DC6

Electric Operating Mechanism

OPERATION INSTRUCTION

CNC Deliver
Power For Better Life

⚠ Before installing and using this product,
please read this manual carefully and
pay more attention to safety.

**DC6 Series
Electric Operating Mechanism**

Only professionals or trained personnel are allowed to perform the following operations

1 Usage

The DC6 series electric operating mechanism is compatible with the YCM8 series molded case circuit breaker, suitable for AC 50Hz/60Hz. Under normal circumstances, electric operating mechanism circuit breakers can be used for infrequent switching of circuits and infrequent starting of motors. The DC6 series electric operation has small size, convenient installation, stable operation, intuitive display of opening, closing, and tripping, and can be manually operated. Its comprehensive performance has reached the advanced level of similar international products.

2 Operating conditions

2.1. The ambient temperature is between -5°C and +40°C, and the altitude does not exceed 2000 meters.
2.2. Atmospheric conditions: The maximum temperature is 40°C, and the relative humidity of the air does not exceed 50%. Higher relative humidity is allowed at lower temperatures, for example, 90% at 20°C. Special measures should be taken for occasional condensation due to temperature changes.
2.3. The external magnetic field of the installation place shall not exceed 5 times of the earth's magnetic field in any direction. Avoid large electromagnetic

interference (such as high-power motors or frequency converters) near the product, no explosive and corrosive gases, no rain and snow invasion, dry, ventilation.

2.4. Pollution degree: degree 3; installation category: Ⅲ.

3 General

3.1. The electric operating mechanism is between 85% and 110% of the rated operating voltage (at 24VDC, the allowable voltage range is 22.4~25.2VDC), which can ensure reliable operation of the circuit breaker.

3.2. Working voltage:
AC220V/DC220V, AC380V/DC380V, DC24V; there are 3 working voltages in total.

3.3. P1 and P2 are terminals for the operating power supply. P1 and P2 must be isolated from the main circuit of the circuit breaker and can withstand a power frequency withstand voltage of no less than AC2000V/1min with the main circuit. There should be no breakdown or flash over phenomenon, and the testing and withstand voltage tester used should comply with the requirements of IEC60947-1

3.4. S1, S2, and S4 are the control terminals, and the signals are pulse signals (short-term connection); The contacts on the relay are connected to S1 (common point), S2 (closing), and S4 (opening). When S1 and S2 are connected through the contacts on the relay, the circuit breaker closes (The closing command does not require the signal to be continuously connected or disconnected

to execute.); When S1 and S4 are connected through the contacts on the relay and the circuit breaker opens (The opening command does not require the signal to be continuously connected or disconnected to execute.), is the automatic mode.

3.5. When under manual mode , the circuit breaker can close or open and not affected by S1, S2, S4 on or off signals.

3.6. When under automatic mode, the circuit breaker does not need to operate in signal control mode. The circuit breaker closes only when the re-operation of the closing signal S1, S2 is connected (The closing command does not require the signal to be continuously connected or disconnected to execute); The circuit breaker opens only when the re-operation of the opening signal S1, S4 is connected (the opening command does not require the signal to be continuously connected or disconnected to execute).

3.7. When the circuit breaker trips under short circuit fault, it has self-reset function delay 1s under automatic mode (automatically operate the circuit breaker to the opening position), and control operation is not affected by the signal before tripping(The closing signal is always on or the opening signal is always on); only re-operate the closing signal S1, S2 to connect the circuit breaker to close (The closing command does not require the signal to be continuously connected or disconnected to execute); opening S1, S4 is connected to the circuit breaker to open (opening command does not require the signal to be continuously connected or disconnected to execute). In manual mode, the circuit breaker is closed and opened without any

operation.

4 Wiring port instructions
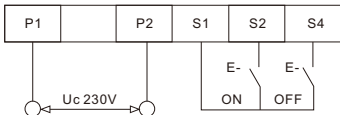
Warning
1. When manually operating, it should be operated 180 "clockwise and counterclockwise is prohibited.
2. During voltage withstand test: It should be able to withstand AC 50Hz, 2000V power frequency voltage withstand test between the incoming terminal P1.P2 of the power supply (excluding S1.S2. S4) and the installation screw of the electric operator (voltage withstand test is prohibited when the rated voltage is DC24V).
3. During electrical wiring, P1.P2 is prohibited from connecting to S1.S2.S4.

P1 and P2 are terminals for power supply; S1 is the common point, S2 is closing, and S4 is opening.

5 Overall and mounting dimensions
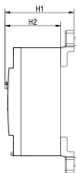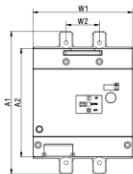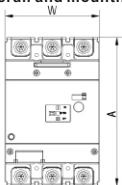
Model / Dimensions (mm)	DC6-125	DC6-160	DC6-250	DC6-400	DC6-630	DC6-800	DC6-1250	DC6-2000
A	130	155	166	257	257	257.5	257.5	340
A1	122	144	149.6	212	212	264	264	/
A2	109.5	109.5	114	177	177	174	174	174
W	75	90	105	140	140	210	210	210
W1	90	90	105	140	140	210	210	210
W2	25	30	35	44	44	70	70	70
H	140	151	153.5	170.5	170.5	190.5	190.5	225
H1	78.5	76	72	74	74	93	93	/
H2	62	62	59	61	61	78	78	78
H3	34.2	34.2	29.5	32.5	32.5	45	45	45

6 Note

6.1. Before installation, check whether the electrical operation specifications correspond to the circuit breaker.

6.2. After the electric operation is installed, first perform manual debugging to check whether the opening, closing, and re-closing actions of the circuit breaker are normal.

6.3. When manually operating, first shift the electric operated upper valve to the manual position, and then insert the operating handle for clockwise manual operation (counterclockwise operation is prohibited). After manual operation, the valve should be turned back to automatic mode.

6.4. Before the power-on test, check whether the voltage is equal and whether the power wiring is correct.

6.5. When powering on for trial, first check the circuit breaker. If an undervoltage release is installed, the power supply of the undervoltage release must be turned on, and check whether the voltage value is ≥ 85% of the rated voltage. (Note that the undervoltage should be connected to the main circuit power supply)

6.6. When powered on, the operation frequency of DC6-125/160/250 electric operation shall not exceed 180 times per hour, and the operation frequency of DC6-400/630/800/1250/2000 electric operation shall not exceed 60 times per hour.

7 Troubleshooting
Use manual operation to test whether the circuit breaker can be opened and closed. If it cannot be opened and closed, then check whether the circuit breaker is slipping and whether it is under voltage and not powered. If it cannot be adjusted, please contact the supplier.

8 Warranty
8.1 The electric operating mechanism must be inspected regularly (usually 18 months), check whether the fastening parts are loose, whether the moving parts are normal, and add a small amount of lubricating grease to the moving parts. The warranty period is 18 months from the date of manufacture, free service within 18 months, and paid service after 18 months.

8.2 Warranty period: If it is a quality problem of the company's production, the company is responsible

for replacement or repair; if the product is damaged due to improper operation by the user, use beyond the specification, falling and damage during the installation process, weather and natural disasters, etc. , the company is responsible for paid repair or replacement.

(3) Beyond the warranty period: In situations where the function can be maintained after repair, a paid repair can be performed, otherwise a paid replacement can be performed.

(4) Please contact our company's after-sales service department in case of failure.

CNC
ELECTRIC

CERTIFICATE

Product Model: DC6

Inspector : CNC003

Production date: Printed on the product or package.

This product is qualified according to the delivery inspection

CNC

DC6

CNC ELECTRIC

Tel: 0086-577-61989999   Fax: 0086-577-61891122

www.cncele.com   E-mail: cncele@cncele.com