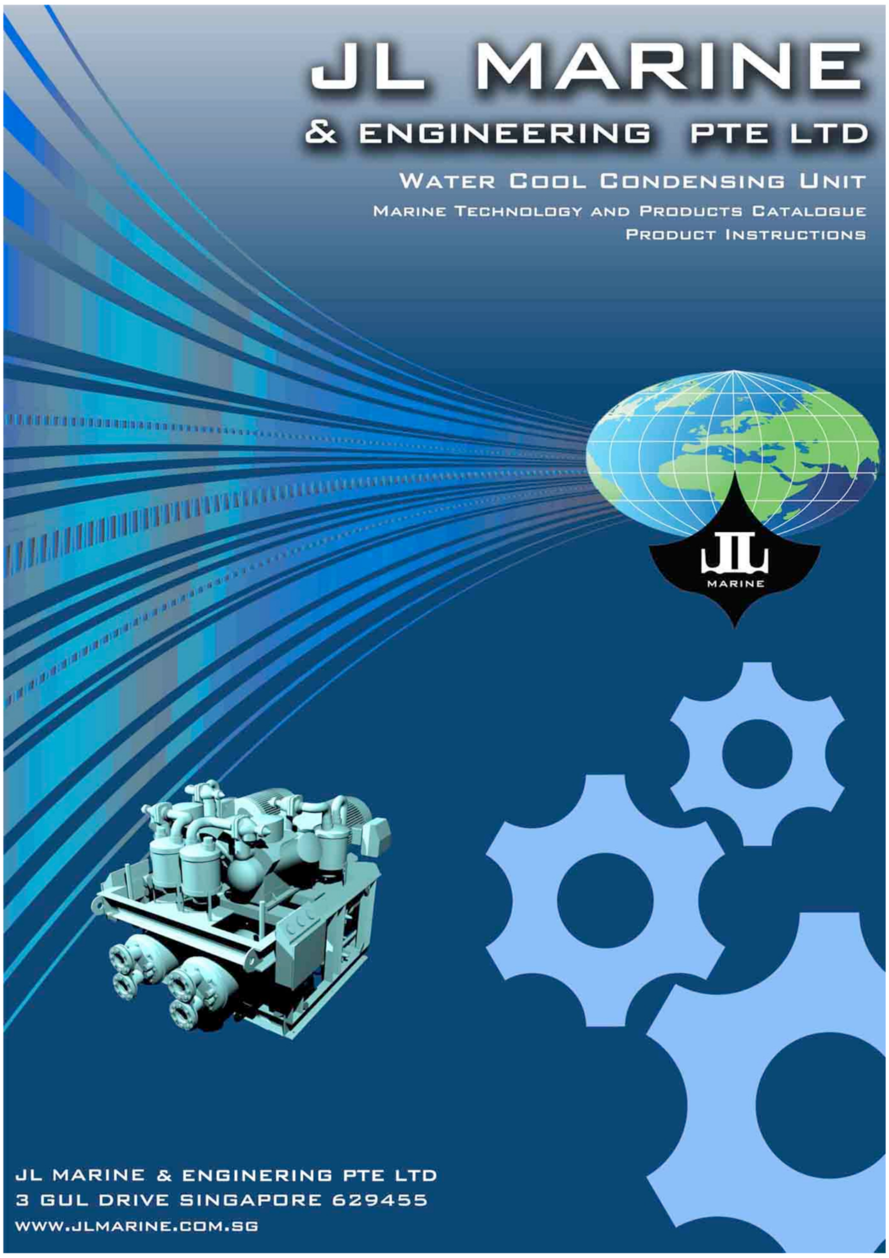
JL Marine & Engineering Pte Ltd

- Water Cool Condensing Unit

Marine Technology and Products Catalogue

Product Instructions



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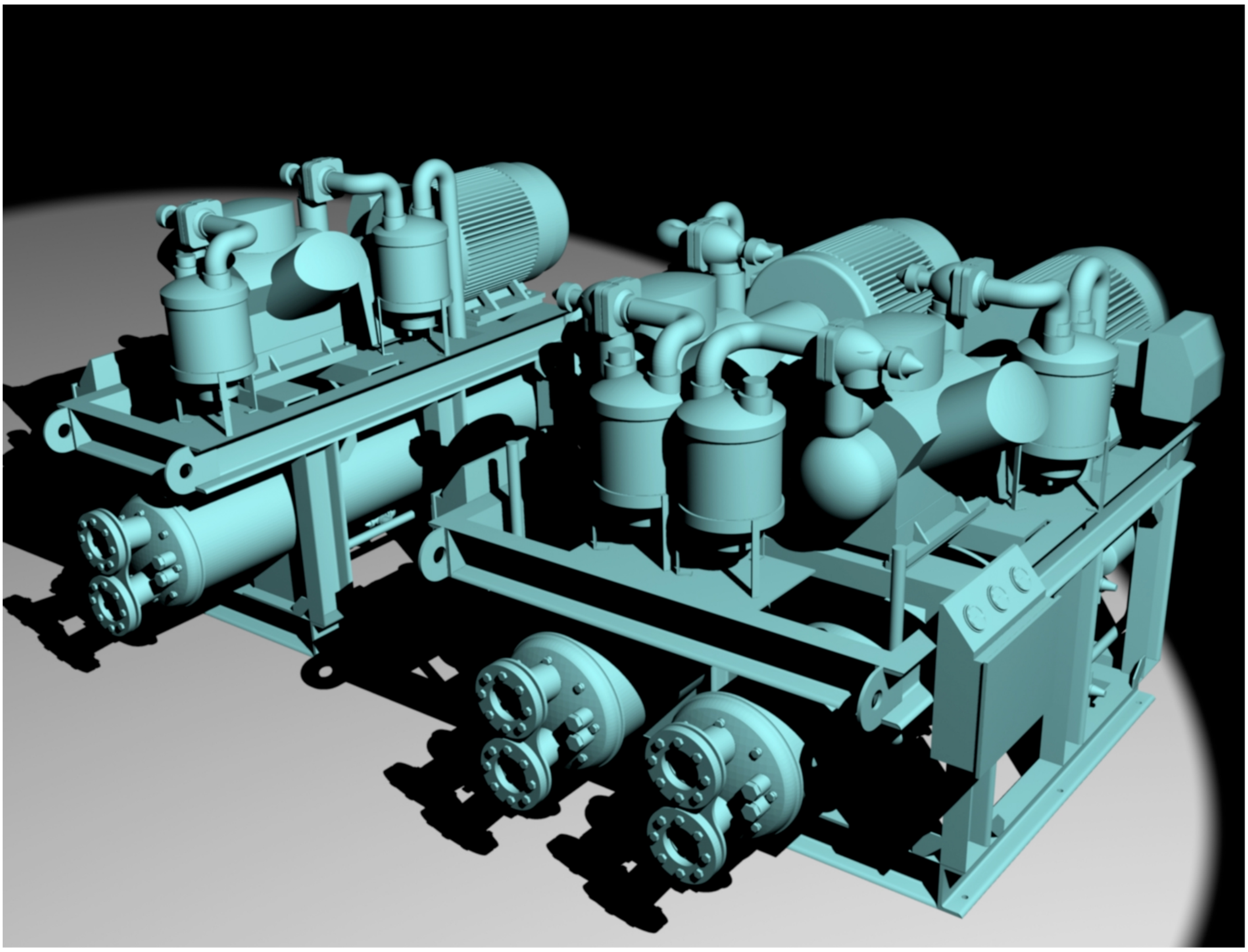


1. Features

Ideal for air conditioning systems

- **General**

1) Power: 3Φ-380~415V-50hz
   3Φ-440~460V-60hz
2) Control Panel: JLM
3) Compressor: Carrier 5H series open type
4) Motor: ABB/TECO IP55, Insulation 'F'
5) Condenser: Horizontal shells and tubes
   - Seawater shell & tube
   - Freshwater shell & tube
6) Start Type: Y-Δ/owner request
7) Refrigerant: R404a/R407c/R22
8) Accessories:
   - Coupling
   - Oil separator (option)
   - Liquid accumulator (option)
   - Filter and drier
   - Gauge and switch panel
   - Water pressure gauge and switch
   - Valves
9) Safety Devices: high & low pressure switches; fuse; overload; temperature controller; oil differential pressure switch; cooling water pressure switch
10) Cooling Water Condition
    32°C inlet/36°C outlet (seawater)
    36°C inlet/40°C outlet (freshwater)
11) Condensing Temperature:
    40°C (seawater)/44°C (freshwater)
12) Lubricant:
    SL68—R404a/R407c
    3GS—R22

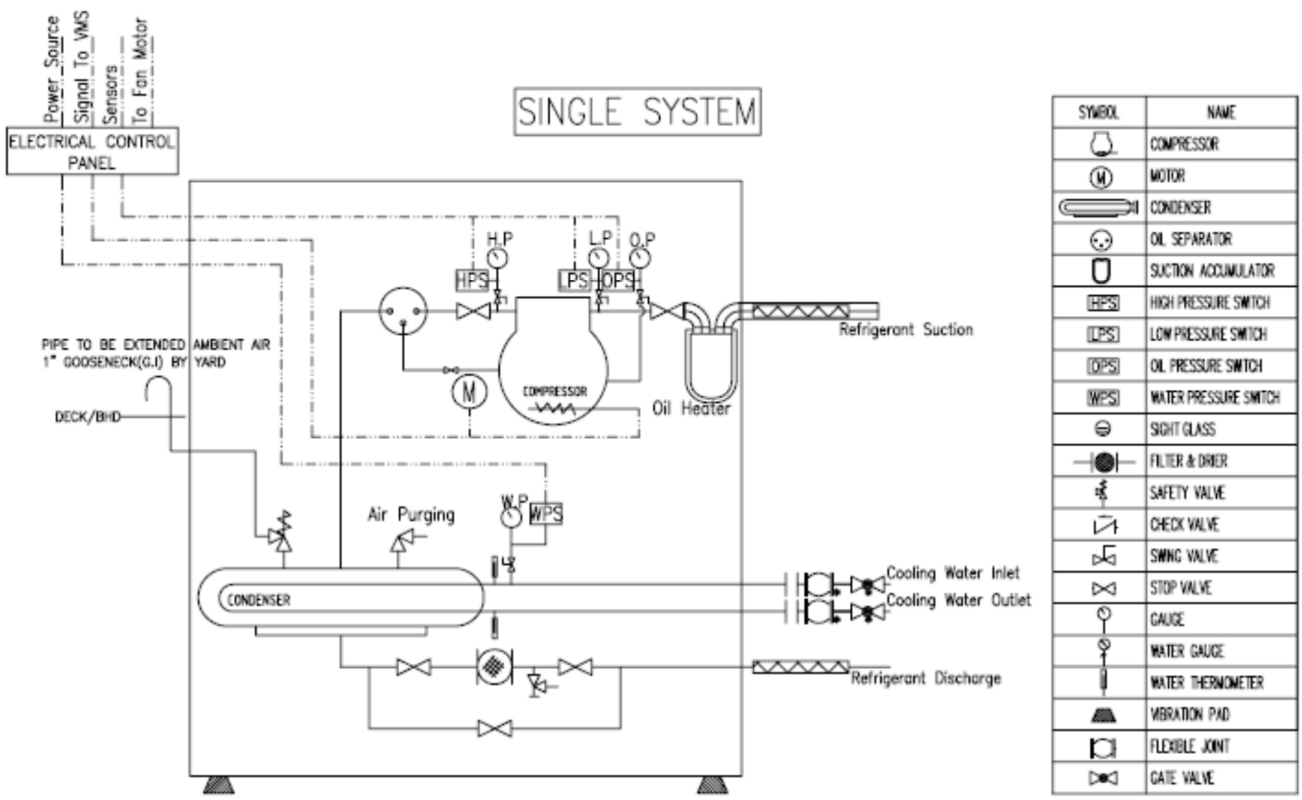
2. Codification Method

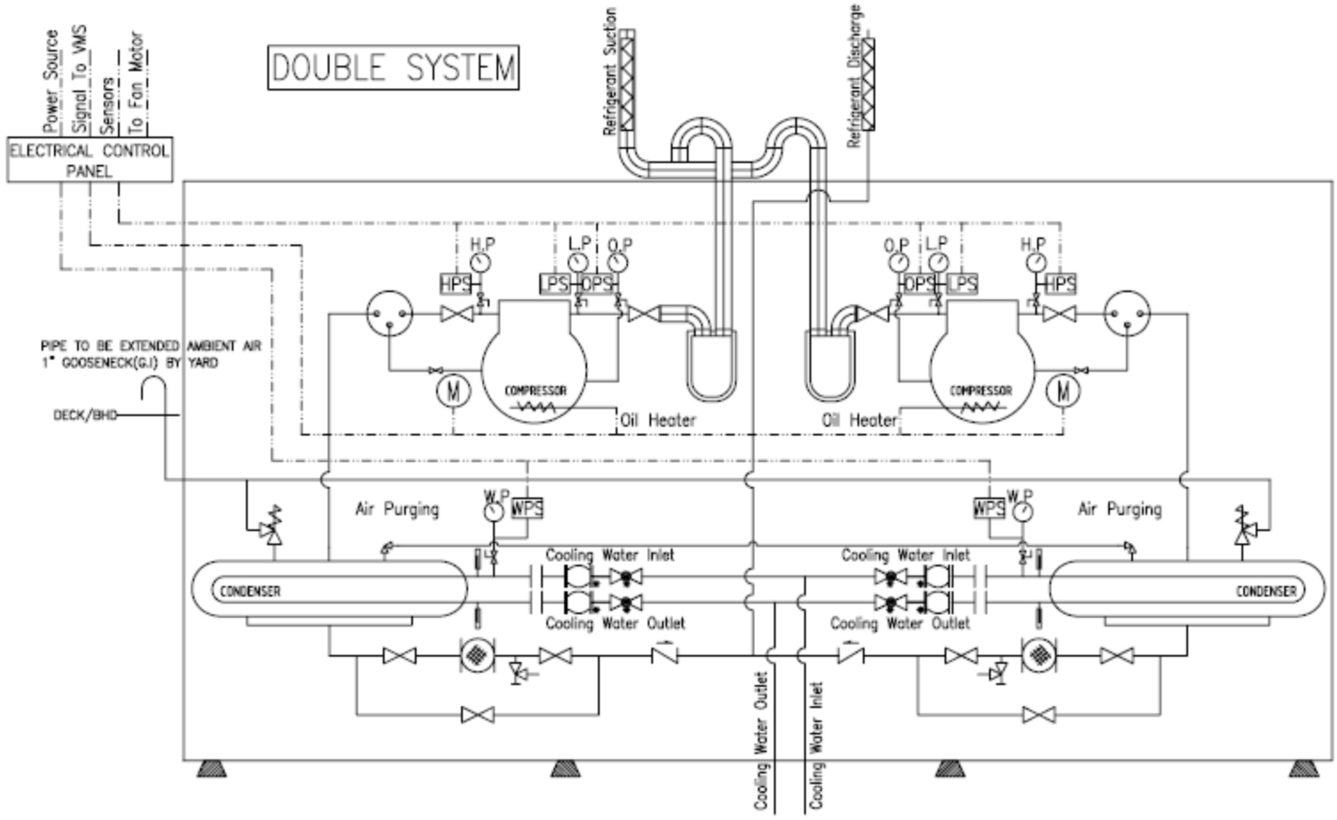
Unit Code:

JCU[1]-SW[2]-100[3]-S[4]-A50[5]-[07][6]

1) Series:
JCW=JL Marine Chilled Water Unit
2) Cooling Medium:
SW=Sea Water; FW=Fresh Water
3) Cooling Capacity:
Unit: Cooling Ton
4) System Qty:
S=Single System; D=Double System
5) Power Source
A50=380-400v/3ph/50hz; B50=415v/3ph/50hz; A60=440v/3ph/60hz; B60=690v/3ph/60hz
6) Refrigerant
22=R22; 04=R404A; 07=R407C

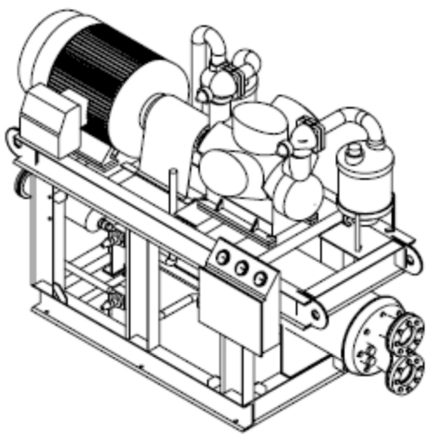
3. Piping Diagrams

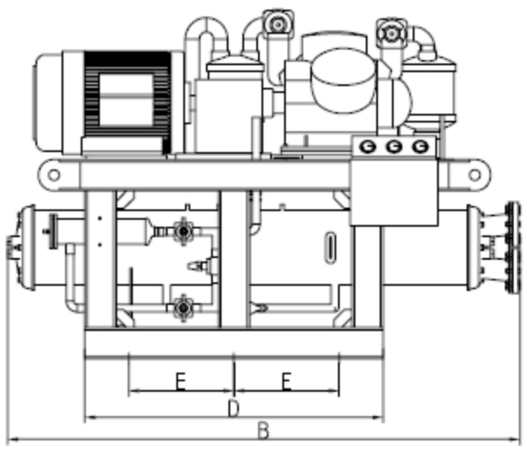


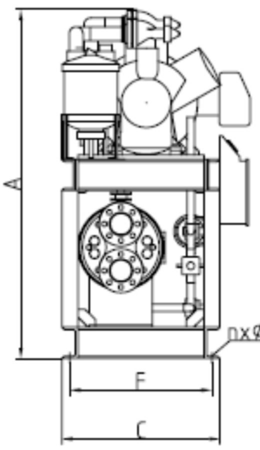


SYMBOL	NAME								
	COMPRESSOR	HPS	HIGH PRESSURE SWITCH		FILTER & DRIER		GAUGE		GATE VALVE
M	MOTOR	LPS	LOW PRESSURE SWITCH		SAFETY VALVE		WATER GAUGE		
	CONDENSER	OPS	OIL PRESSURE SWITCH		CHECK VALVE		WATER THERMOMETER		
	OIL SEPARATOR	WPS	WATER PRESSURE SWITCH		SWING VALVE		VIBRATION PAD		

50Hz									
Item (JCU)		035-S	045-S	050-S	060-S	065-S	080-S	100-S	125-S
Capacity (KW) (Seawater)	R404a R22/R407c	117.7 120.7	145.9 149.3	176.5 180.9	218.8 224.4	235.4 241.3	291.9 299.3	353.4 362.2	437.8 449.2
Capacity (KW) (Freshwater)	R404a R22/R407c	109.2 114.1	135.5 141.3	163.9 170.9	203.2 212.2	218.6 227.9	271.0 282.8	327.8 342.3	406.5 424.6
Compressor		5H40	5H46	5H60	5H66	5H80	5H86	5H120	5H126
Capacity Control		2-Step		3-Step		4-Step		6-Step	
Motor (KW) (380-415v/4p/50Hz)		30	37	45	55	55	75	90	110
Running Ampere (A)		51.9	66	78.7	93.5	93.5	119	154	188
Starting Ampere (A)		366	414	467	627	627	896	1025	1190
Flexible Coupling		5H60 -623	5H60 -623	5H80 -663	5H80 -663	5H120 -623	5H120 -623	5H120 623	5H126 -623
Condenser	Seawater	JSM- 5012	JSM- 6012	JSM- 7014	JSM- 8014	JSM- 9014	JSM- 10016	JSM- 13018	JSM- 16018
	Freshwater	JSF- 5012	JSF- 6012	JSF- 7014	JSF- 8014	JSF- 9014	JSF- 10016	JSF- 13018	JSF- 16018
	Water Flow (m3/h)	32.8	40.7	49.2	61.0	64.7	82.0	98.8	122.5
	Head Loss (Bar)	0.20	0.24	0.24	0.36	0.36	0.54	0.6	0.8
	Pipe Size	DN65	DN65	DN80	DN100	DN100	DN100	DN125	DN150
	Counter Flange	JIS 10K	JIS 10K	JIS 10K	JIS 10K	JIS 10K	JIS 10K	JIS 10K	JIS 10K
Unit Dimensions	Height (A)	1650	1650	1840	1840	1910	1910	1950	1950
	Length (B)	1770	1800	2050	2170	2290	2420	2580	2770
	Width (C)	750	750	750	750	850	850	900	900
	Length(D)	1300	1350	1400	1450	1550	1650	1850	1900
	Length(E)	500	500	500	550	600	600	750	750
	Width(F)	675	675	675	675	775	775	825	825
	N x Φd	6xΦ18	6xΦ18	6xΦ18	6xΦ18	6xΦ22	6xΦ22	6xΦ24	6xΦ24
Weight	Net Weight (kg)	~1100	~1300	~1400	~1660	~1760	~1920	~2310	~2520
	Operating Weight (kg)	~1200	~1400	~1550	~1810	~2010	~2100	~2500	~2720







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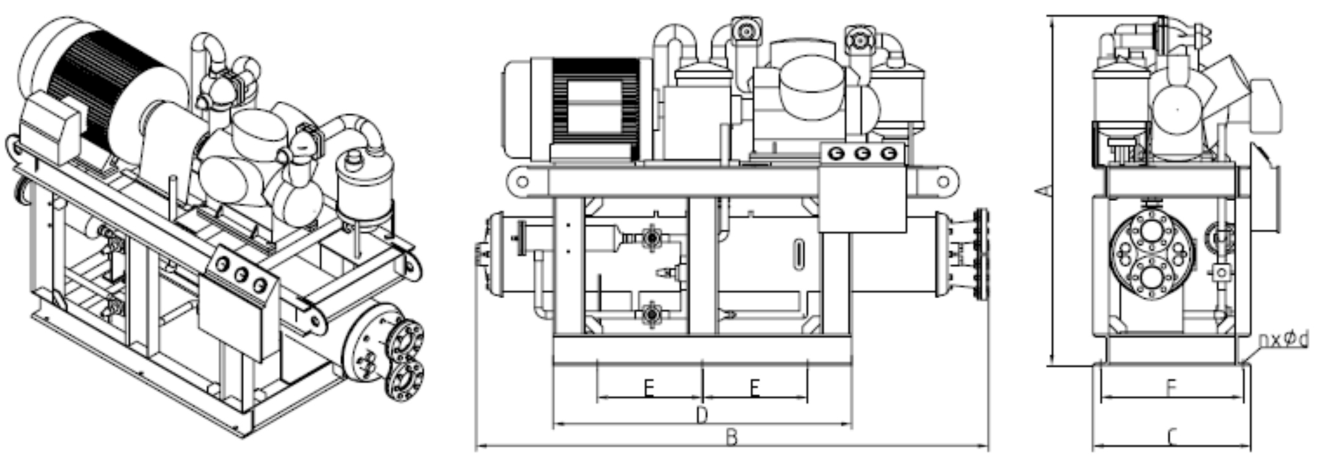
60Hz

Item (JCU)		045-S	055-S	065-S	080-S	085-S	105-S	125-S	155-S
Capacity (KW) (Sea Water)	R404a R22/R407c	141.1 144.8	175.0 179.1	211.8 216.8	262.6 269.3	282.2 289.2	349.9 358.8	423.2 434.2	524.8 538.4
Capacity (KW) (Fresh Water)	R404a R22/R407c	131.0 136.9	162.6 169.6	196.7 205.1	243.8 254.6	262.3 273.5	325.2 339.4	393.4 410.7	487.8 509.5
Compressor		5H40	5H46	5H60	5H66	5H80	5H86	5H120	5H126
Capacity Control		2-Step		3-Step		4-Step		6-Step	
Motor (KW) (440-460v/4p/60Hz)		34.5	42.6	51.8	63	86	104	127	152
Running Ampere (A)		53.4	66.2	80.4	96	131	158	192	228
Starting Ampere (A)		347.1	463.4	562.8	672	851.5	1137.6	1324.8	157.32
Flexible Coupling		5H60 -623	5H60 -623	5H80 -663	5H80 -663	5H120 -623	5H120 -623	5H120 623	5H126 -623
Condenser	Seawater	JSM- 6012	JSM- 7014	JSM- 8014	JSM- 10016	JSM- 12016	JSM- 14016	JSM- 16018	JSM- 20018
	Freshwater	JSF- 6012	JSF- 7014	JSF- 8014	JSF- 10016	JSF- 12016	JSF- 14016	JSF- 16018	JSF- 20018
	Water Flow (m3/h)	39.2	48.7	58.8	72.7	82.1	101.2	122.8	151
	Head Loss (Bar)	0.24	0.36	036	0.54	0.6	0.6	0.8	0.9
	Pipe Size	DN65	DN80	DN100	DN100	DN100	DN125	DN150	DN150
	Counter Flange	JIS 10K	JIS 10K	JIS 10K	JIS 10K	JIS 10K	JIS 10K	JIS 10K	JIS 10K
Unit Dimensions	Height (A)	1650	1650	1840	1840	1910	1910	1950	1950
	Length (B)	1800	2050	2170	2420	2530	2650	2770	2920
	Width (C)	750	750	750	750	850	850	900	900
	Length(D)	1300	1350	1400	1450	1550	1650	1850	1900
	Length(E)	500	500	500	550	600	600	750	750
	Width(F)	675	675	675	675	775	775	825	825
	N x Φd	6xΦ18	6xΦ18	6xΦ18	6xΦ18	6xΦ22	6xΦ22	6xΦ24	6xΦ24
Weight	Net Weight (kg)	~1160	~1400	~1500	~1660	~1860	~2000	~2510	~2650
	Operating Weight (kg)	~1260	~1500	~1650	~1810	~2010	~2180	~2690	~2850



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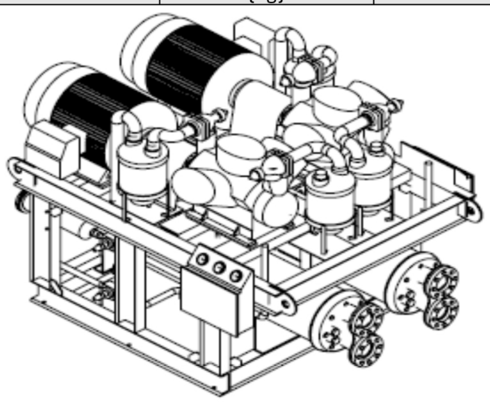
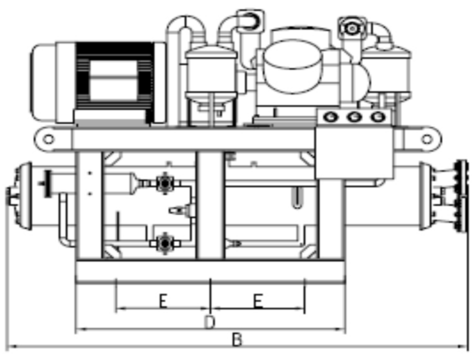
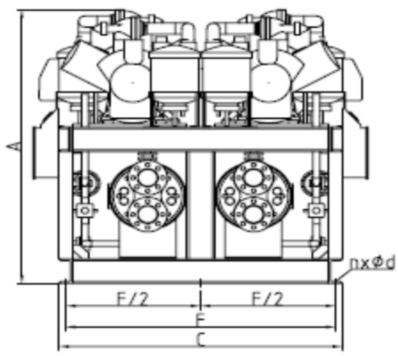
50Hz

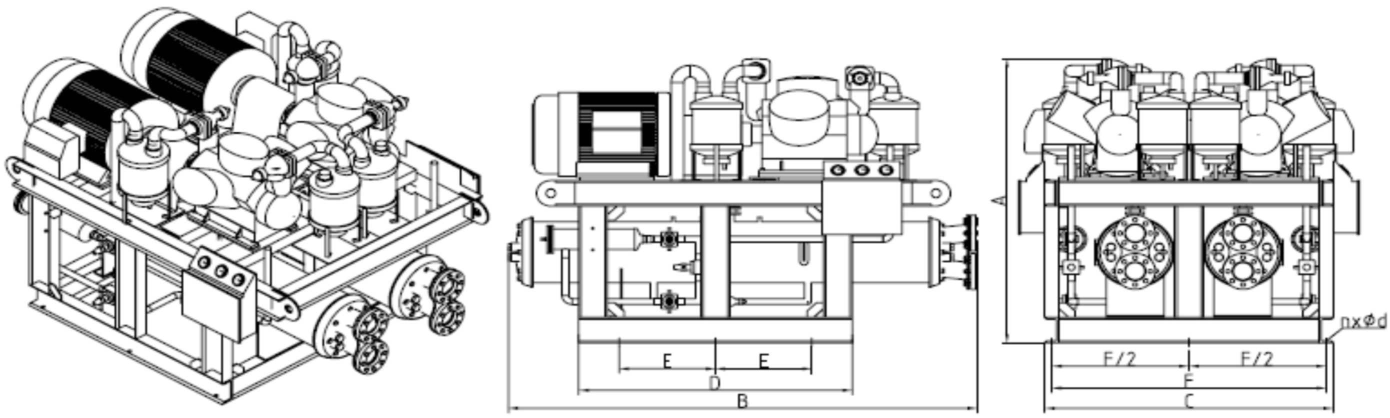
Item (JCU)		035-D	045-D	050-D	060-D	065-D	080-D	100-D	125-D
Capacity (KW) (Seawater)	R404a R22/R407c	117.7X2 120.7X2	145.9X2 149.3X2	176.5 X2 180.9 X2	218.8 X2 224.4 X2	235.4 X2 241.3 X2	291.9 X2 299.3 X2	353.4 X2 362.2 X2	437.8 X2 449.2 X2
Capacity (KW) (Freshwater)	R404a R22/R407c	109.2 X2 114.1 X2	135.5 X2 141.3 X2	163.9 X2 170.9 X2	203.2 X2 212.2 X2	218.6 X2 227.9 X2	271.0 X2 282.8 X2	327.8 X2 342.3 X2	406.5 X2 424.6 X2
Compressor		5H40 X2	5H46 X2	5H60 X2	5H66 X2	5H80 X2	5H86 X2	5H120 X2	5H126
Capacity Control		4-Step		6-Step		8-Step		12-Step	
Motor (KW) (Each) (380-415v/4p/50Hz)		30	37	45	55	55	75	90	110
Running Ampere (A) (Each)		51.9	66	78.7	93.5	93.5	119	154	188
Starting Ampere (A) (Each)		366	414	467	627	627	896	1025	1190
Flexible Coupling		5H60 -623	5H60 -623	5H80 -663	5H80 -663	5H120 -623	5H120 -623	5H120 623	5H126 -623
Condenser (Each)	Seawater	JSM-5012	JSM-6012	JSM-7014	JSM-8014	JSM-9014	JSM-10016	JSM-13018	JSM-16018
	Freshwater	JSF-5012	JSF-6012	JSF-7014	JSF-8014	JSF-9014	JSF-10016	JSF-13018	JSF-16018
	Water Flow (m3/h)	32.8	40.7	49.2	61.0	64.7	82.0	98.8	122.5
	Head Loss (Bar)	0.20	0.24	0.24	0.36	0.36	0.54	0.6	0.8
	Pipe Size	DN65	DN65	DN80	DN100	DN100	DN100	DN125	DN150
	Counter Flange	JIS 10K	JIS 10K	JIS 10K	JIS 10K	JIS 10K	JIS 10K	JIS 10K	JIS 10K
Unit Dimensions	Height (A)	1650	1650	1840	1840	1910	1910	1950	1950
	Length (B)	1770	1800	2050	2170	2290	2420	2580	2770
	Width (C)	1500	1500	1550	1550	1700	1700	1800	1800
	Length(D)	1300	1350	1400	1450	1550	1650	1850	1900
	Length(E)	500	500	500	550	600	600	750	750
	Width(F)	675	675	675	675	775	775	825	825
	N x Φd	8xΦ18	8xΦ18	8xΦ18	8xΦ18	8xΦ22	8xΦ22	8xΦ24	8xΦ24
Weight	Net Weight (kg)	~2200	~2600	~2800	~3320	~3520	~3840	~4620	~5040
	Operating Weight (kg)	~2400	~2800	~3010	~3620	~4020	~4200	~5000	~5440







60Hz									
Item (JCU)		**045-D**	**055-D**	**065-D**	**080-D**	**085-D**	**105-D**	**125-D**	**155-D**
Capacity (KW) (Seawater)	R404a R22/R407c	141.1X2 144.8 X2	175.0 X2 179.1 X2	211.8 X2 216.8 X2	262.6 X2 269.3 X2	282.2 X2 289.2 X2	349.9 X2 358.8 X2	423.2 X2 434.2 X2	524.8 X2 538.4 X2
Capacity (KW) (Freshwater)	R404a R22/R407c	131.0 X2 136.9 X2	162.6 X2 169.6 X2	196.7 X2 205.1 X2	243.8 X2 254.6 X2	262.3 X2 273.5 X2	325.2 X2 339.4 X2	393.4 X2 410.7 X2	487.8 X2 509.5 X2
Compressor		5H40	5H46	5H60	5H66	5H80	5H86	5H120	5H126
Capacity Control		2-Step		3-Step		4-Step		6-Step	
Motor (KW) (Each) (380-415v/4p/50Hz)		34.5	42.6	51.8	63	86	104	127	152
Running Ampere (A) (Each)		53.4	66.2	80.4	96	131	158	192	228
Starting Ampere (A) (Each)		347.1	463.4	562.8	672	851.5	1137.6	1324.8	157.32
Flexible Coupling		5H60 -623	5H60 -623	5H80 -663	5H80 -663	5H120 -623	5H120 -623	5H120 623	5H126 -623
Condenser (Each)	Seawater	JSM- 6012	JSM- 7014	JSM- 8014	JSM- 10016	JSM- 12016	JSM- 14016	JSM- 16018	JSM- 20018
	Freshwater	JSF- 6012	JSF- 7014	JSF- 8014	JSF- 10016	JSF- 12016	JSF- 14016	JSF- 16018	JSF- 20018
	Water Flow (m3/h)	39.2	48.7	58.8	72.7	82.1	101.2	122.8	151
	Head Loss (Bar)	0.24	0.36	036	0.54	0.6	0.6	0.8	0.9
	Pipe Size	DN65	DN80	DN100	DN100	DN100	DN125	DN150	DN150
	Counter Flange	JIS 10K	JIS 10K	JIS 10K	JIS 10K	JIS 10K	JIS 10K	JIS 10K	JIS 10K
Unit Dimensions	Height (A)	1650	1650	1840	1840	1910	1910	1950	1950
	Length (B)	1800	2050	2170	2420	2530	2650	2770	2920
	Width (C)	750	750	750	750	850	850	900	900
	Length(D)	1300	1350	1400	1450	1550	1650	1850	1900
	Length(E)	500	500	500	550	600	600	750	750
	Width(F)	675	675	675	675	775	775	825	825
	N x Φ d	6xΦ18	6xΦ18	6xΦ18	6xΦ18	6xΦ22	6xΦ22	6xΦ24	6xΦ24
Weight	Net Weight (kg)	~1160	~1400	~1500	~1660	~1860	~2000	~2510	~2650
	Operating Weight (kg)	~1260	~1500	~1650	~1810	~2010	~2180	~2690	~2850



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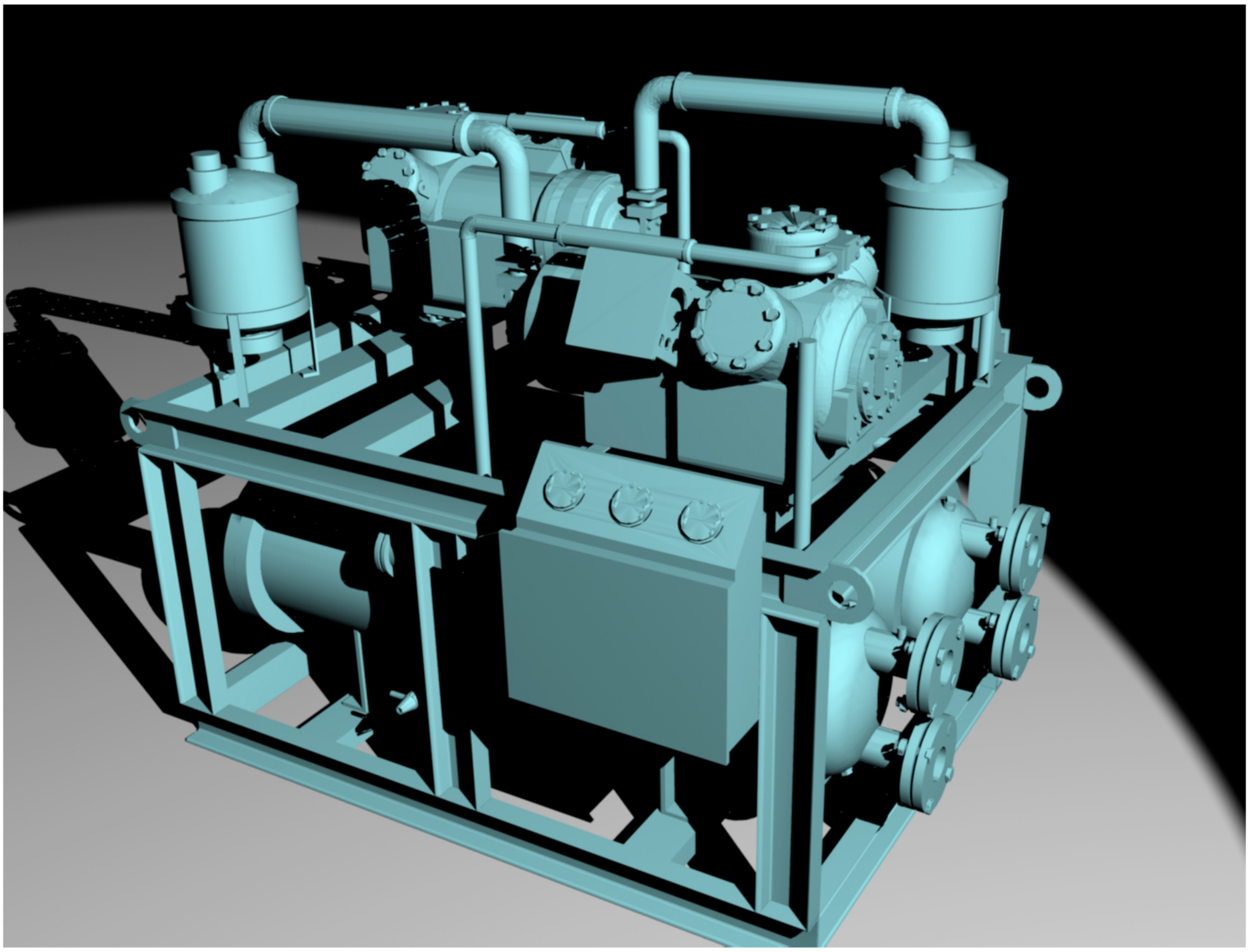

1. Features

Ideal for air conditioning systems

- **General**

1) Power: 3Φ-380~415V-50hz
   3Φ-440~460V-60hz
2) Control Panel: JLM
3) Compressor: Carlyle 06D/E semi-hermetic type
4) Condenser: Horizontal shells and tubes
   - Seawater shell & tube
   - Freshwater shell & tube
5) Start Type: Part loading
6) Refrigerant: R404a/R407c/R22
7) Accessories:
   - Oil separator (option)
   - Liquid accumulator (option)
   - Filter and drier
   - Gauge and switch panel
   - Water pressure gauge and switch
   - Valves
8) Safety devices: high & low pressure switches; fuse; overload; temperature controller; oil differential pressure switch; cooling water pressure switch; motor thermal protection
9) Cooling Water Condition
   32°C inlet/36°C outlet (seawater)
   36°C inlet/40°C outlet (freshwater)
10) Condensing Temperature:
    40°C (seawater)/44°C (freshwater)
11) Lubricant:
    SL68—R404a/R407c
    3GS—R22

2. Codification Method

Unit Code:

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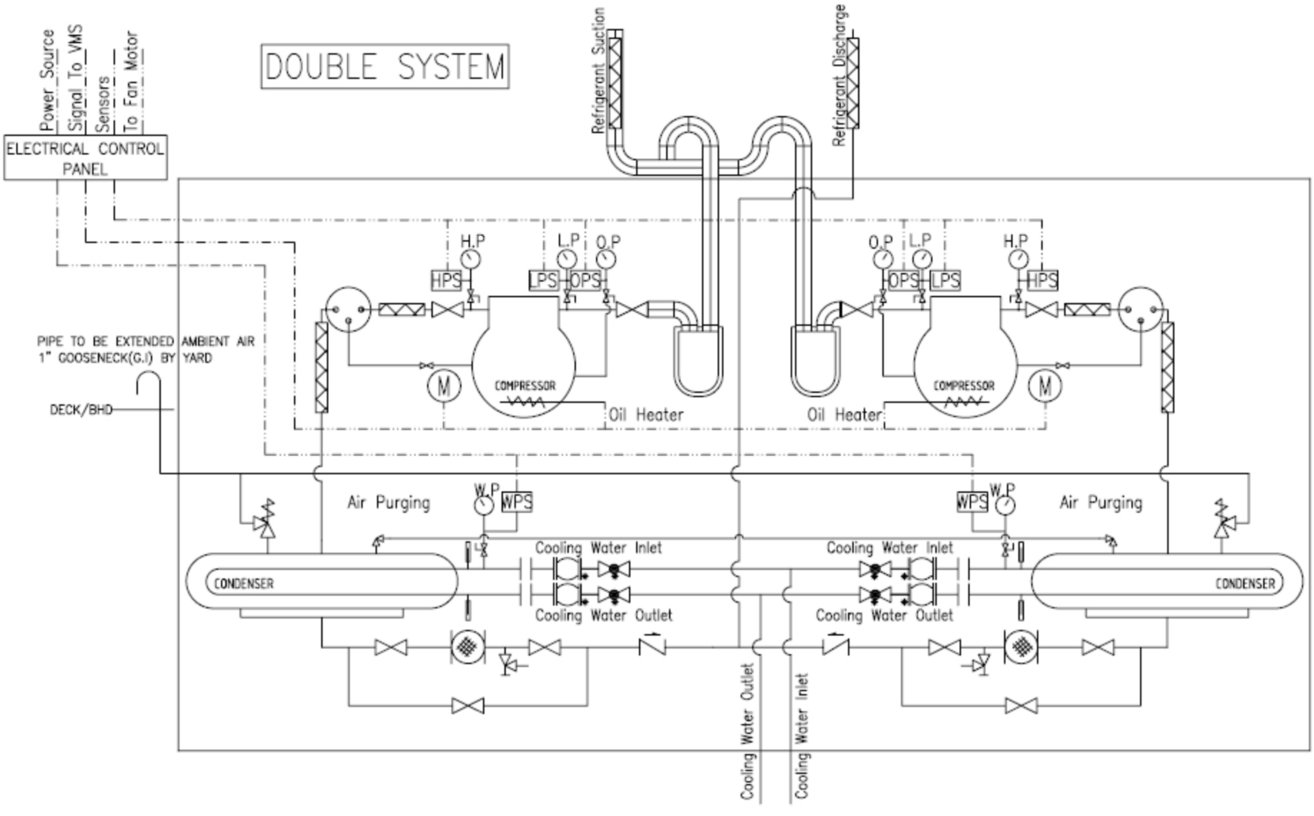
1) Series:
JCW=JL Marine Chilled Water Unit
2) Cooling Medium:
SW=Seawater; FW=Freshwater
3) Cooling Capacity:
Unit: Cooling Ton
4) Power Source
A50=380-400v/3ph/50hz; B50=415v/3ph/50hz; A60=440v/3ph/60hz; B60=690v/3ph/60hz
5) Refrigerant
22=R22; 04=R404A; 07=R407C

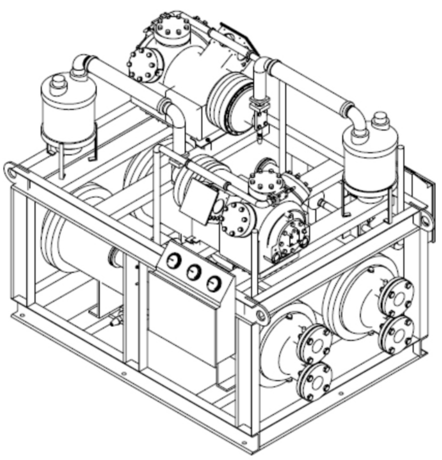
3. Piping Diagram

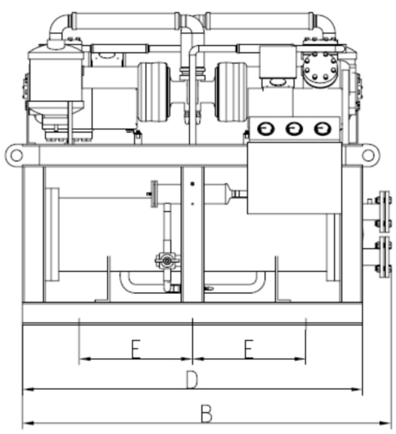


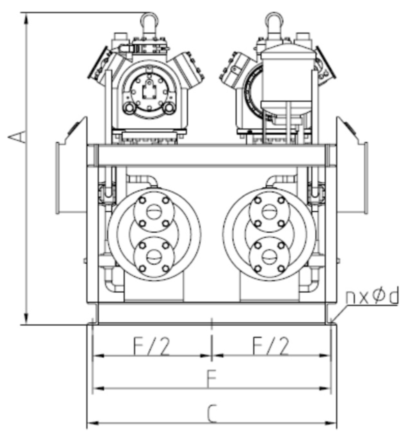
SYMBOL	NAME		SUCTION ACCUMULATOR		SIGHT GLASS		STOP VALVE		FLEXIBLE JOINT
	COMPRESSOR	HPS	HIGH PRESSURE SWITCH		FILTER & DRIER		GAUGE		
M	MOTOR	LPS	LOW PRESSURE SWITCH		SAFETY VALVE		WATER GAUGE		
	CONDENSER	OPS	OIL PRESSURE SWITCH		CHECK VALVE		WATER THERMOMETER		
	OIL SEPARATOR	WPS	WATER PRESSURE SWITCH		SWING VALVE		GATE VALVE		

50Hz

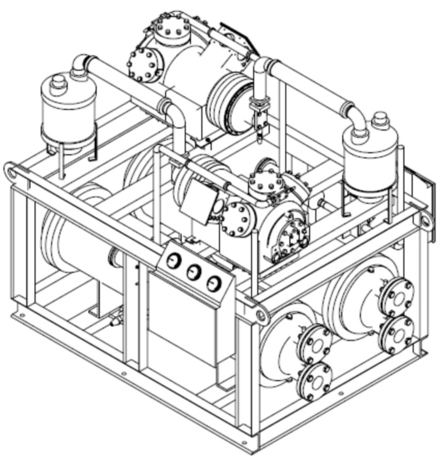
Item (JCU)		010-D	015-D	020-D	025-D	030-D	035-D
Capacity (KW) (Seawater)	R404a R407c R22	38.9 X2 34.4 X2 35.2 X2	51.8 X2 45.5 X2 47.8 X2	70.3 X2 58.8 X2 63.8 X2	89.9 X2 82.1 X2 84.3 X2	103.5 X2 89.3 X2 94.8 X2	126.0 X2 117.2 X2 119.6X2
Capacity (KW) (Freshwater)	R404a R407c R22	36.2 X2 32.3 X2 33.3 X2	48.5 X2 43.1 X2 45.4 X2	65.3 X2 55.5 X2 60.4 X2	83.4 X2 76.9 X2 79.5 X2	95.8 X2 84.3 X2 86.7 X2	117.1 X2 110.8 X2 113.8 X2
Compressor		06DA328 X2	06DA537 X2	06EA550 X2	06EA565 X2	06EA575 X2	06EA599 X2
Capacity Control		3/6-Step		2/4-Step	3/6-Step		
Motor (KW) (Each) (380-415v/50Hz)		9.13	13.67	17.42	23.1	26.9	35.8
Running Ampere (A) (Each)		18.1	26.8	33.6	45.4	51.9	79.2
Condenser (Each)	Seawater	JSM-1508	JSM-2008	JSM-3010	JSM-4012	JSM-5012	JSM-6012
	Freshwater	JSF-1508	JSF-2008	JSF-3010	JSF-4012	JSF-5012	JSF-6012
	Water Flow (m3/h)	10.5	14.3	19.2	24.7	28.5	35.4
	Head Loss (Bar)	0.20	0.20	0.20	0.24	0.24	0.24
	Pipe Size	DN40	DN40	DN65	DN65	DN65	DN65
	Counter Flange	JIS 10K	JIS 10K	JIS 10K	JIS 10K	JIS 10K	JIS 10K
Unit Dimensions	Height (A)	1300	1300	1300	1350	1400	1450
	Length (B)	1450	1450	1450	1550	1550	1550
	Width (C)	1000	1000	1000	1100	1100	1100
	Length(D)	1300	1300	1300	1400	1400	1400
	Length(E)	350	350	350	400	400	400
	Width(F)	950	950	950	1050	1050	1150
	N x Φ d	8 x Φ 14	8 x Φ 14	8 x Φ 14	8 x Φ 14	8 x Φ 14	8 x Φ 14
Weight	Net Weight (kg)	~572	~638	~780	~840	~888	~944
	Operating Weight (kg)	~672	~738	~880	~940	~988	~1044

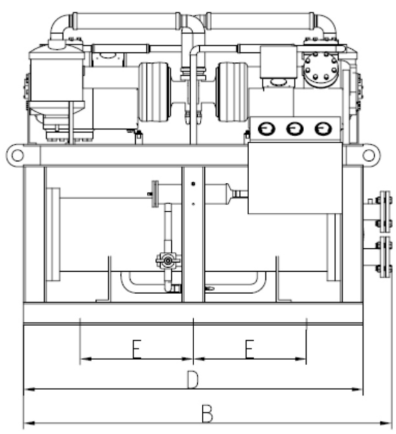


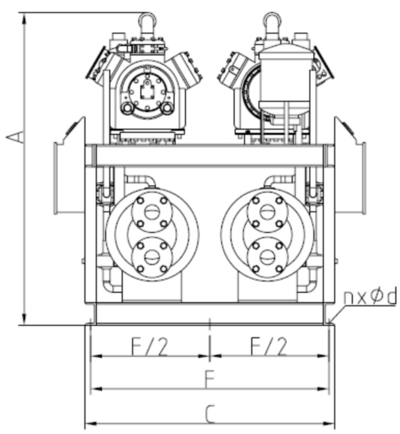




60Hz							
Item (JCU)		015-D	020-D	025-D	030-D	035-D	040-D
Capacity (KW) (Seawater)	R404a R407c R22	46.7 X2 41.3 X2 42.2 X2	62.2 X2 54.6 X2 57.4 X2	84.4 X2 70.6 X2 76.6 X2	107.9 X2 98.5 X2 101.2 X2	124.2 X2 107.2 X2 113.8 X2	151.2 X2 140.6 X2 143.5 X2
Capacity (KW) (Freshwater)	R404a R407c R22	43.4 X2 38.8 X2 40.0 X2	58.2 X2 51.7 X2 54.5 X2	78.4 X2 66.6 X2 70.5 X2	100.1 X2 92.3 X2 95.4 X2	115.0 X2 101.2 X2 104.1 X2	140.5 X2 133.0 X2 136.6 X2
Compressor		06DA328 X2	06DA537 X2	06EA550 X2	06EA565 X2	06EA575 X2	06EA599 X2
Capacity Control		3/6-Step		2/4-Step	3/6-Step		
Motor (KW) (Each) (440-460v/60Hz)		10.96	15.09	20.91	27.71	32.26	42.98
Running Ampere (A) (Each)		15.7	21.6	29.2	39.5	45.1	68.8
Condenser (Each)	Seawater	JSM-1508	JSM-2008	JSM-3010	JSM-4012	JSM-5012	JSM-6012
	Freshwater	JSF-2008	JSF-2510	JSF-3510	JSF-4012	JSF-5012	JSF-6012
	Water Flow (m3/h)	12.6	17.2	23.1	29.7	34.2	42.5
	Head Loss (Bar)	0.20	0.20	0.20	0.24	0.24	0.24
	Pipe Size	DN40	DN40	DN65	DN65	DN65	DN65
	Counter Flange	JIS 10K	JIS 10K	JIS 10K	JIS 10K	JIS 10K	JIS 10K
Unit Dimensions	Height (A)	1300	1300	1300	1350	1400	1450
	Length (B)	1450	1450	1450	1550	1550	1550
	Width (C)	1000	1000	1000	1100	1100	1100
	Length(D)	1300	1300	1300	1400	1400	1400
	Length(E)	350	350	350	400	400	400
	Width(F)	950	950	950	1050	1050	1150
	N x Φ d	8 x Φ 14	8 x Φ 14	8 x Φ 14	8 x Φ 14	8 x Φ 14	8 x Φ 14
Weight	Net Weight (kg)	~586	~649	~797	~856	~886	~963
	Operating Weight (kg)	~696	~759	~907	~966	~1006	~1073







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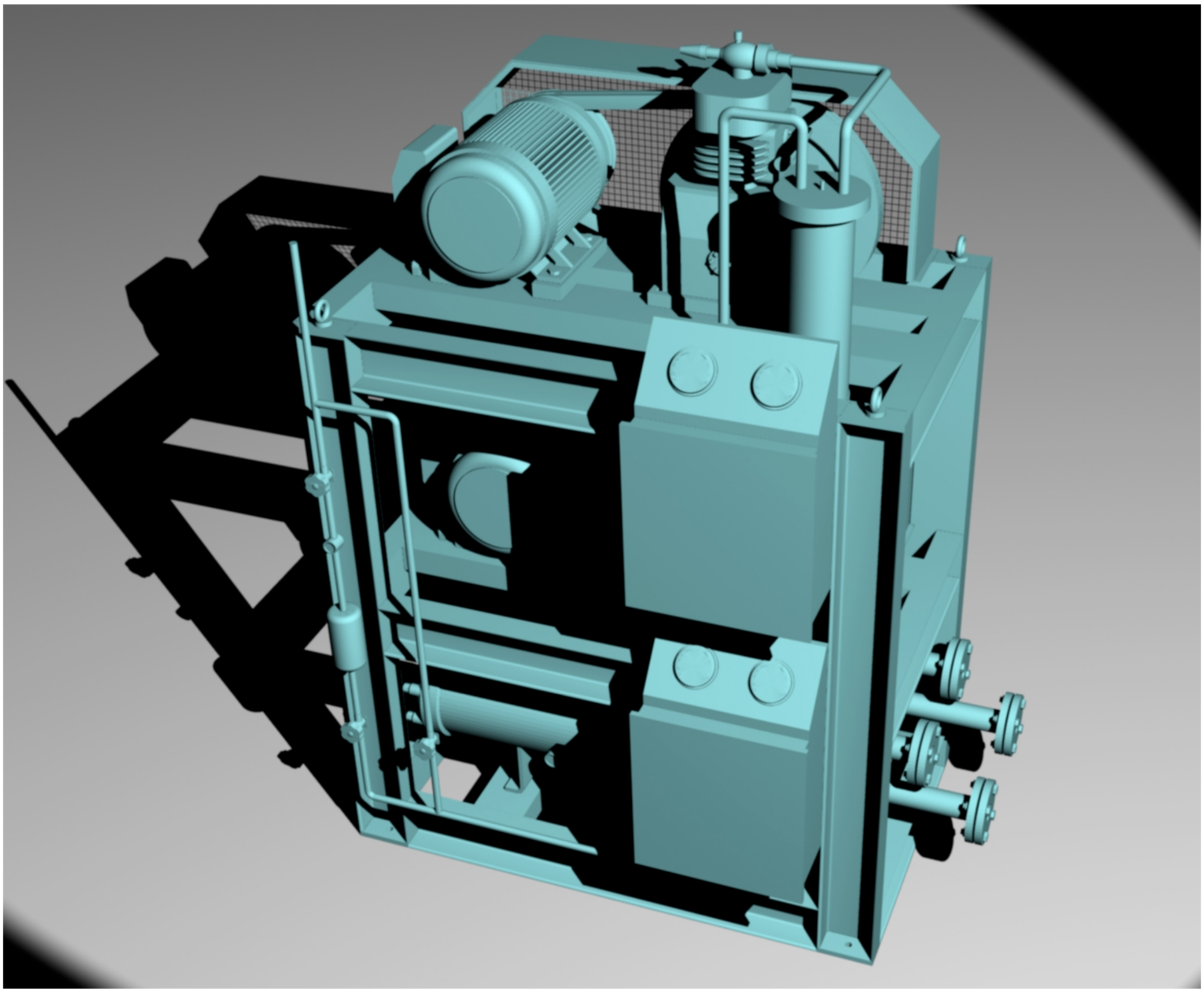


1. Features

Ideal for provision systems

- **General**

1) Power: 3Φ-380~415V-50hz
   3Φ-440~460V-60hz
2) Control Panel: JLM
3) Compressor: Bitzer open type
4) Motor: ABB/TECO IP55, Insulation 'F'
5) Condenser: Horizontal shells and tubes
   - Seawater shell & tube
   - Freshwater shell & tube
6) Start Type: Direct start
7) Refrigerant: R404a/R407c/R22
8) Accessories:
   - Pulley
   - Oil separator
   - Liquid accumulator (option)
   - Filter and drier
   - Gauge and switch panel
   - Water pressure gauge and switch
   - Valves
9) Safety Devices: high & low pressure switches; fuse; overload; temperature controller; cooling water pressure switch
10) Cooling Water Condition
    32°C inlet/36°C outlet (seawater)
    36°C inlet/40°C outlet (freshwater)
11) Condensing Temperature:
    40°C (seawater)/44°C (freshwater)
12) Lubricant:
    SL68—R404a/R407c
    3GS—R22

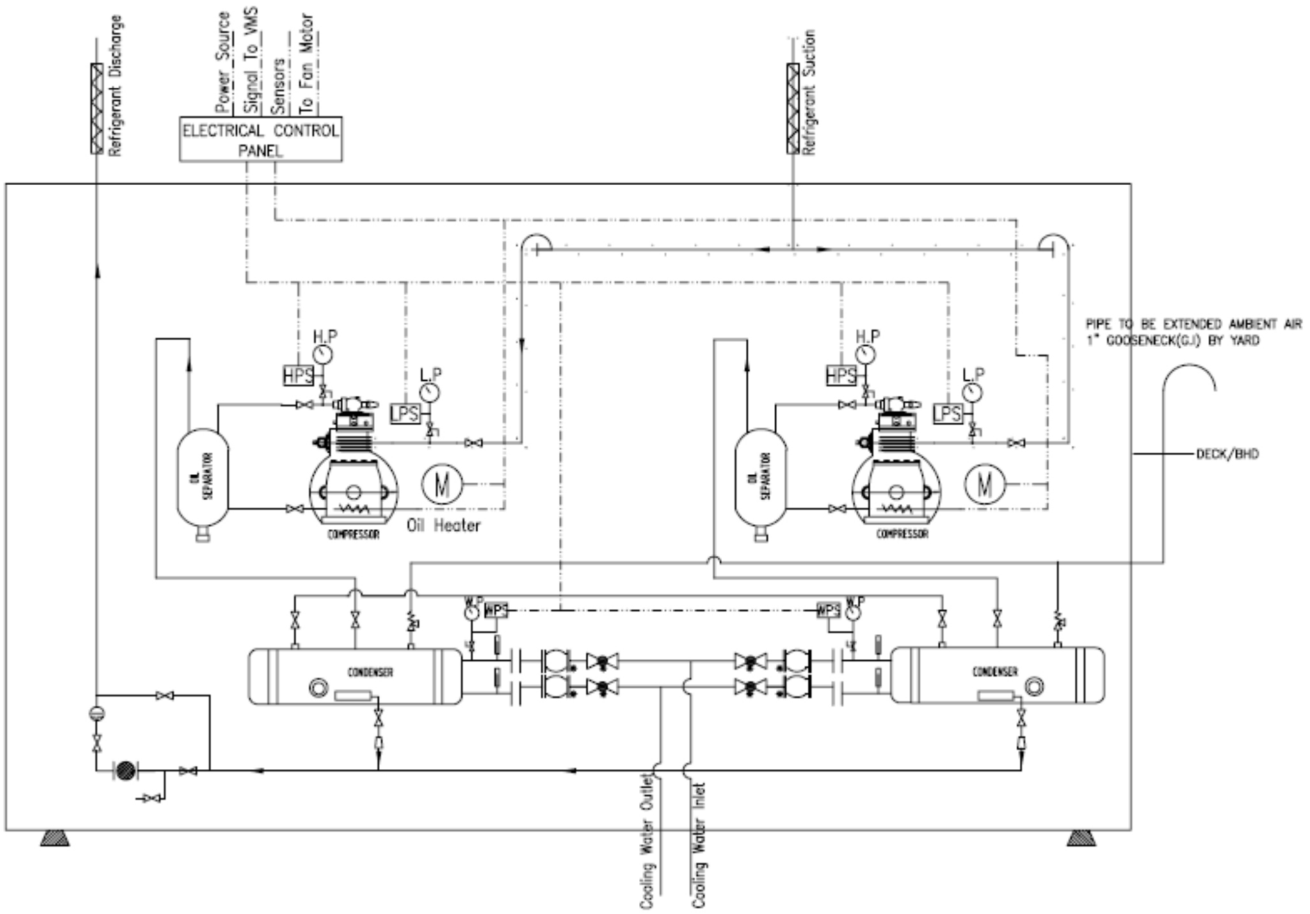
2. Codification Method

Unit Code:

JCU[1]-SW[2]-100[3]-D-A50[4]-[07][5]

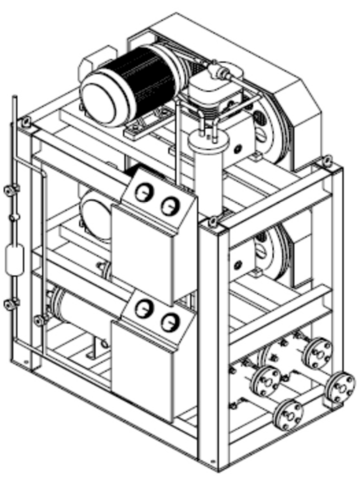
1) Series:
JCW=JL Marine Chilled Water Unit
2) Cooling Medium:
SW=Seawater; FW=Freshwater
3) Cooling Capacity:
Unit: Cooling Ton
4) Power Source
A50=380-400v/3ph/50hz; B50=415v/3ph/50hz; A60=440v/3ph/60hz; B60=690v/3ph/60hz
5) Refrigerant
22=R22; 04=R404A; 07=R407C

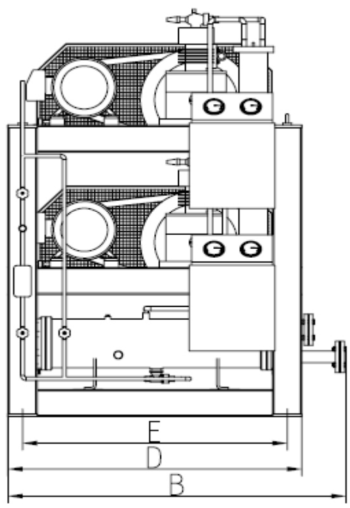
3. Piping Diagram

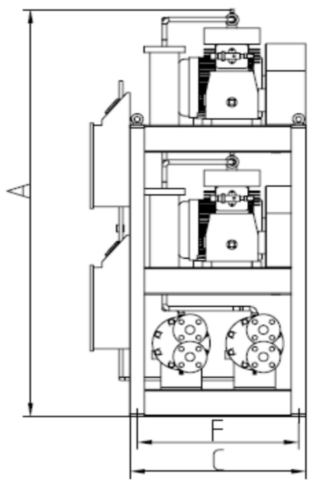


SYMBOL	NAME		SUCTION ACCUMULATOR		SIGHT GLASS		STOP VALVE		FLEXIBLE JOINT
	COMPRESSOR	HPS	HIGH PRESSURE SWITCH		FILTER & DRIER		GAUGE		
M	MOTOR	LPS	LOW PRESSURE SWITCH		SAFETY VALVE		WATER GAUGE		
	CONDENSER	OPS	OIL PRESSURE SWITCH		CHECK VALVE		WATER THERMOMETER		
	OIL SEPARATOR	WPS	WATER PRESSURE SWITCH		SWING VALVE		GATE VALVE		

50Hz/60Hz				
Item (JCU)		**0.6-D**	**0.9-D**	**1.8-D**
Capacity (KW)	R404a R407c/R22	2.14 X2 2.02 X2	3.34 X2 3.20 X2	6.64 X2 6.32 X2
Compressor		Bitzer III	Bitzer IV	Bitzer V
Compressor Pulley Size (mm)		260	380	450
Compressor Speed (rpm)		1000	750	700
Motor (KW) (Each)(50Hz/60Hz)		3/3.45	4/4.6	5.5/6.33
Running Ampere (A) /Starting Ampere (A)	3 -380~415V-50Hz	6.06/45	8.19/58	11/72
	3 -440~460V-60Hz	6.21/40.4	8.49/55.2	11.1/72.2
Motor Pulley Size (mm)	50Hz/60Hz	180/150	200/160	220/180
Condenser (Each)	Seawater	JSM-405	JSM-505	JSM-606
	Freshwater	JSF-405	JSF-505	JSF-606
	Water Flow (m3/h)	3.06	3.83	4.59
	Head Loss (Bar)	0.24	0.24	0.24
	Pipe Size	DN25	DN32	DN40
	Counter Flange	JIS 10K	JIS 10K	JIS 10K
Unit Dimensions	Height (A)	1350	1485	1700
	Length (B)	1150	1250	1350
	Width (C)	550	600	700
	Length(D)	1000	1100	1200
	Length(E)	950	1050	1150
	Width(F)	500	550	650
	N x Φ d	4 x Φ 14	4 x Φ 14	4 x Φ 14
Weight	Net Weight (kg)	187	202	264
	Operating Weight (kg)	237	252	314







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