

HCM1-315/800D 直流塑壳断路器规格书

HCM1-315/800D Data sheet of DC molded-case circuit breaker

产品特点 product feature

- ◇ HCM1系列直流塑壳断路器适用于光伏、储能和其它直流电路中；
HCM1 series DC molded case circuit breakers are suitable for photovoltaic, energy storage and other DC applications
- ◇ 具有电流过载保护、短路保护、隔离电路功能；
With current overload protection, short circuit protection, isolation circuit functions;
- ◇ 额定电压1000/1500VDC
Rated voltage is 1000/1500VDC
- ◇ 额定电流可达800A
Rated current up to 800A
- ◇ 保障直流电路可靠运行
Ensure reliable operation of DC circuit

认证/标准 Approvals/Standards:

- ◇ CE/CCC
- ◇ GB/T 14048.2、IEC 60947-2

产品特征 Features&Benefits:

- 高分断能力，可靠的绝缘性
High Breaking Capacity, reliable insulating
- 过载保护和短路保护
Over load protection and short-circuit protection
- 频率操作和隔离
Frequency operating and isolating



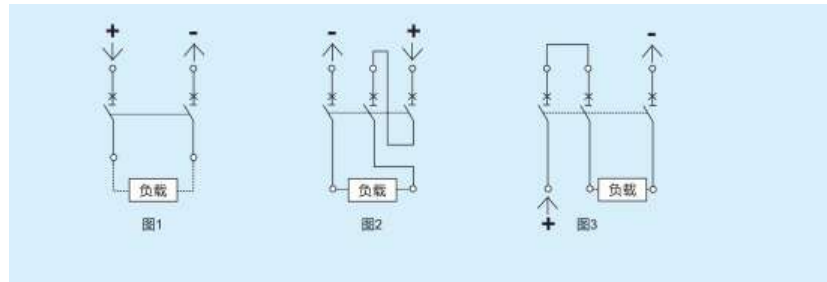
产品型号说明 Product Model

	HC	M	1	- 315	D	250	/ 2	
公司代码 Company Code								
产品代号 Product Codename	塑壳断路器 moulded case circuit breaker							
设计代号 Design codename	1							
壳架电流 Frame Current	315,800							
电压类型 Voltage Type	D:直流 D: DC type							
额定电流 Rated Current	63~800A							
极数 pole	2、3							

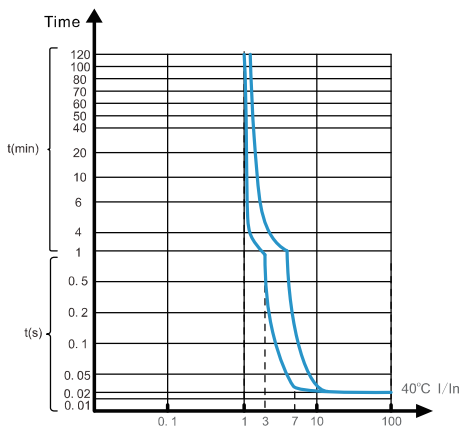
技术参数 product feature

壳架等级额定电流 Inm(A) Shell Grade Rated Current	HCM1-315D		HCM1-800D	
额定电流 In(A) Rated current In(A)	63, 80, 100, 125, 140, 160, 180, 200, 225, 250, 280, 300, 315		225, 250, 315, 350, 400, 500, 630, 700, 800	
极数 Number of poles	2	3	2	3
额定工作电压 Ue(V)DC Rated operating voltage	1000	1500	1000	1500
额定绝缘电压 Ui(V) Rated insulation voltage	1250	1500	1500	1500
额定冲击耐压 Uimp(kV) Rated impact pressure	8	12	12	12
极限短路分断能力 Icu(kA) Ultimate short-circuit breaking capacity	20	20	20	20
运行短路分断能力 Ics(kA) Running short-circuit breaking capacity	20	20	20	20
安装方式 Installation	固定式、插入式 Fixed, plug-in			
机械寿命 Mechanical life	10000		10000	
电气寿命 Electrical life	1000 (6000次 60VDC)		1000 (6000次 60VDC)	
隔离特性 Isolation characteristics	是 Yes			
运行使用环境温度 (°C) Operating Ambient Temperature	-5°C~+40°C			
存储温度 Storage temperature	-40°C~+70°C			
防护等级 Ingress protection	IP20			
可带附件 Can be accessory	辅助、分励、报警、手操、电操 Assist, excitation, alarm, manual operation, electric exercise			
瞬时动作值 Instantaneous action value	4~7In			
飞弧距离 (mm) Arcing distance	≤50 (带罩为 0) ≤50 (0 with hood)		≤50 (带罩为 0) ≤50 (0 with hood)	
外形尺寸 (L×W×H) (mm) Dimensions	2P:200×73×135 3P:200×107×135		2P:270×130×158 3P:270×182×158	

接线图 Connection Diagram

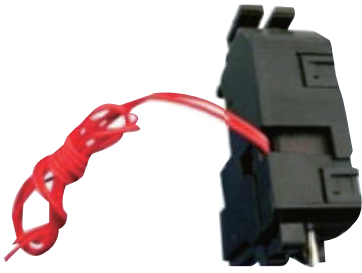


脱扣曲线 Tripping Curve



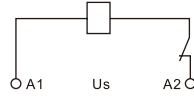
Altitude (m)	Series	2000	2500	3000	3500	4000	4500	5000
Working current correction	HCM1	1	1	0.98	0.95	0.93	0.91	0.89

■ Accessories and their functions (Internal accessories)



Shunt release

◆ Can be used for remote trip of circuit breaker;
 Note: When choosing a DC24V shunt trip device, the power supply at the terminal of the shunt trip device must be >50W.

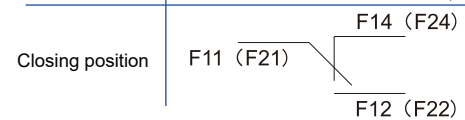
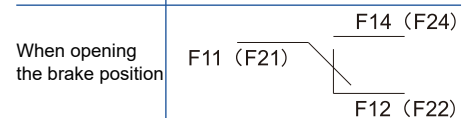


Rated voltage Us	AC230V		AC400V 50Hz	
	DC220V	DC110V	DC24V	

Reliable operating range: 70%~110% Us

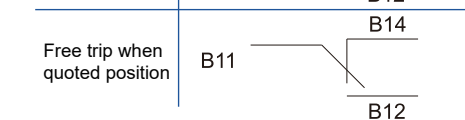
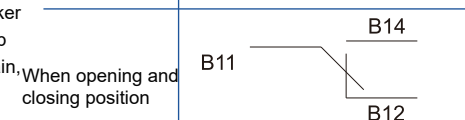
Inm (A)	Ith (A)	Ith (A) AC400V	Ith (A) DC220V
250~800	3	0.3	0.15

Circuit breaker condition	Auxiliary contact status (SPDT)		
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Inm (A)	Ith (A)	Ith (A) AC400V	Ith (A) DC220V
250~800	3	0.3	0.15

Circuit breaker condition	Auxiliary contact status (SPDT)		
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Auxiliary contact

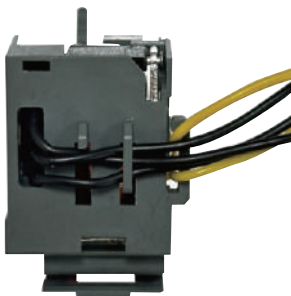
◆ Used to indicate the opening and closing state of the circuit breaker: a group of one normally open and one normally closed for Inm 125, 250;
 ◆ A group of two normal open and two normal close for Inm 400, 630, 800;



Alarm contact

◆ Used to indicate the fault tripping state of the circuit breaker;
 ◆ Alarm contacts do not operate when the circuit breaker is normally opened, and only operate when the free trip state or fault trip. After the circuit breaker is closed again, the alarm contact is restored to the original state.

Note: All internal accessories except the undervoltage release device, if the external terminal affects the installation size, can choose the lead type accessories.
 Shunt release auxiliary contact



Shunt release auxiliary contact

◆ Integrated, space-saving, multi-accessory installation;
 ◆ The performance and parameters of the shunt release are consistent with those of an independent shunt release
 ◆ The auxiliary contact is one normally open and one normally closed:

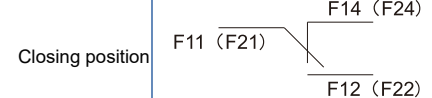
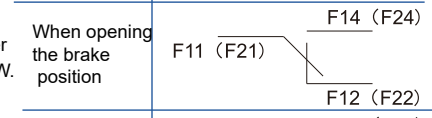
Note: When choosing a DC24V shunt trip device, the power supply at the terminal of the shunt trip device must be >50W.

Rated voltage Us	AC230V		AC400V 50Hz	
	DC220V	DC110V	DC24V	

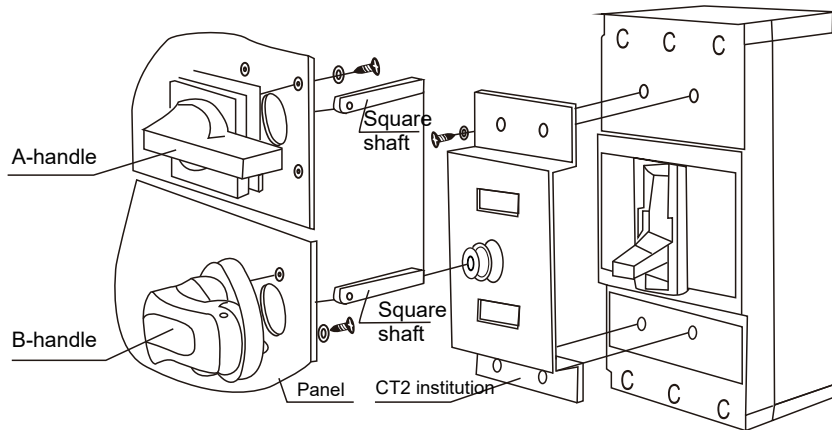
Reliable operating range: 70%~110% Us

Inm (A)	Ith (A)	Ith (A) AC400V	Ith (A) DC220V
250~800	3	0.3	0.15

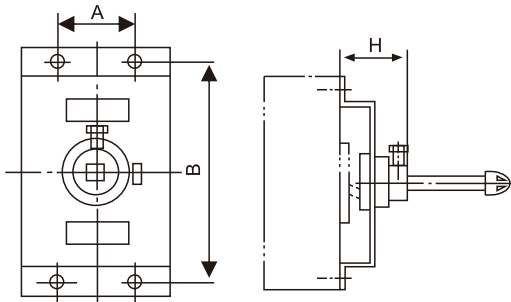
Circuit breaker condition	Auxiliary contact status		
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■ CT2 manual operation mechanism installation diagram

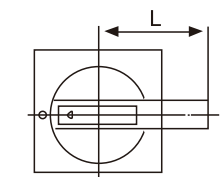


■ CT2 manual operation mechanism installation dimensions

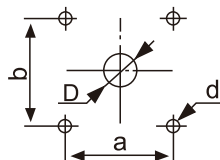


Product specification model	Outline mounting dimension(mm)		
	A	B	H
-250、315/2300	—	161	62
-250、315/3300	35	161	70
-400、630/2300	116	200	76.3
-400V、630V/2300	89	217	48
-800/2300	116	200	76.3
-400、630、800/3300	167	214	76.3

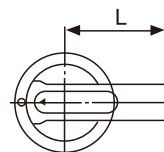
■ CT2 operating mechanism handle outline and installation dimensions



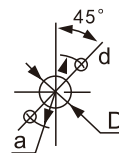
Handle specification	A1 250-315	A2 400-800
D	φ 35	φ 35
d	φ 4.5	φ 4.5
a	65	65
b	65	65
L	95	125



1、 A-handle size



Handle specification	B1 250-315	B2 400-800
D	φ 35	φ 35
d	φ 4.5	φ 4.5
a	65	65
b	53	53
L	95	125



1、 B-handle size