

Concealed Ducted Split Series R410A

18-60 MBH (1.5 TO 5 TR)



50 Hz

TABLE OF CONTENT

ABOUT THE COMPANY	02
INTRODUCTION	03
NOMENCLATURE	03
UNIT RATING SUMMARY	04
OUTSTANDING FEATURES	05
STANDARD SPECIFICATIONS	06
OPTIONAL SPECIFICATIONS	07
SELECTION PROCEDURE	08
GENERAL DATA	09
PERFORMANCE DATA TABLES	10
UNIT ELECTRICAL DATA	13
SUPPLY AIR PERFORMANCE	14
UNIT DIMENSIONS	15
WIRING DIAGRAMS	17

ABOUT THE COMPANY

Refrigeration Industries & Storage and Oil Services Company, occupies a leading position as one of the largest industrial companies in Kuwait which established in 1973, it plays a proactive role in providing various services and diverse activities such as manufacturing, storage, and oil services to meet the needs of customers both inside and outside Kuwait.

Since its inception, RIC has been committed to excellence and advancing its progress, leading to the establishment of the brand (Coolex) in 1986, a true milestone in the Kuwaiti market as the first in the region in the sector of manufacturing air conditioning systems and cooling solutions.

Furthermore, the company has consistently empowered its workforce, enhanced safety and competitiveness, and utilized innovative technologies to launch new products that meet the needs of various sectors, contributing to expansion and supporting growth and prosperity.

To ensure the highest performance in the future, RIC harnesses its continuous research to enhance efficiency and quality, while continuing its efforts to manufacture products capable of adapting to climate, environmental, and energy challenges.



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).
- 2016 Acquisition of Gulf Paramount for Electrical Services Company.
- 2021 Acquisition of Kuwait Pipes Industries & Oil Services factory, resulting in a change of the company's name from Refrigeration Industries & Storage Co. to Refrigeration Industries & Storage and Oil Services Co.

INTRODUCTION

COOLEX High Efficiency UL listed Concealed Ducted Split Units are designed specifically for tropical operation with high performance, low power consumption, easy installation and low noise operations.

COOLEX Concealed Ducted Split Units can be used for cooling or heating with optional duct electric heater.

NOMENCLATURE VRF INDOOR UNIT

CHCF - 030 A 2

Unit Series Description

CHCF-Concealed High Efficiency Condenser
(R410A Refrigerant)

CHEF-Concealed High Efficiency Evaporator
(R410A Refrigerant)

Cooling Capacity Nominal MBH

18	-	42
24	-	48
30	-	60
36		

Electrical Specifications

CODE	DESCRIPTION
2	415V/ 3 ph / 50hz
7	240V / 1 ph / 50hz

CODE	DESCRIPTION
A	First Series
B	Second Series
C	Third Series

UNIT RATING SUMMARY

Model	Air Flow (MAX)	Ambient temp 95°F				Ambient temp 115°F				Ambient temp 118.4°F				Ambient temp 125°F			
		Cooling Capacity	Total Power	kW/Ton	EER	Cooling Capacity	Total Power	kW/Ton	EER	Cooling Capacity	Total Power	kW/Ton	EER	Cooling Capacity	Total Power	kW/Ton	EER
		(CFM)	(MBH)	(kW)		(MBH)	(kW)			(MBH)	(kW)			(MBH)	(kW)		
CHCF-018 A7 / CHEF-018 A7	736	18.77	1.5	0.96	12.51	15.57	1.76	1.36	8.85	15.1	1.79	1.42	8.44	14.5	1.88	1.56	7.71
CHCF-024 A7/ CHEF-024 A7	1107	25.09	2.22	1.06	11.30	22.17	2.51	1.36	8.83	21.96	2.43	1.33	9.04	20.59	2.71	1.58	7.60
CHCF-030 A7/ CHEF-030 A7	1202	33.04	2.54	0.92	13.01	29.33	3.07	1.26	9.56	27.60	3.19	1.39	8.65	27.27	3.35	1.47	8.14
CHCF-036 A2/ CHEF-036 A7	1202	41.02	3.09	0.90	13.28	36.79	3.84	1.25	9.57	34.68	4.01	1.39	8.65	34.26	4.21	1.47	8.14
CHCF-042 A2/ CHEF-042 A7	1404	45.65	3.62	0.95	12.61	40.55	4.12	1.22	9.83	38.16	4.25	1.34	8.98	37.7	4.46	1.42	8.45
CHCF-48 A2/ CHEF-048 A7	1583	52.05	3.93	0.91	13.24	48.42	4.90	1.21	9.89	45.96	5.11	1.33	8.99	45.41	5.36	1.42	8.47
CHCF-060 A2/ CHEF-060-A7	1993	63.95	4.98	0.93	12.84	59.32	6.01	1.22	9.86	56.28	6.25	1.33	9.00	55.6	6.56	1.42	8.48

Rating Conditions: Indoor Temperature DB = 80° F (26.7° C).
WB = 67° F (19.4° C).

OUTSTANDING FEATURES

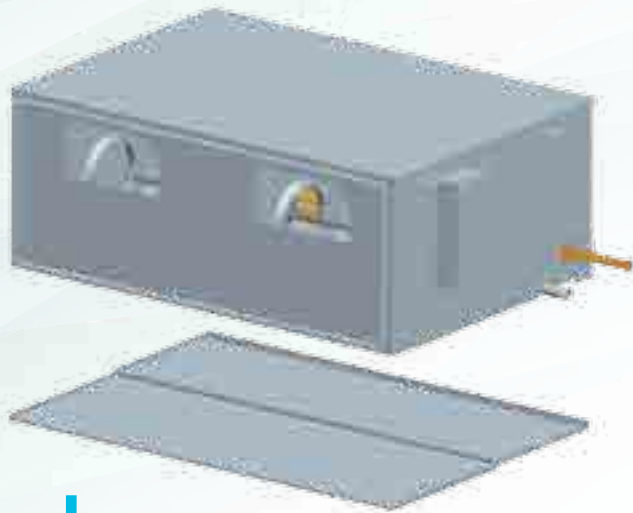
Indoor Unit

- Compact design
- Low profile
- Low sound power level
- For ducted application
- Easy maintenance
- Easy installation
- External terminal box

Outdoor Unit:

- High efficiency tropical design
- High Efficiency Scroll Compressor
- Galvanized heavy gauge panels, oven baked powder coated
- Designed to operate at severe ambient temperature up to 52°C without tripping
- Coil guard protection
- External service valve with gauge ports

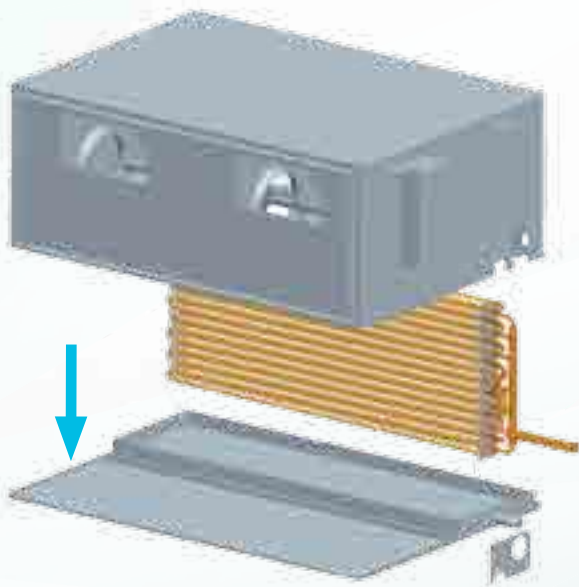
OUTSTANDING FEATURES



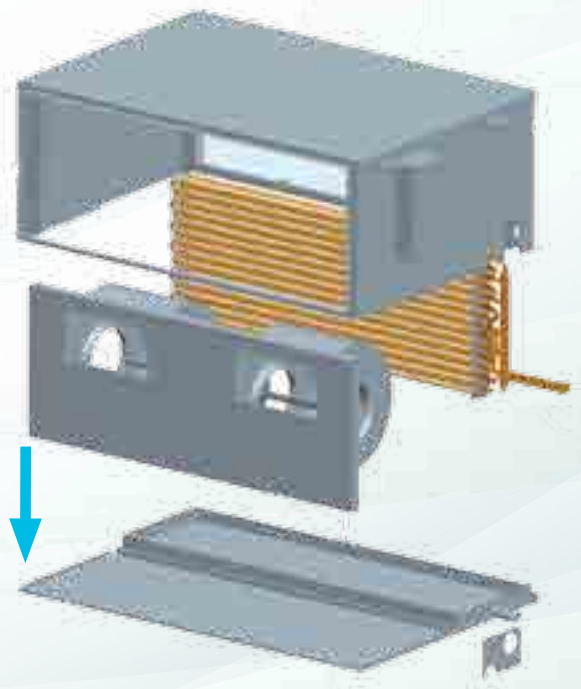
Bottom access panel

Options & Accessories

- Microprocessor controller
- Digital thermostat
- Cleanable air filter



Bottom sliding coil and drain pan



Bottom sliding fan deck

STANDARD SPECIFICATIONS

(OUTDOOR UNIT) & (INDOOR UNIT)

General

The side discharge condensing units are provided with the latest advanced technology to provide quiet, reliable performance. The wrap around coil adds aesthetical appeal and gives optimum heat transfer efficiency. The access panels provide access to the compressor and to the control box. Removal of top panel gives access to fan motor and coil.

Unit Construction

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

Condenser Coils

The coils are built up of ripple finned seamless copper tubes and mechanically bonded to scientifically designed louvered fins.

Condenser Fans

Axial type condenser fan are used which precisely match with extra strong fan motor to ensure efficient hot air dissipation.

Condenser Fan Motor

The condenser fan motors are a 4/6 poles electric motor which directly drive the condenser fans confirming to BS/IES standards. They are totally enclosed air over type electric motors with built-in thermal protector class F insulation.

Unit Casing

The casing sheet metal is fabricated from hot dipped G90, Zinc coating and zero spangle galvanized steel, oven-baked powder coated.

Compressor

The compressors are hermetically sealed type. The compressors are equipped with internal motor protector and necessary accessories for safe operation.

Evaporator Coils

The coils are built up of ripple finned seamless copper tubes and mechanically bonded to scientifically designed louvered fins.

Blower Assembly

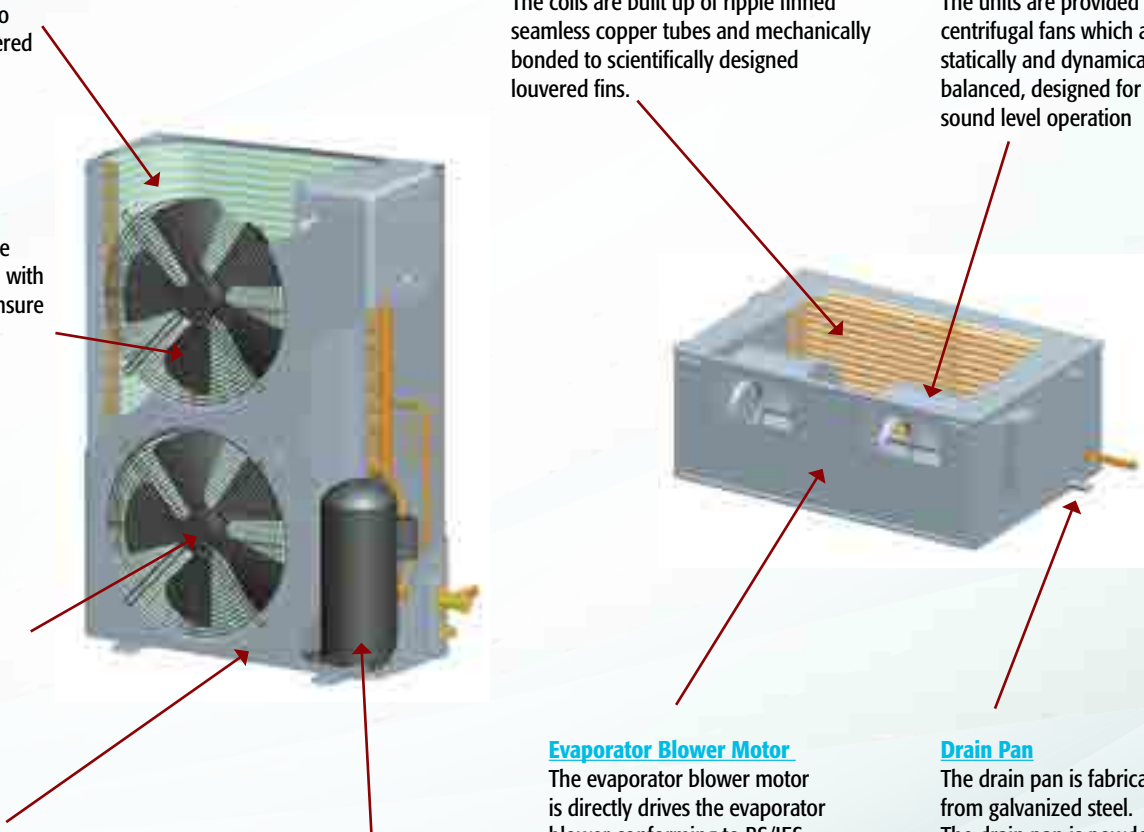
The units are provided with centrifugal fans which are statically and dynamically balanced, designed for low sound level operation

Evaporator Blower Motor

The evaporator blower motor is directly drives the evaporator blower conforming to BS/IES standards it is open drip proof type electric motors with built-in thermal protector and permanently lubricated ball bearings class B insulation.

Drain Pan

The drain pan is fabricated from galvanized steel. The drain pan is powder coat painted and the outer surface is thermally insulated.



OPTIONAL SPECIFICATIONS

Duct Electric Heater

A protection box with duct electric heater and safety control can also be provided. Maximum kW Ratings is as shown

Model	kW	Model	kW
CHEF-018 A7	1.5	CHEF-042 A7	4.0
CHEF-024 A7	2.0	CHEF-048 A7	4.0
CHEF-030 A7	3.0	CHEF-060 A7	5.0
CHEF-036 A7	3.0		

MICROPROCESSOR BASED CONTROLLER

The concealed ducted split units are provided with Microprocessor based controller, incorporating the following benefits and features:

- Compressor anti short cycle timer.
- Compressor lock out function.
- Compressor trip/lock out error indication through LED.

Home Automation System

Coollex App



Wi Fi Module



Typical Thermostat



Thermostat features:

1. Voltage rating: 24VAC
2. Room temperature/Set temperature display in °C or °F
3. Mode of operation: Cool/Heat/Auto
4. Fan mode: Auto/ON
5. Key lock function
6. Preset temperature setting: Comfort/Economy/Away
7. Duct/Remote sensor option
8. Temperature offset calibration
9. BMS Modbus option

SELECTION PROCEDURE

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

Example :

Design requirements

• Total cooling capacity	26500	[Btu/hr]
• Sensible cooling capacity	20300	[Btu/hr]
• Design ambient temperature	118.4	[°F]
• Evaporator air flow	1000	[CFM]
• Evaporator entering temperature DB/WB	80/67	[°F/°F]
• Altitude	3000	[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

= 26,500 [Btu/hr]/0.984
= 26,930 [Btu/hr]

Corrected sensible capacity

=20,300 [Btu/hr]/0.984
= 20,630 [Btu/hr]

From the cooling capacity at performance data tables (page 9), the closest selection model to the required Capacity is CHEF/CHCF-030:

Total capacity

= 27,189 [Btu/hr]

Sensible capacity

= 22,177 [Btu/hr]

GENERAL DATA

Outdoor Units		CHCF 018	CHCF 024	CHCF 030	CHCF 036	CHCF 042	CHCF 048	CHCF 060
Compressor	Type	Hermetically Sealed						
	Quantity	1	1	1	1	1	1	1
	Refrigerant	R410A						
Condenser Fan	Type	SPCC Axial Fan						
	Quantity	1	1	1	2	2	2	2
	Drive	Direct						
Condenser Coil	Type	Coated Louvered Aluminum Fins & Internal Grooved Tube						
	Row Deep	2	2	2	2	2	3	3
	FPI	16	16	16	16	16	16	16
	Total Area, Sq.m	0.66	0.73	0.82	1.25	1.25	1.24	1.24
	(Sq.Ft)	7.12	7.85	8.82	13.45	13.45	13.34	13.34
Weight	kg	71	74	78	108	109	128	131

Indoor Units		CHEF 018	CHEF 024	CHEF 030	CHEF 036	CHEF 042	CHEF 048	CHEF 060
Evaporator Blower	Type	Centrifugal Forward Curve DWDI						
	Airflow, m ³ /h	1188	1622	1809	2006	2310	2594	2846
	(CFM)	699	954	1064	1180	1359	1526	1674
	Drive	Direct						
Evaporator Coil	Type	Hydrophilic Aluminum Fins & Inner Grooved Copper Tubes						
	Row Deep	3	3	3	3	3	3	3
	FPI	16	14	14	14	14	14	14
	Total Area, Sq.m	0.25	0.29	0.29	0.32	0.32	0.44	0.44
	(Sq.Ft)	2.71	3.16	3.16	3.4	3.4	4.7	4.7
Expansion Devices		Capillary	Thermal Expansion Valve					
Weight	kg	35	40	40	54	54	61	61

PERFORMANCE DATA TABLES

Model	Air On Evaporator			Condenser Ambient Temperature [°F]											
	Air Flow		Temp ° F	95			115			118.4			125		
	CFM	DB	WB	Capacity Btu/Hr		kW Input	Capacity Btu/Hr		kW Input	Capacity Btu/Hr		kW Input	Capacity Btu/Hr		kW Input
				Total	Sen.		Total	Sen.		Total	Sen.		Total	Sen.	
CHCF-018 A7 / CHEF-018 A7	648	84.2	66.2	17,771	15,106	1.49	14,744	12,532	1.74	14,302	12,157	1.78	13,712	11,655	1.86
		80.0	67.0	18,134	12,673	1.49	15,045	11,656	1.74	14,594	11,306	1.78	13,992	10,840	1.86
		74.0	62.0	16,356	12,318	1.45	13,571	11,329	1.70	13,164	10,990	1.73	12,621	10,536	1.82
		68.0	57.0	15,033	11,912	1.42	12,473	10,956	1.66	12,099	10,628	1.69	11,600	10,189	1.78
	699	84.2	66.2	18,142	16,146	1.49	15,053	13,397	1.75	14,601	12,994	1.78	13,999	12,459	1.87
		80.0	67.0	18,447	13,424	1.49	15,306	12,347	1.75	14,846	11,977	1.78	14,234	11,483	1.87
		74.0	62.0	16,639	13,048	1.46	13,806	12,001	1.70	13,392	11,641	1.74	12,839	11,161	1.82
		68.0	57.0	15,293	12,619	1.42	12,688	11,606	1.67	12,308	11,258	1.70	11,800	10,794	1.78
	736	84.2	66.2	18,554	17,626	1.50	15,394	14,624	1.76	14,932	14,186	1.79	14,316	13,601	1.88
		80.0	67.0	18,766	14,221	1.50	15,570	13,080	1.76	15,103	12,687	1.79	14,480	12,164	1.88
		74.0	62.0	16,927	13,822	1.46	14,044	12,713	1.71	13,623	12,332	1.74	13,061	11,823	1.83
		68.0	57.0	15,557	13,367	1.43	12,908	12,295	1.67	12,521	11,926	1.70	12,004	11,434	1.79
CHCF-024 A7/CHEF-024 A7	923	84.2	66.2	23927	20,338	2.06	21,144	17,972	2.34	20,666	17,566	2.39	19,631	16,687	2.54
		80.0	67.0	24,415	17,184	2.06	21,575	16,114	2.34	21,088	15,931	2.39	20,032	15,294	2.54
		74.0	62.0	21,520	15,557	1.94	19,017	14,588	2.21	18,588	14,423	2.25	17,657	13,846	2.39
		68.0	57.0	18,701	13,900	1.87	16,525	13,034	2.11	16,152	12,886	2.14	15,343	12,371	2.29
	954	84.2	66.2	24330	21,654	2.07	21,500	19,135	2.36	21,015	18,703	2.41	19,962	17,767	2.56
		80.0	67.0	24,739	17,524	2.07	21,861	16,433	2.36	21,368	16,247	2.41	20,298	15,597	2.56
		74.0	62.0	21,804	15,880	1.96	19,267	14,891	2.24	18,833	14,722	2.28	17,890	14,134	2.43
		68.0	57.0	18,949	14,133	1.88	16,744	13,253	2.13	16,367	13,103	2.17	15,547	12,579	2.31
	1107	84.2	66.2	24803	23,562	2.09	21,923	20,826	2.38	21,712	20,626	2.43	20,361	19,343	2.58
		80.0	67.0	25,088	17,851	2.09	22,173	16,744	2.38	21,960	17,302	2.43	20,594	15,894	2.58
		74.0	62.0	22,109	16,155	1.98	19,537	15,149	2.26	19,096	14,978	2.31	18,139	14,379	2.45
		68.0	57.0	19,215	14,437	1.89	16,980	13,538	2.15	16,596	13,385	2.19	15,765	12,850	2.33
CHCF-030 A7/CHEF-030 A7	1028	84.2	66.2	31,510	26,783	2.50	27,971	23,775	3.02	26,283	22,340	3.11	25,994	22,094	3.30
		80.0	67.0	32,153	21,865	2.50	28,542	20,552	3.02	26,819	21,775	3.11	26,524	19,515	3.30
		74.0	62.0	28,340	19,795	2.36	25,157	18,606	2.86	23,508	18,623	2.94	23,379	17,668	3.12
		68.0	57.0	24,627	17,686	2.29	21,861	16,624	2.74	20,283	15,640	2.80	20,316	15,786	2.99
	1064	84.2	66.2	32,041	28,517	2.52	28,443	25,314	3.04	26,739	23,798	3.13	26,433	23,525	3.32
		80.0	67.0	32,580	22,298	2.52	28,921	20,958	3.04	27,189	22,177	3.13	26,877	19,902	3.32
		74.0	62.0	28,714	20,206	2.39	25,489	18,992	2.89	23,833	18,948	2.98	23,688	18,034	3.16
		68.0	57.0	24,954	17,984	2.30	22,152	16,903	2.76	20,567	15,977	2.84	20,586	16,051	3.01
	1202	84.2	66.2	32,666	31,032	2.54	29,003	27,552	3.07	27,288	25,924	3.19	26,961	25,613	3.35
		80.0	67.0	33,039	22,714	2.54	29,334	21,356	3.07	27,600	22,572	3.19	27,269	20,280	3.35
		74.0	62.0	29,116	20,556	2.42	25,846	19,321	2.92	24,181	19,296	3.01	24,019	18,347	3.19
		68.0	57.0	25,305	18,370	2.31	22,463	17,267	2.78	20,871	16,208	2.86	20,875	16,396	3.04

Note: Capacity in KW= (Btu/hr)*0.0003. Cooling capacities are gross ratings
Power Input is Total Power (kW)

PERFORMANCE DATA TABLES

Model	Air On Evaporator			Condenser Ambient Temperature [°F]											
	Air Flow		Temp ° F	95			115			118.4			125		
	CFM	DB	WB	Capacity Btu/Hr		kW Input	Capacity Btu/Hr		kW Input	Capacity Btu/Hr		kW Input	Capacity Btu/Hr		kW Input
				Total	Sen.		Total	Sen.		Total	Sen.		Total	Sen.	
CHCF-036 A2/CHCF-036 A7	1150	84.2	66.2	39,125	33,256	3.04	35,078	29,816	3.78	33,024	28,070	3.91	32,661	27,762	4.14
		80.0	67.0	39,923	26,570	3.04	35,794	24,935	3.78	33,698	23,241	3.91	33,328	23,671	4.14
		74.0	62.0	35,189	24,054	2.87	31,550	22,575	3.57	29,538	19,809	3.69	29,376	21,430	3.91
		68.0	57.0	30,579	21,491	2.77	27,416	20,170	3.43	25,486	16,573	3.52	25,527	19,147	3.76
	1180	84.2	66.2	39,784	35,408	3.06	35,669	31,746	3.80	33,599	29,903	3.93	33,213	29,559	4.17
		80.0	67.0	40,453	27,095	3.06	36,269	25,429	3.80	34,164	23,729	3.93	33,771	24,140	4.17
		74.0	62.0	35,653	24,553	2.91	31,966	23,043	3.62	29,946	20,203	3.74	29,764	21,875	3.97
		68.0	57.0	30,985	21,853	2.80	27,780	20,509	3.45	25,843	15,083	3.56	25,866	19,469	3.78
	1202	84.2	66.2	40,560	38,532	3.09	36,371	34,553	3.84	34,288	32,574	4.01	33,877	32,183	4.21
		80.0	67.0	41,023	27,601	3.09	36,787	25,911	3.84	34,680	24,208	4.01	34,264	24,599	4.21
		74.0	62.0	36,152	24,979	2.94	32,413	23,443	3.66	30,384	20,627	3.78	30,180	22,254	4.00
		68.0	57.0	31,420	22,323	2.81	28,170	20,950	3.49	26,225	17,262	3.60	26,230	19,888	3.82

CHCF-042 A2/CHCF-042 A7	1311	84.2	66.2	43,538	37,008	3.56	38,669	32,869	4.06	36,338	30,888	4.14	35,939	30,548	4.39
		80.0	67.0	44,427	31,976	3.56	39,458	29,911	4.06	37,080	25,261	4.14	36,672	28,377	4.39
		74.0	62.0	39,159	28,948	3.37	34,779	27,079	3.84	32,502	21,468	3.92	32,324	25,690	4.15
		68.0	57.0	34,028	25,864	3.28	30,222	24,194	3.68	28,043	17,900	3.73	28,089	22,954	3.98
	1359	84.2	66.2	44,273	39,403	3.58	39,321	34,996	4.08	36,970	32,904	4.17	36,546	32,526	4.42
		80.0	67.0	45,017	32,609	3.58	39,982	30,503	4.08	37,592	25,846	4.17	37,160	28,939	4.42
		74.0	62.0	39,676	29,549	3.41	35,238	27,641	3.89	32,951	21,940	3.97	32,750	26,224	4.21
		68.0	57.0	34,480	26,299	3.26	30,624	24,601	3.71	28,436	18,390	3.78	28,462	23,340	4.01
	1404	84.2	66.2	45,135	42,879	3.62	40,095	38,090	4.12	37,729	35,842	4.25	37,276	35,412	4.46
		80.0	67.0	45,651	33,217	3.62	40,553	31,081	4.12	38,160	26,420	4.25	37,702	29,489	4.46
		74.0	62.0	40,230	30,061	3.44	35,730	28,120	3.92	33,433	22,448	4.01	33,208	26,679	4.25
		68.0	57.0	34,965	26,865	3.29	31,054	25,130	3.74	28,857	18,728	3.81	28,861	23,842	4.05

CHCF-048 A2/CHCF-048 A7	1450	84.2	66.2	49,550	42,117	3.87	46,166	39,241	4.82	43,766	37,201	4.98	43,285	36,792	5.28
		80.0	67.0	50,651	34,840	3.87	47,108	34,162	4.82	44,659	28,638	4.98	44,168	32,685	5.28
		74.0	62.0	44,645	31,541	3.66	41,522	30,928	4.55	39,146	24,326	4.71	38,931	29,590	4.99
		68.0	57.0	38,796	28,181	3.56	36,082	27,633	4.37	33,775	20,272	4.48	33,830	26,438	4.79
	1526	84.2	66.2	50,475	44,923	3.89	46,944	41,780	4.85	44,527	39,629	5.01	44,015	39,173	5.31
		80.0	67.0	51,324	35,529	3.89	47,733	34,838	4.85	45,276	29,312	5.01	44,755	33,332	5.31
		74.0	62.0	45,234	32,195	3.70	42,070	31,569	4.61	39,686	24,869	4.77	39,445	30,205	5.06
		68.0	57.0	39,311	28,655	3.54	36,561	28,098	4.40	34,249	20,836	4.54	34,279	26,883	4.82
	1583	84.2	66.2	51,459	48,886	3.93	47,868	45,475	4.90	45,441	43,169	5.11	44,895	42,650	5.36
		80.0	67.0	52,047	36,192	3.93	48,415	35,499	4.90	45,960	29,973	5.11	45,408	33,966	5.36
		74.0	62.0	45,866	32,754	3.74	42,658	32,117	4.66	40,267	25,456	4.81	39,996	30,728	5.10
		68.0	57.0	39,864	29,271	3.57	37,075	28,702	4.44	34,756	21,225	4.58	34,761	27,461	4.87

Note: Capacity in KW= (Btu/hr)*0.0003. Cooling capacities are gross ratings
Power Input is Total Power (kW)

PERFORMANCE DATA TABLES

Model	Air On Evaporator			Condenser Ambient Temperature [°F]											
	Air Flow		Temp ° F	95			115			118.4			125		
	CFM	DB	WB	Capacity Btu/Hr		kW Input	Capacity Btu/Hr		kW Input	Capacity Btu/Hr		kW Input	Capacity Btu/Hr		kW Input
				Total	Sen.		Total	Sen.		Total	Sen.		Total	Sen.	
CHCF-060 A2/CHEF-060 A7	1548	84.2	66.2	60,994	51,845	4.90	56,563	48,078	5.92	53,523	45,494	6.09	53,004	45,054	6.46
		80.0	67.0	62,239	45,102	4.90	57,717	43,713	5.92	54,615	39,092	6.09	54,086	41,738	6.46
		74.0	62.0	54,859	40,832	4.63	50,873	39,575	5.59	47,864	33,269	5.76	47,673	37,786	6.10
		68.0	57.0	47,671	36,482	4.48	44,208	35,359	5.37	41,287	27,784	5.49	41,427	33,761	5.86
	1674	84.2	66.2	62,022	55,200	4.93	57,497	51,173	5.96	54,456	48,465	6.13	53,899	47,970	6.50
		80.0	67.0	63,065	45,995	4.93	58,484	44,578	5.96	55,371	39,953	6.13	54,805	42,564	6.50
		74.0	62.0	55,583	41,679	4.69	51,545	40,396	5.67	48,526	33,964	5.83	48,302	38,571	6.18
		68.0	57.0	48,304	37,096	4.51	44,795	35,954	5.40	41,867	28,504	5.56	41,977	34,329	5.90
	1993	84.2	66.2	63,232	60,070	4.98	58,649	55,716	6.01	55,573	52,794	6.25	54,976	52,227	6.58
		80.0	67.0	63,954	46,853	4.98	59,319	45,424	6.01	56,280	40,797	6.25	55,604	43,374	6.56
		74.0	62.0	56,359	42,402	4.74	52,265	41,097	5.72	49,236	34,710	5.89	48,977	39,240	6.24
		68.0	57.0	48,983	37,893	4.53	45,424	36,727	5.46	42,488	29,001	5.61	42,566	35,067	5.95

LEGEND:

CFM : Air flow rate (Ft³/minute)
 DB : Dry bulb temperature (°F)
 WB : Wet bulb temperature (°F)
 KW : Total Power Input (Kilowatts)

Note: Capacity in KW= (Btu/hr)*0.0003. Cooling capacities are gross ratings
 Power Input is Total Power (kW)

UNIT ELECTRICAL DATA

Outdoor Units		CHCF-018	CHCF-024	CHCF-030	CHCF-036	CHCF-042	CHCF-048	CHCF-060
Unit Power Supply	Volt	240	240	240	415	415	415	415
	Phase	1	1	1	3	3	3	3
	Hz							
Compressor	V - Ph - Hz	220/240 - 1 - 50			380/420 - 3 - 50			
	RLA	6.4	12.5	13.6	6.6	6.8	10.7	10
	LRA	38	60	67	46	43	64	64
Condenser Fan Motor	V - Ph - Hz	240 - 1 - 50			415 - 3 - 50			
	Output kW	0.16	0.16	0.16	0.37 X 2	0.37 X 2	0.37 X 2	0.37 X 2
	FLA	0.75	0.75	0.75	0.70 X 2	0.70 X 2	0.70 X 2	0.70 X 2
Unit Ampacity, Ampere		8.8	16.4	17.8	8.9	9.9	14.8	13.9
Max. Fuse Size, Ampere		15	25	30	15	15	25	25
Minimum Wire Size, mm ²		2.5	4	4	2.5	2.5	2.5	2.5

Indoor Units		CHEF-018	CHEF-024	CHEF-030	CHEF-036	CHEF-042	CHEF-048	CHEF-060
Unit Power Supply	Volt	240						
	Phase	1						
	Hz	50						
Blower Motor	V - Ph - Hz	240 - 1 - 50						
	Motor Hp	1/6	1/3	1/3	1/2	1/2	3/4	3/4
	FLA	1.5	2.5	2.5	3.1	3.1	4.5	4.5
Unit Ampacity, Ampere		1.9	3.1	3.1	3.9	3.9	5.6	5.6
Max. Fuse Size, Ampere		5	5	5	5	5	10	10
Minimum Wire Size, mm ²		1.5	1.5	1.5	1.5	1.5	1.5	1.5

LEGEND:

FLA : Full Load Amps
 RLA : Rated Load Amps
 LRA : Locked Rotor Amps

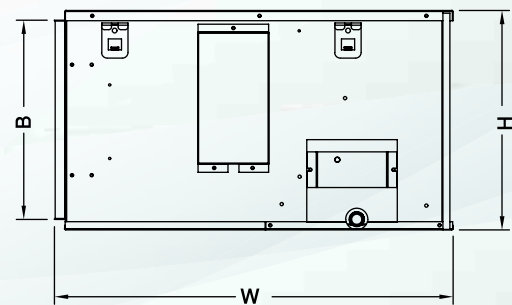
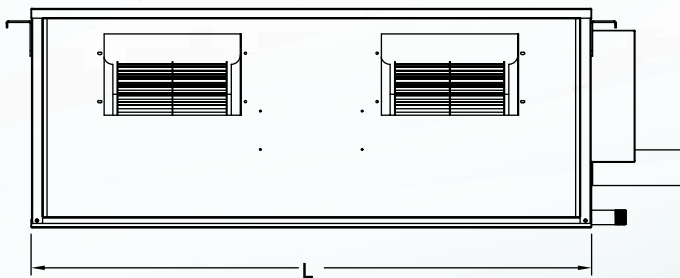
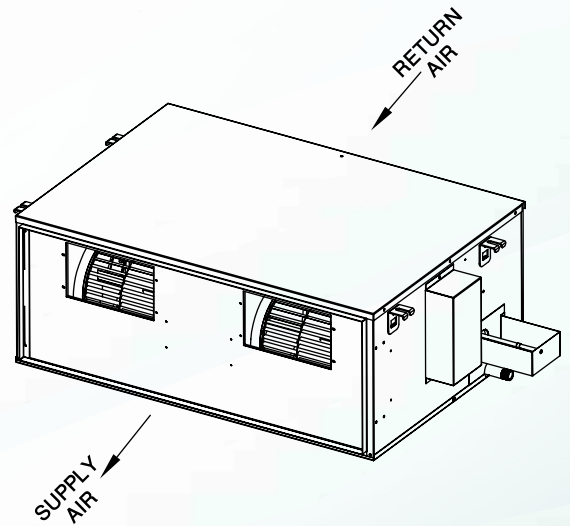
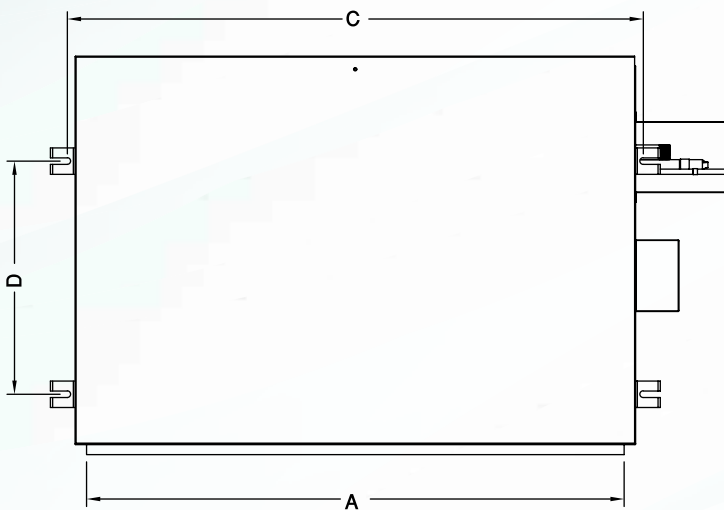
SUPPLY AIR PERFORMANCE

Model	SPEED	External Static Pressure [in.wg]					
		0.0	0.1	0.2	0.3	0.4	0.5
		Air Flow Rate [CFM]					
CHEF-018	HIGH	736	695	595	544	441	-
	MED	699	615	523	475	-	-
	LOW	648	567	477	-	-	-
CHEF-024	HIGH	1107	858	759	652	552	-
	MED	954	843	743	606	-	-
	LOW	923	817	721	-	-	-
CHEF-030	HIGH	1202	1008	919	825	752	-
	MED	1064	983	888	786	-	-
	LOW	1028	952	861	-	-	-
CHEF-036	HIGH	1202	1168	1089	1010	970	-
	MED	1180	1133	1043	976	-	-
	LOW	1150	1097	1011	928	-	-
CHEF-042	HIGH	1404	1338	1269	1210	1207	-
	MED	1359	1297	1222	1188	-	-
	LOW	1311	1251	1172	1137	-	-
CHEF-048	HIGH	1583	1466	1426	1338	1224	720
	MED	1526	1427	1374	1308	1083	-
	LOW	1450	1367	1291	1232	-	-
CHEF-060	HIGH	1993	1644	1583	1466	1241	737
	MED	1674	1600	1526	1427	1193	623
	LOW	1548	1477	1410	1327	1134	-

UNIT DIMENSIONS

Indoor Unit

MODEL	DIMENSIONS					
	L	W	H	DUCT CINNECTION A X B	C	D
CHEF-018	952	636	325	912X288	980	380
CHEF-024	952	636	325	912X288	980	380
CHEF-030	952	636	325	912X288	980	380
CHEF-036	952	707	370	912X333	980	425
CHEF-042	952	707	370	912X333	980	425
CHEF-048	1022	877	400	980X363	1050	600
CHEF-060	1022	877	400	980X363	1050	600
ALL DIMENSIONS ARE IN MM						



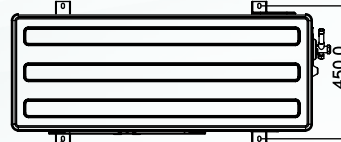
UNIT DIMENSIONS

Outdoor Units

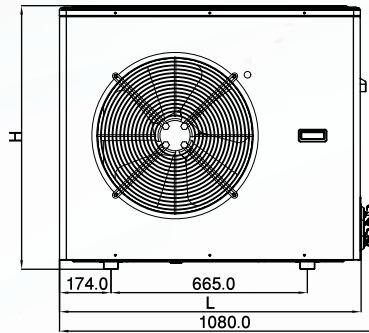
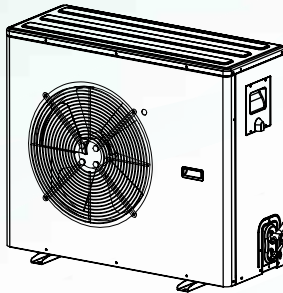
MODEL	DIMENSIONS		
	H	L	W
CHCF-018	804	1021	397
CHCF-024	804	1021	397
CHCF-030	892	1021	397

ALL DIMENSIONS ARE IN MM

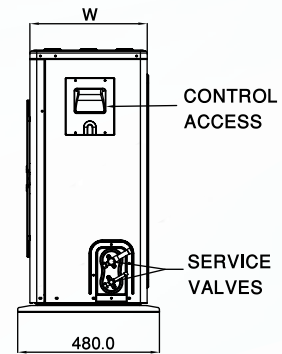
BOLT MTG.HOLES
(4 PLACES)



TOP VIEW



FRONT VIEW

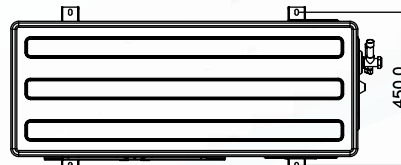


SIDE VIEW

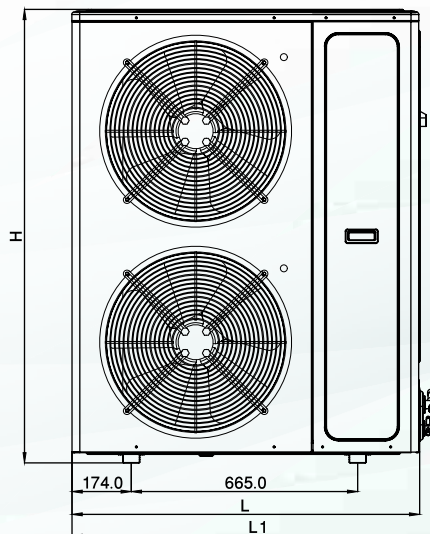
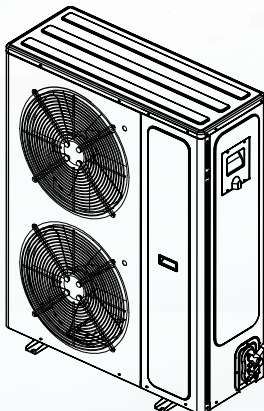
MODEL	DIMENSIONS			
	H	L	L1	W
CHCF-036	1332	1021	1090	397
CHCF-042	1332	1021	1104	397
CHCF-048	1332	1021	1104	397
CHCF-060	1332	1021	1104	397

ALL DIMENSIONS ARE IN MM

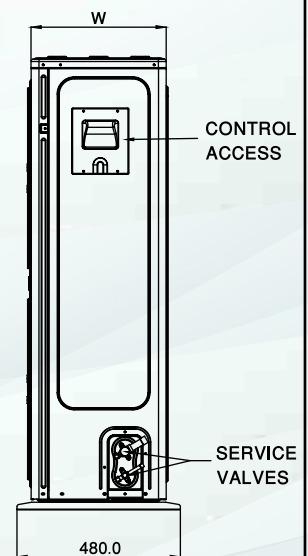
BOLT MTG.HOLES
(4 PLACES)



TOP VIEW



FRONT VIEW



SIDE VIEW

Microprocessor Based Controller (Optional)









شركة صناعات التبريد والتخزين والخدمات النفطية

Refrigeration Industries & Storage and Oil Services Co. KSC



CONTACT US



T : +965 183 33 80

w : www.coolex.com.kw

**Sulaibiya Industrial, Block 1,
Road 4, Plot No. 105.**