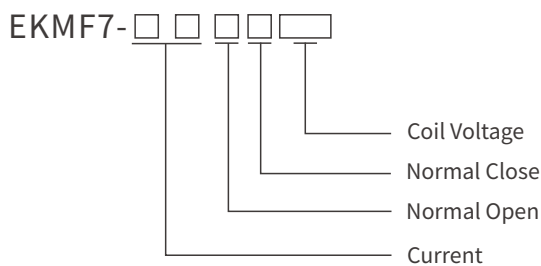


Applicable Scope

The EKMF7 modular contactor (hereinafter referred to as contactor) is mainly suitable for AC 50Hz (or 60Hz), rated working voltage to 400V and rated current operation in the circuit up to 125A, it can control the low-inductance and low-inductance load of household appliances and similar purposes; it can also be used to control the load of household motors. The power should be reduced accordingly.

The EKMF7 contactors according to standard IEC/EN61095, IEC60947-4-1 and are used mainly in buildings for switching and controlling lighting, heating, ventilation and pumps. They are part of the complete range of Din rail products and can be integrated easily in dedicated panels.

Modular Contactor



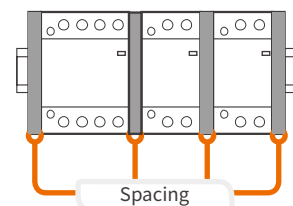
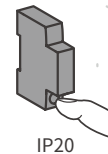
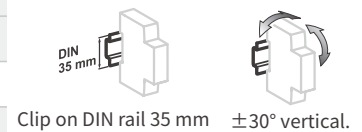
(eg. EKMF7-2520-24V AC/DC . It is 25A, 2NO, 24V AC/DC current coil voltage)

Main Technical Data

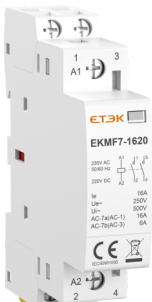
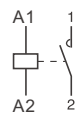
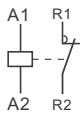
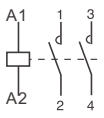
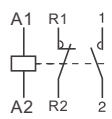
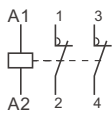

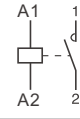
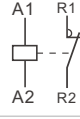
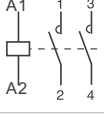
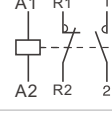
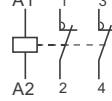
Rated voltage (Ue)	250VAC	1P(1NO,1NC),2P(2NO,2NC,1NO+1NC)
	400VAC	3P(3NO,3NC),4P(4NO,4NC,2NO+2NC,3NO+1NC)
Frequency	50/60Hz	
Mechanical life	1,000,000 cycles	
Electrical life	100,000 cycles	
Maximum number of switching operation a day	100	
Insulation voltage (Ui)	500V AC	
Pollution degree	2	
Rated impulse withstand voltage (Uimp)	2.5kV (4kV for 12/24/48VAC)	
Degree of protection (IEC 60529)	IP20	
Operating temperature	-5°C~+60°C	
Storage temperature	-40°C~+70°C	
Tropicalization (IEC 60068.1)	Treatment 2 (relative humidity 95% at 55°C)	
ELSV compliance (Extra Low Safety Voltage) for 12/24/48VAC versions		



The product control conforms to the SELV (safety extra low voltage) requirements



(1)In the case of contactor mounting in a enclosure for which the interior temperature is in range between 50 °C and 60 °C, it is necessary to use a spacer, between each contactor



Product Selection Form

Width	Coil voltage VAC	Poles	Contacts NO+NC	Contactor Model	Rated Current		Circuit Diagram	
					AC-1, AC-7a	AC-3, AC-7b		
 <p>1 Modules</p>	12V AC/DC 24V AC/DC 48V AC/DC 110V AC/DC 230V AC/DC	1P	1NO	EKMF7-1610	16A	6A		
				EKMF7-2010	20A	7A		
				EKMF7-2510	25A	9A		
				EKMF7-3210	32A	12A		
			1NC	EKMF7-1601	16A	6A		
				EKMF7-2001	20A	7A		
				EKMF7-2501	25A	9A		
				EKMF7-3201	32A	12A		
		2P	2NO	2NO	EKMF7-1620	16A	6A	
					EKMF7-2020	20A	7A	
					EKMF7-2520	25A	9A	
					EKMF7-3220	32A	12A	
			1NO+1NC	1NO+1NC	EKMF7-1611	16A	6A	
					EKMF7-2011	20A	7A	
					EKMF7-2511	25A	9A	
					EKMF7-3211	32A	12A	
2NC	2NC	EKMF7-1602	16A	6A				
		EKMF7-2002	20A	7A				
		EKMF7-2502	25A	9A				
		EKMF7-3202	32A	12A				
 <p>2 Modules</p>	12V AC/DC 24V AC/DC 48V AC/DC 110V AC/DC 230V AC/DC	1P	1NO	EKMF7-4010	40A	18A		
				EKMF7-6310	63A	25A		
			1NC	EKMF7-4001	40A	18A		
				EKMF7-6301	63A	25A		
		2P	2NO	2NO	EKMF7-4020	40A	18A	
					EKMF7-6320	63A	25A	
			1NO+1NC	1NO+1NC	EKMF7-4011	40A	18A	
					EKMF7-6311	63A	25A	
			2NC	2NC	EKMF7-4002	40A	18A	
					EKMF7-6302	63A	25A	

Width	Coil voltage VAC	Poles	Contacts NO+NC	Contactor Model	Rated Current		Circuit Diagram
					AC-1, AC-7a	AC-3, AC-7b	
 <p>2 Modules</p>	12V AC/DC 24V AC/DC 48V AC/DC 110V AC/DC 230V AC/DC	1P	1NO	EKMF7-8010	80A	-	
				EKMF7-10010	100A	-	
				EKMF7-12510	125A	-	
			1NC	EKMF7-8001	80A	-	
				EKMF7-10001	100A	-	
				EKMF7-12501	125A	-	
		2P	2NO	EKMF7-8020	80A	-	
				EKMF7-10020	100A	-	
				EKMF7-12520	125A	-	
			2NC	EKMF7-8002	80A	-	
EKMF7-10002	100A			-			
EKMF7-12502	125A			-			
 <p>2 Modules</p>	12V AC/DC 24V AC/DC 48V AC/DC 110V AC/DC 230V AC/DC	3P	3NO	EKMF7-1630	16A	6A	
				EKMF7-2030	20A	7A	
				EKMF7-2530	25A	9A	
				EKMF7-3230	32A	12A	
			3NC	EKMF7-1603	16A	6A	
				EKMF7-2003	20A	7A	
		EKMF7-2503		25A	9A		
		EKMF7-3203		32A	12A		
		4P	4NO	EKMF7-1640	16A	6A	
				EKMF7-2040	20A	7A	
				EKMF7-2540	25A	9A	
				EKMF7-3240	32A	12A	
			4NC	EKMF7-1604	16A	6A	
				EKMF7-2004	20A	7A	
				EKMF7-2504	25A	9A	
				EKMF7-3204	32A	12A	
			2NO+2NC	EKMF7-1622	16A	6A	
				EKMF7-2022	20A	7A	
EKMF7-2522	25A			9A			
EKMF7-3222	32A			12A			
3NO+1NC	EKMF7-1631	16A	6A				
	EKMF7-2031	20A	7A				
	EKMF7-2531	25A	9A				
	EKMF7-3231	32A	12A				

Width	Coil voltage VAC	Poles	Contacts NO+NC	Contactor Model	Rated Current		Circuit Diagram		
					AC-1, AC-7a	AC-3, AC-7b			
 3 Modules	12V AC/DC 24V AC/DC 48V AC/DC 110V AC/DC 230V AC/DC	3P	3NO	EKMF7-4030	40A	18A			
				EKMF7-6330	63A	25A			
			3NC	EKMF7-4003	40A	18A			
				EKMF7-6303	63A	25A			
			4P	4NO	EKMF7-4040	40A	18A		
					EKMF7-6340	63A	25A		
		4NC		EKMF7-4004	40A	18A			
				EKMF7-6304	63A	25A			
		2NO+2NC		EKMF7-4022	40A	18A			
				EKMF7-6322	63A	25A			
		3NO+1NC	EKMF7-4031	40A	18A				
			EKMF7-6331	63A	25A				
		 3 Modules	12V AC/DC 24V AC/DC 48V AC/DC 110V AC/DC 230V AC/DC	3P	3NO	EKMF7-8030	80A	-	
						EKMF7-10030	100A	-	
EKMF7-12530	125A					-			
3NC	EKMF7-8003				80A	-			
	EKMF7-10003				100A	-			
	EKMF7-12503				125A	-			
4P	4NO			EKMF7-8040	80A	-			
				EKMF7-10040	100A	-			
				EKMF7-12540	125A	-			
	4NC			EKMF7-8004	80A	-			
				EKMF7-10004	100A	-			
				EKMF7-12504	125A	-			
	2NO+2NC			EKMF7-8022	80A	-			
				EKMF7-10022	100A	-			
				EKMF7-12522	125A	-			

Modular Contactor Power Consumption

Poles	Rated Current		Control voltage (VAC)	Power consumption		Max Power
	AC-7a	AC-7b		Hold on	Pull in	
2P	16A	6A	230	2.1VA	2.1VA	2.0W
	20A	7A	230	2.1VA	2.1VA	2.0W
	25A	9A	230	2.1VA	2.1VA	2.0W
	32A	12A	230	2.1VA	2.1VA	2.0W
	40A	18A	230	2.3VA	2.3VA	2.0W
	63A	25A	230	2.3VA	2.3VA	2.0W
	80A	-	230	4.4VA	4.4VA	3.9W
	100A	-	230	4.4VA	4.4VA	3.9W
	125A	-	230	4.4VA	4.4VA	3.9W
4P	16A	6A	230	2.3VA	2.3VA	2.0W
	20A	7A	230	2.3VA	2.3VA	2.0W
	25A	9A	230	2.3VA	2.3VA	2.0W
	32A	12A	230	2.3VA	2.3VA	2.0W
	40A	18A	230	6.0VA	6.0VA	5.5W
	63A	25A	230	6.0VA	6.0VA	5.5W
	80A	-	230	8.3VA	8.3VA	7.5W
	100A	-	230	8.3VA	8.3VA	7.5W
	125A	-	230	8.3VA	8.3VA	7.5W

Modular Contactor Auxiliary

Auxiliary Contacts

The Auxiliary contacts are indicator contactor contacts status switch OFF or ON

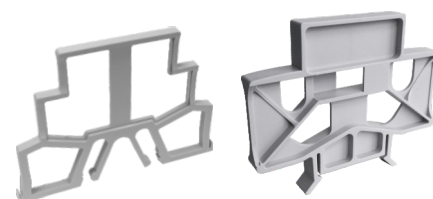
	AC-12		AC-15		DC-13		Rated Current	Circuit Diagram
	C.V.	C.A.	C.V.	C.A.	C.V.	C.A.		
EKMF-OF-11	240V	5A	230V	2A	DC 130V	1A	5A	
EKMF-OF-20	240V	5A	230V	2A	DC 130V	1A	5A	



Spacing Piece

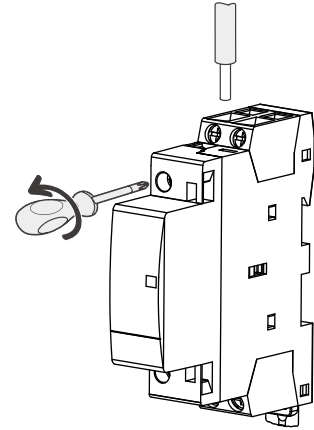
Spacers are used to reduce the temperature rise of devices mounted side by side. It is recommended to separate electronic equipment (temperature adjustment devices, programmable timer etc.) from electromechanical equipment (impulse relays, contactors)

	Technical specifications
Spacing piece	3mm Spacing piece
	9mm Spacing piece

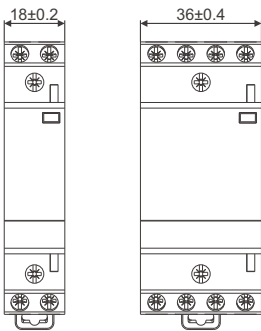


Connection Parameter

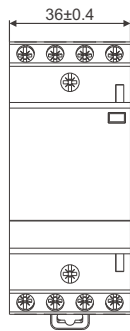
Type	Rated Current	Lenght tripping	Circuit	Tightening torque	Copper cables		
					Rigid	Flexible or Ferrule	
EKMF7	PZ1: 4mm	16-125A	9mm	Control	0.8N.m	1.5~2.5mm ² 2x1.5mm ²	1.5~2.5mm ² 2x2.5mm ²
		16-32A	9mm	Power	0.8N.m	1.5~6mm ²	1~4mm ²
	PZ2: 6mm	40-63A	14mm	Power	3.5N.m	6~25mm ²	6~16mm ²
		80-125A	14mm	Power	3.5N.m	6~35mm ²	6~25mm ²
EKMF-OF	PZ1: 4mm	-	9mm	-	0.8N.m	1.5~2.5mm ² 2x1.5mm ²	1.5~2.5mm ² 2x2.5mm ²



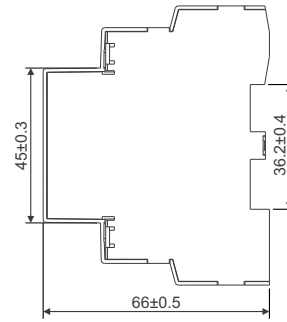
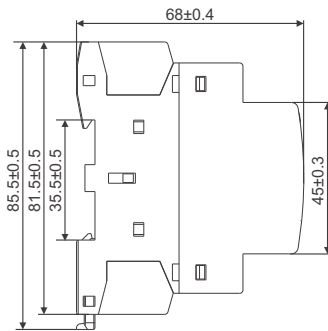
Overall and Installation Dimension(mm)



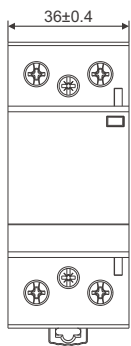
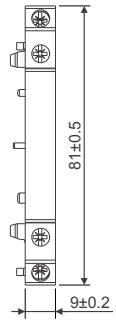
EKMF7-16~32
1P/2P



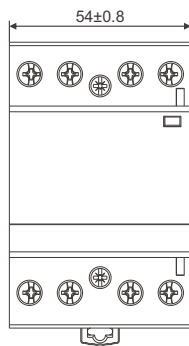
EKMF7-16~32
3P/4P



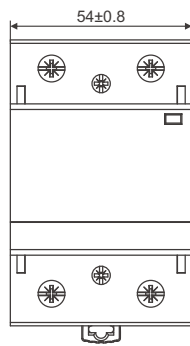
EKMF-OF



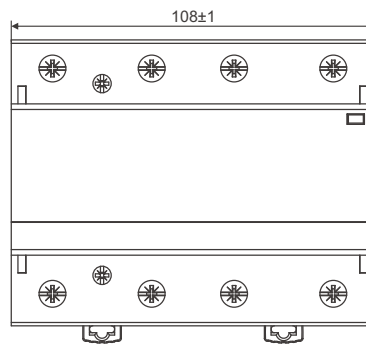
EKMF7-40~63
1P/2P



EKMF7-40~63
3P/4P



EKMF7-80~125
1P/2P



EKMF7-80~125
3P/4P

