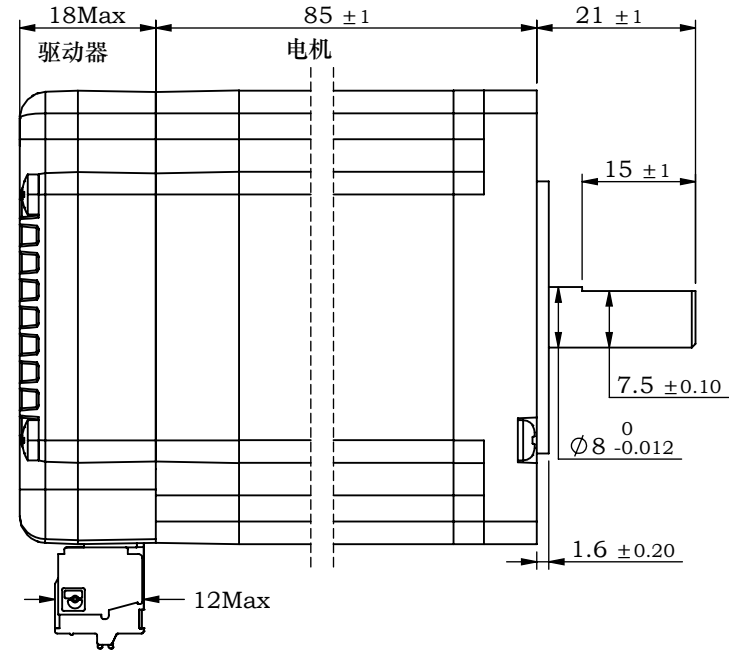
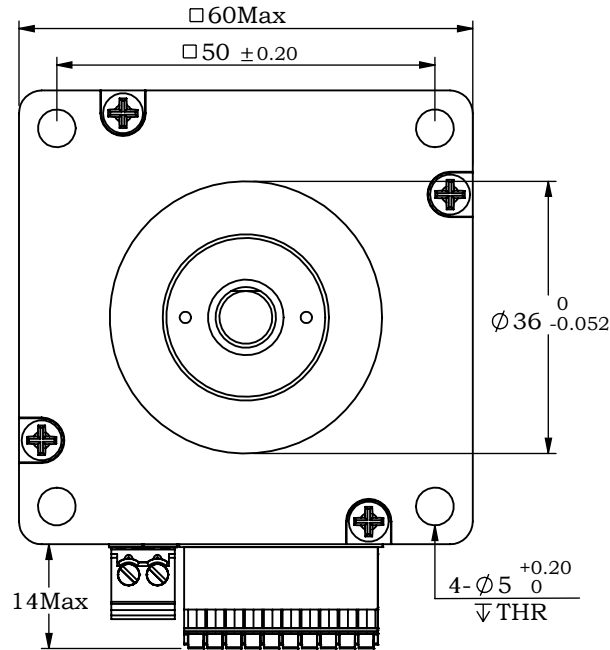
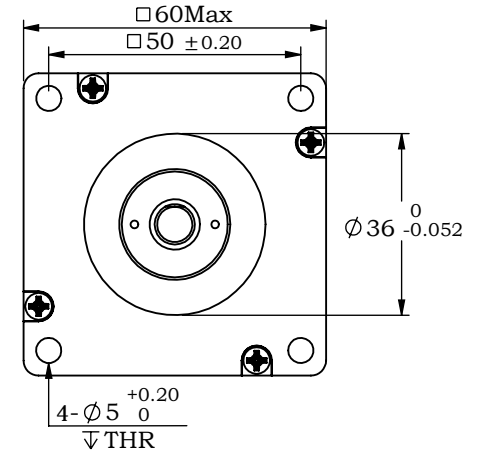
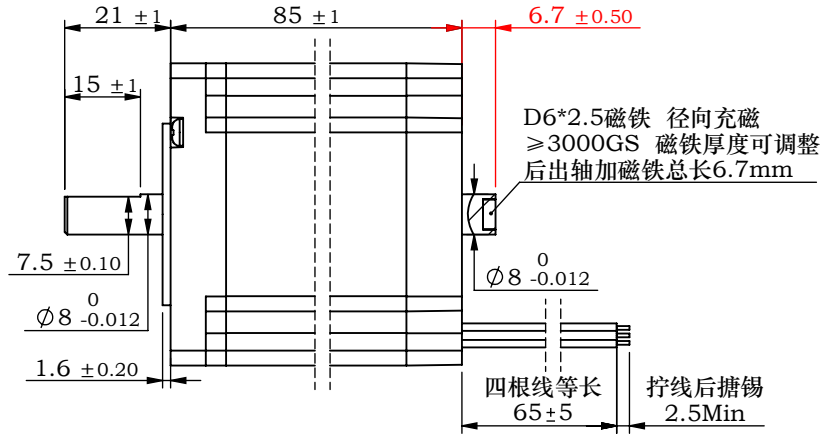
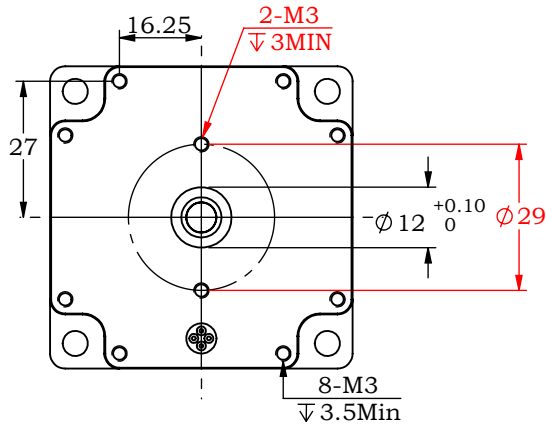


※ 尺寸/Dimensions 单位/Unit: (mm)



※ 规格/ Specification		※ 端口功能/Port Function			※ 端子定义/Terminal definitions		※ 铭牌内容/Label discription																																																																																																																																																																																																												
输入电压范围	24~60vdc	序号	名称	功能																																																																																																																																																																																																															
输出力矩范围	最大3.0N.m	1	V+	电源正 (24~60vdc)																																																																																																																																																																																																															
电流设置	软件可调, 0.5~6.5可调, 出厂适配电机	2	V-	电源地 (GND)			型号/Model	IG60ET30																																																																																																																																																																																																											
细分设置	软件200-1000000整数可调, 出厂默认4000	3	X0+	光电隔离, 差分, 高电平可直接接收3.3-24VDC, 最小脉宽 2us, 最大脉冲频率400KHz			品号/Product No.																																																																																																																																																																																																												
编码器反馈	1000线(4000 Counts)编码器反馈	4	X0-	, 可作为通用输入或高速脉冲输入口	公差 Tolerance	±0.3	名称/Name	集成式步进伺服 Integrated step servo																																																																																																																																																																																																											
非易失性存储	配置参数储存在MCU内部的FLASH中	5	X1+	光电隔离, 差分, 高电平可直接接收3.3-24VDC, 最小脉宽 2us, 最大脉冲频率400KHz	比例 Scale	1:1	页码 Sheet	1/1																																																																																																																																																																																																											
重量	≈ 1.4 Kg	6	X1-	, 可作为通用输入或高速脉冲输入口																																																																																																																																																																																																															
转子惯量	≈ 690 g.cm <sup>2</sup>	7	X2+	光电隔离, 差分, 高电平可直接接收3.3--24VDC, 最小脉宽 100us, 最大脉冲频率10KHz																																																																																																																																																																																																															
通讯方式	Modbus-RS485	8	X2-	, 可作为通用输入口	备注: 需要其他地址可通过上位机设置基地址, 默认基地址为1。实际地址=拨码地址+基地址-1 SW6: 用于设定终端电阻, OFF时为0欧姆, ON时为120欧姆																																																																																																																																																																																																														
波特率	115200	9	Y0+	报警状态输出端口, 可检测电机报警状态, 默认常闭, 正常时输出。																																																																																																																																																																																																															
数据位	8	10	Y0-	可通过软件取反或设置成其他功能。	第一角画法 Frist Angel View																																																																																																																																																																																																														
停止位	1	11	485A	通讯端口, 通过主站MODBUS指令可对从站驱动器进行控制, 注意主站波特率必须与从站一致,																																																																																																																																																																																																															
校验位	无	12	485B	出厂默认波特率为115200, 详见通讯说明。	名称/Name 集成式步进伺服 Integrated step servo																																																																																																																																																																																																														
※ 拨码设置/ Serial port Settings		<table border="1"> <tr> <th>地址</th> <th>1</th><th>2</th><th>3</th><th>4</th><th>5</th><th>6</th><th>7</th><th>8</th><th>9</th><th>10</th><th>11</th><th>12</th><th>13</th><th>14</th><th>15</th><th>16</th><th>17</th><th>18</th><th>19</th><th>20</th><th>21</th><th>22</th><th>23</th><th>24</th><th>25</th><th>26</th><th>27</th><th>28</th><th>29</th><th>30</th><th>31</th><th>32</th> </tr> <tr> <td>SW1</td> <td>ON</td><td>OFF</td><td>ON</td><td>OFF</td><td>ON</td><td>OFF</td><td>ON</td><td>OFF</td><td>ON</td><td>OFF</td><td>ON</td><td>OFF</td><td>ON</td><td>OFF</td><td>ON</td><td>OFF</td><td>ON</td><td>OFF</td><td>ON</td><td>OFF</td><td>ON</td><td>OFF</td><td>ON</td><td>OFF</td><td>ON</td><td>OFF</td><td>ON</td><td>OFF</td><td>ON</td><td>OFF</td><td>ON</td><td>OFF</td> </tr> <tr> <td>SW2</td> <td>ON</td><td>ON</td><td>OFF</td><td>OFF</td><td>ON</td><td>ON</td><td>OFF</td><td>OFF</td><td>ON</td><td>ON</td><td>OFF</td><td>OFF</td><td>ON</td><td>ON</td><td>OFF</td><td>OFF</td><td>ON</td><td>ON</td><td>OFF</td><td>OFF</td><td>ON</td><td>ON</td><td>OFF</td><td>OFF</td><td>ON</td><td>ON</td><td>OFF</td><td>OFF</td><td>ON</td><td>ON</td><td>OFF</td><td>OFF</td> </tr> <tr> <td>SW3</td> <td>ON</td><td>ON</td><td>ON</td><td>ON</td><td>OFF</td><td>OFF</td><td>OFF</td><td>OFF</td><td>ON</td><td>ON</td><td>ON</td><td>ON</td><td>OFF</td><td>OFF</td><td>OFF</td><td>OFF</td><td>ON</td><td>ON</td><td>ON</td><td>ON</td><td>OFF</td><td>OFF</td><td>OFF</td><td>OFF</td><td>ON</td><td>ON</td><td>ON</td><td>ON</td><td>OFF</td><td>OFF</td><td>OFF</td><td>OFF</td> </tr> <tr> <td>SW4</td> <td>ON</td><td>ON</td><td>ON</td><td>ON</td><td>ON</td><td>ON</td><td>ON</td><td>ON</td><td>OFF</td><td>OFF</td><td>OFF</td><td>OFF</td><td>OFF</td><td>OFF</td><td>OFF</td><td>OFF</td><td>ON</td><td>ON</td><td>ON</td><td>ON</td><td>ON</td><td>ON</td><td>ON</td><td>ON</td><td>ON</td><td>ON</td><td>ON</td><td>ON</td><td>ON</td><td>ON</td><td>ON</td><td>ON</td> </tr> <tr> <td>SW5</td> <td>ON</td><td>ON</td><td>ON</td><td>ON</td><td>ON</td><td>ON</td><td>ON</td><td>ON</td><td>ON</td><td>ON</td><td>ON</td><td>ON</td><td>ON</td><td>ON</td><td>ON</td><td>ON</td><td>ON</td><td>ON</td><td>ON</td><td>ON</td><td>ON</td><td>ON</td><td>ON</td><td>ON</td><td>ON</td><td>ON</td><td>ON</td><td>ON</td><td>ON</td><td>ON</td><td>ON</td><td>ON</td> </tr> </table>												地址	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	SW1	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	SW2	ON	ON	OFF	OFF	ON	ON	OFF	OFF	ON	ON	OFF	OFF	ON	ON	OFF	OFF	ON	ON	OFF	OFF	ON	ON	OFF	OFF	ON	ON	OFF	OFF	ON	ON	OFF	OFF	SW3	ON	ON	ON	ON	OFF	OFF	OFF	OFF	ON	ON	ON	ON	OFF	OFF	OFF	OFF	ON	ON	ON	ON	OFF	OFF	OFF	OFF	ON	ON	ON	ON	OFF	OFF	OFF	OFF	SW4	ON	ON	ON	ON	ON	ON	ON	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	SW5	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON
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SW1	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF																																																																																																																																																																																			
SW2	ON	ON	OFF	OFF	ON	ON	OFF	OFF	ON	ON	OFF	OFF	ON	ON	OFF	OFF	ON	ON	OFF	OFF	ON	ON	OFF	OFF	ON	ON	OFF	OFF	ON	ON	OFF	OFF																																																																																																																																																																																			
SW3	ON	ON	ON	ON	OFF	OFF	OFF	OFF	ON	ON	ON	ON	OFF	OFF	OFF	OFF	ON	ON	ON	ON	OFF	OFF	OFF	OFF	ON	ON	ON	ON	OFF	OFF	OFF	OFF																																																																																																																																																																																			
SW4	ON	ON	ON	ON	ON	ON	ON	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON																																																																																																																																																																																			
SW5	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON																																																																																																																																																																																			

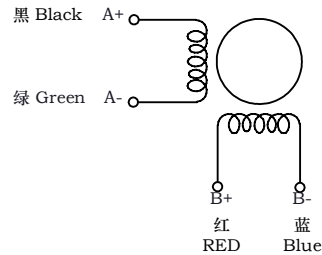
※ 尺寸/Dimensions 单位/Unit: (mm)



※ 电机规格/Motor Specification

相数/No. of phase	2 相/phase
步距角/Basic step angle	1.8°
步距角误差(空载)Positional accuracy(no-load)	±0.09° 以下/Max
额定电流/Rated current	5.0 A
保持扭矩/Holding torque	3.0 N.m
相电阻/Phase resistance	0.58 ± 10% ohm(20°C)
相电感/Phase inductance	2.4 ± 20% mH(1KHz)
转子惯量/Rotor inertia	≈ 690 g.cm <sup>2</sup>
重量/Weight	≈ 1.4 Kg
绝缘耐压/Dielectric strength	500V A.C
绝缘电阻/Insulation resistance	100MΩ以上/MIN
绝缘等级/Insulation class	B
使用温度范围/Operation ambient temperature	0° C~+50° C
使用湿度范围/Operation ambient humidity	20%RH~90%RH
保存温度范围/Storage ambient temperature	-20° C~+70° C
保存湿度范围/Storage ambient humidity	15%RH~95%RH

※ 接线图/Wiring diagram

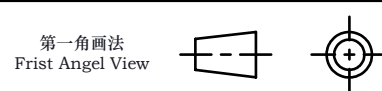


※ 励磁顺序 (2相励磁)  
Phase sequence(2 phase exciting)

Step	A	A-	B	B-
1	+	+	-	-
2	-	+	+	-
3	-	-	+	+
4	+	-	-	+

CW (Clockwise) and CCW (Counter-clockwise) directions are indicated.

※ 铭牌内容  
Label discription



名称/Name  
两相步进电机  
2 phase stepping motor

型号/Model  
IC60A30-D2B50D07

品号/Product No.

B	后端盖增加两个螺纹孔, 后出轴调整尺寸	公差 Tolerance	比例 Scale	页码 Sheet
A	初版	±0.3	1:1.5	1/1
版本.Rev	日期/Date	变更内容/Revision record		
制图 Drawn	Name	Date	设计 Design	Name
审核 Checked			批准 Approved	



深圳市立三机电有限公司  
Shenzhen Lisan Machinery & Electric Co., Ltd