COOLEX

New Generation Watercooled 1800-11000 cfm

For more technical information please visit **www.coolex.com.kw**

COOLEX

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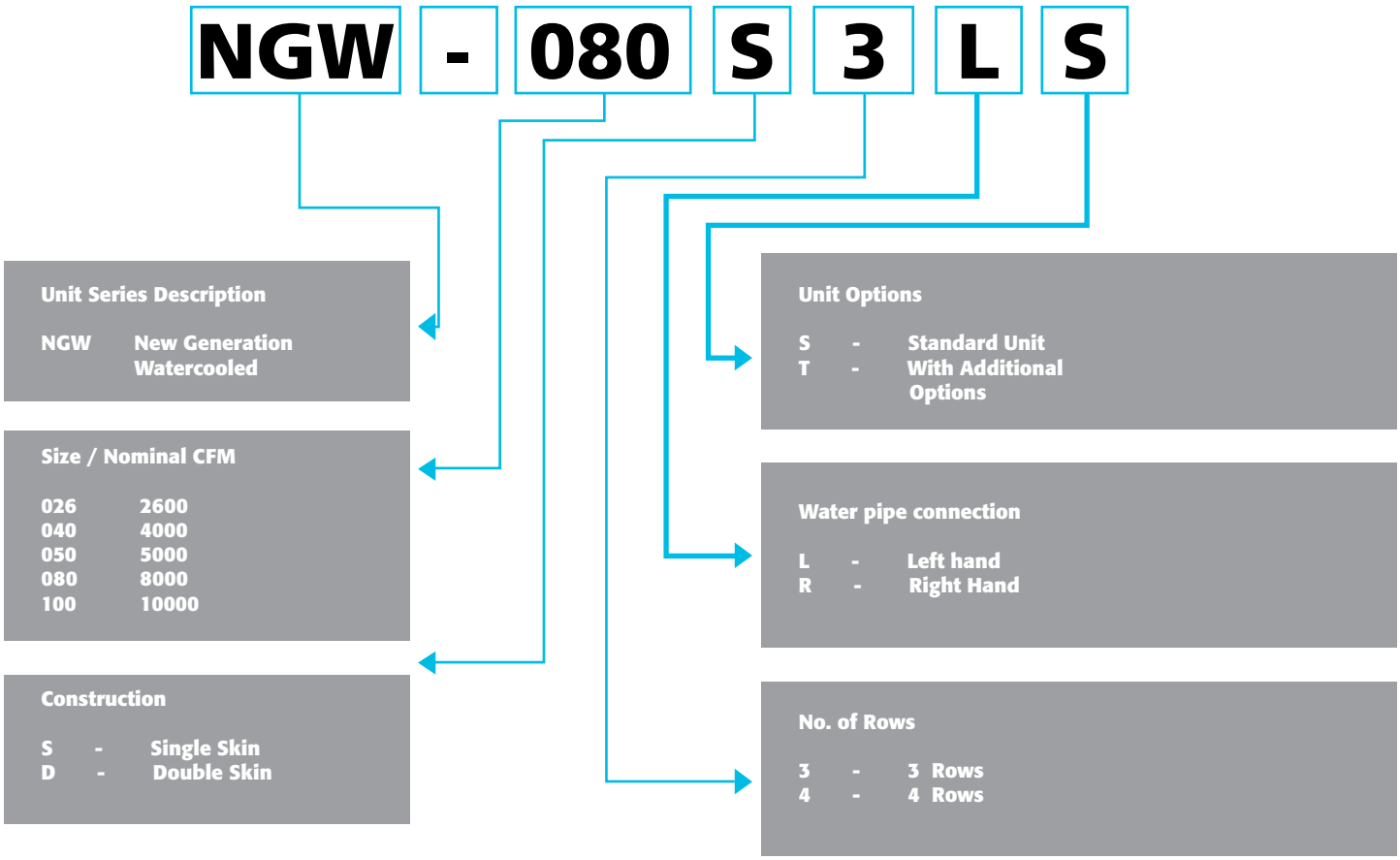
INTRODUCTION

COOLEX High Efficiency High Static Fan Coil Units are highly efficient means of turning a water chiller,or hot water boiler into an efficient quiet air conditioning system with high performance,low power consumption, easy installation and low noise operation for both commercial and residential applications.

NOMENCLATURE



STANDARD SPECIFICATIONS

General

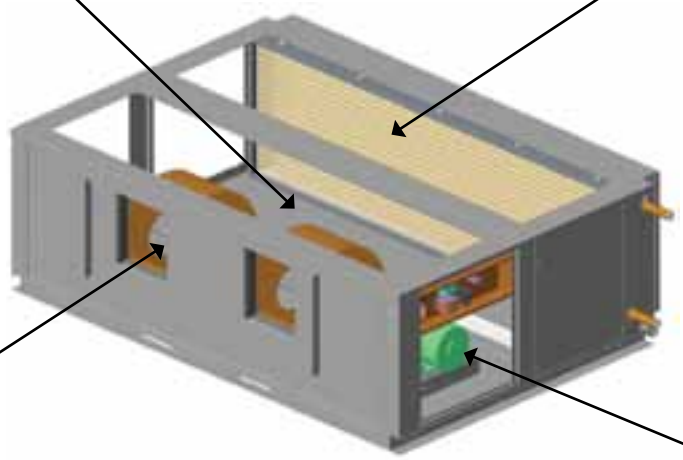
Fan coil units are provided with the latest advanced technology to provide quiet, reliable performance.Chilled water coils are designed to give optimum heat transfer efficiency. Units casings designed to provide easy accessibility for Chilled water coil and unit fan deck.

Unit Construction

Fan Coil unit consists of a coil, motor/blower assembly and a drain pan securely mounted on heavy gauge galvanized steel housing.

Drain Pan
Drain Pan is constructed from a one piece painted galvanized sheet metal welded carefully to protect from leakage. The insulation shall be special designed to be perfect.

Chilled Water Coil
High heat transfer efficiency coils are built up of ripple finned seamless copper tubes and mechanically bonded to scientifically design louvered fins. The assembled coils are factory leak tested under water at a pressure of 350 psig for quality and leak free units.



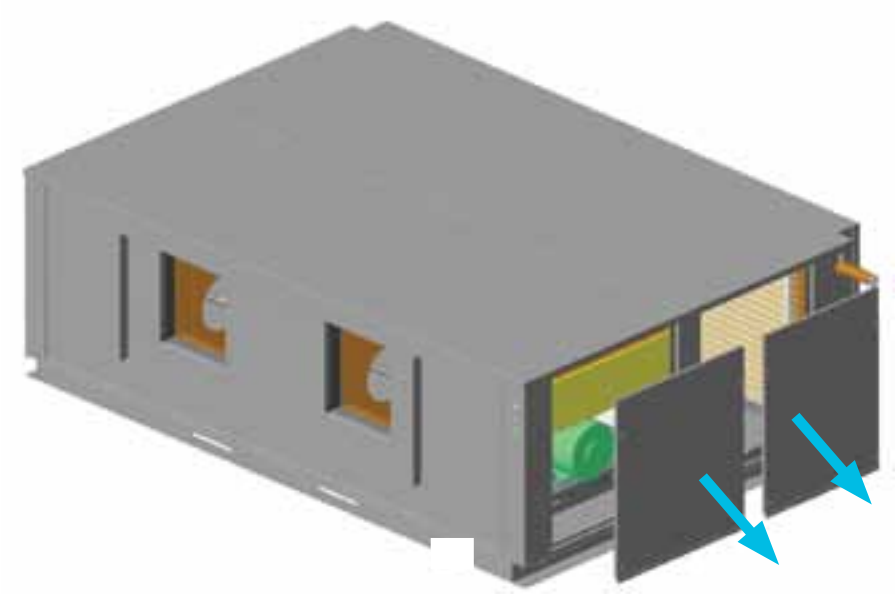
Blower Assembly
The units are provided with new designed low speed and Wide impellers centrifugal fan which are statically and dynamically balanced, designed for low sound level operation.

Fan Motor
The fan motor is belt driven to the blower. It is open drip proof type electric motors with built-in thermal protector and permanently lubricated ball bearings.

OUT STANDING FEATURES

Fan Coil Unit Casing

- Easy access to the unit casing with removable panels for maintenance purpose for the blower, fan motor, belt and pulleys.
- Easy access to drain pan for cleaning.



Electrical Panel

- Easy access to the electrical panels with removable panel for electrical parts.

OPTIONAL SPECIFICATIONS

• Electric Heater

Finned Type Electric heater Following capacity range

Model	Capacity (KW)
NGW-026	35-55
NGW-040	60-80
NGW-050	85-115
NGW-080	120-160
NGW-100	165-210

• Cooling Coil

- Left or Right Hand Pipe Connection
- Threaded pipe connection

• Construction

- Double skin
- Stainless steel drain pan

• Fan Motor

Tottaly Enclosed Fan Cooled (TEFC) Class F insulation

• Heating Coil

- Left or Right Hand Pipe Connection
- Threaded pipe connection

• Air Filter

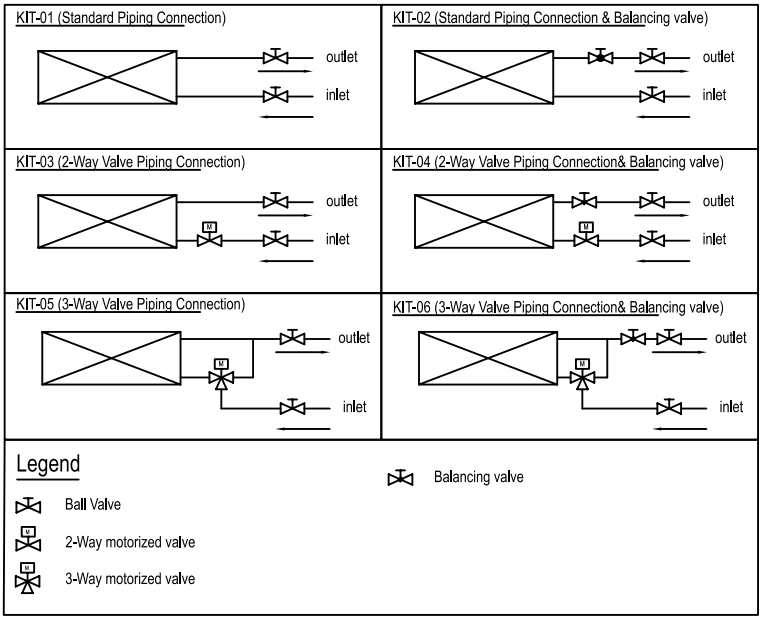
- Aluminum V Type filter
- Bag Filter

• Thermostats

Decorative wall mounted type.
Micro-processor controlled with intelligent
control algorhythm (PID) Consequently, apart from the display of the room applications.
Operating Mode : Cooling, Heating, Controlling valve packages and Electric Heater.
Wi Fi (Optional)

• Control Valves

6 Kits of valves packages available for models
flow control as per illustrated diagrams



TYPICAL THERMOSTAT (OPTIONAL)

GENERAL DATA - 3 ROWS COOLING COIL

Model		NGW-026	NGW-040	NGW-050	NGW-080	NGW-100
Cooling Capacity	Minimum, MBH	60.0	107.3	131.8	205.1	253.6
	Maximum, MBH	83.9	127.9	160.0	248.3	294.1
Air Flow	Minimum , CFM	1800	3200	4400	6200	8600
	Maximum , CFM	3000	4200	6000	8400	11000
Coils	Fin Material	Hydrophilic Aluminum				
	Fin Spacing, FPI	12	14			12
	Number of Rows	3				
	Diameter, Tube Material	3/8" Copper		1/2" Copper		
	Face Area, ft²	6.20	10.20	12.30	16.80	21.90
	Connections, Sweat Type, in	1-3/8			2-1/8	
	Air Vent	Manual and Furnished on All Coils				
	Test Pressure	350 psig				
	Maximum Working Pressure	200 psig				
Fans	Diameter, in	12	15	15	12	15
	Width, in	11	15	15	12	15
	Qty	1	1	1	2	2
	Type	Double Width Double Inlet Forward Curved Belt Driven				
	Construction	Galvanized Steel - Dynamically Balanced				
	Housing	Galvanized Steel				
Motor	Nominal HP	1	2	3	5	5
	Qty	1				
	Power Supply	415V / 3 Ph / 50 Hz				
Unit Operating Weight, kg		125	174	179	376	395

Note:

1. *Cooling capacities are based on 80°/67°F entering air temperarture and 44°F/54°F entering/leaving chilled water temperature.*
2. *The above data maybe changed without prior notice due to continous improvement in quality and performance.*

GENERAL DATA - 4 ROWS COOLING COIL

Model		NGW-026	NGW-040	NGW-050	NGW-080	NGW-100
Cooling Capacity	Minimum, MBH	71.4	123.2	166.7	221.9	301.7
	Maximum, MBH	102.7	149.9	205.0	270.9	354.3
Air Flow	Minimum , CFM	1800	3200	4400	6200	8600
	Maximum , CFM	3000	4200	6000	8400	11000
Coils	Fin Material	Hydrophilic Aluminum				
	Fin Spacing, FPI	12				
	Number of Rows	4				
	Diameter, Tube Material	3/8" Copper		1/2" Copper		
	Face Area, ft²	6.20	10.20	12.30	16.80	21.90
	Connections, Sweat Type, in	1-3/8			2-1/8	
	Air Vent	Manual and Furnished on All Coils				
	Test Pressure	350 psig				
	Maximum Working Pressure	200 psig				
Fans	Diameter, in	12	15	15	12	15
	Width, in	11	15	15	12	15
	Qty	1	1	1	2	2
	Type	Double Width Double Inlet Forward Curved Belt Driven				
	Construction	Galvanized Steel - Dynamically Balanced				
	Housing	Galvanized Steel				
Motor	Nominal HP	1	2	3	5	5
	Qty	1				
	Power Supply	415V / 3 Ph / 50 Hz				
Unit Operating Weight, kg		128	178	186	385	406

Note:

1. *Cooling capacities are based on 80°/67°F entering air temperarture and 44°F/54°F entering/leaving chilled water temperature.*
2. *The above data maybe changed without prior notice due to continous improvement in quality and performance.*

SELECTION PROCEDURE

The below example illustrates the selection procedure to assist using this catalog to select the appropriate NGW unit that meets the design requirements.

Example :

Design requirements

• Total cooling capacity	238	[MBH]
• Sensible cooling capacity	166	[MBH]
• Air flow rate	8000	[CFM]
• Entering Air temperature DB/WB	80/67	[°F/°F]
• Entering Water temperature	44	[°F]
• External static pressure	0.7	[in.wg]
• Altitude	2000	[ft]
• Power supply	415V / 3Ph / 50Hz	

Altitude [ft]	Correction factor
Sea level	1
1000	0.996
2000	0.990
3000	0.984
4000	0.980
5000	0.974
6000	0.965
7000	0.960

Using the correction factor table at the specified altitude, thereby the required capacity will be:

Corrected capacity = Required capacity /corr. factor

Corrected total capacity = 238,000 (Btu/hr)/0.99
= 240,404 (Btu/hr)/0.99

Corrected sensible capacity = 166,000 (Btu/hr)/0.99
= 167,677 (Btu/hr)/0.99

From fan performance (page 10) & performance table - 3 Rows cooling coil (page 11), the closest cooling capacity data and the closest selection model to the required Capacity is NGW-080.

Total capacity = 240,697 [Btu/hr]

Sensible capacity = 168,422 [Btu/hr]

UNIT ELECTRICAL DATA

MODEL		NGW-026	NGW-040	NGW-050	NGW-080	NGW-100
Unit Power Supply	Volt	415				
	Phase	3				
	Hz	50				
Motor	V - Ph - Hz	415-3-50				
	HP	1	2	3	5	5
	FLA	2.4	4.3	4.6	7.2	7.2
Max. Fuse Size, Ampere		5	10	10	15	15
Minimum Wire Size, mm²		2.5	2.5	2.5	2.5	2.5

LEGEND:

FLA - Full Load Amps

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FAN PERFORMANCE

Model	CFM	External Static Pressure [in.wg]																	
		0.25		0.40		0.70		1.00		1.20		1.40		1.60		1.80		2.00	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
NGW-026	1800	770	0.45	831	0.42	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2000	776	0.50	827	0.58	939	0.73	-	-	-	-	-	-	-	-	-	-	-	-
	2200	766	0.58	824	0.65	934	0.81	1035	0.98	-	-	-	-	-	-	-	-	-	-
	2400	769	0.65	824	0.73	931	0.90	1030	1.07	1092	1.19	1151	1.32	-	-	-	-	-	-
	2600	775	0.74	827	0.82	929	1.00	1026	1.18	1087	1.30	1146	1.43	1202	1.56	-	-	-	-
	3000	795	0.96	843	1.04	935	1.22	1025	1.42	1083	1.55	1139	1.69	1194	1.83	1247	1.98	1298	2.13

Model	CFM	External Static Pressure [in.wg]																	
		0.30		0.50		0.70		1.00		1.20		1.40		1.60		1.80		2.00	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
NGW-040	3200	700	0.91	760	1.06	817	1.21	886	1.44	-	-	-	-	-	-	-	-	-	-
	3500	703	1.02	762	1.18	817	1.34	895	1.58	945	1.75	992	1.93	-	-	-	-	-	-
	3700	706	1.10	763	1.26	818	1.43	895	1.69	944	1.86	991	2.01	1036	2.22	-	-	-	-
	4000	711	1.24	767	1.41	820	1.58	895	1.85	943	2.03	989	2.22	1034	2.41	1077	2.61	1119	2.80
	4200	716	1.34	771	1.51	823	1.69	897	1.97	944	2.16	989	2.35	1033	2.54	1076	2.74	1117	2.95

Model	CFM	External Static Pressure [in.wg]																	
		0.35		0.50		0.70		1.00		1.20		1.40		1.60		1.80		2.00	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
NGW-050	4400	734	1.49	775	1.62	826	1.81	899	2.09	945	2.28	990	2.48	1033	2.68	1075	2.89	1116	3.10
	4700	742	1.66	781	1.80	831	1.99	903	2.29	948	2.49	992	2.70	1034	2.91	1076	3.12	1116	3.34
	5000	750	1.86	789	2.00	838	2.20	908	2.51	952	2.72	995	2.93	1037	3.15	1077	3.37	1117	3.60
	5300	759	2.07	797	2.22	845	2.42	914	2.74	957	2.96	1000	3.18	1041	3.41	1080	3.64	1119	3.87
	5600	770	2.30	806	2.46	853	2.67	921	3.00	964	3.22	1005	3.46	1045	3.69	1084	3.93	1122	4.17
	6000	785	2.65	820	2.81	865	3.03	931	3.37	973	3.61	1013	3.85	1053	4.09	1091	4.34	1128	4.59

FAN PERFORMANCE

Model	CFM	External Static Pressure [in.wg]																	
		0.40		0.60		0.70		1.00		1.20		1.40		1.60		1.80		2.00	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
NGW-080	6200	927	2.40	987	2.66	1016	2.79	1101	3.18	1155	3.45	1207	3.72	1258	4.00	1308	4.29	1357	4.57
	6500	933	2.60	992	2.86	1021	3.00	1104	3.40	1157	3.68	1209	3.96	1259	4.25	1308	4.54	1356	4.84
	7000	945	2.95	1003	3.24	1031	3.38	1111	3.81	1163	4.10	1213	4.40	1262	4.70	1309	5.00	1356	5.31
	7500	958	3.34	1015	3.64	1042	3.79	1121	4.25	1171	4.56	1219	4.87	1267	5.18	1313	5.50	1358	5.82
	8000	972	3.76	1028	4.08	1055	4.25	1132	4.73	1181	5.06	1228	5.39	1274	5.72	1319	6.05	1363	6.38
	8400	984	4.12	1039	4.47	1065	4.64	1141	5.15	1190	5.49	1236	5.83	1281	6.17	1326	6.52	1369	6.87

Model	CFM	External Static Pressure [in.wg]																	
		0.45		0.60		0.70		1.00		1.60		1.80		2.00		2.50		3.00	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
NGW-100	8600	786	3.22	824	3.49	849	3.68	921	4.24	1055	5.43	1096	5.84	1137	6.25	-	-	-	-
	9000	790	3.45	828	3.73	852	3.92	923	4.51	1055	5.72	1096	6.14	1136	6.57	1232	7.66	-	-
	9500	795	3.77	832	4.05	857	4.25	926	4.85	1056	6.11	1096	6.54	1136	6.98	1231	8.11	1320	9.27
	10000	799	3.96	836	4.26	860	4.46	929	5.07	1056	6.35	1097	6.79	1136	7.24	1230	8.39	1319	9.57
	10500	808	4.46	844	4.77	867	4.98	935	5.62	1060	6.96	1099	7.42	1138	7.88	1230	9.08	1317	10.31
	11000	815	4.85	850	5.17	874	5.39	940	6.05	1063	7.42	1102	7.89	1140	8.37	1231	9.61	1317	10.87

LEGEND:

RPM - Fan Speed in revolution per minute
BHP - Fan absorbed power

Note:

1. *Internal Static pressure is based on pressure drops through evaporator coil, fan casing and 2" washable filters.*
2. *The blue shaded area indicates the operating range of a standard pulley combination.*
3. *The blue and green shaded area indicates the operating range of a standard motor; out of this range shift to next larger motor size.*
4. *To determine the power of motor to be installed, just multiply the value of the absorbed power indicated above by 1.2.*

PERFORMANCE DATA TABLES - 3 ROWS COOLING COIL

Model	Air Flow CFM	42 °F				43 °F				44 °F				45 °F			
		Total Capacity	Sensible Capacity	Water Flow	WPD	Total Capacity	Sensible Capacity	Water Flow	WPD	Total Capacity	Sensible Capacity	Water Flow	WPD	Total Capacity	Sensible Capacity	Water Flow	WPD
		Btu/hr	Btu/hr	GPM	Ft H2O	Btu/hr	Btu/hr	GPM	Ft H2O	Btu/hr	Btu/hr	GPM	Ft H2O	Btu/hr	Btu/hr	GPM	Ft H2O
NGW-026	1800	67,141	44,415	13.43	7.10	63,616	42,669	12.72	6.44	60,008	40,880	12.00	5.79	56,227	38,995	11.25	5.13
	2000	72,056	47,935	14.41	8.09	68,252	46,047	13.65	7.33	64,327	44,094	12.87	6.57	60,282	42,072	12.06	5.83
	2200	76,891	51,409	15.38	9.07	72,811	49,381	14.56	8.22	68,577	47,267	13.72	7.35	64,268	45,107	12.85	6.53
	2400	81,646	54,836	16.33	10.06	77,295	52,670	15.46	9.11	72,759	50,398	14.55	8.13	68,186	48,100	13.64	7.23
	2600	86,081	58,075	17.22	11.04	81,474	55,777	16.29	9.99	76,667	53,363	15.33	8.92	71,830	50,923	14.37	7.92
	3000	94,222	64,460	18.84	12.97	89,094	61,544	17.82	11.70	83,881	58,925	16.78	10.49	78,546	56,223	15.71	9.32
NGW-040	3200	119,078	79,468	23.82	6.40	113,297	76,630	22.66	5.80	107,312	73,686	21.46	5.19	99,281	69,574	19.86	4.60
	3500	126,519	84,838	25.30	7.14	120,109	81,669	24.02	6.45	113,106	78,167	22.62	5.78	105,384	74,246	21.08	5.12
	3700	131,479	88,418	26.30	7.64	124,650	85,028	24.93	6.89	116,969	81,154	23.39	6.17	109,453	77,360	21.89	5.47
	4000	138,336	93,444	27.67	8.37	130,946	89,755	26.19	7.54	123,514	86,043	24.70	6.75	115,080	81,738	23.02	5.99
	4200	142,908	96,794	28.58	8.86	135,143	92,906	27.03	7.98	127,878	89,303	25.58	7.14	118,832	84,656	23.77	6.33
NGW-050	4400	148,723	100,844	29.74	3.55	140,359	96,634	28.07	3.20	131,800	92,303	26.36	2.85	122,954	87,783	24.59	2.51
	4700	155,142	105,602	31.03	3.83	146,387	101,185	29.28	3.45	137,435	96,643	27.49	3.08	128,185	91,902	25.64	2.71
	5000	161,561	110,360	32.31	4.11	152,415	105,736	30.48	3.70	143,069	100,983	28.61	3.30	133,415	96,020	26.68	2.90
	5300	167,194	114,636	33.44	4.62	157,700	109,825	31.54	3.94	147,974	104,861	29.59	3.51	138,273	99,710	27.65	3.09
	5600	173,220	119,154	34.64	5.02	163,357	114,145	32.67	4.19	153,243	108,970	30.65	3.73	143,317	103,615	28.66	3.28
	6000	180,993	125,016	36.20	4.68	170,652	119,751	34.13	4.51	160,026	114,295	32.01	4.01	149,918	108,678	29.98	3.54
NGW-080	6200	228,293	152,622	45.66	13.30	216,816	146,958	43.36	12.11	205,104	141,174	41.02	10.95	193,124	135,240	38.62	9.82
	6500	235,328	157,762	47.07	14.05	223,457	151,896	44.69	12.78	211,343	145,905	42.27	11.59	198,959	139,760	39.79	10.36
	7000	247,053	166,328	49.41	15.29	234,524	160,127	46.90	13.90	221,741	153,790	44.35	12.66	208,683	147,292	41.74	11.25
	7500	257,751	174,278	51.55	16.51	244,614	167,764	48.92	15.01	231,219	161,106	46.24	13.61	217,505	154,257	43.50	12.12
	8000	268,448	182,229	53.69	17.73	254,705	175,401	50.94	16.11	240,697	168,422	48.14	14.57	226,327	161,221	45.27	12.99
	8400	277,006	188,589	55.40	18.70	262,777	181,510	52.56	17.00	248,279	174,275	49.66	15.33	233,384	166,793	46.68	13.69
NGW-100	8600	282,707	192,568	56.54	12.41	268,317	185,417	53.66	11.29	253,641	178,104	50.73	10.20	238,554	170,537	47.71	9.11
	9000	290,576	198,499	58.12	13.04	275,743	191,117	55.15	11.86	260,619	183,565	52.12	10.71	245,069	175,747	49.01	9.56
	9500	300,411	205,912	60.08	13.83	285,025	198,242	57.00	12.57	269,342	190,392	53.87	11.34	253,214	182,260	50.64	10.13
	10000	310,247	213,326	62.05	14.62	294,307	205,367	58.86	13.28	278,064	197,219	55.61	11.98	261,358	188,773	52.27	10.70
	10500	319,351	220,283	63.87	15.40	302,897	212,050	60.58	13.98	286,080	203,592	57.22	12.60	268,887	194,880	53.78	11.25
	11000	328,455	227,240	65.69	16.17	311,487	218,733	62.30	14.68	294,095	209,964	58.82	13.21	276,415	200,987	55.28	11.80

Note:

1. *Cooling capacities are based on 80°/67°F entering air temperarture and 44°F/54°F entering/leaving chilled water temperature.*

PERFORMANCE DATA TABLES - 3 ROWS COOLING COIL

Model	Air Flow CFM	46 °F				47 °F				48 °F			
		Total Capacity	Sensible Capacity	Water Flow	WPD	Total Capacity	Sensible Capacity	Water Flow	WPD	Total Capacity	Sensible Capacity	Water Flow	WPD
		Btu/hr	Btu/hr	GPM	Ft H2O	Btu/hr	Btu/hr	GPM	Ft H2O	Btu/hr	Btu/hr	GPM	Ft H2O
NGW-026	1800	52,402	37,077	10.48	4.52	48,458	35,078	9.69	3.93	44,287	32,923	8.86	3.34
	2000	56,167	40,000	11.23	5.14	51,897	37,823	10.38	4.45	47,456	35,517	9.49	3.79
	2200	59,868	42,883	11.97	5.75	55,280	40,531	11.06	4.97	50,569	38,074	10.11	4.24
	2400	63,505	45,725	12.70	6.36	58,607	43,202	11.72	5.49	53,626	40,593	10.73	4.69
	2600	66,884	48,406	13.38	6.97	61,708	45,727	12.34	6.02	56,456	42,962	11.29	5.13
	3000	73,053	53,407	14.61	8.16	67,435	50,483	13.49	7.07	61,622	47,392	12.32	6.01
NGW-040	3200	92,263	66,016	18.45	4.03	85,030	62,299	17.01	3.47	77,441	58,317	15.49	2.93
	3500	97,916	70,445	19.58	4.48	90,235	66,482	18.05	3.87	82,210	62,252	16.44	3.27
	3700	101,685	73,397	20.34	4.78	93,705	69,270	18.74	4.13	85,389	64,875	17.08	3.49
	4000	106,891	77,543	21.38	5.05	98,490	73,179	19.70	4.51	89,746	68,536	17.95	3.81
	4200	110,361	80,307	22.07	5.23	101,680	75,785	20.34	4.77	92,650	70,976	18.53	4.03
NGW-050	4400	113,912	83,111	22.78	2.05	104,514	78,164	20.90	1.88	94,772	72,914	18.95	1.57
	4700	118,740	87,004	23.75	2.29	108,934	81,822	21.79	2.03	98,780	76,326	19.76	1.70
	5000	123,568	90,897	24.71	2.53	113,353	85,480	22.67	2.17	102,788	79,737	20.56	1.82
	5300	127,778	94,380	25.56	2.68	117,197	88,744	23.44	2.31	106,264	82,776	21.25	1.93
	5600	132,297	98,068	26.46	2.87	121,329	92,205	24.27	2.45	110,005	86,001	22.00	2.05
	6000	138,117	102,849	27.62	3.10	126,646	96,689	25.33	2.63	114,817	90,177	22.96	2.20
NGW-080	6200	180,799	129,023	36.16	8.70	168,218	122,767	33.64	7.64	155,235	116,146	31.05	6.61
	6500	186,218	133,347	37.24	9.18	173,217	126,836	34.64	8.05	159,806	119,976	31.96	6.96
	7000	195,249	140,554	39.05	9.97	181,548	133,617	36.31	8.74	167,425	126,358	33.49	7.55
	7500	203,463	147,190	40.69	10.74	189,122	139,896	37.82	9.41	174,341	132,259	34.87	8.13
	8000	211,677	153,825	42.34	11.51	196,695	146,176	39.34	10.08	181,257	138,161	36.25	8.70
	8400	218,248	159,134	43.65	12.13	202,754	151,199	40.55	10.62	186,790	142,882	37.36	9.16
NGW-100	8600	223,203	162,777	44.64	8.11	207,476	154,734	41.50	7.08	191,249	146,291	38.25	6.11
	9000	229,258	167,734	45.85	8.50	213,063	159,427	42.61	7.43	196,356	150,704	39.27	6.41
	9500	236,828	173,931	47.37	8.99	220,046	165,292	44.01	7.86	202,741	156,221	40.55	6.79
	10000	244,397	180,128	48.88	9.48	227,030	171,158	45.41	8.30	209,125	161,738	41.83	7.16
	10500	251,389	185,934	50.28	9.97	233,433	176,624	46.69	8.72	215,016	166,903	43.00	7.52
	11000	258,380	191,740	51.68	10.46	239,836	182,090	47.97	9.14	220,906	172,067	44.18	7.88

Note:

1. *Cooling capacities are based on 80°/67°F entering air temperarture and 44°F/54°F entering/leaving chilled water temperature.*

PERFORMANCE DATA TABLES - 4 ROWS COOLING COIL

Model	Air Flow CFM	42 ˚F				43 ˚F				44 ˚F				45 ˚F			
		Total Capacity	Sensible Capacity	Water Flow	WPD	Total Capacity	Sensible Capacity	Water Flow	WPD	Total Capacity	Sensible Capacity	Water Flow	WPD	Total Capacity	Sensible Capacity	Water Flow	WPD
		Btu/hr	Btu/hr	GPM	Ft H2O	Btu/hr	Btu/hr	GPM	Ft H2O	Btu/hr	Btu/hr	GPM	Ft H2O	Btu/hr	Btu/hr	GPM	Ft H2O
NGW-026	1800	79,626	51,641	15.93	5.80	75,602	49,654	15.12	5.20	71,436	47,603	14.3	4.70	67,166	45,501	13.43	4.20
	2000	85,871	55,960	17.17	6.63	81,498	53,800	16.30	6.00	76,988	51,577	15.4	5.40	72,363	49,296	14.47	4.83
	2200	92,116	60,280	18.42	7.47	87,393	57,947	17.48	6.80	82,540	55,552	16.5	6.10	77,559	53,091	15.51	5.47
	2400	98,361	64,599	19.67	8.30	93,289	62,093	18.66	7.60	88,092	59,526	17.6	6.80	82,756	56,886	16.55	6.10
	2600	103,852	68,492	20.77	9.20	98,467	65,828	19.69	8.40	92,953	63,100	18.6	7.50	87,281	60,287	17.46	6.73
	3000	114,834	76,278	22.97	11.00	108,823	73,299	21.76	10.00	102,675	70,249	20.5	8.90	96,332	67,088	19.27	8.00
NGW-040	3200	137,865	89,799	27.57	4.70	130,615	86,208	26.12	4.20	123,157	82,519	24.6	3.80	115,416	78,681	23.08	3.40
	3500	147,234	96,278	29.45	5.30	139,454	92,422	27.89	4.74	131,460	88,464	26.3	4.28	123,170	84,347	24.63	3.82
	3700	153,480	100,597	30.70	5.70	145,346	96,565	29.07	5.10	136,995	92,427	27.4	4.60	128,339	88,124	25.67	4.10
	4000	162,223	106,724	32.44	6.24	153,585	102,438	30.72	5.64	144,727	98,044	28.9	5.08	135,548	93,471	27.11	4.52
	4200	168,051	110,808	33.61	6.60	159,077	106,354	31.82	6.00	149,881	101,788	30.0	5.40	140,354	97,036	28.07	4.80
NGW-050	4400	184,227	120,564	36.85	20.10	175,545	116,319	35.11	18.40	166,676	111,995	33.3	16.80	157,598	107,575	31.52	15.10
	4700	192,730	126,561	38.55	21.80	183,597	122,094	36.72	19.95	174,271	117,543	34.9	18.15	164,699	112,873	32.94	16.35
	5000	201,233	132,558	40.25	23.50	191,649	127,868	38.33	21.50	181,865	123,090	36.4	19.50	171,800	118,171	34.36	17.60
	5300	208,809	138,024	41.76	10.61	198,816	133,129	39.76	23.02	188,591	128,126	37.7	20.89	178,132	123,008	35.63	18.82
	5600	216,849	143,755	43.37	5.02	206,425	138,647	41.29	24.56	195,751	133,418	39.2	22.26	184,849	128,076	36.97	20.06
	6000	227,260	151,220	45.45	29.10	216,276	145,833	43.26	26.60	205,008	140,304	41.0	24.10	193,548	134,679	38.71	21.70
NGW-080	6200	246,736	162,837	49.35	8.80	234,430	156,779	46.89	8.00	221,907	150,622	44.4	7.30	209,079	144,309	41.82	6.50
	6500	254,671	168,506	50.93	9.33	241,944	162,237	48.39	8.49	228,973	155,854	45.8	7.71	208,931	149,308	41.79	6.88
	7000	267,895	177,953	53.58	10.20	254,466	171,334	50.89	9.30	240,750	164,575	48.2	8.40	208,683	157,640	41.74	7.50
	7500	280,058	186,781	56.01	11.06	265,947	179,817	53.19	10.09	251,537	172,701	50.3	9.08	225,208	165,402	45.04	8.14
	8000	292,221	195,609	58.44	11.91	277,427	188,299	55.49	10.87	262,324	180,827	52.5	9.76	241,733	173,164	48.35	8.79
	8400	301,951	202,671	60.39	12.60	286,612	195,085	57.32	11.50	270,954	187,328	54.2	10.30	254,953	179,373	50.99	9.30
NGW-100	8600	335,671	222,244	67.13	9.50	318,847	213,957	63.77	8.70	301,733	205,534	60.3	7.80	284,148	196,858	56.83	7.00
	9000	345,811	229,547	69.16	10.01	328,445	220,988	65.69	9.16	310,756	212,272	62.2	8.23	292,606	203,305	58.52	7.40
	9500	358,487	238,677	71.70	10.66	340,443	229,776	68.09	9.73	322,034	220,694	64.4	8.76	303,179	211,364	60.64	7.90
	10000	371,162	247,806	74.23	11.30	352,440	238,565	70.49	10.30	333,312	229,116	66.7	9.30	313,752	219,423	62.75	8.40
	10500	383,008	256,448	76.60	11.95	363,612	246,864	72.72	10.90	343,810	237,068	68.8	9.85	323,566	227,017	64.71	8.85
	11000	394,853	265,090	78.97	12.60	374,784	255,162	74.96	11.50	354,308	245,019	70.9	10.40	333,379	234,611	66.68	9.30

Note:

1. *Cooling capacities are based on 80°/67°F entering air temperarture and 44°F/54°F entering/leaving chilled water temperature.*

PERFORMANCE DATA TABLES - 4 ROWS COOLING COIL

Model	Air Flow CFM	46 ˚F				47 ˚F				48 ˚F			
		Total Capacity	Sensible Capacity	Water Flow	WPD	Total Capacity	Sensible Capacity	Water Flow	WPD	Total Capacity	Sensible Capacity	Water Flow	WPD
		Btu/hr	Btu/hr	GPM	Ft H2O	Btu/hr	Btu/hr	GPM	Ft H2O	Btu/hr	Btu/hr	GPM	Ft H2O
NGW-026	1800	62,736	43,313	12.55	3.70	58,158	41,037	11.63	3.30	53,359	38,619	10.67	2.80
	2000	67,568	46,921	13.51	4.27	62,625	44,455	12.53	3.77	57,455	41,839	11.49	3.20
	2200	72,399	50,529	14.48	4.83	67,092	47,874	13.42	4.23	61,550	45,060	12.31	3.60
	2400	77,231	54,137	15.45	5.40	71,559	51,292	14.31	4.70	65,646	48,280	13.13	4.00
	2600	81,441	57,372	16.29	5.93	75,426	54,343	15.09	5.17	69,189	51,154	13.84	4.40
	3000	89,860	63,843	17.97	7.00	83,160	60,446	16.63	6.10	76,275	56,902	15.26	5.20
NGW-040	3200	107,447	74,712	21.49	3.00	99,107	70,513	19.82	2.60	90,367	66,043	18.07	2.20
	3500	114,653	80,095	22.93	3.36	105,758	75,606	21.15	2.90	96,465	70,838	19.29	2.44
	3700	119,457	83,684	23.89	3.60	110,192	79,001	22.04	3.10	100,531	74,034	20.11	2.60
	4000	126,145	88,760	25.23	3.96	116,347	83,792	23.27	3.40	106,157	78,535	21.23	2.90
	4200	130,604	92,144	26.12	4.20	120,451	86,986	24.09	3.60	109,907	81,536	21.98	3.10
NGW-050	4400	148,253	103,017	29.65	13.50	138,706	98,347	27.74	12.00	128,900	93,515	25.78	10.50
	4700	154,904	108,088	30.98	14.65	144,881	103,169	28.98	12.95	134,553	98,062	26.91	11.35
	5000	161,554	113,158	32.31	15.80	151,056	107,991	30.21	13.90	140,205	102,609	28.04	12.20
	5300	167,451	117,768	33.49	16.86	156,516	112,374	31.30	14.90	145,233	106,755	29.05	13.04
	5600	173,724	122,609	34.74	17.96	162,334	116,977	32.47	15.88	150,573	111,101	30.11	13.88
	6000	181,838	128,909	36.37	19.40	169,853	122,967	33.97	17.20	157,485	116,763	31.50	15.00
NGW-080	6200	195,942	137,819	39.19	5.80	182,361	131,056	36.47	5.10	168,451	124,054	33.69	4.40
	6500	202,065	142,562	40.41	6.14	188,040	135,564	37.61	5.40	173,656	128,304	34.73	4.63
	7000	212,271	150,467	42.45	6.70	197,504	143,076	39.50	5.90	182,331	135,386	36.47	5.00
	7500	221,637	157,847	44.33	7.24	206,147	150,063	41.23	6.36	190,210	141,947	38.04	5.43
	8000	231,004	165,227	46.20	7.77	214,789	157,050	42.96	6.83	198,089	148,509	39.62	5.86
	8400	238,497	171,131	47.70	8.20	221,703	162,640	44.34	7.20	204,392	153,758	40.88	6.20
NGW-100	8600	266,289	188,022	53.26	6.20	247,747	178,759	49.55	5.50	228,780	169,181	45.76	4.70
	9000	274,102	194,128	54.82	6.54	254,987	184,559	51.00	5.79	225,095	174,627	45.02	4.96
	9500	283,868	201,760	56.77	6.97	264,037	191,809	52.81	6.14	220,488	181,435	44.10	5.28
	10000	293,634	209,392	58.73	7.40	273,087	199,059	54.62	6.50	215,882	188,242	43.18	5.60
	10500	302,743	216,610	60.55	7.80	281,494	205,894	56.30	6.85	241,563	194,670	48.31	5.90
	11000	311,852	223,827	62.37	8.20	289,900	212,729	57.98	7.20	267,243	201,098	53.45	6.20

Note:

1. *Cooling capacities are based on 80°/67°F entering air temperarture and 44°F/54°F entering/leaving chilled water temperature.*

PERFORMANCE DATA TABLES - HEATING COIL

Model	Air Flow CFM	1 ROW			2 ROWS		
		Total Capacity	Water Flow	WPD	Total Capacity	Water Flow	WPD
		Btu/hr	GPM	Ft H2O	Btu/hr	GPM	Ft H2O
NGW-026	1800	75,503	7.70	3.84	129,831	13.30	2.94
	2000	80,605	8.30	4.31	140,125	14.30	3.34
	2200	85,616	8.80	4.79	150,001	15.40	3.80
	2400	90,326	9.20	5.26	159,502	16.30	4.23
	2600	94,839	9.70	5.73	168,663	17.30	4.67
	3000	103,348	10.60	6.67	186,068	19.00	5.54
NGW-040	3200	132,932	13.60	11.03	229,586	23.50	8.52
	3500	140,614	14.40	12.17	244,893	25.10	9.54
	3700	145,555	14.90	12.94	254,794	26.10	10.23
	4000	152,720	15.60	14.08	269,229	27.60	11.28
	4200	157,345	16.10	14.84	278,592	28.50	11.98
NGW-050	4400	165,010	16.90	7.60	292,002	29.90	6.13
	4700	171,801	17.60	8.16	305,773	31.30	6.65
	5000	178,371	18.30	8.72	319,161	32.70	7.17
	5300	184,739	18.90	9.28	332,191	34.00	7.70
	5600	190,920	19.50	9.83	344,887	35.30	8.22
	6000	198,891	20.40	10.56	361,331	37.00	8.92
NGW-080	6200	209,255	21.40	2.72	378,346	38.70	2.28
	6500	215,285	22.00	2.86	390,736	40.00	2.41
	7000	225,019	23.00	3.10	410,818	42.10	2.63
	7500	234,392	24.00	3.32	430,240	44.00	2.86
	8000	243,433	24.90	3.55	449,055	46.00	3.08
	8400	250,448	25.60	3.73	463,701	47.50	3.26
NGW-100	8600	282,338	28.90	2.55	513,234	52.50	2.15
	9000	290,098	29.70	2.67	529,249	54.20	2.27
	9500	299,546	30.70	2.83	548,808	56.20	2.42
	10000	308,731	31.60	2.98	567,886	58.10	2.57
	10500	317,672	32.50	3.13	586,513	60.00	2.72
	11000	326,382	33.40	3.29	604,713	61.90	2.87

Note:

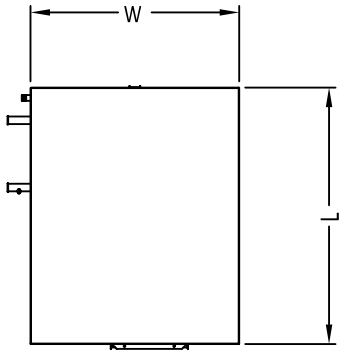
1. Heating capacities are based on 70°F entering air temperarture and 180°F/160°F entering/leaving heating water temperature.

UNIT DIMENSIONS

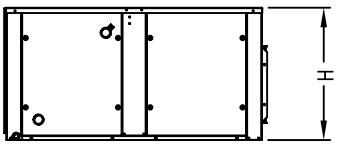
NGW-026/040/050

ALL DIMENSIONS ARE IN MM

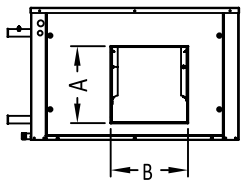
MODEL	UNIT DIMENSIONS				
	L	W	H	A	B
NGW-026	1182	962	680	355	357
NGW-040	1301	1327	731	410	480
NGW-050	1523	1573	798	410	480



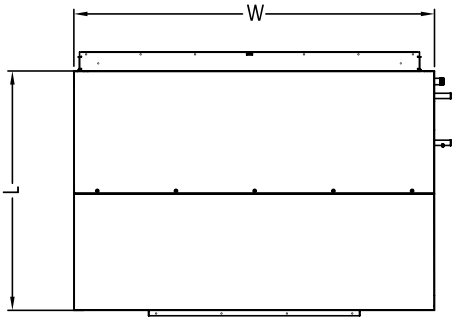
TOP VIEW



SIDE VIEW



FRONT VIEW

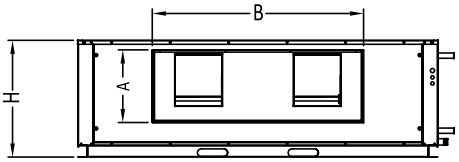


TOP VIEW

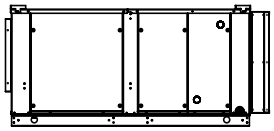
NGW-080/100

ALL DIMENSIONS ARE IN MM

MODEL	UNIT DIMENSIONS				
	L	W	H	A	B
NGW-080	1531	2384	873	481	1397
NGW-100	1576	2384	1075	631	1614

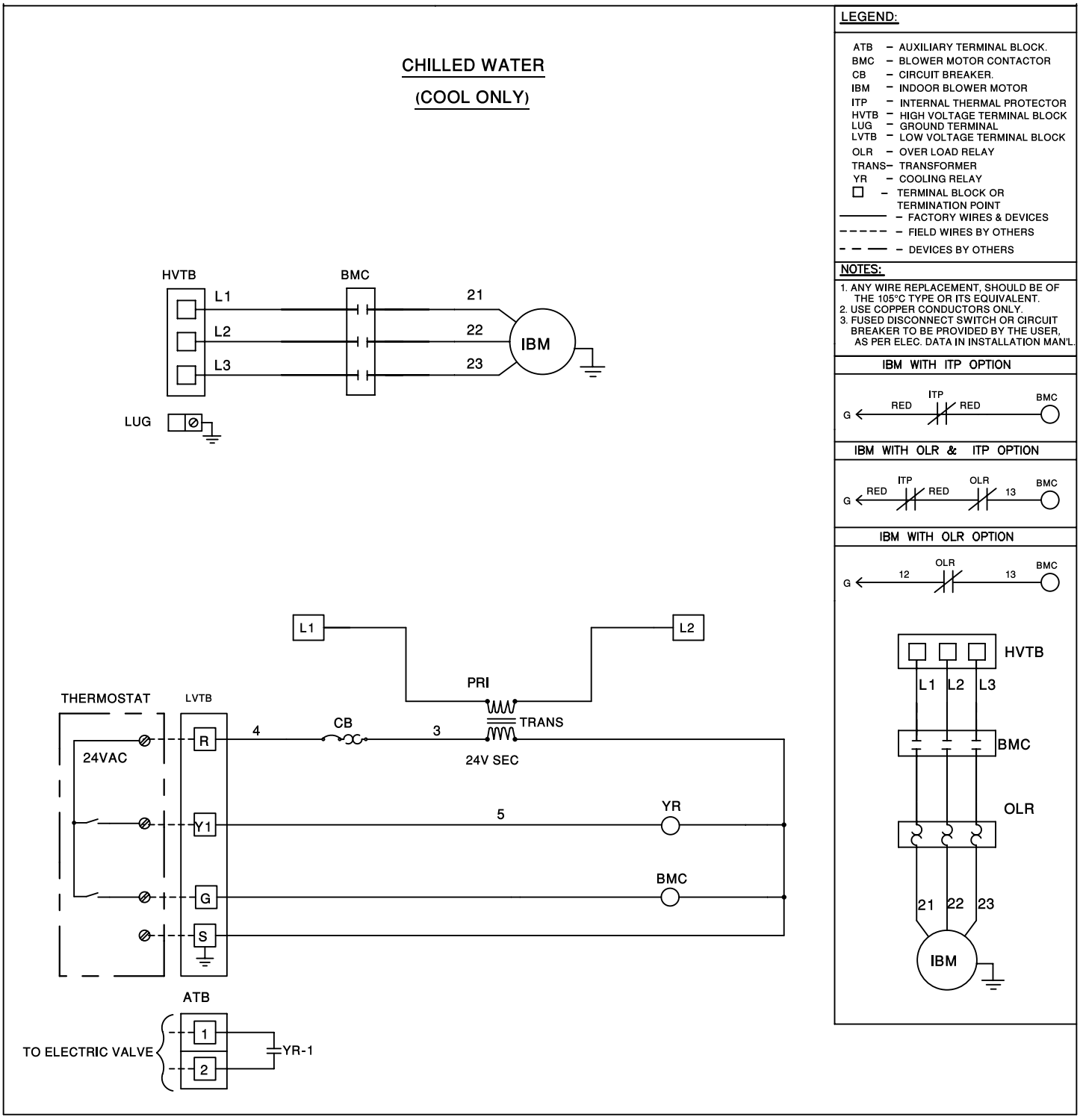


FRONT VIEW



SIDE VIEW

TYPICAL WIRING DIAGRAM



COOLEX

NOTES

COOLEX

NOTES

صناعات التبريد
REFRIGERATION INDUSTRIES

About RIC

Refrigeration Industries Company (KSE 504) is a group holding company with diversified interests in manufacturing, contracting and services. Recognized regionally for our engineering capabilities and management excellence, RIC and its subsidiaries offer a wide range of high quality products and services that cater to both residential and commercial customers, in the areas of climate control technologies and specialized storage solutions.

In view of the growing Kuwait infrastructure and the limitations imposed on it by the country's arid climate, the Refrigeration Industries Company was established 43 years ago in 1973, by Amiri Decree. The company's operations began with the construction of the first cold stores in the region, to enable the storage of the imported foods, on which Kuwait relied. Along with the development and advancement of the country, so has RIC prospered and expanded, and is now a milestone in the history of modern Kuwait.

RIC takes pride in its successful record and the many accolades it has garnered over time, but the greatest achievement has been the provision of comfort and protection from the harsh climate, to the people of Kuwait.

More than 43 years of uninterrupted service, overcoming extreme weather conditions, war, economic recessions and ever increasing competition, is testimony to the fact that RIC has met the expectations and responsibilities that was envisioned at the beginning and also highlights the tenacity and vision to exceed them in the future.

Facts throughout the years

1973 Warehouses were established by Amiri Decree.

1979 RIC Constructed the Medical Cold Stores Complex, the world's largest at that time.

1980 RIC Air Conditioning manufacturing plant set up in Sulaibya.

1981 Production of Package & Mini-Split A/Cs started under York-Gulf.

1984 RIC was listed in Kuwait Stock Exchange.

1986 COOLEX brand Production Launched.

1991 RIC rebuilt the manufacturing plant destroyed during the war.

1997 Achieved ISO Certification ISO 9001:1994.

2002 ETL Designed testing lab became fully operational.

2004 Privatization of RIC.

2010 COOLEX becomes the first A/C Unit to Pass MEW's new regulations.

2010 RIC Factory Renovation and Expansion into neighboring countries.

2012 Achieved UL & AHRI Certification for Coolex Units.

2014 Achieved SASO Certification for Concealed Ducted Split Series.

2014 Achieved EUROVENT Certification for Air Handling Units AHU.

2014 Achieved UL Certification for Air Cooled Chillers.

2015 Achieved ISO 17025 Certification for Psychrometric Laboratory.

2016 Achieved Energy Efficiency Certification for Concealed Ducted Split Series & Rooftop Package units (Kingdom of Bahrain).

نبذة عن الشركة

شركة صناعات التبريد (متداولة في سوق الكويت للأوراق المالية برقم 504) هي شركة متنوعة الأنشطة تعمل في مجال التصنيع والمقاولات والخدمات. ونحن نقدم مجموعة كبيرة من المنتجات والخدمات والحلول التقنية في مجال مواجهة الظروف المناخية وحلول التخزين. وقد حازت الشركة على إعتراف إقليمي بقدراتها الهندسية وكفاءتها الإدارية.

شركة صناعات التبريد هي مجموعة شركات تهدف إلى توفير أعلى مستويات الجودة من حيث المنتجات والخدمات التي تلبي إحتياجات عملائها السكنية والتجارية. وعلى مدى ثلاثة و أربعون عاما مضت على إنشاء شركتنا فقد إستطعنا أن نوطد أقدامنا في جميع قطاعات السوق الكويتي. ونحن إذ نفتخر بالإنجازات التي حققناها، إلا أننا أشد فخرا بأننا تمكنا من الوقوف إلى جانب أهل الكويت على مدى سنوات طويلة في مواجهة تقلبات الظروف المناخية القاسية سواء من حيث درجات الحرارة العالية أو الأتربة أو الرطوبة.

وبإعتبارها إحدى الشركات الصناعية العاملة في دولة الكويت، فقد واجهت الشركة تحديات وآمال كبيرة في سعيها لتحقيق النجاح، وقد كانت الشركة – ولا تزال – معلما من المعالم المهمة في نظر أهل الكويت لما قدمته من منتجات وخدمات إستطاعت أن تغير الطبيعة القاسية لمناخ الكويت. فبعد نحو 43 عاما تقريبا، لا يزال السؤال مطروحا حول تحقيقنا لهذه التوقعات، فهل إستطاعت الشركة أن تتحمل مسؤولياتها على الوجه الأكمل؟ ويأتي الرد بالإيجاب، فعلى مدى ثلاثة و أربعين عاما تقريبا لم تتوقف الشركة خلالها عن الإستمرار في تقديم خدماتها وأعمالها رغم الصعوبات التي تمثلت في ظروف الطقس القاسية أو الحروب أو الكساد الاقتصادي أو إرتفاع حدة المنافسة، فقد كانت كل واحدة من هذه الظروف بمثابة شهادة على أننا حققنا ما وعدنا به وما عقدنا العزم على تنفيذه.

حقائق وتواريخ

1973 تم إنشاء المستودعات بناء على مرسوم أميري.

1979 عهدت وزارة الصحة الكويتية لشركة صناعات التبريد بإنشاء مجمع مستودعات مخازن التبريد الطبية، وقد كان هذا المجمع حينها هو الأضخم من نوعه على مستوى العالم، وقد وصلت تكلفته إلى 12،000،000 دينار كويتي.

1980 تم إنشاء مصنع مكيفات الهواء التابع لشركة صناعات التبريد في الصليبية.

1981 بدء إنتاج أجهزة التكييف المدمجة والمنفصلة الصغيرة تحت علامة York-Gulf.

1984 تم قيد شركة صناعات التبريد في سوق الكويت للأوراق المالية.

1986 بدء إنتاج مكيفات علامة كولكس.

1991 قامت شركة صناعات التبريد بإعادة بناء مصنعها الذي دمرته الحرب.

1997 الحصول على شهادة الآيزو 9001:1994

2002 بدء تشغيل مختبر فحص وحدات التكييف (ETL)

2004 خصخصة شركة صناعات التبريد.

2010 كانت وحدات كولكس أول وحدات تكييف هواء تجتاز اللوائح التي أقرتها (وزارة الكهرباء والماء).

2010 تم تجديد مصنع شركة صناعات التبريد وبدء التوسع والتصدير إلى الدول المجاورة.

2012 الحصول على شهادة UL و AHRI لأجهزة التكييف كولكس.

2014 الحصول على شهادة SASO لأجهزة التكييف المنفصلة.

2014 الحصول على شهادة EUROVENT لأجهزة مناولة الهواء.

2014 الحصول على شهادة UL لمبردات الهواء الشيلر.

2015 الحصول على شهادة الأيزو ISO 17025 لمختبر السيكرومترية.

2016 الحصول على شهادة كفاء الطاقة لأجهزة التكييف المنفصلة و الوحدات المدمجة (مملكة البحرين).

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Please contact Sales and Marketing Department sales@ric.com.kw or www.coolex.com.kw for specific information on the current design and specifications. **Ref no.: CNW18-5-001**

CENTRAL AIR CONDITIONING AND SPLIT UNIT

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