AF116(B)-40(RT), AF140(B)-40(RT)
AF(S)116(B)-30(RT), AF140(B)-30(RT), AF(S)146(B)-30(RT)
CAL19-11(RT), CAL19-11B(RT), CEL19-10(RT), CEL19-01(RT)

1SFC100003M0201 Nov 2018

Operating instructions
Betriebsanleitung
Notice d'instructions
Instruktion
Istruzioni tecniche
IInstrucciones de empleo
操作说明
Инструкция по эксплуатации

Contactors
Schutze
Contacteurs
Kontaktorer
Contattori
Contactores
接触器
Контакторы

Auxiliary contacts
Hilfsschalter
Contactsauxiliaires
Kontaktblock
Contatti ausiliari
Contatti auxiliares
辅助触头
Вспомогательные контакты

Warning!

Do not touch live parts, it's dangerous! Installation and commissioning of this product must be carried out by a qualified electrician, following installation standards and safety regulations. Before installing the contactor, make sure that the control voltage supply corresponds with the marked voltage. High voltage testing shall not be carried out across the control voltage terminals (A1 and A2). Wrong control voltage or high voltage testing across the terminals can damage the contactors electronic control circuits.

Warnung!

Das Berühren stromführender Teile ist lebensgefährlich! Der Einbau und die Inbetriebnahme dieses Produkts muss von einem Elektrofachmann gemäß den Einbaunormen und Sicherheitsbestimmungen durchgeführt werden. Vor dem Einbau des Schützes muss sichergestellt werden, dass die Steuerversorgungs-spannung der Bemess-ungsspannung entspricht. Die Hochspannungsprüfung darf nicht über die Steuerspannungsklemmen (A1 und A2) vorgenommen werden. Unsachgemäße Steuerspannungs- oder Hochspannungsprüfungen über die Klemmen können zu Schäden an der elektronischen Steuerschaltung des Schützes führen.

Advertencia!

No tocar las partes en tensión, es peligroso! La instalación y puesta en marcha de este producto debe ser realizada por personal cualificado, siguiendo la normativa aplicable y las reglas de seguridad. Antes de instalar el contactor, verificar que la tensión de control corresponde con la indicada en el contactor. No se deben realizar test de alto voltaje en los terminales de bobina (A1 y A2). Una tensión de control errónea o una alta tensión de test en los terminales, puede dañar los circuitos electrónicos de control del contactor.

Avertissement!

Ne pas toucher les pièces sous tension. Danger de mort. La mise en œuvre, l'installation de cet appareil et toute intervention doivent être effectuées par un électricien professionnel appliquant les règles de l'art, les normes d'installation et les règlements de sécurité. Avant la mise en marche des contacteurs, vérifier que la tension du circuit de contrôle correspond bien aux indications de l'appareil. Ne pas réaliser de test d'haute tension entre les bornes bobines (A1 et A2). Le raccordement d'une tension différente ou essais haute tension entre les bornes peut mener à une destruction de l'électronique de commande.

Avvertenza!

Non toccare le parti attive. Pericolo di vita! La messa in opera, l'installazione di questo apparecchio ed ogni tipo di intervento devono essere effettuati da un elettricista professionista il quale applichi le regole del mestiere, le norme di installazione ed i regolamenti di sicurezza. Prima della messa in servizio del contattore, verificare que la tensione del circuito di comando corrisponda esattamente a quella indicata sulla bobina. L'alimentazione con una tensione diversa oppure una prova di alta tensione tra i morsetti A1 e A2 può provocarne il danneggiamento.

Varning!

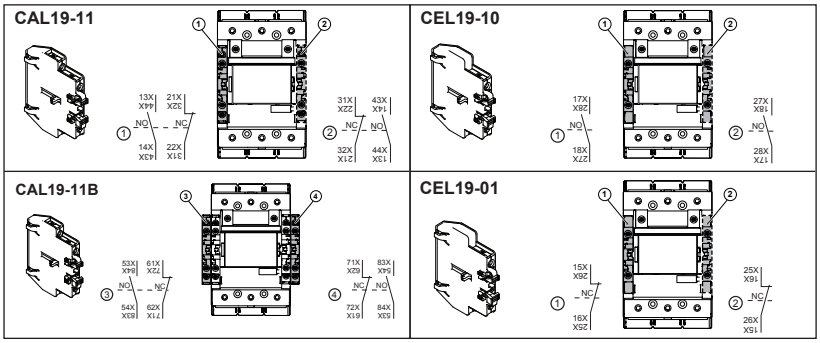
Beröring av spänningsförande delar är förenat med livsfara. Installation och igångsättning av apparaten samt alla ingrepp bör utföras av en kompetent elinstallatör enligt gällande installationsnormer och säkerhetsföreskrifter. Kontrollera före installationen av kontaktorn att aktuell manöverspänning överensstämmer med apparatens märkdata. Man ska inte göra högspänningsprovning mellan apparatens manöveranslutningar (A1 och A2). Felaktig manöverspänning eller hög-spänningsprovning mellan anslutningarna kan skada apparatens styrelektronik.

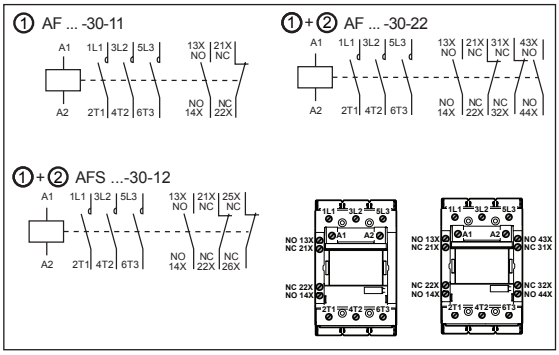
警告!

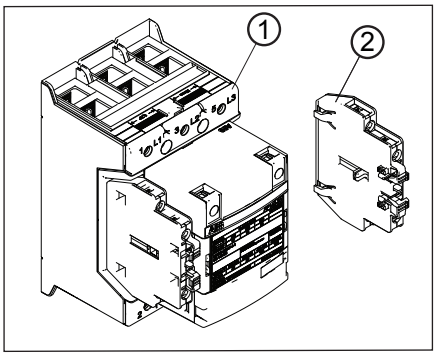
请勿触摸带电部件 因为这样是危险的！安装及试运转产品时必须由有资质的电工进行，并且按照安装指引及安全规则来完成。
安装接触器前请确保控制电源电压与标称电压一致。不应在 控制电压端子（A1 和 A2 ）进行高电压测试。在控制电压端子上通入错误的控制电压或进行高电压测试将会损坏接触器的电子控制电路。

осторожность!

Не прикасайтесь к токоведущим частям, это опасно! Установка и ввод в эксплуатацию данного устройства должны выполняться квалифицированным персоналом, в соответствии с стандартами и правилами техники безопасности. Перед установкой контактора убедитесь, что напряжение цепи управления соответствует напряжению катушки управления контактора. Высокое испытательное напряжение не должно подаваться на терминалы (A1 и A2) цепи питания электромагнитной системы контактора. Неправильно выбранное напряжение или испытание высоким напряжением через эти терминалы могут повредить электронные схемы управления контактора.

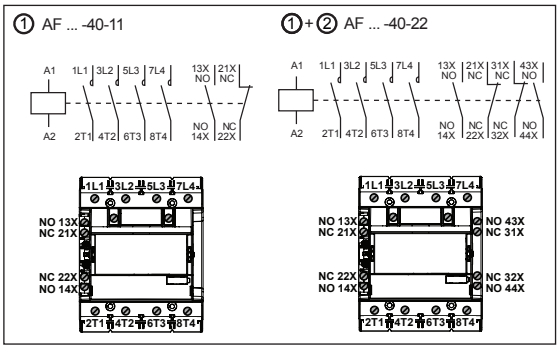






CAL/19 Pilot duty acc.to UL 508

Rating code	Therminal Continuous Current	Voltage	Make/Break Current
A 600	10A	120V AC 240V AC 480V AC 600V AC	60 A / 6 A 30 A / 3 A 15 A / 1,5 A 12 A / 1,2 A
Q 300	2,5A	125V DC 250V DC	0.55 A 0.27 A



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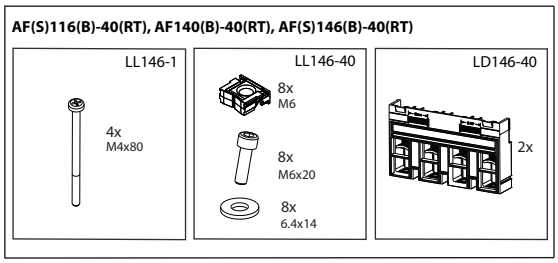
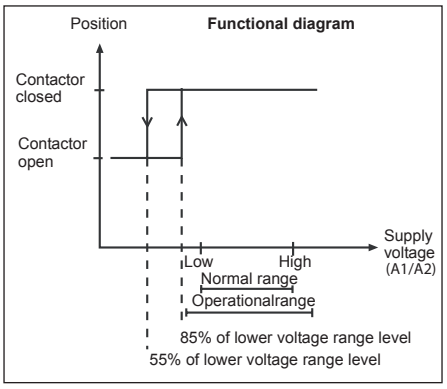
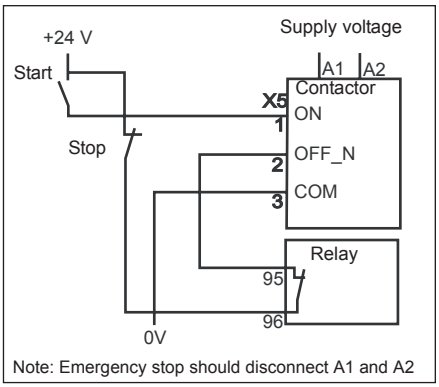


General
AF-contactors are fitted with an electronic interface. For a given coil, this allows the contactor to accept a very wide voltage range.

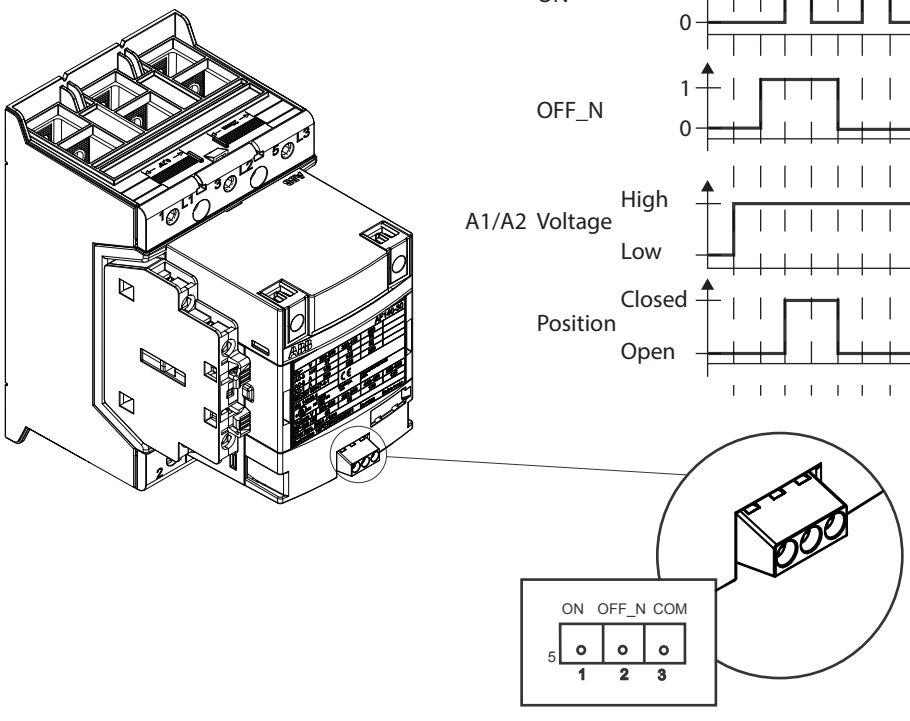
Code-11…-14
Operation is done, as with conventional contactors, by applying and removing supply voltage on A1 and A2. Closing 85% and opening at 55% of the lower nominal voltage limit, which is indicated in the functional diagram.



Code-33 and -34 built-in PLC interface
Operation is controlled by separate logic control signals from for instance a PLC. Use of logic control requires a steady supply voltage on A1 and A2 within the rated voltage range, as described for code-11…-14. The function of the logic control signal will no longer be guaranteed when the supply voltage on A1 and A2 is removed.
The logic control signals are operated with 24V d.c. There are two control signals (ON and OFF_N) and a common reference (COM). For the control signals, the function is guaranteed from 15V d.c. (6mA) to 33V d.c. (20mA).
The contactor is closed by a control signal ON and opened by removal of control signal from OFF_N. The functions are described in diagram below. "1" means 24V d.c. between the control signal and COM. "0" means no voltage between the control signal and COM. Minimum control signal pulse length for opening and closing is 10ms. To connect the PLC interface use cable dimension of max 1.5mm2.



When used with switches the wiring can be done according to diagram above.



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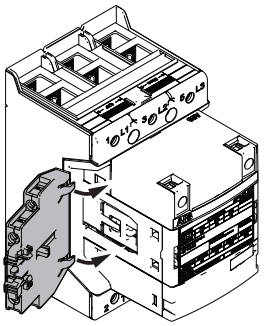
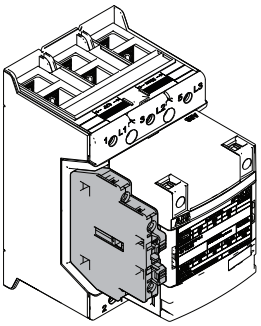
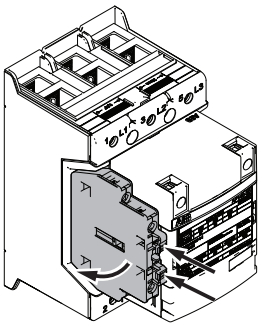
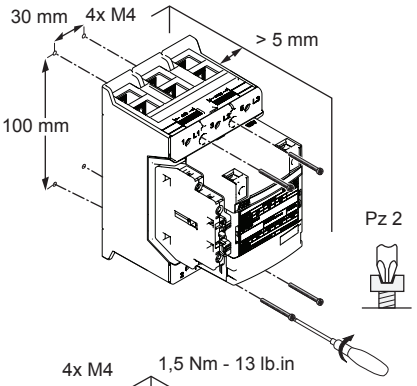
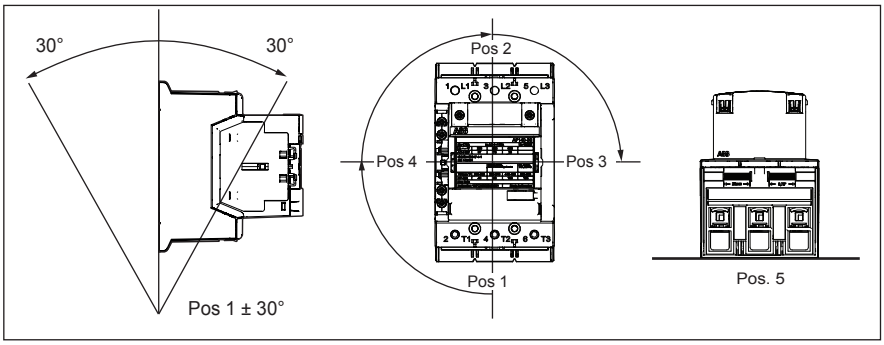
Notice.	This product has been designed for environment A. Use of this product in environment B may cause unwanted electromagnetic disturbances in which case the user may be required to take adequate mitigation measures.
Hinweise.	Dies ist ein Produkt für Umgebung A. In Haushaltsumgebung kann dieses Gerät unerwünschte Funkstörungen verursachen; in diesem Fall kann der Anwender verpflichtet sein, angemessene Maßnahmen durchzuführen.
Notice.	Ce produit a été conçu pour environnement A. L'utilisation de ce produit dans environnement B peut causer des perturbations électro-magnétiques non désirées qui, dans ce cas, peuvent obliger l'utilisateur à prendre des mesures d'atténuation appropriées.
Obs.	Den här produkten har konstruerats för miljöklass A. Användning av produkten i miljöklass B kan förorsaka oönskade elektromagnetiska störningar och i så fall krävs att användaren vidtar nödvändiga åtgärder.
Avvertenza.	Questo prodotto è stato progettato per l'ambiente A. L'uso di questo prodotto nell'ambiente B può provocare disturbi elettromagnetici indesiderati, nel qual caso l'utilizzatore può dover prendere adeguate misure per loro attenuazione.
Nota.	Este producto ha sido diseñado para ambientes A. El uso de este producto en ambientes B puede causar perturbaciones electromagnéticas no deseadas, en tal caso el usuario tendrá que tomar las medidas de mitigación adecuadas.
警告！	本产品适用于环境 A，在环境 B 中使用本产品会产生有害电磁干扰，在此情况下用户需采取适当防护措施.
Замечание.	Устройство разработано для применения в средах категории A. Применение в средах категории B может привести к возникновению нежелательных электромагнитных помех. В этом случае могут потребоваться дополнительные меры защиты от помех.

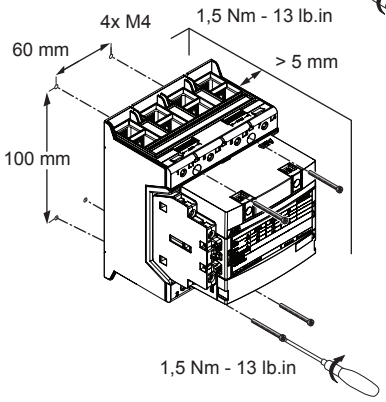




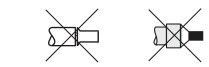


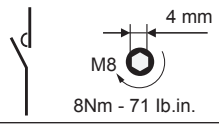


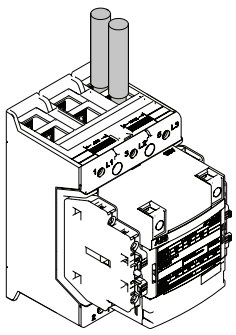


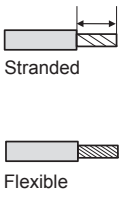


Only use wires of the same dimension when you connect 2 wires to each terminal.

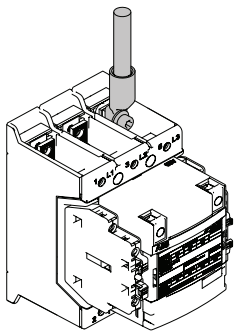


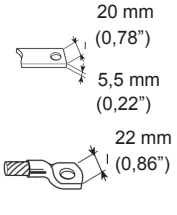


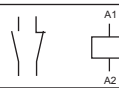
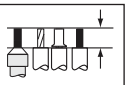




1 x 10...95 mm²
2 x 10...95 mm²
1 x AWG 6...4/0
2 x AWG 6...4/0
1 x 10...70 mm²
2 x 10...70 mm²





									
	M 3,5 1 Nm -9 lb.in	ø 5,5	Pz 2	1 x 1 ... 4 mm² 2 x 1 ... 4 mm² 1 x AWG 18 ... 14 2 x AWG 18 ... 14	1 x 0,75 ... 2,5 mm² 2 x 0,75 ... 2,5 mm² 1 x AWG 18 ... 14 2 x AWG 18 ... 14	1 x 0,75 ... 2,5 mm² 2 x 0,75 ... 2,5 mm²	1 x 0,75 ... 2,5mm² 2 x 0,75 ... 2,5mm²	I > 3,5 mm L < 8 mm	9 mm

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According to UL 60947-4-1 Use wire Cu 75°C only. Use built-in cable clamps or UL recognized compression lugs. Enclosure with min. dimension 24 by 20 by 10 inches should be used. Suitable for use on a circuit capable of delivering not more than the max. symmetrical amperes at the max. voltage shown in the table below.

Circuit Breaker A	T4*, XT4*		T4N250	T4S250	T4H250	T4L250	T4V250	XT4X150
Fuse A/Class	250/RK5	250/J						
Max Short Circuit Current at 208-240V (kA)	5	100	65	100	100	100	100	100
Max Short Circuit Current at 480V (kA)	10	100	25	35	65	100	100	100
Max Short Circuit Current at 600V (kA)	10	100	18	25	35	65	100	100

Circuit Breaker A			XT4N250	XT4S250	XT4H250	XT4L250	XT4V250	XT4X250
Fuse A/Class								
Max Short Circuit Current at 208-240V (kA)			65	100	100	100	100	100
Max Short Circuit Current at 480V (kA)			25	35	65	100	100	100
Max Short Circuit Current at 600V (kA)			18	22	25	50	65	65

Definite Purpose magnetic motor controller. Breaking all lines. Max 600V AC, 50/60 Hz:

TYPE	Herm. ref. comp, AC-8a		Ballast, AC-5a/ Resistance air heating	Elevator duty
	FLA	LRA		
AF(S)116	116	800	160	54
AF140	125	875	200	54
AF(S)146	160	1050	200	54

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