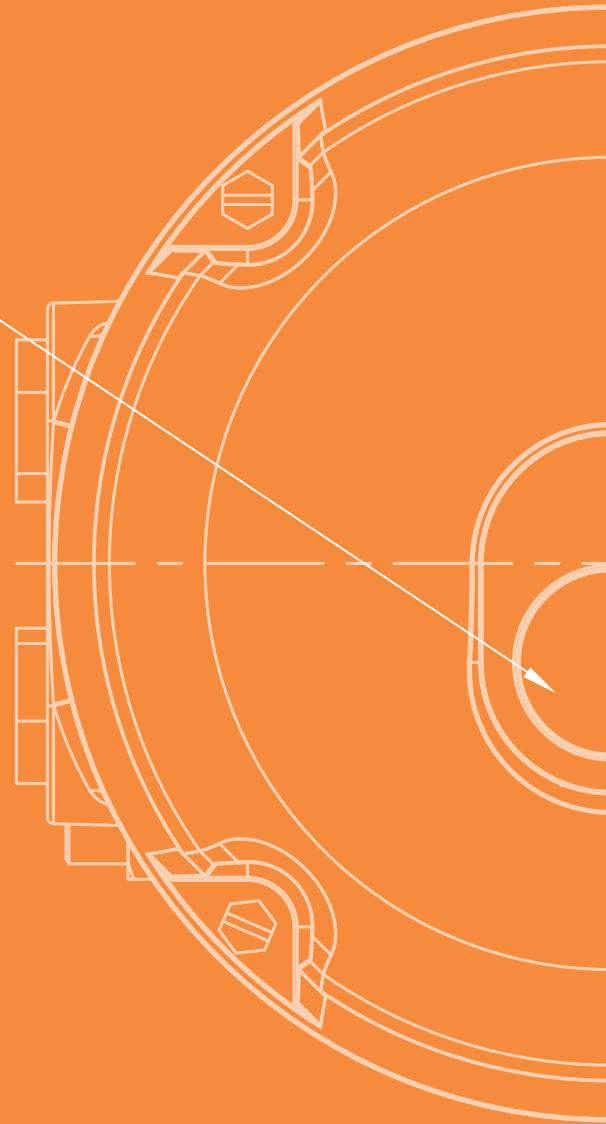


LABEL

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**CONTROLS**



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**New**

**Weatherproof Quarter-turn Actuators**

全天候型角行程执行器

**AQ RANGE / AQ系列**

PRODUCT SPECIFICATIONS / 产品规格

# > AQ RANGE / AQ系列

Weatherproof Quarter-turn Actuators  
全天候型角行程执行器



The essentials



## AQ L

AQ1L-AQ3L-AQ7L

- 1x85-260V AC 50/60Hz +24V DC
- 12V DC (可选)

开关级 Class A (标准)

### > 选配

- + 低温 -40°
- + 位置信号 (4-20mA输出)
- + 定位器 (4-20mA输入/输出)
- > Class B



## AQ SWITCH

AQ5-AQ10-AQ15-AQ25-AQ30-AQ50

- 1x115/220/230V AC 50/60Hz
- 3x380-415V AC 50/60Hz
- 3x440-480V AC 60Hz
- 24V DC

开关级 Class A (标准)

### > 选配

- + 低温 -40°
- + 位置电位器 (1000 Ω)
- > Class B (POT)
- + 位置传送器 (4-20mA 输出)
- > Class B (TAM)



## AQ LOGIC

AQ5-AQ10-AQ15-AQ25-AQ30-AQ50

- 1x115/220/230V AC 50/60Hz
- 3x380-415V AC 50/60Hz
- 3x440-480V AC 60Hz
- 24V DC

开关级 Class A (标准)

### > 选配

- + 低温 -40°
- + Class B (定位器4-20mA输入/输出)
- + Class III (定位器4-20mA输入/输出)
- + 4个补充信号继电器
- + Profibus DPV1
- + Modbus RTU



## Contents / 内容

Product specifications - AQ L / 产品规格 - AQ L .....	3
Product specifications - AQ SWITCH / 产品规格 - AQ SWITCH .....	5
Product specifications AQ LOGIC / 产品规格 - AQ LOGIC .....	7
Product selection / 产品选型 .....	11

## PRODUCT SPECIFICATIONS - AQL / 产品规格 - AQL

<b>GENERAL /</b> 总述	<b>Description / 总述</b>	AQL actuators include a multi-voltage board to supply a 24VDC motor, compact gear case, emergency manual override and standard star-shaped output	AQL执行器配备一个多电压电源板为24VDC电机供电，传动齿轮系统结构紧凑，带有紧急手动操作，标准星型输出
	<b>Torque range / 扭矩范围</b>	15N.m to 70N.m	15N.m到70N.m
	<b>Duty Classification / 负载等级</b>	Adapted to process requirements: • On-Off : Class A actuators complying with EN15714-2 • Inching/Positioning: Class B actuators complying with EN15714-2	能够满足工艺需求： • 开关级：Class A，执行器满足EN15714-2 • 微动/定位级：Class B，执行器满足EN15714-2
<b>ENCLOSURE - PROTECTION /</b> 外壳—防护	<b>Casing / 外壳材料</b>	• Aluminium die casting • Cover fastened by captive and stainless steel screws	• 铸铝 • 外盖由不锈钢自锁螺丝固定
	<b>External Protection / 防腐喷漆</b>	• Type : Epoxy powder painting as standard • Protection: C3 according to ISO 12944 Other colors and finishes, please consult us	• 类型：粉末喷涂（标配） • 防腐：依据ISO 12944标准，达到C3关于其他颜色和式样，欢迎您的咨询。
	<b>Weatherproofness / 防水等级</b>	IP68 / NEMA 4X as standard	IP68 / NEMA 4X标准
	<b>Ambient temperature range / 环境温度</b>	• -20 ... +60°C / -4 ... +140°F • -40°C (-40°F) as an option Other temperatures, please consult us	• -20...+60°C / -4 ... +140°F • 可选 -40°C (-40°F) 其他温度要求，欢迎您的咨询。
<b>MOTOR /</b> 电机	<b>Motor technology / 电机技术</b>	DC motors with 2-wire connection	直流电机，2线制连接
	<b>Motor duty rating / 电机负载</b>	• On/Off operation (complying with EN15714-2 Class A) and Inching/ Positioning (complying with EN15714-2 Class B): S4-30% motor duty rating. Up to 360 starts per hour at peak of operation. S4-50% as an option. • BC Modulating Class III (complying with EN15714- 2 Class C): S4-50% motor duty rating. Up to 1 200 starts per hour at peak of operation.	• 开关位操作（符合EN15714-2 Class A）和微动/定位级（符合EN15714-2 Class B）：S4-30%电机负载率 在操作峰值时，每小时最多启动360次。 S4-50% 可选 • 调节级：Class III（符合EN15714- 2 Class C）， S4-50%电机负载率 在操作峰值时，每小时最多启动1200次
<b>MECHANICAL SPECIFICATIONS /</b> 机械规格	<b>Gear design / 齿轮传动</b>	Actuator is mechanically self-locking	执行器在产品寿命期间，可以机械式自锁
	<b>Manual emergency operation / 手动操作</b>	Manual emergency operation via manual hexagonal output 10mm	通过10毫米的手动六角形输出实现紧急操作
	<b>Output flange / 输出法兰</b>	Actuator flanges comply with ISO 5211	执行器法兰标准符合ISO 5211的标准
	<b>Lubrication / 润滑</b>	The actuators are lubricated for the product lifetime and do not require any special service.	执行器终生润滑，无需任何特殊维护

1/2

## PRODUCT SPECIFICATIONS - AQL / 产品规格 - AQL

<b>ELECTRICAL SPECIFICATIONS /</b> 电气规格	<b>Power supply /</b> 电源	<ul style="list-style-type: none"> <li>The actuators can operate on a range of single phase power supply from 85VAC to 260VAC.</li> <li>A 24VDC power supply is also possible with the same power board.</li> <li>AQL actuators include both power supply on different terminals.</li> <li>On request, AQL models are available with 12V DC power supply.</li> </ul>	<ul style="list-style-type: none"> <li>执行器适用于宽泛的电压范围，从85VAC到260VAC</li> <li>同样的电源板也适用于24VDC电源</li> <li>AQL执行器同时提供交流电和直流电接线端子</li> <li>根据需要，AQL系列可选12V DC的电源。</li> </ul>
	<b>Terminal compartment /</b> 接线方式	Screw-type terminals for controls and power supply. Internal earth grounding post	电源与控制接线均采用螺栓端子，内部提供接地柱
<b>ELECTRICAL SPECIFICATIONS /</b> 电气规格	<b>Conduit entries /</b> 电缆接口	2 x M20 as standard	2 x M20标准
<b>POSITION SENSORS /</b> 行程限位信号	<b>Travel limit systems /</b> 行程限位系统	<ul style="list-style-type: none"> <li>Limit switches actuated by adjustable camblock.</li> <li>2 SPDT switches as standard (Open and Close) + 2 auxiliary switches (for signaling); 250VAC-5A/ 48VDC-2.5A (resistive load)</li> </ul>	<ul style="list-style-type: none"> <li>限位开关由可调节的凸轮组启动</li> <li>2个 SPDT标准开关（开和关）+2个辅助开关（信号开关）；250VAC-5A/ 48VDC-2.5A（电阻负载）</li> </ul>
<b>CONTROLS /</b> 控制	<b>Control /</b> 控制	<ul style="list-style-type: none"> <li>Pre-wired version as standard</li> <li>Positioner Option</li> </ul>	<ul style="list-style-type: none"> <li>预接线（标准）</li> <li>定位器（可选）</li> </ul>
	<b>Visual position indication /</b> 显示	Mechanical position indicator (as standard)	机械位置指示器（标配）
	<b>Inching/Positioning control /</b> 微动/ 定位级	<b>POSITIONER OPTION:</b> <ul style="list-style-type: none"> <li>Input (setpoint) and output (feedback) signals are fully isolated from each other</li> <li>Input signal: 4-20 mA - output signal : 4-20mA (4=closed; 20=open)</li> </ul>	定位器（选配） <ul style="list-style-type: none"> <li>输入（设定点）和输出（反馈）信号彼此独立</li> <li>输入信号：4-20 mA，输出信号：4-20mA(4=关位，20=开位)</li> </ul>
	<b>Position Transmitter /</b> 位置传送器	<b>POSITION TRANSMITTER OPTION:</b> 2 wires for 4-20mA	可选位置传送器： 4-20mA，2线
<b>SETTINGS /</b> 设定	<b>Application for mobile device /</b> 移动设备应用	BERNARD CONTROLS new mobile application is available as standard. BERNARD CONTROLS mobile interface allows the user to: <ul style="list-style-type: none"> <li>access to the documentation relative to the selected actuator (enter the Serial number) or scan the QR code on the nameplate of the actuator</li> <li>access to BERNARD CONTROLS contact information according to the area concerned</li> </ul>	伯纳德控制设备下的新型移动设备应用已经作为我们的标配，供广大客户使用。伯纳德控制设备移动设备应用可供广大客户： <ul style="list-style-type: none"> <li>掌握相应执行器的文档资料（输入相应序列号），或者通过扫描执行器铭牌上的二维码进行获取</li> <li>掌握伯纳德控制设备相应区域的联络方式</li> </ul>
<b>CONFORMITY TO EC DIRECTIVES /</b> 符合EC指令	<b>Compliance with EC Directives /</b> 符合EC指令	AQL actuators comply with: <ul style="list-style-type: none"> <li>directive 2004/108/EC Electromagnetic compatibility</li> <li>directive 2006/95/EC Low voltage</li> <li>the following harmonised standards: EN 61000- 6-4: Generic emissions standard for industrial environments; EN 61000-6-2: Generic immunity standard for industrial environments; EN 60034-1: Rotating electrical machines; EN 60529: Degrees of protection provided by enclosures (IP ratings code)</li> </ul>	AQL执行器符合： <ul style="list-style-type: none"> <li>2004/108/EC指令 电磁兼容</li> <li>2006/95/EC指令 低电压</li> <li>统一标准：EN 61000- 6-4: 工业环境通用排放标准；EN 61000-6-2: 工业环境通用抗干扰标准；EN 60034-1: 旋转电机；EN 60529: 外壳提供的防护 等级（IP防护等级）</li> </ul>

## PRODUCT SPECIFICATIONS - AQ SWITCH / 产品规格 - AQ SWITCH

<b>GENERAL /</b> 总述	<b>Description / 总述</b>	All AQ actuators include motor with thermal protection, gear case, emergency handwheel, travel limit switches, torque switches (for torque >150Nm), output drive with removable socket and anti-condensation heater.	AQ系列执行器均配备：带热保护的电机，齿轮箱，紧急手轮，位置传感器，扭矩开关（仅限于扭矩 > 150Nm），以及带可拆卸插座的输出驱动 以及防结露加热器
	<b>Torque range / 扭矩范围</b>	50 to 500 Nm	直接：50到500 Nm
	<b>Duty Classification / 负载等级</b>	Adapted to process requirements: • On-Off : Class A actuators complying with EN15714-2 • Inching/Positioning: Class B actuators complying with EN15714-2	符合工艺需求： • 开关级：Class A，符合于EN15714-2 • 微动/ 定位级：Class B，符合于EN15714-2
<b>ENCLOSURE - PROTECTION /</b> 外壳—防护	<b>Casing / 外壳材料</b>	<ul style="list-style-type: none"> <li>Aluminium die casting</li> <li>Cover fastened by captive and stainless screws</li> </ul>	<ul style="list-style-type: none"> <li>铸铝</li> <li>外盖由不锈钢自锁螺丝固定</li> </ul>
	<b>External Protection / 防腐喷漆</b>	<ul style="list-style-type: none"> <li>Type : Epoxy powder painting as standard</li> <li>Protection: C3 according to ISO 12944</li> <li>Other colors and finishes, please consult us</li> </ul>	<ul style="list-style-type: none"> <li>类型：粉末喷涂（标配）</li> <li>防腐：依据ISO 12944标准，达到C3</li> <li>关于其他颜色和式样，欢迎您的咨询。</li> </ul>
	<b>Weatherproofness / 防水等级</b>	IP68 / NEMA 4X as standard	IP68 / NEMA 4X标准
	<b>Ambient temperature range / 环境温度</b>	<ul style="list-style-type: none"> <li>-20 ... +60°C / -4 ... +140°F</li> <li>-40°C (-40°F) as an option</li> <li>Other temperatures, please consult us</li> </ul>	<ul style="list-style-type: none"> <li>-20...+60°C / -4 ... +140°F</li> <li>可选 -40°C (-40°F)</li> <li>其他温度要求，欢迎您的咨询。</li> </ul>
<b>MOTOR /</b> 电机	<b>Motor technology / 电机技术</b>	<ul style="list-style-type: none"> <li>3-phase or single-phase asynchronous motor, class F insulation with integral thermal overload protection.</li> <li>DC motors with 2-wire connection available for some references</li> </ul>	<ul style="list-style-type: none"> <li>三相或单相异步电动机，F级绝缘，集成热过载保护</li> <li>部分型号可提供直流电机，2线连接</li> </ul>
	<b>Motor duty rating / 负载等级</b>	<ul style="list-style-type: none"> <li>On/Off operation (complying with EN15714-2 Class A) and Inching/ Positioning (complying with EN15714-2 Class B): S4-30% motor duty rating. Up to 360 starts per hour at peak of operation. S4-50% as an option.</li> <li>BC Modulating Class III (complying with EN15714- 2 Class C): S4-50% motor duty rating. Up to 1 200 starts per hour at peak of operation.</li> </ul>	<ul style="list-style-type: none"> <li>开关位操作（EN15714-2 Class A）和微动/ 定位级（符合EN15714-2 Class B）：S4-30%电机负载率 在操作峰值时，每小时最多启动360次。 S4-50% 可选</li> <li>调节级：Class III（符合EN15714- 2 Class C），S4-50%电机负载率 在操作峰值时，每小时最多启动1200次</li> </ul>
<b>MECHANICAL SPECIFICATIONS /</b> 机械规格	<b>Gear design / 齿轮传动</b>	Actuator is mechanically self-locking	执行器在产品寿命期间，可以机械式自锁
	<b>Manual emergency operation / 手动操作</b>	Manual override handwheel Automatic declutch	通过10毫米的手动六角形输出实现紧急操作
	<b>Output flange / 输出法兰</b>	Actuator flanges comply with ISO 5211	执行器法兰标准符合ISO 5211的标准
	<b>Lubrication / 润滑</b>	The actuators are lubricated for the product lifetime and do not require any special service.	执行器终生润滑，无需任何特殊维护

1/2

## PRODUCT SPECIFICATIONS - AQ SWITCH / 产品规格 - AQ SWITCH

<b>ELECTRICAL SPECIFICATIONS / 电气规格</b>	<b>Power supply / 电源</b>	The actuators can operate on a wide variety of power supplies: • 3-phase , single-phase or DC • 50 or 60 Hz ...	执行器适用于多种电源: • 单相, 三相或直流电 • 50或60 Hz ...
	<b>Terminal compartment / 接线方式</b>	Screw-type terminals for controls and power supply. Internal earth grounding post	电源与控制接线均采用螺栓端子, 内部提供接地柱
	<b>Conduit entries / 电缆接口</b>	2 x M20 as standard (or 2 x 3/4")	2 x M20标准 (或 2 x 2/4")
<b>POSITION &amp; TORQUE SENSORS / 位置 &amp; 扭矩传感器</b>	<b>Travel limit systems / 行程限位系统</b>	<ul style="list-style-type: none"> <li>Limit switches actuated by adjustable camblock.</li> <li>2 SPDT switches as standard (Open and Close) + 2 auxiliary switches (for signaling)</li> </ul>	<ul style="list-style-type: none"> <li>限位开关由可调节的凸轮组启动</li> <li>(标配) 2个 SPDT开关 (开和关) + 2个辅助开关 (信号反馈)</li> </ul>
	<b>Torque limiting system / 扭矩限位系统</b>	<ul style="list-style-type: none"> <li>Torque limitation available from AQ25</li> <li>The torque limiting system is calibrated at the factory</li> <li>2 contacts as standard (1 in opening and 1 in closing) ; SPDT ; 250VAC-5Amax (resistive load)</li> <li>Adjustable torque from 40 to 100% of max torque (intrusive setting)</li> </ul>	<ul style="list-style-type: none"> <li>AQ25扭矩限位</li> <li>扭矩限位系统在工厂内进行校准</li> <li>2个触点为标准 (1个用于开位, 1个用于关位) ; SPDT; 250VAC-5A (最大) (电阻负载)</li> <li>扭矩可调节, 调节范围为最大扭矩的40%到100% (侵入式设置)</li> </ul>
<b>CONTROLS / 控制</b>	<b>Visual position indication / 位置指示</b>	Mechanical position indicator	机械位置指示器
	<b>Position Transmitter (option) / (选配) 位置反馈</b>	<b>POSITION TRANSMITTER OPTION:</b> • 2 wires for 4-20mA Position Transmitter • POT 1000Ω	可选位置反馈: • 2线制, 4-20mA • POT 1000Ω
<b>SETTINGS / 设定</b>	<b>Actuator on valve settings / 本地设置</b>	Easy and quick setting of position and torque camblocks with a standard screwdriver	使用螺丝刀轻松设置位置和扭矩凸轮块
	<b>Application for mobile device / 移动设备应用</b>	<p>BERNARD CONTROLS new mobile application is available as standard. BERNARD CONTROLS mobile interface allows the user to:</p> <ul style="list-style-type: none"> <li>access to the documentation relative to the selected actuator (enter the Serial number) or scan the QR code on the nameplate of the actuator</li> <li>access to BERNARD CONTROLS contact information according to the area concerned</li> </ul>	<p>伯纳德控制设备下的新型移动设备应用已经作为我们的标配, 供广大客户使用。伯纳德控制设备移动设备应用可供广大客户:</p> <ul style="list-style-type: none"> <li>掌握相应执行器的文档资料 (输入相应序列号), 或者通过扫描执行器铭牌上的二维码进行获取</li> <li>掌握伯纳德控制设备相应区域的联络方式</li> </ul>
<b>CONFORMITY TO EC DIRECTIVES / 符合EC指令</b>	<b>Compliance with EC Directives / 符合EC指令</b>	<p>AQ actuators comply with:</p> <ul style="list-style-type: none"> <li>directive 2004/108/EC Electromagnetic compatibility</li> <li>directive 2006/95/EC Low voltage</li> <li>the following harmonised standards: EN 61000- 6-4: Generic emissions standard for industrial environments; EN 61000-6-2: Generic immunity standard for industrial environments; EN 60034-1: Rotating electrical machines; EN 60529: Degrees of protection provided by enclosures (IP ratings code)</li> </ul>	<p>AQ执行器符合:</p> <ul style="list-style-type: none"> <li>2004/108/EC指令 电磁兼容</li> <li>2006/95/EC指令 低电压</li> <li>统一标准: EN 61000- 6-4: 工业环境通用排放标准; EN 61000-6-2: 工业环境通用抗干扰标准; EN 60034-1: 旋转电机; EN 60529: 外壳提供的防护等级 (IP防护等级)</li> </ul>

## PRODUCT SPECIFICATIONS - AQ LOGIC / 产品规格 - AQ LOGIC

<b>GENERAL /</b> 总述	<b>Description / 总述</b>	<p>All AQ actuators include motor with thermal protection, gear case, emergency handwheel, position sensor, torque sensor (for torque &gt;150Nm), output drive with removable socket and anti-condensation heater.</p> <p>AQ LOGIC models also include:</p> <ul style="list-style-type: none"> <li>integrated controls</li> <li>built-in motor reversing starters</li> <li>local commands with large LCD display</li> </ul>	<p>AQ系列执行器均配备：带热保护的电机，齿轮系，紧急手轮，位置传感器，扭矩开关（仅限于扭矩 &gt; 150Nm），以及带可拆卸插座的输出驱动 以及防结露加热器</p> <p>AQ LOGIC同时也包含含：</p> <ul style="list-style-type: none"> <li>一体化控制</li> <li>内置电机反向启动器</li> <li>带有 地控制的大液晶显示屏</li> </ul>
	<b>Torque range /</b> 扭矩范围	50 to 500 N.m	直接：50到500 N.m
	<b>Duty Classification /</b> 负载等级	<p>Adapted to process requirements:</p> <ul style="list-style-type: none"> <li>On-Off : Class A actuators complying with EN15714-2</li> <li>Inching/Positioning: Class B actuators complying with EN15714-2</li> <li>Modulating: Class III actuators with higher duty performance and specification of additional performance criteria compared to EN15714-2 Class C basic design requirements</li> </ul>	符合工艺需求： <ul style="list-style-type: none"> <li>开关级：Class A，符合于EN15714-2</li> <li>微动/ 定位级：Class B，符合于EN15714-2</li> <li>调节级：Class III，与Class C（符合EN15714-2）相比，有更好的性能表现</li> </ul>
<b>ENCLOSURE -</b> <b>PROTECTION /</b> 外壳—防护	<b>Casing / 外壳材料</b>	<ul style="list-style-type: none"> <li>Aluminium die casting</li> <li>Cover fastened by captive and stainless screws.</li> </ul>	<ul style="list-style-type: none"> <li>铸铝</li> <li>外盖由不锈钢自锁螺丝固定</li> </ul>
	<b>External Protection /</b> 防腐喷漆	<ul style="list-style-type: none"> <li>Type : Epoxy powder painting as standard</li> <li>Protection: C3 according to ISO 12944</li> <li>Other colors and finishes, please consult us</li> </ul>	<ul style="list-style-type: none"> <li>类型：粉末喷涂（标配）</li> <li>防腐：依据ISO 12944标准，达到C3关于其他颜色和式样，欢迎您的咨询。</li> </ul>
	<b>Weatherproofness / 防水等级</b>	IP68 / NEMA 4X as standard	IP68 / NEMA 4X标准
	<b>Ambient temperature range / 环境温度</b>	<ul style="list-style-type: none"> <li>-20 ... +60°C / -4 ... +140°F</li> <li>-40°C (-40°F) as an option</li> <li>Other temperatures, please consult us</li> </ul>	<ul style="list-style-type: none"> <li>-20...+60°C / -4 ... +140°F</li> <li>可选 -40°C (-40°F)</li> <li>其他温度要求，欢迎您的咨询。</li> </ul>
<b>MOTOR /</b> 电机	<b>Motor technology / 电机技术</b>	<ul style="list-style-type: none"> <li>3-phase or single-phase asynchronous motor, class F insulation with integral thermal overload protection</li> <li>DC motors with 2-wire connection available for some references</li> </ul>	<ul style="list-style-type: none"> <li>三相或单相异步电动机，F级绝缘，集成热过载保护</li> <li>部分型号可提供直流电机，2线连接</li> </ul>
	<b>Motor duty rating / 负载等级</b>	<ul style="list-style-type: none"> <li>On/Off operation (complying with EN15714-2 Class A) and Inching/ Positioning (complying with EN15714-2 Class B): S4-30% motor duty rating. Up to 360 starts per hour at peak of operation. S4-50% as an option.</li> <li>BC Modulating Class III (complying with EN15714-2 Class C) : S4-50% motor duty rating. Up to 1 200 starts per hour at peak of operation.</li> </ul>	<ul style="list-style-type: none"> <li>开关位操作（EN15714-2 Class A）和微动/ 定位级（符合EN15714-2 Class B）：S4-30%电机负载率 在操作峰值时，每小时最多启动360次。 S4-50% 可选</li> <li>调节级：Class III（符合EN15714-2 Class C），S4-50%电机负载率 在操作峰值时，每小时最多启动1200次</li> </ul>
<b>MECHANICAL</b> <b>SPECIFICATIONS /</b> 机械规格	<b>Gear design /</b> 齿轮传动	Actuator is mechanically self-locking	执行器在产品寿命期间，可以机械式自锁
	<b>Manual emergency operation / 手动操作</b>	<ul style="list-style-type: none"> <li>Manual override handwheel</li> <li>Automatic declutch</li> </ul>	<ul style="list-style-type: none"> <li>手动操作手轮</li> <li>自动离合</li> </ul>
	<b>Output flange /</b> 输出法兰	Actuator flanges comply with ISO 5211.	执行器法兰标准符合ISO 5211的标准



## PRODUCT SPECIFICATIONS - AQ LOGIC / 产品规格 - AQ LOGIC

<b>MECHANICAL SPECIFICATIONS / 机械规格</b>	<b>Lubrication / 润滑</b>	The actuators are lubricated for the product lifetime and do not require any special service.	执行器终生润滑，无需任何特殊维护
<b>ELECTRICAL SPECIFICATIONS / 电气规格</b>	<b>Power supply / 电源</b>	The actuators can operate on a wide variety of power supplies: • 3-phase , single-phase or DC • 50 or 60 Hz ...	执行器适用于多种电源： • 单相，三相或直流电 • 50或60 Hz ...
	<b>Terminal compartment / 接线方式</b>	Screw-type terminals for controls and power supply. Internal earth grounding post	电源与控制接线均采用螺栓端子，内部提供接地柱
	<b>Fuse protection / 熔断保护</b>	Primary: 0,5A-500V Secondary: Two resettable fuses	主要：0,5A-500V 次要：两个可设置保险丝
	<b>Conduit entries / 电缆接口</b>	3 x M20 + 2 x M16 (or 3 x 3/4" NPT + 2 x 1/2" NPT)	3 x M20 + 2 x M16 (或 3 x 3/4" NPT + 2 x 1/2" NPT)
<b>POSITION &amp; TORQUE SENSORS / 位置 &amp; 扭矩传感器</b>	<b>Travel limit systems / 行程限位系统</b>	<ul style="list-style-type: none"> <li>Position: reading on the output shaft</li> <li>Position sensor : Absolute encoder (Hall effect sensor)</li> </ul>	<ul style="list-style-type: none"> <li>位置：通过检测输出轴定位</li> <li>位置传感器：绝对编码器（霍尔效应传感器）</li> </ul>
	<b>Torque limiting system / 扭矩限位系统</b>	<ul style="list-style-type: none"> <li>Torque limitation available from AQ25</li> <li>Torque: Absolute encoder sensor (Hall effect sensor)</li> <li>The torque limiting system is calibrated in factory. It remains adjustable via LOGIC (non intrusive setting)</li> <li>Non intrusive setting : Adjustable torque from 40 to 100% of rated torque</li> </ul>	<ul style="list-style-type: none"> <li>AQ25扭矩限位</li> <li>扭矩：绝对编码器（霍尔效应传感器）</li> <li>扭矩限位系统在工厂内进行校准 通过 LOGIC实现调节（非侵入式设置）</li> <li>非侵入式设置：调节范围为最大扭矩的40%到100%</li> </ul>
<b>CONTROLS / 控制</b>	<b>Remote Command / 远程控制</b>	<ul style="list-style-type: none"> <li>Maintained or pulse command (minimum pulse duration: 100ms)</li> <li>Command by dry contacts</li> <li>Command by voltage from 10 to 250 VDC</li> <li>Isolated by opto-couplers</li> </ul>	<ul style="list-style-type: none"> <li>自保持命令或脉冲命令（最短脉冲时间：100ms）</li> <li>通过干接点命令</li> <li>命令电压10到250 VDC</li> <li>光电隔离</li> </ul>
	<b>Visual position indication / 位置指示</b>	Mechanical position indicator	机械位置指示器
	<b>Local command description / 本地控制</b>	<ul style="list-style-type: none"> <li>2 buttons + 1 padlockable selector</li> <li>A large LCD screen to display the position, the torque and alarms and to perform the settings</li> <li>Green/Red: Configurable LED for CLOSED/ OPEN</li> </ul>	<ul style="list-style-type: none"> <li>2个按钮，1个挂锁选择器</li> <li>白色LCD显示位置，扭矩和警告信息</li> <li>绿 / 红LED显示关位 / 开位</li> </ul>
	<b>Power circuit / 电源电路</b>	Motor reversing starters	电机换向启动器（固态接触器）
	<b>Auxiliary power supply / 辅助电源</b>	With external 24VDC supply	外接24 VDC电源
	<b>Signaling / 信号</b>	<ul style="list-style-type: none"> <li>3 latching relays</li> <li>Relay 1: Valve open</li> <li>Relay 2: Valve closed</li> <li>Relay 3: Configurable relay</li> <li>Contact configuration: normally open or normally closed</li> <li>Minimum current 10mA at 5V</li> <li>Maximum current 5A at 250V or 5A at 30VDC (resistive load)</li> <li>Additional 4 relays board as an option</li> </ul>	<ul style="list-style-type: none"> <li>3个自保持继电器</li> <li>1: 阀开</li> <li>2: 阀关</li> <li>3: 可配置继电器</li> <li>触点配置：通常为开位或关位</li> <li>最小电流：5V时，10mA</li> <li>最大电流：250VAC时，5A，或者30VDC时，5A（电阻负载）</li> <li>可另选含4个继电器的信号板</li> </ul>



## PRODUCT SPECIFICATIONS - AQ LOGIC / 产品规格 - AQ LOGIC

<b>CONTROLS /</b> 控制	<b>Fault relay /</b> 故障继电器	<ul style="list-style-type: none"> <li>• SPDT non-latching relay, in fault position when not supplied.</li> <li>• Minimum current 10mA at 5V</li> <li>• Maximum current 5A at 250VAC or 5A at 30VDC (resistive load)</li> </ul>	<ul style="list-style-type: none"> <li>• SPDT单稳态继电器在不供电的情况下，处于故障位置。</li> <li>• 最小电流：5V时，10mA</li> <li>• 最大电流：250VAC时，5A，或者30VDC时，5A（电阻负载）</li> </ul>
	<b>Inching/Positioning &amp; Modulating control (option) /</b> (选配) 微动 / 定位级 & 调节级	<p>LOGIC Positioner :</p> <p>Signal configurations (with integrated analogue output):</p> <ul style="list-style-type: none"> <li>• Standard input signal: 4-20 mA - output signal: 4-20mA</li> <li>• Input signal: 0-20 mA - output signal: 0-20 mA</li> <li>• Input signal: 0-10 V - output signal: 0-20 mA</li> </ul> <p>Analogue Input:</p> <ul style="list-style-type: none"> <li>- in current: impedance of 260 Ohms</li> <li>- In voltage: impedance of 10 kOhms:</li> </ul> <p>Analogue Output:</p> <ul style="list-style-type: none"> <li>- In current: maximum acceptable load of 600 Ohms (24VDC), must be supplied (12 to 32VDC) 2-wire or 3-wire connection</li> </ul>	<p>LOGIC定位器:</p> <p>信号配置 (含一体化模拟输出):</p> <ul style="list-style-type: none"> <li>• 标准输入信号: 4-20mA, 输出信号: 4-20mA</li> <li>• 输入信号: 0-20mA, 输出信号: 0-20mA</li> <li>• 输入信号: 0-10V, 输出信号: 0-20mA</li> </ul> <p>模拟量输入:</p> <ul style="list-style-type: none"> <li>- 电流: 阻抗为260 Ohms</li> <li>- 电压: 阻抗为10 KOhms</li> </ul> <p>模拟量输出:</p> <ul style="list-style-type: none"> <li>- 电流: 电源必须为2线制或3制, 12至32V, 最大可接受负载为600 Ohms (24VDC)</li> </ul>
	<b>Position Transmitter (option) /</b> (选配) 位置反馈	In current: maximum acceptable load of 600 Ohms (24VDC), must be supplied (12 to 32VDC) 2-wire or 3-wire connection	电流: 电源必须为2线制或3线制, 12至32V, 最大可接受负载为600 Ohms (24VDC), 4-20mA
<b>SETTINGS /</b> 设定	<b>Settings /</b> 设置	<p>Non-Intrusive settings</p> <p>All actuator settings and parameters are stored in a non-volatile EEPROM memory. Protection by password.</p> <p>Configurable via Local control; Bluetooth available as standard (to keep a high level of security, Bluetooth range is limited to 10m. With BC App, communication is encrypted and access is restricted with password.)</p>	<p>非侵入式</p> <p>执行器的所有设置和参数均存储于EEPROM存储器中 有密码保护</p> <p>本地控制: 蓝牙 (标配) (确保高安全性, 蓝牙范围限制为10m)</p>
	<b>Local settings /</b> 本地设置	The LOGIC can be fully set via its local display and selectors. Does not require any specific setting tool. The access to the local control is padlockable	LOGIC可以通过其本地显示和旋钮进行设置 不需要任何特殊设置工具 可以用挂锁来限制就地操作
	<b>Application for mobile device /</b> 移动设备应用	<p>New BERNARD CONTROLS mobile application is available as standard, with its bluetooth secured communication interface, and allows the user to:</p> <ul style="list-style-type: none"> <li>• assistance to commissioning on valve</li> <li>• simply set every parameters of the actuator (non-intrusive setting)</li> <li>• command the actuator (open/close/stop) as a local controls</li> <li>• check at a glance an overview of the feedbacks information which are displayed on a large color screen of the mobile</li> <li>• assistance to curative maintenance with a simple and efficient troubleshooting</li> <li>• access to BERNARD CONTROLS contact information according to the area concerned</li> <li>• access to the documentation relative to the selected and scanned actuator</li> </ul>	<p>伯纳德控制设备下的新型移动设备应用已经作为我们的标配, 供广大客户使用。伯纳德控制设备移动设备应用可供广大客户:</p> <ul style="list-style-type: none"> <li>• 辅助阀门调试</li> <li>• 能够极简单地对执行器的每一个参数进行设置 (非侵入式设置)</li> <li>• 发出本地控制, 命令执行器操作 (开位/关位/ 终止)</li> <li>• 通过移动设备上的屏幕, 了解整体反馈</li> <li>• 通过简单高效的故障排除帮助进行预防性维护</li> <li>• 掌握伯纳德控制设备相应区域的联络方式</li> <li>• 掌握相应执行器的文档资料</li> </ul>
<b>FIELDBUS /</b> 现场总线	<b>Available Fieldbus protocols (option) /</b> 可用现场总线 (选配)	<ul style="list-style-type: none"> <li>• PROFIBUS-DPV1</li> <li>• MODBUS RTU</li> </ul>	<ul style="list-style-type: none"> <li>• PROFIBUS-DPV1</li> <li>• MODBUS RTU</li> </ul>

## PRODUCT SPECIFICATIONS - AQ LOGIC / 产品规格 - AQ LOGIC

<p><b>CONFORMITY TO EC DIRECTIVES / 符合EC指令</b></p>	<p><b>Compliance with EC Directives / 符合EC指令</b></p>	<p>AQ actuators comply with:</p> <ul style="list-style-type: none"> <li>• directive 2004/108/EC Electromagnetic compatibility</li> <li>• directive 2006/95/EC Low voltage</li> <li>• the following harmonised standards: EN 61000- 6-4: Generic emissions standard for industrial environments; EN 61000-6-2: Generic immunity standard for industrial environments; EN 60034-1: Rotating electrical machines; EN 60529: Degrees of protection provided by enclosures (IP ratings code)</li> </ul>	<p>AQ执行器符合:</p> <ul style="list-style-type: none"> <li>• 2004/108/EC指令 电磁兼容</li> <li>• 2006/95/EC指令 低电压</li> <li>• 统一标准: EN 61000- 6-4: 工业环境通用排放标准; EN 61000-6-2: 工业环境通用抗干扰标准; EN 60034-1: 旋转电机; EN 60529: 外壳提供的防护等级 (IP护等级)</li> </ul>
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4/4



# 产品选型

AQ0050 DE 035 S A 0 0 0 E 0 M

执行器类型

**电压类型：**

DE=直流电 24V ; DF=直流电 12V ; FB=1Ph 220-230V 50/60Hz ; FC=1Ph 115-120V 50/60Hz ; FH<sup>3</sup>=1Ph 85-260V 50/60Hz - 24VDC ; TA=3Ph 380-415V 50Hz ; UJ=3Ph 460-480V 60Hz

操作时间（分） / 速度（RPM）

**控制类型**

S=SWITCH, P=SWITCH, L=LOGIC

**负载等级**

A=Class A; B=Class B; 3=Class III

**SWITCH（选配）**

0=无; 1=位置传送器; 2=定位器<sup>3</sup>;  
3= POT

**LOGIC（选配）**

0=无; 1=RS4

**现场总线（选配）**

0=无; P=Profibus DP Single;  
M=Modbus RTU

**认证资格**

E=EC 标准 ;  
C=CSA标准 ;  
L=EC低温 ;  
O=CSA 低温 ;  
R=EAC标准

**输出法兰**

0=标准法兰  
A=F07 - F10  
B=F10 - F12

**连接类型**

M=  
I=NPT

<sup>3</sup>只限于AQL

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