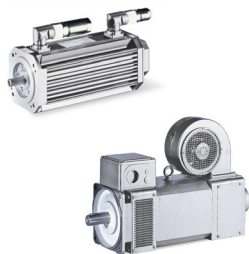


M...

异步伺服电机; 同步伺服电机
异步伺服电机; 同步伺服电机

Servo asynchronous motors;
Servo synchronous motors



MCA, MCS, MQA, MD□KS,
SDSGA, SDSGS | 0.5 Nm ... 1100 Nm

安装指导

ZH

Mounting Instructions

EN



13496723

Lenze

基本信息



开始使用前请先阅读本指导说明！

本指导说明书仅适用于Lenze系统电缆和Lenze控制器。

如未使用Lenze系统电缆或控制器，请参阅标准设备和电机的通用文档。



技巧!

与Lenze产品相关的文档和工具，请至如下网址下载

www.lenze.com



危险!

如果忽视下列基本安全措施，可能导致严重的人员受伤以及财产损失：

注意警示信息！

符号	描述
	致命性电压: 所有电源端子，以及移除连接头后，残余电压>60V时。
	烧伤危险: 运行期间和运行后设备表面温度高达 140°C! 提供保护盖！

基本信息

- ▶ Lenze 驱动与自动化组件...
 - ... 仅用于预设目的。
 - ... 损坏时切勿使用。
 - ... 不可进行任何技术改动。
 - ... 未完成组装前切勿进行任何操作。
 - ... 无防护罩或防护装置时切勿进行任何操作。
 - ... 根据其防护等级，在运行期间或运行后均可能存在带电、移动或旋转部件。表面也可能是热的。
- ▶ 请注意在所附的相关文件中预先规定的所有条件。
这是保证安全和无故障运行并达到规定产品性能的前提条件。
- ▶ 只能由具备资质的专业技术人员来操作Lenze驱动与自动化组件。
根据IEC 60364或CENELEC HD 384, 这些人员应 ...
 - ... 熟悉产品的安装、组装、调试和操作,
 - ... 具备所在岗位的职业资质,
 - ... 熟悉并可恰当引用使用地的相关意外防护章程、指令和适用的法律法规。
- ▶ 即使插头已拔开，电源端子上仍存在危险电压：残余电压 >60 V!
- ▶ 在对电源端口进行任何操作前，务必先（如果有的话）从电源上断开电机和控制器并确保电机已处于静止状态（即断开电机旋转时触点上的电压）。
- ▶ 烧伤危险！
 - 运行期间表面温度可达140 °C! 提供防触保护措施。
- ▶ 小心旋转轴，可能会有受伤危险！
 - 对电机进行任何操作前应先确保电机处于静止状态。
- ▶ 带插头的设计：
 - 接电期间切勿断开插头！否则插头可能受损！
 - 拔开插头前请先断开电源并禁用控制器。

按规定应用

低压设备并非家用电器，而是专为 IEC/EN 61000-3-2 规范下的工业或专业用途的重复利用而设计的组件。

其满足 2014/35/EU 低电压指令和 IEC/EN 60034 系列调和标准的要求。

在未采取特殊保护措施的情况下，防护等级为 IP23 或更低的低压电机不得用于室外。

集成的制动不能用作安全制动。不被影响的干扰因素会不可避免得减少制动转矩。

► 驱动器

- ... 只能在操作环境下进行操作，功率限制指定在操作指导书中。
- ... 符合 EU 低电压指令的保护要求。

其他或除此之外的应用被视为是不当的！

可预见不当使用

► 电机禁止用于:

- ... 防爆区域内
- ... 恶劣环境中（酸类、气体、蒸汽、灰尘、油）
- ... 水中
- ... 辐射下

安装信息

- ▶ 在传输前
 - 检查确保所有元件都安全安装好,
 - 检查以确保所有带松动紧固件是否已紧固好还是已移除,
 - 紧固所有的运输零件 (活节螺栓或支撑板)。



危险!

负载推翻或下降会产生危险!

- ▶ 提升和负载操作设备的有效负载必须至少和该负载的重量对应, 至于重量, 参考下目录。
- ▶ 必须确保该负载无法被推翻或坠落。
- ▶ 不要保持在悬挂负载状态!



停止!

轴不可受任何敲打或撞击! 否则电机可能损坏! 驱动组件应通过螺纹法兰安装于电机轴上。拆装时需使用提取设备。安全固定联轴器。

安全紧固电机并确保通风流畅。

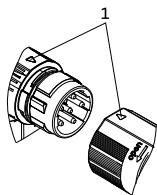
插头连接

该接头符合IEC/EN60721-3-3指定的振动和冲击3M6等级。这个会应用到所有电源，编码器 and 风扇接头盒子。



停止!

- ▶ 电缆接头使用螺丝连接:
 - 始终使用O形环。
- ▶ 带SpeedTec卡销的电缆接头:
 - 移除O形环并进行处理。



当电缆接头和电机接头连接时，确保向东的(正向1)零件都彼此面对面。只有这样能确保之后的无错操作。

- ▶ 锁紧电缆接头的盖螺母!
- ▶ 永远不要在含电压时断开电缆接头连接!否则可能损坏接头!在断开插头连接前禁用变频器!

重要注释

- ▶ 根据相应规定进行电气安装。其他相关信息可查阅详细操作指导说明书。
- ▶ 在进行连接时，请确保已具备安全PE导体连接。

带接头设计

Lenze系统电缆的接头设计独特，实用性强（功率、风扇、反馈和数字频率）。

对于Lenze电机至Lenze控制器的连接，建议使用Lenze系统电缆。

电机电缆屏蔽可在大表面应用至控制器上。

带端子盒设计

- ▶ 电气连接描述见端子盒。
- ▶ 确保端子盒无异物且防尘防潮。
- ▶ 关于裸露或带电部件之间的气体及其与地面间的气体，请遵守对应许可。
- ▶ 电机衬垫专为Lenze系统电缆的电缆截面而设计。
- ▶ 系统电缆描述见标准电缆衬垫。
- ▶ 欲使用其他电缆截面，则需加大或缩小电缆衬垫尺寸或使用其他类型的电缆衬垫。
- ▶ 在电机和控制器上需确保电机电缆的屏蔽范围。

General information



Please read these instructions before you start working!

These instructions only apply to the use of Lenze system cables and Lenze inverters.

If you are not using Lenze system cables or Lenze inverters, you require the overall documentation of the standard device and the motor.



Tip!

Information and tools concerning the Lenze products can be found in the download area at

www.lenze.com



Danger!

Disregarding the following basic safety measures may lead to severe personal injury and damage to material assets!

Observe warning signs!

Symbol	Description
	Life-threatening voltage: All power terminals, also if the connector is removed - residual voltage > 60 V!
	Risk of burns: During and after operation the surfaces have temperatures of up to 140°C! Provide for covers!

Safety instructions

General information

General information

- ▶ Lenze drive and automation components ...
 - ... must only be used for the intended purpose.
 - ... must never be operated if damaged.
 - ... must never be subjected to technical modifications.
 - ... must never be operated unless completely assembled.
 - ... must never be operated without the covers/guards.
 - ... can - depending on their degree of protection - have live, movable or rotating parts during or after operation. Surfaces can be hot.
- ▶ All specifications of the corresponding enclosed documentation must be observed. This is vital for safe and trouble-free operation and for achieving the specified product features.
- ▶ Only qualified skilled personnel are permitted to work with or on Lenze drive and automation components.

According to IEC 60364 or CENELEC HD 384, these are persons ...

 - ... who are familiar with the installation, assembly, commissioning and operation of the product,
 - ... possess the appropriate qualifications for their work,
 - ... and are acquainted with and can apply all the accident prevent regulations, directives and laws applicable at the place of use.
- ▶ Hazardous voltage at the power terminals, even if the plug is removed: residual voltage >60 V!
- ▶ Before carrying out work on the power connections, always disconnect the motor and controller, if any, from the mains and wait until the motor is at standstill (voltage at the contacts when the motor is rotating).
- ▶ Risk of burns!
 - Hot surfaces up to 140 °C during operation! Provide protection against contact.
- ▶ Risk of injury due to rotating shaft!
 - Before working on the motor ensure that the motor is at standstill.
- ▶ Design with plug:
 - Never disconnect plug when energised! Otherwise, the plug can be destroyed.
 - Disconnect power supply or inhibit controller prior to disconnecting the plug.

Safety instructions

Application as directed

Application as directed

Low-voltage machines are not household appliances, but are intended as components that are only applied for re-use for industrial or professional purposes in terms of IEC/EN 61000-3-2.

They meet the requirements of the 2014/35/EU Low-Voltage Directive and the harmonised standards of the IEC/EN 60034 series.

Low-voltage machines with IP23 protection or less are only intended for outdoor use when applying special protective features.

The integrated brakes must not be used as safety brakes. It cannot be ruled out that interference factors which cannot be influenced cause a brake torque reduction.

► Drives

- ... must only be operated under the operating conditions and power limits specified in the operating instructions.
- ... comply with the protection requirements of the EU Low-Voltage Directive.

Any other use shall be deemed inappropriate!

Foreseeable misuse

► Do not operate the motors

- ... in explosion-protected areas
- ... in aggressive environments (acid, gas, vapour, dust, oil)
- ... in water
- ... in radiation environments

Mechanical installation

Installation information

Installation information

- ▶ Before the transport
 - check that all components are safely mounted,
 - check that all component parts with a loose fastening are secured or removed,
 - fasten all transport aids (eye bolts or support plates).



Danger!

Danger due to toppling or falling loads!

- ▶ The payload of the hoists and load handling devices must at least correspond to the weight of the load, For weights see the , catalogue.
- ▶ The load must be secured in such a way that it cannot topple or fall down.
- ▶ Do not stay under a pending load!



Stop!

The shaft must not be exposed to knocks or bumps! Motor can be destroyed! Drive elements must be mounted on the motor shaft via the threading. An extracting device must be used when dismounting. Fasten coupling securely.

Securely fasten motor and ensure unimpeded ventilation.

Mechanical installation

Plug connection

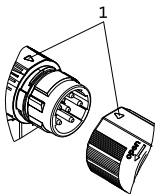
Plug connection

The connectors comply with vibration and shock class 3M6 as specified in IEC/EN60721-3-3. This applies to all power, encoder and fan connector boxes.



Stop!

- ▶ **Cable connectors with screwed connection:**
 - Always use with the O-rings supplied.
- ▶ **Cable connectors with a SpeedTec bayonet lock:**
 - Remove O-ring and dispose of it.



When connecting the cable connector to the motor connector, make sure that the aids to orientation (pos. 1) are facing each other. Only then trouble-free operation is ensured.

- ▶ Tighten the box nut of the cable connectors!
- ▶ Never disconnect cable connectors whilst voltage is being applied! Otherwise the connector may be destroyed! Inhibit the inverter before disconnecting the plugs!

Electrical installation

Important notes

Important notes

- ▶ Carry out the electrical installation in accordance with the relevant regulations. Additional information can be found in the detailed operating instructions.
- ▶ While making the connection, be sure to provide for a safe PE conductor connection.

Design including a connector

The connectors of the Lenze system cables are designed in a distinctive, application-specific fashion (power, fan, feedback, digital frequency).

For the connection of Lenze motors to Lenze controllers, we recommend using Lenze system cables.

Apply shields of the motor cable to the controller on a large surface.

Design with terminal box

- ▶ The electrical connection is described in the terminal box.
- ▶ Keep the terminal box free of foreign matter, dirt, and humidity.
- ▶ Observe specified clearances in air between bare, live parts, and to earth.
- ▶ The cable glands are designed for the cable cross-sections of the Lenze system cables.
- ▶ The system cables are designed for standard cable glands.
- ▶ To use other cable cross-sections, extended sizes, reduced sizes, or other types of cable glands must be used.
- ▶ Extensive shielding of motor cable on motor and controller.



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