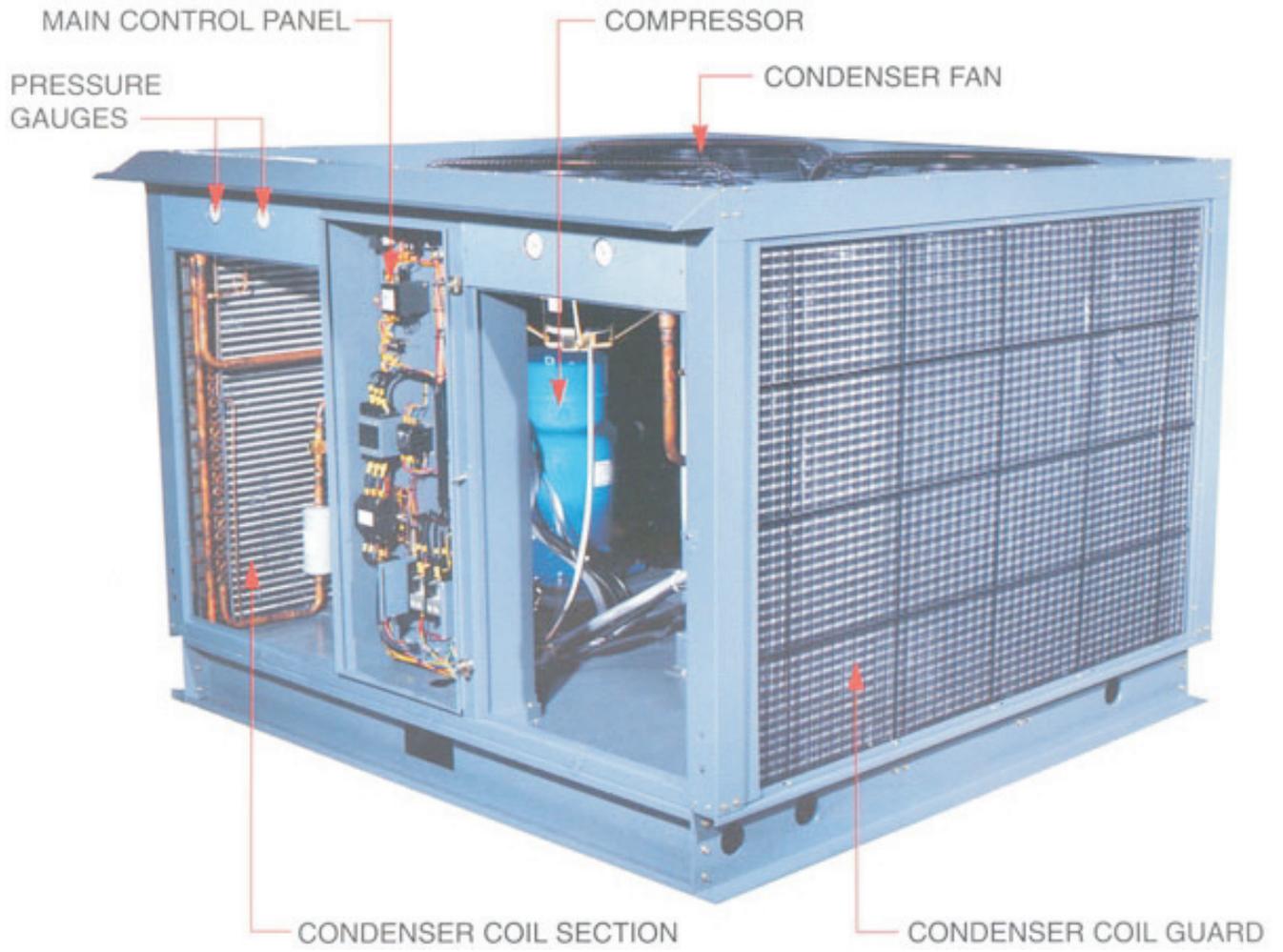


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CONTINUING RESEARCH RESULTS IN STEADY IMPROVEMENTS.
THEREFORE, THESE SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE.

MODEL DECODING

1, 2 & 3 BASIC	4, 5 & 6 NOMINAL COOLING CAPACITY (MBH)	7 ELECTRICAL SUPPLY (V-Ph-Hz)	8 REFRIGERA- TION CIRCUIT	9 COMPRESSOR TYPE	10 CONDENSER MOTOR	11 CONDENSER COIL	12 PDS OPTION	13 KITS ELECTRICAL OPTIONS	14 KITS MECHANICAL OPTIONS
OCU CONDENSING UNIT	240	H : 208/230-3-60	D : DUAL	S : SCROLL *	N : STANDARD WITH FPS ¹	A : ALUMINUM FIN	N : NO OPTION	N : NO OPTION	A : STD. OPTION
	300	M : 380-3-60	S : SINGLE	H : SEMI HERMETIC RECIPRO- CATING	L : LOW AMBIENT WITH FPS & FCS ²	B : COATED ALUMINUM FIN	P : PDS (PUMP DOWN SOLENOID)	U : UVM	D : DISCHARGE GAS SENSOR
	360	(4 WIRE)			K : STANDARD FAN WITH APS ³	C : COPPER FIN		V : VOLT FREE+ CONTACTS	H : HOT GAS BYPASS
	420	F : 460-3-60						B : COMPRESSOR CIRCUIT BREAKER	P : CONDENSER PRESSURE RELIEF VALVE
	480							C : U & V COMBO	B : D & H COMBO
	600	L : 380/415-3-50						D : U & B COMBO	C : D & P COMBO
	720	(4 WIRE)						E : V & B COMBO	E : H & P COMBO
	840							F : C & B COMBO	F : D, H & P COMBO

NOTES: * - Applicable for OCU240, OCU300 & OCU360 models only.

+ - A combination of volt free contact option: 1. Unit ON/OFF indication, 2. Compressor ON/OFF, trip and unit trip indication.

- 1 - Fixed Pressure Switch (FPS)
- 2 - Fan Cycling Switch (FCS)
- 3 - Adjustable Pressure Switch (APS)

UNIT FEATURES

A. GENERAL

The Omran Tahviah condensing units casing shall be fabricated from heavy gauge galvanized steel, with painted Epoxy coat. The unit is completely factory assembled and consists of a refrigerant compressors, condenser coils, fans & control panel. These units can be installed on a roof or at ground level.

B. UNIT ENCLOSURE

All panels are of heavy gauge (G-90) galvanized steel. Steel sheet panels are galvanized by the hot dip process followed by painted Epoxy coat. Removable access panels with handles are provided for maintenance purpose.

C. COMPRESSOR

Dual scroll compressors are used as standard for models OCU240, OCU300 & OCU360 with an option to use semi-hermetic reciprocating compressors.

The compressors are equipped with internal motor protection and also provided with vibration isolators.

Oil pressure control is provided on units with semi-hermetic compressors only. Each compressor has lock-out devices to protect it from short cycling when tripped by safety controls.

D. AIR COOLED CONDENSER

1. Coils are of the corrugated fin-and-tube type, constructed of seamless copper tubes of minimum thickness 0.014 inches (0.356 mm), mechanically bonded to aluminum fins. As an option, corrugated copper or coated aluminum fins may be provided. End plates and tube support sheets are 18 gauge galvanized steel, formed to provide structural strength. Each coil is pressure tested in the factory at not less than 300 psi (2070 kPa) air pressure.

2. The fans are propeller type and direct-driven, upward discharge.

3. Units are equipped with totally enclosed fan motors with class F insulation for greater reliability and dependable performance for many years.

E. SERVICE VALVES

Both suction and liquid service valves are steel, back seating type with sweat connections. Valves are externally located so refrigerant pipe connections can be made quickly and easily. Each valve has a gauge pressure port for ease of checking refrigerant operating pressures.

F. CONTROL PANEL

Internal power and control wiring is neatly routed, properly anchored and all wires identified with cable markers as standard applicable to HVAC units. The electrical controls used in the control panel are UL approved, which are reliable in operation at high ambient conditions for a long period.

UNIT FEATURES

G. ELECTRONIC CONTROL PANEL (OPTIONAL)

The condensing unit is supplied with *Microprocessor Based Electronic Control Board*, for safe operation of compressors with built-in lockout circuit in case of trip due to abnormal conditions. The thermostat and AHU control circuit are to be properly interconnected as per the schematic wiring diagram supplied with the unit.

OTHER OPTIONAL ITEMS

A. FAN CYCLE SWITCH HEAD PRESSURE CONTROL

The capacity of air cooled condensers vary with the difference between condensing temperature and condenser entering air temperature (ambient temperature). It increases as this difference increases. For a given capacity, a drop in the ambient temperature will lower the condensing temperatures and if the ambient temperature drops below a given limit, head pressure control is required.

Control shall be set for a minimum of 95°F (35°C) saturated refrigerant condensing temperature, or to suit the specified application.

B. PUMP DOWN SOLENOID VALVE

A pump down solenoid valve may be installed in the liquid line. When the room thermostat is satisfied, the valve closes and the compressor continues to run until a substantial portion of the refrigerant has been pumped out from the evaporator. The low pressure switch will cycle off the compressor at a predetermined evaporator pressure.

C. UNDER VOLTAGE MONITOR (UVM)

UVM combines voltage monitoring with short cycle protection. When the power drops below safe limits, the control relays turns off all the equipment and time delay begins. Momentary power failure or thermostat interruption will start time delay period.

POWER SUPPLY	CONTROL VOLTAGE	MONITORED VOLTAGE	PICK-UP VOLTAGE	DROP-OUT VOLTAGE	TIME DELAY
208/230-3-60	24	187	198	190	5 MINUTES
460-3-60	24	414	435	414	5 MINUTES
380-3-60	24	342	360	342	5 MINUTES
380/415-3-50	24	342	360	342	5 MINUTES

D. ADJUSTABLE HIGH PRESSURE SWITCH (HPS)

The standard HPS is permanently set to open at 450 psig. Depending on customer specifications, an adjustable high pressure switch may be provided. Typical pressure settings are shown in table below. The settings may be field adjusted to suit applications on adjustable type.

OPEN	CLOSE
450 ± 10 Psig	360 ± 15 Psig

E. ADJUSTABLE LOW PRESSURE SWITCH (LPS)

The standard LPS is permanently set to open at 25 psig. Depending on customer specifications, an adjustable low pressure switch may be provided. Typical pressure settings are shown in table below. The settings may be field adjusted to suit applications on adjustable type.

OPEN	CLOSE
25 ± 5 Psig	50 ± 5 Psig

F. CAPACITY CONTROL

- 1). On semi-hermetic compressors, capacity control is achieved by cylinder unloading.
- 2). Hot gas bypass is available as an options.

G. MECHANICAL OPTION

- 1). Discharge gas sensor.
- 2). Condenser pressure relief valve

PHYSICAL DATA - 60Hz

MODEL NUMBER		OCU240	OCU300	OCU360	OCU420	OCU480	OCU600	OCU720	OCU840	
NOMINAL CAPACITY , TONS* - Scroll/Semi hermetic		22/21	28/28	33/35	38	45	51	65	75	
TOTAL UNIT POWER INPUT, kW* - Scroll/Semi hermetic		22.8/24	31/35.2	34.9/41	45.7	52	62	79.6	93.6	
EER (ENERGY EFFICIENCY RATIO) - Scroll/Semi hermetic		11.4/10.3	10.8/9.5	11.3/10.1	9.9	10.3	9.9	9.8	9.6	
NUMBER OF REFRIGERATION CIRCUIT		Single	Single	Single	Single	Single	Single	Dual	Dual	
COMPRESSOR	Type(standard)	Scroll	Scroll	Scroll	Semi-hermetic					
	Oil per system, oz	Scroll	110	135	223	-	-	-	-	-
		Semi-hermetic	106	106	106	141	158	158	167	167
	Refrigerant	R- 22								
	Charge per system (oz)**	360	450	540	630	720	900	1080	1260	
CONDENSER FAN	Type	Propeller								
	Qty. - Diameter (inch)	2 - 30	2 - 30	3 - 30	3 - 30	4 - 30	4 - 30	5 - 30	6 - 30	
	Nominal CFM	15200	15200	22800	22800	30400	30400	38000	45600	
	Motor HP - RPM	1.5- 1100	1.5- 1100	1.5- 1100	1.5- 1100	1.5- 1100	1.5- 1100	1.5- 1100	1.5- 1100	
CONDENSER COIL	Type	Corrugated fin & tube								
	Tube Dia.- Rows	3/8- 4	3/8- 5	3/8- 4	3/8- 4	3/8- 4	3/8- 5	3/8- 4	3/8- 5	
	Total face area (Sq. ft.)	28	28	46.66	46.66	56	56	70	70	
HIGH PRESSURE SWITCH	Open (PSIG)	450 ± 10	450 ± 10	450 ± 10	450 ± 10	450 ± 10	450 ± 10	450 ± 10	450 ± 10	
	Close (PSIG)	360 ± 15	360 ± 15	360 ± 15	360 ± 15	360 ± 15	360 ± 15	360 ± 15	360 ± 15	
LOW PRESSURE SWITCH	Open (PSIG)	25 ± 5	25 ± 5	25 ± 5	25 ± 5	25 ± 5	25 ± 5	25 ± 5	25 ± 5	
	Close (PSIG)	50 ± 5	50 ± 5	50 ± 5	50 ± 5	50 ± 5	50 ± 5	50 ± 5	50 ± 5	
REFRIGERANT LINES ⁺	Suction line size (OD), inch	1-3/8	1-3/8	1-5/8	1-5/8	2-1/8	2-1/8	2-1/8	2-1/8	
	Liquid line size (OD), inch	5/8	5/8	7/8	7/8	1-1/8	1-1/8	1-1/8	1-1/8	
OPTIONAL COOLING STAGES ⁺⁺		4	4	4	4	4	4	4	4	
SHIPPING WEIGHT, Kg.		860	900	1050	1100	1250	1300	1600	1750	

* Nominal cooling capacity @ 95°F outdoor and 45°F saturated suction temperatures.

** Operating system charge is applicable when matched with air handling units & connected by 25 feet of refrigerant piping.

+ Pipe sizes are for runs up to 50 feet to indoor unit. For refrigerant lines longer than 50 feet, use next larger size.

++ Standard unit has 2 step capacity (0, 50%,100%) by sequence operation of compressors. 4 step cooling stages are available as an option for semi-hermetic compressor with unloaders.

PHYSICAL DATA - 50Hz

MODEL NUMBER		OCU240	OCU300	OCU360	OCU420	OCU480	OCU600	OCU720	OCU840	
NOMINAL CAPACITY (TONS)* - Scroll/Semi hermetic		23/21	26/24	29/32	36	43	48	63	74	
TOTAL UNIT POWER INPUT, kW* - Scroll/Semi hermetic		25/24	30/28.9	32.5/36.6	43.1	51.2	55.5	77.6	94.2	
EER (ENERGY EFFICIENCY RATIO) - Scroll/Semi hermetic		10.9/10.3	10.6/9.9	10.8/10.6	10.1	10	10.4	9.8	9.4	
NUMBER OF REFRIGERATION CIRCUIT		Single	Single	Single	Single	Single	Single	Dual	Dual	
COMPRESSOR	Type(standard)	Scroll	Scroll	Scroll	Semi-hermetic					
	Oil per system, oz	Scroll	135	223	223	-	-	-	-	-
		Semi-hermetic	106	106	106	158	158	158	167	167
	Refrigerant	R- 22								
	Charge per system (oz)**	360	450	540	630	720	900	1080	1260	
CONDENSER FAN	Type	Propeller								
	Qty. - Diameter (inch)	2 - 30	2 - 30	3 - 30	3 - 30	4 - 30	4 - 30	5 - 30	6 - 30	
	Nominal CFM	13200	13200	19800	19800	26400	26400	33000	39600	
	Motor HP - RPM	1.5- 950	1.5- 950	1.5- 950	1.5- 950	1.5- 950	1.5- 950	1.5- 950	1.5- 950	
CONDENSER COIL	Type	Corrugated fin & tube								
	Tube Dia.- Rows - Fins per inch	3/8- 4	3/8- 5	3/8- 4	3/8- 4	3/8- 4	3/8- 5	3/8- 4	3/8- 5	
	Total face area (Sq. ft.)	28	28	46.66	46.66	56	56	70	70	
HIGH PRESSURE SWITCH	Open (PSIG)	450 ± 10	450 ± 10	450 ± 10	450 ± 10	450 ± 10	450 ± 10	450 ± 10	450 ± 10	
	Close (PSIG)	360 ± 15	360 ± 15	360 ± 15	360 ± 15	360 ± 15	360 ± 15	360 ± 15	360 ± 15	
LOW PRESSURE SWITCH	Open (PSIG)	25 ± 5	25 ± 5	25 ± 5	25 ± 5	25 ± 5	25 ± 5	25 ± 5	25 ± 5	
	Close (PSIG)	50 ± 5	50 ± 5	50 ± 5	50 ± 5	50 ± 5	50 ± 5	50 ± 5	50 ± 5	
REFRIGERANT LINES ⁺	Suction line size (OD), inch	1-3/8	1-3/8	1-5/8	1-5/8	2-1/8	2-1/8	2-1/8	2-1/8	
	Liquid line size (OD), inch	5/8	5/8	7/8	7/8	1-1/8	1-1/8	1-1/8	1-1/8	
OPTIONAL COOLING STAGES ⁺⁺		4	4	4	4	4	4	4	4	
SHIPPING WEIGHT, Kg.		860	900	1050	1100	1250	1300	1600	1750	

* Nominal cooling capacity @ 95°F outdoor and 45°F saturated suction temperatures.

** Operating system charge is applicable when matched with air handling units & connected by 25 feet of refrigerant piping.

+ Pipe sizes are for runs up to 50 feet to indoor unit. For refrigerant lines longer than 50 feet, use next larger size.

++ Standard unit has 2 step capacity (0, 50%,100%) by sequence operation of compressors. 4 step cooling stages are available as an option for semi-hermetic compressor with unloaders.

SELECTION PROCEDURE

1. Enter performance tables at specified SST and desired ambient conditions.

2. HEAT REJECTION:

Calculate condenser Total Heat Rejection Capacity as follows:

$$HR = \text{Unit cooling capacity} + (3.41 \times \text{Total Unit Power Input, Watts}).$$

3. HEAD PRESSURE:

To determine head pressure (psig) use the following conversion table:

Condensing Temp. - °F.	100	110	120	130	140	150	160
(R-22) Head Pressure - PSIG.	195.9	226.4	259.9	296.9	337.3	381.6	429.8

4. CORRECTION FACTORS FOR ALTITUDE:

ALTITUDE (FT.)		2000	4000	6000	8000	10000
FACTOR	Condensing Unit Cooling Capacity	.99	.98	.96	.95	.94
	Condensing Unit & Evaporator	.98	.96	.93	.90	.88

PERFORMANCE DATA - 60Hz

MODEL : OCU 240 (SCROLL COMPRESSOR)

SST (°F)		AMBIENTTEMPERATURE-°F					
		75	85	95	105	115	125
30	TC	224	212.8	201	191	180	166
	CT	100	109	118	128	138	148
	kW	17.8	19.53	21.6	23.2	25.8	27.6
35	TC	245.9	233.94	221.4	210.3	198.35	184.2
	CT	102	111	120	130	140	150
	kW	18.2	19.81	22	24	26.1	28
40	TC	267.8	255.08	241.8	229.6	216.7	202.4
	CT	104	113	123	132	142	152
	kW	18.6	20.27	22.6	24.35	26.5	28.4
45	TC	289.7	276.22	262.2	248.9	235.05	220.6
	CT	106	115	125	133	143	153
	kW	19	20.62	23	24.6	26.7	28.8
50	TC	311.6	297.36	282.6	268.2	253.4	238.8
	CT	107.5	117	127	135	145	154
	kW	19.35	21.5	23.5	25	27.1	29
55	TC	333.5	318.5	303	287.5	271.75	257
	CT	109	119	129	138	147	155
	kW	19.58	21.8	24	25.7	27.4	29.1

MODEL : OCU 300 (SCROLL COMPRESSOR)

SST (°F)		AMBIENTTEMPERATURE-°F					
		75	85	95	105	115	125
30	TC	282	268	254	240	226	212
	CT	100	112	122	133	144	154
	kW	23.2	26.1	28.5	31.2	33.9	36.4
35	TC	309.6	294.66	279.68	264.72	249.76	234.8
	CT	103	114	124	136	146	156
	kW	24	26.8	29.2	32.1	34.6	37
40	TC	337.2	321.32	305.36	289.44	273.52	257.6
	CT	106	116	126	138	148	158
	kW	24.8	27.4	29.8	32.8	35.2	37.5
45	TC	364.8	347.98	331.04	314.16	297.28	280.4
	CT	108	118	129	140	150	160
	kW	25.3	28	30.6	33.3	35.7	38.2
50	TC	392.4	374.64	356.72	338.88	321.04	303.2
	CT	110	120	131	142	152	162
	kW	26.1	28.5	31.4	33.7	36.2	38.7
55	TC	420	401.3	382.4	363.6	344.8	326
	CT	112	122	133	143	154	164
	kW	26.8	29.2	32	34.2	37	39.3

MODEL : OCU 360 (SCROLL COMPRESSOR)

SST (°F)		AMBIENTTEMPERATURE-°F					
		75	85	95	105	115	125
30	TC	334	317	300	284.5	267.5	250
	CT	98	108	117	126	136	146
	kW	26.8	30.2	33	36.2	39.5	42.9
35	TC	369.2	350.8	332.4	315.2	296.6	277.8
	CT	101	110	119	128	138	148
	kW	27.5	30.8	33.8	37	40.5	43.9
40	TC	404.4	384.6	364.8	345.9	325.7	305.6
	CT	103	112	121	130	140	150
	kW	28.7	31.5	34.7	37.7	41.2	44.5
45	TC	439.6	418.4	397.2	376.6	354.8	333.4
	CT	105	113	123	133	142	152
	kW	29.3	32	35.3	38.7	41.8	45.2
50	TC	474.8	452.2	429.6	407.3	383.9	361.2
	CT	106	115	125	134	144	153
	kW	29.7	32.7	36	39.2	42.6	45.7
55	TC	510	486	462	438	413	389
	CT	107	116	126	135	145	154
	kW	30.3	33.3	36.7	39.7	43.2	46.3

MODEL : OCU 240 (SEMI HERMETIC COMPRESSOR)

SST (°F)		AMBIENTTEMPERATURE-°F					
		75	85	95	105	115	125
30	TC	207.6	195	182.5	170	157.5	144.7
	CT	98	106	115	124	134	143
	kW	18	19	20.5	21.7	23.2	24.5
35	TC	231.28	217.5	203.8	190.1	176.4	162.46
	CT	100	108	117	126.5	136	144.5
	kW	18.2	19.5	21.2	22.7	24.3	25.7
40	TC	254.96	240	225.1	210.2	195.3	180.22
	CT	102.5	111	120	129.5	139	147.5
	kW	18.7	20.5	22.2	24	25.7	27.5
45	TC	278.64	262.5	246.4	230.3	214.2	197.98
	CT	104	112.5	122	131	140.5	150
	kW	19	21	23.1	25.1	27.2	29.1
50	TC	302.32	285	267.7	250.4	233.1	215.74
	CT	105	114	123.5	133	142	151
	kW	19.5	21.8	24.1	26.5	28.5	30.6
55	TC	326	307.5	289	270.5	252	233.5
	CT	107.5	116	125	134.5	143	153
	kW	20.2	22.8	25.1	27.6	30.2	32.7

LEGEND:

SST - Saturated Suction Temperature; TC - Total Capacity (1000 Btu/h) Gross; CT - Condensing Temperature (°F); kW - Total unit power input

PERFORMANCE DATA - 60Hz

MODEL : OCU 300 (SEMI HERMETIC COMPRESSOR)

SST (°F)		AMBIENTTEMPERATURE - °F					
		75	85	95	105	115	125
30	TC	282.2	265.6	250.2	233.4	216.6	199.8
	CT	104	112	121	130	140	150
	kW	27.3	29	30.3	32	34.4	36.5
35	TC	313.12	294.74	277.48	259.1	240.72	222.34
	CT	107	115	124	133	142	152.5
	kW	28	29.9	31.4	33.6	36.2	38.3
40	TC	343.84	323.88	304.76	284.8	264.84	244.88
	CT	109	118	126.5	136	145	155
	kW	28.7	30.8	33.2	35.8	37.1	40.5
45	TC	374.56	353.02	332.04	310.5	288.96	267.42
	CT	111	120	130	139	148	157
	kW	29.9	31.7	35.2	37.4	40.4	42.8
50	TC	405.28	382.16	359.32	336.2	313.08	289.96
	CT	113	122.5	132	141	150	158.5
	kW	30.8	33.6	36.8	39.5	42.5	45.5
55	TC	436	411.3	386.6	361.9	337.2	312.5
	CT	115	124	133	142.5	151.5	160
	kW	32	35.2	38.6	41.6	45.2	48.2

MODEL : OCU 360 (SEMI HERMETIC COMPRESSOR)

SST (°F)		AMBIENTTEMPERATURE - °F					
		75	85	95	105	115	125
30	TC	349.89	328.65	310	291.18	272.6	251
	CT	100	109.5	119	128	137	146
	kW	31.9	34.2	36.6	38.7	40.9	43.3
35	TC	388.47	365.23	344.29	322.86	302.1	278.33
	CT	101.5	111	120.5	130	139.5	148.5
	kW	32.6	35.2	37.9	40.2	43	45.2
40	TC	427.06	401.81	378.58	354.55	331.6	305.66
	CT	104	114	123	133	142	151
	kW	33.2	36.4	39	42.5	45	48
45	TC	465.64	438.39	412.87	386.23	361.1	332.99
	CT	106	116	125	134	143.5	152.5
	kW	34.2	37.6	40.8	44.2	47.2	50.3
50	TC	504.23	474.97	447.16	417.92	390.6	360.32
	CT	109	118	127	136	145	154.5
	kW	35.5	38.8	42.4	45.8	49.2	52.6
55	TC	542.81	511.55	481.45	449.6	420.1	387.65
	CT	110	119.5	128.5	137.5	146	155.5
	kW	36.7	40.4	44.2	47.6	51.5	54.9

MODEL : OCU 420 (SEMI HERMETIC COMPRESSOR)

SST (°F)		AMBIENTTEMPERATURE - °F					
		75	85	95	105	115	125
30	TC	380.95	358	340	317.95	297.79	277
	CT	101	108	120	124	132	145
	kW	33.7	39.3	44.6	46	49	54.2
35	TC	423.56	397.49	377.8	353.86	331.43	307.87
	CT	105	113	123	132	142	152
	kW	38.2	42	45.7	49	53.08	56.8
40	TC	466.17	436.98	415.6	389.77	365.07	338.74
	CT	107	115	125	135	144	155
	kW	38.7	42.5	46.2	50.1	53.3	58.3
45	TC	508.78	476.47	453.4	425.68	398.71	369.61
	CT	110	118	128	138	147	157
	kW	41	43.5	47.3	51.3	55.1	59.2
50	TC	551.39	515.96	491.2	461.59	432.35	400.48
	CT	112	121	131	140	149	160
	kW	41.7	44.9	48.6	51.9	56	60
55	TC	594	555.45	529	497.5	465.99	431.35
	CT	114	124	133	141	150	162
	kW	42.2	46	49.2	52.2	56.2	60.9

MODEL : OCU 480 (SEMI HERMETIC COMPRESSOR)

SST (°F)		AMBIENTTEMPERATURE - °F					
		75	85	95	105	115	125
30	TC	450.75	426.75	404	385.5	353.25	329
	CT	101	109	118	127	137	146
	kW	43.6	46.7	51	54.7	59.6	64
35	TC	503.25	475.8	450.1	427.2	394.5	366.85
	CT	102	112	121	130	139	148
	kW	44.3	48.3	52.1	56.8	60.6	65
40	TC	555.75	524.85	496.2	468.9	435.75	404.7
	CT	105	114	123	133	142	151
	kW	45.2	49.2	52.9	58.3	62.3	66.6
45	TC	608.25	573.9	542.3	510.6	477	442.55
	CT	107	116	126	135	144	153
	kW	46	50.1	54.4	59	63	67.3
50	TC	660.75	622.95	588.4	552.3	518.25	480.4
	CT	109	118	128	137	145	155
	kW	46.7	51	55	59.6	63.6	68.5
55	TC	713.25	672	634.5	594	559.5	518.25
	CT	110	120	130	139	146	157
	kW	47.6	51.6	56.8	60.6	64	69.3

MODEL : OCU 600 (SEMI HERMETIC COMPRESSOR)

SST (°F)		AMBIENTTEMPERATURE - °F					
		75	85	95	105	115	125
30	TC	516.65	484.35	458	432.5	402.75	373
	CT	101	110	119	128	139	147
	kW	50.5	55.9	60.9	66.7	73.4	78.2
35	TC	571.22	536.88	507.3	478.4	446.1	413.8
	CT	103	112	122	131	140	150
	kW	51.3	57.1	63.4	68.8	73.8	80
40	TC	625.79	589.41	556.6	524.3	489.45	454.6
	CT	106	115	124	134	143	151
	kW	54	58.8	64.6	69.4	75.5	80.5
45	TC	680.36	641.94	605.9	570.2	532.8	495.4
	CT	108	117	126	136	145	154
	kW	55	60	65.9	71.3	76.7	82.1
50	TC	734.93	694.47	655.2	616.1	576.15	536.2
	CT	110	119	129	137	146	155
	kW	55.9	60.9	67.1	71.7	77.5	83
55	TC	789.5	747	704.5	662	619.5	577
	CT	112	121	131	139	148	157
	kW	57.1	62.1	68.8	73.4	78.8	84.2

MODEL : OCU 720 (SEMI HERMETIC COMPRESSOR)

SST (°F)		AMBIENTTEMPERATURE - °F					
		75	85	95	105	115	125
30	TC	666.25	628.8	589	554.97	521.8	481
	CT	103	113	122	131	140	150
	kW	60	64.6	68.6	73	76.9	81.5
35	TC	735.4	693.85	650.46	612.75	575.3	532.17
	CT	107	116	125	134	143.5	152
	kW	63.4	67.8	72.4	76.9	81.8	85.4
40	TC	804.55	758.91	711.92	670.53	628.8	583.35
	CT	110	119	128	137	146	156
	kW	66.4	71	76	81.1	86.2	91.8
45	TC	873.7	823.96	773.38	728.31	682.3	634.52
	CT	112	121	130	139.5	149	158
	kW	69.1	74.5	79.8	85.3	90.8	96.6
50	TC	942.85	889.62	834.84	786.09	735.8	685.7
	CT	114	124	132	141.5	150.5	160
	kW	72	78.4	83.5	89.4	95.2	101.8
55	TC	1012	954.07	896.3	843.87	789.3	736.87
	CT	116	126	134	143	152	162
	kW	75	81.8	87.1	93.2	99.8	107

LEGEND:

SST - Saturated Suction Temperature; TC - Total Capacity (1000 Btu/h) Gross; CT - Condensing Temperature (°F); kW - Total unit power input

PERFORMANCE DATA - 50Hz

MODEL : OCU 840 (SEMI HERMETIC COMP.) - 60Hz

SST (°F)	AMBIENTTEMPERATURE-°F						
	75	85	95	105	115	125	
30	TC	770	726.1	682	641.68	597.58	556
	CT	100	110	120.5	129.5	139.5	148
	kW	69.5	74.7	81	85.7	91.6	96.6
35	TC	849.58	800.94	752.56	707.83	660.07	613.96
	CT	103.5	113	122	131.5	141.5	150.5
	kW	72.3	78.3	84.2	90.4	96.4	102.4
40	TC	928.96	875.79	823.12	773.98	722.57	671.92
	CT	106.5	116	125.5	134	144	153
	kW	75.6	82.4	89.1	95	102	108.2
45	TC	1008.3	950.63	893.68	840.13	785.06	729.88
	CT	110	118	128	136	146	155.5
	kW	79.7	86	93.3	100.2	107.6	115
50	TC	1087.7	1025.4	964.24	906.28	847.56	787.84
	CT	111.5	120.5	130	139	148	158
	kW	82.9	90.6	98.5	105.9	113.9	122
55	TC	1167.1	1100.3	1034.8	972.43	910.05	845.8
	CT	113	122	131.5	140.5	149.5	159.5
	kW	86.3	94	103.2	111.5	119.2	128.3

MODEL : OCU 240 (SCROLL COMPRESSOR)

SST (°F)	AMBIENTTEMPERATURE-°F						
	75	85	95	105	115	125	
30	TC	236.2	221	206	194.4	179.2	167.8
	CT	100	110	120	130	140	150
	kW	18.4	20.66	23.2	25.6	27.9	30
35	TC	260.14	243.8	228.76	216.06	200.48	189.08
	CT	104	112.5	122.7	132.7	141.6	151.42
	kW	19.41	21.3	23.9	26.3	28.4	30.8
40	TC	284.08	266.6	251.52	237.72	221.76	210.36
	CT	107	116.7	125.8	134.2	145	153.4
	kW	20.25	22.5	24.6	26.8	29.3	31.41
45	TC	308.02	289.4	274.28	259.38	243.04	231.64
	CT	110	118.3	128.3	136.5	146.25	155.2
	kW	21	23	25.3	27.2	29.7	32
50	TC	331.96	312.2	297.04	281.04	264.32	252.92
	CT	111.5	120.3	130	139.5	148.1	157.5
	kW	21.33	23.4	25.9	28	30.3	32.6
55	TC	355.9	335	319.8	302.7	285.6	274.2
	CT	112.8	121.4	131.5	140.5	150	160
	kW	21.86	24	26.4	28.4	30.7	33

MODEL : OCU 300 (SCROLL COMPRESSOR)

SST (°F)	AMBIENTTEMPERATURE-°F						
	75	85	95	105	115	125	
30	TC	271.75	257.4	241.2	229.11	216.4	200.1
	CT	102	112	120	130	141	145
	kW	21.18	24.8	27	29.8	33	34.2
35	TC	298.4	282.9	265.8	252.48	237.84	221.73
	CT	104	114	124	134	142	150
	kW	22.4	25.4	28.37	31.3	33.4	35.6
40	TC	325.05	308.4	290.4	275.85	259.28	243.36
	CT	106	116	126.5	136.6	144	154
	kW	23.16	26.18	29.1	32.12	34	37.3
45	TC	351.7	333.9	315	299.22	280.72	264.99
	CT	108	120	128.5	138.3	147	156
	kW	23.9	27.3	29.8	32.54	34.8	38.8
50	TC	378.35	359.4	339.6	322.59	302.16	286.62
	CT	110	121.4	130	140	151	158
	kW	24.4	27.9	30.25	33.16	36.3	40.2
55	TC	405	384.9	364.2	345.96	323.6	308.25
	CT	112	122.5	132	141	155	160
	kW	25.14	28.18	31	33.5	37.5	41.7

MODEL : OCU 360 (SCROLL COMPRESSOR)

SST (°F)	AMBIENTTEMPERATURE-°F						
	75	85	95	105	115	125	
30	TC	290.2	276.5	260.1	245	230.2	215
	CT	98	108	117	126	136	145
	kW	26.8	29	31.2	33.3	35.64	37.8
35	TC	321.93	306.98	288.94	272.88	256.12	240
	CT	100	110	119	128	138	147
	kW	27.25	29.5	31.8	34	36.2	38.47
40	TC	353.66	337.46	317.79	300.77	282.05	265
	CT	102	111.7	121	130	140	149
	kW	27.76	29.9	32.2	34.4	36.8	38.9
45	TC	385.39	367.94	346.63	328.65	307.97	290
	CT	104	113.4	122.5	131.6	141	151
	kW	28.2	30.53	32.8	35	37.2	39.2
50	TC	417.12	398.42	375.48	356.54	333.9	315
	CT	105	114.6	124	133.5	142.5	152.5
	kW	28.4	30.9	33.2	35.4	37.4	39.5
55	TC	448.85	428.9	404.32	384.42	359.82	340
	CT	106.6	116.4	125.7	135	144	154
	kW	28.8	31.2	33.6	35.8	37.9	40.5

MODEL : OCU 240 (SEMI HERMETIC COMPRESSOR)

SST (°F)	AMBIENTTEMPERATURE-°F						
	75	85	95	105	115	125	
30	TC	210.8	196.4	185.8	173	160.4	146.5
	CT	100	109	118.5	128	136	145
	kW	17	18.7	20	21.2	22.1	23.5
35	TC	232.95	217.51	205.28	191.34	177.71	163.02
	CT	102	111	120	130	139	147.5
	kW	17.7	19.4	20.8	22.3	23.8	25
40	TC	255.11	238.63	224.77	209.69	195.02	179.54
	CT	105	114	124	132	141	150.5
	kW	18.1	20.2	21.8	23.6	25.1	27
45	TC	277.26	259.74	244.25	228.03	212.33	196.06
	CT	107	116	125	134	143	152
	kW	18.8	21	22.8	24.6	26.8	27.6
50	TC	299.42	280.86	263.74	246.38	229.64	212.58
	CT	109.5	118.5	127	136	145	155
	kW	19.4	21.8	24.2	26	28.4	30.8
55	TC	321.57	301.97	283.22	264.72	246.95	229.1
	CT	110.5	120	129	138.5	147	156
	kW	20.4	22.8	25.2	27.8	30.5	33.1

MODEL : OCU 300 (SEMI HERMETIC COMPRESSOR)

SST (°F)	AMBIENTTEMPERATURE-°F						
	75	85	95	105	115	125	
30	TC	242.75	230.45	216	201.75	187.4	173
	CT	100	110	120	128	138	148
	kW	21	23	24.6	26	27.2	29.6
35	TC	268.58	254.8	238.98	223.64	207.98	192.28
	CT	102	113	122	132	142	150
	kW	21.5	23.8	25.5	27.3	29.2	30.7
40	TC	294.41	279.16	261.96	245.54	228.56	211.56
	CT	105	116	125	134	144	154
	kW	22.2	24.7	26.7	29.4	30.8	33
45	TC	320.24	303.51	284.94	267.43	249.14	230.84
	CT	110	118	127	137	146	156
	kW	23.5	25.8	27.7	30.5	32.5	35
50	TC	346.07	327.87	307.92	289.33	269.72	250.12
	CT	111	121	130	139	148	158
	kW	24.1	27.2	29.5	31.7	34.4	37
55	TC	371.9	352.22	330.9	311.22	290.3	269.4
	CT	112	123	132	140	150	160
	kW	25.3	28.3	31.2	33.4	36.5	39.5

LEGEND:

SST - Saturated Suction Temperature; TC - Total Capacity (1000 Btuh) Gross; CT - Condensing Temperature (°F); kW - Total unit power input

PERFORMANCE DATA - 50Hz

MODEL : OCU 360 (SEMI HERMETIC COMPRESSOR)

SST (°F)		AMBIENT TEMPERATURE -°F					
		75	85	95	105	115	125
30	TC	328.34	311.6	290	273.8	258.14	241.4
	CT	100	110	120	128.5	138	147
	kW	27	29.3	31.7	33.5	35.8	37.5
35	TC	363.87	344.54	322	303.5	285.25	266.35
	CT	104	112.5	122	131.5	140	149
	kW	29.3	30.62	33	35.8	37.4	39.5
40	TC	399.4	377.48	354	333.2	312.36	291.3
	CT	106	115	125	133.5	142.8	151.5
	kW	29.9	32.25	34.7	36.75	39.2	41.2
45	TC	434.93	410.42	386	362.9	339.47	316.25
	CT	109	117.5	127	135.5	145	154
	kW	31.2	33.7	36.4	38.5	41.4	42.5
50	TC	470.46	443.36	418	392.6	366.58	341.2
	CT	111	120	128.5	137.5	146.2	155.5
	kW	32.8	35.2	38	40.2	43.2	45.2
55	TC	506	476.3	450	422.3	393.69	366.15
	CT	112.5	122	130	140	148	157
	kW	33.7	37.2	39.6	42.7	45.1	47.2

MODEL : OCU 420 (SEMI HERMETIC COMPRESSOR)

SST (°F)		AMBIENT TEMPERATURE -°F					
		75	85	95	105	115	125
30	TC	374.2	352	332	324.25	292	271
	CT	104.5	114	123	132	141	150.5
	kW	32.1	34.8	37.1	39.4	41.9	44.4
35	TC	412.36	388.12	366	353.8	321.76	298.96
	CT	107.5	117	126	135.5	144.5	153
	kW	33.8	36.6	39.3	41.8	44.3	46.8
40	TC	450.52	424.24	400	383.35	351.52	326.92
	CT	110.5	120	129	138	147	156
	kW	35.8	38.6	41.2	44.2	46.8	49.7
45	TC	488.68	460.36	434	412.9	381.28	354.88
	CT	113	122.5	131	140.5	150	159
	kW	37.3	40.5	43.4	46.4	49.6	52.6
50	TC	526.84	496.48	468	442.45	411.04	382.84
	CT	116	125	134	142.5	152	161
	kW	39.4	42.5	45.7	48.7	52	55.4
55	TC	565	532.6	502	472	440.8	410.8
	CT	118	127	136.5	144.5	154	163
	kW	41.4	44.2	47.8	51	54.5	58.2

MODEL : OCU 480 (SEMI HERMETIC COMPRESSOR)

SST (°F)		AMBIENT TEMPERATURE -°F					
		75	85	95	105	115	125
30	TC	436.4	408.68	386	365.84	342.8	316
	CT	100	110	120	129	138.5	145
	kW	37.4	40.8	44.1	46.6	49.6	52
35	TC	482.48	453.1	427.76	404.14	378.51	349.44
	CT	102.8	112.2	122	131.4	141	149
	kW	39	42.5	46.1	49.6	52.5	55.2
40	TC	528.56	497.53	469.52	442.45	414.22	382.88
	CT	107.2	116.6	125	134.4	142.5	152.5
	kW	41.7	46.3	48.6	52.5	54.7	58.8
45	TC	574.64	541.95	511.28	480.75	449.93	416.32
	CT	108.8	118.3	127	136.7	144	154
	kW	43.1	47.1	51.2	55.6	58	61.6
50	TC	620.72	586.38	553.04	519.06	485.64	449.76
	CT	111	120	129	138	145	155.2
	kW	45.3	49.4	53.7	57.5	60.8	64.8
55	TC	666.8	630.8	594.8	557.36	521.35	483.2
	CT	112	121.7	129.5	140	147	156
	kW	46.7	51.8	55.4	60.3	64	67.6

MODEL : OCU 600 (SEMI HERMETIC COMPRESSOR)

SST (°F)		AMBIENT TEMPERATURE -°F					
		75	85	95	105	115	125
30	TC	490	463.6	436	410	383.6	356
	CT	102.5	110	120	130	138.5	147.5
	kW	41.7	44.2	47.8	50.8	53.7	56.5
35	TC	541.2	512.08	482	453.2	424.08	394
	CT	105	113.7	122.3	132.3	141.4	149
	kW	42.6	46.7	50	53.4	56.5	59
40	TC	592.4	560.65	528	496.4	464.56	432
	CT	108.3	116.7	126.7	134.7	143.6	151.6
	kW	45.8	49.3	53	56.4	59.6	62.3
45	TC	643.6	609.04	574	539.6	505.04	470
	CT	110	119.3	130	136.8	146.1	153
	kW	47.6	51.3	56.1	59	62.5	65.1
50	TC	694.8	657.52	620	582.8	545.52	508
	CT	108.2	120.2	130	138.2	147.3	155
	kW	48.8	53.4	57.9	61.4	65.3	68.5
55	TC	746	706	666	626	586	546
	CT	106.7	123	131.5	140	148.6	157
	kW	48.2	56.3	60.1	64.2	68.2	72.3

MODEL : OCU 720 (SEMI HERMETIC COMPRESSOR)

SST (°F)		AMBIENT TEMPERATURE -°F					
		75	85	95	105	115	125
30	TC	646.8	612.48	574	542.8	506.4	470
	CT	104.1	112.8	121.2	130	140	150
	kW	57.4	61.6	65.8	69.5	74	78.7
35	TC	713.36	675.09	635.36	597.5	557.57	515.76
	CT	108	115.8	125	133.7	142.5	152.5
	kW	59.2	65.2	69.5	73.6	78.1	84.1
40	TC	779.92	737.7	696.72	652.21	608.74	561.52
	CT	110	119.2	128	136.6	147	155.5
	kW	63.4	68.7	73.6	78.4	84.4	89.2
45	TC	846.48	800.31	758.08	706.91	659.91	607.28
	CT	112	121.8	130	139.7	149	157.8
	kW	66.1	72.4	77.2	80.3	89.2	94.8
50	TC	913.04	862.92	819.44	761.62	711.08	653.04
	CT	114	124	132	142.4	150	159.5
	kW	68.8	75.7	81.5	87.4	93.2	99.5
55	TC	979.6	925.53	880.8	816.32	762.25	698.8
	CT	115.4	125	134.1	145.6	151.6	162.2
	kW	71.4	78.4	85.6	93.6	97.6	106

MODEL : OCU 840 (SEMI HERMETIC COMPRESSOR)

SST (°F)		AMBIENT TEMPERATURE -°F					
		75	85	95	105	115	125
30	TC	759.2	719.6	676	639.2	596	554
	CT	104.6	113	122.2	132	141.5	152
	kW	72.2	75.7	81.6	86.3	90.6	96.9
35	TC	836.96	793.28	745.2	703.76	657.2	611.12
	CT	107.5	117.5	126	135.6	145	155.7
	kW	75.4	80.5	87	90.5	96.6	102.1
40	TC	914.72	866.96	814.4	768.32	718.4	668.24
	CT	109.1	120	128.8	138.6	147.9	157.5
	kW	80.3	84.8	89.7	96.3	101.2	108
45	TC	992.48	940.64	883.6	832.88	779.6	725.36
	CT	114	123	131.5	140	150	159.4
	kW	83.6	89.2	94.8	99.9	107.2	112.7
50	TC	1070.2	1014.3	952.8	897.44	840.8	782.48
	CT	115.88	124.31	133.81	142.33	151.81	160.62
	kW	86.7	91.7	98.7	105	115	117.4
55	TC	1148	1088	1022	962	902	839.6
	CT	117.6	126.6	135.1	144.3	152.9	161.6
	kW	90.5	96.7	102.6	109.8	115.6	121.7

LEGEND:

SST - Saturated Suction Temperature; TC - Total Capacity (1000 Btu/h) Gross; CT - Condensing Temperature (°F); kW - Total unit power input

ELECTRICAL DATA

MODEL No.: OCU240 (Scroll compressor)

POWER SUPPLY (V-Ph-Hz)	VOLTAGE RANGE		COMPRESSOR (each)		FAN MOTOR FLA (each)	MCA	MFS
	MIN.	MAX.	RLA	LRA			
208/230-3-60	187	253	35.7	237	5	90.3	125
380-3-60 (4 WIRE)	342	418	21.4	160	2.7	53.6	70
460-3-60	414	506	20.7	130	2.5	51.6	70
380/415-3-50 (4 WIRE)	342	457	25	175	2.9	62.1	80

MODEL No.: OCU300 (Scroll compressor)

POWER SUPPLY (V-Ph-Hz)	VOLTAGE RANGE		COMPRESSOR (each)		FAN MOTOR FLA (each)	MCA	MFS
	MIN.	MAX.	RLA	LRA			
208/230-3-60	187	253	53.5	380	5	130.4	175
380-3-60 (4 WIRE)	342	418	30	235	2.7	72.9	100
460-3-60	414	506	25	175	2.5	61.3	80
380/415-3-50 (4 WIRE)	342	457	25	175	2.9	62.1	80

MODEL No.: OCU360 (Scroll compressor)

POWER SUPPLY (V-Ph-Hz)	VOLTAGE RANGE		COMPRESSOR (each)		FAN MOTOR FLA (each)	MCA	MFS
	MIN.	MAX.	RLA	LRA			
208/230-3-60	187	253	53.5	380	5	135.4	175
380-3-60 (4 WIRE)	342	418	33.5	235	2.7	83.5	110
460-3-60	414	506	25	175	2.5	63.8	80
380/415-3-50 (4 WIRE)	342	457	25	175	2.9	65	90

MODEL No.: OCU240 (Semi-hermetic compressor)

POWER SUPPLY (V-Ph-Hz)	VOLTAGE RANGE		COMPRESSOR (each)		FAN MOTOR FLA (each)	MCA	MFS
	MIN.	MAX.	RLA	LRA			
208/230-3-60	187	253	42	198	5	104.5	125
380-3-60 (4 WIRE)	342	418	25.8	122	2.7	63.5	80
460-3-60	414	506	21	99	2.5	52.3	70
380/415-3-50 (4 WIRE)	342	457	24	113	2.9	59.8	80

MODEL No.: OCU300 (Semi-hermetic compressor)

POWER SUPPLY (V-Ph-Hz)	VOLTAGE RANGE		COMPRESSOR (each)		FAN MOTOR FLA (each)	MCA	MFS
	MIN.	MAX.	RLA	LRA			
208/230-3-60	187	253	62	264	5	149.5	200
380-3-60 (4 WIRE)	342	418	38	162	2.7	90.9	125
460-3-60	414	506	31	132	2.5	74.8	100
380/415-3-50 (4 WIRE)	342	457	31	132	2.9	75.6	100

MODEL No.: OCU360 (Semi-hermetic compressor)

POWER SUPPLY (V-Ph-Hz)	VOLTAGE RANGE		COMPRESSOR (each)		FAN MOTOR FLA (each)	MCA	MFS
	MIN.	MAX.	RLA	LRA			
208/230-3-60	187	253	74	316	5	181.5	250
380-3-60 (4 WIRE)	342	418	45.5	194	2.7	110.5	150
460-3-60	414	506	37	158	2.5	90.8	125
380/415-3-50 (4 WIRE)	342	457	39	158	2.9	96.5	125

MODEL No.: OCU420 (Semi-hermetic compressor)

POWER SUPPLY (V-Ph-Hz)	VOLTAGE RANGE		COMPRESSOR (each)		FAN MOTOR FLA (each)	MCA	MFS
	MIN.	MAX.	RLA	LRA			
208/230-3-60	187	253	78	316	5	190.5	250
380-3-60 (4 WIRE)	342	418	48	194	2.7	116.1	150
460-3-60	414	506	39	158	2.5	95.3	125
380/415-3-50 (4 WIRE)	342	457	45	193	2.9	110	150

MODEL No.: OCU480 (Semi-hermetic compressor)

POWER SUPPLY (V-Ph-Hz)	VOLTAGE RANGE		COMPRESSOR (each)		FAN MOTOR FLA (each)	MCA	MFS
	MIN.	MAX.	RLA	LRA			
208/230-3-60	187	253	90	386	5	222.5	300
380-3-60 (4 WIRE)	342	418	55.5	237	2.7	135.7	175
460-3-60	414	506	45	193	2.5	111.3	150
380/415-3-50 (4 WIRE)	342	457	53	220	2.9	130.9	175

LEGEND:

- FLA - Full Load Amps
 LRA - Locked Rotor Amps
 RLA - Rated Load Amps
 MFS - Maximum Fuse Size
 MCA - Minimum Circuit Amps

ELECTRICAL DATA

MODEL No.: OCU600 (Semi-hermetic compressor)

POWER SUPPLY (V-Ph-Hz)	VOLTAGE RANGE		COMPRESSOR (each)		FAN MOTOR FLA (each)	MCA	MFS
	MIN.	MAX.	RLA	LRA			
208/230-3-60	187	253	106	440	5	258.5	350
380-3-60 (4 WIRE)	342	418	65	271	2.7	157.1	200
460-3-60	414	506	53	220	2.5	129.3	175
380/415-3-50 (4 WIRE)	342	457	60	262	2.9	146.6	200

MODEL No.: OCU720 (Semi-hermetic compressor)

POWER SUPPLY (V-Ph-Hz)	VOLTAGE RANGE		COMPRESSOR (each)		FAN MOTOR FLA (each)	MCA	MFS
	MIN.	MAX.	RLA	LRA			
208/230-3-60	187	253	122	524	5	299.5	400
380-3-60 (4 WIRE)	342	418	75	322	2.7	182.3	250
460-3-60	414	506	61	262	2.5	149.8	200
380/415-3-50 (4 WIRE)	342	457	78	323	2.9	190	250

MODEL No.: OCU840 (Semi-hermetic compressor)

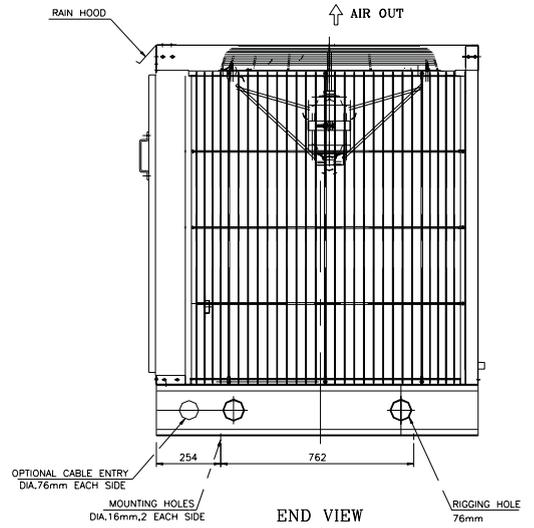
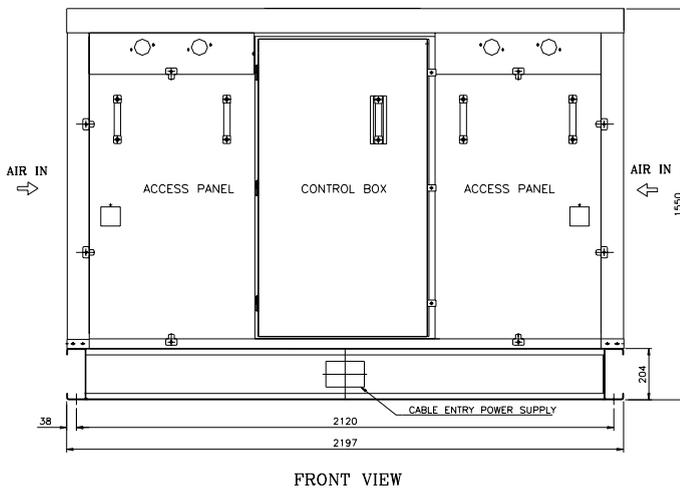
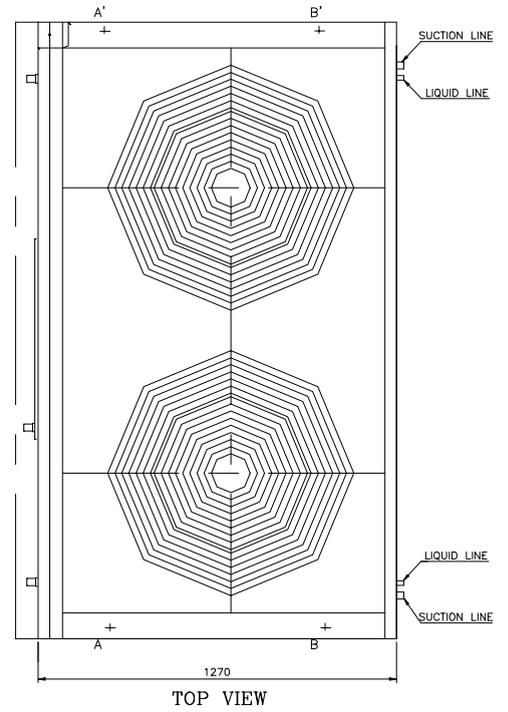
POWER SUPPLY (V-Ph-Hz)	VOLTAGE RANGE		COMPRESSOR (each)		FAN MOTOR FLA (each)	MCA	MFS
	MIN.	MAX.	RLA	LRA			
208/230-3-60	187	253	122.7	524	5	306.1	400
380-3-60 (4 WIRE)	342	418	75.5	322	2.7	186.1	250
460-3-60	414	506	78	323	2.5	190.5	250
380/415-3-50 (4 WIRE)	342	457	97	425	2.9	235.7	300

LEGEND:

- FLA - Full Load Amps
 LRA - Locked Rotor Amps
 RLA - Rated Load Amps
 MFS - Maximum Fuse Size
 MCA - Minimum Circuit Amps

DIMENSIONS

OCU 240 - OCU 300

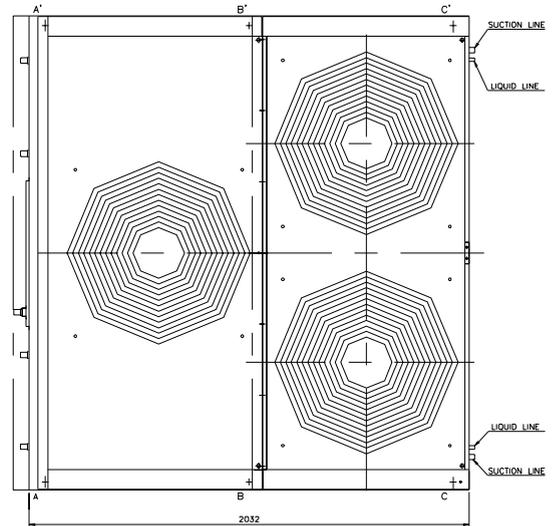


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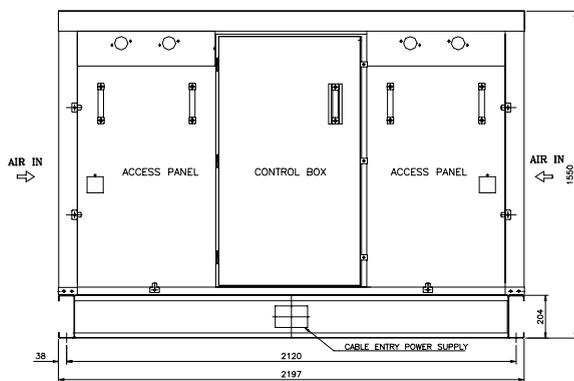
1. All dimension are in mm, unless otherwise specified.
2. Allow 48" (1219 mm) clearance on all sides for proper airflow.

DIMENSIONS

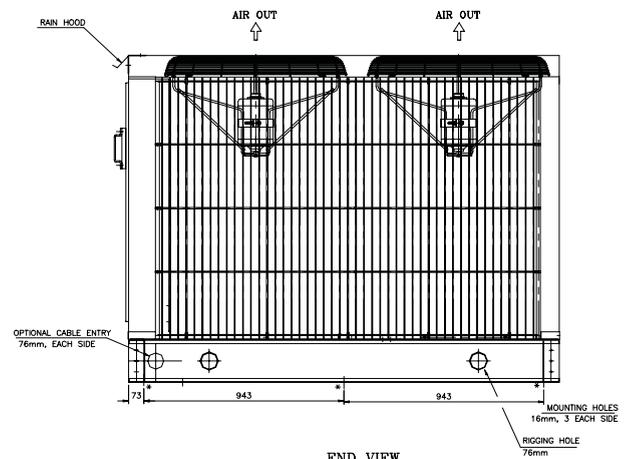
OCU 360 - OCU 420



TOP VIEW



FRONT VIEW



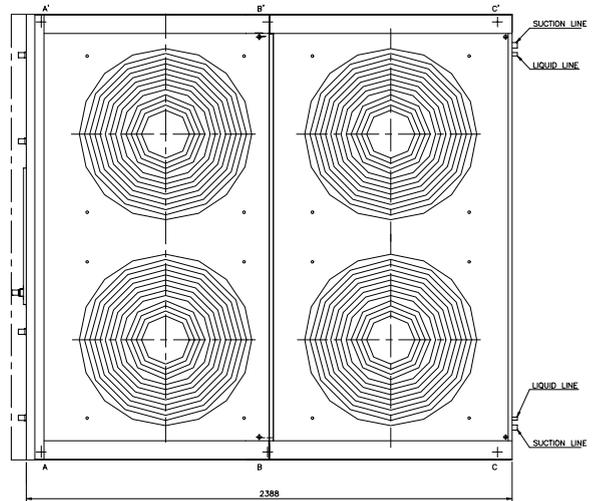
END VIEW

NOTES:

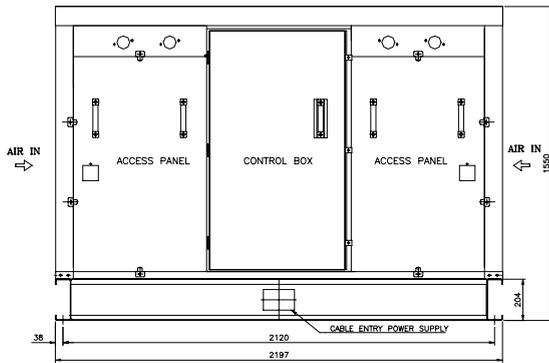
1. All dimension are in mm, unless otherwise specified.
2. Allow 48" (1219 mm) clearance on all sides for proper airflow.

DIMENSIONS

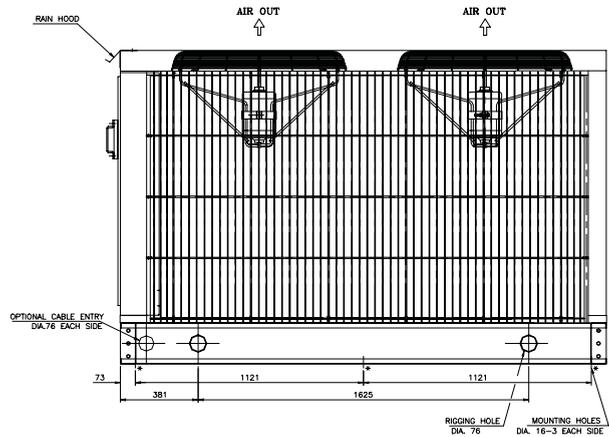
OCU 480 - OCU 600



TOP VIEW



FRONT VIEW



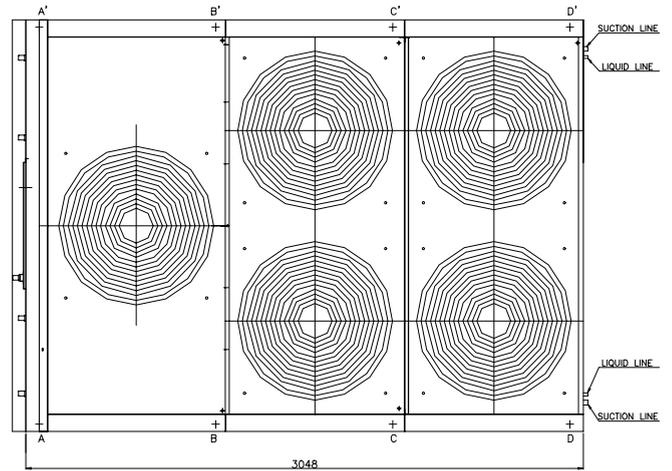
END VIEW

NOTES:

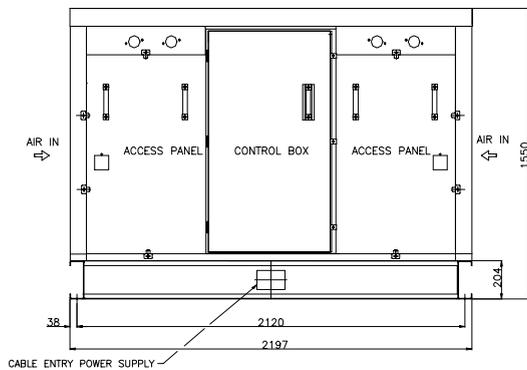
1. All dimension are in mm, unless otherwise specified.
2. Allow 48" (1219 mm) clearance on all sides for proper airflow.

DIMENSIONS

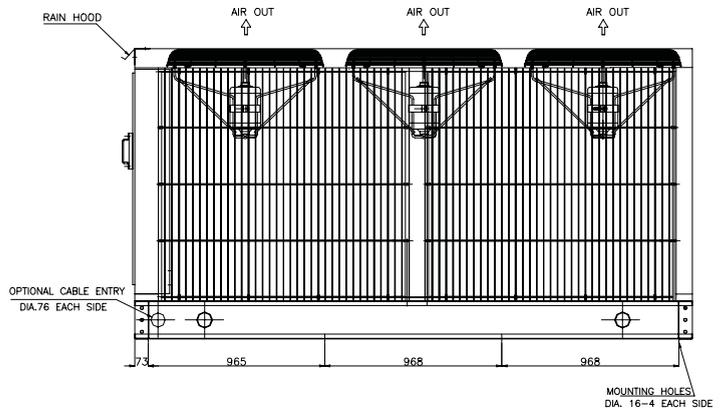
OCU 720



TOP VIEW



FRONT VIEW



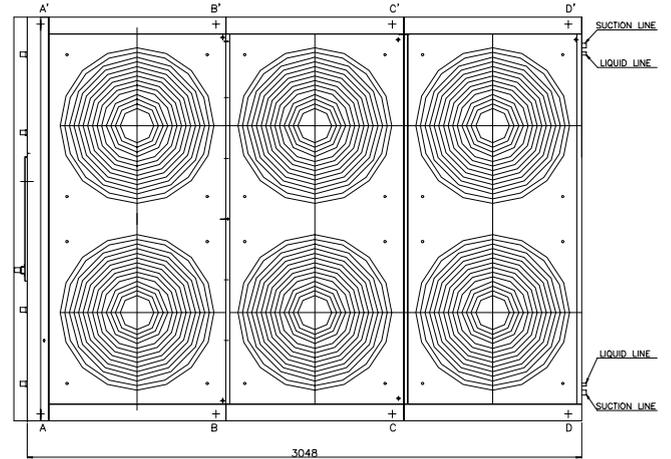
END VIEW

NOTES:

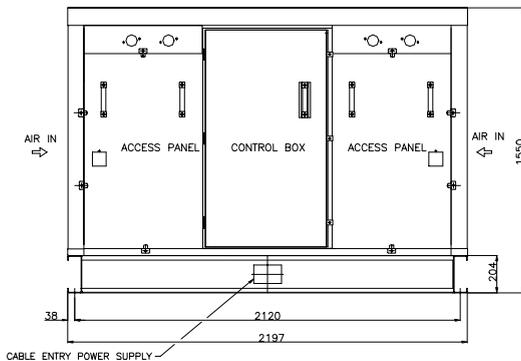
1. All dimension are in mm, unless otherwise specified.
2. Allow 48" (1219 mm) clearance on all sides for proper airflow.

DIMENSIONS

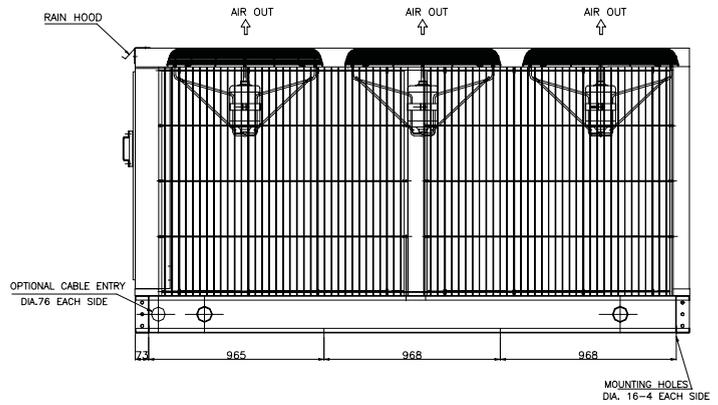
OCU 840



TOP VIEW



FRONT VIEW



END VIEW

NOTES:

1. All dimension are in mm, unless otherwise specified.
2. Allow 48" (1219 mm) clearance on all sides for proper airflow.

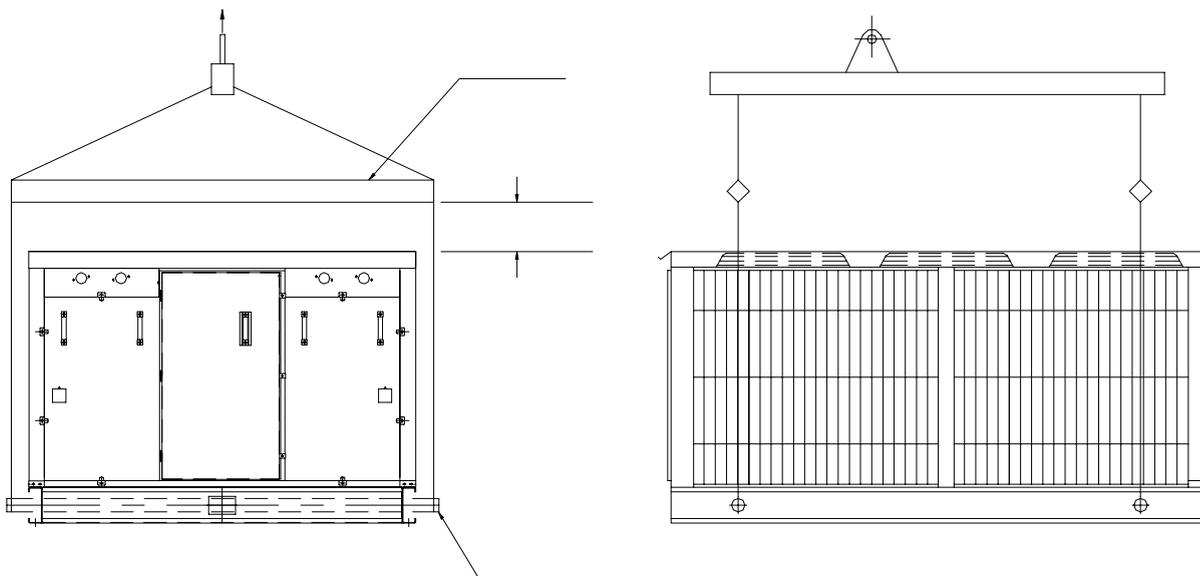
RIGGING INSTRUCTIONS

ATTENTION TO RIGGERS

Hook rigging sling thru holes in base rail, as shown below.
 Holes in base rail are centered around the unit center of gravity.
 Use spreader bar when rigging, to prevent the slings from damaging the unit.

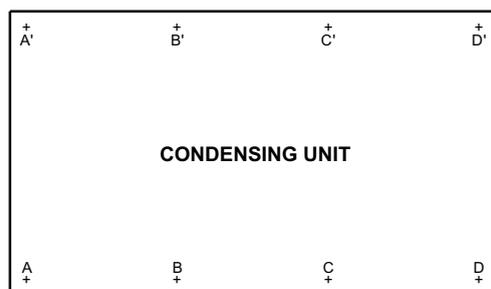
CAUTION

All panels should be in place when rigging.
 Care must be taken to avoid damage to the coils during handling.



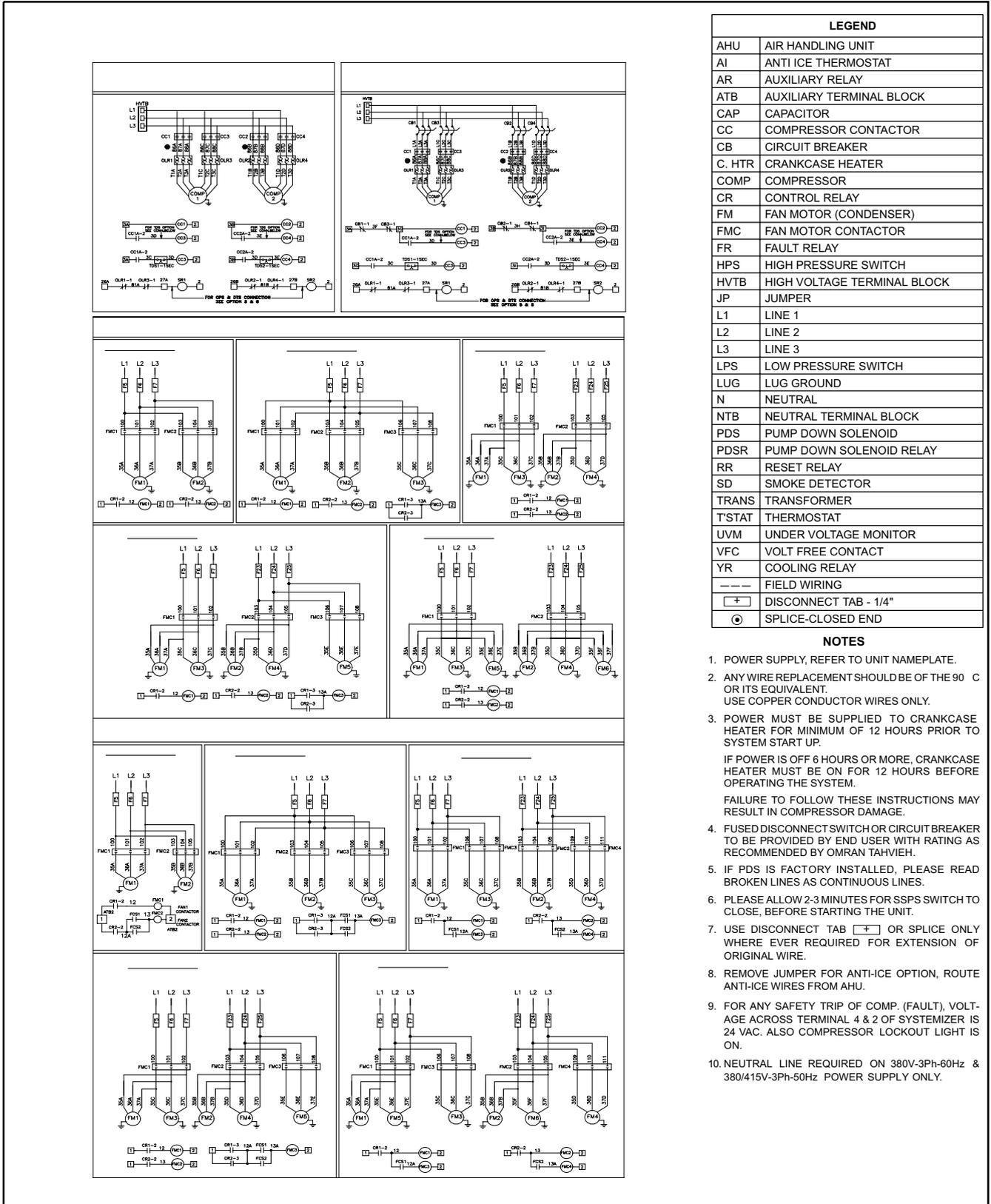
WEIGHT DISTRIBUTION

MODEL NUMBER	LOAD DISTRIBUTION AT POINTS - KG				TOTAL LOAD (KG)
	A/A'	B/B'	C/C'	D/D'	
OCU 240	430	430	N.A.	N.A.	860
OCU 300	450	450	N.A.	N.A.	900
OCU 360	344	358	348	N.A.	1050
OCU 420	384	368	348	N.A.	1100
OCU 480	312	487	451	N.A.	1250
OCU 600	334	497	469	N.A.	1300
OCU 720	355	506	486	253	1600
OCU 840	390	526	516	318	1750



NOTE: Please refer to the dimensional drawings (page 14-18) for distance between points/mounting holes.

TYPICAL SCHEMATIC WIRING DIAGRAM



LEGEND

AHU	AIR HANDLING UNIT
AI	ANTI ICE THERMOSTAT
AR	AUXILIARY RELAY
ATB	AUXILIARY TERMINAL BLOCK
CAP	CAPACITOR
CC	COMPRESSOR CONTACTOR
CB	CIRCUIT BREAKER
C. HTR	CRANKCASE HEATER
COMP	COMPRESSOR
CR	CONTROL RELAY
FM	FAN MOTOR (CONDENSER)
FMC	FAN MOTOR CONTACTOR
FR	FAULT RELAY
HPS	HIGH PRESSURE SWITCH
HVTB	HIGH VOLTAGE TERMINAL BLOCK
JP	JUMPER
L1	LINE 1
L2	LINE 2
L3	LINE 3
LPS	LOW PRESSURE SWITCH
LUG	LUG GROUND
N	NEUTRAL
NTB	NEUTRAL TERMINAL BLOCK
PDS	PUMP DOWN SOLENOID
PDSR	PUMP DOWN SOLENOID RELAY
RR	RESET RELAY
SD	SMOKE DETECTOR
TRANS	TRANSFORMER
T*STAT	THERMOSTAT
UVM	UNDER VOLTAGE MONITOR
VFC	VOLT FREE CONTACT
YR	COOLING RELAY
---	FIELD WIRING
+	DISCONNECT TAB - 1/4"
○	SPlice-CLOSED END

NOTES

- POWER SUPPLY, REFER TO UNIT NAMEPLATE.
- ANY WIRE REPLACEMENT SHOULD BE OF THE 90 C OR ITS EQUIVALENT. USE COPPER CONDUCTOR WIRES ONLY.
- POWER MUST BE SUPPLIED TO CRANKCASE HEATER FOR MINIMUM OF 12 HOURS PRIOR TO SYSTEM START UP.
IF POWER IS OFF 6 HOURS OR MORE, CRANKCASE HEATER MUST BE ON FOR 12 HOURS BEFORE OPERATING THE SYSTEM.
FAILURE TO FOLLOW THESE INSTRUCTIONS MAY RESULT IN COMPRESSOR DAMAGE.
- FUSED DISCONNECT SWITCH OR CIRCUIT BREAKER TO BE PROVIDED BY END USER WITH RATING AS RECOMMENDED BY OMRAN TAHVIEH.
- IF PDS IS FACTORY INSTALLED, PLEASE READ BROKEN LINES AS CONTINUOUS LINES.
- PLEASE ALLOW 2-3 MINUTES FOR SSSPS SWITCH TO CLOSE, BEFORE STARTING THE UNIT.
- USE DISCONNECT TAB $\boxed{+}$ OR SPlice ONLY WHERE EVER REQUIRED FOR EXTENSION OF ORIGINAL WIRE.
- REMOVE JUMPER FOR ANTI-ICE OPTION, ROUTE ANTI-ICE WIRES FROM AHU.
- FOR ANY SAFETY TRIP OF COMP. (FAULT), VOLTAGE ACROSS TERMINAL 4 & 2 OF SYSTEMIZER IS 24 VAC. ALSO COMPRESSOR LOCKOUT LIGHT IS ON.
- NEUTRAL LINE REQUIRED ON 380V-3Ph-60Hz & 380/415V-3Ph-50Hz POWER SUPPLY ONLY.

INSTALLATION INSTRUCTIONS

SAFETY CONSIDERATIONS

Improper installation, service, maintenance or use can cause explosion, fire, electrical shock or other conditions which may cause personal injury or property damage. Check with your nearest Omran Tahviah dealer/sales office for information or assistance.

Warning: Before installation or servicing the system, always turn off main power supply. Electrical shock can cause personal injury or death.

INSTALLATION**STEP-1:**

Check equipment and job site

Unpack unit and move to final location taking care not to damage the unit. Remove screws holding the unit to wooden pallet and after removing wooden pallet, re-fix the screws.

STEP- 2:

Installation on a solid, level mounting pad

When installing, allow sufficient space for airflow clearance, wiring, refrigerant piping and service. Allow 48" (1219 mm) clearance all around and 60" (1524 mm) above unit for proper airflow. Double the service access when multiple units are installed at one location.

On rooftop applications, locate unit at least 6" (152 mm) above roof surface. Place unit above a load-bearing wall, isolate unit and piping set from structure. Use 4"x4"x1" thick rubber/cork mounting pads.

Arrange supporting members to adequately support unit and minimize transmission of vibration to building.

STEP-3:

Piping connections

Outdoor units should be connected to indoor units using field-supplied piping of refrigerant grade and correct size. The liquid and suction line diameters can be determined from the physical data table. For piping requirements beyond 50 ft (15.24 m), obtain information from your nearest Omran Tahviah dealer/sales office.

If either refrigerant piping or indoor coil is exposed to atmospheric conditions, it must be dehydrated to 1000 microns to eliminate moisture contamination in the system.

It is advisable to size piping according to recommended ASHRAE methods. Install piping according to refrigeration standard practice. Run refrigerant pipes as directly as possible, avoiding unnecessary turns and bends. Install refrigerant pipes carefully to prevent damaging the suction pipe insulation and vibration transmission to the structure.

Outdoor unit connected to factory matched indoor unit

Outdoor unit contains correct system refrigerant charge for operation with matched indoor unit as given on cooling capacity table and when connected with up to 25 ft (7.62 m) of field-supplied piping. Check refrigerant charge for maximum efficiency.

Sweat connection

Use refrigerant grade piping. Service valves are closed from factory when shipped and ready for brazing. After wrapping the service valve with a wet cloth, the piping set can be brazed to service valve using either silver rod or silfos rod brazing material. When brazing completed, refrigerant piping and indoor coil are now ready for leak testing. This check should also include all field and factory brazed joints.

Warning: Relieve all pressure before refrigerant system repair or final unit disposal to avoid personal injury or death. Use service ports and open all valves.

ELECTRICAL

STEP 1: INSTALLATION

A) Please ensure power supply to the unit is as per unit nameplate (Volts/Ph/Hz) requirements.

Caution: Operation of the unit on improper power supply will result in damage to the unit.

Note: Use copper wires of proper rating for all field wiring.

Warning: Before servicing or installation of the unit, always TURN OFF all power to the unit. There may be more than one disconnect switch. Ensure all of them are turned off. Electrical shock can cause personal injury or death.

B) Ground & power wires

Connect power wires to terminal block per wiring diagram.

Connect ground wire to the ground lug inside the control box.

C) Control wiring between outdoor & indoor unit

Use 16 gauge color-coded wire between the indoor and outdoor units (control wiring).

STEP 2: START-UP

- 1) Energize crankcase heater for a minimum of 12 hours prior to the system start-up. To energize crankcase heater only, set thermostat to OFF position and close electrical disconnect switch to the outdoor unit.
- 2) Fully open liquid/suction service valves.
- 3) Close electrical disconnect switch to energize the system.
- 4) Set room thermostat to desired temperature.

SYSTEM DESIGN

THE OMRANTAHVIEH CONDENSING UNIT SYSTEM HAS BEEN DESIGNED BASED ON THE FOLLOWING:

- Intended for outdoor installation with free air intake and discharge.
- Minimum outdoor operating air temperature during cooling with low ambient operation option is 55°F.
- Maximum outdoor operating air temperature during cooling is 120°F.

PARTS LIST

MODEL NUMBER	OCU240H	OCU240M	OCU240F	OCU240L	OCU300H	OCU300M	OCU300F	OCU300L
COMPRESSOR, Scroll	800-676-00	800-676-01	800-676-02	800-676-05	800-676-03	800-676-04	800-676-05	800-676-08
COMPRESSOR, Hermetic	800-672-19	800-672-20	800-672-21	800-672-15	800-672-30	800-672-31	800-672-32	800-672-32
COMPRESSOR, Semi-hermetic	800-677-01	800-677-02	800-677-03	800-677-06	800-677-07	800-677-08	800-677-09	800-677-09
SEMI-HERMETIC COMP. W/- UNLOADER	800-677-41	800-677-42	800-677-43	800-677-46	800-677-47	800-677-48	800-677-49	800-677-49
COMP. CONTACTOR, Scroll	800-736-48	800-095-02	800-095-02	800-736-22	800-736-06	800-736-48	800-736-22	800-736-22
COMP. CONTACTOR, Hermetic	800-736-06	800-095-02	800-095-02	800-095-02	800-736-06	800-736-22	800-095-02	800-736-22
COMP. CONTACTOR, Semi-hermetic	800-736-25	800-736-22	800-095-02	800-736-22	800-736-26	800-736-25	800-736-48	800-736-48
FAN MOTOR	800-555-05	800-555-06	800-555-06	800-555-06	800-555-05	800-555-06	800-555-06	800-555-06
FAN MOTOR CONTACTOR	800-095-01	800-095-01	800-095-01	800-095-01	800-095-01	800-095-01	800-095-01	800-095-01
CONDENSER FAN GUARD	800-625-38	800-625-38	800-625-38	800-625-38	800-625-38	800-625-38	800-625-38	800-625-38
CONDENSER FAN	800-224-28	800-224-28	800-224-28	800-224-28	800-224-28	800-224-28	800-224-28	800-224-28
MOTOR MOUNT	800-154-20	800-154-20	800-154-20	800-154-20	800-154-20	800-154-20	800-154-20	800-154-20
CONDENSER COIL GUARD	800-625-42	800-625-42	800-625-42	800-625-42	800-625-42	800-625-42	800-625-42	800-625-42
FILTER DRYER	800-531-05	800-531-05	800-531-05	800-531-05	800-531-05	800-531-05	800-531-05	800-531-05
SIGHT GLASS	800-200-00	800-200-00	800-200-00	800-200-00	800-200-00	800-200-00	800-200-00	800-200-00
HIGH PRESSURE SWITCH	800-558-00	800-558-00	800-558-00	800-558-00	800-558-00	800-558-00	800-558-00	800-558-00
LOW PRESSURE SWITCH	800-557-00	800-557-00	800-557-00	800-557-00	800-557-00	800-557-00	800-557-00	800-557-00
OPTIONAL ITEMS								
PUMP DOWN SOLENOID VALVE	800-705-20	800-705-20	800-705-20	800-705-20	800-705-20	800-705-20	800-705-20	800-705-20
ADJUSTABLE HIGH PRESSURE SWITCH	800-557-29	800-557-29	800-557-29	800-557-29	800-557-29	800-557-29	800-557-29	800-557-29
ADJUSTABLE LOW PRESSURE SWITCH	800-557-30	800-557-30	800-557-30	800-557-30	800-557-30	800-557-30	800-557-30	800-557-30

MODEL NUMBER	OCU360H	OCU360M	OCU360F	OCU360L	OCU420H	OCU420M	OCU420F	OCU420L
COMPRESSOR, Scroll	800-676-06	800-676-07	800-676-08	800-676-08	N.A.	N.A.	N.A.	N.A.
COMPRESSOR, Semi-hermetic	800-677-10	800-677-11	800-677-12	800-677-15	800-677-13	800-677-14	800-677-15	800-677-21
SEMI-HERMETIC COMP. W/- UNLOADER	800-677-50	800-677-51	800-677-52	800-677-55	800-677-53	800-677-54	800-677-55	800-677-61
COMP. CONTACTOR, Scroll	800-736-06	800-736-48	800-736-22	800-736-22	N.A.	N.A.	N.A.	N.A.
COMP. CONTACTOR, Semi-hermetic	800-736-25	800-736-06	800-736-25	800-736-22	800-736-25	800-736-06	800-736-25	800-736-06
FAN MOTOR	800-555-05	800-555-06	800-555-06	800-555-06	800-555-05	800-555-06	800-555-06	800-555-06
FAN MOTOR CONTACTOR	800-095-01	800-095-01	800-095-01	800-095-01	800-095-01	800-095-01	800-095-01	800-095-01
CONDENSER FAN GUARD	800-625-38	800-625-38	800-625-38	800-625-38	800-625-38	800-625-38	800-625-38	800-625-38
CONDENSER FAN	800-224-28	800-224-28	800-224-28	800-224-28	800-224-28	800-224-28	800-224-28	800-224-28
MOTOR MOUNT	800-154-20	800-154-20	800-154-20	800-154-20	800-154-20	800-154-20	800-154-20	800-154-20
CONDENSER COIL GUARD	800-625-43	800-625-43	800-625-43	800-625-43	800-625-43	800-625-43	800-625-43	800-625-43
FILTER DRYER	800-531-04	800-531-04	800-531-04	800-531-04	800-531-04	800-531-04	800-531-04	800-531-04
SIGHT GLASS	800-200-01	800-200-01	800-200-01	800-200-01	800-200-01	800-200-01	800-200-01	800-200-01
HIGH PRESSURE SWITCH	800-558-00	800-558-00	800-558-00	800-558-00	800-558-00	800-558-00	800-558-00	800-558-00
LOW PRESSURE SWITCH	800-557-00	800-557-00	800-557-00	800-557-00	800-557-00	800-557-00	800-557-00	800-557-00
OPTIONAL ITEMS								
PUMP DOWN SOLENOID VALVE	800-705-21	800-705-21	800-705-21	800-705-21	800-705-21	800-705-21	800-705-21	800-705-21
ADJUSTABLE HIGH PRESSURE SWITCH	800-557-29	800-557-29	800-557-29	800-557-29	800-557-29	800-557-29	800-557-29	800-557-29
ADJUSTABLE LOW PRESSURE SWITCH	800-557-30	800-557-30	800-557-30	800-557-30	800-557-30	800-557-30	800-557-30	800-557-30

PARTS LIST

MODEL NUMBER	OCU480H	OCU480M	OCU480F	OCU480L	OCU600H	OCU600M	OCU600F	OCU600L
COMPRESSOR, Semi-hermetic	800-677-19	800-677-20	800-677-21	800-677-24	800-677-22	800-677-23	800-677-24	800-677-27
SEMI-HERMETIC COMP. W/- UNLOADER	800-677-59	800-677-60	800-677-61	800-677-64	800-677-62	800-677-63	800-677-64	800-677-67
COMP. CONTACTOR, Semi-hermetic	800-736-06	800-736-26	800-736-06	800-736-06	800-736-06	800-736-48	800-736-06	800-736-26
FAN MOTOR	800-555-05	800-555-06	800-555-06	800-555-06	800-555-05	800-555-06	800-555-06	800-555-06
FAN MOTOR CONTACTOR	800-095-01	800-095-01	800-095-01	800-095-01	800-095-01	800-095-01	800-095-01	800-095-01
CONDENSER FAN GUARD	800-625-38	800-625-38	800-625-38	800-625-38	800-625-38	800-625-38	800-625-38	800-625-38
CONDENSER FAN	800-224-28	800-224-28	800-224-28	800-224-28	800-224-28	800-224-28	800-224-28	800-224-28
MOTOR MOUNT	800-154-20	800-154-20	800-154-20	800-154-20	800-154-20	800-154-20	800-154-20	800-154-20
CONDENSER COIL GUARD	800-625-44	800-625-44	800-625-44	800-625-44	800-625-44	800-625-44	800-625-44	800-625-44
FILTER DRYER	800-531-17	800-531-17	800-531-17	800-531-17	800-531-17	800-531-17	800-531-17	800-531-17
SIGHT GLASS	800-200-04	800-200-04	800-200-04	800-200-04	800-200-04	800-200-04	800-200-04	800-200-04
HIGH PRESSURE SWITCH	800-558-00	800-558-00	800-558-00	800-558-00	800-558-00	800-558-00	800-558-00	800-558-00
LOW PRESSURE SWITCH	800-557-00	800-557-00	800-557-00	800-557-00	800-557-00	800-557-00	800-557-00	800-557-00
OPTIONAL ITEMS								
PUMP DOWN SOLENOID VALVE	800-705-08	800-705-08	800-705-08	800-705-08	800-705-08	800-705-08	800-705-08	800-705-08
ADJUSTABLE HIGH PRESSURE SWITCH	800-557-29	800-557-29	800-557-29	800-557-29	800-557-29	800-557-29	800-557-29	800-557-29
ADJUSTABLE LOW PRESSURE SWITCH	800-557-30	800-557-30	800-557-30	800-557-30	800-557-30	800-557-30	800-557-30	800-557-30

MODEL NUMBER	OCU720H	OCU720M	OCU720F	OCU720L	OCU840H	OCU840M	OCU840F	OCU840L
COMPRESSOR, Semi-hermetic	800-677-28	800-677-29	800-677-30	800-677-33	800-677-31	800-677-32	800-677-33	800-677-36
SEMI-HERMETIC COMP. W/- UNLOADER	800-677-68	800-677-69	800-677-70	800-677-73	800-677-71	800-677-72	800-677-73	800-677-76
COMP. CONTACTOR, Semi-hermetic	800-736-26	800-736-25	800-736-26	800-736-25	800-736-26	800-736-25	800-736-25	800-736-06
FAN MOTOR	800-555-05	800-555-06	800-555-06	800-555-06	800-555-05	800-555-06	800-555-06	800-555-06
FAN MOTOR CONTACTOR	800-095-01	800-095-01	800-095-01	800-095-01	800-095-01	800-095-01	800-095-01	800-095-01
CONDENSER FAN GUARD	800-625-38	800-625-38	800-625-38	800-625-38	800-625-38	800-625-38	800-625-38	800-625-38
CONDENSER FAN	800-224-28	800-224-28	800-224-28	800-224-28	800-224-28	800-224-28	800-224-28	800-224-28
MOTOR MOUNT	800-154-20	800-154-20	800-154-20	800-154-20	800-154-20	800-154-20	800-154-20	800-154-20
CONDENSER COIL GUARD	800-625-45	800-625-45	800-625-45	800-625-45	800-625-45	800-625-45	800-625-45	800-625-45
FILTER DRYER	800-531-17	800-531-17	800-531-17	800-531-17	800-531-17	800-531-17	800-531-17	800-531-17
SIGHT GLASS	800-200-04	800-200-04	800-200-04	800-200-04	800-200-04	800-200-04	800-200-04	800-200-04
HIGH PRESSURE SWITCH	800-558-00	800-558-00	800-558-00	800-558-00	800-558-00	800-558-00	800-558-00	800-558-00
LOW PRESSURE SWITCH	800-557-00	800-557-00	800-557-00	800-557-00	800-557-00	800-557-00	800-557-00	800-557-00
OPTIONAL ITEMS								
PUMP DOWN SOLENOID VALVE	800-705-08	800-705-08	800-705-08	800-705-08	800-705-08	800-705-08	800-705-08	800-705-08
ADJUSTABLE HIGH PRESSURE SWITCH	800-557-29	800-557-29	800-557-29	800-557-29	800-557-29	800-557-29	800-557-29	800-557-29
ADJUSTABLE LOW PRESSURE SWITCH	800-557-30	800-557-30	800-557-30	800-557-30	800-557-30	800-557-30	800-557-30	800-557-30