

2015 年 11 月 6 日

松下电器产业株式会社  
汽车电子和机电系统公司  
智能生产科技事业部  
马达经营单位

## AC 伺服电机&驱动器

### MINAS A6 系列全新发售通知

敬启 正值清秋时节，平素承蒙关照，深表谢意。

关于标题事宜，为响应实现产业机械设备、工业用机器人等“高速化”“高精度化”的市场需求，本公司将发售 AC 伺服电机&驱动器 MINAS A6 系列。

本系列商品囊括了实现了小型化的电机和进一步升级的伺服性能，将为顾客生产效率的提高做出贡献。希望今后继续支持和帮助本公司扩大产品的销售。

谨启

1. 发售：2015 年 11 月 20 日

2. 商品特点

2-1. 业界最小、最轻量<sup>(※1)</sup> 的伺服电机和业界响应最快<sup>(※2)</sup> 的伺服驱动器

- 伺服电机主体长 67.5mm（相比本公司旧产品<sup>(※3)</sup>：减少 30%） MHMF 型 200 W
- 伺服电机重量 750g（相比本公司旧产品<sup>(※3)</sup>：减少 20%） MHMF 型 200 W
- 伺服驱动器速度响应频率 3.2kHz（相比本公司旧产品<sup>(※4)</sup>：提速 30%）
- 多功能实时自动调整
- 全自动调整（Fit Gain） = 通过安装调试软件“PANATERM”进行对应

2-2. 产品阵容中加入了实现业界最高级别<sup>(※2)</sup> 的通信周期的网络驱动器（RTEX[3]）

- 将为机械、设备的网络化、配线精简化做贡献。
- 最短通信周期 62.5 μs（相比本公司旧产品<sup>(※4)</sup>：缩短 25%）  
(※1) 截至 2015 年 10 月的伺服电机（输出 200 W）。本公司调查结果  
(※2) 截至 2015 年 10 月的伺服驱动器（输出 200 W）。本公司调查结果  
(※3) 与本公司旧产品 MINAS A5 系列 伺服电机（输出 200 W）的比较  
(※4) 与本公司旧产品 MINAS A5 系列 伺服驱动器的比较

【用途】半导体制造设备、液晶制造设备、工业用机器人、电子部件实装机、机床等

3. 输出范围 50 W～5.0 kW / 电压 100 V～200 V

- 标准装配 23bit 绝对式编码器
- 最高转速 6500 r/min（400 W 以下 MHMF 型和 MQMF 型）

2016 年以后 扩充商品阵容，随时发售

4. 机种品号、价格、订购形式

请参照 4/35 页以后。

有关价格，请咨询本公司销售人员。

\*) 未记载与现行机种共用的选购品。

\*) 机种名末尾带 M 的电机请另行咨询。

## 5. 外形尺寸、规格

请参照本公司主页 MINAS A6 系列。

<http://industrial.panasonic.cn/ea/products/motors-compressors/fa-motors>

## 6. 其他

\*) 安装调试软件“PANATERM”可从主页下载（免费）。

关于通信线缆，请购买市场上销售的 mini USB 线缆。



超高速网络 MINAS A6N 系列

Realtime Express (RTEX) AC 伺服电机&AC 伺服驱动器  
输出 : 200 W



MINAS A6 系列 AC 伺服电机&AC 伺服驱动器  
输出 : 50 W ~ 5.0 kW

完毕

## ■型号的识别方法

### · 伺服电机

| 1   | 2   | 3         | 4     | 5     | 6  | 7  | 8           | 9      | 10                              | 11  | 12    |       |             |       |        |        |  |  |    |           |   |   |   |   |             |     |    |    |   |   |             |       |        |    |   |  |   |  |  |  |  |   |    |   |   |   |   |   |   |    |   |  |   |   |  |  |  |   |    |   |   |   |   |   |   |    |  |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |   |   |   |   |   |  |   |                                 |  |  |  |  |  |       |   |   |   |   |   |   |  |   |                                 |  |  |  |  |  |       |   |   |   |   |   |   |  |   |  |  |  |  |  |  |       |   |   |   |   |   |   |  |   |  |  |  |  |  |  |    |   |   |   |   |   |   |  |   |  |  |  |  |  |  |    |   |   |   |   |   |   |  |   |  |  |  |  |  |  |       |   |   |   |   |   |   |  |   |  |  |  |  |  |  |    |   |   |   |   |   |   |  |   |  |  |  |  |  |  |   |  |
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| M   | S   | M         | F     | 0     | 2  | 2  | L           | 1      | A                               | 1   | *     | 订制品符号 |             |       |        |        |  |  |    |           |   |   |   |   |             |     |    |    |   |   |             |       |        |    |   |  |   |  |  |  |  |   |    |   |   |   |   |   |   |    |   |  |   |   |  |  |  |   |    |   |   |   |   |   |   |    |  |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |   |   |   |   |   |  |   |                                 |  |  |  |  |  |       |   |   |   |   |   |   |  |   |                                 |  |  |  |  |  |       |   |   |   |   |   |   |  |   |  |  |  |  |  |  |       |   |   |   |   |   |   |  |   |  |  |  |  |  |  |    |   |   |   |   |   |   |  |   |  |  |  |  |  |  |    |   |   |   |   |   |   |  |   |  |  |  |  |  |  |       |   |   |   |   |   |   |  |   |  |  |  |  |  |  |    |   |   |   |   |   |   |  |   |  |  |  |  |  |  |   |  |
| <b>① 电机类型</b>   |     |           |       |       |    |    |             |        |                                 |     |       |       |             |       |        |        |  |  |    |           |   |   |   |   |             |     |    |    |   |   |             |       |        |    |   |  |   |  |  |  |  |   |    |   |   |   |   |   |   |    |   |  |   |   |  |  |  |   |    |   |   |   |   |   |   |    |  |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |   |   |   |   |   |  |   |                                 |  |  |  |  |  |       |   |   |   |   |   |   |  |   |                                 |  |  |  |  |  |       |   |   |   |   |   |   |  |   |  |  |  |  |  |  |       |   |   |   |   |   |   |  |   |  |  |  |  |  |  |    |   |   |   |   |   |   |  |   |  |  |  |  |  |  |    |   |   |   |   |   |   |  |   |  |  |  |  |  |  |       |   |   |   |   |   |   |  |   |  |  |  |  |  |  |    |   |   |   |   |   |   |  |   |  |  |  |  |  |  |   |  |
| <b>② 电机额定输出</b>   |     |           |       |       |    |    |             |        |                                 |     |       |       |             |       |        |        |  |  |    |           |   |   |   |   |             |     |    |    |   |   |             |       |        |    |   |  |   |  |  |  |  |   |    |   |   |   |   |   |   |    |   |  |   |   |  |  |  |   |    |   |   |   |   |   |   |    |  |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |   |   |   |   |   |  |   |                                 |  |  |  |  |  |       |   |   |   |   |   |   |  |   |                                 |  |  |  |  |  |       |   |   |   |   |   |   |  |   |  |  |  |  |  |  |       |   |   |   |   |   |   |  |   |  |  |  |  |  |  |    |   |   |   |   |   |   |  |   |  |  |  |  |  |  |    |   |   |   |   |   |   |  |   |  |  |  |  |  |  |       |   |   |   |   |   |   |  |   |  |  |  |  |  |  |    |   |   |   |   |   |   |  |   |  |  |  |  |  |  |   |  |
| <b>③ 电压规格</b>   |     |           |       |       |    |    |             |        |                                 |     |       |       |             |       |        |        |  |  |    |           |   |   |   |   |             |     |    |    |   |   |             |       |        |    |   |  |   |  |  |  |  |   |    |   |   |   |   |   |   |    |   |  |   |   |  |  |  |   |    |   |   |   |   |   |   |    |  |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |   |   |   |   |   |  |   |                                 |  |  |  |  |  |       |   |   |   |   |   |   |  |   |                                 |  |  |  |  |  |       |   |   |   |   |   |   |  |   |  |  |  |  |  |  |       |   |   |   |   |   |   |  |   |  |  |  |  |  |  |    |   |   |   |   |   |   |  |   |  |  |  |  |  |  |    |   |   |   |   |   |   |  |   |  |  |  |  |  |  |       |   |   |   |   |   |   |  |   |  |  |  |  |  |  |    |   |   |   |   |   |   |  |   |  |  |  |  |  |  |   |  |
| <b>④ 旋转式编码器规格</b>   |     |           |       |       |    |    |             |        |                                 |     |       |       |             |       |        |        |  |  |    |           |   |   |   |   |             |     |    |    |   |   |             |       |        |    |   |  |   |  |  |  |  |   |    |   |   |   |   |   |   |    |   |  |   |   |  |  |  |   |    |   |   |   |   |   |   |    |  |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |   |   |   |   |   |  |   |                                 |  |  |  |  |  |       |   |   |   |   |   |   |  |   |                                 |  |  |  |  |  |       |   |   |   |   |   |   |  |   |  |  |  |  |  |  |       |   |   |   |   |   |   |  |   |  |  |  |  |  |  |    |   |   |   |   |   |   |  |   |  |  |  |  |  |  |    |   |   |   |   |   |   |  |   |  |  |  |  |  |  |       |   |   |   |   |   |   |  |   |  |  |  |  |  |  |    |   |   |   |   |   |   |  |   |  |  |  |  |  |  |   |  |
| <b>⑤ 设计顺序</b>   |     |           |       |       |    |    |             |        |                                 |     |       |       |             |       |        |        |  |  |    |           |   |   |   |   |             |     |    |    |   |   |             |       |        |    |   |  |   |  |  |  |  |   |    |   |   |   |   |   |   |    |   |  |   |   |  |  |  |   |    |   |   |   |   |   |   |    |  |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |   |   |   |   |   |  |   |                                 |  |  |  |  |  |       |   |   |   |   |   |   |  |   |                                 |  |  |  |  |  |       |   |   |   |   |   |   |  |   |  |  |  |  |  |  |       |   |   |   |   |   |   |  |   |  |  |  |  |  |  |    |   |   |   |   |   |   |  |   |  |  |  |  |  |  |    |   |   |   |   |   |   |  |   |  |  |  |  |  |  |       |   |   |   |   |   |   |  |   |  |  |  |  |  |  |    |   |   |   |   |   |   |  |   |  |  |  |  |  |  |   |  |
| <b>⑥ 电机构造规格 MSMF,MHMF,MQMF 系列 (输出: 50 W ~ 1.0 kW)</b>   |     |           |       |       |    |    |             |        |                                 |     |       |       |             |       |        |        |  |  |    |           |   |   |   |   |             |     |    |    |   |   |             |       |        |    |   |  |   |  |  |  |  |   |    |   |   |   |   |   |   |    |   |  |   |   |  |  |  |   |    |   |   |   |   |   |   |    |  |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |   |   |   |   |   |  |   |                                 |  |  |  |  |  |       |   |   |   |   |   |   |  |   |                                 |  |  |  |  |  |       |   |   |   |   |   |   |  |   |  |  |  |  |  |  |       |   |   |   |   |   |   |  |   |  |  |  |  |  |  |    |   |   |   |   |   |   |  |   |  |  |  |  |  |  |    |   |   |   |   |   |   |  |   |  |  |  |  |  |  |       |   |   |   |   |   |   |  |   |  |  |  |  |  |  |    |   |   |   |   |   |   |  |   |  |  |  |  |  |  |   |  |
| <b>⑦ 电机构造规格 MSMF,MHMF,MQMF,MHMF 系列 (输出: 0.50 W ~ 5.0 kW)</b>  |     |           |       |       |    |    |             |        |                                 |     |       |       |             |       |        |        |  |  |    |           |   |   |   |   |             |     |    |    |   |   |             |       |        |    |   |  |   |  |  |  |  |   |    |   |   |   |   |   |   |    |   |  |   |   |  |  |  |   |    |   |   |   |   |   |   |    |  |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |   |   |   |   |   |  |   |                                 |  |  |  |  |  |       |   |   |   |   |   |   |  |   |                                 |  |  |  |  |  |       |   |   |   |   |   |   |  |   |  |  |  |  |  |  |       |   |   |   |   |   |   |  |   |  |  |  |  |  |  |    |   |   |   |   |   |   |  |   |  |  |  |  |  |  |    |   |   |   |   |   |   |  |   |  |  |  |  |  |  |       |   |   |   |   |   |   |  |   |  |  |  |  |  |  |    |   |   |   |   |   |   |  |   |  |  |  |  |  |  |   |  |
| <table border="1"> <thead> <tr> <th>符号</th><th colspan="2">轴规格</th><th colspan="2">保持制动器</th><th colspan="2">油封</th><th colspan="2">电机 I/F</th><th colspan="2">轴规格</th><th colspan="2">保持制动器</th><th colspan="2">油封</th><th colspan="2">编码器连接器</th> </tr> <tr> <th></th><th>直轴</th><th>带键<br/>带键纹</th><th>无</th><th>有</th><th>无</th><th>有</th><th>有<br/>(带保护唇)</th><th>连接器</th><th>直轴</th><th>带键</th><th>无</th><th>有</th><th>有<br/>(带保护唇)</th><th>JN2#2</th><th>JL10#3</th> </tr> </thead> <tbody> <tr><td>A1</td><td>●</td><td></td><td>●</td><td></td><td></td><td></td><td></td><td>●</td><td>C5</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td></tr> <tr><td>A2</td><td>●</td><td></td><td>●</td><td>●</td><td></td><td></td><td></td><td>●</td><td>C6</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td></tr> <tr><td>B1</td><td></td><td></td><td>●</td><td>●</td><td>●</td><td>●</td><td></td><td>●</td><td>C7</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td></tr> <tr><td>B2</td><td>●</td><td></td><td>●</td><td>●</td><td>●</td><td>●</td><td></td><td>●</td><td>C8</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td></tr> <tr><td>C1</td><td>●</td><td></td><td>●</td><td>●</td><td>●</td><td>●</td><td></td><td>●</td><td>D5</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td></tr> <tr><td>C2</td><td>●</td><td></td><td>●</td><td>●</td><td>●</td><td>●</td><td></td><td>●</td><td>D6</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td></tr> <tr><td>※1 C3</td><td>●</td><td></td><td>●</td><td>●</td><td>●</td><td>●</td><td></td><td>●</td><td>D7</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td></tr> <tr><td>※1 C4</td><td>●</td><td></td><td>●</td><td>●</td><td>●</td><td>●</td><td></td><td>●</td><td>D8</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td></tr> <tr><td>※1 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| ● | ● | ● | B1 |  |  | ● | ● | ● | ● |  | ● | C7 | ● | ● | ● | ● | ● | ● | B2 | ● |  | ● | ● | ● | ● |  | ● | C8 | ● | ● | ● | ● | ● | ● | C1 | ● |  | ● | ● | ● | ● |  | ● | D5 | ● | ● | ● | ● | ● | ● | C2 | ● |  | ● | ● | ● | ● |  | ● | D6 | ● | ● | ● | ● | ● | ● | ※1 C3 | ● |  | ● | ● | ● | ● |  | ● | D7 | ● | ● | ● | ● | ● | ● | ※1 C4 | ● |  | ● | ● | ● | ● |  | ● | D8 | ● | ● | ● | ● | ● | ● | ※1 D1 | ● |  | ● | ● | ● | ● |  | ● | G5 | ● | ● | ● | ● | ● | ● | ※1 D2 | ● |  | ● | ● | ● | ● |  | ● | G6 | ● | ● | ● | ● | ● | ● | ※1 D3 | ● |  | ● | ● | ● | ● |  | ● | G7 | ● | ● | ● | ● | ● | ● | ※1 D4 | ● |  | ● | ● | ● | ● |  | ● | GB | ● | ● | ● | ● | ● | ● | S1 | ● | ● | ● | ● | ● | ● |  | ● | H5 | ● | ● | ● | ● | ● | ● | S2 | ● | ● | ● | ● | ● | ● |  | ● | H6 | ● | ● | ● | ● | ● | ● | T1 | ● | ● | ● | ● | ● | ● |  | ● | H7 | ● | ● | ● | ● | ● | ● | T2 | ● | ● | ● | ● | ● | ● |  | ● | HB | ● | ● | ● | ● | ● | ● | ※1 U1 | ● | ● | ● | ● | ● | ● |  | ● | ※2 日本航空电子工业株式会社制造 JN2AS10ML3-R. |  |  |  |  |  | ※1 U2 | ● | ● | ● | ● | ● | ● |  | ● | ※3 日本航空电子工业株式会社制造 JL10-2A20-29P |  |  |  |  |  | ※1 U3 | ● | ● | ● | ● | ● | ● |  | ● |  |  |  |  |  |  | ※1 U4 | ● | ● | ● | ● | ● | ● |  | ● |  |  |  |  |  |  | V1 | ● | ● | ● | ● | ● | ● |  | ● |  |  |  |  |  |  | V2 | ● | ● | ● | ● | ● | ● |  | ● |  |  |  |  |  |  | ※1 V3 | ● | ● | ● | ● | ● | ● |  | ● |  |  |  |  |  |  | V4 | ● | ● | ● | ● | ● | ● |  | ● |  |  |  |  |  |  | ※1 没有 MSMF 系列的阵营。带油时 (带保护唇) 的阵营电机由于外形不同, 请另行咨询。 |  |
| 符号  | 轴规格 |           | 保持制动器 |       | 油封 |    | 电机 I/F      |        | 轴规格                             |     | 保持制动器 |       | 油封          |       | 编码器连接器 |        |  |  |    |           |   |   |   |   |             |     |    |    |   |   |             |       |        |    |   |  |   |  |  |  |  |   |    |   |   |   |   |   |   |    |   |  |   |   |  |  |  |   |    |   |   |   |   |   |   |    |  |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |   |   |   |   |   |  |   |                                 |  |  |  |  |  |       |   |   |   |   |   |   |  |   |                                 |  |  |  |  |  |       |   |   |   |   |   |   |  |   |  |  |  |  |  |  |       |   |   |   |   |   |   |  |   |  |  |  |  |  |  |    |   |   |   |   |   |   |  |   |  |  |  |  |  |  |    |   |   |   |   |   |   |  |   |  |  |  |  |  |  |       |   |   |   |   |   |   |  |   |  |  |  |  |  |  |    |   |   |   |   |   |   |  |   |  |  |  |  |  |  |   |  |
|   | 直轴  | 带键<br>带键纹 | 无     | 有     | 无  | 有  | 有<br>(带保护唇) | 连接器    | 直轴                              | 带键  | 无     | 有     | 有<br>(带保护唇) | JN2#2 | JL10#3 |        |  |  |    |           |   |   |   |   |             |     |    |    |   |   |             |       |        |    |   |  |   |  |  |  |  |   |    |   |   |   |   |   |   |    |   |  |   |   |  |  |  |   |    |   |   |   |   |   |   |    |  |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |   |   |   |   |   |  |   |                                 |  |  |  |  |  |       |   |   |   |   |   |   |  |   |                                 |  |  |  |  |  |       |   |   |   |   |   |   |  |   |  |  |  |  |  |  |       |   |   |   |   |   |   |  |   |  |  |  |  |  |  |    |   |   |   |   |   |   |  |   |  |  |  |  |  |  |    |   |   |   |   |   |   |  |   |  |  |  |  |  |  |       |   |   |   |   |   |   |  |   |  |  |  |  |  |  |    |   |   |   |   |   |   |  |   |  |  |  |  |  |  |   |  |
| A1  | ●   |           | ●     |       |    |    |             | ●      | C5                              | ●   | ●     | ●     | ●           | ●     | ●      |        |  |  |    |           |   |   |   |   |             |     |    |    |   |   |             |       |        |    |   |  |   |  |  |  |  |   |    |   |   |   |   |   |   |    |   |  |   |   |  |  |  |   |    |   |   |   |   |   |   |    |  |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |   |   |   |   |   |  |   |                                 |  |  |  |  |  |       |   |   |   |   |   |   |  |   |                                 |  |  |  |  |  |       |   |   |   |   |   |   |  |   |  |  |  |  |  |  |       |   |   |   |   |   |   |  |   |  |  |  |  |  |  |    |   |   |   |   |   |   |  |   |  |  |  |  |  |  |    |   |   |   |   |   |   |  |   |  |  |  |  |  |  |       |   |   |   |   |   |   |  |   |  |  |  |  |  |  |    |   |   |   |   |   |   |  |   |  |  |  |  |  |  |   |  |
| A2  | ●   |           | ●     | ●     |    |    |             | ●      | C6                              | ●   | ●     | ●     | ●           | ●     | ●      |        |  |  |    |           |   |   |   |   |             |     |    |    |   |   |             |       |        |    |   |  |   |  |  |  |  |   |    |   |   |   |   |   |   |    |   |  |   |   |  |  |  |   |    |   |   |   |   |   |   |    |  |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |   |   |   |   |   |  |   |                                 |  |  |  |  |  |       |   |   |   |   |   |   |  |   |                                 |  |  |  |  |  |       |   |   |   |   |   |   |  |   |  |  |  |  |  |  |       |   |   |   |   |   |   |  |   |  |  |  |  |  |  |    |   |   |   |   |   |   |  |   |  |  |  |  |  |  |    |   |   |   |   |   |   |  |   |  |  |  |  |  |  |       |   |   |   |   |   |   |  |   |  |  |  |  |  |  |    |   |   |   |   |   |   |  |   |  |  |  |  |  |  |   |  |
| B1  |     |           | ●     | ●     | ●  | ●  |             | ●      | C7                              | ●   | ●     | ●     | ●           | ●     | ●      |        |  |  |    |           |   |   |   |   |             |     |    |    |   |   |             |       |        |    |   |  |   |  |  |  |  |   |    |   |   |   |   |   |   |    |   |  |   |   |  |  |  |   |    |   |   |   |   |   |   |    |  |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |   |   |   |   |   |  |   |                                 |  |  |  |  |  |       |   |   |   |   |   |   |  |   |                                 |  |  |  |  |  |       |   |   |   |   |   |   |  |   |  |  |  |  |  |  |       |   |   |   |   |   |   |  |   |  |  |  |  |  |  |    |   |   |   |   |   |   |  |   |  |  |  |  |  |  |    |   |   |   |   |   |   |  |   |  |  |  |  |  |  |       |   |   |   |   |   |   |  |   |  |  |  |  |  |  |    |   |   |   |   |   |   |  |   |  |  |  |  |  |  |   |  |
| B2  | ●   |           | ●     | ●     | ●  | ●  |             | ●      | C8                              | ●   | ●     | ●     | ●           | ●     | ●      |        |  |  |    |           |   |   |   |   |             |     |    |    |   |   |             |       |        |    |   |  |   |  |  |  |  |   |    |   |   |   |   |   |   |    |   |  |   |   |  |  |  |   |    |   |   |   |   |   |   |    |  |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |   |   |   |   |   |  |   |                                 |  |  |  |  |  |       |   |   |   |   |   |   |  |   |                                 |  |  |  |  |  |       |   |   |   |   |   |   |  |   |  |  |  |  |  |  |       |   |   |   |   |   |   |  |   |  |  |  |  |  |  |    |   |   |   |   |   |   |  |   |  |  |  |  |  |  |    |   |   |   |   |   |   |  |   |  |  |  |  |  |  |       |   |   |   |   |   |   |  |   |  |  |  |  |  |  |    |   |   |   |   |   |   |  |   |  |  |  |  |  |  |   |  |
| C1  | ●   |           | ●     | ●     | ●  | ●  |             | ●      | D5                              | ●   | ●     | ●     | ●           | ●     | ●      |        |  |  |    |           |   |   |   |   |             |     |    |    |   |   |             |       |        |    |   |  |   |  |  |  |  |   |    |   |   |   |   |   |   |    |   |  |   |   |  |  |  |   |    |   |   |   |   |   |   |    |  |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |   |   |   |   |   |  |   |                                 |  |  |  |  |  |       |   |   |   |   |   |   |  |   |                                 |  |  |  |  |  |       |   |   |   |   |   |   |  |   |  |  |  |  |  |  |       |   |   |   |   |   |   |  |   |  |  |  |  |  |  |    |   |   |   |   |   |   |  |   |  |  |  |  |  |  |    |   |   |   |   |   |   |  |   |  |  |  |  |  |  |       |   |   |   |   |   |   |  |   |  |  |  |  |  |  |    |   |   |   |   |   |   |  |   |  |  |  |  |  |  |   |  |
| C2  | ●   |           | ●     | ●     | ●  | ●  |             | ●      | D6                              | ●   | ●     | ●     | ●           | ●     | ●      |        |  |  |    |           |   |   |   |   |             |     |    |    |   |   |             |       |        |    |   |  |   |  |  |  |  |   |    |   |   |   |   |   |   |    |   |  |   |   |  |  |  |   |    |   |   |   |   |   |   |    |  |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |   |   |   |   |   |  |   |                                 |  |  |  |  |  |       |   |   |   |   |   |   |  |   |                                 |  |  |  |  |  |       |   |   |   |   |   |   |  |   |  |  |  |  |  |  |       |   |   |   |   |   |   |  |   |  |  |  |  |  |  |    |   |   |   |   |   |   |  |   |  |  |  |  |  |  |    |   |   |   |   |   |   |  |   |  |  |  |  |  |  |       |   |   |   |   |   |   |  |   |  |  |  |  |  |  |    |   |   |   |   |   |   |  |   |  |  |  |  |  |  |   |  |
| ※1 C3   | ●   |           | ●     | ●     | ●  | ●  |             | ●      | D7                              | ●   | ●     | ●     | ●           | ●     | ●      |        |  |  |    |           |   |   |   |   |             |     |    |    |   |   |             |       |        |    |   |  |   |  |  |  |  |   |    |   |   |   |   |   |   |    |   |  |   |   |  |  |  |   |    |   |   |   |   |   |   |    |  |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |   |   |   |   |   |  |   |                                 |  |  |  |  |  |       |   |   |   |   |   |   |  |   |                                 |  |  |  |  |  |       |   |   |   |   |   |   |  |   |  |  |  |  |  |  |       |   |   |   |   |   |   |  |   |  |  |  |  |  |  |    |   |   |   |   |   |   |  |   |  |  |  |  |  |  |    |   |   |   |   |   |   |  |   |  |  |  |  |  |  |       |   |   |   |   |   |   |  |   |  |  |  |  |  |  |    |   |   |   |   |   |   |  |   |  |  |  |  |  |  |   |  |
| ※1 C4   | ●   |           | ●     | ●     | ●  | ●  |             | ●      | D8                              | ●   | ●     | ●     | ●           | ●     | ●      |        |  |  |    |           |   |   |   |   |             |     |    |    |   |   |             |       |        |    |   |  |   |  |  |  |  |   |    |   |   |   |   |   |   |    |   |  |   |   |  |  |  |   |    |   |   |   |   |   |   |    |  |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |   |   |   |   |   |  |   |                                 |  |  |  |  |  |       |   |   |   |   |   |   |  |   |                                 |  |  |  |  |  |       |   |   |   |   |   |   |  |   |  |  |  |  |  |  |       |   |   |   |   |   |   |  |   |  |  |  |  |  |  |    |   |   |   |   |   |   |  |   |  |  |  |  |  |  |    |   |   |   |   |   |   |  |   |  |  |  |  |  |  |       |   |   |   |   |   |   |  |   |  |  |  |  |  |  |    |   |   |   |   |   |   |  |   |  |  |  |  |  |  |   |  |
| ※1 D1   | ●   |           | ●     | ●     | ●  | ●  |             | ●      | G5                              | ●   | ●     | ●     | ●           | ●     | ●      |        |  |  |    |           |   |   |   |   |             |     |    |    |   |   |             |       |        |    |   |  |   |  |  |  |  |   |    |   |   |   |   |   |   |    |   |  |   |   |  |  |  |   |    |   |   |   |   |   |   |    |  |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |   |   |   |   |   |  |   |                                 |  |  |  |  |  |       |   |   |   |   |   |   |  |   |                                 |  |  |  |  |  |       |   |   |   |   |   |   |  |   |  |  |  |  |  |  |       |   |   |   |   |   |   |  |   |  |  |  |  |  |  |    |   |   |   |   |   |   |  |   |  |  |  |  |  |  |    |   |   |   |   |   |   |  |   |  |  |  |  |  |  |       |   |   |   |   |   |   |  |   |  |  |  |  |  |  |    |   |   |   |   |   |   |  |   |  |  |  |  |  |  |   |  |
| ※1 D2   | ●   |           | ●     | ●     | ●  | ●  |             | ●      | G6                              | ●   | ●     | ●     | ●           | ●     | ●      |        |  |  |    |           |   |   |   |   |             |     |    |    |   |   |             |       |        |    |   |  |   |  |  |  |  |   |    |   |   |   |   |   |   |    |   |  |   |   |  |  |  |   |    |   |   |   |   |   |   |    |  |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |   |   |   |   |   |  |   |                                 |  |  |  |  |  |       |   |   |   |   |   |   |  |   |                                 |  |  |  |  |  |       |   |   |   |   |   |   |  |   |  |  |  |  |  |  |       |   |   |   |   |   |   |  |   |  |  |  |  |  |  |    |   |   |   |   |   |   |  |   |  |  |  |  |  |  |    |   |   |   |   |   |   |  |   |  |  |  |  |  |  |       |   |   |   |   |   |   |  |   |  |  |  |  |  |  |    |   |   |   |   |   |   |  |   |  |  |  |  |  |  |   |  |
| ※1 D3   | ●   |           | ●     | ●     | ●  | ●  |             | ●      | G7                              | ●   | ●     | ●     | ●           | ●     | ●      |        |  |  |    |           |   |   |   |   |             |     |    |    |   |   |             |       |        |    |   |  |   |  |  |  |  |   |    |   |   |   |   |   |   |    |   |  |   |   |  |  |  |   |    |   |   |   |   |   |   |    |  |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |   |   |   |   |   |  |   |                                 |  |  |  |  |  |       |   |   |   |   |   |   |  |   |                                 |  |  |  |  |  |       |   |   |   |   |   |   |  |   |  |  |  |  |  |  |       |   |   |   |   |   |   |  |   |  |  |  |  |  |  |    |   |   |   |   |   |   |  |   |  |  |  |  |  |  |    |   |   |   |   |   |   |  |   |  |  |  |  |  |  |       |   |   |   |   |   |   |  |   |  |  |  |  |  |  |    |   |   |   |   |   |   |  |   |  |  |  |  |  |  |   |  |
| ※1 D4   | ●   |           | ●     | ●     | ●  | ●  |             | ●      | GB                              | ●   | ●     | ●     | ●           | ●     | ●      |        |  |  |    |           |   |   |   |   |             |     |    |    |   |   |             |       |        |    |   |  |   |  |  |  |  |   |    |   |   |   |   |   |   |    |   |  |   |   |  |  |  |   |    |   |   |   |   |   |   |    |  |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |   |   |   |   |   |  |   |                                 |  |  |  |  |  |       |   |   |   |   |   |   |  |   |                                 |  |  |  |  |  |       |   |   |   |   |   |   |  |   |  |  |  |  |  |  |       |   |   |   |   |   |   |  |   |  |  |  |  |  |  |    |   |   |   |   |   |   |  |   |  |  |  |  |  |  |    |   |   |   |   |   |   |  |   |  |  |  |  |  |  |       |   |   |   |   |   |   |  |   |  |  |  |  |  |  |    |   |   |   |   |   |   |  |   |  |  |  |  |  |  |   |  |
| S1  | ●   | ●         | ●     | ●     | ●  | ●  |             | ●      | H5                              | ●   | ●     | ●     | ●           | ●     | ●      |        |  |  |    |           |   |   |   |   |             |     |    |    |   |   |             |       |        |    |   |  |   |  |  |  |  |   |    |   |   |   |   |   |   |    |   |  |   |   |  |  |  |   |    |   |   |   |   |   |   |    |  |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |   |   |   |   |   |  |   |                                 |  |  |  |  |  |       |   |   |   |   |   |   |  |   |                                 |  |  |  |  |  |       |   |   |   |   |   |   |  |   |  |  |  |  |  |  |       |   |   |   |   |   |   |  |   |  |  |  |  |  |  |    |   |   |   |   |   |   |  |   |  |  |  |  |  |  |    |   |   |   |   |   |   |  |   |  |  |  |  |  |  |       |   |   |   |   |   |   |  |   |  |  |  |  |  |  |    |   |   |   |   |   |   |  |   |  |  |  |  |  |  |   |  |
| S2  | ●   | ●         | ●     | ●     | ●  | ●  |             | ●      | H6                              | ●   | ●     | ●     | ●           | ●     | ●      |        |  |  |    |           |   |   |   |   |             |     |    |    |   |   |             |       |        |    |   |  |   |  |  |  |  |   |    |   |   |   |   |   |   |    |   |  |   |   |  |  |  |   |    |   |   |   |   |   |   |    |  |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |   |   |   |   |   |  |   |                                 |  |  |  |  |  |       |   |   |   |   |   |   |  |   |                                 |  |  |  |  |  |       |   |   |   |   |   |   |  |   |  |  |  |  |  |  |       |   |   |   |   |   |   |  |   |  |  |  |  |  |  |    |   |   |   |   |   |   |  |   |  |  |  |  |  |  |    |   |   |   |   |   |   |  |   |  |  |  |  |  |  |       |   |   |   |   |   |   |  |   |  |  |  |  |  |  |    |   |   |   |   |   |   |  |   |  |  |  |  |  |  |   |  |
| T1  | ●   | ●         | ●     | ●     | ●  | ●  |             | ●      | H7                              | ●   | ●     | ●     | ●           | ●     | ●      |        |  |  |    |           |   |   |   |   |             |     |    |    |   |   |             |       |        |    |   |  |   |  |  |  |  |   |    |   |   |   |   |   |   |    |   |  |   |   |  |  |  |   |    |   |   |   |   |   |   |    |  |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |   |   |   |   |   |  |   |                                 |  |  |  |  |  |       |   |   |   |   |   |   |  |   |                                 |  |  |  |  |  |       |   |   |   |   |   |   |  |   |  |  |  |  |  |  |       |   |   |   |   |   |   |  |   |  |  |  |  |  |  |    |   |   |   |   |   |   |  |   |  |  |  |  |  |  |    |   |   |   |   |   |   |  |   |  |  |  |  |  |  |       |   |   |   |   |   |   |  |   |  |  |  |  |  |  |    |   |   |   |   |   |   |  |   |  |  |  |  |  |  |   |  |
| T2  | ●   | ●         | ●     | ●     | ●  | ●  |             | ●      | HB                              | ●   | ●     | ●     | ●           | ●     | ●      |        |  |  |    |           |   |   |   |   |             |     |    |    |   |   |             |       |        |    |   |  |   |  |  |  |  |   |    |   |   |   |   |   |   |    |   |  |   |   |  |  |  |   |    |   |   |   |   |   |   |    |  |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |   |   |   |   |   |  |   |                                 |  |  |  |  |  |       |   |   |   |   |   |   |  |   |                                 |  |  |  |  |  |       |   |   |   |   |   |   |  |   |  |  |  |  |  |  |       |   |   |   |   |   |   |  |   |  |  |  |  |  |  |    |   |   |   |   |   |   |  |   |  |  |  |  |  |  |    |   |   |   |   |   |   |  |   |  |  |  |  |  |  |       |   |   |   |   |   |   |  |   |  |  |  |  |  |  |    |   |   |   |   |   |   |  |   |  |  |  |  |  |  |   |  |
| ※1 U1   | ●   | ●         | ●     | ●     | ●  | ●  |             | ●      | ※2 日本航空电子工业株式会社制造 JN2AS10ML3-R. |     |       |       |             |       |        |        |  |  |    |           |   |   |   |   |             |     |    |    |   |   |             |       |        |    |   |  |   |  |  |  |  |   |    |   |   |   |   |   |   |    |   |  |   |   |  |  |  |   |    |   |   |   |   |   |   |    |  |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |   |   |   |   |   |  |   |                                 |  |  |  |  |  |       |   |   |   |   |   |   |  |   |                                 |  |  |  |  |  |       |   |   |   |   |   |   |  |   |  |  |  |  |  |  |       |   |   |   |   |   |   |  |   |  |  |  |  |  |  |    |   |   |   |   |   |   |  |   |  |  |  |  |  |  |    |   |   |   |   |   |   |  |   |  |  |  |  |  |  |       |   |   |   |   |   |   |  |   |  |  |  |  |  |  |    |   |   |   |   |   |   |  |   |  |  |  |  |  |  |   |  |
| ※1 U2   | ●   | ●         | ●     | ●     | ●  | ●  |             | ●      | ※3 日本航空电子工业株式会社制造 JL10-2A20-29P |     |       |       |             |       |        |        |  |  |    |           |   |   |   |   |             |     |    |    |   |   |             |       |        |    |   |  |   |  |  |  |  |   |    |   |   |   |   |   |   |    |   |  |   |   |  |  |  |   |    |   |   |   |   |   |   |    |  |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |   |   |   |   |   |  |   |                                 |  |  |  |  |  |       |   |   |   |   |   |   |  |   |                                 |  |  |  |  |  |       |   |   |   |   |   |   |  |   |  |  |  |  |  |  |       |   |   |   |   |   |   |  |   |  |  |  |  |  |  |    |   |   |   |   |   |   |  |   |  |  |  |  |  |  |    |   |   |   |   |   |   |  |   |  |  |  |  |  |  |       |   |   |   |   |   |   |  |   |  |  |  |  |  |  |    |   |   |   |   |   |   |  |   |  |  |  |  |  |  |   |  |
| ※1 U3   | ●   | ●         | ●     | ●     | ●  | ●  |             | ●      |                                 |     |       |       |             |       |        |        |  |  |    |           |   |   |   |   |             |     |    |    |   |   |             |       |        |    |   |  |   |  |  |  |  |   |    |   |   |   |   |   |   |    |   |  |   |   |  |  |  |   |    |   |   |   |   |   |   |    |  |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |   |   |   |   |   |  |   |                                 |  |  |  |  |  |       |   |   |   |   |   |   |  |   |                                 |  |  |  |  |  |       |   |   |   |   |   |   |  |   |  |  |  |  |  |  |       |   |   |   |   |   |   |  |   |  |  |  |  |  |  |    |   |   |   |   |   |   |  |   |  |  |  |  |  |  |    |   |   |   |   |   |   |  |   |  |  |  |  |  |  |       |   |   |   |   |   |   |  |   |  |  |  |  |  |  |    |   |   |   |   |   |   |  |   |  |  |  |  |  |  |   |  |
| ※1 U4   | ●   | ●         | ●     | ●     | ●  | ●  |             | ●      |                                 |     |       |       |             |       |        |        |  |  |    |           |   |   |   |   |             |     |    |    |   |   |             |       |        |    |   |  |   |  |  |  |  |   |    |   |   |   |   |   |   |    |   |  |   |   |  |  |  |   |    |   |   |   |   |   |   |    |  |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |   |   |   |   |   |  |   |                                 |  |  |  |  |  |       |   |   |   |   |   |   |  |   |                                 |  |  |  |  |  |       |   |   |   |   |   |   |  |   |  |  |  |  |  |  |       |   |   |   |   |   |   |  |   |  |  |  |  |  |  |    |   |   |   |   |   |   |  |   |  |  |  |  |  |  |    |   |   |   |   |   |   |  |   |  |  |  |  |  |  |       |   |   |   |   |   |   |  |   |  |  |  |  |  |  |    |   |   |   |   |   |   |  |   |  |  |  |  |  |  |   |  |
| V1  | ●   | ●         | ●     | ●     | ●  | ●  |             | ●      |                                 |     |       |       |             |       |        |        |  |  |    |           |   |   |   |   |             |     |    |    |   |   |             |       |        |    |   |  |   |  |  |  |  |   |    |   |   |   |   |   |   |    |   |  |   |   |  |  |  |   |    |   |   |   |   |   |   |    |  |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |   |   |   |   |   |  |   |                                 |  |  |  |  |  |       |   |   |   |   |   |   |  |   |                                 |  |  |  |  |  |       |   |   |   |   |   |   |  |   |  |  |  |  |  |  |       |   |   |   |   |   |   |  |   |  |  |  |  |  |  |    |   |   |   |   |   |   |  |   |  |  |  |  |  |  |    |   |   |   |   |   |   |  |   |  |  |  |  |  |  |       |   |   |   |   |   |   |  |   |  |  |  |  |  |  |    |   |   |   |   |   |   |  |   |  |  |  |  |  |  |   |  |
| V2  | ●   | ●         | ●     | ●     | ●  | ●  |             | ●      |                                 |     |       |       |             |       |        |        |  |  |    |           |   |   |   |   |             |     |    |    |   |   |             |       |        |    |   |  |   |  |  |  |  |   |    |   |   |   |   |   |   |    |   |  |   |   |  |  |  |   |    |   |   |   |   |   |   |    |  |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |   |   |   |   |   |  |   |                                 |  |  |  |  |  |       |   |   |   |   |   |   |  |   |                                 |  |  |  |  |  |       |   |   |   |   |   |   |  |   |  |  |  |  |  |  |       |   |   |   |   |   |   |  |   |  |  |  |  |  |  |    |   |   |   |   |   |   |  |   |  |  |  |  |  |  |    |   |   |   |   |   |   |  |   |  |  |  |  |  |  |       |   |   |   |   |   |   |  |   |  |  |  |  |  |  |    |   |   |   |   |   |   |  |   |  |  |  |  |  |  |   |  |
| ※1 V3   | ●   | ●         | ●     | ●     | ●  | ●  |             | ●      |                                 |     |       |       |             |       |        |        |  |  |    |           |   |   |   |   |             |     |    |    |   |   |             |       |        |    |   |  |   |  |  |  |  |   |    |   |   |   |   |   |   |    |   |  |   |   |  |  |  |   |    |   |   |   |   |   |   |    |  |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |   |   |   |   |   |  |   |                                 |  |  |  |  |  |       |   |   |   |   |   |   |  |   |                                 |  |  |  |  |  |       |   |   |   |   |   |   |  |   |  |  |  |  |  |  |       |   |   |   |   |   |   |  |   |  |  |  |  |  |  |    |   |   |   |   |   |   |  |   |  |  |  |  |  |  |    |   |   |   |   |   |   |  |   |  |  |  |  |  |  |       |   |   |   |   |   |   |  |   |  |  |  |  |  |  |    |   |   |   |   |   |   |  |   |  |  |  |  |  |  |   |  |
| V4  | ●   | ●         | ●     | ●     | ●  | ●  |             | ●      |                                 |     |       |       |             |       |        |        |  |  |    |           |   |   |   |   |             |     |    |    |   |   |             |       |        |    |   |  |   |  |  |  |  |   |    |   |   |   |   |   |   |    |   |  |   |   |  |  |  |   |    |   |   |   |   |   |   |    |  |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |  |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |    |   |   |   |   |   |   |  |   |    |   |   |   |   |   |   |       |   |   |   |   |   |   |  |   |                                 |  |  |  |  |  |       |   |   |   |   |   |   |  |   |                                 |  |  |  |  |  |       |   |   |   |   |   |   |  |   |  |  |  |  |  |  |       |   |   |   |   |   |   |  |   |  |  |  |  |  |  |    |   |   |   |   |   |   |  |   |  |  |  |  |  |  |    |   |   |   |   |   |   |  |   |  |  |  |  |  |  |       |   |   |   |   |   |   |  |   |  |  |  |  |  |  |    |   |   |   |   |   |   |  |   |  |  |  |  |  |  |   |  |

### · 伺服驱动器

| 1  | 2                  | 3  | 4           | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |       |         |              |                       |                    |   |          |   |          |       |               |   |       |   |             |   |       |   |      |   |       |   |      |  |  |   |      |  |  |   |      |  |  |
|--|--------------------|----|-------------|---|---|---|---|---|----|----|----|-------|---------|--------------|-----------------------|--------------------|---|----------|---|----------|-------|---------------|---|-------|---|-------------|---|-------|---|------|---|-------|---|------|--|--|---|------|--|--|---|------|--|--|
| M  | A                  | D  | L           | N | 1 | 5 | S | E | *  | *  | *  | 订制品符号 |         |              |                       |                    |   |          |   |          |       |               |   |       |   |             |   |       |   |      |   |       |   |      |  |  |   |      |  |  |   |      |  |  |
| <b>① 外型符号</b>  |                    |    |             |   |   |   |   |   |    |    |    |       |         |              |                       |                    |   |          |   |          |       |               |   |       |   |             |   |       |   |      |   |       |   |      |  |  |   |      |  |  |   |      |  |  |
| <b>③ 安全功能规格</b>  |                    |    |             |   |   |   |   |   |    |    |    |       |         |              |                       |                    |   |          |   |          |       |               |   |       |   |             |   |       |   |      |   |       |   |      |  |  |   |      |  |  |   |      |  |  |
| <table border="1"> <thead> <tr> <th>符号</th><th colspan="2">型号名</th><th colspan="2">规格</th> </tr> </thead> <tbody> <tr><td>N</td><td colspan="2"></td><td colspan="2">无安全功能</td></tr> <tr><td>T</td><td colspan="2"></td><td colspan="2">安全转矩关闭(STO)</td></tr> </tbody> </table>  |                    |    |             |   |   |   |   |   |    |    |    |       | 符号      | 型号名          |                       | 规格                 |   | N        |   |          | 无安全功能 |               | T |       |   | 安全转矩关闭(STO) |   |       |   |      |   |       |   |      |  |  |   |      |  |  |   |      |  |  |
| 符号   | 型号名                |    | 规格          |   |   |   |   |   |    |    |    |       |         |              |                       |                    |   |          |   |          |       |               |   |       |   |             |   |       |   |      |   |       |   |      |  |  |   |      |  |  |   |      |  |  |
| N  |                    |    | 无安全功能       |   |   |   |   |   |    |    |    |       |         |              |                       |                    |   |          |   |          |       |               |   |       |   |             |   |       |   |      |   |       |   |      |  |  |   |      |  |  |   |      |  |  |
| T  |                    |    | 安全转矩关闭(STO) |   |   |   |   |   |    |    |    |       |         |              |                       |                    |   |          |   |          |       |               |   |       |   |             |   |       |   |      |   |       |   |      |  |  |   |      |  |  |   |      |  |  |
| <b>④ 最大额定电流</b>  |                    |    |             |   |   |   |   |   |    |    |    |       |         |              |                       |                    |   |          |   |          |       |               |   |       |   |             |   |       |   |      |   |       |   |      |  |  |   |      |  |  |   |      |  |  |
| <table border="1"> <thead> <tr> <th>符号</th><th>最大额定电流</th><th>符号</th><th>最大额定电流</th> </tr> </thead> <tbody> <tr><td>0</td><td>7.5 A</td><td>8</td><td>80 A</td></tr> <tr><td>1</td><td>10 A</td><td>9</td><td>100 A</td></tr> <tr><td>2</td><td>20 A</td><td>A</td><td>125 A</td></tr> <tr><td>3</td><td>30 A</td><td>B</td><td>150 A</td></tr> <tr><td>4</td><td>40 A</td><td></td><td></td></tr> <tr><td>5</td><td>50 A</td><td></td><td></td></tr> <tr><td>6</td><td>60 A</td><td></td><td></td></tr> </tbody> </table> |                    |    |             |   |   |   |   |   |    |    |    |       | 符号      | 最大额定电流       | 符号                    | 最大额定电流             | 0 | 7.5 A    | 8 | 80 A     | 1     | 10 A          | 9 | 100 A | 2 | 20 A        | A | 125 A | 3 | 30 A | B | 150 A | 4 | 40 A |  |  | 5 | 50 A |  |  | 6 | 60 A |  |  |
| 符号   | 最大额定电流             | 符号 | 最大额定电流      |   |   |   |   |   |    |    |    |       |         |              |                       |                    |   |          |   |          |       |               |   |       |   |             |   |       |   |      |   |       |   |      |  |  |   |      |  |  |   |      |  |  |
| 0  | 7.5 A              | 8  | 80 A        |   |   |   |   |   |    |    |    |       |         |              |                       |                    |   |          |   |          |       |               |   |       |   |             |   |       |   |      |   |       |   |      |  |  |   |      |  |  |   |      |  |  |
| 1  | 10 A               | 9  | 100 A       |   |   |   |   |   |    |    |    |       |         |              |                       |                    |   |          |   |          |       |               |   |       |   |             |   |       |   |      |   |       |   |      |  |  |   |      |  |  |   |      |  |  |
| 2  | 20 A               | A  | 125 A       |   |   |   |   |   |    |    |    |       |         |              |                       |                    |   |          |   |          |       |               |   |       |   |             |   |       |   |      |   |       |   |      |  |  |   |      |  |  |   |      |  |  |
| 3  | 30 A               | B  | 150 A       |   |   |   |   |   |    |    |    |       |         |              |                       |                    |   |          |   |          |       |               |   |       |   |             |   |       |   |      |   |       |   |      |  |  |   |      |  |  |   |      |  |  |
| 4  | 40 A               |    |             |   |   |   |   |   |    |    |    |       |         |              |                       |                    |   |          |   |          |       |               |   |       |   |             |   |       |   |      |   |       |   |      |  |  |   |      |  |  |   |      |  |  |
| 5  | 50 A               |    |             |   |   |   |   |   |    |    |    |       |         |              |                       |                    |   |          |   |          |       |               |   |       |   |             |   |       |   |      |   |       |   |      |  |  |   |      |  |  |   |      |  |  |
| 6  | 60 A               |    |             |   |   |   |   |   |    |    |    |       |         |              |                       |                    |   |          |   |          |       |               |   |       |   |             |   |       |   |      |   |       |   |      |  |  |   |      |  |  |   |      |  |  |
| <b>② 系列</b>  |                    |    |             |   |   |   |   |   |    |    |    |       |         |              |                       |                    |   |          |   |          |       |               |   |       |   |             |   |       |   |      |   |       |   |      |  |  |   |      |  |  |   |      |  |  |
| <table border="1"> <thead> <tr> <th>符号</th><th>系列名</th> </tr> </thead> <tbody> <tr><td>L</td><td>A6 系列</td></tr> </tbody> </table>   |                    |    |             |   |   |   |   |   |    |    |    |       | 符号      | 系列名          | L                     | A6 系列              |   |          |   |          |       |               |   |       |   |             |   |       |   |      |   |       |   |      |  |  |   |      |  |  |   |      |  |  |
| 符号   | 系列名                |    |             |   |   |   |   |   |    |    |    |       |         |              |                       |                    |   |          |   |          |       |               |   |       |   |             |   |       |   |      |   |       |   |      |  |  |   |      |  |  |   |      |  |  |
| L  | A6 系列              |    |             |   |   |   |   |   |    |    |    |       |         |              |                       |                    |   |          |   |          |       |               |   |       |   |             |   |       |   |      |   |       |   |      |  |  |   |      |  |  |   |      |  |  |
| <b>⑤ 电源电压规格</b>  |                    |    |             |   |   |   |   |   |    |    |    |       |         |              |                       |                    |   |          |   |          |       |               |   |       |   |             |   |       |   |      |   |       |   |      |  |  |   |      |  |  |   |      |  |  |
| <table border="1"> <thead> <tr> <th>符号</th><th>规格</th> </tr> </thead> <tbody> <tr><td>1</td><td>单相 100 V</td></tr> <tr><td>3</td><td>三相 200 V</td></tr> <tr><td>4</td><td>三相 400 V</td></tr> <tr><td>5</td><td>单相 / 三相 200 V</td></tr> </tbody> </table>   |                    |    |             |   |   |   |   |   |    |    |    |       | 符号      | 规格           | 1                     | 单相 100 V           | 3 | 三相 200 V | 4 | 三相 400 V | 5     | 单相 / 三相 200 V |   |       |   |             |   |       |   |      |   |       |   |      |  |  |   |      |  |  |   |      |  |  |
| 符号   | 规格                 |    |             |   |   |   |   |   |    |    |    |       |         |              |                       |                    |   |          |   |          |       |               |   |       |   |             |   |       |   |      |   |       |   |      |  |  |   |      |  |  |   |      |  |  |
| 1  | 单相 100 V           |    |             |   |   |   |   |   |    |    |    |       |         |              |                       |                    |   |          |   |          |       |               |   |       |   |             |   |       |   |      |   |       |   |      |  |  |   |      |  |  |   |      |  |  |
| 3  | 三相 200 V           |    |             |   |   |   |   |   |    |    |    |       |         |              |                       |                    |   |          |   |          |       |               |   |       |   |             |   |       |   |      |   |       |   |      |  |  |   |      |  |  |   |      |  |  |
| 4  | 三相 400 V           |    |             |   |   |   |   |   |    |    |    |       |         |              |                       |                    |   |          |   |          |       |               |   |       |   |             |   |       |   |      |   |       |   |      |  |  |   |      |  |  |   |      |  |  |
| 5  | 单相 / 三相 200 V      |    |             |   |   |   |   |   |    |    |    |       |         |              |                       |                    |   |          |   |          |       |               |   |       |   |             |   |       |   |      |   |       |   |      |  |  |   |      |  |  |   |      |  |  |
| <b>⑦ 驱动器类型</b>   |                    |    |             |   |   |   |   |   |    |    |    |       |         |              |                       |                    |   |          |   |          |       |               |   |       |   |             |   |       |   |      |   |       |   |      |  |  |   |      |  |  |   |      |  |  |
| <table border="1"> <thead> <tr> <th>■ 旋转电机用</th> </tr> </thead> <tbody> <tr><td>E 通用型(脉冲列专用)</td></tr> <tr><td>F 多功能型(脉冲 / 模拟 / 全闭环)</td></tr> <tr><td>G 一般通信型</td></tr> </tbody> </table>   |                    |    |             |   |   |   |   |   |    |    |    |       | ■ 旋转电机用 | E 通用型(脉冲列专用) | F 多功能型(脉冲 / 模拟 / 全闭环) | G 一般通信型            |   |          |   |          |       |               |   |       |   |             |   |       |   |      |   |       |   |      |  |  |   |      |  |  |   |      |  |  |
| ■ 旋转电机用  |                    |    |             |   |   |   |   |   |    |    |    |       |         |              |                       |                    |   |          |   |          |       |               |   |       |   |             |   |       |   |      |   |       |   |      |  |  |   |      |  |  |   |      |  |  |
| E 通用型(脉冲列专用)   |                    |    |             |   |   |   |   |   |    |    |    |       |         |              |                       |                    |   |          |   |          |       |               |   |       |   |             |   |       |   |      |   |       |   |      |  |  |   |      |  |  |   |      |  |  |
| F 多功能型(脉冲 / 模拟 / 全闭环)  |                    |    |             |   |   |   |   |   |    |    |    |       |         |              |                       |                    |   |          |   |          |       |               |   |       |   |             |   |       |   |      |   |       |   |      |  |  |   |      |  |  |   |      |  |  |
| G 一般通信型  |                    |    |             |   |   |   |   |   |    |    |    |       |         |              |                       |                    |   |          |   |          |       |               |   |       |   |             |   |       |   |      |   |       |   |      |  |  |   |      |  |  |   |      |  |  |
| <b>⑥ 接口规格</b>  |                    |    |             |   |   |   |   |   |    |    |    |       |         |              |                       |                    |   |          |   |          |       |               |   |       |   |             |   |       |   |      |   |       |   |      |  |  |   |      |  |  |   |      |  |  |
| <table border="1"> <thead> <tr> <th>符号</th><th>规格</th> </tr> </thead> <tbody> <tr><td>N</td><td>网络型 RTEX<br/>(预定发售)</td></tr> <tr><td>S</td><td>脉冲 / 模拟</td></tr> </tbody> </table>  |                    |    |             |   |   |   |   |   |    |    |    |       | 符号      | 规格           | N                     | 网络型 RTEX<br>(预定发售) | S | 脉冲 / 模拟  |   |          |       |               |   |       |   |             |   |       |   |      |   |       |   |      |  |  |   |      |  |  |   |      |  |  |
| 符号   | 规格                 |    |             |   |   |   |   |   |    |    |    |       |         |              |                       |                    |   |          |   |          |       |               |   |       |   |             |   |       |   |      |   |       |   |      |  |  |   |      |  |  |   |      |  |  |
| N  | 网络型 RTEX<br>(预定发售) |    |             |   |   |   |   |   |    |    |    |       |         |              |                       |                    |   |          |   |          |       |               |   |       |   |             |   |       |   |      |   |       |   |      |  |  |   |      |  |  |   |      |  |  |
| S  | 脉冲 / 模拟            |    |             |   |   |   |   |   |    |    |    |       |         |              |                       |                    |   |          |   |          |       |               |   |       |   |             |   |       |   |      |   |       |   |      |  |  |   |      |  |  |   |      |  |  |

## ■MINAS-A6 系列 驱动器

## · MINAS-A6 驱动器（多功能型）

| 型号        | 输出功率 (W) | 输入电压 (V)  |
|-----------|----------|-----------|
| MADLT01SF | 50       | 单相 100    |
| MADLT05SF | 100      | 单相/三相 200 |
| MADLT11SF | 100      | 单相 100    |
| MADLT15SF | 200      | 单相/三相 200 |
| MBDLT21SF | 200      | 单相 100    |
| MBDLT25SF | 400      | 单相/三相 200 |
| MCDLT31SF | 400      | 单相 100    |
| MCDLT35SF | 750      | 单相/三相 200 |
| MDDLT45SF | 1k       | 单相/三相 200 |
| MDDLT55SF | 1.5k     | 单相/三相 200 |
| MEDLT83SF | 2k       | 三相 200    |
| MFDLTA3SF | 3k       | 三相 200    |
| MFDLTB3SF | 5k       | 三相 200    |

## · MINAS-A6 驱动器（通用型）

| 型号        | 输出功率 (W) | 输入电压 (V)  |
|-----------|----------|-----------|
| MADLN01SE | 50       | 单相 100    |
| MADLN11SE | 100      | 单相 100    |
| MADLN05SE | 100      | 单相/三相 200 |
| MBDLN21SE | 200      | 单相 100    |
| MADLN15SE | 200      | 单相/三相 200 |
| MCDLN31SE | 400      | 单相 100    |
| MBDLN25SE | 400      | 单相/三相 200 |
| MCDLN35SE | 750      | 单相/三相 200 |
| MDDLN45SE | 1k       | 单相/三相 200 |
| MDDLN55SE | 1.5k     | 单相/三相 200 |
| MEDLN83SE | 2k       | 三相 200    |
| MFDLNA3SE | 3k       | 三相 200    |
| MFDLNB3SE | 5k       | 三相 200    |

## · MINAS-A6 驱动器（无安全功能）

| 型号        | 输出功率 (W) | 输入电压 (V)  |
|-----------|----------|-----------|
| MADLN01NE | 50       | 单相 100    |
| MADLN05NE | 100      | 单相/三相 200 |
| MADLN11NE | 100      | 单相 100    |
| MADLN15NE | 200      | 单相/三相 200 |
| MBDLN21NE | 200      | 单相 100    |
| MBDLN25NE | 400      | 单相/三相 200 |
| MCDLN31NE | 400      | 单相 100    |
| MCDLN35NE | 750      | 单相/三相 200 |
| MDDLN45NE | 1k       | 单相/三相 200 |
| MDDLN55NE | 1.5k     | 单相/三相 200 |
| MEDLN83NE | 2k       | 三相 200    |
| MFDLNA3NE | 3k       | 三相 200    |
| MFDLNB3NE | 5k       | 三相 200    |

## · MINAS-A6 驱动器（通用通信型）

| 型号        | 输出功率 (W) | 输入电压 (V)    |
|-----------|----------|-------------|
| MADLN01SG | 50       | 单相 100      |
| MADLN05SG | 100      | 单相 / 三相 200 |
| MADLN11SG | 100      | 单相 100      |
| MADLN15SG | 200      | 单相 / 三相 200 |
| MBDLN21SG | 200      | 单相 100      |
| MBDLN25SG | 400      | 单相 / 三相 200 |
| MCDLN31SG | 400      | 单相 100      |
| MCDLN35SG | 750      | 单相 / 三相 200 |
| MDDLN45SG | 1k       | 单相 / 三相 200 |
| MDDLN55SG | 1.5k     | 单相 / 三相 200 |
| MEDLN83SG | 2k       | 三相 200      |
| MFDLNA3SG | 3k       | 三相 200      |
| MFDLNB3SG | 5k       | 三相 200      |

## ■MINAS-A6 系列 电机

用 (轴规格 直=○、带键=□、带键带螺纹=△)

(油封 有=●、有(保护唇)=▲)

(电机 I/F、JN=◎、JN2=○、JL10=△) 区分显示

## • MINAS-A6 MHMF 系列 (□80mm 以下)

| 型号          | 输出(W) | 电压(V)   | 轴规格 | 保持制动器 | 油封 | 电机I/F |
|-------------|-------|---------|-----|-------|----|-------|
| MHMF5AZL1A1 | 50    | 100/200 | ○   |       |    | ◎     |
| MHMF5AZL1A2 | 50    | 100/200 | ○   |       |    | 导线    |
| MHMF5AZL1B1 | 50    | 100/200 | ○   | ◆     |    | ◎     |
| MHMF5AZL1B2 | 50    | 100/200 | ○   | ◆     |    | 导线    |
| MHMF5AZL1C1 | 50    | 100/200 | ○   |       | ●  | ◎     |
| MHMF5AZL1C2 | 50    | 100/200 | ○   |       | ●  | 导线    |
| MHMF5AZL1C3 | 50    | 100/200 | ○   |       | ▲  | ◎     |
| MHMF5AZL1C4 | 50    | 100/200 | ○   |       | ▲  | 导线    |
| MHMF5AZL1D1 | 50    | 100/200 | ○   | ◆     | ●  | ◎     |
| MHMF5AZL1D2 | 50    | 100/200 | ○   | ◆     | ●  | 导线    |
| MHMF5AZL1D3 | 50    | 100/200 | ○   | ◆     | ▲  | ◎     |
| MHMF5AZL1D4 | 50    | 100/200 | ○   | ◆     | ▲  | 导线    |
| MHMF5AZL1S1 | 50    | 100/200 | △   |       |    | ◎     |
| MHMF5AZL1S2 | 50    | 100/200 | △   |       |    | 导线    |
| MHMF5AZL1T1 | 50    | 100/200 | △   | ◆     |    | ◎     |
| MHMF5AZL1T2 | 50    | 100/200 | △   | ◆     |    | 导线    |
| MHMF5AZL1U1 | 50    | 100/200 | △   |       | ●  | ◎     |
| MHMF5AZL1U2 | 50    | 100/200 | △   |       | ●  | 导线    |
| MHMF5AZL1U3 | 50    | 100/200 | △   |       | ▲  | ◎     |
| MHMF5AZL1U4 | 50    | 100/200 | △   |       | ▲  | 导线    |
| MHMF5AZL1V1 | 50    | 100/200 | △   | ◆     | ●  | ◎     |
| MHMF5AZL1V2 | 50    | 100/200 | △   | ◆     | ●  | 导线    |
| MHMF5AZL1V3 | 50    | 100/200 | △   | ◆     | ▲  | ◎     |
| MHMF5AZL1V4 | 50    | 100/200 | △   | ◆     | ▲  | 导线    |
| MHMF011L1A1 | 100   | 100     | ○   |       |    | ◎     |
| MHMF011L1A2 | 100   | 100     | ○   |       |    | 导线    |
| MHMF011L1B1 | 100   | 100     | ○   | ◆     |    | ◎     |
| MHMF011L1B2 | 100   | 100     | ○   | ◆     |    | 导线    |

| 型号          | 输出(W) | 电压(V) | 轴规格 | 保持制动器 | 油封 | 电机I/F |
|-------------|-------|-------|-----|-------|----|-------|
| MHMF011L1C1 | 100   | 100   | ○   |       | ●  | ◎     |
| MHMF011L1C2 | 100   | 100   | ○   |       | ●  | 导线    |
| MHMF011L1C3 | 100   | 100   | ○   |       | ▲  | ◎     |
| MHMF011L1C4 | 100   | 100   | ○   |       | ▲  | 导线    |
| MHMF011L1D1 | 100   | 100   | ○   | ◆     | ●  | ◎     |
| MHMF011L1D2 | 100   | 100   | ○   | ◆     | ●  | 导线    |
| MHMF011L1D3 | 100   | 100   | ○   | ◆     | ▲  | ◎     |
| MHMF011L1D4 | 100   | 100   | ○   | ◆     | ▲  | 导线    |
| MHMF011L1S1 | 100   | 100   | △   |       |    | ◎     |
| MHMF011L1S2 | 100   | 100   | △   |       |    | 导线    |
| MHMF011L1T1 | 100   | 100   | △   | ◆     |    | ◎     |
| MHMF011L1T2 | 100   | 100   | △   | ◆     |    | 导线    |
| MHMF011L1U1 | 100   | 100   | △   |       | ●  | ◎     |
| MHMF011L1U2 | 100   | 100   | △   |       | ●  | 导线    |
| MHMF011L1U3 | 100   | 100   | △   |       | ▲  | ◎     |
| MHMF011L1U4 | 100   | 100   | △   |       | ▲  | 导线    |
| MHMF011L1V1 | 100   | 100   | △   | ◆     | ●  | ◎     |
| MHMF011L1V2 | 100   | 100   | △   | ◆     | ●  | 导线    |
| MHMF011L1V3 | 100   | 100   | △   | ◆     | ▲  | ◎     |
| MHMF011L1V4 | 100   | 100   | △   | ◆     | ▲  | 导线    |
| MHMF012L1A1 | 100   | 200   | ○   |       |    | ◎     |
| MHMF012L1A2 | 100   | 200   | ○   |       |    | 导线    |
| MHMF012L1B1 | 100   | 200   | ○   | ◆     |    | ◎     |
| MHMF012L1B2 | 100   | 200   | ○   | ◆     |    | 导线    |
| MHMF012L1C1 | 100   | 200   | ○   |       | ●  | ◎     |
| MHMF012L1C2 | 100   | 200   | ○   |       | ●  | 导线    |
| MHMF012L1C3 | 100   | 200   | ○   |       | ▲  | ◎     |
| MHMF012L1C4 | 100   | 200   | ○   |       | ▲  | 导线    |
| MHMF012L1D1 | 100   | 200   | ○   | ◆     | ●  | ◎     |
| MHMF012L1D2 | 100   | 200   | ○   | ◆     | ●  | 导线    |
| MHMF012L1D3 | 100   | 200   | ○   | ◆     | ▲  | ◎     |
| MHMF012L1D4 | 100   | 200   | ○   | ◆     | ▲  | 导线    |
| MHMF012L1S1 | 100   | 200   | △   |       |    | ◎     |

| 型号          | 输出(W) | 电压(V) | 轴规格 | 保持制动器 | 油封 | 电机I/F |
|-------------|-------|-------|-----|-------|----|-------|
| MHMF012L1S2 | 100   | 200   | △   |       |    | 导线    |
| MHMF012L1T1 | 100   | 200   | △   | ◆     |    | ◎     |
| MHMF012L1T2 | 100   | 200   | △   | ◆     |    | 导线    |
| MHMF012L1U1 | 100   | 200   | △   |       | ●  | ◎     |
| MHMF012L1U2 | 100   | 200   | △   |       | ●  | 导线    |
| MHMF012L1U3 | 100   | 200   | △   |       | ▲  | ◎     |
| MHMF012L1U4 | 100   | 200   | △   |       | ▲  | 导线    |
| MHMF012L1V1 | 100   | 200   | △   | ◆     | ●  | ◎     |
| MHMF012L1V2 | 100   | 200   | △   | ◆     | ●  | 导线    |
| MHMF012L1V3 | 100   | 200   | △   | ◆     | ▲  | ◎     |
| MHMF012L1V4 | 100   | 200   | △   | ◆     | ▲  | 导线    |
| MHMF021L1A1 | 200   | 100   | ○   |       |    | ◎     |
| MHMF021L1A2 | 200   | 100   | ○   |       |    | 导线    |
| MHMF021L1B1 | 200   | 100   | ○   | ◆     |    | ◎     |
| MHMF021L1B2 | 200   | 100   | ○   | ◆     |    | 导线    |
| MHMF021L1C1 | 200   | 100   | ○   |       | ●  | ◎     |
| MHMF021L1C2 | 200   | 100   | ○   |       | ●  | 导线    |
| MHMF021L1C3 | 200   | 100   | ○   |       | ▲  | ◎     |
| MHMF021L1C4 | 200   | 100   | ○   |       | ▲  | 导线    |
| MHMF021L1D1 | 200   | 100   | ○   | ◆     | ●  | ◎     |
| MHMF021L1D2 | 200   | 100   | ○   | ◆     | ●  | 导线    |
| MHMF021L1D3 | 200   | 100   | ○   | ◆     | ▲  | ◎     |
| MHMF021L1D4 | 200   | 100   | ○   | ◆     | ▲  | 导线    |
| MHMF021L1S1 | 200   | 100   | △   |       |    | ◎     |
| MHMF021L1S2 | 200   | 100   | △   |       |    | 导线    |
| MHMF021L1T1 | 200   | 100   | △   | ◆     |    | ◎     |
| MHMF021L1T2 | 200   | 100   | △   | ◆     |    | 导线    |
| MHMF021L1U1 | 200   | 100   | △   |       | ●  | ◎     |
| MHMF021L1U2 | 200   | 100   | △   |       | ●  | 导线    |
| MHMF021L1U3 | 200   | 100   | △   |       | ▲  | ◎     |
| MHMF021L1U4 | 200   | 100   | △   |       | ▲  | 导线    |
| MHMF021L1V1 | 200   | 100   | △   | ◆     | ●  | ◎     |
| MHMF021L1V2 | 200   | 100   | △   | ◆     | ●  | 导线    |

| 型号          | 输出(W) | 电压(V) | 轴规格 | 保持制动器 | 油封 | 电机I/F |
|-------------|-------|-------|-----|-------|----|-------|
| MHMF021L1V3 | 200   | 100   | △   | ◆     | ▲  | ◎     |
| MHMF021L1V4 | 200   | 100   | △   | ◆     | ▲  | 导线    |
| MHMF022L1A1 | 200   | 200   | ○   |       |    | ◎     |
| MHMF022L1A2 | 200   | 200   | ○   |       |    | 导线    |
| MHMF022L1B1 | 200   | 200   | ○   | ◆     |    | ◎     |
| MHMF022L1B2 | 200   | 200   | ○   | ◆     |    | 导线    |
| MHMF022L1C1 | 200   | 200   | ○   |       | ●  | ◎     |
| MHMF022L1C2 | 200   | 200   | ○   |       | ●  | 导线    |
| MHMF022L1C3 | 200   | 200   | ○   |       | ▲  | ◎     |
| MHMF022L1C4 | 200   | 200   | ○   |       | ▲  | 导线    |
| MHMF022L1D1 | 200   | 200   | ○   | ◆     | ●  | ◎     |
| MHMF022L1D2 | 200   | 200   | ○   | ◆     | ●  | 导线    |
| MHMF022L1D3 | 200   | 200   | ○   | ◆     | ▲  | ◎     |
| MHMF022L1D4 | 200   | 200   | ○   | ◆     | ▲  | 导线    |
| MHMF022L1S1 | 200   | 200   | △   |       |    | ◎     |
| MHMF022L1S2 | 200   | 200   | △   |       |    | 导线    |
| MHMF022L1T1 | 200   | 200   | △   | ◆     |    | ◎     |
| MHMF022L1T2 | 200   | 200   | △   | ◆     |    | 导线    |
| MHMF022L1U1 | 200   | 200   | △   |       | ●  | ◎     |
| MHMF022L1U2 | 200   | 200   | △   |       | ●  | 导线    |
| MHMF022L1U3 | 200   | 200   | △   |       | ▲  | ◎     |
| MHMF022L1U4 | 200   | 200   | △   |       | ▲  | 导线    |
| MHMF022L1V1 | 200   | 200   | △   | ◆     | ●  | ◎     |
| MHMF022L1V2 | 200   | 200   | △   | ◆     | ●  | 导线    |
| MHMF022L1V3 | 200   | 200   | △   | ◆     | ▲  | ◎     |
| MHMF022L1V4 | 200   | 200   | △   | ◆     | ▲  | 导线    |
| MHMF041L1A1 | 400   | 100   | ○   |       |    | ◎     |
| MHMF041L1A2 | 400   | 100   | ○   |       |    | 导线    |
| MHMF041L1B1 | 400   | 100   | ○   | ◆     |    | ◎     |
| MHMF041L1B2 | 400   | 100   | ○   | ◆     |    | 导线    |
| MHMF041L1C1 | 400   | 100   | ○   |       | ●  | ◎     |
| MHMF041L1C2 | 400   | 100   | ○   |       | ●  | 导线    |
| MHMF041L1C3 | 400   | 100   | ○   |       | ▲  | ◎     |

| 型号          | 输出(W) | 电压(V) | 轴规格 | 保持制动器 | 油封 | 电机I/F |
|-------------|-------|-------|-----|-------|----|-------|
| MHMF041L1C4 | 400   | 100   | ○   |       | ▲  | 导线    |
| MHMF041L1D1 | 400   | 100   | ○   | ◆     | ●  | ◎     |
| MHMF041L1D2 | 400   | 100   | ○   | ◆     | ●  | 导线    |
| MHMF041L1D3 | 400   | 100   | ○   | ◆     | ▲  | ◎     |
| MHMF041L1D4 | 400   | 100   | ○   | ◆     | ▲  | 导线    |
| MHMF041L1S1 | 400   | 100   | △   |       |    | ◎     |
| MHMF041L1S2 | 400   | 100   | △   |       |    | 导线    |
| MHMF041L1T1 | 400   | 100   | △   | ◆     |    | ◎     |
| MHMF041L1T2 | 400   | 100   | △   | ◆     |    | 导线    |
| MHMF041L1U1 | 400   | 100   | △   |       | ●  | ◎     |
| MHMF041L1U2 | 400   | 100   | △   |       | ●  | 导线    |
| MHMF041L1U3 | 400   | 100   | △   |       | ▲  | ◎     |
| MHMF041L1U4 | 400   | 100   | △   |       | ▲  | 导线    |
| MHMF041L1V1 | 400   | 100   | △   | ◆     | ●  | ◎     |
| MHMF041L1V2 | 400   | 100   | △   | ◆     | ●  | 导线    |
| MHMF041L1V3 | 400   | 100   | △   | ◆     | ▲  | ◎     |
| MHMF041L1V4 | 400   | 100   | △   | ◆     | ▲  | 导线    |
| MHMF042L1A1 | 400   | 200   | ○   |       |    | ◎     |
| MHMF042L1A2 | 400   | 200   | ○   |       |    | 导线    |
| MHMF042L1B1 | 400   | 200   | ○   | ◆     |    | ◎     |
| MHMF042L1B2 | 400   | 200   | ○   | ◆     |    | 导线    |
| MHMF042L1C1 | 400   | 200   | ○   |       | ●  | ◎     |
| MHMF042L1C2 | 400   | 200   | ○   |       | ●  | 导线    |
| MHMF042L1C3 | 400   | 200   | ○   |       | ▲  | ◎     |
| MHMF042L1C4 | 400   | 200   | ○   |       | ▲  | 导线    |
| MHMF042L1D1 | 400   | 200   | ○   | ◆     | ●  | ◎     |
| MHMF042L1D2 | 400   | 200   | ○   | ◆     | ●  | 导线    |
| MHMF042L1D3 | 400   | 200   | ○   | ◆     | ▲  | ◎     |
| MHMF042L1D4 | 400   | 200   | ○   | ◆     | ▲  | 导线    |
| MHMF042L1S1 | 400   | 200   | △   |       |    | ◎     |
| MHMF042L1S2 | 400   | 200   | △   |       |    | 导线    |
| MHMF042L1T1 | 400   | 200   | △   | ◆     |    | ◎     |
| MHMF042L1T2 | 400   | 200   | △   | ◆     |    | 导线    |

| 型号          | 输出(W) | 电压(V) | 轴规格 | 保持制动器 | 油封 | 电机I/F |
|-------------|-------|-------|-----|-------|----|-------|
| MHMF042L1U1 | 400   | 200   | △   |       | ●  | ◎     |
| MHMF042L1U2 | 400   | 200   | △   |       | ●  | 导线    |
| MHMF042L1U3 | 400   | 200   | △   |       | ▲  | ◎     |
| MHMF042L1U4 | 400   | 200   | △   |       | ▲  | 导线    |
| MHMF042L1V1 | 400   | 200   | △   | ◆     | ●  | ◎     |
| MHMF042L1V2 | 400   | 200   | △   | ◆     | ●  | 导线    |
| MHMF042L1V3 | 400   | 200   | △   | ◆     | ▲  | ◎     |
| MHMF042L1V4 | 400   | 200   | △   | ◆     | ▲  | 导线    |
| MHMF082L1A1 | 750   | 200   | ○   |       |    | ◎     |
| MHMF082L1A2 | 750   | 200   | ○   |       |    | 导线    |
| MHMF082L1B1 | 750   | 200   | ○   | ◆     |    | ◎     |
| MHMF082L1B2 | 750   | 200   | ○   | ◆     |    | 导线    |
| MHMF082L1C1 | 750   | 200   | ○   |       | ●  | ◎     |
| MHMF082L1C2 | 750   | 200   | ○   |       | ●  | 导线    |
| MHMF082L1C3 | 750   | 200   | ○   |       | ▲  | ◎     |
| MHMF082L1C4 | 750   | 200   | ○   |       | ▲  | 导线    |
| MHMF082L1D1 | 750   | 200   | ○   | ◆     | ●  | ◎     |
| MHMF082L1D2 | 750   | 200   | ○   | ◆     | ●  | 导线    |
| MHMF082L1D3 | 750   | 200   | ○   | ◆     | ▲  | ◎     |
| MHMF082L1D4 | 750   | 200   | ○   | ◆     | ▲  | 导线    |
| MHMF082L1S1 | 750   | 200   | △   |       |    | ◎     |
| MHMF082L1S2 | 750   | 200   | △   |       |    | 导线    |
| MHMF082L1T1 | 750   | 200   | △   | ◆     |    | ◎     |
| MHMF082L1T2 | 750   | 200   | △   | ◆     |    | 导线    |
| MHMF082L1U1 | 750   | 200   | △   |       | ●  | ◎     |
| MHMF082L1U2 | 750   | 200   | △   |       | ●  | 导线    |
| MHMF082L1U3 | 750   | 200   | △   |       | ▲  | ◎     |
| MHMF082L1U4 | 750   | 200   | △   |       | ▲  | 导线    |
| MHMF082L1V1 | 750   | 200   | △   | ◆     | ●  | ◎     |
| MHMF082L1V2 | 750   | 200   | △   | ◆     | ●  | 导线    |
| MHMF082L1V3 | 750   | 200   | △   | ◆     | ▲  | ◎     |
| MHMF082L1V4 | 750   | 200   | △   | ◆     | ▲  | 导线    |
| MHMF092L1A1 | 850   | 200   | ○   |       |    | ◎     |

| 型号          | 输出(W) | 电压(V) | 轴规格 | 保持制动器 | 油封 | 电机I/F |
|-------------|-------|-------|-----|-------|----|-------|
| MHMF092L1A2 | 850   | 200   | ○   |       |    | 导线    |
| MHMF092L1B1 | 850   | 200   | ○   | ◆     |    | ◎     |
| MHMF092L1B2 | 850   | 200   | ○   | ◆     |    | 导线    |
| MHMF092L1C1 | 850   | 200   | ○   |       | ●  | ◎     |
| MHMF092L1C2 | 850   | 200   | ○   |       | ●  | 导线    |
| MHMF092L1C3 | 850   | 200   | ○   |       | ▲  | ◎     |
| MHMF092L1C4 | 850   | 200   | ○   |       | ▲  | 导线    |
| MHMF092L1D1 | 850   | 200   | ○   | ◆     | ●  | ◎     |
| MHMF092L1D2 | 850   | 200   | ○   | ◆     | ●  | 导线    |
| MHMF092L1D3 | 850   | 200   | ○   | ◆     | ▲  | ◎     |
| MHMF092L1D4 | 850   | 200   | ○   | ◆     | ▲  | 导线    |
| MHMF092L1S1 | 850   | 200   | △   |       |    | ◎     |
| MHMF092L1S2 | 850   | 200   | △   |       |    | 导线    |
| MHMF092L1T1 | 850   | 200   | △   | ◆     |    | ◎     |
| MHMF092L1T2 | 850   | 200   | △   | ◆     |    | 导线    |
| MHMF092L1U1 | 850   | 200   | △   |       | ●  | ◎     |
| MHMF092L1U2 | 850   | 200   | △   |       | ●  | 导线    |
| MHMF092L1U3 | 850   | 200   | △   |       | ▲  | ◎     |
| MHMF092L1U4 | 850   | 200   | △   |       | ▲  | 导线    |
| MHMF092L1V1 | 850   | 200   | △   | ◆     | ●  | ◎     |
| MHMF092L1V2 | 850   | 200   | △   | ◆     | ●  | 导线    |
| MHMF092L1V3 | 850   | 200   | △   | ◆     | ▲  | ◎     |
| MHMF092L1V4 | 850   | 200   | △   | ◆     | ▲  | 导线    |

用 (轴规格 直=○、带键=□、带键带螺纹=△)  
 (油封 有=●、有(保护唇)=▲)  
 (电机 I/F、JN=◎、JN2=○、JL10=△) 区分显示

• MINAS-A6 MQMF 系列 (□80mm 以下)

| 型号          | 输出(W) | 电压(V) | 轴规格 | 保持制动器 | 油封 | 电机I/F |
|-------------|-------|-------|-----|-------|----|-------|
| MQMF011L1A1 | 100   | 100   | ○   |       |    | ◎     |
| MQMF011L1A2 | 100   | 100   | ○   |       |    | 导线    |
| MQMF011L1B1 | 100   | 100   | ○   | ◆     |    | ◎     |
| MQMF011L1B2 | 100   | 100   | ○   | ◆     |    | 导线    |
| MQMF011L1C1 | 100   | 100   | ○   |       | ●  | ◎     |
| MQMF011L1C2 | 100   | 100   | ○   |       | ●  | 导线    |
| MQMF011L1C3 | 100   | 100   | ○   |       | ▲  | ◎     |
| MQMF011L1C4 | 100   | 100   | ○   |       | ▲  | 导线    |
| MQMF011L1D1 | 100   | 100   | ○   | ◆     | ●  | ◎     |
| MQMF011L1D2 | 100   | 100   | ○   | ◆     | ●  | 导线    |
| MQMF011L1D3 | 100   | 100   | ○   | ◆     | ▲  | ◎     |
| MQMF011L1D4 | 100   | 100   | ○   | ◆     | ▲  | 导线    |
| MQMF011L1S1 | 100   | 100   | △   |       |    | ◎     |
| MQMF011L1S2 | 100   | 100   | △   |       |    | 导线    |
| MQMF011L1T1 | 100   | 100   | △   | ◆     |    | ◎     |
| MQMF011L1T2 | 100   | 100   | △   | ◆     |    | 导线    |
| MQMF011L1U1 | 100   | 100   | △   |       | ●  | ◎     |
| MQMF011L1U2 | 100   | 100   | △   |       | ●  | 导线    |
| MQMF011L1U3 | 100   | 100   | △   |       | ▲  | ◎     |
| MQMF011L1U4 | 100   | 100   | △   |       | ▲  | 导线    |
| MQMF011L1V1 | 100   | 100   | △   | ◆     | ●  | ◎     |
| MQMF011L1V2 | 100   | 100   | △   | ◆     | ●  | 导线    |
| MQMF011L1V3 | 100   | 100   | △   | ◆     | ▲  | ◎     |
| MQMF011L1V4 | 100   | 100   | △   | ◆     | ▲  | 导线    |
| MQMF012L1A1 | 100   | 200   | ○   |       |    | ◎     |
| MQMF012L1A2 | 100   | 200   | ○   |       |    | 导线    |
| MQMF012L1B1 | 100   | 200   | ○   | ◆     |    | ◎     |
| MQMF012L1B2 | 100   | 200   | ○   | ◆     |    | 导线    |
| MQMF012L1C1 | 100   | 200   | ○   |       | ●  | ◎     |
| MQMF012L1C2 | 100   | 200   | ○   |       | ●  | 导线    |

| 型号          | 输出(W) | 电压(V) | 轴规格 | 保持制动器 | 油封 | 电机I/F |
|-------------|-------|-------|-----|-------|----|-------|
| MQMF012L1C3 | 100   | 200   | ○   |       | ▲  | ◎     |
| MQMF012L1C4 | 100   | 200   | ○   |       | ▲  | 导线    |
| MQMF012L1D1 | 100   | 200   | ○   | ◆     | ●  | ◎     |
| MQMF012L1D2 | 100   | 200   | ○   | ◆     | ●  | 导线    |
| MQMF012L1D3 | 100   | 200   | ○   | ◆     | ▲  | ◎     |
| MQMF012L1D4 | 100   | 200   | ○   | ◆     | ▲  | 导线    |
| MQMF012L1S1 | 100   | 200   | △   |       |    | ◎     |
| MQMF012L1S2 | 100   | 200   | △   |       |    | 导线    |
| MQMF012L1T1 | 100   | 200   | △   | ◆     |    | ◎     |
| MQMF012L1T2 | 100   | 200   | △   | ◆     |    | 导线    |
| MQMF012L1U1 | 100   | 200   | △   |       | ●  | ◎     |
| MQMF012L1U2 | 100   | 200   | △   |       | ●  | 导线    |
| MQMF012L1U3 | 100   | 200   | △   |       | ▲  | ◎     |
| MQMF012L1U4 | 100   | 200   | △   |       | ▲  | 导线    |
| MQMF012L1V1 | 100   | 200   | △   | ◆     | ●  | ◎     |
| MQMF012L1V2 | 100   | 200   | △   | ◆     | ●  | 导线    |
| MQMF012L1V3 | 100   | 200   | △   | ◆     | ▲  | ◎     |
| MQMF012L1V4 | 100   | 200   | △   | ◆     | ▲  | 导线    |
| MQMF021L1A1 | 200   | 100   | ○   |       |    | ◎     |
| MQMF021L1A2 | 200   | 100   | ○   |       |    | 导线    |
| MQMF021L1B1 | 200   | 100   | ○   | ◆     |    | ◎     |
| MQMF021L1B2 | 200   | 100   | ○   | ◆     |    | 导线    |
| MQMF021L1C1 | 200   | 100   | ○   |       | ●  | ◎     |
| MQMF021L1C2 | 200   | 100   | ○   |       | ●  | 导线    |
| MQMF021L1C3 | 200   | 100   | ○   |       | ▲  | ◎     |
| MQMF021L1C4 | 200   | 100   | ○   |       | ▲  | 导线    |
| MQMF021L1D1 | 200   | 100   | ○   | ◆     | ●  | ◎     |
| MQMF021L1D2 | 200   | 100   | ○   | ◆     | ●  | 导线    |
| MQMF021L1D3 | 200   | 100   | ○   | ◆     | ▲  | ◎     |
| MQMF021L1D4 | 200   | 100   | ○   | ◆     | ▲  | 导线    |
| MQMF021L1S1 | 200   | 100   | △   |       |    | ◎     |
| MQMF021L1S2 | 200   | 100   | △   |       |    | 导线    |
| MQMF021L1T1 | 200   | 100   | △   | ◆     |    | ◎     |

| 型号          | 输出(W) | 电压(V) | 轴规格 | 保持制动器 | 油封 | 电机I/F |
|-------------|-------|-------|-----|-------|----|-------|
| MQMF021L1T2 | 200   | 100   | △   | ◆     |    | 导线    |
| MQMF021L1U1 | 200   | 100   | △   |       | ●  | ◎     |
| MQMF021L1U2 | 200   | 100   | △   |       | ●  | 导线    |
| MQMF021L1U3 | 200   | 100   | △   |       | ▲  | ◎     |
| MQMF021L1U4 | 200   | 100   | △   |       | ▲  | 导线    |
| MQMF021L1V1 | 200   | 100   | △   | ◆     | ●  | ◎     |
| MQMF021L1V2 | 200   | 100   | △   | ◆     | ●  | 导线    |
| MQMF021L1V3 | 200   | 100   | △   | ◆     | ▲  | ◎     |
| MQMF021L1V4 | 200   | 100   | △   | ◆     | ▲  | 导线    |
| MQMF022L1A1 | 200   | 200   | ○   |       |    | ◎     |
| MQMF022L1A2 | 200   | 200   | ○   |       |    | 导线    |
| MQMF022L1B1 | 200   | 200   | ○   | ◆     |    | ◎     |
| MQMF022L1B2 | 200   | 200   | ○   | ◆     |    | 导线    |
| MQMF022L1C1 | 200   | 200   | ○   |       | ●  | ◎     |
| MQMF022L1C2 | 200   | 200   | ○   |       | ●  | 导线    |
| MQMF022L1C3 | 200   | 200   | ○   |       | ▲  | ◎     |
| MQMF022L1C4 | 200   | 200   | ○   |       | ▲  | 导线    |
| MQMF022L1D1 | 200   | 200   | ○   | ◆     | ●  | ◎     |
| MQMF022L1D2 | 200   | 200   | ○   | ◆     | ●  | 导线    |
| MQMF022L1D3 | 200   | 200   | ○   | ◆     | ▲  | ◎     |
| MQMF022L1D4 | 200   | 200   | ○   | ◆     | ▲  | 导线    |
| MQMF022L1S1 | 200   | 200   | △   |       |    | ◎     |
| MQMF022L1S2 | 200   | 200   | △   |       |    | 导线    |
| MQMF022L1T1 | 200   | 200   | △   | ◆     |    | ◎     |
| MQMF022L1T2 | 200   | 200   | △   | ◆     |    | 导线    |
| MQMF022L1U1 | 200   | 200   | △   |       | ●  | ◎     |
| MQMF022L1U2 | 200   | 200   | △   |       | ●  | 导线    |
| MQMF022L1U3 | 200   | 200   | △   |       | ▲  | ◎     |
| MQMF022L1U4 | 200   | 200   | △   |       | ▲  | 导线    |
| MQMF022L1V1 | 200   | 200   | △   | ◆     | ●  | ◎     |
| MQMF022L1V2 | 200   | 200   | △   | ◆     | ●  | 导线    |
| MQMF022L1V3 | 200   | 200   | △   | ◆     | ▲  | ◎     |
| MQMF022L1V4 | 200   | 200   | △   | ◆     | ▲  | 导线    |

| 型号          | 输出(W) | 电压(V) | 轴规格 | 保持制动器 | 油封 | 电机I/F |
|-------------|-------|-------|-----|-------|----|-------|
| MQMF041L1A1 | 400   | 100   | ○   |       |    | ◎     |
| MQMF041L1A2 | 400   | 100   | ○   |       |    | 导线    |
| MQMF041L1B1 | 400   | 100   | ○   | ◆     |    | ◎     |
| MQMF041L1B2 | 400   | 100   | ○   | ◆     |    | 导线    |
| MQMF041L1C1 | 400   | 100   | ○   |       | ●  | ◎     |
| MQMF041L1C2 | 400   | 100   | ○   |       | ●  | 导线    |
| MQMF041L1C3 | 400   | 100   | ○   |       | ▲  | ◎     |
| MQMF041L1C4 | 400   | 100   | ○   |       | ▲  | 导线    |
| MQMF041L1D1 | 400   | 100   | ○   | ◆     | ●  | ◎     |
| MQMF041L1D2 | 400   | 100   | ○   | ◆     | ●  | 导线    |
| MQMF041L1D3 | 400   | 100   | ○   | ◆     | ▲  | ◎     |
| MQMF041L1D4 | 400   | 100   | ○   | ◆     | ▲  | 导线    |
| MQMF041L1S1 | 400   | 100   | △   |       |    | ◎     |
| MQMF041L1S2 | 400   | 100   | △   |       |    | 导线    |
| MQMF041L1T1 | 400   | 100   | △   | ◆     |    | ◎     |
| MQMF041L1T2 | 400   | 100   | △   | ◆     |    | 导线    |
| MQMF041L1U1 | 400   | 100   | △   |       | ●  | ◎     |
| MQMF041L1U2 | 400   | 100   | △   |       | ●  | 导线    |
| MQMF041L1U3 | 400   | 100   | △   |       | ▲  | ◎     |
| MQMF041L1U4 | 400   | 100   | △   |       | ▲  | 导线    |
| MQMF041L1V1 | 400   | 100   | △   | ◆     | ●  | ◎     |
| MQMF041L1V2 | 400   | 100   | △   | ◆     | ●  | 导线    |
| MQMF041L1V3 | 400   | 100   | △   | ◆     | ▲  | ◎     |
| MQMF041L1V4 | 400   | 100   | △   | ◆     | ▲  | 导线    |
| MQMF042L1A1 | 400   | 200   | ○   |       |    | ◎     |
| MQMF042L1A2 | 400   | 200   | ○   |       |    | 导线    |
| MQMF042L1B1 | 400   | 200   | ○   | ◆     |    | ◎     |
| MQMF042L1B2 | 400   | 200   | ○   | ◆     |    | 导线    |
| MQMF042L1C1 | 400   | 200   | ○   |       | ●  | ◎     |
| MQMF042L1C2 | 400   | 200   | ○   |       | ●  | 导线    |
| MQMF042L1C3 | 400   | 200   | ○   |       | ▲  | ◎     |
| MQMF042L1C4 | 400   | 200   | ○   |       | ▲  | 导线    |
| MQMF042L1D1 | 400   | 200   | ○   | ◆     | ●  | ◎     |

| 型号          | 输出(W) | 电压(V) | 轴规格 | 保持制动器 | 油封 | 电机I/F |
|-------------|-------|-------|-----|-------|----|-------|
| MQMF042L1D2 | 400   | 200   | ○   | ◆     | ●  | 导线    |
| MQMF042L1D3 | 400   | 200   | ○   | ◆     | ▲  | ◎     |
| MQMF042L1D4 | 400   | 200   | ○   | ◆     | ▲  | 导线    |
| MQMF042L1S1 | 400   | 200   | △   |       |    | ◎     |
| MQMF042L1S2 | 400   | 200   | △   |       |    | 导线    |
| MQMF042L1T1 | 400   | 200   | △   | ◆     |    | ◎     |
| MQMF042L1T2 | 400   | 200   | △   | ◆     |    | 导线    |
| MQMF042L1U1 | 400   | 200   | △   |       | ●  | ◎     |
| MQMF042L1U2 | 400   | 200   | △   |       | ●  | 导线    |
| MQMF042L1U3 | 400   | 200   | △   |       | ▲  | ◎     |
| MQMF042L1U4 | 400   | 200   | △   |       | ▲  | 导线    |
| MQMF042L1V1 | 400   | 200   | △   | ◆     | ●  | ◎     |
| MQMF042L1V2 | 400   | 200   | △   | ◆     | ●  | 导线    |
| MQMF042L1V3 | 400   | 200   | △   | ◆     | ▲  | ◎     |
| MQMF042L1V4 | 400   | 200   | △   | ◆     | ▲  | 导线    |

用 (轴规格 直=○、带键=□、带键带螺纹=△)  
 (油封 有=●、有(保护唇)=▲)  
 (电机 I/F、JN=◎、JN2=○、JL10=△) 区分显示

• MINAS-A6 MSMF 系列 (□80mm 以下)

| 型号          | 输出(W) | 电压(V)   | 轴规格 | 保持制动器 | 油封 | 电机I/F |
|-------------|-------|---------|-----|-------|----|-------|
| MSMF5AZL1A1 | 50    | 100/200 | ○   |       |    | ◎     |
| MSMF5AZL1A2 | 50    | 100/200 | ○   |       |    | 导线    |
| MSMF5AZL1B1 | 50    | 100/200 | ○   | ◆     |    | ◎     |
| MSMF5AZL1B2 | 50    | 100/200 | ○   | ◆     |    | 导线    |
| MSMF5AZL1C1 | 50    | 100/200 | ○   |       | ●  | ◎     |
| MSMF5AZL1C2 | 50    | 100/200 | ○   |       | ●  | 导线    |
| MSMF5AZL1D1 | 50    | 100/200 | ○   | ◆     | ●  | ◎     |
| MSMF5AZL1D2 | 50    | 100/200 | ○   | ◆     | ●  | 导线    |
| MSMF5AZL1S1 | 50    | 100/200 | △   |       |    | ◎     |
| MSMF5AZL1S2 | 50    | 100/200 | △   |       |    | 导线    |
| MSMF5AZL1T1 | 50    | 100/200 | △   | ◆     |    | ◎     |
| MSMF5AZL1T2 | 50    | 100/200 | △   | ◆     |    | 导线    |
| MSMF5AZL1U1 | 50    | 100/200 | △   |       | ●  | ◎     |
| MSMF5AZL1U2 | 50    | 100/200 | △   |       | ●  | 导线    |
| MSMF5AZL1V1 | 50    | 100/200 | △   | ◆     | ●  | ◎     |
| MSMF5AZL1V2 | 50    | 100/200 | △   | ◆     | ●  | 导线    |
| MSMF011L1A1 | 100   | 100     | ○   |       |    | ◎     |
| MSMF011L1A2 | 100   | 100     | ○   |       |    | 导线    |
| MSMF011L1B1 | 100   | 100     | ○   | ◆     |    | ◎     |
| MSMF011L1B2 | 100   | 100     | ○   | ◆     |    | 导线    |
| MSMF011L1C1 | 100   | 100     | ○   |       | ●  | ◎     |
| MSMF011L1C2 | 100   | 100     | ○   |       | ●  | 导线    |
| MSMF011L1D1 | 100   | 100     | ○   | ◆     | ●  | ◎     |
| MSMF011L1D2 | 100   | 100     | ○   | ◆     | ●  | 导线    |
| MSMF011L1S1 | 100   | 100     | △   |       |    | ◎     |
| MSMF011L1S2 | 100   | 100     | △   |       |    | 导线    |
| MSMF011L1T1 | 100   | 100     | △   | ◆     |    | ◎     |
| MSMF011L1T2 | 100   | 100     | △   | ◆     |    | 导线    |
| MSMF011L1U1 | 100   | 100     | △   |       | ●  | ◎     |
| MSMF011L1U2 | 100   | 100     | △   |       | ●  | 导线    |

| 型号          | 输出(W) | 电压(V) | 轴规格 | 保持制动器 | 油封 | 电机I/F |
|-------------|-------|-------|-----|-------|----|-------|
| MSMF011L1V1 | 100   | 100   | △   | ◆     | ●  | ◎     |
| MSMF011L1V2 | 100   | 100   | △   | ◆     | ●  | 导线    |
| MSMF012L1A1 | 100   | 200   | ○   |       |    | ◎     |
| MSMF012L1A2 | 100   | 200   | ○   |       |    | 导线    |
| MSMF012L1B1 | 100   | 200   | ○   | ◆     |    | ◎     |
| MSMF012L1B2 | 100   | 200   | ○   | ◆     |    | 导线    |
| MSMF012L1C1 | 100   | 200   | ○   |       | ●  | ◎     |
| MSMF012L1C2 | 100   | 200   | ○   |       | ●  | 导线    |
| MSMF012L1D1 | 100   | 200   | ○   | ◆     | ●  | ◎     |
| MSMF012L1D2 | 100   | 200   | ○   | ◆     | ●  | 导线    |
| MSMF012L1S1 | 100   | 200   | △   |       |    | ◎     |
| MSMF012L1S2 | 100   | 200   | △   |       |    | 导线    |
| MSMF012L1T1 | 100   | 200   | △   | ◆     |    | ◎     |
| MSMF012L1T2 | 100   | 200   | △   | ◆     |    | 导线    |
| MSMF012L1U1 | 100   | 200   | △   |       | ●  | ◎     |
| MSMF012L1U2 | 100   | 200   | △   |       | ●  | 导线    |
| MSMF012L1V1 | 100   | 200   | △   | ◆     | ●  | ◎     |
| MSMF012L1V2 | 100   | 200   | △   | ◆     | ●  | 导线    |
| MSMF021L1A1 | 200   | 100   | ○   |       |    | ◎     |
| MSMF021L1A2 | 200   | 100   | ○   |       |    | 导线    |
| MSMF021L1B1 | 200   | 100   | ○   | ◆     |    | ◎     |
| MSMF021L1B2 | 200   | 100   | ○   | ◆     |    | 导线    |
| MSMF021L1C1 | 200   | 100   | ○   |       | ●  | ◎     |
| MSMF021L1C2 | 200   | 100   | ○   |       | ●  | 导线    |
| MSMF021L1D1 | 200   | 100   | ○   | ◆     | ●  | ◎     |
| MSMF021L1D2 | 200   | 100   | ○   | ◆     | ●  | 导线    |
| MSMF021L1S1 | 200   | 100   | △   |       |    | ◎     |
| MSMF021L1S2 | 200   | 100   | △   |       |    | 导线    |
| MSMF021L1T1 | 200   | 100   | △   | ◆     |    | ◎     |
| MSMF021L1T2 | 200   | 100   | △   | ◆     |    | 导线    |
| MSMF021L1U1 | 200   | 100   | △   |       | ●  | ◎     |
| MSMF021L1U2 | 200   | 100   | △   |       | ●  | 导线    |
| MSMF021L1V1 | 200   | 100   | △   | ◆     | ●  | ◎     |

| 型号          | 输出(W) | 电压(V) | 轴规格 | 保持制动器 | 油封 | 电机I/F |
|-------------|-------|-------|-----|-------|----|-------|
| MSMF021L1V2 | 200   | 100   | △   | ◆     | ●  | 导线    |
| MSMF022L1A1 | 200   | 200   | ○   |       |    | ◎     |
| MSMF022L1A2 | 200   | 200   | ○   |       |    | 导线    |
| MSMF022L1B1 | 200   | 200   | ○   | ◆     |    | ◎     |
| MSMF022L1B2 | 200   | 200   | ○   | ◆     |    | 导线    |
| MSMF022L1C1 | 200   | 200   | ○   |       | ●  | ◎     |
| MSMF022L1C2 | 200   | 200   | ○   |       | ●  | 导线    |
| MSMF022L1D1 | 200   | 200   | ○   | ◆     | ●  | ◎     |
| MSMF022L1D2 | 200   | 200   | ○   | ◆     | ●  | 导线    |
| MSMF022L1S1 | 200   | 200   | △   |       |    | ◎     |
| MSMF022L1S2 | 200   | 200   | △   |       |    | 导线    |
| MSMF022L1T1 | 200   | 200   | △   | ◆     |    | ◎     |
| MSMF022L1T2 | 200   | 200   | △   | ◆     |    | 导线    |
| MSMF022L1U1 | 200   | 200   | △   |       | ●  | ◎     |
| MSMF022L1U2 | 200   | 200   | △   |       | ●  | 导线    |
| MSMF022L1V1 | 200   | 200   | △   | ◆     | ●  | ◎     |
| MSMF022L1V2 | 200   | 200   | △   | ◆     | ●  | 导线    |
| MSMF041L1A1 | 400   | 100   | ○   |       |    | ◎     |
| MSMF041L1A2 | 400   | 100   | ○   |       |    | 导线    |
| MSMF041L1B1 | 400   | 100   | ○   | ◆     |    | ◎     |
| MSMF041L1B2 | 400   | 100   | ○   | ◆     |    | 导线    |
| MSMF041L1C1 | 400   | 100   | ○   |       | ●  | ◎     |
| MSMF041L1C2 | 400   | 100   | ○   |       | ●  | 导线    |
| MSMF041L1D1 | 400   | 100   | ○   | ◆     | ●  | ◎     |
| MSMF041L1D2 | 400   | 100   | ○   | ◆     | ●  | 导线    |
| MSMF041L1S1 | 400   | 100   | △   |       |    | ◎     |
| MSMF041L1S2 | 400   | 100   | △   |       |    | 导线    |
| MSMF041L1T1 | 400   | 100   | △   | ◆     |    | ◎     |
| MSMF041L1T2 | 400   | 100   | △   | ◆     |    | 导线    |
| MSMF041L1U1 | 400   | 100   | △   |       | ●  | ◎     |
| MSMF041L1U2 | 400   | 100   | △   |       | ●  | 导线    |
| MSMF041L1V1 | 400   | 100   | △   | ◆     | ●  | ◎     |
| MSMF041L1V2 | 400   | 100   | △   | ◆     | ●  | 导线    |

| 型号          | 输出(W) | 电压(V) | 轴规格 | 保持制动器 | 油封 | 电机I/F |
|-------------|-------|-------|-----|-------|----|-------|
| MSMF042L1A1 | 400   | 200   | ○   |       |    | ◎     |
| MSMF042L1A2 | 400   | 200   | ○   |       |    | 导线    |
| MSMF042L1B1 | 400   | 200   | ○   | ◆     |    | ◎     |
| MSMF042L1B2 | 400   | 200   | ○   | ◆     |    | 导线    |
| MSMF042L1C1 | 400   | 200   | ○   |       | ●  | ◎     |
| MSMF042L1C2 | 400   | 200   | ○   |       | ●  | 导线    |
| MSMF042L1D1 | 400   | 200   | ○   | ◆     | ●  | ◎     |
| MSMF042L1D2 | 400   | 200   | ○   | ◆     | ●  | 导线    |
| MSMF042L1S1 | 400   | 200   | △   |       |    | ◎     |
| MSMF042L1S2 | 400   | 200   | △   |       |    | 导线    |
| MSMF042L1T1 | 400   | 200   | △   | ◆     |    | ◎     |
| MSMF042L1T2 | 400   | 200   | △   | ◆     |    | 导线    |
| MSMF042L1U1 | 400   | 200   | △   |       | ●  | ◎     |
| MSMF042L1U2 | 400   | 200   | △   |       | ●  | 导线    |
| MSMF042L1V1 | 400   | 200   | △   | ◆     | ●  | ◎     |
| MSMF042L1V2 | 400   | 200   | △   | ◆     | ●  | 导线    |
| MSMF082L1A1 | 750   | 200   | ○   |       |    | ◎     |
| MSMF082L1A2 | 750   | 200   | ○   |       |    | 导线    |
| MSMF082L1B1 | 750   | 200   | ○   | ◆     |    | ◎     |
| MSMF082L1B2 | 750   | 200   | ○   | ◆     |    | 导线    |
| MSMF082L1C1 | 750   | 200   | ○   |       | ●  | ◎     |
| MSMF082L1C2 | 750   | 200   | ○   |       | ●  | 导线    |
| MSMF082L1D1 | 750   | 200   | ○   | ◆     | ●  | ◎     |
| MSMF082L1D2 | 750   | 200   | ○   | ◆     | ●  | 导线    |
| MSMF082L1S1 | 750   | 200   | △   |       |    | ◎     |
| MSMF082L1S2 | 750   | 200   | △   |       |    | 导线    |
| MSMF082L1T1 | 750   | 200   | △   | ◆     |    | ◎     |
| MSMF082L1T2 | 750   | 200   | △   | ◆     |    | 导线    |
| MSMF082L1U1 | 750   | 200   | △   |       | ●  | ◎     |
| MSMF082L1U2 | 750   | 200   | △   |       | ●  | 导线    |
| MSMF082L1V1 | 750   | 200   | △   | ◆     | ●  | ◎     |
| MSMF082L1V2 | 750   | 200   | △   | ◆     | ●  | 导线    |
| MSMF092L1A1 | 1000  | 200   | ○   |       |    | ◎     |

| 型号          | 输出(W) | 电压(V) | 轴规格 | 保持制动器 | 油封 | 电机I/F |
|-------------|-------|-------|-----|-------|----|-------|
| MSMF092L1A2 | 1000  | 200   | ○   |       |    | 导线    |
| MSMF092L1B1 | 1000  | 200   | ○   | ◆     |    | ◎     |
| MSMF092L1B2 | 1000  | 200   | ○   | ◆     |    | 导线    |
| MSMF092L1C1 | 1000  | 200   | ○   |       | ●  | ◎     |
| MSMF092L1C2 | 1000  | 200   | ○   |       | ●  | 导线    |
| MSMF092L1D1 | 1000  | 200   | ○   | ◆     | ●  | ◎     |
| MSMF092L1D2 | 1000  | 200   | ○   | ◆     | ●  | 导线    |
| MSMF092L1S1 | 1000  | 200   | △   |       |    | ◎     |
| MSMF092L1S2 | 1000  | 200   | △   |       |    | 导线    |
| MSMF092L1T1 | 1000  | 200   | △   | ◆     |    | ◎     |
| MSMF092L1T2 | 1000  | 200   | △   | ◆     |    | 导线    |
| MSMF092L1U1 | 1000  | 200   | △   |       | ●  | ◎     |
| MSMF092L1U2 | 1000  | 200   | △   |       | ●  | 导线    |
| MSMF092L1V1 | 1000  | 200   | △   | ◆     | ●  | ◎     |
| MSMF092L1V2 | 1000  | 200   | △   | ◆     | ●  | 导线    |

用（轴规格 直=○、带键=□、带键带螺纹=△）  
 （油封 有=●、无（保护唇）=▲）  
 （电机 I/F、JN=◎、JN2=○、JL10=△）区分显示

• MINAS-A6 MSMF 系列（□100mm 以上）

| 型号          | 输出<br>(kW) | 电压 (V) | 轴规格 | 保持制动<br>器 | 油封 | 电机<br>I/F |
|-------------|------------|--------|-----|-----------|----|-----------|
| MSMF102L1C5 | 1.0        | 200    | ○   |           | ●  | ○         |
| MSMF102L1C6 | 1.0        | 200    | ○   |           | ●  | △         |
| MSMF102L1C7 | 1.0        | 200    | ○   |           | ▲  | ○         |
| MSMF102L1C8 | 1.0        | 200    | ○   |           | ▲  | △         |
| MSMF102L1D5 | 1.0        | 200    | ○   | ◆         | ●  | ○         |
| MSMF102L1D6 | 1.0        | 200    | ○   | ◆         | ●  | △         |
| MSMF102L1D7 | 1.0        | 200    | ○   | ◆         | ▲  | ○         |
| MSMF102L1D8 | 1.0        | 200    | ○   | ◆         | ▲  | △         |
| MSMF102L1G5 | 1.0        | 200    | □   |           | ●  | ○         |
| MSMF102L1G6 | 1.0        | 200    | □   |           | ●  | △         |
| MSMF102L1G7 | 1.0        | 200    | □   |           | ▲  | ○         |
| MSMF102L1G8 | 1.0        | 200    | □   |           | ▲  | △         |
| MSMF102L1H5 | 1.0        | 200    | □   | ◆         | ●  | ○         |
| MSMF102L1H6 | 1.0        | 200    | □   | ◆         | ●  | △         |
| MSMF102L1H7 | 1.0        | 200    | □   | ◆         | ▲  | ○         |
| MSMF102L1H8 | 1.0        | 200    | □   | ◆         | ▲  | △         |
| MSMF152L1C5 | 1.5        | 200    | ○   |           | ●  | ○         |
| MSMF152L1C6 | 1.5        | 200    | ○   |           | ●  | △         |
| MSMF152L1C7 | 1.5        | 200    | ○   |           | ▲  | ○         |
| MSMF152L1C8 | 1.5        | 200    | ○   |           | ▲  | △         |
| MSMF152L1D5 | 1.5        | 200    | ○   | ◆         | ●  | ○         |
| MSMF152L1D6 | 1.5        | 200    | ○   | ◆         | ●  | △         |
| MSMF152L1D7 | 1.5        | 200    | ○   | ◆         | ▲  | ○         |
| MSMF152L1D8 | 1.5        | 200    | ○   | ◆         | ▲  | △         |
| MSMF152L1G5 | 1.5        | 200    | □   |           | ●  | ○         |
| MSMF152L1G6 | 1.5        | 200    | □   |           | ●  | △         |
| MSMF152L1G7 | 1.5        | 200    | □   |           | ▲  | ○         |
| MSMF152L1G8 | 1.5        | 200    | □   |           | ▲  | △         |
| MSMF152L1H5 | 1.5        | 200    | □   | ◆         | ●  | ○         |
| MSMF152L1H6 | 1.5        | 200    | □   | ◆         | ●  | △         |

| 型号          | 输出<br>(kW) | 电压 (V) | 轴规格 | 保持制动<br>器 | 油封 | 电机<br>I/F |
|-------------|------------|--------|-----|-----------|----|-----------|
| MSMF152L1H7 | 1.5        | 200    | □   | ◆         | ▲  | ○         |
| MSMF152L1H8 | 1.5        | 200    | □   | ◆         | ▲  | △         |
| MSMF202L1C5 | 2.0        | 200    | ○   |           | ●  | ○         |
| MSMF202L1C6 | 2.0        | 200    | ○   |           | ●  | △         |
| MSMF202L1C7 | 2.0        | 200    | ○   |           | ▲  | ○         |
| MSMF202L1C8 | 2.0        | 200    | ○   |           | ▲  | △         |
| MSMF202L1D5 | 2.0        | 200    | ○   | ◆         | ●  | ○         |
| MSMF202L1D6 | 2.0        | 200    | ○   | ◆         | ●  | △         |
| MSMF202L1D7 | 2.0        | 200    | ○   | ◆         | ▲  | ○         |
| MSMF202L1D8 | 2.0        | 200    | ○   | ◆         | ▲  | △         |
| MSMF202L1G5 | 2.0        | 200    | □   |           | ●  | ○         |
| MSMF202L1G6 | 2.0        | 200    | □   |           | ●  | △         |
| MSMF202L1G7 | 2.0        | 200    | □   |           | ▲  | ○         |
| MSMF202L1G8 | 2.0        | 200    | □   |           | ▲  | △         |
| MSMF202L1H5 | 2.0        | 200    | □   | ◆         | ●  | ○         |
| MSMF202L1H6 | 2.0        | 200    | □   | ◆         | ●  | △         |
| MSMF202L1H7 | 2.0        | 200    | □   | ◆         | ▲  | ○         |
| MSMF202L1H8 | 2.0        | 200    | □   | ◆         | ▲  | △         |
| MSMF302L1C5 | 3.0        | 200    | ○   |           | ●  | ○         |
| MSMF302L1C6 | 3.0        | 200    | ○   |           | ●  | △         |
| MSMF302L1C7 | 3.0        | 200    | ○   |           | ▲  | ○         |
| MSMF302L1C8 | 3.0        | 200    | ○   |           | ▲  | △         |
| MSMF302L1D5 | 3.0        | 200    | ○   | ◆         | ●  | ○         |
| MSMF302L1D6 | 3.0        | 200    | ○   | ◆         | ●  | △         |
| MSMF302L1D7 | 3.0        | 200    | ○   | ◆         | ▲  | ○         |
| MSMF302L1D8 | 3.0        | 200    | ○   | ◆         | ▲  | △         |
| MSMF302L1G5 | 3.0        | 200    | □   |           | ●  | ○         |
| MSMF302L1G6 | 3.0        | 200    | □   |           | ●  | △         |
| MSMF302L1G7 | 3.0        | 200    | □   |           | ▲  | ○         |
| MSMF302L1G8 | 3.0        | 200    | □   |           | ▲  | △         |
| MSMF302L1H5 | 3.0        | 200    | □   | ◆         | ●  | ○         |
| MSMF302L1H6 | 3.0        | 200    | □   | ◆         | ●  | △         |
| MSMF302L1H7 | 3.0        | 200    | □   | ◆         | ▲  | ○         |

| 型号          | 输出<br>(kW) | 电压 (V) | 轴规格 | 保持制动<br>器 | 油封 | 电机<br>I/F |
|-------------|------------|--------|-----|-----------|----|-----------|
| MSMF302L1H8 | 3.0        | 200    | □   | ◆         | ▲  | △         |
| MSMF402L1C5 | 4.0        | 200    | ○   |           | ●  | ○         |
| MSMF402L1C6 | 4.0        | 200    | ○   |           | ●  | △         |
| MSMF402L1C7 | 4.0        | 200    | ○   |           | ▲  | ○         |
| MSMF402L1C8 | 4.0        | 200    | ○   |           | ▲  | △         |
| MSMF402L1D5 | 4.0        | 200    | ○   | ◆         | ●  | ○         |
| MSMF402L1D6 | 4.0        | 200    | ○   | ◆         | ●  | △         |
| MSMF402L1D7 | 4.0        | 200    | ○   | ◆         | ▲  | ○         |
| MSMF402L1D8 | 4.0        | 200    | ○   | ◆         | ▲  | △         |
| MSMF402L1G5 | 4.0        | 200    | □   |           | ●  | ○         |
| MSMF402L1G6 | 4.0        | 200    | □   |           | ●  | △         |
| MSMF402L1G7 | 4.0        | 200    | □   |           | ▲  | ○         |
| MSMF402L1G8 | 4.0        | 200    | □   |           | ▲  | △         |
| MSMF402L1H5 | 4.0        | 200    | □   | ◆         | ●  | ○         |
| MSMF402L1H6 | 4.0        | 200    | □   | ◆         | ●  | △         |
| MSMF402L1H7 | 4.0        | 200    | □   | ◆         | ▲  | ○         |
| MSMF402L1H8 | 4.0        | 200    | □   | ◆         | ▲  | △         |
| MSMF502L1C5 | 5.0        | 200    | ○   |           | ●  | ○         |
| MSMF502L1C6 | 5.0        | 200    | ○   |           | ●  | △         |
| MSMF502L1C7 | 5.0        | 200    | ○   |           | ▲  | ○         |
| MSMF502L1C8 | 5.0        | 200    | ○   |           | ▲  | △         |
| MSMF502L1D5 | 5.0        | 200    | ○   | ◆         | ●  | ○         |
| MSMF502L1D6 | 5.0        | 200    | ○   | ◆         | ●  | △         |
| MSMF502L1D7 | 5.0        | 200    | ○   | ◆         | ▲  | ○         |
| MSMF502L1D8 | 5.0        | 200    | ○   | ◆         | ▲  | △         |
| MSMF502L1G5 | 5.0        | 200    | □   |           | ●  | ○         |
| MSMF502L1G6 | 5.0        | 200    | □   |           | ●  | △         |
| MSMF502L1G7 | 5.0        | 200    | □   |           | ▲  | ○         |
| MSMF502L1G8 | 5.0        | 200    | □   |           | ▲  | △         |
| MSMF502L1H5 | 5.0        | 200    | □   | ◆         | ●  | ○         |
| MSMF502L1H6 | 5.0        | 200    | □   | ◆         | ●  | △         |
| MSMF502L1H7 | 5.0        | 200    | □   | ◆         | ▲  | ○         |
| MSMF502L1H8 | 5.0        | 200    | □   | ◆         | ▲  | △         |

用（轴规格 直=○、带键=□、带键带螺纹=△）  
 （油封 有=●、无（保护唇）=▲）  
 （电机 I/F、JN=◎、JN2=○、JL10=△）区分显示

• MINAS-A6 MDMF 系列（□130mm 以上）

| 型号          | 输出<br>(kW) | 电压 (V) | 轴规格 | 保持制动<br>器 | 油封 | 电机<br>I/F |
|-------------|------------|--------|-----|-----------|----|-----------|
| MDMF102L1C5 | 1.0        | 200    | ○   |           | ●  | ○         |
| MDMF102L1C6 | 1.0        | 200    | ○   |           | ●  | △         |
| MDMF102L1C7 | 1.0        | 200    | ○   |           | ▲  | ○         |
| MDMF102L1C8 | 1.0        | 200    | ○   |           | ▲  | △         |
| MDMF102L1D5 | 1.0        | 200    | ○   | ◆         | ●  | ○         |
| MDMF102L1D6 | 1.0        | 200    | ○   | ◆         | ●  | △         |
| MDMF102L1D7 | 1.0        | 200    | ○   | ◆         | ▲  | ○         |
| MDMF102L1D8 | 1.0        | 200    | ○   | ◆         | ▲  | △         |
| MDMF102L1G5 | 1.0        | 200    | □   |           | ●  | ○         |
| MDMF102L1G6 | 1.0        | 200    | □   |           | ●  | △         |
| MDMF102L1G7 | 1.0        | 200    | □   |           | ▲  | ○         |
| MDMF102L1G8 | 1.0        | 200    | □   |           | ▲  | △         |
| MDMF102L1H5 | 1.0        | 200    | □   | ◆         | ●  | ○         |
| MDMF102L1H6 | 1.0        | 200    | □   | ◆         | ●  | △         |
| MDMF102L1H7 | 1.0        | 200    | □   | ◆         | ▲  | ○         |
| MDMF102L1H8 | 1.0        | 200    | □   | ◆         | ▲  | △         |
| MDMF152L1C5 | 1.5        | 200    | ○   |           | ●  | ○         |
| MDMF152L1C6 | 1.5        | 200    | ○   |           | ●  | △         |
| MDMF152L1C7 | 1.5        | 200    | ○   |           | ▲  | ○         |
| MDMF152L1C8 | 1.5        | 200    | ○   |           | ▲  | △         |
| MDMF152L1D5 | 1.5        | 200    | ○   | ◆         | ●  | ○         |
| MDMF152L1D6 | 1.5        | 200    | ○   | ◆         | ●  | △         |
| MDMF152L1D7 | 1.5        | 200    | ○   | ◆         | ▲  | ○         |
| MDMF152L1D8 | 1.5        | 200    | ○   | ◆         | ▲  | △         |
| MDMF152L1G5 | 1.5        | 200    | □   |           | ●  | ○         |
| MDMF152L1G6 | 1.5        | 200    | □   |           | ●  | △         |
| MDMF152L1G7 | 1.5        | 200    | □   |           | ▲  | ○         |
| MDMF152L1G8 | 1.5        | 200    | □   |           | ▲  | △         |
| MDMF152L1H5 | 1.5        | 200    | □   | ◆         | ●  | ○         |
| MDMF152L1H6 | 1.5        | 200    | □   | ◆         | ●  | △         |

| 型号          | 输出<br>(kW) | 电压 (V) | 轴规格 | 保持制动<br>器 | 油封 | 电机<br>I/F |
|-------------|------------|--------|-----|-----------|----|-----------|
| MDMF152L1H7 | 1.5        | 200    | □   | ◆         | ▲  | ○         |
| MDMF152L1H8 | 1.5        | 200    | □   | ◆         | ▲  | △         |
| MDMF202L1C5 | 2.0        | 200    | ○   |           | ●  | ○         |
| MDMF202L1C6 | 2.0        | 200    | ○   |           | ●  | △         |
| MDMF202L1C7 | 2.0        | 200    | ○   |           | ▲  | ○         |
| MDMF202L1C8 | 2.0        | 200    | ○   |           | ▲  | △         |
| MDMF202L1D5 | 2.0        | 200    | ○   | ◆         | ●  | ○         |
| MDMF202L1D6 | 2.0        | 200    | ○   | ◆         | ●  | △         |
| MDMF202L1D7 | 2.0        | 200    | ○   | ◆         | ▲  | ○         |
| MDMF202L1D8 | 2.0        | 200    | ○   | ◆         | ▲  | △         |
| MDMF202L1G5 | 2.0        | 200    | □   |           | ●  | ○         |
| MDMF202L1G6 | 2.0        | 200    | □   |           | ●  | △         |
| MDMF202L1G7 | 2.0        | 200    | □   |           | ▲  | ○         |
| MDMF202L1G8 | 2.0        | 200    | □   |           | ▲  | △         |
| MDMF202L1H5 | 2.0        | 200    | □   | ◆         | ●  | ○         |
| MDMF202L1H6 | 2.0        | 200    | □   | ◆         | ●  | △         |
| MDMF202L1H7 | 2.0        | 200    | □   | ◆         | ▲  | ○         |
| MDMF202L1H8 | 2.0        | 200    | □   | ◆         | ▲  | △         |
| MDMF302L1C5 | 3.0        | 200    | ○   |           | ●  | ○         |
| MDMF302L1C6 | 3.0        | 200    | ○   |           | ●  | △         |
| MDMF302L1C7 | 3.0        | 200    | ○   |           | ▲  | ○         |
| MDMF302L1C8 | 3.0        | 200    | ○   |           | ▲  | △         |
| MDMF302L1D5 | 3.0        | 200    | ○   | ◆         | ●  | ○         |
| MDMF302L1D6 | 3.0        | 200    | ○   | ◆         | ●  | △         |
| MDMF302L1D7 | 3.0        | 200    | ○   | ◆         | ▲  | ○         |
| MDMF302L1D8 | 3.0        | 200    | ○   | ◆         | ▲  | △         |
| MDMF302L1G5 | 3.0        | 200    | □   |           | ●  | ○         |
| MDMF302L1G6 | 3.0        | 200    | □   |           | ●  | △         |
| MDMF302L1G7 | 3.0        | 200    | □   |           | ▲  | ○         |
| MDMF302L1G8 | 3.0        | 200    | □   |           | ▲  | △         |
| MDMF302L1H5 | 3.0        | 200    | □   | ◆         | ●  | ○         |
| MDMF302L1H6 | 3.0        | 200    | □   | ◆         | ●  | △         |
| MDMF302L1H7 | 3.0        | 200    | □   | ◆         | ▲  | ○         |

| 型号          | 输出<br>(kW) | 电压 (V) | 轴规格 | 保持制动<br>器 | 油封 | 电机<br>I/F |
|-------------|------------|--------|-----|-----------|----|-----------|
| MDMF302L1H8 | 3.0        | 200    | □   | ◆         | ▲  | △         |
| MDMF402L1C5 | 4.0        | 200    | ○   |           | ●  | ○         |
| MDMF402L1C6 | 4.0        | 200    | ○   |           | ●  | △         |
| MDMF402L1C7 | 4.0        | 200    | ○   |           | ▲  | ○         |
| MDMF402L1C8 | 4.0        | 200    | ○   |           | ▲  | △         |
| MDMF402L1D5 | 4.0        | 200    | ○   | ◆         | ●  | ○         |
| MDMF402L1D6 | 4.0        | 200    | ○   | ◆         | ●  | △         |
| MDMF402L1D7 | 4.0        | 200    | ○   | ◆         | ▲  | ○         |
| MDMF402L1D8 | 4.0        | 200    | ○   | ◆         | ▲  | △         |
| MDMF402L1G5 | 4.0        | 200    | □   |           | ●  | ○         |
| MDMF402L1G6 | 4.0        | 200    | □   |           | ●  | △         |
| MDMF402L1G7 | 4.0        | 200    | □   |           | ▲  | ○         |
| MDMF402L1G8 | 4.0        | 200    | □   |           | ▲  | △         |
| MDMF402L1H5 | 4.0        | 200    | □   | ◆         | ●  | ○         |
| MDMF402L1H6 | 4.0        | 200    | □   | ◆         | ●  | △         |
| MDMF402L1H7 | 4.0        | 200    | □   | ◆         | ▲  | ○         |
| MDMF402L1H8 | 4.0        | 200    | □   | ◆         | ▲  | △         |
| MDMF502L1C5 | 5.0        | 200    | ○   |           | ●  | ○         |
| MDMF502L1C6 | 5.0        | 200    | ○   |           | ●  | △         |
| MDMF502L1C7 | 5.0        | 200    | ○   |           | ▲  | ○         |
| MDMF502L1C8 | 5.0        | 200    | ○   |           | ▲  | △         |
| MDMF502L1D5 | 5.0        | 200    | ○   | ◆         | ●  | ○         |
| MDMF502L1D6 | 5.0        | 200    | ○   | ◆         | ●  | △         |
| MDMF502L1D7 | 5.0        | 200    | ○   | ◆         | ▲  | ○         |
| MDMF502L1D8 | 5.0        | 200    | ○   | ◆         | ▲  | △         |
| MDMF502L1G5 | 5.0        | 200    | □   |           | ●  | ○         |
| MDMF502L1G6 | 5.0        | 200    | □   |           | ●  | △         |
| MDMF502L1G7 | 5.0        | 200    | □   |           | ▲  | ○         |
| MDMF502L1G8 | 5.0        | 200    | □   |           | ▲  | △         |
| MDMF502L1H5 | 5.0        | 200    | □   | ◆         | ●  | ○         |
| MDMF502L1H6 | 5.0        | 200    | □   | ◆         | ●  | △         |
| MDMF502L1H7 | 5.0        | 200    | □   | ◆         | ▲  | ○         |
| MDMF502L1H8 | 5.0        | 200    | □   | ◆         | ▲  | △         |

用（轴规格 直=○、带键=□、带键带螺纹=△）  
 （油封 有=●、有（保护唇）=▲）  
 （电机 I/F、JN=◎、JN2=○、JL10=△）区分显示

• MINAS-A6 MHMF 系列 (□130mm 以上)

| 型号          | 输出<br>(kW) | 电压 (V) | 轴规格 | 保持制动<br>器 | 油封 | 电机<br>I/F |
|-------------|------------|--------|-----|-----------|----|-----------|
| MHMF102L1C5 | 1.0        | 200    | ○   |           | ●  | ○         |
| MHMF102L1C6 | 1.0        | 200    | ○   |           | ●  | △         |
| MHMF102L1C7 | 1.0        | 200    | ○   |           | ▲  | ○         |
| MHMF102L1C8 | 1.0        | 200    | ○   |           | ▲  | △         |
| MHMF102L1D5 | 1.0        | 200    | ○   | ◆         | ●  | ○         |
| MHMF102L1D6 | 1.0        | 200    | ○   | ◆         | ●  | △         |
| MHMF102L1D7 | 1.0        | 200    | ○   | ◆         | ▲  | ○         |
| MHMF102L1D8 | 1.0        | 200    | ○   | ◆         | ▲  | △         |
| MHMF102L1G5 | 1.0        | 200    | □   |           | ●  | ○         |
| MHMF102L1G6 | 1.0        | 200    | □   |           | ●  | △         |
| MHMF102L1G7 | 1.0        | 200    | □   |           | ▲  | ○         |
| MHMF102L1G8 | 1.0        | 200    | □   |           | ▲  | △         |
| MHMF102L1H5 | 1.0        | 200    | □   | ◆         | ●  | ○         |
| MHMF102L1H6 | 1.0        | 200    | □   | ◆         | ●  | △         |
| MHMF102L1H7 | 1.0        | 200    | □   | ◆         | ▲  | ○         |
| MHMF102L1H8 | 1.0        | 200    | □   | ◆         | ▲  | △         |
| MHMF152L1C5 | 1.5        | 200    | ○   |           | ●  | ○         |
| MHMF152L1C6 | 1.5        | 200    | ○   |           | ●  | △         |
| MHMF152L1C7 | 1.5        | 200    | ○   |           | ▲  | ○         |
| MHMF152L1C8 | 1.5        | 200    | ○   |           | ▲  | △         |
| MHMF152L1D5 | 1.5        | 200    | ○   | ◆         | ●  | ○         |
| MHMF152L1D6 | 1.5        | 200    | ○   | ◆         | ●  | △         |
| MHMF152L1D7 | 1.5        | 200    | ○   | ◆         | ▲  | ○         |
| MHMF152L1D8 | 1.5        | 200    | ○   | ◆         | ▲  | △         |
| MHMF152L1G5 | 1.5        | 200    | □   |           | ●  | ○         |
| MHMF152L1G6 | 1.5        | 200    | □   |           | ●  | △         |
| MHMF152L1G7 | 1.5        | 200    | □   |           | ▲  | ○         |
| MHMF152L1G8 | 1.5        | 200    | □   |           | ▲  | △         |
| MHMF152L1H5 | 1.5        | 200    | □   | ◆         | ●  | ○         |
| MHMF152L1H6 | 1.5        | 200    | □   | ◆         | ●  | △         |

| 型号          | 输出<br>(kW) | 电压 (V) | 轴规格 | 保持制动<br>器 | 油封 | 电机<br>I/F |
|-------------|------------|--------|-----|-----------|----|-----------|
| MHMF152L1H7 | 1.5        | 200    | □   | ◆         | ▲  | ○         |
| MHMF152L1H8 | 1.5        | 200    | □   | ◆         | ▲  | △         |
| MHMF202L1C5 | 2.0        | 200    | ○   |           | ●  | ○         |
| MHMF202L1C6 | 2.0        | 200    | ○   |           | ●  | △         |
| MHMF202L1C7 | 2.0        | 200    | ○   |           | ▲  | ○         |
| MHMF202L1C8 | 2.0        | 200    | ○   |           | ▲  | △         |
| MHMF202L1D5 | 2.0        | 200    | ○   | ◆         | ●  | ○         |
| MHMF202L1D6 | 2.0        | 200    | ○   | ◆         | ●  | △         |
| MHMF202L1D7 | 2.0        | 200    | ○   | ◆         | ▲  | ○         |
| MHMF202L1D8 | 2.0        | 200    | ○   | ◆         | ▲  | △         |
| MHMF202L1G5 | 2.0        | 200    | □   |           | ●  | ○         |
| MHMF202L1G6 | 2.0        | 200    | □   |           | ●  | △         |
| MHMF202L1G7 | 2.0        | 200    | □   |           | ▲  | ○         |
| MHMF202L1G8 | 2.0        | 200    | □   |           | ▲  | △         |
| MHMF202L1H5 | 2.0        | 200    | □   | ◆         | ●  | ○         |
| MHMF202L1H6 | 2.0        | 200    | □   | ◆         | ●  | △         |
| MHMF202L1H7 | 2.0        | 200    | □   | ◆         | ▲  | ○         |
| MHMF202L1H8 | 2.0        | 200    | □   | ◆         | ▲  | △         |
| MHMF302L1C5 | 3.0        | 200    | ○   |           | ●  | ○         |
| MHMF302L1C6 | 3.0        | 200    | ○   |           | ●  | △         |
| MHMF302L1C7 | 3.0        | 200    | ○   |           | ▲  | ○         |
| MHMF302L1C8 | 3.0        | 200    | ○   |           | ▲  | △         |
| MHMF302L1D5 | 3.0        | 200    | ○   | ◆         | ●  | ○         |
| MHMF302L1D6 | 3.0        | 200    | ○   | ◆         | ●  | △         |
| MHMF302L1D7 | 3.0        | 200    | ○   | ◆         | ▲  | ○         |
| MHMF302L1D8 | 3.0        | 200    | ○   | ◆         | ▲  | △         |
| MHMF302L1G5 | 3.0        | 200    | □   |           | ●  | ○         |
| MHMF302L1G6 | 3.0        | 200    | □   |           | ●  | △         |
| MHMF302L1G7 | 3.0        | 200    | □   |           | ▲  | ○         |
| MHMF302L1G8 | 3.0        | 200    | □   |           | ▲  | △         |
| MHMF302L1H5 | 3.0        | 200    | □   | ◆         | ●  | ○         |
| MHMF302L1H6 | 3.0        | 200    | □   | ◆         | ●  | △         |
| MHMF302L1H7 | 3.0        | 200    | □   | ◆         | ▲  | ○         |

| 型号          | 输出<br>(kW) | 电压 (V) | 轴规格 | 保持制动<br>器 | 油封 | 电机<br>I/F |
|-------------|------------|--------|-----|-----------|----|-----------|
| MHMF302L1H8 | 3.0        | 200    | □   | ◆         | ▲  | △         |
| MHMF402L1C5 | 4.0        | 200    | ○   |           | ●  | ○         |
| MHMF402L1C6 | 4.0        | 200    | ○   |           | ●  | △         |
| MHMF402L1C7 | 4.0        | 200    | ○   |           | ▲  | ○         |
| MHMF402L1C8 | 4.0        | 200    | ○   |           | ▲  | △         |
| MHMF402L1D5 | 4.0        | 200    | ○   | ◆         | ●  | ○         |
| MHMF402L1D6 | 4.0        | 200    | ○   | ◆         | ●  | △         |
| MHMF402L1D7 | 4.0        | 200    | ○   | ◆         | ▲  | ○         |
| MHMF402L1D8 | 4.0        | 200    | ○   | ◆         | ▲  | △         |
| MHMF402L1G5 | 4.0        | 200    | □   |           | ●  | ○         |
| MHMF402L1G6 | 4.0        | 200    | □   |           | ●  | △         |
| MHMF402L1G7 | 4.0        | 200    | □   |           | ▲  | ○         |
| MHMF402L1G8 | 4.0        | 200    | □   |           | ▲  | △         |
| MHMF402L1H5 | 4.0        | 200    | □   | ◆         | ●  | ○         |
| MHMF402L1H6 | 4.0        | 200    | □   | ◆         | ●  | △         |
| MHMF402L1H7 | 4.0        | 200    | □   | ◆         | ▲  | ○         |
| MHMF402L1H8 | 4.0        | 200    | □   | ◆         | ▲  | △         |
| MHMF502L1C5 | 5.0        | 200    | ○   |           | ●  | ○         |
| MHMF502L1C6 | 5.0        | 200    | ○   |           | ●  | △         |
| MHMF502L1C7 | 5.0        | 200    | ○   |           | ▲  | ○         |
| MHMF502L1C8 | 5.0        | 200    | ○   |           | ▲  | △         |
| MHMF502L1D5 | 5.0        | 200    | ○   | ◆         | ●  | ○         |
| MHMF502L1D6 | 5.0        | 200    | ○   | ◆         | ●  | △         |
| MHMF502L1D7 | 5.0        | 200    | ○   | ◆         | ▲  | ○         |
| MHMF502L1D8 | 5.0        | 200    | ○   | ◆         | ▲  | △         |
| MHMF502L1G5 | 5.0        | 200    | □   |           | ●  | ○         |
| MHMF502L1G6 | 5.0        | 200    | □   |           | ●  | △         |
| MHMF502L1G7 | 5.0        | 200    | □   |           | ▲  | ○         |
| MHMF502L1G8 | 5.0        | 200    | □   |           | ▲  | △         |
| MHMF502L1H5 | 5.0        | 200    | □   | ◆         | ●  | ○         |
| MHMF502L1H6 | 5.0        | 200    | □   | ◆         | ●  | △         |
| MHMF502L1H7 | 5.0        | 200    | □   | ◆         | ▲  | ○         |
| MHMF502L1H8 | 5.0        | 200    | □   | ◆         | ▲  | △         |

用（轴规格 直=○、带键=□、带键带螺纹=△）  
 （油封 有=●、无（保护唇）=▲）  
 （电机 I/F、JN=◎、JN2=○、JL10=△）区分显示

• MINAS-A6 MGF 系列 (□130mm 以上)

| 型号          | 输出<br>(kW) | 电压 (V) | 轴规格 | 保持制动<br>器 | 油封 | 电机<br>I/F |
|-------------|------------|--------|-----|-----------|----|-----------|
| MGMF092L1C5 | 0.85       | 200    | ○   |           | ●  | ○         |
| MGMF092L1C6 | 0.85       | 200    | ○   |           | ●  | △         |
| MGMF092L1C7 | 0.85       | 200    | ○   |           | ▲  | ○         |
| MGMF092L1C8 | 0.85       | 200    | ○   |           | ▲  | △         |
| MGMF092L1D5 | 0.85       | 200    | ○   | ◆         | ●  | ○         |
| MGMF092L1D6 | 0.85       | 200    | ○   | ◆         | ●  | △         |
| MGMF092L1D7 | 0.85       | 200    | ○   | ◆         | ▲  | ○         |
| MGMF092L1D8 | 0.85       | 200    | ○   | ◆         | ▲  | △         |
| MGMF092L1G5 | 0.85       | 200    | □   |           | ●  | ○         |
| MGMF092L1G6 | 0.85       | 200    | □   |           | ●  | △         |
| MGMF092L1G7 | 0.85       | 200    | □   |           | ▲  | ○         |
| MGMF092L1G8 | 0.85       | 200    | □   |           | ▲  | △         |
| MGMF092L1H5 | 0.85       | 200    | □   | ◆         | ●  | ○         |
| MGMF092L1H6 | 0.85       | 200    | □   | ◆         | ●  | △         |
| MGMF092L1H7 | 0.85       | 200    | □   | ◆         | ▲  | ○         |
| MGMF092L1H8 | 0.85       | 200    | □   | ◆         | ▲  | △         |
| MGMF132L1C5 | 1.3        | 200    | ○   |           | ●  | ○         |
| MGMF132L1C6 | 1.3        | 200    | ○   |           | ●  | △         |
| MGMF132L1C7 | 1.3        | 200    | ○   |           | ▲  | ○         |
| MGMF132L1C8 | 1.3        | 200    | ○   |           | ▲  | △         |
| MGMF132L1D5 | 1.3        | 200    | ○   | ◆         | ●  | ○         |
| MGMF132L1D6 | 1.3        | 200    | ○   | ◆         | ●  | △         |
| MGMF132L1D7 | 1.3        | 200    | ○   | ◆         | ▲  | ○         |
| MGMF132L1D8 | 1.3        | 200    | ○   | ◆         | ▲  | △         |
| MGMF132L1G5 | 1.3        | 200    | □   |           | ●  | ○         |
| MGMF132L1G6 | 1.3        | 200    | □   |           | ●  | △         |
| MGMF132L1G7 | 1.3        | 200    | □   |           | ▲  | ○         |
| MGMF132L1G8 | 1.3        | 200    | □   |           | ▲  | △         |
| MGMF132L1H5 | 1.3        | 200    | □   | ◆         | ●  | ○         |
| MGMF132L1H6 | 1.3        | 200    | □   | ◆         | ●  | △         |

| 型号          | 输出<br>(kW) | 电压 (V) | 轴规格 | 保持制动<br>器 | 油封 | 电机<br>I/F |
|-------------|------------|--------|-----|-----------|----|-----------|
| MGMF132L1H7 | 1.3        | 200    | □   | ◆         | ▲  | ○         |
| MGMF132L1H8 | 1.3        | 200    | □   | ◆         | ▲  | △         |
| MGMF182L1C5 | 1.8        | 200    | ○   |           | ●  | ○         |
| MGMF182L1C6 | 1.8        | 200    | ○   |           | ●  | △         |
| MGMF182L1C7 | 1.8        | 200    | ○   |           | ▲  | ○         |
| MGMF182L1C8 | 1.8        | 200    | ○   |           | ▲  | △         |
| MGMF182L1D5 | 1.8        | 200    | ○   | ◆         | ●  | ○         |
| MGMF182L1D6 | 1.8        | 200    | ○   | ◆         | ●  | △         |
| MGMF182L1D7 | 1.8        | 200    | ○   | ◆         | ▲  | ○         |
| MGMF182L1D8 | 1.8        | 200    | ○   | ◆         | ▲  | △         |
| MGMF182L1G5 | 1.8        | 200    | □   |           | ●  | ○         |
| MGMF182L1G6 | 1.8        | 200    | □   |           | ●  | △         |
| MGMF182L1G7 | 1.8        | 200    | □   |           | ▲  | ○         |
| MGMF182L1G8 | 1.8        | 200    | □   |           | ▲  | △         |
| MGMF182L1H5 | 1.8        | 200    | □   | ◆         | ●  | ○         |
| MGMF182L1H6 | 1.8        | 200    | □   | ◆         | ●  | △         |
| MGMF182L1H7 | 1.8        | 200    | □   | ◆         | ▲  | ○         |
| MGMF182L1H8 | 1.8        | 200    | □   | ◆         | ▲  | △         |
| MGMF292L1C5 | 2.9        | 200    | ○   |           | ●  | ○         |
| MGMF292L1C6 | 2.9        | 200    | ○   |           | ●  | △         |
| MGMF292L1C7 | 2.9        | 200    | ○   |           | ▲  | ○         |
| MGMF292L1C8 | 2.9        | 200    | ○   |           | ▲  | △         |
| MGMF292L1D5 | 2.9        | 200    | ○   | ◆         | ●  | ○         |
| MGMF292L1D6 | 2.9        | 200    | ○   | ◆         | ●  | △         |
| MGMF292L1D7 | 2.9        | 200    | ○   | ◆         | ▲  | ○         |
| MGMF292L1D8 | 2.9        | 200    | ○   | ◆         | ▲  | △         |
| MGMF292L1G5 | 2.9        | 200    | □   |           | ●  | ○         |
| MGMF292L1G6 | 2.9        | 200    | □   |           | ●  | △         |
| MGMF292L1G7 | 2.9        | 200    | □   |           | ▲  | ○         |
| MGMF292L1G8 | 2.9        | 200    | □   |           | ▲  | △         |
| MGMF292L1H5 | 2.9        | 200    | □   | ◆         | ●  | ○         |
| MGMF292L1H6 | 2.9        | 200    | □   | ◆         | ●  | △         |
| MGMF292L1H7 | 2.9        | 200    | □   | ◆         | ▲  | ○         |

| 型号          | 输出<br>(kW) | 电压 (V) | 轴规格 | 保持制动<br>器 | 油封 | 电机<br>I/F |
|-------------|------------|--------|-----|-----------|----|-----------|
| MGMF292L1H8 | 2.9        | 200    | □   | ◆         | ▲  | △         |
| MGMF442L1C5 | 4.4        | 200    | ○   |           | ●  | ○         |
| MGMF442L1C6 | 4.4        | 200    | ○   |           | ●  | △         |
| MGMF442L1C7 | 4.4        | 200    | ○   |           | ▲  | ○         |
| MGMF442L1C8 | 4.4        | 200    | ○   |           | ▲  | △         |
| MGMF442L1D5 | 4.4        | 200    | ○   | ◆         | ●  | ○         |
| MGMF442L1D6 | 4.4        | 200    | ○   | ◆         | ●  | △         |
| MGMF442L1D7 | 4.4        | 200    | ○   | ◆         | ▲  | ○         |
| MGMF442L1D8 | 4.4        | 200    | ○   | ◆         | ▲  | △         |
| MGMF442L1G5 | 4.4        | 200    | □   |           | ●  | ○         |
| MGMF442L1G6 | 4.4        | 200    | □   |           | ●  | △         |
| MGMF442L1G7 | 4.4        | 200    | □   |           | ▲  | ○         |
| MGMF442L1G8 | 4.4        | 200    | □   |           | ▲  | △         |
| MGMF442L1H5 | 4.4        | 200    | □   | ◆         | ●  | ○         |
| MGMF442L1H6 | 4.4        | 200    | □   | ◆         | ●  | △         |
| MGMF442L1H7 | 4.4        | 200    | □   | ◆         | ▲  | ○         |
| MGMF442L1H8 | 4.4        | 200    | □   | ◆         | ▲  | △         |

**■MINAS-A6 选购品****-MINAS-A6 选购品**

| 型号         | 名称             |
|------------|----------------|
| DV0PM24581 | 电机、编码器连接用连接器套件 |
| DV0PM24582 | 电机、编码器连接用连接器套件 |
| DV0PM24583 | 电机、编码器连接用连接器套件 |
| DV0PM24584 | 电机、编码器连接用连接器套件 |
| DV0PM24585 | 电机、编码器连接用连接器套件 |
| DV0PM24586 | 电机、编码器连接用连接器套件 |
| DV0PM24587 | 电机、编码器连接用连接器套件 |
| DV0PM24588 | 电机、编码器连接用连接器套件 |
| DV0PM24589 | 电机、编码器连接用连接器套件 |
| DV0PM24590 | 电机、编码器连接用连接器套件 |
| DV0PM20100 | 安装支架 A、B 型     |
| DV0PM20101 | 安装支架 C、D 型     |