

Auxiliary equipment
For plastic injection machine

AMC-WS SERIES

SCREW TYPE WATER-COOLED INDUSTRIAL CHILLER

水冷式螺杆工业冷水机



AMC-50WS

AMC-WS series screw type water-cooled central chillers adopt German-made BITZER with half-closed and twin screw compressors, models with one or two compressors, suitable for using R22 and R407C refrigerants; equipped with high efficiency tube-in-shell type condenser and evaporator ensure stable heat exchange and convenient maintenance; advanced controller with built in microprocessor which has a powerful and excellent performance.

AMC-WS系列水冷式螺杆工业冷水机均采用德国BITZER半密闭式双螺杆压缩机，具有卓越的技术特性，分为单压缩机和双压缩机两种。且适用于R22、R407等多种冷媒。高效率卧式壳管式冷凝器与蒸发器，换热稳定，维修保养方便。先进的微电脑控制器，功能强大，采用高速嵌入式微处理器，性能卓越。

- 德国制半密闭式双螺杆压缩机，轴承寿命长，可确保长时间运转。
- 压缩机双重的能量调节方式，可依客户需求作调整以达节能的效果。
- 冷凝器与蒸发器均符合国家要求，高热交换性能，且维修保养方便。
- 控制器扩展性能良好，可方便硬件及程序的扩展与升级。
- Half-closed, double screws compressor made in Germany with long service life.
- Stepless compressor output capacity adjusting function are designed to save power.
- Evaporator and condenser built strictly according to national standards.
- Extendability of the controller makes upgrade of both hardware and software much easier.

机器特点

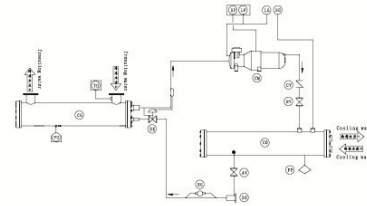
- Watchdog技术使微电脑控制器的硬件组件具有自我诊断能力，能自动排除硬件故障。
- 配备稳定性高的记忆体，512K的程序存储容量及128K的断电数据保存容量，可大量存储资料且不会流失。
- 独特的屏幕保护系统使触控屏寿命可达十年以上。
- 故障查询功能与故障统计功能可以按故障序号、故障次数和发生时间来分析故障发生原因，以便加以改善。
- 可随时查看各点实际温度并作修改设定，此外尚可显示一小时及一天的温度曲线。
- 支持多语言在线切换。

The characters of the machine

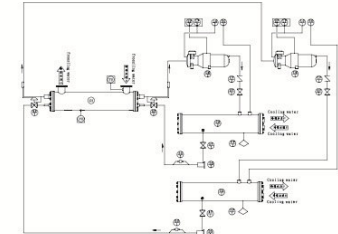
- "Watchdog" technology makes microprocessor able to automatically diagnose and solve the problems
- 512 K memory for programs and 128 K off-power data storage.
- Special touch screen panel, long service life more than 10 years.
- Function of fault query and fault statistics, convenient to analysis the fault and make improvement.
- Able to monitor the setting of actual temp and display temp. trend in hours or daily.
- Support multi-language.

The floor plan

Single-compressor Type AMC-WS单机系列



Double-compressor Type AMC-WS-D双机系列



Specifications 规格表

Single-compressor Type AMC-WS单机系列

序号Symbol	名称Name	数量Quantity
CM	压缩机 Compressor	1
CD	冷凝器 Condensor	1
CH	蒸发器 Evaporator	1
EX	膨胀阀 Expansion valve	1
FP	可熔栓 Fusible plug	1
AV	出液角阀 Angle valve	1
DS	干燥过滤器 Drier-filter	1
SG	窗口 Window	1
CV	逆止阀 ontrary stop valve	1
HV	高压止阀 High pressure valve	1
HG	高压表 High-pressure gauge	1
LG	低压表 Low-pressure gauge	1
HP	高压开关 High-pressure switch	1
LP	高压开关 High-pressure switch	1
TH	温度开关 Thermo switch	1
FU	防冻开关 Anti-freezing switch	1

Double-compressor Type AMC-WS-D双机系列

序号Symbol	名称Name	数量Quantity
CM1-2	压缩机 Compressor	1
CD1-2	冷凝器 Condensor	1
CH	蒸发器 Evaporator	1
EX1-2	膨胀阀 Expansion valve	1
FP1-2	可熔栓 Fusible plug	1
AV1-2	出液角阀 Angle valve	1
DS1-2	干燥过滤器 Drier-filter	1
SG1-2	窗口 Window	1
CV1-2	逆止阀 Contrary stop valve	1
HV1-2	高压止阀 High pressure valve	1
HG1-2	高压表 High-pressure gauge	1
LG1-2	低压表 Low-pressure gauge	1
HP1-2	高压开关 High-pressure switch	1
LP1-2	高压开关 High-pressure switch	1
TH	温度开关 Thermo switch	1
FU	防冻开关 Anti-freezing switc	1

Features 功能描述

AMC-WS water-cooled centralized water-cooling system are main composed of compressor, condenser, evaporator and expansion valve. It is adopted single-stage vapour compression refrigeration system, by the principle of interconversion between gaseous and liquid refrigerant, to absorb and release heat. So that, achieving the results of refrigeration.

AMC-WS水冷式中央冰水系统主机系列主要由压缩机、冷凝器、热力膨胀阀和蒸发器四大部分组成，采用单级蒸汽压缩制冷系统，利用制冷剂的汽液相互转换，吸收和释放热量的原理，达到制冷的效果。

Single compressor specifications AMC-WS单机系列规格表

机型	Model		AMC-50WS	AMC-50WS	AMC-60WS	AMC-70WS	AMC-80WS	AMC-90WS	AMC-110WS	AMC-125WS	AMC-140WS	AMC-180WS	AMC-210WS		
电源	Power resource	-	3φ-380V-50HZ												
制冷量	Chilling capacity	Kcal/h	113500	141900	166000	191800	220200	272600	312200	360300	470400	541800	621800		
		Kw	132	165	193	223	256	317	363	419	547	630	723		
消耗电力	Consumption	Kw	31	38	43	51	58	76	80	90	121	136	156		
运转电流	Operation current	A	54	66	75	87	96	123	136	151	199	221	246		
启动电流	Start up current	A	218D/411DD	269D/508DD	290D/485DD	350D/585DD	423D/686DD	520D/801DD	612D/943DD	665D/1023DD	465Y/1442D	586Y/1853D	650Y/2029D		
容量控制	Capacity control	%	100-75-50-25-0												
	型式 Type	-	半密闭双螺杆式 Half-closed and double-screw type												
压缩机 Compressor	数量 Quantity	-	1												
	启动方式 Start up type	-	分绕组 Distribution winding												
	油加热器 Oil heater	W	200					300							
冷冻油 Chilled oil	种类 Type	-	B320SH												
	填充量 Filling quantity	L	9			15			22			28			
	种类 Type	-	R-22												
冷媒 Refrig-erant	填充量 Filling quantity	Kg	21	26	30	35	40	50	57	66	86	99	113		
	节流方式 Throttling	-	感温式外部均压膨胀阀 Thermostatic expansion valve												
	型式 Type	-	壳管式高效换热器 Tube-in-shell high efficient heat exchanger												
蒸发器 Eapov-rator	冷冻水量 Chiller water flow	m³/h	23	28	33	38	44	55	62	72	94	109	125		
	压力损失 Press-ure expense	KPa	54	54	54	57	57	59	59	62	62	67	69		
	水管接口 Water-pipe joint	PT	3"	3"	3"	4"	4"	4"	4"	4"	5"	6"	6"		
	型式 Type	-	壳管式高效换热器 Tube-in-shell high efficient heat exchanger												
冷凝器 Conden-sator	冷却水量 chilling water flow	m³/h	30	37	43	50	57	71	81	94	122	141	162		
	压力损失 Press-ure expense	KPa	54	54	57	57	59	59	62	62	65	67	67		
	水管接口 Water-pipe joint	PT	2-1/2"	3"	3"	3"	3"	4"	4"	4"	5"	5"	5"		
	型式 Type	-	壳管式高效换热器 Tube-in-shell high efficient heat exchanger												
保护装置 Protection device	-	高低压开关, 防冻开关, 可熔栓, 压缩机热过载保护, 电机温度过高保护, 排气温度过高保护, 水泵热过载保护, 油温过高保护, 逆缺相保护, 过欠压保护, 冷却水温度过高保护, 冷冻水流量不足保护, 冷却水流量不足保护, 冷却塔风机过载保护等。 High pressure switch, low pressure switch, Anti-freezing switch, compressor over-heat protection, motor over-heat protection, exhaust air over-heat protection, pump over-load protection, oil over-heat protection, phase reverse protection, voltage insecure, cooling water over-heat protection, chilled water flow protection, cooling water flow shortage protection, cooling tower overcurrent protection, and so on.													
外形尺寸 External dimen-sions	L	mm	2175	2195	2245	2860	2860	2975	2985	3010	3510	3590	3595		
	W	mm	935	935	935	1015	1015	1015	1025	1055	1105	1150	1175		
	H	mm	1430	1500	1655	1710	1710	1965	1975	1990	2140	2155	2195		
	A	mm	1100	1100	1100	1200	1200	1300	1300	1300	1600	1600	1600		
	B	mm	690	690	690	790	790	790	790	900	900	980			
	C	mm	690	760	820	860	860	1000	1010	1010	1120	1120	1160		
	D	mm	170	190	240	240	240	270	270	245	275	240	240		
	E	mm	100	100	120	120	120	160	160	175	175	240	240		
	F	mm	75	80	80	125	105	100	100	100	125	130	175		
	G	mm	240	240	230	475	475	400	405	405	550	540	540		
I	mm	75	145	170	200	200	315	310	245	250	340	340			
机组重量	Net weight	Kg	1020	1060	1270	1370	1400	1870	1870	2070	2790	2910	3240		
运转重量	Operating weight	Kg	1120	1180	1420	1550	1580	2100	2220	2340	3120	3240	3760		
运转噪音	Noise	dB(A)	74			76			78			80			

注Remark: 1) 参数测试条件: 冷冻水入口温度12℃, 出水口温度7℃, 冷却水入口30℃, 出口温度35℃。
2) 噪音测试距主机正前方1M, 高1.5M(环境噪音:30dB以下)
3) 如有特殊要求, 订货前请提出要求规范。

- 1) Condition for parameter test: temperature of chilled water: inlet 12℃, outlet 7℃; temperature of chilling water: inlet 30℃, outlet 35℃.
- 2) Noise test: 1m away from the due front of the machine, 1.5m high away from the machine; noise: below 30dB
- 3) Any special requirements, have to be advised before order.

Double compressor specifications AMC-WS-D双机系列规格表

机型Model		AMC-50WS-D	AMC-60WS-D	AMC-70WS-D	AMC-80WS-D	AMC-90WS-D	AMC-110WS-D	AMC-125WS-D	AMC-140WS-D	AMC-180WS-D	AMC-210WS-D	AMC-240WS-D		
电源	Power resource	-	3φ-380V-50HZ											
制冷量	Chilling capacity	Kcal/h	226200	283800	331100	383600	440300	547800	623500	721500	940000	1083600	1243600	
		KW	263	330	385	446	512	637	725	839	1093	1260	1446	
消耗电力	Consumption	KW	62	76	87	102	115	136	160	180	230	272	305	
运转电流	Operation current	A	108	132	149	175	190	232	273	305	373	452	503	
启动电流	Start up current	A	218D/411DD	269D/508DD	290D/485DD	350D/585DD	423D/686DD	520D/801DD	612D/943DD	665Y/1023DD	465Y/1442D	586Y/1853D	650Y/2029D	
容量控制	Capacity control	%	100-75-50-25-0											
	型式 Type	-	半密闭双螺杆式 Half-closed and double-screw type											
压缩机 Compressor	数量 Quantity	-	2											
	启动方式 Start up type	-	分绕组 Distribution winding											
	油加热器 Oil heater	W	200×2					300×2						
冷冻油 Chilled oil	种类 Type	-	B320SH											
	填充量 Filling quantity	L	9×2			15×2			22×2			28×2		
	种类 Type	-	R-22											
冷媒 Refrig-erant	填充量 Filling quantity	Kg	21×2	26×2	30×2	35×2	39×2	46×2	54×2	61×2	78×2	92×2	104×2	
	节流方式 Throttling	-	感温式外部均压膨胀阀 Thermostatic expansion valve											
	型式 Type	-	壳管式高效换热器 Tube-in-shell high efficient heat exchanger											
蒸发器 Eapov-rator	冷冻水量 Chiller water flow	m³/h	45	57	66	77	88	110	125	144	188	217	249	
	压力损失 Press-ure expense	KPa	57	57	59	62	62	62	65	65	67	67	69	
	水管接口 Water-pipe joint	PT	4"	4"	4"	5"	5"	5"	6"	6"	6"	8"	8"	
	型式 Type	-	壳管式高效换热器 Tube-in-shell high efficient heat exchanger											
冷凝器 Conden-sator	冷却水量 chilling water flow	m³/h	59	74	86	100	115	142	162	188	244	282	323	
	压力损失 Press-ure expense	KPa	51	54	59	59	59	62	62	62	65	67	67	
	水管接口 Water-pipe joint	PT	2-1/2"×2	3"	3"×2	3"×2	3"×2	4"×2	4"×2	4"×2	5"×2	5"×2	5"×2	
	型式 Type	-	壳管式高效换热器 Tube-in-shell high efficient heat exchanger											
保护装置 Protection device	-	高低压开关, 防冻开关, 可熔栓, 压缩机热过载保护, 电机温度过高保护, 排气温度过高保护, 水泵热过载保护, 油温过高保护, 逆缺相保护, 过欠压保护, 冷却水温度过高保护, 冷冻水流量不足保护, 冷却水流量不足保护, 冷却塔风机过载保护等。 High pressure switch, low pressure switch, Anti-freezing switch, fusible plug, compressor over-heat protection, motor over-heat protection, exhaust air over-heat protection, pump over-load protection, oil over-heat protection, phase reverse protection, voltage insecure, cooling water over-heat protection, chilled water flow protection, cooling water flow shortage protection, cooling tower overcurrent protection, and so on.												
外形尺寸 External dimen-sions	L	mm	2850	2850	3040	3130	3140	3760	3760	3760	4100	4100	4250	
	W	mm	1150	1150	1250	1250	1250	1400	1400	1400	1600	1750	1750	
	H	mm	1450	1450	1760	1790	1810	2030	2040	2080	2260	2290	2360	
	A	mm	1300	1300	1300	1600	1600	1600	1600	1600	1600	1600	1600	
	B	mm	1040	1040	1140	1140	1140	1290	1290	1480	1480	1630	1630	
	C	mm	770	770	955	970	975	1085	1130	1135	1240	1270	1305	
	D	mm	215	215	275	270	270	265	265	265	290	290	290	
	E	mm	100	100	120	120	120	175	175	175	240	240	250	
	F	mm	230	230	275	300	275	375	375	375	450	450	430	
	G	mm	410	410	400	245	400	545	545	545	500	500	775	
I	mm	70	70	245	250	245	250	250	250	100	100	90		
机组重量	Net weight	Kg	1790	1790	2340	2420	2500	3580	3750	3880	5050	5340	5600	
运转重量	Operating weight	Kg	1920	1970	2520	2620	2710	3920	4110	4250	5490	5830	6260	
运转噪音	Noise	dB(A)	72			76			80			82		

产品规格若有变更, 恕不另行通知。Please excuse for not note if some specifications of products are changed.

- 注Remark: 1) 参数测试条件: 冷冻水入口温度12℃, 出水口温度7℃, 冷却水入口30℃, 出口温度35℃。
2) 噪音测试距主机正前方1M, 高1.5M(环境噪音:30dB以下)
3) *-D* 代表双压缩机。
4) 如有特殊要求, 订货前请提出要求规范。
- 1) Condition for parameter test: temperature of chilled water: inlet 12℃, outlet 7℃; temperature of chilling water: inlet 30℃, outlet 35℃.
 - 2) Noise test: 1m away from the due front of the machine, 1.5m high away from the machine; noise: below 30dB
 - 3) *-D* means double compressor.
 - 4) Any special requirements, have to be advised before order.