

DLK
减速电机
Gearmotors



产品说明

1.1 产品特点	1
1.2 使用条件	1
1.3 通用技术条件	1
1.4 润滑油	3
1.5 带平键空心轴的尺寸及拆装	5

1

产品型号表示及订货说明

2.1 产品型号表示	6
2.2 附加订货说明	8
2.3 制动器	8
2.4 输出轴和输出法兰位置	8
2.5 安装方式	9
2.6 电机接线盒和接线口位置	9
2.7 编码器	10
2.8 防腐蚀	10
2.9 表面防护	10
2.10 标准电机连接法兰	11

2

DLK..DM..减速电机选型

3.1 选型步骤	13
3.2 载荷系数F	14
3.3 启动次数系数C	15
3.4 径向力和轴向力校核	15

3

减速机和专用减速电机

4.1 DLK..S..双轴型减速机选型	17
4.2 专用减速电机特点及应用场合	18
4.3 专用减速电机的选型	19

4

技术参数及外形安装尺寸图表

5.1 DLK..DM..减速电机技术参数表	20
5.2 DLK..DM..减速电机外形及安装尺寸图表	60
5.3 DLK..S..双轴型减速机技术参数表	105
5.4 DLK..S..双轴型减速机外形及安装尺寸图表	117
5.5 DLK..DM..PG1变频辊道减速电机技术参数表	118
5.6 DLK..DM..PG2变频辊道减速电机技术参数表	119
5.7 DLK..DM..PG变频辊道减速电机外形及安装尺寸图表	120
5.8 DLK..DM..GP1辊道变频减速电机技术参数表	121
5.9 DLK..DM..GP2辊道变频减速电机技术参数表	122
5.10 DLK..DM..GP辊道变频减速电机外形及安装尺寸图表	123

5

1

Product Description

1.1	The features of DLK	1
1.2	Ambient conditions	1
1.3	General notes	1
1.4	Lubricants	3
1.5	Installation/removal of gear units with hollow shafts and keys	5

2

Product Designations and Order Information

2.1	Product designations	6
2.2	Additional order information	8
2.3	Brake	8
2.4	Position of output shaft and output flange	9
2.5	Mounting position	9
2.6	Position of terminal box and cable entry	9
2.7	Encoder	10
2.8	Corrosion protection	10
2.9	Surface protection	10
2.10	Motor adapter	11

3

Project planning for DLK..DM.. gearmotors

3.1	Procedure	13
3.2	Load factor F	14
3.3	Starting times factor C	15
3.4	Check overhung and axial forces	15

4

Gear units and gearmotors for special application

4.1	Project planning for DLK..S.. gear units	17
4.2	The feature and application of special gearmotors	18
4.3	Project planning for special gearmotors	19

5

Selection Tables and Dimensions

5.1	Selection tables of DLK..DM..garmotors	20
5.2	Dimensions of DLK..DM..garmotors	60
5.3	Selection tables of DLK..S..bearmotors(double shaft)	105
5.4	Dimensions of DLK..S..garmotors	117
5.5	Selection tables of DLK..DM..PG1garmotors powered by inverter	118
5.6	Selection tables of DLK..DM..PG2garmotors powered by inverter	119
5.7	Dimensions of DLK..DM..PGgarmotors	120
5.8	Selection tables of DLK..DM..GP1garmotors powered by inverter	121
5.9	Selection tables of DLK..DM..GP2garmotors powered by inverter	122
5.10	Dimensions of DLK..DM..GPgarmotors	123

产品说明

Product Description

1.1 产品特点

DLK系列模块化减速电机是宁波东力传动设备股份有限公司全新设计开发的第四代高性能模块化减速电机，其主要优点有：

更高层次的模块化设计，使全系列产品使用更少的零件，并满足更多不同行业和场合的应用需要；

齿轮采用优质低碳合金钢渗碳淬火磨齿工艺和修形技术使产品具有更高的承载能力，运行更可靠，噪音更低，效率更高；

独特美观的整体式高强度铸造箱体，具有更高的刚性和抗振性；

更为精细的传动比分级，充分满足用户的对精准输出转速的需求；

更全面的设计，使产品适合在空间任意角度安装。

1.2 使用条件

环境温度

DLK系列减速电机在添加1.4章所规定的润滑油的情况下可在下表所述环境温度范围内正常运行：

减速电机 / Gearmotors	润滑油 / Lubricant	环境温度 / Ambient temperature
DLK 系列减速电机	CLP(CC) VG220	-10 °C ... +40 °C

海拔高度

在高海拔位置，由于空气密度下降，电动机和齿轮箱的散热能力下降。样本中的额定数值为最大海拔高度为1000米的值。海拔高度超过1000米必须考虑海拔高度影响，详细请与东力公司联系。

相对湿度

通用环境湿度<90%。

当环境湿度高于90%时必须考虑特殊表面防护的要求，详见2.9表面防护说明。

1.3 通用技术条件

功率和转矩

样本中列出的功率为电动机的额定输出功率，减速电机的输出功率要考虑减速机的效率。输出转矩为减速机或减速电机的输出转矩，其是指减速（电）机在M1安装方式时（高速级齿轮没有完全浸入润滑油中），在标准润滑和环境温度情况下的值。

速度

选型表提供的输出转速是推荐值，实际输出转速取决于电动机的负载和电源供电状况。

1.1 The features of DLK

DLK series modular gearmotors are completely new design gearmotors. Advantages are:

More sizes with a reduced variety of parts;

Increased power capacity, lower noise and higher efficiency by grinding and modifying gears.

The all-in-one box provides higher rigidity and higher vibration resistance.

More ratios satisfy the need of accurate output speed.

Gearmotors can be supplied for either horizontal or vertical installation in any angle.

1.2 Ambient conditions

Ambient temperature

The following standard temperature ranges are permitted for filling the gear units according to the lubricant table illustrated in chapter 1.4

Installation altitude

Due to the low air density at high installation altitudes, the heat dissipation on the surface of motors and gear units decrease. The rated data listed in the catalogue applies to an installation altitude of maximum 1000 m above sea level. Installation altitudes of more than 1000 m must be taken into account for project planning of gear units and gearmotors. Please contact with Donly for details.

Relative humidity

Normal relative humidity should be lower than 90%.

Relative humidity of more than 90%, the surface protection must be taken into account according to chapter 2.9.

1.3 General notes

Power and torque

The power and torque ratings listed in the catalogs refer to mounting position M1, in which the input stage is not completely submerged in oil. In addition, the gearmotors are assumed to be standard versions with standard lubrication and under normal ambient conditions.

Please note that the motor power shown in the selection tables for gearmotors is subject to selection. However, the output torque and the desired output speed are essential for the application and need to be checked

Speeds

The quoted output speeds of the gearmotors are recommended values. The actual output speed depends on the motor load and the supply system conditions.