

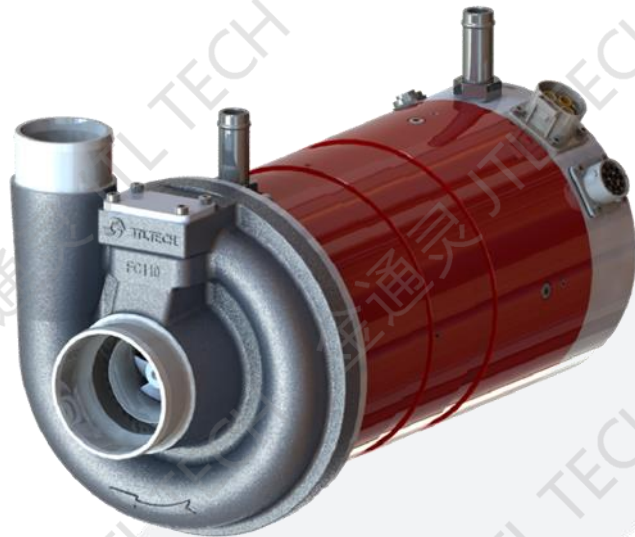
Celeroton inside



源自瑞士 服务中国

氢燃料电池空气压缩机

Hydrogen Fuel Cell Air compressor



江苏金通灵氢能机械科技有限公司

Jiangsu Jintongling Hydrogen Machinery Technology Co., Ltd.

公司简介 Company Profile

金通灵科技集团股份有限公司（股票代码：300091）成立于1993年，位于江苏省南通市，现有注册资本14.89亿元，致力于高端流体机械制造，服务于电力、化工、新能源、可再生能源、分布式能源等多个领域。

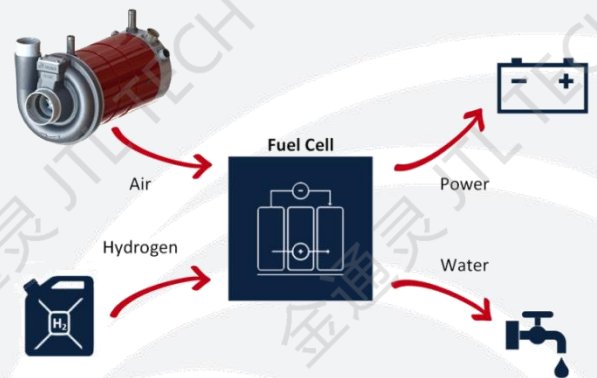
2018年，金通灵科技集团股份有限公司设立全资控股子公司江苏金通灵氢能机械科技有限公司，注册资本5000万元，专业从事氢燃料电池空压机的研发、生产和销售。公司引进瑞士知名氢燃料电池空压机制造商Celeroton公司全套技术和生产线，并结合中国汽车行业质量管理标准建成年产5万台氢燃料电池空压机的生产基地。

金通灵与Celeroton公司合作生产的氢燃料电池空压机产品采用超高速永磁电机、高硬度耐磨材质空气轴承，结构紧凑、系统效率高、运行稳定可靠，性能优异，能够充分应对各种车辆行驶环境。现有产品覆盖60-150kW氢燃料电池系统，适配各类氢燃料电池商用车、乘用车。

Jintongling Technology Group Co., Ltd (JTL TECH) established in 1993 and is located in Nantong, Jiangsu Province, China, listed on the Shenzhen Stock Exchange in June 2010, stock code 30091. With a registered capital of 1.489 billion RMB, JTL TECH is dedicated in manufacture of high-end fluid equipment, serving in many fields such as electric power, chemical industry, new energy, & renewable energy, distributed energy, etc.

As a wholly-owned subsidiary of JTL TECH, Jiangsu Jintongling Hydrogen Machinery Technology Co., Ltd (JTL HYDROGEN) was found in 2018, with a registered capital of 50 million RMB, specializing in the R&D, production and sales of hydrogen fuel cell air compressors. JTL HYDROGEN completely imported the technology and production line of Celeroton, a famous Swiss manufacturer of fuel cell air compressors, and built a production base with an annual output of 50,000 sets of hydrogen fuel cell air compressors in accordance with the quality management standards of Chinese automobile industry.

The co-manufactured hydrogen fuel cell air compressor of JTL and Celeroton adopts ultra-high speed motor, wear-resistant air bearing made of ultra-high hardness material. With compact design, excellent performance, highest system efficiency, it fully copes with the variety of vehicle driving environment. Our existing product line covers 60-150kW hydrogen fuel cell systems, suitable for all kinds of commercial and passenger hydrogen fuel cell vehicles.



技术优势 Technology advantage

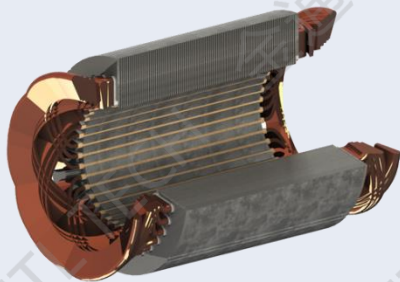
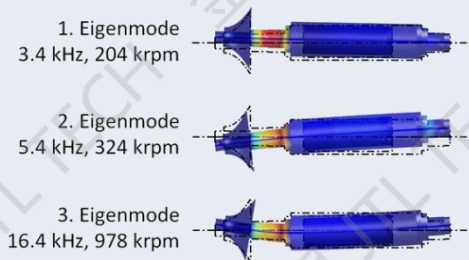


**空气动力学
Aerodynamics**

- 单级离心式结构，结构简单，高效可靠
Single stage centrifugal, compact design, high efficiency & reliability.
- 三元流叶轮，强度高，气动效率高，低磨损
3D-flow impeller with high strength, high aerodynamic efficiency & low wear.
- 直连式转子，动力传递效率100%
Directly connected rotor, 100% transmission rate.

**转子动力学
Rotor dynamics**

- 专业软件计算
Calculated by professional software.
- 优化电机、轴承设计
Optimizing motor & bearing design.
- 平衡验证，确保转子平稳运行
Verified by balancing, ensure stable operation.

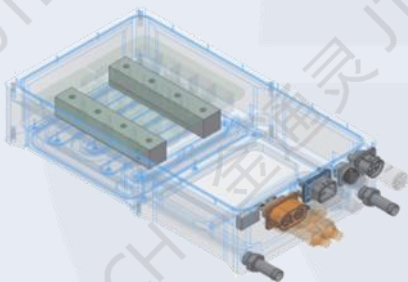
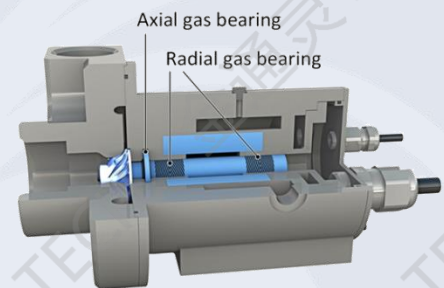


**超高速永磁同步电机
Ultra-high speed PMSM**

- 功率密度比高
High power density.
- 效率高
Maximum efficiency.
- 噪音小、重量轻
Quiet & low weight.
- 液冷散热
Liquid cooling.

**空气轴承
Gas bearing**

- 超高硬度、耐磨性材质
Ultra-high hardness & low wear material;
- 无油、无接触、免维护，半永久性寿命
Oil free, contact free, maintenance free, semi permanent service life;
- 抗振动、冲击，无噪音
Vibration resistant, shock resistant & quiet.



**高速变频控制器
High frequency converter**

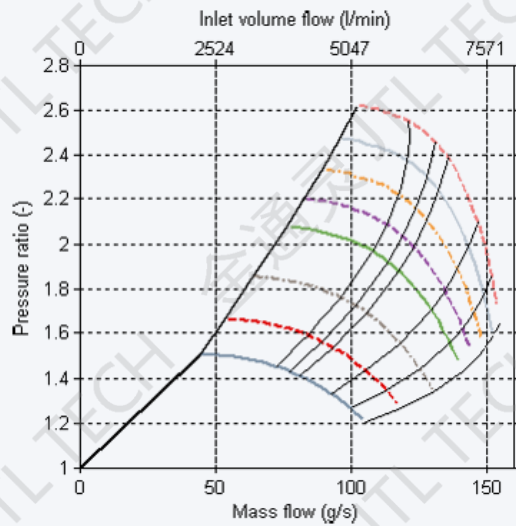
- 无传感器控制、高度动态速度控制
Sensorless control for highly dynamic speed adjustment.
- 同源设计，系统效率最大化
Single source design, maximizing system efficiency.
- 适用电压200-750VDC
Suitable for input voltage of 200-750VDC.
- 空气轴承诊断及燃料电池辅助功能
Gas bearing diagnostics and fuel cell function.

FC110参数表 Datasheet

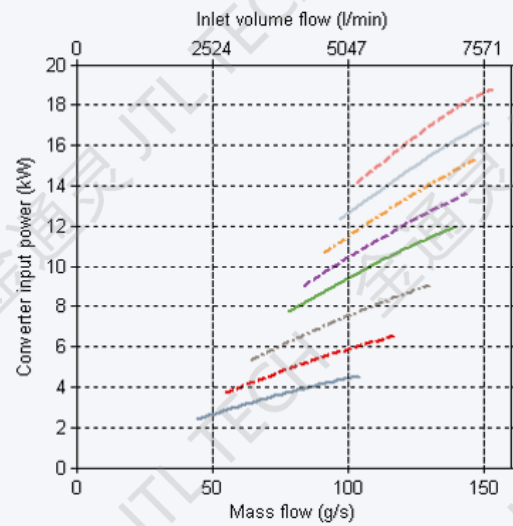
型号 Model	FC110-15			
轴承 Bearing	空气轴承 Gas bearing			
启停寿命 Start/stop cycle	> 100,000次			
流量 Flow rate	额定 Rated	110g/s	最大 Max.	155g/s
压比 Pressure ratio	额定 Rated	2.6	最大 Max.	2.7
最高转速 Max. rotation speed	~ 150000rpm			
环境温度 Ambient Temp.	-30-55°C			
额定功率 Rated power	15kW			
输入电压 Input voltage	250-750VDC			
冷却方式 Cooling	液冷 (50%乙二醇水溶液) Liquid (50% water glycol mixture)			
冷却水接口 Cooling connector	SAE J1231430192, 16mm			
通讯 Communication	CAN2.0			
尺寸和重量 Dimension & Weight	压缩机 Compressor		变频器 Converter	
	373.5x188x220mm		430x248x94mm	
	15kg		12kg	

FC110性能及尺寸 Performance & dimensions

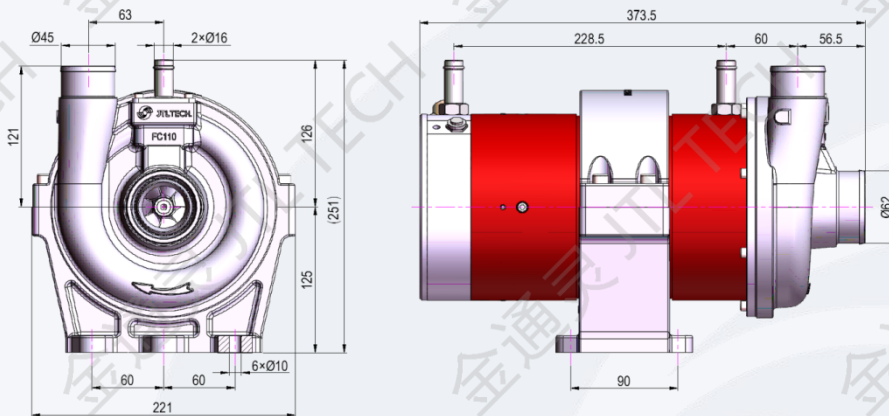
压比vs质量流量
Pressure ratio vs Mass flow



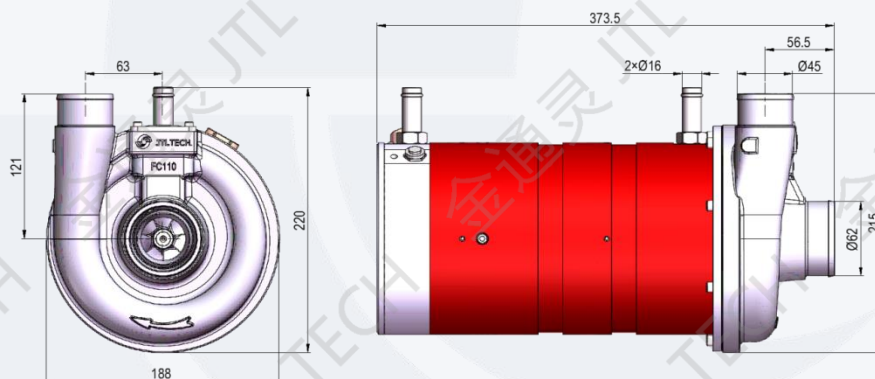
输入功率vs质量流量
Input power vs Mass flow



尺寸图 (含支架)
Dimension with mounting fit



尺寸图 (不含支架)
Dimension without mounting fit

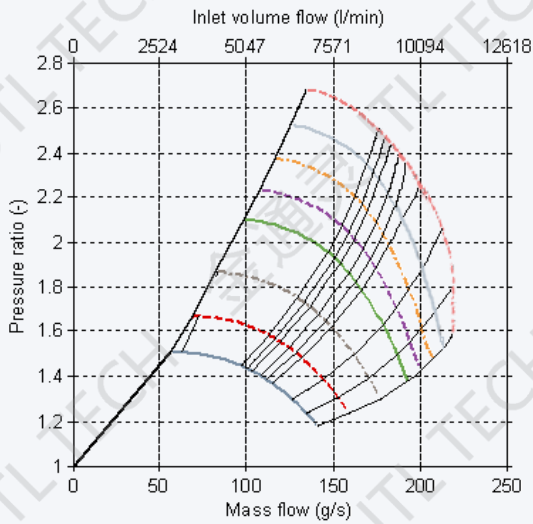


FC150参数表 Datasheet

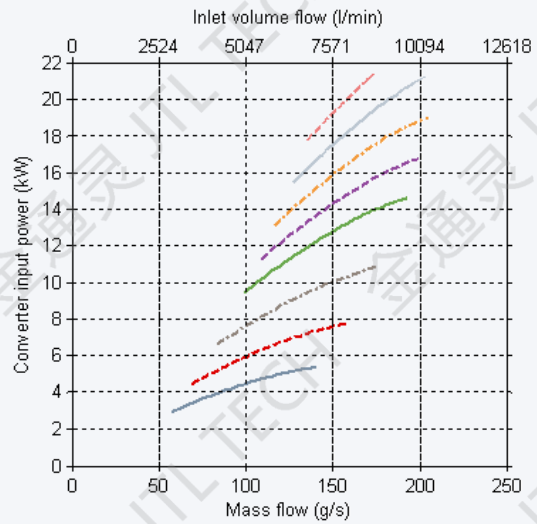
型号 Model	FC150-20			
轴承 Bearing	空气轴承 Gas bearing			
启停寿命 Start/stop cycle	> 100,000次			
流量 Flow rate	额定 Rated	150g/s	最大 Max.	210g/s
压比 Pressure ratio	额定 Rated	2.6	最大 Max.	2.8
最高转速 Max. rotation speed	~ 150000rpm			
环境温度 Ambient Temp.	-30-55°C			
额定功率 Rated power	20kW			
输入电压 Input voltage	250-750VDC			
冷却方式 Cooling	液冷 (50%乙二醇水溶液) Liquid (50% water glycol mixture)			
冷却水接口 Cooling connector	SAE J1231430192, 16mm			
通讯 Communication	CAN2.0			
尺寸和重量 Dimension & Weight	压缩机 Compressor		变频器 Converter	
	373.5x188x220mm		430x248x94mm	
	15kg		12kg	

FC150性能及尺寸 Performance & dimensions

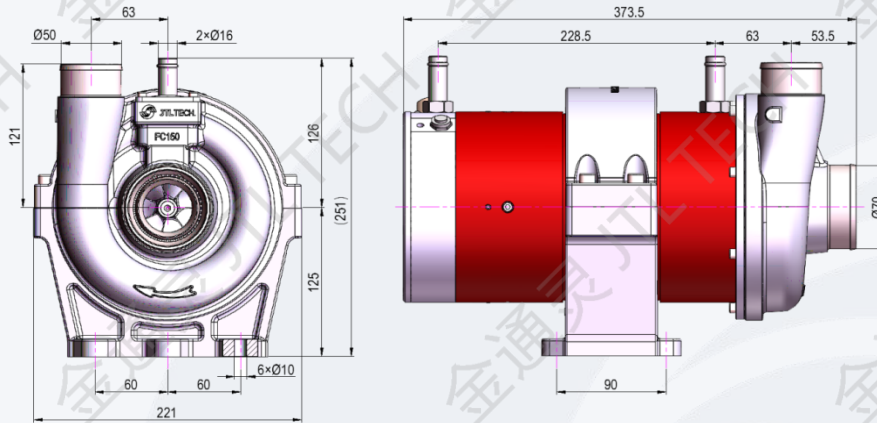
压比vs质量流量
Pressure ratio vs Mass flow



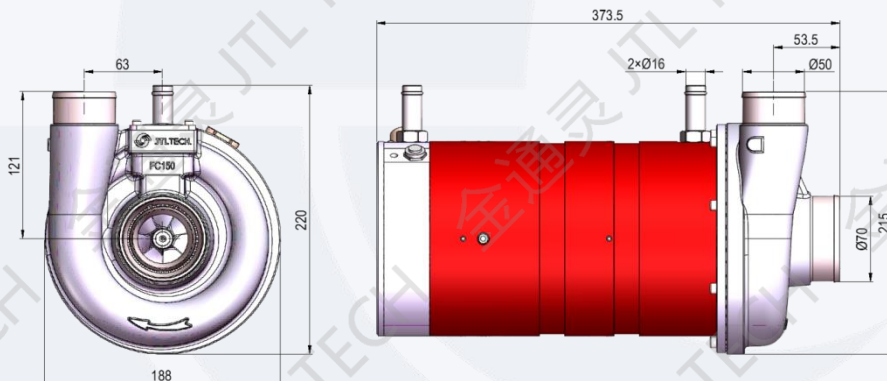
输入功率vs质量流量
Input power vs Mass flow



尺寸图 (含支架)
Dimension with mounting fit



尺寸图 (不含支架)
Dimension without mounting fit





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