



直流电机

DC Motor

使用规格说明 (Specfiication)

客户名称 Customer Name: 巫美庆

电机型号 Motor type : **XH-3157ZY-128000**

产品编号 Product Code: **XH20250930MH001**

客户用途 client Use: 传动设备

客户承认 Customer acknowledgement	
承认日期 Recognition date	

广东鑫辉传动科技有限公司

Guangdong XinhuiChuangong ElectTonic o.,Ltd

公司地址: 东莞市凤岗镇凤岗凤翔路66号

Address:NO 66,Road Fengxiang,Village Fengdeling,Town Fenggang ,City
Dongguan,Guangdong,China

公司电话 (TEL) : 0769-82699226

公司传真 (FAX) : 0769-86806986

公司网址(Company Website) (Http) ://www.XHCD999.com



一.产品说明

Product description

1.此规格说明书适用于广东鑫辉传动科技有限公司生产的直流减速电机（以下简称“电机”） XH-3157ZY-128000

1.This specification is suitable for DC deceleration motor, produced by Guangdong Xinhui Drive Technology Co.,Ltd; XH-3157ZY-128000

2.凡是使用本产品之前，请仔细阅读并严格按照“使用规格说明书”的参数，否则可能会给您带来伤害，损坏本产品或其它周围物品

2.Pls read carefully and strictly follw with "using of specification sheet " before using of the products,otherwise,it will bring the hurt and damaged to the products or others around products.

3.马达质量及可靠性寿命,其测试及判断均可参考此规格书相关数据；

3.The quality and reliabiity life of motor can be measured and judged by refence to the relevant data of this specification;

4.在满足此规格书指标的前提下,为提高产品质量和增大马达功率,根据客户需要,可以对马达材料, 尺寸, 形状进行改变;

4.On the premise of meeting the specifications,in order to improve product quality and increase motor power,according to customer needs, motor materials,sizes and properties can be changed;

二.产品使用注意事项

Precaution

1.请严格按照规格说明书的参数范围内使用；

1.Pls strictly comply with the range of parameter to using.

2.电机通电之前确定产品安装正确及稳固正确连接电源线；

2.Pls make sured that it is correct installation and power cable to stable connection before electrify.

3.产品周边不得有铁屑，螺丝等杂物，电机内有磁铁避免异物进入，否则会导致电机运行异常；

3.it can't get access into the inner of motors with iron filings,screw and other debris around products,otherwise,it will cause the motors run abnormal.

4.本电机为大扭矩产品，在运行中请勿触摸电机及转子，避免烫伤划伤；

4.our motors to high torque products,pls don't touch the motor and rotor when it is running,avoiding to avoid scalds and scratches;

5.本产品本身没有过载过温保护功能，需要电机周边设置；

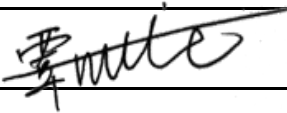
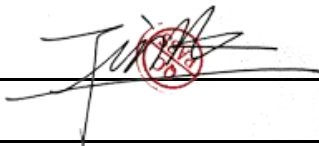
5.the products need to around settings due to it haven't protection with overloading and overheat.

6.凡是有齿轮传动的减速电机禁止过载或堵转运行，否则对产品损坏；

6.Prohibitted to overloading and stall run to all with gears reducer motors,otherwise,it will be damaged to the products.

7.严禁私自拆卸电机，本电机为高精度传动运转机构产品，导致产品运行异常。

7.Prohibitted to disassemble the motors privately,the motors is high pricision motor products,in case the products are running abnormal.

编制Organization	
核 准 Approved	



产品编号 (No)		产品规格书 Specifications	电机型号(Model of motor)
XH20250930MH001			XH-3157ZY-128000
1.标准使用状态 Standard oprating conditions			
序号	项目 project	参数值Parameter value	
1-1	额定电压 Rated voltage	DC 12.0 V	
1-2	工作电压范围 Operating Voltage Range	7.2-16.8v (+40%, -40%) (在马达两端子间) (Between the two terminals of motor)	
1-3	额定负载 Rated load	0.28 kgf.cm	
1-4	旋转方向 Rotation direction	从轴伸方向看反时针转 Anticlockwise rotation in the direction of axle extension	
1-5	侧压 Lateral pressure	轴伸处的轴承承受50gk 以下(轴承间距离岸 11.5mm) Bearings at axle extensions withstand less than 50Kg(bearing spacing 11.5mm)	
1-6	安装方式 Lnstallation method	任意位置 Any position	
1-7	工作温度范围 Working temperature range	-15℃__+50℃	
2.试验条件 Test conditions			
2-1	电机位置 Motor position	水平,垂直装置 Horizontal and vertical devices	
2-2	使用电源 Using power supply	直流稳压电源 DC regulated power supply	
2-3	温度和湿度 Temperature and humidity	原则上, +5℃~+35℃, 相对湿度 30~95%, 若对判定结果有疑问, 则按 JIS 标准测试条件 (+18℃~+22℃, 相对湿度 60~70%) In principie,+5-+35℃,relative humidity 30-90%,If there is any doubt about the result,the rest conditions should be according to JIS standard(+18-22℃ relative humidity 60-70%)	
3.电气特性 Electrical characteristics			
3-1	空载电流 No load current	额定电压、无负载状态 At rated voltag and no-load	350 mA MAX
3-2	空载转速 No load speed	额定电压、无负载状态 At rated voltag and no-load	8000 RPM ±11%
3-3	负载电流 Current loading	额定电压、额定负载 Rated voltage and rated loading	0.9A max

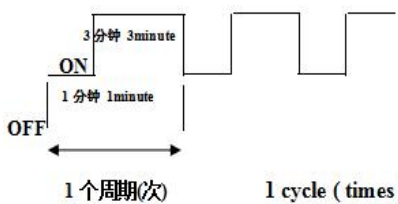
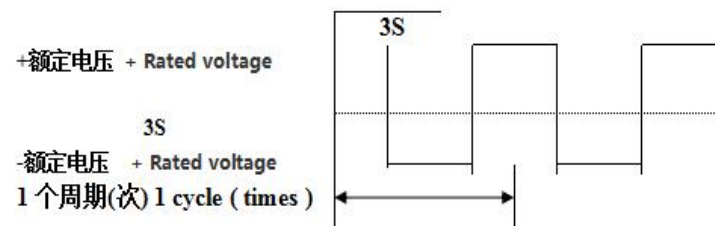


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序号 (No)	项目 Project	测定条件(Measured conditions)	参数值Parameter value
3-4	负载转速 Loading Speed	额定电压、额定负载 Rated voltage and rated loading	6400 RPM ±11%
3-5	额定力矩 RatedTorque	额定电压，无损耗 Rated voltage,no loss	0.28kg.cm min
3-6	额定功率 Rated power	额定电压,额定负载 Rated voltage,rated load	10 W
3-7	堵转力矩 Stall Torque	额定电压,额定负载 Rated voltage,rated load	1.0kf.cm min(禁止堵转)
3-8	堵转电流 Stall current	额定电压,额定负载 Rated voltage,rated load	3.5A max(限流装置)
3-9	起动电压 Starting voltage	额定电压，无损耗, Rated voltage,no loss	12V MAX
3-10	绝缘电阻 Insulation resistance	在马达引线和外壳间 DC 100V DC100V between motor lead and housing	1.0 MΩ min
3-11	相关特性曲线 Correlation characteristic curve		见附图 See attached drawings
4.机械性能 Mechanical properties			
4-1	外观 Appearance		无锈蚀、碰伤、明显划痕，零件配合 紧密 No corrosion,bruising,obvious scratches,tight fitting of parts
4-2	外形 appearance		见附图 See attached drawings
4-3	轴向间隙 Axial clearance		0.05-0.3mm
4-4	轴径向跳动 Axis and radial run out	与轴端相距1.0mm处 1.0mm away from shaft end	0.15 mm MAX
4-5	轴向力 Axial force		10Kg Max
4-6	重量 weight		约 228克 about 92g
4-7	机械噪音 Mechanical noise	额定电压、空载、电机放置如下图， 计量方法按 JIS 标准，测试时环境噪 音不超过 26dB. the rated voltage,no-load,motor placed as following photos,reference to JIS standard to measured,the ambient noise can't over 26dB in period of measured.	50dB MAX

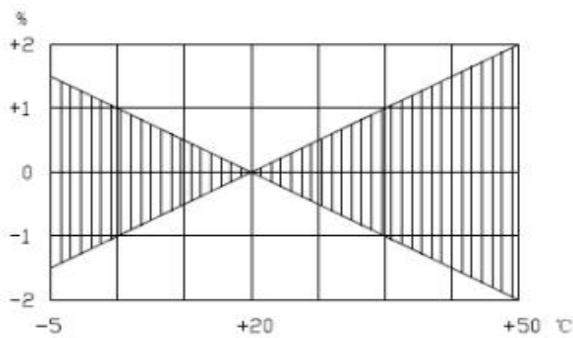
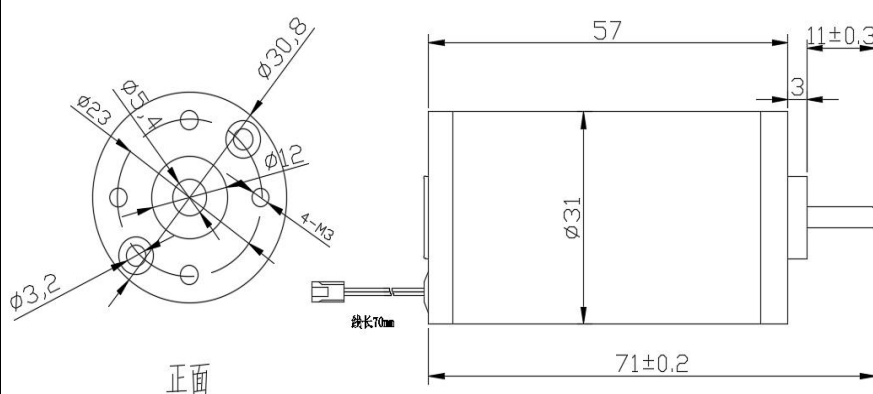
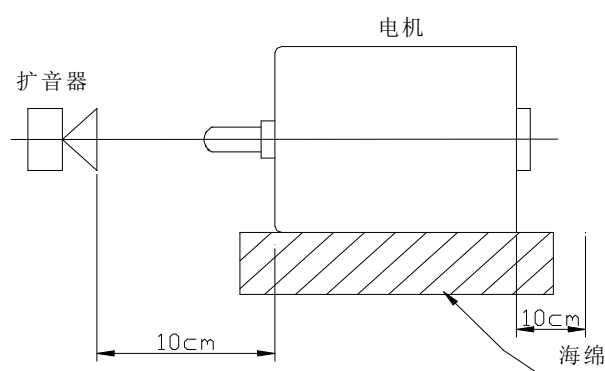


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5、环境测试 (Environmental testing)			
序号(No)	项目(Project)	测定条件(Measured conditions)	参数值Parameter value
5-1	振动测试 Vibration test	振幅 2mm，振频 1000cpm，X、Y、Z各方向都持续 30 分钟 The amplitude is 2mm and the frequency is 1000cpm,the direction of X.Y.Z lasts 30minutes.	所有技术规格均符合要求 All technical specifications meet the requirements
5-2	跌落实验 Drop test	电机放置于单元包装盒内，从 300mm 高处以6种不同的面自由落至10mm厚的木板上 The motor was placed in the unit package box and dropped freely from a height of 300mm to a board 10mm thick with 6 different faces	3.4 项目中所有规格均应满足 All specifications in the project 3.4 shall be met.
5-3	低温贮存测试 Low temperature storage test	-40℃±3℃，放置 96H，再移入 2-3 环境中放置24H - 40 ℃ 3 ℃ for 96H, then move into 2 - 3 environment for 24H	
5-4	高温贮存测试 High temperature storage test	+85℃±3℃，放置 96H，再移入 2-3 环境中放置24H+ 85 ℃ 3 ℃ ,,.placed 96H in temperature +85℃±3℃ , then move into 2 - 3 environment for 24H	
5-5	高温/高湿贮存试验 High temperature/high humidity storage test	+40℃±3℃，90~95%RH 的环境下放置 240H,再移至 2-3 环境中放置 24H + 40 ℃ 3 ℃ , 90~95%RH for 240H in temperature +40℃±3℃ , then moved to 2 - 3 for 24 H.	



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6、寿命测试 Life test			
序号	项目 Project	测定条件 (Measured conditions)	参数值 Parameter value
6-1	持续运转测试 Continuous operation test	额定电压，额定负载下，电机运行 800H Under rated voltage and rated load, the motor runs for 800H	1)△负载电流变化不超过初始值的 ±30% △ The change of load current does not exceed 30 % of the initial value. 2)△负载转速变化不超过初始值的 ±20% 3)△ The change of load speed shall not exceed 20 % of the initial value △电机不出现明显不能使用。 the motor don't appear obviously cannot be used.
6-2	间歇式运转测试 Intermittent running test	额定电压，额定负载下，电机按下图运行 48000 次 Under rated voltage and rated load, the motor runs 48000 times according to the following figure. 	
6-3	正、反向运转测试 Forward and reverse running tests	额定电压，额定负载下，电机按下图运行 1000000 次 Under rated voltage and rated load, the motor runs 1000000 times according to the following figure. 	

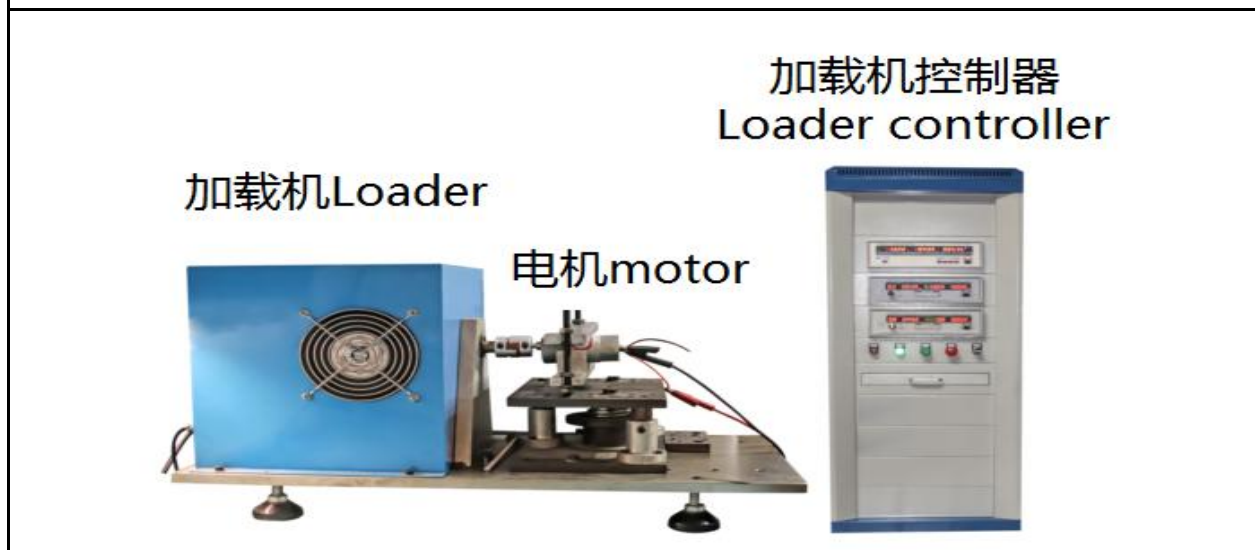


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7.备注(Remarks)			
序号 (No)	项目(Project)	测定条件(Measure conditions)	规格 (Specifications)
1.温度测试标准Temperature test standard			
7-1	温度特性 Temperature Character		
2.安装方法及尺寸Installation method and size			
7-2	尺寸 Dimension		
4.噪音测试方法(Noise test method)			
7-4	噪音测试(Noise test)		



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8.负载设备及测试方法>Loading test method



9.负载测试曲线图(Curve of loading measure)

Multitest V3.24

Unknown

编号: FA16120211105

电机负载特性曲线图

型号: XH-3157ZY-128000 额定电压: DC 12.0 V 额定电流: 0.9A max 额定功率: 10 W

#### 80.0												3.0	72.0	
E	N											I	P	
80.0	60.0											2.0	48.0	
60.0	45.0											1.0	24.0	
40.0	30.0											0.6	14.4	
20.0	15.0											0.3	7.2	
0	0											0	0	
效率 Eff (%)	转速 speed (rpm) ±12%	1.0	3.0	5.0	7.0	9.0	转矩Torque (N. m)						电流 Curent (A)	功率 power (W)

1) 1mNm=10.197g.cm, 1inch=25.4mm, 10ounce=28.35g

2) 测量环境条件 25±10/65%+25%RH

3) 本性能曲线基于 ☐ 两点负载法 ☒ 实测堵转法 ☐ 惯量加速法

4) 本数据仅取样有限样品