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Instruktion	Kontaktorer
Istruzioni tecniche	Contattori
Instrucciones de empleo	Contactores
Ohje	Kontaktori
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Инструкция по применению	Контакторы



ar

تحذير: جهد كهربائي خطراً!
راجع تعليمات التشغيل.
افصل الكهرباء وقم بتأمينها قبل العمل في هذا الجهاز
تنبيه! يجب عدم التركيب إلا من خلال شخص على دراية بمجال التقنية الكهربائية .

bg Предупреждение: Опасно напрежение!
Вижте инструкциите за работа.
Изключете и блокирайте захранването преди да работите с устройството.
Внимание! Да се монтира само от експерт електротехник.

cs Varování: Nebezpečné napětí!
Viz návod k obsluze.
Před zahájením prací na tomto zařízení odpojte a uzamkněte napájení.
Pozor! Toto zařízení smí instalovat pouze osoba s elektrotechnickou odborností.

da Advarsel: Farlig elektrisk spænding!
Se betjeningsvejledningen.
Frakobl enheden, og afbryd strømforsyningen, før du arbejder med denne enhed.
Giv agt! Installation må kun foretages af personer med elektroteknisk ekspertise.

de Warnung: Gefährliche Spannung!
Siehe Bedienungsanleitung.
Vor dem Arbeiten Gerät ausschalten und von der Spannungsversorgung trennen.
Achtung! Installation nur durch elektrotechnische Fachkraft.

el Προειδοποίηση: Επικίνδυνη τάση!
Ανατρέξτε στις οδηγίες λειτουργίας.
Αποσυνδέστε και απομονώστε την παροχή ισχύος προτού ξε κινήσετε τις εργασίες σε αυτήν τη συσκευή.
Προσοχή! Η εγκατάσταση πρέπει να γίνεται μόνο από αδειούχο ηλεκτρολόγο εγκαταστάτη.

en Warning: Hazardous voltage!
Refer to operating instructions.
Disconnect and lock out power before working on this device.
Attention! Installation by person with electrotechnical expertise only.

es Advertencia: ¡Tensión peligrosa!
Consulte las instrucciones de funcionamiento.
Antes de trabajar con este dispositivo, desconecte y bloquee la corriente.
¡Atención! La instalación debe ser realizada únicamente por un técnico electricista.

et Hoiatus: Elektrilöögi oht!
Lisateavet vaadake kasutusjuhendist.
Enne selle seadmega töötamist ühendage lahti ja lukustage toide.
Tähelepanu! Seadet tohib paigaldada ainult elektrotehnilise kogemusega isik.

fi Varoitus: Vaarallinen jännite!
Katso käyttöohje.
Katkaise virta ja estä virran kytkeminen lukituksella ennen töiden aloittamista.
Huomio! Asennuksen saa suorittaa vain henkilö, jolla on kokemusta sähkötekniikasta.

fr Avertissement: Tension dangereuse!
Consultez les consignes d'utilisation.
Débranchez et verrouillez l'alimentation électrique avant d'entreprendre des travaux sur cet appareil.
Attention! L'installation doit être effectuée uniquement par une personne ayant une expertise en électrotechnique.

hr Upozorenje: Opasan napon!
Pogledajte upute za uporabu.
Odsvojite i isključite struju prije rada na ovom uređaju.
Pažnja! Ugradnja je dopuštena samo osobama stručnim u području elektrotehnike.

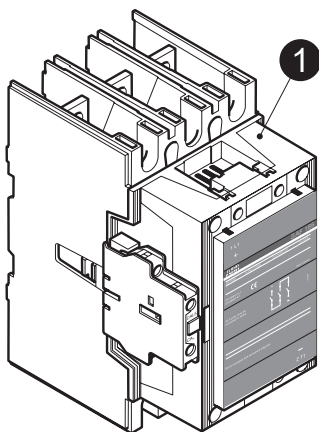
hu Figyelmeztetés: Veszélyes feszültség!
Lásd a használati utasítást.
Válassza le és zárja ki az áramellátást, mielőtt a berendezésen dolgozni kezd.
Figyelem! Az üzembe helyezést csak elektrotechnikai szakértelemmel rendelkező személy végezheti el.

it Attenzione: Tensione pericolosa!
Fare riferimento alle istruzioni per l'uso.
Prima di intervenire su questo dispositivo, scollegare e isolare tutte le fonti di alimentazione.
Attenzione! L'installazione deve essere eseguita esclusivamente da un installatore qualificato.

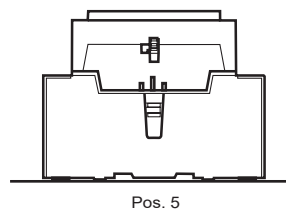
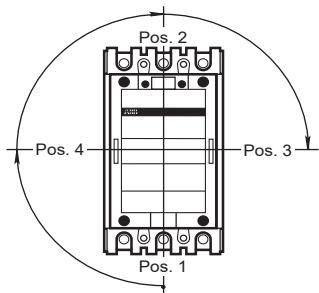
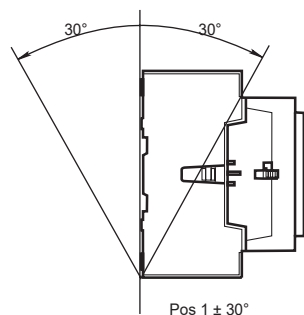
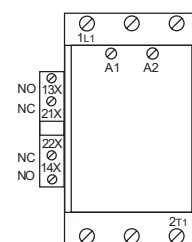
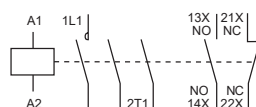
lt Įspėjimas: Pavojinga įtampa!
Žr. naudojimo instrukcijas.
Atjunkite ir laikinai užblokuokite maitinimą prieš dirbdami su šiuo įrenginiu.
Dėmesio! Įrengti gali tik asmuo, turintis elektrotechnikos patirties.



- lv Brīdinājums: Bīstams spriegums!
Skatiet darba norādījumus.
Pirms sākat darbu ar šo ierīci, atvienojiet un bloķējiet strāvas padevi.
Uzmanību! Uzstādīšanu drīkst veikt tikai persona ar zināšanām par elektrotehniku.
- nl Waarschuwing: Gevaarlijke spanning!
Raadpleeg de bedieningsinstructies.
Koppel dit apparaat los van de stroomvoorziening voordat u werkzaamheden uitvoert.
Let op! Installatie mag alleen worden uitgevoerd door een monteur met elektrotechnische expertise.
- no Advarsel: Farlig spenning!
Se i bruksanvisningen.
Koble fra og steng av strømmen før du arbeider på denne enheten.
Forsiktig! Montering skal kun utføres av kvalifiserte personer med elektroteknisk kompetanse.
- pl Ostrzeżenie: Niebezpieczne napięcie!
Patrz: instrukcja obsługi.
Przed rozpoczęciem wykonywania pracy z tym urządzeniem odłącz i zablokuj zasilanie.
Uwaga! Montaż może wykonywać wyłącznie osoba posiadająca doświadczenie elektrotechniczne.
- pt Aviso: Tensão perigosa!
Consulte as instruções de operação.
Desconecte e desligue a energia elétrica antes de trabalhar nesse dispositivo.
Atenção! A instalação deve ser feita apenas por uma pessoa com especialidade eletrotécnica.
- ro Avertisment: Tensiune electrică periculoasă!
Consultați instrucțiunile de utilizare.
Deconectați și închideți sursa de energie înainte de a lucra cu acest dispozitiv.
Atenție! Instalarea trebuie realizată doar de către o persoană cu expertiză electrotehnică.
- ru Внимание: Опасное электрическое напряжение!
Обратитесь к инструкциям по эксплуатации.
Отключите питание и обесточьте устройство перед началом работ.
Внимание! Установка должна выполняться только специалистом по электротехническим работам.
- sk Výstraha: Nebezpečné napätie!
Pozrite si návod na použitie.
Pred začatím prác na tomto zariadení odpojte a zablokujte napájanie.
Pozor! Inštaláciu smie vykonávať len osoba s odbornými znalosťami v oblasti elektrotechniky.
- sl Opozorilo: Nevarna napetost!
Glejte navodila za uporabo.
Pred delom na tej napravi izklopite in zaklenite električno napajanje.
Pozor! Namestitvev sme izvesti samo elektrotehnični strokovnjak.
- sv Varning: Livsfarlig spänning!
Se i bruksanvisningen.
Frånkoppla och blockera anläggning eller en anläggningsdel innan arbete utförs.
Obs! Får endast installeras av behörig elektriker.
- tr Uyarı: Tehlikeli gerilim!
Çalışma talimatlarına bakın.
Bu cihaz üzerinde çalışmadan önce elektriği kesin ve kilitleyin.
Dikkat! Yalnızca elektroteknik uzmanlığı sahip kişiler tarafından kurulabilir.
- zh 警告：高压危险！
请参见操作手册
操作本设备前请断开并锁定电源。
注意！安装仅限专业电工人员。



1 GAF ... 10-11



GAF-Contactors

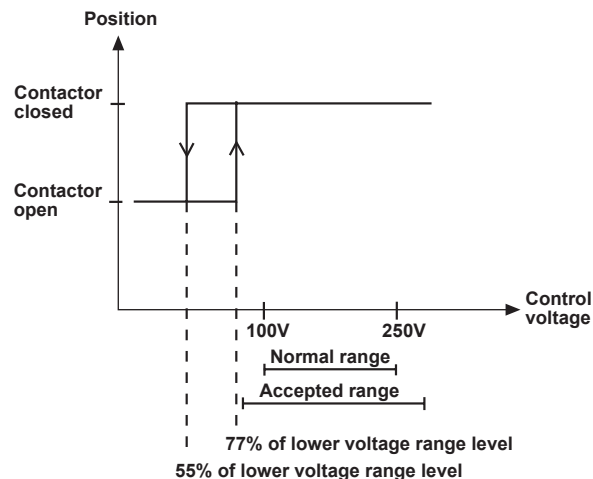
General

The GAF Contactors are fitted with an electronic coil interface. For a given coil, this interface allows the contactor to accept a very wide voltage range as well in d.c. as in a.c. , 50 or 60 Hz.

Control with voltage on A1 and A2

Operating of GAF-Contactors can be done as with conventional contactors by applying and removing voltage on A1 and A2. The function limits are very exact compared with a conventional contactor and there is a built in hysteresis in the function.

Note: Minimum length of the starting pulse=70 ms



GAF-Contactors comply with international standards IEC 947-1, IEC 947-4-1 and European standards EN 60 947-1, EN 60 497-4-1. Moreover in environment 2, they meet the electromagnetic compatibility rules (EMC): additional clauses A11 and A11 to above mentioned EN standards. Using these materials in environment 1 may lead to radio-interferences requiring the use of additional mitigation methods. Here are the definitions given in the additional clause A11 to standard EN 60 497-1.

Environment 1: "Mainly relates to low-voltage public networks such as residential, commercial and light industrial locations/installations.

Highly distributing sources such as arc welders are not covered by this environment".

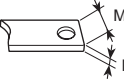
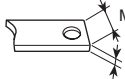
Environment 2: "Mainly relates to low-voltage industrial networks/locations/installations including highly disturbing sources".

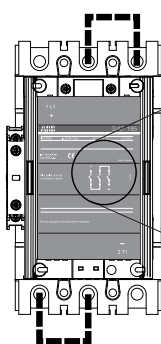
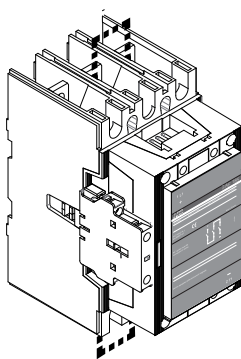
According to UL 508:

Use wire Cu 75°C only.

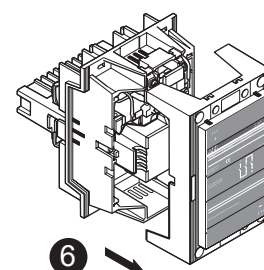
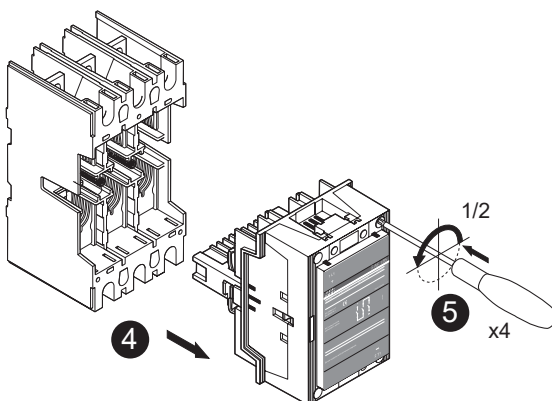
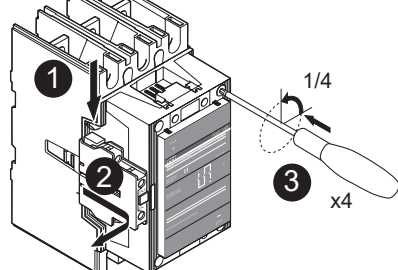
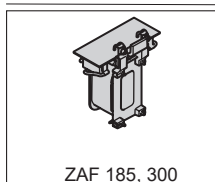
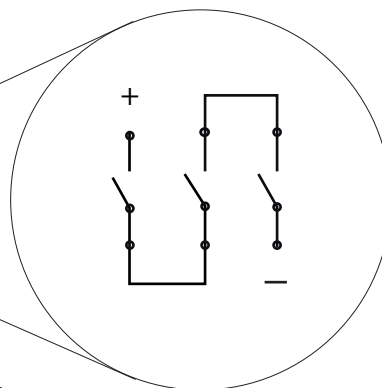
GAF 185: Enclosure with min. dimension 24 by 20 by 10 inches should be used.

GAF 300: Enclosure with min. dimension 36 by 30 by 12 inches should be used.

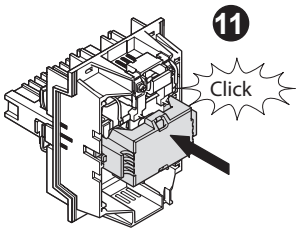
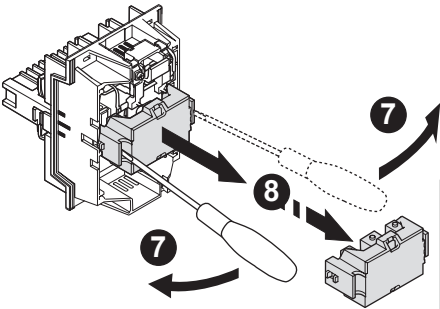
	GAF 185 M8  18 N.m - 160 lb.in	GAF 300 M10  28 N.m - 240 lb.in	GAF 185  Max. 24mm  Max. 22mm Max. 8mm	GAF 300  Max. 32mm  Max. 30mm Max. 10mm	
	 A1 A2	M 3,5  1 N.m	5 Pozidriv N 2 	 2 x 1 2,5 mm²  2 x 0,75 2,5 mm²	 / > 3,5 mm, L < 8 mm



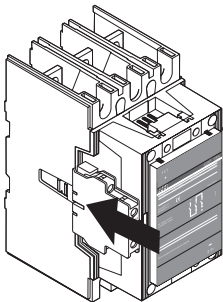
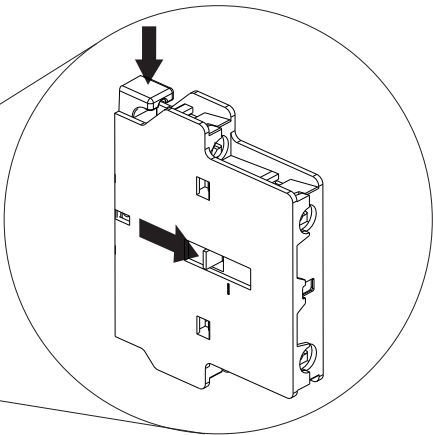
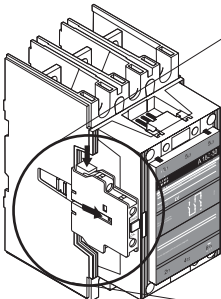
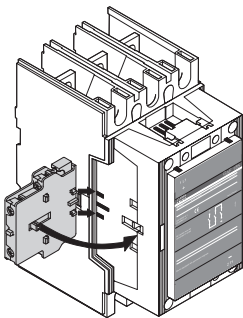
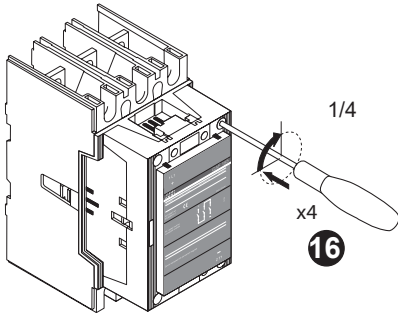
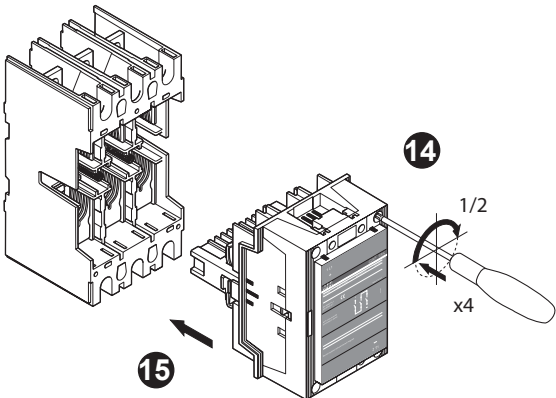
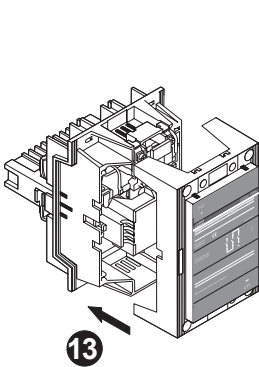
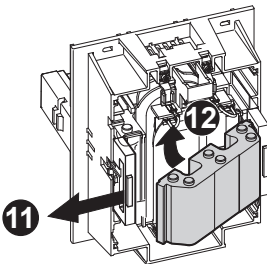
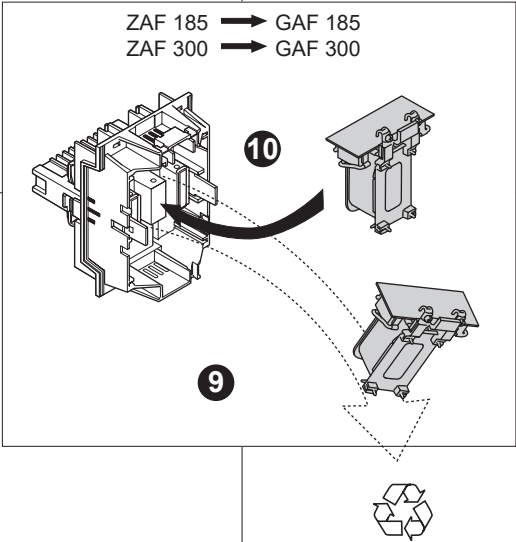
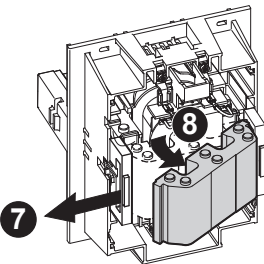
LP185,300



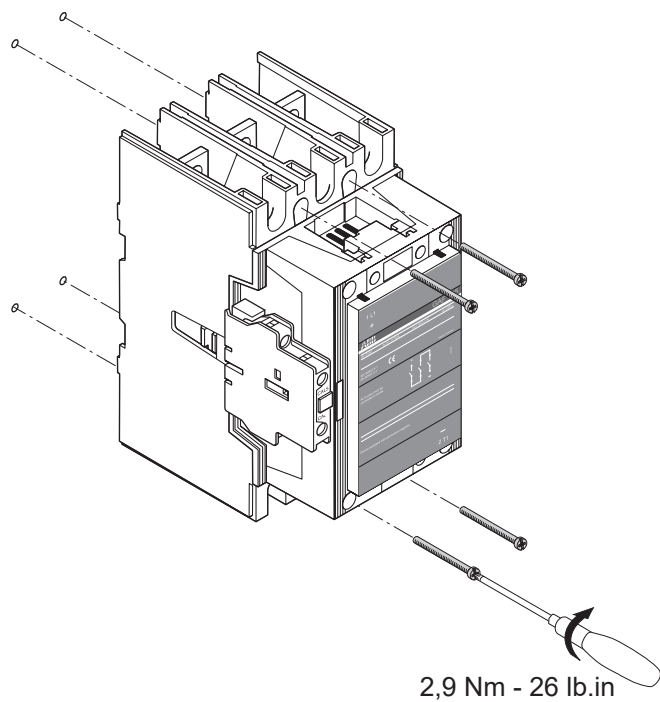
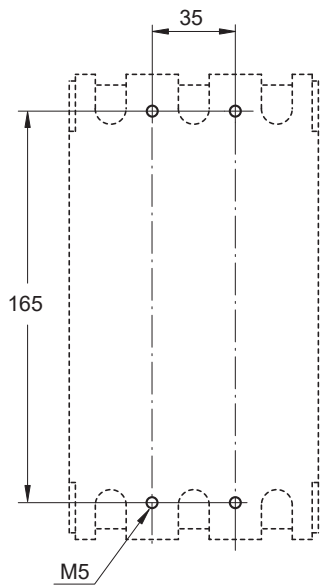
GAF 185



GAF 300



GAF 185



GAF 300

