



ROTARY COMPRESSOR SPECIFICATION

Model: QX3803VDL-T
Natural Refrigerant R290

RIGID HVAC CO.,LTD

1. 压缩机规格 **Specification of Compressor**

 1.1 适用范围 **Application Scope**

空调器类型 Air-conditioner Type	直流变频空调器 Variable speed room air conditioners
冷媒 Refrigerant	R290
环境温度范围 Range of Ambient temperature	-5~43℃
蒸发温度范围 Range of evaporating temperature	-10~15℃
冷凝温度范围 Range of Condensing temperature	45~65℃
控制器外加电源规格 Rated Voltage of Controller	48V DC

 1.2 基本规格 **Basic Specification**

压缩机类型 Compressor Type	全封闭型直流调速压缩机 Rotary DC Timing Compressors
排气容积 Displacement	3.8cm³/rev
气缸数 Cylinder Number	2
吸气管内径 Suction Tube(I.D)	Φ6.5mm
排气管内径 Discharge Tube(I.D)	Φ5.7mm
总重量 (含润滑油) Net Weight (Oil Included)	1.6kg
润滑油名称及油量 Oil & Oil Charge	NM100PM &50 ml
涂装 Painting	黑色 Black Color Paint

 1.3 电动机规格 **Specification of Motor**

电机型式 Motor Type	直流无刷电机 BLDC Motor	
启动方式 Starting Type	直流专用控制器启动 DC Controller Starting	
转子极数 Rotor Pole	6	
运行转速范围 SpeedRange	1800~6000rpm	
磁铁材料 Magnet Material	钕铁硼 NdFeB	
永磁体退磁电流峰值	25A	120℃, -5%退磁率 At 120℃,

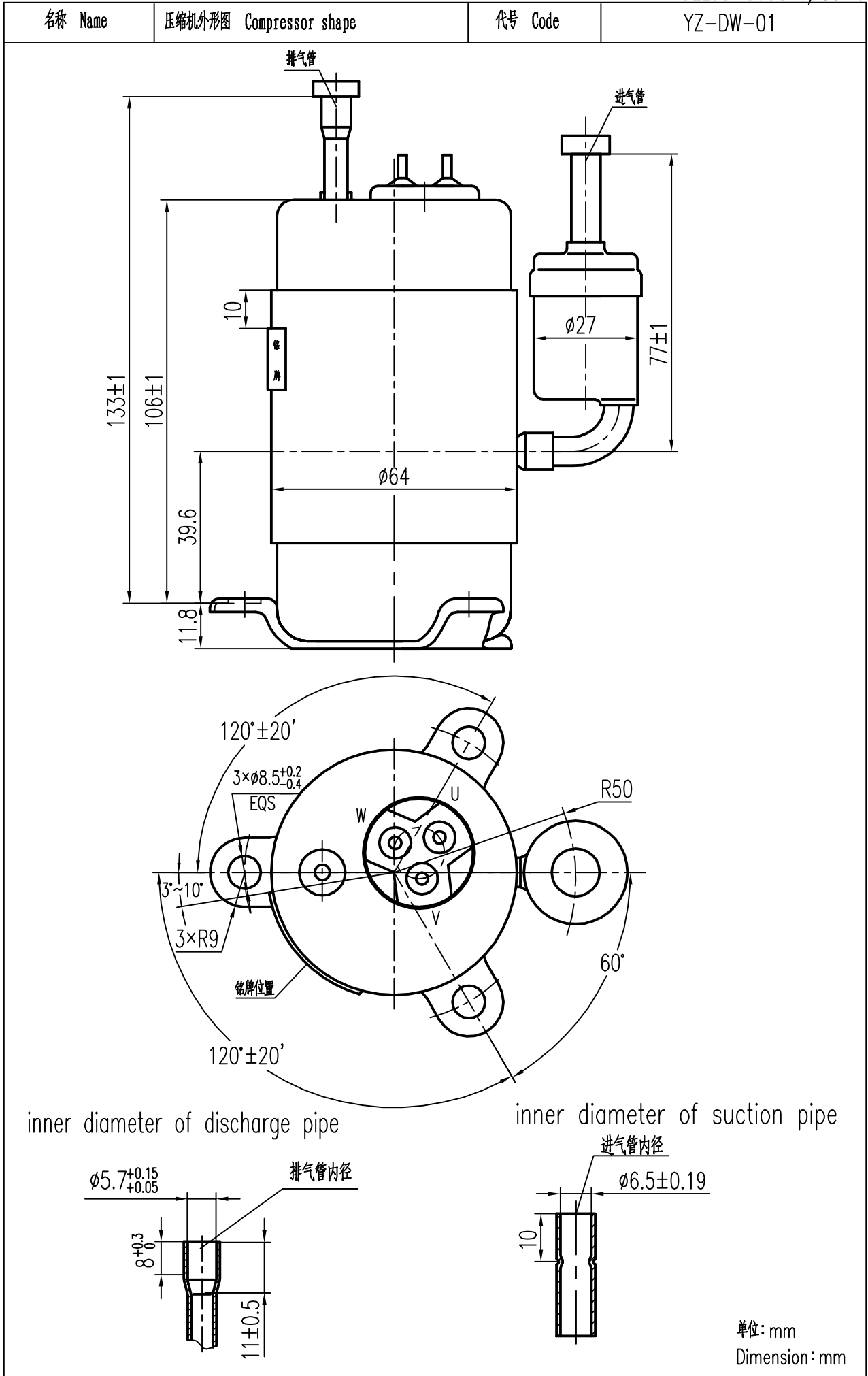
Demagnetizing Current		-5% Demagnetizing rate
d 轴电感 Inductance-Ld	0.5mH	额定电流下 Under Rated Current
q 轴电感 (mH) Inductance-Lq	0.83mH	额定电流下 Under Rated Current
定子线圈电阻 Winding Resistance	0.62 Ω	线间电阻 (20℃下) line-to-line (at 20℃)
感应电压常数 Voltage Constant	4.0 Vrms/krpm	线间电压 line-to-line
电机转矩常数 Torque Constant	0.057 N.m/Arms	
转动惯量 Inertia	2.14E-05kg.m ²	
每极每相磁链 (Wb) Flux linkage	0.0127Wb	
磁通量 Flux	0.036±3% Wb	
控制器运转电压范围 Controller Running Voltage range	48V±10%	

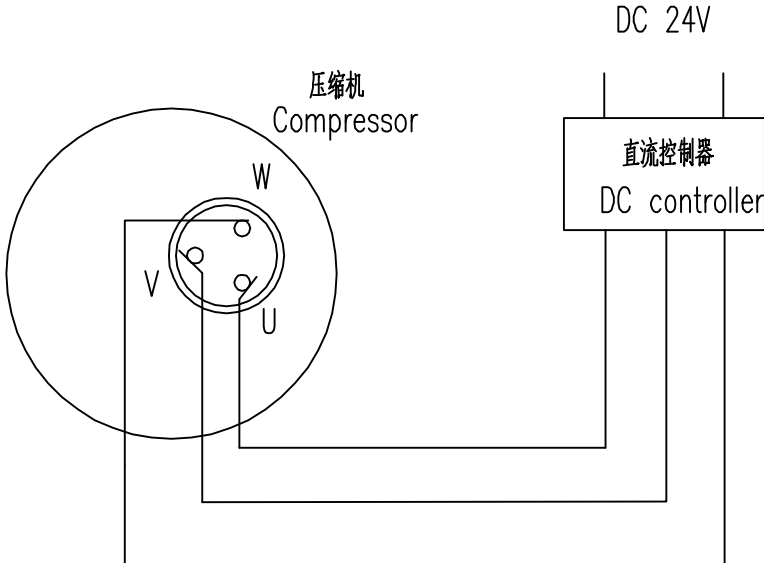
2. 性能参数 Performance Parameter

名称 Parts Name	单位 Unit	名义值 rating parameter
制冷量 Cooling Capacity	W	≥760×95% (at 4500 rpm)
输入功率 Input Power	W	≤295W×105% (at 4500 rpm)
能效比 EER	W/W	≥2.58×95% (at 4500 rpm)

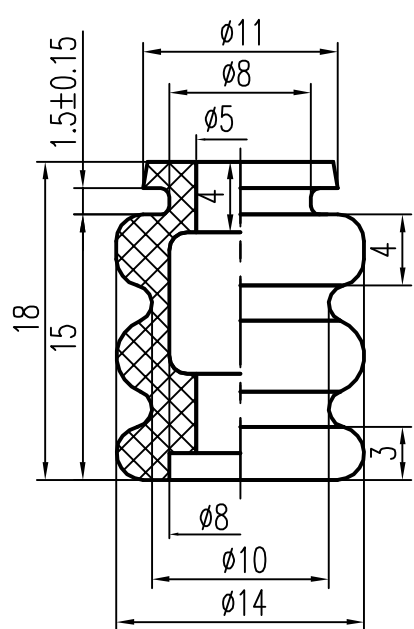
测试工况 Test Condition

- ◆ 冷凝温度 **Condensing temperature :54.4℃**
- ◆ 蒸发温度 **Evaporating temperature :7.2℃**
- ◆ 吸气温度 **Suction Gas temperature :35.0℃**
- ◆ 过冷度 **Degree of Super-cooling :8.3℃**
- ◆ 环境温度 **Ambient temperature :35℃**



名称 Name	压缩机接线图 Compressor electric wiring diagram	代号 Code	YZ-DW-02
 <p style="text-align: center;">DC 24V</p> <p style="text-align: center;">压缩机 Compressor</p> <p style="text-align: center;">直流控制器 DC controller</p>			
<p>U、V、W: 三相接线端子 U、V、W: Junction terminals</p> <p>当压缩机工作电流$\geq 15A$时, 控制器应保护。 The controller must be turned off immediately when the operating current of the compressor $\geq 15 A$.</p>			

名称 Name	减振垫 Absorber support	代号 Code	AZ003-55602
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<p>材料: EPDM Material: EPDM 硬度: 邵氏A $53^\circ \pm 3^\circ$ Hardness: Hs $53^\circ \pm 3^\circ$</p>			
			单位: mm Dimension: mm