



**ELECTRIC ACTUATORS SERIES 86**  
86系列电动执行机构



# VALBIA

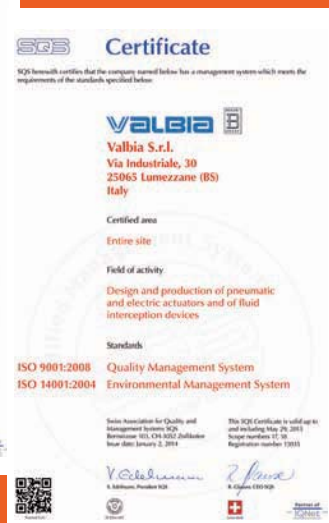


Only excellence allows to compete in the international market. The challenge can be faced thanks to the passion and the energy of the researchers, who plan and manufacture avant-garde quality and technology, a team which is perfectly integrated for providing total customer satisfaction; we are ready!

只有卓越产品才能在国际市场上竞争。  
计划和制造前卫技术的研究者们，  
凭着他们的激情与精力来面对这样的挑战，  
且他们是一个能让所有客户都满意的团队；  
我们准备好了！

# APPROVALS -- 认证

## ISO 9001 - ISO 14001 - 18001



# INSURANCE -- 保险



The whole product range of Valbia is covered by international insurance for customer safety. Our technical and commercial service is at your disposal.

VALBIA所有产品为了客户的安全具有国际保险单。我们的技术和商业服务在您的可控范围内。


# PRODUCT APPROVALS -- 产品认证

Dichiarazione di conformità CE  
Declaration of Conformity CE  
认证声明 CE





UL attuatori elettrici  
UL electric actuators  
电动执行机构UL认证


 ALUMINIUM ALLOY ENCLOSURE WITH POLYESTER POWDER COATING

 具有聚酯粉末的铝合金外壳


 CONTROL BOARD

 控制板


 POWER SUPPLY BOARD

 供电板

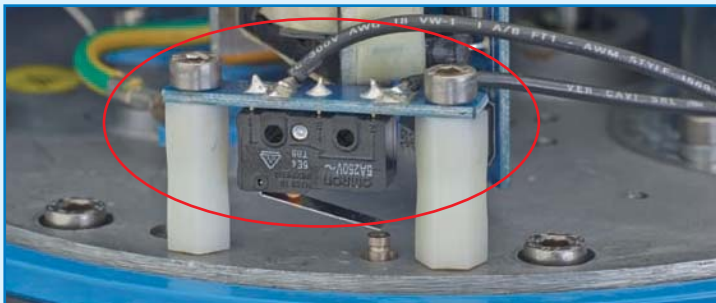



 POSITION CAMS:

- Black cams: limit switches open and closed adjustment.
- Blue cams: auxiliary limit switches open and closed adjustment.


 凸轮位置

- 黑色凸轮：限位开关的开启和关闭的调节。
- 蓝色凸轮：辅助限位开关 的开启和关闭的调节。




 SNAP SWITCH (only for mod. VB110M ÷ VB350M):

- To avoid the motor automatic rotation when the actuator is in manual mode.


 拨动开关 (仅适用于型号VB110M-VB350M);

- 是为了避免执行机构在手动操作时发动机自动旋转。



 MANUAL OVERRIDE (only for mod. VB110M ÷ VB350M):




- Allow the manual or automatic operation.

 手动操作 (仅适用于型号VB110M-VB350M);


- 允许手动或自动操作。







-  DOME POSITION INDICATOR
-  圆顶型的位置指示器
-  DC MOTOR
-  直流电机
-  MECHANICAL END STOPS
-  机械限位螺母
-  MANUAL HANDWHEEL
-  手轮操作




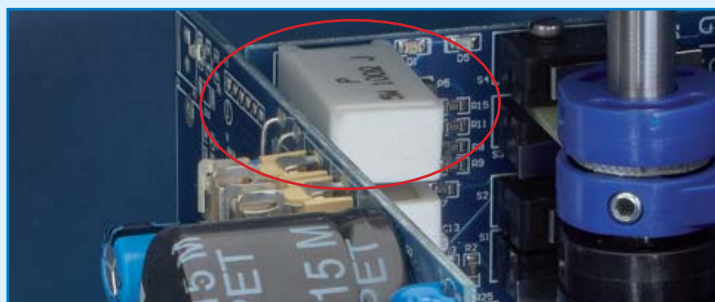
-  CAPTIVE COVER BOLT:
  - Cover bolts are specially designed to prevent losing them during maintenance or installation.
  - All external bolts are stainless steel.


-  固定的盖子螺栓
  - 盖子螺栓有特殊设计，是为了防止在维修和安装时丢失。
  - 所有内部螺栓都是不锈钢材质。




-  EASIER UPPER COVER OPENING

-  上盖螺栓更容易打开



-  HEATING RESISTOR:
  - Managed by control board to guarantee the right internal temperature.


-  加热电阻器
  - 控制板负责保证内部正确的温度。

ELECTRIC ACTUATORS VERSIONS	- 电动执行机构类型
Standard version 0°-90° (upon 0°-180° o 0°-270°)	标准型0° -90° (0° -180° /0° -270° 另询)
Version with fail-safe operation N.C. (battery backup)	失效保护操作型(带蓄电池)
Version with standard (4 ÷ 20mA o 0 ÷ 10V) or reverse (20 ÷ 4mA o 10 ÷ 0V) mode positioner	带定位器(4-20mA或0-10V)或反向(20-4mA或10-0V)
Version with potentiometer	带电位计
Version with middle position	中间位置型

 The new series 86 actuators, with metal enclosure, are designed and manufactured for the automation of ball and butterfly valves. Our experience, applied to careful research and accurate design, is a reliable guarantee of quality and functionality over time.

The series is produced with the following characteristics:

- the enclosure is made of die cast aluminum coated with polyester powder;
- the gear train is made of steel and techno-polymer gear wheels, supported by hardened steel pinions, mounted on self-lubricating bushes. All the components are inserted in a strong structure of die-cast aluminum;
- the connection part of the actuators with the valves meets the ISO5211-DIN 3337 standard requirements;
- the electronic circuit adjusts automatically the motor speed, depending on the mechanical load variations. This ensures consistent cycle time.
- the whole range of actuators is provided with an electronic safety system for the torque control (torque limiter);
- the whole range of actuators is standard provided of heater, activated when the actuator is powered;
- the whole range of actuators can be supplied with positioner, programmable in standard (4-20mA or 0-10V) or reverse (20-4mA or 10-0V) mode;
- all electric actuators can be equipped with rotary potentiometer (5KΩ 1W);
- the whole range of actuators can be supplied with battery backup for failsafe operation (except model with 12VAC/DC power supply);
- Optional middle position operation available for all versions.

 新的86系列的执行器，具有金属外壳，且是为自动化的球阀和蝶阀设计与制造的。

我们所有的经验都应用到仔细的研究和精确的设计上，久而久之也是质量与功能可靠的保证。

这系列产品具有以下特性：

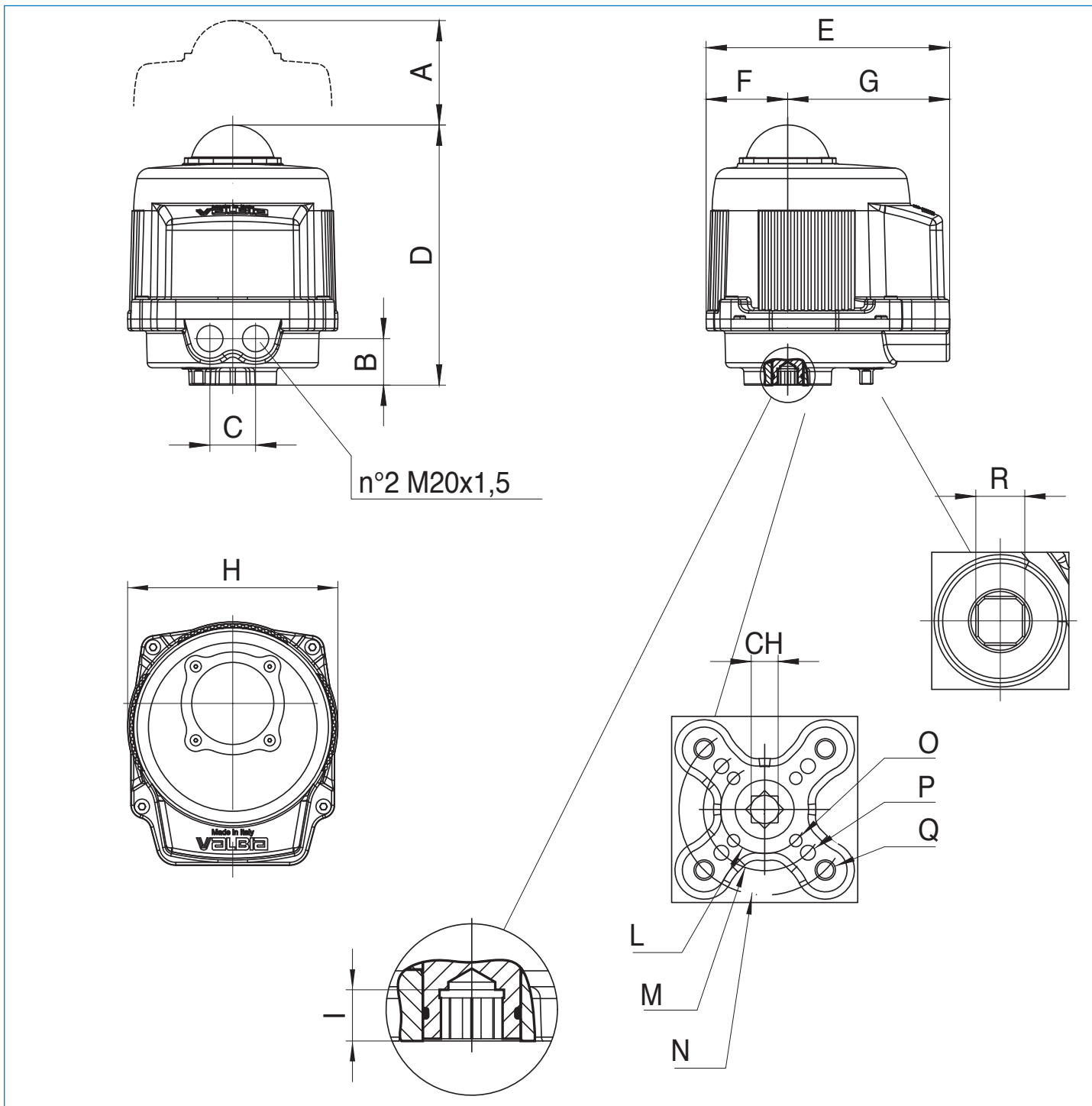
- 外壳采用聚酯粉末的铝合金；
  - 齿轮传运是由钢制聚合物齿轮和能承受硬化钢的小齿轮，安装在自润滑的轴衬上。
- 所有的元件都嵌入了一个强大的铸铝结构中。
- 执行器与阀门的连接部位符合ISO5211-DIN3337标准要求。
  - 电子电路根据机械负载变化会自动调整电动机的转速，从而达到驱动周期维持一致。
  - 所有的执行器都为扭矩控制提供一个电子安全系统（扭矩限制器）。
  - 所有的执行器都提供加热器，当驱动执行机构通电时激活。
  - 所有的执行器都具备电位计，且可在标准模式下编程（4-20 mA 或 0-10V）或者反向（20-4 mA 或 10-0V）；
  - 所有的执行器都可配备旋转电位计（5KΩ 1W）。
  - 所有的执行器都可配备蓄电池以备失效保护控制（除了12VAC/DC电压系列外）。
  - 中间位置操作可选适用于所有的版本的执行机构。

MODEL - 型号		VB030M	VB060M	VB110M	VB190M	VB270M	VB350M
MAX WORKING TORQUE (Nm) 最大工作扭矩(Nm)		30	60	110	190	270	350
NOMINAL VOLTAGE (V) -电压(V)	LOW VOLTAGE - 低压	12V AC/DC 24V AC/DC	12V AC/DC 24V AC/DC	12V AC/DC 24V AC/DC	12V AC/DC 24V AC/DC	12V AC/DC 24V AC/DC	12V AC/DC 24V AC/DC
	MULTIVOLTAGE - 高压	100-240V AC	100-240V AC	100-240V AC	100-240V AC	100-240V AC	100-240V AC
WORKING TIME (sec) - 工作时间(sec)		8	9	27	27	50	50
TORQUE LIMITER - 扭矩限制器		STD	STD	STD	STD	STD	STD
DUTY RATING - 负荷系数		12V AC/DC	50%	50%	50%	50%	50%
		24V AC/DC	75%	75%	75%	75%	75%
		100-240V AC					
PROTECTION (IP rating/UL) - 防护等级(IP 系列/UL)		IP67/Type4	IP67/Type4	IP67/Type4	IP67/Type4	IP67/Type4	IP67/Type4
ENCLOSURE - 外壳		Aluminium - 铝	Aluminium - 铝	Aluminium - 铝	Aluminium - 铝	Aluminium - 铝	Aluminium - 铝
ROTATION - 旋转角度		90°	90°	90°	90°	90°	90°
END MECHANICAL STOPS (only reg.0-90°) - 机械限位(仅适用于0-90度)		NO	NO	STD	STD	STD	STD
UPON REQUEST ROTATION - 可选的旋转角度		180° or 270°	180° or 270°	180° or 270°	180° or 270°	180° or 270°	180° or 270°
MANUAL OVERRIDE - 手动操作		STD 10mm	STD 10mm	STD with hand wheel 带手轮	STD with hand wheel 带手轮	STD with hand wheel 带手轮	STD with hand wheel 带手轮
DOME POSITION INDICATOR - 圆顶型的位置指示器		STD	STD	STD	STD	STD	STD
WORKING TEMPERATURE - 工作温度		-20°C + 55°C	-20°C + 55°C	-20°C + 55°C	-20°C + 55°C	-20°C + 55°C	-20°C + 55°C
HEATER - 加热器		STD	STD	STD	STD	STD	STD
ADDITIONAL FREE LIMIT SWITCHES - 附加的自由限位开关		n°2 STD (type SPDT)	n°2 STD (type SPDT)	n°2 STD (type SPDT)	n°2 STD (type SPDT)	n°2 STD (type SPDT)	n°2 STD (type SPDT)
DRILLING ISO 5211 - 孔径标准ISO 5211		F03-F05-F07	F05 - F07	F07 - F10	F07 - F10	F07 - F10	F07 - F10
SQUARE (mm) - 连接方(mm)		11	14	17	17	22	22
OPTIONAL SQUARE (mm) - 连接方可选(mm)		9-14	11-17	14-22	14-22	17	17
FAIL-SAFE OPERATION (BATTERY BACKUP) -失效保护操作(带蓄电池)		UPON REQUEST 可选	UPON REQUEST 可选	UPON REQUEST 可选	UPON REQUEST 可选	UPON REQUEST 可选	UPON REQUEST 可选
		NOT AVAILABLE FOR MOD. 12V - 12V的不适用					
STD (4~20mA or 0~10 VDC) REVERSE (20~4mA or 10~0 VDC) MODE POSITIONER -定位器标准(4-20mA 或0-10VDC)反向(20-4mA 或10-0VDC)		UPON REQUEST 可选	UPON REQUEST 可选	UPON REQUEST 可选	UPON REQUEST 可选	UPON REQUEST 可选	UPON REQUEST 可选
ROTARY POTENTIOMETER (5K Ω 1W) - 旋转电位计(5K 1W)		UPON REQUEST 可选	UPON REQUEST 可选	UPON REQUEST 可选	UPON REQUEST 可选	UPON REQUEST 可选	UPON REQUEST 可选
MIDDLE POSITION - 中间位置		UPON REQUEST 可选	UPON REQUEST 可选	UPON REQUEST 可选	UPON REQUEST 可选	UPON REQUEST 可选	UPON REQUEST 可选
ELECTRIC CABLE ENTRIES - 电气线缆接口		N°2 M20X1,5	N°2 M20X1,5	N°2 M20X1,5	N°2 M20X1,5	N°2 M20X1,5	N°2 M20X1,5
WEIGHT (Kg) - 重量(Kg)		3,3	4,5	8,5	8,5	9,5	9,5

### DATI DI CONSUMO ATTUATORE ELETTRICO - ELECTRIC ACTUATOR CONSUME DATA

MODEL - 型号		VB030M	VB060M	VB110M	VB190M	VB270M	VB350M
VERSION H -H型	NOMINAL VOLTAGE - 额定电压	100-240V AC					
	ABSORBED CURRENT - 实际电流	0,4-0,2 A	0,6-0,3 A	0,4-0,2 A	0,6-0,3 A	0,6-0,3 A	0,75-0,4 A
	ABSORBED POWER - 实际功率	40-48 VA	60-72 VA	40-48 VA	60-72 VA	60-72 VA	75-96 VA
VERSION L -L型	NOMINAL VOLTAGE - 额定电压	12V 24V AC/DC AC/DC	12V 24V AC/DC AC/DC	12V 24V AC/DC AC/DC	12V 24V AC/DC AC/DC	12V 24V AC/DC AC/DC	12V 24V AC/DC AC/DC
	ABSORBED CURRENT - 实际电流	2,2-1,8 A 1-0,7 A	3,8-2,85 A 1,8-1,2 A	2,2-1,8 A 1-0,7 A	3,8-2,85 A 1,8-1,2 A	3,8-2,85 A 1,8-1,2 A	4,75-3,65 A 1,95-1,65 A
	ABSORBED POWER - 实际功率	26,5-22 VA 24-17 VA	46-34 VA 43-29 VA	26,5-22 VA 24-17 VA	46-34 VA 43-29 VA	46-34 VA 43-29 VA	57-44 VA 47-40 VA
FREQUENCY - 频率		50/60 HZ					

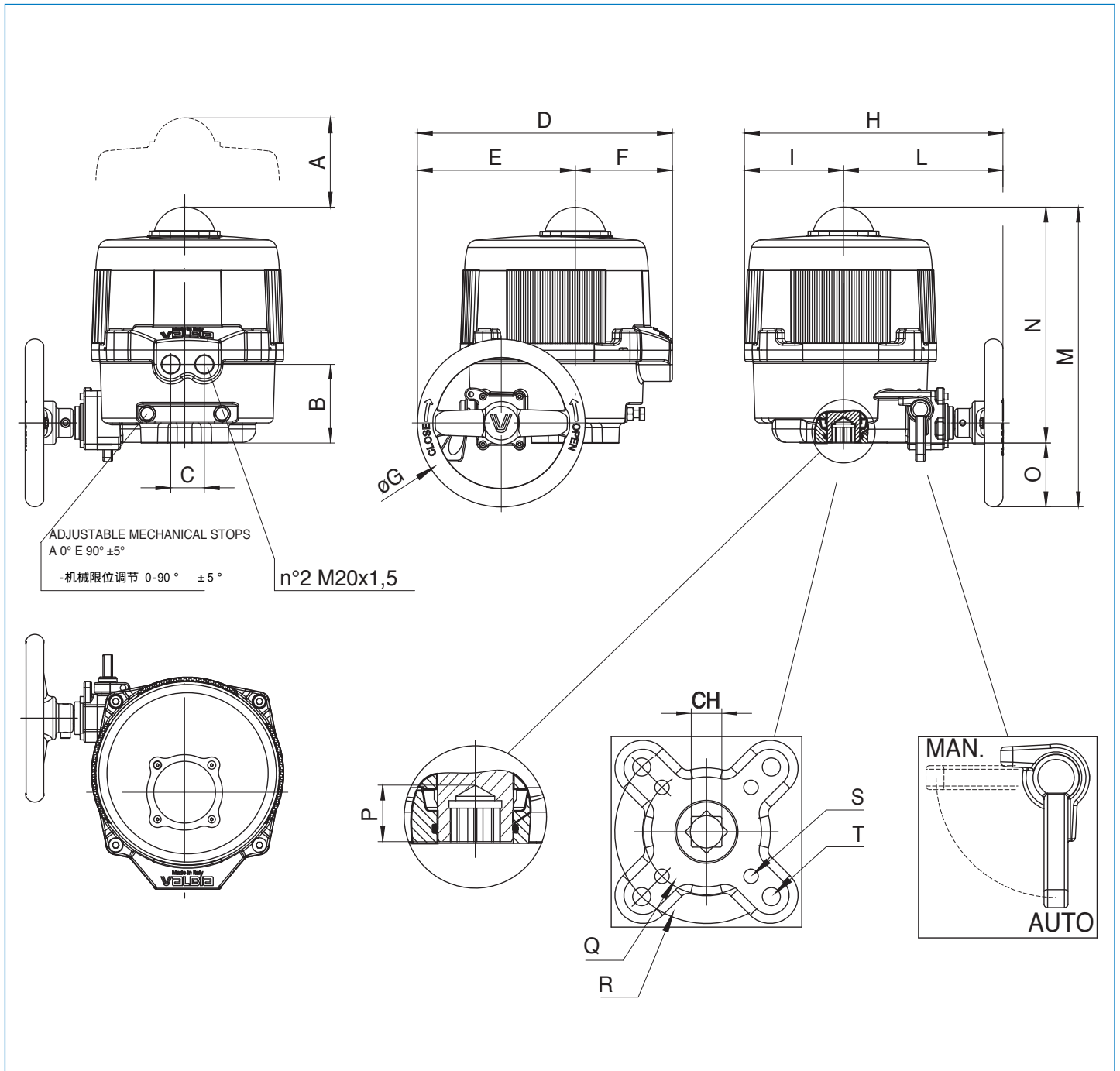
# MOD. VB030M – VB060M



MOD. 型号	ISO 5211 FLANGE 法兰 ISO5211	CH	A	B	C	D	E	F	G	H	I	L	M	N	O	∅P	Q	R
VB030M	F03-F05-F07	11	139	36	35	199	187	63	124	161	12	36	50	70	M5X8	M6X10	M8X11	10
VB060M	F05-F07	14	139	56	35	220	197	63	134	176	16	-	50	70	-	M6X14	M8X15	10



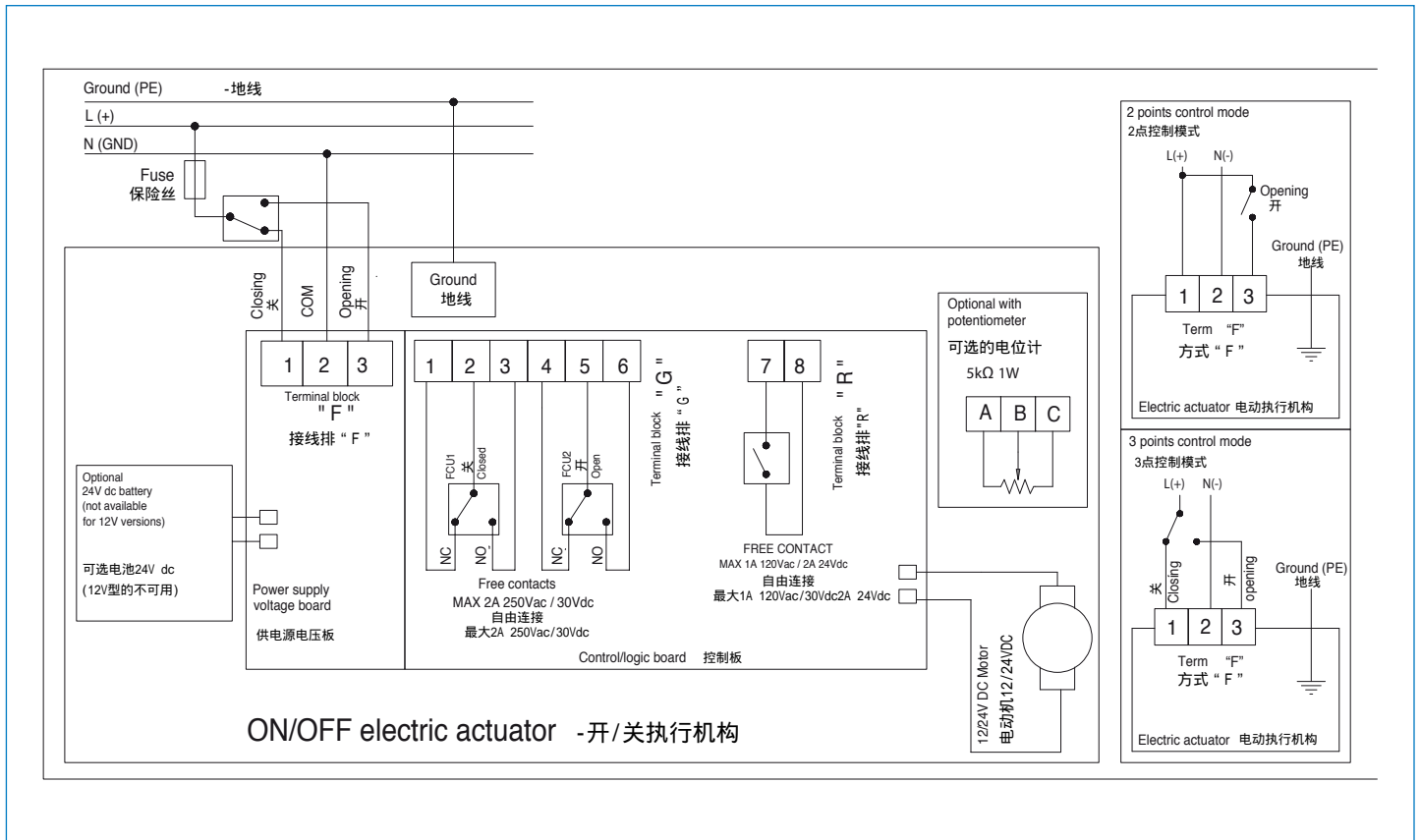
# MOD. VB110M ÷ VB350M



MOD. 型号	ISO 5211 FLANGE 法兰 ISO5211	CH	A	B	C	D	E	F	G	H	I	L	M	N	O	P	Q	R	S	T
VB110M	F07-F10	17	139	82	35	266	165	101	175	270	103	167	313	246	67	19	70	102	M8X15	M10X15
VB190M	F07-F10	17	139	82	35	266	165	101	175	270	103	167	313	246	67	19	70	102	M8X15	M10X15
VB270M	F07-F10	22	139	83	35	279	184	95	175	275	109	166	314	247	67	24	70	102	M8X15	M10X15
VB350M	F07-F10	22	139	83	35	279	184	95	175	275	109	166	314	247	67	24	70	102	M8X15	M10X15

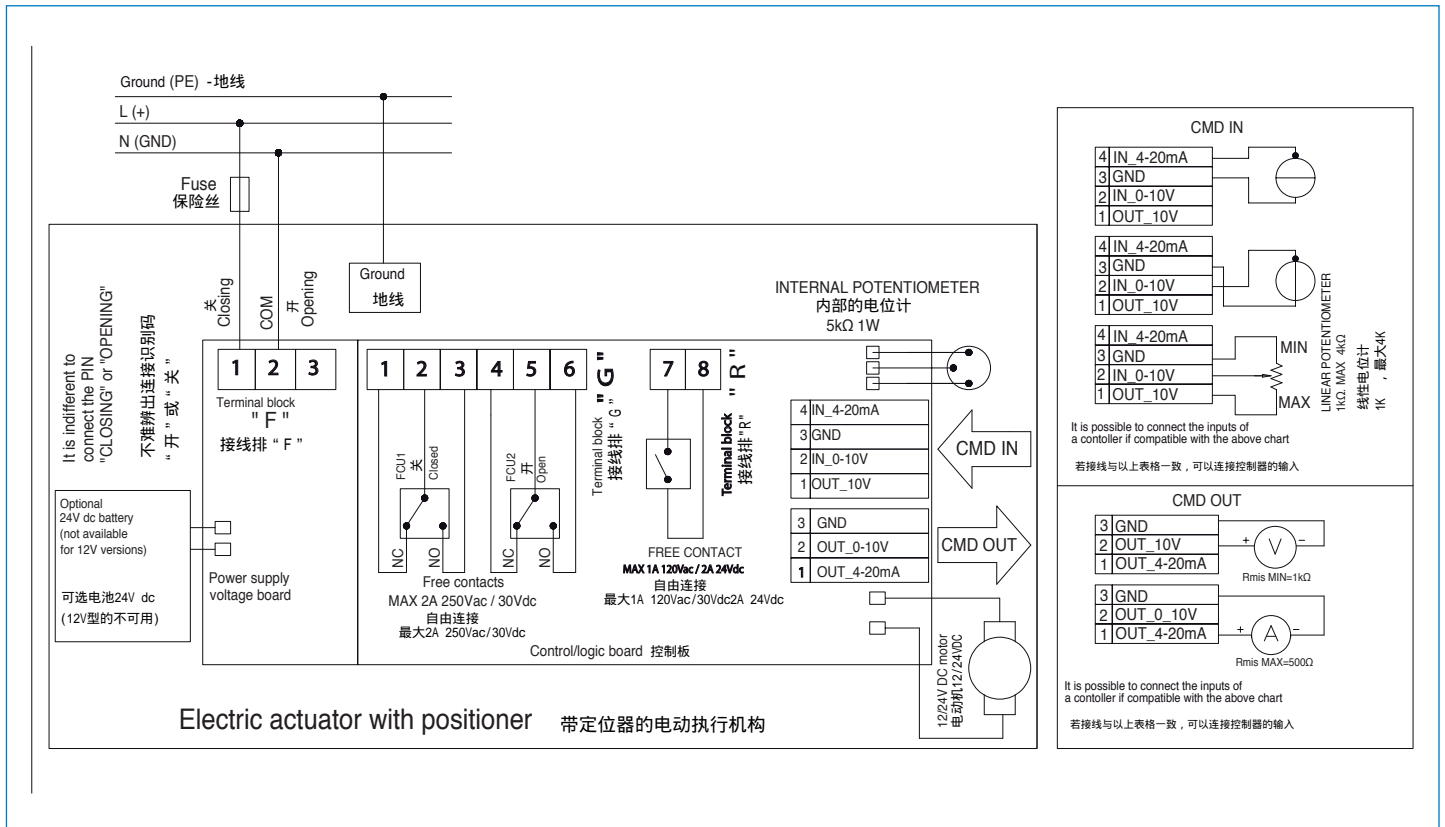
**ELECTRIC WIRING FROM VB030M TO VB350M 12V AC/DC 50/60 Hz, 24V AC/DC 50/60 Hz, 100-240V AC 50/60 Hz**

电线线路图从VB030M到VB350M 12V AC/DC 50/60Hz, 24V AC/DC 50/60Hz, 100-240V AC 50/60Hz



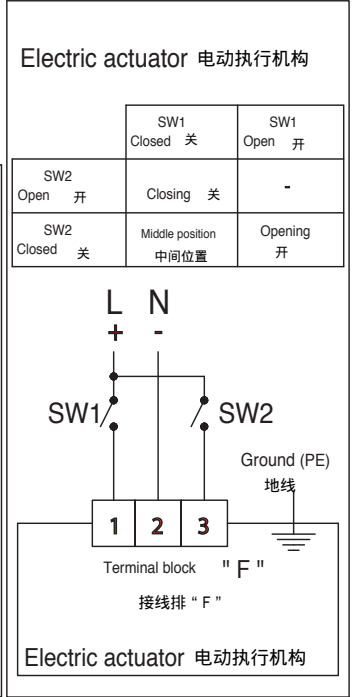
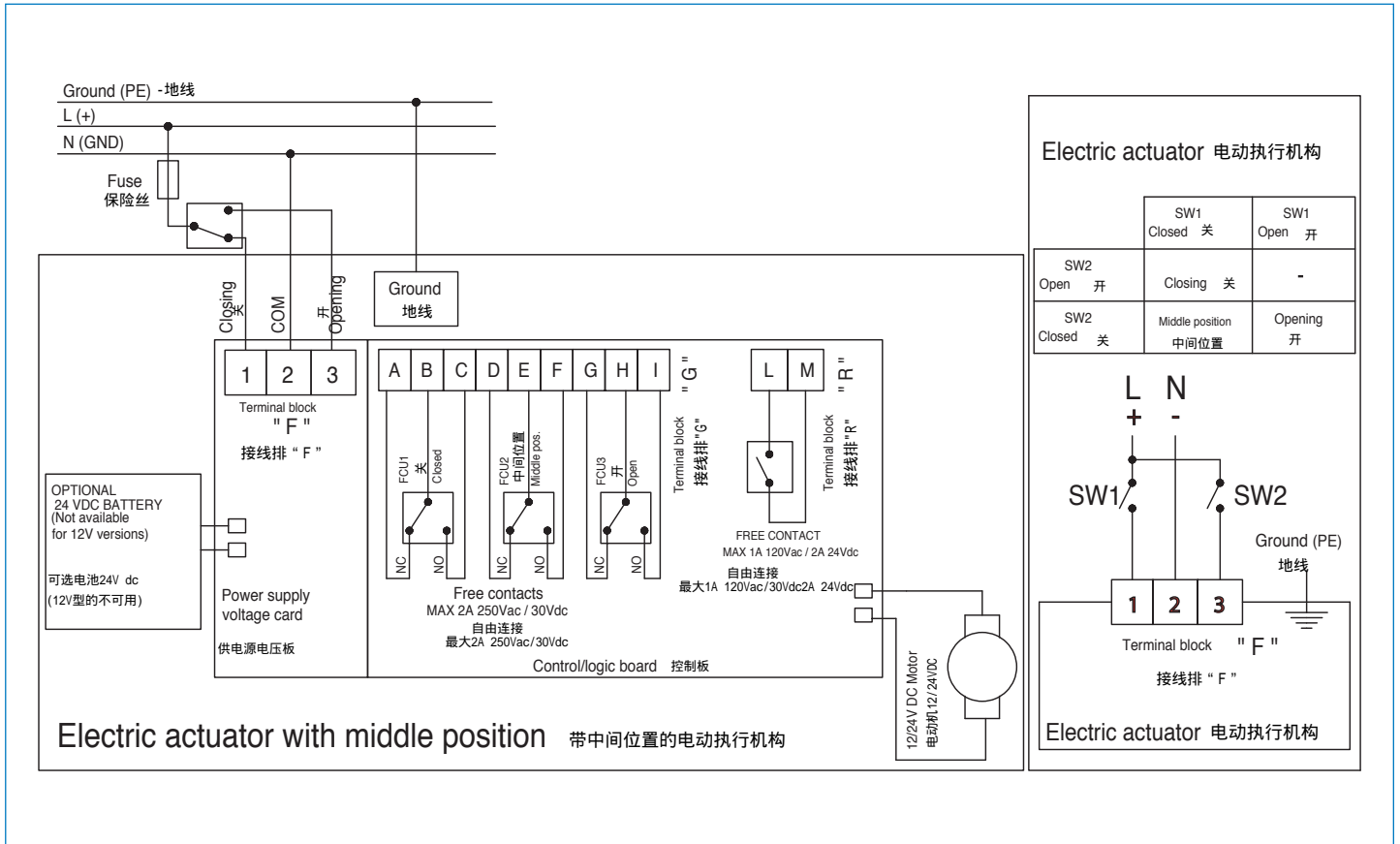
**ELECTRIC WIRING WITH POSITIONER FROM VB030M TO VB350M 12V AC/DC 50/60 Hz, 24V AC/DC 50/60 Hz, 100-240V AC 50/60 Hz**

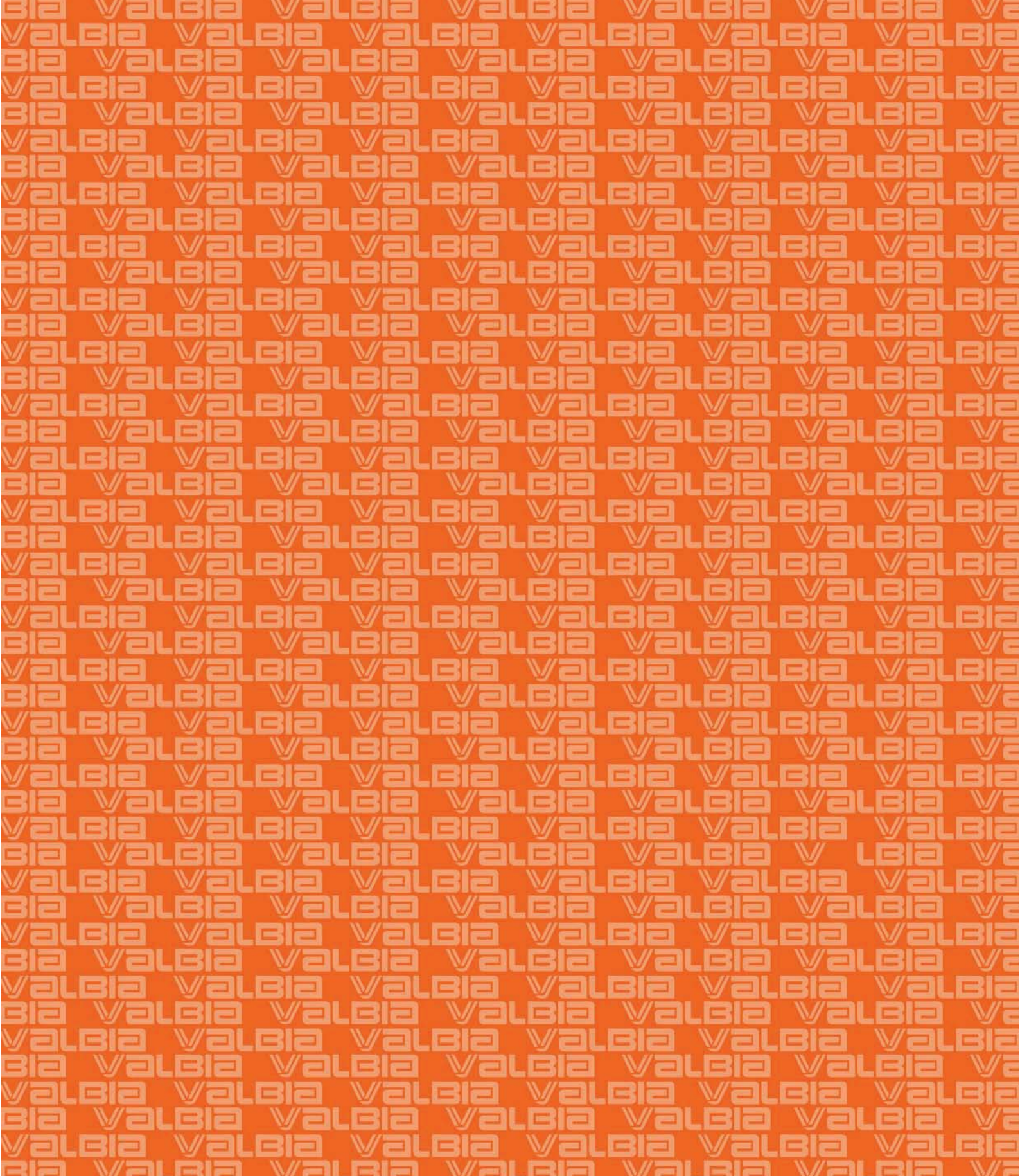
带定位器的电线线路图从VB030M到VB350M 12V AC/DC 50/60Hz, 24V AC/DC 50/60Hz, 100-240V AC 50/60Hz



**ELECTRIC WIRING WITH MIDDLE POSITION FROM VB030M AL VB350M 12V AC/DC 50/60Hz, 24V AC/DC 50/60Hz, 100-240V AC 50/60Hz**

带中间位置的电线线路图从VB030M到VB350M 12V AC/DC 50/60Hz, 24V AC/DC 50/60Hz, 100-240V AC 50/60Hz





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La presente documentazione annulla e sostituisce tutte le edizioni precedenti.

To ensure the quality and technical standards at the highest level, the manufacturer reserves the right to alter the specifications without notice.

This documentation supersedes and replaces all previous editions.