

液体冷却型大功率电阻器 Liquid cooling high-power resistor

LCR2000型 / LCR2000 series

应用 Application

——适用于有液体冷却系统晶闸管高压整流系统中的RC回路中，最高使用在8KV晶闸管考虑在内。
Applicable to the RC loop in the high-voltage rectifier system with thyristor liquid cooling system, with the highest use of 8KV thyor considered.



产品特点 Product features

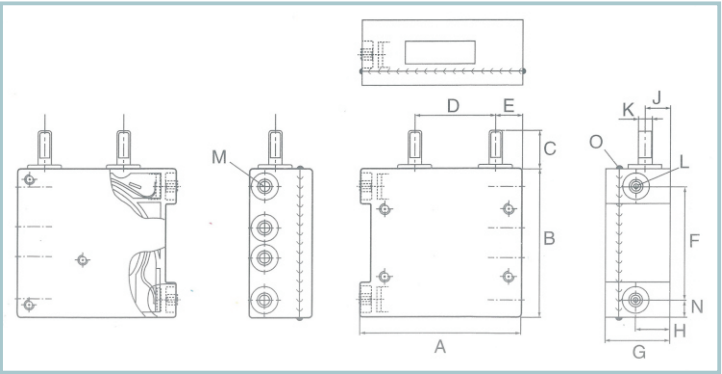
——采用PVDF全塑电阻壳体和水道，使产品具有良好的抗高压特性和优良的高温抗老化特性和防酸、防纯水或乙二醇散热、辐射等优点。
Using PVDF full plastic resistance shell and water channel, the product has good high pressure resistance and excellent high temperature anti-aging and anti-ac, anti-pure water or ethylene glycol heat dissipation, radiation and other advantages.

设计 Design

——螺旋式水道设计，使水流无阻力和无水道死角，对称式合金电阻带使电阻体的电感和电容达到最小，模具保证电阻带的均匀性。
spiral waterway design, so that the water flow is unimpeded and there is no dead angle in the waterway, symmetrical alloy resistance belt so the inductance and capacitance of the resistance body are minimized, and the mold ensures the uniformity of the resistance belt.

尺寸表
Size chart

A	B	C	D	E	F	G	H	J	K	L	M	N	O
120	110	28	60	20	84	48	25.5	19	10	M4X8	10X1	13	12



安装 Installation

——水嘴尺寸有1/8” 3/8” 和φ10*1三种，φ10安装轴孔，横向安装。
The size of the water faucet is 1/8" 3/8" and φ10*1, withφ10 installation shaft hole, installed horizontally.
——安装尺寸：φ10*60
Installation size: φ10*60

订货要求 Order Requirements

1. 选择电阻外壳颜色
Choose the color of the resistor casing
2. 选择电阻阻值及功率、水流量三者之关系
Choose the relationship between resistance value, power, and water flow rate
3. 选择水嘴的尺寸和水嘴的配套与否（可配套水嘴）
Choose the size of the faucet and whether the faucet is compatible (can be paired with a faucet)

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电气特性 Electrical characteristics

阻值范围 Resistance range: 1Ω~100MΩ
阻值精度 Resistance accuracy: ±2% (G) ±5% (J) ±10% (K)
电感值 Inductance value: ≤10nH
分布电容值 Distributed capacitance value: ≤110PF
水压 Water pressure: <1Mp
负荷功率 Load power:
-- 进水60℃，流量 2L/min，功率 2.75kw，长期使用。
-- 进水60℃，流量 3L/min，功率 4kw，长期使用。
-- 进水50℃，流量 3L/min，功率 7.0kw，持续时间30min。
-- 进水50℃，流量 4L/min，功率 9.3kw，持续时间30min。
-- 进水70℃，流量 3L/min，功率 3.0kw，持续时间30min。
-- 进水70℃，流量 4L/min，功率 4.0kw，持续时间30min。
Inlet water temperature 60℃, flow rate 2L/min, power 2.75kw, long-term use.
Inlet water temperature 60℃, flow rate 3L/min, power 4kw, long-term use.
Inlet water temperature 50℃, flow rate 3L/min, power 7.0kw, duration 30min.
Inlet water temperature 50℃, flow rate 4L/min, power 9.3kw, duration 30min.
Inlet water temperature 70℃, flow rate 3L/min, power 3.0kw, duration 30min.
Inlet water temperature 70℃, flow rate 4L/min, power 4.0kw, duration 30min.
温度系数 Temperature coefficient: 5-100℃≤150ppm/℃
最大峰值电压 Maximum peak voltage: 8.5KV
运行中最大冲击电压 Maximum impulse voltage during operation: 8.5KV
绝缘电压 Insulation voltage: 11KV峰值电压
空气距离 Air distance: ≥17mm
冷却 Cooling:
-- 可选用单槽和双槽冷却，双槽冷却功率可提高50%
Single slot and double slot cooling can be selected, and double slot cooling power can be increased by 50%
-- 可选用高纯水或50%乙二醇，乙二醇冷却功率要降低20%
High purity water or 50% ethylene glycol can be used, and the cooling power of ethylene glycol should be reduced by 20%
材料 Material:
-- 电阻材料：电阻合金带
Resistance material: Resistance alloy strip
-- 外壳材料：PVDF CTI≥600 阻燃性：UL94-V
Shell material: PVDF CTI ≥ 600 Flame retardancy: UL94-V
外壳颜色 Shell color:
-- 半透明本色（白色）、淡蓝色、深蓝色、黑色
Ttranslucent natural color (white), Light blue, Dark blue, black
重量 Weight: 604g
优选阻值系列 Preferred resistance series: 1Ω、5Ω、10Ω、20Ω、25Ω、30Ω、33Ω、36Ω、40Ω、45Ω、50Ω、55Ω、60Ω