**1 Application**

CAB30aL-40 Residual Current Breakers with Overload Protection RCBo is be used for protection against overload and short-circuit currents; protection against the effects of sinusoidal alternating and direct pulsating earth fault currents; protection against indirect contacts and additional protection against direct contacts; command and isolation of resistive and inductive loads. Suitable for commercial and industrial applications.

The product is conformity with GB16917.1, IEC61009-1 standards.

**2. Type designation**

CQ B 30a L - 40

Rated current(A)

Function code (L: electronic type RCBO)

Design serial number

 Miniature circuit breaker CHAC

**3 Technical data**

| Model Versions |
| --- |
| Rated voltage(v) : | **230V~** |
| Rated current(A) : | **6A、10A、16A、20A、25A、32A、40A** |
| Rated Leakage Operating l△n (mA) | **30mA** |
| Rated Leakage Breaking Time | **15mA** |
| Poles : | **1P+N** |
| Rated breaking capacity : lcu(A) | **3000A** |
| Operating time: | **≤0.1s** |
| Tripping characteristic : | Table **2** |
| Mechanical life & Electrical life:  | Mechanical life**：4000 ；**Electrical life: **：2000** |
| Nominal cross section area S (mm2) :  | **10mm2** |
| Pollution degree: | **Ⅱ** |
| Protection class: | **IP20** |
| Overvoltage category : | **Ⅱ** |

**Table 2** Tripping characteristic :

|  |
| --- |
| Type Test current Initial situation Tripping time Test result Remarks |
| **B，C，D** | **1.13In** | **Cold** | **t≤1h** | **Not-tripping** |  |
| **B，C，D** | **1.45In** | **Following No.1 test** | **t＜1h** | **tripping** | **Current stablely raised to specified value in 5s** |
| **B，C，D** | **2.55In** | **Cold** | **1s＜t＜60s(≤32A)****1s＜t＜120s(＞32A)** | **tripping** |  |
| **B****C** **D** | **3In****5In****10In** | **Cold** | **t≤0.1s** | **Not-tripping** | **Switch on the power supply by closing the auxiliary switch** |
| **B****C****D** | **5In****10In****20In** | **冷态** | **t＜0.1s** | **tripping** | **Switch on the power supply by closing the auxiliary switch** |

Note: The terminology “Cold state” means that the test is performed at the base calibration temperature with no load prior to the test.

**4 working and the installing condition.**

4.1 : Ambient max temperature is no more than +40℃, minimum temperature is not less than -5℃. No more than +35℃ within 24 hours;

4.2 : altitude is no more than 2000m;

4.3 : when the highest temperature reaches 40℃ the air relative humidity of the installing place can't exceed 50%, when in the low temperature it will have the relative higher humidity. When the average largest relative humidity in the most humiddest it is month no more than 90%, then the monthly-average

temperature is no more than 25℃. We must take measure of the dew in the surface of the product due to the

temperature;

4.4 Installation conditions
 Any direction of the outer magnetic field of the installation site should not exceed 5 times than earth's magnetic field; residual current operated circuit breaker should be mounted vertically, all places inclination no more than 5 °,power position above the handle  , the installation place should be no significant impact and vibration.

**5 Appearance and installing size （mm）**

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