

1LG0 低压交流异步电动机

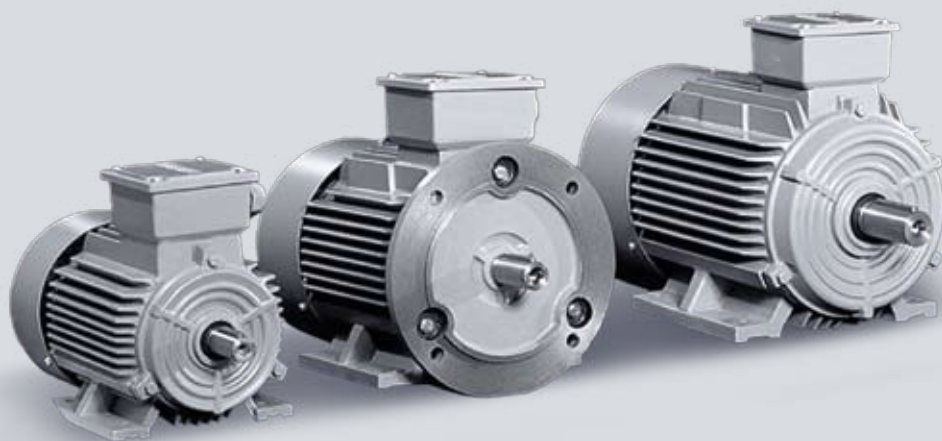
产品样本 D81.5 • 05.2011



1LG0 Low-voltage Motors

Answers for industry.

SIEMENS



目录

Table of Contents

总体介绍 Overview	3
电机标准 Motor standards	5
机械特性 Mechanical design	6
电气特性 Electrical design	10
变频应用 Converter fed application	11
订货号 MLFB configuration	12
选件 Options	13
选型技术数据表 Technical data tables	14
外形尺寸 Dimension drawings	20
技术支持资料 Technical supporting documentation	36
证书 Certificates	37



总体介绍

1LG0 系列电动机是全封闭自扇冷却式三相异步电动机，其防护等级为 IP55。1LG0 系列电机设计生产符合 ISO、IEC、GB 等相关标准的要求。

1LG0系列电机技术特性

- 机壳与接线盒材料：灰铸铁
- 标准颜色：石头灰 RAL7030
- 2、4、6 极电机达到 GB 18613.2006 标准能效等级 3 级以及 IEC 60034-30 标准的 IE1 效率等级要求
- 特定绕组设计可支持多种输入电压（50Hz 或 60Hz）
- 机座号：80mm ~ 355mm
- 额定功率：0.55kW ~ 315kW（50Hz）
- 标准安装结构型式（IEC60034-7）
- 防护等级：IP55（IEC 60034-5）
- 可承受 1.5 倍额定电流达 2 分钟（IEC 60034-1）
- 对于 FS¹⁾ 80 ~ 132 电机，驱动端标配采用 V 形环进行密封，并可以选择采用油封进行密封；对于 FS 160 以上电机，驱动端采用油封进行密封作为标配
- 可选防潮加热带（空间加热器）
- 电机可选 PTC 或 PT100 热敏电阻进行绕组保护

¹⁾ FS，机座号“Frame size”的英文缩写。

Overview

The 1LG0 series of 3 phase asynchronous motors are Totally Enclosed Fan Cooled (TEFC) with IP55 environmental protection. These motors are designed and manufactured in accordance with ISO, IEC standards, GB standards.

Features of Siemens 1LG0 series

- Frame and terminal box material: Grey cast iron
- Standard colour: Stone Grey RAL 7030
- Available in 2,4,6 pole variants with efficiency class 3 according to GB18613, and efficiency class IE1 according to IEC60034-30
- Specific wound stators supporting multiple 3PH mains supply voltages at 50Hz or 60Hz
- Frame sizes: 80mm ~ 355mm
- Rated power range: 0.55kW ~ 315kW at 50Hz
- Standard mounting types and variations (IEC 60034-7)
- TEFC with IP55 degree of protection (IEC 60034-5)
- Overload capacity of 1.5 times rated current for 2 minutes (IEC 60034-1)
- V-ring as standard on DE rotor shaft for motor with FS 80-FS 132, and oil seal as option; Oil seal as standard for motor with FS160 and above.
- Anti-condensation heater (space heater) as option
- Winding protection with PTC and PT100 as option
- Insulation class: F, used according to temperature rise B

¹⁾ FS - Frame size.

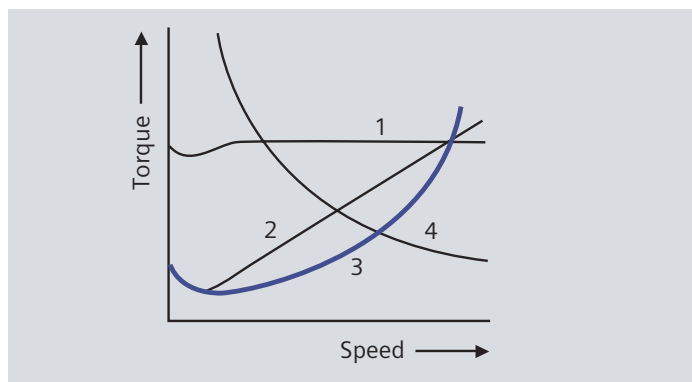
- F级绝缘系统，并按B级温升考核
- 灵活的引出线方向
- 电机轴驱动端带闭合键槽（A型键），可选双轴伸
- 电机采用半键平衡
- FS 160 ~ 355 电机标配排水孔
- 端盖带环型散热筋，增加散热面积，延长轴承使用寿命
- 轴承的润滑方式
 - FS 80 ~ 160 电机采用预润滑轴承
 - FS 180 ~ 280 电机可选配轴承再润滑装置（选件号：K40）
 - FS 315 ~ 355 电机标配再润滑装置

- Flexible cable entry (Rotatable terminal box)
- Rotor shaft with closed keyway (A type key) and NDE shaft extension
- Dynamically balanced rotor with a half key
- Drain plug on FS 160 ~ 355 motor as standard
- Ribbed end shields for better bearing heat dissipation and prolonged bearing life
- Lubrication of bearing
 - FS 80 ~ 160 motor - greased for life
 - FS 180 ~ 280 motor - regreasable when ordered with K40 option
 - FS 315 ~ 355 motor - with regreasing nipple as standard

1LG0 系列为铸铁机壳通用型电动机，适用于连续工作制（S1），恒转速，或一定速度范围内的变频调速应用。

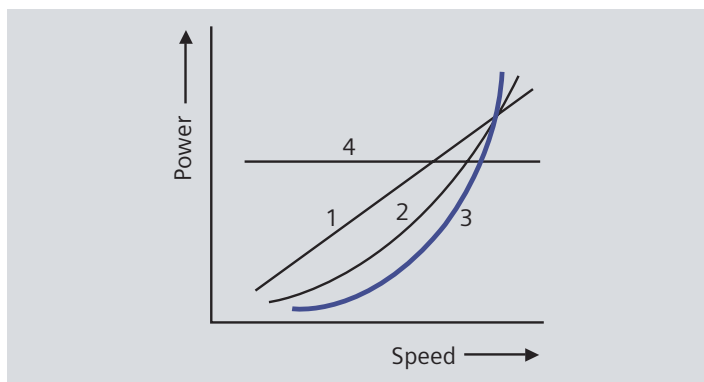
The 1LG0 is a General Purpose Motor with cast iron frame designed for constant or adjustable speed with continuous duty operation (S1) torque over a speed range.

负载特性曲线 Load torque characteristics



转矩 / 转速特性曲线 Torque / speed characteristic

1. 恒转矩负载；功率与转速成正比，转矩不变
2. 转矩随转速成比例增加；功率与转速的平方成正比
3. 转矩随着转速的平方成比例地增加；功率与转速的立方成正比
4. 恒功率负载；转矩与转速成反比，功率不变



功率 / 转速特性曲线 Power / speed characteristic

1. Torque almost constant; power proportional to speed.
2. Torque increases proportionally with the speed; power proportional to the square of the speed.
3. Torque increases proportionally with the square of the speed; power proportional to the cube of the speed.
4. Torque decreases in inverse proportion to the speed; power constant.

电机标准

Motor standards

1LG0电机符合下面的电气和机械标准:

The 1LG0 complies with the following electrical and mechanical standards:

标准名称 Standard title	DIN / VDE / EN 标准 DIN / VDE / EN	IEC 标准 IEC standard
旋转电机的一般要求 General regulations for rotation and electrical machines	DIN EN 60 034-1	IEC 60 034-1 IEC 60 085
具有标准尺寸和输出功率的通用型三相感应电动机 AC induction motors for general use with standardized dimensions and power	DIN EN 50 347	IEC 60 072
旋转电机的起动特性 Restart characteristic of rotation electrical machines	DIN EN 60 034-12	IEC 60 034-12
旋转电机的端子设计和转动方向 Terminal markings and direction rotation of rotating electrical machines	DIN VDE 0530-8	IEC 60 034-8
结构类型和安装 Type of construction and installation	DIN EN 60 034-7	IEC 60 034-7
IEC 标准电压 IEC standard voltage	DIN IEC 60 038	IEC 60 038
旋转电机的冷却方法 Cooling methods for rotation electrical machines	DIN EN 60 034-6	IEC 60 034-6
旋转电机的抗振强度 Mechanical vibrations of rotating electrical machines	DIN EN 60 034-14	IEC 60 034-14
旋转电机的防护等级 Degrees of protection for rotating	DIN EN 60 034-5	IEC 60 034-5
旋转电机第 9 部分：噪声限值 Rotating electrical machines-Part 9: Noise limits	IEC 60034-9:2007	EN 60034-9:2007
变频器供电笼型感应电动机设计和性能导则 Guide for the design and performance of cage induction motors specifically designed for converter supply	DIN IEC 60034-17	IEC 60034-17

铭牌信息 Nameplate

- 额定电压 Rated voltage
- 额定频率 Rated frequency
- 额定功率 Rated output
- 额定转速 Rated speed
- 效率 Efficiency
- 功率因数 Power factor
- 接线方式 Connection type
- 防护等级 Protection degree
- 产品序列号 Series number
- 电机选型 Motor type
- 平衡方式 Balance
- 绝缘等级 Insulation class
- 重量 Weight

SIEMENS		3~Mot.	1LG0183-2AA70-Z	EFF2
LMH		Q/321081KYA04-2006		CE
IP55	180M	IMB3	165kg	BRG DE 6211 C3
50HZ	380/660V	Δ/Y	60HZ	440V Δ
22kW	41.3/23.8A		24.5kW	39.7A
EFF.91.2%	COS φ 0.89	2940r/min	EFF.90%	COS φ 0.90
360-400/630-690V	Δ/Y		420-460V Δ	3540r/min
39.1-43.5/22.7-24.8A			38.0-41.6A	(H)
SIEMENS STANDARD MOTORS LTD.				

机械特性

Mechanical design

电动机接线盒

电机接线盒的位置默认为顶端，同时接线盒自身可旋转 $4 \times 90^\circ$ 安装。另外，从电机的驱动端看，接线盒可以安装在电机的左侧（LHS - code K10）或者右侧（RHS - code K09）。

Terminal box

Terminal boxes are top mounted as default on the motor. This box can be rotated by $4 \times 90^\circ$ to allow for cable entry from each direction. In addition the terminal box can be installed either on the Left Hand Side (LHS – code K10) or Right Hand Side (RHS – code K09) when viewed from the drive end (DE) side of the motor.

型号 Type	机座号 Frame Size	防护等级 Protection degree	接线盒的转向 Rotation of terminal box	引出线孔的数目 Number of cable grand	接线端子螺丝 Terminal bus	引出线的最大尺寸 Max. cable size (mm ²)	引出线孔的尺寸 Cable entry size
1LG0	80	IP55	4x90°	2	M4	2.5	M24x1.5+M16x1.5
	90	IP55	4x90°	2	M5	2.5	M24x1.5+M16x1.5
	100	IP55	4x90°	2	M5	4	M24x1.5+M16x1.5
	112	IP55	4x90°	2	M5	4	2 – M32x1.5
	132	IP55	4x90°	2	M5	6	2 – M32x1.5
	160	IP55	4x90°	2	M6	16	2 – M36x2
	180	IP55	4x90°	2	M6	16	2 – M36x2
	200	IP55	4x90°	2	M8	25	2 – M48x2
	225	IP55	4x90°	2	M8	35	2 – M48x2
	250	IP55	4x90°	2	M10	120	2 – M64x2
	280	IP55	4x90°	2	M10	120	2 – M64x2
	315	IP55	4x90°	2	M16	240	2 – M64x2
	355	IP55	4x90°	2	M20	400	2 – M72x2

安装结构型式 Construction or mounting type

结构型式 Construction type	机座带底脚，端盖无法兰 With feet and without flange on the end-shield (DE)					
安装型式 Mounting type	IM B3 FS 80 ~ 355	IM B6 FS 80 ~ 160	IM B7 FS80 ~ 160	IM B8 FS 80 ~ 160	IM V5 FS 80 ~ 225	IM V6 FS 80 ~ 225
示意图 Diagram						

结构型式 Construction type	机座不带底脚，端盖有法兰 Without feet and with flange on the end-shield (DE)			机座带底脚，端盖有法兰 With feet and with flange on the end-shield (DE)		
	安装型式 Mounting type	IM B5 FS 80 ~ 280	IM V1 ¹⁾ FS 80 ~ 355	IM V3 FS 80 ~ 160	IM B35 FS 80 ~ 355	IM V15 FS 80 ~ 225
示意图 Diagram						

¹⁾ 对于 IMV1 安装加防雨罩和不带防雨罩的 1LG0 电机，定货号不同，详见“选型技术数据表”。

¹⁾ For IMV1 with canopy and without canopy, motor has different order number. Please find detailed information in "Technical data table".

冷却与通风

机座号为 80 ~ 355 的电动机装有径流（离心）式冷却风扇，其冷却效能与电动机的转动方向无关（冷却方法符合 IEC60034-6 标准的 IC411）。在某些应用中若通风不足时，可订购独立风扇（选件号：G17）。

轴承

电机标准配置深沟球轴承或角接触球轴承，这些轴承是密封的或可再润滑型的。

轴承设计

- FS 80 ~ 160 电机驱动端与非驱动端轴承浮动
- FS 180 ~ 355 电机（IM B3, IM B5）驱动端轴承固定
- FS 180 ~ 225 电机（IM V1）驱动端轴承固定
- FS 250 ~ 355 电机（IM V1）非驱动端轴承固定

轴承型号

型号 Type	机座号 Frame Size	极数 Poles	驱动端轴承 Drive-end bearing		非驱动端轴承 Non-drive-end bearing	
			水平安装 Horizontal mounting	垂直安装 Vertical mounting	水平安装 Horizontal mounting	垂直安装 Vertical mounting
1LG0	80	2, 4, 6	6204 2RZC3		6204 2RZC3	
	90	2, 4, 6	6205 2RZC3		6205 2RZC3	
	100	2, 4, 6	6206 2RZC3		6206 2RZC3	
	112	2, 4, 6	6206 2RZC3		6206 2RZC3	
	132	2, 4, 6	6208 2RZC3		6208 2RZC3	
	160	2	6209 2RZC3		6209 2RZC3	
		4, 6	6309 2RZC3		6209 2RZC3	
	180	2	6211 C3		6211 C3	
		4, 6	6311 C3		6211 C3	
	200	2	6312 C3		6212 C3	
		4, 6	6312 C3		6212 C3	
	225	2	6312 C3		6312 C3	
		4, 6	6313 C3		6312 C3	
	250	2	6313 C3		6313 C3	7313AC
		4, 6	6314 C3		6313 C3	7313AC
	280	2	6314 C3		6314 C3	7314AC
		4, 6	6317 C3		6314 C3	7314AC
	315	2	6317 C3		6317 C3	7317AC
		4, 6	6319 C3		6319 C3	7319AC
	355	2	6319 C3		6319 C3	7319AC
		4, 6	6322 C3		6322 C3	7322AC

Cooling and ventilation

The 1LG0 standard motors from FS 80 ~ 355 are fitted with an radial flow fan for cooling in accordance with IEC 60034-6 cooling method. For applications where self ventilation is not adequate, an optional external blower (Option code: G17) can be ordered.

Bearing

All motors are supplied with the ball bearing as standard. These bearings are either of the sealed or regreasable type.

Bearing design

- Floating bearing situated at DE & NDE of FS 80 ~ 160 motor
- Fixed bearing situated at DE of FS 180 ~ 355 motor with IM B3, IM B5
- Fixed bearing situated at DE of FS 180 ~ 225 motor with IM V1
- Fixed bearing situated at NDE of FS 250 ~ 355 motor with IM V1

Bearing type

轴承寿命

Bearing life

机座号 Frame Size	极数 Poles	轴承寿命 Bearing lifetime ¹⁾
80 ~ 355	2, 4, 6	20000 or 40000 ²⁾ (hours)

¹⁾ 这里指的是电机在 50Hz 下正常运行、并按操作说明进行维护情况下的寿命。

²⁾ 电机在不受轴向负载，卧式安装（水平安装）时轴承寿命可达 40000 小时。在受到容许范围内的负载作用下，轴承寿命至少为 20000 小时。

¹⁾ Lifetime means that motor runs under normal operation, maintained according to operating manual.

²⁾ 40000Hrs applies for horizontally installed motors with coupling output without additional axial loads and at least 20,000 hours with the admissible permitted loads.

润滑脂寿命和再润滑周期（水平安装）

关于润滑脂的寿命和维护，请详见《1LGO 电机安装与维护手册》。

环境温度每升高 10°C，润滑脂寿命以及再润滑时间缩短一半。如果运行转速高于额定转速，由此将引起振动加大，机械平衡发生变化，轴承处于更大的机械应力下，润滑脂的寿命以及轴承的寿命将会缩短。

Grease life and Relubrication interval (for horizontal installation)

Please refer to 1LGO series motor operating instruction for grease life and relubrication interval (for horizontal installation)

If the coolant temperature is increased by 10°C, the grease lifetime and regreasing interval is halved. Operating the 1LGO motor beyond the rated nameplate speed will increase the mechanical stress on the motor resulting in increased vibrations, reduced bearing and grease lifespan.

电机轴驱动端允许的最大悬臂力 (F)

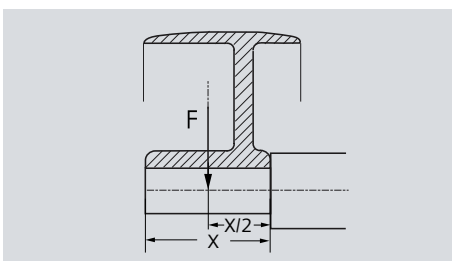
假设电机不受任何轴向力，下面的表格中列出了允许的径向悬臂力值（单位：牛顿）。

Permissible Radial forces (F) on the DE rotor shaft

The table below contains the permissible Radial Force values in Newtons with the assumption of zero axial forces.

机座号 Frame Size	极数 Poles	悬臂力 Radial force, in: N
80	2	640
	4	800
	6	920
90	2	700
	4	870
	6	1,000
100	2	970
	4	1,205
	6	1,390
112	2	1,240
	4	1,550
	6	1,790
132	2	1,485
	4	1,685
	6	2,156
160	2	1,570
	4	1,925
	6	2,125
180	2	3,010
	4	3,695
	6	4,290

机座号 Frame Size	极数 Poles	悬臂力 Radial force, in: N
200	2	4,035
	4	4,830
	6	5,520
225	2	4,420
	4	5,450
	6	6,160
250	2	5,035
	4	6,190
	6	7,060
280	2	3,690
	4	9,220
	6	10,525
315	2	3950
	4	9,900
	6	12,109
355	2	6,500
	4	10,400
	6	12,500



距轴肩“X/2”（mm）处允许的最大悬臂力“F”（N）

Permissible radial force "F" (N) applied at X/2 (mm) to shaft shoulder.

噪声

下表中给出的电机噪声数值指的是电动机在额定电压、50Hz 频率下空载运行时的噪声，允许误差为 +3dB。

Noise levels

The table below contains noise level for the 1LG0 unloaded motors taken at 50Hz operation. And all published values here have a tolerance of +3dB.

功率 Output (kW)	同步转速 synchronous speed (r/min)		
	L _{pfa} / L _{WA} (dB (A))		
	3000 (2 极 poles)	1500 (4 极 poles)	1000 (6 极 poles)
0.55	—	47 / 58	42 / 54
0.75	56 / 67	47 / 58	45 / 57
1.1	56 / 67	49 / 61	45 / 57
1.5	60 / 72	49 / 61	49 / 61
2.2	60 / 72	52 / 64	53 / 65
3	64 / 76	52 / 64	57 / 69
4	65 / 77	53 / 65	57 / 69
5.5	68 / 80	59 / 71	57 / 69
7.5	68 / 80	59 / 71	61 / 73
11	73 / 86	63 / 75	61 / 73
15	73 / 86	63 / 75	61 / 73
18.5	73 / 86	64 / 76	64 / 76
22	75 / 89	64 / 76	64 / 76
30	78 / 92	66 / 79	64 / 76
37	78 / 92	68 / 81	66 / 78
45	78 / 92	68 / 81	68 / 80
55	79 / 93	70 / 83	68 / 80
75	80 / 94	73 / 86	73 / 85
90	80 / 94	73 / 86	73 / 85
110	82 / 96	80 / 93	73 / 85
132	82 / 96	80 / 93	73 / 85
160	85 / 98	84 / 94	80 / 92
200	85 / 98	84 / 94	80 / 92
220	89 / 103	88 / 101	80 / 92
250	89 / 103	88 / 101	N / A
280	89 / 103	88 / 101	N / A
315	89 / 103	88 / 101	N / A

L_{pfa} – 声压级

L_{WA} – 声功率级

L_{pfa} – sound pressure level

L_{WA} – sound power level

振动

所有电机转子都使用半键按照 A 级（标准）振动等级进行动态平衡。电机在空载时测得振动速度有效值不超过下表中的 A 级所列值。

Vibration

1LG0 rotors are dynamically balanced to severity grade A using a half key.

Table below contain the effective vibration values for unloaded motors.

振动等级 Vibration grade	机座号 Frame size (mm)	56 ≤ FS ≤ 132	160 ≤ FS ≤ 280	280 < FS ≤ 355
A	安装方式 Mounting	Vibration velocity 振动速度 (mm/s)	Vibration velocity 振动速度 (mm/s)	Vibration velocity 振动速度 (mm/s)
	自由悬置 Free suspension	1.6	2.2	2.8
	刚性安装 Rigid mounting	1.3	1.8	2.3

电气特性

Electrical Design

可靠的质量和优越的电机性能

为了确保良好的绝缘性能，增加电机使用寿命。1LG0 标准电机采用 F 级绝缘系统，并按 B 级考核（80K）。

电压、频率

1LG0 标准电机的供电电压和频率符合 IEC60034-1 标准中规定的 A 类电压和频率误差要求，允许电压偏差为 ±5%，频率偏差为 ±2%。

额定输出

额定输出是指，符合 IEC60034-1 标准的要求，冷却介质温度（CT）为 40°C，设备安装地点的海拔高度在 1000m 以下的情况，连续工作可以允许的输出。

根据 IEC60034 标准的要求，1LG0 系列电动机在额定电压和频率下能承受 1.5 倍额定电流，持续时间 2 分钟。

环境

- 适合 IP55 防护等级的安装
- 低于或等于海拔 1000 米
- 环境温度在 -20°C ~ 40°C
- 相对湿度

温度 Temperature	相对湿度 Relative humidity
-20°C ≤ T ≤ 20°C	100%
20°C < T ≤ 30°C	95%
30°C < T ≤ 40°C	55%

注：其它温度范围的相对湿度，请咨询西门子。

Reliable quality and performance

To ensure reliable and long life, the 1LG0 windings are made of materials with class F temperature rise limited to class B (80K).

Voltage and Frequency

1LG0 standard motor will operate on mains power supplies in accordance with IEC 60034-1 Category A (combination of voltage deviation ±5 % and frequency deviation ±2 %) for voltage and frequency fluctuations.

Rated Output

1LG0 rated output power refers to continuous duty (S1) operation in accordance with IEC 60034-1 when operated at 40°C ambient temperature and at site altitudes of 1000m or less.

1LG0 current overload is in accordance with IEC 60034-1 (1.5 times for 2 minutes) when operated as per the rated name plate data.

Environmental

- Suitable for IP55 installations
- Below or equal to 1000m above sea level
- Operating temperature between -20°C and 40°C
- Relative humidity

Note: For other requirements, Siemens should be consulted.

如果环境条件与上面提到的不同，请参考下面的表格

If environmental conditions vary from those listed above, please consult the chart below for output power derating factor.

	< 30 °C	30 ~ 40 °C	45 °C	50 °C	55 °C	60 °C
1000 m	1.07	1.00	0.96	0.92	0.87	0.82
1500 m	1.04	0.97	0.93	0.89	0.84	0.79
2000 m	1.00	0.94	0.90	0.86	0.82	0.77
2500 m	0.96	0.90	0.86	0.83	0.78	0.74
3000m	0.92	0.86	0.82	0.79	0.75	0.70
3500 m	0.88	0.82	0.79	0.75	0.71	0.67
4000 m	0.82	0.77	0.74	0.71	0.67	0.63

防潮加热带（空间加热器）的电气参数

Space heater electrical data

机座号 Frame Size	80 ~ 90	100 ~ 112	132 ~ 160	180 ~ 200	225 ~ 280	315	355
功率 Power (W)	20	30	40	50	60	80	110
电压 Voltage (V)	220						

变频应用

1LG0 电机适于变转速、恒转速各种应用，如在风机泵、压缩机、纺织机械等。

当电机拖动恒转矩负载且转速低于额定转速 50% 运行时，电机须配置独立驱动风机（选件号：G17）。

注：

- (1) 当变频器驱动电机时，电磁干扰的程度大小取决于变频器的类型（种类，IGBT 数量，干扰控制措施及制造商）、布线、距离以及应用需求。
- (2) 在设计和应用阶段必须参考变频器制造商关于电磁兼容性的安装指导。

独立风扇技术参数

对应电机机座号	电压	频率	功率	电流	转速	风量	风压	ΔL
Motor frame size	Voltage (V)	Frequency (Hz)	Rated output (W)	Current (A)	Speed (r/min)	Fan power (m ³ /h)	Fan pressure (Pa)	
80	380V	50	30	0.08	2400	330	60	85
90	380V	50	52	0.2	2800	390	60	70
100	380V	50	52	0.2	2800	600	70	90
112	380V	50	52	0.2	2800	800	80	80
132	380V	50	40	0.1	2400	1000	70	65
160	380V	50	80	0.23	1400	1000	50	55
180	380V	50	80	0.23	1400	1200	55	80
200	380V	50	230	0.71	1400	1800	65	90
225	380V	50	230	0.71	1400	1800	65	110
250	380V	50	230	0.71	1400	3300	85	80
280	380V	50	230	0.71	1400	4000	110	120
315	380V	50	370	1.1	1250	6200	180	120
355	380V	50	550	1.8	1350	7000	180	125

注： ΔL 指的是，带强冷风扇的电动机比自扇冷电动机的长度大约增加量，详细数据参见西门子提供的图纸；

Converter fed application

1LG0 motors are suitable for pumps, fans, compressors, textile machine and mechanical machine applications where variable or constant speed is required.

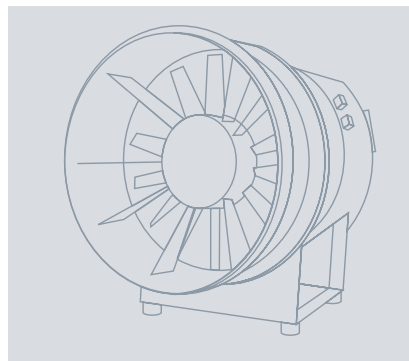
When motor operating with a constant load by a speed lower than 50% of rated speed, External seperately driven fan (Option code: G17) .

Note:

- (1) In application where the motor is driven by a converter, the degree of electrical interference depends on the type of converter used (type, number of IGBTs, interference suppression measures, and manufacturer), cabling, distance and application requirements.
- (2) The installation guidelines of the converter manufacturer with regards to electromagnetic compatibility must be considered at all times during the design and implementation phases.

Technical data for separated fan

Note: ΔL means, when a separated driven fan is mounted, the length of the motor is roughly increased by ΔL compare with TEFC motor, detailed value referred to the dimension drawing from Siemens.

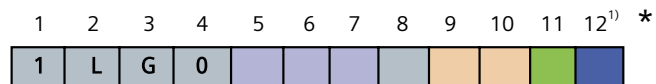


西门子 1LG0 系列产品可用于风机类、泵类、压缩机类及暖通空调类等负载，适用于各种定速、变转速应用。

1LG0 motors are suitable for pumps, fans, compressors and HVAC applications where variable or constant speed is required .

MLFB 选型 FS 80 ~ 355

MLFB configuration FS 80 ~ 355



电机系列 Motor series

机座号 80 ~ 355 FS 80 ~ 355

S = short (0, 1, 2)

M = medium (3, 4, 5)

L = long (6, 7, 8)

极数 Number of poles 2、4、6

设计类型 Design type

电压、连接方式、频率 Voltage, connections and frequency

1 - 230 VD / 400 VY 50Hz

2 - 220 VD / 380 VY 50Hz

6 - 400 VD / 690 VY 50Hz

7 - 380 VD / 660 VY 50Hz

9²⁾ - 特殊电压与频率 special voltage and frequency

结构型式 Construction type

0 - 机座带底脚，端盖无法兰 With feet and without flange on the end-shield (DE)

1 - 机座不带底脚，端盖有法兰 Without feet and with flange on the end-shield (DE)

6 - 机座带底脚，端盖有法兰 With feet and with flange on the end-shield (DE)

4 - 机座不带底脚，端盖有法兰且带防雨罩 Without feet and with flange on the end-shield (DE), and with canopy on non-driven end

8³⁾ - 机座不带底脚，端盖有法兰，IMV1安装且不带防雨罩 Without feet and with flange on the end-shield (DE), IMV1 without canopy

定货号样例

三相交流电机 IP55

2-极 50 Hz, 11kW 380VD/660VY IMB3

订货号: 1LG0163-2AA..

电压代码: 7

结构型式代码: 0

Ordering example:

Three-phase motor IP55

2-pole 50 Hz, 11kW 380VD/660VY IMB3

Order No. 1LG0163-2AA..

Voltage identifier: 7

construction type identifier: 0

¹⁾ 选件号加在12位之后;

²⁾ 当选择“选件”中提到的“特殊电压与频率”时，电机型号的第11位须改为“9”；

³⁾ “8”仅适用于机座号为 250 ~ 355、IMV1 安装不带防雨罩的 1LG0 电机；对于机座号为 80 ~ 225，IMV1 安装不带防雨罩的 1LG0 电机，第12位为“1”

¹⁾ Option codes are added after position 12;

²⁾ When selecting special voltage and frequency mentioned in "option" part, 11 position of MLFB should be changed to "9".

³⁾ Code "8" is only applicable to 1LG0 motor from FS 250 ~ 355, 1LG0 motor with FS 250 ~ 355, IMV1 without canopy; for 1LG0 motor with the other frame sizes, IMV1 without canopy, the 12th position is "1".

选件 Options

选件号 Option Code	描述 Description	适应范围 Application Scope
特殊电压与频率 Special voltage and frequency		
L1C	415VY 50Hz, 50Hz out put	FS 80 ~ 355
L1D	415VD 50Hz, 50Hz out put	FS 80 ~ 355
L1U	400VD 50Hz, 50Hz out put	FS 80 ~ 355
L2B	220VD / 380VY 60Hz, 60Hz out put	FS 80 ~ 355
L2D	380VD / 660VY 60Hz, 60Hz out put	FS 80 ~ 355
L2E	460VY 60Hz, 60Hz out put	FS 80 ~ 355
L2F	460VD 60Hz, 60Hz out put	FS 80 ~ 355
L1Y ¹⁾	415VD 60Hz (50Hz output), 415VY 60Hz (50Hz output), 480VD 60Hz (50Hz output), 480VY 60Hz (50Hz output)	FS 80 ~ 355
电气设计 Electrical design		
A11	绕组带一组三芯串联的 PTC 热敏电阻用于跳闸 Motor protection with PTC thermistors with three embedded temperature sensors for tripping	FS 80 ~ 355
A12	绕组带两组三芯串联的 PTC 热敏电阻用于报警和跳闸 Motor protection with PTC thermistors with six embedded temperature sensors for alarm and tripping	FS 80 ~ 355
A60	绕组带三个 PT100 测温元件 Installation of 3 PT100 resistance thermometers	FS 100 ~ 355
A61	绕组带六个 PT100 测温元件 Installation of 6 PT100 resistance thermometers	FS 180 ~ 355
A72	轴承装两个 PT100 测温元件 Installation of 2PT100 screw-in resistance thermometers for bearings	FS 180 ~ 355
K45	绕组带 220V 防潮加热带 Anti-condensation heater for 220Vac (spaces heater)	FS 80 ~ 355
W04	温度等级 155 (F) , 使用 130 (B) , 带有服务因数 1.15 Temperture class 155(F), used acc. to 130(B) with service factor 1.15	FS 80 ~ 355
机械设计 Mechanical design		
K09 ²⁾	接线盒在右侧(从驱动端看) Terminal box on RHS (view from drive end)	FS 80 ~ 355
K10 ²⁾	接线盒在左侧(从驱动端看) Terminal box on LHS (view from drive end)	FS 80 ~ 355
K11 ²⁾	顶出线(从驱动端看出线口朝右) Terminal box on top, cable entry on right (view from drive end)	FS 80 ~ 355
K83	接线盒旋转 90°, 进线方向为驱动端方向 Rotation of terminal box by 90°, inserted from drive end	FS 80 ~ 355
K84	接线盒旋转 90°, 进线方向为非驱动端方向 Rotation of terminal box by 90°, inserted from non-drive end	FS 80 ~ 355
K85	接线盒旋转 180° Rotation of terminal box by 180°	FS 80 ~ 355
K16 ³⁾	标准双轴伸 Second standard shaft-extension	FS 80 ~ 355
K40	再润滑注油装置 Regreasing nipple	FS 180 ~ 280
W01	SKF 轴承 SKF bearings	FS 80 ~ 355
W02	NSK 轴承 NSK bearings	FS 80 ~ 355
W03	电机轴驱动端采用油封密封 Motor shaft DE equipped with Oil seal	FS 80 ~ 132
G17	独立风扇 Separately driven fan	FS 80 ~ 355
油漆 Paint		
Y53	其它颜色的标准油漆, 请指定 RAL7032 或 RAL9006 Finish in other colours - please specify RAL7032 or RAL9006	FS 80 ~ 355
Y54	其他颜色特殊喷漆 RAL7032或RAL9006 Special finish in other standard RAL colors: RAL7032 or RAL9006	FS 80 ~ 355
M94 ⁴⁾	抗海洋性气候环境用防腐油漆 Sea air resistant special finish	FS 80 ~ 355
测试证书 Testing certificate		
B02	出厂检验报告 Acceptance test certificate 3.1 according to EN 10204	FS 80 ~ 355

¹⁾ 当选 L1Y 选件时, 请通知西门子区域商务具体订货信息。

²⁾ 电机有法兰且不带底脚时, 无需指定接线盒位置。对于接线盒在左侧(选件号: K10)的电机, 接线盒靠近非驱动端。

³⁾ 非驱动端带防雨罩的电机不能选择此选件, 且此选件不能与G17同时选择配置。

⁴⁾ 可用于室内、或暴露在空气中室外安装, 也可用于含有中等浓度SO₂的工业环境中, 并可用于海洋性气候环境中, 但不适用于海上的应用。

¹⁾ When L1Y ordered, please let Siemens Region Commercial knows detailed information.

²⁾ Indication of terminal box position is not necessary for motor with flange. For motor with K10, the connection box is close to NDE.

³⁾ Motor with canopy on non-driven end should not be associated with this option; and this option can not be in combination with G17.

⁴⁾ Recommendate for indoor or outdoor installations exposed to enviromental conditions. Industrial enviroment with moderate SO₂, inshore maritime climate but not offshore.

选型技术数据表 Technical data table

机座号 Frame Size	型号 Type	额定功率 Rated Output	额定转速 Rated speed	效率 (50Hz) 4/4 负载 Efficiency at (50Hz)4/4 load	效率 (50Hz) 3/4 负载 Efficiency at (50Hz)3/4 load	功率因数 Power factor	额定电流 Rated current	额定转矩 Rated torque
		P_{rated}	n_{rated}	η_{rated}	η_{rated}	$\cos \phi_{rated}$	I_{rated}	T_{rated}
		kW	rpm	%	%		A	Nm
3000 转/分钟 2极 3000rpm 2-pole								
220VD/380VY 50Hz								
80M	1LG0 080-2AA..	0.75	2845	76	75.1	0.83	1.81	2.5
80M	1LG0 083-2AA..	1.1	2840	77.4	80	0.84	2.57	3.7
90S	1LG0 090-2AA..	1.5	2840	79	79.2	0.84	3.43	5
90L	1LG0 096-2AA..	2.2	2840	81.1	81.8	0.85	4.85	7.4
100L	1LG0 106-2AA..	3	2860	83	83.2	0.88	6.31	10
380VD/660VY 50Hz								
112M	1LG0 113-2AA..	4	2880	85	85.8	0.88	8.1	13.3
132S	1LG0 130-2AA..	5.5	2900	86	87.1	0.88	11	18.1
132S	1LG0 131-2AA..	7.5	2900	87	88.7	0.88	14.9	24.7
160M	1LG0 163-2AA..	11	2930	88.4	88.6	0.89	21.2	35.9
160M	1LG0 164-2AA..	15	2930	89.4	90	0.89	28.6	48.9
160L	1LG0 166-2AA..	18.5	2930	91	91	0.9	34.3	60.3
180M	1LG0 183-2AA..	22	2940	91.2	90.2	0.89	41.2	71.5
200L	1LG0 206-2AA..	30	2950	91.4	91.2	0.9	55.4	97.1
200L	1LG0 207-2AA..	37	2950	92	92.2	0.9	67.9	120
225M	1LG0 223-2AA..	45	2960	92.5	92.6	0.9	82.1	145
250M	1LG0 253-2AB..	55	2965	93	92.8	0.9	100	177
280S	1LG0 280-2AB..	75	2970	93.6	93	0.9	135	241
280M	1LG0 283-2AB..	90	2970	93.9	93.7	0.91	160	289
315S	1LG0 310-2AC..	110	2975	94	93.2	0.91	195	353
315M	1LG0 313-2AC..	132	2975	94.5	93.9	0.91	233	424
315L	1LG0 316-2AC..	160	2975	94.6	94	0.92	279	514
315L	1LG0 317-2AC..	200	2975	94.8	94.9	0.92	348	642
355M	1LG0 353-2AC..	220	2987	94.8	94.8	0.92	383	703
355M	1LG0 354-2AC..	250	2987	95.2	94.9	0.9	444	799
355L	1LG0 356-2AC..	280	2987	95.2	95.1	0.9	497	895
355L	1LG0 357-2AC..	315	2987	95.4	95.4	0.9	558	1007

倒数第 2 位 Penultimate position:

电压代码 Voltage Identifier No.

220VD/380VY 50Hz	380VD/660VY 50Hz	230VD/400VY 50Hz	400VD/690VY 50Hz	异电压频率 E-Voltage/ Frequency
2	7	1	6	9

额定功率 Rated Output	额定转速 Rated speed	效率 Efficiency	功率因数 Power factor	额定电流 Rated current	额定转矩 Rated torque	起动电流 Starting current	起动转矩 Starting torque	最大转矩 Max torque	转动惯量 Moment of inertia J	重量 Weight
P_{rated}	n_{rated}	η_{rated}	$\cos \phi_{rated}$	I_{rated}	T_{rated}	I_{LR} / I_{rated}	T_{LR} / T_{rated}	T_B / T_{rated}		
kW	rpm	%		A	Nm				kgm ²	kg
440VY 60Hz										
0.86	3450	76.0	0.83	1.79	2.38	6.1	2.3	2.7	0.0008	14
1.3	3430	79.0	0.84	2.57	3.62	7	2.3	2.5	0.0009	15
1.75	3440	80.0	0.84	3.42	4.86	6.9	2.3	2.3	0.0012	20
2.55	3440	82.0	0.85	4.80	7.08	6.9	2.3	2.8	0.0014	24
3.45	3460	84.0	0.87	6.19	9.52	6.9	2.3	2.8	0.0039	30
440VD 60Hz										
4.6	3480	86.0	0.88	8.0	12.6	7.2	2.3	2.8	0.0055	38
6.3	3500	86.0	0.88	10.9	17.2	7.5	2.3	2.8	0.0109	58
8.6	3500	87.0	0.88	14.7	23.5	7.4	2.3	2.8	0.013	58
12.6	3520	89.5	0.89	20.8	34.2	7.5	2.5	2.6	0.038	105
17.3	3520	90.0	0.895	28.2	46.9	7.3	2.5	2.9	0.045	115
21.3	3520	90.5	0.905	34.1	57.8	7.2	2.5	2.8	0.055	128
24.5	3540	90.0	0.90	39.7	66.1	7.5	2.3	2.9	0.075	165
33.5	3540	91.2	0.90	53.6	90.4	6.9	2.2	2.9	0.124	225
41.5	3540	92.0	0.90	65.8	112	7.1	2.3	2.9	0.139	246
51	3550	92.8	0.91	79.2	137	7.3	2.5	2.9	0.233	285
62	3560	92.5	0.90	98	166	7.5	2.5	2.9	0.312	390
84	3560	93.0	0.90	132	225	7.5	2.3	2.9	0.597	504
101	3560	93.8	0.91	155	271	7.5	2	2.3	0.675	536
123	3570	94.0	0.91	189	329	7.1	1.8	2.2	1.18	825
148	3570	94.5	0.91	226	396	7.1	1.8	2.2	1.55	960
180	3570	94.6	0.92	271	482	7	1.9	2.5	1.76	1000
224	3570	94.8	0.92	337	599	7.1	1.8	2.2	2.02	1120
246	3580	94.8	0.92	370	656	7.1	1.4	2.2	3.02	1545
280	3580	95.3	0.92	419	747	7.1	1.4	2.2	3.56	1650
314	3580	95.3	0.92	470	838	7.1	1.4	2.2	3.84	1650
353	3580	95.6	0.92	527	942	7.1	1.4	2.2	4.16	1790

最后一位 Final position			
结构型式代码 Type of construction Identifier No.			
机座带底脚，端盖无法兰 With feet and without flange on the end-shield	机座不带底脚，端盖有法兰 Without feet and with flange on the end-shield	机座带底脚，端盖有法兰 With feet and with flange on the end-shield	机座不带底脚，端盖有法兰且带防雨罩 Without feet and with flange on the end-shield, and with Canopy on non-driven end
0	1 8 ¹⁾	6	4

¹⁾ “8” 仅适用于机座号为 250 ~ 355、IMV1 安装不带防雨罩的 1LG0 电机；对于机座号为 80 ~ 225，IMV1 安装不带防雨罩的 1LG0 电机，第 12 位为 “1”。

¹⁾ Code "8" is only for FS 250 ~ 355 1LG0 motor with mounting type "IMV1 without canopy"; for FS 80 ~ 225 1LG0 motor with mounting type "IMV1 without canopy", the 12th position is "1".

选型技术数据表 Technical data table

机座号 Frame Size	型号 Type	额定 功率 Rated Output	额定 转速 Rated speed	效率 (50Hz) 4/4 负载 Efficiency at (50Hz) 4/4 load	效率 (50Hz) 3/4 负载 Efficiency at (50Hz) 3/4 load	功率 因数 Power factor	额定 电流 Rated current	额定 转矩 Rated torque
		P_{rated}	n_{rated}	η_{rated}	η_{rated}	$\cos \phi_{rated}$	I_{rated}	T_{rated}
		kW	rpm	%	%		A	Nm
1500 转/分钟 4极 1500rpm 4-pole								
220VD/380VY 50Hz								
80M	1LG0 080-4AA..	0.55	1390	71	71.9	0.75	1.57	3.8
80M	1LG0 083-4AA..	0.75	1380	73	74.7	0.76	2.05	5.2
90S	1LG0 090-4AA..	1.1	1390	76.2	75	0.76	2.89	7.6
90L	1LG0 096-4AA..	1.5	1390	78.5	75.8	0.79	3.67	10.3
100L	1LG0 106-4AA..	2.2	1410	81	78.8	0.8	5.16	14.9
100L	1LG0 107-4AA..	3	1410	82.8	80.9	0.81	6.8	20.3
380VD/660VY 50Hz								
112M	1LG0 113-4AA..	4	1435	84.5	84	0.82	8.8	26.6
132S	1LG0 130-4AA..	5.5	1440	86	85.9	0.82	11.8	36.5
132M	1LG0 133-4AA..	7.5	1440	87.2	87.4	0.84	15.6	49.7
160M	1LG0 163-4AA..	11	1460	89	88.5	0.83	22.6	72
160L	1LG0 166-4AA..	15	1460	90	89.7	0.84	30.1	98.1
180M	1LG0 183-4AA..	18.5	1470	90.6	91.2	0.86	36.1	120.2
180L	1LG0 186-4AA..	22	1470	91.4	91.6	0.86	42.5	143
200L	1LG0 206-4AA..	30	1470	92.1	92.3	0.86	57.5	195
225S	1LG0 220-4AA..	37	1475	92.6	92.7	0.87	69.8	240
225M	1LG0 223-4AA..	45	1475	92.8	93.2	0.87	84.7	291
250M	1LG0 253-4AA..	55	1480	93	93.3	0.87	103	355
280S	1LG0 280-4AA..	75	1480	93.8	93.6	0.87	140	484
280M	1LG0 283-4AA..	90	1480	94.3	94.1	0.87	167	580
315S	1LG0 310-4AB..	110	1480	94.6	94	0.88	201	710
315M	1LG0 313-4AB..	132	1480	94.9	94.4	0.88	240	852
315L	1LG0 316-4AB..	160	1480	95.1	94.8	0.89	287	1032
315L	1LG0 317-4AB..	200	1480	95.3	94.9	0.89	358	1291
355M	1LG0 353-4AB..	220	1490	95	95.3	0.89	395	1410
355M	1LG0 354-4AB..	250	1490	95.2	95.3	0.87	459	1602
355L	1LG0 356-4AB..	280	1490	95.2	95.4	0.87	514	1794
355L	1LG0 357-4AB..	315	1490	95.2	95.4	0.87	578	2019

倒数第 2 位 Penultimate position:

电压代码 Voltage Identifier No.

220VD/380VY 50Hz	380VD/660VY 50Hz	230VD/400VY 50Hz	400VD/690VY 50Hz	异电压频率 E-Voltage/ Frequency
2	7	1	6	9

额定功率 Rated Output	额定转速 Rated speed	效率 Efficiency	功率因数 Power factor	额定电流 Rated current	额定转矩 Rated torque	起动电流 Starting current	起动转矩 Starting torque	最大转矩 Max torque	转动惯量 Moment of inertia J	重量 Weight
P_{rated}	n_{rated}	η_{rated}	$\cos\phi_{rated}$	I_{rated}	T_{rated}	I_{LR}/I_{rated}	T_{LR}/T_{rated}	T_B/T_{rated}		
kW	rpm	%		A	Nm				kgm ²	kg
440VY 60Hz										
0.63	1690	73.0	0.75	1.51	3.56	5	2.4	2.6	0.002	14
0.86	1680	75.0	0.76	1.98	4.89	5.8	2.4	2.6	0.002	15
1.3	1680	77.0	0.77	2.88	7.39	5.8	2.3	2.5	0.0021	19
1.75	1680	79.0	0.79	3.68	9.95	5.8	2.4	2.8	0.003	23
2.55	1710	81.0	0.81	5.10	14.2	6	2.4	2.3	0.007	31
3.45	1710	83.0	0.82	6.65	19.3	6	2.3	2.8	0.007	33
440VD 60Hz										
4.6	1730	85.0	0.82	8.7	25.4	6.2	2.3	2.8	0.0095	44
6.3	1740	85.5	0.85	11.4	34.6	6.5	2.3	2.8	0.0214	56
8.6	1740	87.0	0.84	15.4	47.2	7	2.5	2.8	0.0296	71
12.6	1750	89.0	0.85	21.9	68.8	7	2.4	2.9	0.075	110
17.3	1750	89.5	0.85	29.8	94.4	7.5	2.5	2.9	0.092	132
21.3	1760	91.0	0.86	35.7	116	7	2.3	2.9	0.139	164
24.5	1760	91.5	0.865	40.6	133	7	2.4	2.9	0.158	180
33.5	1760	92.5	0.86	55.3	182	7	2.3	2.8	0.262	225
41.5	1770	92.8	0.87	67.4	224	6.9	2.2	2.7	0.406	285
51	1770	93.0	0.87	82.7	275	6.9	2.2	2.3	0.469	305
62	1770	93.5	0.875	99	335	7.1	2.4	2.8	0.66	400
84	1780	93.8	0.88	134	451	6.8	2.3	2.8	1.12	553
101	1780	94.3	0.88	160	542	7.2	2.4	2.8	1.46	582
123	1780	94.5	0.88	194	660	6.2	2.3	2.8	3.11	870
148	1780	94.8	0.88	233	794	6.1	2.2	2.8	3.29	995
180	1780	94.9	0.89	280	966	6.5	2.2	2.8	3.79	1025
224	1780	95.0	0.89	348	1202	6.4	2.1	2.8	4.49	1220
246	1780	95.0	0.89	382	1320	6.9	1.6	2.2	4.82	1645
280	1780	95.3	0.90	428	1502	6.9	1.6	2.2	5.67	1685
314	1780	95.3	0.90	480	1685	6.9	1.6	2.2	6.13	1780
353	1780	95.6	0.90	538	1894	6.9	1.6	2.2	6.66	1890

最后一位 Final position

结构型式代码 Type of construction Identifier No.

机座带底脚，端盖无法兰
With feet and without flange on the end-shield

机座不带底脚，端盖有法兰
Without feet and with flange on the end-shield

机座带底脚，端盖有法兰
With feet and with flange on the end-shield

机座不带底脚，端盖有法兰且带防雨罩
Without feet and with flange on the end-shield, and with Canopy on non-driven end

0

1 8¹⁾

6

4

¹⁾ “8” 仅适用于机座号为 250 ~ 355、IMV1 安装不带防雨罩的 1LG0 电机；对于机座号为 80 ~ 225，IMV1 安装不带防雨罩的 1LG0 电机，第 12 位为 “1”。

¹⁾ Code "8" is only for FS 250 ~ 355 1LG0 motor with mounting type "IMV1 without canopy"; for FS 80 ~ 225 1LG0 motor with mounting type "IMV1 without canopy", the 12th position is "1".

选型技术数据表 Technical data table

机座号 Frame Size	型号 Type	额定功率 Rated Output	额定转速 Rated speed	效率 (50Hz) 4/4 负载 Efficiency at (50Hz)4/4 load	效率 (50Hz) 3/4 负载 Efficiency at (50Hz)3/4 load	功率因数 Power factor	额定电流 Rated current	额定转矩 Rated torque
		P_{rated}	n_{rated}	η_{rated}	η_{rated}	$\cos\phi_{rated}$	I_{rated}	T_{rated}
		kW	rpm	%	%		A	Nm
1000 转/分钟 6极		1000rpm 6-pole						
		220VD/380VY 50Hz						
80M	1LG0 083-6AA..	0.55	885	65	67.3	0.72	1.79	5.9
90S	1LG0 090-6AA..	0.75	910	69	70.2	0.72	2.29	7.9
90L	1LG0 096-6AA..	1.1	910	72	74.5	0.73	3.18	11.5
100L	1LG0 106-6AA..	1.5	920	76	78.2	0.75	4	15.6
112M	1LG0 113-6AA..	2.2	935	80	81.3	0.75	5.6	22.5
132S	1LG0 130-6AA..	3	960	81.5	82.2	0.76	7.4	29.8
		380VD/660VY 50Hz						
132M	1LG0 133-6AA..	4	960	82	83.9	0.76	9.8	38.2
132M	1LG0 134-6AA..	5.5	960	84.4	86.3	0.77	12.9	52.5
160M	1LG0 163-6AA..	7.5	970	86	87.9	0.77	17.2	71.6
160L	1LG0 166-6AA..	11	970	87.5	89.1	0.78	24.5	105.1
180L	1LG0 186-6AA..	15	970	89	89.6	0.83	30.9	143
200L	1LG0 206-6AB..	18.5	980	90	90.1	0.81	38.6	177
200L	1LG0 207-6AB..	22	980	90	91.1	0.83	44.7	210
225M	1LG0 223-6AB..	30	980	91.7	92.3	0.84	59.2	287
250M	1LG0 253-6AB..	37	980	92	92.1	0.86	71	353
280S	1LG0 280-6AB..	45	980	92.5	92.6	0.86	86	430
280M	1LG0 283-6AB..	55	980	92.8	93.2	0.86	105	525
315S	1LG0 310-6AB..	75	989	93.5	93.8	0.86	142	724
315M	1LG0 313-6AB..	90	989	93.8	94.1	0.86	170	869
315L	1LG0 316-6AB..	110	989	94.3	94.5	0.86	206	1062
315L	1LG0 317-6AB..	132	989	94.6	94.8	0.87	244	1274
355M	1LG0 353-6AB..	160	989	94.5	94.2	0.88	292	1609
355M	1LG0 354-6AB..	185	989	94.5	94.4	0.88	338	1861
355M	1LG0 355-6AB..	200	989	94.7	94.6	0.88	365	2012
355L	1LG0 356-6AB..	220	989	94.7	94.7	0.88	401	2213

倒数第 2 位 Penultimate position:

电压代码 Voltage Identifier No.

220VD/380VY 50Hz	380VD/660VY 50Hz	230VD/400VY 50Hz	400VD/690VY 50Hz	异电压频率 E-Voltage/ Frequency
2	7	1	6	9

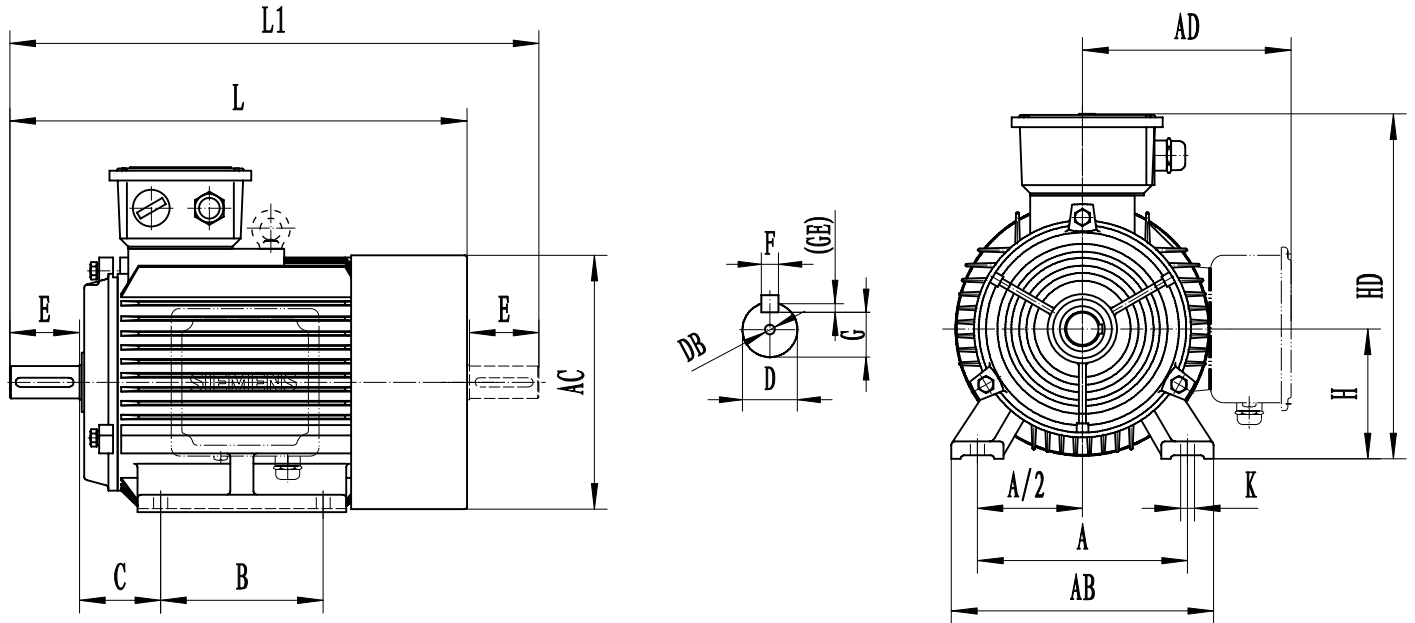
额定功率 Rated Output	额定转速 Rated speed	效率 Efficiency	功率因数 Power factor	额定电流 Rated current	额定转矩 Rated torque	起动电流 Starting current	起动转矩 Starting torque	最大转矩 Max torque	转动惯量 Moment of inertia J	重量 Weight
P_{rated}	n_{rated}	η_{rated}	$\cos\phi_{rated}$	I_{rated}	T_{rated}	I_{LR}/I_{rated}	T_{LR}/T_{rated}	T_B/T_{rated}		
kW	rpm	%		A	Nm				kgm ²	kg
440VY 60Hz										
0.63	1080	66.0	0.72	1.74	5.57	4.7	1.9	2.1	0.003	16
0.86	1100	71.0	0.72	2.21	7.47	5	2	2.3	0.0029	20
1.3	1100	73.5	0.73	3.18	11.3	5	2.1	2.3	0.0035	23
1.75	1110	78.0	0.75	3.93	15.1	5	2.2	2.4	0.0069	29
2.55	1130	81.0	0.76	5.4	21.6	5	2.4	2.4	0.0138	40
3.45	1160	82.0	0.76	7.3	28.4	6	2.1	2.6	0.0286	52
440VD 60Hz										
4.6	1160	83.0	0.76	9.6	37.9	6	2.1	2.8	0.036	62
6.3	1160	86.0	0.77	12.5	51.9	6.4	2.1	2.8	0.045	68
8.6	1160	87.5	0.78	16.5	70.8	6.5	2	2.7	0.088	104
12.6	1160	88.5	0.78	24.0	104	6.5	2	2.9	0.116	127
17.3	1170	90.0	0.82	30.8	141	6.5	2.2	2.7	0.207	167
21.3	1170	90.5	0.82	37.7	174	6.5	2.2	2.8	0.315	210
24.5	1170	91.0	0.835	42.3	200	6.5	2.1	2.6	0.36	223
33.5	1170	92.0	0.85	56.2	273	6.5	2	2.6	0.547	290
41.5	1170	92.0	0.87	68	339	6.9	2.1	2.8	0.834	375
51	1180	92.5	0.86	84	413	7	2.2	2.8	1.39	492
62	1180	93.0	0.865	101	502	7	2.1	2	1.65	530
84	1186	93.8	0.86	137	676	7	2.3	2.8	4.11	820
101	1186	93.8	0.86	164	813	6.2	2	2.7	4.28	895
123	1186	94.0	0.86	200	990	6.2	2	2.6	5.45	1010
148	1186	94.5	0.87	236	1192	6.5	2	2.8	6.12	1080
180	1180	94.5	0.88	284	1457	6.7	1.9	2	8.85	1590
207	1180	94.5	0.88	327	1675	6.7	1.9	2	8.98	1660
224	1180	94.7	0.88	353	1813	6.7	1.9	2	9.55	1730
246	1180	94.7	0.88	387	1991	6.7	1.9	2	10.09	1835

最后一位 Final position			
结构型式代码 Type of construction Identifier No.			
机座带底脚，端盖无法兰 With feet and without flange on the end-shield	机座不带底脚，端盖有法兰 Without feet and with flange on the end-shield	机座带底脚，端盖有法兰 With feet and with flange on the end-shield	机座不带底脚，端盖有法兰且带防雨罩 Without feet and with flange on the end-shield, and with Canopy on non-driven end
0	1 8 ¹⁾	6	4

¹⁾ “8” 仅适用于机座号为 250 ~ 355、IMV1 安装不带防雨罩的 1LG0 电机；对于机座号为 80 ~ 225，IMV1 安装不带防雨罩的 1LG0 电机，第 12 位为 “1”。

¹⁾ Code "8" is only for FS 250 ~ 355 1LG0 motor with mounting type "IMV1 without canopy"; for FS 80 ~ 225 1LG0 motor with mounting type "IMV1 without canopy", the 12th position is "1".

外形尺寸 Dimension drawings



机座号 FS 80 ~ 132 (1LG0080...1LG0134)

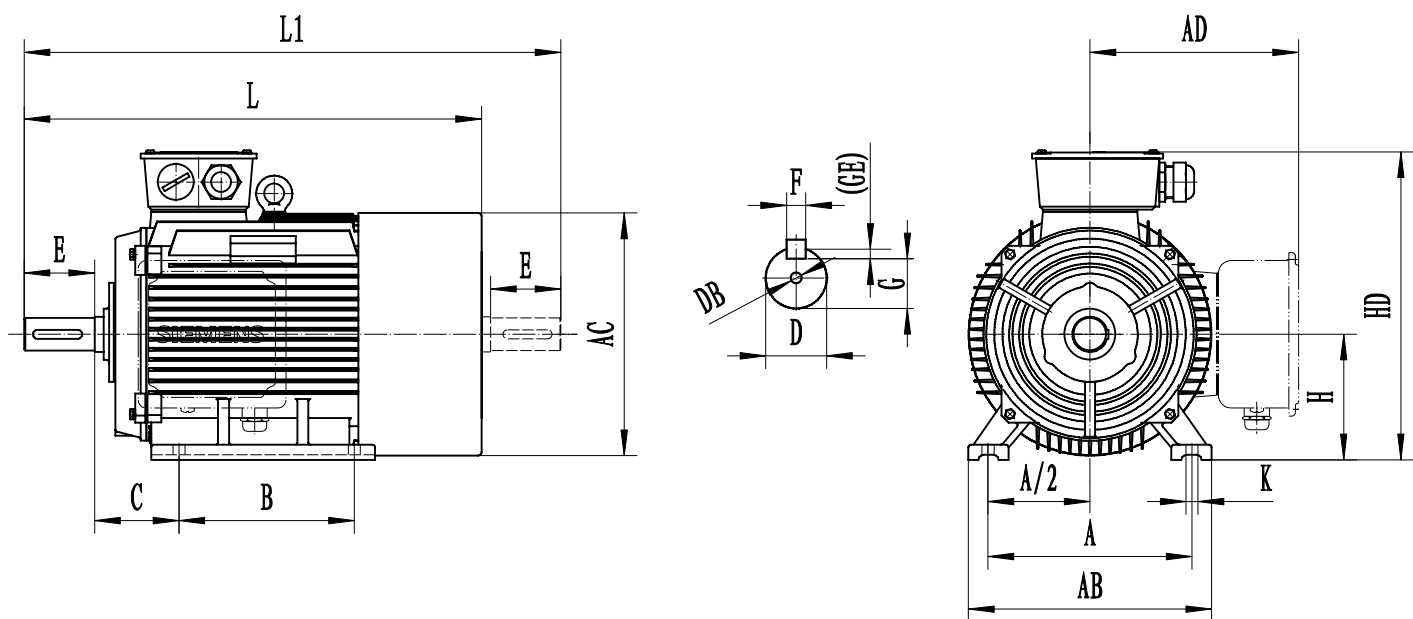
注：机座号 80 ~ 90 电机不带吊环 FS 80 ~ 90 motor without eyebolts

表 1 机座带底脚、端盖上无凸缘的电动机

机座号 Frame size		极数 Poles	安装尺寸及公差 Mounting Dimensions and Tolerance										
			A	A/2	B	C		D		E		F	
80M	1LG0080...1LG0083	2, 4, 6	125	62.5	100	50	±1.5	19	+0.009 -0.004	40	±0.310	6	0 -0.030
90S	1LG0090		140	70	100	56		24		50		8	
90L	1LG0096				125	28		60					
100L	1LG0106...1LG0107		160	80	140	63	±2.0	38		±0.370		80	10
112M	1LG0113		190	95	140	70		42			60		
132S	1LG0130...1LG0131		216	108	140	89		48			80		
132M	1LG0133...1LG0134		254	127	178	108	±3.0	+0.018 +0.002	110	±0.430	12	0 -0.043	
160M	1LG0163...1LG0164				210	42							140
160L	1LG0166		254	55	140								
180M	1LG0183		279	139.5	241	121	±4.0	+0.030 +0.011	140	±0.500	18		
180L	1LG0186				279	55							140
200L	1LG0206...1LG0207		318	159	305	133							60
225S	1LG0220	4	356	178	286	149	60	140	±0.500	18			
225M	1LG0223	2			311	55	110				16		
		4, 6			406	203	349				168	60	140
250M	1LG0253	2	406	203				349	168	65			

1) $G=D-GE$, GE 的极限偏差对机座号 80M (1LG0080...1LG0083) 为 $(\begin{smallmatrix} +0.10 \\ 0 \end{smallmatrix})$, 其余为 $(\begin{smallmatrix} +0.20 \\ 0 \end{smallmatrix})$ 。

2) K 孔的位置度公差以轴伸的轴线为基准。



机座号 FS 160 ~ 250 (1LG0163...1LG0253)

Table 1 Frame with feet and without flange on the end shield

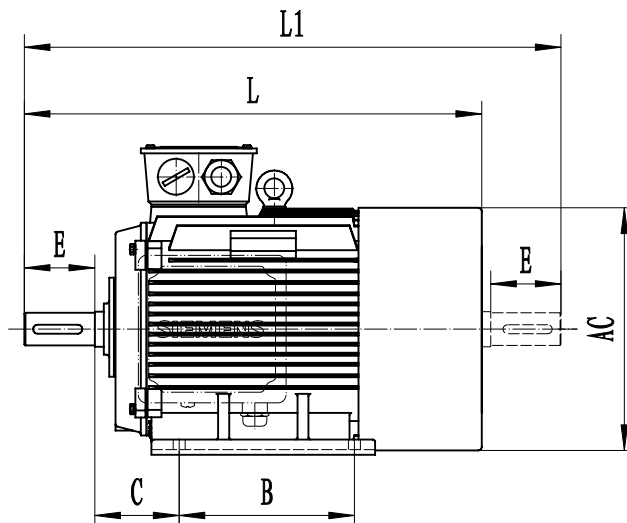
mm

G ¹⁾		H		K ²⁾		DB	外形尺寸 Contour Dimensions						
							AB	AC	AD	HD	L	L1	
15.5	$\begin{matrix} 0 \\ -0.10 \end{matrix}$	80	$\begin{matrix} 0 \\ -0.5 \end{matrix}$	10	$\begin{matrix} +0.360 \\ 0 \end{matrix}$	M6	165	164	145	220	295	335	
20	$\begin{matrix} 0 \\ -0.20 \end{matrix}$	90		12	$\phi 1.0 \text{ (M)}$		M8	180	184	155	250	320	375
24		100				M10	205	204	180	270	385	445	
33		112		M10	230	228	190	300	400	465			
		132		M12	270	267	210	345	470	555			
37		$\begin{matrix} 0 \\ -0.20 \end{matrix}$		160	15	$\phi 1.5 \text{ (M)}$	M16	320	325	255	420	615	735
				180				355	366	280	455	700	810
49				200	19	$\begin{matrix} +0.520 \\ 0 \end{matrix}$	M20	395	408	305	505	770	880
53				225				435	456	335	560	815	965
49				250	24	$\phi 2.0 \text{ (M)}$	M20	435	456	335	560	820	935
53			490					504	370	615	915	1060	
58	490		504					370	615	915	1060		

1) G=D-GE, GE limit deviations for frame size 80M (1LG0080...1LG0083) are ($\begin{matrix} +0.10 \\ 0 \end{matrix}$), for other frame size are ($\begin{matrix} +0.20 \\ 0 \end{matrix}$).

2) K hole's positional tolerance is based on the central line of shaft extension.

外形尺寸 Dimension drawings



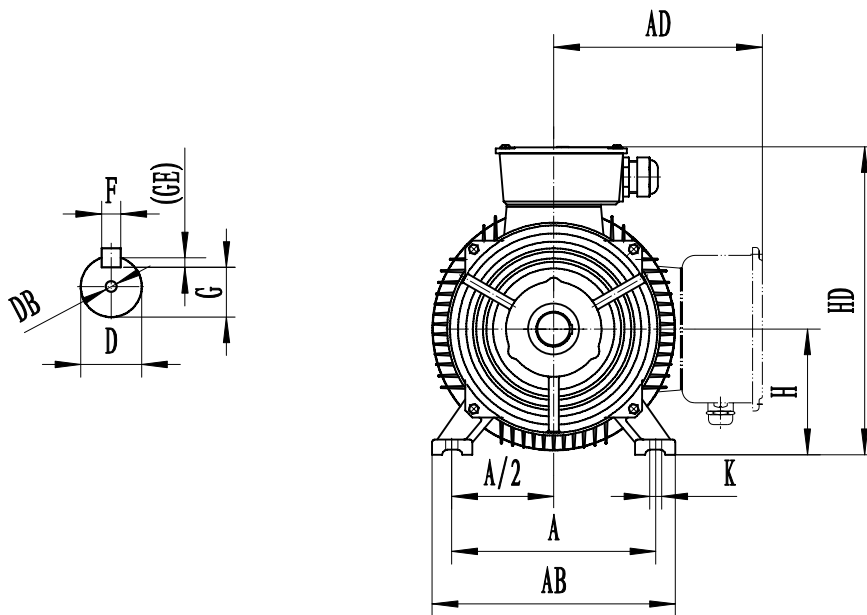
机座号 FS 280 ~ 355 (1LG0280...1LG0357)

续表 1 机座带底脚、端盖上无凸缘的电动机

机座号 Frame size		极数 Poles	安装尺寸及公差 Mounting Dimensions and Tolerance													
			A	A/2	B	C	D		E	F						
280S	1LG0280	2	457	228.5	368	190	±4.0	65	+0.030 +0.011	140	±0.500	18	0 -0.043			
		4, 6			75			20				0 -0.052				
280M	1LG0283	2			419			65				18	0 -0.043			
		4, 6			75			20				0 -0.052				
315S	1LG0310	2	508	254	406	216		65		+0.030 +0.011		170	18	0 -0.043		
		4, 6			80			22					0 -0.052			
315M	1LG0313	2			457			65				18	0 -0.043			
		4, 6			80			22				0 -0.052				
315L	1LG0316...1LG0317	2	508	254	508	254	65	+0.035 +0.013	140		18	0 -0.043				
		4, 6			80		22		0 -0.052							
355M	1LG0353...1LG0355	2			610		305		560		254	75	+0.030 +0.011	140	20	0 -0.052
		4, 6							95			25				
355L	1LG0356...1LG0357	2	630	75		20			0 -0.052							
		4, 6	95	25												

1) G=D-GE, GE 的极限偏差对机座号 80M (1LG0080...1LG0083)为 ($\begin{smallmatrix} +0.10 \\ 0 \end{smallmatrix}$), 其余为 ($\begin{smallmatrix} +0.20 \\ 0 \end{smallmatrix}$)。

2) K 孔的位置度公差以轴伸的轴线为基准。



机座号 FS 280 ~ 355 (1LG0280...1LG0357)

Table 1 Frame with feet and without flange on the end shield

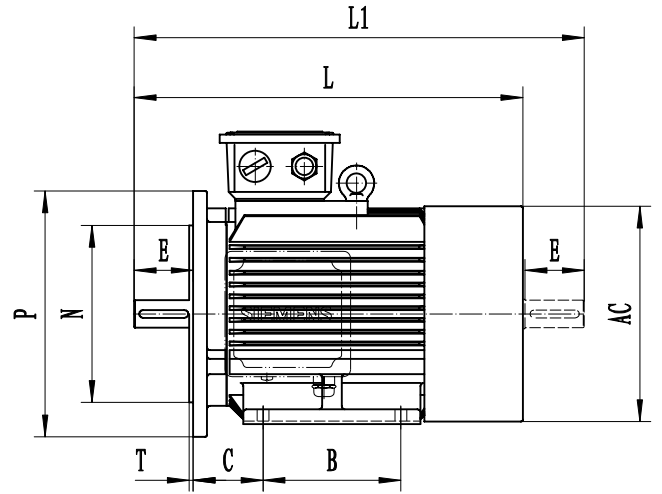
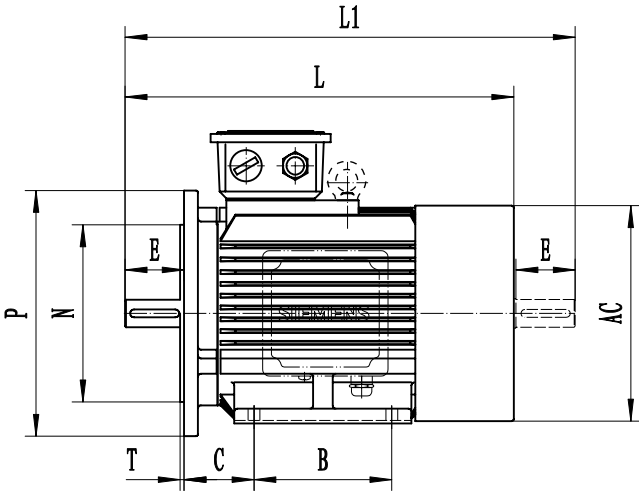
mm

G ¹⁾		H		K ²⁾		DB	外形尺寸 Contour Dimensions									
							AB	AC	AD	HD	L	L1				
58	0 -0.20	280	0 -1.0	24	+0.520 0	φ2.0 (M)	M20	550	566	410	680	960	1105			
67.5												980	1125			
58												1010	1156			
67.5												1030	1176			
58		315	0 -1.0	28			M20	635	639	530	845	1190	1330			
71												1220	1390			
58												1300	1440			
71												1330	1500			
58							355	0 -1.0	28	M24	730	718	655	1010	1300	1440
71															1330	1500
67.5															1500	1640
86															1530	1700
67.5	355	0 -1.0	28	M20	730	718	655	1010	1500	1640						
86									1530	1700						

1) G=D-GE, GE limit deviations for frame size 80M (1LG0080...1LG0083) are ($\begin{smallmatrix} +0.10 \\ 0 \end{smallmatrix}$), for other frame size are ($\begin{smallmatrix} +0.20 \\ 0 \end{smallmatrix}$).

2) K hole's positional tolerance is based on the central line of shaft extension.

外形尺寸 Dimension drawings



机座号 FS 80 ~ 132 (1LG0080...1LG0134)

机座号 FS 160 ~ 250 (1LG0163...1LG0253)

注：机座号 80 ~ 90 电机不带吊环 FS 80 ~ 90 motor without eyebolts

表 2 机座带底脚、端盖上有凸缘（带通孔）的电动机

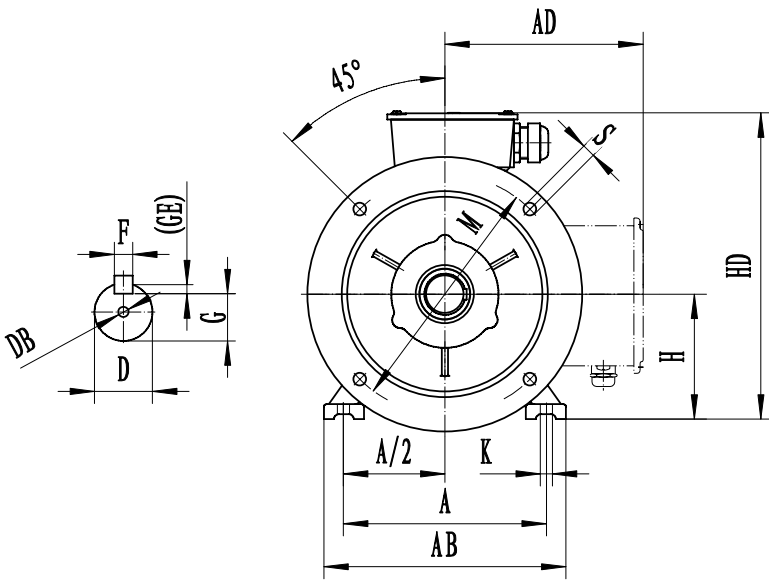
机座号 Frame size	凸缘号 Flang number	机座号 Poles	安装尺寸及公差 Mounting Dimensions and Tolerance																									
			A	A/2	B	C	D		E		F		G ¹⁾		H													
80M	1LG0080...1LG0083	2, 4, 6	125	62.5	100	50	±1.5	19	+0.009 -0.004	40	±0.310	6	0 -0.030	15.5	0 -0.10	80	0 -0.5											
90S	1LG0090		FF165	140	70	100		56		24		50	8	0 -0.036	20	90												
90L	1LG0096			125	70	100		56		24		50	8		20	90												
100L	1LG0106...1LG0107		FF215	160	80	140	63	±2.0	28	±0.370	60	0 -0.036	24	100														
112M	1LG0113			190	95	140	70		28		60		24	112														
132S	1LG0130...1LG0131		FF265	216	108	140	89	±2.0	38	80	10	33	132															
132M	1LG0133...1LG0134					178								89	38	80		10	33	132								
160M	1LG0163...1LG0164		FF300	254	127	210	108	±3.0	42	+0.018 +0.002	110	±0.430	12	0 -0.043	37	0 -0.20		160										
160L	1LG0166					254													108	42	110	12	37	160				
180M	1LG0183					279													139.5	241	121	±3.0	48	110	±0.430	14	42.5	180
180L	1LG0186																			279								
200L	1LG0206...1LG0207		FF350	318	159	305	133	±3.0	55	±0.500	16	49	200															
225S	1LG0220	FF400	356	178	286	149	±4.0	60	+0.030 +0.011	140	±0.500	18	53	225														
225M	1LG0223				2										311	55	110	±0.430	16	49								
					4, 6										311	55	110	±0.430	16	49								
250M	1LG0253	FF500	406	203	349	168	±4.0	60	+0.030 +0.011	140	±0.500	18	53	250														
															2	349	65	140	±0.500	18	58							

1) G=D-GE, GE 的极限偏差对机座号 80M (1LG0080...1LG0083) 为 ($\begin{smallmatrix} +0.10 \\ 0 \end{smallmatrix}$), 其余为 ($\begin{smallmatrix} +0.20 \\ 0 \end{smallmatrix}$)。

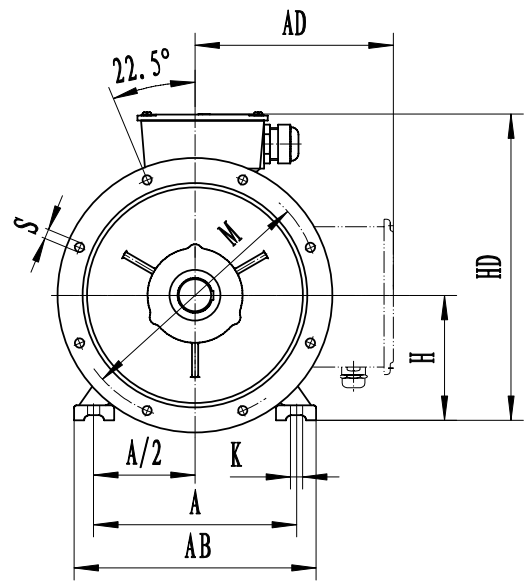
2) K、S 孔的位置度公差以轴伸的轴线为基准。

3) P 尺寸为最大极限值。

4) R 为凸缘配合面至轴伸肩的距离。



机座号 FS 80 ~ 200 (1LG0080...1LG0207)



机座号 FS 225 ~ 250 (1LG0220...1LG0253)

Table 2 Frame with feet and with flange (with through holes) on the end shield

mm

										外形尺寸 Contour Dimensions							
K ²⁾		M	N	P ³⁾	R ⁴⁾	S ²⁾		T	凸缘孔数 Flange hole number	DB	AB	AC	AD	HD	L	L1	
10	+0.360 0	165	130	200	±1.5	12	φ1.0 (M)	3.5	4	M6	165	164	145	220	295	335	
										M8	180	184	155	250	320	375	
12	+0.430 0	215	180	250	±2.0	15	+0.430 0	4		M10	205	204	180	270	385	445	
										M12	230	228	190	300	400	465	
15	+0.430 0	300	250	350	0	±3.0	φ1.5 (M)	5		0 -0.120	M16	270	267	210	345	470	555
											M16	320	325	255	420	615	735
19	+0.520 0	350	300	±0.016	400	19	+0.520 0	5		8	M16	355	366	280	455	700	810
											M20	395	408	305	505	770	880
24	+0.520 0	500	450	±0.020	550	±4.0	φ2.0 (M)	5	8	M16	435	456	335	560	815	965	
										M20	490	504	370	615	915	1060	

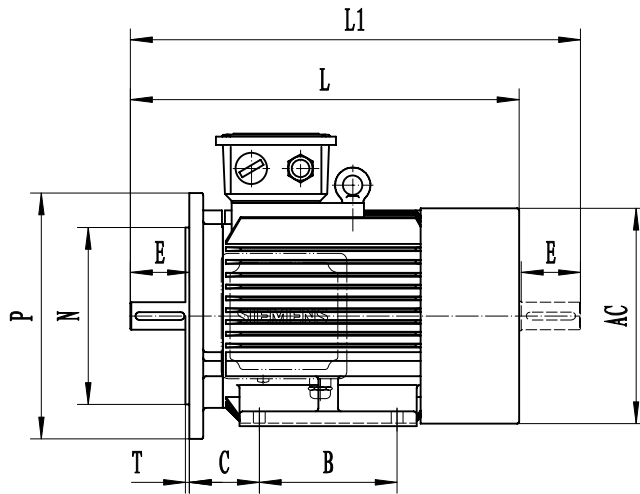
1) G=D-GE, GE limit deviations for frame size 80M (1LG0080...1LG0083) are ($\begin{matrix} +0.10 \\ 0 \end{matrix}$), for other frame size are ($\begin{matrix} +0.20 \\ 0 \end{matrix}$).

2) K hole's positional tolerance is based on the central line of shaft extension

3) Dimension of P is the maximum limit

4) R is the distance from the flange the flange to the drive shaft end.

外形尺寸 Dimension drawings



机座号 FS 280 ~ 355 (1LG0280...1LG0357)

续表 2 机座带底脚、端盖上有凸缘（带通孔）的电动机

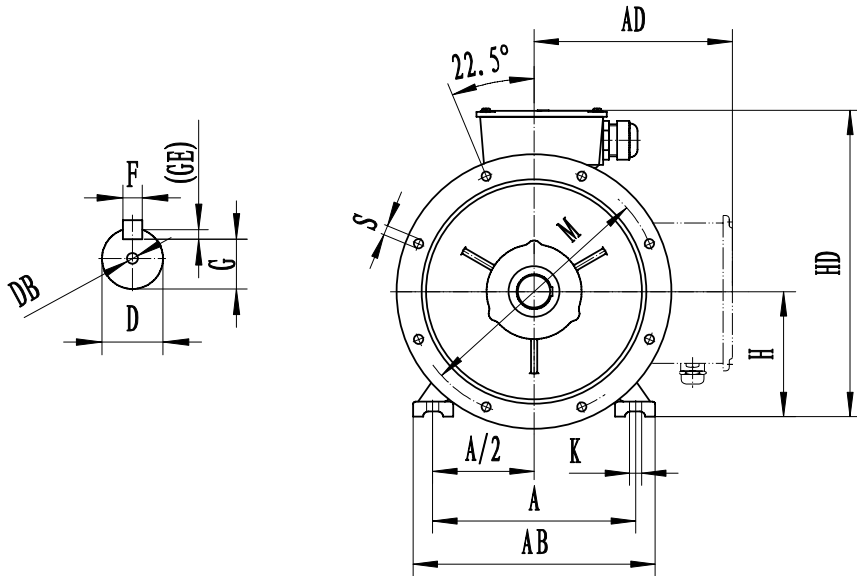
机座号 Frame size		凸缘号 Flang number	机座号 Poles	安装尺寸及公差 Mounting Dimensions and Tolerance															
				A	A/2	B	C	D		E		F		G ¹⁾	H				
280S	1LG0280	F500	2	457	228.5	368	190	±4.0	65	±0.030 +0.011	140	±0.500	18	⁰ _{-0.043}	58	280	0 -1.0		
			4, 6						75				20	⁰ _{-0.052}	67.5				
280M	1LG0283		2						419				65	18	⁰ _{-0.043}			58	
			4, 6										75	20	⁰ _{-0.052}			67.5	
315S	1LG0310	FF600	2	508	254	406	216	±4.0	65	±0.030 +0.011	170	±0.500	18	⁰ _{-0.043}	58	315	0 -1.0		
			4, 6						80				22	⁰ _{-0.052}	71				
315M	1LG0313		2						457				508	65	18			⁰ _{-0.043}	58
			4, 6											80	22			⁰ _{-0.052}	71
315L	1LG0316...1LG0317	FF740	2	610	305	560	254	±4.0	65	±0.035 +0.013	140	±0.500	18	⁰ _{-0.043}	58	355	0 -1.0		
			4, 6						80				22	⁰ _{-0.052}	71				
355M	1LG0353...1LG0355		2						630				560	75	20			⁰ _{-0.052}	67.5
			4, 6											95	25			86	
355L	1LG0356...1LG0357	2	630	560	75	20	⁰ _{-0.052}	67.5											
		4, 6			95	25	86												

1) G=D-GE, GE 的极限偏差对机座号 80M (1LG0080...1LG0083)为 ($\begin{smallmatrix} +0.10 \\ 0 \end{smallmatrix}$), 其余为 ($\begin{smallmatrix} +0.20 \\ 0 \end{smallmatrix}$)。

2) K、S 孔的位置度公差以轴伸的轴线为基准。

3) P 尺寸为最大极限值。

4) R 为凸缘配合面至轴伸肩的距离。



机座号 FS 280 ~ 355 (1LG0280...1LG0357)

Table 2 Frame with feet and with flange (with through holes) on the end shield mm

													外形尺寸 Contour Dimensions								
K ²⁾			M	N		P ³⁾	R ⁴⁾		S ²⁾		T	凸缘孔数 Flange hole number	DB	AB	AC	AD	HD	L	L1		
24			500	450	0.020	550	0	±4.0	19		5	0 -0.120		550	566	410	680	960	1105		
																		980	1125		
																		1010	1156		
																		1030	1176		
28	+0.520 0	φ2.0 (M)	600	550	±0.022	660	0	±4.0	24		6	0 -0.150	8	635	639	530	845	1190	1330		
																		1220	1390		
																		1300	1440		
																		1330	1500		
			740	680	±0.025	800	0	±4.0	24		6		6	0 -0.150	8	635	718	655	1010	1500	1640
																				1530	1700
																				1500	1640
																				1530	1700

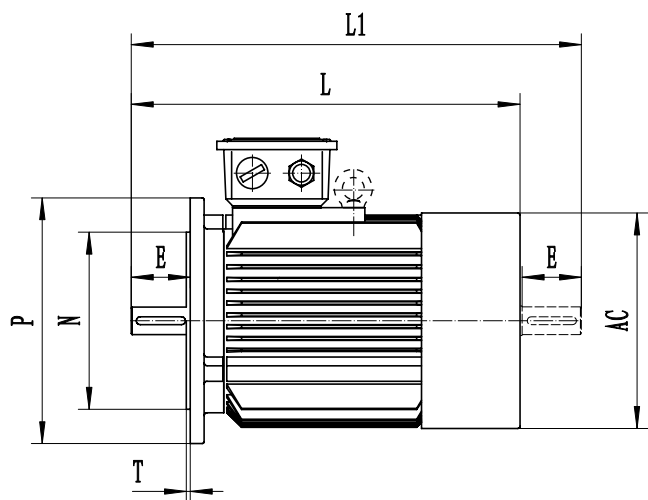
1) G=D-GE, GE limit deviations for frame size 80M (1LG0080...1LG0083) are ($\begin{matrix} +0.10 \\ 0 \end{matrix}$), for other frame size are ($\begin{matrix} +0.20 \\ 0 \end{matrix}$).

2) K hole's positional tolerance is based on the central line of shaft extension

3) Dimension of P is the maximum limit

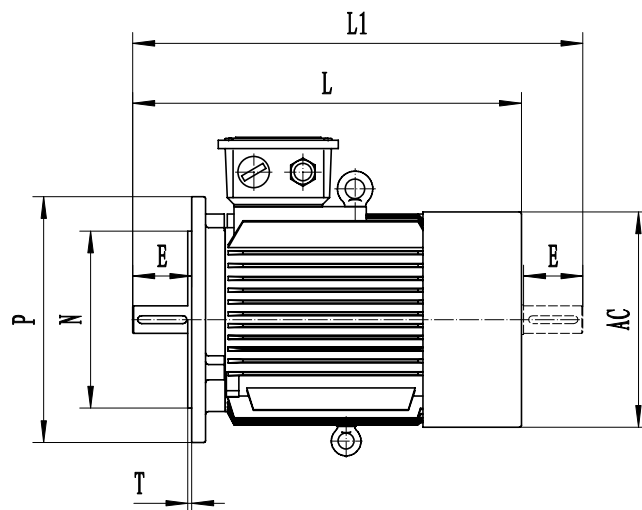
4) R is the distance from the flange the flange to the drive shaft end.

外形尺寸 Dimension drawings



机座号 FS 80 ~ 132 (1LG0080...1LG0134)

注：机座号 80 ~ 90 电机不带吊环 FS 80 ~ 90 motor without eyebolts



机座号 FS 160 ~ 180 (1LG0163...1LG0186)

表 3 机座不带底脚、端盖上有凸缘（带通孔）的电动机

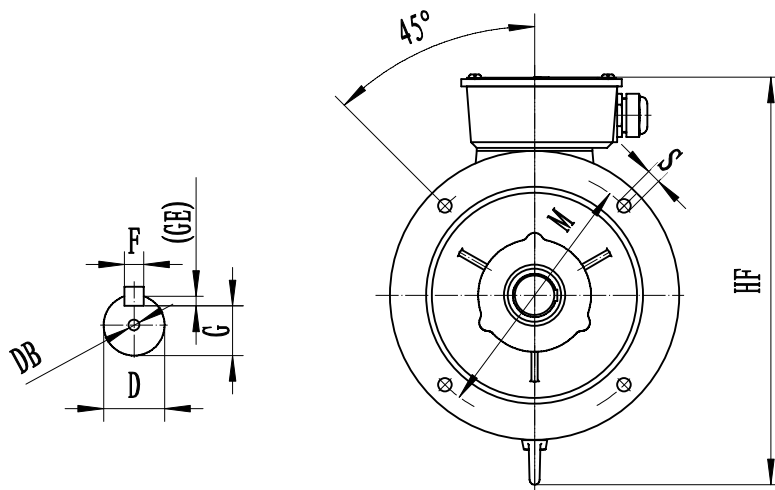
机座号 Frame size		凸缘号 Flang number	极数 Poles	安装尺寸及公差 Mounting Dimensions and Tolerance							
				D		E		F		G ¹⁾	
80M	1LG0080...1LG0083	FF165	2, 4, 6	19	+0.009 -0.004	40	±0.310	6	0 -0.030	15.5	0 -0.10
90S	1LG0090			24		50		8	0 -0.036	20	
90L	1LG0096			28		60		10		24	
100L	1LG0106...1LG0107	FF215		38	+0.018 +0.002	80	±0.370	12	0 -0.043	33	0 -0.20
112M	1LG0113			42		110		14		37	
132S	1LG0130...1LG0131	FF265		48	+0.018 +0.002	110	±0.430	14	0 -0.043	42.5	0 -0.20
132M	1LG0133...1LG0134			180M						1LG0183	
160M	1LG0163...1LG0164	FF300		180L	1LG0186						

1) G=D-GE, GE 的极限偏差对机座号 80M (1LG0080...1LG0083) 为 ($\begin{matrix} +0.10 \\ 0 \end{matrix}$), 其余为 ($\begin{matrix} +0.20 \\ 0 \end{matrix}$)。

2) S 孔的位置度公差以轴伸的轴线为基准。

3) P 尺寸为最大极限值。

4) R 为凸缘配合面至轴伸肩的距离。



机座号 FS 80 ~ 180 (1LG0080...1LG0186)

Table 3 Frame without feet and with flange (with through holes) on the end shield mm

											外形尺寸 Contour Dimensions					
M	N		P ³⁾	R ⁴⁾		S ²⁾		T	凸缘孔数 Flange hole number	DB	AC	HF	L	L1		
165	130	+0.014 -0.011	200	0	±1.5	12	φ1.0 (M)	3.5	4	0 -0.120	4	M6	164	235	295	335
												M8	184	255	320	375
215	180	+0.014 -0.011	250	0	±2.0	15	+0.430 0	4	4	0 -0.120	4	M10	204	290	385	445
												M12	228	315	400	465
265	230	+0.016 -0.013	300	0	±2.0	15	φ1.5 (M)	4	4	0 -0.120	4	M12	267	360	470	555
												M16	325	480	510	593
300	250	+0.016 -0.013	350	0	±3.0	19	+0.520 0	5	4	0 -0.120	4	M16	366	510	615	735
												M18	400	550	665	779
													700	810		
													730	848		

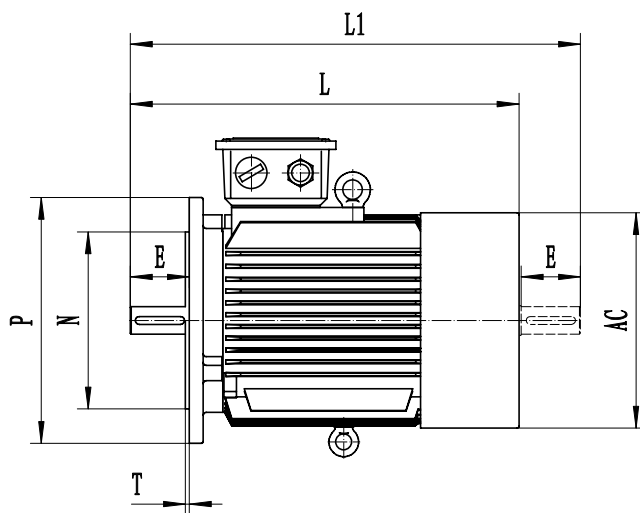
1) G=D-GE, GE limit deviations for frame size 80M (1LG0080...1LG0083) are ($\begin{matrix} +0.10 \\ 0 \end{matrix}$), for other frame size are ($\begin{matrix} +0.20 \\ 0 \end{matrix}$).

2) S hole's positional tolerance is based on the central line of shaft extension

3) Dimension of P is the maximum limit

4) R is the distance from the flange to the drive shaft end.

外形尺寸 Dimension drawings



机座号 FS 200 ~ 280 (1LG0206...1LG0283)

续表 3 机座不带底脚、端盖上有凸缘（带通孔）的电动机

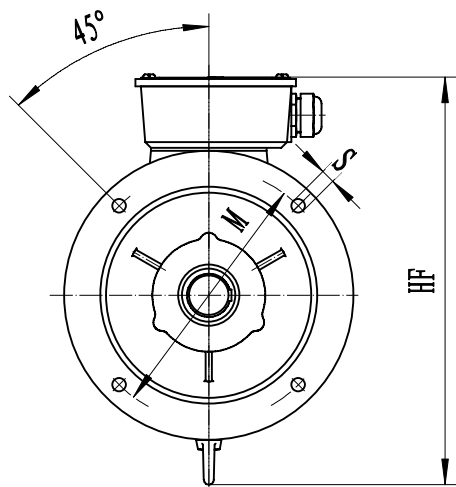
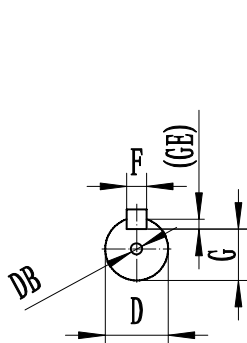
机座号 Frame size		凸缘号 Flang number	极数 Poles	安装尺寸及公差 Mounting Dimensions and Tolerance								
				D		E		F		G ¹⁾		
200L	1LG0206...1LG0207	FF350	2, 4, 6	55	+0.030 +0.011	110	±0.430	16	0 -0.043	49	0 -0.20	
225S	1LG0220	FF400	4	60		140	±0.500	18		53		
225M	1LG0223		2	55		110	±0.430	16		49		
		4, 6	60					53				
250M	1LG0253	FF500	2	65		140	±0.500	18	0 -0.052	58		
			4, 6	75						20		67.5
280S	1LG0280		2	65						18		58
			4, 6	75						20		67.5
280M	1LG0283		2	65						18		58
		4, 6	75	20		67.5						

1) G=D-GE, GE 的极限偏差对机座号 80M (1LG0080...1LG0083) 为 ($\begin{smallmatrix} +0.10 \\ 0 \end{smallmatrix}$), 其余为 ($\begin{smallmatrix} +0.20 \\ 0 \end{smallmatrix}$)。

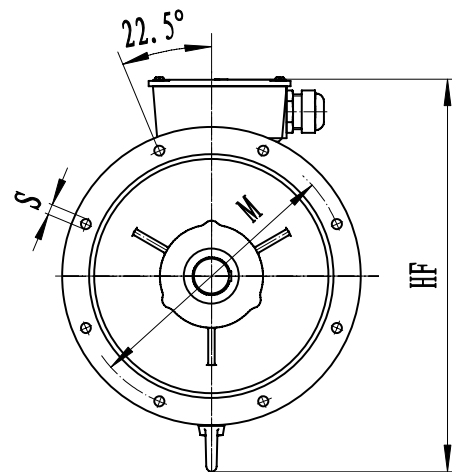
2) S 孔的位置度公差以轴伸的轴线为基准。

3) P 尺寸为最大极限值。

4) R 为凸缘配合面至轴伸肩的距离。



机座号 FS 200 (1LG0206...1LG0207)



机座号 FS 225 ~ 280 (1LG0220...1LG0283)

Table 3 Frame without feet and with flange (with through holes) on the end shield mm

											外形尺寸 Contour Dimensions							
M	N		P ³⁾	R ⁴⁾		S ²⁾			T	凸缘孔数 Flange hole number	DB	AC	HF	L	L1			
350	300	±0.016	400	0	±3.0	19	+0.520 0	φ1.5 (M)	5	0 -0.120	4	M20	408	570	770	880		
400	350	±0.018	450		±4.0								5	0	-0.120	8	M20	408
				820		935												
500	450	±0.020	550	0	±4.0	19	+0.520 0	φ1.5 (M)	5	0 -0.120	8	M20	408	570	845	990		
															504	685	915	1060
															566	760	960	1105
																	980	1125
1010	1156																	
1030	1176																	

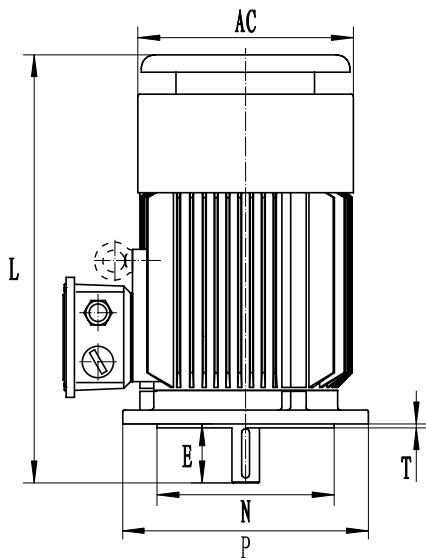
1) G=D-GE, GE limit deviations for frame size 80M (1LG0080...1LG0083) are ($\begin{matrix} +0.10 \\ 0 \end{matrix}$), for other frame size are ($\begin{matrix} +0.20 \\ 0 \end{matrix}$).

2) S hole's positional tolerance is based on the central line of shaft extension

3) Dimension of P is the maximum limit

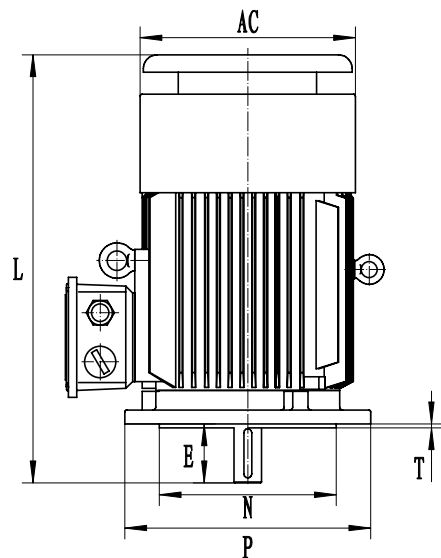
4) R is the distance from the flange to the drive shaft end.

外形尺寸 Dimension drawings



机座号 FS 80 ~ 132 (1LG0080...1LG0134)

注：机座号 80 ~ 90 电机不带吊环 FS 80 ~ 90 motor without eyebolts



机座号 FS 160 ~ 250 (1LG0163...1LG0253)

表 4 立式安装、机座不带底脚、端盖上有凸缘（带通孔）、轴伸向下的电动机

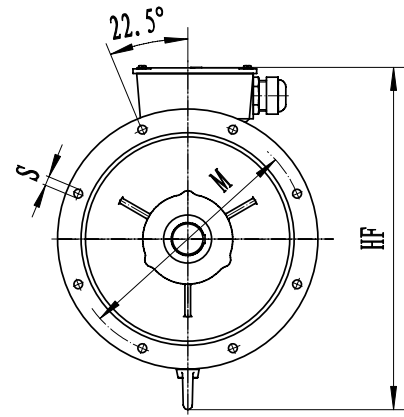
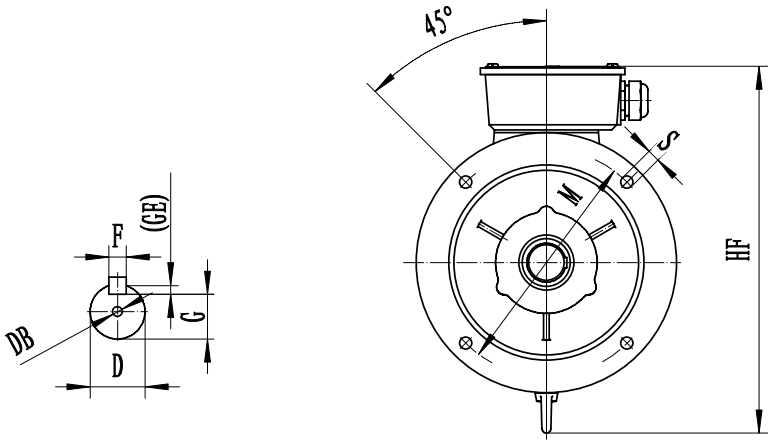
机座号 Frame size	凸缘号 Flang number	极数 Poles	安装尺寸及公差 Mounting Dimensions and Tolerance								
			D		E		F		G ¹⁾		
80M	1LG0080...1LG0083	2, 4, 6	19	+0.009 -0.004	40	±0.310	6	0 -0.030	15.5	0 -0.10	
90S	1LG0090		24		50		8	20			
90L	1LG0096		28		60		±0.370		24		
100L	1LG0106...1LG0107		38	+0.018 +0.002	80	±0.430	10	0 -0.036	33	0 -0.20	
112M	1LG0113		42		110		12		37		
132S	1LG0130...1LG0131		48		14		42.5				
132M	1LG0133...1LG0134		55		16		49				
160M	1LG0163...1LG0164		4	60	+0.030 +0.011	140	±0.500	18	0 -0.043		53
160L	1LG0166			2		110		±0.430	16		49
180M	1LG0183			4, 6		60		140	±0.500		18
180L	1LG0186	2		65		18		53			
200L	1LG0206...1LG0207	4, 6		65					58		

1) G=D-GE, GE 的极限偏差对机座号 80M (1LG0080...1LG0083)为 ($\begin{smallmatrix} +0.10 \\ 0 \end{smallmatrix}$), 其余为 ($\begin{smallmatrix} +0.20 \\ 0 \end{smallmatrix}$)。

2) K、S 孔的位置度公差以轴伸的轴线为基准。

3) P 尺寸为最大极限值。

4) R 为凸缘配合面至轴伸肩的距离。



机座号 FS 80 ~ 200 (1LG0080...1LG0207)

机座号 FS 225 ~ 250 (1LG0220...1LG0253)

Table 4 Vertically-mounted, Frame without feet and with flange (with through holes) on the end shield, shaft extension downwards

mm

										外形尺寸 Contour Dimensions			
M	N	P ³⁾	R ⁴⁾	S ²⁾		T	凸缘号 Flange hole number	DB	AC	HF	L		
165	130	+0.014 -0.011	200	±1.5	12	φ1.0 (M)	3.5	4	M6	164	235	355	
									M8	184	255	380	
215	180	±0.016 -0.013	250	±2.0	15	+0.430 0	4	4	M10	204	290	445	
									M12	228	315	460	
265	230	±0.016 -0.013	300	±3.0	19	+0.520 0	5	8	M16	267	360	530	
									M20	325	480	685	
300	250	±0.016	350	±4.0	19	+0.520 0	5	8	M20	366	510	770	
									M20	408	570	840	
350	300	±0.018	400	±4.0	19	+0.520 0	5	8	M20	456	615	885	
									M20	456	615	890	
400	350	±0.020	450	±4.0	19	+0.520 0	5	8	M20	504	685	915	
									M20	504	685	995	
500	450	±0.020	550	±4.0	19	+0.520 0	5	8	M20	504	685	995	
									M20	504	685	995	

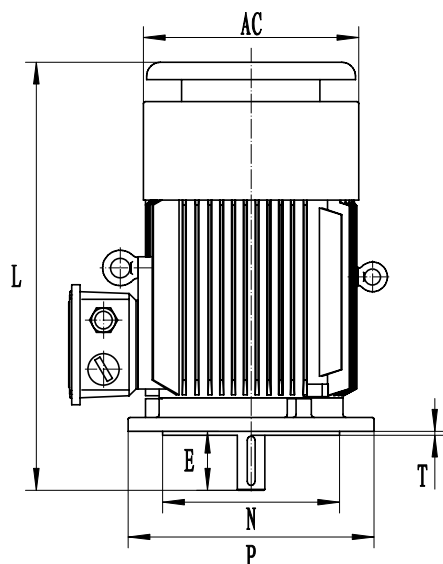
1) G=D-GE, GE limit deviations for frame size 80M (1LG0080...1LG0083) are ($\begin{matrix} +0.10 \\ 0 \end{matrix}$), for other frame size are ($\begin{matrix} +0.20 \\ 0 \end{matrix}$).

2) K, S hole's positional tolerance is based on the central line of shaft extension

3) Dimension of P is the maximum limit

4) R is the distance from the flange to the drive shaft end.

外形尺寸 Dimension drawings



机座号 FS 280 ~ 355 (1LG0280...1LG0357)

续表 4 立式安装、机座不带底脚、端盖上有凸缘（带通孔）、轴伸向下的电动机

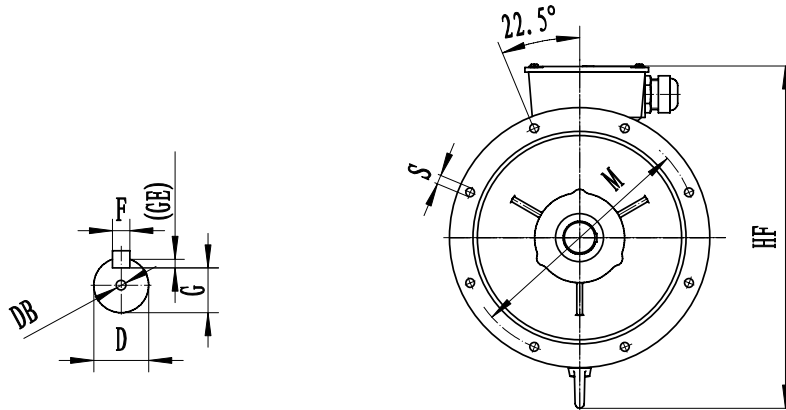
机座号 Frame size		凸缘号 Flang number	极数 Poles	安装尺寸及公差 Mounting Dimensions and Tolerance							
				D	E	F	G ¹⁾				
280S	1LG0280	FF500	2	75	140	±0.500	18	0 -0.043	58	0 -0.20	
			4, 6				20	0 -0.052	67.5		
280M	1LG0283		2				65	18	0 -0.043		58
			4, 6				75	20	0 -0.052		67.5
315S	1LG0310	FF600	2	65	±0.500	±0.500	18	0 -0.043	58		
			4, 6	80			22	0 -0.052	71		
315M	1LG0313		2	65			170	18	0 -0.043		58
			4, 6	80			170	22	0 -0.052		71
315L	1LG0316...1LG0317		2	65			140	18	0 -0.043		58
			4, 6	80			170	22	0 -0.043		71
355M	1LG0353...1LG0355	2	75	140	20	0 -0.052	67.5				
		4, 6	95	+0.035 +0.013	170		25	86			
355L	1LG0356...1LG0357	2	75	+0.030 +0.011	140		20	67.5			
		4, 6	95	+0.035 +0.013	170		25	86			

1) G=D-GE, GE 的极限偏差对机座号 80M (1LG0080...1LG0083) 为 ($\begin{smallmatrix} +0.10 \\ 0 \end{smallmatrix}$), 其余为 ($\begin{smallmatrix} +0.20 \\ 0 \end{smallmatrix}$)。

2) K、S 孔的位置度公差以轴伸的轴线为基准。

3) P 尺寸为最大极限值。

4) R 为凸缘配合面至轴伸肩的距离。



机座号 FS 280 ~ 355 (1LG0280...1LG0357)

Table 4 Vertically-mounted, Frame without feet and with flange (with through holes) on the end shield, shaft extension downwards

mm

											外形尺寸 Contour Dimensions		
M	N		P ³⁾	R ⁴⁾		S ²⁾		T	凸缘号 Flange hole number	DB	AC	HF	L
500	450	±0.022	550	0	±4.0	19	φ1.5 (M)	5	0 -0.120	8	566	760	1040
													1060
													1090
													1110
600	550	±0.022	660	0	±4.0	24	+0.520 0	6	0 -0.150	8	639	950	1270
													1300
													1380
													140
740	680	±0.025	800	0	±4.0	24	+0.520 0	6	0 -0.150	8	718	1125	1380
													1440
													1580
										M24			1610
										M20			1580
										M24			1610

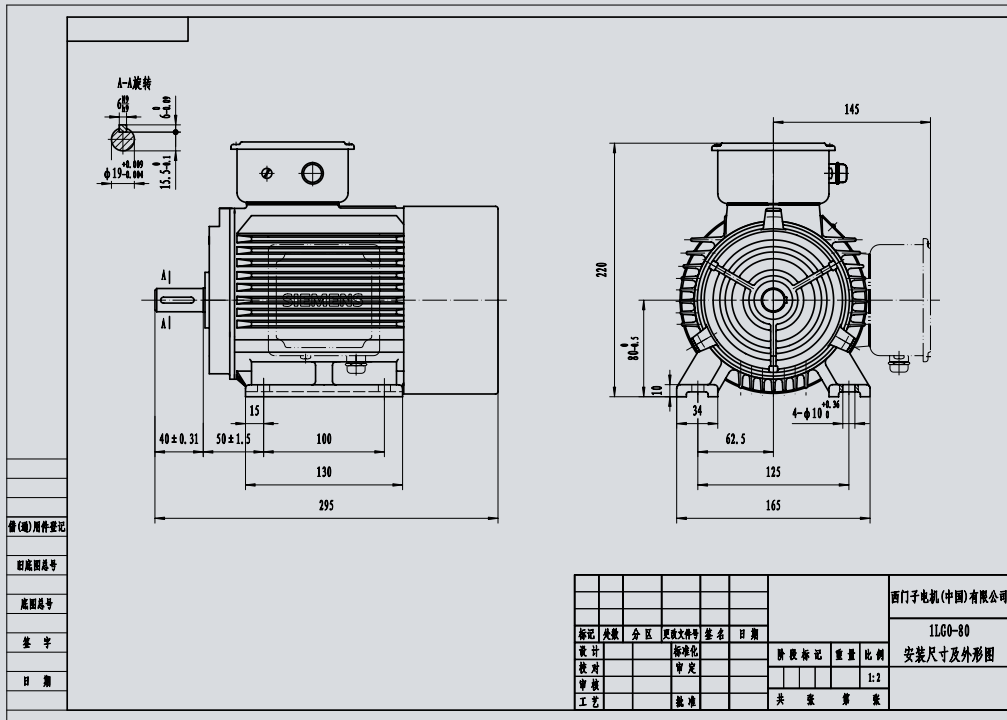
1) G=D-GE, GE limit deviations for frame size 80M (1LG0080...1LG0083) are ($+0.10$ / 0), for other frame size are ($+0.20$ / 0).

2) K, S hole's positional tolerance is based on the central line of shaft extension

3) Dimension of P is the maximum limit 4) R is the distance from the flange to the drive shaft end.

技术支持资料

Technical supporting documentation



外形尺寸
Dimensions Drawings

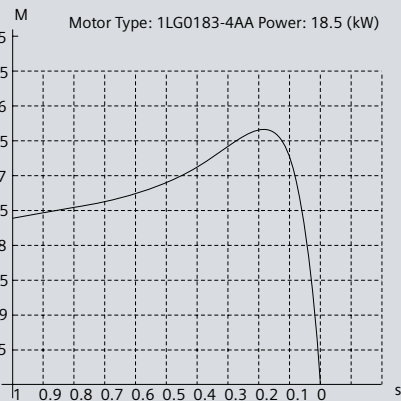
SIEMENS

Test Certificate according to EN 10204/DN 50049

Test Report (3.1)		[1]		Page 1 of 1										
Supplier: Siemens Standard Motors Ltd.			Buyer: Siemens Limited China											
Address: NO.110, West Street, QingShan Town, Yizheng city Jiangsu Prov. P.R.C.			Customer:											
SIEMENS														
3-MOT	1LG0 313-4AB66-Z	LMH0906B0000	IM B3	Th. Cl.	F									
V	Hz	A	kW	cos φ	l/min									
400V	50	228	132	0.88	1480									
690V		132												
460V	60	223	148	0.88	1780									
IEC/EN 60 034 Gew./Wt: 995 kg														
Measure	Mot. No.	Freq. quenz [3]	Voltage [5]	Current [6]	Speed [7] [r/min]	Power Input P1 [9]	Output P2 [8]	cos φ [1]	M [16] [Nm]	Eff. [17] [%]	L/L _n [22]	M ₁ /M _n [23]	Poles [15]	
No load	008	50	400	75	1500	18500								
Locked rotor			100	285		23700								
Squirrel-cage rotor [11] According to standard: EN 60034 IEC60034 [12]														
Insulation resistance: 10MΩ (500V)														
Resistance between terminals [13] U1-U2 0.0198 V1-U2 0.0198 W1-W2 0.0198														
High-voltage test passed [14] Cooling air temp. max. °C [20] 40 Indication on nameplate [21]														
[1]	English/Chinese	试验报告	[14]	High-voltage test passed	耐压	[15]	Number of poles	极数	[16]	Torque	转矩	[17]	Efficiency	效率
[2]	Reference	参考	[16]	Locked rotor test	堵转试验	[17]	Cooling air temperature max. °C	冷却空气温度	[18]	Load	负载	[19]	for indication on name plate	铭牌标志温度
[3]	Frequency	频率	[18]	Starting current related to rated current	堵转电流与额定电流之比	[20]	Starting torque related to rated torque	堵转转矩与额定转矩之比	[21]	Indication on nameplate	铭牌标志	[22]	Starting current related to rated current	堵转电流与额定电流之比
[4]	Stator	定子	[20]	Starting torque related to rated torque	堵转转矩与额定转矩之比	[21]	Indication on nameplate	铭牌标志	[22]	Starting current related to rated current	堵转电流与额定电流之比	[23]	Starting torque related to rated torque	堵转转矩与额定转矩之比
[5]	Voltage	电压	[21]	Starting torque related to rated torque	堵转转矩与额定转矩之比	[22]	Indication on nameplate	铭牌标志	[23]	Starting current related to rated current	堵转电流与额定电流之比	[24]	Starting torque related to rated torque	堵转转矩与额定转矩之比
[6]	Current	电流	[22]	Starting torque related to rated torque	堵转转矩与额定转矩之比	[23]	Starting current related to rated current	堵转电流与额定电流之比	[24]	Starting torque related to rated torque	堵转转矩与额定转矩之比	[25]	Starting torque related to rated torque	堵转转矩与额定转矩之比
[7]	Speed r.p.m	转速	[23]	Starting torque related to rated torque	堵转转矩与额定转矩之比	[24]	Starting current related to rated current	堵转电流与额定电流之比	[25]	Starting torque related to rated torque	堵转转矩与额定转矩之比	[26]	Starting torque related to rated torque	堵转转矩与额定转矩之比
[8]	Output	输出	[24]	Starting torque related to rated torque	堵转转矩与额定转矩之比	[25]	Starting current related to rated current	堵转电流与额定电流之比	[26]	Starting torque related to rated torque	堵转转矩与额定转矩之比	[27]	Starting torque related to rated torque	堵转转矩与额定转矩之比
[9]	Input	输入	[25]	Starting torque related to rated torque	堵转转矩与额定转矩之比	[26]	Starting current related to rated current	堵转电流与额定电流之比	[27]	Starting torque related to rated torque	堵转转矩与额定转矩之比	[28]	Starting torque related to rated torque	堵转转矩与额定转矩之比
[10]	No load test	空载试验	[26]	Starting torque related to rated torque	堵转转矩与额定转矩之比	[27]	Starting current related to rated current	堵转电流与额定电流之比	[28]	Starting torque related to rated torque	堵转转矩与额定转矩之比	[29]	Starting torque related to rated torque	堵转转矩与额定转矩之比
[11]	Squirrel-cage rotor	鼠笼转子	[27]	Starting torque related to rated torque	堵转转矩与额定转矩之比	[28]	Starting current related to rated current	堵转电流与额定电流之比	[29]	Starting torque related to rated torque	堵转转矩与额定转矩之比	[30]	Starting torque related to rated torque	堵转转矩与额定转矩之比
[12]	According to standard	标准号	[28]	Starting torque related to rated torque	堵转转矩与额定转矩之比	[29]	Starting current related to rated current	堵转电流与额定电流之比	[30]	Starting torque related to rated torque	堵转转矩与额定转矩之比	[31]	Starting torque related to rated torque	堵转转矩与额定转矩之比
[13]	Re. between terminals	端子间	[29]	Starting torque related to rated torque	堵转转矩与额定转矩之比	[30]	Starting current related to rated current	堵转电流与额定电流之比	[31]	Starting torque related to rated torque	堵转转矩与额定转矩之比	[32]	Starting torque related to rated torque	堵转转矩与额定转矩之比
Date: 200906		Signature: Wang Jun		Quality Dept.										

出厂检验报告 (选件号: B02)

Acceptance Test Certificates (Option code: B02)



转矩特性曲线

Torque characteristic

认证 Certificates


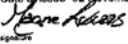



CCC 证书 (中文)
CCC Certificate (Chinese)



CCC 证书 (英文)
CCC Certificate (English)

认证 Certificates

		ATTESTATION OF CONFORMITY	
		WITH EUROPEAN DIRECTIVE	
		Order No. 00109Q19009R2L/3200	
A sample of the following product has been tested and is stated by Nemko to be in conformity with the applicable European safety- and EMC standards referred below.			
Manufacturer	Siemens Standard Motors Ltd. 110 West Street, Qingshan Town Yizheng City P.R. CHINA		
Product	Three-phase Induction Motors		
Model/type	1LG0abc		
Data	220/380V~ alt. 380/660V~, 50Hz or 440V~, 60Hz; 0.55kW-315kW		
Other specification	IP55, 2/4/6P, Frame size 60-355mm		
Standards applied	Safety std.: EN 60334-1:2004 EN 60334-2:2001		
	EMC std.: EMC is based on self-declaration by the manufacturer		
Statement reference	75053		
It may therefore be presumed that the tested sample of the product is in conformity with the technical provisions of the following European Directives including the latest amendments, and with national legislation implementing these Directives:			
- Low Voltage Directive 73/23/EEC - EMC Directive 89/336/EEC			
On this basis, the manufacturer (or the European authorized representative), may draw up an EC/EEA Declaration of Conformity and affix the CE-marking as indicated below to each conforming product.			
Additional information	Description of type reference: abc = frame size: 060-355		
Date of Issue: 02 November 2006			
			
Magne Lavaas Head of section			
			
Nemko AS P.O. Box 73, Blindern N-0314 Oslo, Norway	Office address Gaustadalleen 30 Oslo	Telephone +47 22 95 03 30 Enterprise number: NO 074404532	Fax +47 22 98 05 60

CE 认证证书
CE Certificate

	
THE INTERNATIONAL CERTIFICATION NETWORK	
CERTIFICATE	
IQNet and CQC hereby certify that the organization	
Siemens Standard Motors Ltd.	
No.110, West Street, Qingshan Town, Yizheng City, Jiangsu Prov., P.R.China	
For the following field of activities Design, Production and Service of Three-phase Asynchronous Motor (H63-355)	
Has implemented and maintains a Management System Which fulfils the requirements of the following standard ISO9001:2000	
Issued on: Jul. 13, 2009 Validity date: Jul. 12, 2012 Registration Number: 00109Q19009R2L/3200	
	 René Wasmer President of IQNet
	 Wang Kefu President of CQC
	
<small>IQNet Partners: AENOR Spain AFNOR Certification France AIB Vngotto International Belgium ANCE Mexico APCER Portugal CDSQ Italy CQC China CQM China CQS Czech Republic Cx-Cert Croatia DQS Holding Germany IIS Denmark BLOT Greece PCAV Brazil PONECONORMA Slovakia BKGAA Hong Kong China ICONTEC Colombia IMC Mexico Inspecta Certification Finland IRAM Argentina IQA Japan KIQ Korea MSZT Hungary Nemko AS Norway NSAI Ireland PCB Poland Qualitas Austria RQA Russia SII Israel SRI Slovenia SRII USA International Malaysia SRII Switzerland SRII* Romania</small>	

ISO9001:2000 认证证书
ISO9001:2000 Certificate

