

使用说明书 Instruction manual

UEM1E系列直流塑料外壳式断路器 UEM1E series DC MCCB

UEM1EG系列直流塑料外壳式隔离开关 UEM1EG series DC MCCB type switch

符合标准 Standard: UL489 Supplement SC

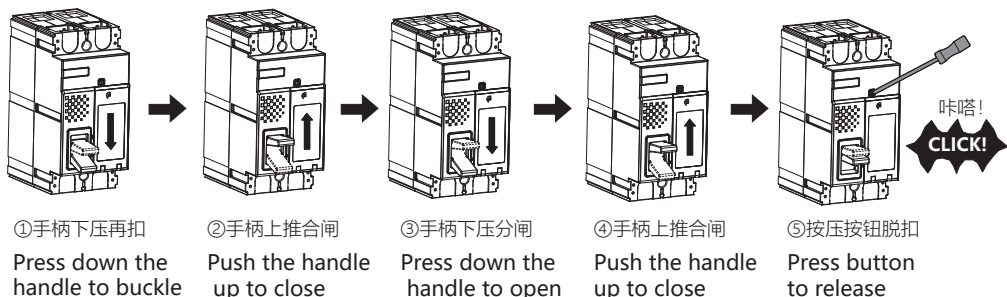
安全说明 Safety Instructions

- * **危险电压! 可能导致生命危险或重伤危险;**
Dangerous voltage! May cause danger to life or serious injury;
- * **操作此设备前必须确保切断其电源开关并采取防接通保护措施;**
Before operating this device, it is necessary to ensure that the power is cut off and protective measures are taken to prevent it from being turned on;
- * **电气设备的安装、操作、维修和维护工作仅限于合格人员执行;**
The installation, operation, repair, and maintenance of electrical equipment shall be carried out only by qualified personnel;
- * **宏发开关设备有限公司不承担由于使用本资料所引起的任何后果。**
Hongfa Electrical Safety&Controls Co., Ltd. shall not be liable for any consequences arising from the use of this file.

注意事项 Note

- * **检查外观有无在运输环节过程中可能发生的损坏, 比如外壳的破损等。**
Check the appearance for any possible damage that may occur during transportation, such as damage to the shell.
- * **产品严禁安装于含有易燃易爆气体、潮湿凝露的环境中, 严禁用湿手操作产品。**
The product is strictly prohibited from being installed in environments containing flammable and explosive gases or damp condensation, and it is strictly prohibited to operate the product with wet hands.
- * **产品工作中, 严禁触摸产品导电部位。**
During product operation, it is strictly prohibited to touch conductive parts of the product.
- * **不要安装在气体介质能腐蚀金属和破坏绝缘的地方。**
Do not install in areas where gas media can corrode metals and damage insulation.

操作测试示意图 Schematic diagram of operation testing

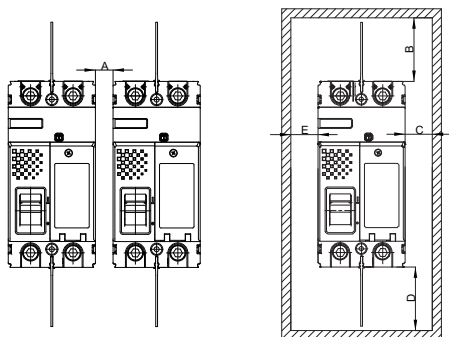


外形及安装尺寸图 Outline and Installation Dimensional Diagram

产品类型 Product type	外形尺寸 Outline dimension	安装尺寸 Installation dimension	接线尺寸 Wiring dimension
UEM1EG-320 隔离开关 UEM1EG-320 Disconnector			
UEM1E-320 带端子罩塑壳断路器 MCCB products with terminal cover			


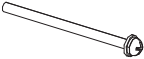
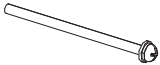



⚠️ 最小安装距离 Minimum installation distance

(以UEM1EG-320为例 Take UEM1EG-320 as an example)



产品型号 Model	距离 Distance (mm)				
	A	B	C	D	E
UEM1EG-320	100	150	100	150	100
UEM1E-320	100	150	100	150	100

产品附件清单

序号 No.	名称及图示 Product and picture	规格 Specification	UEM1EG-320	UEM1E-320	备注 Remarks
			数量 Quantity		
1	相间隔板 Interphase barrier 	-	2	-	-
2	十字盘头组合螺钉 Cross combination screw 	M5×105	2	2	不带手操 without manual operation mechanism
3	十字盘头组合螺钉 Cross combination screw 	M5×120 or M5×130	2	2	带手操 with manual operation mechanism
4	平垫 Flat washer 	M5	2	2	
6	六角螺母 Hex nut 	M5	2	2	-
7	塞子 Plug 	-	4	4	

连接导线要求 Requirements for connecting wires
连接铜导线 Connecting copper wires

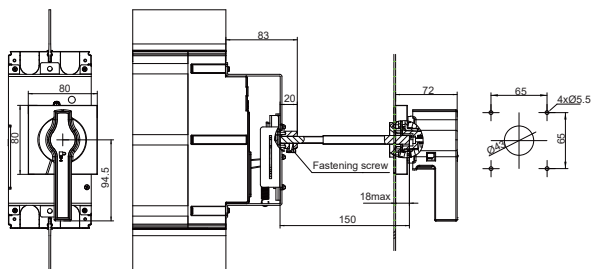
额定电流 Rated current (A)	200	250	275	300	320
UL导线选型 UL conductor selection (AWG or kcmil)	3/0	250	300	350	400
UL导线截面积 UL wire cross-sectional area (mm ²)	85	127	152	177	203

螺钉安装推荐拧紧力矩 Recommended tightening torque for screw installation

螺钉名称及规格 Screw name and specification	扭矩力矩 Torque (N·m)	扭矩力矩 Torque (lb-in)
内六角螺栓 M10×30 Hexagon socket bolt M10×30	20...22	177...194.7
十字盘头螺钉 M5×105 (120、130) Cross head screw M5×105 or 120 or 130	2...3	17.7...26.5

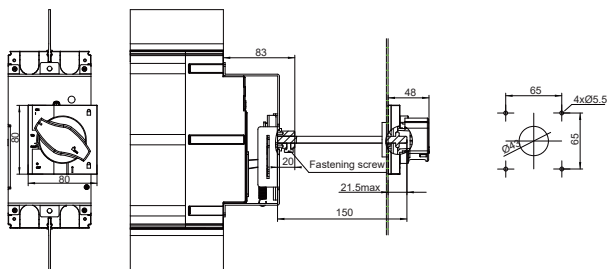
附件安装 Accessory installation

手动操作机构安装尺寸 Installation dimension of manual operating mechanism



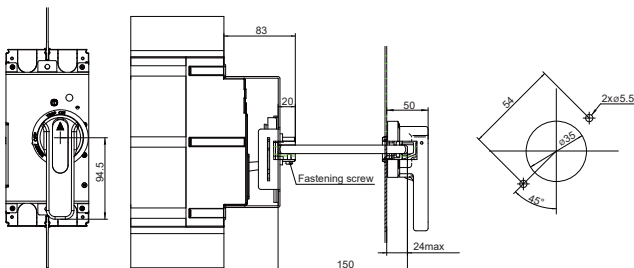
Z3型方形长手柄手动操作机构 (IP65防护等级, 默认选用)

Z3 type square long handle manual operation mechanism (IP65 protection grade, default selection)



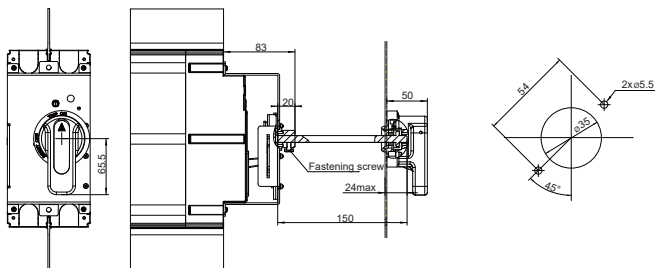
Z3型方形短手柄手动操作机构 (IP65防护等级)

Z3 type square short handle manual operation mechanism (IP65 protection grade)



Z4型圆形长手柄手动操作机构 (IP20防护等级, 默认选用)

Z4 type circular long handle manual operation mechanism (IP20 protection grade, default selection)

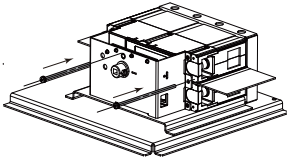


Z4型圆形短手柄手动操作机构 (IP20防护等级)

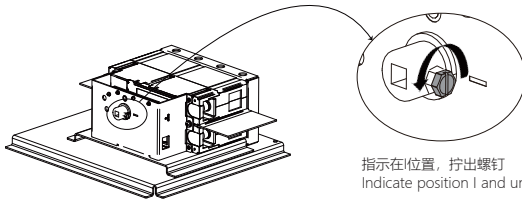
Z4 circular short handle manual operation mechanism (IP20 protection grade)

安装步骤 Installation Procedure

1.使用十字螺丝刀将M5长螺钉（扭矩 2N.m~3N.m / 17.7 lb-in~26.5 lb-in）通过手操安装孔将产品固定到机柜上。
Use a Phillips screwdriver to secure the M5 long screw (torque 2 N.m...3 N.m / 17.7 lb-in...26.5 lb-in) to the cabinet through the mounting holes.

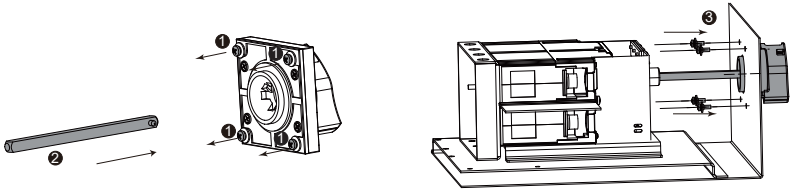


2.将产品转动到合闸状态，使用一字螺丝刀将手操方轴拧紧螺钉拧出。Turn the product to the closing state, and use a flat-head screwdriver to tighten the screw on the hand operated square shaft.



指示在I位置，拧出螺钉
Indicate position I and unscrew

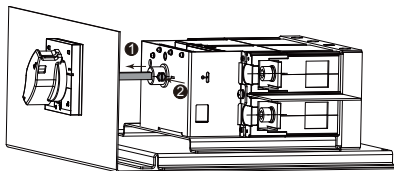
3.使用十字螺丝刀卸掉手柄上安装螺钉，插入方轴并将手柄转动到ON位置，通过机柜安装孔将方轴插入手操转轴内，使用十字螺丝刀安装手柄（扭矩 1.5 N.m~1.6 N.m / 13.3 lb-in~14.2 lb-in）。Use a Phillips screwdriver to remove the mounting screws ON the handle, insert the square shaft and turn the handle to the ON position, insert the square shaft into the operating shaft through the mounting hole in the cabinet, and install the handle using a Phillips screwdriver (torque 1.5 N.m...1.6 N.m / 13.3 lb-in...14.2 lb-in) .



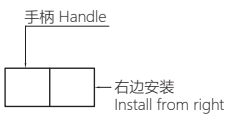



4.将方轴向手柄方向推到底，使用一字螺丝刀拧紧手操上的方轴拧紧螺钉（扭矩 2N.m~3N.m / 17.7 lb-in~26.5 lb-in），确

保方轴无法推动。

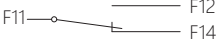
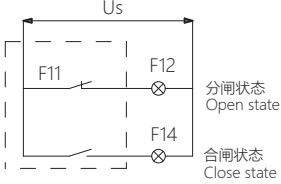
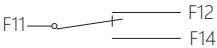
Push the square shaft towards the handle to the end and tighten the screw on the square shaft with a flat-head screwdriver (torque 2 N.m...3 N.m / 17.7 lb-in...26.5 lb-in) to ensure that the square shaft cannot be pushed.



内部附件种类及安装 Internal accessory type and installation

附件代号 Accessory code	附件名称 Accessory name	安装位置 Installed position	 <p>手柄 Handle</p> <p>右边安装 Install from right</p> <p>■ 分励脱扣器 Shunt trip ○ 辅助触头 Aux contact</p>
00	无附件 No accessory	— —	
20	辅助触头 Aux contact		
10	分励脱扣器 Shunt trip		
40	辅助触头 分励脱扣器 Aux contact Shunt trip		

辅助触头 Aux contact

产品状态 Product state	辅助触头状态 Aux contact state	一组辅助触头接线图 Wiring diagram of one aux contact
产品处于“合”的位置 Product is in "closing" position	一组辅助触头:  One aux contact:	 <p>分闸状态 Open state</p> <p>合闸状态 Close state</p>
产品处于“分”的位置 Product is in "opening" position	一组辅助触头:  One aux contact:	

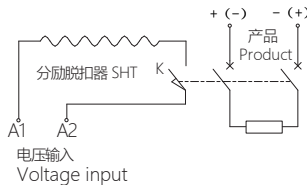
分励脱扣器 Shunt trip

当分励脱扣器的外施电压为分励脱扣器额定控制电压的70%~110%时，分励脱扣器应使产品可靠脱扣。
When the applied voltage of the shunt trip is 70%...110% of the rated control voltage of the shunt trip, the shunt trip should ensure reliable trip of the product.

分励脱扣器参数表 Parameter table of shunt trip

电压 Voltage (V)	通电时间 Power-on time (ms)	功率 Power (W)	分励脱扣器得电至触头完全分开时间 (ms) The time from the energization of the shunt trip to the complete separation of the contacts
DC 24	< 50	< 20	< 20
DC 220	< 50	< 20	< 20
AC 220	< 50	< 20	< 40
AC 380	< 50	< 30	< 40

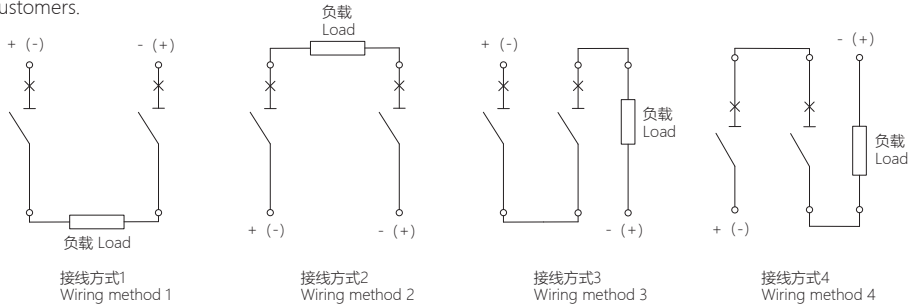
分励脱扣器接线图 Wiring diagram of shunt trip



接线方式 Wiring method

UEM6H 系列产品具有无极性接线特点, 可满足客户不同接线要求。

UEM6H series products have the characteristic of non-polarity wiring, which can meet different wiring requirements of customers.



降容系数 Derating factor

海拔降容系数 Derating factor of altitude

当海拔高于2000m时随着海拔高度的增加, 大气成分、冷却性能、绝缘性能及气压都发生变化, 产品参数可参照下表修正。When the altitude exceeds 2000m, as the altitude increases, the atmospheric composition, cooling performance, insulation performance, and air pressure all change. The product parameters can be corrected according to the following table.

海拔高度 (m) Altitude	2000	2500	3000	3500	4000	5000
工作电流修正系数 Operating current correction factor	1	0.988	0.973	0.954	0.933	0.886
工作电压修正系数 Operating voltage correction factor	1	1	1	1	1	1
工频耐压修正系数 Power frequency withstand voltage correction factor	1	1	1	1	1	1

温度降容系数 Derating factor of temperature

断路器 MCCB:

周围空气温度 Ambient air temperature (°C)	+40	+45	+50	+55	+60	+65	+70	+75	+80
工作电流修正系数 Operating current correction factor	1	1	1	1	0.963	0.915	0.89	0.872	0.86

隔离开关 Switch disconnector:

周围空气温度 Ambient air temperature (°C)	+40	+45	+50	+60	+70	+85
工作电流修正系数 Operating current correction factor	1	1	1	1	0.9	0.8

关于保修期与售后服务 Regarding the warranty period and after-sales service

本产品是在完善的品质管理体系下制造的，当万一发生故障时，对保修期与售后服务特作如下说明 This product is manufactured under a comprehensive quality management system. In the event of a malfunction, the warranty period and after-sales service are explained as follows:

保修期 Warranty period

在用户遵守保管和使用条件下，从本公司发货之日起，未超过18个月，产品如因制造质量问题而发生损坏或不能正常使用时，本公司负责无偿修理或更换。但是，如由于下述原因引起的故障，即使在保修期内亦作有偿修理或更换 If the product is damaged or cannot be used normally due to manufacturing quality issues within 18 months from the date of shipment by our company, provided that the user complies with the storage and use conditions, our company is responsible for free repair or replacement. However, if the malfunction is caused by the following reasons, it will be repaired or replaced for a fee even during the warranty period:

- (1) 由于使用错误，自行改造及不适当的维修等原因。
Due to usage errors, self-modification, and improper maintenance.
- (2) 超过标准规范要求使用。
Use beyond standard specifications.
- (3) 购买后由于摔落及运输中发生损坏等原因。
Due to reasons such as falling or damage during transportation after purchase.
- (4) 地震、火灾、雷电、异常电压、其它天灾及二次灾害等原因。
Earthquake, fire, lightning, abnormal voltage, other natural disasters, and secondary disasters.

售后服务 After-sale service

- (1) 出现故障时，请与供货商或本公司售后服务部门联系。
When a malfunction occurs, please contact the supplier or our company's after-sales service department.
- (2) 保修期内的修理或更换：由于本公司制造上的问题所造成的故障，作无偿修理，以至更换。
Repair or replacement during the warranty period: Any malfunction caused by manufacturing issues within our company shall be repaired or replaced for free.
- (3) 超过保修期后的修更或更换：在修理后能维持功能的场合下，作有偿修理；修理后不能正常工作，作有偿更换。
Repair or replacement beyond the warranty period: pay for repair provided that the function can be maintained after repair; If the repair does not work properly, replace it for a fee.

产品合格 The product is qualified
准予出厂 Can be released



服务热线 Service hotline

400 600 1502