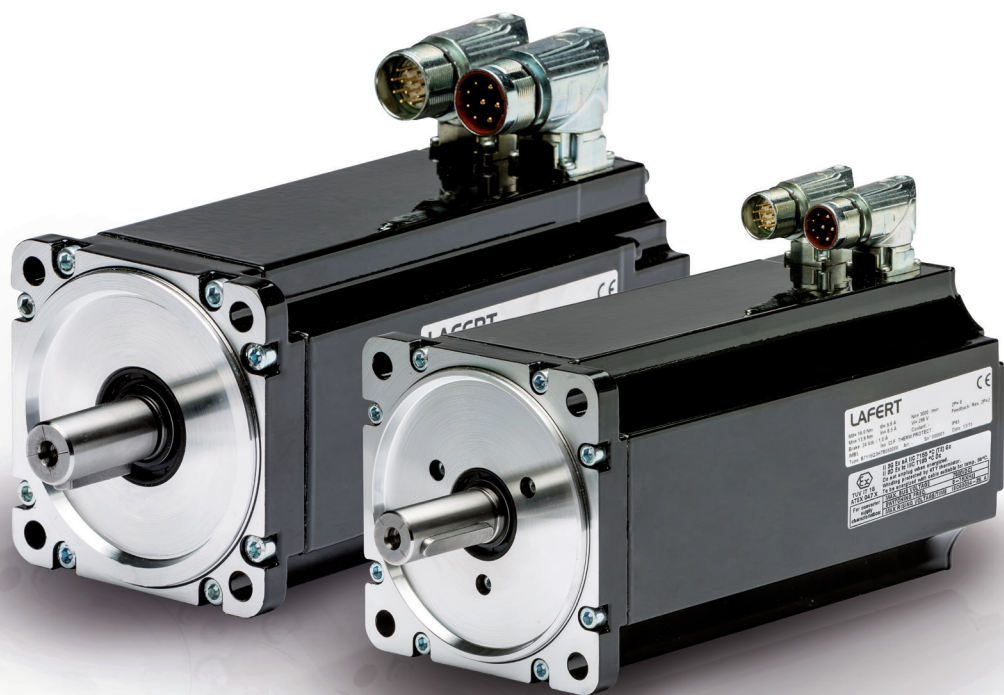


科瑞力摩®

Motion Control

# 伺服电机

无刷伺服电机  
ATEX 防爆认证 - 2-22区

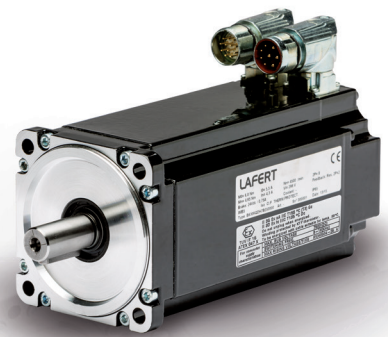


2020宣传册



无刷伺服电机和力矩电机符合爆炸性环境指令94/9/EC - ATEX（针对潜在爆炸性环境中使用的设备和防护系统），同时符合标准EN 60079-0:2012、EN 60079-15:2010和EN 60079-31:2014。

电机在3G（气体）和3D（粉尘）类爆炸性物质，需要增强ATEX保护等级条件下，可以正常工作。



## 标准

|                   |                                |
|-------------------|--------------------------------|
| EN 60079-0: 2012  | 爆炸性环境<br>第0部分：设备 – 一般要求        |
| EN 60079-15: 2010 | 爆炸性环境<br>第15部分：“n”型设备防护        |
| EN 60079-31: 2014 | 爆炸性环境<br>第31部分：“t”型外壳的设备粉尘引燃防护 |

## 目标应用 – 2-22区

- 涂装机器人
- 印刷机
- 塑料生产
- 化学、石化和制药工业
- 废弃物处理厂
- 含非导电性粉尘的食品厂
- 含导电性粉尘的工厂

## 标识

### • II 3G Ex nA IIC T155°C (T3) Gc

用于2区（气体）的防护方法为“无火花nA”，达到防护等级EPL Gc。

II = 工厂应用

3G = 3类，2区中的设施气体：爆炸性环境最多10小时/年

Ex nA = 防护模式无火花

IIC = 允许气体的类型

T155°C = 电机的最高外部和内部温度

Gc = 设备防护等级

### • II 3D Ex tc IIIC T135°C Dc

用于22区（粉尘）的防护方法为“外壳tc”，达到防护等级EPL Dc。  
最高表面电机温度为135 °C。

II = 工厂用

3D = 3类，22区中的设施粉尘：爆炸性环境最大10小时/年

Ex tc = 外壳防护模式

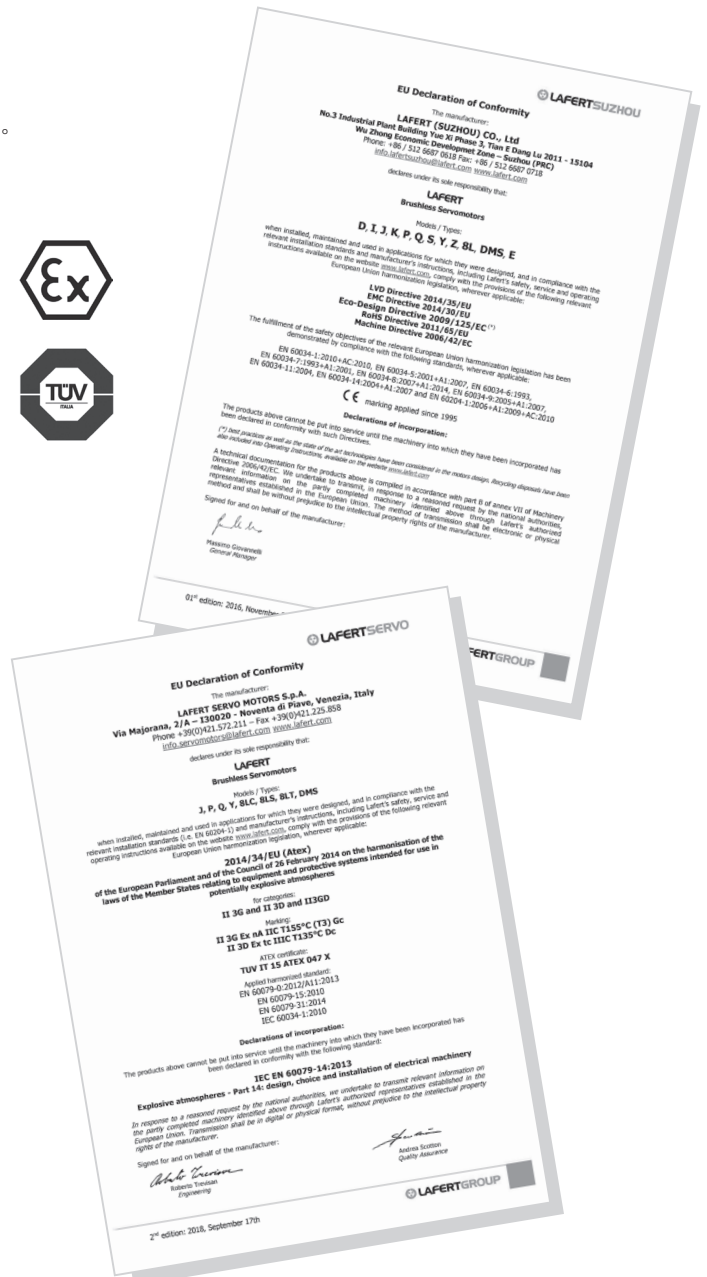
IIIC = 允许粉尘的类型

T135°C = 电机的最高外表面温度

Dc = 设备防护等级



|                                       |  |                                       |                  |          |  |                 |           |  |                         |
|---------------------------------------|--|---------------------------------------|------------------|----------|--|-----------------|-----------|--|-------------------------|
| <p>TUV IT 16<br/>ATEX 047 X</p>       | <p>II 3G Ex nA IIC T155 °C (T3) Gc<br/>II 3D Ex tc IIIC T135 °C Dc<br/>Do not unplug when energized.<br/>Winding protected by KTY thermistor.<br/>To be energized with cable suitable for temp. 90°C.</p>  |                                       |                  |          |  |                 |           |  |                         |
|                                       | <table border="1"> <tr> <td>For converter supply characteristics:</td> <td>MAX. BUS VOLTAGE</td> <td>750[VDC]</td> </tr> <tr> <td></td> <td>SWITCHING FREQ.</td> <td>8-16[KHz]</td> </tr> <tr> <td></td> <td>MAX RISING VOLTAGE/TIME</td> <td>IEC60034-25, A</td> </tr> </table> | For converter supply characteristics: | MAX. BUS VOLTAGE | 750[VDC] |  | SWITCHING FREQ. | 8-16[KHz] |  | MAX RISING VOLTAGE/TIME |
| For converter supply characteristics: | MAX. BUS VOLTAGE   | 750[VDC]                              |                  |          |  |                 |           |  |                         |
|                                       | SWITCHING FREQ.  | 8-16[KHz]                             |                  |          |  |                 |           |  |                         |
|                                       | MAX RISING VOLTAGE/TIME  | IEC60034-25, A                        |                  |          |  |                 |           |  |                         |



## ATEX防爆伺服电机的电气数据

| 型号      | 失速转矩<br>( $\Delta t=105^{\circ}\text{C}$ )<br>$M_0$<br>Nm | 额定转速         |      |      |      |      |
|---------|---|--------------|------|------|------|------|
|         |   | $n$<br>1/min |      |      |      |      |
|         |   | 1500         | 2000 | 3000 | 4500 | 6000 |
| 58.D2Q  | 0.23  | -            | -    | -    | -    | 0.22 |
| 58.D5Q  | 0.44  | -            | -    | 0.43 | -    | 0.42 |
| 58.D7Q  | 0.64  | -            | -    | 0.63 | -    | 0.61 |
| 58.01Q  | 0.84  | -            | -    | 0.83 | -    | 0.80 |
| 58.E2Q  | 1.04  | -            | -    | 1.02 | -    | 0.96 |
| 70.D6Q  | 0.6   | -            | -    | 0.5  | -    | 0.5  |
| 70.E2Q  | 1.1   | -            | -    | 1.0  | -    | 0.9  |
| 70.E8Q  | 1.7   | -            | -    | 1.5  | -    | 1.3  |
| 70.F4Q  | 2.2   | -            | -    | 1.9  | -    | 1.7  |
| 70.03Q  | 2.7   | -            | -    | 2.4  | -    | 2.0  |
| 91.E3Q  | 1.3   | -            | -    | 1.1  | -    | 1.0  |
| 91.F6Q  | 2.4   | -            | -    | 2.1  | -    | 1.7  |
| 91.G5Q  | 3.2   | -            | -    | 2.6  | -    | 2.0  |
| 91.H5Q  | 4.2   | -            | -    | 3.4  | -    | 2.3  |
| 100.04Q | 4.0   | -            | -    | 3.5  | 3.1  | 2.6  |
| 100.06Q | 5.8   | -            | -    | 4.9  | 4.2  | 3.5  |
| 100.08Q | 7.4   | -            | -    | 6.1  | 5.3  | 4.2  |
| 100.10Q | 9.2   | -            | -    | 7.6  | 6.4  | 4.9  |
| 142.04Q | 4.6   | -            | 4.2  | 4.0  | 3.6  | -    |
| 142.08Q | 8.6   | -            | 7.7  | 7.2  | 6.2  | -    |
| 142.12Q | 11.7  | -            | 10.2 | 9.4  | 7.7  | -    |
| 142.16Q | 15.3  | -            | 13.2 | 11.9 | 9.3  | -    |
| 142.20Q | 18.4  | -            | 15.4 | 13.7 | 10.1 | -    |
| 142.26Q | 24.4  | -            | 18.8 | 16.0 | 12.3 | -    |
| 142.29Q | 27.4  | -            | 20.5 | 16.5 | -    | -    |
| 142.32Q | 30.0  | -            | 21.5 | 17.0 | -    | -    |
| 142.35Q | 33.2  | -            | 23.3 | 18.0 | -    | -    |
| 142.38Q | 36.5  | -            | 25.6 | 19.5 | -    | -    |
| 190.20J | 18.0  | -            | 15.4 | 14.2 | -    | -    |
| 190.28J | 26.0  | -            | 21.7 | 19.5 | -    | -    |
| 190.36J | 34.0  | -            | 27.4 | 23.9 | -    | -    |
| 190.42J | 41.5  | -            | 32.9 | 28.0 | -    | -    |
| 190.56J | 50.5  | -            | 36.3 | 29.0 | -    | -    |
| 190.68J | 63.5  | -            | 44.6 | 34.1 | -    | -    |
| 190.80J | 76.5  | -            | 52.6 | 38.8 | -    | -    |
| 240.42I | 42.0  | 35.5         | 32.5 | 27.5 | -    | -    |
| 240.58I | 58.0  | 47.0         | 43.0 | 33.9 | -    | -    |
| 240.73I | 73.0  | 58.5         | 53.5 | 39.2 | -    | -    |
| 240.81I | 81.0  | 65.0         | 59.5 | 41.3 | -    | -    |
| 240.98I | 98.0  | 75.5         | 67.0 | 42.4 | -    | -    |
| 240.C2I | 110.0   | 92.5         | 80.4 | 46.9 | -    | -    |

| 型号      | 失速转矩<br>( $\Delta t=105^{\circ}\text{C}$ )<br>$M_0$<br>Nm | 额定转速         |       |       |
|---------|---|--------------|-------|-------|
|         |   | $n$<br>1/min |       |       |
|         |   | 300          | 500   | 1000  |
| 270.50P | 50.0  | 48.0         | 45.0  | 39.0  |
| 270.C0P | 99.0  | 91.3         | 87.6  | 77.0  |
| 270.C5P | 142.0   | 126.6        | 119.8 | 99.0  |
| 270.B0P | 182.0   | 160.3        | 150.0 | 117.3 |
| 270.B4P | 212.0   | 186.2        | 173.1 | 128.6 |

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