

Motor Control and Protection Components

UEC1-09...170C AC Contactors



INTRODUCTION



Sunban Industrial Park

Hongfa, (Shanghai Stock Exchange: 600885), founded in 1984, has been adhering to the enterprise spirit of “persevere for progress, strive for excellence”, and has built a complete industry system with complete categories and supporting facilities. At present, Hongfa has more than 30 subsidiaries and has established three districts of R & D and production bases. Its products cover various categories, such as medium and low voltage products, relays, high and low voltage switchgear, capacitors, precision parts and automation equipment.

Xiamen Hongfa Electrical Safety & Controls Co., Ltd. is a wholly-owned subsidiary of Hongfa, which specializes in R & D, design and manufacture medium and low voltage products. Its distribution apparatus, terminal apparatus, control apparatus and other products are widely used in real estate, electric power, new energy, industry, HVAC, transportation, information and other fields.

In the United States, Europe, Southeast Asia and other regions, Hongfa has established localized marketing and service networks with global market operation and technical service. Relying on professional and rigorous technical support, fast response and all-round service, safe and reliable product quality and high cost performance, Hongfa has reached business cooperation relationship with many global top 500 enterprises and other well-known enterprises, such as Enel, GE, Honeywell, Carrier, Trane, Johnson Controls, Danfoss, State Grid, China Southern Power Grid, CRRC, China Mobile, China Unicom, etc.



Donglin Industrial Park



Haicang Industrial Park



Zhongjiang Industrial Park



Zhangzhou Industrial Park



Zhoushan Industrial Park



Xi'an Factory

In terms of technology R & D and manufacturing, taking the national enterprise technology center as the platform, Hongfa has set up postdoctoral research workstation, academician and expert workstation. Now it has developed into a leading scientific research and production base in the industry. From product development, mold manufacturing, parts manufacturing, automated product assembly and online testing, Hongfa has successfully built an integrated whole industry chain of medium and low voltage products. In terms of product testing, Hongfa testing center has passed the certification of VDE, UL, CNAS and other international organizations, and has complete testing and analysis equipment for low-voltage products, such as 50kA ultimate short circuit test, 8kA electrical life test, 80kA characteristic test, mechanical simulation and testing system, electro-magnetic simulation and testing system.

Hongfa always adheres to the policy of "focused on the market, winning through quality", and has a completed quality assurance system. Its products have passed UL / CUL, VDE, CQC, CCC and other international safety certification. In the process of quality management, Hongfa actively implements the advanced quality concept, constantly improves the quality management system, continuously promotes the product process quality control and testing, strengthens the supply chain management, and is committed to providing each customer with high-quality products and creating greater value.

Advanced technology and strict quality control have created Hongfa's brand strength. Hongfa is willing to work hand in hand with global customers to share the convenience and well-being brought by science and technology.

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UEC1-09C...170C AC Contactors

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NOTE:

The contents and data in this catalogue are not binding. We reserve the right to modify the contents of this document on the basis of technical development of the products, without prior notice. The real order requirements and technical agreements shall prevail.

UEC1series

UEC1-09C...170C AC Contactors

Production overview

Scope of Application

The UEC1-09C...170C AC contactors range to a rated current of 9...170A under the utilization category AC-3 and can be driven by both 50Hz and 60Hz. They can be combined with a thermal overload protection.

Product Features

- Designed under several patents.
- Optimized structure to be compatible with other industrial control contactors.
- Material with excellent ability to withstand abnormal heat conditions.
- Optimized arc extinguishing system for extended product life.
- Diversity of auxiliary blocks, which can be combined freely.
- Reliable performance even in harsh environment.







Design Features

- Magnetic circuit of high efficiency and an effective arc extinguishing structure minimize the contact wear and give strong performance even under heavy load conditions.
- Critical insulation parts use thermosetting material, thus effectively avoiding short circuit in overload situations.
- For 9...95A, each contactor of the UEC1 series can hold up to 4 built-in auxiliary contacts, with any NO/NC combination possible.
- Consistent design approach, expressing the Hongfa brand.
- Modular accessories, such as auxiliary contacts and thermal protection relays, can be mounted to individual needs.
- All UEC1 models can be mounted by screw. 9...95A can also be mounted on 35mm DIN rail and 40...95A can be mounted on both 35mm and 75mm DIN rail, 115...170A can be mounted on 2 x 35 mm DIN rails.

Typical Applications

Machinery, manufacturing control, elevator, metallurgy, chemical industry, power management, air conditioning compressor, water pump, conveyor belt, lighting control, heater, and electric vehicles.

Approval Certificate

	CCC	GB/T 14048.4, GB/T 14048.5
	CB	IEC 60947-4-1, IEC 60947-5-1
	CE	EN 60947-4-1, EN 60947-5-1
	UKCA	BS EN 60947-4-1, BS EN 60947-5-1
	VDE⁽¹⁾	EN 60947-4-1 (VDE 0660 Teil 102) EN 60947-5-1 (VDE 0660 Teil 200)
	UL (cULus LISTED)⁽¹⁾	UL 60947-4-1, UL 60947-5-1 CSA C22.2 No. 60947-4-1, CSA C22.2 No. 60947-5-1

Note: (1) Except for 115...170A.

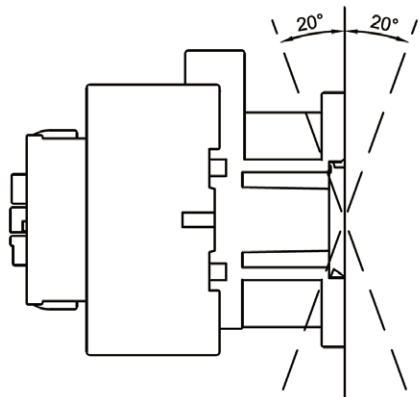
Product Technical Characteristics

Ordering Information

				UEC	1	-	25	C	11	M7			
Contactor series													
Design series number													
Rated operational current at rated operational voltage 400V under AC-3 category													
09: 9A	25: 25A	40: 40A	80: 80A	115: 115A									
12: 12A	32: 32A	50: 50A	95: 95A	150: 150A									
18: 18A	38: 38A	65: 65A	170: 170A										
Product structure													
C: C type													
CS: CS type, Auxiliary contacts are used in low capacity load, heavy dust and other harsh environment. only available for 9...95A.													
Number of built-in auxiliary NO contacts/NC contacts													
11: 1NO+1NC	20: 2NO	02: 2NC	40: 4NO										
22: 2NO+2NC	31: 3NO+1NC	13: 1NO+3NC	04: 4NC										
a) 10 or 01 can be customized for the contactor 9...38A.													
b) No built-in auxiliary contact for 115...170A, and the code number of “00” is omitted.													
c) Only “11”, “20”, or “02” can be available for built-in auxiliary contacts provided by CS type and low consumption.													
Coil control voltage													
1) AC supply - 50/60Hz (9...170A)													
Voltage(V)	24	36	42	48	110	115	127	220	230	240	380	400	415
Code	B7	CC7	D7	E7	F7	FE7	FC7	M7	P7	U7	Q7	V7	N7
2) DC supply (9...38A)													
Voltage(V)	12	24	36	48	60	72	110	125	220	250			
Code	JD	BD	CD	ED	ND	SD	FD	GD	MD	UD			
3) DC supply - low consumption(9...38A)													
Voltage(V)	12	24	48	110	220	250							
Code	JL	BL	EL	FL	ML	UL							
4) AC/DC supply - 50/60Hz DC (40...95A)													
Voltage(V)	24...60		100...250										
Code	BNE		KUE										
* Other coil versions on request													
Special type product code													
No code(Blank): Standard type													
T: With built-in wiring terminal block, only available for 115...170A													
-098:Dustproof contator(C type products ranging from 9A to 95A, the CS type already includes a dustproof configuration, no need to select -098 code)													



Product Technical Characteristics

Technical Data

Model		UEC1-09C...18C	UEC1-25C...38C	UEC1-40C...65C	UEC1-80C...95C	UEC1-115C...170C
Parameters						
Operating environment						
Rated insulation voltage U _i		V	690			1000
Rated impulse withstand voltage U _{imp}		kV	6		8	8
Conforming to standards		GB/T 14048.4, GB/T 14048.5, IEC 60947-4-1, IEC 60947-5-1, EN 60947-4-1,EN 60947-5-1, BS EN 60947-4-1, BS EN 60947-5-1				
		UL 60947-4-1, UL 60947-5-1, CSA C22.2 No. 60947-4-1, CSA C22.2 No. 60947-5-1				-
Certifications		CCC, CB, CE, UKCA, VDE, UL(cULus LISTED)				CCC, CB, CE, UKCA
Degree of protection (front only)		Against direct finger contact: IP20				Protect against direct finger contact: IP20 (T type)
Ambient air temperature	Storage	°C	-60...+80			
	Operation	°C	-40...+60 (+60...+70,for operation at 1.0U _s ...1.1U _s)			
Max. operating altitude without derating		m	3000			
Pollution degree		3				
Mounting category		Ⅲ				
Mounting type		Screw 35mm DIN rail		Screw 35mm/75mm DIN rail		Screw 2 x 35 mm DIN rails
Flame resistance		Current-carrying part: 850°C				
Operating position		<div>Vertical mounting(±20°)</div> 				

Product Technical Characteristics

Technical Data

										
Model					UEC1-09C	UEC1-12C	UEC1-18C	UEC1-25C	UEC1-32C	UEC1-38C
Parameters										
Power circuit, 3-pole contactors										
IEC	AC-3	I _e	400V/≤60°C	A	9	12	18	25	32	38
		Rated operational power	220V/230V	kW	2.2	3	4	5.5	7.5	9
			380V/400V	kW	4	5.5	7.5	11	15	18.5
			660V/690V	kW	5.5	7.5	10	15	18.5	18.5
	AC-1	I _e	690V/≤60°C	A	25	25	32	40	50	50
			690V/≤70°C	A	17	17	22	28	35	35
	Conventional thermal current I _{th} ≤60°C				A	25	25	32	40	50




UL CSA	1-phase motor rating	110...120 V	hp	1	1	1	2	2	3
		200...208 V	hp	1	2	2	3	5	5
		220...240 V	hp	1	2	3	3	5	5
	3-phase motor rating	200...208 V	hp	2	3	5	7-1/2	10	10
		220...240 V	hp	3	3	5	7-1/2	10	10
		440...480 V	hp	5	7-1/2	10	15	20	25
		550...600 V	hp	7-1/2	10	15	20	25	25
	General use rating		600V/≤60°C	A	25	25	32	40	50

Built-in auxiliary contacts standard type				1NO+1NC						
Max. electrical operating frequency AC-3/400V				cycles/h	750	750	750	600	600	400
Mechanical durability				10 ⁶ cycles	10			10		
Max. mechanical operating frequency ⁽¹⁾				cycles/h	3600			3600		

Note: (1) The max. mechanical operating frequency of AC/DC coil is 1800 cycles per hour. For 24...60V 50/60Hz supply coil voltage, the total length of wire must be shorter than 6 meters.

Product Technical Characteristics

Technical Data

							
UEC1-40C	UEC1-50C	UEC1-65C	UEC1-80C	UEC1-95C	UEC1-115C	UEC1-150C	UEC1-170C
Power circuit, 3-pole contactors							
40	50	65	80	95	115	150	170
11	15	18.5	22	25	30	40	55
18.5	22	30	37	45	55	75	90
30	33	37	45	45	80	100	110
60	80	80	125	125	160	185	200
42	56	56	81	81	-	-	-
60	80	80	125	125	200	200	200
3	3	5	7-1/2	10	-	-	-
5	7-1/2	10	15	15	-	-	-
7-1/2	10	10	15	20	-	-	-
10	15	20	25	30	-	-	-
15	15	20	30	30	-	-	-
30	40	50	60	75	-	-	-
40	50	50	75	75	-	-	-
60	70	80	105	115	-	-	-
1NO+1NC					No auxiliary contact		
400	400	400	400	400	300	300	300
5			3		1		
3600			3600		1200		

Product Technical Characteristics

Technical Data

		Model	UEC1- 09C...18C	UEC1- 25C...38C	UEC1- 40C...65C	UEC1- 80C...95C	UEC1-115C...170C
Parameters							
Coil control circuit, AC supply							
Rated control voltage U _s 50Hz/60Hz		V	24...415				
Control voltage range (+60°C)	Operating voltage		0.8U _s ...1.1U _s 50Hz 0.85U _s ...1.1U _s 60Hz				0.8U _s ...1.1U _s 50Hz(+40°C)
	Drop-out voltage		0.2U _s ...0.75U _s				0.2U _s ...0.75U _s
Max. power consumption at 25°C (for reference)	Inrush	V	75	75	170	200	300
	Sealed	V	9.5	9.5	20	21	35
Operating time Between coil energization and	main NO contact	m	12...22	12...22	12...26	12...26	12...26
	auxiliary NO	m	15...26	15...26	15...26	15...26	-
	auxiliary NC	m	4...19	4...19	4...19	4...19	-
Operating time Between coil de- energization and	main NO contact	m	4...19	4...19	4...19	6...20	4...19
	auxiliary NO	m	4...19	4...19	4...19	4...19	-
	auxiliary NC	m	12...32	12...32	12...32	12...32	-
Coil control circuit, DC supply ⁽¹⁾							
Rated control voltage U _s		V	12...250		-	-	-
Control voltage range (+60°C)	Operating voltage		0.8U _s ...1.1U _s		-	-	-
	Drop-out voltage		0.1U _s ...0.6U _s		-	- -	-
Max. power consumption at 25°C (for reference)	Inrush	W	7		-	-	-
	Sealed	W	7		-	-	-
Operating time Between coil energization and	main NO contact	m	52...72		-	-	-
	auxiliary NO	m	52...72		-	-	-
	auxiliary NC	m	44...68		-	-	-
Operating time Between coil de- energization and	main NO contact	m	10...20		-	-	-
	auxiliary NO	m	10...20		-	-	-
	auxiliary NC	m	10...30		-	-	-
Coil control circuit, DC supply - low consumption ⁽¹⁾							
Rated control voltage U _s		V	12...250		-	-	-
Control voltage range (+60°C)	Operating voltage		0.8U _s ...1.25U _s		-	-	-
	Drop-out voltage		0.1U _s ...0.3U _s		-	-	-
Max. power consumption at 25°C (for reference)	Inrush	W	3.5		-	-	-
	Sealed	W	3.5		-	-	-
Operating time Between coil energization and	main NO contact	m	52...72		-	-	-
	auxiliary NO	m	52...72		-	-	-
	auxiliary NC	m	44...68		-	-	-
Operating time Between coil de- energization and	main NO contact	m	10...20		-	-	-
	auxiliary NO	m	10...20		-	-	-
	auxiliary NC	m	10...30		-	-	-

Product Technical Characteristics









Technical Data

Parameters		Model	UEC1-09C...18C		UEC1-25C...38C		UEC1-40C...65C		UEC1-80C...95C		UEC1-115C...170C	
Built-in auxiliary contacts												
Max. rated operational voltage U _e		V	690								-	
Max. insulation voltage U _i		V	690								-	
Min. switching capacity	C Type		24V,0.1A								-	
	CS Type		17V,5mA								-	
A600 AC-15	Conventional enclosed thermal	A	10								-	
	Rated operational voltage U _e	V	120	240	380	480	500	600	-			
	Rated operational current	A	6	3	1.9	1.5	1.4	1.2	-			
	Make apparent power VA rating	VA	7200								-	
	Break apparent power VA rating	VA	720								-	
Q600 DC-13	Conventional enclosed thermal	A	2.5								-	
	Rated operational voltage U _e	V	125	250	-	400	500	600	-			
	Rated operational current	A	0.55	0.27	-	0.15	0.13	0.1	-			
	Make apparent power VA rating	VA	69								-	
	Break apparent power VA rating	VA	69								-	

Note: ⁽¹⁾The control peripheral circuit of the DC coil cannot be directly connected in parallel with a diode, otherwise it may conflict with products with specific configurations (equipped with built-in varistor), causing the product to release more slowly, which in turn affects the electrical life of the product. If there are special requirements, please contact the manufacturer for evaluation.

Product Technical Characteristics

Wiring Connection Capability

<div>Model</div>			UEC1-09C...18C	UEC1-25C...38C	UEC1-40C...65C	UEC1-80C...95C	UEC1-115C□□T ...170C□□T ⁽¹⁾
<div>Parameters</div>							
Power circuit connections							
<div>Solid cable without cable end</div> <div></div>	1 conductor	mm	1...6	1.5...10	2.5...35	4...50	10...120
	2 conductors	mm	1...6	2.5...10	2.5...25	4...25	10...120 +10...50
<div>Flexible cable without cable end</div> <div></div>	1 conductor	mm	1...6	2.5...10	2.5...35	4...50	10...120
	2 conductors	mm	1...6	2.5...10	2.5...16	4...25	10...120 +10...50
<div>Flexible cable with cable end</div> <div></div>	1 conductor	mm	1...6	1.5...10	2.5...25	4...50	10...120
	2 conductors	mm	1...4	1.5...6	2.5...16	4...16	10...120 +10...50
<div>Lugs</div> <div></div>	L ≤	mm	9.6	12	-	-	-
	L >	mm	3.7	4.2	-	-	-
<div>Connection capacity acc. to UL/CSA</div>	1 conductor	AWG	18...10	16...8	14...2	12...1	-
	2 conductors	AWG	18...10	14...8	14...6	12...4	-
<div>Screwdriver</div>	Phillips		N°2	N°2	-	-	-
	Φ Slotted		Φ 6	Φ 6	-	-	-
<div>Hexagonal key</div>			-	-	4	4	5
<div>Tightening torque</div>		Nm	1.5	2.5	5	9	12
		lb.in	13	22	45	80	-
Coil circuit connections and Built-in auxiliary circuit connections							
<div>Solid cable without cable end</div> <div></div>	1 conductor	mm	1...4				1...4
	2 conductors	mm	1...4				1...4
<div>Flexible cable without cable end</div> <div></div>	1 conductor	mm	1...4				1...4
	2 conductors	mm	1...4				1...4
<div>Flexible cable with cable end</div> <div></div>	1 conductor	mm	1...4				1...4
	2 conductors	mm	1...2.5				1...2.5
<div>Lugs</div> <div></div>	L ≤	mm	8.1				8.1
	L >	mm	3.7				3.7
<div>Connection capacity acc. to UL/CSA</div>	1 conductor	AWG	18...12				-
	2 conductors	AWG	18...12				-
<div>Screwdriver</div>	Phillips		N°2				N°2
	Φ Slotted		Φ 6				Φ 6
<div>Tightening torque</div>		Nm	1.2				1.2
		lb.in	11				-

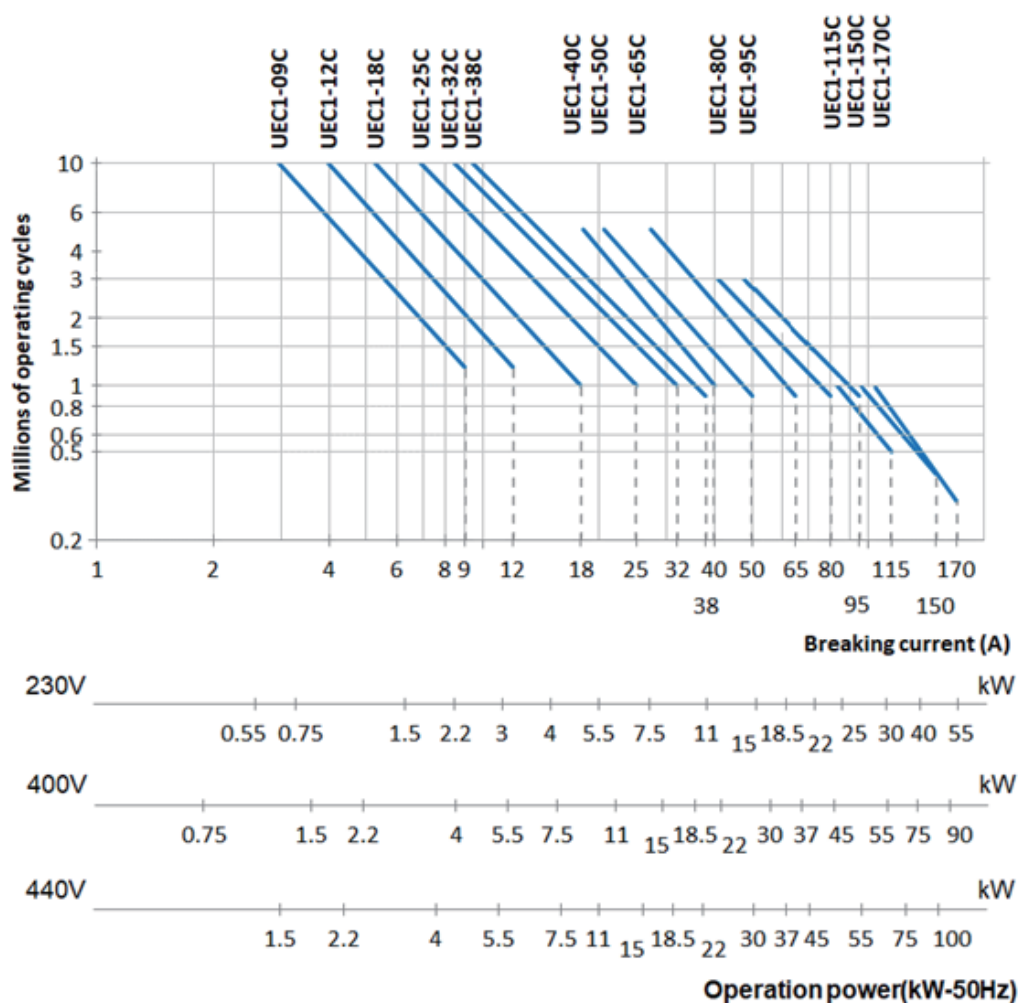
Note: (1) Wiring method of standard type UEC1-150C...170C: stud terminals; stud specification: M8×25; tightening torque: 12 Nm; busbar specification: 18×3; max. number of busbar: 2.

Product Technical Characteristics

Electrical Durability

Selection table according to electrical durability

The breaking current (I_c) of AC-3 utilization catalogue is equal to the rated operational current of motor. The characteristic curve in the figure below shows the durability of the main contact when the contactor is used for making and breaking three-phase (AC-3 $U_e \leq 440V$) inductive load.



Example:

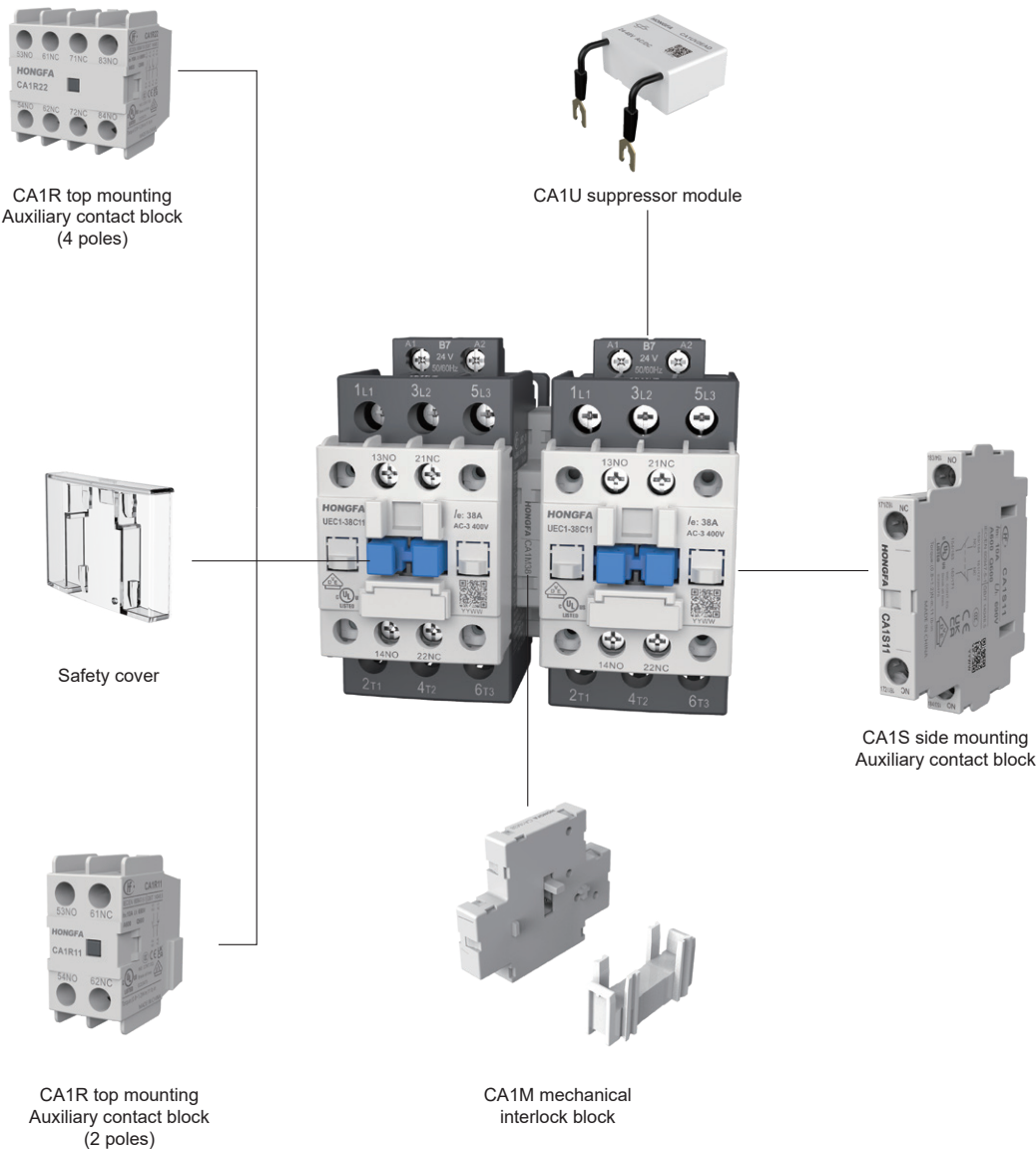
Asynchronous motor: $P = 5.5kW$, $U_e = 400V$, $I_e = 11A$, $I_c = I_e = 11A$

Or asynchronous motor: $P = 5.5kW$, $U_e = 415V$, $I_e = 11A$, $I_c = I_e = 11A$

Need electrical durability of 2 million cycles.

Above selective curve shows that the contactor part number is UEC1-18C.

Accessories



Product	Model	Scope of application
Safety cover ⁽¹⁾	—	UEC1-09...95
Top mounting Auxiliary Contact Block ⁽²⁾ (2P/4P)	CA1R	UEC1-09...95 AC Coil UEC1-09...38 DC Coil ⁽³⁾ UEC1-40...95 AC/DC Coil
Side mounting Auxiliary Contact Block	CA1S	UEC1-09...170 AC Coil UEC1-40...95 AC/DC Coil
Coil Suppressor Module	CA1U	UEC1-09...95 AC Coil UEC1-09...38 DC Coil
Mechanical Interlock Block	CA1M	UEC1-09...95

Note: ⁽¹⁾ Safety cover is not sold separately, please contact the manufacturer for details.
⁽²⁾ The max. total number of add-on NO and NC auxiliary contact is 4 besides the build-in auxiliary contact; if more add-on auxiliary contacts are required, please contact us for evaluation.
⁽³⁾ For low consumption, the max. total number of add-on NO and Nc auxiliary contact is 2 besides the build-in auxiliary contact.

Accessories

Ordering Information

(1) Auxiliary Contact Block

	CA	1	R	22
Contactor accessory				
Design series number				
Mounting type				
R: Top mounting S: Side mounting				
Number of auxiliary NO contacts/NC contacts				
1) CA1R (2P) and CA1S: 11: 1NO+1NC 20: 2NO 02: 2NC 2) CA1R(4P): 22: 2NO+2NC 40: 4NO 31: 3NO+1NC 13: 1NO+3NC 04: 4NC				

(2) Mechanical Interlock Block

	CA	1	M	38
Contactor accessory				
Design series number				
Module type				
M: Mechanical interlock without integral electrical interlocking				
Suitable for contactor current range				
38: Suitable for 9A...38A 65: Suitable for 40A...95A				

Accessories





Ordering Information

(3) Coil Suppressor Module

	CA	1	U	RC	2	G	AC
Contactor accessory							
Design series number							
Module type							
U: Suppressor module							
Protection type							
RC: RC circuits (Resistor-Capacitor)							
V: Varistors (Peak limiting)							
Installation type							
2: Fix with screw							
Suitable for coil voltage range							
E: 24...48V G: 50...127V U: 110...250V N: 380...440V							
Coil voltage type							
AC: AC supply (Just for RC circuits)							
AD: AC or DC supply (Just for Varistors)							

Accessories

Technical Data for Auxiliary Contact Block

Parameters		Model	CA1R,CA1S						
Standards			GB/T 14048.5, IEC 60947-5-1, BS EN 60947-5-1, EN 60947-5-1 (VDE 0660 Teil 200), UL 60947-5-1 (CSA C22.2 No. 60947-5-1)						
Certifications			CCC, CB, CE, UKCA, VDE, UL(cULus LISTED)						
Degree of protection			IP20						
Ambient air temperature	Storage	°C	-60...+80						
	Operation	°C	-40...+70						
Max. operating altitude without derating		m	3000						
Solid cable  cable end	1 conductor	mm ²	1...4						
	2 conductors	mm ²	1...4						
Flexible cable without cable end 	1 conductor	mm ²	1...4						
	2 conductors	mm ²	1...4						
Flexible cable with cable end 	1 conductor	mm ²	1...4						
	2 conductors	mm ²	1...2.5						
Lugs 	L ≤	mm	8.1						
	L >	mm	3.7						
Connection capacity acc. to UL/CSA	1 conductor	AWG	18...10						
	2 conductors	AWG	18...10						
Screwdriver	Phillips screwdriver		N°2						
	Φ Slotted screwdriver		Φ6						
Tightening torque		Nm	1.2						
		lb.in	11						
Max. rated operating voltage U _e		V	690						
Max. insulation voltage U _i		V	690						
Min. switching capacity	U _{min}	V	24						
	I _{min}	A	0.1						
A600 AC-15	Conventional enclosed thermal current I _{the}	A	10						
	Rated operational voltage U _e	V	120	240	380	480	500	600	
	Rated operational current	A	6	3	1.9	1.5	1.4	1.2	
	Make apparent power VA rating	VA	7200						
	Break apparent power VA rating	VA	720						
Q600 DC-13	Conventional enclosed thermal current I _{the}	A	2.5						
	Rated operational voltage U _e	V	125	250	-	400	500	600	
	Rated operational current	A	0.55	0.27	-	0.15	0.13	0.1	
	Make apparent power VA rating	VA	69						
	Break apparent power VA rating	VA	69						
For use on contactors ⁽¹⁾			UEC1-09...170						

 Note: ⁽¹⁾For use with contactor, please refer to the details in Reference Selection Table.

Accessories

Technical Data for Coil Suppressor Module

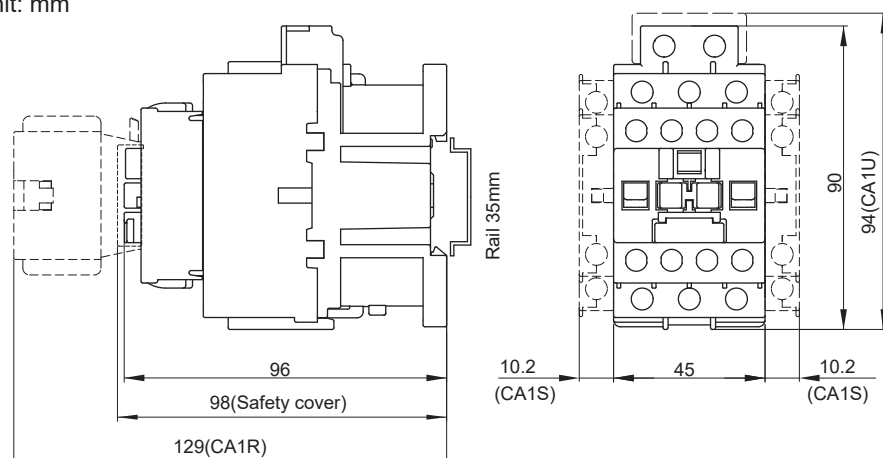
Parameters		Model	Varistors	RC circuits
			CA1UV2...	CA1URC2...
Ambient air temperature	Storage	°C	-60...+80	
	Operation	°C	-40...+70	
Max. operating altitude		m	3000	
Suitable for coil voltage range	50/60Hz	V	24...440V	24...440V
	DC	V	24...440V	—
Increase in contactor operating time			delay 1.1 to 1.5 times	delay 1.2 to 2 times
For use with contactor ⁽¹⁾			UEC1-09...95	

Note: (1) AC/DC coil product has built-in suppressor module, no need to install external suppressor module.

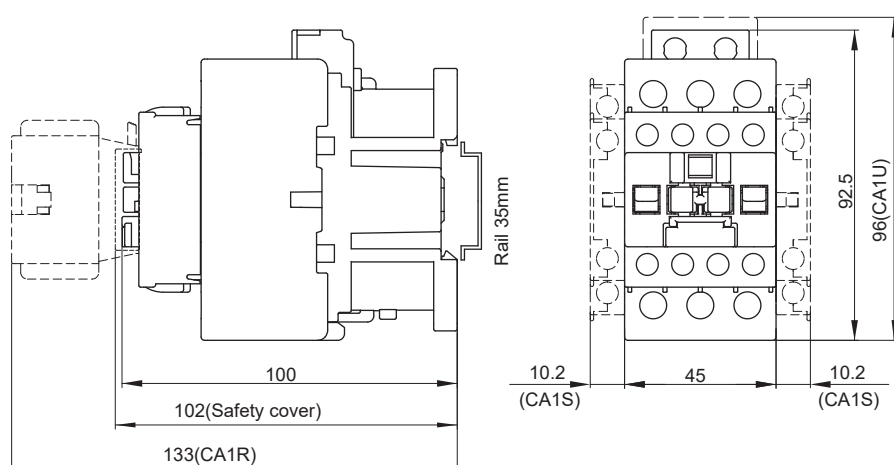
Outline and Installation dimensions

AC contactor

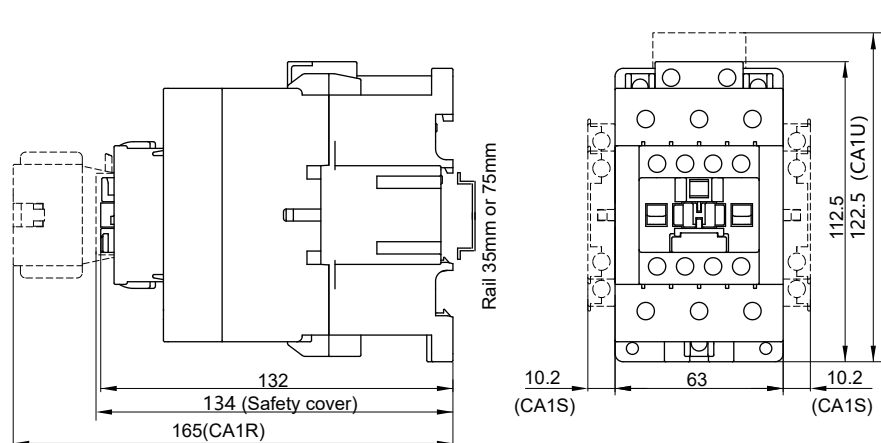
Unit: mm



UEC1-09, UEC1-12, UEC1-18 (AC Coil)



UEC1-25, UEC1-32, UEC1-38 (AC Coil)



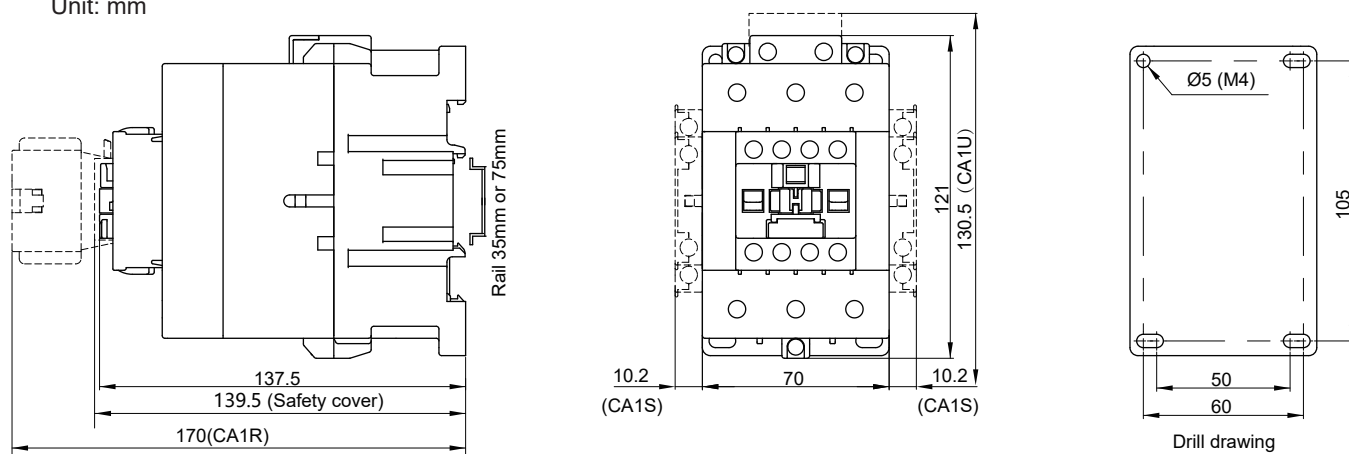
UEC1-40, UEC1-50, UEC1-65 (AC Coil and AC/DC Coil)

Note: The unit is mm. The tolerance for mounting holes: ± 0.5 ; for other external dimensions: ± 1.5 , unless otherwise specified.

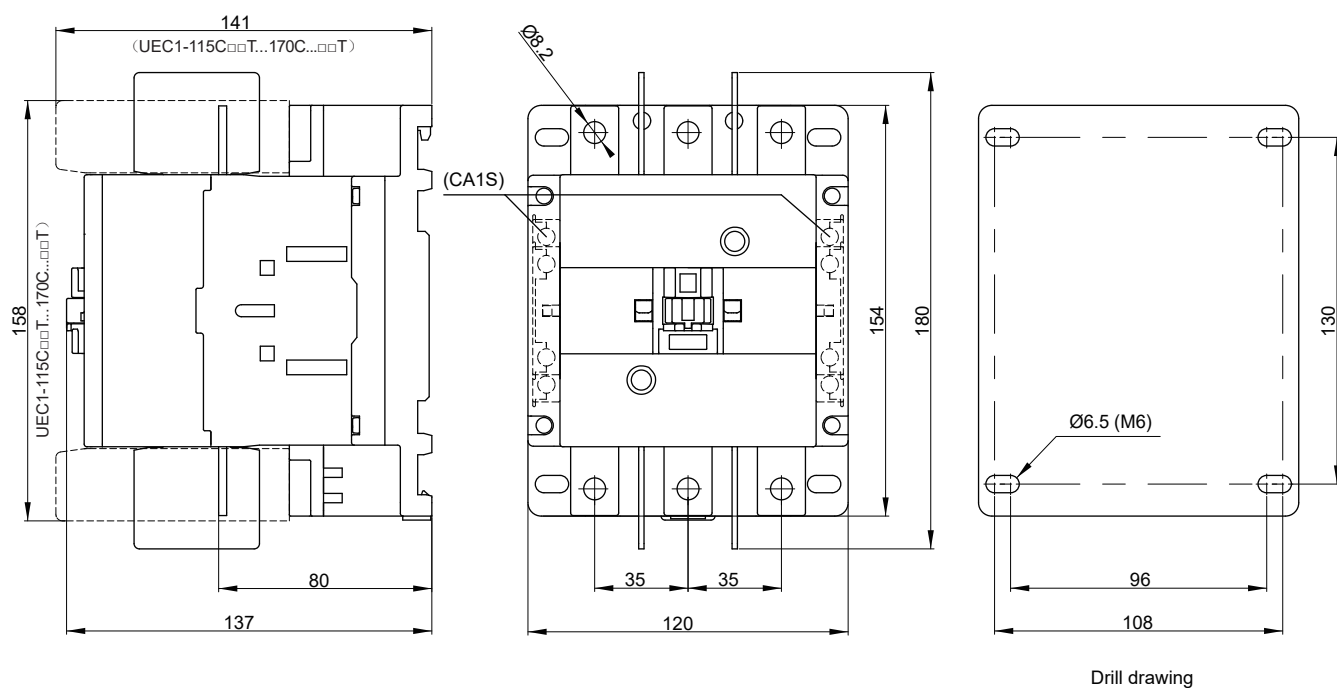
Outline and Installation dimensions

AC contactor

Unit: mm



UEC1-80, UEC1-95 (AC Coil and AC/DC Coil)

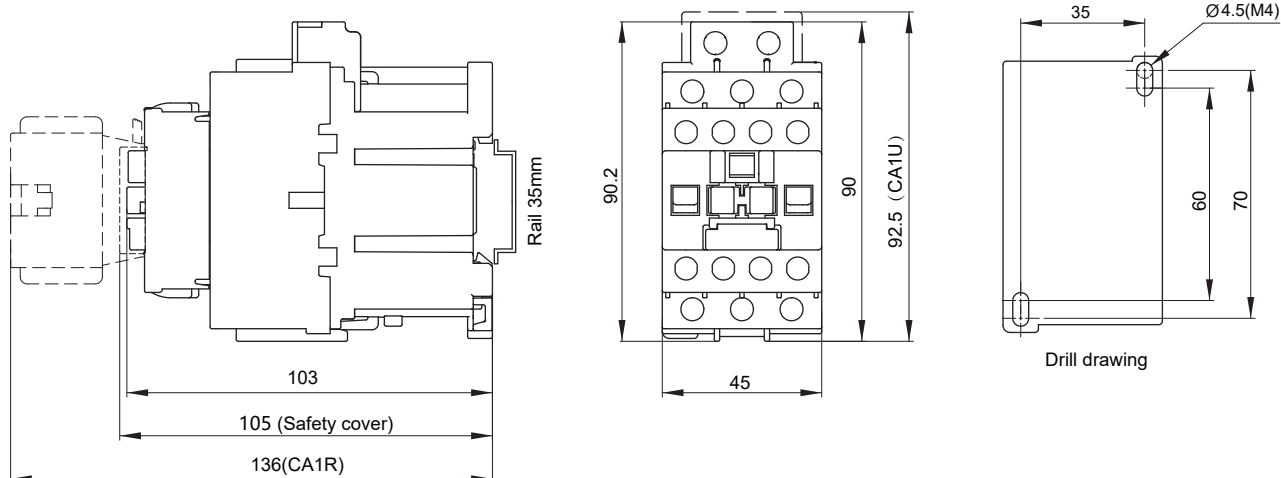


UEC1-115, UEC1-150, UEC1-170(AC Coil)

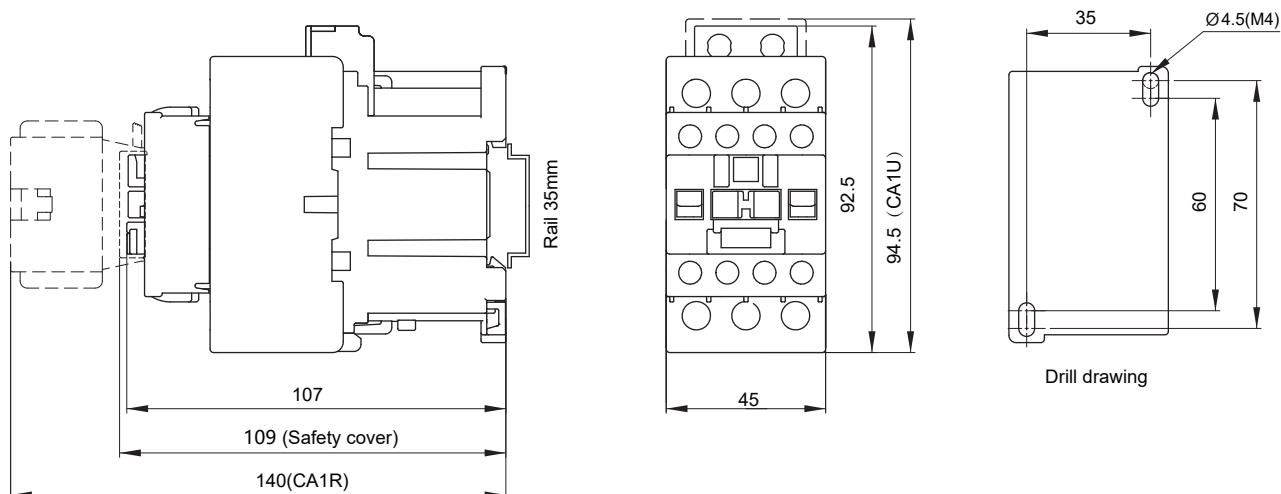
Note: The unit is mm. The tolerance for mounting holes: ± 0.5 ; for other external dimensions: ± 1.5 , unless otherwise specified.

Outline and Installation dimensions

AC contactor



UEC1-09, UEC1-12, UEC1-18 (DC Coil)



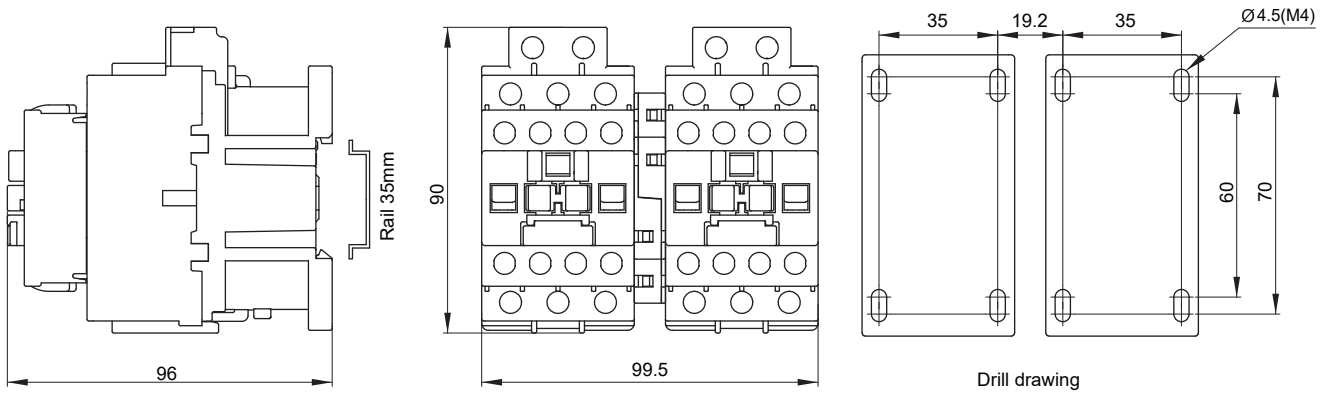
UEC1-25, UEC1-32, UEC1-38 (DC Coil)

Note: The unit is mm. The tolerance for mounting holes: ± 0.5 ; for other external dimensions: ± 1.5 , unless otherwise specified.

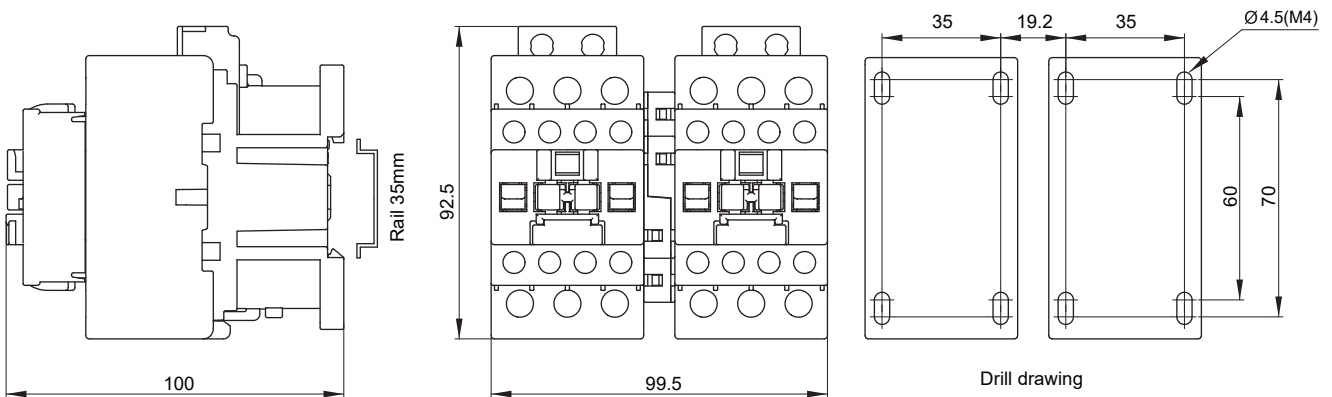
Outline and Installation dimensions

Interlock contactor

Unit: mm



UEC1-09, UEC1-12, UEC1-18 (AC Coil)



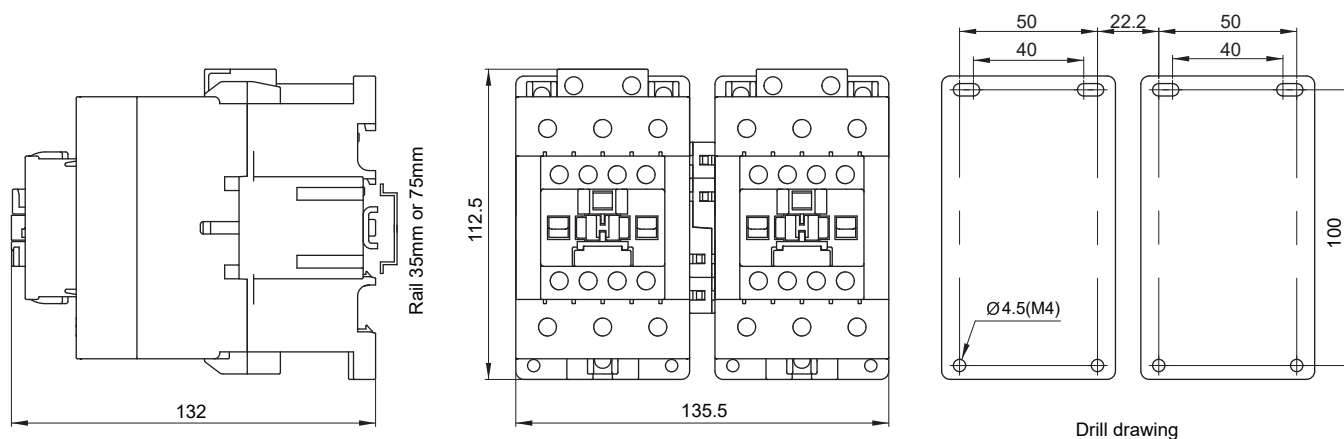
UEC1-25, UEC1-32, UEC1-38 (AC Coil)

Note: The unit is mm. The tolerance for mounting holes: ± 0.5 ; for other external dimensions: ± 1.5 , unless otherwise specified.

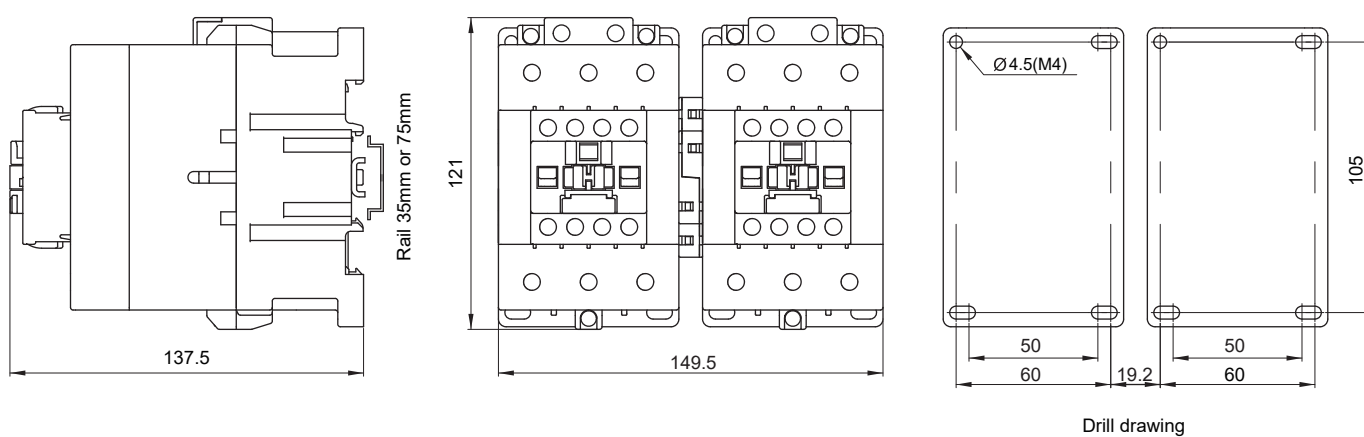
Outline and Installation dimensions

Interlock contactor

Unit: mm



UEC1-40, UEC1-50, UEC1-65 (AC Coil and AC/DC Coil)



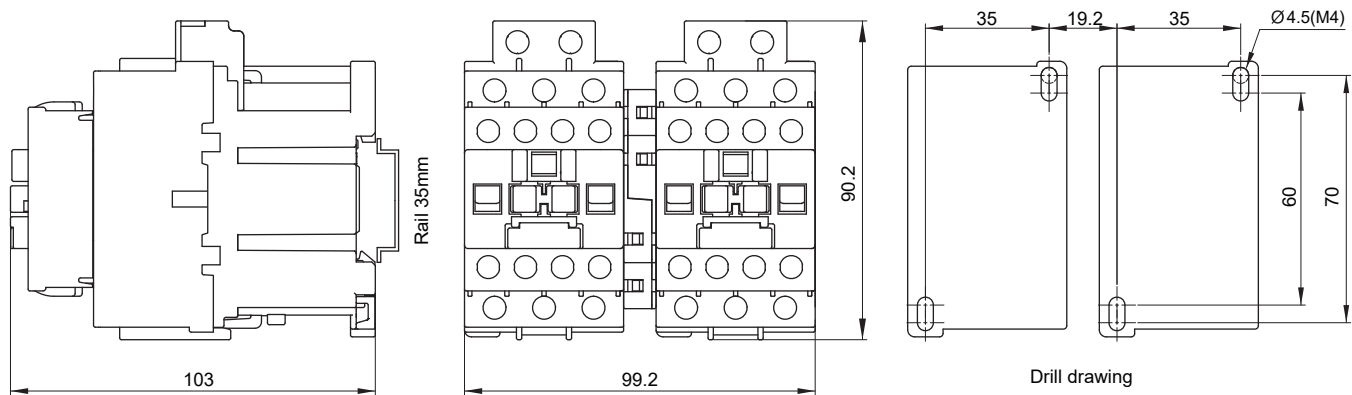
UEC1-80, UEC1-95 (AC Coil and AC/DC Coil)

Note: The unit is mm. The tolerance for mounting holes: ± 0.5 ; for other external dimensions: ± 1.5 , unless otherwise specified.

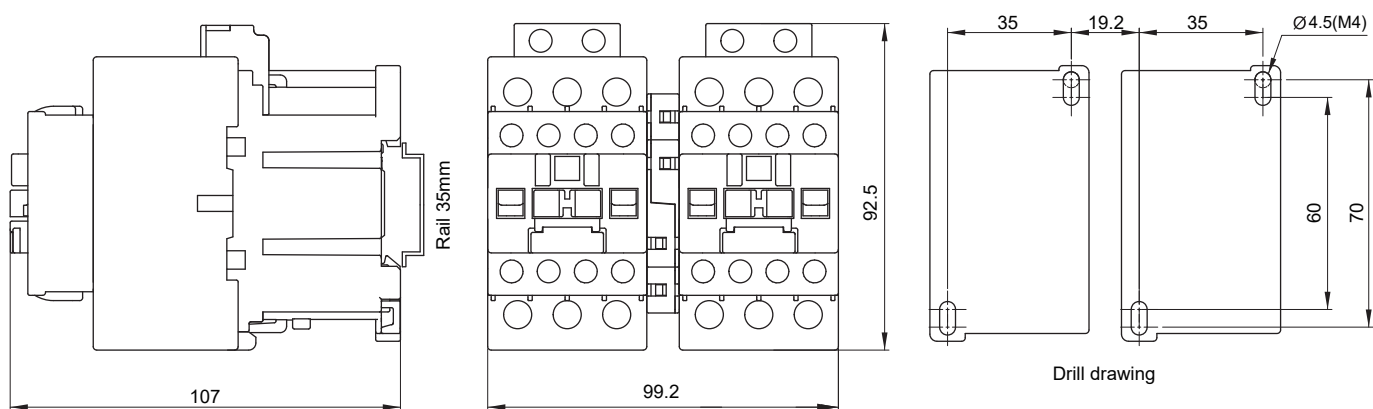
Outline and Installation dimensions

Interlock contactor

Unit: mm



UEC1-09, UEC1-12, UEC1-18 (DC Coil)



UEC1-25, UEC1-32, UEC1-38 (DC Coil)

Note: The unit is mm. The tolerance for mounting holes: ± 0.5 ; for other external dimensions: ± 1.5 , unless otherwise specified.

Circuit Diagram

AC Contactor	
3P+1NO	3P+1NC
3P+1NO1NC	3P+2NO
3P+2NC	3P+2NO2NC
3P+3NO1NC	3P+1NO3NC
3P+4NO	3P+4NC
3P	

Note: The DC coil product has positive and negative polarity (positive pole A1, negative pole A2). If the positive and negative poles are connected inversely, the product will not be able to operate.




Circuit Diagram

CA1R top mounting Auxiliary contact block		
1NO1NC	2NO	2NC
2NO2NC	3NO1NC	1NO3NC
4NO	4NC	

CA1S side mounting Auxiliary contact block		
1NO1NC	2NO	2NC

Reference Selection Table

AC Contactor

IEC			UL/CSA			Number of poles	Built-in auxiliary contacts (1)		Complete Type	Net weight (1 pc) (2)				
Standard power ratings of 3-phase motors 50Hz/60Hz in category AC-3 (θ≤60°C)		Rated operational current AC-3	3-phase motor rating		General use rating									
220 V 230 V	380 V 400 V	400 V	220 V 240 V	440 V 480 V	600 V				Type	Coil control voltage				kg
kW	kW	A	hp	hp	A					50/60Hz	DC	low consum- -ption	AC/DC	
2.2	4	9	3	5	25	3	1	1	UEC1-09C11...	M7	BD	BL	—	0.42
							2	2	UEC1-09C22...	M7	BD	—	—	
3	5.5	12	3	7-1/2	25	3	1	1	UEC1-12C11...	M7	BD	BL	—	0.42
							2	2	UEC1-12C22...	M7	BD	—	—	
4	7.5	18	5	10	32	3	1	1	UEC1-18C11...	M7	BD	BL	—	0.42
							2	2	UEC1-18C22...	M7	BD	—	—	
5.5	11	25	7-1/2	15	40	3	1	1	UEC1-25C11...	M7	BD	BL	—	0.47
							2	2	UEC1-25C22...	M7	BD	—	—	
7.5	15	32	10	20	50	3	1	1	UEC1-32C11...	M7	BD	BL	—	0.47
							2	2	UEC1-32C22...	M7	BD	—	—	
9	18.5	38	10	25	50	3	1	1	UEC1-38C11...	M7	BD	BL	—	0.47
							2	2	UEC1-38C22...	M7	BD	—	—	
11	18.5	40	15	30	60	3	1	1	UEC1-40C11...	M7	—	—	KUE	1.00
							2	2	UEC1-40C22...	M7	—	—	KUE	
15	22	50	15	40	70	3	1	1	UEC1-50C11...	M7	—	—	KUE	1.00
							2	2	UEC1-50C22...	M7	—	—	KUE	
18.5	30	65	20	50	80	3	1	1	UEC1-65C11...	M7	—	—	KUE	1.00
							2	2	UEC1-65C22...	M7	—	—	KUE	
22	37	80	30	60	105	3	1	1	UEC1-80C11...	M7	—	—	KUE	1.40
							2	2	UEC1-80C22...	M7	—	—	KUE	
25	45	95	30	75	115	3	1	1	UEC1-95C11...	M7	—	—	KUE	1.40
							2	2	UEC1-95C22...	M7	—	—	KUE	
30	55	115	—	—	—	3	—	—	UEC1-115C...	M7	—	—	—	2.10
40	75	150	—	—	—	3	—	—	UEC1-150C...	M7	—	—	—	
55	90	170	—	—	—	3	—	—	UEC1-170C...	M7	—	—	—	
30	55	115	—	—	—	3	—	—	UEC1-115C...T	M7	—	—	—	2.50
40	75	150	—	—	—	3	—	—	UEC1-150C...T	M7	—	—	—	
55	90	170	—	—	—	3	—	—	UEC1-170C...T	M7	—	—	—	

Note: (1). For other types of built-in auxiliary contacts, please refer to the details in page 7.

(2) The net weight in the table refers to the weight of the standard AC control contactor. The weight increases by 0.01kg with the inclusion of 2NO+2NC auxiliary contacts compared to 1NO+1NC. For DC control contactors UEC1-09...38, the weight increases by 0.15kg. The weight of AC/DC control contactors UEC1-65...95 is the same as that of AC control contactors.






Reference Selection Table

AC Contactor

Coil control voltage:

AC supply- 50/60Hz (9A...170A)	Voltage (V)	24	36	42	48	110	115	127	220	230	240	380	400	415
	Code	B7	CC7	D7	E7	F7	FE7	FC7	M7	P7	U7	Q7	V7	N7
DC supply (9A...38A)	Voltage (V)	12	24	36	48	60	72	110	125	220	250	-	-	-
	Code	JD	BD	CD	ED	ND	SD	FD	GD	MD	UD	-	-	-
DC supply low consumption (9A...38A)	Voltage (V)	12	24	48	110	220	250	-	-	-	-	-	-	-
	Code	JL	BL	EL	FL	ML	UL	-	-	-	-	-	-	-
AC/DC supply - 50/60Hz DC (40A...95A)	Voltage (V)	24...60		100...250		-								
	Code	BNE		KUE		-								

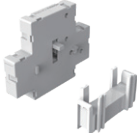
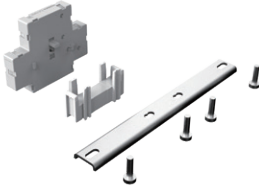
Auxiliary Contact Block

Mounting type		Switching capacity	Auxiliary contacts ⁽¹⁾		For use with contactor	Reference ⁽²⁾	Net weight (1 pc) kg
							
Top mounting		A600 Q600	0	2	UEC1-09...95 AC Coil UEC1-09...38 DC Coil ⁽²⁾ UEC1-40...95 AC or DC Coil	CA1R02	0.035
			1	1		CA1R11	
			2	0		CA1R20	
			0	4		CA1R04	
			1	3		CA1R13	0.066
			2	2		CA1R22	
			3	1		CA1R31	
			4	0		CA1R40	
Side mounting		1	1	UEC1-09...170 AC Coil UEC1-40...95 AC or DC Coil	CA1S11	0.040	
		2	0		CA1S20		
		0	2		CA1S02		

Note: All the above auxiliary contacts are all instantaneous auxiliary contacts.

Reference Selection Table

Mechanical Interlock Block

Mounting type		Switching capacity	Reference	Net weight (1 pc)
				kg
Side mounting		UEC1-09...38	CA1M38	0.021
		UEC1-40...95	CA1M65	0.056

Suppressor Module

Mounting type	Protection type	Coil voltage range	For use with contactor ⁽¹⁾	Reference	Net weight (1 pc)
					kg
Top mounting	Varistors	24-48V	UEC1-09...95 AC Coil UEC1-09...38 DC Coil ⁽²⁾	CA1UV2EAD	0.016
		50-127V		CA1UV2GAD	
		110-250V		CA1UV2UAD	
		380-440V		CA1UV2NAD	
	RC circuits	24-48V	UEC1-09...95 AC Coil UEC1-09...38 DC Coil ⁽²⁾	CA1URC2EAC	
		50-127V		CA1URC2GAC	
		110-250V		CA1URC2UAC	
		380-440V		CA1URC2NAC	

Note: ⁽¹⁾ AC/DC coil product has built-in suppressor module, no need to install external suppressor module.

⁽²⁾ The control peripheral circuit of the DC coil cannot be directly connected in parallel with a diode, otherwise it may conflict with products with specific configurations (equipped with built-in varistor), causing the product to release more slowly, which in turn affects the electrical life of the product. If there are special requirements, please contact the manufacturer for evaluation.

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For details, please consult our business staff.

April 2025

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