

# HONGFA UEM5 SERIES MOLDED CASE CIRCUIT BREAKER (MCCB)



UEM5 Series Molded Case Circuit Breakers (MCCB) are applicable to the electrical network under the condition of AC50Hz/60Hz, rated working current 10A – 800A, rated insulation voltage 800V and rated working voltage 400V or below. MCCB has overload, short-circuit and under-voltage protection performances, among which the UEM5L series residual current circuit breakers can be used to protect human body and equipment from electric shock and residual current, as well as to prevent from fire dance due to earth-fault current which is caused by equipment insulation damage.

#### Standards:

IEC 60947-2 Low voltage switchgear and control gear Part 2: Low voltage breaker.

UEM5 MCCB Table 1 Features

Special Features	The casing like base and cover, which is made of the USA IDI company's thermosetting material, has high quality in strength and insulation, so as to ensure the breakers' performance reliably.
	Advanced design of operation mechanism, rapid breaking and slight tripping force. Adopting the "Double-way breaking system", not only reducing the circuit breaker's cubage, but greatly improving the short circuit breaking capacity.
	The contact system adopts the principle of electromagnetic repulsion. Once there is fault current, the electromagnetic repulsion can separate the moving and stationary contacts rapidly, and increases the spacing, so as to achieve current limiting and improve the breaking capacity.
	The circuit breakers of the same rated current frame and different breaking capacity share the absolutely identical dimensions of outline and installation, which can extremely improve the interchangeability.

UEM5 MCCB Table 1 Features (Continuation)

The design of cassette-type accessories (including shunt release, under-voltage release, auxiliary contact and alarm contact) insures the flexibility of control function. The user can install them without opening the cover, and need not any adjustment. Since adopting design of the insulation box, the operation security has been improved.
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## Special Features

The UEM5L series residual MCCB have reliable low-voltage protection, which have insured the residual current protection to work normally even with the line voltage low to 50V. For one product, not only the residual operating current can be adjusted, but operating time's non-delay and delay can be adjustable as well, furthermore, we can open or close the residual current protection based on customers' requirements, which have improved the operation flexibility.

The rated insulation voltage up to 800V, rated impulse withstands voltage up to 8000V, which can meet the application requirement of switch cabinet.

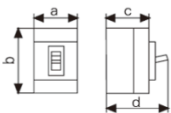
Using the world's most advanced alloy material for movement contacts to ensure high mechanical life and electrical life.

The full range of products has six invention patents, twelve utility model patents and three appearance patents, which make products novelty, aesthetics, reliability, and security.

UEM5 MCCB Table 2 Main Specifications

Rated frame current (A)	63	100		125		225, 250		400		630		800	
Type		L	M	L	M	L	M	L	M	L	M	L	M
Rated current $I_n$ (A)	10, 16, 20, 25, 32, 40, 50, 63	16, 20, 25, 32, 40, 50, 63, 80, 100		40, 50, 63, 80, 100, 125		100, 125, 140, 160, 180, 200, 225, 250		225, 250, 315, 350, 400		400, 500, 630		400, 500, 630, 700, 800	
Number of poles	3/4	3	3/4	3/4		3	3/4	3	3/4	3	3/4	3	3/4
Rated insulation voltage $U_i$ (V)	AC800	AC800		AC800		AC800		AC800		AC800		AC800	
Rated working voltage $U_e$ (V)	AC400	AC400		AC400		AC400		AC400		AC400		AC400	
Rated impulse withstand voltage $U_{imp}$ (V)	8000	8000		8000		8000		8000		8000		8000	
Arc-over distance (mm)	≤ 50	≤ 50		≤ 50		≤ 50		≤ 50		≤ 50		≤ 50	
Use category	A	A		A		A		A		A		A	
Pollution Grade	3	3		3		3		3		3		3	
Rated ultimate short-circuit breaking capacity $I_{cu}$ (kA)	AC400V	35	35	50	25	35	50	50	65	35	50	50	65
Rated short-circuit breaking capacity $I_{cs}$ (kA)		20	25	35	25	25	35	35	50	35	50	35	50

UEM5 MCCB Table 2 Main Specifications (Continuation)

Rated frame current (A)	63	100		125		225, 250		400		630		800		Rated frame current (A)
Dimensions (mm) 	A	90/120		90/120		90/120		106/140		140/184		140/184		210/280
	B	155		155		155		165		257		257		275
	C	62	62	78	62	62	85	99	99	99	99	103		
	D	90	90	106	90	90	118	155	155	155	155	160		
Wiring Method	Front fix	•	•	•	•	•	•	•	•	•	•	•	•	
	Back fix	•	•	•	•	•	•	•	•	•	•	•	•	
	Plug in	•	•	•	•	•	•	•	•	•	•	•	•	

Accessories	Shunt release	•	•	•	•	•	•	•
	Under-voltage release	•	•	•	•	•	•	•
	Auxiliary contact	•	•	•	•	•	•	•
	Alarm contact	•	•	•	•	•	•	•
	Motor-driven	•	•	•	•	•	•	•
	Turning handle	•	•	•	•	•	•	•
	Back fix accessories	•	•	•	•	•	•	•
Protection function	Overload, short circuit	Overload, short circuit	Overload, short circuit	Overload, short circuit	Overload, short circuit	Overload, short circuit	Overload, short circuit	
Over-current release device	Thermal & magnetic	Thermal & magnetic	Thermal & magnetic	Thermal & magnetic	Thermal & magnetic	Thermal & magnetic	Thermal & magnetic	
Weight (kg)	1.3/2.2	L:1.3 M:1.6/2.5	1.3/2.2	L1.5 M:6, 2/8	L:5.8 M:6, 2/8	L:6.5 M:7, 2/9, 5	L: 9.0 M:9.7/12.8	