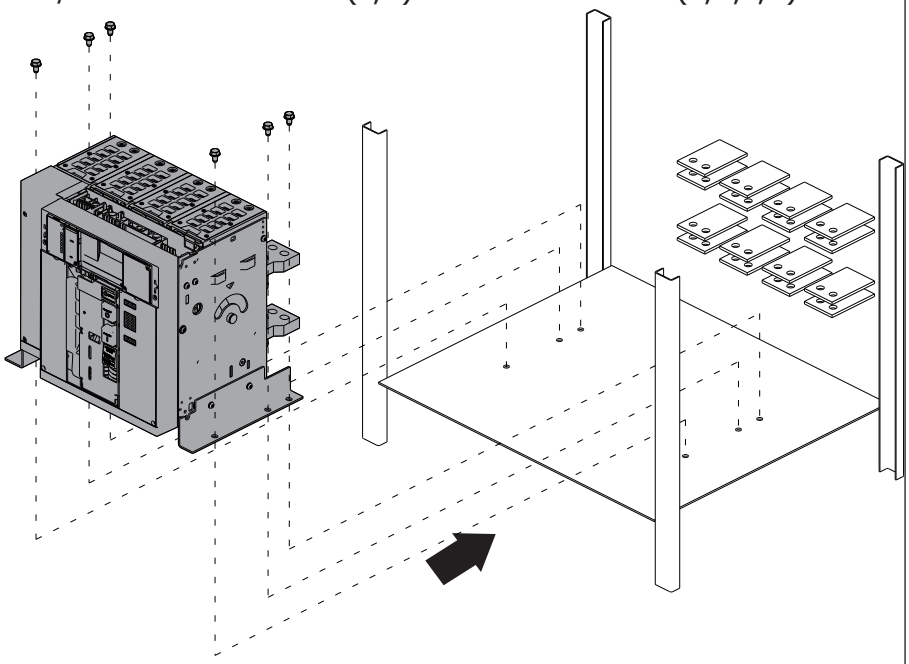


TERMINALE INFERIORE
LOWER TERMINAL
UNTERE ANSCHLUSS
BORNE INFÉRIEUR
TERMINALES INFERIOR

5

RF Env1(S,N,H)-F 1600(B,N,S,H) HR -> E2.2(B,N,S,H)-A 1600
RF M-PACT Plus/M-PACT Frame Size1 (S,N)-F 2000 HR -> E2.2(B,N,S,H)-A 2000

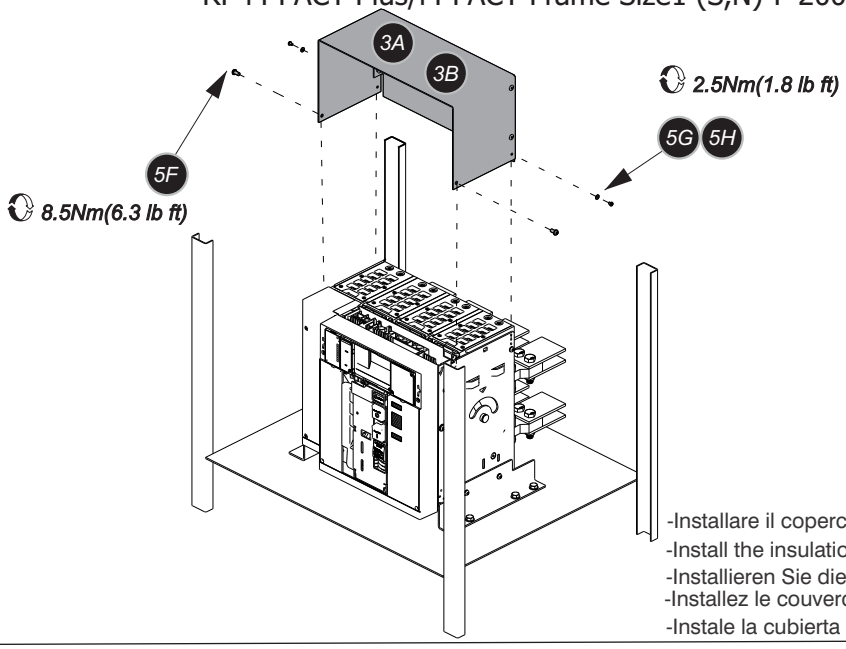
- Installare l'interruttore nel quadro. Stringere le viti.
- Install the breaker in the switchboard. Tighten the screws.
- Installieren Sie die Leistungschalter in die Schaltanlage. Ziehen Sie die Schrauben an.
- Installez le disjoncteur fixe dans le tableau. Serrez les vis.
- Instale el interruptor en el cuadro. Apretar los tornillos.



Riusare viteria esistente
Use the existing screws and bolts again
Die vorhandenen Schraubteile wiederbenutzen
Réutiliser la boulonnerie existante
Reutilzar la tornilleria existente

6

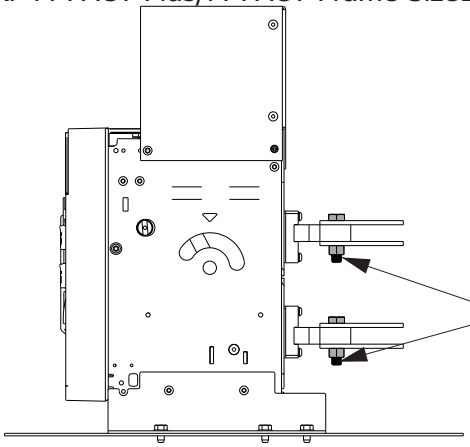
RF Env1(S,N,H)-F 1600 HR -> E2.2(B,N,S,H)-A 1600
RF M-PACT Plus/M-PACT Frame Size1 (S,N)-F 2000 HR -> E2.2(B,N,S,H)-A 2000



-Installare il coperchio isolante sulla parte mobile.
-Install the insulation cover on Moving portion.
-Installieren Sie die Isolationsabdeckung am beweglichen Teil.
-Installez le couvercle isolant sur la partie mobile.
-Instale la cubierta de aislamiento en la parte móvil.

7

RF Env1(S,N,H)-F 1600 HR -> E2.2-A 1600
RF M-PACT Plus/M-PACT Frame Size1 (S,N)-F 2000 HR -> E2.2(B,N,S,H)-A 2000

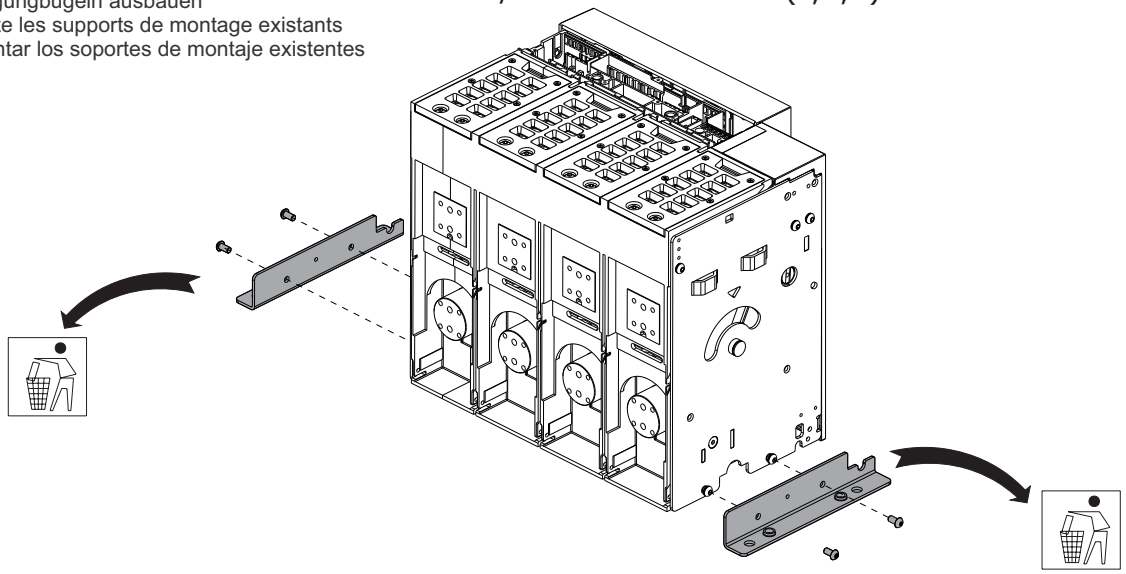


Riusare viteria esistente
Use the existing screws and bolts again
Die vorhandenen Schraubteile wiederbenutzen
Réutiliser la boulonnerie existante
Reutilzar la tornilleria existente

8

- Smontare le staffe esistenti
- Remove the existing brackets
- Befestigungbügeln ausbauen
- Démonte les supports de montage existants
- Desmontar los soportes de montaje existentes

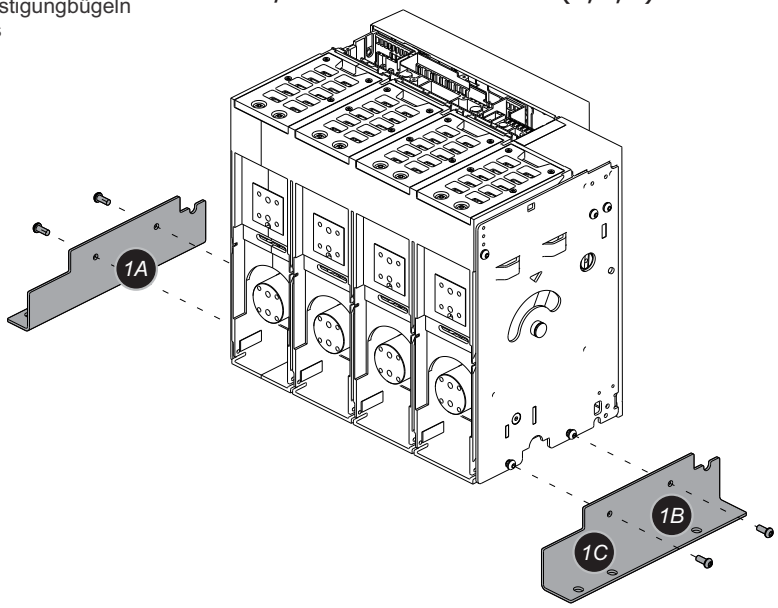
RF Env1(S,N,H)-F 2000 HR->E2.2 (B,N,S,H) 2000
RF M-PACT Plus /M-PACT Frame size 1(S,N,H)-F 2500 HR ->E2.2(B,N,S,H) 2500



9

- Montare le nuove staffe
- Assemble new brackets
- Montieren Sie die neuen Befestigungbügeln
- Ajuster les nouveaux supports

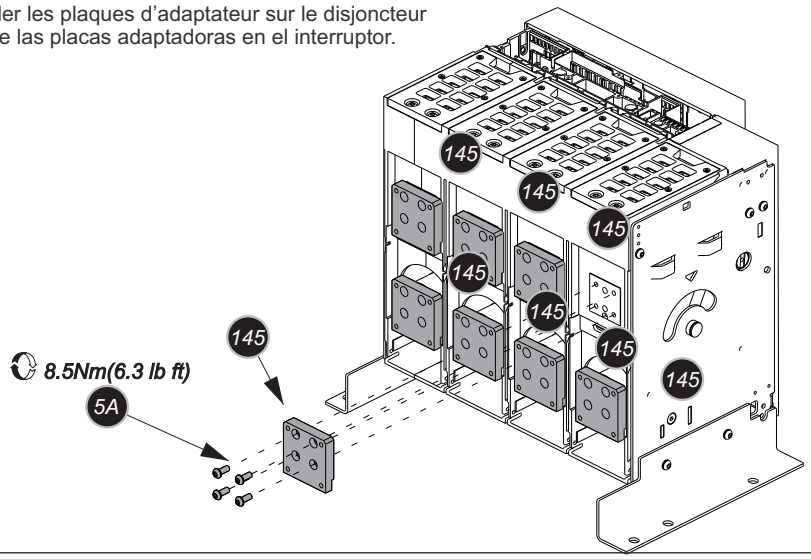
RF Env1(S,N,H)-F 2000 HR->E2.2(B,N,S,H) 2000
RF M-PACT Plus /M-PACT Frame size 1(S,N,H)-F 2500 HR ->E2.2(B,N,S,H) 2500



10

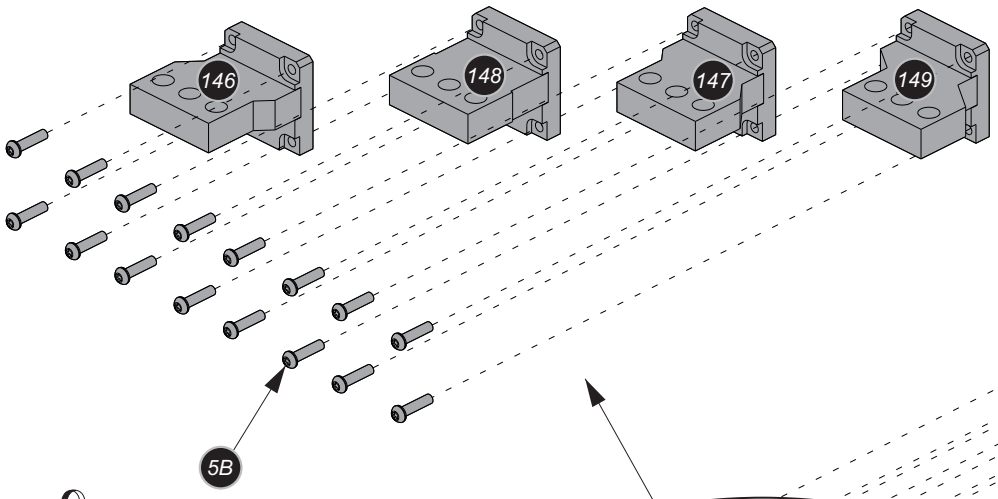
- Installare le piastre di adattamento sull'interruttore.
- Install the Adapter plates to the breaker.
- Installieren Sie die Adapterplatten am Leistungsschalter.
- Installer les plaques d'adaptateur sur le disjoncteur
- Instale las placas adaptadoras en el interruptor.

RF Env1(S,N,H)-F 2000 HR >E2.2(B,N,S,H) 2000
RF M-PACT Plus /M-PACT Frame size 1(S,N,H)-F 2500 HR ->E2.2(B,N,S,H) 2500

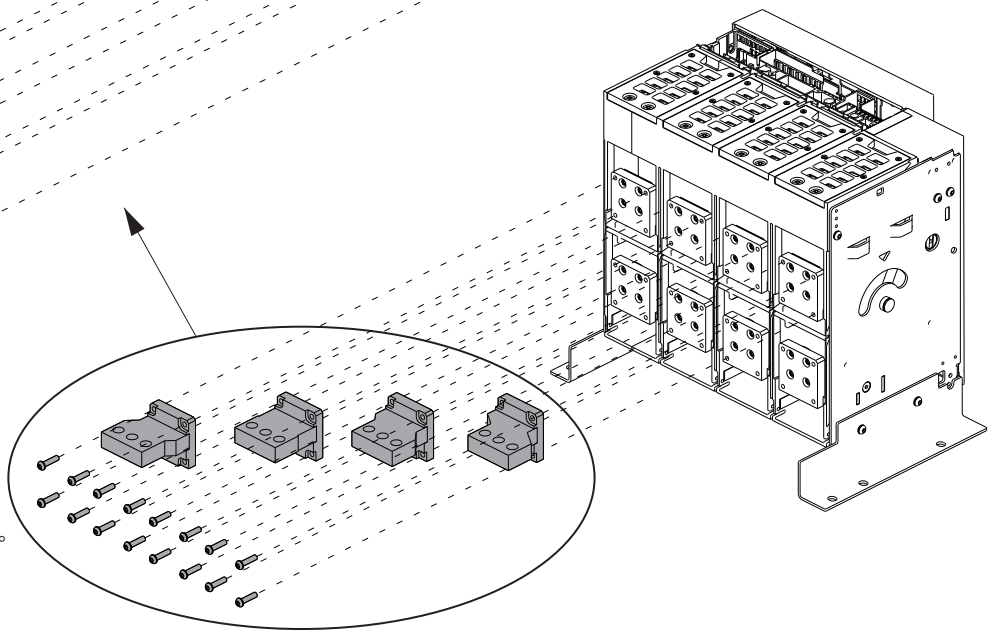


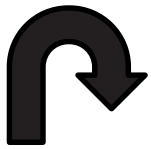
RF Env1(S,N,H)-F 2000 HR->E2.2(B,N,S,H) 2000
RF M-PACT Plus /M-PACT Frame size 1(S,N,H)-F 2500 HR ->E2.2(B,N,S,H) 2500

- Installare i terminali sull'interruttore .
- Install the terminals to the breaker
- Installieren Sie die Klemmen am Leistungsschalter
- Installer les prises sur le disjoncteur
- Instale los terminales al interruptor

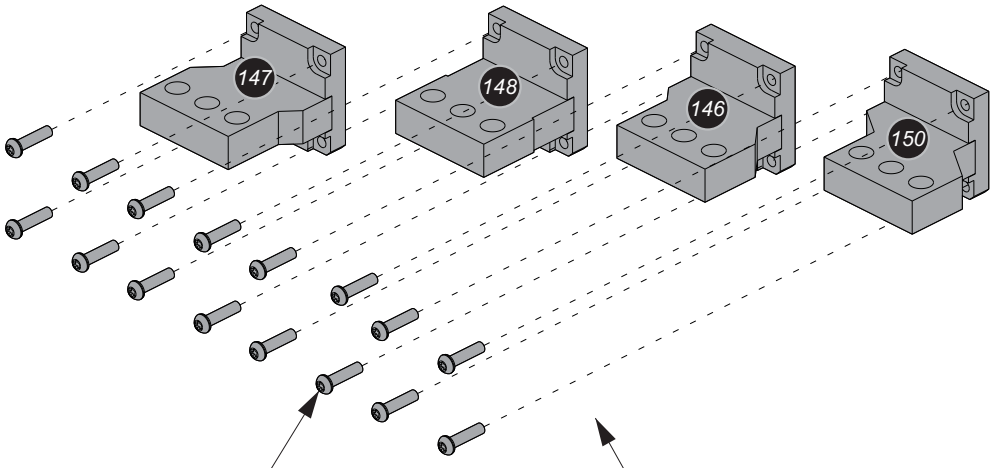


TERMINALE SUPERIORE
UPPER TERMINAL
OBERE ANSCHLUSS
BORNE SUPÉRIEURE
TERMINALES SUPERIOR

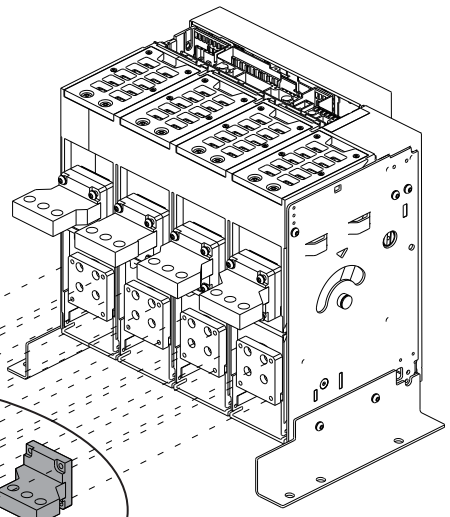


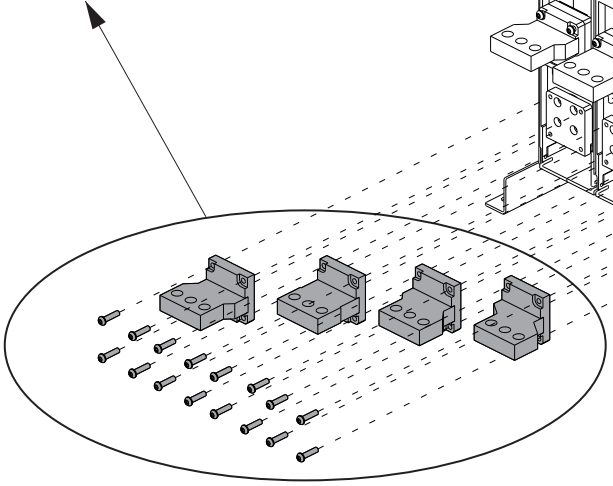


ROTATE THE UPPER TERMINAL BY 180°
AND ASSEMBLE LOWER TERMINAL



TERMINALE INFERIORE
LOWER TERMINAL
UNTERE ANSCHLUSS
BORNE INFÉRIEUR
TERMINALES INFERIOR

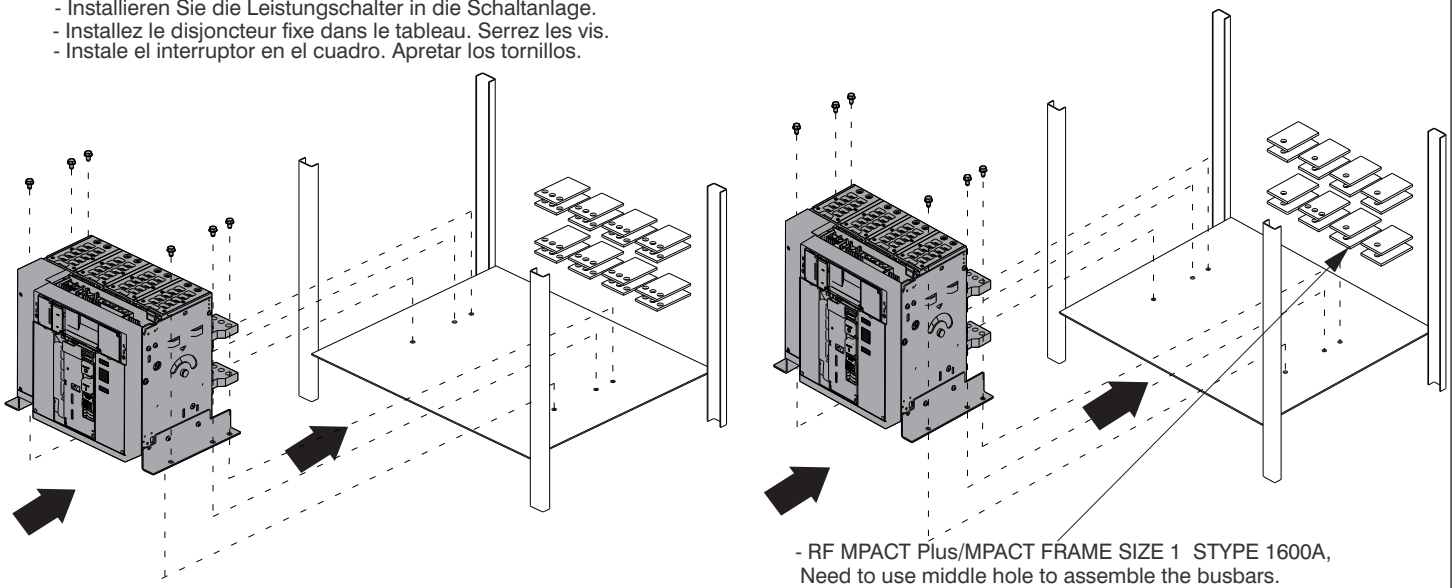




12

RF Env1(S,N,H)-F 2000 HR->E2.2(B,N,S,H) 2000
RF M-PACT Plus /M-PACT Frame size 1(S,N,H)-F 2500 HR ->E2.2(B,N,S,H) 2500

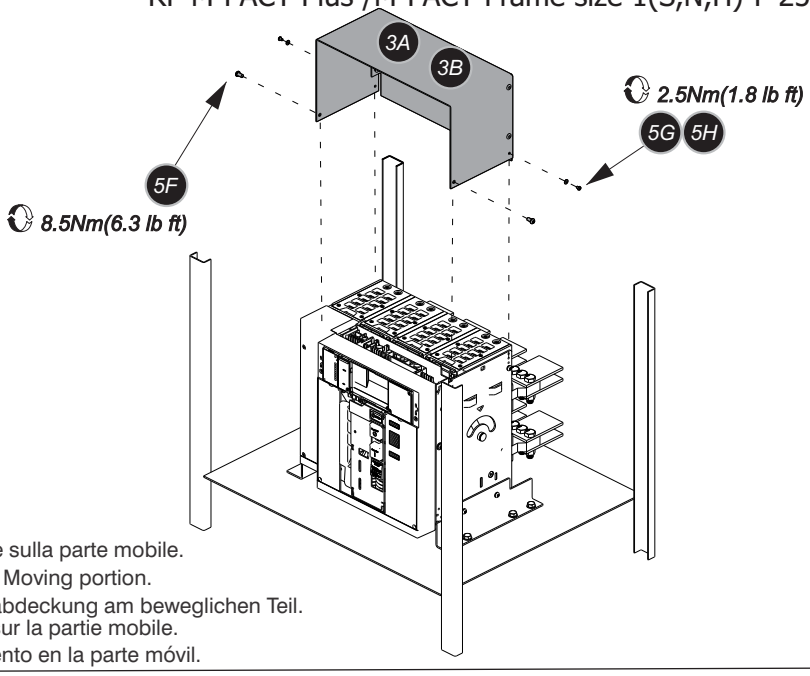
- Installare l'interruttore nel quadro. Stringere le viti.
- Install the breaker in the switchboard. Tighten the screws. Ziehen Sie die Schrauben an.
- Installieren Sie die Leistungschalter in die Schaltanlage.
- Installez le disjoncteur fixe dans le tableau. Serrez les vis.
- Instale el interruptor en el cuadro. Apretar los tornillos.



- RF MPACT Plus/MPACT FRAME SIZE 1 STYPE 1600A,
Need to use middle hole to assemble the busbars.

13

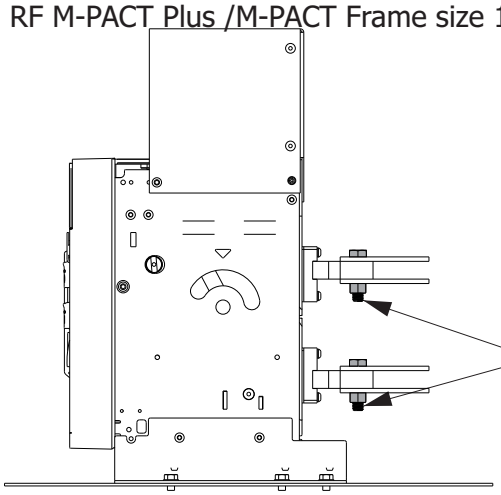
RF Env1(S,N,H)-F 2000 HR->E2.2(B,N,S,H) 2000
RF M-PACT Plus /M-PACT Frame size 1(S,N,H)-F 2500 HR ->E2.2(B,N,S,H) 2500



-Installare il coperchio isolante sulla parte mobile.
-Install the insulation cover on Moving portion.
-Installieren Sie die Isolationsabdeckung am beweglichen Teil.
-Installez le couvercle isolant sur la partie mobile.
-Instale la cubierta de aislamiento en la parte móvil.

14

RF Env1(S,N,H)-F 2000 HR ->E2.2(B,N,S,H) 2000
RF M-PACT Plus /M-PACT Frame size 1(S,N,H)-F 2500 HR ->E2.2(B,N,S,H) 2500

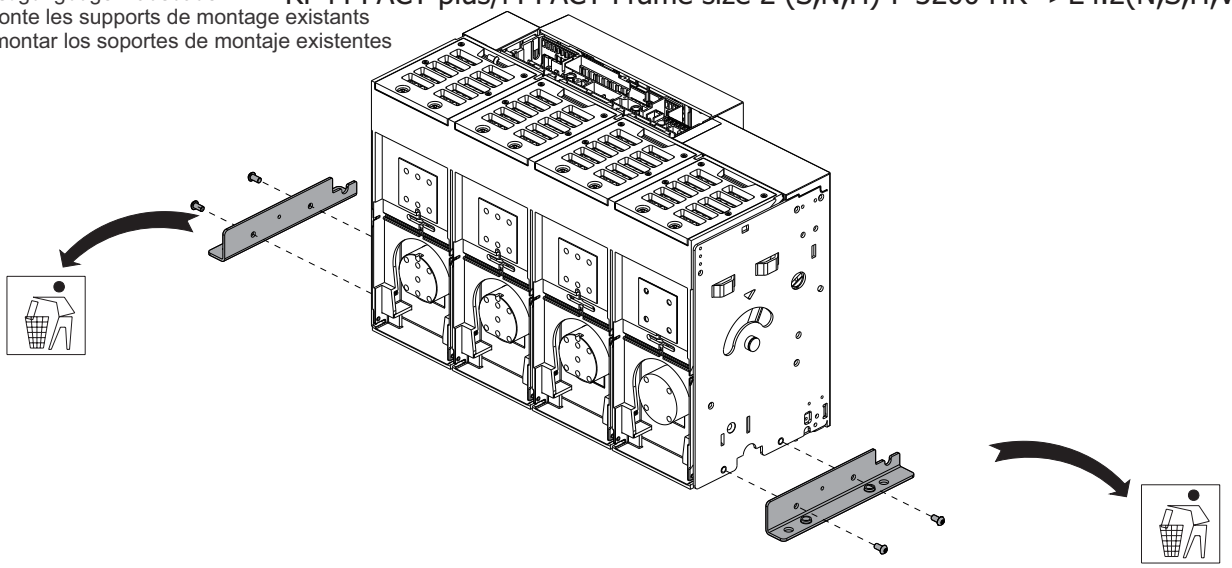


Riusare viteria esistente
Use the existing screws and bolts again
Die vorhandenen Schraubteile wiederbenutzen
Réutiliser la boulonnerie existante
Reutilzar la tornilleria existente

15

- Smontare le staffe esistenti
- Remove the existing brackets
- Befestigungbügeln ausbauen
- Démonte les supports de montage existants
- Desmontar los soportes de montaje existentes

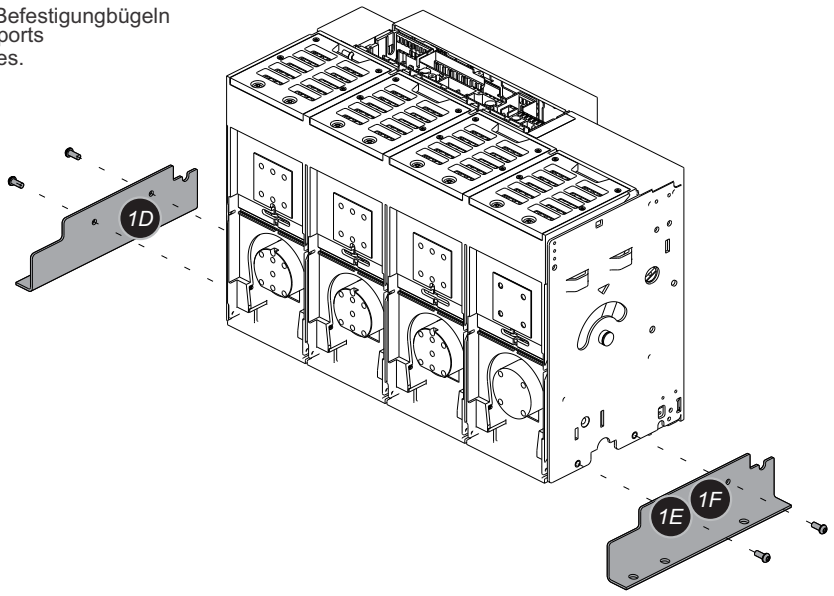
RF Env2(N,E,H,M)-F 3200 HR->E4.2(N,S,H,V) 3200
RF M-PACT plus/M-PACT Frame size 2 (S,N,H)-F 3200 HR ->E4.2(N,S,H,V) 3200



16

- Montare le nuove staffe
- Assemble new brackets
- Montieren Sie die neuen Befestigungbügeln
- Ajuster les nouveaux supports
- Montar los nuevos soportes.

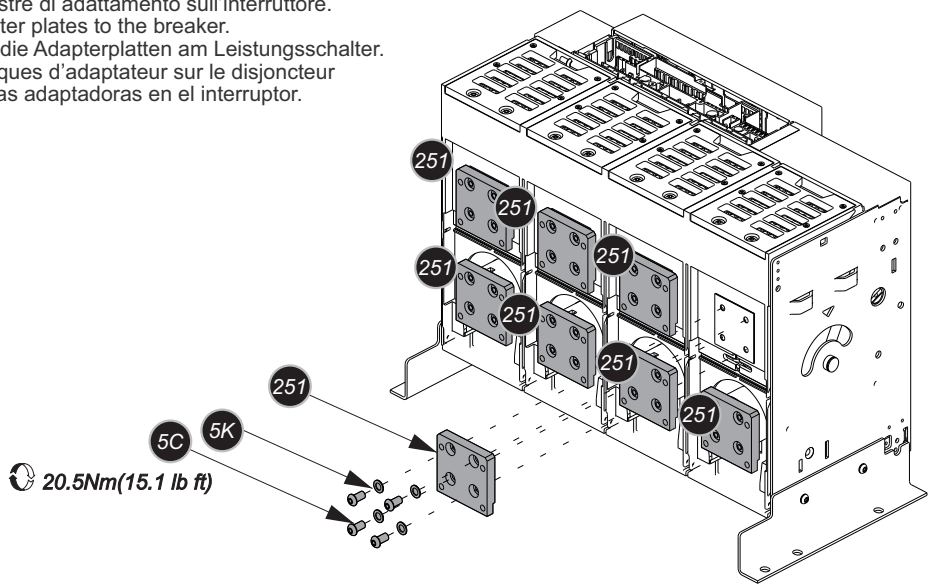
RF Env2(N,E,H,M)-F 3200 HR->E4.2(N,S,H,V) 3200
RF M-PACT plus/M-PACT Frame size 2 (S,N,H)-F 3200 HR ->E4.2(N,S,H,V) 3200



17

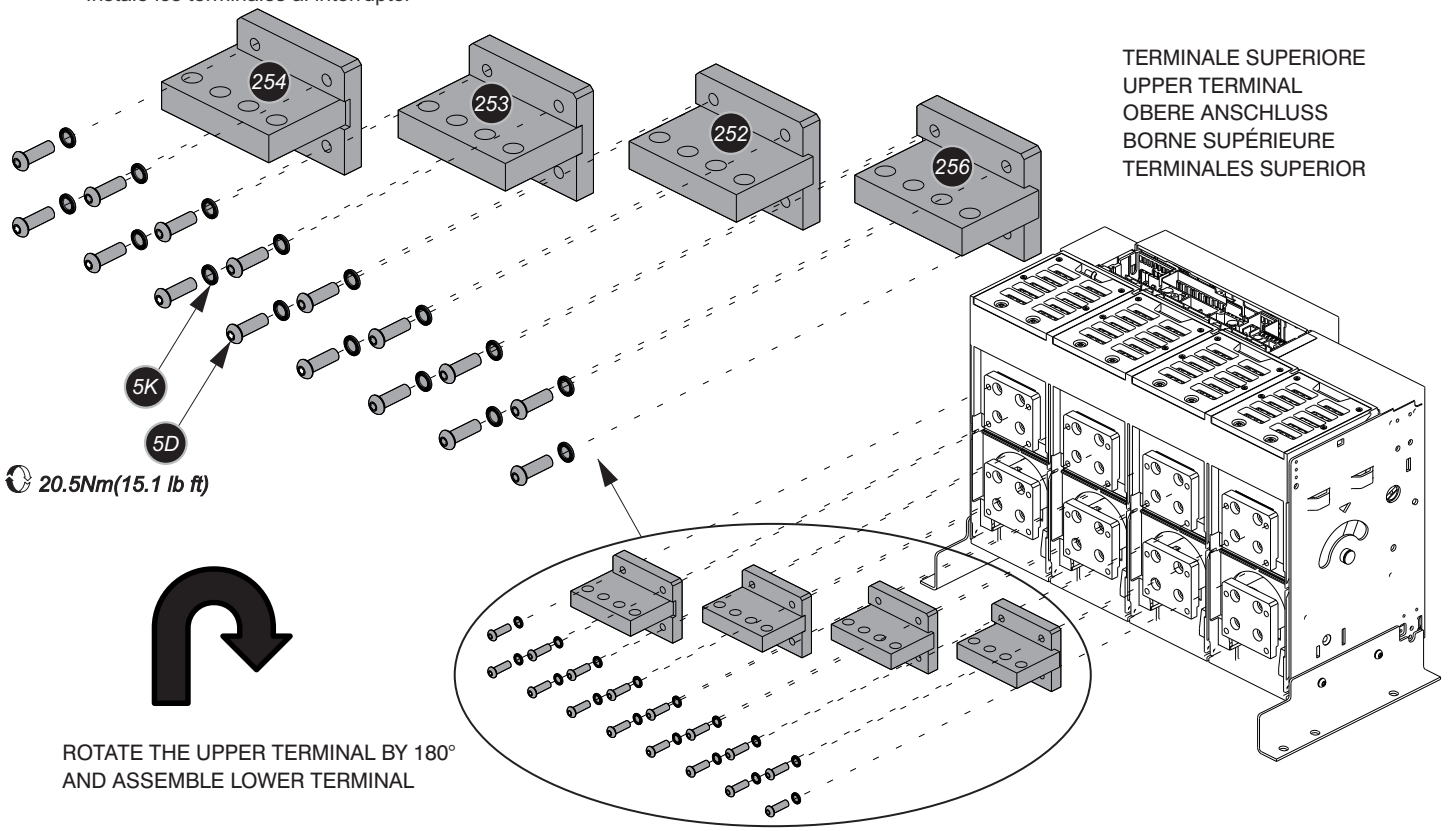
- Installare le piastre di adattamento sull'interruttore.
- Install the Adapter plates to the breaker.
- Installieren Sie die Adapterplatten am Leistungsschalter.
- Installer les plaques d'adaptateur sur le disjoncteur
- Instale las placas adaptadoras en el interruptor.

RF Env2(N,E,H,M)-F 3200 HR->E4.2(N,S,H,V) 3200
RF M-PACT plus/M-PACT Frame size 2 (S,N,H)-F 3200 HR ->E4.2(N,S,H,V) 3200



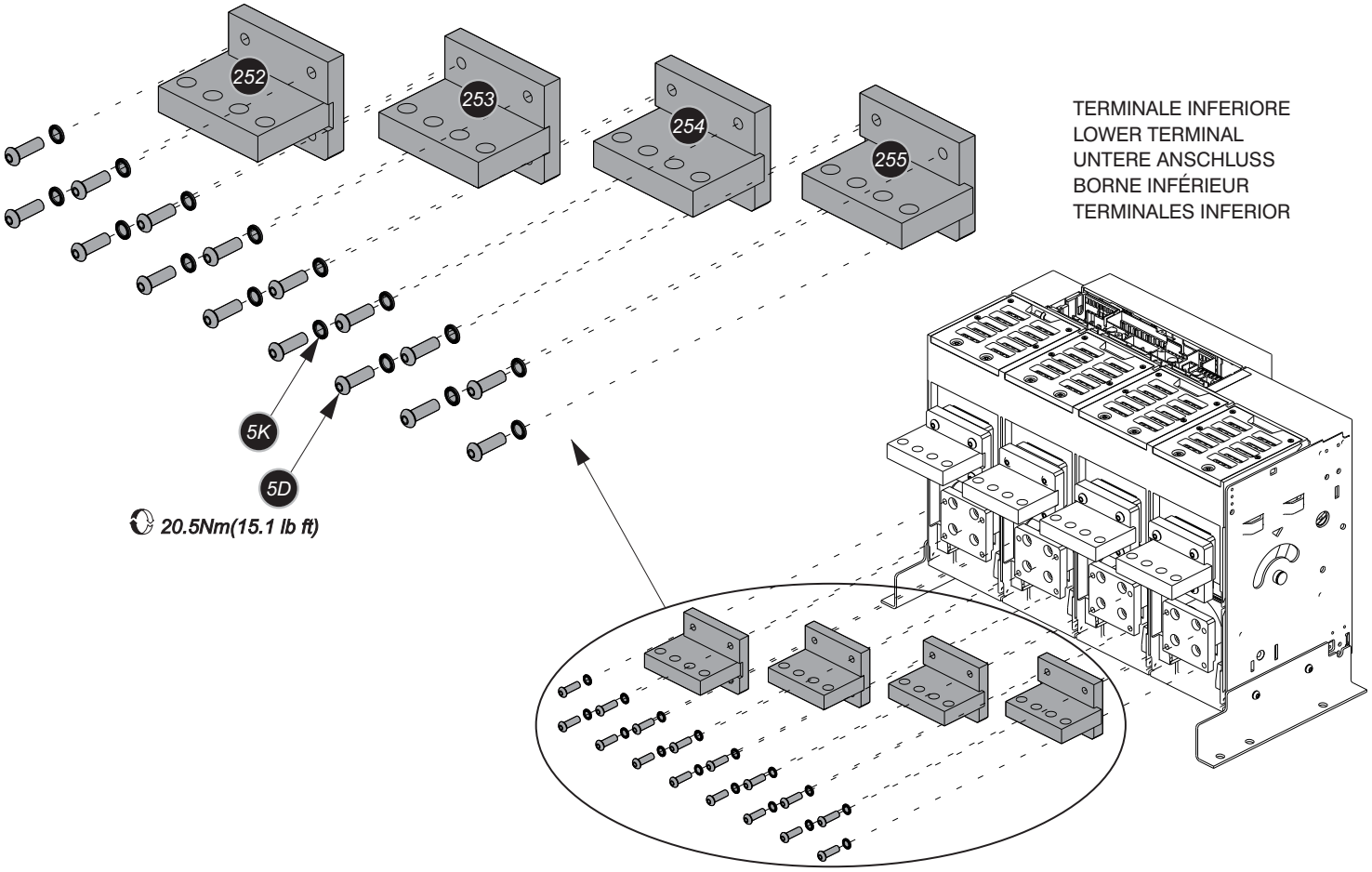
18

- Installare i terminali sull'interruttore .
- Install the terminals to the breaker
- Installieren Sie die Klemmen am Leistungsschalter
- Installer les prises sur le disjoncteur
- Instale los terminales al interruptor



TERMINALE SUPERIORE
UPPER TERMINAL
OBERE ANSCHLUSS
BORNE SUPÉRIEURE
TERMINALES SUPERIOR

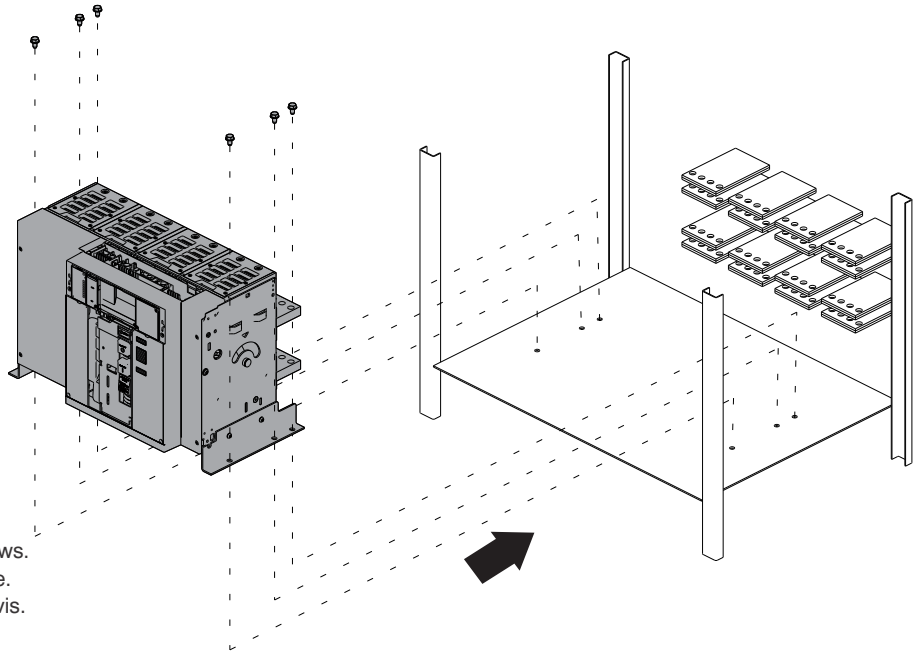
ROTATE THE UPPER TERMINAL BY 180°
AND ASSEMBLE LOWER TERMINAL



TERMINALE INFERIORE
LOWER TERMINAL
UNTERE ANSCHLUSS
BORNE INFÉRIEUR
TERMINALES INFERIOR

19

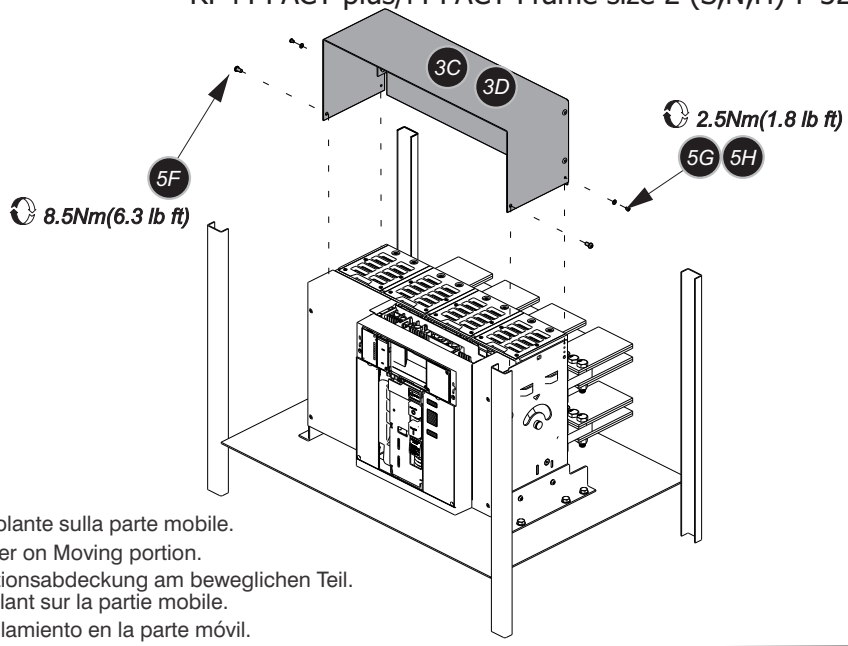
RF Env2(N,E,H,M)-F 3200 HR->E4.2(N,S,H,V) 3200
RF M-PACT plus/M-PACT Frame size 2 (S,N,H)-F 3200 HR ->E4.2(N,S,H,V) 3200



- Installare l'interruttore nel quadro. Stringere le viti.
- Install the breaker in the switchboard. Tighten the screws.
- Installieren Sie die Leistungschalter in die Schaltanlage.
- Installez le disjoncteur fixe dans le tableau. Serrez les vis.
- Instale el interruptor en el cuadro. Apretar los tornillos.

20

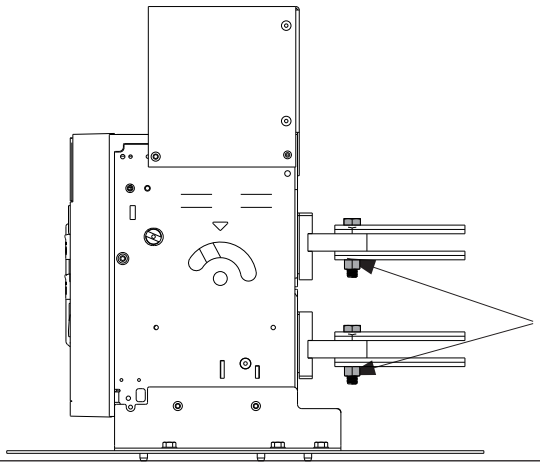
RF Env2(N,E,H,M)-F 3200 HR->E4.2(N,S,H,V) 3200
RF M-PACT plus/M-PACT Frame size 2 (S,N,H)-F 3200 HR ->E4.2(N,S,H,V) 3200



-Installare il coperchio isolante sulla parte mobile.
-Install the insulation cover on Moving portion.
-Installieren Sie die Isolationsabdeckung am beweglichen Teil.
-Installez le couvercle isolant sur la partie mobile.
-Instale la cubierta de aislamiento en la parte móvil.

21

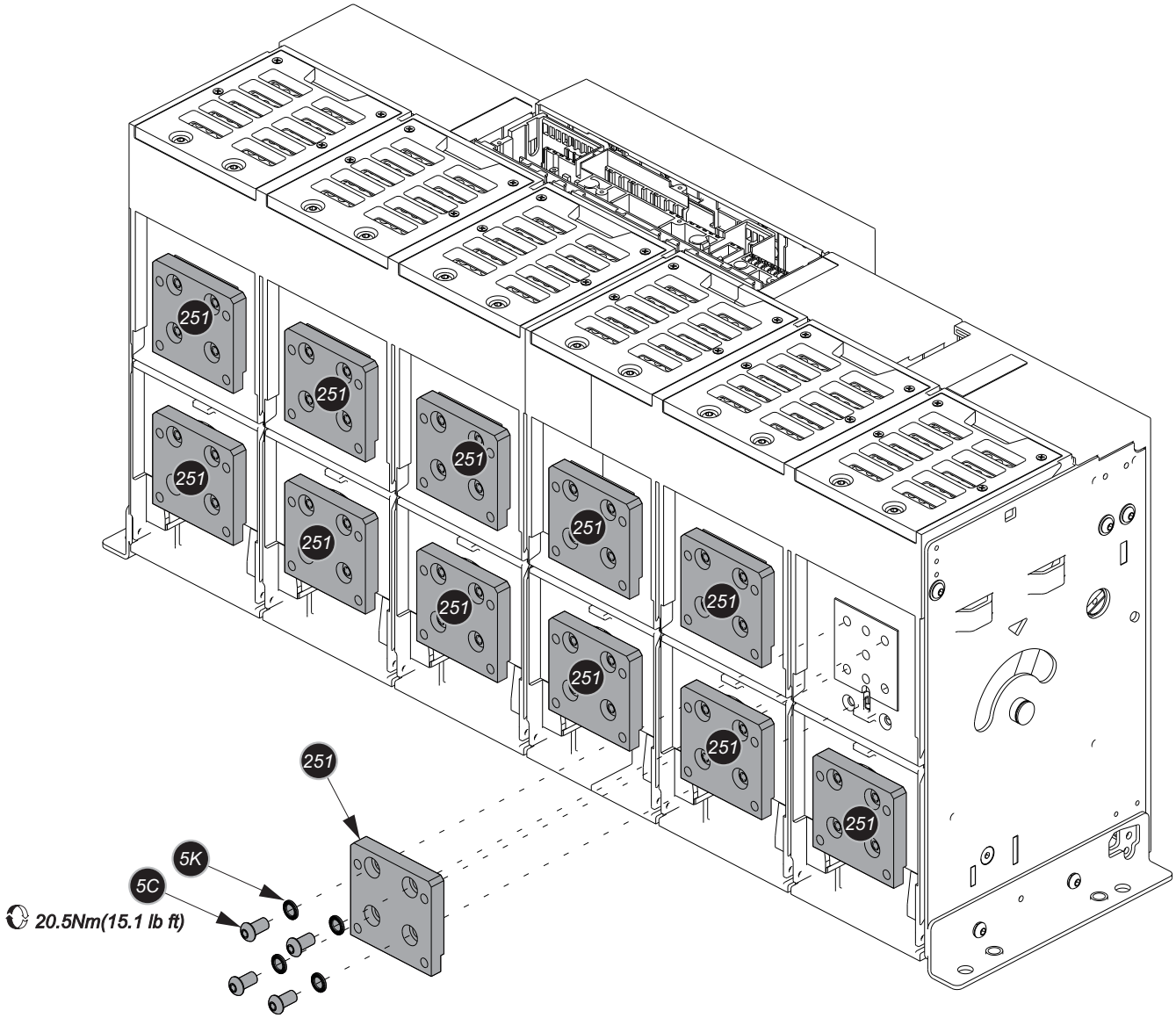
RF Env2(N,E,H,M)-F 3200 HR->E4.2(N,S,H,V) 3200
RF M-PACT plus/M-PACT Frame size 2 (S,N,H)-F 3200 HR ->E4.2(N,S,H,V) 3200



Riusare viteria esistente
Use the existing screws and bolts again
Die vorhandenen Schraubteile wiederbenutzen
Réutiliser la boulonnerie existante
Reutilzar la tornilleria existente

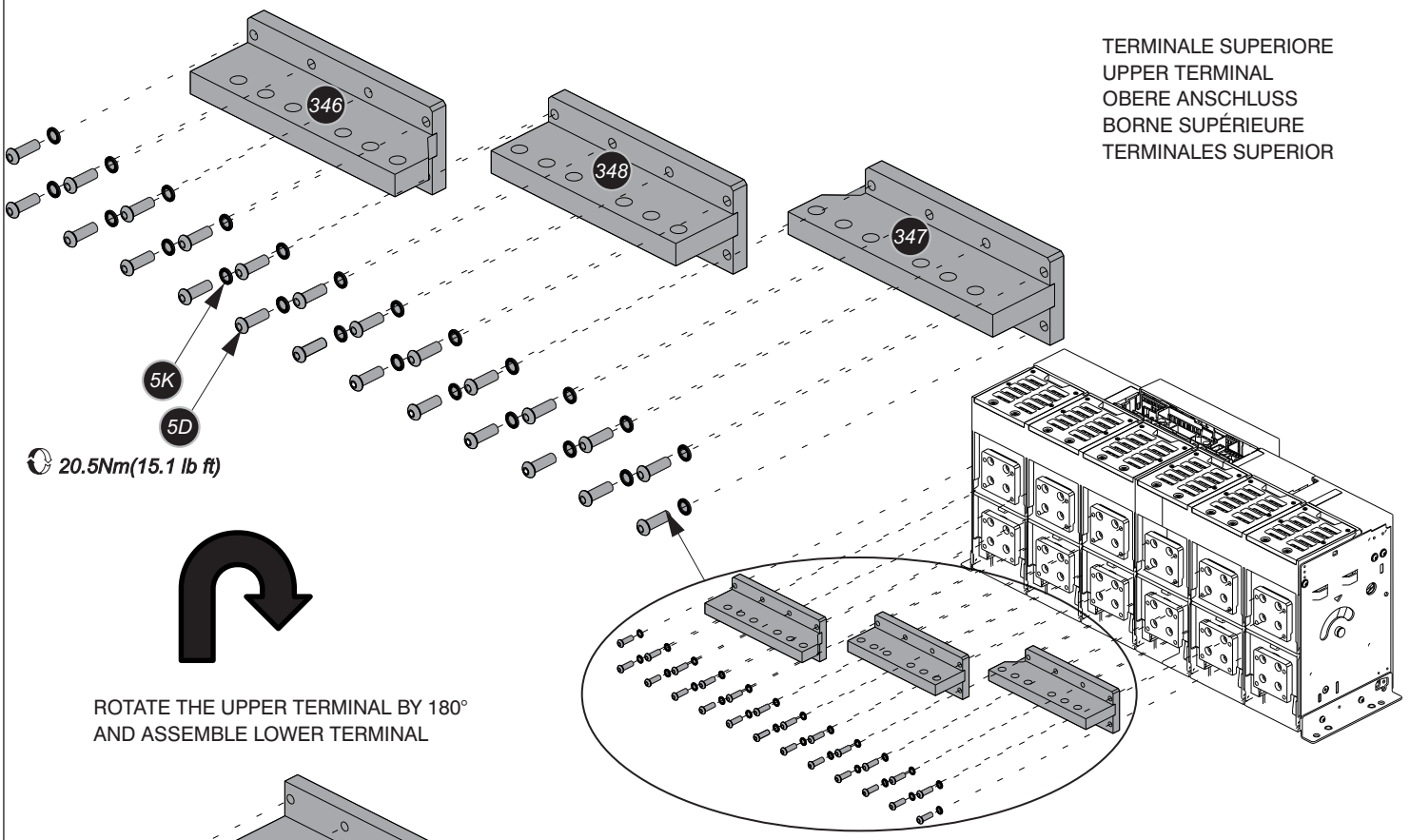
22

- Installare le piastre di adattamento sull'interruttore.
- Install the Adapter plates to the breaker.
- Installieren Sie die Adapterplatten am Leistungsschalter.
- Installer les plaques d'adaptateur sur le disjoncteur
- Instale las placas adaptadoras en el interruptor.



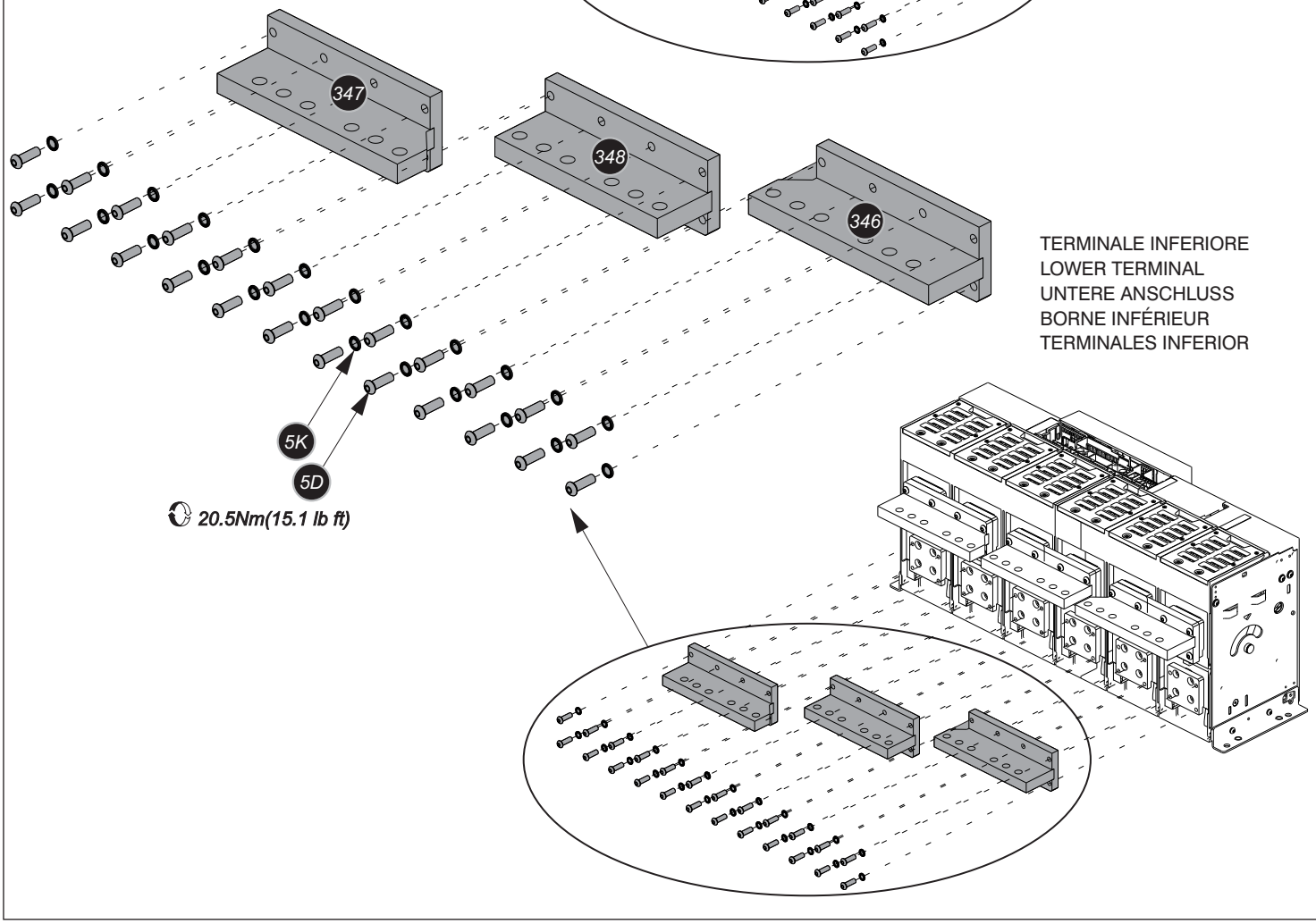
23

- Installare i terminali sull'interruttore .
- Install the terminals to the breaker
- Installieren Sie die Klemmen am Leistungsschalter
- Installer les prises sur le disjoncteur
- Instale los terminales al interruptor



TERMINALE SUPERIORE
UPPER TERMINAL
OBERE ANSCHLUSS
BORNE SUPÉRIEURE
TERMINALES SUPERIOR

ROTATE THE UPPER TERMINAL BY 180°
AND ASSEMBLE LOWER TERMINAL



TERMINALE INFERIORE
LOWER TERMINAL
UNTERE ANSCHLUSS
BORNE INFÉRIEUR
TERMINALES INFERIOR

24 RF Env3(G,L)-F 5000 HR 3P->E6.2(H,V,X) 5000

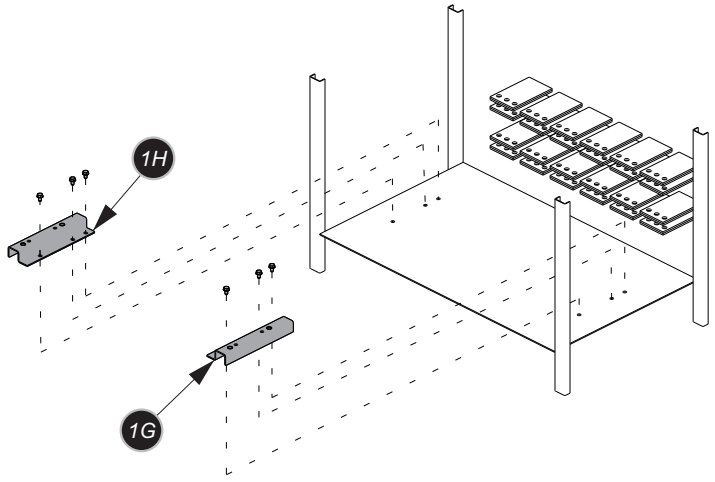
-Installare le staffe per cambiare marcia utilizzando l'hardware esistente.

-install the Brackets to switch gear by using existing hardware.

-Installieren Sie die Halterungen, um die Schaltung mit vorhandener Hardware durchzuführen.

-Installez les supports pour changer de vitesse en utilisant le matériel existant.

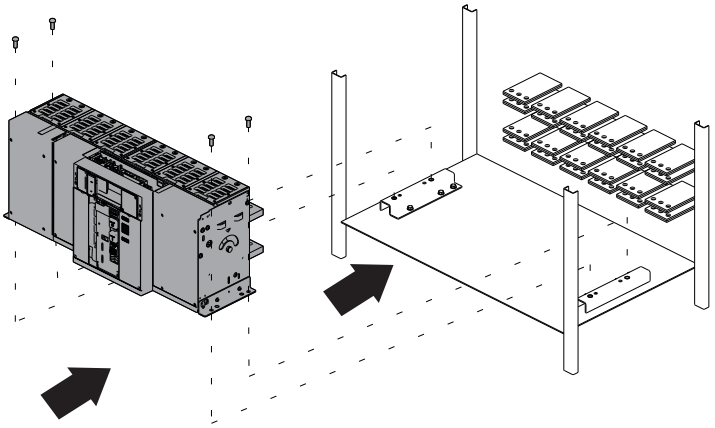
-Instale los soportes para cambiar de marcha utilizando el hardware existente.



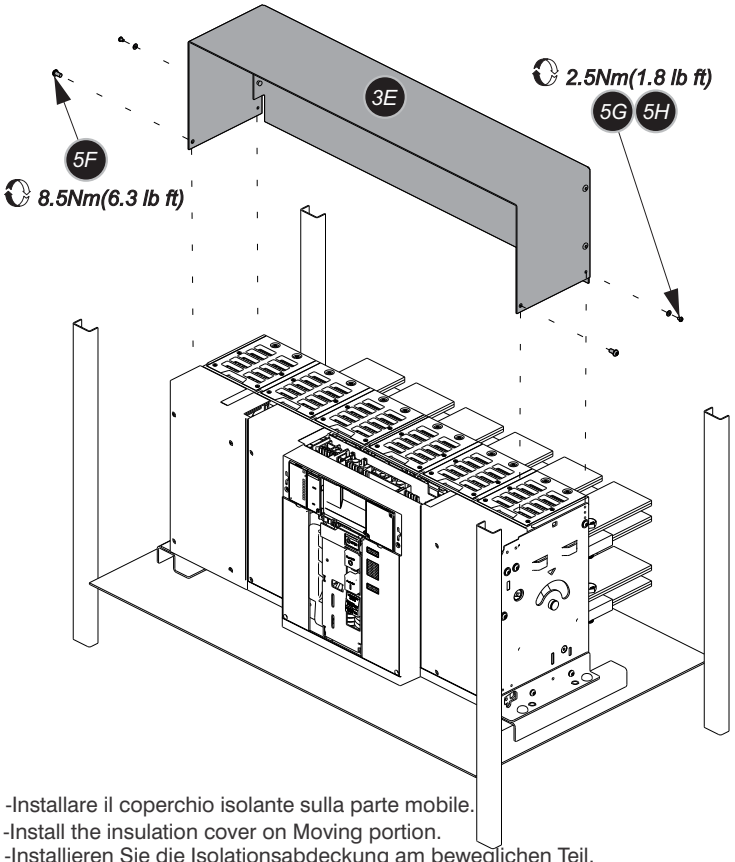
- Use the existing hardwares

25 RF Env3(G,L)-F 5000 HR 3P->E6.2(H,V,X) 5000

- Installare l'interruttore nel quadro. Stringere le viti.
- Install the breaker in the switchboard. Tighten the screws.
- Installieren Sie die Leistungschalter in die Schaltanlage.
- Installez le disjoncteur fixe dans le tableau. Serrez les vis.
- Instale el interruptor en el cuadro. Apretar los tornillos.



26 RF Env3(G,L)-F 5000 HR 3P->E6.2(H,V,X) 5000



-Installare il coperchio isolante sulla parte mobile.

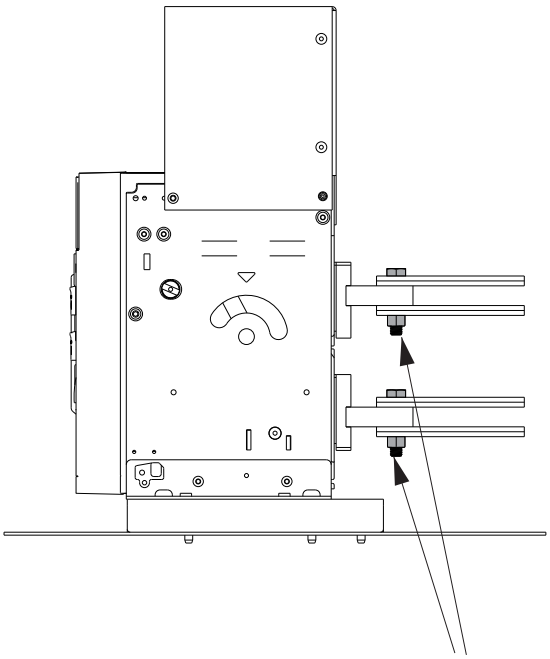
-Install the insulation cover on Moving portion.

-Installieren Sie die Isolationsabdeckung am beweglichen Teil.

-Installez le couvercle isolant sur la partie mobile.

-Instale la cubierta de aislamiento en la parte móvil.

27 RF Env3(G,L)-F 5000 HR 3P->E6.2(H,V,X) 5000

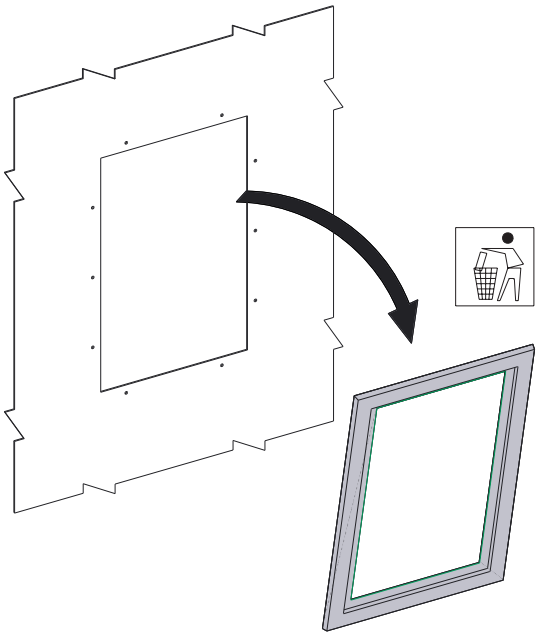


Riusare viteria esistente
Use the existing screws and bolts again
Die vorhandenen Schraubteile wiederbenutzen
Réutiliser la boulonnerie existante
Reutilzar la tornilleria existente

ENTELLIGUARD G VS EMAX 2 Door Cut out Details

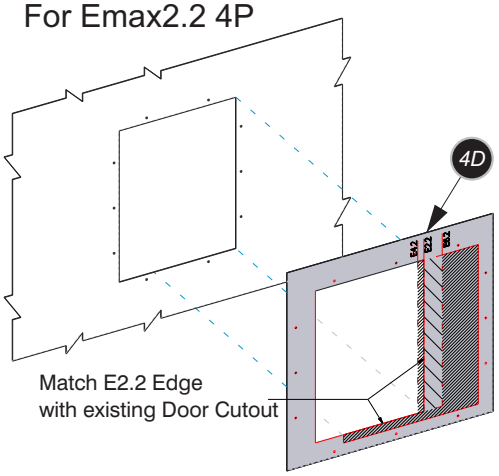
28 - Disassemble the flange of the old circuit-breaker.

3P & 4P

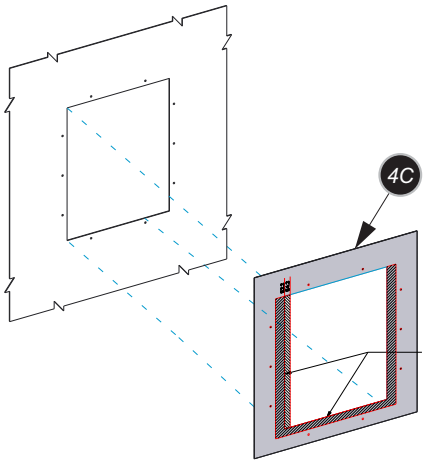


29 Position the adhesive template on the door and make sure that desired edges perfectly matches the respective existing door cutout edges.

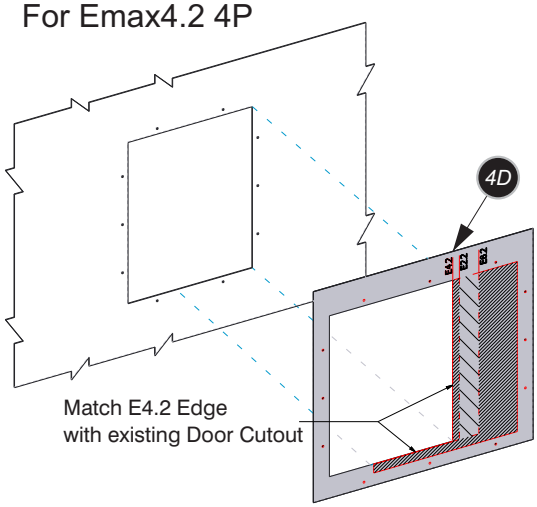
For Emax2.2 4P



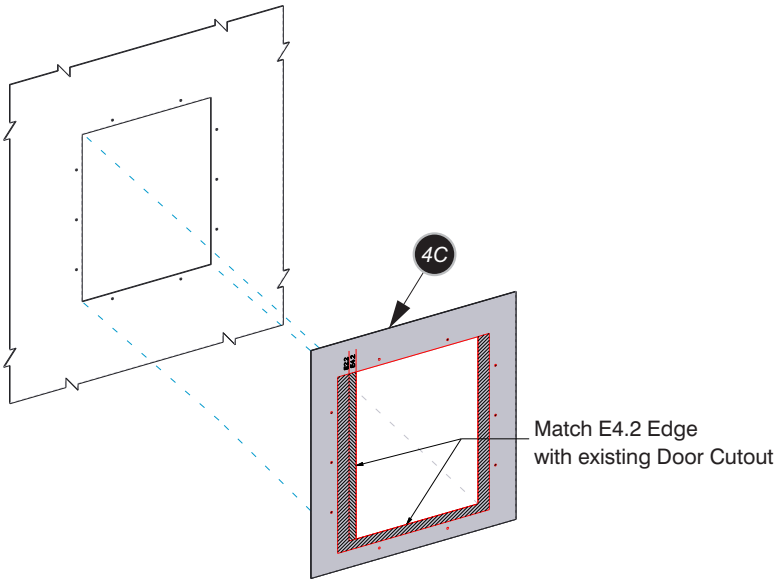
For Emax2.2 3P



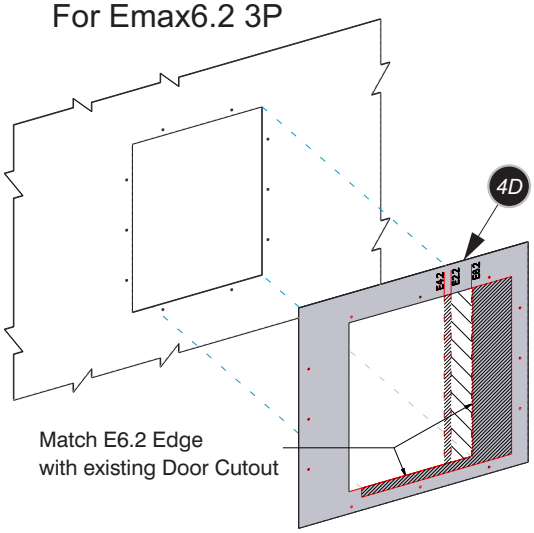
For Emax4.2 4P



For Emax4.2 3P

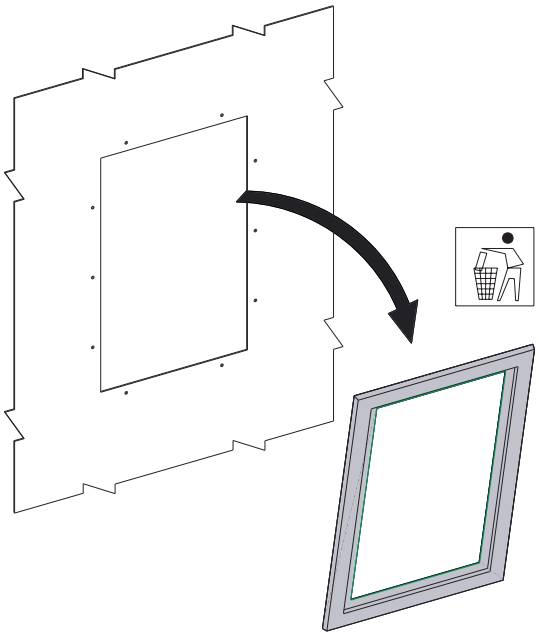


For Emax6.2 3P



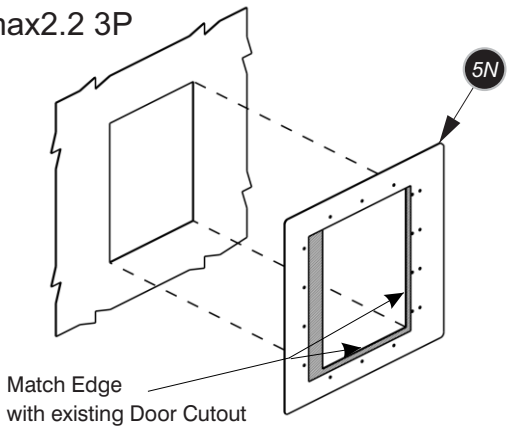
30 - Disassemble the flange of the old circuit-breaker.

3P & 4P

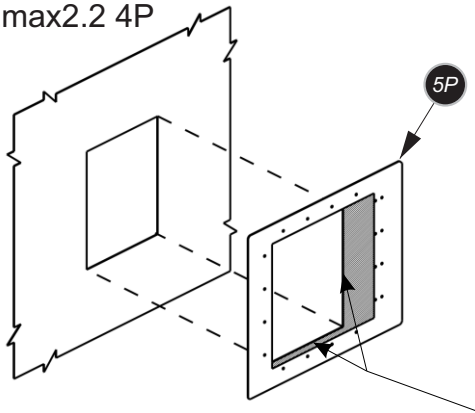


31 Position the adhesive template on the door and make sure that desired edges perfectly matches the respective existing door cutout edges.

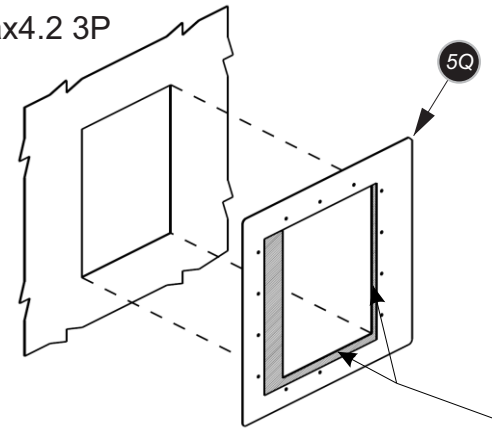
For Emax2.2 3P

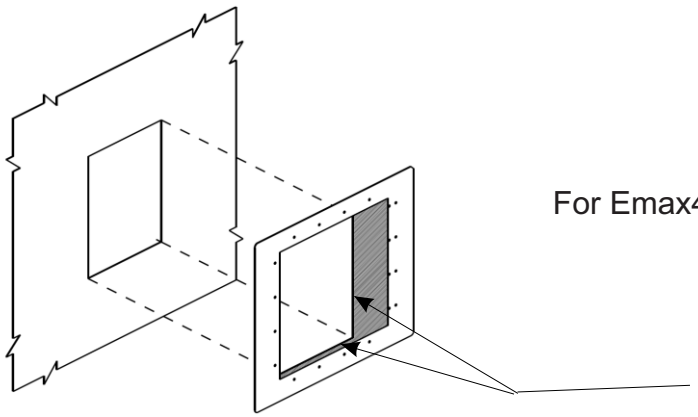


For Emax2.2 4P



For Emax4.2 3P





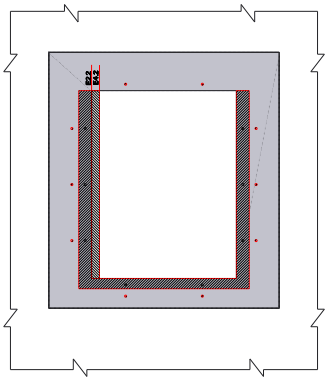
For Emax4.2 4P

Match E4.2 Edge
with existing Door Cutout

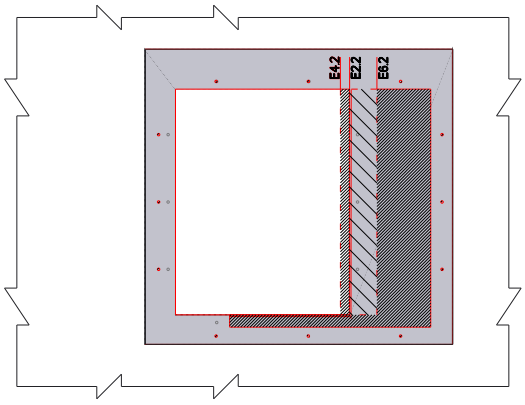
ENTELLIGUARD G VS EMAX 2 Door Cut out Details

32 Cut the door along the hatched red line and drill in the positions marked by the red holes

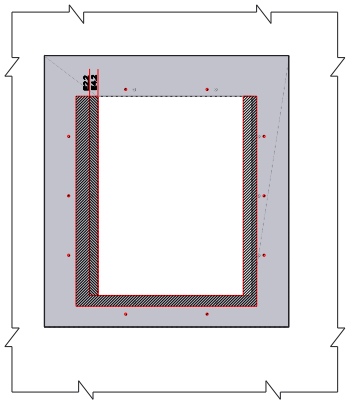
For Emax2.2 3P



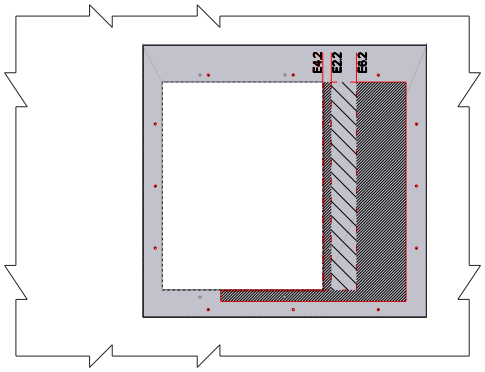
For Emax2.2 4P



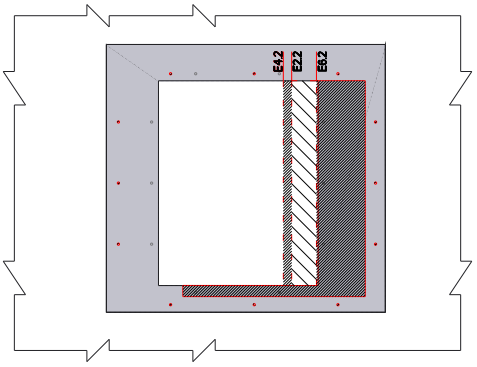
For Emax4.2 3P



For Emax4.2 4P

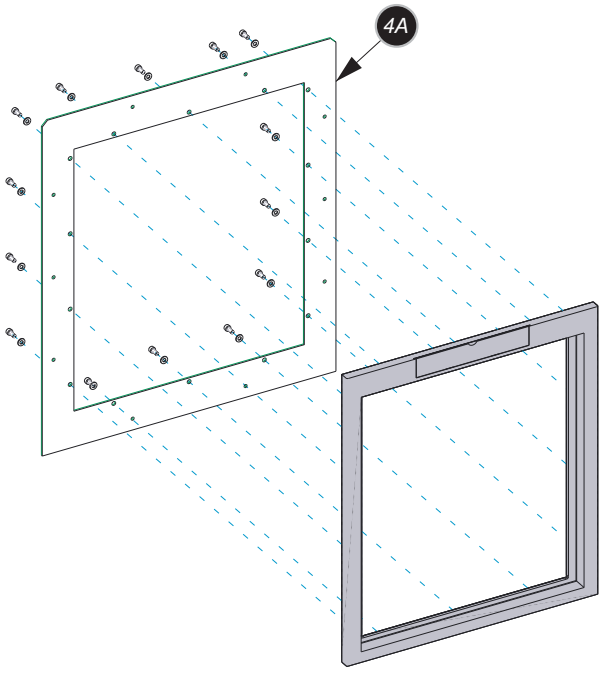


For Emax6.2 3P

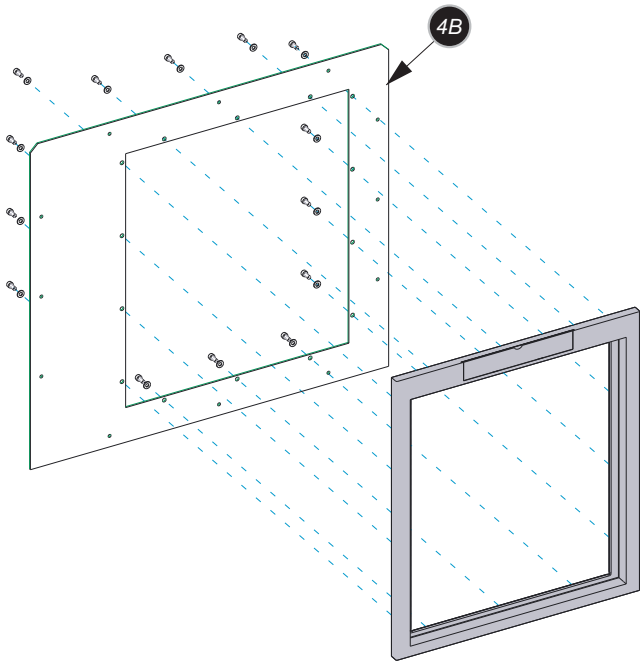


33 - Use hardware from Emax 1.2 door flange kit

For Emax2.2 3P & Emax4.2 3P



For Emax2.2 4P
Emax4.2 4P
Emax6.2 3P

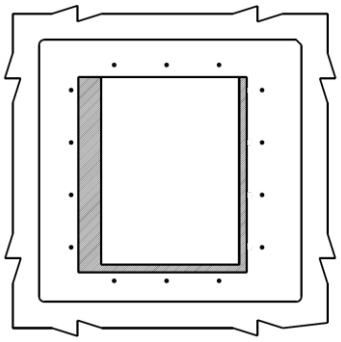


M-PACT Plus/M-PACT G VS EMAX 2 Door Cut out Details

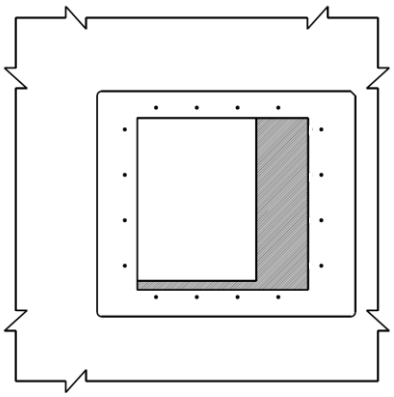
34

Cut the door along the hatched red line and drill in the positions marked by the red holes

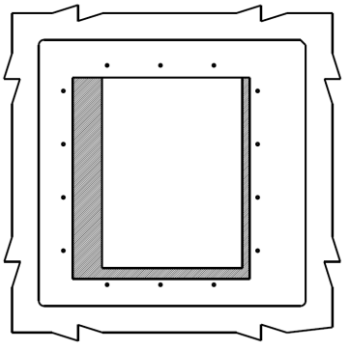
For Emax2.2 3P



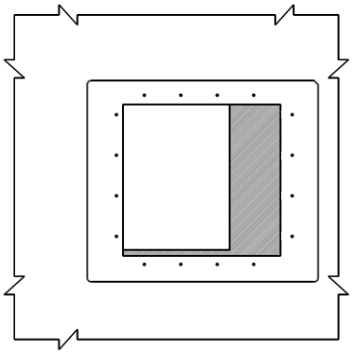
For Emax2.2 4P



For Emax4.2 3P



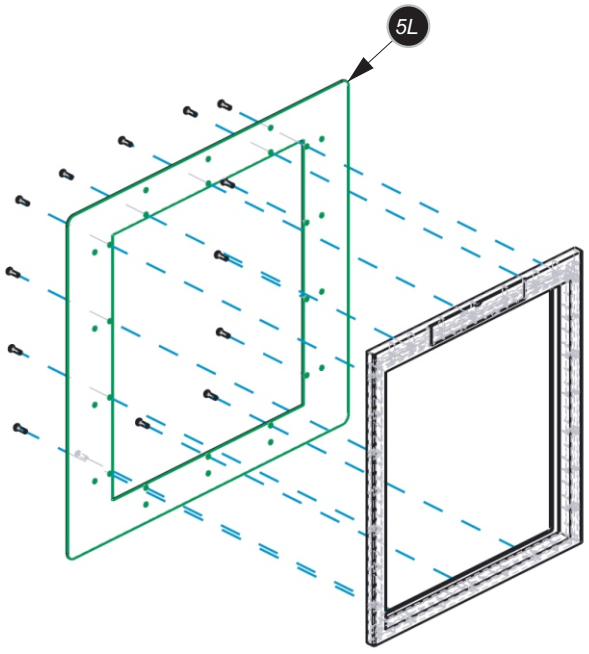
For Emax4.2 4P



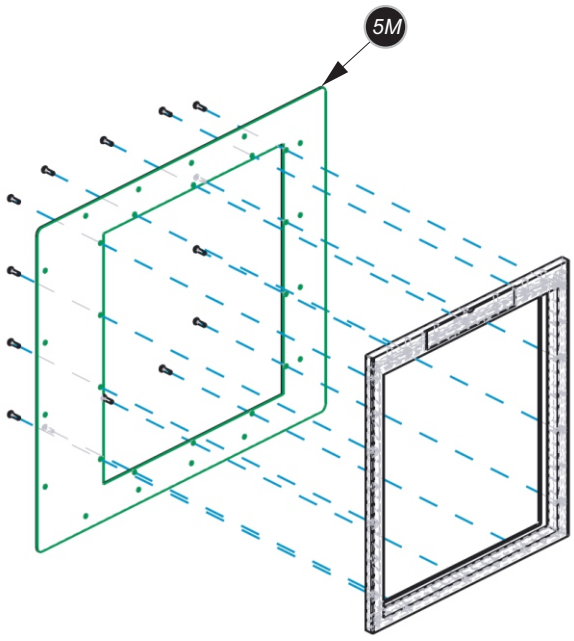
35

- Use hardware from Emax 1.2 door flange kit

For Emax2.2 3P & Emax4.2 3P



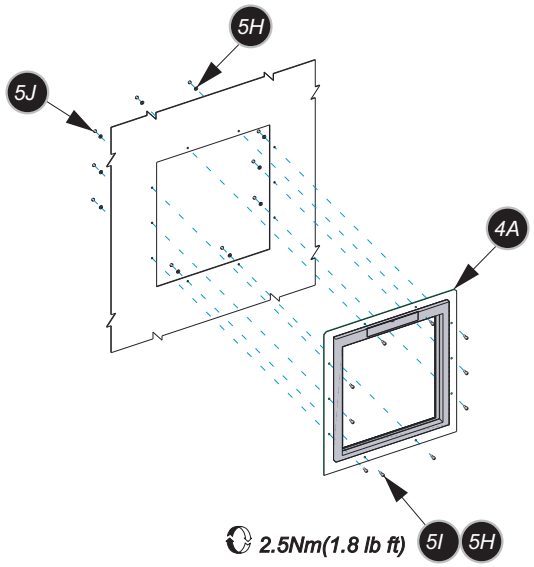
For Emax2.2 4P & Emax4.2 4P



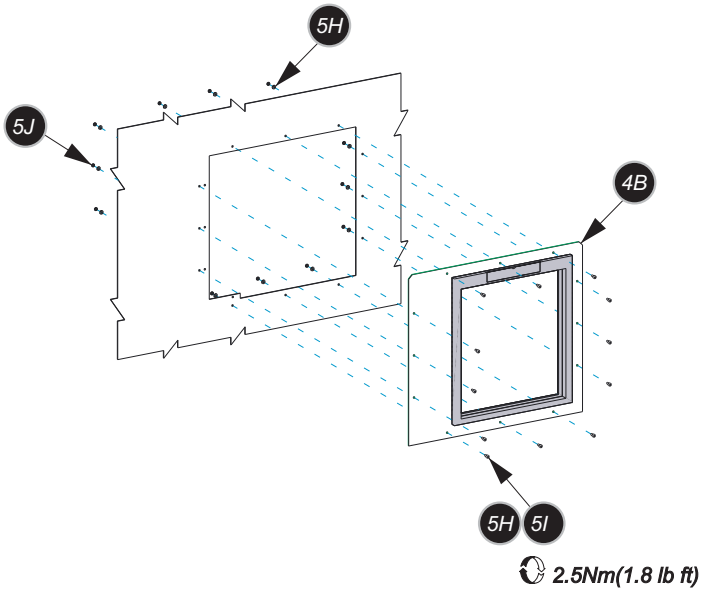
36

- Assemble the door adapter.

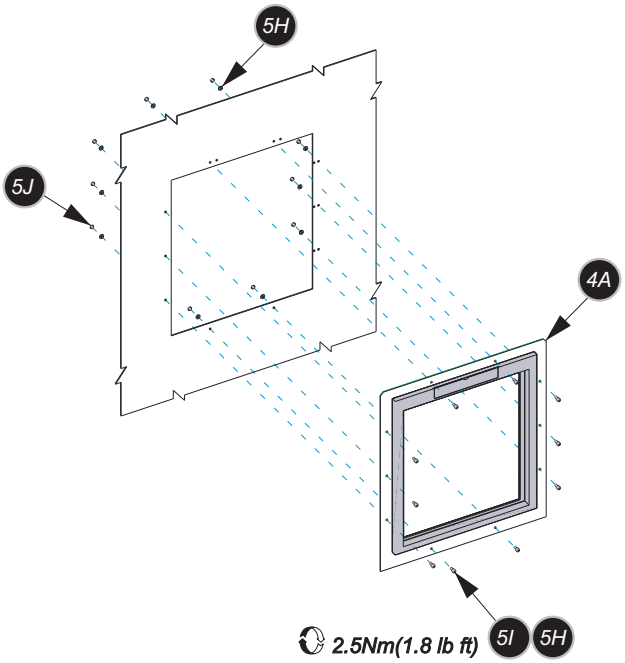
For Emax2.2 3P



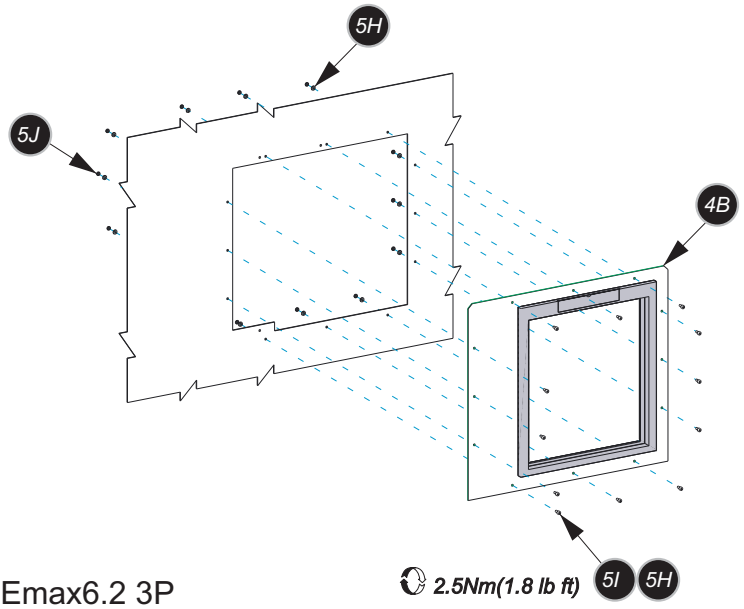
For Emax2.2 4P



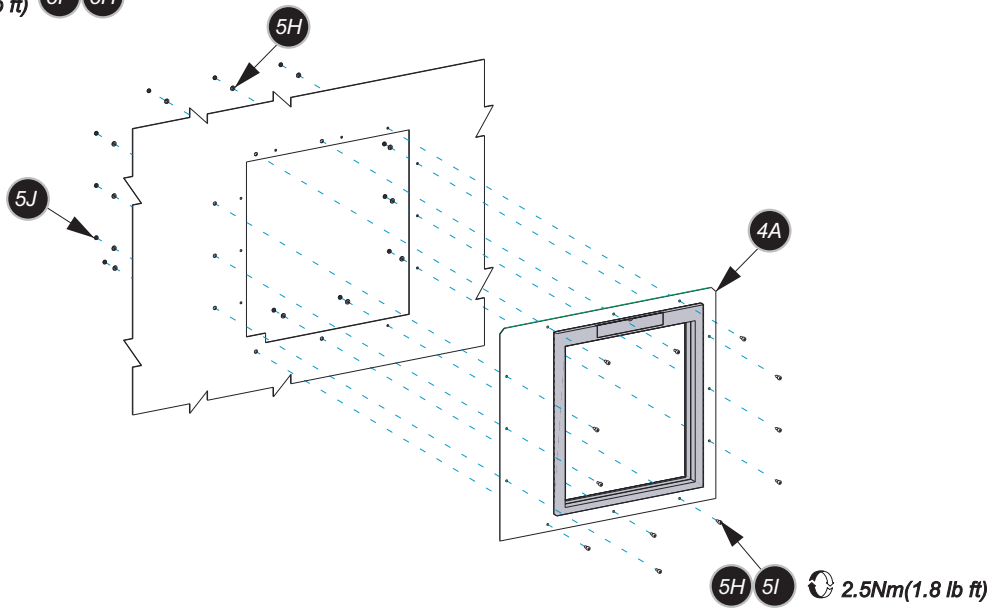
For Emax4.2 3P



For Emax4.2 4P

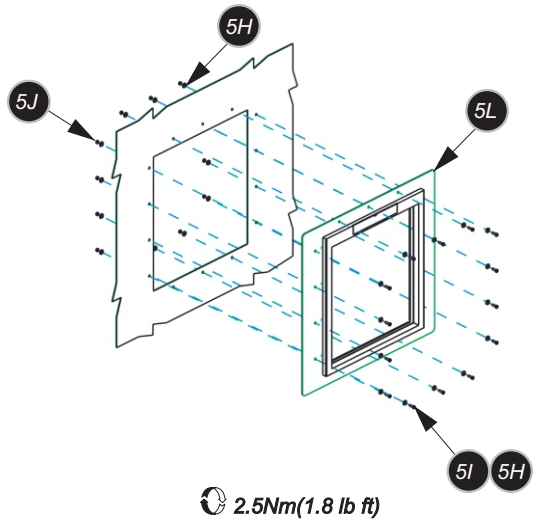


For Emax6.2 3P

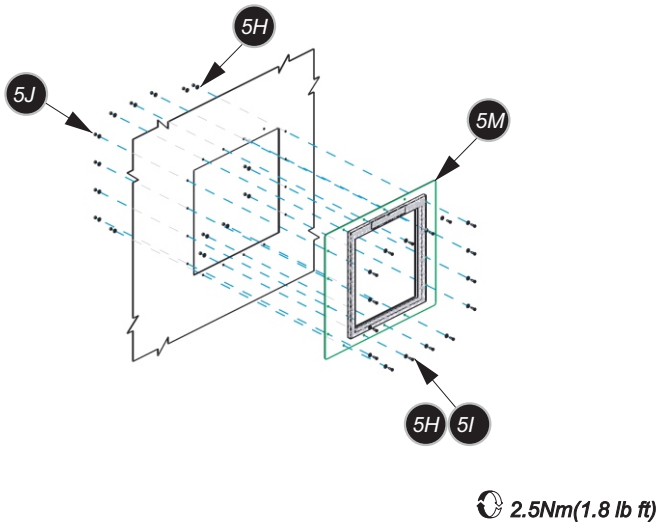


37 - Assemble the door adapter.

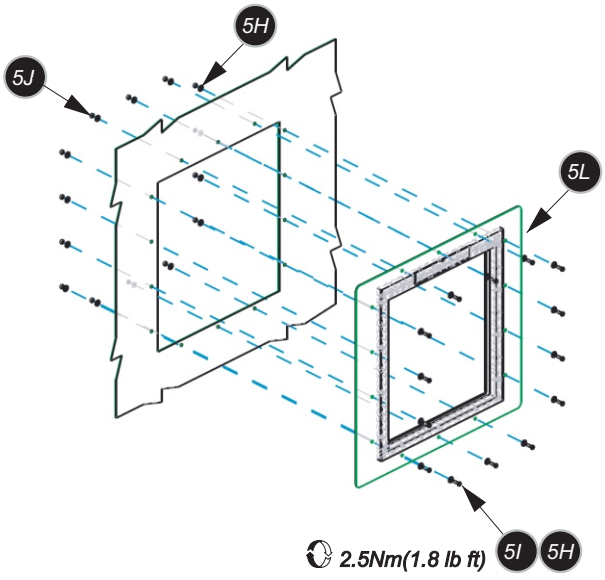
For Emax2.2 3P



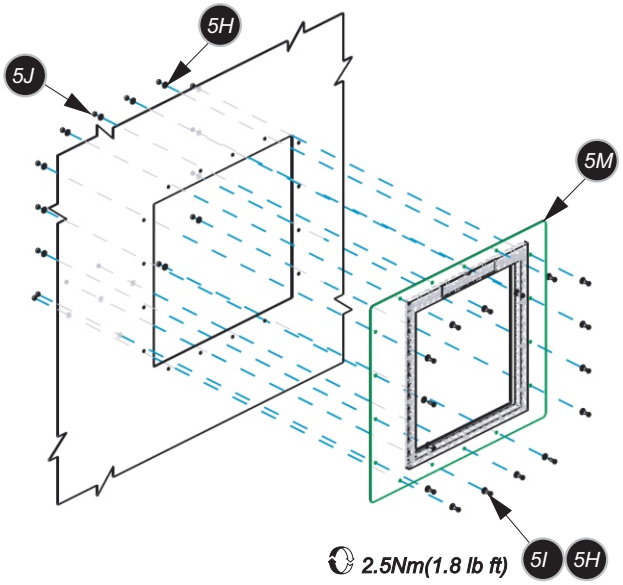
For Emax2.2 4P



For Emax4.2 3P



For Emax4.2 4P

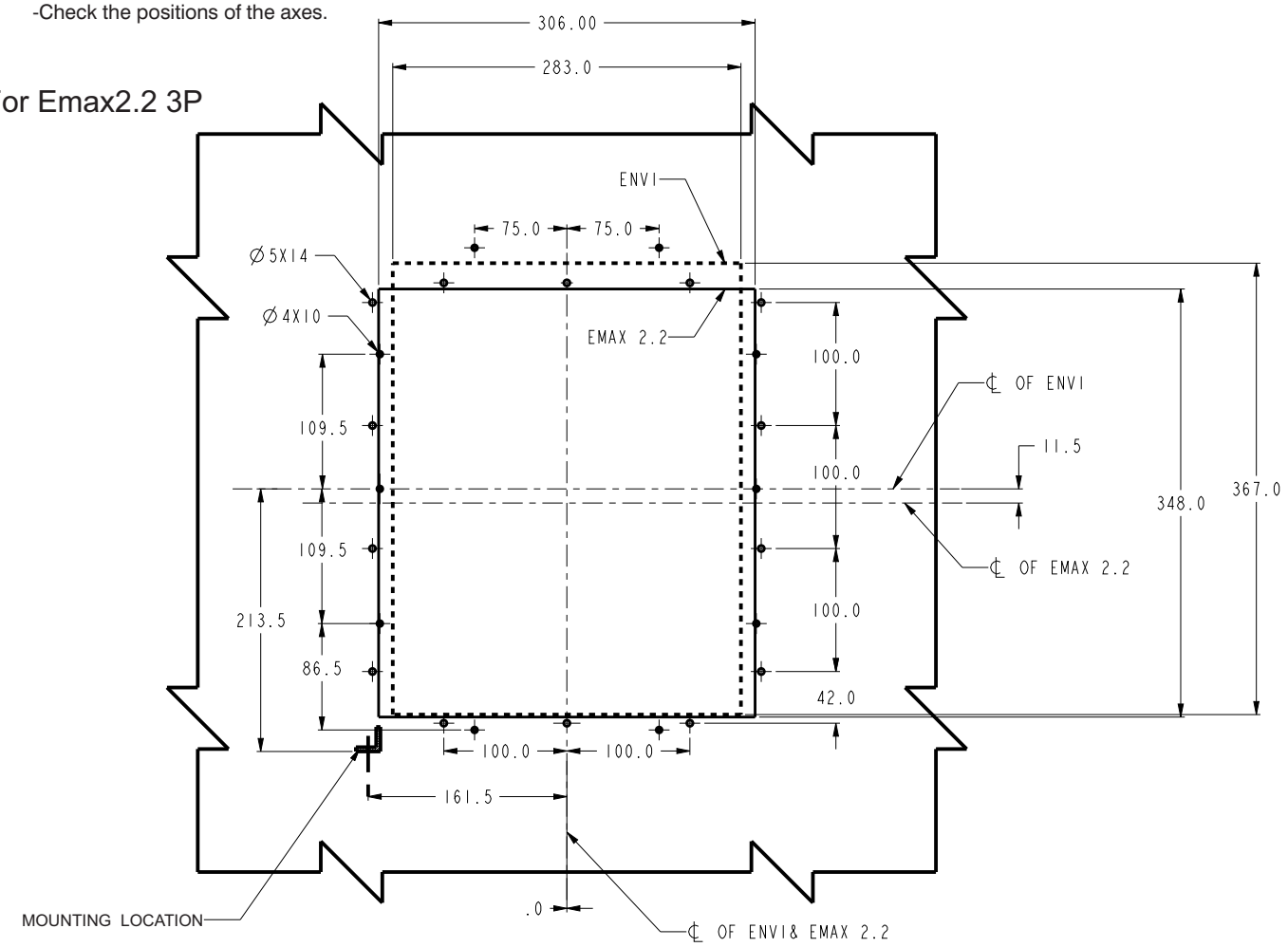


ENTELLIGUARD G VS EMAX 2 Door Cut out Details

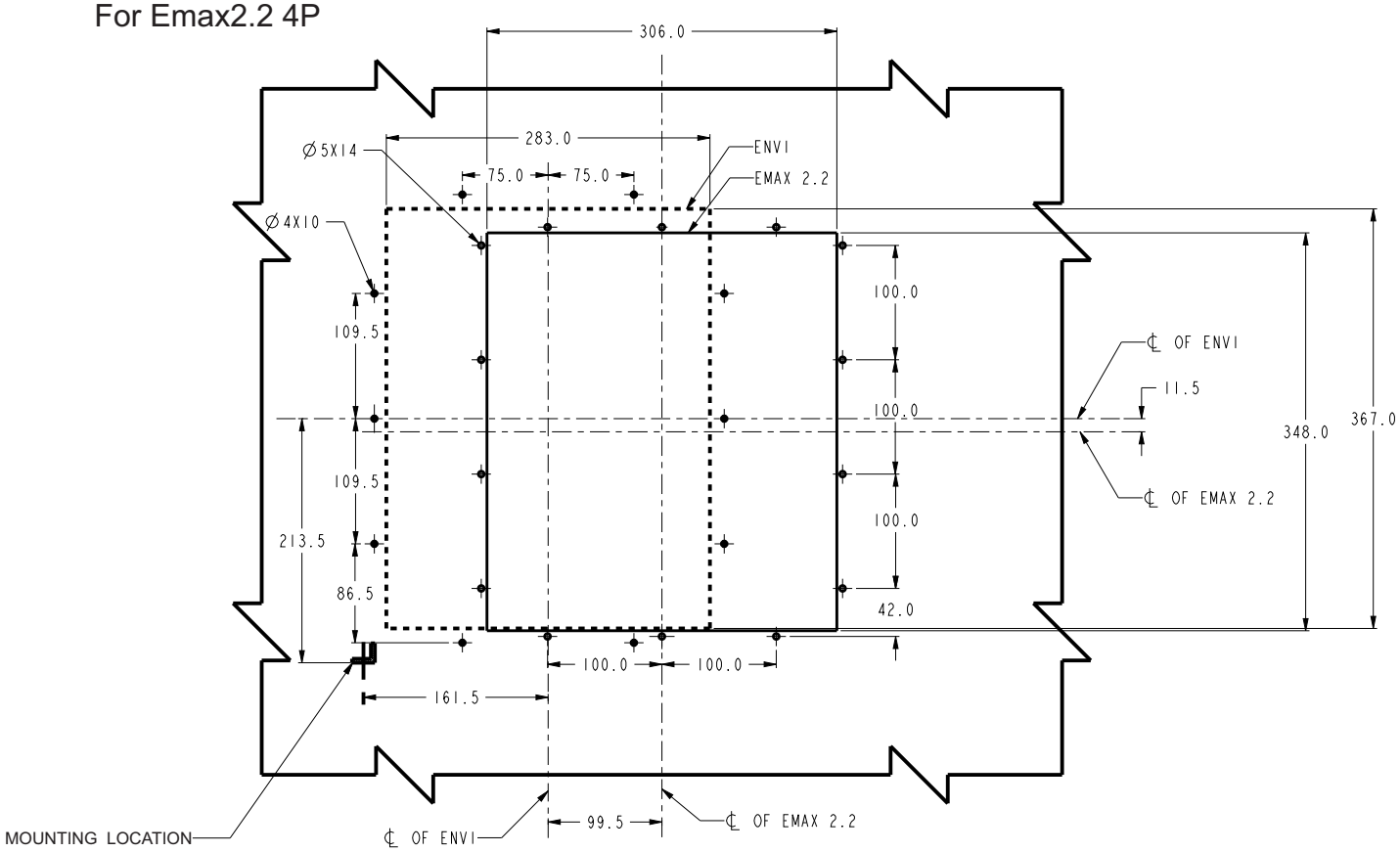
38

-Make a hole in the switchboard door to suit the new circuit-breaker.
-Check the positions of the axes.

For Emax2.2 3P



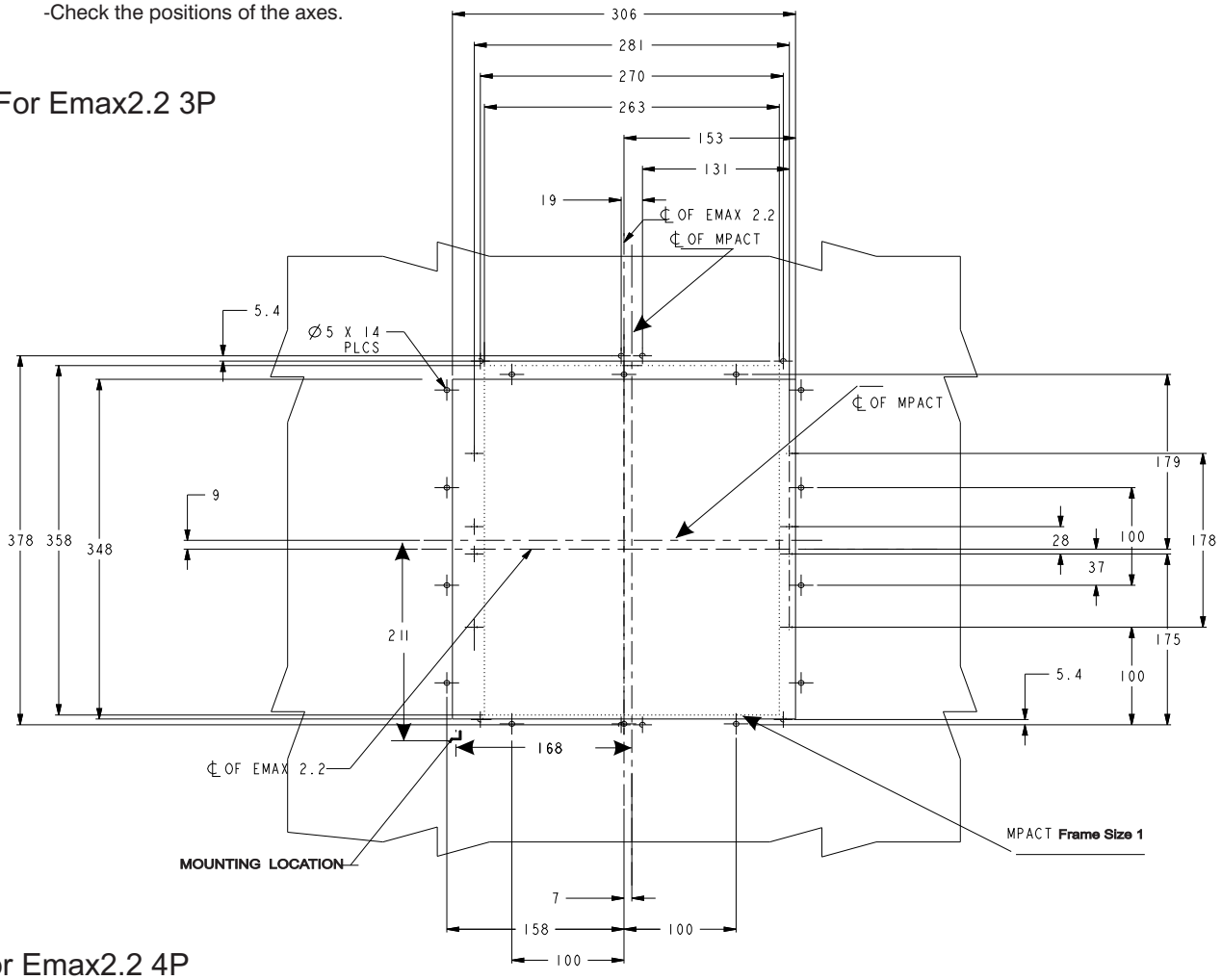
For Emax2.2 4P



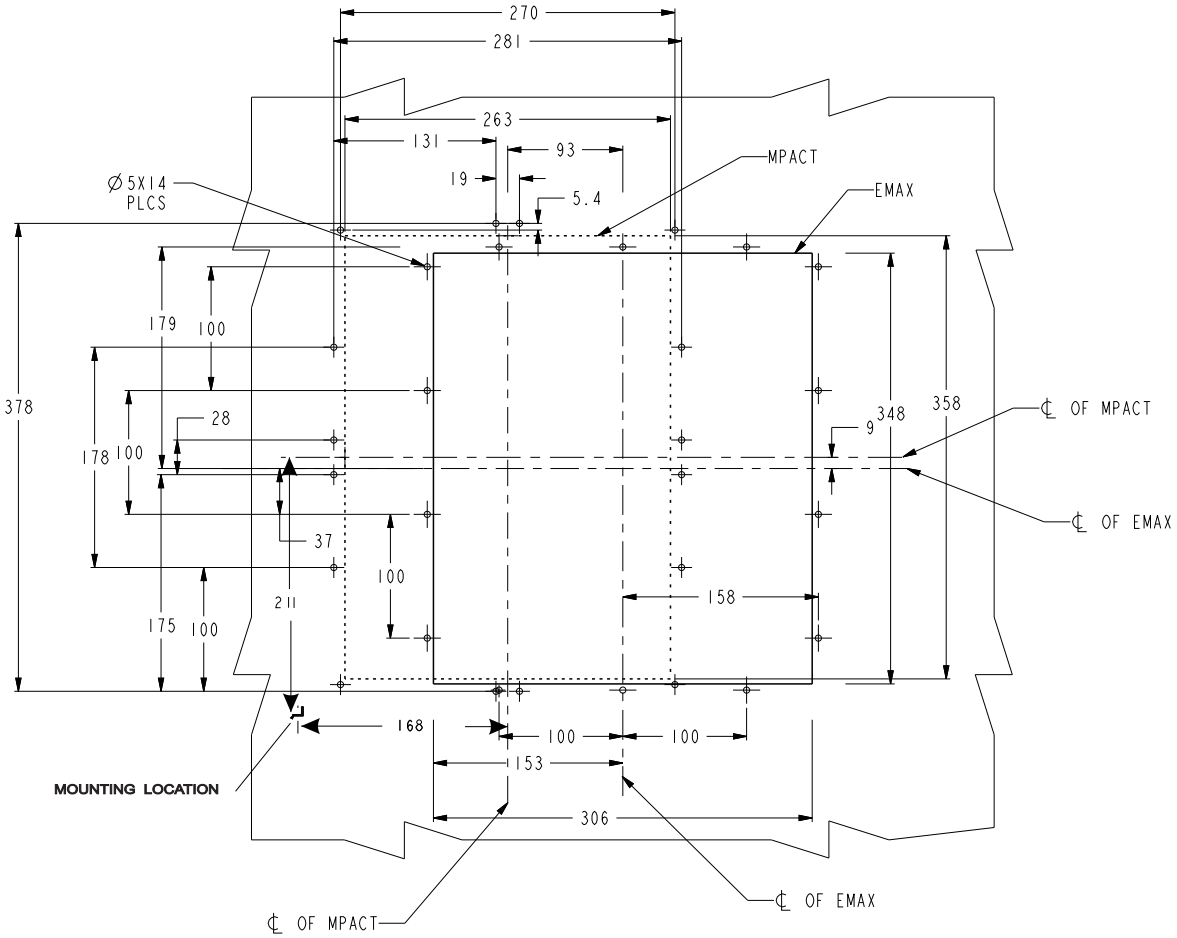
M-PACT Plus/M-PACT G VS EMAX 2 Door Cut out Details

39 -Make a hole in the switchboard door to suit the new circuit-breaker.
-Check the positions of the axes.

For Emax2.2 3P



For Emax2.2 4P

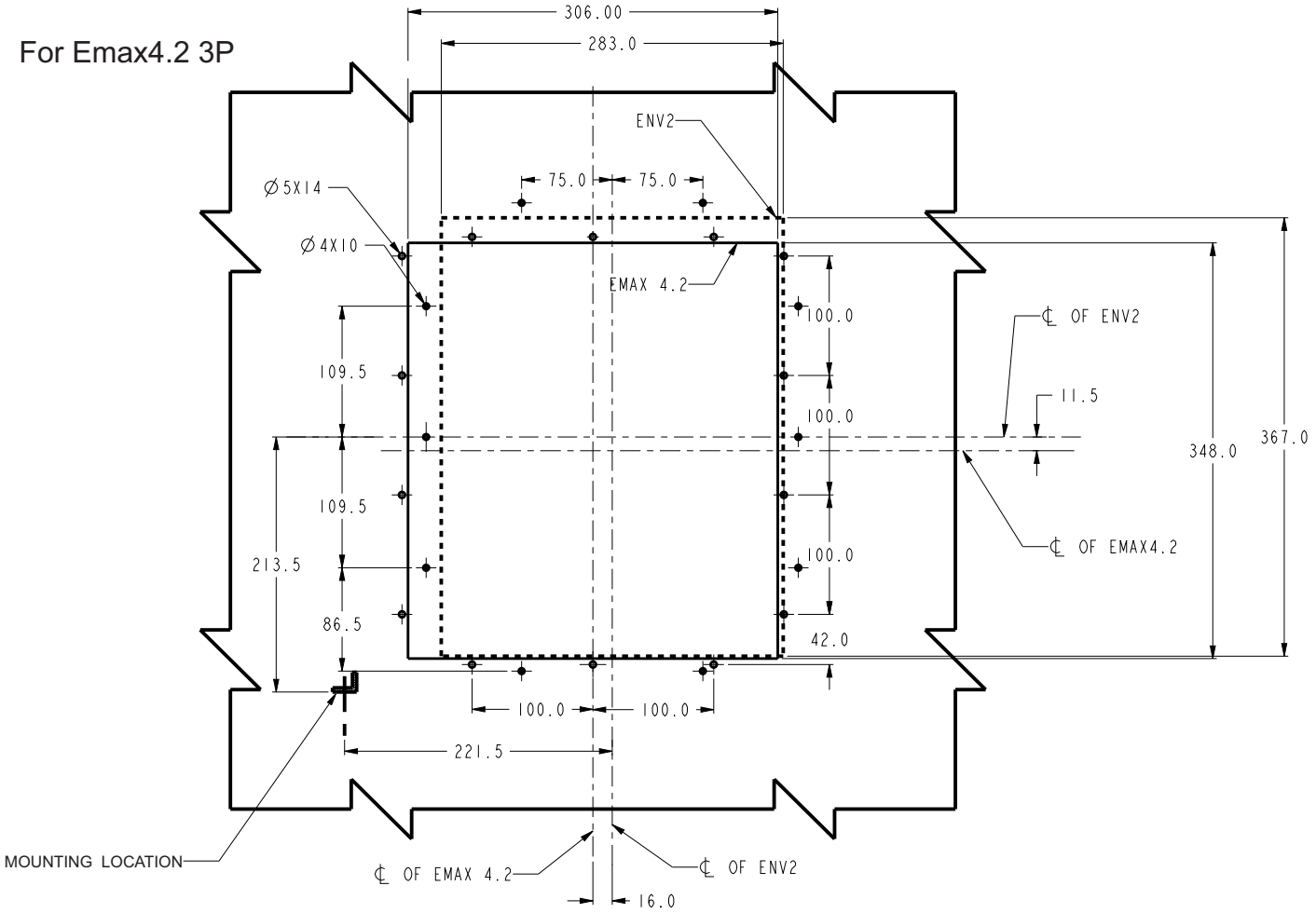


ENTELLIGUARD G VS EMAX 2 Door Cut out Details

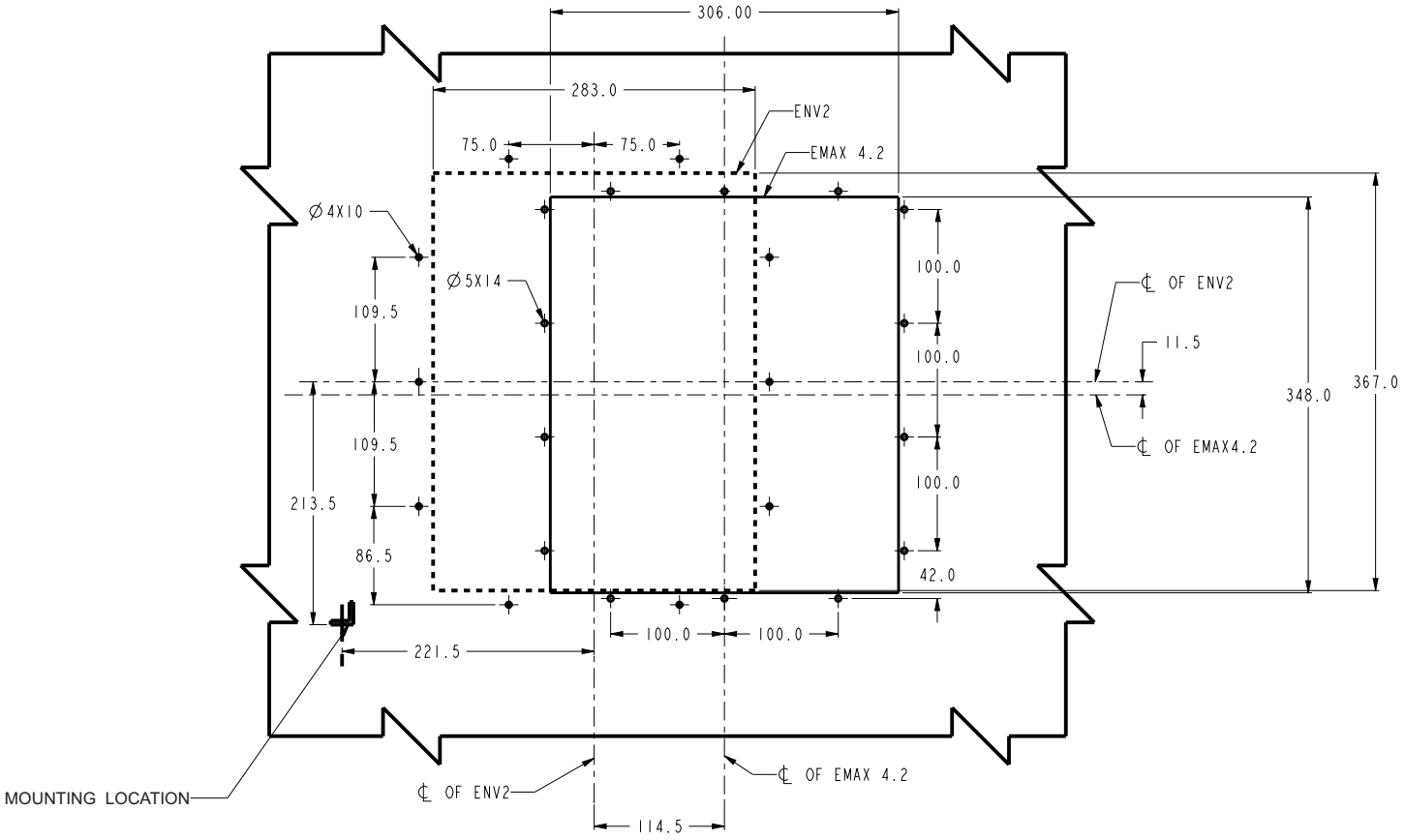
40

-Make a hole in the switchboard door to suit the new circuit-breaker.
-Check the positions of the axes.

For Emax4.2 3P



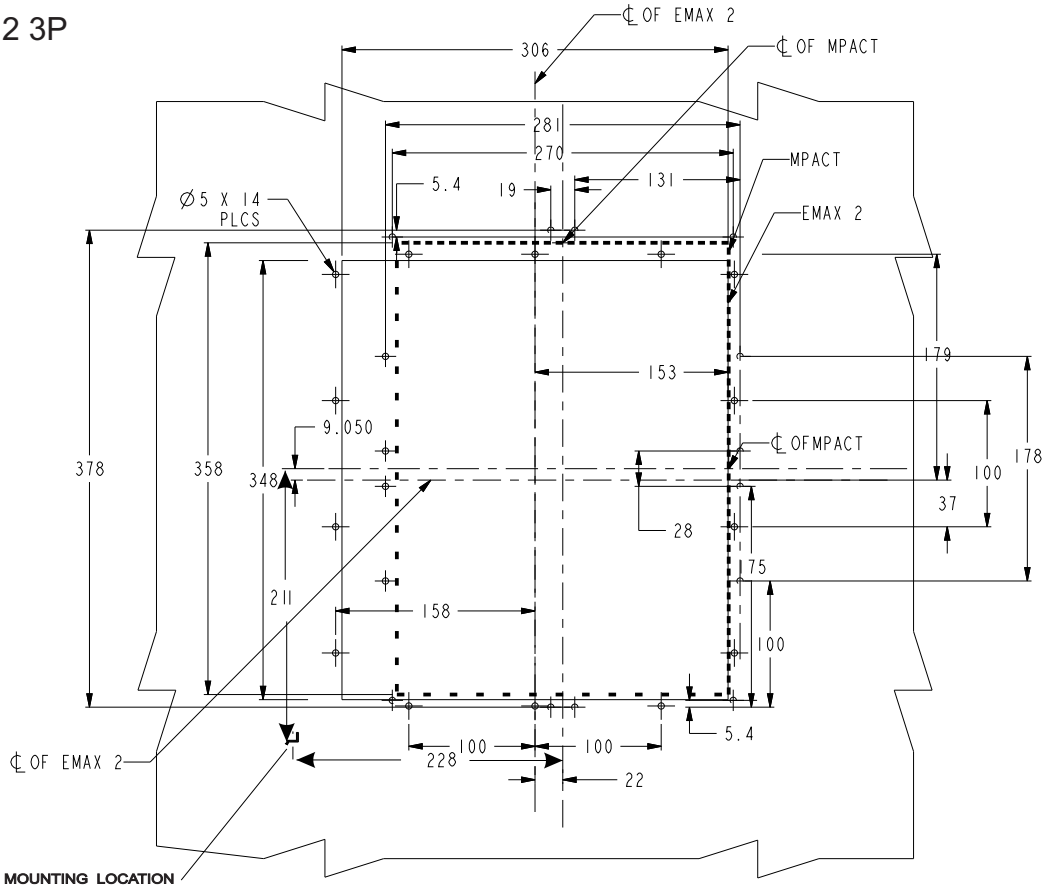
For Emax4.2 4P



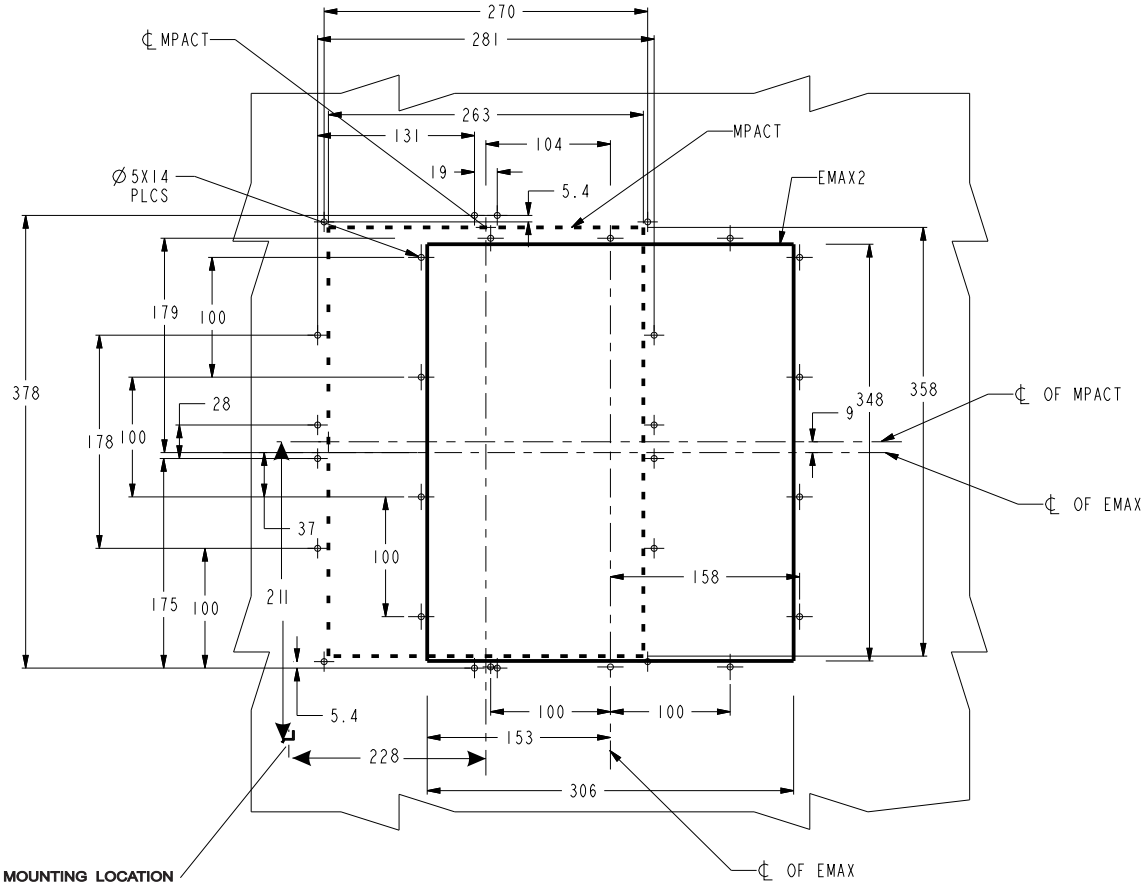
41

-Make a hole in the switchboard door to suit the new circuit-breaker.
-Check the positions of the axes.

For Emax4.2 3P



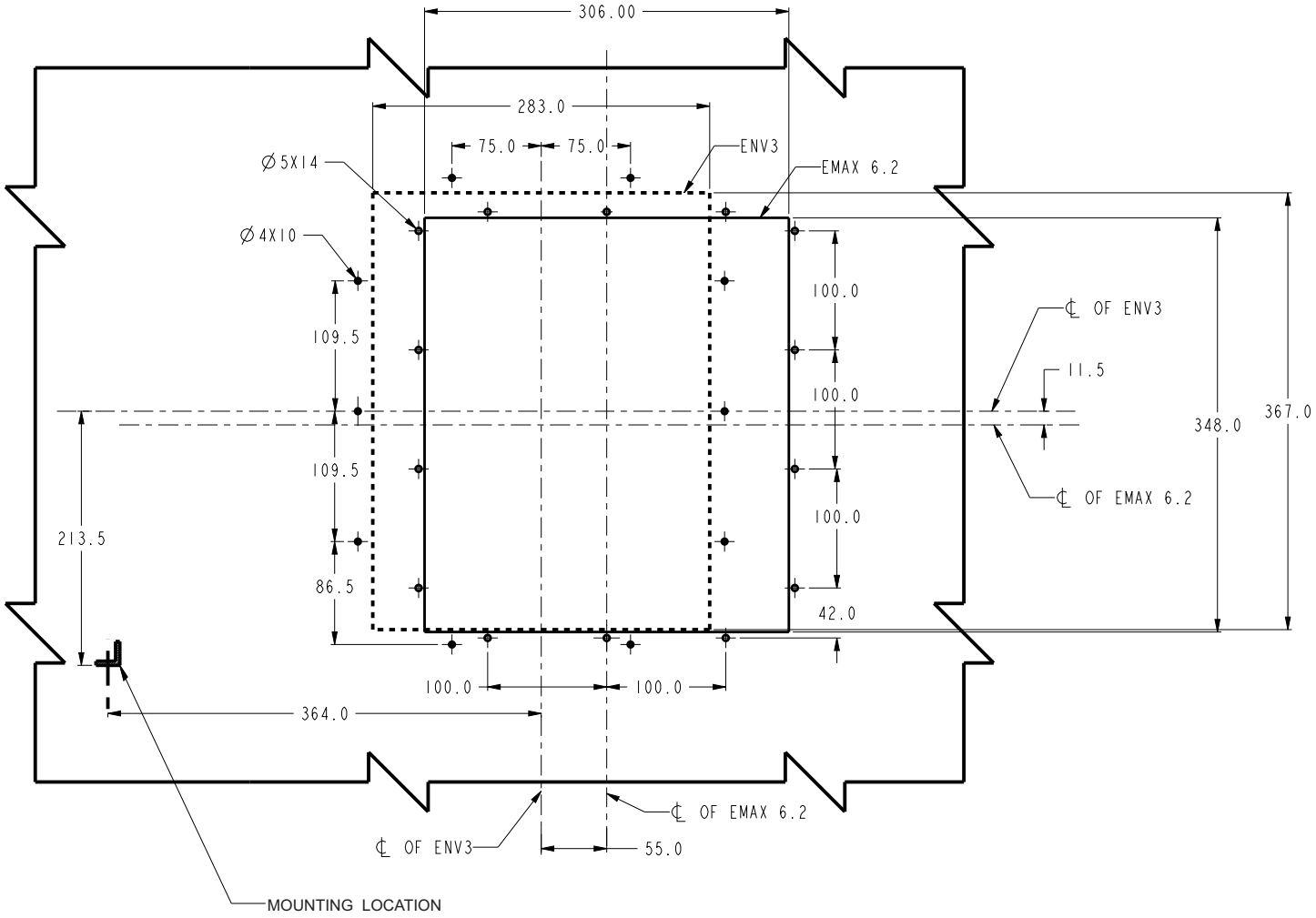
For Emax4.2 4P



42 ENTELLIGUARD G VS EMAX 2 Door Cut out Details

-Make a hole in the switchboard door to suit the new circuit-breaker.
-Check the positions of the axes.

For Emax6.2 3P



43 Verificare che all'interno della cella sia garantito il grado di isolamento precedente, in caso negativo provvedere al suo ripristino.

Make sure that the previous insulation class is guaranteed inside the compartment. Restore the required protection class if this is not the case.

Sicherstellen, dass innerhalb des Schaltfeldes die vorherige Isolation gewährleistet ist. Andernfalls ist für die Wiederherstellung derselben zu sorgen.

Vérifier qu'à l'intérieur du compartiment le degré de isolement précédent soit garanti ; dans le cas contraire le rétablir.

Verificar que dentro de la celda esté garantizado el grado de aislamiento precedente, si no es así restablecerlo.

44 Rimuovere tutte le attrezzature utilizzate durante i lavori, ed asportare i residui delle lavorazioni e dei materiali utilizzati.

Remove all the tools used for the work and eliminate any waste and scraps of the materials used.

Alle während der Arbeiten benutzten Werkzeuge wegräumen und die Verarbeitungsrückstände und die Reste der verwendeten Werkstoffe entfernen.

Enlever tous les outillages utilisés pour les opérations et éliminer les résidus des travaux et de matériaux utilisés.

Quitar todas las herramientas utilizadas durante los trabajos y quitar también los residuos de elaboración y de los materiales utilizados.

45 Verificare, tramite prova di isolamento, che l 'interruttore così installato non abbia alterato il grado di protezione inizialmente previsto a progetto del quadro.

Conduct an insulation test to make sure that the way the circuit-breaker has been installed has not altered the protection class initially envisaged in the original switchboard project.

Mittels Isolationsprüfung sicherstellen, dass der so installierte Leistungsschalter noch die Schutzart aufweist, die ursprünglich bei der Planung der Schaltanlage vorgesehen war.

Vérifier, au moyen d'un essai d'isolement, que le disjoncteur monté de la sorte n'a pas modifié le degré de protection prévu initialement dans le projet du tableau.

Verificar, mediante prueba de aislamiento, que el interruptor instalado no haya alterado el grado de protección inicialmente previsto en el proyecto del cuadro.

46 Eseguire prove in bianco per la verifica dei circuiti ausiliari.

Conduct blank tests to check the auxiliary circuits.

Blindproben ausführen, um die Hilfsstromkreise zu prüfen.

Effectuer des essais à vide pour la vérification des circuits auxiliaires.

Efectuar pruebas sin carga para verificar los circuitos auxiliares.

47 Seguire le istruzioni di messa in servizio del nuovo interruttore secondo il manuale di installazione uso e manutenzione Emax 2 1SDH001000R0001.

Comply with the instructions for commissioning the new circuit-breaker as described in Emax 2 installation, operation and maintenance manual 1SDH001000R0002.

Die Anweisungen zur Inbetriebnahme des neuen Leistungsschalters gemäß der Installations-, Betriebs- und Wartungsanleitung Emax 2 1SDH001000R0003 befolgen.

Suivre les instructions de mise en service du nouveau disjoncteur d'après le manuel d'installation et d'entretien Emax 2 1SDH001000R0004.

Seguir las instrucciones de puesta en servicio del nuevo interruptor según el manual de instalación uso y mantenimiento Emax 2 1SDH001000R0005.