
直流永磁同步电机

DC permanent magnet synchronous motor

永磁同步电机的核心特性集中在高效节能、功率密度高、调速性能优三大方面，同时具备运行平稳、结构紧凑的特点。

The core characteristics of permanent magnet synchronous motor are high efficiency, high power density, excellent speed regulation, and stable operation.

1. 高效率与低损耗: 转子由永磁体励磁，无需额外励磁电流，减少了转子铜耗，在宽转速范围（尤其是中低速）内保持高能量转换效率，节能效果显著。

High efficiency and low loss: The rotor is excited by permanent magnets, eliminating the need for additional excitation current, which reduces rotor copper loss. It maintains high energy conversion efficiency across a wide speed range (especially in medium and low speeds), resulting in significant energy savings.

2. 高功率密度: 永磁体磁场强度高，电机体积和重量更小，能在有限空间内输出更大的转矩和功率，适合对安装空间和重量有严格要求的场景（如新能源摩托车、电动车）。

2. High power density: The high magnetic field strength of permanent magnets allows the motor to have a smaller volume and weight, enabling it to output greater torque and power within limited space. This makes it suitable for scenarios with strict requirements on installation space and weight (such as new energy motorcycles and electric vehicles).

3. 优异的调速性能: 配合矢量控制或直接转矩控制技术，可实现宽范围、高精度的转速调节，低速时转矩大且稳定，启动响应快，能满足频繁启停、变速的工况需求。

3. Excellent speed regulation performance: Combined with vector control or direct torque control technology, it can achieve wide-range and high-precision speed adjustment. At low speeds, the torque is large and stable, with fast start-up response, which can meet the requirements of frequent start-stop and variable speed operating conditions.

4. 运行平稳与低噪音: 转子无绕组和电刷，运行时电磁振动小，噪音低，且维护简单，故障率低于异步电机。

4. Smooth operation and low noise: The rotor has no windings or brushes, resulting in minimal electromagnetic vibration and low noise during operation. It also features simple maintenance and a failure rate lower than that of asynchronous motors.

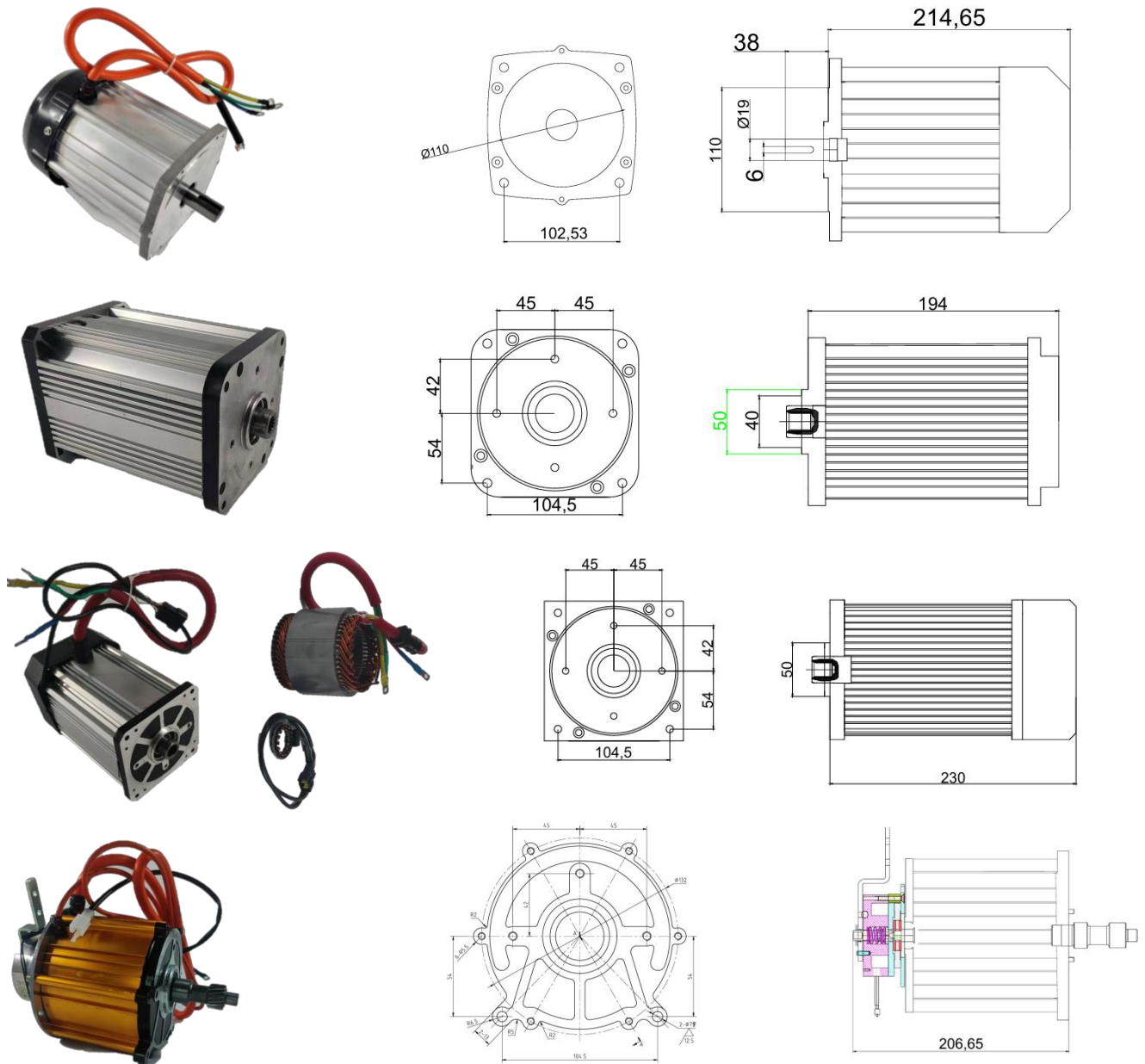
5. 功率因数高: 正常运行时功率因数接近 1，能减少电网无功损耗，降低配电系统的容量需求。

5. High power factor: The power factor approaches 1 during normal operation, which reduces grid reactive power loss and lowers the capacity requirement of the distribution system.

直流永磁同步电机

DC permanent magnet synchronous motor

120/122 系列 (Series 120/122)



Main Technical Data:

使用电压 (V) Operating voltage	额定功率(KW) Rated power	峰值功率(KW) Peak power	额定转速(RPM) Rated speed	额定电流(A) Rated current	峰值扭矩(N.m) Peak torque
48/60/72	0.75--2.2	3.5	3000	39/36/26	52
48/60/72	2.2	4.5	3000	57/46/38	60

120/122 发卡扁线永磁同步机

- 1.性价比高 负载能力强 耐高温
- 2.可靠性强, 维护方便
- 3.功率密度高, 高校区宽
- 4.转矩波动小, 启动平滑
- 5.调速范围宽, 再生制动效果好
- 6.旋变编码器更可靠, 电机性能更强
- 7.转速高, 噪音小
- 8.适用于无人驾驶 三轮 货载

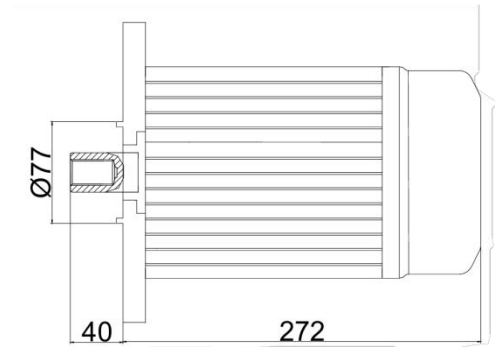
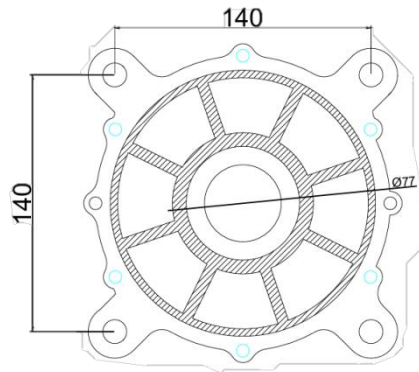
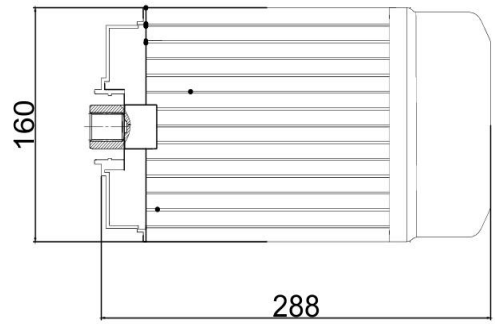
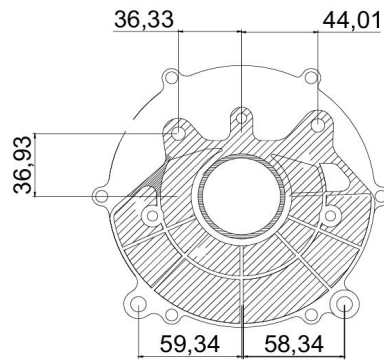
120/122 flat-wire permanent magnet synchronous motor

- 1.High cost-performance, strong load capacity, and heat resistance
2. Reliable operation with easy maintenance
3. High power density and wide speed range
4. Stable torque with smooth startup
5. Wide speed regulation range and excellent regenerative braking performance
6. More reliable rotary encoder for enhanced motor performance
7. High speed with low noise
8. Suitable for autonomous vehicles, tricycle, cargo vehicles

直流永磁同步电机

DC permanent magnet synchronous motor

145 系列 (Series 145)



Main Technical Data:

使用电压 (V)	额定功率(KW)	峰值功率(KW)	额定转速(RPM)	额定电流(A)	峰值扭矩(N.m)
Operating voltage	Rated power	Peak power	Rated speed	Rated current	Peak torque
48/60/72	1.5	3.5	3000	39/36/26	52
48/60/72	2.2	4.5	3000	57/46/38	60
48/60/72/84/96	2.5	5.0	3000	65/52/43	68
60/72/96	3.0	6.0	3000	78/60/52	75
60/72/96	4.0	8.0	3000	104/85/70	90

直流四孔永磁同步电机

- 1.体积小，重量轻
- 2.可靠性强，维护方便
- 3.功率密度高，高校区宽
- 4.转矩波动小，启动平滑
- 5.调速范围宽，再生制动效果好
- 6.编码器采用进口芯片，电机可靠性强
- 7.扭矩大，转速高，噪音小
- 8.适用于载重大，特种车

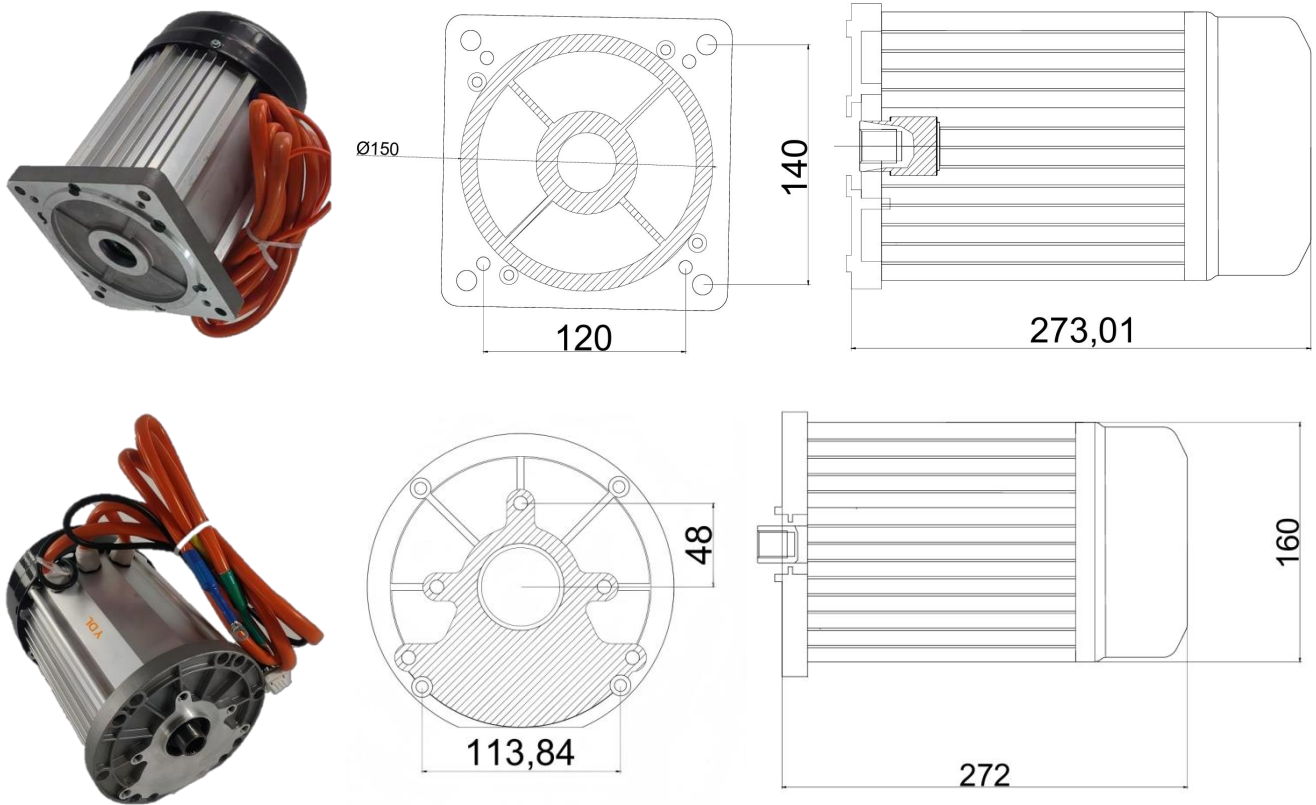
DC four-hole permanent magnet synchronous motor

1. Small volume and light weight
2. High reliability and easy maintenance
3. High power density, wide high-efficiency area
4. Low torque ripple, smooth start
5. Wide speed regulation range and excellent regenerative braking performance
6. The encoder uses imported chips, and the motor has strong reliability.
7. High torque, high speed, low noise
8. Suitable for heavy-duty and special-purpose vehicles

直流永磁同步电机

DC permanent magnet synchronous motor

145 系列 (Series 145)



Main Technical Data:

使用电压 (V)	额定功率(KW)	峰值功率(KW)	额定转速(RPM)	额定电流(A)	峰值扭矩(N.m)
Operating voltage	Rated power	Peak power	Rated speed	Rated current	Peak torque
48/60/72	1.5	3.5	3000	39/36/26	52
48/60/72	2.2	4.5	3000	57/46/38	60
48/60/72/84/96	2.5	5.0	3000	65/52/43	68
60/72/96	3.0	6.0	3000	78/60/52	75
60/72/96	4.0	8.0	3000	104/85/70	90

直流四孔永磁同步电机

- 1.体积小，重量轻
- 2.可靠性强，维护方便
- 3.功率密度高，高校区宽
- 4.转矩波动小，启动平滑
- 5.调速范围宽，再生制动效果好
- 6.编码器采用进口芯片，电机可靠性强
- 7.扭矩大，转速高，噪音小
- 8.适用于载重大，特种车

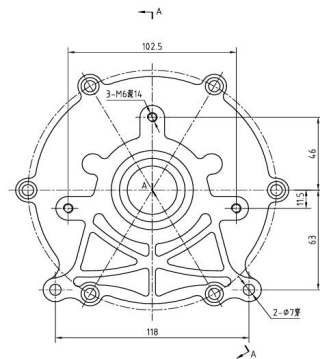
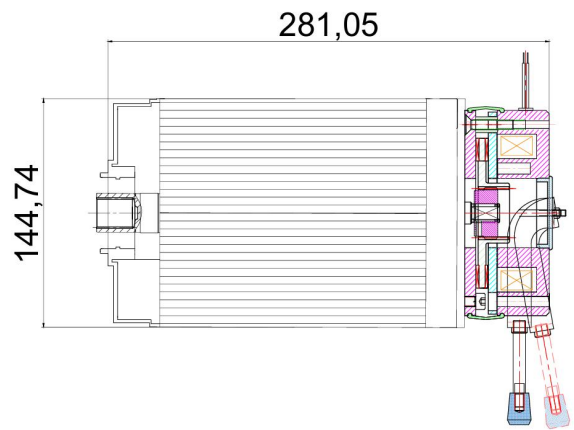
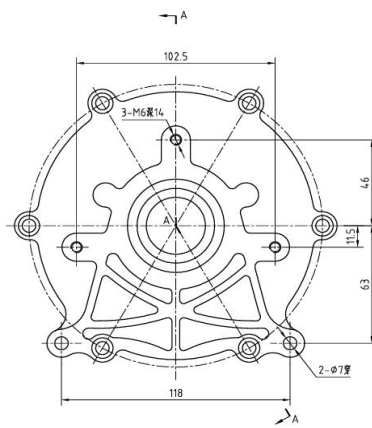
DC four-hole permanent magnet synchronous motor

- 1.Small volume and light weight
- 2.High reliability and easy maintenance
- 3.High power density, wide high-efficiency area
- 4.Low torque ripple, smooth start
5. Wide speed regulation range and excellent regenerative braking performance
- 6.The encoder uses imported chips, and the motor has strong reliability.
- 7.High torque, high speed, low noise
- 8.Suitable for heavy-duty and special-purpose vehicles

直流永磁同步电机

DC permanent magnet synchronous motor

140 系列 (Series 140)



Main Technical Data:

使用电压 (V) Operating voltage	额定功率(KW) Rated power	峰值功率(KW) Peak power	额定转速(RPM) Rated speed	额定电流(A) Rated current	峰值扭矩(N.m) Peak torque
48/60/72	1.5	3.5	3000	39/36/26	40
48/60/72	2.2	4.5	3000	57/46/38	4
48/60/72/84/96	2.5	5.0	3000	65/52/43	50
60/72/96	3.0	6.0	3000	78/60/52	65

直流四孔永磁同步电机

- 1.体积小，重量轻
- 2.可靠性强，维护方便
- 3.功率密度高，高校区宽
- 4.转矩波动小，启动平滑
- 5.调速范围宽，再生制动效果好
- 6.编码器采用进口芯片，电机可靠性强
- 7.扭矩大，转速高，噪音小
- 8.适用于载重大，特种车

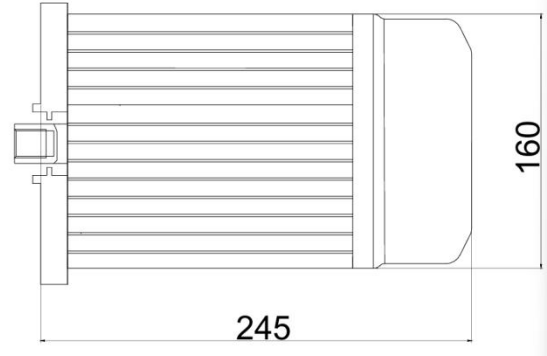
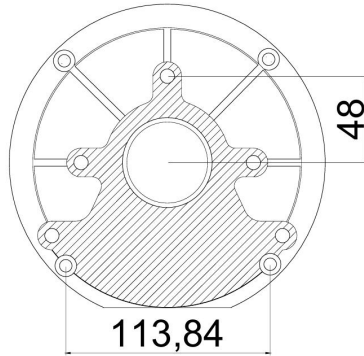
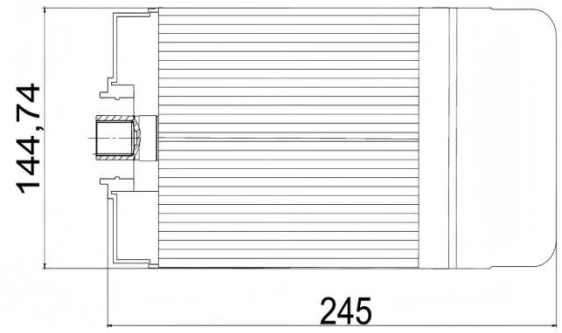
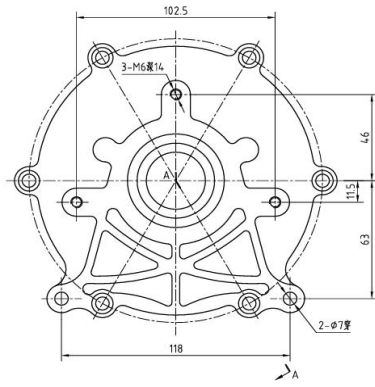
DC four-hole permanent magnet synchronous motor

- 1.Small volume and light weight
- 2.High reliability and easy maintenance
- 3.High power density, wide high-efficiency area
- 4.Low torque ripple, smooth start
5. Wide speed regulation range and excellent regenerative braking performance
- 6.The encoder uses imported chips, and the motor has strong reliability.
- 7.High torque, high speed, low noise
- 8.Suitable for heavy-duty and special-purpose vehicles

直流永磁同步电机

DC permanent magnet synchronous motor

140 系列 (Series 140)



Main Technical Data:

使用电压 (V)	额定功率(KW)	峰值功率(KW)	额定转速(RPM)	额定电流(A)	峰值扭矩(N.m)
Operating voltage	Rated power	Peak power	Rated speed	Rated current	Peak torque
48/60/72	1.5	3.5	3600	39/36/26	43
48/60/72	2.2	4.5	3600	57/46/38	45
48/60/72/84	2.5	5.0	3600	65/52/43	50
60/72/96	3.0	6.0	3600	78/60/52	55
60/72/96	3.6	7.5	3600	91/73/62	60
60/72/96	4.0	9.0	3600	105/83/70	70

直流四孔永磁同步电机

- 1.体积小, 重量轻
- 2.可靠性强, 维护方便
- 3.功率密度高, 高校区宽
- 4.转矩波动小, 启动平滑
- 5.调速范围宽, 再生制动效果好
- 6.编码器采用进口芯片, 电机可靠性强
- 7.扭矩大, 转速高, 噪音小
- 8.适用于载重大, 特种车

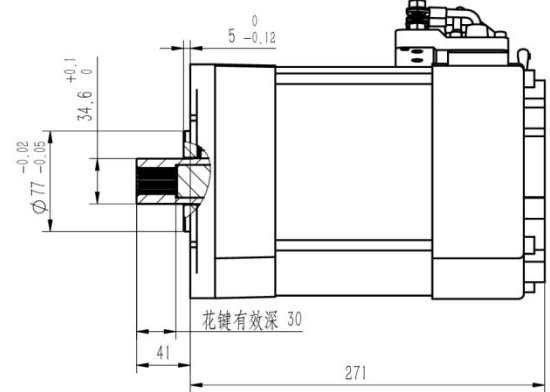
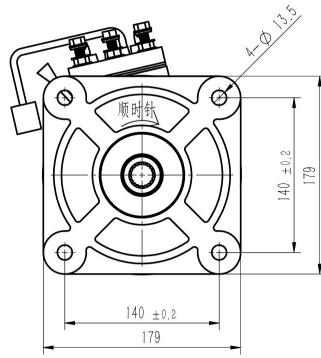
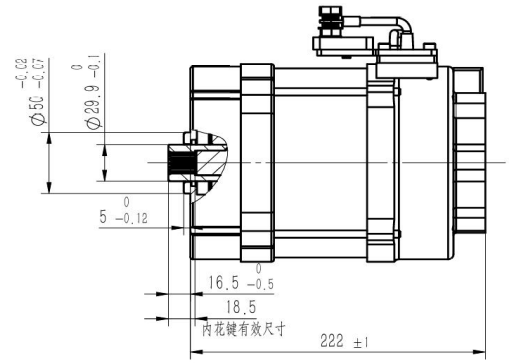
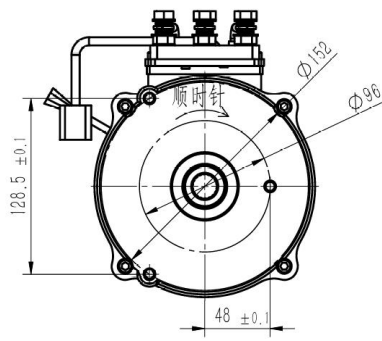
DC four-hole permanent magnet synchronous motor

- 1.Small volume and light weight
- 2.High reliability and easy maintenance
- 3.High power density, wide high-efficiency area
- 4.Low torque ripple, smooth start
5. Wide speed regulation range and excellent regenerative braking performance
- 6.The encoder uses imported chips, and the motor has strong reliability.
- 7.High torque, high speed, low noise
- 8.Suitable for heavy-duty and special-purpose vehicles

交流异步电机

AC asynchronous motor

155 系列 (Series 155)



Main Technical Data:

使用电压 (V)	额定功率(KW)	峰值功率(KW)	额定转速(RPM)	额定电流(A)	峰值扭力(N.m)
Operating voltage	Rated power	Peak power	Rated speed	Rated current	Peak torque
48/60/72	1.5	3.0	3000	39/36/26	43
48/60/72	2.5	5.0	3000	65/52/43	50
48/60/72/84	3.0	6.0	3000	78/62/52	60
60/72/96	4.0	8.5	3000	105/85/70	68
60/72/96	5.0	11.0	3000	130/104/86	80
72/96	5.5	12.0	3600	135	90

直流四孔永磁同步电机

- 1.体积小, 重量轻
- 2.可靠性强, 维护方便
- 3.功率密度高, 高校区宽
- 4.转矩波动小, 启动平滑
- 5.调速范围宽, 再生制动效果好
- 6.编码器采用进口芯片, 电机可靠性强
- 7.扭矩大, 转速高, 噪音小
- 8.适用于载重大, 特种车

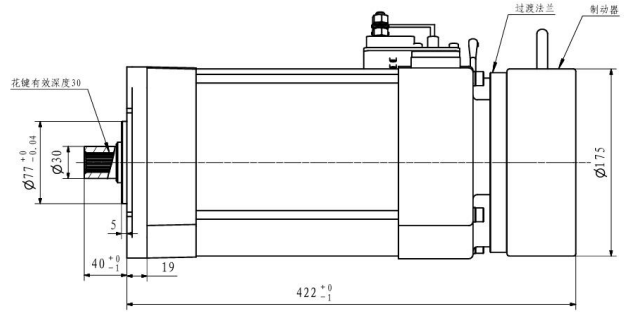
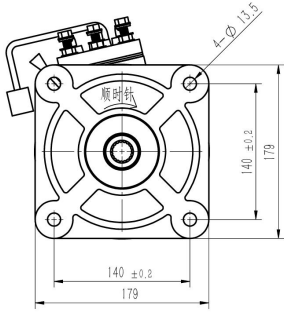
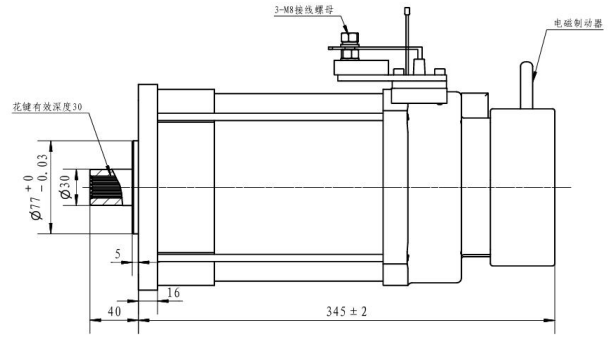
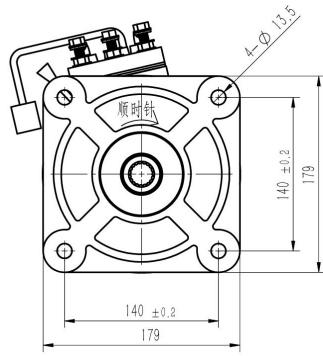
DC four-hole permanent magnet synchronous motor

- 1.Small volume and light weight
- 2.High reliability and easy maintenance
- 3.High power density, wide high-efficiency area
- 4.Low torque ripple, smooth start
5. Wide speed regulation range and excellent regenerative braking performance
- 6.The encoder uses imported chips, and the motor has strong reliability.
- 7.High torque, high speed, low noise
- 8.Suitable for heavy-duty and special-purpose vehicles

交流异步电磁制动电机

AC asynchronous electromagnetic braking motor

155 系列 (Series 155)



Main Technical Data:

使用电压 (V)	额定功率(KW)	峰值功率(KW)	额定转速(RPM)	额定电流(A)	峰值扭矩(N.m)
Operating voltage	Rated power	Peak power	Rated speed	Rated current	Peak torque
48/60/72	1.5	3.0	3000	39/36/26	43
48/60/72	2.5	5.0	3000	65/52/43	50
48/60/72/84	3.0	6.0	3000	78/62/52	60
60/72/96	4.0	8.5	3000	105/85/70	68
60/72/96	5.0	11.0	3000	130/104/86	80
72/96	7.5	15.0	3000	135	130
72/96	10.0	20.0	3000	170	150
72/96	12.0	24.0	3600	190	165

交流异步电机

1. 耐高温，性价比高
2. 可靠性强，维护方便
3. 功率密度高，高校区宽
4. 转矩波动小，启动平滑
5. 调速范围宽，再生制动效果好
6. 编码器采用进口芯片，电机可靠性强
7. 转速高，噪音小
8. 适用于无人驾驶，花车，特种车

AC asynchronous motor

- 1.High temperature resistance and cost-performance
- 2.High reliability and easy maintenance
- 3.High power density, wide campus area
- 4.Low torque ripple and smooth startup
- 5.Wide speed range and good regenerative braking
- 6.The encoder uses imported chips and the motor is highly reliable.
- 7.High speed, low noise
- 8.Suitable for with autonomous vehicles, floats, and special-purpose vehicles

交流异步电磁制动电机

AC asynchronous electromagnetic braking motor

128B 系列 (Series 128B)

