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Specifications in this catalogue are subject to change without notice
because we may bring the latest innovations to our customers



Air Cooled Chiller Catalogue
a breath from Nima Screw Series



R_esearch and Development

Development is a type of movement, and an organization will be dynamic and vibrant as long as it is in movement. Innovation is a necessary condition, and research is a necessary condition for development.

Since in Iran, producers have limited access to tools and laboratories, it is essential to act and think similar to reputed international producers. It requires permanent monitor of the pioneers in this industry and taking advantages of relevant international publications and conferences to conduct our whole company. To fulfill this aim, with the aid of the state-of-the-art technologies and parts, we have always tried to deliver goods in accordance with the Iranian demand and eminence.

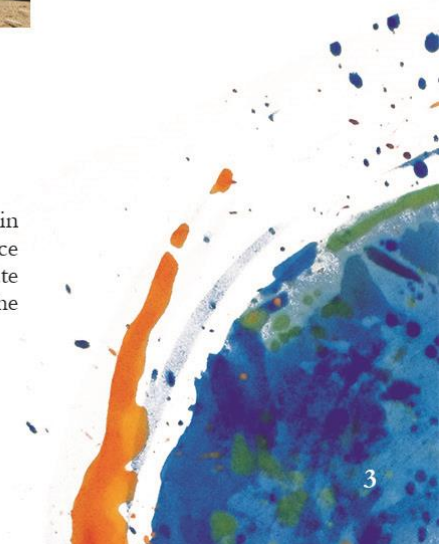
We never see how far we have traversed; we always see the destination that we have to reach.

Paying attention to all detail is a Rule
in Nima Tahviah



S_eparation of Commercial and Industrial Air conditioning Systems

You have definitely tried to open a screw with a knife! While the screw will open the screw sometimes, But it will damage both the knife and the screw. In Nima Tahviah, designed and produced systems for generating Refrigeration in summer are known as Air Conditioning systems, So there is a huge difference between these units and Cooling Machines which are supposed to generate Refrigeration in all seasons. Consequently, all the details are considered when the orders are received and during the design and production process.





Why Nima Tahviah?

• Efficiency

Nima Tahviah Company is the first producer, in Iran, which set usage of screw compressor as its production standard due to the high efficiency of such compressor.

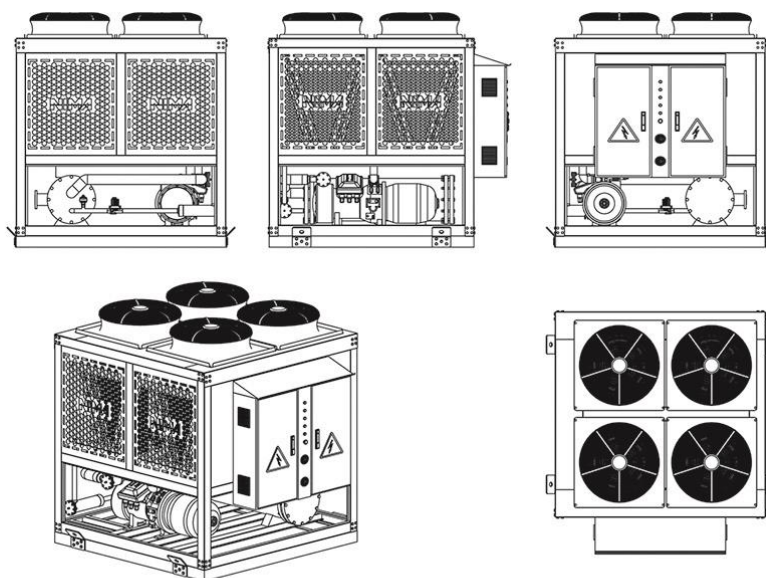
Utilizing advanced and smart control panel (PLC), electrical expansion valves (EXV), and high quality heat exchangers are among the other efficiency enhancement tools.

• Smart Control System

Nima Tahviah's standards require its systems to be equipped with advanced and smart control panels capable of being programmed by a PLC (Programmable Logic Control) system.

PLC system is made in Europe by well-known companies, and its software is updatable through internet while it is capable of being connected to various energy management network by using a Building Management System (BMS) such as Backnet, Modbus, TCP/IP, etc. While the data can be monitored and controlled.

Simultaneous utilization of the control panel, screw compressors with the highest efficiency made in Germany by BITZER Company, Electronic Expansion Valves, and speed control inverters offers you a unique set of the best state-of-the-art technologies.





Respect to the Environment

We are living in an era in which the end of the earth life is one of the main headlines in the news. In many countries, to address this concern, an organization called Environment Organization has been established, whose importance is not less than the Defense Organization in those countries.

Generation of heat and cooling are among the most energy consuming activities, so improvement of efficiency in the global scale, even by a small amount, can have a shocking result in reducing the environmental pollutions. In Nima Tahviah, the smallest details about the heating and cooling loads are reviewed and recalculated in order to pay our share in enhancement of our living environment, the earth, by any possible small or big change in our products. THE PLANET EARTH products equipped with Free Cooling systems in our company is an indication of such attempt.

- **Dissipation Reduction**

Any type of heat or cold leakage, generation of heat shock, vibration, or noise in anywhere of the system result in energy dissipation. Consideration of specific details and years of experiences in the production process has enabled Nima Tahviah to utilize a design process in which the dissipation is held in the minimum possible level.

- **Environmental Adaptation**

In periods such as early in spring and autumn, It is common to see while the outside ambient has a suitable temperature and is in the Comfort Zone, But inside temperature and condition requires using cooling systems. Also, in industry, heavy duty systems need to generate cold during the whole year including in the seasons in which the outside weather is cooler which results in unnecessary energy consumption.

To address this issue, a cycle named Free Cooling is invented to bring in the outside cold and utilize it with no need to start compressor and the minimum cost and air pollution. Nima Tahviah is proud of producing systems equipped with the Free Cooling cycle, a novel topic in Iran and an international advanced field.

Variety and Technology

- **EFFICIENT AND RELIABLE TECHNOLOGY**

Employs the new generation dual screw compressors, electronic expansion valves, shell and tube evaporator and fans with innovative AxiTop diffusers with kinetic energy recovery.

- **FOR ALL CIVIL AND INDUSTRIAL APPLICATIONS**

Ideal solution for all civil and industrial applications that require high performance levels, operating continuity and lower running and maintenance costs.



- **THE FREE-COOLING**

Enables high-level savings on the management costs of the system in applications which also require cooled water during the cold season such as industrial processes, data centers, telecommunications, technological applications and shopping centers. When the fresh air temperature is lower than the return water temperature of the system, the FREE-COOLING system recovers coolness from the external setting and reduces compressor operations until they are completely stilled. In this way the requested cooling capacity is supplied at no cost.

- **CONTINUOUS CAPACITY CONTROL**

The continuous capacity control allows for a quick adjustment of the system's load and therefore an accurate control of the chilled water temperature with an exceptionally wide operating range.

- **INSTALLATION SPACE**

The standard version has axial fans which is ideally suited for applications with installation on the ground, Roof, or etc. The PREMIUM version especially designed for close space operation and underground usage. Which means not only supply outside air for condenser heat rejection to the chiller by duct or any other way, but also carry out discharge air.

Nomenclature

NLCAT-00-X-S-O		
NLC	Nima Liquid Chiller	
A	Type of Condenser	A: Air Cooled W: Water Cooled
T	Type of Compressor	T: Twin Screw S: Scroll Re: Reciprocating
00	Nominal Capacity HP (Mentioned as Model in all Tables)	
X	Refrigerant	Omit: R22 X: R407c Y: R134a
S	Number of Circuit	S: Single D: Double T: Three F: Four
Options	Chiller Series	Omit: Standard Z: Minus Zero P: BPHE Evaporator M: Micro-Channel Condenser FC: Free Cooling ECO: Economizer LN: Low Noise SD: Special Design



Features & Capabilities

• Compressor:

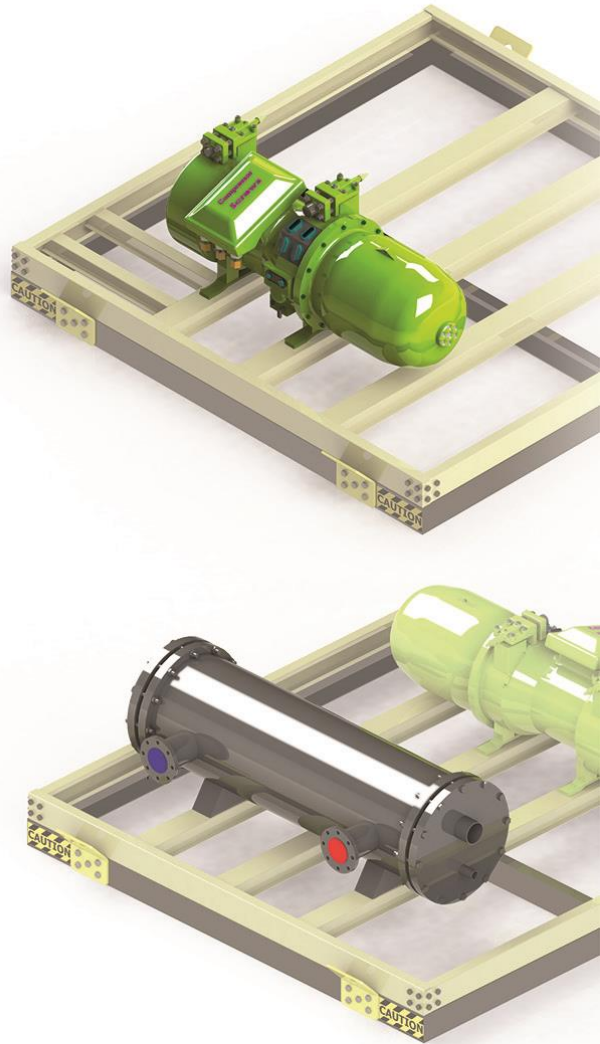
The new CSH series is based on the proven design elements of the innovative BITZER compact screws, which are recognized as a benchmark around the world. They were developed with respect to universal application in air cooled liquid chillers and heat pumps. Besides their known attributes, the compressors are distinguished by further improvements to energy efficiency under full- and part-load conditions. Additionally, the application limits were greatly expanded both in terms of low saturation discharge temperatures and high pressure ratios (heat pumps) without compromising operating reliability. By using compressor on each chiller, unloading characteristics and part load performance are outstanding. Integrated part load value (IPLV) is a part load performance indicator as outlined in standard ARI 550/590-1998. The IPLV rating compares the performance of different chillers under identical conditions. When the IPLV is listed as EER (Energy Efficiency Ratio), a higher EER will indicate that the chiller's overall performance is better.

• Evaporator

The evaporator is shell-and-tube type and fabricated from 99.9% purity seamless phosphorus deoxidized copper tube with baffle plates supporting the structure. The shells are made with Seamless carbon steel pipes and designed for proper working pressure on the refrigerant side. The evaporator can be direct expansion and flooded type. The water side designed, constructed, inspected, and stamped according to the requirements of the ASME Boiler and Pressure Vessel Code. Also compact brazed type plate heat exchanger can be chosen as an option.

• Condenser

Condenser coils are manufactured from 99.9% purity seamless phosphorus deoxidized copper tubes mechanically bonded to Coated aluminum fins. A variety of optional coil material and coatings are available for corrosive atmospheres. The external condenser coils are fitted with a protective wire mesh guard.

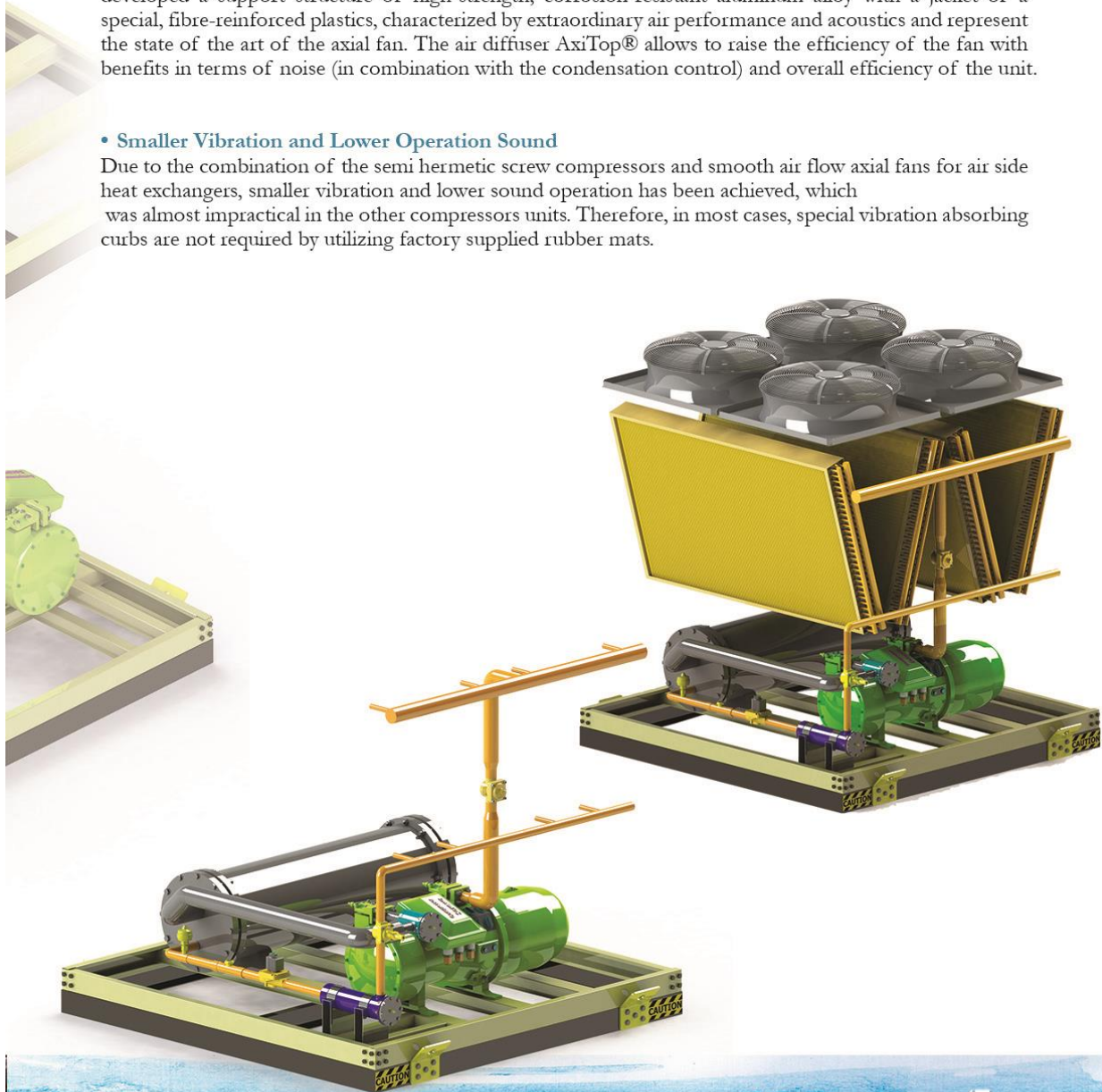


- **Condenser Fans**

The Condenser Fans with their exclusive airfoil blades (HyBlade®) we have developed a support structure of high-strength, corrosion-resistant aluminum alloy with a jacket of a special, fibre-reinforced plastics, characterized by extraordinary air performance and acoustics and represent the state of the art of the axial fan. The air diffuser AxiTop® allows to raise the efficiency of the fan with benefits in terms of noise (in combination with the condensation control) and overall efficiency of the unit.

- **Smaller Vibration and Lower Operation Sound**

Due to the combination of the semi hermetic screw compressors and smooth air flow axial fans for air side heat exchangers, smaller vibration and lower sound operation has been achieved, which was almost impractical in the other compressors units. Therefore, in most cases, special vibration absorbing curbs are not required by utilizing factory supplied rubber mats.



NIMA 
AIR CONDITIONING CO.

Air Cooled Screw Chiller Series

Smart Devices
can save costs and spaces
in Electrical Panel.

Controllers

The CAREL solution for screw units has been developed around to the new range of pCO5 programmable controllers, increasingly powerful and enhanced with specific new functions for improving the efficiency of HVAC/R systems.

The CAREL solution is optimized for managing air/water or water/water chillers, with screw compressors featuring continuous or stepped capacity control.

software library the application permits the envelop control of mainly screw compressors present in the market as Bitzer, RefComp and Hambell guarantying best performance and highest reliability.

Moreover, the integrated EVO driver and ultra capacitor present in the pCO5, which were previously managed by external

devices, can save costs and spaces in the electrical panel.

Particular attention was paid to the development of a next-generation of user interfaces: pGD touch. The new terminal 7" full touch screen provides an intuitive and easy navigation between pages, thus helping the end user to get a quick overview of the unit. The outstanding graphics capabilities also provide finally a high aesthetic standard.



pCO5 is the new proposal from CAREL in its range of programmable controllers. pCO5 has been enhanced with specific new functions to improve the efficiency of HVAC/R systems, such as integration of the electronic expansion valve driver. In addition, the pCO5 offers more demanding designers up to five serial lines that allowing management of smart actuators and compatibility with most common BMS present in the air conditioning market.

Envelope control

Software drivers approved by compressor manufacturers for best performance, highest reliability and longest life of your compressor. Using the 1tool HVAC libraries are available compressors as:

- Bitzer
- RefComp
- Hambell

Compressors Features

- Part-winding/Star-Delta start 3 or 4 capacity control steps, and step-less capacity control.
- Economizer/liquid injection solenoid valve control.
- High current alarm.
- Oil level alarm.



Electronic valves

The most complete range of electronic expansion valves for controlling evaporation in air-conditioning applications. EXV sistema guarantees maximum precision in proportional modulation, covering cooling capacities up to 2000 kW Ultracapacitor

The Ultra cap module guaranteed closing of the valve in the event of power failures.. This eliminates the need for the solenoid

valve that was previously required to guarantee closing of the circuit if no battery module was available.

pGD touch

pGD Carel Touch is the new terminal with 65,000 colors TFT display with a 800x480 resolution to ensure a high standard in terms of aesthetics. In fact, thanks to pGD Touch and the development tools, editors 1Tool touch is possible to manage advanced graphics features like alpha blending, ie the possibility to manage the transparency of objects, vector images and animations.

Connectivity

With integrated BMS and FieldBus ports, pCO5 controller can interface to Modbus® and CAREL protocols. In additional, various communication standards are also supported, such as BACnet™, GSM, LonWorks®, TREND, and Konnex using serial card. The pCO5 controller can also be interfaced in the intranet/internet networks, using pCOWeb, the specific serial card that permits through TCP/IP Ethernet™ 10 Mb/s.

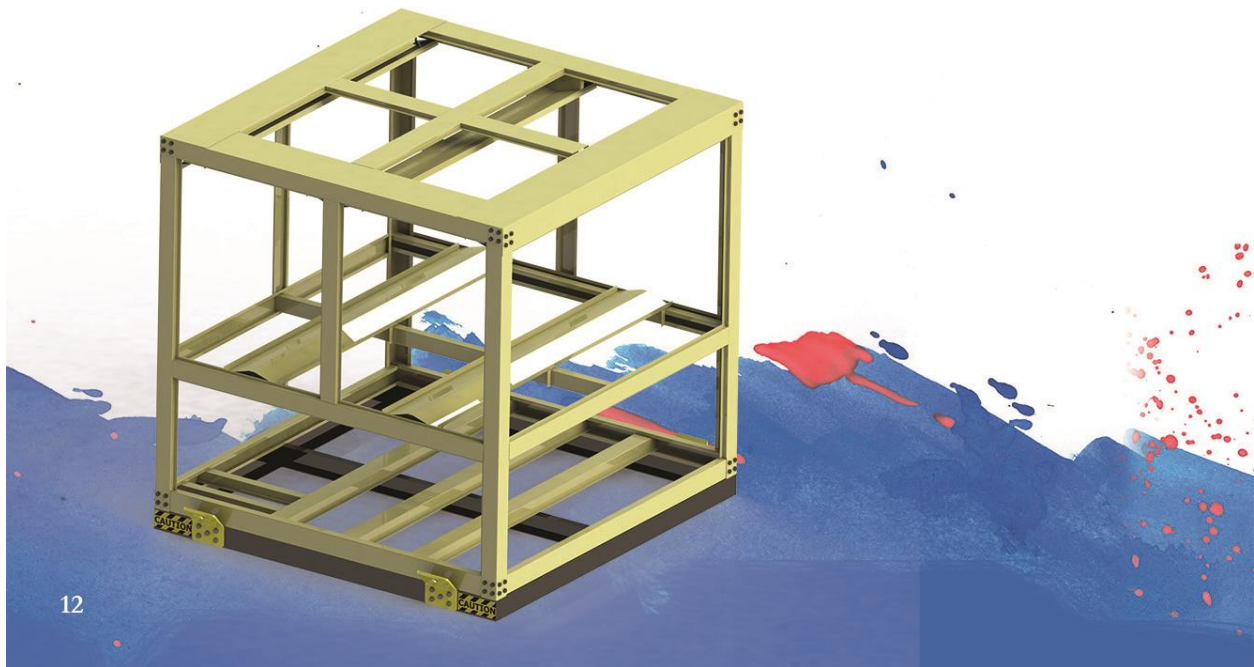
• Refrigerant Piping System

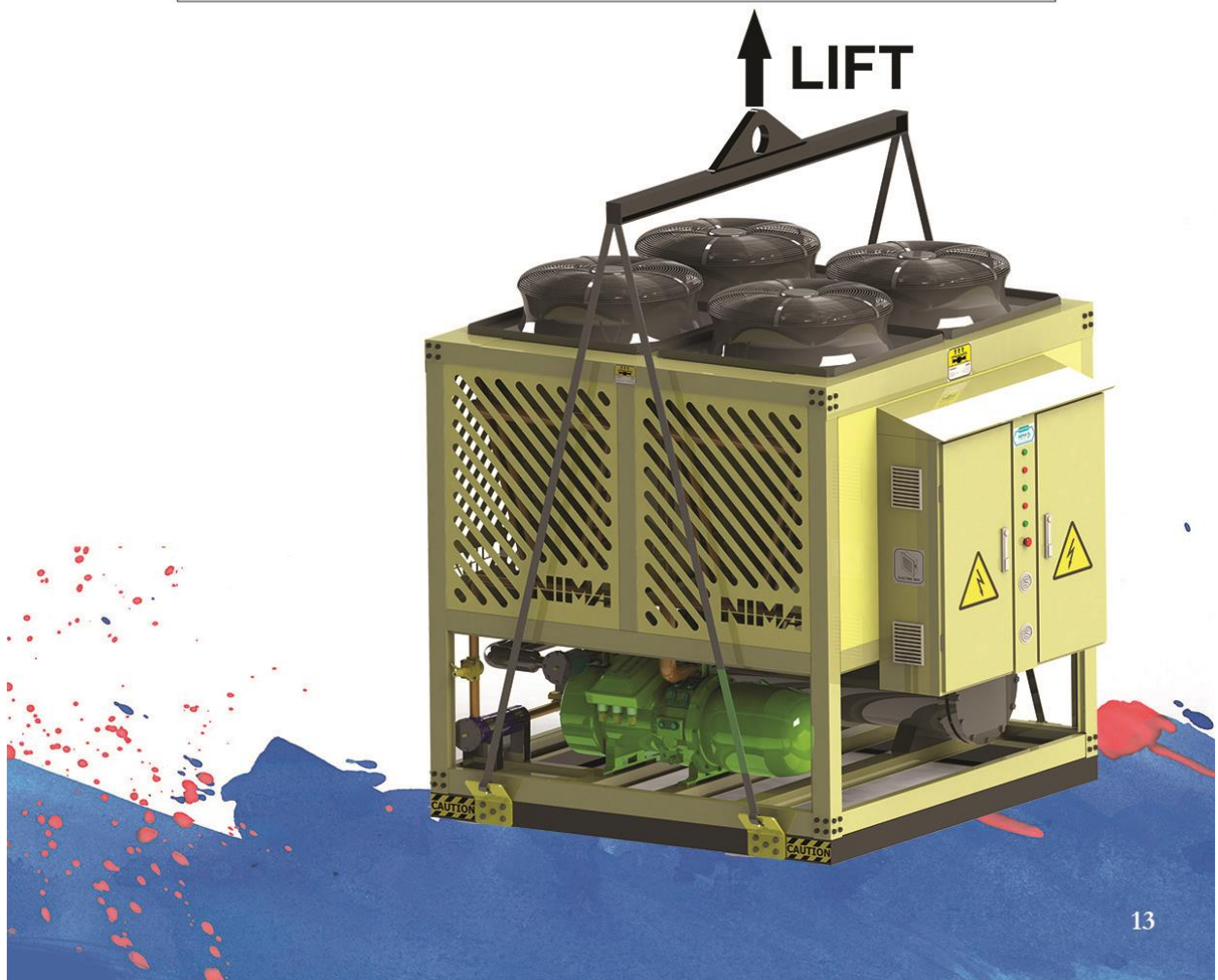
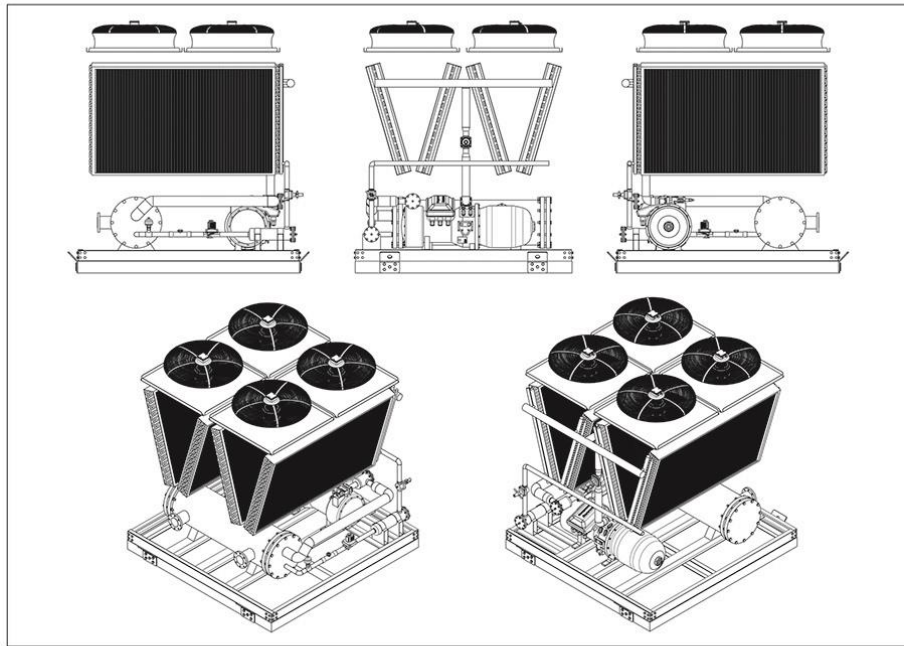
The refrigerant piping shall be composed of seamless phosphorus deoxidized copper tubes, above 99.9% purity and installed to make the refrigerant flow smoothly.

The unit shall be provided with independent refrigerant circuit per compressor. Muntiple compressor units shall be provided with a multi circuited direct expansion evaporation and air cooled condenser. Each refrigerant circuit shall include electronic expansion valve, sight glass, Ultracap, dryer filter, liquid line shut off valves, high pressure relief valves, charging and gauge connection.

• Casing and Painting

All Casings except for the base frame shall be made with zinc galvanized steel plate and then baked with outdoor polyester powder or special corrosion resistant against acid gas or sand storm. Normal structure steels shall be enamel painted after blasting. Special coated bolts or stainless steel bolts shall be used for durability.





Air Cooled Screw Chiller Series

Specification



Standard Table 1 R-22

Model			50	60	70	80	90	110	125	140	160	180	210	240	280	
Cooling Capacity		kW	119	149	170	196	238	283	322	385	433	511	597	682	789	
		TR	34	43	48	56	68	81	92	110	123	145	170	194	224	
Power Input		kW	43	55	64	73	83	102	115	140	150	168	194	219	252	
EER			2.74	2.72	2.66	2.69	2.87	2.76	2.80	2.75	2.89	3.03	3.08	3.12	3.14	
Refrigerant		Type	R-22													
		Flow Control	Electronic Expansion Valve													
		Number Of Circuit	1													
Evaporator	Type		Shell and Tube (Braze Plate Heat Exchanger as an option)													
	Flow Rate	m³/hr	18	23	26	30	37	44	50	60	67	79	93	106	122	
		GPM	81	102	116	134	162	193	220	263	295	349	407	465	538	
	Head Loss		Kpa	8.6	8.8	8.6	10.1	11.9	10.2	28.5	25.6	29.5	36.0	44.1	53.0	
	Piping Connection	Water in / out Diameter	mm	100			125			150			200			
			Inch	4			5			6			8			
Condenser	Type		Finned Coil (Micro Channel as an Option)													
	Face Area	m²	5	6	7	7	9	10	11	13	14	18	21	24	26	
		ft²	50	63	72	74	93	107	115	138	150	197	225	255	277	
	Fin Spacing		FPI	12												
	Fan	Diameter	mm	800												
			Inch	32												
Quantity		2	3		4		6		8		10	12	14			
Compressor	Type		Compact Screw													
	Quantity		1													

Note: Cooling capacities are based on the following conditions;
Chilled water inlet/outlet 12°C/ 7°C
Condenser air temperature 38°C at sea level.



Model			100	120	140	160	180	220	250	280	320	360	420	480	560	
Cooling Capacity		kW	238	299	340	392	476	566	644	770	866	1022	1194	1364	1578	
		TR	68	85	97	111	135	161	183	219	246	291	339	388	449	
Power Input		kW	87	110	128	146	166	205	230	280	299	322	369	414	477	
EER			2.74	2.72	2.66	2.69	2.87	2.76	2.80	2.75	2.89	3.18	3.23	3.29	3.31	
Refrigerant		Type	R-22													
		Flow Control	Electronic Expansion Valve													
		Number Of Circuit	2													
Evaporator	Type		Shell and Tube (Brazed Plate Heat Exchanger as an option)													
	Flow Rate		m³/hr	37	46	53	61	74	88	100	119	134	158	185	211	245
			GPM	162	204	232	267	325	386	439	525	591	697	815	931	1077
	Head Loss		Kpa	10	29	26	30	36	41	33	34	43	36	39	43	50
	Piping Connection	Water in / out Diameter	mm	125	150					200						
			Inch	5	6					8						
Condenser	Type															
	Face Area		m²	9	12	13	14	17	20	21	26	28	37	42	47	51
			ft²	100	127	143	148	185	213	231	276	300	395	450	510	554
	Fin Spacing		FPI	Finned Coil (Micro Channel as an Option)												
	Fan	Diameter	mm	800												
			Inch	32												
Quantity		4	6	8	12	16	20	24	28							
Compressor	Type		Compact Screw													
	Quantity <td colspan="13">2</td>		2													

Standard Table2 R-22

Note: Cooling capacities are based on the following conditions;
Chilled water inlet/outlet 12°C/ 7°C
Condenser air temperature 38°C at sea level.

Air Cooled Screw Chiller Series

Specification



Table 1 R-22

Model				110	125	140	160	180	210	240	280
Cooling Capacity			kW	320	358	418	477	569	652	734	852
			TR	91	102	119	136	162	185	209	242
Power Input			kW	115	131.5	151	164	192	216	239	276
EER				2.77	2.72	2.77	2.90	2.96	3.01	3.06	3.08
Refrigerant			Type	R-22							
			Flow Control	Electronic Expansion Valve							
			Number Of Circuit	1							
Evaporator	Type			Shell and Tube (Brazed Plate Heat Exchanger as an option)							
	Flow Rate		m³/hr.	50	55	65	74	88	101	114	132
			GPM	218	244	285	326	388	445	501	581
	Head Loss		Kpa	10.2	28.5	25.6	29.5	36.0	40.0	44.1	53.0
	Piping Connection	Water in / out Diameter	mm	125	150						200
			Inch	5	6						8
Condenser	Type			Finned Coil (Micro Channel as an Option)							
	Face Area		m²	11	13	14	18	21	24	26	27
			ft²	115	138	148	197	225	255	277	292
	Fin Spacing		FPI	12							
	Fan	Diameter	mm	800							
			Inch	32							
Quantity		6	8			10	12	14	16		
Compressor	Type			Compact Screw							
	Quantity			1							

Note: Cooling capacities are based on the following conditions;
 Chilled water inlet/outlet 12°C/7°C
 Condenser air temperature 38°C at sea level.



Model				220	250	280	320	360	420	480	560
Cooling Capacity			kW	640	716	836	954	1138	1304	1468	1704
			TR	182	204	238	271	324	371	417	485
Power Input			kW	231	263	302	329	384	432	479	552
EER				2.77	2.72	2.77	2.90	2.96	3.01	3.06	3.08
Refrigerant			Type	R-22							
			Flow Control	Electronic Expansion Valve							
			Number Of Circuit	2							
Evaporator	Type			Shell and Tube (Brazed Plate Heat Exchanger as an option)							
	Flow Rate		m³/hr.	99	111	130	148	176	202	228	264
			GPM	437	489	570	651	777	890	1002	1163
	Head Loss		Kpa	10.2	28.5	25.6	29.5	36.0	40.0	44.1	53.0
	Piping Connection	Water in / out Diameter	mm	125	150						200
			Inch	5	6						8
Condenser	Type			Finned Coil (Micro Channel as an Option)							
	Face Area		m²	21	26	28	37	42	47	51	54
			ft²	230	276	296	394	450	510	554	584
	Fin Spacing		FPI	12							
	Fan	Diameter	mm	800							
			Inch	32							
				Quantity	12	16			20	24	28
Compressor	Type			Compact Screw							
	Quantity			2							

Table2 R-22

Note: Cooling capacities are based on the following conditions;
Chilled water inlet/outlet 12°C/ 7°C
Condenser air temperature 38°C at sea level.

Air Cooled Screw Chiller Series

Specification



Standard Table 1 R-407C

Model			50	60	70	80	90	110	125	140	160	180	210	240	280	
Cooling Capacity		kW	114	144	167	188	218	276	315	364	409	478	543	649	745	
		TR	33	41	47	53	62	78	90	103	116	136	154	185	212	
Power Input		kW	43	54	61	70	80	103	115	134	148	161	183	212	245	
EER			2.69	2.68	2.74	2.68	2.74	2.69	2.73	2.72	2.76	2.97	2.97	3.06	3.05	
Refrigerant		Type	R-407C													
		Flow Control	Electronic Expansion Valve													
		Number Of Circuit	1													
Evaporator	Type		Shell and Tube (Brazed Plate Heat Exchanger as an option)													
	Flow Rate		m³/hr.	18	22	26	29	34	43	49	56	63	74	84	101	115
			GPM	78	98	114	128	149	188	215	248	279	326	371	443	508
	Head Loss		Kpa	8.6	8.8	8.6	10.1	11.9	10.2	28.5	25.6	29.5	36.0	39.0	44.0	53.0
	Piping Connection	Water in / out Diameter	mm	100			125			150			200			
			Inch	4			5			6			8			
Condenser	Type		Finned Coil (Micro Channel as an Option)													
	Face Area		m²	5	6	7	7	9	10	11	13	14	18	21	24	26
			ft²	50	63	72	74	93	107	115	138	150	197	225	255	277
	Fin Spacing		FPI	12												
	Fan	Diameter	mm	800												
			Inch	32												
		Quantity		2	3		4		6		8		10	12	14	
Compressor	Type		Compact Screw													
	Quantity		1													

Note: Cooling capacities are based on the following conditions;
 Chilled water inlet/outlet 12°C/ 7°C
 Condenser air temperature 38°C at sea level.



Model				100	120	140	160	180	220	250	280	320	360	420	480	560
Cooling Capacity			kW	229	288	333	376	436	552	630	728	818	956	1086	1298	1490
			TR	65	82	95	107	124	157	179	207	233	272	309	369	424
Power Input			kW	46	59	67	78	87	114	127	149	163	176	202	235	271
EER				4.94	4.84	5.01	4.84	5.01	4.85	4.98	4.89	5.01	5.43	5.38	5.52	5.49
Refrigerant			Type	R-407C												
			Flow Control	Electronic Expansion Valve												
			Number Of Circuit	2												
Evaporator	Type			Shell and Tube (Brazed Plate Heat exchanger as an option)												
	Flow Rate		m³/hr.	35	45	52	58	68	86	98	113	127	148	168	201	231
			GPM	156	196	227	257	298	377	430	497	558	652	741	886	1017
	Head Loss		Kpa	10	29	26	30	36	41	33	34	43	39	44	48	53
	Piping Connection	Water in / out Diameter	mm	125	150					200						
			Inch	5	6					8						
Condenser	Type			Finned Coil (Micro Channel as an Option)												
	Face Area		m²	9	12	13	14	17	20	21	26	28	37	42	47	51
			ft²	100	127	143	148	185	213	231	276	300	395	450	510	554
	Fin Spacing		FPI	12												
	Fan	Diameter	mm	800												
			Inch	32												
Quantity		4	6		8		12		16			20	24	28		
Compressor	Type			Compact Screw												
	Quantity			2												

Standard Table 2 R-407C

Note: Cooling capacities are based on the following conditions;
Chilled water inlet/outlet 12°C/ 7°C
Condenser air temperature 38°C at sea level.

Air Cooled Screw Chiller Series

Specification



Model				110	125	140	160	180	210	240	280
Cooling Capacity			kW	311	348	393	448	529	591	693	799
			TR	88	99	112	127	150	168	197	227
Power Input			kW	99.8	114.1	126.9	142.6	169.4	190.8	223.6	257.4
EER				3.12	3.05	3.10	3.14	3.12	3.10	3.10	3.10
Refrigerant			Type	R-407C							
			Flow Control	Electronic Expansion Valve							
			Number Of Circuit	1							
Evaporator	Type			Shell and Tube (Brazed Plate Heat Exchanger as an option)							
	Flow Rate		m³/hr.	48	54	61	69	82	92	107	124
			GPM	212	237	268	306	361	403	473	545
	Head Loss		Kpa	10.2	28	25	2.5	36	39	44	48
	Piping Connection	Water in / out Diameter	mm	125	150						200
			Inch	5	6						8
Condenser	Type			Finned Coil (Micro Channel as an Option)							
	Face Area		m²	11	13	14	18	21	24	26	27
			ft²	115	138	148	197	225	255	277	292
	Fin Spacing		FPI	12							
	Fan	Diameter	mm	800							
			Inch	32							
		Quantity		6	8			10	12	14	16
Compressor	Type			Compact Screw							
	Quantity			1							

Note: Cooling capacities are based on the following conditions;
 Chilled water inlet/outlet 12°C/ 7°C
 Condenser air temperature 38°C at sea level.



Model				220	250	280	320	360	420	480	560
Cooling Capacity		kW		622	696	786	896	1058	1182	1386	1598
		TR		177	198	223	255	301	336	394	454
Power Input		kW		199.6	228.2	253.8	285.2	338.8	381.6	447.2	515.2
EER				3.12	3.05	3.10	3.14	3.12	3.10	3.10	3.10
Refrigerant		Type		R-407C							
		Flow Control		Electronic Expansion Valve							
		Number Of Circuit		2							
Evaporator	Type			Shell and Tube (Brazed Plate Heat Exchanger as an option)							
	Flow Rate	m³/hr.		96	108	122	139	164	183	215	248
		GPM		424	475	536	611	722	807	946	1090
	Head Loss	Kpa		10	29	26	30	36	39	43	48
	Piping Connection	Water in / out Diameter	mm	125	150				200		
			Inch	5	6				8		
Condenser	Type			Finned Coil (Micro Channel as an Option)							
	Face Area	m²		21	26	28	37	42	47	51	54
		ft²		230	276	296	394	450	510	554	584
	Fin Spacing	FPI		12							
	Fan	Diameter	mm	800							
			Inch	32							
		Quantity		12	16				20	24	28
Compressor	Type			Compact Screw							
	Quantity			2							

Table 2 R-407C

Note: Cooling capacities are based on the following conditions;
Chilled water inlet/outlet 12°C/ 7°C
Condenser air temperature 38°C at sea level.

Air Cooled Screw Chiller Series

Specification



Model			50	60	70	80	90	110	125	140	160	180	210	240	280	
Cooling Capacity		kW	116	137	157	194	223	260	288	328	387	453	523	594	640	
		TR	30	36	41	51	59	68	76	86	102	119	137	156	168	
Power Input		kW	40	47	53	65	72	81	94	106	125	138	158	180	207	
EER			2.94	2.92	2.99	3.00	3.08	3.20	3.06	3.10	3.10	3.28	3.31	3.29	3.10	
Refrigerant		Type	R-134a													
		Flow Control	Electronic Expansion Valve													
		Number Of Circuit	1													
Evaporator	Type		Shell and Tube (Brazen Plate Heat Exchanger as an option)													
	Flow Rate		m³/hr.	17	20	22	28	32	37	41	47	55	65	75	85	92
			GPM	73	86	99	122	140	164	181	207	244	285	329	374	403
	Head Loss		Kpa	2.9	4.6	6.3	8.4	10.2	9.2	9.4	21.8	28.5	19.5	23	44	53
	Piping Connection	Water in / out Diameter	mm	100				125	125	150						
			Inch	4				5		6						
Condenser	Type		Finned Coil (Micro Channel as an Option)													
	Face Area		m²	4.5	5.4	5.9	6.2	7.3	8.4	9.9	10.7	12.8	14.5	18.7	20.4	22.4
			ft²	48	58	63	67	78	90	107	115	138	156	201	219	241
	Fin Spacing		FPI	12												
	Fan	Diameter	mm	800												
			Inch	32												
Quantity		2	3		4			6		8		10		12		
Compressor	Type		Compact Screw													
	Quantity		1													

Note: Cooling capacities are based on the following conditions;
 Chilled water inlet/outlet 12°C/ 7°C
 Condenser air temperature 38°C at sea level.



Model		100	120	140	160	180	220	250	280	320	360	420	480	560	
Cooling Capacity	kW	232	274	314	387	446	520	576	656	774	906	1046	1188	1280	
	TR	61	72	83	102	117	136	151	172	203	238	275	312	336	
Power Input	kW	79	94	105	129	145	163	188	211	250	276	316	361	413	
EER		2.94	2.92	2.99	3.00	3.08	3.20	3.06	3.10	3.10	3.28	3.31	3.29	3.10	
Refrigerant	Type	R-134a													
	Flow Control	Electronic Expansion Valve													
	Number Of Circuit	2													
Evaporator	Type		Shell and Tube (Braze Plate Heat Exchanger as an option)												
	Flow Rate	m³/hr.	33	39	45	55	64	74	82	94	111	130	150	170	183
		GPM	146	172	198	244	281	328	363	413	488	571	659	748	806
	Head Loss	Kpa	9.2	9.4	21.8	28.5	19.5	33.2	45.8	33.2	32.6	19.5	23	44	53
	Piping Connection	Water in / out Diameter	mm	125		150							200		
		Inch	5		6							8			
Condenser	Type		Finned Coil (Micro Channel as an Option)												
	Face Area	m²	8.9	10.8	11.7	12.5	14.5	16.7	19.8	21.4	25.7	29.0	37.4	40.7	44.8
		ft²	96	116	126	134	156	180	213	230	276	312	402	438	482
	Fin Spacing	FPI	12												
	Fan	Diameter	mm	800											
			Inch	32											
		Quantity	4	6	8			12		16			20	24	
Compressor	Type		Compact Screw												
	Quantity		2												

Note: Cooling capacities are based on the following conditions;
Chilled water inlet/outlet 12°C/ 7°C
Condenser air temperature 38°C at sea level.

Standard Table 2 **R-134a**

Air Cooled Screw Chiller Series

Specification



Model				220	250	280	320	360	420	480	560
Cooling Capacity			kW	580	646	724	862	992	1142	1280	1382
			TR	165	184	206	245	282	325	364	393
Power Input			kW	186	209	238	274	299	351	394	443
EER				3.12	3.10	3.04	3.14	3.32	3.26	3.25	3.12
Refrigerant			Type	R-134a							
			Flow Control	Electronic Expansion Valve							
			Number Of Circuit	2							
Evaporator	Type			Shell and Tube (Brazed Plate Heat Exchanger as an option)							
	Flow Rate		m³/hr	90	100	112	134	154	177	198	214
			GPM	396	441	494	588	677	779	873	943
	Head Loss		Kpa	33.2	45.8	33.2	32.6	19.5	23	44	53
	Piping Connection	Water in / out Diameter	mm	150						200	
			Inch	6						8	
Condenser	Type			Finned Coil (Micro Channel as an Option)							
	Face Area		m²	20	21	25	28	34	41	44	46
			ft²	216	230	270	296	370	438	476	498
	Fin Spacing		FPI	12							
	Fan	Diameter	mm	800							
			Inch	32							
Quantity		12		16			20	24			
Compressor	Type			Compact Screw							
	Quantity			2							

Note: Cooling capacities are based on the following conditions;
 Chilled water inlet/outlet 12°C/ 7°C
 Condenser air temperature 38°C at sea level.



Model			110	125	140	160	180	210	240	280	
Cooling Capacity		kW	290	323	362	431	496	571	640	691	
		TR	82	92	103	123	141	162	182	196	
Power Input		kW	93	104	119	137	150	175	197	222	
EER			3.12	3.10	3.04	3.14	3.32	3.26	3.25	3.12	
Refrigerant		Type	R-134a								
		Flow Control	Electronic Expansion Valve								
		Number Of Circuit	1								
Evaporator	Type		Shell and Tube (Brazed Plate Heat Exchanger as an option)								
	Flow Rate		m³/hr.	45	50	56	67	77	88	99	107
			GPM	198	220	247	294	338	390	437	472
	Head Loss		Kpa	16	17	22	25	28	23	44	53
	Piping Connection	Water in / out Diameter	mm	125	150						200
			Inch	5	6						8
Condenser	Type		Finned Coil (Micro Channel as an Option)								
	Face Area		m²	10	11	13	14	17	20	22	23
			ft²	108	115	135	148	185	219	238	249
	Fin Spacing		FPI								
	Fan	Diameter	mm	800							
			Inch	32							
		Quantity		6	8			10	12		
Compressor	Type		Compact Screw								
	Quantity		1								

Table 2 R - 134a

Note: Cooling capacities are based on the following conditions;
Chilled water inlet/outlet 12°C/ 7°C
Condenser air temperature 38°C at sea level.

Air Cooled Screw Chiller Series

Dimension & Weight

Table 1

R22
refrigerant

Model		50	60	70	80	90	110	125	140	160	180	210	240	280
Length (A)	mm	2200	3300		2200		3300		4400		5500		6600	7700
Width (B)	mm	1500			2250									
Height (H)	mm	2100			2240						2470			
Weight	Kg	1500	1750	1950	2100	2200	3000	3100	3600	3750	4450	5000	5500	6300

Table 2

R22
refrigerant

Model		100	120	140	160	180	220	250	280	320	360	420	480	560
Length (A)	mm	2200	3300		4400		6600		8800			11000	13200	15400
Width (B)	mm	2250												
Height (H)	mm	2100				2240					2470			
Weight	Kg	2900	3350	3750	4000	4050	5800	6000	7000	7300	8700	9750	10600	12300

Table 1

R-407C
refrigerant

Model		50	60	70	80	90	110	125	140	160	180	210	240	280
Length (A)	mm	2200	3300		2200	2200	3300		4400	4400	4400	5500	6600	7700
Width (B)	mm	1500			2250									
Height (H)	mm	2100				2240					2470			
Weight	Kg	1500	1750	1950	2100	2200	3000	3100	3600	3750	4450	5000	5500	6300

Table 2

R-407C
refrigerant

Model		100	120	140	160	180	220	250	280	320	360	420	480	560	
Length (A)	mm	2200	3300		4400		6600		8800			11000		13200	15400
Width (B)	mm	2250													
Height (H)	mm	2100				2240					2470				
Weight	Kg	2900	3350	3750	4000	4050	5800	6000	7000	7300	8700	9750	10600	12300	

R-134a
refrigerant

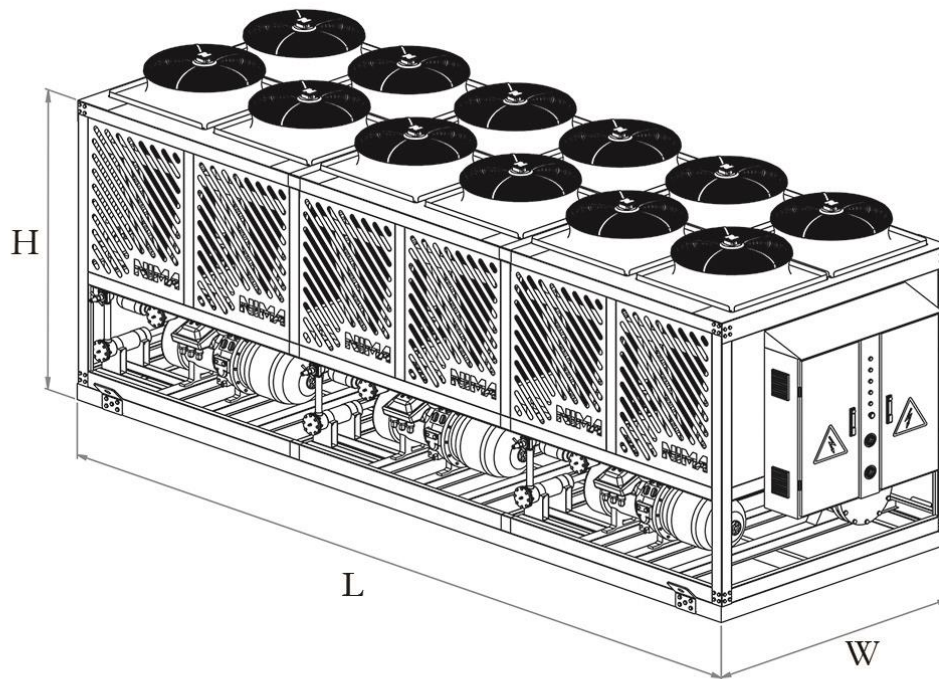
Table 1

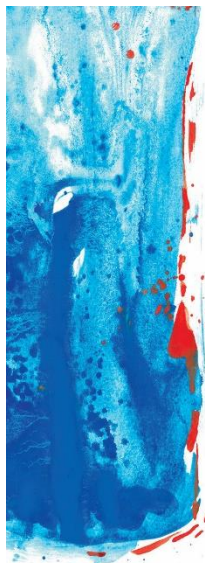
Model		50	60	70	80	90	110	125	140	160	180	210	240	280
Length (A)	mm	2200	3300		2200			3300		4400			5500	6600
Width (B)	mm	1500			2250.									
Height (H)	mm	2100				2240						2470		
Weight	Kg	1600	1900	1950	2400	2500	2950	3100	3500	4100	4300	4900	5450	6200

R-134a
refrigerant

Table 2

Model		100	120	140	160	180	220	250	280	320	360	420	480	560
Length (A)	mm	2200	3300		4400			6600		8800			11000	13200
Width (B)	mm	2250												
Height (H)	mm	2100				2240						2470		
Weight	Kg	3180	3750	3800	4750	4900	5700	6100	6800	8000	8400	9600	10800	12100





Introduction of Nima Tahviah Company

In 2010, Nima Tahviah Company started its activity based on its technological capacities. Considering the lack of the state-of-the-art technologies among the domestic manufacturers and producers plus the increasing presence of various Chinese Brands, the company aimed to produce its products with the highest efficiency and quality in accordance with the international standards and engineering design approaches using the best parts. Since we have a smart and meticulous national market, Nima Tahviah has made its way through the market and attracted its customers. Usually just after our first cooperation with the customers, they turn into our genuine friends and allies whose suggestions and criticisms have had an inevitable role in improvement of our products' quality. Construction of our strong professional resume in such a short time and of course in competition with the most reputed international brands and domestic producers is the best indication of legitimacy of our statements. Our successful presence in the biggest national development, manufacturing of the biggest process air cooled chiller in the country, and unrivaled presence in production of the specifics systems for Clean Rooms are made possible because of the almighty God's favors, honesty in all of sectors, tireless efforts of our colleagues in the factory, and our competitors' trust. To do so, no service has been held back, and in many cases, Nima Tahviah has served to its country not as a seller but as an engineering and technological consultant. In a near future, we hope to be able to export our products as a noticeable step in development and construction of our country, Iran.



ما تنها یک زمین داریم!



احترام به محیط زیست

در عصری زندگی می‌کنیم که توجه به بحران‌های زیست محیطی زمین همیشه یکی از عناوین خیریت، در اغلب کشورهای جهان برای رسیدگی به این امر سازمانی تحت عنوان سازمان محیط زیست تأسیس گردیده که اهمیتش کمتر از وزارت دفاع در آن کشورها نیست!

تولید سرمایه‌های و گرمایش از انرژی‌های فسیلی می‌باشد و لذا افزایش رانندگی در یک سیستم ساده آن هم به مقداری بسیار اندک، در یک مقیاس جهانی می‌تواند آماری نشان دهنده از کاهش تولید آلودگی‌ها را به همراه داشته باشد، در شرکت نهما نه‌بویه کوچکترین جزئیات بارها مورد بازبینی و محاسبه مجدد قرار می‌گیرد تا در صورت امکان با تغییری کوچک یا بزرگ بتوانیم سهم خود را به محل زندگیمان زمین ادا کنیم.