



XI'AN TOPTION INSTRUMENT CO.,LTD

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XI'AN TOPTION INSTRUMENT CO.,LTD



Dynamic/Temperature/Control System



COMPANY PROFILE

TOPTION INSTRUMENT has spent 18+ years becoming a world leading manufacturer engaged in the research, development, production, sale and service of Extraction, Distillation, Filtration, Drying & Pretreatment series equipment, Heating and cooling dynamic temperature control system.

The headquartered is in Xi'an City, the ancient capital with 5000+ history; includes several production bases, own professional research and development team 25+ persons; the distillation production base is located in Xi'an, covering an area of 4040 m²; the drying and other production bases are located in southern China cities.

Since 2004 TOPTION'S equipment has been used and praised in many counties including United States, Canada, Poland, Spain, Italy, Sweden, Switzerland, Germany, France & Colombia. We are your dependable partner in distillation and drying industry, we are flexible, intelligent, and truly care about your benefits potential. We want your business to be remembered and welcomed by your customers.

TOPTION has passed ISO9001 & CE certification. We work closely with our clients to deliver a successful and extraordinary equipment, choose TOPTION to maximize your benefits.

TOPTION will be your TOP OPTION.





TPJM-320/420W/430W



1. Dynamic temperature control systems
2. Refrigerated heating circulator
3. Low temperature circulator
4. Heating circulator
5. High temperature series products
6. Medium temperature series products
7. Low temperature series products
8. Ultra-low temperature series products
9. Cooling and heating integrated machine series products

CATALOGUE

Model	TPJM-320	TPJM-420W	TPJM-430W
Temperature range °C	-30°C~180°C	-45°C~180°C	-45°C~180°C
Control Mode	Feedforward PID +Our special dynamic control calculation,PLC controller		
Temp. control	Option: process temperature control or jacket oil temperature control		
Temp. difference	Set or control the temperature difference between jacket oil and raw material process		
Program Editor	20 programs, each program can edit 45 steps.		
Communication protocol	MODBUS RTU Protocol, RS 485 Interface		
Temperature feedback	Heat-conducting medium :PT100		Raw material process:PT100
Temp. accuracy	± 1°C	± 1°C	± 1°C
Heating power	2kW	2kW	3kW
Cooling capacity	180°C	1.5kW	1.8kW
	50°C	1.5kW	1.8kW
	0°C	1.5kW	1.8kW
	-5°C	0.9kW	1.2kW
	-20°C	0.6kW	1kW
	-35°C		0.3kW
Circulation pump	Max10L/min 0.8bar	Max10L/min 0.8bar	Max20L/min 2bar
Expansion valve	Danfoss	Danfoss	Danfoss
Evaporator	Plate heat exchanger		
Operation Panel	7-inch color touch screen controller,temperature curve record,data export to excel format.		
Safety protection	Self-diagnosis function; freezer overload protection; high pressure switch, overload relay, thermal protection device, liquid low level protection, high temperature protection and temperature fault protection.		
Closed circulation system	The whole system is full closed circulation,there is no oil mist at high temperature and no water vapor at low temperature, pressure do not rise up when system is running.The system will supplement oil automatically at low temperature.		
Refrigerant	R404A	R404A	R404A
Connection size	DN-15 or M24*1.5	DN-15 or M24*1.5	DN-15 or M24*1.5
Water-cooled type W (cooling water at 20°C)	450L/H 1.5bar~4bar	550L/H 1.5bar~4bar	
Dimension	350*560*750mm	350*560*750mm	400*600*1150mm
Weight	55kg	55kg	85kg
Power	AC 220V 50HZ 2.9kW(max)	AC 220V 50HZ 3.3kW(max)	AC 380V 50HZ 4.5kW(max)
Case material	SUS 304	SUS 304	SUS 304
Optional	Optional Ethernet interface , configure PC operating software		
Optional	Optional outside touch screen display controller (separated),the communication line distance is 10 meter.		
Optional power	Optional power100V 50HZsingle-phase,110V 60HZ single-phase, 230V 60HZ single-phase, 220V 60HZ three-phase, 440V~480V 60HZ three-phase		



TPJM -25°C ~ 200°C
TPJM -25°C ~ 300°C



TPJM-2 series



TPJM -25°C ~ 200°C
TPJM -25°C ~ 300°C

Model	TPJM-225	TPJM-235W TPJM-235	TPJM-255W TPJM-255	TPJM-270W TPJM-270	TPJM-2A10W TPJM-2A10	TPJM-2A15W TPJM-2A15
Temperature range °C	-25°C~200°C					
Control Mode	Feedforward PID +Our special dynamic control calculation, PLC controller					
Temp. control	Option: process temperature control or jacket oil temperature control					
Temp. difference	Set or control the temperature difference between jacket oil and raw material process					
Program Editor	20 programs, each program can edit 45 steps.					
Communication protocol	MODBUS RTU Protocol, RS 485 Interface					
Temperature feedback	Heat-conducting medium:PT100 Raw material process:PT100					
Temp. accuracy	± 1°C	± 1°C	± 1°C	± 1°C	± 1°C	± 1°C
Heating power	2.5kW	3.5kW	5.5kW	7kW	10kW	15kW
Cooling capacity	200°C	2.5kW	3.5kW	5.5kW	7kW	10kW
	100°C	2.5kW	3.5kW	5.5kW	7kW	10kW
	20°C	2.5kW	3.5kW	5.5kW	7kW	10kW
	-5°C	2kW	3kW	4.5kW	6.6kW	8kW
	-20°C	1.0kW	1.8kW	2.8kW	3.8kW	4.6kW
Circulation pump	Max35L/min 2bar	Max35L/min 2bar	Max50L/min 2bar	Max50L/min 2bar	Max50L/min 2bar	Max110L/min 2.5bar
Expansion valve	Danfoss	Danfoss	Danfoss	Danfoss	Danfoss	Danfoss
Oil separator	LNEYA	LNEYA	LNEYA	LNEYA	LNEYA	LNEYA
Evaporator	Plate heat exchanger					
Operation Panel	7-inch color touch screen controller,temperature curve record,data export to excel format.					
Safety protection	Self-diagnosis function; freezer overload protection; high pressure switch, overload relay, thermal protection device, liquid low level protection, high temperature protection and temperature fault protection.					
Closed circulation system	The whole system is full closed circulation,there is no oil mist at high temperature and no water vapor at low temperature, pressure do not rise up when system is running.The system will supplement oil automatically at low temperature.					
Connection size	DN15 or M24*1.5	DN20 or M30*1.5	DN20 or M30*1.5	DN20 or M30*1.5	DN20 or M30*1.5	DN25 or M38*1.5
Refrigerant	R-404A					
Water-cooled type W (cooling water at 20°C)		800L/H 1.5bar-4bar	1000L/H 1.5bar-4bar	1200L/H 1.5bar-4bar	1600L/H 1.5bar-4bar	2000L/H 1.5bar-4bar
	Dimension	400 × 600 × 1150	500 × 680 × 1250	500 × 680 × 1250	500 × 680 × 1250	650 × 700 × 1650
Weight	water-cooled	135kg	160kg	205kg	250kg	280kg
	air-cooled	115kg	165kg	285kg	230kg	280kg
Power	AC220V 50HZ 4kW(max)	AC380V 50HZ 6kW(max)	AC380V 50HZ 8kW(max)	AC380V 50HZ 11kW(max)	AC380V 50HZ 14kW(max)	AC380V 50HZ 21kW(max)
Case material	SUS 304	SUS 304	SUS 304	SUS 304	SUS 304	SUS 304
Optional	Optional Ethernet interface , configure PC operating software					
Optional	Optional outside touch screen display controller (separated),the communication line distance is 10 meter.					
Optional	Extend temperature range to -25°C-250°C Model will add T					
Optional	Extend temperature range to -25°C-300°C Model will add V					
Optional power	220V 60HZ three-phase, 440V-480V 60HZ three-phase					

Model	TPJM-2A25W	TPJM-2A38W	TPJM-2A60W	TPJM-2A95W	TPJM-2A130W	
Temperature range °C	-25°C ~ 200°C					
Controller	Feedforward PID +Our special dynamic control calculation, PLC controller					
Temp. control	Process temperature control mode					
Program Editor	20 programs, each program can edit 45 steps.					
Communication	MODBUS RTU Protocol, RS 485 Interface					
Temperature feedback	Heat-conducting medium feedback PT100,(oil outlet temperature,oil inlet temperature and heater temperature) , Three temperature measuring points.					
Process Temperature feedback	Raw material process feedback PT100 or 4~20mA input (optional)					
Temp. accuracy	± 1°C	± 1°C	± 1°C	± 1°C	± 1°C	
Heating power	25kW	38kW	60kW	95kW	130kW	
Cooling capacity	200°C	25kW	38kW	60kW	95kW	
	100°C	25kW	38kW	60kW	95kW	
	20°C	25kW	38kW	60kW	95kW	
	-5°C	19kW	30kW	46kW	70kW	
	-20°C	12kW	16kW	22kW	32kW	
Circulation pump	Max110L/min 2.5bar	Max150L/min 2.5bar	Max250L/min 2.5bar	Max250L/min 2.5bar	Max250L/min 2.5bar	
Evaporator	Plate heat exchanger					
Oil separator	Emerson					
Operation panel	Optional 7-inch color touch screen controller,temperature curve record,data export to excel format.					
Safety protection	Self-diagnosis function; freezer overload protection; high pressure switch, overload relay, thermal protection device, liquid low level protection, high temperature protection and temperature fault protection.					
Closed circulation system	The whole system is full closed circulation,there is no oil mist at high temperature and no water vapor at low temperature, pressure do not rise up when system is running.The system will supplement oil automatically at low temperature.					
Refrigerant	R-404A					
Connection size	DN25 PN10	DN32 PN10	DN40 PN10	DN40 PN10	DN40 PN10	
Water-cooled type W (cooling water at 30°C)		6m³/h 1.5bar-4bar	10m³/h 1.5bar-4bar	14m³/h 1.5bar-4bar	20m³/h 1.5bar-4bar	28m³/h 1.5bar-4bar
	Dimension	700 × 800 × 1650	1000 × 950 × 1650	2000 × 1000 × 1750	2000 × 1000 × 1750	2300 × 1450 × 1750
Weight	480kg	750kg	1000kg	1250kg	1580kg	
Power	AC380V 50HZ 34kW(max)	AC380V 50HZ 51kW(max)	AC380V 50HZ 78kW(max)	AC380V 50HZ 120kW(max)	AC380V 50HZ 160kW(max)	
Case material	SUS 304	SUS 304	SUS 304	SUS 304	SUS 304	
Optional	Optional Ethernet interface , configure the computer operating software					
Optional	Optional outside touch screen display controller (separated), the communication line distance is 10 meter.					
Optional	Optional explosion-proof touch screen control system (ExdeIBT4), the communication line distance is 15 meter.					
Optional	The temperature range -25°C ~ 250°C					
Optional	The temperature range -25°C ~ 300°C					
Optional	Water condenser use plate heat exchanger (request for high quality water)					
Optional power	220V 60HZ three-phase, 440V-480V 60HZ three-phase					

TPJM-4 series



TPJM -45°C ~ 250°C

Model	TPJM-4A25W	TPJM-4A38W	TPJM-4A60W	TPJM-4A95W	TPJM-4A130W	
Temperature range °C	-45°C ~ 250°C					
Controller	Feedforward PID +Our special dynamic control calculation, PLC controller					
Temp. control	Process temperature control mode					
Program Editor	20 programs, each program can edit 45 steps.					
Communication	MODBUS RTU Protocol, RS 485 Interface					
Temperature feedback	Heat-conducting medium feedback PT100,(oil outlet temperature,oil inlet temperature and heater temperature) , Three temperature measuring points.					
Process Temperature feedback	Raw material process feedback PT100 or 4 ~ 20mA input (optional)					
Temp. accuracy	± 1°C	± 1°C	± 1°C	± 1°C	± 1°C	
Heating power	25kW	38kW	60kW	95kW	130kW	
Cooling capacity	250°C	25kW	38kW	60kW	95kW	130kW
	100°C	25kW	38kW	60kW	95kW	130kW
	20°C	25kW	38kW	60kW	95kW	130kW
	0°C	25kW	38kW	60kW	95kW	130kW
	-20°C	16kW	26kW	34kW	45kW	60kW
-35°C	4.7kW	9kW	11.5kW	15kW	18.5kW	
Circulation pump	Max110L/min 1.5bar	Max150L/min 2.5bar	Max250L/min 2.5bar	Max250L/min 2.5bar	Max250L/min 2.5bar	
Evaporator	Plate heat exchanger					
Oil separator	Emerson					
Operation panel	Optional 7-inch color touch screen controller,temperature curve record,data export to excel format.					
Safety protection	Self-diagnosis function; freezer overload protection; high pressure switch, overload relay, thermal protection device, liquid low level protection, high temperature protection and temperature fault protection.					
Closed circulation system	The whole system is full closed circulation,there is no oil mist at high temperature and no water vapor at low temperature, pressure do not rise up when system is running.The system will supplement oil automatically at low temperature.					
Refrigerant	R-404A					
Connection size	DN25 PN10	DN32 PN10	DN40 PN10	DN40 PN10	DN40 PN10	
Water-cooled type W (cooling water at 30°C)	7m³/h 1.5bar~4bar	12m³/h 1.5bar~4bar	17m³/h 1.5bar~4bar	24m³/h 1.5bar~4bar	32m³/h 1.5bar~4bar	
water-cooled condenser	Shell and tube exchanger (standard)					
Dimension	700 × 800 × 1650	1000 × 950 × 1650	2000 × 1000 × 1750	2300 × 1450 × 1750	2300 × 1450 × 1750	
Weight	680kg	950kg	1300kg	1550kg	1880kg	
Power	AC380V 50HZ 38kW(max)	AC380V 50HZ 53kW(max)	AC380V 50HZ 80kW(max)	AC380V 50HZ 122kW(max)	AC380V 50HZ 165kW(max)	
Case material	SUS 304					
Optional	Optional Ethernet interface , configure the computer operating software					
Optional	Optional outside touch screen display controller (separated), the communication line distance is 10 meter.					
Optional	Optional explosion-proof touch screen control system (ExdellBT4), the communication line distance is 15 meter.					
Optional	Water condenser use plate heat exchanger (request for high quality water)					
Optional power	220V 60HZ three-phase,440V-480V 60HZ three-phase					



TPJM -60°C ~ 200°C



Model	TPJM-625W	TPJM-635WN TPJM-635N	TPJM-655W TPJM-655	TPJM-675W TPJM-675	TPJM-6A10W TPJM-6A10	TPJM-6A15W
Temperature range °C	-60°C ~ 200°C					
Control Mode	Feedforward PID +Our special dynamic control calculation, PLC controller					
Temp. control	Option: process temperature control or jacket oil temperature control					
Temp. difference	Set or control the temperature difference between jacket oil and raw material process					
Program Editor	20 programs, each program can edit 45 steps.					
Communication protocol	MODBUS RTU Protocol, RS 485 Interface					
Temperature feedback	Heat-conducting medium:PT100 Raw material process:PT100					
Temp. accuracy	± 1°C		± 1°C		± 1°C	
Heating power	2500W	3500W	5500W	7500W	10000W	15000W
Cooling capacity	200°C	2500W	3500W	5500W	7500W	10000W
	100°C	2500W	3500W	5500W	7500W	10000W
	20°C	2500W	3500W	5500W	7500W	10000W
	0°C	2500W	3500W	5500W	7500W	10000W
	-20°C	2000W	3000W	4850W	6000W	8200W
-40°C	950W	1450W	2300W	3100W	4800W	7750W
-55°C	250W	500W	750W	900W	1500W	2800W
Circulation pump	Max20L/min 1bar	Max35L/min 1bar	Max50L/min 1.5bar	Max75L/min 1.5bar	Max110L/min 1.5bar	Max150L/min 1.5bar
Expansion valve	Danfoss	Danfoss	Danfoss	Danfoss	Danfoss	Danfoss
Oil separator	Emerson	Emerson	Emerson	Emerson	Emerson	Emerson
Evaporator	Plate heat exchanger					
Operation Panel	7-inch color touch screen controller,temperature curve record,data export to excel format.					
Safety protection	Self-diagnosis function; freezer overload protection; high pressure switch, overload relay, thermal protection device, liquid low level protection, high temperature protection and temperature fault protection.					
Closed circulation system	The whole system is full closed circulation,there is no oil mist at high temperature and no water vapor at low temperature, pressure do not rise up when system is running.The system will supplement oil automatically at low temperature.					
Refrigerant	R-404A R23		R-404A R23		R-404A R23	
Connection size	DN15 or 24*1.5	DN20 or 30*1.5	DN20 or 30*1.5	DN20 or 30*1.5	DN20 or 30*1.5	DN25 or 38*1.5
Water-cooled type W (cooling water at 20°C)	900L/H 1.5bar~4bar	1200L/H 1.5bar~4bar	1800L/H 1.5bar~4bar	2100L/H 1.5bar~4bar	3000L/H 1.5bar~4bar	4000L/H 1.5bar~4bar
Dimension	water-cooled	400*600*1150 mm	550*700*1350 mm	550*700*1350 mm	550*700*1600 mm	550*700*1600 mm
	air-cooled		550*700*1450 mm	650*700*1650 mm	650*700*1650 mm	750*750*1800 mm
Weight	water-cooled	170kg	185kg	265kg	305kg	380kg
	air-cooled		225kg	300kg	340kg	380kg
Power	AC 220V 50HZ 5kW(max)	AC 380V 50HZ 7.5kW(max)	AC 380V 50HZ 10kW(max)	AC 380V 50HZ 14kW(max)	AC 380V 50HZ 18kW(max)	AC 380V 50HZ 26kW(max)
Case material	SUS 304					
Optional	Optional Ethernet interface , configure PC operating software					
Optional	Optional outside touch screen display controller (separated),the communication line distance is 10 meter.					
Optional power	220V 60HZ three-phase, 440V~480V 60HZ three-phase					

TPJM-6 series TPJM -60°C ~ 250°C

Model	TPJM-6A25W	TPJM-6A38W	TPJM-6A60W	TPJM-6A95W	TPJM-6A130W	
Temperature range °C	-60°C ~ 250°C					
Controller	Feedforward PID +Our special dynamic control calculation, PLC controller					
Temp. control	Process temperature control mode					
Program Editor	20 programs, each program can edit 45 steps.					
Communication	MODBUS RTU Protocol, RS 485 Interface					
Temperature feedback	Heat-conducting medium feedback PT100,(oil outlet temperature,oil inlet temperature and heater temperature) , Three temperature measuring points.					
Process Temperature feedback	Raw material process feedback PT100 or 4 ~ 20mA input (optional)					
Temp. accuracy	± 1°C	± 1°C	± 1°C	± 1°C	± 1°C	
Heating power	25kW	38kW	60kW	95kW	130kW	
Cooling capacity	250°C	25kW	38kW	60kW	95kW	130kW
	100°C	25kW	38kW	60kW	95kW	130kW
	20°C	25kW	38kW	60kW	95kW	130kW
	0°C	25kW	38kW	60kW	95kW	130kW
	-20°C	25kW	38kW	56kW	80kW	90kW
	-40°C	18kW	22kW	30kW	45kW	56kW
-55°C	6kW	7.5kW	11kW	15kW	19kW	
Circulation pump	Max110L/min 1.5bar	Max150L/min 2.5bar	Max250L/min 2.5bar	Max250L/min 2.5bar	Max250L/min 2.5bar	
Evaporator	Plate heat exchanger					
Oil separator	Emerson					
Operation panel	Optional 7-inch color touch screen controller,temperature curve record,data export to excel format.					
Safety protection	Self-diagnosis function; freezer overload protection; high pressure switch, overload relay, thermal protection device, liquid low level protection, high temperature protection and temperature fault protection.					
Closed circulation system	The whole system is full closed circulation,there is no oil mist at high temperature and no water vapor at low temperature, pressure do not rise up when system is running.The system will supplement oil automatically at low temperature.					
Refrigerant	R-404A R23 mixed Refrigerant					
Connection size	DN25 PN10	DN32 PN10	DN40 PN10	DN40 PN10	DN40 PN10	
Water-cooled type W (cooling water at 30°C)	8.5m³/h 1.5bar-4bar	14m³/h 1.5bar-4bar	20m³/h 1.5bar-4bar	29m³/h 1.5bar-4bar	38m³/h 1.5bar-4bar	
water-cooled condenser	Shell and tube exchanger (standard)					
Dimension	1000 × 950 × 1650	2000 × 1000 × 1750	2300 × 1450 × 1750	2300 × 1450 × 1750	2750 × 1600 × 2000	
Weight	980kg	1150kg	1380kg	1750kg	2280kg	
Power	AC380V 50HZ 38kW(max)	AC380V 50HZ 58kW(max)	AC380V 50HZ 85kW(max)	AC380V 50HZ 130kW(max)	AC380V 50HZ 180kW(max)	
Case material	SUS 304					
Optional	Optional Ethernet interface , configure the computer operating software					
Optional	Optional outside touch screen display controller (separated), the communication line distance is 10 meter.					
Optional	Optional explosion-proof touch screen control system (ExdIIBT4), the communication line distance is 15 meter.					
Optional	Water condenser use plate heat exchanger (request for high quality water)					
Optional power	440V ~ 480V 60HZ three-phase					



TPJM -80°C ~ 250°C

Model	TPJM-825W	TPJM-835W	TPJM-855W	TPJM-875W	TPJM-8A10W	TPJM-8A15W
Temperature range °C	-80°C~250°C	-80°C~250°C	-80°C~250°C	-80°C~250°C	-80°C~250°C	-80°C~250°C
Control Mode	Feedforward PID +Our special dynamic control calculation, PLC controller					
Temp. control	Option: process temperature control or jacket oil temperature control					
Temp. difference	Set or control the temperature difference between jacket oil and raw material process.					
Program Editor	20 programs, each program can edit 45 steps.					
Communication protocol	MODBUS RTU Protocol, RS 485 Interface					
Temperature feedback	Heat-conducting medium :PT100			Raw material process:PT100		
Temp. accuracy	± 1°C	± 1°C	± 1°C	± 1°C	± 1°C	± 1°C
Heating power	2500W	3500W	5500W	7500W	10000W	15000W
Cooling capacity	250°C	2500W	3500W	5500W	7500W	10000W
	100°C	2500W	3500W	5500W	7500W	10000W
	20°C	2500W	3500W	5500W	7500W	10000W
	0°C	2500W	3500W	5500W	7500W	10000W
	-20°C	2500W	3500W	5500W	7500W	8500W
	-40°C	1800W	2550W	3300W	5800W	6000W
-60°C	1000W	1400W	1600W	3000W	3300W	
-75°C	300W	420W	700W	1300W	1400W	
Circulation pump	Max20L/min 1bar	Max35L/min 1bar	Max50L/min 1.5bar	Max75L/min 1.5bar	Max110L/min 1.5bar	Max110L/min 1.5bar
Oil separator	Emerson	Emerson	Emerson	Emerson	Emerson	Emerson
Evaporator	Plate heat exchanger					
Operation Panel	7-inch color touch screen controller,temperature curve record,data export to excel format.					
Safety protection	Self-diagnosis function; freezer overload protection; high pressure switch, overload relay, thermal protection device, liquid low level protection, high temperature protection and temperature fault protection.					
Closed circulation system	The whole system is full closed circulation,there is no oil mist at high temperature and no water vapor at low temperature, pressure do not rise up when system is running.The system will supplement oil automatically at low temperature.					
Refrigerant	R-404A R23	R-404A R23	R-404A R23	R-404A R23	R-404A R23	R-404A R23
Connection size	DN15 or 24*1.5	DN20 or 30*1.5	DN20 or 30*1.5	DN20 or 30*1.5	DN20 or 30*1.5	DN25 or 38*1.5
Water-cooled type W (cooling water at 20°C)	900L/H 1.5bar-4bar	1200L/H 1.5bar-4bar	1800L/H 1.5bar-4bar	2300L/H 1.5bar-4bar	3200L/H 1.5bar-4bar	4500L/H 1.5bar-4bar
Dimension	500*680*1250 mm	550*700*1650 mm	550*700*1650 mm	700*800*1650 mm	700*800*1650 mm	1000*950*1650 mm
Weight	240kg	285kg	345kg	500kg	600kg	750kg
Power	AC 380V 50HZ 6.5kW(max)	AC 380V 50HZ 10kW(max)	AC 380V 50HZ 13kW(max)	AC 380V 50HZ 17kW(max)	AC 380V 50HZ 22kW(max)	AC 380V 50HZ 33kW(max)
Case material	SUS 304					
Optional	Optional Ethernet interface , configure PC operating software					
Optional	Optional outside touch screen display controller (separated),the communication line distance is 10 meter.					
Optional power	220V 60HZ three-phase, 440V~480V 60HZ three-phase					

TPJM-8 series



TPJM -80°C ~ 250°C

Model	TPJM-8A25W	TPJM-8A38W	TPJM-8A60W	TPJM-8A80W
Temperature range °C	-80°C ~ 250°C			
Control Mode	Feedforward PID +Our special dynamic control calculation, PLC controller			
Temp. difference	Process temperature control mode			
Program Editor	20 programs, each program can edit 45 steps.			
Communication protocol	MODBUS RTU Protocol, RS 485 Interface			
Temperature feedback	Heat-conducting medium feedback PT100,(oil outlet temperature,oil inlet temperature and heater temperature) , Three temperature measuring points.			
Process Temperature feedback	Raw material process feedback PT100 or 4 ~ 20mA input (optional)			
Temp. accuracy	± 1°C	± 1°C	± 1°C	± 1°C
Heating power	25kW	38kW	60kW	80kW
Cooling capacity	250°C	25kW	38kW	60kW
	100°C	25kW	38kW	60kW
	20°C	25kW	38kW	60kW
	-20°C	25kW	38kW	60kW
	-40°C	20kW	31kW	48kW
	-60°C	10kW	16kW	23kW
	5kW	8kW	11kW	16kW
Circulation pump	Max110L/min 1.5bar	Max150L/min 2bar	Max250L/min 2bar	Max250L/min 2bar
Evaporator	Plate heat exchanger			
Oil separator	Emerson			
Expansion valve	Plate heat exchanger			
Operation Panel	7-inch color touch screen controller,temperature curve record,data export to excel format.			
Safety protection	Self-diagnosis function; freezer overload protection; high pressure switch, overload relay, thermal protection device, liquid low level protection, high temperature protection and temperature fault protection.			
Closed circulation system	The whole system is full closed circulation,there is no oil mist at high temperature and no water vapor at low temperature, pressure do not rise up when system is running.The system will supplement oil automatically at low temperature.			
Refrigerant	R-404A R508B mixed Refrigerant			
Connection size	DN25 PN10	DN32 PN10	DN40 PN10	DN40 PN10
Water-cooled type W (cooling water at 25°C)	8m³/h 1.5bar~4bar	12m³/h 1.5bar~4bar	20m³/h 1.5bar~4bar	30m³/h 1.5bar~4bar
water-cooled condenser	Shell and tube exchanger (standard)			
Dimension water-cooled	2000*1000*1750	2300*1450*1750	2300*1450*1750	2700*1450*2050
Weight water-cooled	1000kg	1350kg	1800kg	2600kg
Power	AC 380V 50HZ 44kW(max)	AC 380V 50HZ 62kW(max)	AC 380V 50HZ 100kW(max)	AC 380V 50HZ 138kW(max)
Case material	SUS 304	SUS 304	SUS 304	SUS 304
Optional	Optional Ethernet interface , configure PC operating software			
Optional	Optional outside touch screen display controller (separated),the communication line distance is 10 meter.			
Optional	Optional explosion-proof touch screen control system (ExdellIBT4), the communication line distance is 15 meter.			
Optional	Water condenser use plate heat exchanger (request for high quality water)			
Optional power	440V~480V 60HZ three-phase			

Refrigerated heating circulator HC-15/20

The whole system is a closed liquid circulation system with the expansion of container, expansion of the container and the liquid circulation is adiabatic, and did not participate in liquid circulation, only mechanical connection, regardless of the temperature of liquid circulation is a high temperature or low temperature expansion of the medium container of low at 60 degrees. Throughout the liquid circulation system is sealed, low temperature did not absorb water vapor, high temperature did not produce the oil miss. The entire circulatory system is not used in machinery and electronic valves.

FEATURES:

- 1.Wide working temperature range with cooling and heating function, temperature range:-30~180°C.
- 2.With 2pcs of LED display controller, can show the setting temperature& actual value, and alarm value for over-temperature.
- 3.Efficient fast, simple topping up liquid.
- 4.Ensure fast cooling at high temperature and can achieve 180°C~-25°C temperature control continuously.
- 5.The cycle system is closed, there is no oil mist and water vapor, to assure the lab safety and heat transfer fluid lifetime.
- 6.Use copeland brand compressor, circulation pump, stable performance and reliable quality.
- 7.Self-diagnosis function; freezer overload protection; high pressure switch, overload relay, thermal protection device, liquid low level protection, high temperature protection and temperature fault protection.
- 8.control heat conducting medium temperature, Use the same kind of heat conducting in the whole heating-cooling cycle.
- 9.High-lift design and meet the long-distance transportation of heat conducting medium.
- 10.With environment friendly refrigerant R404A.



-30°C ~ 180°C

Model	HC -15	HC -20
Temperature range	-25°C~180°C	-30°C~180°C
Model control	Intelligent PID	Intelligent PID
Temperature accuracy	± 0.5°C	± 0.5°C
Heating power	1500W	2000W
Cooling power	1000W AT 180°C	1300W AT 180°C
	800W AT 50°C	1300W AT 50°C
	500W AT 0°C	1000W AT 0°C
	415W AT -10°C	850W AT -10°C
	280W AT -20°C	600W AT -20°C
Circulating pump	Max15L/min 0.8bar	Max15L/min 0.8bar
Input and display	Touch key input, LED display	Touch key input, LED display
Security	Self-diagnostic function; freezer overload; high-pressure pressure switch, overload relays, thermal protection device and other security features	
Refrigerant	R-404A	R-404A
Outlet	DN15	DN15
Inlet	DN15	DN15
Dimension	350x560x750 mm	350x560x750 mm
Weight	52kg	52kg
Power	AC 220V 50HZ 2000W (max)	AC 220V 50HZ 2900W (max)
Case material	SUS 304	SUS 304
Application of glass reactor	1L -20°C~180°C	1L -30°C~180°C
	2L -20°C~170°C	2L -30°C~180°C
	5L -10°C~145°C	5L -20°C~165°C
		10L -10°C~145°C

Refrigerated Heating Circulator (HC series)

Description:


The whole system is a closed liquid circulation system with the expansion of container, expansion of the container and the liquid circulation is adiabatic, and do not participate in liquid circulation, only mechanical connection, regardless of the temperature is a high temperature or low temperature, the tank temperature is limited to 60°C.

The cycle is closed, there is no oil mist at high temperature and no water vapor at low temperature; Wide working temperature range of heat transfer oil; The entire circulation system without use of mechanical and electric valve.


FEATURES:

1. Wide working temperature range with cooling and heating function, temperature range: -25~200°C.
2. With 2pcs of LED display controller, can show the setting temperature & actual value, and alarm value for overtemperature.
3. Efficient fast, simple topping up liquid.
4. Ensure fast cooling at high temperature and can achieve 200°C~-25°C temperature control continuously.
5. The cycle system is closed, there is no oil mist and water vapor happening, so as to assure the lab safety and heat transfer fluid lifetime.
6. Use copeland brand compressor, circulation pump, stable performance and reliable quality.
7. Self-diagnosis function; freezer overload protection; high pressure switch, overload relay, thermal protection device, liquid low level protection, high temperature protection and temperature fault protection.
8. Use the same kind of heat conducting in the whole heating-cooling cycle when control heat conducting medium temperature.
9. High-lift design and meet the long-distance transportation of heat conducting medium.



 -25°C~200°C



 -25°C~200°C

Model	HC-25	HC-35	HC-50	HC-70	HC-100	HC-150
Temperature range °C	-25°C~200°C					
Controller	PID adaptive controller					
Temp. control	Heat-conducting medium outlet temp. control					
Communication protocol	MODBUS RTU Protocol, RS 485 Interface					
Temperature feedback	Heat-conducting medium temperature feedback PT100					
Temp. accuracy	± 0.5°C	± 0.5°C	± 0.5°C	± 0.5°C	± 0.5°C	± 0.5°C
Heating power	200°C	2.5kW	3.5kW	5.5kW	7kW	10kW
	100°C	2.5kW	3.5kW	5.5kW	7kW	10kW
	20°C	2.5kW	3.5kW	5.5kW	7kW	10kW
	-5°C	2kW	3kW	4.5kW	6.6kW	8kW
	-20°C	1kW	1.8kW	2.8kW	3.8kW	4.8kW
Circulation pump	Max25L/min 2bar	Max35L/min 2bar	Max35L/min 2bar	Max35L/min 2bar	Max60L/min 2bar	Max50L/min 2bar
Tank volume	8L	13L	15L	18L	22L	25L
Evaporator	Plate heat exchanger					
Operation Panel	Display setting temperature and testing temperature; outlet and inlet temperature, LCD display.					
Safety protection	Self-diagnosis function; freezer overload protection; high pressure switch, overload relay, thermal protection device, liquid low level protection, high temperature protection and temperature fault protection.					
Closed circulation system	The whole system is full closed circulation, there is no oil mist at high temperature and no water vapor at low temperature, pressure do not rise up when system is running. The system will supplement oil automatically at low temperature.					
Refrigerant	R-404A	R-404A	R-404A	R-404A	R-404A	R-404A
Connection size	DN15	DN20	DN20	DN20	DN20	DN20
Dimension air-cooled	400*600*1150	500*680*1450	500*680*1450	500*680*1450	650*700*1650	750*750*1800
Weight air-cooled	150kg	165kg	235kg	265kg	290kg	320kg
Power	AC 220V 50HZ 4kW(max)	AC 380V 50HZ 5.5kW(max)	AC 380V 50HZ 7.5kW(max)	AC 380V 50HZ 10kW(max)	AC 380V 50HZ 14kW(max)	AC 380V 50HZ 21kW(max)
Case material	Cold rolled steel					
Optional	Optional 7-inch color touch screen controller, temperature curve record, data export to excel format.					
Optional	SUS304 case material					
Optional power	220V 60HZ three-phase, 440V~480V 60HZ three-phase					



-40°C ~ 250°C

Low temperature circulator

Description:

1. Saving resources; closed cycle pipeline design, highly prevent circulating liquid pollution and extend the lifetime of circulation liquid.
2. Multi-safety protection, easy operation.
3. Human design, more convenient and flexible.
4. Efficient two-condensate system.
5. Computer-cascade temperature controller, temperature figures display, adjust unit is 0.1°C.
6. PT100 temperature sensor.
7. Can set the temperature difference of compressor on/off.
8. A variety of fault alarm (overtemperature alarm, sensor alarm, high pressure alarm, compressor overheat alarm, liquid level alarm).
9. Power on delay protection.
10. All parts are safety grounding.
11. High-performance circulating pump, can guarantee 24 hours continuously running a day.



-15°C ~ 30°C

Model	HCT-25	HCT-35	HCT-50	HCT-70	HCT-100	HCT-150
Temperature range °C	-40°C ~ 250°C					
Controller	PID adaptive controller					
Temp. control	Heat-conducting medium outlet temp. control					
Communication protocol	MODBUS RTU Protocol, RS 485 Interface					
Temperature feedback	Heat-conducting medium: PT100					
Temp. accuracy	± 0.5°C	± 0.5°C	± 0.5°C	± 0.5°C	± 0.5°C	± 0.5°C
Heating power	2500W	3500W	5500W	7500W	10000W	15000W
Cooling capacity	250°C	2000W	3500W	5500W	7500W	10000W
	100°C	2000W	3500W	5000W	7000W	10000W
	20°C	2000W	3500W	5000W	7000W	10000W
	0°C	1800W	3000W	5000W	7000W	10000W
	-20°C	850W	1500W	2850W	4200W	6000W
	-40°C	250W	450W	900W	1500W	2000W
Circulation pump	Max25L/min 1bar	Max50L/min 1bar	Max50L/min 1bar	Max50L/min 1bar	Max75L/min 1.5bar	Max110L/min 1.5bar
Tank volume	8L	13L	15L	18L	22L	25L
Evaporator	Cold rolled steel					
Operation Panel	Display setting temperature and testing temperature; outlet and inlet temperature, LCD display					
Safety protection	Self-diagnosis function; freezer overload protection; high pressure switch; overload relay; thermal protection device, liquid low level protection, high temperature protection and temperature fault protection.					
Closed circulation system	The whole system is full closed circulation, there is no oil mist at high temperature and no water vapor at low temperature, pressure do not rise up when system is running. The system will supplement oil automatically at low temperature.					
Refrigerant	R-404A	R-404A	R-404A	R-404A	R-404A	R-404A
Connection size	DN15	DN20	DN20	DN20	DN20	DN20
Dimension	air-cooled 400*600*1150 mm	500*700*1450 mm	500*700*1450 mm	500*700*1450 mm	650*700*1650 mm	750*750*1850 mm
Weight	air-cooled 160kg	185kg	245kg	285kg	320kg	360kg
Power	AC 220V 50HZ 4.5kW(max)	AC 380V 50HZ 5.5kW(max)	AC 380V 50HZ 9kW(max)	AC 380V 50HZ 11.5kW(max)	AC 380V 50HZ 16kW(max)	AC 380V 50HZ 23kW(max)
Case material	Cold rolled steel					
Optional	SUS304 case material					
Optional power	220V 60HZ three-phase, 440V~480V 60HZ three-phase					

Easy Control
User friendly operation

Protection+
Multi-species safety strans

	Mini Chiller TGL-800
Mode	TGL-800
Circulation	open system
Temp. range	-15°C ~ 30°C
Temperature accuracy	2°C
Cooling power	900W AT 20°C 760W AT 10°C 600W AT 0°C 470W AT -10°C
Pump L/min bar	Max10L/min 0.7bar
Input, display	Touch key input, LCD display
Security protection	freezer overload; sensor fault protection, overload relays and other security features
Refrigerants	R-404A
Cooling pipe	Nickel-plated copper
Outlet / Return	External diameter 15mm
Tank volume	7L
Dimensions /Weight	350 x 560 x 750mm about 50kg
Power	AC 220V 50/60HZ 950W

Chiller/Cooling Circulator 5°C~50°C

Typical Applications:

Semiconductor Manufacturing Device Cooling :

Single chip cleaning, printing machine, automatic clamp installation equipment, spraying equipment, ion plating equipment, etching device, single chip processing device, slicing machine, packaging machine, the temperature of the developer management, exposure device, magnetic part of the heating device, etc.

Laser Equipment Cooling:

Laser processing, heating part of the welding machine, laser marking device, chemical reaction plant, carbon dioxide laser processing machine, etc.

Other Industries Cooling:

Plasma welding, automatic packaging machine, mold cooling, washing machine, gold-plated groove, resin molding machine, precision grinding machine, injection molding machine of molding parts, etc.

Analysis Of Testing Machine Cooling:

Electronic microscope, ICP lighting light source part of the spectrum analysis device, heating part of the spectrophotometer, X-ray analytical device of heat source, automatic pulse heating part of the banner, the light source of atomic absorption spectrophotometer, etc.
CNC machine, machining center cooling of cooling medium

FEATURES:

1. Temperature of heat transfer fluid can be adjustable.
2. Adopt ASPERA, DANFOSS, MANEUROP, COPELAND etc. Brand compressor, stable performance and can work continuously.
3. Human design, more convenient and flexible.
4. Microcomputer temperature controller, temperature figures display, adjustable unit is 0.1°C, temperature range is 5°C~50°C.
5. Use hot gas bypass, save energy and improve the control precision.
6. A variety of fault alarm (overtemperature alarm, high pressure alarm, sensor alarm, compressor overheat alarm).
7. Power on delay protection.
8. All parts are safety grounding.
9. High-performance circulating pump, can guarantee 24 hours continuously running a day.



Model	TGL-0250 TGL-0250H	TGL-0500 TGL-0500H	TGL-0700 TGL-0700H	TGL-1000 TGL-1000H	TGL-1500 TGL-1500H	TGL-2000 TGL-2000H	TGL-2600 TGL-2600H
Temperature range °C	Standard FL-series temperature range 5°C ~ 35°C (only with cooling function) FL with H-series temperature range 5°C ~ 50°C (both with cooling function and heating performance)						
Temp. control	ASET multifunctional controller						
Temp. control optional communication protocol	Heat-conducting medium outlet temp. control MODBUS RTU Protocol, RS 485 Interface						
Temp. feedback	Heat-conducting medium temperature feedback PT100						
Cooling capacity	20°C 10°C	2.5kW 1.8kW	5kW 3.6kW	7kW 5kW	10kW 7.2kW	15kW 11kW	20kW 14.5kW
Cooling capacity (H series)	10°C 20°C 45°C	2.5kW 2kW 1kW	5kW 4kW 2.8kW	7kW 5.6kW 2.8kW	10kW 8kW 4kW	15kW 12kW 6kW	20kW 16kW 8kW
Circulation pump	Max25L/min 2bar	Max35L/min 2.5bar	Max35L/min 2.5bar	Max50L/min 2.5bar	Max75L/min 2.5bar	Max75L/min 2.5bar	Max110L/min 2.5bar
Capacity of liquid storage	15L	17L	25L	25L	40L	60L	80L
Evaporator	Plate heat exchanger						
Operation panel	Display setting temperature and testing temperature; LCD display						
Security protection	Self-diagnosis function; freezer overload protection; high pressure switch; overload relay, thermal protection device etc. security protection function.						
Refrigerants	R-410A/R-407C						
Connection size	DN15	DN20	DN20	DN20	DN20	DN20	DN25
Product size air-cooled	400*600*1150 mm	500*680*1450 mm	500*680*1450 mm	500*680*1450 mm	650*700*1650 mm	750*750*1800 mm	850*850*1850 mm
Weight air-cooled	115kg	145kg	180kg	225kg	290kg	340kg	380kg
Power	AC 220V 50HZ 1.3kW(max)	AC 220V 50HZ 1.8kW(max)	AC 220V 50HZ 2.5kW(max)	AC 380V 50HZ 3.5kW(max)	AC 380V 50HZ 4.5kW(max)	AC 380V 50HZ 6.5kW(max)	AC 380V 50HZ 8.5kW(max)
Material	Cold rolled steel						
Optional	Optional 7-inch color touch screen controller, temperature curve record, data export to excel format.						
Optional	SUS304 material						
Optional	Pressure ≤ 10 bar circulating pump						
Optional Power	220V 60HZ three-phase, 440V~480V 60HZ three-phase						
Remark	Can make the bigger capacity of water storage as required.						

Model	TGL-3500 TGL-3500H	TGL-5000 TGL-5000H	TGL-10000W TGL-10000WH	TGL-16000W TGL-16000WH	TGL-24000W TGL-24000WH	TGL-36000W TGL-36000H
Temperature Range	Standard FL-series temperature range 5°C ~ 35°C (only with cooling function) FL with H-series temperature range 5°C ~ 50°C (both with cooling function and heating performance)					
Temp. control	ASET multifunctional controller					
Temp. control optional Communication protocol	Heat-conducting medium outlet temp. control MODBUS RTU Protocol, RS 485 Interface					
Temperature feedback	Heat-conducting medium temperature feedback PT100					
Cooling capacity	20°C 10°C	35kW 28kW	50kW 40kW	100kW 80kW	160kW 128kW	240kW 192kW
Cooling capacity (H series)	10°C 20°C 45°C	35kW 28kW 17kW	50kW 40kW 24kW	100kW 80kW 48kW	160kW 128kW 77kW	240kW 192kW 115kW
Circulation pump	9m³/h 2.5bar max	15m³/h 2.5bar max	15m³/h 2.5bar max	25m³/h 2.5bar max	25m³/h 2.5bar max	35m³/h 2.5bar max
Capacity of liquid storage	200L	400L	650L	1000L	1200L	1800L
Evaporator	Plate heat exchanger					
Operation Panel	Display setting temperature and testing temperature; LCD display					
Safety protection	Self-diagnosis function; freezer overload protection; high pressure switch, overload relay, thermal protection device, liquid low level protection, high temperature protection and temperature fault protection.					
Refrigerant	R-410A					
Connection size	DN-25	DN40	DN40	DN40	DN40	DN-50
Dimension air-cooled	950*1700*1700	1100*2000*2000	1800*1200*1750	2050*1450*1750	2350*1450*1750	2450*1450*2050
Weight air-cooled	800kg	1000kg	1350kg	1500kg	1800kg	2400kg
Power	AC 380V 50HZ 12kW(max)	AC 380V 50HZ 18kW(max)	AC 380V 50HZ 26kW(max)	AC 380V 50HZ 43kW(max)	AC 380V 50HZ 63kW(max)	AC 380V 50HZ 92kW(max)
Case material	Cold rolled steel					
Optional	Optional 7-inch color touch screen controller, temperature curve record, data export to excel format.					
Optional	SUS304 material					
Optional	Optional outside touch screen display controller (separated), the communication line distance is 10 meter.					
Optional power	220V 60HZ three-phase, 440V~480V 60HZ three-phase					
Remarks	Can make the bigger capacity of water storage as required.					

Low Temperature Circulator/Cooling Circulator

(Use high power equipment for industrial production, please refer to industrial production catalogue)

Description

1. Saving resources; closed cycle pipeline design highly prevent circulating water pollution and extend the lifetime of circulation liquid.
2. Multi-safety protection, more reliable operation
3. Brand compressor, cascade refrigeration colling technologies
4. Human design, more convenient and flexible
5. Efficient two-condensate system
6. Computer-cascade temperature controller, temperature figures display, adjustable unit is 0.1°C, temperature range is -125°C ~ -20°C, PT100 temperature sensor.
7. Use of cold technology, can guarantee the stability of temperature at low temperature.
8. Can set the temperature difference of compressor on/off.
9. Monitoring the ambient temperature, prevent temperature to be higher in the running system.
10. A variety of fault alarm (overtemperature alarm, sensor alarm, high pressure alarm, compressor overheat alarm, liquid level alarm).
11. Power on delay protection, three-level cascade system protectors.
12. All parts are safety grounding.
13. Adopt full closed circulation design, no water vapor at low temperature and ensure the purity of cooling medium, in case of ice crystals, provide a long timelife of heat transfer liquid.
14. High-performance circulating pump, can guarantee 24 hours continuously running a day.
15. Use plate cool-heat-exchanger, heat transfer efficiency is provided.



 -20°C ~ -125°C

Model	TCX-0250	TCX-0400	TCX-0700	TCX-1000	TCX-1450	TCX-2000	TCX-2600
Medium Temperature Range	-15°C~30°C	-25°C~30°C	-25°C~30°C	-25°C~30°C	-25°C~30°C	-25°C~30°C	-25°C~30°C
Temp. control and display	LCD display						
Temp. control optional	Heat-conducting medium outlet temp control						
communication protocol	MODBUS RTU Protocol, RS 485 Interface						
Temp. feedback	Heat-conducting medium temperature feedback PT100						
Cooling capacity	0°C	1.5kW	2.4kW	4kW	7.5kW	10kW	15.5kW
	-10°C	1kW	1.5kW	2.7kW	6.3kW	8kW	12kW
	-20°C	0.5kW	0.8kW	1.5kW	3.5kW	5kW	7.3kW
Circulation pump	Max20L/min 1.5bar	Max20L/min 1.5bar	Max35L/min 2.5bar	Max35L/min 2.5bar	Max75L/min 2.5bar	Max75L/min 2.5bar	Max110L/min 2.5bar
	Capacity of liquid storage	15L	17L	25L	25L	40L	60L
Evaporator	Copper tube						
Security protection	Self-diagnosis function; freezer overload protection; high pressure switch; overload relay, thermal protection device etc. security protection function.						
Refrigerants	R-404A						
Connection size	DN15	DN20	DN20	DN20	DN20	DN20	DN25
Product size	air-cooled	400*600*1150 mm	400*600*1150 mm	500*680*1350 mm	500*680*1350 mm	650*700*1650 mm	750*750*1850 mm
	Weight	115kg	145kg	180kg	225kg	290kg	340kg
Power	air-cooled	AC 220V 50HZ 1.5kW(max)	AC 220V 50HZ 1.8kW(max)	AC 220V 50HZ 2.5kW(max)	AC 380V 50HZ 3.5kW(max)	AC 380V 50HZ 5kW(max)	AC 380V 50HZ 6.5kW(max)
	Material	Cold rolled steel					
Optional	SUS304 material						
Optional	Pressure ≤10 bar circulating pump						
Optional Power	220V 60HZ three-phase, 440V~480V 60HZ three-phase						
Remark	Can make the bigger capacity of water storage as required.						

Model	TCY-4018	TCY-4040	TCY-4062	TCY-4090	TCY-40A1	TCY-40A2
Medium Temperature Range	-40°C~30°C	-40°C~30°C	-40°C~30°C	-40°C~30°C	-40°C~30°C	-40°C~30°C
Temp. control and display	LCD display					
Temp. control optional	Heat-conducting medium outlet temp control					
communication protocol	MODBUS RTU Protocol, RS 485 Interface					
Temp. feedback	Heat-conducting medium temperature feedback PT100					
Cooling capacity	-10°C	1.5kW	3.2kW	4.5kW	6.2kW	8.3kW
	-20°C	1.2kW	2.7kW	3.8kW	5.5kW	7kW
	-40°C	0.4kW	0.75kW	1.15kW	1.5kW	2.1kW
Circulation pump	Max20L/min 0.7bar	Max20L/min 0.7bar	Max35L/min 1bar	Max35L/min 1bar	Max75L/min 1bar	Max75L/min 1bar
	Capacity of liquid storage	15L	17L	25L	25L	40L
Evaporator	Copper tube					
Security protection	Self-diagnosis function; freezer overload protection; high pressure switch; overload relay, thermal protection device etc. security protection function.					
Refrigerants	R-404A					
Connection size	DN15	DN20	DN20	DN20	DN20	DN20
Product size	air-cooled	400*600*1250 mm	500*680*1350 mm	500*680*1450 mm	500*680*1450 mm	650*700*1650 mm
	Weight	145kg	185kg	230kg	275kg	340kg
Power	air-cooled	AC 220V 50HZ 1.6kW(max)	AC 380V 50HZ 2.5kW(max)	AC 380V 50HZ 3.5kW(max)	AC 380V 50HZ 4.8kW(max)	AC 380V 50HZ 6kW(max)
	Material	Cold rolled steel painting				
Optional	SUS304 material					
Optional	Pressure ≤6 bar circulating pump					
Optional Power	220V 60HZ three-phase, 440V~480V 60HZ three-phase					
Remark	Can make the bigger capacity of water storage as required.					

Model	TCY-6018	TCY-6030	TCY-6062	TCY-6090	TCY-60A1	TCY-60A2
Medium Temperature Range	-60°C--20°C	-60°C--20°C	-60°C--20°C	-60°C--20°C	-60°C--20°C	-60°C--20°C
Temp. control and display	LCD display					
Temp. control optional	Heat-conducting medium outlet temp.control					
communication protocol	MODBUS RTU Protocol, RS 485 interface					
Temp. feedback	Heat-conducting medium temperature feedback PT100					
Cooling capacity	-20°C	0.85kW	1.45kW	2.5kW	3.4kW	4.8kW
	-40°C	0.7kW	1.2kW	2.1kW	2.8kW	4kW
	-55°C	0.4kW	0.6kW	1.2kW	1.6kW	2kW
Circulation pump	Max20L/min 0.7bar	Max20/min 0.7bar	Max35L/min 1bar	Max35L/min 1bar	Max75L/min 1bar	Max75L/min 1bar
Capacity of liquid storage	15L	17L	25L	25L	40L	60L
Evaporator	Copper tube					
Security protection	Self-diagnosis function;freezer overload protection;high pressure switch;overload relay,thermal protection device etc.security protection function.					
Refrigerants	R-404A/R23					
Connection size	DN15	DN20	DN20	DN20	DN20	DN20
Product size	air-cooled 400*600*1150 mm	500*680*1350 mm	650*700*1650 mm	650*700*1650 mm	650*700*1650 mm	750*750*1800 mm
Weight	air-cooled 145kg	185kg	230kg	275kg	340kg	380kg
Power	AC 220V 50HZ 2.5kW(max)	AC 380V 50HZ 3kW(max)	AC 380V 50HZ 4kW(max)	AC 380V 50HZ 5.8kW(max)	AC 380V 50HZ 7kW(max)	AC 380V 50HZ 9kW(max)
Material	Cold rolled steel painting					
Optional	Circulation Pump Optional: 35L/min 2.5bar 50L/min 2.5bar 110L/min 2.5bar					
Optional	SUS304 material					
Optional	Pressure ≤6 bar circulating pump					
Optional Power	220V 60HZ three-phase, 440V-480V 60HZ three-phase					
Remark	Can make the bigger capacity of water storage as required.					


Model	TCY-8018	TCY-8030	TCY-8062	TCY-8090	TCY-80A1	TCY-80A2
Medium Temperature Range	-80°C--20°C	-80°C--20°C	-80°C--20°C	-80°C--20°C	-80°C--20°C	-80°C--20°C
Temp. control and display	LCD display					
Temp. control optional	Heat-conducting medium outlet temp.control					
communication protocol	MODBUS RTU Protocol, RS 485 interface					
Temp. feedback	Heat-conducting medium temperature feedback PT100					
Cooling capacity	-40°C	0.6kW	1.4kW	2.8kW	3.4kW	4.8kW
	-60°C	0.4kW	0.8kW	1.6kW	2.1kW	4kW
	-75°C	0.2kW	0.5kW	0.9kW	1.2kW	2kW
Circulation pump	Max20L/min 0.7bar	Max20/min 0.7bar	Max35L/min 1bar	Max35L/min 1bar	Max75L/min 1bar	Max75L/min 1bar
Capacity of liquid storage	15L	17L	25L	25L	40L	60L
Evaporator	Copper tube					
Security protection	Self-diagnosis function;freezer overload protection;high pressure switch;overload relay,thermal protection device etc.security protection function.					
Refrigerants	R-404A/R23					
Connection size	DN15	DN20	DN20	DN20	DN20	DN20
Product size	air-cooled 500*680*1350 mm	500*680*1350 mm	650*700*1650 mm	650*700*1650 mm	750*750*1800 mm	850*850*1850 mm
Weight	air-cooled 185kg	230kg	340kg	275kg	380kg	470kg
Power	AC 220V 50HZ 3kW(max)	AC 380V 50HZ 4kW(max)	AC 380V 50HZ 5.5kW(max)	AC 380V 50HZ 7kW(max)	AC 380V 50HZ 8.7kW(max)	AC 380V 50HZ 11.5kW(max)
Material	Cold rolled steel painting					
Optional	Circulation Pump Optional: 35L/min 2.5bar 50L/min 2.5bar 110L/min 2.5bar					
Optional	SUS304 material					
Optional	Pressure ≤6 bar circulating pump					
Optional Power	220V 60HZ three-phase, 440V-480V 60HZ three-phase					
Remark	Can make the bigger capacity of water storage as required.					

Heating Circulator (industrial production)



Model	THW-A1520	THW-A2520	THW-A3820	THW-A6020	THW-A9520	THW-A13020	THW-A20020	THW-A1530	THW-A2530	THW-A3830	THW-A6030
Temperature range	50°C ~ 200°C						50°C ~ 300°C				
Controller	PID adaptive controller										
Temp. Control optional	Heat-conducting medium outlet temp.control										
Communication protocol	MODBUS RTU Protocol, RS 485 interface										
Temperature feedback	Heat-conducting medium temperature feedback PT100										
Temp. accuracy	±0.5°C	±0.5°C	±1°C	±1°C	±1°C	±1°C	±2°C	±0.5°C	±1°C	±1°C	±1°C
	15kW	28kW	38kW	60kW	95kW	130kW	200kW	15kW	25kW	38kW	60kW
Heating power	Divide to two groups heating										
	Divide to three groups heating										
Circulation pump	Divide to four groups heating										
	Divide to two groups heating										
Expansion tank volume	Heater can be divided into groups. When the testing temperature reached to (setting temperature -5°C), it can close the most of heating duty and leave the next group to be PID fuzzy control.										
	Max50L/min 2.5BAR	Max110L/min 2.5BAR	Max110L/min 2.5BAR	Max250L/min 2.5BAR	Max250L/min 2.5BAR	Max400L/min 2.5BAR	Max400L/min 2.5BAR	Max50L/min 2.5BAR	Max10L/min 2.5BAR	Max110L/min 2.5BAR	Max250L/min 2.5BAR
Heater	Orient electric heater										
Independent temperature limiter	TOPTION										
Cooler	Plate heat exchanger										
Operation panel	Display setting temperature and testing temperature; Touch screen display										
Safety protection	Self-diagnosis function; freezer overload protection; high pressure switch, overload relay, thermal protection device, liquid low level protection, high temperature protection and temperature fault protection.										
Closed circulation system	The whole system is full closed circulation, there is no oil mist at high temperature and no water vapor at low temperature, pressure do not rise up when system is running. The system will supplement oil automatically at low temperature.										
Connection size	DN-25	DN25	DN25	DN40	DN40	DN-50	DN-50	DN-25	DN-25	DN-25	DN-40
Dimension	600*600*1250	700*800*1350	1500*1000*1650	1500*1000*1650	2050*1250*2050	2050*1450*2050	2350*1450*2050	700*800*1650	700*800*1650	1500*1000*1650	2050*1250*2050
Weight	100kg	130kg	240kg	390kg	480kg	600kg	650kg	115kg	195kg	325kg	680kg
Power	AC 380V 50HZ 15.7kW (max)	AC 380V 50HZ 26.9kW (max)	AC 380V 50HZ 39.5kW (max)	AC 380V 50HZ 63kW (max)	AC 380V 50HZ 98kW (max)	AC 380V 50HZ 135.5kW (max)	AC 380V 50HZ 209kW (max)	AC 380V 50HZ 18kW (max)	AC 380V 50HZ 26.9kW (max)	AC 380V 50HZ 39.5kW (max)	AC 380V 50HZ 63kW (max)
Case material	Cold rolled steel painting										
Optional	Optional 7-inch color touch screen controller, temperature curve record, data export to excel format.										
Optional	SUS304 SUS304 case material										
Optional	Optional outside touch screen display controller (separated), the communication line distance is 10 meter.										
Optional	Optional explosion-proof touch screen control system (ExdellBT4), the communication line distance is 15 meter.										
Optional power	220V 60HZ three-phase, 440V-480V 60HZ three-phase										

PRODUCT OVERVIEW



Low temperature series products

There are four types of low-temperature series, which are air-cooled box type, water-cooled box type, air-cooled screw type, and water-cooled screw type. The outlet temperature of the refrigerant can be adjusted from -40°C to -85°C. The cooling capacity of a single unit is 1KW-300KW to choose from, and the flow rate of the refrigerant depends on the working conditions and cooling capacity.

The product is produced in the factory as a whole machine, after various indicators are tested, and the refrigerant is filled, and then the water and electricity are turned on for commissioning to ensure that all parameters are qualified before leaving the factory.



Ultra-low temperature series products

There are two types of ultra-low temperature series, which are air-cooled box type and water-cooled box type, and the outlet water temperature of the brine is adjustable from -90°C to -120°C. The cooling capacity of a single unit is 1KW-50KW to choose from, and the flow rate of the refrigerant depends on the working conditions and cooling capacity.

The product is produced in the factory as a whole machine, after various indicators are tested, and the refrigerant is filled, and then the water and electricity are turned on for commissioning to ensure that all parameters are qualified before leaving the factory.



Cooling and heating integrated machine series products

There are two types of cooling and heating integrated machine series, which are air-cooled box type and water-cooled box type. Constant temperature in the range of -120°C. The heating capacity and cooling capacity are available from 1KW to 600KW, and the heat exchange medium is matched with different flow rates according to different working conditions and energy output.

The product is produced in the factory as a whole machine, after various indicators are tested, and the refrigerant is filled, and then the water and electricity are turned on for commissioning to ensure that all parameters are qualified before leaving the factory.

PRODUCT FEATURES



Screw compressors Scroll compressor Hermetic Piston Compressor

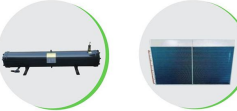
Dry shell and tube evaporator Plate evaporator Water tank coil evaporator

Imported compressors

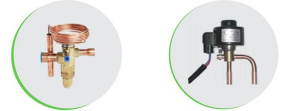
The compressor adopts an international first-line brand, with stable performance, small start-up vibration and low noise, multiple protection devices inside the compressor, and long-lasting running endurance.

Evaporator

The heat exchange area of the evaporator is large, the refrigerant has a long distance on the side of the evaporator tube, and the heat exchange with the medium is sufficient, which effectively improves the heat exchange efficiency of the evaporator, the cooling output is stable, and the cooling and cooling speed is fast.



Water-cooled shell and tube type Air-cooled finned




External Balance Thermal Expansion Valve Electronic expansion valve

Condenser

The condenser is made of threaded copper tubes. The refrigerant is turbulent in the condenser tubes, and the heat transfer efficiency is more than 15% higher than that of ordinary copper tubes.

Refrigerant throttling device

Refrigerant throttling device adopts imported brand, with compact structure, strong sealing, adjustable superheat, suitable for general temperature-sensing charging in different temperature environments, laser-welded stainless steel temperature-sensing elements, to ensure the best adjustment ability, and the life of the diaphragm is longer Longer, higher compressive strength.



PLC automatic control system touch screen Button control panel



Contactor Thermal relay Breaker

Computer control unit and programmable PLC

According to different use environments, different control systems are used to meet diverse application requirements. The control system mainly includes microcomputer control unit and programmable PLC.

Electrical components

Contactors, thermal relays, circuit breakers, circuit breakers and other electrical appliances adopt first-line brands such as Schneider and ABB, with stable performance and high reliability, giving the equipment the greatest safety care.

HIGH TEMPERATURE PRODUCTS



Multiple protection function security settings

- Exhaust high temperature protection**
When the exhaust temperature of the compressor is too high, automatic protection.
- Current protection**
When the current of the compressor is too large, automatic shutdown protection
- Start delay protection**
After shutting down, wait for one minute before restarting
- High pressure protection**
When the pressure is too high, automatic shutdown protection
- Low pressure protection**
When the pressure is too low, automatic shutdown protection
- Intelligent fault detection**
Detects failsafes to deal with problems early
- Water flow switch protection**
Before the compressor starts, it will first detect whether there is water flow
- Grounding Safety Protection**
Grounding is adopted for safety protection

High temperature air-cooled box-type unit technical parameters

Model		TG-1A	TG-2A	TG-3A	TG-5A	TG-8A	TG-10A	TG-15A	TG-20A	TG-25A	TG-30A	TG-40A	TG-50A
Cooling capacity	Kw	2.67	5.35	8	13	21.4	26.7	40.1	55.4	64	83	110.8	128
	Kcal/h	2300	4600	6900	11500	18400	23000	34500	47644	55040	71380	95288	110080
Machinepower(KW)		1.32	2.07	2.8	4.7	7.9	9.4	13.1	18.9	23.4	28	37.4	46.4
Inputpower		1PH-220/50Hz				3PH-380/50Hz							
Machine current (A)		3	4	6	10	16	19	27	38	47	56	75	93
Compressor	Type	Hermetic scroll compressor											
	Rated power (kw)	0.75	1.5	2.25	3.75	3*2	3.75*2	7.5*3.75	7.5*2	9.37*2	7.5*3	7.5*4	9.37*4
Condenser	Type	High-efficiency copper tube sleeve aluminum fin type + low noise external rotor fan											
	Cooling air volume (m3/h)	1000	2000	3000	5000	8000	10000	15000	20000	25000	30000	40000	50000
Evaporator	Type	Coil type/Plate type/Shell and tube type						Plate/shell and tube					
	Brine flow (m3)	0.46	0.92	1.38	2.3	3.68	4.6	6.9	9.5	11	14.2	19	22
	Water tank capacity (L)	20	20	50	50	150	150	200	300	300	450	500	500
	Inlet & outlet pipe diameter	DN25	DN25	DN25	DN25	DN40	DN40	DN50	DN50	DN65	DN65	DN80	DN80
Water pump	Rated power (KW)	0.37	0.37	0.37	0.55	1.1	1.1	1.5	2.2	3	3	4	5.5
	Lifting	20	20	20	20	20	20	20	20	20	20	20	20
Refrigerant	Name	R22 R134a R407c											
	Charging amount (kg)	0.8	1.6	2.4	4	6.4	8	12	16	20	24	32	40
	Control method	Capillary											
Safety protection		Compressor overheat protection, high and low pressure protection, over temperature protection, flow protection, phase sequence/phase loss protection, exhaust overheat protection, antifreeze protection											
Dimensions	Length(mm)	503	699	864	986	1261	1261	2001	2604	2604	2523	2100	2100
	Width (mm)	403	624	634	634	864	864	854	904	904	954	1925	1925
	Height (mm)	654	1160	1443	1478	1921	1921	1608	1915	1915	2024	1990	1990
Weight	KG	140	140	140	210	300	350	650	800	980	1050	1250	1450

Nominal cooling capacity: the ambient temperature is 35°C, the inlet and outlet temperature of the brine is 12/7°C.

High temperature water-cooled box-type unit technical parameters

Model		TG-3W	TG-5W	TG-8W	TG-10W	TG-15W	TG-20W	TG-25W	TG-30W	TG-40W	TG-50W
Cooling capacity	Kw	8.8	14.6	23.8	29	43.9	61	72	91.5	122	144
	Kcal/h	7500	12500	20000	25000	37500	50000	62500	75000	100000	125000
Machine rated power (KW)		3	4	8	9	13	18	22	26	34	43
Input power		3PH-380/50Hz									
Machine current (A)		6	8	16	18	26	36	44	52	68	86
Compressor	Type	Hermetic scroll compressor									
	Rated power (kw)	2.25	3.75	3*2	3.75*2	3.75*3	7.5*2	9.37*2	7.5*3	7.5*4	9.37*4
Condenser	Type	Shell and tube type									
	Cooling water flow (m ³ /h)	1.97	3.26	5.3	6.5	9.8	14	16	20.5	27	32
Evaporator	Type	Coil type/Plate type/Shell and tube type					Plate/shell and tube				
	Brine flow (m ³)	1.5	2.5	4	5	7.5	10.5	12.4	16	21	25
	Water tank capacity (L)	50	50	150	150	150	200	200	300	\	\
	Inlet and outlet pipe diameter	DN25	DN25	DN40	DN40	DN50	DN50	DN65	DN65	DN80	DN80
Water pump	Rated power (KW)	0.37	0.55	1.1	1.1	1.5	2.2	3	3	4	5.5
	Lifting	20	20	20	20	20	20	20	20	20	20
Refrigerant	Name	R22 R134a R407c									
	Charging amount (kg)	2.4	4	6.4	8	12	16	20	24	32	40
	Control method	External balance thermostatic expansion valve									
Safety protection		Compressor overheat protection, high and low pressure protection, over temperature protection, flow protection, phase sequence/phase loss protection, exhaust overheat protection, antifreeze protection									
Dimensions	Length (mm)	882	882	1404	1404	1404	1704	1704	2102	2305	2305
	Width (mm)	524	524	694	694	694	774	774	814	954	954
	Height (mm)	1250	1250	1514	1514	1514	1765	1765	1470	1875	1875
Weight	KG	130	150	300	430	735	820	900	1150	1200	1250

Nominal cooling capacity: the inlet and outlet temperature of cooling water is 32/37°C, and the inlet and outlet temperature of brine is 12/7°C.

High temperature air-cooled screw unit parameters

Model		TG-30AFL	TG-40AFL	TG-50AFL	TG-60AFL	TG-70AFL	TG-80AFL	TG-85AFL	TG-90AFL
Cooling capacity	Kw	77	104	137	149	182	199	235	248
	Kcal/h	66220	89440	117820	128140	156520	171140	202100	213280
Machine rated power (KW)		25.9	33.4	40.9	50.1	57.6	63.4	67.1	70.9
Machine current (A)		52	67	82	101	116	127	135	140
Input power		3PH-380/50Hz							
Compressor	Type	Semi-hermetic screw compressor							
	Start method	Y-Δ							
	Rated power (kw)	22.5	30	37.5	45	52.5	60	63.75	67.5
	Energy adjustment range	0% -25% -50% -75% -100%							
Evaporator	Type	Dry type shell and tube type							
	Brine flow (m ³)	13	18	24	26	31	34	40	43
	Inlet and outlet pipe diameter	DN65	DN65	DN80	DN80	DN80	DN80	DN100	DN100
Condenser	Type	High-efficiency copper-sleeved aluminum-fin type + low-noise external rotor fan							
	Cooling air volume (m ³ /h)	30000	40000	50000	60000	70000	80000	85000	90000
Refrigerant	Name	R22/R134a							
	Charging amount (kg)	24	32	40	48	56	64	68	72
	Control method	External balance thermostatic expansion valve							
Safety protection		Compressor overheat protection, high and low pressure protection, over temperature protection, flow protection, phase sequence/phase loss protection, exhaust overheat protection, antifreeze protection							
Dimensions	Length (mm)	2650	2650	2650	3310	3310	3512	3512	3512
	Width (mm)	1906	1906	1906	2112	2112	2206	2206	2206
	Height (mm)	2104	2104	2104	2104	2104	2087	2087	2087
Weight	KG	1160	1300	1620	1930	2005	2260	2420	2860

Nominal cooling capacity: the ambient temperature is 35°C, the inlet and outlet temperature of the brine is 12/7°C.

High temperature air-cooled screw unit parameters

Model		TG-100AFL	TG-110AFL	TG-120AFL	TG-140AFL	TG-150AFL	TG-160AFL	TG-170AFL	TG-180AFL	TG-200AFL
Cooling capacity	Kw	272	295	324	386	407	446	483	501	584
	Kcal/h	233920	253700	278640	331960	350020	383560	415380	430860	502240
Machine rated power (KW)		78.4	91	98.5	113	122.7	131.9	139.4	148.6	163.6
Machine current (A)		157	182	197	226	246	284	279	298	328
Input power		3PH-380/50Hz								
Compressor	Type	Semi-hermetic screw compressor								
	Start method	Y-Δ								
	Rated power (kw)	75	82.5	90	105	112.5	120	127.5	135	150
	Energy adjustment range	0%-25%-50%-75%-100%								
Evaporator	Type	Dry type shell and tube type								
	Brine flow (m3)	47	51	56	66	70	76.7	83	86.2	100
	Inlet and outlet pipe diameter	DN100	DN125	DN125	DN125	DN125	DN125	DN125	DN125	DN150
Condenser	Type	High-efficiency copper-sleeved aluminum-fin type + low-noise external rotor fan								
	Cooling air volume (m3/h)	100000	110000	120000	140000	150000	160000	170000	180000	200000
Refrigerant	Name	R22/R134a								
	Cobrar(kg)	80	88	96	112	120	128	136	144	160
	Control method	External balance thermostatic expansion valve								
Safety protection		Compressor overheat protection, high and low pressure protection, over temperature protection, flow protection, phase sequence/phase loss protection, exhaust overheat protection, antifreeze protection, water flow switch protection								
Dimensions	Length (mm)	3512	4362	4362	4362	5204	5204	6000	6000	7380
	Width (mm)	2206	2141	2141	2141	2161	2161	2112	2112	2200
	Height (mm)	2087	2127	2127	2127	2197	2197	2247	2247	2379
Weight	KG	3020	3250	3460	3750	4150	4300	4800	5500	6300

Nominal capacity: the ambient temperature is 35°C, the inlet and outlet temperature of the brine is 12/7°C.

Parameters of high temperature water-cooled single head screw unit

Model		TG-30WFL	TG-40WFL	TG-50WFL	TG-60WFL	TG-70WFL	TG-80WFL	TG-85WFL
Cooling capacity	Kw	88	120	160	172	209	230	271
	Kcal/h	75680	103200	137600	147920	147920	197800	233060
Machine rated power (KW)		22.5	30	37.5	45	52.5	56.25	63.75
Machine current (A)		45	60	75	90	105	113	128
Input power		3PH-380/50Hz						
Compressor	Model	Semi-hermetic screw compressor						
	Start method	Y-Δ						
	Rated power (kw)	22.5	30	37.5	45	52.5	60	63.75
	Energy adjustment range	0%-25%-50%-75%-100%						
Evaporator	Type	Dry type shell and tube type						
	Brine flow (m3)	15	21	28	30	36	40	47
	Inlet and outlet pipe diameter	DN65	DN65	DN80	DN80	DN80	DN80	DN100
Condenser	Type	Dry type shell and tube type						
	Cooling air volume (m3/h)	20	27	36	38	47	51	61
	Inlet and outlet pipe diameter	DN65	DN65	DN80	DN80	DN80	DN80	DN100
Refrigerant	Name	R22/R134a						
	cobrar (kg)	24	32	40	48	56	64	68
	Control method	External balance thermostatic expansion valve						
Safety protection		Compressor overheat protection, high and low pressure protection, over temperature protection, flow protection, phase sequence/phase loss protection, exhaust overheat protection, antifreeze protection, water flow switch protection						
Dimensions	Length (mm)	2316	2346	2371	2371	2621	2621	2666
	Width (mm)	576	608	675	705	705	705	805
	Height (mm)	1216	1216	1339	1409	1483	1483	1603
Weight	KG	640	746	908	1174	1279	1375	1463

Nominal capacity: the ambient temperature is 35°C, the inlet and outlet temperature of the brine is 12/7°C.

Parameters of high temperature water-cooled single head screw unit

Model		TG-90WFL	TG-100WFL	TG-110WFL	TG-120WFL	TG-140WFL	TG-150WFL	TG-160WFL
Cooling capacity	Kw	286	313	339	373	444	469	513
	Kcal/h	245960	269180	291540	320780	381840	403340	441180
Machine rated power (KW)		67.5	75	90	97.5	105	112.5	120
Machine current (A)		135	150	180	195	210	225	240
Input power		3PH-380/50Hz						
Compressor	Model	Semi-hermetic screw compressor						
	Start method	Y-Δ						
	Rated power (kw)	67.5	75	82.5	90	105	112.5	120
	Energy adjustment range	0%-25%-50%-75%-100%						
Evaporator	Type	Dry type shell and tube type						
	Brine flow (m3)	49	54	58	64	76	81	88
	Inlet and outlet pipe diameter	DN100	DN100	DN100	DN125	DN125	DN125	DN125
Condenser	Type	Dry type shell and tube type						
	Cooling air volume (m3/h)	64	70	76	83	99	105	115
	Inlet and outlet pipe diameter	DN100	DN100	DN100	DN125	DN125	DN125	DN125
Refrigerant	Name	R22/R134a						
	Charging amount (kg)	72	80	88	96	112	120	128
	Control method	External balance thermostatic expansion valve						
Safety protection		Compressor overheat protection, high and low pressure protection, over temperature protection, flow protection, phase sequence/phase loss protection, exhaust overheat protection, antifreeze protection, water flow switch protection						
Dimensions	Length (mm)	2666	2976	2976	2976	3004	3004	3026
	Width (mm)	805	805	805	805	885	885	975
	Height (mm)	1603	1640	1640	1691	1756	1809	1905
Weight	KG	1543	1632	1797	2122	2151	2324	2411

Nominal cooling capacity: the inlet and outlet temperature of cooling water is 32/37°C, and the inlet and outlet temperature of brine is 12/7°C.

Parameters of high temperature water-cooled single head screw unit

Model		TG-170WFL	TG-180WFL	TG-200WFL	TG-220WFL	TG-240WFL	TG-280WFL
Cooling capacity	Kw	556	578	673	739	789	889
	Kcal/h	478160	497080	578780	635540	678540	764540
Machine rated power (KW)		127.5	135	150	165	180	210
Machine current (A)		255	270	300	330	360	420
Input power		3PH-380/50Hz					
Compressor	Model	Semi-hermetic screw compressor					
	Start method	Y-Δ					
	Rated power (kw)	127.5	135	150	165	180	210
	Energy adjustment range	0%-25%-50%-75%-100%					
Evaporator	Type	Dry type shell and tube type					
	Brine flow (m3)	96	99	116	127	136	153
	Inlet and outlet pipe diameter	DN125	DN125	DN150	DN150	DN150	DN150
Condenser	Type	Dry type shell and tube type					
	Cooling air volume (m3/h)	124	129	150	165	176	199
	Inlet and outlet pipe diameter	DN125	DN125	DN150	DN150	DN150	DN150
Refrigerant	Name	R22/R134a					
	Charging amount (kg)	136	144	160	176	192	224
	Control method	External balance thermostatic expansion valve					
Safety protection		Compressor overheat protection, high and low pressure protection, over temperature protection, flow protection, phase sequence/phase loss protection, exhaust overheat protection, antifreeze protection, water flow switch protection					
Dimensions	Length (mm)	3256	3256	3276	3456	3456	3494
	Width (mm)	975	975	1030	1080	1080	1170
	Height (mm)	1893	1905	2043	2093	2093	2172
Weight	KG	2499	2928	3150	3221	3292	3526

Nominal cooling capacity: the inlet and outlet temperature of cooling water is 32/37°C, and the inlet and outlet temperature of brine is 12/7°C.

Parameters of high temperature water-cooled twin-head screw unit

Model		TG-220WFL	TG-240WFL	TG-280WFL	TG-300WFL	TG-320WFL
Cooling capacity	Kw	678	746	888	938	1027
	Kcal/h	583080	641560	763680	806680	883220
Machine rated power (KW)		165	180	210	225	240
Machine current (A)		330	360	420	450	480
Input power		3PH-380/50Hz				
Compressor	Model	Semi-hermetic screw compressor				
	Start method	Y-Δ				
	Rated power (kw)	82.5*2	90*2	105*2	112.5*2	120*2
	Energy adjustment range	0%-25%-50%-75%-100%				
Evaporator	Type	Dry type shell and tube type				
	Brine flow (m3)	117	128	153	161	177
	Inlet and outlet pipe diameter	DN150	DN150	DN150	DN150	DN200
Condenser	Type	Dry type shell and tube type				
	Cooling air volume (m3/h)	152	167	199	210	230
	Inlet and outlet pipe diameter	DN100	DN125	DN125	DN150	DN125
Refrigerant	Name	R22/R134a				
	Charging amount (kg)	176	192	224	240	256
	Control method	External balance thermostatic expansion valve				
Safety protection		Compressor overheat protection, high and low pressure protection, over temperature protection, flow protection, phase sequence/phase loss protection, exhaust overheat protection, antifreeze protection, water flow switch protection				
Dimensions	Length (mm)	3206	3206	3234	3234	3414
	Width (mm)	1200	1200	1340	1340	1340
	Height (mm)	1895	1945	2016	2069	2080
Weight	KG	3820	4156	4394	4876	5341

Nominal cooling capacity: the inlet and outlet temperature of cooling water is 32/37°C, and the inlet and outlet temperature of brine is 12/7°C.

Parameters of high temperature water-cooled twin-head screw unit

Model		TG-340WFL	TG-360WFL	TG-400WFL	TG-440WFL	TG-480WFL	TG-560WFL
Cooling capacity	Kw	1112	1155	1345	1477	1577	1778
	Kcal/h	956320	993300	1156700	1270220	1356220	1529080
Machine rated power (KW)		255	270	300	330	360	420
Machine current (A)		510	540	600	660	720	840
Input power		3PH-380/50Hz					
Compressor	Model	Semi-hermetic screw compressor					
	Start method	Y-Δ					
	Rated power (kw)	127.5*2	135*2	150*2	165*2	180*2	210*2
	Energy adjustment range	0%-25%-50%-75%-100%					
Evaporator	Type	Dry type shell and tube type					
	Brine flow (m3)	191	199	231	254	271	306
	Inlet and outlet pipe diameter	DN200	DN200	DN200	DN200	DN200	DN200
Condenser	Type	Dry type shell and tube type					
	Cooling air volume (m3/h)	249	258	300	330	353	398
	Inlet and outlet pipe diameter	DN125	DN125	DN150	DN150	DN150	DN150
Refrigerant	Name	R22/R134a					
	Charging amount (kg)	272	288	320	352	384	448
	Control method	External balance thermostatic expansion valve					
Safety protection		Compressor overheat protection, high and low pressure protection, over temperature protection, flow protection, phase sequence/phase loss protection, exhaust overheat protection, antifreeze protection, water flow switch protection					
Dimensions	Length (mm)	3414	3614	3646	3946	3956	3956
	Width (mm)	1360	1360	1430	1430	1590	1590
	Height (mm)	2088	2100	2213	2213	2333	2333
Weight	KG	5524	5874	6015	6238	6510	6882

Nominal cooling capacity: the inlet and outlet temperature of cooling water is 32/37°C, and the inlet and outlet temperature of brine is 12/7°C.

MEDIUM TEMPERATURE PRODUCTS



Multiple protection function security settings



Exhaust high temperature protection

When the exhaust temperature of the compressor is too high, automatic protection



Current protection

When the current of the compressor is too large, automatic shutdown protection



Start delay protection

After shutting down, wait for one minute before restarting



High pressure protection

When the pressure is too high, automatic shutdown protection



Low pressure protection

When the pressure is too low, automatic shutdown protection



Intelligent fault detection

Detects failsafes to deal with problems early



Water flow switch protection

Before the compressor starts, it will first detect whether there is water flow



Grounding Safety Protection

Grounding is adopted for safety protection

Medium temperature air-cooled box-type unit technical parameters

Model		TZ-3AHD	TZ-5AHD	TZ-10AHD	TZ-15AHD	TZ-20AHD	TZ-30AHD	TZ-40AHD
Cooling capacity (Kw)	-5°C	5.8	10.3	19.9	31	39.8	59.7	79.6
	-15°C	2.5	5.9	11.7	17.6	23.4	35.1	46.8
	-25°C	1.7	2.9	6.2	9.1	12.4	18.6	24.8
	-35°C	0.85	1.3	4.2	5.5	8.3	12.5	16.6
Machine rated power (KW)		2.8	4.7	9.4	14.7	18.9	28	37.4
Input power		3PH-380/50Hz						
Machine current (A)		6	10	19	30	38	56	75
Compressor	Type	Hermetic Piston Compressor						
	Rated power (kw)	2.25	3.75	3.75*2	7.5+3.75	15	22.5	30
Condenser	Type	High-efficiency copper tube sleeve aluminum fin type + low noise external rotor fan						
	Cooling air volume (m3/h)	3000	5000	10000	16000	20000	30000	40000
Evaporator	Type	Plate/shell and tube type						
	Water tank capacity (L)	35	35	100	200	300	450	500
	Brine flow (m3)	1.2	2.1	4	6.4	8.2	12	16.4
	Inlet and outlet pipe diameter	DN25	DN25	DN32	DN40	DN40	DN50	DN60
Water pump	Rated power (KW)	0.37	0.55	1.1	1.5	2.2	3	4
	Lifting (M)	20	20	20	20	20	20	20
Refrigerant	Name	R22/R134a/R407c						
	Charging amount (kg)	2.4	4	8	13	16	24	32
	Control method	External balance thermostatic expansion valve						
Safety protection		Compressor overheat protection, high and low pressure protection, over temperature protection, flow protection, phase sequence/phase loss protection, exhaust overheat protection, antifreeze protection, Water flow switch protection						
Dimensions	Length (mm)	864	964	1244	2001	2604	2523	2100
	Width (mm)	634	634	864	854	904	874	1925
	Height (mm)	1443	1478	1921	1608	1915	2024	1990
Weight	KG	130	165	400	750	850	1050	1150

Nominal cooling capacity: when the ambient temperature is 35°C, the inlet and outlet temperature of the refrigerant is 0°C/-5°C, and when the cooling capacity is -25°C--35°C, the refrigerant is 50% ethylene glycol aqueous solution.

Medium temperature water-cooled box-type unit technical parameters

Model		TZ-3WHD	TZ-5WHD	TZ-10WHD	TZ-15WHD	TZ-20WHD	TZ-30WHD	TZ-40WHD
Cooling capacity (Kw)	-5°C	7.9	12.4	24	36	48	72	96
	-15°C	4.2	7.5	14.6	21	29.2	43.8	58.4
	-25°C	2.2	4.2	8.1	11.4	16.2	24.3	32.4
	-35°C	1	1.5	4.8	6.5	9.5	14.3	19
Machine rated power (KW)		2.608	4.28	8.56	12.7	17.2	25.5	34
Input power		3PH-380/50Hz						
Machine current (A)		6	9	18	26	35	51	68
Compressor	Type	Hermetic Piston Compressor						
	Rated power (kw)	2.25	3.75	7.5	7.5+3.75	15	22.5	30
Condenser	Type	Shell and tube type						
	Cooling air volume (m3/h)	1.8	2.8	5.4	8	11	16	21
Evaporator	Type	Plate/shell and tube type						
	Brine flow (m3)	1.6	2.6	5	7.4	9.9	15	20
	Water tank capacity (L)	35	35	100	150	200	300	\
	Inlet and outlet pipe diameter	DN25	DN25	DN40	DN50	DN50	DN60	DN80
Water pump	Rated power (kw)	0.37	0.55	1.1	1.5	2.2	3	4
	Lifting (M)	20	20	20	20	20	20	20
Evaporator	Name	R22/R134a/R407c						
	Charging amount (kg)	2.4	4	8	12	16	24	32
	Control method	External balance thermostatic expansion valve						
Safety protection		Compressor overheat protection, high and low pressure protection, over temperature protection, flow protection, phase sequence/phase loss protection, exhaust overheat protection, antifreeze protection, Water flow switch protection						
Dimensions	Length (mm)	882	882	1404	1404	1704	2304	2304
	Width (mm)	524	524	694	694	774	804	954
	Height (mm)	1250	1250	1514	1514	1765	1775	1875
Weight	KG	130	165	400	750	850	1050	1150

Nominal cooling capacity: cooling water inlet and outlet temperature 32/37°C, brine inlet and outlet temperature 0°C/-5°C -25°C--35°C cooling capacity, brine is 50% ethylene glycol aqueous solution.

Medium temperature air-cooled screw unit technical parameters

Model		TZ-30AFLD	TZ-40AFLD	TZ-50AFLD	TZ-60AFLD	TZ-70AFLD	TZ-80AFLD	TZ-90AFLD
Cooling capacity (Kw)	-5°C	48	65	87	93	113	124	154
	-15°C	31	42	54	61	70	81	100
	-25°C	19	26	31	38	41	51	63
	-35°C	13	18	24	26	32	34	43
Machine rated power (KW)		22.5	30	37.5	45	52.5	56.25	63.75
Machine current (A)		45	60	75	90	105	113	128
Input power		3PH-380/50Hz						
Compressor	Model	Semi-hermetic screw compressor						
	Start method	Y-Δ						
	Rated power (kw)	22.5	30	37.5	45	52.5	60	67.5
Energy adjustment range		0%-25%-50%-75%-100%						
Evaporator	Type	Dry type shell and tube type						
	Brine flow (m3)	10	13	18	19	23	26	32
	Inlet and outlet pipe diameter	DN65	DN65	DN80	DN80	DN80	DN80	DN100
Condenser	Type	High-efficiency copper tube sleeve aluminum fin type + low noise external rotor fan						
	Cooling air volume (m3/h)	30000	40000	50000	60000	70000	80000	90000
Evaporator	Name	R22/R404a						
	Charging amount (kg)	24	32	40	48	56	64	72
	Control method	External balance thermostatic expansion valve						
Safety protection		Compressor overheat protection, high and low pressure protection, over temperature protection, flow protection, phase sequence/phase loss protection, exhaust overheat protection, antifreeze protection, Water flow switch protection						
Dimensions	Length (mm)	2650	2650	2650	3310	3310	3512	3512
	Width (mm)	1906	1906	1906	2112	2112	2206	2206
	Height (mm)	2104	2104	2104	2104	2104	2087	2087
Weight	KG	640	746	908	1174	1279	1375	1463

Nominal cooling capacity: when the ambient temperature is 35°C, the inlet and outlet temperature of the brine is 0°C/-5°C, and the cooling capacity is -25°C--35°C, the brine is 50% ethylene glycol aqueous solution.

Medium temperature air-cooled screw unit technical parameters

Model		TZ-100AFLD	TZ-120AFLD	TZ-140AFLD	TZ-150AFLD	TZ-160AFLD	TZ-180AFLD	TZ-200AFLD
Cooling capacity	-5°C	169	199	240	266	277	312	363
	-15°C	110	130	156	173	180	203	237
	-25°C	69	82	99	109	114	128	149
	-35°C	47.4	55.4	67.4	70.6	78	87.7	102.4
Machine rated power (KW)		81.4	98	113	122.1	131.2	147.8	164.4
Machine current (A)		163	196	226	245	263	296	329
Input power		3PH-380/50Hz						
Compressor	Model	Semi-hermetic screw compressor						
	Start method	Y-Δ						
	Rated power (kw)	75	90	105	112.5	120	135	150
	Energy adjustment range	0%-25%-50%-75%-100%						
Evaporator	Type	Dry type shell and tube type						
	Brine flow (m3)	35	41	50	55	57	64	75
	Inlet and outlet pipe diameter	DN100	DN125	DN125	DN125	DN125	DN125	DN150
Condenser	Type	High-efficiency copper tube sleeve aluminum fin type + low noise external rotor fan						
	Cooling air volume (m3/h)	100000	120000	140000	150000	160000	180000	200000
Evaporator	Name	R22/R404a						
	Charging amount (kg)	80	96	112	120	128	144	160
	Control method	External balance thermostatic expansion valve						
Safety protection		Compressor overheat protection, high and low pressure protection, over temperature protection, flow protection, phase sequence/phase loss protection, exhaust overheat protection, antifreeze protection, Water flow switch protection						
Dimensions	Length (mm)	3512	4362	4362	5204	6000	6000	7380
	Width (mm)	2206	2141	2141	2161	2112	2112	2200
	Height (mm)	2087	2127	2127	2197	2247	2247	2380
Weight	KG	640	746	908	1174	1279	1375	1463

Nominal cooling capacity: when the ambient temperature is 35°C, the inlet and outlet temperature of the refrigerant is 0/-5°C, and the cooling capacity is -25°C--35°C, the refrigerant is 50% ethylene glycol aqueous solution.

Medium-temperature water-cooled single-head screw unit technical parameters

Model		TZ-30WFLD	TZ-40WFLD	TZ-50WFLD	TZ-60WFLD	TZ-70WFLD	TZ-80WFLD	TZ-85WFLD
Cooling capacity (Kw)	-5°C	56	76	101	109	132	145	171
	-15°C	34	50	65	72	85	95	112
	-25°C	23	31	40	46	52	61	72
	-35°C	15.2	21	27.7	29.7	37	39.8	47.1
Machine rated power (KW)		22.5	30	37.5	45	52.5	56.25	63.75
Machine current (A)		45	60	75	90	105	113	128
Input power		3PH-380/50Hz						
Compressor	Model	Semi-hermetic screw compressor						
	Start method	Y-Δ						
	Rated power (kw)	22.5	30	37.5	45	52.5	56.25	63.75
	Energy adjustment range	0%-25%-50%-75%-100%						
Evaporator	Type	Dry type shell and tube type						
	Brine flow (m3)	12	16	21	22.5	27	30	35
	Inlet and outlet pipe diameter	DN65	DN65	DN80	DN80	DN80	DN80	DN100
Condenser	Type	Dry type shell and tube type						
	Cooling air volume (m3/h)	12.5	17	23	24	30	32	38
	Inlet and outlet pipe diameter	DN65	DN65	DN80	DN80	DN80	DN80	DN100
Refrigerant	Name	R22/R404a						
	Charging amount (kg)	24	32	40	48	56	64	68
	Control method	External balance thermostatic expansion valve						
Safety protection		Compressor overheat protection, high and low pressure protection, over temperature protection, flow protection, phase sequence/phase loss protection, exhaust overheat protection, antifreeze protection, Water flow switch protection						
Dimensions	Length (mm)	2316	2346	2371	2371	2621	2621	2666
	Width (mm)	576	608	675	705	705	705	805
	Height (mm)	1216	1216	1339	1409	1483	1483	1603
Weight	KG	640	746	908	1174	1279	1375	1463

Nominal cooling capacity: cooling water inlet and outlet temperature 32/37°C, brine inlet and outlet temperature 0/-5°C, when cooling capacity is -25°C--35°C, brine is 50% ethylene glycol aqueous solution.

Medium-temperature water-cooled single-head screw unit technical parameters

Model		TZ-90WFLD	TZ-100WFLD	TZ-110WFLD	TZ-120WFLD	TZ-140WFLD	TZ-150WFLD	TZ-160WFLD
Cooling capacity (Kw)	-5°C	180	198	210	233	280	311	324
	-15°C	119	130	139	153	184	205	213
	-25°C	75	83	88	98	117	130	136
	-35°C	49.7	55.4	59.7	64.8	78.8	82.5	91.1
Machine rated power (KW)		67.5	75	90	97.5	105	112.5	120
Machine current (A)		135	150	180	195	210	225	240
Input power		3PH-380/50Hz						
Compressor	Model	Semi-hermetic screw compressor						
	Start method	Y-Δ						
	Rated power (kw)	67.5	75	82.5	90	105	112.5	120
	Energy adjustment range	0%-25%-50%-75%-100%						
Evaporator	Type	Dry type shell and tube type						
	Brine flow (m3)	37	41	43	48	58	64	67
	Inlet and outlet pipe diameter	DN100	DN100	DN100	DN125	DN125	DN125	DN125
Condenser	Type	Dry type shell and tube type						
	Cooling air volume (m3/h)	40	44	47	52	63	70	72
	Inlet and outlet pipe diameter	DN100	DN100	DN100	DN125	DN125	DN125	DN125
Evaporator	Name	R22/R404a						
	Charging amount (kg)	72	80	88	96	112	120	128
	Control method	External balance thermostatic expansion valve						
Safety protection		Compressor overheat protection, high and low pressure protection, over temperature protection, flow protection, phase sequence/phase loss protection, exhaust overheat protection, antifreeze protection, Water flow switch protection						
Dimensions	Length (mm)	2666	2976	2976	2976	3004	3004	3026
	Width (mm)	805	805	805	805	885	885	975
	Height (mm)	1603	1640	1640	1691	1756	1809	1905
Weight	KG	1543	1632	1797	2122	2151	2324	2411

Nominal cooling capacity: cooling water inlet and outlet temperature 32/37°C, brine inlet and outlet temperature 0/-5°C, when cooling capacity is -25°C~-35°C, brine is 50% ethylene glycol aqueous solution.

Medium-temperature water-cooled single-head screw unit technical parameters

Model		TZ-170WFLD	TZ-180WFLD	TZ-200WFLD	TZ-220WFLD	TZ-240WFLD	TZ-280WFLD
Cooling capacity (Kw)	-5°C	349	364	424	466	502	589
	-15°C	230	240	280	307	331	388
	-25°C	146	153	178	195	211	247
	-35°C	98.7	102.5	119.5	128.6	140	157.9
Machine rated power (KW)		127.5	135	150	165	180	210
Machine current (A)		255	270	300	330	360	420
Input power		3PH-380/50Hz					
Compressor	Model	Semi-hermetic screw compressor					
	Start method	Y-Δ					
	Rated power (kw)	127.5	135	150	165	180	210
	Energy adjustment range	0%-25%-50%-75%-100%					
Evaporator	Type	Dry type shell and tube type					
	Brine flow (m3)	72	75	88	96	104	122
	Inlet and outlet pipe diameter	DN125	DN125	DN150	DN150	DN150	DN150
Condenser	Type	Dry type shell and tube type					
	Cooling air volume (m3/h)	78	81	95	104	112	132
	Inlet and outlet pipe diameter	DN125	DN125	DN150	DN150	DN150	DN150
Evaporator	Name	R22/R404a					
	Charging amount (kg)	136	144	160	176	192	224
	Control method	External balance thermostatic expansion valve					
Safety protection		Compressor overheat protection, high and low pressure protection, over temperature protection, flow protection, phase sequence/phase loss protection, exhaust overheat protection, antifreeze protection, Water flow switch protection					
Dimensions	Length (mm)	3256	3256	3276	3456	3456	3494
	Width (mm)	975	975	1030	1080	1080	1170
	Height (mm)	1893	1905	2043	2093	2093	2172
Weight	KG	2499	2928	3150	3221	3292	3526

Nominal cooling capacity: cooling water inlet and outlet temperature 32/37°C, brine inlet and outlet temperature 0/-5°C, when cooling capacity is -25°C~-35°C, brine is 50% ethylene glycol aqueous solution.

Medium-temperature water-cooled twin-head screw unit technical parameters

Model		TZ-220WFLD	TZ-240WFLD	TZ-280WFLD	TZ-300WFLD	TZ-320WFLD
Cooling capacity (Kw)	-5°C	420	466	560	622	648
	-15°C	278	306	368	410	426
	-25°C	176	196	234	260	272
	-35°C	119.4	129.6	157.6	165	182.2
Machine rated power (KW)		165	180	195	210	225
Machine current (A)		330	360	390	420	450
Input power		3PH-380/50Hz				
Compressor	Model	Semi-hermetic screw compressor				
	Start method	Y-Δ				
	Rated power (kw)	82.5*2	90*2	105*2	112.5*2	120*2
	Energy adjustment range	0%-25%-50%-75%-100%				
Evaporator	Type	Dry type shell and tube type				
	Brine flow (m3)	87	96	116	128	134
	Inlet and outlet pipe diameter	DN150	DN150	DN150	DN150	DN150
Condenser	Type	Dry type shell and tube type				
	Cooling air volume (m3/h)	94	104	125	139	145
	Inlet and outlet pipe diameter	DN100	DN100	DN125	DN125	DN125
Evaporator	Name	R22/R404a				
	Charging amount (kg)	176	192	224	240	256
	Control method	External balance thermostatic expansion valve				
Safety protection		Compressor overheat protection, high and low pressure protection, over temperature protection, flow protection, phase sequence/phase loss protection, exhaust overheat protection, antifreeze protection, Water flow switch protection				
Dimensions	Length (mm)	3206	3206	3234	3234	3414
	Width (mm)	1200	1200	1340	1340	1340
	Height (mm)	1895	1946	2016	2069	2080
Weight	KG	4130	4244	4302	4648	4822

Nominal cooling capacity: cooling water inlet and outlet temperature 32/37°C, brine inlet and outlet temperature 0/-5°C, when cooling capacity is -25°C--35°C, brine is 50% ethylene glycol aqueous solution.

Medium-temperature water-cooled twin-head screw unit technical parameters









Model		TZ-340WFLD	TZ-360WFLD	TZ-400WFLD	TZ-440WFLD	TZ-480WFLD	TZ-560WFLD
Cooling capacity (Kw)	-5°C	698	728	848	932	1004	1178
	-15°C	460	480	560	614	662	776
	-25°C	292	306	356	390	422	494
	-35°C	197.4	205	239	257.2	280	315.8
Machine rated power (KW)		255	270	300	330	360	420
Machine current (A)		480	510	540	600	660	840
Input power		3PH-380/50Hz					
Compressor	Model	Semi-hermetic screw compressor					
	Start method	Y-Δ					
	Rated power (kw)	127.5*2	135*2	150*2	165*2	180*2	210*2
	Energy adjustment range	0%-25%-50%-75%-100%					
Evaporator	Type	Dry type shell and tube type					
	Brine flow (m3)	144	150	175	192	207	243
	Inlet and outlet pipe diameter	DN200	DN200	DN200	DN200	DN200	DN200
Condenser	Type	Dry type shell and tube type					
	Cooling air volume (m3/h)	156	163	190	208	224	263
	Inlet and outlet pipe diameter	DN125	DN125	DN150	DN150	DN150	DN150
Evaporator	Name	R22/R404a					
	Charging amount (kg)	272	288	320	352	384	448
	Control method	External balance thermostatic expansion valve					
Safety protection		Compressor overheat protection, high and low pressure protection, over temperature protection, flow protection, phase sequence/phase loss protection, exhaust overheat protection, antifreeze protection, Water flow switch protection					
Dimensions	Length (mm)	3414	3614	3646	3946	3956	3956
	Width (mm)	1360	1360	1430	1430	1590	1590
	Height (mm)	2088	2100	2213	2213	2333	2333
Weight	KG	4998	5858	6300	6442	6584	7052

Nominal cooling capacity: cooling water inlet and outlet temperature 32/37°C, brine inlet and outlet temperature 0/-5°C, when cooling capacity is -25°C--35°C, brine is 50% ethylene glycol aqueous solution.

LOW TEMPERATURE PRODUCTS



Multiple protection function security settings

 Exhaust high temperature protection When the exhaust temperature of the compressor is too high, automatic protection	 Current protection When the current of the compressor is too large, automatic shutdown protection	 Start delay protection After shutting down, wait for one minute before restarting	 High pressure protection When the pressure is too high, automatic shutdown protection
 Low pressure protection When the pressure is too low, automatic shutdown protection	 Intelligent fault detection Detects failsafes to deal with problems early	 Water flow switch protection Before the compressor starts, it will first detect whether there is water flow	 Grounding Safety Protection Grounding is adopted for safety protection

Low temperature air-cooled box-type unit technical parameters

Model		TD-10AHD	TD-15AHD	TD-20AHD	TD-25AHD	TD-30AHD	TD-40AHD	
Cooling capacity (Kw)	-45°C	16	26	30	39	45	68	
	-55°C	9.6	15.6	18	30.8	35.6	53.7	
	-60°C	7.6	11.7	13.5	17.6	20	30.6	
Machine rated power (KW)		19.55	27.75	39	46.6	54.4	79	
Input power		3PH-380/50Hz						
Machine current (A)		35	50	75	90	105	150	
low temperature grade	Compressor	Type	Semi-closed piston					
		Rated power (kw)	7.5	11.25	15	18.75	22.5	30
		Refrigerant	R23					
	Evaporator	Type	Plate type					
		Brine	Ethanol					
		Brine flow (m3)	5	8	9	12	14	20
	Condenser	Type	Plate type					
	High temperature grade	Compressor	Type	Semi-closed piston			Semi-hermetic screw type	
Rated power (kw)			11.25	15	22.5	30	37.5	45
Refrigerant			R22/R404a					
Evaporator		Type	Low temperature stage condenser					
Condenser		Type	High-efficiency copper tube sleeve aluminum fin type + low noise external rotor fan					
	Cooling air volume (m3/h)	15000	20000	30000	40000	50000	60000	
Safety protection		Compressor overheat protection, high and low pressure protection, over temperature protection, flow protection, phase sequence/phase loss protection, exhaust overheat protection, antifreeze protection						
Dimensions	Length (mm)	1261	2000	2604	2523	2523	2100	
	Width (mm)	864	854	904	954	954	1925	
	Height (mm)	1921	1608	1915	2024	2024	1990	
Weight	KG	550	650	800	800	950	1250	

Nominal cooling capacity: the ambient temperature is 35°C, the inlet and outlet temperature of the refrigerant is -40/-45°C, and the refrigerant is ethanol.

Low temperature water-cooled box-type unit technical

Model		TD-10WHD	TD-15WHD	TD-20WHD	TD-25WHD	TD-30WHD	TD-40WHD	
Cooling capacity (Kw)	-45°C	20	32	37.2	48.4	55.8	84.3	
	-55°C	12.6	20.5	23.7	30.8	35.6	53.7	
	-60°C	9.6	15.6	18	23.4	27	40.8	
Machine rated power (KW)		18.75	26.25	37.5	45	53	75	
Input power		3PH-380/50Hz						
Machine current (A)		38	53	75	90	106	150	
low temperature grade	Compressor	Type	Semi-closed piston type					
		Rated power (kw)	7.5	11.25	15	18.75	22.5	30
		Refrigerant	R23					
	Evaporator	Type	Plate type					
		Brine	Ethanol					
		Brine flow (m3)	6	9.6	11	15	17	25
Condenser	Type	Plate type						
High temperature grade	Compressor	Type	Semi-closed piston type			Semi-hermetic screw type		
		Rated power (kw)	11.25	15	22.5	26.25	30	45
		Refrigerant	R22/R404a					
	Evaporator	Type	Low temperature stage condenser					
	Condenser	Type	Shell and tube type					
		Cooling air volume (m3/h)	10	14	20.5	22.8	27	39
Safety protection		Compressor overheat protection, high and low pressure protection, over temperature protection, flow protection, phase sequence/phase loss protection, exhaust overheat protection, antifreeze protection						
Dimensions	Length (mm)	1404	1404	1704	1704	2304	2304	
	Width (mm)	694	694	774	774	804	954	
	Height (mm)	1514	1514	1765	1765	1775	1875	
Weight	KG	550	650	800	800	950	1250	

Nominal cooling capacity: cooling water inlet and outlet temperature 32/37°C, brine inlet and outlet temperature 0/-5°C, when cooling capacity is -25°C--35°C, brine is 50% ethylene glycol aqueous solution.

Low temperature air-cooled screw unit technical parameters

Model		TD-40AFLD	TD-50AFLD	TD-70AFLD	TD-90AFLD	TD-110AFLD	TD-130AFLD	TD-160AFLD	
Cooling capacity (Kw)	-45°C	65	89	127	170	211	251	328	
	-55°C	42.9	59	84	112	139	166	216.5	
	-65°C	27.9	38.3	54.6	73	91	108	141	
Machine rated power (KW)		78.2	93.2	132.3	163.9	203	242	296.2	
Input power		3PH-380/50Hz							
Machine current (A)		135	165	240	300	360	435	540	
low temperature grade	Compressor	Type	Semi-hermetic screw type						
		Rated power (kw)	30	37.5	52.5	67.5	82.5	97.5	120
		Refrigerant	R23						
	Evaporator	Type	Plate type						
		Brine	Ethanol						
		Brine flow (m3)	20	27	38	51	64	76	99
Condenser	Type	Plate type							
High temperature grade	Compressor	Type	Semi-hermetic screw type						
		Rated power (kw)	45	52.5	75	90	112.5	135	165
		Refrigerant	R22/R404a						
	Evaporator	Type	Low temperature stage condenser						
	Condenser	Type	High-efficiency copper tube sleeve aluminum fin type + low noise external rotor fan						
		Cooling air volume (m3/h)	60000	70000	100000	120000	150000	180000	220000
Safety protection		Compressor overheat protection, high and low pressure protection, over temperature protection, flow protection, phase sequence/phase loss protection, exhaust overheat protection, antifreeze protection, water flow switch protection							
Dimensions	Length (mm)	2650	2650	3310	3310	3512	4362	5204	
	Width (mm)	1906	1906	2112	2112	2206	2141	2161	
	Height (mm)	2104	2104	2104	2104	2087	2127	2197	
Weight	KG	1200	1350	1500	1750	2000	2500	3000	

Nominal cooling capacity: cooling water inlet and outlet temperature 32/37°C, brine inlet and outlet temperature 0/-5°C, when cooling capacity is -25°C--35°C, brine is 50% ethylene glycol aqueous solution.

Technical parameters of low temperature water-cooled screw unit

Model		TD-40WFLD	TD-50WFLD	TD-70WFLD	TD-90WFLD	TD-110WFLD	TD-130WFLD	TD-160WFLD
Cooling capacity (Kw)	-50°C	65	89	127	170	211	251	328
	-60°C	42.9	58.7	83.8	112.2	139.3	165.7	216.5
	-70°C	28	38.3	54.6	73	90.7	107.9	141
Machine rated power (KW)		75	90	127.5	157.5	195	232.5	285
Input power		3PH-380/50Hz						
Machine current (A)		150	180	255	315	390	465	570
low temperature grade	Compressor	Semi-hermetic screw type						
	Rated power (kw)	30	37.5	52.5	67.5	82.5	97.5	120
	Refrigerant	R23						
	Evaporator	Plate type						
	Brine	Ethanol						
	Brine flow (m3)	20	27	38	51	64	76	99
	Condenser	Plate type						
High temperature grade	Compressor	Semi-hermetic screw type						
	Rated power (kw)	45	52.5	75	90	112.5	135	165
	Refrigerant	R22/R404a						
	Evaporator	Low temperature stage condenser						
	Condenser	Shell and tube type						
Condenser	Cooling air volume (m3/h)	15	20	29	38	48	56	74
Safety protection		Compressor overheat protection, high and low pressure protection, over temperature protection, flow protection, phase sequence/phase loss protection, exhaust overheat protection, antifreeze protection, water flow switch protection						
Dimensions	Length (mm)	2346	2371	2621	2666	2976	2976	3026
	Width (mm)	608	675	705	805	805	805	975
	Height (mm)	1216	1339	1483	1603	1640	1691	1905
Weight	KG	1200	1350	1500	1750	2000	2500	3000

Nominal cooling capacity: cooling water inlet and outlet temperature 32/37°C, brine inlet and outlet temperature 0/-5°C, when cooling capacity is -25°C--35°C, brine is 50% ethylene glycol aqueous solution.

ULTRA LOW TEMPERATURE PRODUCTS



Multiple protection function security settings



Exhaust high temperature protection

When the exhaust temperature of the compressor is too high, automatic protection



Current protection

When the current of the compressor is too large, automatic shutdown protection



Start delay protection

After shutting down, wait for one minute before restarting



High pressure protection

When the pressure is too high, automatic shutdown protection



Low pressure protection

When the pressure is too low, automatic shutdown protection



Intelligent fault detection

Detects failsafes to deal with problems early



Water flow switch protection

Before the compressor starts, it will first detect whether there is water flow



Grounding Safety Protection

Grounding is adopted for safety protection

Ultra-low temperature air-cooled box-type unit technical parameters

Model		TC-10AHD	TC-15AHD	TC-20AHD	TC-25AHD	TC-30AHD	TC-40AHD	TC-50AHD	
Cooling capacity (Kw)	-90°C	11	21	26.5	34.5	48	70	85	
	-100°C	7.6	13	17.5	25	32.5	49	57.6	
	-120°C	2.5	4.5	5.8	8	11.5	16.5	19.5	
Machine rated power (KW)		21.15	29.45	36.95	46	58.9	66.4	83	
Input power		3PH-380/50Hz							
Machine current (A)		42	58	73	92	117	132	166	
High temperature grade	Compressor	Type	Semi-closed piston type			Semi-hermetic screw type			
		Rated power (kw)	18.75	26.25	33.75	41.25	52.5	60	75
	Evaporator	Refrigerant	R22/R404						
		Type	Plate type						
		Brine	Ethanol						
		Cooling air volume (m3/h)	25000	35000	45000	55000	70000	80000	100000
	Condenser	Inlet and outlet pipe diameter	DN25	DN32	DN40	DN50	DN50	DN65	DN65
Type		Copper tube sleeve aluminum fin type + axial flow fan							
low temperature grade	Compressor	Type	Semi-closed piston type			Semi-hermetic screw type			
		Rated power (kw)	11.25	18.75	22.5	30	33.75	41.25	52.5
	Evaporator	Refrigerant	R23						
Type		Ultra-low temperature condenser							
Condenser	Type	Plate type							
	Compressor	Type	Semi-closed piston type			Semi-hermetic screw type			
Evaporator		Rated power (kw)	7.5	11.25	15	18.75	22.5	30	37.5
	Condenser	Refrigerant	R14						
Evaporator		Type	Low temperature stage condenser						
	Condenser	Type	Plate type						
Evaporator		Brine	Ethanol						
	Condenser	Brine flow (m3)	3	6	8	10	14	21	26
Safety protection		Compressor overheat protection, high and low pressure protection, over temperature protection, flow protection, phase sequence/phase loss protection, exhaust overheat protection, antifreeze protection							
Dimensions	Length (mm)	1261	2001	2604	2523	2523	2100	2100	
	Width (mm)	864	854	904	954	954	1925	1925	
	Height (mm)	1921	1608	1915	2024	2024	1990	1990	
Weight	KG	1250	1550	1720	21000	2500	3000	3500	

Nominal cooling capacity: the ambient temperature is 35°C, the inlet and outlet temperature of the refrigerant is -85/-90°C, and the refrigerant is ethanol.

Ultra-low temperature water-cooled box-type unit technical parameters

Model		TC-10WHD	TC-15WHD	TC-20WHD	TC-25WHD	TC-30WHD	TC-40WHD	TC-50WHD	
Cooling capacity (Kw)	-90°C	12.7	22.6	28.8	39	51.5	77.4	88.8	
	-100°C	8.8	15.7	20	27.3	35.8	53.8	61.7	
	-120°C	3	5.3	6.8	9.3	12.7	18.3	20.9	
Machine rated power (KW)		37.5	56.25	71.25	90	108.75	131.25	165	
Input power		3PH-380/50Hz							
Machine current (A)		75	113	143	180	218	263	330	
High temperature grade	Compressor	Type	Semi-closed piston type			Semi-hermetic screw type			
		Rated power (kw)	18.75	26.25	33.75	41.25	52.5	60	75
	Condenser	Refrigerant	R23						
		Type	Shell and tube type						
		Cooling air volume (m3/h)	16	23	29	36	46	52	65
		Import & export pipe diameter	DN32	DN40	DN50	DN65	DN65	DN80	DN80
	Evaporator	Type	Shell and tube type						
Brine		R22/R404							
low temperature grade	Compressor	Type	Semi-closed piston type			Semi-hermetic screw type			
		Rated power (kw)	11.25	18.75	22.5	30	33.75	41.25	52.5
	Evaporator	Refrigerant	R23						
Type		Ultra-low temperature condenser							
Condenser	Type	Plate type							
	Compressor	Type	Semi-closed piston type			Semi-hermetic screw type			
Evaporator		Rated power (kw)	7.5	11.25	15	18.75	22.5	30	37.5
	Condenser	Refrigerant	R14						
Evaporator		Type	Ultra low temperature evaporator						
	Condenser	Type	Plate type						
Evaporator		Brine flow (m3)	4	7	9	12	16	23	27
	Condenser	Inlet and outlet pipe diameter	DN25	DN32	DN40	DN50	DN50	DN65	DN65
Safety protection		Compressor overheat protection, high and low pressure protection, over temperature protection, flow protection, phase sequence/phase loss protection, exhaust overheat protection, antifreeze protection							
Dimensions	Length (mm)	1404	1404	1704	1704	2304	2304	2304	
	Width (mm)	694	694	774	774	804	954	954	
	Height (mm)	1514	1514	1765	1765	1775	1875	1875	
Weight	KG	1150	1350	1650	2150	2550	3050	3650	

Nominal cooling capacity: the ambient temperature is 35°C, the inlet and outlet temperature of the refrigerant is -85/-90°C, and the refrigerant is ethanol.

HOT AND COLD INTEGRATED MACHINE SERIES PRODUCTS



Multiple protection function security settings



Exhaust high temperature protection
When the exhaust temperature of the compressor is too high, automatic protection



Current protection
When the current of the compressor is too large, automatic shutdown protection



Start delay protection
After shutting down, wait for one minute before restarting



High pressure protection
When the pressure is too high, automatic shutdown protection



Low pressure protection
When the pressure is too low, automatic shutdown protection



Intelligent fault detection
Detects failsafes to deal with problems early



Water flow switch protection
Before the compressor starts, it will first detect whether there is water flow



Grounding Safety Protection
Grounding is adopted for safety protection

Technical parameters of cold and hot integrated air-cooled box-type unit

Model		TT-3A	TT-5A	TT-8A	TT-10A	TT-15A	TT-20A	TT-25A	TG-30A	TT-40A	TT-50A
Cooling capacity	Kw	8	13	21.4	26.7	40.1	55.4	64	83	110.8	128
	Kcal/h	6900	11500	18400	23000	34500	47644	55040	71380	95288	110080
Heating equipment	Type	Heating pipe									
	Rated power (kw)	6	12	18	24	38	48	60	80	100	120
Compressor	Type	Hermetic scroll compressor									
	Rated power (kw)	2.25	3.75	3*2	3.25*2	7.5+3.25	7.5*2	7.5+11.25	7.5*3	7.5*4	9.3*4
Input power		3PH-380/50Hz									
Condenser	Type	Copper tube sleeve aluminum fin type + axial flow fan									
	Cooling air volume (m3/h)	3000	5000	8000	10000	15000	20000	25000	30000	40000	50000
Evaporator	Type	Coil type/Plate type/Shell and tube type									
	Brine flow (m3)	1.38	2.3	3.68	4.6	6.9	9.2	11.5	13.8	18.4	23
	Water tank capacity (L)	50	70	120	200	250	300	350	450	500	550
	Inlet and outlet pipe diameter	DN25	DN25	DN40	DN40	DN50	DN50	DN65	DN65	DN80	DN80
Water pump	Rated power (kw)	0.37	0.55	1.1	1.1	1.5	2.2	3	3	4	5.5
	Lifting	20	20	20	20	20	20	20	20	20	20
Refrigerant		R22/R134a/R407c									
Safety protection		Compressor overheat protection, high and low pressure protection, over temperature protection, flow protection, phase sequence/phase loss protection, exhaust overheat protection, antifreeze protection									
Dimensions	Length (mm)	870	870	1250	1250	2000	1720	2330	2540	2100	2150
	Width (mm)	640	640	870	870	850	950	940	900	1900	1900
	Height (mm)	1400	1400	1760	1760	1650	1950	2100	1980	2100	2100
Weight	KG	140	210	300	350	650	800	980	1050	1250	1450

Nominal cooling capacity: the ambient temperature is 35°C, the inlet and outlet temperature of the brine is 12/7°C
Import and export of cooling and heating integrated machine -120°C/+300°C are available
Provide additional information according to user needs.

Technical parameters of cold and hot integrated

Model		TT-3W	TT-5W	TT-8W	TT-10W	TT-15W	TT-20W	TT-25W	TT-30W	TT-40W	TT-50W
Cooling capacity	Kw	8.7	14.5	23.2	29	43.5	61	72	91.5	122	144
	Kcal/h	7500	12500	20000	25000	37500	52460	62500	78690	104920	123840
Heating equipment	Type	Heating pipe									
	Rated power (kw)	6	12	18	24	36	48	60	80	100	120
Compressor	Type	Hermetic scroll compressor									
	Rated power (kw)	2.23	3.73	3*2	3.7*2	3.7*3	7.5*2	9.3*2	7.5*3	7.5*4	9.3*4
Input power		3PH-380/50Hz									
Condenser	Type	Shell and tube type									
	Cooling air volume (m3/h)	1.95	3.25	5.2	6.5	9.8	13	16.3	19.5	26	32.5
Evaporator	Type	Coil type/Plate type/Shell and tube type									
	Brine flow (m3)	1.5	2.5	4	5	7.5	10	12.5	15	20	25
	Water tank capacity (L)	50	70	120	200	250	300	350	450	500	550
	Inlet and outlet pipe diameter	DN25	DN25	DN40	DN40	DN50	DN50	DN65	DN65	DN80	DN80
Water pump	Rated power (kw)	0.37	0.55	1.1	1.1	1.5	2.2	3	3	4	5.5
	Lifting	20	20	20	20	20	20	20	20	20	20
Refrigerant		R22/R134a/R407c									
Safety protection		Compressor overheat protection, high and low pressure protection, over temperature protection, flow protection, phase sequence/phase loss protection, exhaust overheat protection, antifreeze protection									
Dimensions	Length (mm)	750	750	1260	1260	1700	1700	1850	1900	2300	2300
	Width (mm)	570	570	640	640	700	700	800	800	900	900
	Height (mm)	1150	1150	1400	1400	1450	1450	1500	1600	1900	2100
Weight	KG	130	150	300	430	735	820	900	1150	1200	1250

Nominal cooling capacity: the ambient temperature is 35°C, the inlet and outlet temperature of the brine is 12/7°C
 Import and export of cooling and heating integrated machine -120°C/+300°C are available
 Provide additional information according to user needs.

APPLICATION FIELD



new energy



Pharmaceuticals



Intelligent manufacturing



Scientific research experiment



Environmental simulation



surface treatment



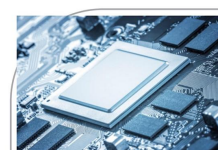
Military industry



Chemical industry



Food industry



Electronic industry



Plastic industry



Environmental protection industry

Ancillary use

