Powering Business Worldwide

08/23 IL01203004Z

Instruction Leaflet
Montageanweisung
Notice d'installation
Instrucciones de montaje
Istruzioni per il montaggio
安装说明
Инструкция по монтажу
Montagehandleiding
Montagevejledning
Οδηγίες εγκατάστασης
Instruções de montagem
Monteringsanvisning
Asennusohje
Návod k montáži
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Montāžas instrukcija
Montavimo instrukcija
Instrukcja montażu
Navodila za montažo
Návod na montáž
Монтажни инструкции
Instrucțiuni de montaj
Upute za montažu
Montaj talimatı
Упутство за употребу
Monteringsanvisning
Інструкція з монтажу
منشـــور التعليمـــات

(en) **Electric current! Danger to life!**
Installation, commissioning and maintenance work must be carried out by qualified personnel only.

(de) **Lebensgefahr durch elektrischen Strom!**
Arbeiten bzw. Montage an diesem Produkt dürfen nur von Elektrofachkräften und elektrotechnisch unterwiesenen Personen ausgeführt werden.

(fr) **Tension électrique dangereuse !**
L'installation de l'appareil, ainsi que tous les travaux effectués sur celui-ci, doivent être réalisés par un électricien qualifié ou par un personnel spécialement formé.

(es) **¡Corriente eléctrica! ¡Peligro de muerte!**
La instalación del dispositivo, así como todos los trabajos en él, deben ser realizados por un electricista calificado o por personal especialmente capacitado.

(it) **Tensione elettrica: Pericolo di morte!**
L'installazione e il lavoro sul dispositivo devono essere effettuati da un elettricista qualificato o da personale specializzato.

(zh) **触电危险！**
設備的安裝，以及所有工作，必須由合格的電工或經過專門培訓的人員完成。

(ru) **Электрический ток! Опасно для жизни!**
Установка и эксплуатация устройства должны выполняться квалифицированным электриком или специально обученным персоналом.

(nl) **Levensgevaar door elektrische stroom!**
Installatie van het apparaat en alle werkzaamheden eraan, mogen uitsluitend door een gekwalificeerd elektricien of speciaal opgeleid vakpersoneel worden uitgevoerd.

(da) **Livsfare på grund af elektrisk strøm!**
Arbejde i forbindelse med installation, opstart ogvedligehold må kun udføres af kvalificeret personale.

(el) **Προσοχή, κίνδυνος ηλεκτροπληξίας!**
Η εγκατάσταση, εκκίνηση και συντήρηση θα πρέπει να πραγματοποιείται μόνο από εξειδικευμένο προσωπικό.

(pt) **Perigo de vida devido a corrente eléctrica!**
A instalação do dispositivo, bem como todos os trabalhos devem ser realizados por um eletricista qualificado ou por pessoal especialmente formado.

(sv) **Livsfara genom elektrisk ström!**
Installation, idrifttagande och underhållsarbete får endast utföras av behörig personal.

(fi) **Hengenvaarallinen jännite!**
Laitteen asennus ja käyttö ainoastaan sähköasentajan tai siihen perehdytetyn henkilön toimesta.

(cs) **Nebezpečí úrazu elektrickým proudem!**
Instalace zařízení a veškeré práce na něm musí být provedeny kvalifikovaným elektrikářem nebo speciálně vyškoleným personálem.

(et) **Eluohtlik! Elektrilöögioht!**
Paigaldus-, kasutus- ja hooldustöid peab läbi viima ainult kvalifitseeritud personal.

(hu) **Életveszély az elektromos áram révén!**
Az eszköz felszerelését, valamint az ehhez kapcsolódó összes munkát szakképzett villanyszerelővel vagy szakképzett személyzetnek kell elvégeznie.

(lv) **Elektriskā strāva apdraud dzīvību!**
Uzstādīšana, nodošana ekspluatācijā un apkopes darbi jāveic tikai kvalificētam personālam.

(lt) **Pavojus gyvybei dėl elektros srovės!**
Įrengimo, paleidimo ir techninės priežiūros darbus turi atlikti tik kvalifikuotas personalas.

(pl) **Porażenie prądem elektrycznym stanowi zagrożenie dla życia!**
Instalacja urządzenia, jak również prace nad nim, muszą być wykonywane przez wykwalifikowanego elektryka lub specjalnie wyszkolony personel.

(sl) **Življenjska nevarnost zaradi električnega toka!**
Dela montaže, zagona in vzdrževanja morajo izvajati samo usposobljeno osebje.

(sk) **Nebezpečenstvo ohrozenia života elektrickým prúdom!**
Inštalácia prístroja, ako aj všetky práce na ňom musia byť vykonané kvalifikovaným elektrotechnikom alebo špeciálne vyškoleným personálom.

(bg) **Опасност за живота от електрически ток!**
Инсталирането на устройството, както и всяка работа по него, трябва да бъде извършвано от квалифициран електротехник или от специално обучен персонал.

(ro) **Atenție! Pericol electric!**
Montajul și lucrul cu acest aparat trebuie făcute numai de un electrician calificat sau de personal tehnic specializat.

(hr) **Opasnost po život uslijed električne struje!**
Radove ugradnje, puštanja u pogon i održavanja mora vršiti samo kvalificirano osoblje.

(tr) **Elektrik akımı! Hayati tehlike!**
Bu ürünün çalıştırılması veya kurulumu sadece elektroteknik eğitimleri almış olan ehliyetli elektrikçiler ve kişiler tarafından yapılmalıdır.

(sr) **Електрична струја! Опасност по живот!**
Арбеитен бзв. Монтажа и диесем Продукт дарф од Електрофацхкрафтен унд електротецхнисцх унтервиесенен Персонен аусгефухрт верден.

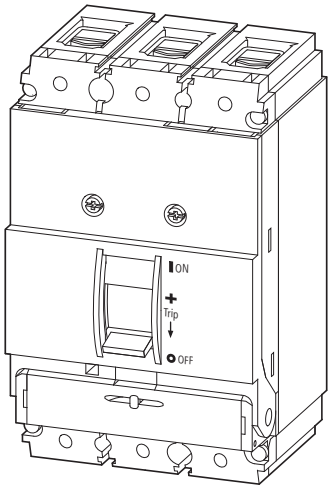
(no) **Elektrisk strøm! Livsfare!**
Installasjon av enheten, samt arbeid på den, skal kun utføres av kvalifisert personell, eller av de som er spesielt opplært til dette arbeidet.

(uk) **Електричний струм! Небезпечно для життя!**
Встановлення пристрою, так само, як і робота з ним, повинні виконуватись кваліфікованим електриком або персоналом, що пройшов спеціальну підготовку.

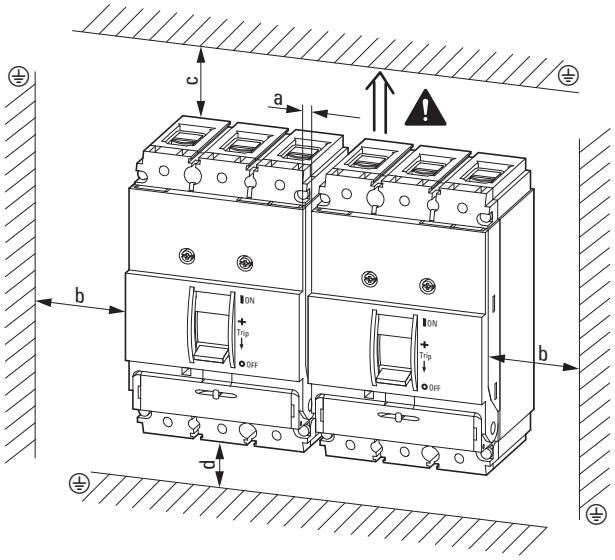
(ar) **! تحـذير ! تيـار كهربـائي ! خطـر مـوت**
التثبيـــت والتكليـــف و أعمـــال الصـيانة يجـب أن تقـام فقـط مـن طـرف المـــوظفين المـــؤهلين

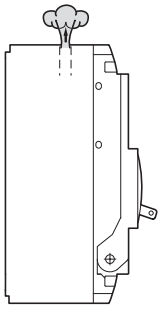
NZMB(C)(N)(S)(H)1(-4)-A(M)(S)…
NZMB(N)1-A(AF)…-NA
NZMB(N)1-S…-CNA

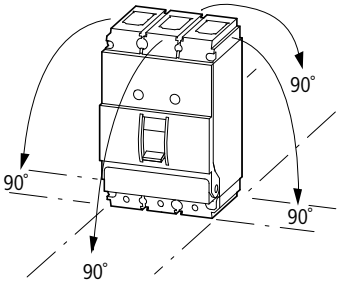
(P)N1-…
NS1-…-NA

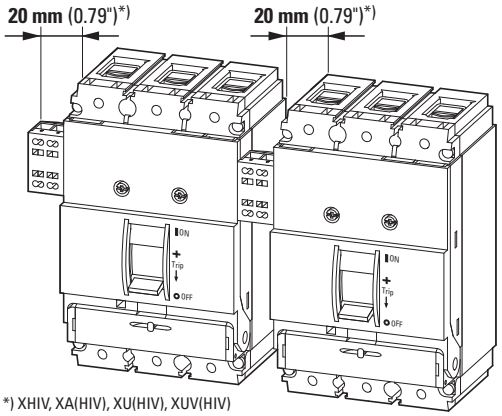


Minimum clearance/direction of blow-out





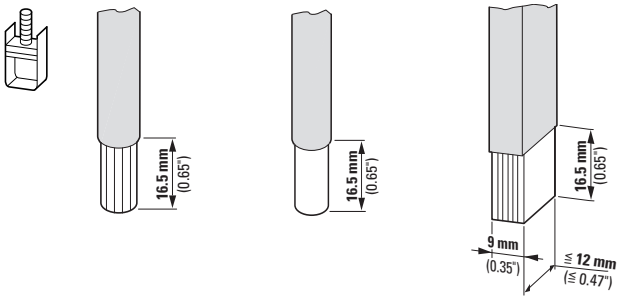




*) XHIV, XA(HIV), XU(HIV), XUV(HIV)

	a	b	c		d
		≦ 690 V	≦ 440 V	≦ 690 V	≦ 690 V
NZM1	0	0	**30 mm** (1.18")	**60 mm** (2.36")	0

Terminals



1 x 10 - 70 mm^2	1 x 10 - 16mm^2	≧ 2 x 9 x 0.8 mm (≧ 2 x 0.35" x 0.03")
2 x 6 - 25 mm^2	2 x 6 - 16 mm^2	
1 x AWG 4 - AWG 2/0	1 x AWG 12 - AWG 6	
2 x AWG 10 - AWG 4	2 x AWG 10 - AWG 6	

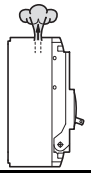
UL/CSA = Cu only, Ampacity per 75° C Table.

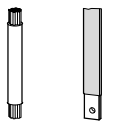
Wiring terminations circuit breaker type NZM…1…-NA (CNA)
Wiring terminations molded case switch type N(S)1…-NA

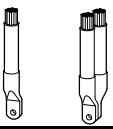
	Connector type	Wire size	Wire 75° C	Max. A-Rating	Tightening-Torque
1)	NZM1-XKC	1 x AWG 2/0 - 12 2 x AWG 4 - 10	Cu only	125	**9 Nm** (80 lb-in) **6 Nm** (53 lb-in) (AWG 8 - 12)
	NZM1-XKA	1 x AWG 3/0 - 6	Cu only	125	**15 Nm** (133 lb-in)
	NZM1-XKS	1 x AWG 2/0 - 12 2 x AWG 4 - 10	Cu only	125	**9 Nm** (80 lb-in)
2)	Integrated Auxiliary Terminal	1 x AWG 12 - 18	Cu only		**1.2 Nm** (11 lb-in)

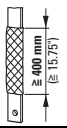
1) Connector Type NZM1-XKC supplied standard on all NZM1 circuit breakers and switches.
2) Integrated Auxiliary Terminal on Connector Type NZM1-XKA only.

NZM.1(-4)-…



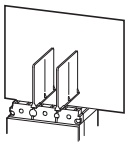


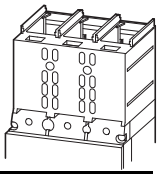




XKP or* XKSA

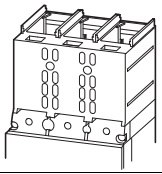
≦ 415 V √ √ +





XKSA

≦ 690 V √ √ +



* (en) or (de) oder (fr) ou (es) o (it) O (zh) 或者 (ru) или (nl) of (da) eller (el) ή (pt) ou (sv) eller (fi) tai (cs) nebo (et) või (hu) vagy (lv) vai (lt) arba (pl) Lub (sl) oz (sk) alebo (bg) или (ro) sau (hr) ili (tr) ya da (sr) или (no) eller (uk) або (ar) أو

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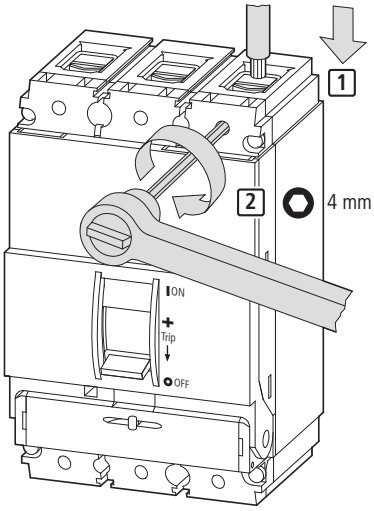
√

(en) Basic device
(de) Grundgerät
(fr) Appareil de base
(es) Dispositivo básico
(it) Dispositivo di base
(zh) 基本装置
(ru) Базовое устройство
(nl) Basis apparaat
(da) Grundlæggende enhed
(el) Βασική συσκευή
(pt) Dispositivo básico
(sv) Grundläggande enhet
(fi) Peruslaite
(cs) Základní zařízení
(et) Põhiseade
(hu) Alap eszköz
(lv) Pamata ierīce
(lt) Pagrindinis prietaisas
(pl) Podstawowe urządzenie
(sl) Osnovna naprava
(sk) Základné zariadenie
(bg) Основно устройство
(ro) Dispozitiv de bază
(hr) Osnovni uređaj
(tr) Temel cihaz
(sr) Основни уређај
(no) Grunnleggende enhet
(uk) Базовий пристрій
(ar) الجهـاز الأساسـي

+

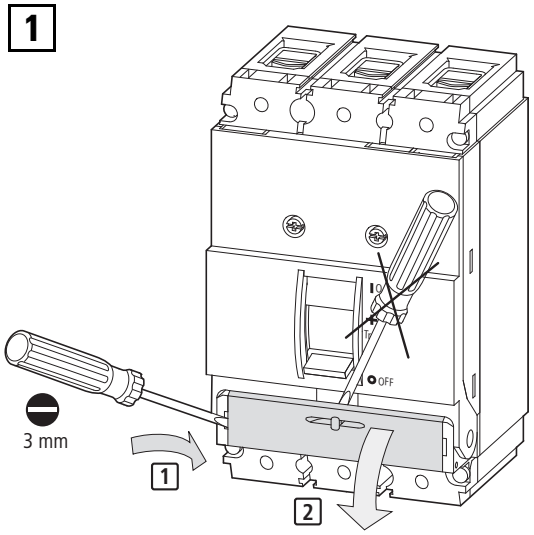
(en) Combination options
(de) Kombinationsmöglichkeiten
(fr) Possibilités de combinaison
(es) Opciones de combinación
(it) Opzioni di combinazione
(zh) 组合选项
(ru) Варианты комбинации
(nl) Combinatie mogelijkheden
(da) Kombinationsmuligheder
(el) Επιλογές συνδυασμού
(pt) Opções de combinação
(sv) Kombinationsalternativ
(fi) Yhdistelmävaihtoehdot
(cs) Možnosti kombinací
(et) Kombinatsioonivalikud
(hu) Kombinációs lehetőségek
(lv) Kombinācijas iespējas
(lt) Kombinavimo parinktys
(pl) Opcje kombinacji
(sl) Možnosti kombiniranja
(sk) Možnosti kombinácie
(bg) Опции за комбиниране
(ro) Opțiuni de combinare
(hr) Mogućnosti kombiniranja
(tr) Kombinasyon seçenekleri
(sr) Опције комбиновања
(no) Kombinasjonsmuligheter
(uk) Варіанти комбінування
(ar) خيـارات الجمـع



Nm		lb-in	
9	> 10 mm², > AWG 8	80	> AWG 8
6	≦ 10 mm², > AWG 8	53	≦ AWG 8

Settings

1



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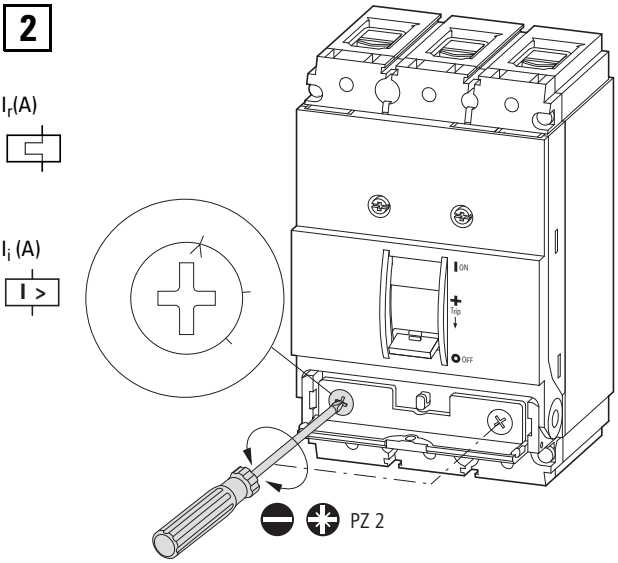
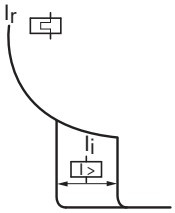


Note: On certain models with UL/CSA labeling the thermal trip setting is fixed and only the magnetic trip (instantaneous) setting is adjustable.



$\overline{\overline{\overline{}}}$ $I_{i,\,DC} / 1.25 = I_{i,\,AC}$

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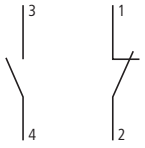
Accessories

M22-…

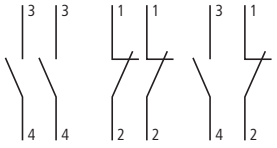


M22-K10 ...-K01
M22-CK10 ...-CK01

IEC

$I_{th} = I_e$

	U_e (V)	I_e (A)
AC-15	115	4
	230	4
	400	2
	500	1
DC-13	24	3
	42	1.7
	60	1.2
	110	0.6
	220	0.3



M22-CK20 ...-CK02 ...-CK11

IEC

$I_{th} = I_e$

	U_e (V)	I_e (A)
AC-15	115	4
	230	4
DC-13	24	3
	42	1
	60	0.8
	110	0.5
	220	0.2

Notes on mounting and wiring Auxiliary Switches for UL/CSA labeled models:
– M22-K(10)(01) have screw terminals. M22-CK(10)(01)(20)(02)(11) have clamp terminals.
– Switch modules are snapped into place at the locations shown in the diagrams that follow.
– Switches will function as either “standard” or “trip/alarm” contacts depending on their mounting location.
– Location “HIN” refers to standard operation. Location “HIA” refers to “trip/alarm” operation.
– Follow the numbering and wiring scheme provided above depending on the contact location and function. (N.O. or N.C.)
– Permissible contact configuration: 1 HIA and/or 2 HIN.

-NA
-CNA
(UL/CSA)

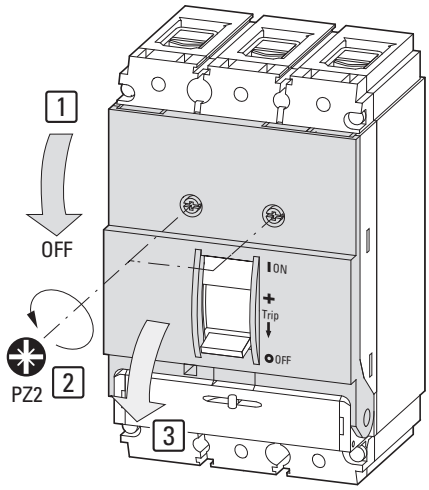
$I_{th} = I_e$

U_e (V)	I_e (A)
600 AC	5 A
250 DC	1 A

Pilot Duty Ratings:
B 600, Q 300
Above 300 V AC
Same polarity

Note:
After mounting of the M22… switch is complete, check off the appropriate box on the auxiliary switch label provided on the side of the breaker or switch.

1



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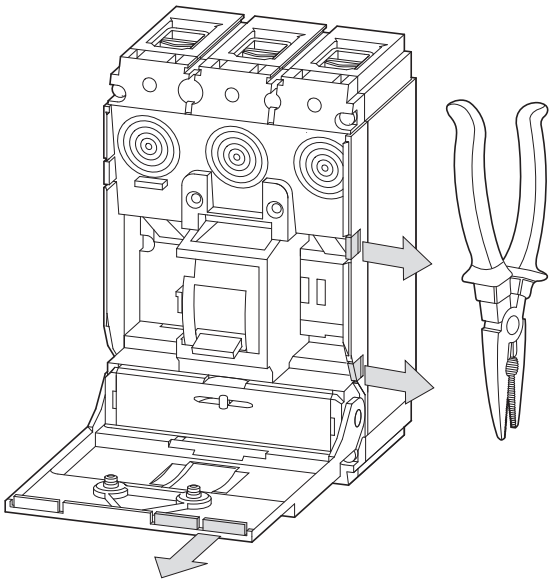
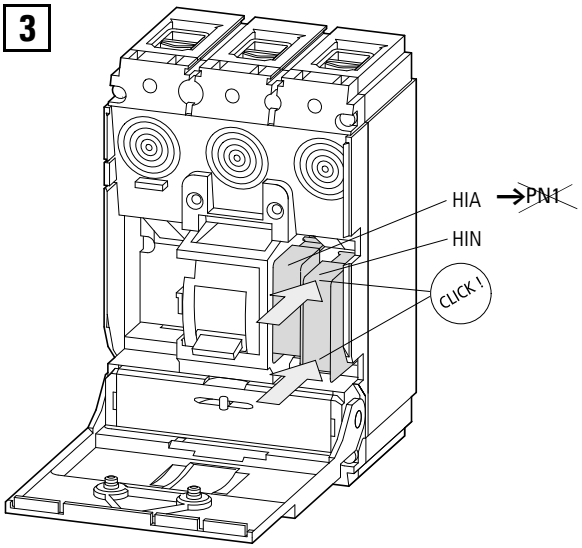
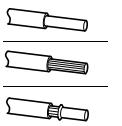


3



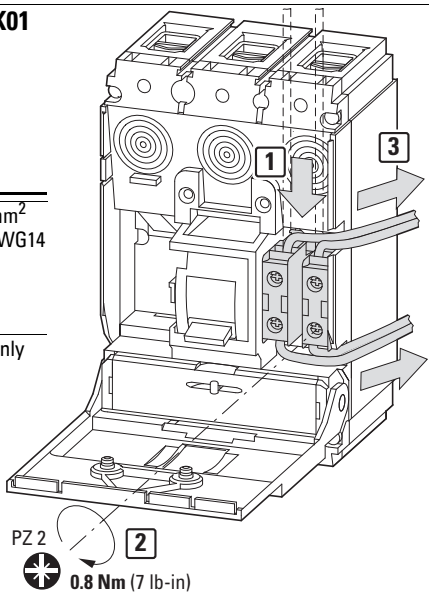
4a **M22-K10, M22-K01**
(Screw Terminals)

a = 6 - 10 mm
(a = 0.24 - 0.4“)



1 x 0.75 - 2.5 mm²
2 x AWG18 - AWG14

UL/CSA = Cu only



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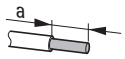
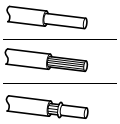
Einklappseite: 17 mm Beschnitt

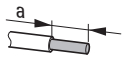
4b **M22-CK10, M22-CK01**
(Clamp Terminals)



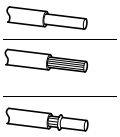
a = 8 mm
(a = 0.3“)

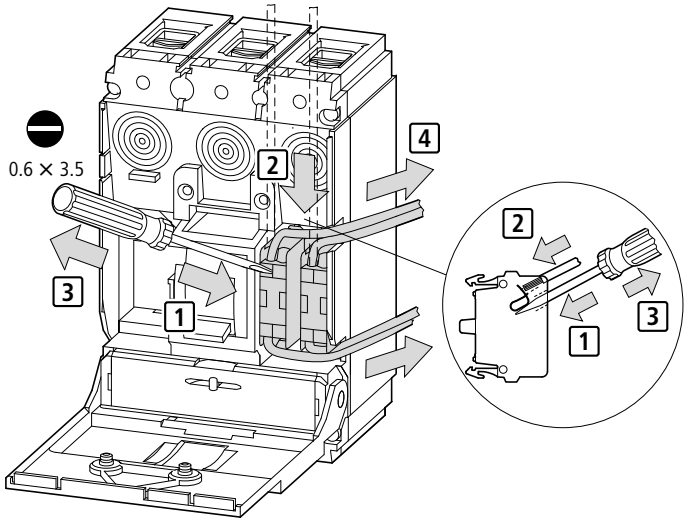
	2 x 0.75 - 2.5 mm^2 2 x AWG18 - AWG14
UL/CSA = Cu only	

4c **M22-CK11, M22-CK20, M22-CK02**
(Clamp Terminals)

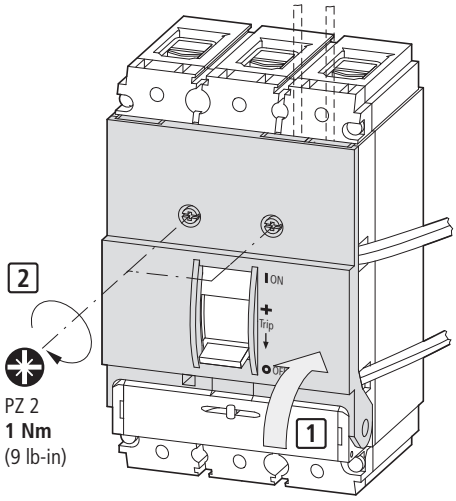


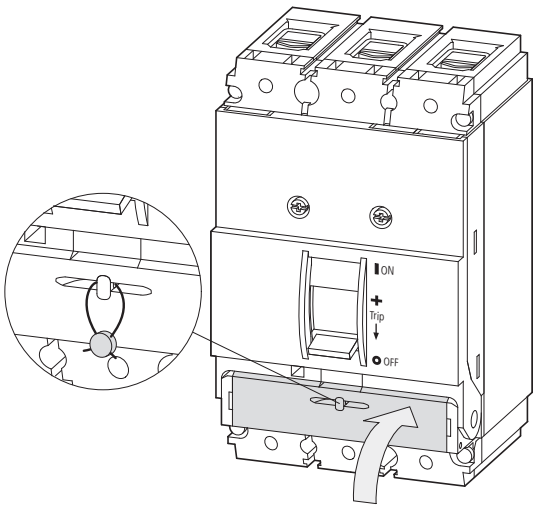
a = 8 mm
(a = 0.3“)

	1 x 0.5 - 1.5 mm^2 1 x AWG20 - AWG16 2 x 0.5 - 0.75 mm^2 2 x AWG20 - AWG18



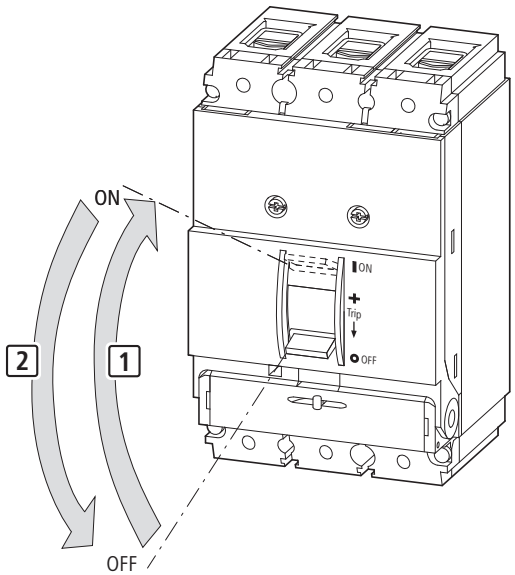
5



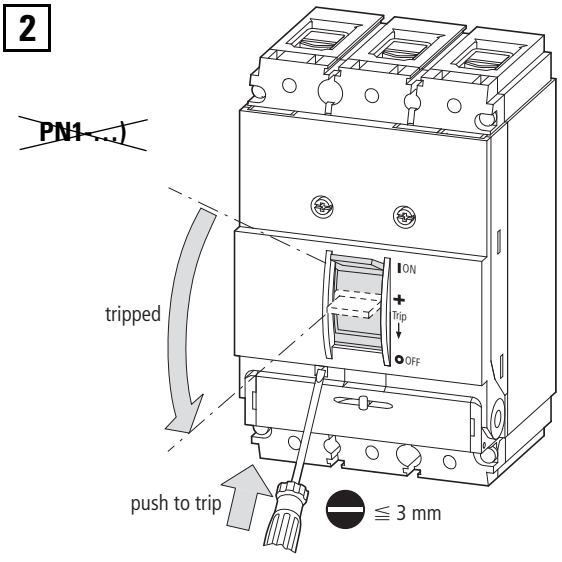


Test

1



2



Einklappseite: 17 mm Beschnitt

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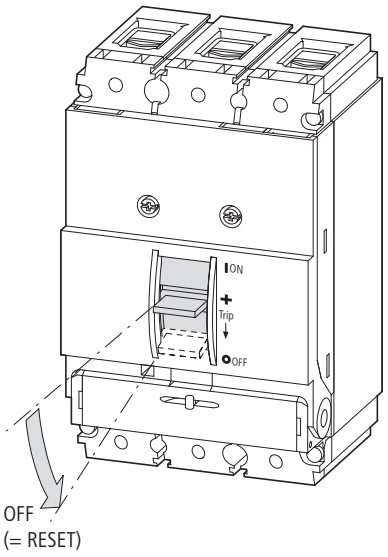
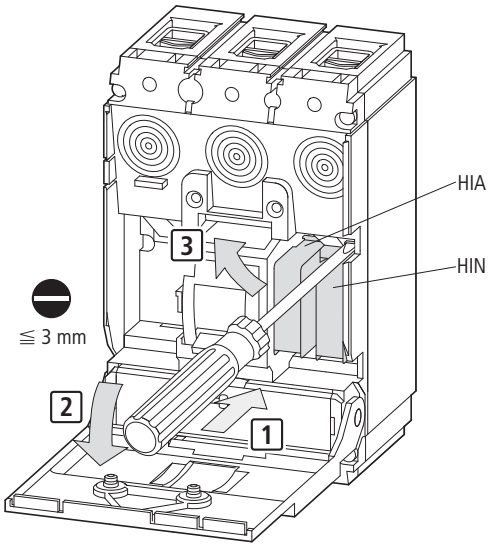
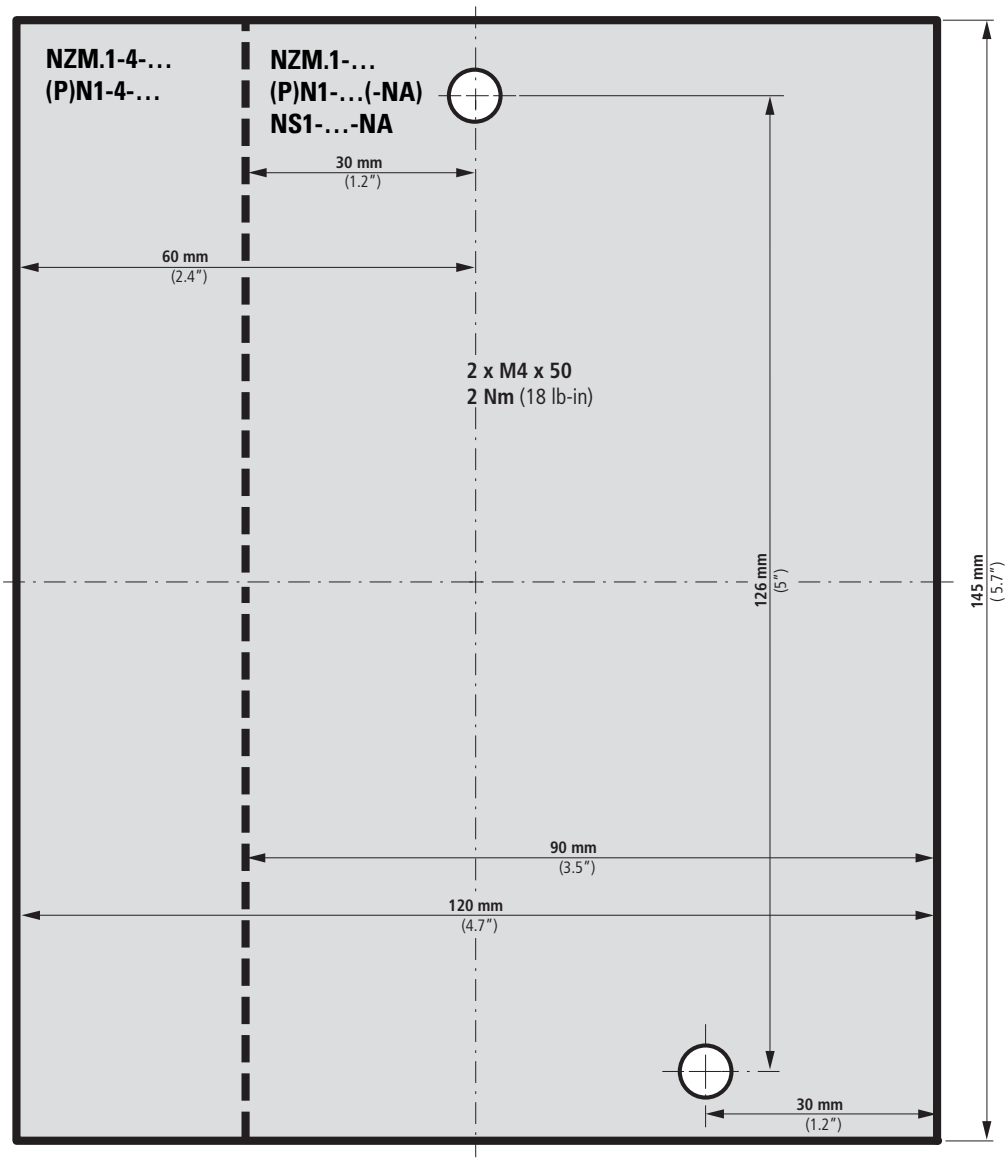
3

~~PN1 ...)~~



Dismounting





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