

务实 创新 追求卓越

PRAGMATIC INNOVATIVE PURSUING EXCELLENCE



ELECTRIC WATER PUMP FOR COMMERCIAL VEHICLES

NEW PRODUCTS BROCHURE 2024

商用车电子水泵 目录册



企业官网
Company official website



微信公众号
Wechat account



阿里巴巴
Alibaba store

深圳市健科电子有限公司

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长沙市健科电子有限公司

CHANGSHA JIANKE ELECTRONICS CO.,LTD.

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健行世界 科创未来

STRONGLY PREVAILING IN THE WORLD
SCI.&TECH.CREATE THE FUTURE

我们生产 We Produce

- **商用车电子水泵** Electric Water Pump for Commercial Vehicles
- 汽车电子水泵 Electric Water Pump
- 无刷电机控制器 BLDC Controller
- 传感器 Sensor
- 点火模块 Ignition Module

我们提供 We Offer

- 定制化方案 Customized Solutions
- 平台化设计 Platform-Based Design
- OE配套 OE Quality
- 成熟验证后的产品 100% Tested Product

企业文化

CORPORATE CULTURE

核心价值观 CORE VALUES

务实 创新 追求卓越
Pragmatic innovative pursuing excellence

愿景 VISION

成为全球最优秀的汽车电子零部件供应商之一
To be one of the best suppliers of automotive electronic product in the world

使命 MISSION

向客户提供零缺陷的电子产品
To provide customers with zero-defect electronic products

理念 CONCEPT

持续改善 超越客户需求
Continuous improvement exceed customer demand



40%⁺

研发人员占比
R&D staff percentage

15⁺

核心团队从业年限
Core team experience years

33⁺

国家汽车电子专利
National automotive patents

30⁺

全球客户分布
Global customer distribution

200万⁺

电子水泵年产能
Annual capacity of electronic water pumps

500万⁺

BLDC控制器年产能
BLDC controller annual capacity

01 | 关于我们 ABOUT US



我们的规模

Our scale

深圳健科成立于2003年，长沙市健科电子有限公司于2017年成立，位于长沙市国家级望城经济技术开发区，占地面积26855m²，厂房面积35765m²。2018年底投产，截至2023年底员工人数为260人。

Jianke Electronics was established in 2003 in Shenzhen, and we concentrate on automotive electronics. Changsha Jianke Electronics is a branch company of Jianke electronics, which was established in 2017 and located in Changsha's national Economic and Technological Development Zones, covering an area of 26855m², with a factory floor area of 35765m². It went into production at the end of 2018 and had 260 employees by the end of 2023.

我们的服务

Our services

公司专注于车用微电机控制器、传感器、电子水泵和点火模块的研发、生产和销售。秉承“务实、创新、追求卓越”核心价值观，在“持续改善，超越客户需求”质量方针的指引下，健科电子愿与每一个合作伙伴竭诚合作，为客户提供快速的、高质量的、定制化的解决方案，为中国汽车电子的进步贡献自己的力量。

Focusing on R&D, manufacturing and sales of automotive micro-motor controller, sensor, electric water pump and ignition module, the company remains committed to the core values of 'Pragmatism, Innovation, Pursuit of excellence'. Under the guidance of the quality principle of 'to exceed customers, demanded by continual improvement', Jianke Electronics is willing to cooperate with every partner to contribute its own strength to the development of China's automotive electronics.



三大质量管理体系
Three quality management systems
IATF 16949
ISO 14001
ISO 45001



荣获国家高新技术企业
33项国家专利
自主研发软件著作权
Awarded National High-Tech Enterprise
33 National patents
Copyright of independently developed software



6S生产管理
6S production management



优秀的技术研发团队

Excellent technical research and development team

技术研发是企业生存发展的根基和核心，健科电子非常关注研发队伍的建设。现有研发人员60+，包括硬件工程师、软件工程师、产品开发工程师和结构工程师。

Technology R&D is the foundation and core of the survival and development of enterprises, Jianke Electronics pays great attention to the construction of R&D team. There are 60+ R&D personnel, including hardware engineers, software engineers, product development engineers and structural engineers.



先进的智能化生产设备

Advanced intelligent production equipment

健科引进国外最新设备，建设了四条电子水泵自动生产线，能够满足大批量、多品种的快速换线和高度柔性化生产。提高生产效率的同时，更保证了产品品质。产品可靠性高、工艺稳定。

Jianke introduced the latest equipment from abroad and built four automatic production lines for electric water pumps, which can meet the requirements of rapid line change and highly flexible production of large quantities and many varieties. Improve the production efficiency and ensure the quality of the products at the same time. The product reliability is high and process is stable.



专业的实验设备

Professional experimental equipment

健科建立了完整的汽车电子产品实验室，并与汽车电器研究所开展了多项合作，完成各项电气性能测试和可靠性实验，试验能力已通过多家主机客户认可。

Jianke Electronics has established a complete automotive electronics laboratory and has cooperated with the Automotive Electronics Research Institute. Jianke has completed various electrical performance tests and reliability experiments, and the test capability has been approved by many OEM customers.

02 | 发展历程 MILESTONE

健科电子深耕汽车电子行业超过20年，研发出点火模块，传感器，汽车电子水泵，无刷风扇电机控制器等产品，作为国内汽车点火模块的领军者，健科为全球汽车电子行业的发展贡献力量。

Jianke Electronics has been deeply engaged in the automotive electronics industry for more than 20 years, specialized in ignition modules, sensors, automotive electric water pumps and brushless motor controllers. As the leader of domestic automotive ignition modules, Jianke Electronics is contributing to the development of the global automotive electronics industry.



2021 荣获长沙市企业技术中心
Honored as Changsha enterprise technology center

2022 荣获湖南省专精特新“小巨人”企业
Awarded the title of 'little giant' enterprise in Hunan province



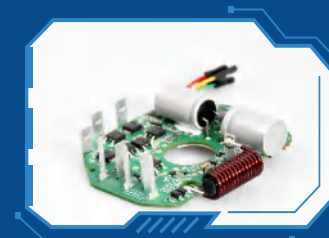
2018 长沙市健科电子投产
Changsha Jianke start production
BLDC控制器量产
Mass Production of BLDC controllers



2024 荣获中国储能产业
最佳液冷技术解决方案奖
Awarded Best Liquid Cooling
Technology in China Energy
Storage Industry



2020 电子水泵自动生产线投产
Electric water pump automatic
line mass production



2017 成立长沙市健科电子
Establishment of Changsha Jianke
BLDC控制器研发和生产
R&D BLDC controllers



2014 开始给OE配套
Supply to OE customers
2015 建设千级无尘车间
开发ASIC芯片
Built K-level dust free workshop
Developed ASIC chips



2003 健科成立
Jianke was founded in Shenzhen

2004 专注点火模块的研发和生产
专注传感器的研发和生产
Focus on the R&D and production
of ignition modules and sensors



2013 通过IATF 16949质量管理体系认证
开始塑封工艺
Passed the IATF 16949 quality management system
Started semiconductor process

JIANKE MORE THAN
20 YEARS OF
DEVELOPMENT



注塑车间
Injection molding workshop



SMT车间
SMT workshop



水泵车间
Water pump workshop



芯片Bonding车间
Chip Bonding workshop



智能仓储
Intelligent warehousing



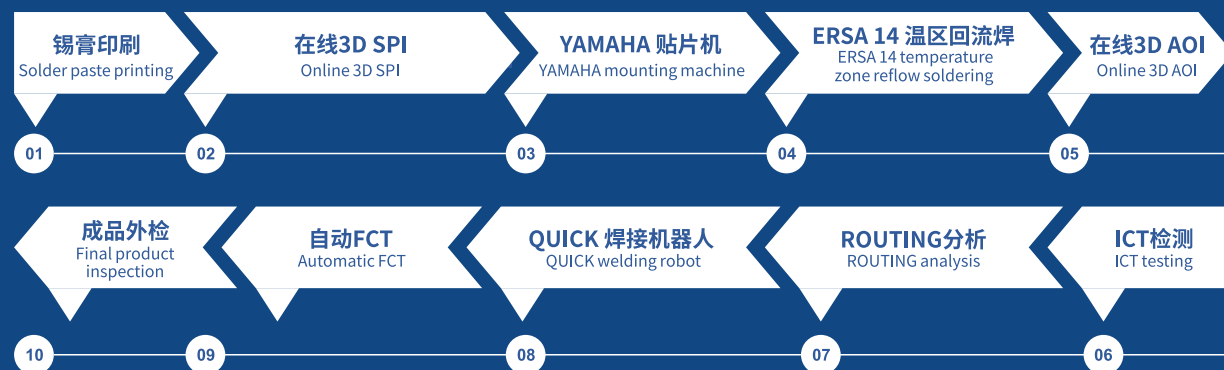
塑封车间
Plastic sealing workshop

03 | 生产能力 PRODUCTIVE CAPABILITY

我们围绕自动化设备、数字化产线和精益流程，提供从方案设计到集成开发和售后服务的数字化、自动化和智能化的系统解决方案，覆盖工艺过程、物流运输、质量检测、现场管理和运营分析等多维度，能够满足客户对工艺性、柔性化和数字化要求。

We provide digital, automatic and intelligent system solutions around automation equipment, digital production lines and lean processes, from solution design to integrated development and after-sales service, covering multiple perspectives such as process, logistics, quality inspection, site management and operation analysis, which can satisfy our customers' requirements for processability, flexibility and digitalization.

生产流程 PRODUCTION PROCESS



SAFETY
安全

QUALITY
质量

EFFICIENCY
效率

产品的可靠性、一致性以及稳定的质量都源自于我们对工艺的追求和高标准的生产管理。建立千级无尘车间、立体智能仓储系统、可追溯系统和SMT防错料系统，确保我们每一个产品的完美品质。

The reliability, consistency and the stable product quality are all rooted in the pursuit of product process and high standards of production management.



04 | 试验能力 EXPERIMENTAL CAPABILITY

健科电子注重产品研发, 追求技术创新, 建立了完整的汽车电子产品试验室, 并与汽车电器研究所开展了多项合作, 健科完成的各项电气性能测试和可靠性试验, 试验能力已通过多家主机客户认可。

Jianke Electronics focuses on product research and development, and has established a complete automotive electronic product testing laboratory. The company partners with the Automotive Electrical Research Institute to carry out cooperative projects and has successfully completed various electrical performance tests and reliability tests. Its test capabilities are recognized by many OE and famous aftermarket customers.



高低温湿热箱
High-low temperature and humidity chamber



ISO-7637测试台
ISO-7637 test bench



三综合
(温度/湿度/振动) 测试台
Three comprehensive test bench
(temperature, humidity, vibration)



新水泵耐久测试台
New water pump durability test bench



大水泵耐久测试台
Main water pump durability test bench



小水泵耐久测试台
Auxiliary water pump durability test bench

05 | 质量控制 QUALITY CONTROL



健科电子对生产及工艺严格把控, 运用ERP大数据平台、SMT防错料和可追溯系统、内部智能物流系统和现代化动态立体仓储系统、产品条码和二维码技术, 实现在线监控、SMT防错料和产品可追溯功能, 不仅提高了生产效率, 更是全方面的保证了产品品质。

Jianke Electronics strictly controls the production and process, using ERP big data platform, SMT error-proof and traceability system, internal intelligent logistics system and modern dynamic three-dimensional storage system, product bar code and two-dimensional code technology, the realization of on-line monitoring, SMT error-proof material and product traceability function, thus not only improving the production efficiency, but also ensuring the quality.

06 | 荣誉证书 HONORARY CERTIFICATE



ISO 14001 ISO 45001 IATF 16949 CE UL



科技创新奖 长沙市企业技术中心 专精特新“小巨人”企业 国家高新技术企业 最佳液冷技术解决方案奖
 Science and technology innovation award Changsha enterprise technology center Specialized and innovative 'little giant' enterprise National high-tech enterprise Best liquid cooling technology solution award



33项国家汽车电子专利
33 national automotive electronics patents



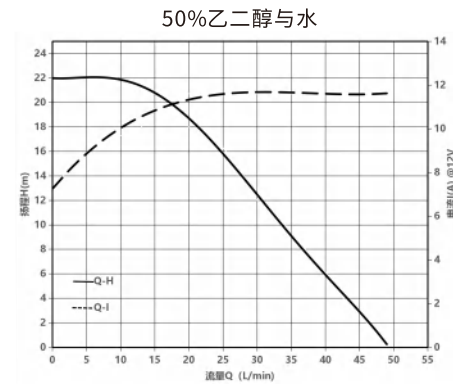
商用车电子水泵清单

Catalog of Electric Water Pumps for Commercial vehicles, New energy vehicles, Buses, Trucks, Battery cooling systems & New energy storage

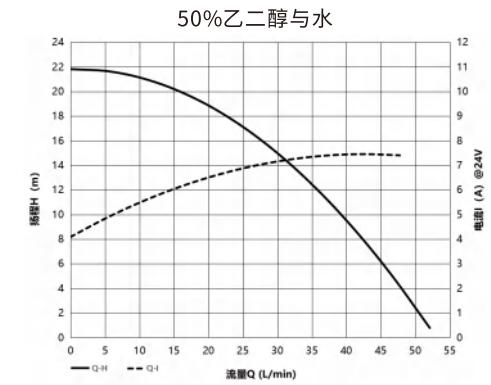
序号 Serial number	水泵型号 Water pump model	电压/功率 Voltage / Power	额定流量 Rated flow	额定扬程 Rated head	通讯协议 Communication protocol	口径(mm) Diameter	工作温度 Operating temperature	重量 Weight	见规格书 Refer to spec.page
01	JK-AEWT12.150.001	12V/150W	1500L/h	14m	LIN	Φ21/Φ68	-40°C~90°C	<0.7kg	15
02	JK-AEWT24.180.001	24V/180W	1500L/h	17m	LIN	Φ21/Φ68	-40°C~90°C	<0.8kg	16
03	JK-AEWP24.050.001	24V/50W	900L/h	6m	PWM	Φ20	-40°C~100°C	<0.65kg	17
04	JK-AEWP24.100.001	24V/100W	1680L/h	10m	PWM	Φ20	-40°C~90°C	<0.75kg	18
05	JK-AEWP24.100.012	24V/120W	1800L/h	10m	PWM	Φ25	-40°C~90°C	<0.9kg	19
06	JK-AEWP24.190.001	24V/200W	2400L/h	13m	/	Φ38	-40°C~105°C	<2.2kg	20
07	JK-AEWP24.210.001	24V/240W	6000L/h	8m	/	Φ38	-40°C~105°C	<2.5kg	21
08	JK-AEWP24.240.005	24V/240W	2400L/h	17m	PWM	Φ25	-40°C~105°C	<2.4kg	22
09	JK-AEWP24.300A.003	24V/300W	2880L/h	17.5m	PWM	Φ25	-40°C~105°C	<2.4kg	23
10	JK-AEWP24.450.001	24V/450W	3000L/h	22.5m	PWM	卡盘(Φ50.5)	-40°C~105°C	<2.4kg	24
11	JK-AEWP48.400.001	48V/400W	3000L/h	22m	PWM	卡盘(Φ50.5)	-40°C~105°C	<4.5kg	25
12	JK-AEWP220.300.002	220V/300W	3000L/h	15m	PWM	卡盘(Φ50.5)	-40°C~70°C	≤4kg	26
13	JK-AEWP220.500.006	220V/500W	3000L/h	25m	PWM	Φ25	-40°C~70°C	≤4kg	27
14	JK-AEWP380.500.002	380V/500W	4500L/h	18m	PWM	卡盘(Φ50.5)	-40°C~70°C	≤4kg	28
15	JK-AEWP600.500.007	600V/500W	3500L/h	30m	/	Φ25	-40°C~85°C	≤3kg	29
16	JK-AEWP550.3000.001	550V/3000W	12000L/h	40m	/	Φ50	-40°C~70°C	<6kg	30
17	JK-TMS101-002	220V/5000W	/	/	RS485	/	-40°C~60°C	<4kg	31



流量扬程图
Pump Performance Curve



流量扬程图
Pump Performance Curve

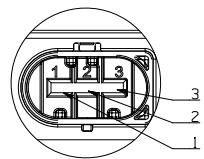


技术参数
Technical Parameters

额定电压:12V DC
Rated voltage
额定功率:140W
Rated power
额定扬程:14m
Rated head
重量:<0.7Kg
Weight
噪音:≤48dB(A)
Noise
保护功能:过压、欠压、堵转、过流、空转、过温
Protection function:over-voltage, under-voltage, block rotation over-current, idling, over-temperature
防护等级:IP67
IP level

电压范围:9~16V
Voltage range
额定流量:1500L/h
Rated flow
环境温度:-40°C~90°C
Environment temperature
介质温度:-40°C~90°C
Medium temperature
寿命:≥20000h(根据使用工况)
Lifespan (Depending on working conditions)

接插定义
Pinout



序号 Number	名称 Name	信号类型 Signal Type
1	电源输入- Power input-	电源 Power source
2	电源输入+ Power input+	电源 Power source
3	LIN 信号线 LIN signal line	逻辑信号输出 Logic output signal

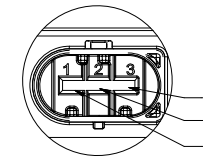
客户端对插件型号: 805-199-521 Code A(HIRSCHMANN)
Customer-side connector model: 805-199-521 Code A(HIRSCHMANN)

技术参数
Technical Parameters

额定电压:24V DC
Rated voltage
额定功率:180W
Rated power
额定扬程:17m
Rated head
重量:<0.8kg
Weight
噪音:≤50dB(A)
Noise
保护功能:过压、欠压、反接、堵转、空转、过流、过温
Protection function: over-voltage, under-voltage, reverse connection block rotation, idling, over-current, over-temperature
防护等级:IP67
IP level

电压范围:18~32V DC
Voltage range
额定流量:1500L/h
Rated flow
环境温度:-40~90°C
Environment temperature
介质温度:-40~90°C
Medium temperature
寿命:≥20000h(根据使用工况)
Lifespan (Depending on working conditions)

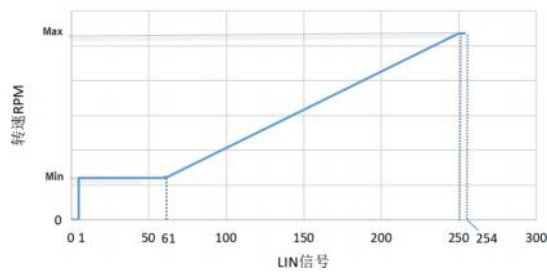
接插定义
Pinout



序号 Number	名称 Name	信号类型 Signal Type
1	电源输入- Power input-	电源 Power source
2	电源输入+ Power input+	电源 Power source
3	LIN 信号线 LIN signal line	逻辑信号输出 Logic output signal

客户端对插件型号: HIRSCHMANN 805-199-521(Code A)
Customer-side connector model: HIRSCHMANN 805-199-521(Code A)

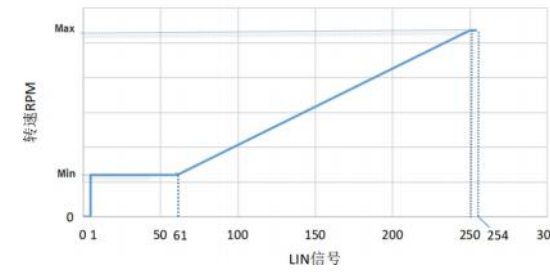
LIN 调速功能
LIN Speed Control Function



LIN 信号调速模式
LIN signal Speed Control Mode

LIN 信号 LIN signal	描述 Description
0	水泵停机 Water pump off
1-61	最低转速1200rpm Minimum rotational speed 1200rpm
62-250	调速范围1200~7200rpm Linear speed control range 1200~7200rpm
>250	最高转速7200rpm Maximum rotational speed 7200rpm
255	无效 Invalid

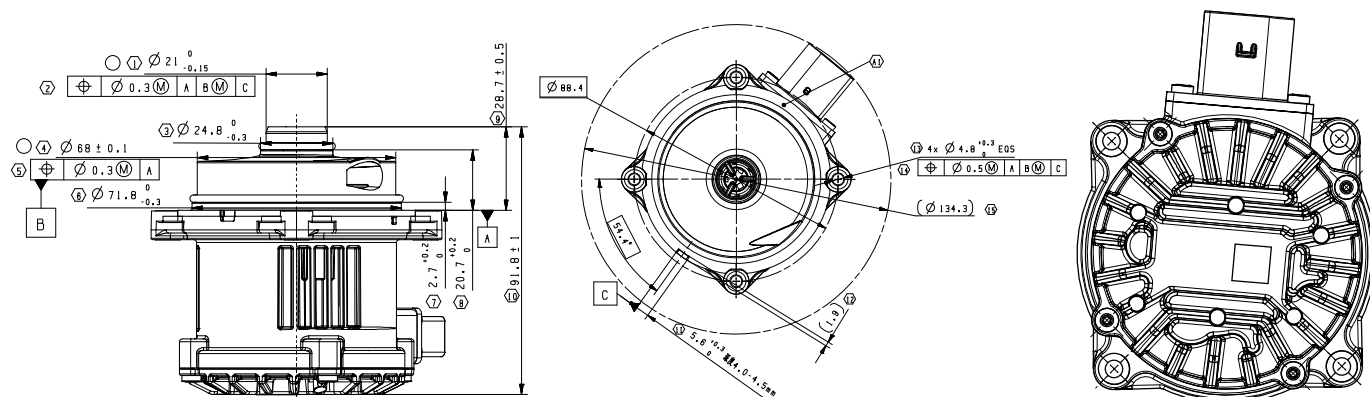
PWM 调速功能
PWM Speed Control Function



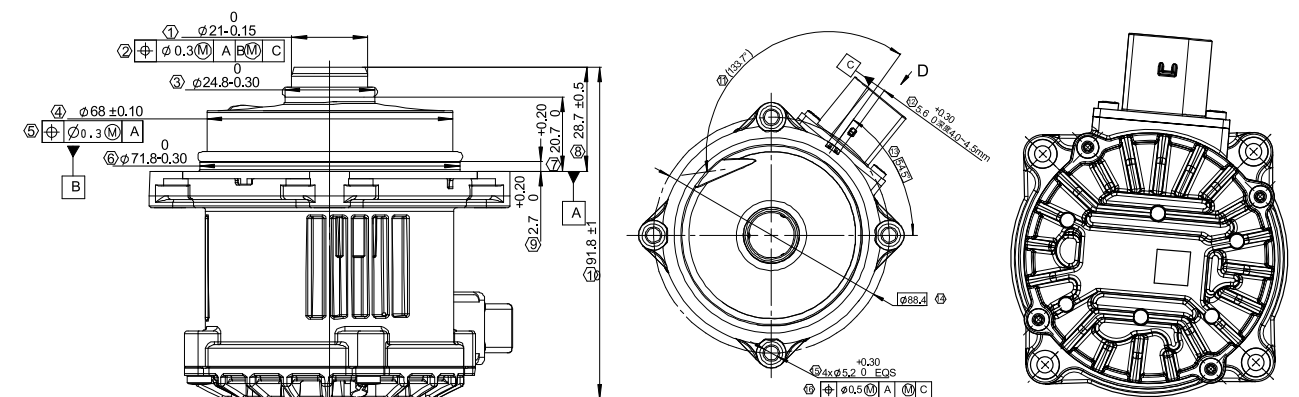
PWM 占空比调速模式
PWM Duty Cycle Speed Control Mode

LIN 信号 LIN signal	描述 Description
0	水泵停机 Water pump off
1-61	最低转速1200rpm Minimum rotational speed 1200rpm
62-250	调速范围1200~7200rpm Linear speed control range 1200~7200rpm
>250	最高转速7200rpm Maximum rotational speed 7200rpm
255	无效 Invalid

外形尺寸
Dimensions

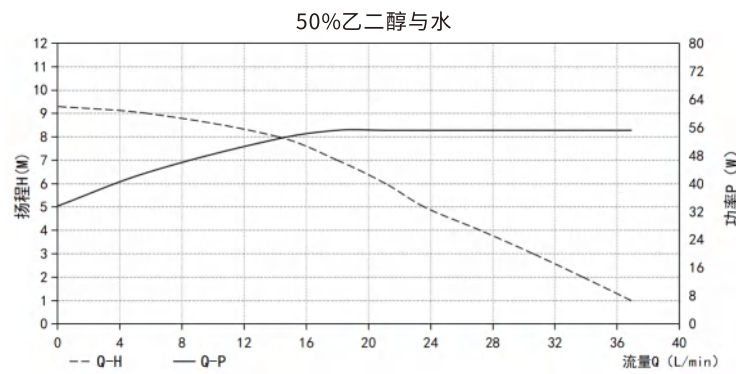


外形尺寸
Dimensions





流量扬程图
Pump Performance Curve

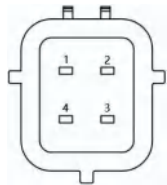


技术参数
Technical Parameters

额定电压: 24V DC
Rated voltage
额定功率: 50W
Rated power
额定扬程: 6m
Rated head
重量: <0.65kg
Weight
噪音: ≤42dB(A)
Noise
保护功能: 过压、欠压、反接、堵转、空转、过流、过温
Protection functions: over-voltage, under-voltage, reverse connection, block rotation, idling, over-current, over-temperature
防护等级: IP68
IP level

电压范围: 16~32V DC
Voltage range
额定流量: 900L/h
Rated flow
环境温度: -40~85°C
Environment temperature
介质温度: -40~100°C
Medium temperature
寿命: ≥20000h(根据使用工况)
Lifespan (Depending on working conditions)

接插定义
Pinout

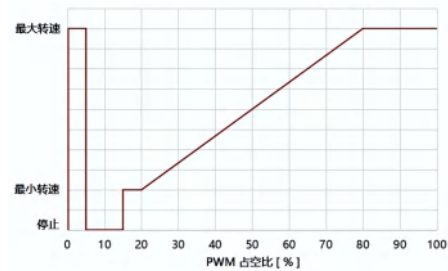


连接器型号: AMP 936418-2
Connector model: AMP 936418-2

序号 Number	名称 Name	信号类型 Signal Type
1	故障反馈 Fault feedback	逻辑信号输出 Logic output signal
2	PWM调速 PWM speed control	逻辑信号输入 Logic input signal
3	电源输入+ Power input+	电源 Power source
4	电源输入- Power input-	电源 Power source

客户端对插件型号: AMP 174257-2
Customer-side connector model: AMP 174257-2
适配端子型号: DJ621F-1.8A
Compatible terminal model: DJ621F-1.8A

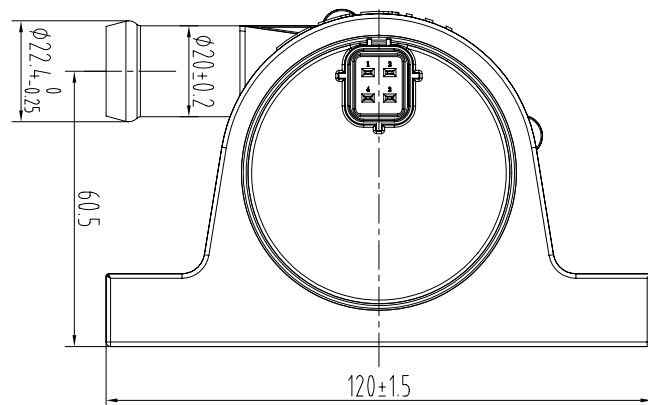
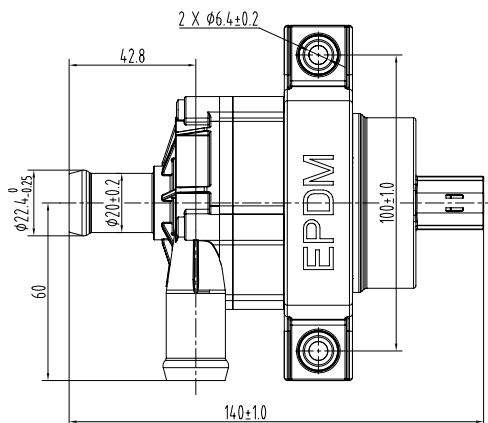
PWM 调速功能
PWM Speed Control Function



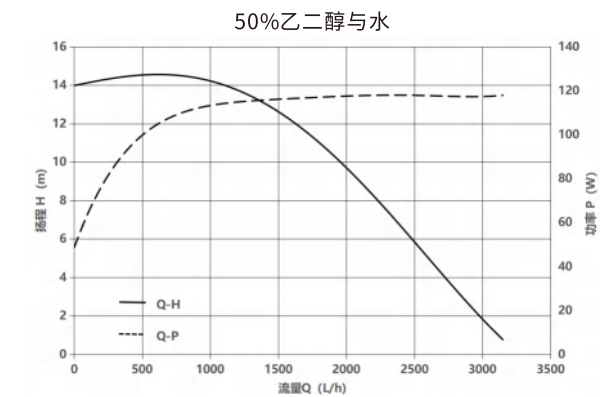
PWM 占空比调速模式
PWM Duty Cycle Speed Control Mode

占空比 Duty Cycle	描述 Description
0	水泵停机 Water pump off
0% < Duty ≤ 5%	最高转速 Maximum rotational speed
5% < Duty ≤ 15%	水泵停机 Water pump off
15% < Duty ≤ 20%	最低转速 Minimum rotational speed
20% < Duty ≤ 80%	线性调速区间 Linear speed control range
80% < Duty < 100%	最高转速 Maximum rotational speed

外形尺寸
Dimensions



流量扬程图
Pump Performance Curve

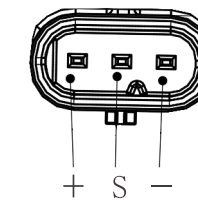


技术参数
Technical Parameters

额定电压: 24V DC
Rated voltage
额定功率: 100W
Rated power
额定扬程: 10m
Rated head
重量: <0.75kg
Weight
噪音: ≤48dB(A)
Noise
保护功能: 过压、欠压、堵转、过流、空转
Protection function: over-voltage, under-voltage, block rotation, over-current, idling
防护等级: IP67
IP level

电压范围: 18~32V DC
Voltage range
额定流量: 1680L/h
Rated flow
环境温度: -40°C~90°C
Environment temperature
介质温度: -40°C~90°C
Medium temperature
寿命: ≥20000h(根据使用工况)
Lifespan (Depending on working conditions)

接插定义
Pinout

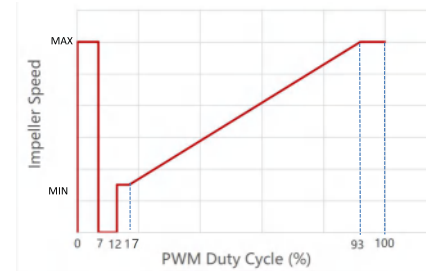


自开模
Self-opening mold

序号 Number	名称 Name	信号类型 Signal Type
-	电源输入- Power input-	电源 Power source
S	PWM调速 PWM speed control	逻辑信号输入 Logic input signal
+	电源输入+ Power input+	电源 Power source

客户端对插件型号: 805-121-522(HIRSCHMANN)
Customer-side connector model: 805-121-522(HIRSCHMANN)

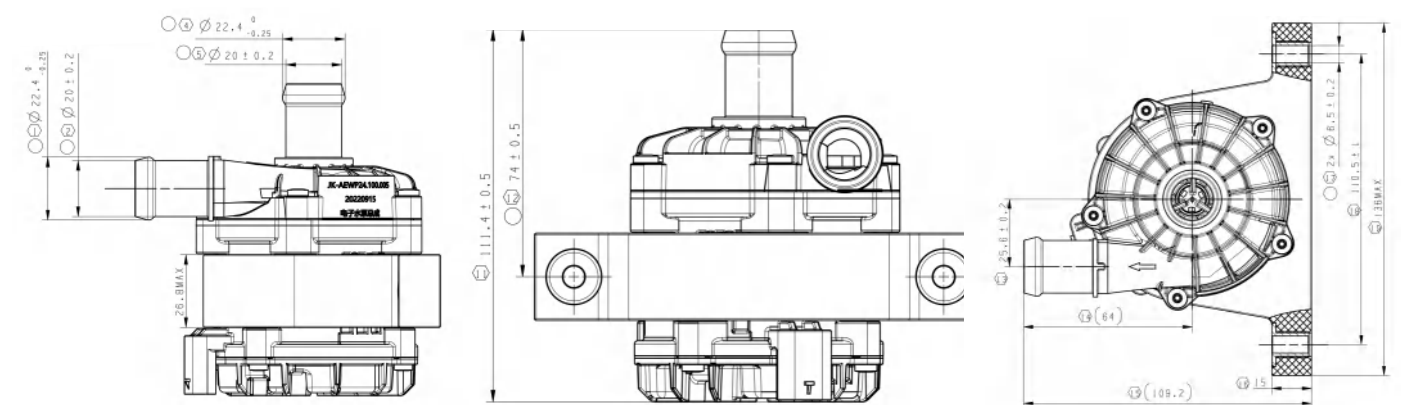
PWM 调速功能
PWM Speed Control Function



PWM 占空比调速模式
PWM Duty Cycle Speed Control Mode

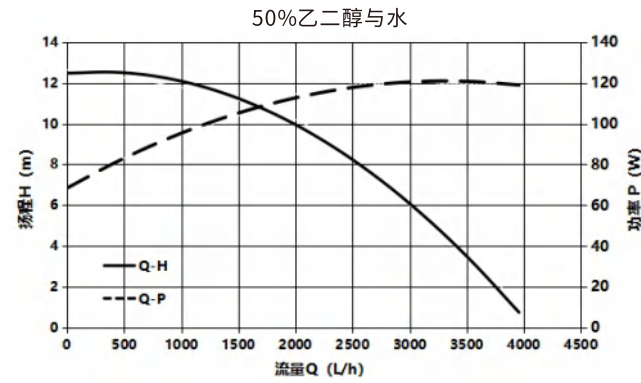
占空比 Duty Cycle	描述 Description
0 ≤ Duty ≤ 1%	水泵停机 Water pump off
1% < Duty ≤ 7%	最高转速 Maximum rotational speed
7% < Duty ≤ 12%	水泵停机 Water pump off
12% < Duty ≤ 17%	最低转速 Minimum rotational speed
17% < Duty ≤ 93%	线性调速区间 Linear speed control range
93% < Duty < 100%	最高转速 Maximum rotational speed

外形尺寸
Dimensions





流量扬程图
Pump Performance Curve

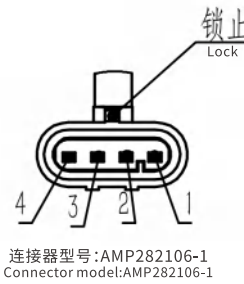


技术参数
Technical Parameters

额定电压: 24V DC
Rated voltage
额定功率: 120W
Rated power
额定扬程: 10m
Rated head
重量: <0.9kg
Weight
噪音: <45dB(A)
Noise
保护功能: 过压、欠压、堵转、过流、空转
Protection function: over-voltage, under-voltage, block rotation, over-current, idling
防护等级: IP68
IP level

电压范围: 18~32V DC
Voltage range
额定流量: 1800L/h
Rated flow
环境温度: -40°C~90°C
Environment temperature
介质温度: -40°C~90°C
Medium temperature
寿命: ≥20000h(根据使用工况)
Lifespan (Depending on working conditions)

接插定义
Pinout



序号 Number	名称 Name	信号类型 Signal Type
1	电源输入- Power input-	电源 Power source
2	故障反馈 Fault feedback	逻辑信号输出 Logic output signal
3	PWM调速 PWM speed control	逻辑信号输入 Logic input signal
4	电源输入+ Power input+	电源 Power source

客户端插件型号: AMP282088-1
Customer-side connector model: AMP282088-1

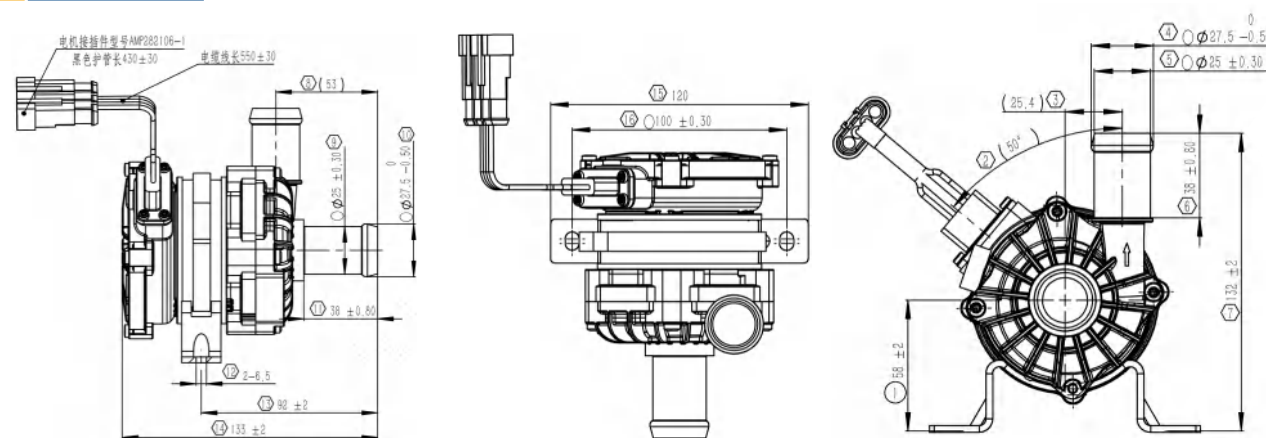
PWM 调速功能
PWM Speed Control Function



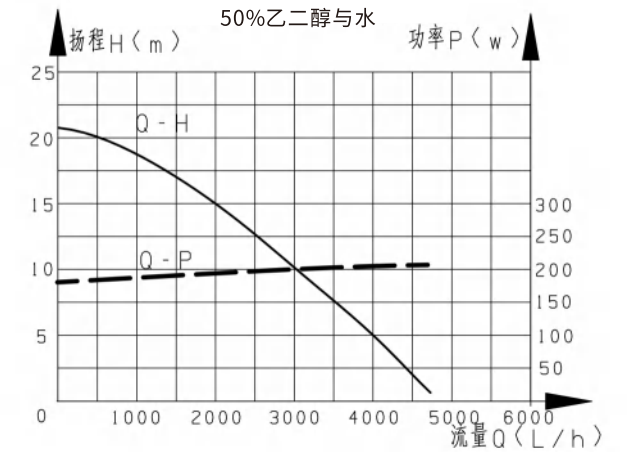
PWM 占空比调速模式
PWM Duty Cycle Speed Control Mode

占空比 Duty Cycle	描述 Description
0% ≤ Duty < 15%	水泵停机 Water pump off
15% ≤ Duty < 20%	最低转速 Minimum rotational speed
20% ≤ Duty < 80%	线性调速区间 Linear speed control range
80% ≤ Duty ≤ 100%	最高转速 Maximum rotational speed

外形尺寸
Dimensions



流量扬程图
Pump Performance Curve

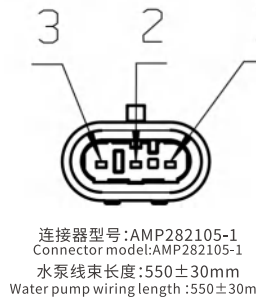


技术参数
Technical Parameters

额定电压: 24V DC
Rated voltage
额定功率: 190W
Rated power
额定扬程: 13m
Rated head
重量: <2.2kg
Weight
噪音: ≤60dB(A)
Noise
保护功能: 过压、欠压、堵转、过流、空转、反接、过温
Protection function: over-voltage, under-voltage, block rotation, over-current, idling, reverse connection, over-temperature
防护等级: IP68
IP level

电压范围: 18~32V DC
Voltage range
额定流量: 2400L/h
Rated flow
环境温度: -40°C~105°C
Environment temperature
介质温度: -40°C~105°C
Medium temperature
寿命: ≥20000h(根据使用工况)
Lifespan (Depending on working conditions)

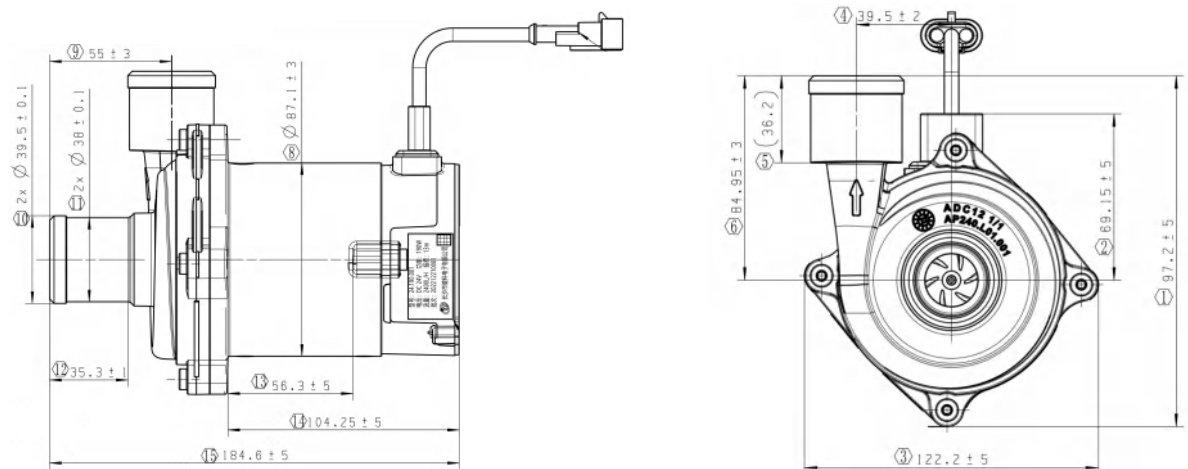
接插定义
Pinout



序号 Number	名称 Name	信号类型 Signal Type
1	电源输入- Power input-	电源 Power source
2	故障反馈 Fault feedback	逻辑信号输出 Logic output signal
3	电源输入+ Power input+	电源 Power source

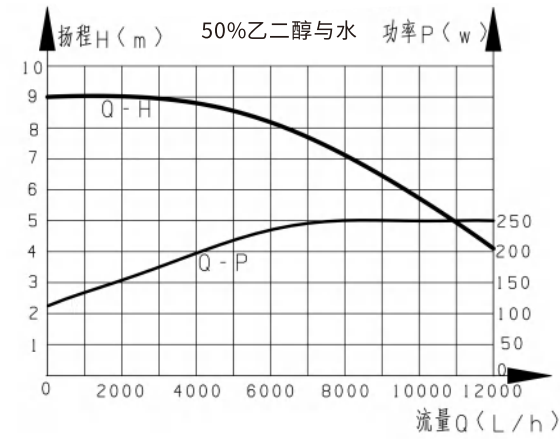
客户端插件型号: AMP282087-1
Customer-side connector model: AMP282087-1

外形尺寸
Dimensions





流量扬程图
Pump Performance Curve

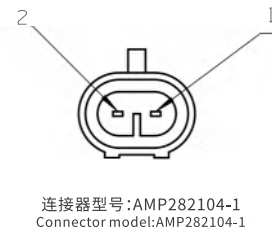


技术参数
Technical Parameters

额定电压:24V DC
Rated voltage
额定功率:240W
Rated power
额定扬程:8m
Rated head
重量:<2.5kg
Weight
噪音:≤60dB(A)
Noise
保护功能:过压、欠压、堵转、过流、空转、反接、过温
Protection function:over-voltage, under-voltage, block rotation over-current, idling, reverse connection, over-temperature
防护等级:IP68
IP level

电压范围:18~32V DC
Voltage range
额定流量:6000L/h
Rated flow
环境温度:-40°C~105°C
Environment temperature
介质温度:-40°C~105°C
Medium temperature
寿命:≥20000h(根据使用工况)
Lifespan (Depending on working conditions)

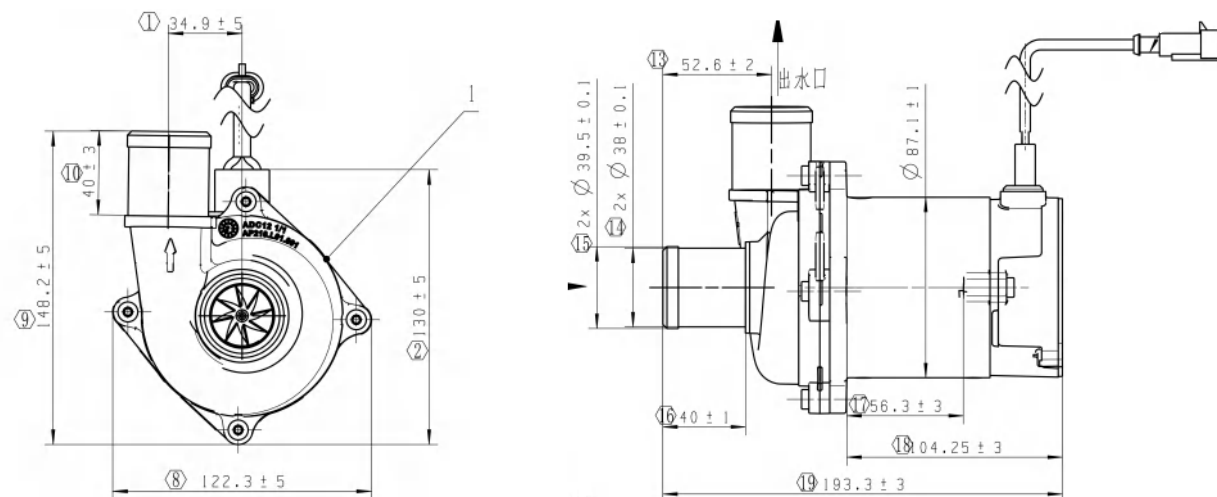
接插定义
Pinout



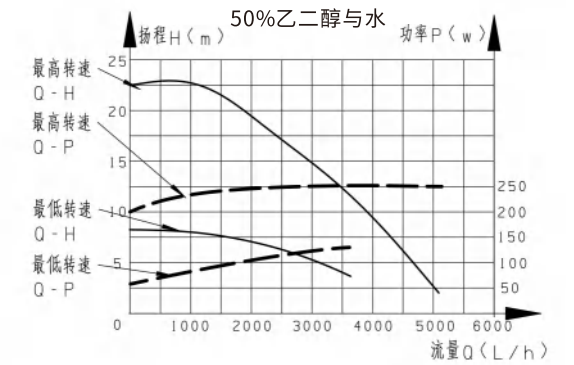
序号 Number	名称 Name	信号类型 Signal Type
1	电源输入- Power input-	电源 Power source
2	电源输入+ Power input+	电源 Power source

客户端插件型号:AMP282080-1
Customer-side connector model:AMP282080-1

外形尺寸
Dimensions



流量扬程图
Pump Performance Curve

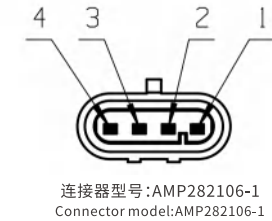


技术参数
Technical Parameters

额定电压:24V DC
Rated voltage
额定功率:240W
Rated power
额定扬程:17m
Rated head
重量:<2.4kg
Weight
噪音:≤60dB(A)
Noise
保护功能:过压、欠压、堵转、过流、空转、反接、过温
Protection function:over-voltage, under-voltage, block rotation over-current, idling, reverse connection, over-temperature
防护等级:IP68
IP level

电压范围:18~32V DC
Voltage range
额定流量:2400L/h
Rated flow
环境温度:-40°C~105°C
Environment temperature
介质温度:-40°C~105°C
Medium temperature
寿命:≥20000h(根据使用工况)
Lifespan (Depending on working conditions)

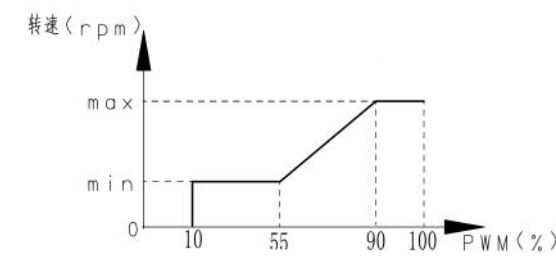
接插定义
Pinout



序号 Number	名称 Name	信号类型 Signal Type
1	电源输入- Power input-	电源 Power source
2	故障反馈 Fault feedback	逻辑信号输出 Logic output signal
3	PWM调速 PWM speed control	逻辑信号输入 Logic input signal
4	电源输入+ Power input+	电源 Power source

客户端插件型号:AMP282088-1
Customer-side connector model:AMP282088-1

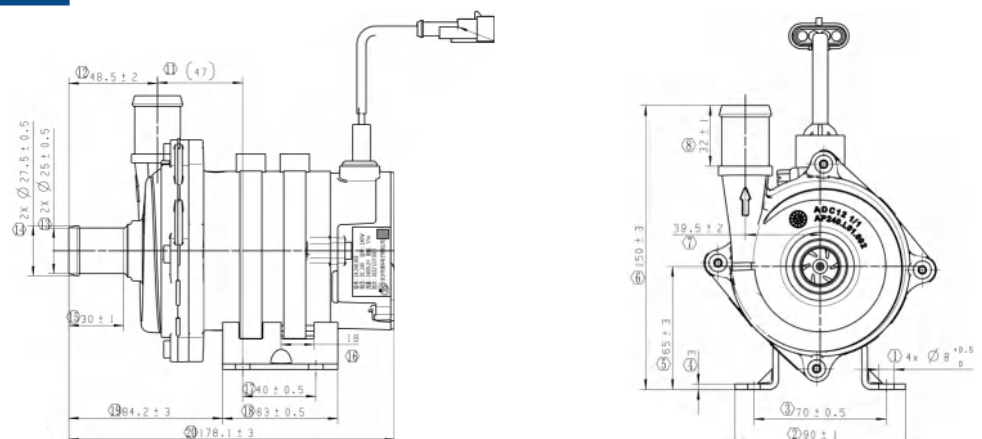
PWM调速功能
PWM Speed Control Function



PWM 占空比调速模式
PWM Duty Cycle Speed Control Mode

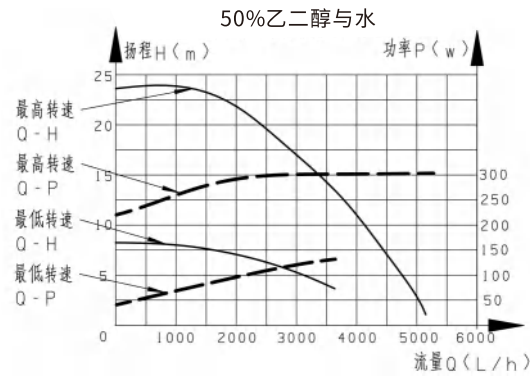
占空比 Duty Cycle	描述 Description
0% ≤ Duty ≤ 10%	水泵停机 Water pump off
10% < Duty ≤ 55%	最低转速 Minimum rotational speed
55% < Duty ≤ 90%	线性调速区间 Linear speed control range
90% < Duty ≤ 100%	最高转速 Maximum rotational speed

外形尺寸
Dimensions

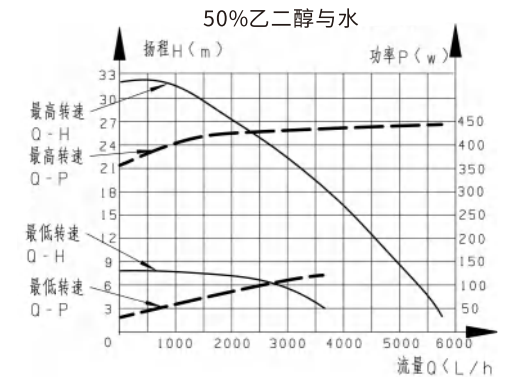




流量扬程图
Pump Performance Curve



流量扬程图
Pump Performance Curve

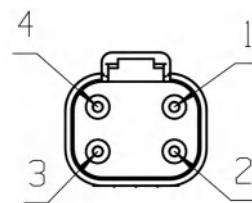


技术参数
Technical Parameters

额定电压: 24V DC
Rated voltage
额定功率: 300W
Rated power
额定扬程: 17.5m
Rated head
重量: <2.4kg
Weight
噪音: ≤61dB(A)
Noise
保护功能: 过压、欠压、堵转、过流、空转、反接、过温
Protection function: over-voltage, under-voltage, block rotation over-current, idling, reverse connection, over-temperature
防护等级: IP68
IP level

电压范围: 18~32V DC
Voltage range
额定流量: 2880L/h
Rated flow
环境温度: -40°C~105°C
Environment temperature
介质温度: -40°C~105°C
Medium temperature
寿命: ≥2000h(根据使用工况)
Lifespan (Depending on working conditions)

接插定义
Pinout



序号 Number	名称 Name	信号类型 Signal Type
1	电源输入+ Power input+	电源 Power source
2	PWM调速 PWM speed control	逻辑信号输入 Logic input signal
3	电源输入- Power input-	电源 Power source
4	故障反馈 Fault feedback	逻辑信号输出 Logic output signal

连接器型号: AMPHENOL AT04-4P NFK
Connector model: AMPHENOL AT04-4P NFK

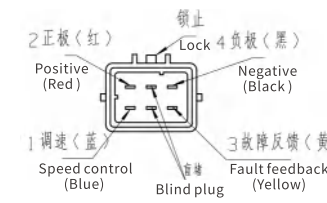
客户端对插件型号: AMPHENOL AT06-4S NFK
Customer-side connector model: AMPHENOL AT06-4S NFK

技术参数
Technical Parameters

额定电压: 24V DC
Rated voltage
额定功率: 450W
Rated power
额定扬程: 22.5m
Rated head
重量: <2.4kg
Weight
噪音: ≤60dB(A)
Noise
保护功能: 过压、欠压、堵转、过流、空转、反接、过温
Protection function: over-voltage, under-voltage, block rotation over-current, idling, reverse connection, over-temperature
防护等级: IP68
IP level

电压范围: 18~32V DC
Voltage range
额定流量: 3000L/h
Rated flow
环境温度: -40°C~105°C
Environment temperature
介质温度: -40°C~105°C
Medium temperature
寿命: ≥2000h(根据使用工况)
Lifespan (Depending on working conditions)

接插定义
Pinout

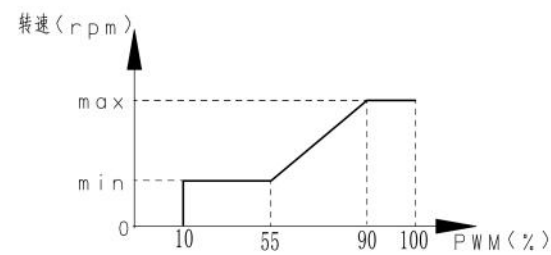


序号 Number	名称 Name	信号类型 Signal Type
1	PWM调速 PWM speed control	逻辑信号输入 Logic input signal
2	电源输入+ Power input+	电源 Power source
3	故障反馈 Fault feedback	逻辑信号输出 Logic output signal
4	电源输入- Power input-	电源 Power source

水泵端插件型号: DELPHI-12185126
Water pump terminal connector model: DELPHI-12185126
水泵线束长度: 550±30mm
Water pump wiring length: 550±30mm

客户端对插件型号: DELPHI-15344052
Customer-side connector model: DELPHI-15344052

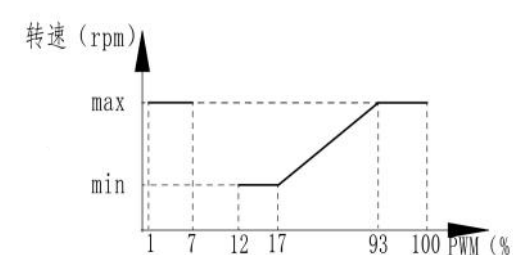
PWM 调速功能
PWM Speed Control Function



PWM 占空比调速模式
PWM Duty Cycle Speed Control Mode

占空比 Duty Cycle	描述 Description
0% ≤ Duty ≤ 10%	水泵停机 Water pump off
10% < Duty ≤ 55%	最低转速 Minimum rotational speed
55% < Duty ≤ 90%	线性调速区间 Linear speed control range
90% < Duty ≤ 100%	最高转速 Maximum rotational speed

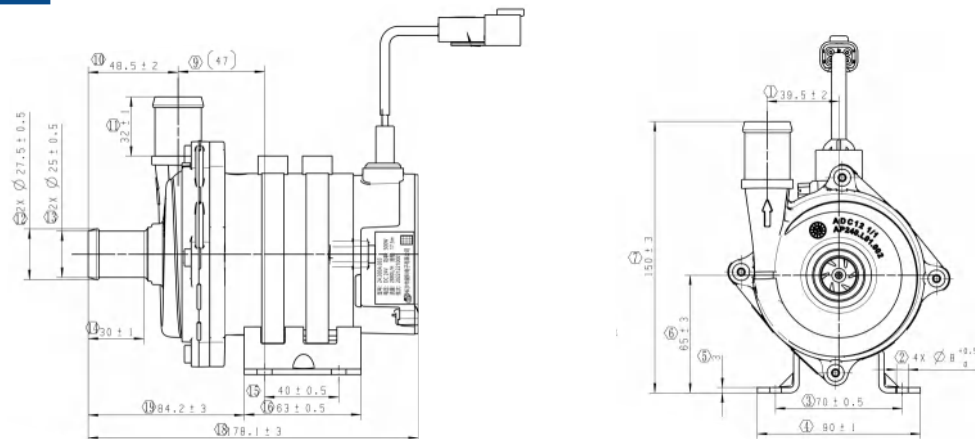
PWM 调速功能
PWM Speed Control Function



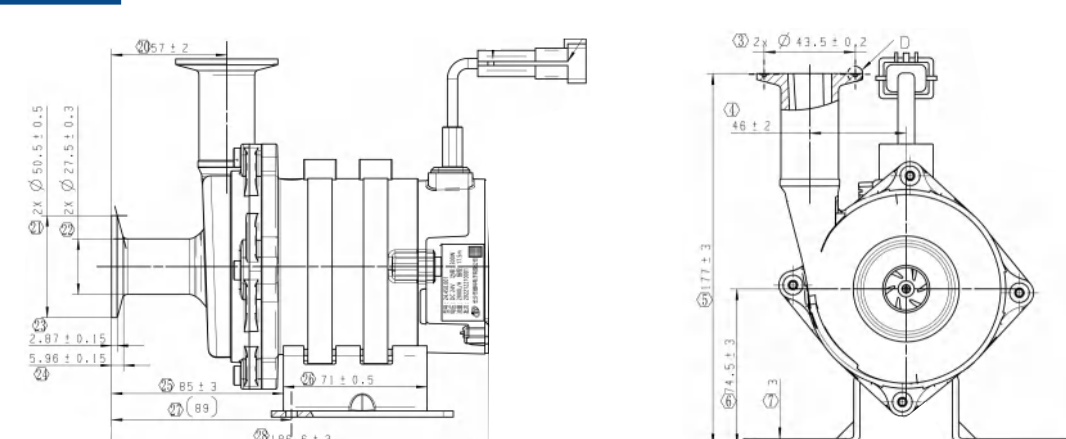
PWM 占空比调速模式
PWM Duty Cycle Speed Control Mode

占空比 Duty Cycle	描述 Description
0 ≤ Duty ≤ 1%	水泵停机 Water pump off
1% < Duty ≤ 7%	最高转速 Maximum rotational speed
7% < Duty ≤ 12%	水泵停机 Water pump off
12% < Duty ≤ 17%	最低转速 Minimum rotational speed
17% < Duty ≤ 93%	线性调速区间 Linear speed control range
93% < Duty < 100%	最高转速 Maximum rotational speed

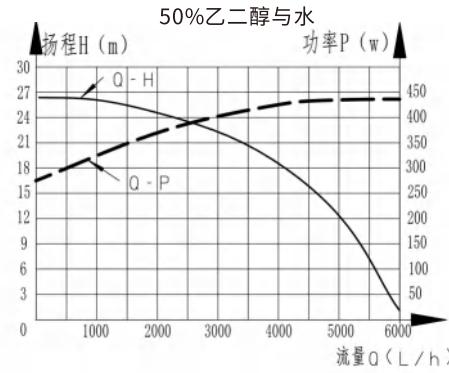
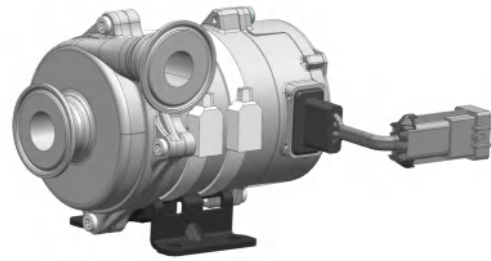
外形尺寸
Dimensions



外形尺寸
Dimensions



流量扬程图
Pump Performance Curve

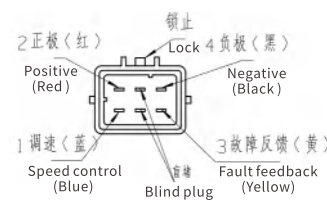


技术参数
Technical Parameters

额定电压: 48V DC
Rated voltage
额定功率: 400W
Rated power
额定扬程: 22m
Rated head
重量: <4.5Kg
Weight
噪音: <61dB(A)
Noise
保护功能: 过压、欠压、堵转、过流、空转、反接、过温
Protection function: over-voltage, under-voltage, block rotation over-current, idling, reverse connection, over-temperature
防护等级: IP68
IP level

电压范围: 36~58V DC
Voltage range
额定流量: 3000L/h
Rated flow
环境温度: -40°C~105°C
Environment temperature
介质温度: -40°C~105°C
Medium temperature
寿命: ≥20000h(根据使用工况)
Lifespan (Depending on working conditions)

接插定义
Pinout

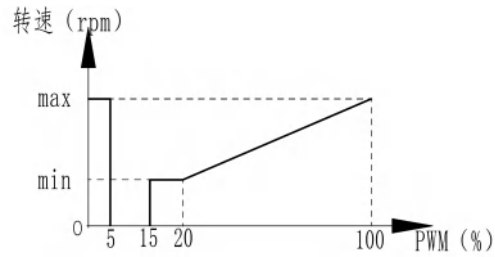


序号 Number	名称 Name	信号类型 Signal Type
1	PWM调速 PWM speed control	逻辑信号输入 Logic input signal
2	电源输入+ Power input+	电源 Power source
3	故障反馈 Fault feedback	逻辑信号输出 Logic output signal
4	电源输入- Power input-	电源 Power source

水泵端接插件型号: DELPHI-12185126
Water pump terminal connector model: DELPHI-12185126
水泵线束长度: 550±30mm
Water pump wiring length: 550±30mm

客户端对插件型号: DELPHI-15344052
Customer-side connector model: DELPHI-15344052

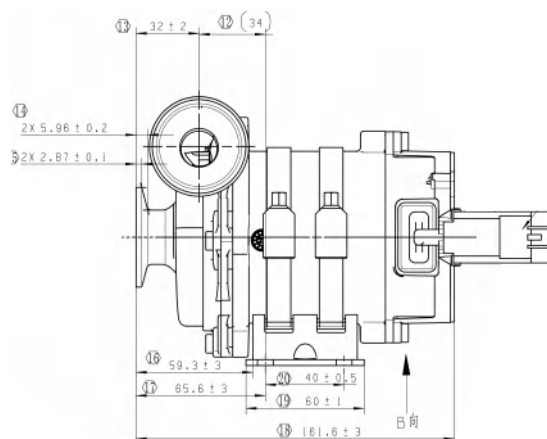
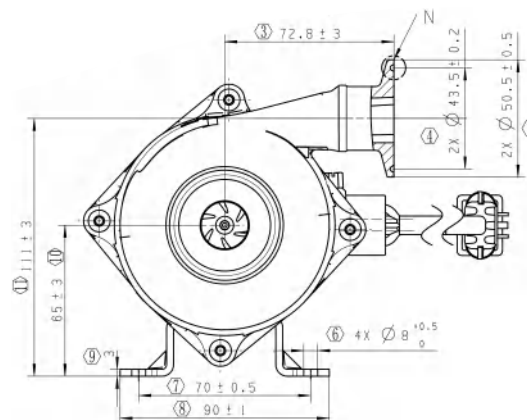
PWM 调速功能
PWM Speed Control Function



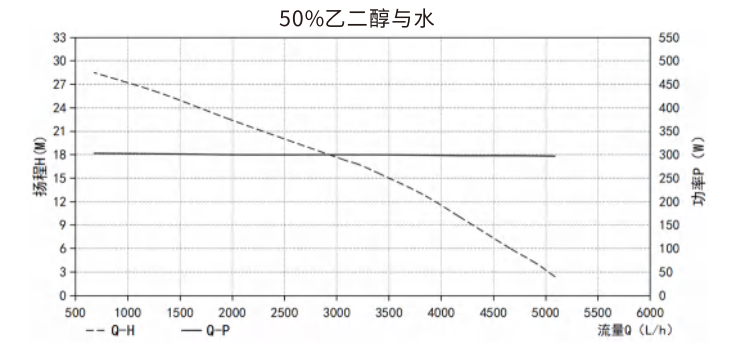
PWM 占空比调速模式
PWM Duty Cycle Speed Control Mode

占空比 Duty Cycle	描述 Description
0% < Duty ≤ 5%	最高转速 Maximum rotational speed
5% < Duty ≤ 15%	水泵停机 Water pump off
15% < Duty ≤ 20%	最低转速 Minimum rotational speed
20% < Duty ≤ 100%	线性调速区间 Linear speed control range

外形尺寸
Dimensions



流量扬程图
Pump Performance Curve

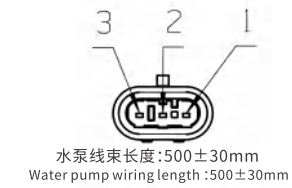


技术参数
Technical Parameters

额定电压: 220V AC
Rated voltage
额定功率: 300W
Rated power
额定扬程: 15m
Rated head
重量: ≤4kg
Weight
噪音: ≤67dB(A)
Noise
保护功能: 过压、欠压、堵转、过流、空转、反接、过温
Protection function: over-voltage, under-voltage, block rotation over-current, idling, reverse connection, over-temperature
防护等级: IP67
IP level

电压范围: 170~260V AC
Voltage range
额定流量: 3000L/h
Rated flow
环境温度: -40°C~70°C
Environment temperature
介质温度: -40°C~70°C
Medium temperature
寿命: ≥20000h(根据使用工况)
Lifespan (Depending on working conditions)

接插定义
Pinout



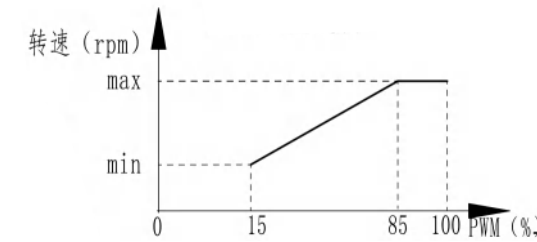
序号 Number	名称 Name	信号类型 Signal Type	备注 Remarks
1	GND端	/	蓝色导线 Red wire
2	PWM调速	逻辑信号输入 Logic input signal	黄色导线 Yellow wire
3	TACHO FO 信号	逻辑信号输出 Logic output signal	绿色导线 Green wire

连接器Connector model: AMP282105-1

序号 Number	名称 Name	信号类型 Signal Type	备注 Remarks
1	L端	电源 Power source	棕色导线 Brown wire
2	N端	电源 Power source	蓝色导线 Blue wire
3	PE端	接地 Ground	黄绿色导线 Yellow green wire

连接器Connector model: 350767-1

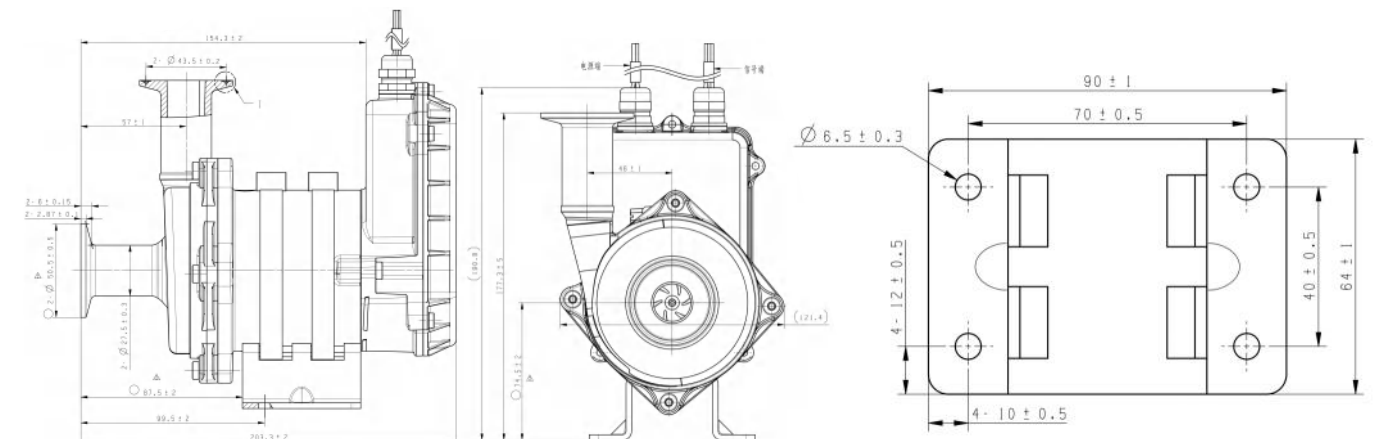
PWM 调速功能
PWM Speed Control Function



PWM 占空比调速模式
PWM Duty Cycle Speed Control Mode

占空比 Duty Cycle	描述 Description
0% < Duty ≤ 15%	水泵停机 Water pump off
15% < Duty ≤ 85%	线性调速区间 Linear speed control range
85% < Duty ≤ 100%	最高转速 Maximum rotational speed

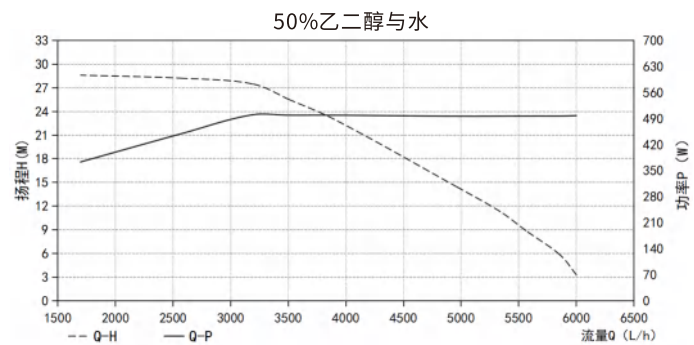
外形尺寸
Dimensions





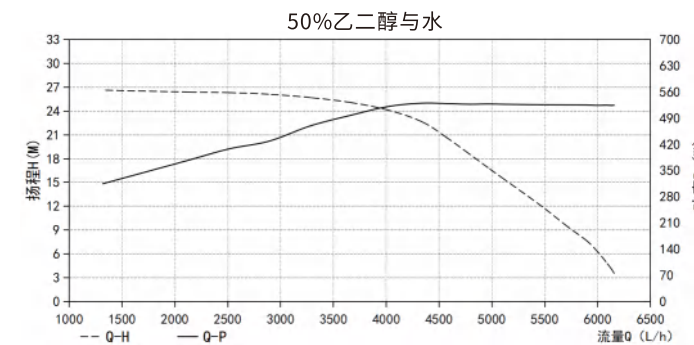
流量扬程图

Pump Performance Curve



流量扬程图

Pump Performance Curve



技术参数

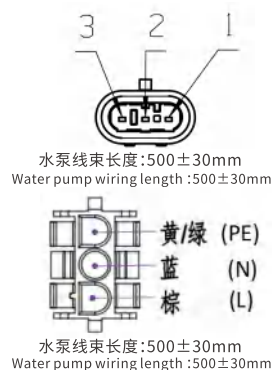
Technical Parameters

额定电压: 220V AC
Rated voltage
额定功率: 500W
Rated power
额定扬程: 25m
Rated head
重量: ≤4kg
Weight
噪音: ≤67dB(A)
Noise
保护功能: 过压、欠压、堵转、过流、空转、反接、过温
Protection function: over-voltage, under-voltage, block rotation over-current, idling, reverse connection, over-temperature
防护等级: IP67
IP level

电压范围: 170~260V AC
Voltage range
额定流量: 3000L/h
Rated flow
环境温度: -40°C~70°C
Environment temperature
介质温度: -40°C~70°C
Medium temperature
寿命: ≥20000h(根据使用工况)
Lifespan (Depending on working conditions)

接插定义

Pinout



序号 Number	名称 Name	信号类型 Signal Type	备注 Remarks
1	GND端	/	蓝色导线 Red wire
2	PWM调速	逻辑信号输入 Logic input signal	黄色导线 Yellow wire
3	TACHO FO信号	逻辑信号输出 Logic output signal	绿色导线 Green wire

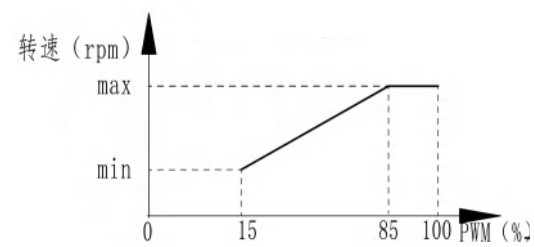
连接器Connector model: AMP282105-1

序号 Number	名称 Name	信号类型 Signal Type	备注 Remarks
1	L端	电源 Power source	棕色导线 Brown wire
2	N端	电源 Power source	蓝色导线 Blue wire
3	PE端	接地 Ground	黄绿色导线 Yellow green wire

连接器Connector model: 350767-1

外形尺寸

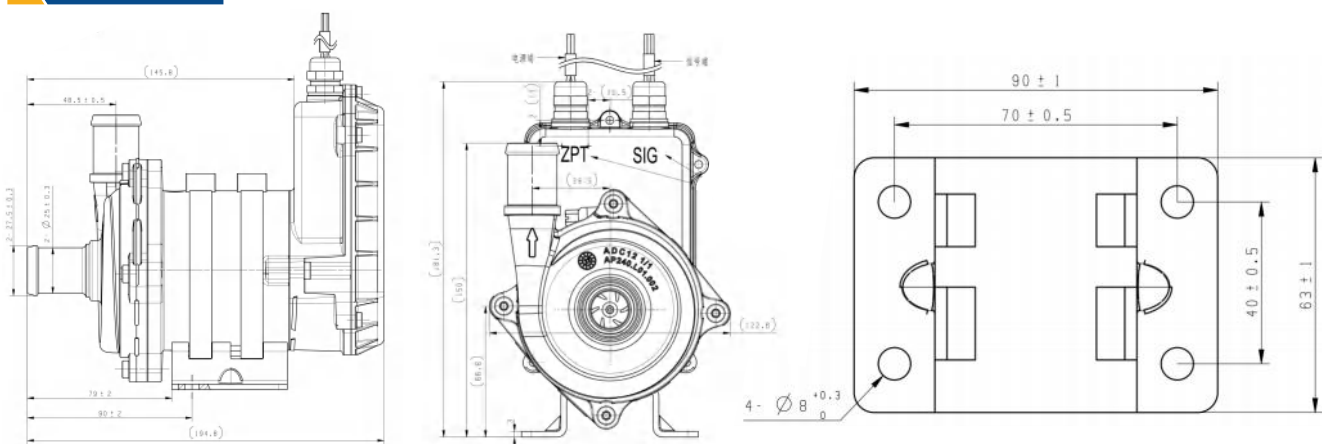
Dimensions



占空比 Duty Cycle	描述 Description
0% ≤ Duty ≤ 15%	水泵停机 Water pump off
15% < Duty ≤ 85%	线性调速区间 Linear speed control range
85% < Duty ≤ 100%	最高转速 Maximum rotational speed

外形尺寸

Dimensions



技术参数

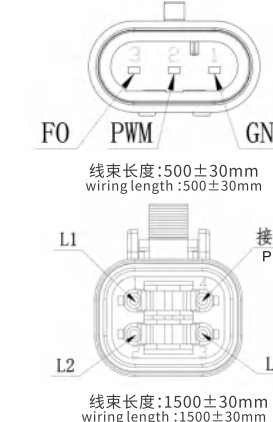
Technical Parameters

额定电压: 380V AC
Rated voltage
额定功率: 500W
Rated power
额定扬程: 18m
Rated head
重量: ≤4Kg
Weight
噪音: ≤65dB(A)
Noise
保护功能: 过压、欠压、堵转、过流
Protection function: over-voltage, under-voltage, block rotation, over-current
防护等级: IP67
IP level

电压范围: 350~410V AC
Voltage range
额定流量: 4500L/h
Rated flow
环境温度: -40°C~70°C
Environment temperature
介质温度: -40°C~70°C
Medium temperature
寿命: ≥20000h(根据使用工况)
Lifespan (Depending on working conditions)

接插定义

Pinout



序号 Number	名称 Name	信号类型 Signal Type	备注 Remarks
1	GND端	/	
2	PWM调速	逻辑信号输入 Logic input signal	
3	FO信号	逻辑信号输出 Logic output signal	

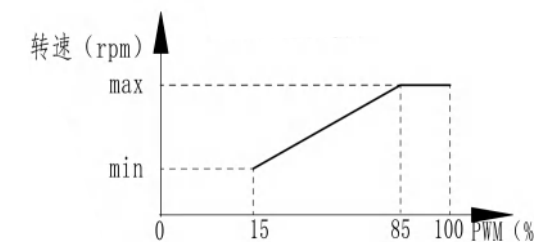
连接器Connector model: AMP 282105-1

序号 Number	名称 Name	信号类型 Signal Type	备注 Remarks
1	L1端	电源 Power source	红色导线 Red wire
2	L2端	电源 Power source	绿色导线 Green wire
3	L3端	电源 Power source	黄色导线 Yellow wire
4	PE端	接地 Ground	黄绿色导线 Yellow green wire

连接器Connector model: Amphenol AT06-4S

PWM 调速功能

PWM Speed Control Function



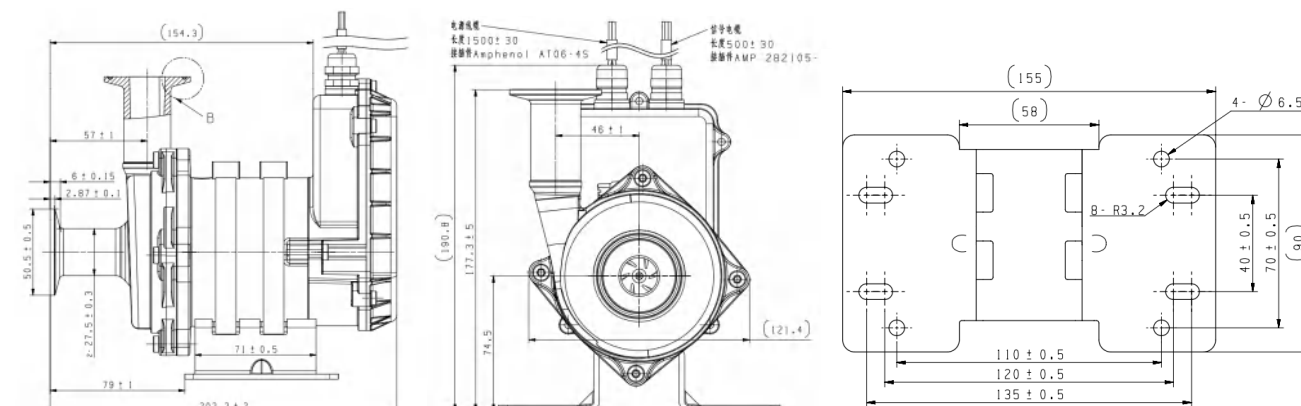
占空比 Duty Cycle	描述 Description
0 ≤ Duty ≤ 15%	水泵停机 Water pump off
15% < Duty < 85%	线性调速区间 Linear speed control range
85% ≤ Duty ≤ 100%	最高转速 Maximum rotational speed

PWM 占空比调速模式

PWM Duty Cycle Speed Control Mode

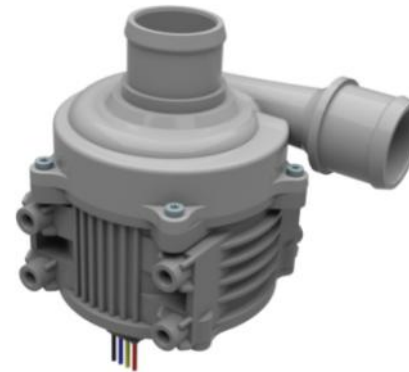
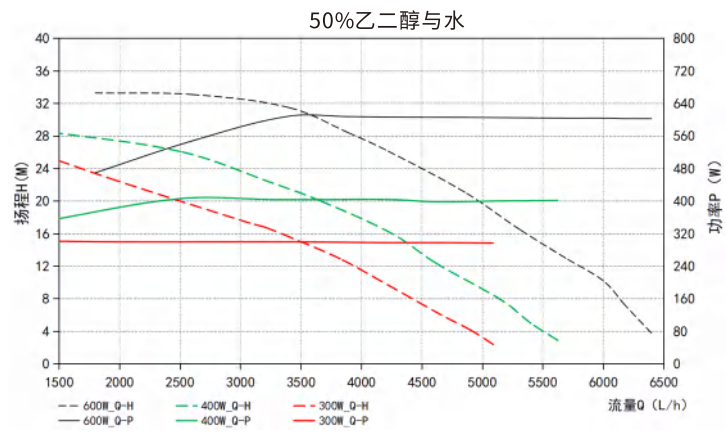
外形尺寸

Dimensions

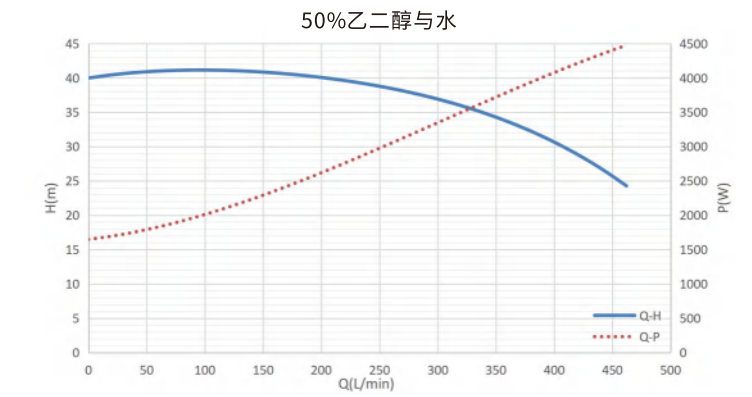




流量扬程图
Pump Performance Curve



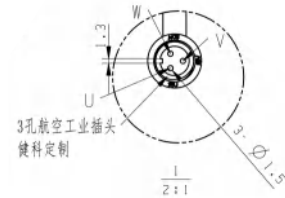
流量扬程图
Pump Performance Curve



技术参数
Technical Parameters

额定电压:600V DC 电压范围:260~750V DC
Rated voltage Voltage range
额定功率:200~500W 额定流量:3500L/h
Rated power Rated flow
额定扬程:30m 环境温度:-40°C~85°C
Rated head Environment temperature
重量:≤3kg 介质温度:-40°C~85°C
Weight Medium temperature
噪音:≤67dB(A) 寿命:≥20000h(根据使用工况)
Noise Lifespan (Depending on working conditions)
保护功能:水泵不带控制器,由客户定义
Protection function:Water pump without controller, Customizable
防护等级:IP67
IP level
注:水泵不带控制器
Note: Water pump without controller

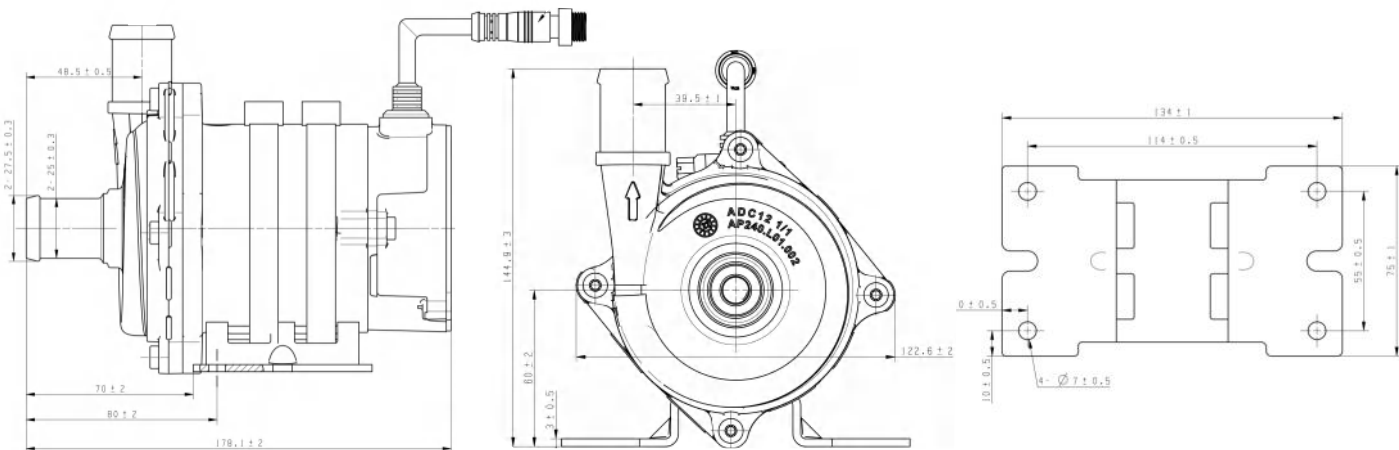
接插定义
Pinout



3孔航空工业插头
线径(3孔航空插头)
水泵线束长度:650±30mm
Cable (3-Hole Air Plug)
Water pump wiring length :650±30mm

序号 Number	名称 Name	备注 Remarks
1	U	黄色导线 Yellow wire
2	V	绿色导线 Green wire
3	W	红色导线 Red wire

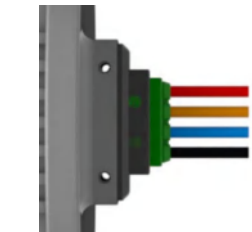
外形尺寸
Dimensions



技术参数
Technical Parameters

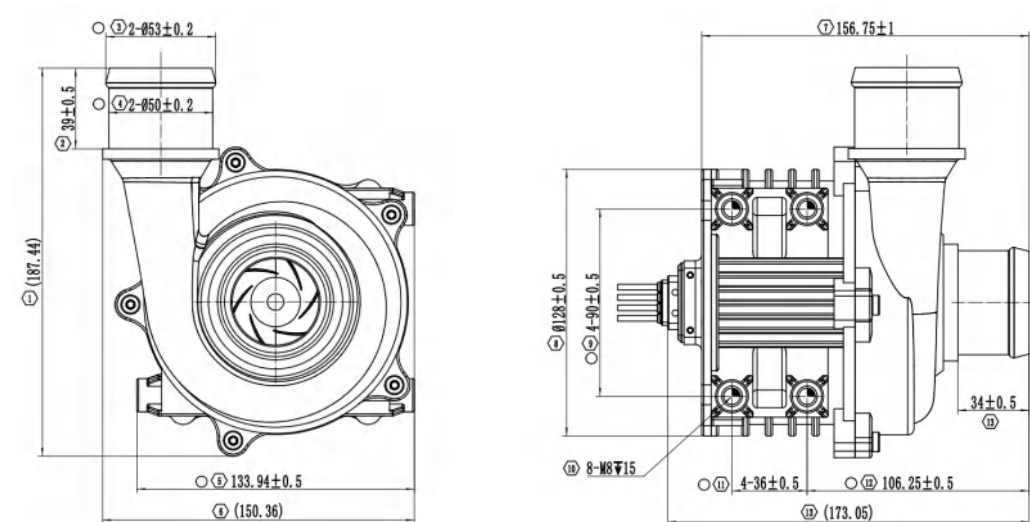
额定电压:550V DC 电压范围:400~800V DC
Rated voltage Voltage range
额定功率:3000W 额定流量:12000L/h
Rated power Rated flow
额定扬程:40m 环境温度:-40°C~85°C
Rated head Environment temperature
重量:≤6kg 介质温度:-40°C~85°C
Weight Medium temperature
噪音:≤70dB(A) 寿命:≥4000h(根据使用工况)
Noise Lifespan (Depending on working conditions)
防护等级:IP68 极对数:12
IP level Pole-pair numbers
槽数:10 绕组线电感:6.4±1.5mH
Number of slots Winding inductor
绕组线电阻:1.5±0.2Ω 反电动势:51.3V/Krpm
Winding line resistance Reverse electromotive force

接插定义
Pinout

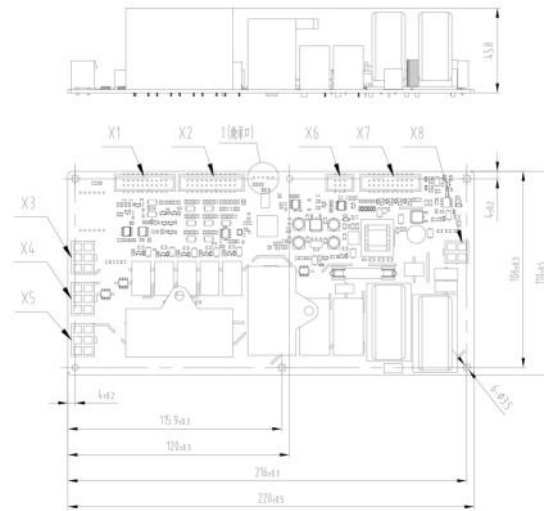


序号 Number	名称 Name	信号类型 Signal Type	备注 Remarks
1	U相线	三相 3-Phase	红色导线 Red wire
2	V相线	三相 3-Phase	黄色导线 Yellow wire
3	W相线	三相 3-Phase	蓝色导线 Blue wire
4	接地线 Ground Wire	三相 3-Phase	黑色导线 Black wire

外形尺寸
Dimensions



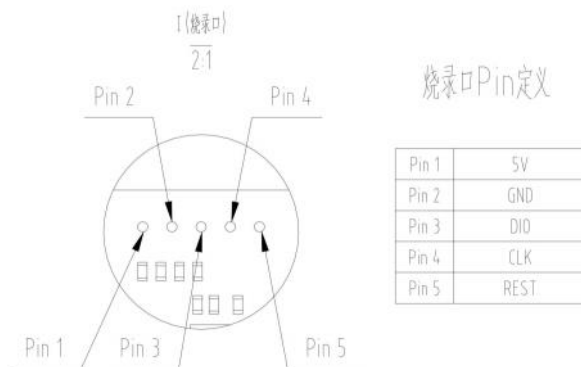
接口图示
Interface diagram



技术参数
Technical Parameters

额定工作电压: 220V
 Rated operating voltage
 工作电压范围: 180~250V
 Operating voltage range
 输出功率: 5000W
 Output power
 制冷量: 5000W
 Refrigerating output
 最大电流: 30A
 Maximum current
 工作环境温度: -40°C~60°C
 Operating environment temperature
 通讯方式: RS485
 Communication mode
 保护功能: 压缩机通讯故障保护、系统低压保护、PTC过流保护、
 Protection function: Compressor communication fault protection,
 风扇过流保护、传感器故障保护
 system low voltage protection, PTC overcurrent protection,
 fan overcurrent protection, sensor fault protection

接插定义
Pinout



外形尺寸
Dimensions

