

# 水冷单机头螺杆式冷水机 (40-120HP)

## Water Cooled Single-head Screw Chiller

DY-FSQ系列工业螺杆冷水机采用螺杆压缩机融合高效的蒸发器和冷凝器，使其制冷效果大且好，广泛应用于需要大型制冷的场合。通常作为中央空调制冷的主机以及其他民用和工业领域制冷。例如：

民用：商业大厦，娱乐中心，宾馆，医院，影剧院，体育馆，大型商场等；

工业：塑胶和橡胶，制药，纺织，化工，食品，电子工业等。

The DY-FSQ series industrial screw Chillers adopt screw compressor and high efficiency of evaporator and condenser, makes it has big and good cooling effect. It is widely used in need large refrigeration occasion. It is always used as the host machine of central air conditioner and other civil and industrial fields. For example:

For civil field: commercial buildings, entertainment centers, hotels, hospitals, theatres, stadiums and shopping malls etc.

For industry field: plastic and rubber, pharmaceutical, textile, chemical, food and electronic industry etc.

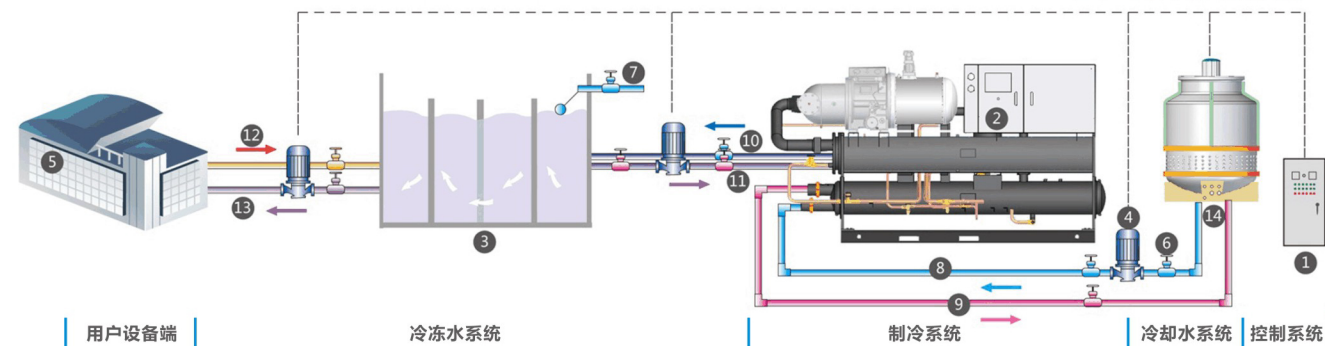


### 特点 Features

- ▶ 国际知名品牌的半封闭螺杆式压缩机，轴承使用寿命长，可确保长时间运行，并配有高效电机，使压缩机具有很高的效率。
- ▶ 冷凝器和蒸发器均可满足国际标准的要求，具有高效的传热效果，维修和保养方便。
- ▶ P.I.D.微电脑全功能控制，操作简便，能够在环境温度(0~45℃)，及冷冻水出水温度在3~50℃范围内稳定、安全、可靠的工作。能源效率等级已超越目前国家一级能效指标。
- ▶ 精简合理的系统水管路设计和安装，使得冷却系统运行更为顺畅的同时也降低了客户使用成本。
- ▶ 具有电流过载保护、高低压制及电子时间延迟等完善的安全保护装置、异常指示系统；
- ▶ Brand semi-hermetic single screw compressor and long service-life of bearing ensure long time operation, and it is equipped with high-efficient motor that gives compressor high efficiency.
- ▶ The condenser and evaporator both can meet the requirement of national standard, with high-efficient heat transfer effect, convenient service and maintenance.
- ▶ P.I.D. Microprocessor control-easy to operate, it can stably, safely and reliably work under the environment temperature of 0~45℃ and the chilling water outlet temperature of 3~50℃. Its energy efficiency degree has already been above the first level of national energy efficiency index.
- ▶ Compact and reasonable design and installation of the water pipeline system enable the cooling system operates more smoothly and simultaneously lower the costs of the customer.
- ▶ Current-overload protector, high-and-low pressure switches, electronic time delayer, fault display system-safe and durable.

### 工作示意图 Working Diagram

工业冷却解决方案



- |  |                                       |                                     |   |   |
|--|---------------------------------------|-------------------------------------|---|---|
| ① 冷冻水设备<br>Cold Water System Control Cabinet | ② 制冷机组<br>Refrigeration Unit          | ③ 混合水箱<br>Mixing Tank               | ④ 水泵<br>Pump                            | ⑤ 工业生产设备<br>Industrial Production Equipment |
| ⑥ 阀门<br>The Valve                            | ⑦ 补水口<br>Water Supply                 | ⑧ 冷却水出水<br>Cooling Water Outlet     | ⑨ 冷却水进水<br>Cooling Water Into The Water | ⑩ 冷冻水出水<br>Cooling Water Out of the Water   |
| ⑪ 冷冻水进水<br>Cooling Water Inlet               | ⑫ 设备水出水<br>Equipment Out of the Water | ⑬ 设备水进水<br>Equipment Into the Water |   |   |

### 参数规格 Specification

型号 Model	单位 Unit	DY-FSQ 40W	DY-FSQ 50W	DY-FSQ 60W	DY-FSQ 70W	DY-FSQ 80W	DY-FSQ 100W	DY-FSQ 120W	
标准制冷量 Cooling capacity	kcal/h	100909	137587	180551	196566	262949	327438	387794	
	kw	117.21	159.8	209.7	228.3	305.4	380.3	450.4	
输入总功率 Total input power	kw	25.2	33.1	41.5	45.5	60.2	71.2	85.5	
最大运行电流 Max running current	A	42.1	55.4	69.4	76.1	101	119.5	143.4	
电源 Power supply		3PH-380V 50HZ(200V/220V/415V 460V 50HZ/60HZ)							
制冷剂 Refrigerant	名称 Type	R22(R407C)							
	充注量 Charge volume	kg	22	28	33	39	45	55	66
	控制方式 Control method		外平衡式热力膨胀阀 Outside balance thermal expansion valve						
压缩机 Compressor	类型 Type	半封闭螺杆式 Semi-hermetic screw							
	功率 Power	kw	24.9	32.8	41.2	45.2	59.9	70.9	85.2
	启动方式 Start-up mode		Y-Δ						
	运转电流 Running current	A	41.9	55.2	69.2	75.9	100.7	119.3	143.2
	能量调节范围 Capacity control	%	0-33%-66%-100%			0-25%-50%-75%-100%			
蒸发器 Evaporator	类型 Type	内螺纹壳管式 Shell and tube type with internal thread							
	冷冻水量 Chilled water flow rate	m <sup>3</sup> /h	21	26	30	43	48	55	68
	换热量 Heat exchange	kw	117.2	159.8	209.7	228.3	305.4	380.3	450.4
冷凝器 Condenser	类型 Type	外螺纹壳管式 External threaded shell and tube type							
	冷却水量 Cooling water flow rate	m <sup>3</sup> /h	26	33	40	50	61	69	85
	换热量 Heat exchange	kw	140.6	191.7	251.6	273.9	366.4	456.3	540.4
进出水管口径 Inlet/Outlet pipe diameter	mm	80	80	80	80	100	100	125	
安全保护装置 Security devices		压缩机过热保护, 机组过载保护, 高低压力保护装置, 防冻保护装置, 电源逆相/缺相保护源, 水流开关。 Compressor overheating protection, overload protection, high and low pressure protection device, antifreeze protection, power supply reverse phase/phase protection, water flow switch.							
机械尺寸 Mechanical dimensions	长 Length	mm	1960	2130	2450	3100	3500	3500	3750
	宽 Width	mm	855	855	985	1050	1050	1050	1050
	高 Height	mm	1540	1540	1600	1600	1600	1600	1730
机组重量 Unit weight	kg	820	950	1120	1300	1560	1560	2030	
运行重量 Operating weight	kg	970	1060	1270	1480	1780	1780	2250	

备注/Notes:

1. 制冷量是依据冷冻水入口温度: 15℃, 出口温度: 10℃; 冷却水入水温度: 32℃, 出水温度: 37℃。

2. 工作范围:

a. 冷冻水温度范围: 3℃至35℃; 冷冻水进出水温差: 5℃。

b. 冷却水温度范围: 30℃至40℃; 冷却水进出水温差: 5℃。

1. The cooling capacity is based on the chilled water inlet temperature 15℃, outlet temperature 10℃; Cooling inlet water temperature 32℃, outlet temperature 37℃.

2. Working range:

a. Temperature range of chilled water: 3℃~35℃; Temperature difference between inlet and outlet of chilled water: 5℃;

b. Cooling temperature range: 30℃~40℃; Temperature difference between inlet and outlet cooling water: 5℃.

## 水冷单机头螺杆式冷水机 (140-280HP)

### Water Cooled Single-head Screw Chiller

DY-FSQ系列工业螺杆冷水机采用螺杆压缩机融合高效的蒸发器和冷凝器，使其制冷效果大且好，广泛应用于需要大型制冷的场合。通常作为中央空调制冷的主机以及其他民用和工业领域制冷。例如：

民用：商业大厦，娱乐中心，宾馆，医院，影剧院，体育馆，大型商场等；

工业：塑胶和橡胶，制药，纺织，化工，食品，电子工业等。

The DY-FSQ series industrial screw Chillers adopt screw compressor and high efficiency of evaporator and condenser, makes it has big and good cooling effect. It is widely used in need large refrigeration occasion. It is always used as the host machine of central air conditioner and other civil and industrial fields. For example:

For civil field: commercial buildings, entertainment centers, hotels, hospitals, theatres, stadiums and shopping malls etc.

For industry field: plastic and rubber, pharmaceutical, textile, chemical, food and electronic industry etc.



#### 参数规格 Specification

型号 Model	单位 Unit	DY-FSQ140W	DY-FSQ160W	DY-FSQ180W	DY-FSQ220W	DY-FSQ250W	DY-FSQ280W	
标准制冷量 Cooling capacity	kcal/h	426969	536403	636020.7	769217.4	901983.6	1016582.7	
	kw	495.9	623	738.7	893.4	1047.6	1180.7	
输入总功率 Total input power	kw	95	116.5	135.8	161.4	190.1	213.7	
最大运行电流 Max running current	A	159.5	195.5	228	271	319.2	359	
电源 Power supply		3PH - 380V 50HZ(200V/220V/415V 460V 50HZ/60HZ)						
制冷剂 Refrigerant	名称 Type	R22(R407C)						
	充注量 Charge volume	kg	77	88	99	121	138	154
	控制方式 Control method		外平衡式热力膨胀阀 Outside balance thermal expansion valve					
压缩机 Compressor	类型 Type	半封闭螺杆式 Semi-hermetic screw						
	功率 Power	kw	94.7	116.2	135.5	161.1	189.8	213.4
	启动方式 Start-up mode		Y-Δ					
	运转电流 Running current	A	159.3	195.3	227.8	270.8	319	358.8
能量调节范围 Capacity control	%	0-25%-50%-75%-100%						
蒸发器 Evaporator	类型 Type	内螺纹壳管式 Shell and tube type with internal thread						
	冷冻水量 Chilled water flow rate	m <sup>3</sup> /h	75	84	103	120	136	154
	换热量 Heat exchange	kw	495.9	623	738.7	893.4	1047.6	1180.7
冷凝器 Condenser	类型 Type	外螺纹壳管式 External threaded shell and tube type						
	冷却水量 Cooling water flow rate	m <sup>3</sup> /h	93	110	126	147	167	186
	换热量 Heat exchange	kw	595	747.6	886.4	1072	1257	1416.8
进出水管口径 Inlet/Outlet pipe diameter	mm	125	125	150	150	150	150	
安全保护装置 Security devices		压缩机过热保护，机组过载保护，高低压力保护装置，防冻保护装置，电源逆相/缺相保护源，水流开关。 Compressor overheating protection, overload protection, high and low pressure protection device, antifreeze protection, power supply reverse phase/phase protection, water flow switch.						
机械尺寸 Mechanical dimensions	长 Length	mm	4100	4200	4250	4370	4550	4850
	宽 Width	mm	1050	1250	1350	1350	1550	1750
	高 Height	mm	1730	1730	1760	1760	1820	1820
机组重量 Unit weight	kg	2200	2410	2630	3050	3160	3350	
运行重量 Operating weight	kg	2430	2470	2920	3270	3420	3620	

备注/Notes:

1. 制冷量是依据冷冻水入口温度：15℃，出口温度：10℃；冷却水入水温度：32℃，出水温度：37℃。

2. 工作范围：

a. 冷冻水温度范围：3℃至35℃；冷冻水进出水温差：5℃。

b. 冷却水温度范围：30℃至40℃；冷却进出水温差：5℃。

1. The cooling capacity is based on the chilled water inlet temperature 15℃, outlet temperature 10℃; Cooling inlet water temperature 32℃, outlet temperature 37℃.

2. Working range:

a. Temperature range of chilled water: 3℃-35℃; Temperature difference between inlet and outlet of chilled water: 5℃;

b. Cooling temperature range: 30℃-40℃; Temperature difference between inlet and outlet cooling water: 5℃.

## 水冷双机头螺杆式冷水机 (100-240HP)

### Water Cooled Double-head Screw Chiller

DY-FSQ系列工业螺杆冷水机采用螺杆压缩机融合高效的蒸发器和冷凝器，使其制冷效果大且好，广泛应用于需要大型制冷的场合。通常作为中央空调制冷的主机以及其他民用和工业领域制冷。例如：

民用：商业大厦，娱乐中心，宾馆，医院，影剧院，体育馆，大型商场等；

工业：塑胶和橡胶，制药，纺织，化工，食品，电子工业等。

The DY-FSQ series industrial screw Chillers adopt screw compressor and high efficiency of evaporator and condenser, makes it has big and good cooling effect. It is widely used in need large refrigeration occasion. It is always used as the host machine of central air conditioner and other civil and industrial fields. For example:

For civil field: commercial buildings, entertainment centers, hotels, hospitals, theatres, stadiums and shopping malls etc.

For industry field: plastic and rubber, pharmaceutical, textile, chemical, food and electronic industry etc.



#### 参数规格 Specification

型号 Model	单位 Unit	DY-FSQ100W	DY-FSQ120W	DY-FSQ150W	DY-FSQ180W	DY-FSQ200W	DY-FSQ240W	
标准制冷量 Cooling capacity	kcal/h	275175.6	361103.4	479232.6	619747.8	654876.6	775588.8	
	kw	319.6	419.4	556.6	719.8	760.6	900.8	
输入总功率 Total input power	kw	66.2	8313	110.6	135.4	142.4	171	
最大运行电流 Max running current	A	110.8	8.8	185.2	227.2	239.2	286.8	
电源 Power supply		3PH - 380V 50HZ(200V/220V/415V 460V 50HZ/60HZ)						
制冷剂 Refrigerant	名称 Type	R22(R407C)						
	充注量 Charge volume	kg	55	66	83	100	110	132
	控制方式 Control method		外平衡式热力膨胀阀 Outside balance thermal expansion valve					
压缩机 Compressor	类型 Type	半封闭螺杆式 Semi-hermetic screw						
	功率 Power	kw	65.6	82.4	110	134.8	141.8	170.4
	启动方式 Start-up mode		Y-Δ					
	运转电流 Running current	A	110.4	138.4	184.8	226.8	238.6	286.4
能量调节范围 Capacity control	%	0-33%-66%-100%			0-25%-50%-75%-100%			
蒸发器 Evaporator	类型 Type	内螺纹壳管式 Shell and tube type with internal thread						
	冷冻水量 Chilled water flow rate	m <sup>3</sup> /h	52	60	86	96	110	136
	换热量 Heat exchange	kw	319.6	419.4	556.6	719.8	760.6	900.8
冷凝器 Condenser	类型 Type	外螺纹壳管式 External threaded shell and tube type						
	冷却水量 Cooling water flow rate	m <sup>3</sup> /h	66	80	108	122	138	170
	换热量 Heat exchange	kw	383.5	503.2	667.9	863.7	912.7	1080.9
进出水管口径 Inlet/Outlet pipe diameter	mm	100	100	125	150	150	150	
安全保护装置 Security devices		压缩机过热保护，机组过载保护，高低压力保护装置，防冻保护装置，电源逆相/缺相保护源，水流开关。 Compressor overheating protection, overload protection, high and low pressure protection device, antifreeze protection, power supply reverse phase/phase protection, water flow switch.						
机械尺寸 Mechanical dimensions	长 Length	mm	3600	3850	3860	3910	4050	4150
	宽 Width	mm	765	765	765	875	875	1320
	高 Height	mm	1750	1750	1750	1950	1950	2150
机组重量 Unit weight	kg	1920	2250	2610	2820	3460	3920	
运行重量 Operating weight	kg	2230	2550	2860	3240	3830	4330	

备注/Notes:

1. 制冷量是依据冷冻水入口温度：15℃，出口温度：10℃；冷却水入水温度：32℃，出水温度：37℃。

2. 工作范围：

a. 冷冻水温度范围：3℃至35℃；冷冻水进出水温差：5℃。

b. 冷却水温度范围：30℃至40℃；冷却进出水温差：5℃。

1. The cooling capacity is based on the chilled water inlet temperature 15℃, outlet temperature 10℃; Cooling inlet water temperature 32℃, outlet temperature 37℃.

2. Working range:

a. Temperature range of chilled water: 3℃-35℃; Temperature difference between inlet and outlet of chilled water: 5℃;

b. Cooling temperature range: 30℃-40℃; Temperature difference between inlet and outlet cooling water: 5℃.

# 水冷双机头螺杆式冷水机 (280-560HP)

## Water Cooled Double-head Screw Chiller

DY-FSQ系列工业螺杆冷水机采用螺杆压缩机融合高效的蒸发器和冷凝器，使其制冷效果大且好，广泛应用于需要大型制冷的场合。通常作为中央空调制冷的主机以及其他民用和工业领域制冷。例如：

民用：商业大厦，娱乐中心，宾馆，医院，影剧院，体育馆，大型商场等；

工业：塑胶和橡胶，制药，纺织，化工，食品，电子工业等。

The DY-FSQ series industrial screw Chillers adopt screw compressor and high efficiency of evaporator and condenser, makes it has big and good cooling effect. It is widely used in need large refrigeration occasion. It is always used as the host machine of central air conditioner and other civil and industrial fields. For example:

For civil field: commercial buildings, entertainment centers, hotels, hospitals, theatres, stadiums and shopping malls etc.

For industry field: plastic and rubber, pharmaceutical, textile, chemical, food and electronic industry etc.



### 参数规格 Specification

型号 Model	单位 Unit	DY-FSQ280W	DY-FSQ320W	DY-FSQ360W	DY-FSQ440W	DY-FSQ500W	DY-FSQ560W	
标准制冷量 Cooling capacity	kcal/h	853939.8	1072806	1272041.4	1538434.8	1803967.2	2033165.4	
	kw	991.8	1246	1477.4	1786.8	2095.2	2361.4	
输入总功率 Total input power	kw	190	233	271.6	322.8	380.2	427.4	
最大运行电流 Max running current	A	319	391	456	542	638.4	718	
电源 Power supply		3PH - 380V 50HZ(200V/220V/415V 460V 50HZ/60HZ)						
制冷剂 Refrigerant	名称 Type	R22(R407C)						
	充注量 Charge volume	kg	154	176	200	242	275	308
	控制方式 Control method		外平衡式热力膨胀阀 Outside balance thermal expansion valve					
压缩机 Compressor	类型 Type		半封闭螺杆式 Semi-hermetic screw					
	功率 Power	kw	189.4	232.4	271	322.2	379.6	426.8
	启动方式 Start-up mode		Y-Δ					
	运转电流 Running current	A	318.6	390.6	455.6	541.6	638	717.6
能量调节范围 Capacity control	%	0-25%-50%-75%-100%						
蒸发器 Evaporator	类型 Type		内螺纹壳管式 Shell and tube type with internal thread					
	冷冻水量 Chilled water flow rate	m <sup>3</sup> /h	150	168	206	240	273	308
	换热量 Heat exchange	kw	991.8	1246	1477.4	1786.8	2095.2	2361.4
冷凝器 Condenser	类型 Type		外螺纹壳管式 External threaded shell and tube type					
	冷却水量 Cooling water flow rate	m <sup>3</sup> /h	186	220	252	294	334	362
	换热量 Heat exchange	kw	1190	1495	1772.8	2144	2514.2	2833.6
进出水管口径 Inlet/Outlet pipe diameter	mm	150	150	150	150	150	150	
安全保护装置 Security devices		压缩机过热保护，机组过载保护，高低压力保护装置，防冻保护装置，电源逆相/缺相保护源，水流开关。 Compressor overheating protection, overload protection, high and low pressure protection device, antifreeze protection, power supply reverse phase/phase protection, water flow switch.						
机械尺寸 Mechanical dimensions	长 Length	mm	4250	4730	5380	5920	6450	6450
	宽 Width	mm	1320	1320	1580	1600	1760	1760
	高 Height	mm	2150	2150	2230	2350	2360	2360
机组重量 Unit weight	kg	4230						
运行重量 Operating weight	kg	4560						

备注/Notes:

1. 制冷量是依据冷冻水入口温度：15℃，出口温度：10℃；冷却水入水温度：32℃，出水温度：37℃。

2. 工作范围：

a. 冷冻水温度范围：3℃至35℃；冷冻水进出水温差：5℃。

b. 冷却水温度范围：30℃至40℃；冷却进出水温差：5℃。

1. The cooling capacity is based on the chilled water inlet temperature 15℃, outlet temperature 10℃; Cooling inlet water temperature 32℃, outlet temperature 37℃.

2. Working range:

a. Temperature range of chilled water: 3℃-35℃; Temperature difference between inlet and outlet of chilled water: 5℃;

b. Cooling temperature range: 30℃-40℃; Temperature difference between inlet and outlet cooling water: 5℃.