R407C
Environment Friendly Refrigerant

Ducted Split Air Conditioners

CAPACITY 4 -25 TONS

PRODUCT DATA BOOK

CONTENTS PAGE

INTRODUCTION

Split indoor & outdoor units have been developed & produced by AGMCO to provide not only the ultimate indoor comfort, but also to guarantee long & trouble free operations.

Herein lies the reason for the choice of only the highest quality components and design strategies to meet the most important objectives such as:

- Efficiency
- Reliability
- Flexibility
- Easy Installability
- Serviceability
- Affordability

4 -25 TONS CAPACITY SPLIT INDOOR & OUTDOOR UNITS

SALIENT FEATURES

FEATURES: INDOOR FAN COIL UNITS

- The Indoor split units are designed by latest fan coil technology, highly efficient in performance, horizontal* or vertical air flow and are suitable for mounting on the floor or hanging on the ceiling.
- All Indoor split units are encased 1-piece fabricated, assembled, leak tested, piped, internally wired and with holding charge of refrigerant R407C.
- The indoor split units are available in the following voltages :-

  Cool Models (4 - 5TR Capacities)

  220-240 V /1 PH / 50 Hz

  Cool or Electric Heater Models (4 - 25TR Capacities)

  380-415 V /3 PH / 50 Hz
  208-230 V / 3 PH / 60Hz
- Primary Control voltage is 24 volts through transformer.
- The Solid & Rugged construction of powder coated metal cabinet ensures years of rugged service, equipped with most advanced components for outstanding performance. The coil is made of seamless inner grooved copper tube/corrugated Aluminum fins.
- Efficient and dependable metering of the refrigerant is provided by thermostatic expansion device or flow rator which improves overall system reliability and is easily accessible for routine maintenance.
- AGMCO has also engineered the 3IDD series units with advanced refrigerant circuitry keeping in mind for the minimum pressure drop for best output. Low density insulation has been used to avoid the heat loss and improve the performance of unit and for quiet operation.
- The indoor air compartment are completely insulated with synthetic rubber closed cell (13mm thick) or ½" fire retard fiber glass or rigid board insulation.
- Units are completely factory wired with single point power input provided with knockouts for utility, main power supply and control connections.
- Above 5 TR. capacity blower fan are belt drive centrifugal type, forward curve blade sized to meet system air flow and static.

* Models 3IDD 216/240/300 are available in only horizontal mounting position.

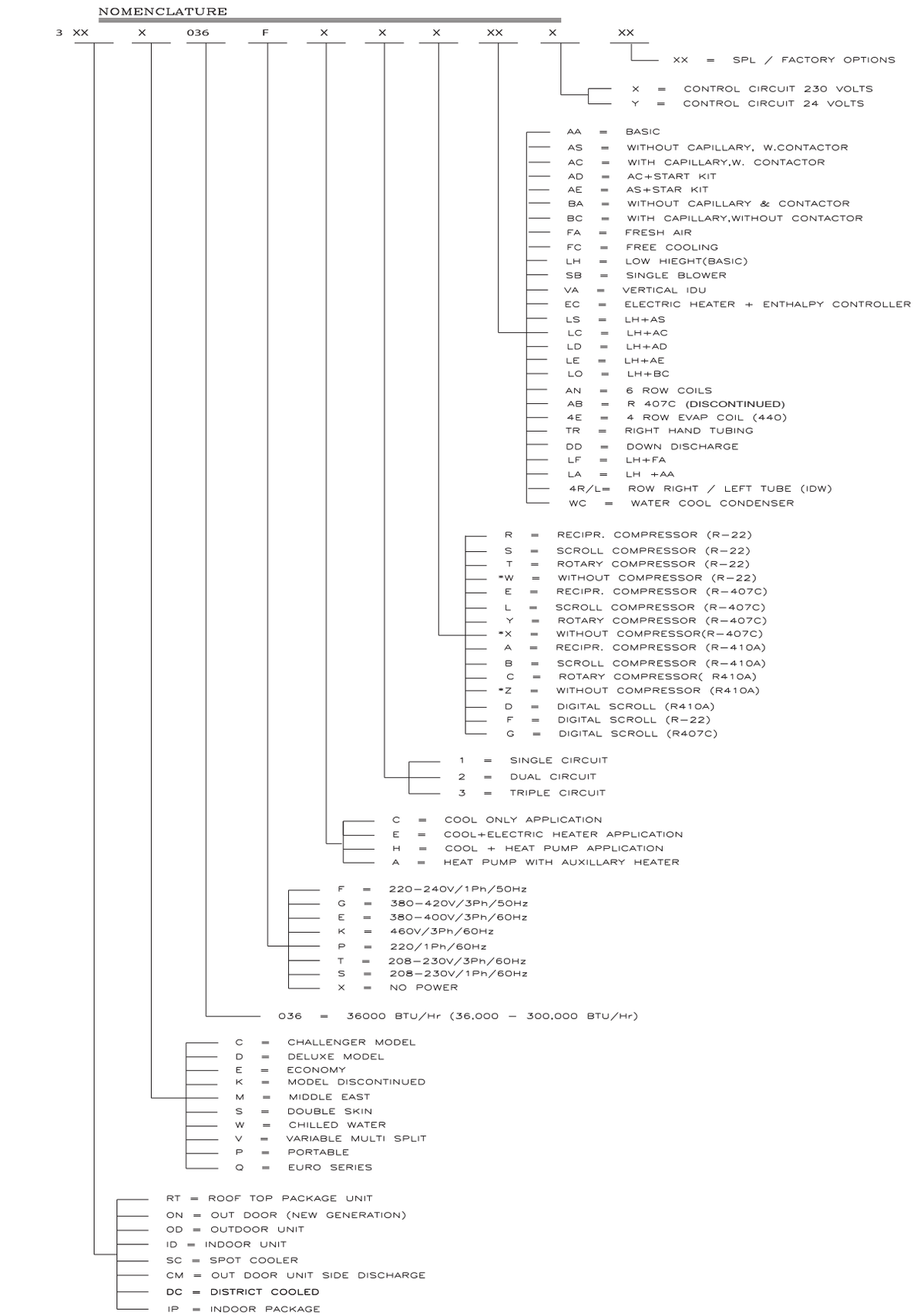
SALIENT FEATURES

FEATURES: OUTDOOR CONDENSING UNITS

- Outdoor units are suitable for mounting on the roof or on the ground. all units are factory assembled, piped, internally wired and fully charged with R407C. These units are tested in accordance with ARI standards.
- All out door units are designed for up flow installations.
- The units are available in the following voltages range :
  380-415 V/ 3PH /50 Hz
  208-230 V /3 Ph/ 60Hz
- Primary Control voltage is 24 volts through transformer.
- All components are mounted in a weather resistant steel cabinet. The cabinet and access panels are powder coated for lasting protection and durability.
- Compressors are fully hermetic Scroll or Reciprocating type designed for high efficiency and provided with standard controls & safety devices.
- All Scroll or Reciprocating compressors are provided with crankcase heaters which warms the oil and protect against the possibility of migration of refrigerant into the compressor during off cycle.
- Condenser coils are made of seamless inner grooved copper tube and aluminum corrugated fins mechanically bonded for maximum heat transfer and coils are factory tested for leaks and pressure 550psi.
- Condenser coils are designed to have minimum pressure drop for refrigerant flow to get best output.
- Condenser fans are propeller type, direct drive draw through vertical discharge with fan guard mounted to the panel.
- High Pressure (HP) & Low Pressure (LP) controls are provided for the safe operation of the compressor.
- Easy accessible control box, Compressors and High pressure control (with manual reset button).
- All the units are provided with compressor lockout either by locking relays or by high pressure control trip with manual reset switch.
- All the units are provided with time delay sequencers (145 seconds & 180seconds).

MODEL DECODING

NOMENCLATURE

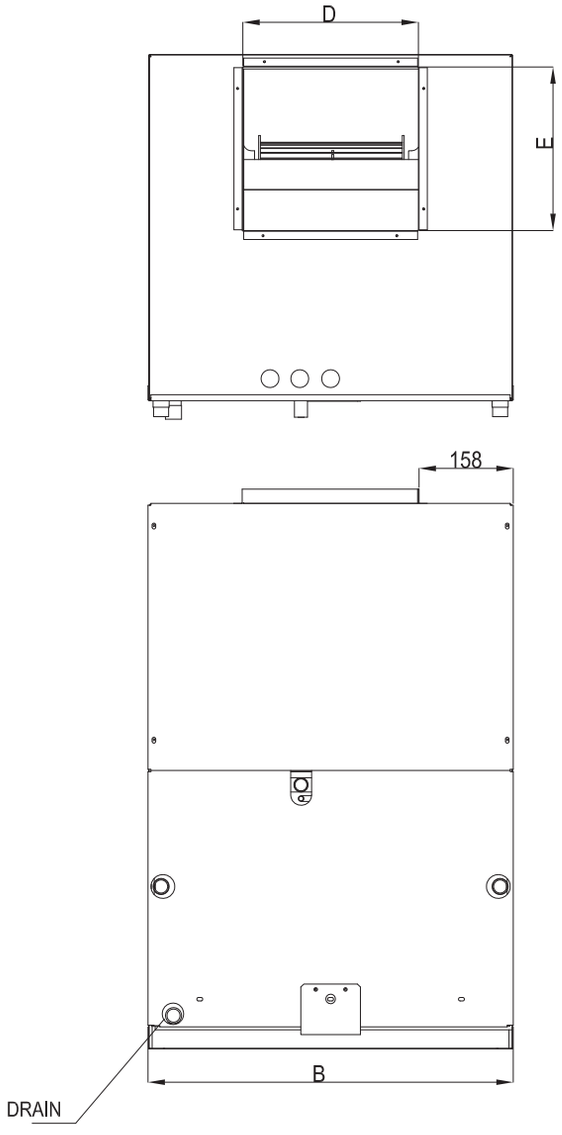


NOTE: * - APPLICABLE ONLY FOR INDOOR UNITS

OPTIONAL FEATURES

- Electric Heaters
- Anti Corrosive Coated Fins For Condenser Coils
- Hydrophilic Coated Fins For Evaporator Coils
- Copper Fins For Condenser And Evaporator Coils
- Thermostat : Provides Cooling , Staged Heating And Fan Control
- Antifreeze Thermostats
- Hour Meter
- Voltage Monitor
- Phase Loss Protection
- Fan Speed Controller
- Micro Processor Control
- Fan Cycling Switch
- Compressor Alternating Switch
- Compressor Interlock With Blower Air
- Pump Down System
- Over Load Thermal Protection For Compressor
- Overload thermal protection for motors
- Volt Free Contacts For BMS
- Dual And Adjustable Pressure Switches
- Double Skin Construction
- SS Tray / Hardware
- Fine / Bag Filter / Hepa Filter
- Electronic Controller (PCB)
- Plenum / Mixing Box
- Dampers Motorised / Manual
- Sand Trap Louvers
- Enthalpy Controller
- Auxillary Heaters for HP
- Suction Line Filter Drier
- Circuit Breakers
- Low Ambient Kit
- Economiser
- UV Light
- IP55/TEFC Motors
- Variable Frequency Controlled Blower Fan (VFC)
- Hot gas bypass circuit
- Humidifier
- Backward Curve blowers

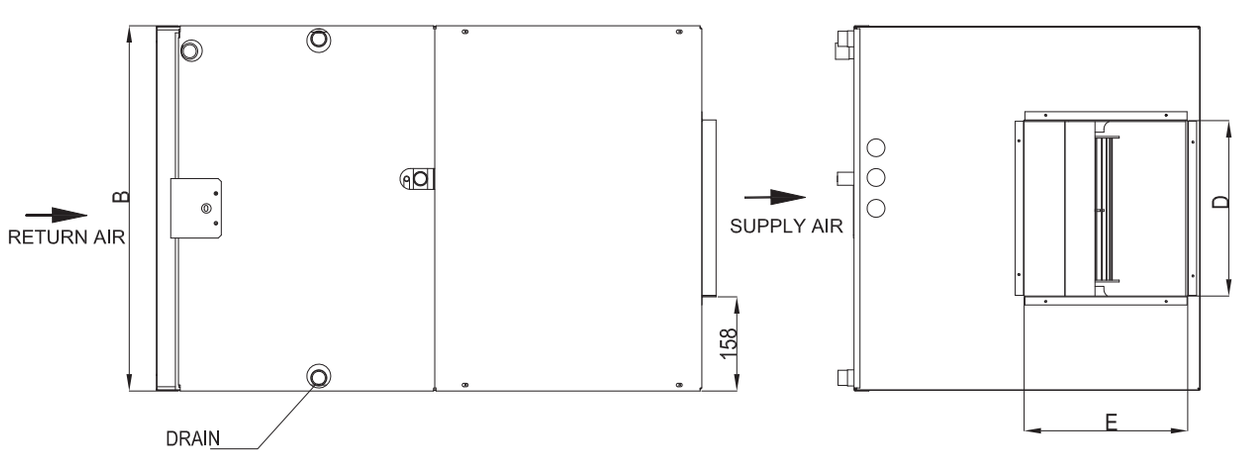
G.A. DRAWING: 3IDD048 & 3IDD060 UNITS



VERTICAL POSITION

3IDD048/060 SINGLE CIRCUIT INDOOR UNITS

UNITS	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)
3IDD048/060	916	614	581	295	275

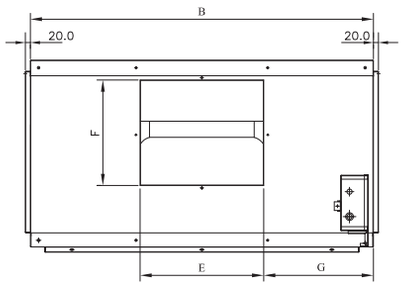


HORIZONTAL POSITION

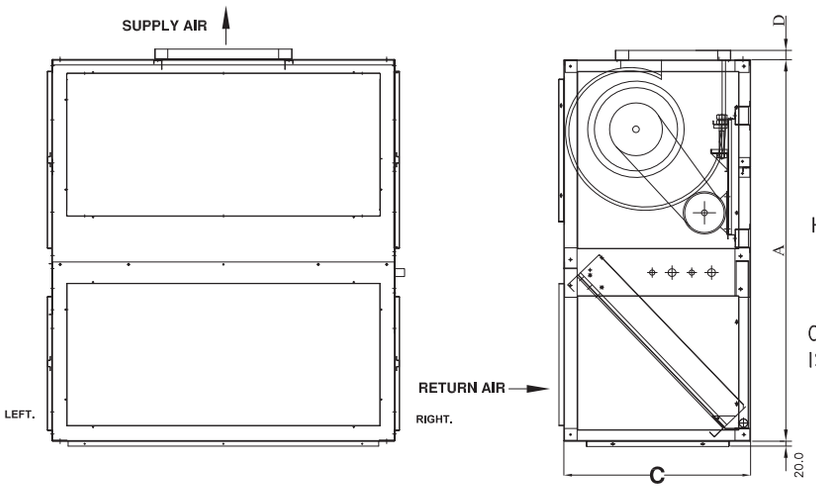
LAYOUT IS SUBJECT TO CHANGE WITHOUT NOTICE.

G.A. DRAWING: 3IDD072 - 3IDD300 UNITS

3IDD072 / 090 SINGLE CIRCUIT 120/150/180 DUAL CIRCUIT INDOOR UNITS



UNITS	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)
3IDD072	1342	1071	585	38.1	437	384
3IDD090(LH)						
3IDD120(LH)	1469	1321	739		528	444
3IDD150(LH)						
3IDD180	1675	1600	775			



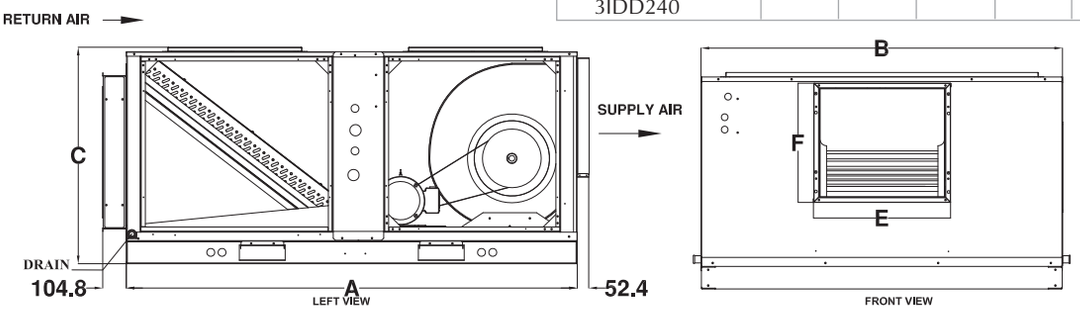
VERTICAL POSITION SHOWN
HORZONTAL ALSO APPLICABLE

COIL & BLOWER HOUSING ORIENTATION
IS OPPOSIT FOR 3IDD180 MODEL

3IDD216 / 240 DUAL CIRCUIT INDOOR UNITS

HORIZONTAL MOUNTING POSITION ONLY

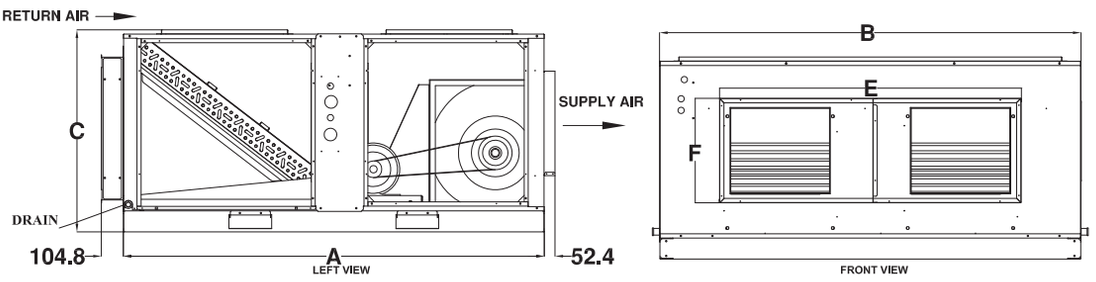
UNITS	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)
3IDD216	2000	1603	960	52.4	606	530
3IDD240						



3IDD300 DUAL CIRCUIT INDOOR UNITS

HORIZONTAL MOUNTING POSITION ONLY

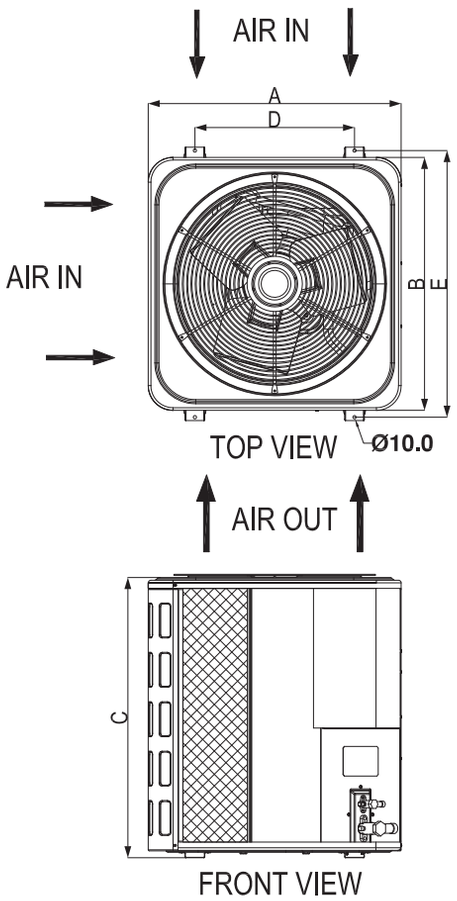
UNITS	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)
3IDD300	2000	2000	960	51.2	1434	496



LAYOUT IS SUBJECT TO CHANGE WITHOUT NOTICE.

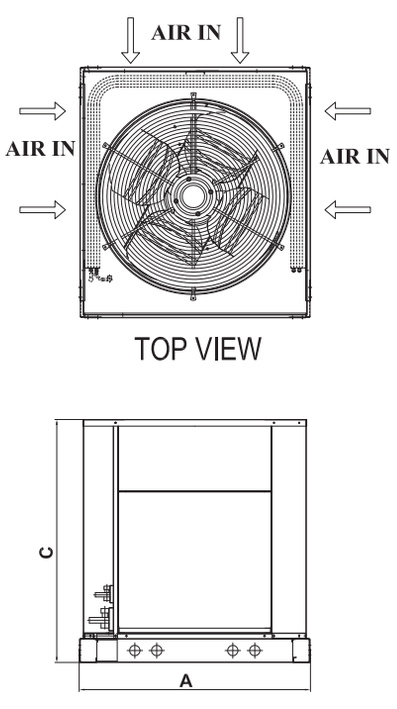
G.A. DRAWING: 3OND048 / 3ODD090 UNITS

3OND048 / 060 / 072 SINGLE CIRCUIT OUTDOOR UNITS



MODELS	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)
3OND048	635	635	750	425	680
3OND060/072	768	768	850	485	810

3ODD090 SINGLE CIRCUIT OUTDOOR UNITS



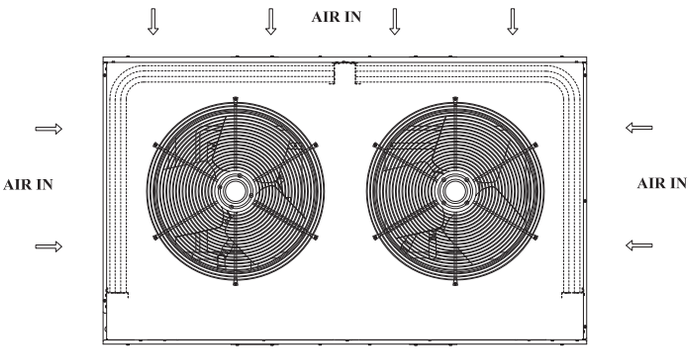
MODELS	A (mm)	B (mm)	C (mm)
3ODD090 (LH)	896	970	995

LAYOUT IS SUBJECT TO CHANGE WITHOUT NOTICE.

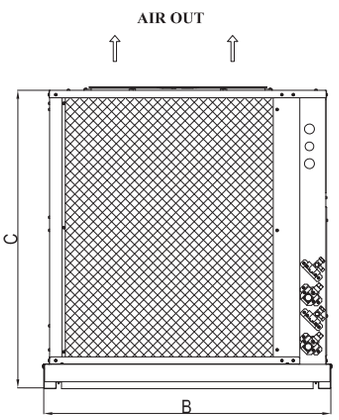
G.A. DRAWING: 3ODD120 - 3ODD300 UNITS

3ODD 120 / 150 / 180 / 216 DUAL CIRCUIT OUTDOOR UNITS

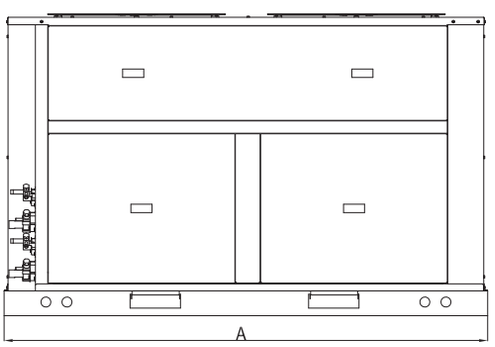
UNITS	A (mm)	B (mm)	C (mm)
3ODD120 (LH) 3ODD150 (LH)	1599.0	922.0	941.0
3ODD180 3ODD216	1950.0	1160.0	1205.0



TOP VIEW



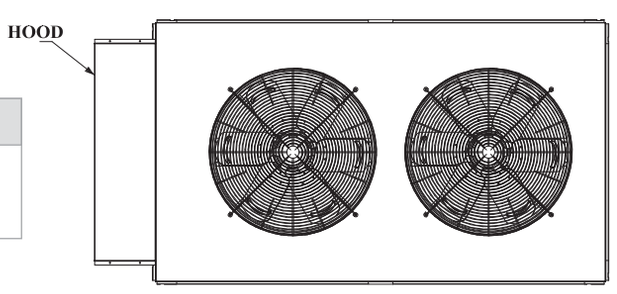
SIDE VIEW



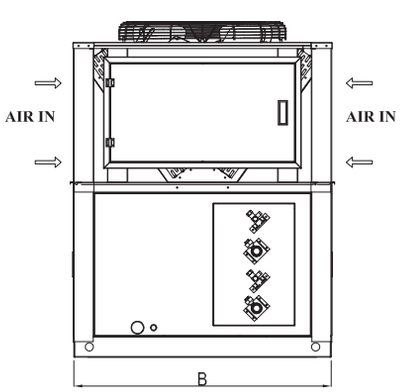
FRONT VIEW

3ODD240 / 300 DUAL CIRCUIT OUTDOOR UNITS

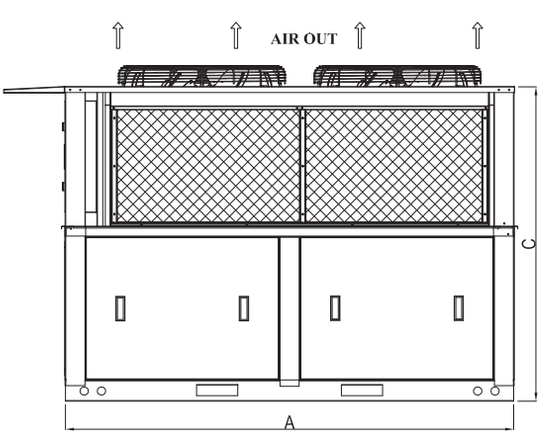
UNITS	A (mm)	B (mm)	C (mm)
3ODD240 3ODD300	2200	1264	1543



TOP VIEW



SIDE VIEW



FRONT VIEW

UNIT SPECIFICATIONS

ENGINEERING SPECIFICATIONS: 50Hz & 60Hz UNITS

INDOOR FAN COIL UNITS						
MODEL / UNIT		3IDD048	3IDD060	3IDD072	3IDD090	3IDD120
NOMINAL CAPACITY	Cooling Btu/Hr	48,000	60,000	72,000	90,000	120,000
	Heating Btu/Hr	48,960	61,200	73,440	91,800	122,400
NOMINAL AIR FLOW	CFM (50 Hz units)	1,700	2,000	2,400	3,000	4,000
	CFM (60 Hz units)	1,700	2,000	2,400	3,000	4,000
REFRIGERATION CIRCUIT		Single	Single	Single	Single	Dual
ELECTRIC HEATER	Capacity in KW	10	10	15	15	20
EVAPORATOR BLOWER	Type	Centrifugal				
	Drive	Direct	Direct	Belt	Belt	Belt
	Dia.xWidth. in Inch	11"x9"	11"x9"	12"x12"	12"x12"	15"x15"
	Quantity -Nos.	1	1	1	1	1
BLOWER MOTOR	Motor H.P (50 Hz units)	3/4	3/4	1.33	1.33	2.66
	Motor H.P (60 Hz units)	3/4	3/4	1 1/2	1 1/2	3
	Motor RPM (50 Hz units)	950	950	1,450	1,440	1,440
	Motor RPM (60 Hz units)	950	950	1,725	1,725	1,725
	No. of Speeds	3	3	1	1	1
EVAPORATOR COIL	Type	Corrugated Fin & Inner grooved Tube				
	Tube - Dia - Row - FPI	5/16"-1-16	5/16"-1-16	3/8"-3-16	3/8"-3-16	3/8"-3-14
	Total face area (sq.ft)	15.20	15.20	7.05	7.05	10.24
REFRIGERANT LINES	Suction Line conn. (Inch)	7/8	7/8	1 1/8	1 1/8	7/8
	Liquid Line conn. (Inch)	1/2	1/2	5/8	5/8	1/2
DRAIN FITTING	Connection size (Inch)	1	1	1	1	1
FILTER	Type	Aluminium Washable				
	Size in(Inch)	21.7x23.6x1	21.7x23.6x1	13.5x40.2x1	13.5x40.2x1	15.8x24.8x1
	Quantity. Nos.	1	1	2	2	4
UNIT DIMENSIONS	WxDxH (Inch)	24.1.x22.8x36.1	24.1.x22.8x36.1	42.1x52.8x23	42.1x52.8x23	52x57.8x29
SHIPPING WEIGHT	(Lbs)	132	132	350	380	508

OUTDOOR FAN COIL UNITS						
MODEL / UNIT		3OND048	3OND060	3OND072	3ODD090	3ODD120
NOMINAL CAPACITY	Cooling Btu/Hr	48,000	60,000	72,000	90,000	120,000
	Heating Btu/Hr	48,960	61,200	73,440	91,800	122,400
REFRIGERATION CIRCUIT		Single	Single	Single	Single	Dual
COMPRESSOR	Type	Scroll	Scroll	Scroll	Scroll	Scroll
	Quantity Nos.	1	1	1	1	2
	Charge per system (kg)	3.2	4.4	5.1	7.5	5.0 x 2
	Refrigerant	R407C				
CONDENSER FAN	Type	Propeller fan drive				
	Size-Dia x Width(Inch)	20"	22"	22"	26"	22"
	Quantity Nos.	1	1	1	1	2
CONDENSER MOTOR	Motor H.P (50 Hz units)	1/4	1/4	1/4	1/2	1/4
	Motor H.P (60 Hz units)	1/3	1/2	1/2	1/2	1/3
	Motor RPM (50 Hz units)	1100	915	915	915	1100
	Motor RPM (60 Hz units)	1100	830	830	830	1100
	Quantity Nos.	1	1	1	1	2
CONDENSER COIL	Type	Corrugated Fin & Inner grooved Tube				
	Tube - Dia - Row - FPI	5/16"-2-16	3/8"-2-14	3/8"-2-15	3/8"-2-15	3/8"-2-15
	Total face area (sq.ft)	12.50	17.20	17.20	18.22	23.82
REFRIGERANT LINES	Suction valve conn.(Inch)	7/8	7/8	1 1/8	1 1/8	7/8
	Liquid Valve conn. (Inch)	1/2	1/2	5/8	5/8	1/2
HIGH PRESSURE SWITCH	Open (PSIG)	470+/-15	470+/-15	470+/-15	470+/-15	470+/-15
	Close (PSIG)	350+/-14	350+/-14	350+/-14	350+/-14	
LOW PRESSURE SWITCH	Open (PSIG) (Cool Mode)	27+/-7	27+/-7	27+/-7	27+/-7	27+/-7
	Close (PSIG) (Cool Mode)	45+/-7	45+/-7	45+/-7	45+/-7	45+/-7
	Open (PSIG) (Heat Mode)	7+/-5	7+/-5	7+/-5	7+/-5	7+/-5
	Close (PSIG) (Heat Mode)	20+/-5	20+/-5	20+/-5	20+/-5	20+/-5
UNIT DIMENSIONS	WxDxH (Inch)	25.0x25.0x29.5	30.2x30.2x33.5	30.2x30.2x33.5	35.3X38.2X39.1	62.9x36.2x37
SHIPPING WEIGHT	Lbs	155	198	315	382	588

Notes :

1. As a result of continuous development and research, design and specifications are subject to change without notice
2. Above ratings are at nominal CFM.
3. All rating at 80°F(DB) 62°F (WB) & 95°F ambient condition

UNIT SPECIFICATIONS

ENGINEERING SPECIFICATIONS: 50Hz & 60Hz Units

INDOOR FAN COIL UNITS						
MODEL / UNIT		3IDD150	3IDD180	3IDD216	3IDD240	3IDD300
NOMINAL CAPACITY	Cooling Btu/Hr	150,000	180,000	216,000	240,000	300,000
	Heating Btu/Hr	153,000	183,600	220,320	244,800	306,000
NOMINAL AIR FLOW	CFM (50 Hz units)	5,000	6,000	7,200	8,000	10,000
	CFM (60 Hz units)	5,000	6,000	7,200	8,000	10,000
REFRIGERATION CIRCUIT		Dual	Dual	Dual	Dual	Dual
ELECTRIC HEATER	Capacity in KW	20	25	25	30	30
EVAPORATOR BLOWER	Type	Centrifugal				
	Drive	Belt	Belt	Belt	Belt	Belt
	Dia.xWidth. in Inch	15"x15"	15"x15"	18"x18"	18"x18"	15"x15"(TWIN)
	Quantity -Nos.	1	1	1	1	1
BLOWER MOTOR	Motor H.P (50 Hz units)	2.66	5	5	5	7.5
	Motor H.P (60 Hz units)	3	5	5	5	7.5
	Motor RPM (50 Hz units)	1,440	1,440	1,440	1,440	1,450
	Motor RPM (60 Hz units)	1,725	1,725	1,725	1,725	1,760
	No. of Speeds	1	1	1	1	1
EVAPORATOR COIL	Type	Corrugated Fin & Inner grooved Tube				
	Tube - Dia - Row - FPI	3/8"-4-16	3/8"-4-14	3/8"-3-16	3/8"-3-16	1/2"-3-12
	Total face area (sq.ft)	10.24	12.83	14.2	16.6	21.3
REFRIGERANT LINES	Suction Line conn. (Inch)	1 1/8	1 1/8	1 1/8	1 5/8	1 5/8
	Liquid Line conn. (Inch)	5/8	5/8	5/8	7/8	7/8
DRAIN FITTING	Connection size (Inch)	1	1	1	1	1
FILTER	Type	Aluminium Washable				
	Size in(Inch)	15.8x24.8x1	30.7x31.3x1	27.6x24.9x2	27.6x24.9x2	23.6 x24.9x2
	Quantity. Nos.	4	2	2	2	3
UNIT DIMENSIONS	WxDxH (Inch)	52x57.8X29	63x66x30.5	63.1x78.7x37.8	63.1x78.7x37.8	78.7x78.7x37.8
SHIPPING WEIGHT	(Lbs)	531	560	730	730	810

OUTDOOR CONDENSING UNITS						
MODEL / UNIT		3ODD150	3ODD180	3ODD216	3ODD240	3ODD300
NOMINAL CAPACITY	Cooling Btu/Hr	150,000	180,000	216,000	240,000	300,000
	Heating Btu/Hr	153,000	183,600	220,320	244,800	306,000
REFRIGERATION CIRCUIT		Dual	Dual	Dual	Dual	Dual
COMPRESSOR	Type	Scroll	Scroll	Scroll	Scroll	Scroll
	Quantity Nos.	2	2	2	2	2
	Charge per system (kg)	7.0 x 2	7.0 x 2	9.0 x 2	9.0 x 2	10.2 x 2
	Refrigerant	R407C				
CONDENSER FAN	Type	Propeller fan drive				
	Size-Dia x Width(Inch)	22"	26"	26"	30"	30"
	Quantity Nos.	2	2	2	2	2
CONDENSER MOTOR	Motor H.P (50 Hz units)	1/4	1/2	1/2	1 1/2	1 1/2
	Motor H.P (60 Hz units)	1/3	1/2	1/2	1 1/2	1 1/2
	Motor RPM (50 Hz units)	1,100	915	915	950	950
	Motor RPM (60 Hz units)	1,100	830	830	1,140	1,140
	Quantity Nos.	2	2	2	2	2
CONDENSER COIL	Type	Corrugated Fin & Inner grooved Tube				
	Tube - Dia - Row - FPI	3/8"-3-15	3/8"-2-15	3/8"-3-14	3/8"-3-14	3/8"-4-14
	Total face area (sq.ft)	23.82	41.2	42.2	28.3	28.3
REFRIGERANT LINES	Suction valve conn. (Inch)	1 1/8	1 1/8	1 1/8	1 5/8	1 5/8
	Liquid Valve conn. (Inch)	5/8	5/8	5/8	7/8	7/8
HIGH PRESSURE SWITCH	Open (PSIG)	470+/-15	470+/-15	470+/-15	470+/-15	470+/-15
	Close (PSIG)	350+/-14	350+/-14	350+/-14	350+/-14	350+/-14
LOW PRESSURE SWITCH	Open (PSIG) (Cool Mode)	27+/-7	27+/-7	27+/-7	27+/-7	27+/-7
	Close (PSIG) (Cool Mode)	45+/-7	45+/-7	45+/-7	45+/-7	45+/-7
	Open (PSIG) (Heat Mode)	7+/-5	7+/-5	7+/-5	7+/-5	7+/-5
	Close (PSIG) (Heat Mode)	20+/-5	20+/-5	20+/-5	20+/-5	20+/-5
UNIT DIMENSIONS	WxDxH (Inch)	62.9X36.2X37	76.7x45.6x47.4	76.7x45.6x47.4	49.7x86.6x60.7	49.7x86.6x60.7
SHIPPING WEIGHT	Lbs	787	853	1058	1433	1588

Notes :

1. As a result of continuous development and research, design and specifications are subject to change without notice
2. Above ratings are at nominal CFM.
3. All rating at 80°F(DB) 62°F (WB) & 95°F ambient condition.

UNIT SPECIFICATIONS

ELECTRICAL DATA FOR 3IDD048 - 3IDD300 (50Hz) UNITS

ELECTRICAL DATA 50 Hz UNITS ("F" VOLTAGE)

MODEL	V-Ph-Hz	Operating Voltage		Blower Motor		Electric Heater		MCA	MOCP
		Min	Max	HP	FLA	Kw	Amps	Amps	Amps
3IDD048F	220-240/1/50	198	264	0.75	4.0	...	...	5.0	10
						10.0	43.4	60.0	65
3IDD060F	220-240/1/50	198	264	0.75	4.0	...	...	5.0	10
						10.0	43.4	60.0	65
3IDD072F	220-240/1/50	198	264	1.33	5.2	...	...	6.5	15
						15.0	65.2	88.0	95

ELECTRICAL DATA 50 Hz UNITS ("G" VOLTAGE)

MODEL	V-Ph-Hz	Operating Voltage		Blower Motor		Electric Heater		MCA	MOCP
		Min	Max	HP	FLA	Kw	Amps	Amps	Amps
3IDD048G	220-240/1/50	198	264	0.75	4.0	...	...	5.0	10
	380 - 420/3/50	342	462	...	...	10.0	15.2	24.0	30
3IDD060G	220-240/1/50	198	264	0.75	4.0	...	...	5.0	10
	380 - 420/3/50	342	462	...	...	10.0	15.2	24.0	30
3IDD072G	380 - 420/3/50	342	462	1.33	2.7	...	...	3.4	10
						15.0	22.8	31.9	35
3IDD090G	380 - 420/3/50	342	462	1.33	2.7	...	...	3.4	10
						15.0	22.8	31.9	35
3IDD120G	380 - 420/3/50	342	462	2.66	4.8	...	...	6.0	10
						20.0	30.4	44.0	50
3IDD150G	380 - 420/3/50	342	462	2.66	4.8	...	...	6.0	10
						20.0	30.4	44.0	50
3IDD180G	380 - 420/3/50	342	462	5.0	7.3	...	...	9.2	20
						25.0	38.0	56.7	65
3IDD216G	380 - 420/3/50	342	462	5.0	7.3	...	...	9.2	20
						25.0	38.0	56.7	65
3IDD240G	380 - 420/3/50	342	462	5.0	7.3	...	...	9.2	20
						30.0	45.6	66.2	75
3IDD300G	380 - 420/3/50	342	462	7.5	11.0	...	...	13.8	25
						30.0	45.6	70.8	80

UNIT SPECIFICATIONS

ELECTRICAL DATA OUTDOOR SPLIT UNIT - 3ODD SERIES - R407C UNITS

ELECTRICAL DATA 50 Hz UNITS

MODEL	V-Ph-Hz	Operating Voltage		Compressor			Condenser Motor			MCA	MOCP
		MIN	MAX	RLA	LRA	QTY	HP	FLA	QTY	AMPS	AMPS
3OND048G	380 - 420 / 3 / 50	342	462	8.4	66	1	1/4	1.6	1	12.1	20
3OND060G	380 - 420 / 3 / 50	342	462	9.1	74	1	1/4	1.6	1	13.0	25
3OND072G	380 - 420 / 3 / 50	342	462	11.4	101	1	1/4	1.6	1	15.9	30
3ODD090G	380 - 420 / 3 / 50	342	462	14.4	114	1	1/2	3.0	1	21.0	40
3ODD120G	380 - 420 / 3 / 50	342	462	9.1	74	2	1/4	1.6	2	23.7	40
3ODD150G	380 - 420 / 3 / 50	342	462	11.4	101	2	1/4	1.6	2	28.9	40
3ODD180G	380 - 420 / 3 / 50	342	462	14.4	114	2	1/2	3.0	2	38.4	50
3ODD216G	380 - 420 / 3 / 50	342	462	17.5	118	2	1/2	3.0	2	45.4	60
3ODD240G	380 - 420 / 3 / 50	342	462	18.3	118	2	1 1/2	3.1	2	47.4	70
3ODD300G	380 - 420 / 3 / 50	342	462	26.5	174	2	1 1/2	3.1	2	65.7	90

FLA - Full Load Amps.
LRA - Locked rotor amps
RLA - Running load amps
MCA - Minimum Circuit Amps.
MOCP - Maximum Over Current Protection

UNIT SPECIFICATIONS
COOLING PERFORMANCE DATA FOR 50HZ UNITS

MODEL: 3IDD048 + 3OND048 (50Hz)

CONDENSER ENTERING AIR TEMPERATURE (DEGF)		EVAPORATOR AIR FLOW (CFM)/BF								
		1300/0.12			1700/0.15			2100/0.18		
		EVAPORATOR ENTERING AIR WET BULB TEMPERATURE (DEGF)								
		62	**67**	**72**	**62**	**67**	**72**	**62**	**67**	**72**
85	TC	43898	48400	53005	46251	50753	55460	47786	52391	57200
	SC	38679	32437	25991	44921	37451	29265	46353	42056	32335
	KW	4.88	5.10	5.33	4.99	5.22	5.45	5.07	5.30	5.53
95	TC	41749	45944	50344	43795	48000	52595	45126	49526	54233
	SC	37758	31516	25070	42465	36530	28344	43795	41135	31414
	KW	5.10	5.34	5.59	5.22	5.46	5.71	5.30	5.54	5.79
105	TC	39293	43386	47581	41237	45330	49730	42465	46660	51163
	SC	36735	30493	24149	40009	35507	27423	41237	40112	30493
	KW	5.30	5.57	5.83	5.43	5.69	5.96	5.50	5.77	6.04
115	TC	36837	40726	44716	38577	42567	46660	39702	43693	47991
	SC	35712	29572	23330	37451	34586	26502	38577	37144	29572
	KW	5.49	5.77	6.05	5.61	5.89	6.19	5.70	5.98	6.27
118	TC	36131	39958	43887	37809	41769	45770	38904	42465	46394
	SC	35405	29265	23085	36714	34310	26226	37809	36315	29296
	KW	5.54	5.83	6.13	5.65	5.95	6.25	5.75	6.04	6.34
125	TC	34484	38167	41953	36019	39907	43693	37042	39600	42670
	SC	33760	28549	22512	34995	33665	25581	36019	34381	28651
	KW	5.64	5.97	6.29	5.75	6.08	6.40	5.86	6.19	6.51

MODEL: 3IDD060 + 3OND060 (50Hz)

CONDENSER ENTERING AIR TEMPERATURE (DEGF)		EVAPORATOR AIR FLOW (CFM)/BF								
		1500/0.113			2000/0.148			2500/0.182		
		EVAPORATOR ENTERING AIR WET BULB TEMPERATURE (DEGF)								
		62	**67**	**72**	**62**	**67**	**72**	**62**	**67**	**72**
85	TC	54117	60627	65408	57372	63882	68358	59711	65916	70291
	SC	47386	39817	31211	55578	45520	34529	59184	50601	37432
	KW	6.70	7.04	7.26	6.92	7.15	7.38	7.04	7.29	7.49
95	TC	50150	56074	60417	53270	60000	63083	55185	61800	64860
	SC	41111	34305	26671	48284	42950	29614	50859	43870	32190
	KW	6.79	7.14	7.38	6.98	7.38	7.52	7.09	7.51	7.62
105	TC	47365	52551	55879	50203	55585	59206	52062	57053	60772
	SC	43012	35630	27461	50000	40945	30512	51772	45866	33366
	KW	7.20	7.66	7.81	7.44	7.77	8.00	7.56	7.83	8.18
115	TC	44150	48939	52482	46736	50950	54589	48173	52770	55834
	SC	39972	32935	25147	45227	38940	28056	46728	42599	30777
	KW	7.40	8.00	8.06	7.59	8.16	8.37	7.72	8.27	8.38
118	TC	42361	46938	50444	44850	48980	52494	46304	50723	53678
	SC	39120	32179	24498	43914	38380	27367	45340	41684	30051
	KW	7.45	8.06	8.14	7.62	8.27	8.48	7.77	8.38	8.48
125	TC	38204	42294	45688	40467	44383	47603	41946	45949	48647
	SC	37163	30446	23014	39781	37073	25790	41000	39580	28387
	KW	7.56	8.20	8.31	7.67	8.52	8.73	7.88	8.63	8.73

MODEL: 3IDD072 + 3OND072 (50Hz)

CONDENSER ENTERING AIR TEMPERATURE (DEGF)		EVAPORATOR AIR FLOW (CFM)/BF								
		1800/0.109			2400/0.131			3000/0.149		
		EVAPORATOR ENTERING AIR WET BULB TEMPERATURE (DEGF)								
		62	**67**	**72**	**62**	**67**	**72**	**62**	**67**	**72**
85	TC	66048	72288	78240	69600	75936	82272	72576	78816	85056
	SC	59328	49450	39072	68160	57120	43968	71136	64896	48768
	KW	7.07	7.32	7.68	7.28	7.64	7.79	7.33	7.68	8.00
95	TC	62880	69120	75456	66048	72000	77952	68448	75072	82272
	SC	59520	48096	37824	65088	56064	42720	67584	63456	47520
	KW	7.56	7.91	8.32	7.68	8.35	8.45	7.87	8.45	8.58
105	TC	58080	63744	68736	61056	66048	71424	63264	68832	74400
	SC	54720	45504	35328	60576	52512	40224	62784	60480	45024
	KW	8.12	8.38	8.74	8.22	8.54	9.00	8.38	8.79	9.15
115	TC	54336	59520	64512	57408	62496	67104	58752	64128	69312
	SC	53280	43680	33984	56832	50688	38592	58464	58272	43392
	KW	8.51	8.97	9.41	8.77	9.21	9.53	8.92	9.33	9.74
118	TC	53270	58310	63302	56342	61315	65866	57658	62918	68016
	SC	51696	43133	33581	55766	50141	38102	57053	56630	42902
	KW	8.61	9.16	9.61	8.93	9.42	9.69	9.06	9.51	9.93
125	TC	50784	55488	60480	53856	58560	62976	55104	60096	64992
	SC	48000	41856	32640	53280	48864	36960	53760	52800	41760
	KW	8.83	9.60	10.08	9.31	9.89	10.08	9.41	9.92	10.37

UNIT SPECIFICATIONS
COOLING PERFORMANCE DATA FOR 50HZ UNITS

MODEL: 3IDD090 + 3ODD090 (50Hz)

CONDENSER ENTERING AIR TEMPERATURE (DEGF)		EVAPORATOR AIR FLOW (CFM)/BF								
		2400/0.111			3000/0.132			3600/0.151		
		EVAPORATOR ENTERING AIR WET BULB TEMPERATURE (DEGF)								
		62	**67**	**72**	**62**	**67**	**72**	**62**	**67**	**72**
85	TC	78562	91051	99899	85948	95667	103669	90385	98403	106301
	SC	65031	56809	45380	74756	62815	48884	81779	67987	52109
	KW	7.63	7.95	8.12	7.77	8.04	8.27	7.83	8.10	8.37
95	TC	72215	83999	95744	79447	90000	98591	85209	93137	101215
	SC	62171	54056	44367	71538	61063	47442	78664	66791	50302
	KW	8.34	8.54	8.63	8.45	8.63	8.74	8.50	8.71	8.83
105	TC	65420	76421	90923	72498	83191	93616	78627	87243	95890
	SC	58799	51124	42603	66879	58703	46250	73075	65178	49635
	KW	8.73	9.09	9.40	8.90	9.21	9.52	9.05	9.30	9.61
115	TC	60929	70156	86032	67396	75360	89817	73047	79303	92060
	SC	57169	49893	42111	63321	57157	46262	68600	63844	49893
	KW	9.62	9.96	10.34	9.84	10.09	10.48	10.00	10.19	10.58
118	TC	58866	66947	81925	64547	71132	85553	69679	74626	88070
	SC	55494	48513	40663	60909	55354	44826	65712	61709	48621
	KW	9.98	10.32	10.71	10.22	10.46	10.86	10.40	10.56	10.97
125	TC	56469	62244	75757	60577	64259	79168	64720	66860	82415
	SC	53301	46789	38546	57178	52862	42862	61032	58642	47147
	KW	10.44	10.77	11.19	10.71	10.92	11.34	10.95	11.04	11.46

MODEL: 3IDD120 + 3ODD120 (50Hz)

CONDENSER ENTERING AIR TEMPERATURE (DEGF)		EVAPORATOR AIR FLOW (CFM)/BF								
		3000/0.111			4000/0.133			4600/0.157		
		EVAPORATOR ENTERING AIR WET BULB TEMPERATURE (DEGF)								
		62	**67**	**72**	**62**	**67**	**72**	**62**	**67**	**72**
85	TC	110476	120952	133143	115048	126286	138286	118095	129714	141810
	SC	102476	85619	68286	105905	97143	75238	110190	106286	81810
	KW	11.90	12.38	13.05	12.57	13.24	13.71	13.33	14.00	14.57
95	TC	105048	115524	126571	109048	120000	131048	111905	122762	134286
	SC	100095	83238	66000	103143	93714	72857	106762	103810	79429
	KW	12.38	13.05	13.62	13.14	13.71	14.38	14.00	14.57	15.33
105	TC	100667	110762	121238	104476	114762	125333	106952	117524	128190
	SC	99714	83905	66095	101190	94762	73143	105524	105238	79905
	KW	12.57	13.14	13.90	13.24	13.90	14.67	14.10	14.67	15.52
115	TC	94857	104000	114095	98000	107810	117810	100381	110095	120190
	SC	93810	80667	63048	96857	91429	69905	99143	96401	76667
	KW	13.05	13.81	14.67	13.81	14.57	15.33	14.67	15.43	16.19
118	TC	93343	102343	112238	96314	106038	115810	98667	108152	118105
	SC	92152	79867	62305	95429	90457	69105	97771	97507	75867
	KW	13.19	14.01	14.87	13.98	14.74	15.53	14.87	15.63	16.42
125	TC	89810	98476	107905	92381	101905	111143	94667	103619	113238
	SC	88286	78000	60571	92095	88190	67238	94571	91956	74000
	KW	13.52	14.48	15.33	14.38	15.14	16.00	15.33	16.10	16.95

MODEL: 3IDD150 + 3ODD150 (50Hz)

CONDENSER ENTERING AIR TEMPERATURE (DEGF)		EVAPORATOR AIR FLOW (CFM)/BF								
		4200/0.11			5000/0.131			5400/0.162		
		EVAPORATOR ENTERING AIR WET BULB TEMPERATURE (DEGF)								
		62	**67**	**72**	**62**	**67**	**72**	**62**	**67**	**72**
85	TC	139421	151559	164629	144193	156641	170335	147513	160272	174485
	SC	113107	93646	74006	123463	105251	81594	126319	116320	88914
	KW	11.92	12.50	12.99	12.66	13.24	13.73	13.56	14.14	14.63
95	TC	132886	144401	156953	137243	150000	162139	140148	152285	166081
	SC	110696	91235	71774	117482	102841	79362	120070	113911	86594
	KW	12.66	13.32	13.89	13.48	14.14	14.72	14.39	15.04	15.54
105	TC	126144	137036	148861	145542	141184	153841	132782	144297	157368
	SC	108018	88914	69453	111233	100431	77041	113642	111501	84273
	KW	13.56	14.30	14.88	14.39	15.13	15.70	15.29	16.03	16.61
115	TC	119193	129463	140770	122720	132990	145230	125210	135894	148343
	SC	101948	86415	67132	105072	97931	74720	107126	102662	81951
	KW	14.47	15.29	16.03	15.37	16.11	16.85	16.28	17.02	17.76
118	TC	111393	120993	131578	114652	124252	135693	116927	126891	138589
	SC	91143	77944	60459	94058	88416	67359	95852	92767	73910
	KW	15.75	16.68	17.50	16.74	17.56	18.40	17.71	18.53	19.34
125	TC	101932	110724	120449	104832	113623	124096	106796	115867	126715
	SC	82613	72190	55791	85525	82077	62305	87058	86291	68435
	KW	16.91	18.00	18.90	18.00	18.90	19.89	18.99	19.89	20.80

UNIT SPECIFICATIONS
COOLING PERFORMANCE DATA FOR 50HZ UNITS

MODEL: 3IDD180 + 3ODD180 (50Hz)

CONDENSER ENTERING AIR TEMPERATURE (DEGF)		EVAPORATOR AIR FLOW (CFM)/BF								
		5000/0.115			6000/0.137			7000/0.168		
		EVAPORATOR ENTERING AIR WET BULB TEMPERATURE (DEGF)								
		62	**67**	**72**	**62**	**67**	**72**	**62**	**67**	**72**
85	TC	166367	180638	195309	172554	186526	202694	176546	191117	208283
	SC	146706	122554	98004	165468	136127	107085	175349	149101	115768
	KW	16.85	16.99	17.12	16.92	17.04	17.25	16.97	17.07	17.38
95	TC	160878	174351	188822	166466	180000	196007	170359	184331	201696
	SC	144311	120159	95708	162973	133732	104890	168862	146606	113672
	KW	18.31	18.43	18.65	18.37	18.5	18.8	18.41	18.56	18.95
105	TC	155189	167764	182135	160179	173153	189221	163572	177145	194610
	SC	141816	117564	93413	159081	131137	102694	162175	144111	116766
	KW	19.93	20.08	20.35	20	20.16	20.53	20.04	20.23	20.71
115	TC	148602	160279	174650	152993	165369	181536	156187	169261	186925
	SC	139021	114670	90818	151696	128343	100199	154890	141317	108982
	KW	21.72	21.87	22.21	21.78	21.96	22.43	21.81	22.06	22.62
118	TC	146686	158123	172494	150928	163123	179081	154061	166955	184381
	SC	138183	113802	90040	149600	127504	99451	152794	140478	108233
	KW	22.3	22.46	22.79	22.34	22.52	23.03	22.36	22.62	23.23
125	TC	142215	153093	167464	146107	157884	173353	149101	161576	178442
	SC	107843	88486	69841	114558	99389	77347	117086	109660	84299
	KW	23.65	23.85	24.15	23.65	23.85	24.45	23.65	23.95	24.65

MODEL: 3IDD216 + 3ODD216 (50Hz)

CONDENSER ENTERING AIR TEMPERATURE (DEGF)		EVAPORATOR AIR FLOW (CFM)/BF								
		6400/0.117			7200/0.138			8000/0.169		
		EVAPORATOR ENTERING AIR WET BULB TEMPERATURE (DEGF)								
		62	**67**	**72**	**62**	**67**	**72**	**62**	**67**	**72**
85	TC	202474	216419	231204	209709	223969	239487	214637	229421	245674
	SC	171752	148054	124148	193456	164936	136520	213903	180979	148159
	KW	20.44	20.67	20.92	20.55	20.79	21.1	20.65	20.89	21.23
95	TC	195553	208975	223235	202159	216000	231099	206878	221138	237076
	SC	168816	145118	121317	190520	162000	133689	206144	178043	145328
	KW	22.21	22.46	22.75	22.33	22.61	22.95	22.42	22.71	23.1
105	TC	188109	200901	214847	194085	207507	222396	198489	212435	228058
	SC	165670	142078	118485	187270	158959	130753	197755	174897	142497
	KW	24.17	24.45	24.79	24.31	24.61	25	24.4	24.7	25.15
115	TC	180035	192408	206144	185697	198594	213379	189786	203208	218726
	SC	162315	138827	115445	183915	155709	127818	189052	171752	139561
	KW	26.33	26.63	27.02	26.47	26.8	27.24	26.57	26.94	27.43
118	TC	177707	189954	203627	183275	196109	210768	187270	200503	216021
	SC	161308	137852	114532	179762	154734	126937	186536	170808	138680
	KW	27.02	27.33	27.72	27.08	27.51	27.97	27.25	27.66	28.17
125	TC	172276	184229	197755	177623	190311	204676	181398	194190	209709
	SC	158959	135577	112404	170074	152458	124882	180664	168606	136625
	KW	28.63	28.94	29.36	28.52	29.15	29.67	28.83	29.36	29.88

MODEL: 3IDD240 + 3ODD240 (50Hz)

CONDENSER ENTERING AIR TEMPERATURE (DEGF)		EVAPORATOR AIR FLOW (CFM)/BF								
		7000/0.117			8000/0.139			9000/0.166		
		EVAPORATOR ENTERING AIR WET BULB TEMPERATURE (DEGF)								
		62	**67**	**72**	**62**	**67**	**72**	**62**	**67**	**72**
85	TC	225169	240677	257119	233215	249073	266331	238695	255137	273211
	SC	191003	164649	138064	215140	183423	151822	237879	201265	164766
	KW	24.7	25.47	25.84	26.24	26.61	27.01	27.31	27.65	28.13
95	TC	217472	232399	248257	224819	240000	257003	230067	245925	263650
	SC	187738	161384	134915	211875	180158	148674	229250	198000	161618
	KW	27.37	27.74	28.15	28.48	28.85	29.34	29.54	29.92	30.46
105	TC	209194	223420	238929	215840	230766	247324	220737	236247	253621
	SC	184240	158003	131766	208261	176777	145409	219921	194501	158469
	KW	27.27	27.62	28.05	28.29	28.66	29.15	29.26	29.65	30.22
115	TC	200215	213975	229250	206512	220854	237296	211059	225985	243243
	SC	180509	154388	128385	204530	173162	142145	210243	191003	155204
	KW	29.74	30.13	30.61	30.75	31.17	31.74	31.74	32.18	32.82
118	TC	197626	211246	226451	203818	218091	234393	208261	222977	240235
	SC	179389	153304	127370	199911	172078	141165	207445	189954	154224
	KW	30.54	30.95	31.46	31.57	31.99	32.59	32.55	33.01	33.67
125	TC	191586	204879	219921	197533	211643	227618	201731	215957	233215
	SC	176777	150774	125003	189137	169547	138880	200914	187505	151939
	KW	32.43	32.86	33.42	33.45	33.92	34.58	34.45	34.95	35.67

UNIT SPECIFICATIONS
COOLING PERFORMANCE DATA FOR 50HZ UNITS

MODEL: 3IDD300 + 3ODD300 (50Hz)										
CONDENSER ENTERING AIR TEMPERATURE (DEGF)		EVAPORATOR AIR FLOW (CFM)/BF								
		8200/0.111			10000/0.132			10800/0.164		
		EVAPORATOR ENTERING AIR WET BULB TEMPERATURE (DEGF)								
		62	**67**	**72**	**62**	**67**	**72**	**62**	**67**	**72**
85	TC	281697	301098	321668	291763	311602	333192	298619	319188	341800
	SC	238954	205984	172724	269150	229471	189937	297598	251791	206130
	KW	31.87	32.23	32.62	32.05	32.42	32.9	32.19	32.57	33.11
95	TC	272068	290742	310581	281259	300000	321522	287824	307664	329838
	SC	234869	201899	168785	265066	225386	185998	286803	247707	202191
	KW	34.63	35.02	35.48	34.82	35.25	35.79	34.96	35.41	36.02
105	TC	261711	279508	298911	270025	288699	309414	276153	295555	317291
	SC	230492	197669	164845	260544	221156	181913	275131	243330	198252
	KW	37.69	38.13	38.65	37.9	38.37	38.98	38.05	38.52	39.22
115	TC	250478	267692	286803	258355	276299	296869	264044	282718	304308
	SC	225825	193146	160616	255876	216634	177830	263023	238954	194168
	KW	40.23	40.69	41.29	40.44	40.95	41.62	40.6	41.16	41.91
118	TC	247239	264278	283301	254986	272841	293236	260544	278955	300544
	SC	224424	191790	159345	250098	215277	176604	259523	237641	192942
	KW	41.28	41.75	42.36	41.38	42.03	42.74	41.64	42.27	43.04
125	TC	239683	256313	275131	247122	264775	284760	252374	270172	291763
	SC	221156	188625	156385	236620	212111	173745	251353	234577	190083
	KW	43.74	44.22	44.86	43.58	44.54	45.34	44.06	44.86	45.66

LEGENDS: KW - TOTAL POWER INPUT IN KILOWATT (COMPRESSOR+CONDENSER MOTOR+BLOWER MOTOR)
TC - GROSS TOTAL COOLING CAPACITY IN BTU/HR.
SC - GROSS SENSIBLE COOLING CAPACITY IN BTU/HR.
BF - BYPASS FACTOR.

NOTE: THE ABOVE RATINGS ARE BASED ON 80ºF INDOOR AIR DRY BULB TEMPERATURE.
AT ANY OTHER TEMPERATURE, CORRECT THE SC FROM ABOVE TABLE AS FOLLOWS:
Corrected SC = SC + [1.08 x CFM(1-BF) x (DBTºF-80)]

UNIT SPECIFICATIONS
HEATING PERFORMANCE DATA FOR 50Hz UNITS

MODEL: 3IDD048 + 3OND048 (50Hz)

Heat Pump (Heating)		OUTDOOR CONDITIONS																	
	Air Flow (CFM)	1300						1700						2100					
Indoor Conditions		12°C DB 11°C WB	7°C DB 6°C WB	4°C DB 3°C WB	0°C DB -1°C WB	-4°C DB -6°C WB	-7°C DB -8°C WB	12°C DB 11°C WB	7°C DB 6°C WB	4°C DB 3°C WB	0°C DB -1°C WB	-4°C DB -6°C WB	-7°C DB -8°C WB	12°C DB 11°C WB	7°C DB 6°C WB	4°C DB 3°C WB	0°C DB -1°C WB	-4°C DB -6°C WB	-7°C DB -8°C WB
15°C	Capacity Btu	51862	47147	40075	36068	31740	26344	56372	51247	43560	39204	34500	28635	58683	53348	45346	40811	35914	29809
	Input kW.	5.21	4.91	4.77	4.49	4.22	3.97	5.52	5.21	5.06	4.76	4.48	4.21	5.62	5.30	5.16	4.85	4.56	4.28
18°C	Capacity Btu	50352	45774	38908	35017	30815	25577	54730	49754	42291	38062	33495	27801	56974	51794	44025	39623	34868	28940
	Input kW.	5.34	5.06	4.92	4.63	4.35	4.09	5.67	5.37	5.22	4.91	4.61	4.34	5.77	5.47	5.32	5.00	4.70	4.41
20°C	Capacity Btu	48885	44441	37775	33997	29918	24832	53136	48000	41060	36954	32519	26991	55314	50286	42743	38469	33852	28098
	Input kW.	5.58	5.28	5.13	4.82	4.53	4.26	5.92	5.60	5.44	5.11	4.81	4.52	6.03	5.70	5.54	5.20	4.89	4.60
22°C	Capacity Btu	47418	43108	36642	32977	29020	24087	51542	46856	39828	35845	31544	26181	53655	48777	41461	37315	32837	27255
	Input kW.	5.94	5.64	5.49	5.16	4.85	4.56	6.30	5.99	5.82	5.47	5.14	4.83	6.42	6.09	5.92	5.57	5.23	4.92

MODEL: 3IDD060 + 3OND060 (50Hz)

Heat Pump (Heating)		OUTDOOR CONDITIONS																	
	Air Flow (CFM)	1500						2000						2500					
Indoor Conditions		12°C DB 11°C WB	7°C DB 6°C WB	4°C DB 3°C WB	0°C DB -1°C WB	-4°C DB -6°C WB	-7°C DB -8°C WB	12°C DB 11°C WB	7°C DB 6°C WB	4°C DB 3°C WB	0°C DB -1°C WB	-4°C DB -6°C WB	-7°C DB -8°C WB	12°C DB 11°C WB	7°C DB 6°C WB	4°C DB 3°C WB	0°C DB -1°C WB	-4°C DB -6°C WB	-7°C DB -8°C WB
15°C	Capacity Btu	64828	58934	50094	45085	39675	32930	70465	64059	54450	49005	43124	35793	73354	66685	56683	51014	44893	37261
	Input kW.	6.51	6.14	5.97	5.61	5.27	4.96	6.90	6.51	6.33	5.95	5.59	5.26	7.03	6.63	6.44	6.06	5.69	5.35
18°C	Capacity Btu	62939	57218	48635	43772	38519	31971	68412	62193	52864	47578	41868	34751	71217	64743	55032	49528	43585	36176
	Input kW.	6.68	6.33	6.15	5.78	5.44	5.11	7.08	6.71	6.53	6.13	5.77	5.42	7.21	6.84	6.64	6.25	5.87	5.52
20°C	Capacity Btu	61106	55551	47218	42497	37397	31040	66420	60000	51324	46192	40649	33739	69143	62857	53429	48086	42316	35122
	Input kW.	6.98	6.59	6.41	6.03	5.66	5.32	7.40	6.99	6.80	6.39	6.01	5.65	7.53	7.12	6.92	6.51	6.12	5.75
22°C	Capacity Btu	59273	53885	45802	41222	36275	30108	64427	58570	49785	44806	39429	32726	67069	60972	51826	46643	41046	34068
	Input kW.	7.43	7.06	6.86	6.45	6.06	5.70	7.88	7.48	7.27	6.84	6.43	6.04	8.02	7.62	7.41	6.96	6.54	6.15

MODEL: 3IDD072 + 3OND072 (50Hz)

Heat Pump (Heating)		OUTDOOR CONDITIONS																	
	Air Flow (CFM)	1800						2400						3000					
Indoor Conditions		12°C DB 11°C WB	7°C DB 6°C WB	4°C DB 3°C WB	0°C DB -1°C WB	-4°C DB -6°C WB	-7°C DB -8°C WB	12°C DB 11°C WB	7°C DB 6°C WB	4°C DB 3°C WB	0°C DB -1°C WB	-4°C DB -6°C WB	-7°C DB -8°C WB	12°C DB 11°C WB	7°C DB 6°C WB	4°C DB 3°C WB	0°C DB -1°C WB	-4°C DB -6°C WB	-7°C DB -8°C WB
15°C	Capacity Btu	77793	70721	60113	54102	47609	39516	84558	76871	65340	58806	51749	42952	88025	80022	68019	61217	53871	44713
	Input kW.	7.59	7.16	6.96	6.55	6.15	5.78	8.05	7.60	7.39	6.94	6.53	6.13	8.20	7.74	7.52	7.07	6.64	6.24
18°C	Capacity Btu	75527	68661	58362	52526	46223	38365	82095	74632	63437	57093	50242	41701	85461	77692	66038	59434	52302	43411
	Input kW.	7.79	7.39	7.18	6.75	6.34	5.96	8.26	7.83	7.61	7.16	6.73	6.32	8.41	7.97	7.75	7.29	6.85	6.44
20°C	Capacity Btu	73327	66661	56662	50996	44876	37247	79704	72000	61589	55430	48779	40486	82972	75429	64114	57703	50779	42146
	Input kW.	8.14	7.69	7.48	7.03	6.61	6.21	8.63	8.16	7.93	7.46	7.01	6.59	8.79	8.31	8.07	7.59	7.13	6.71
22°C	Capacity Btu	71128	64662	54962	49466	43530	36130	77313	70284	59742	53767	47315	39272	80483	73166	62191	55972	49255	4088
	Input kW.	8.67	8.23	8.00	7.52	7.07	6.65	9.19	8.73	8.49	7.98	7.50	7.05	9.36	8.89	8.64	8.12	7.63	7.18

MODEL: 3IDD090 + 3ODD090 (50Hz)

Heat Pump (Heating)		OUTDOOR CONDITIONS																	
	Air Flow (CFM)	2400						3000						3600					
Indoor Conditions		12°C DB 11°C WB	7°C DB 6°C WB	4°C DB 3°C WB	0°C DB -1°C WB	-4°C DB -6°C WB	-7°C DB -8°C WB	12°C DB 11°C WB	7°C DB 6°C WB	4°C DB 3°C WB	0°C DB -1°C WB	-4°C DB -6°C WB	-7°C DB -8°C WB	12°C DB 11°C WB	7°C DB 6°C WB	4°C DB 3°C WB	0°C DB -1°C WB	-4°C DB -6°C WB	-7°C DB -8°C WB
15°C	Capacity Btu	96788	87989	74791	67312	59234	49164	105204	95640	81294	73165	64385	53439	109518	99561	84627	76164	67025	55631
	Input kW.	7.87	7.43	7.22	6.79	6.38	6.00	8.35	7.88	7.66	7.20	6.77	6.36	8.50	8.02	7.80	7.33	6.89	6.47
18°C	Capacity Btu	93969	85426	72612	65351	57509	47732	102140	90000	78926	71034	62510	51883	106328	96662	82162	73946	65073	54010
	Input kW.	8.08	7.66	7.44	7.00	6.58	6.18	8.57	8.12	7.89	7.42	6.98	6.56	8.72	8.27	8.04	7.55	7.10	6.67
20°C	Capacity Btu	91232	82938	70497	63448	55834	46342	99165	90150	76628	68965	60689	50372	103231	93846	79769	71792	63177	52437
	Input kW.	8.44	7.98	7.75	7.29	6.85	6.44	8.95	8.46	8.22	7.73	7.27	6.83	9.11	8.61	8.37	7.87	7.40	6.95
22°C	Capacity Btu	88495	80450	68382	61544	54159	44952	96190	87446	74329	66896	58868	48861	100134	91031	77376	69639	61282	50864
	Input kW.	8.99	8.53	8.30	7.80	7.33	6.89	9.53	9.05	8.80	8.27	7.77	7.31	9.70	9.22	8.96	8.42	7.91	7.44

MODEL: 3IDD120 + 3ODD120 (50Hz)

Heat Pump (Heating)		OUTDOOR CONDITIONS																	
	Air Flow (CFM)	3000						4000						4600					
Indoor Conditions		12°C DB 11°C WB	7°C DB 6°C WB	4°C DB 3°C WB	0°C DB -1°C WB	-4°C DB -6°C WB	-7°C DB -8°C WB	12°C DB 11°C WB	7°C DB 6°C WB	4°C DB 3°C WB	0°C DB -1°C WB	-4°C DB -6°C WB	-7°C DB -8°C WB	12°C DB 11°C WB	7°C DB 6°C WB	4°C DB 3°C WB	0°C DB -1°C WB	-4°C DB -6°C WB	-7°C DB -8°C WB
15°C	Capacity Btu	130231	118392	100633	90570	79702	66152	141556	128687	109384	98446	86632	71905	147360	133963	113869	102482	90184	74853
	Input kW.	12.53	11.82	11.49	10.80	10.15	9.54	13.29	12.53	12.18	11.45	10.76	10.12	13.53	12.76	12.40	11.66	10.96	10.30
18°C	Capacity Btu	126438	114944	97702	87932	77380	64226	137433	124939	106198	95578	84109	69810	143068	130061	110552	99497	87557	72673
	Input kW.	12.85	12.18	11.84	11.13	10.46	9.84	13.63	12.92	12.56	11.81	11.10	10.43	13.88	13.15	12.79	12.02	11.30	10.62
20°C	Capacity Btu	122756	111596	94857	85371	75126	62355	133430	120000	103105	92795	81659	67777	138901	126273	107332	96599	85007	70556
	Input kW.	13.43	12.69	12.33	11.59	10.90	10.25	14.24	13.46	13.08	12.30	11.56	10.87	14.50	13.70	13.32	12.52	11.77	11.06
22°C	Capacity Btu	119073	108248	92011	82810	72873	60484	129427	117661	100012	90011	79209	65744	134734	122485	104112	93701	82457	68439
	Input kW.	14.30	13.58	13.20	12.41	11.66	10.96	15.17	14.40	14.00	13.16	12.37	11.63	15.44	14.66	14.25	13.40	12.59	11.84

UNIT SPECIFICATIONS
HEATING PERFORMANCE DATA FOR 50Hz UNITS

MODEL: 3IDD150 + 3ODD150 (50Hz)

Heat Pump (Heating)		OUTDOOR CONDITIONS																	
	Air Flow (CFM)	4200						5000						5400					
Indoor Conditions		12°C DB 11°C WB	7°C DB 6°C WB	4°C DB 3°C WB	0°C DB -1°C WB	-4°C DB -6°C WB	-7°C DB -8°C WB	12°C DB 11°C WB	7°C DB 6°C WB	4°C DB 3°C WB	0°C DB -1°C WB	-4°C DB -6°C WB	-7°C DB -8°C WB	12°C DB 11°C WB	7°C DB 6°C WB	4°C DB 3°C WB	0°C DB -1°C WB	-4°C DB -6°C WB	-7°C DB -8°C WB
15°C	Capacity Btu	161904	147185	125107	112597	99085	82241	175982	159984	135986	122388	107701	89392	183197	166543	141562	127405	112117	93057
	Input kW.	13.03	12.29	11.95	11.23	10.56	9.92	13.82	13.04	12.67	11.91	11.20	10.52	14.07	13.27	12.90	12.13	11.40	10.71
18°C	Capacity Btu	157188	142898	121463	109317	96199	79845	170856	155324	132025	118823	104564	86788	177862	161692	137438	123695	108851	90347
	Input kW.	13.37	12.67	12.32	11.58	10.88	10.23	14.18	13.44	13.06	12.28	11.54	10.85	14.43	13.68	13.30	12.50	11.75	11.05
20°C	Capacity Btu	152610	138736	117926	106133	93397	77520	165880	150000	128180	115362	101519	84260	172681	156983	133435	120092	105681	87715
	Input kW.	13.96	13.20	12.83	12.06	11.34	10.66	14.81	14.00	13.61	12.79	12.02	11.30	15.08	14.25	13.85	13.02	12.24	11.51
22°C	Capacity Btu	148031	134574	114388	102949	90595	75194	160904	146276	124335	111901	98473	81733	167501	152273	129432	116489	102510	85084
	Input kW.	14.87	14.12	13.73	12.90	12.13	11.40	15.77	14.98	14.56	13.69	12.87	12.09	16.06	15.25	14.82	13.93	13.10	12.31

MODEL: 3IDD180 + 3ODD180 (50Hz)

Heat Pump (Heating)		OUTDOOR CONDITIONS																	
	Air Flow (CFM)	5000						6000						7000					
Indoor Conditions		12°C DB 11°C WB	7°C DB 6°C WB	4°C DB 3°C WB	0°C DB -1°C WB	-4°C DB -6°C WB	-7°C DB -8°C WB	12°C DB 11°C WB	7°C DB 6°C WB	4°C DB 3°C WB	0°C DB -1°C WB	-4°C DB -6°C WB	-7°C DB -8°C WB	12°C DB 11°C WB	7°C DB 6°C WB	4°C DB 3°C WB	0°C DB -1°C WB	-4°C DB -6°C WB	-7°C DB -8°C WB
15°C	Capacity Btu	194220	176563	150079	135071	118863	98656	211108	191917	163129	146816	129198	107235	219764	199785	169818	152836	134496	111631
	Input kW.	16.94	15.98	15.53	14.60	13.72	12.90	17.96	16.95	16.47	15.48	14.56	13.68	18.29	17.25	16.77	15.76	14.82	13.93
18°C	Capacity Btu	188563	171421	145708	131137	115401	95782	204960	186327	158378	142540	125435	104111	213363	193966	164871	148384	130578	108380
	Input kW.	17.38	16.47	16.01	15.05	14.15	13.30	18.43	17.47	16.98	15.96	15.01	14.11	18.76	17.79	17.29	16.25	15.28	14.36
20°C	Capacity Btu	183071	166428	141464	127317	112039	92993	198990	180000	153765	138389	121782	101079	207149	188317	160069	144062	126775	105223
	Input kW.	18.15	17.16	16.68	15.68	14.74	13.85	19.26	18.20	17.69	16.63	15.63	14.69	19.60	18.53	18.01	16.93	15.91	14.96
22°C	Capacity Btu	177579	161435	137220	123498	108678	90203	193020	175473	149152	134237	118128	98047	200934	182667	155267	139741	122972	102067
	Input kW.	19.33	18.36	17.85	16.78	15.77	14.82	20.51	19.47	18.93	17.79	16.73	15.72	20.88	19.82	19.27	18.11	17.03	16.00

MODEL: 3IDD216 + 3ODD216 (50Hz)

Heat Pump (Heating)		OUTDOOR CONDITIONS																	
	Air Flow (CFM)	6400						7200						8000					
Indoor Conditions		12°C DB 11°C WB	7°C DB 6°C WB	4°C DB 3°C WB	0°C DB -1°C WB	-4°C DB -6°C WB	-7°C DB -8°C WB	12°C DB 11°C WB	7°C DB 6°C WB	4°C DB 3°C WB	0°C DB -1°C WB	-4°C DB -6°C WB	-7°C DB -8°C WB	12°C DB 11°C WB	7°C DB 6°C WB	4°C DB 3°C WB	0°C DB -1°C WB	-4°C DB -6°C WB	-7°C DB -8°C WB
15°C	Capacity Btu	232817	211652	179904	161914	142484	118262	253062	230056	195548	175993	154874	128545	263437	239488	203565	183209	161224	133816
	Input kW.	20.85	19.67	19.12	17.97	16.89	15.88	22.11	20.86	20.27	19.06	17.91	16.84	22.51	21.23	20.64	19.40	18.24	17.14
18°C	Capacity Btu	226036	205487	174664	157198	138334	114817	245691	223356	189852	170867	150363	124801	255764	232513	197636	177873	156528	129918
	Input kW.	21.39	20.27	19.71	18.52	17.41	16.37	22.69	21.50	20.90	19.65	18.47	17.36	23.10	21.89	21.28	20.00	18.80	17.67
20°C	Capacity Btu	219452	199502	169577	152619	134305	111473	238535	216000	184323	165890	145983	121166	248315	225741	191880	172692	151969	126134
	Input kW.	22.34	21.12	20.53	19.30	18.14	17.05	23.70	22.40	21.77	20.47	19.24	18.08	24.13	22.80	22.16	20.83	19.58	18.41
22°C	Capacity Btu	212869	193517	164489	148040	130276	108129	231379	210345	178793	160914	141604	117531	240865	218969	186123	167511	147410	122350
	Input kW.	23.79	22.60	21.96	20.65	19.41	18.24	25.24	23.97	23.30	21.90	20.59	19.35	25.69	24.40	23.72	22.29	20.96	19.70

MODEL: 3IDD240 + 3ODD240 (50Hz)

Heat Pump (Heating)		OUTDOOR CONDITIONS																	
	Air Flow (CFM)	7000						8000						9000					
Indoor Conditions		12°C DB 11°C WB	7°C DB 6°C WB	4°C DB 3°C WB	0°C DB -1°C WB	-4°C DB -6°C WB	-7°C DB -8°C WB	12°C DB 11°C WB	7°C DB 6°C WB	4°C DB 3°C WB	0°C DB -1°C WB	-4°C DB -6°C WB	-7°C DB -8°C WB	12°C DB 11°C WB	7°C DB 6°C WB	4°C DB 3°C WB	0°C DB -1°C WB	-4°C DB -6°C WB	-7°C DB -8°C WB
15°C	Capacity Btu	259282	235711	200354	180319	158680	131705	281828	256207	217776	195999	172479	143157	293383	266712	226705	204035	179550	149027
	Input kW.	26.43	24.93	24.24	22.78	21.41	20.13	28.03	26.45	25.71	24.16	22.71	21.35	28.54	26.92	26.17	24.60	23.12	21.73
18°C	Capacity Btu	251730	228845	194519	175067	154059	127869	273620	248745	211433	190290	167455	138988	284838	258944	220102	198092	174321	144686
	Input kW.	27.12	25.70	24.98	23.49	22.08	20.75	28.76	27.26	26.50	24.91	23.42	22.01	29.28	27.75	26.98	25.36	23.84	22.41
20°C	Capacity Btu	244398	222180	188853	169968	149572	124144	265650	240000	205275	184748	162578	134940	276542	251402	213691	192322	169243	140472
	Input kW.	28.33	26.78	26.03	24.46	23.00	21.62	30.05	28.40	27.60	25.95	24.39	22.93	30.59	28.91	28.10	26.42	24.83	23.34
22°C	Capacity Btu	237066	215515	183187	164869	145084	120420	257681	234255	199117	179205	157700	130891	268245	243859	207281	186552	164166	136258
	Input kW.	30.17	28.65	27.85	26.18	24.61	23.13	32.00	30.39	29.54	27.76	26.10	24.53	32.57	30.93	30.07	28.26	26.57	24.97

MODEL: 3IDD300 + 3ODD300 (50Hz)

Heat Pump (Heating)		OUTDOOR CONDITIONS																	
	Air Flow (CFM)	8200						10000						10800					
Indoor Conditions		12°C DB 11°C WB	7°C DB 6°C WB	4°C DB 3°C WB	0°C DB -1°C WB	-4°C DB -6°C WB	-7°C DB -8°C WB	12°C DB 11°C WB	7°C DB 6°C WB	4°C DB 3°C WB	0°C DB -1°C WB	-4°C DB -6°C WB	-7°C DB -8°C WB	12°C DB 11°C WB	7°C DB 6°C WB	4°C DB 3°C WB	0°C DB -1°C WB	-4°C DB -6°C WB	-7°C DB -8°C WB
15°C	Capacity Btu	323700	294272	250132	225118	198104	164426	351847	319861	271882	244694	215331	178724	366273	332976	283029	254726	224159	186052
	Input kW.	32.85	30.99	30.12	28.32	26.62	25.02	34.84	32.87	31.95	30.03	28.23	26.54	35.47	33.46	32.53	30.57	28.74	27.02
18°C	Capacity Btu	314272	285701	242846	218562	192334	159637	341600	310545	263963	237567	209059	173519	355605	323277	274786	247307	217630	180633
	Input kW.	33.71	31.95	31.06	29.19	27.44	25.79	35.75	33.89	32.94	30.96	29.11	27.36	36.40	34.50	33.53	31.52	29.63	27.85
20°C	Capacity Btu	305118	277380	235773	212196	186732	154988	331650	300000	256275	230648	202970	168465	345248	313862	266782	240104	211292	175372
	Input kW.	35.21	33.28	32.35	30.41	28.58	26.87	37.35	35.30	34.31	32.25	30.32	28.50	38.02	35.94	34.93	32.83	30.86	29.01
22°C	Capacity Btu	295964	269059	228700	205830	181130	150338	321701	292455	248587	223728	196881	163411	334890	304446	258779	232901	204953	170111
	Input kW.	37.50	35.61	34.61	32.54	30.58	28.75	39.77	37.77	36.71	34.51	32.44	30.49	40.49	38.45	37.37	35.13	33.02	31.04

UNIT SPECIFICATIONS

FAN PERFORMANCE DATA FOR 3IDD048 - 3IDD090 (50HZ)

MODEL 3IDD048 (50Hz)										
MODEL	External Static Pressure (Inch of WG)									
3IDD048 DIRECT DRIVE	Air flow	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.6	0.7
	(CFM)	RPM	RPM	RPM	RPM	RPM	RPM	RPM	RPM	RPM
	HIGH	1871	1700	1709	1629	1530	1432	1334	....	....
	LOW	1570	1520	1470	1411	1328	1244	1161	....	....

MODEL 3IDD060 (50Hz)										
MODEL	External Static Pressure (Inch of WG)									
3IDD060 DIRECT DRIVE	Air flow	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.6	0.7
	(CFM)	RPM	RPM	RPM	RPM	RPM	RPM	RPM	RPM	RPM
	HIGH	2184	2000	1996	1902	1787	1672	1557	....	....
	LOW	1828	1770	1712	1644	1546	1449	1352	....	....

MODEL 3IDD072 (50Hz)																				
External Static Pressure (Inch of WG)																				
Air Flow	0.2		0.4		0.6		0.8		1.0		1.2		1.4		1.6		1.8		2.0	
(CFM)	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1800	840	0.50	935	0.63	980	0.72	1015	0.80	1071	0.82	1132	1.05	1189	1.20	1228	1.24	..	..	..	..
2000	845	0.56	942	0.68	983	0.75	1018	0.87	1074	0.93	1135	1.12	1192	1.25	1230	1.33	..	..	..	..
2200	851	0.62	946	0.72	985	0.82	1020	0.92	1078	1.10	1140	1.21	1195	1.31	1232	1.41	..	..	..	..
2400	861	0.68	950	0.80	987	0.92	1025	1.05	1080	1.22	1142	1.33	1199	1.38	1239	1.50	..	..	..	..
2600	865	0.78	953	0.85	990	1.10	1029	1.18	1083	1.32	1145	1.42	1202	1.50	1243	1.62	..	..	..	..
2800	870	0.85	959	1.00	993	1.13	1034	1.27	1087	1.41	1149	1.50	1205	1.65	1249	1.79	..	..	..	..
3000	876	1.00	962	1.12	995	1.25	1039	1.38	1092	1.50	1154	1.65	1209	1.78	1254	1.89	..	..	..	..
3200	881	1.18	965	1.25	998	1.37	1042	1.50	1097	1.68	1159	1.78	1211	1.90	1258	2.15	..	..	..	..
3400	886	1.25	969	1.37	1000	1.52	1046	1.68	1104	1.82	1162	1.90	1214	2.10	1262	2.30	..	..	..	..
3600	893	1.40	972	1.58	1008	1.70	1050	1.80	1110	1.90	1165	2.10	1217	2.30	1265	2.50	..	..	..	..

MODEL 3IDD090 (50Hz)																				
External Static Pressure (Inch of WG)																				
Air Flow	0.2		0.4		0.6		0.8		1.0		1.2		1.4		1.6		1.8		2.0	
(CFM)	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
2400	706	0.66	770	0.79	834	0.92	886	1.08	938	1.24	988	1.39	1036	1.52	1084	1.66	1102	1.85	1119	2.04
2600	708	0.72	772	0.85	836	0.98	888	1.14	940	1.30	990	1.45	1038	1.60	1086	1.74	1104	1.95	1123	2.16
2800	710	0.77	774	0.90	838	1.04	890	1.20	942	1.36	992	1.52	1040	1.67	1088	1.82	1107	2.04	1126	2.27
3000	712	0.82	776	0.96	840	1.10	892	1.26	944	1.42	994	1.58	1042	1.74	1090	1.90	1110	2.14	1130	2.38
3200	714	0.91	778	1.04	842	1.18	894	1.35	946	1.52	996	1.68	1044	1.85	1092	2.02	1112	2.25	1133	2.48
3400	716	1.00	780	1.13	844	1.26	896	1.44	948	1.61	998	1.79	1046	1.96	1094	2.14	1115	2.36	1136	2.59
3600	718	1.08	782	1.21	846	1.34	898	1.52	950	1.71	1000	1.89	1048	2.08	1096	2.26	1117	2.48	1138	2.69
3800	720	1.17	784	1.30	848	1.42	900	1.61	952	1.80	1002	2.00	1050	2.19	1098	2.38	1120	2.59	1141	2.80
4000	722	1.26	786	1.38	850	1.50	902	1.70	954	1.90	1004	2.10	1052	2.30	1100	2.50	1122	2.70	1144	2.90

NOTE

ABOVE DATA INCLUDES THE LOSSES THROUGH WET COIL AND CASING
IF BHP IS EXCEEDING THAN THE STANDARD MOTOR THEN HIGHER CAPACITY MOTOR TO BE USED ACCORDING TO REQUIREMENT.

UNIT SPECIFICATIONS

FAN PERFORMANCE DATA FOR 3IDD120 - 3IDD180 (50HZ)

MODEL 3IDD120 (50Hz)

External Static Pressure (Inch of WG)

Air Flow	0.2		0.4		0.6		0.8		1.0		1.2		1.4		1.6		1.8		2.0	
(CFM)	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
3200	746	0.98	810	1.11	868	1.26	920	1.43	972	1.60	1020	1.77	1068	1.94	1102	2.14	1123	2.37	1143	2.60
3400	748	1.06	812	1.19	870	1.35	922	1.52	974	1.70	1022	1.88	1070	2.05	1104	2.25	1125	2.48	1146	2.70
3600	750	1.15	814	1.28	872	1.43	924	1.62	976	1.80	1024	1.98	1072	2.17	1107	2.37	1128	2.58	1149	2.80
3800	752	1.23	816	1.36	874	1.52	926	1.71	978	1.90	1026	2.09	1074	2.28	1109	2.48	1130	2.69	1152	2.90
4000	754	1.32	818	1.44	876	1.60	928	1.80	980	2.00	1028	2.20	1076	2.40	1111	2.60	1133	2.80	1155	3.00
4200	756	1.44	820	1.57	878	1.74	930	1.95	982	2.16	1031	2.38	1080	2.59	1114	2.78	1135	2.94	1156	3.10
4400	758	1.55	822	1.70	880	1.89	932	2.10	984	2.32	1034	2.55	1083	2.78	1118	2.96	1137	3.08	1157	3.20
4600	760	1.67	824	1.84	882	2.03	934	2.26	986	2.48	1036	2.73	1087	2.98	1121	3.14	1140	3.22	1158	3.30
4800	762	1.78	826	1.97	884	2.18	936	2.41	988	2.64	1039	2.90	1090	3.17	1125	3.32	1142	3.36	1159	3.40

MODEL 3IDD150 (50Hz*)

External Static Pressure (Inch of WG)

Air Flow	0.2		0.4		0.6		0.8		1.0		1.2		1.4		1.6		1.8		2.0	
(CFM)	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
3200	746	0.98	810	1.11	868	1.26	920	1.43	972	1.60	1020	1.77	1068	1.94	1102	2.14	1123	2.37	1143	2.50
3400	748	1.06	812	1.19	870	1.35	922	1.52	974	1.70	1022	1.88	1070	2.05	1104	2.25	1125	2.48	1146	2.70
3600	750	1.15	814	1.28	872	1.43	924	1.62	976	1.80	1024	1.98	1072	2.17	1107	2.37	1128	2.58	1149	2.80
3800	752	1.23	816	1.36	874	1.52	926	1.71	978	1.90	1026	2.09	1074	2.28	1109	2.48	1130	2.69	1152	2.90
4000	754	1.32	818	1.44	876	1.60	928	1.80	980	2.00	1028	2.20	1076	2.40	1111	2.60	1133	2.8	1155	3.00
4200	756	1.44	820	1.57	878	1.74	930	1.95	982	2.16	1031	2.38	1080	2.59	1114	2.78	1135	1.94	1146	3.10
4400*	758	1.55	822	1.70	880	1.89	932	2.10	984	2.32	1034	2.55	1083	2.78	1118	2.96	1137	3.08	1157	3.20
4600	760	1.67	824	1.84	882	2.03	934	2.26	986	2.48	1036	2.73	1087	2.98	1121	3.14	1140	3.22	1158	3.30
4800	762	1.78	826	1.97	884	2.18	936	2.41	988	2.64	1039	2.90	1090	3.17	1125	3.32	1142	3.36	1159	3.40
5000	764	1.90	828	2.10	886	2.32	938	2.56	990	2.80	1042	3.08	1094	3.36	1128	3.50	1144	3.5	1160	3.50
5200	766	2.02	830	2.23	888	2.46	940	2.71	992	2.96	1045	3.26	1098	3.55	1131	3.68	1146	3.64	1161	3.60
5400	770	2.25	834	2.50	892	2.75	944	3.02	996	3.28	1050	3.61	1105	3.94	1138	4.04	1151	3.92	1163	3.80

MODEL 3IDD180 (50Hz)

External Static Pressure (Inch of WG)

Air Flow	0.2		0.4		0.6		0.8		1.0		1.2		1.4		1.6		1.8		2.0	
(CFM)	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
4400	700	1.75	750	1.95	795	2.25	820	2.35	880	2.75	910	2.95	960	3.20	1000	3.50	1030	3.90	1070	4.10
4600	710	1.83	760	2.10	805	2.40	830	2.50	890	2.85	915	3.10	970	3.30	1005	3.60	1040	4.00	1074	4.20
4800	725	2.00	780	2.25	810	2.50	850	2.70	900	3.00	925	3.25	975	3.50	1010	3.90	1050	4.10	1078	4.50
5000	735	2.20	790	2.50	820	2.60	860	2.90	905	3.20	930	3.40	980	3.70	1013	4.00	1060	4.20	...	2.38
5200	740	2.30	795	2.60	825	2.80	865	3.00	910	3.40	935	3.50	985	3.95	1018	4.10	1062	4.40	...	...
5400	750	2.50	800	2.75	830	2.95	875	3.25	915	3.50	945	3.80	990	4.20	1022	4.25	1065	4.75	...	...
5600	765	2.70	805	2.90	835	3.15	882	3.50	920	3.75	950	4.00	995	4.40	1027	4.60	1075	4.90	...	...
5800	785	2.90	810	3.15	850	3.50	895	3.75	930	4.00	970	4.40	1000	4.50	1030	5.00	1080	5.20	...	...
6000	800	3.25	820	3.40	870	3.70	900	4.00	945	4.35	980	4.70	1010	4.90	1040	5.10	...	...	...	...
6200	810	3.35	830	3.50	880	3.90	910	4.20	955	4.50	990	4.90	1020	5.20	1050	5.50	...	...	...	...
6400	820	3.50	840	3.90	895	4.15	925	4.50	960	4.60	1000	5.00	1030	5.50	1060	5.80	...	...	...	...
6600	830	3.75	850	4.00	900	4.50	930	4.75	975	5.00	1010	5.40	1035	5.90	1070	6.00	...	...	...	...
6800	840	4.00	860	4.10	913	4.85	943	5.00	982	5.40	1020	5.80	1045	6.30	1080	6.20	...	...	...	...
7000	850	4.25	870	4.20	923	5.20	953	5.23	992	5.80	1030	6.20	1054	6.70	1090	6.40	...	...	...	...

NOTE

ABOVE DATA INCLUDES THE LOSSES THROUGH WET COIL AND CASING

IF BHP IS EXCEEDING THAN THE STANDARD MOTOR THEN HIGHER CAPACITY MOTOR TO BE USED ACCORDING TO REQUIREMENT.

UNIT SPECIFICATIONS

FAN PERFORMANCE DATA FOR 3IDD216 - 3IDD300 (50HZ)

MODEL 3IDD216 (50HZ)

External Static Pressure (Inch of WG)

Air Flow	0.2		0.4		0.6		0.8		1.0		1.2		1.4		1.6		1.8		2.0	
(CFM)	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
5200	700	2.10	745	2.40	795	2.70	815	2.90	870	3.15	905	3.50	940	3.70	980	4.00	1010	4.20	1050	4.50
5400	710	2.30	760	2.55	800	2.85	835	3.00	880	3.30	910	3.60	950	4.00	990	4.20	1020	4.40	1055	4.70
5600	715	2.50	770	2.70	805	3.00	845	3.25	890	3.50	915	3.75	955	4.10	995	4.40	1025	4.60	1060	5.00
5800	718	2.60	780	2.90	808	3.10	850	3.30	895	3.70	920	4.00	960	4.30	998	4.50	1030	4.80	1065	5.10
6000	730	2.75	790	3.00	815	3.30	860	3.55	900	3.95	925	4.20	965	4.50	1000	4.80	1033	5.00	1070	5.50
6200	760	3.10	805	3.40	835	3.60	870	3.95	910	4.25	950	4.50	980	4.90	1010	5.15	1040	5.50	1080	6.00
6400	770	3.20	808	3.55	850	3.80	885	4.00	915	4.50	960	4.75	990	5.00	1020	5.40	1050	5.90	...	...
6600	790	3.50	815	3.80	860	4.05	900	4.40	930	4.65	970	5.00	1000	5.50	1030	5.90	1060	6.20	...	...
6800	795	3.70	830	4.00	873	4.30	905	4.60	940	4.95	980	5.25	1003	5.90	1035	6.00	1070	6.50	...	...
7000	810	3.90	845	4.15	885	4.50	910	4.85	950	5.10	985	5.50	1008	6.10	1050	6.50	1075	6.80	...	...
7200	825	4.10	850	4.45	890	4.90	915	5.00	960	5.50	990	6.00	1015	6.40	1055	6.70	1080	7.10	...	...
7400	845	4.35	860	4.65	895	5.30	925	5.40	970	5.90	995	6.30	1020	6.70	1060	7.00	...	...	...	...
7600	855	4.60	870	4.98	900	5.40	930	5.80	980	6.25	1000	6.70	1030	7.00	1065	7.20	...	...	...	...
7800	860	4.85	880	5.20	905	5.80	940	6.10	985	6.50	1004	6.95	1040	7.20	1070	7.38	...	...	...	...
8000	870	5.00	890	5.50	910	6.00	950	6.40	990	6.80	1010	7.10	1050	7.30	1075	7.50	...	...	...	...

MODEL 3IDD240 (50Hz)

External Static Pressure (Inch of WG)

Air Flow	0.2		0.4		0.6		0.8		1.0		1.2		1.4		1.6		1.8		2.0	
(CFM)	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
6000	715	2.50	770	2.70	805	3.00	845	3.25	890	3.50	915	3.75	955	4.10	995	4.40	1025	4.60	1060	5.00
6200	718	2.60	780	2.90	808	3.10	850	3.30	895	3.70	920	4.00	960	4.30	998	4.50	1030	4.80	1065	5.10
6400	730	2.75	790	3.00	815	3.30	860	3.55	900	3.95	925	4.20	965	4.50	1000	4.80	1033	5.00	1070	5.50
6600	760	3.10	805	3.40	835	3.60	870	3.95	910	4.25	950	4.50	980	4.90	1010	5.15	1040	5.50	1080	6.00
6800	770	3.20	808	3.55	850	3.80	885	4.00	915	4.50	960	4.75	990	5.00	1020	5.40	1050	5.90	1090	6.50
7000	790	3.50	815	3.80	860	4.05	900	4.40	930	4.65	970	5.00	1000	5.50	1030	5.90	1060	6.20	1100	7.00
7200	795	3.70	830	4.00	873	4.30	905	4.60	940	4.95	980	5.25	1003	5.90	1035	6.00	1070	6.50	1110	7.50
7400	810	3.90	845	4.15	885	4.50	910	4.85	950	5.10	985	5.50	1008	6.10	1050	6.50	1075	6.80	...	...
7600	825	4.10	850	4.45	890	4.90	915	5.00	960	5.50	990	6.00	1015	6.40	1055	6.70	1080	7.10	...	...
7800	845	4.35	860	4.65	895	5.30	925	5.40	970	5.90	995	6.30	1020	6.70	1060	7.00	...	...	...	...
8000	855	4.60	870	4.98	900	5.40	930	5.80	980	6.25	1000	6.70	1030	7.00	1065	7.20	...	...	...	...
8200	860	4.85	880	5.20	905	5.80	940	6.10	985	6.50	1004	6.95	1040	7.20	...	...	...	...	...	...
8400	870	5.00	890	5.50	910	6.00	950	6.40	990	6.80	1010	7.10	1050	7.30	...	...	...	...	...	...
8600	893	5.23	900	5.64	931	6.22	960	6.53	1003	6.98	...	...	...	...	...	...	...	...	...	...
8800	907	5.44	910	5.87	940	6.48	969	6.80	1013	7.26	...	...	...	...	...	...	...	...	...	...
9000	920	5.66	920	6.10	950	6.74	978	7.07	...	...	...	...	...	...	...	...	...	...	...	...
9200	934	5.88	930	6.34	960	7.01	986	7.34	...	...	...	...	...	...	...	...	...	...	...	...
9400	948	6.10	940	6.57	969	7.27	...	...	...	...	...	...	...	...	...	...	...	...	...	...
9600	962	6.31	950	6.80	979	7.53	...	...	...	...	...	...	...	...	...	...	...	...	...	...
9800	976	6.53	960	7.03	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
10000	990	6.75	970	7.26	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

MODEL 3IDD300 (50HZ)

External Static Pressure (Inch of WG)

Air Flow	0.2		0.4		0.6		0.8		1.0		1.2		1.4		1.6		1.8		2.0	
(CFM)	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
7,000	815	2.68	875	3.00	920	3.35	971	3.71	1016	4.00	1066	4.51	1112	4.92	1156	5.28	1200	5.68	1241	6.05
7,200	822	2.81	878	3.15	923	3.50	976	3.85	1020	4.17	1071	4.80	1115	5.06	1159	5.48	1203	5.84	1244	6.27
7,400	829	2.93	881	3.30	933	3.64	980	4.00	1025	4.40	1074	4.87	1118	5.22	1162	5.65	1205	6.00	1247	6.51
7,600	842	3.11	892	3.46	940	3.82	987	4.18	1031	4,62	1081	4.97	1125	5.38	1168	5.84	1208	6.22	1253	6.75
7,800	850	3.27	900	3.61	947	3.96	996	4.40	1037	4.78	1084	5.21	1127	5.58	1170	5.92	1211	6.44	1256	6.97
8,000	853	3.38	910	3.80	953	4.18	1000	4.54	1044	4.97	1088	5.36	1129	5.75	1173	6.17	1214	6.66	1259	7.19
8,200	871	3.61	916	3.98	966	4.40	1012	4.81	1056	5.15	1098	5.60	1141	5.91	1179	6.45	1219	6.94	1261	7.40
8,400	873	3.77	923	4.19	973	4.54	1015	5.00	1060	5.39	1103	5.78	1144	6.17	1183	6.68	1225	7.22	1266	7.67
8,600	880	3.92	933	4.38	976	4.77	1018	5.13	1066	5.56	1107	5.95	1147	6.35	1186	6.91	1227	7.44	1269	7.89
8,800	886	4.15	935	4.52	980	4.90	1026	5.36	1070	5.74	1111	6.11	1150	6.58	1191	7.14	1231	7.66	1270	8.05
9,000	902	4.34	943	4.76	990	5.09	1033	5.54	1076	5.95	1116	6.36	1158	6.76	1198	7.37	1234	7.88	1273	8.37
9,200	906	4.55	950	4.95	997	5.39	1038	5.72	1082	6.18	1122	6.70	1161	7.17	1201	7.62	1236	8.11	1276	8.59
9,400	911	4.70	954	5.14	1002	5.53	1041	5.86	1088	6.36	1127	6.87	1166	7.35	1202	7.82	1241	8.33	1279	8.81
9,600	920	4.95	961	5.33	1008	5.72	1047	6.12	1094	6.62	1130	7.15	1169	7.64	1207	8.05	1246	8.53	1280	9.02
9,800	935	5.20	979	5.60	1020	5.95	1061	6.50	1105	6.96	1144	7.41	1183	7.88	1217	8.40	1255	8.88	1290	9.24
10,000	941	5.40	987	5.76	1027	6.19	1068	6.68	1111	7.21	1150	7.67	1189	8.11	1225	8.51	1260	9	1295	9.46
10,200	950	5.56	994	5.96	1033	6.51	1072	7.00	1116	7.45	1155	7.94	1192	8.35	1227	8.80	1265	9.26	1300	9.67
10,400	958	5.90	1005	6.30	1039	6.77	1083	7.25	1121	7.78	1159	8.26	1197	8.70	1232	9.08	1267	9.55	1302	10
10,600	964	6.03	1011	6.59	1050	7.03	1088	7.50	1126	8.03	1163	8.50	1202	8.94	1240	9.31	1275	9.77	...	...
10,800	976	6.40	1019	6.86	1061	7.29	1100	7.81	1136	8.27	1171	8.74	1210	9.11	1245	9.54	...	...	...	...

UNIT SPECIFICATIONS

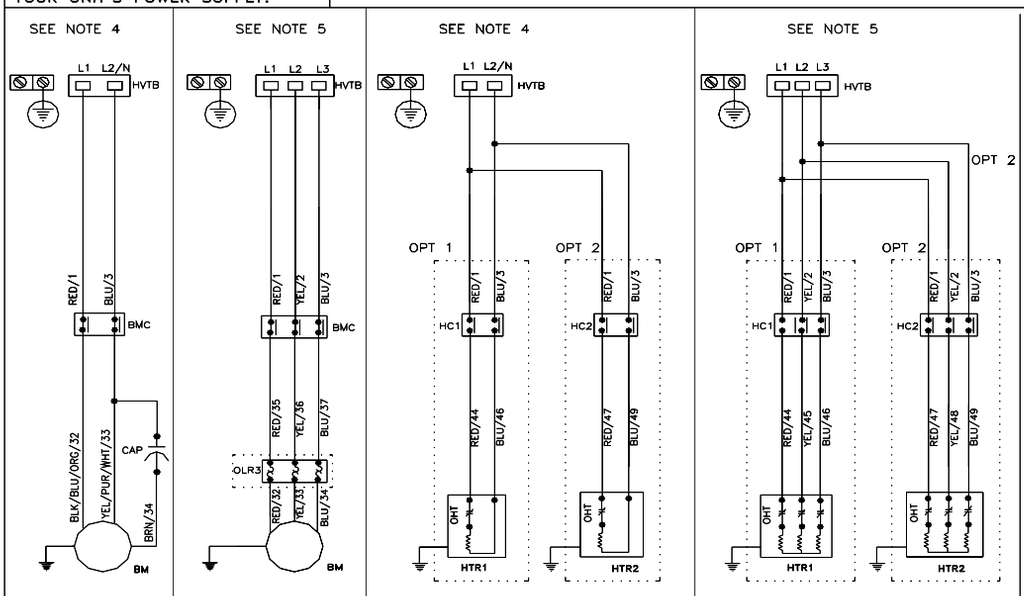
WIRING DIAGRAM - COOL 3IDD048 - 3IDD300 UNITS

POWER SUPPLY
THIS WIRING DIAGRAM SUITS
208–230 V/1PH/60 Hz
220–240 V/1PH/50 Hz (1PH & NEUTRAL)
208–230 V/3PH/60 Hz
380–420 V/3PH/50Hz WITH NEUTRAL WIRE
460 V/3PH/60Hz WITH NEUTRAL WIRE
380 V/3PH/60Hz WITH NEUTRAL WIRE
REFER UNIT NAME PLATE FOR YOUR UNIT'S POWER SUPPLY.

WIRING DIAGRAM FOR INDOOR UNITS

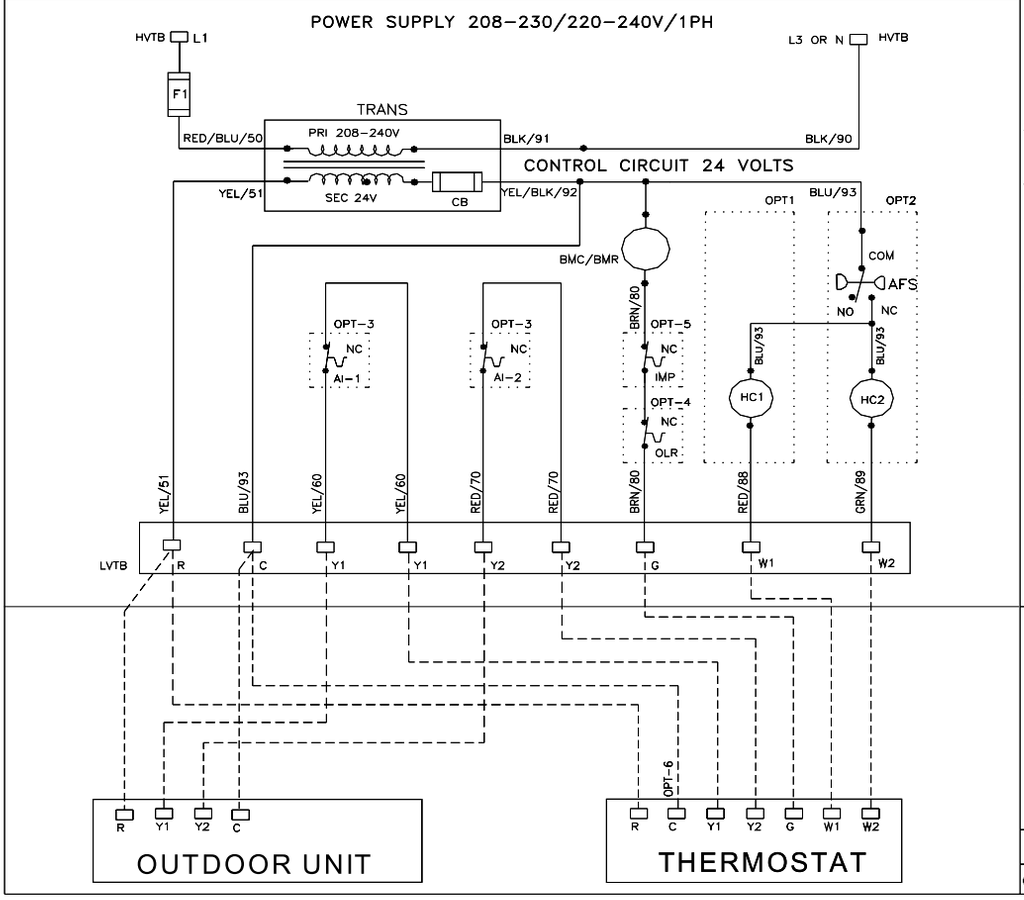
AWAL GULF MANUFACTURING Co. BSC (C)
SITRA, BAHRAIN.

WARNING: THIS UNIT IS BUILT AND WIRED ACCORDING TO COMPANY STANDARDS AND / OR JOB ORDER'S SPECIFICATIONS. ANY UNAUTHORISED CHANGE OR MODIFICATION OR SETTING ROOM THERMOSTAT TEMPERATURE BELOW 60°F WILL MAKE WARRANTY NULL AND VOID.



LEGEND

AFS	– AIR FLOW SWITCH
AI	– ANTI ICE
BLK	– BLACK
BLU	– BLUE
BM	– BLOWER MOTOR
BMC	– BLOWER MOTOR CONTACTOR
BRN	– BROWN
CB	– CIRCUIT BREAKER
COM	– COMMON
F	– FUSE
HC	– HEATER CONTACTOR
HTR	– HEATER
HVTB	– HIGH VOLTAGE TERMINAL BLOCK
IMP	– INTERNAL MOTOR PROTECTION
L	– LINE
LVTB	– LOW VOLTAGE TERMINAL BLOCK
N	– NEUTRAL
NC	– NORMALLY CLOSED
NO	– NORMALLY OPEN
OHT	– OVER HEAT THERMOSTAT
OLR	– OVER LOAD RELAY
OPT	– OPTIONAL
PRI	– PRIMARY
RED	– RED
SEC	– SECONDARY
TRANS	– TRANSFORMER
T.STAT	– THERMOSTAT
YEL	– YELLOW
— —	– FIELD WIRING
•	– TERMINAL / SPLICE
. . . . .	– OPTIONAL MARKING
⏚	– EARTHING



NOTES

1) ANY WIRE REPLACEMENT SHOULD BE OF 90°C TYPE OR EQUALENT AND COPPER CONDUCTOR ONLY.
2) FUSED DISCONNECT SWITCH OR CIRCUIT BREAKER TO BE PROVIDED BY THE USER WITH RELEVENT RATING.
3) PLEASE ALLOW 2 TO 3 MINUTES BEFORE STARTING OF COMPRESSOR.
4) POWER CIRCUIT FOR 1 PHASE MOTOR OR 1 PHASE SINGLE STAGE OR TWO STAGE HEATING
   1) 208–230 V/1PH/60 Hz
   2) 220–240 V/1PH/50 Hz (1PH & NEUTRAL)
5) POWER CIRCUIT FOR 3 PHASE MOTOR OR 3 PHASE SINGLE STAGE OR TWO STAGE HEATING
   1) 208–230 V/3PH/60 Hz
   2) 380–420 V/3PH/50Hz WITH NEUTRAL WIRE
   3) 460 V/3PH/60Hz WITH NEUTRAL WIRE
   4) 380 V/3PH/60Hz WITH NEUTRAL WIRE
6) REFER INSTRUCTIONS WITH THE COMPO NENTS FOR STAR / DELTA CONNECTIONS

OPTIONS

OPT. 1 – SINGLE STAGE HEATING
OPT. 2 – TWO STAGE HEATING
OPT. 3 – ANTI ICE
OPT. 4 – OVER LOAD RELAY
OPT. 5 – INTERNAL MOTOR PROTECTION
OPT. 6 – C. CONNECTION FOR THERMOSTAT

WIR–DIA–IDU–STD.		
C240005	1BC011263	

UNIT SPECIFICATIONS

WIRING DIAGRAM - HEAT PUMP 3IDD048 - 3IDD300 UNITS

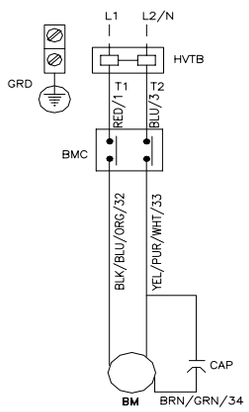
POWER SUPPLY
THIS WIRING DIAGRAM SUITS
208–230 V/1PH/60 Hz
220–240 V/1PH/50 Hz (1PH & NEUTRAL)
208–230 V/3PH/60 Hz
380–420 V/3PH/50Hz WITH NEUTRAL WIRE
460 V/3PH/60Hz WITH NEUTRAL WIRE
380 V/3PH/60Hz WITH NEUTRAL WIRE
REFER UNIT NAME PLATE FOR YOUR UNIT'S POWER SUPPLY.

WIRING DIAGRAM INDOOR HEAT PUMP

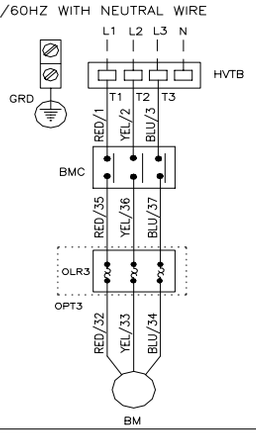
AWAL GULF MANUFACTURING Co. BSC (C)
SITRA, BAHRAIN.

WARNING : THIS UNIT IS BUILT AND WIRED ACCORDING TO COMPANY STANDARDS AND / OR JOB ORDER'S SPECIFICATIONS. ANY UNAUTHORISED CHANGE OR MODIFICATION WILL MAKE WARRANTY NULL & VOID.

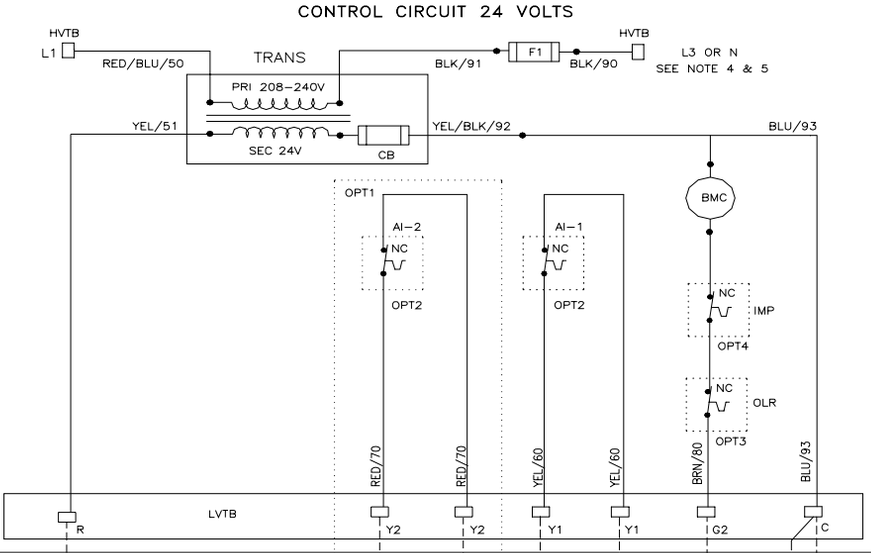
POWER SUPPLY
208–230 V/1PH/60 HZ
220–240 V/1PH/50 HZ (1PH & NEUTRAL)

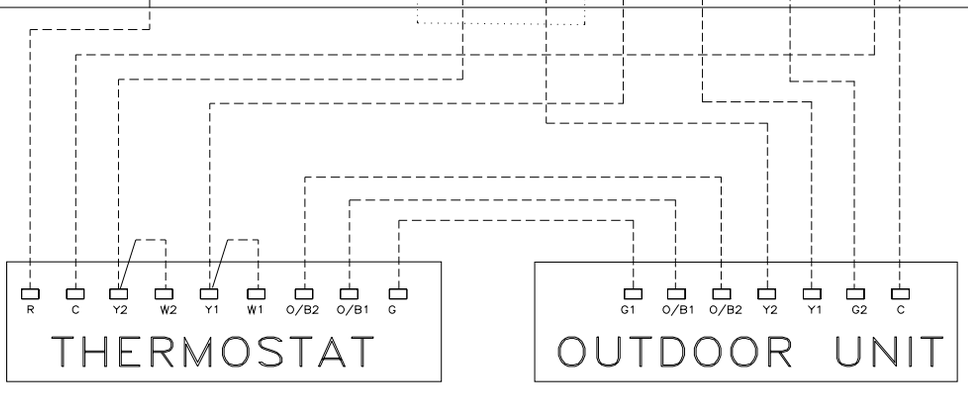


POWER SUPPLY
208–230 V/3PH /60 HZ
380–420 V/3PH /50HZ WITH NEUTRAL WIRE
460 V / 3PH /60HZ WITH NEUTRAL WIRE
380 V / 3PH /60HZ WITH NEUTRAL WIRE



CONTROL CIRCUIT 24 VOLTS





LEGEND

AI	– ANTI ICE
BLK	– BLACK
BLU	– BLUE
BM	– BLOWER MOTOR
BMC	– BLOWER MOTOR CONTACTOR
BRN	– BROWN
CAP	– CAPACITOR
F	– FUSE
GRD	– GROUNDING/EARTHING
HVTB	– HIGH VOLTAGE TERMINAL BLOCK
IMP	– INTERNAL MOTOR PROTECTION
L	– LINE
LVTB	– LOW VOLTAGE TERMINAL BLOCK
N	– NEUTRAL
NC	– NORMALLY CLOSED
OLR	– OVER LOAD RELAY
OPT	– OPTIONAL
RED	– RED
SEC	– SECONDARY
TRANS	– TRANSFORMER
T.STAT	– THERMOSTAT
YEL	– YELLOW
— — —	– FIELD WIRING
•	– TERMINAL / SPLICE
———	– OPTIONAL MARKING
⏚	– EARTHING

NOTES
1) ANY WIRE REPLACEMENT SHOULD BE OF 90°C TYPE OR EQUALENT AND COPPER CONDUCTOR ONLY.
2) FUSED DISCONNECT SWITCH OR CIRCUIT BREAKER TO BE PROVIDED BY THE USER WITH RELEVENT RATING.
3) PLEASE ALLOW 2 TO 3 MINUTES BEFORE STARTING OF COMPRESSOR.
4) POWER CIRCUIT FOR SINGLE PHASE MOTOR
   1) 208–230 V/1PH/60 Hz
   2) 220–240 V/1PH/50 Hz (1PH & NEUTRAL)
5) POWER CIRCUIT FOR 3 PHASE MOTOR & HEATER
   1) 208–230 V/3PH/60 Hz
   2) 380–420 V/3PH/50Hz WITH NEUTRAL WIRE
   3) 460 V/3PH/60Hz WITH NEUTRAL WIRE
   4) 380 V/3PH/60Hz WITH NEUTRAL WIRE
6) REFER INSTRUCTIONS WITH THE COMPO NENTS FOR STAR / DELTA CONNECTIONS

OPTIONS
OPT1 – 2 STAGE COOLING/HEATING
OPT2 – ANTI ICE PROTECION
OPT3 – OVER LOAD RELAY
OPT4 – INTERNAL MOTOR PROT.

WIR. DIA–IDU– HEAT PUMP

C240021	1BC011473	

UNIT SPECIFICATIONS

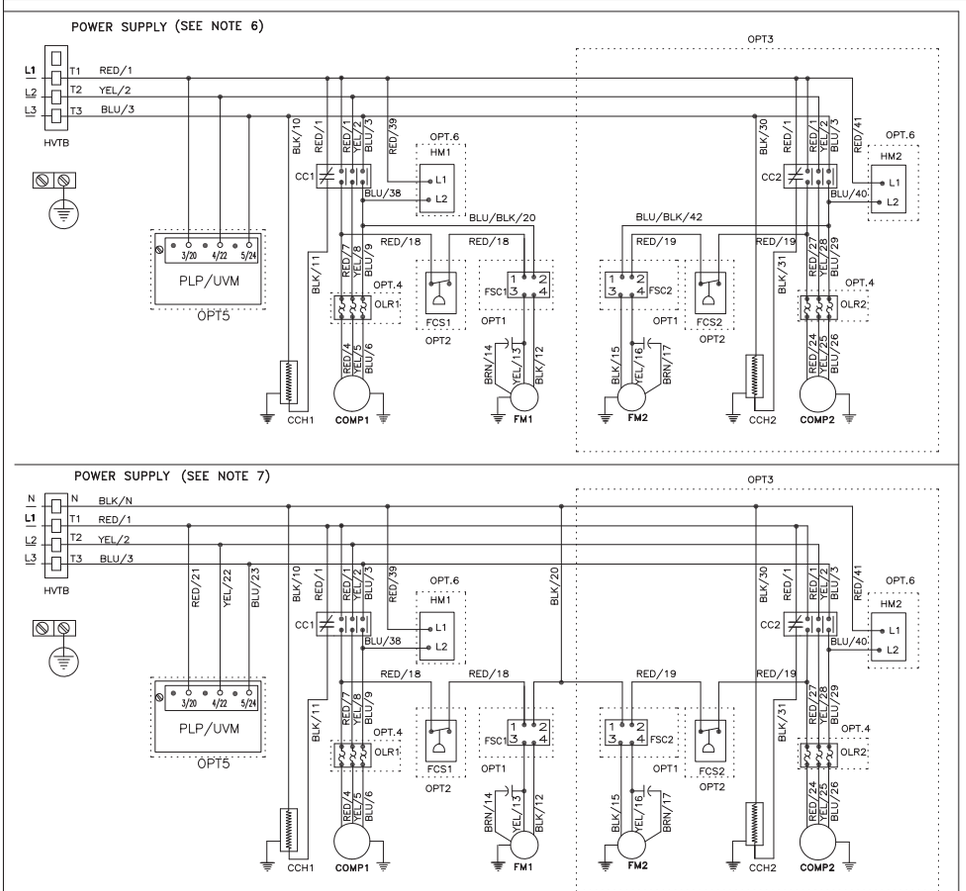
WIRING DIAGRAM - COOL 3OND048 / 3OND060 - 3ODD216 UNITS

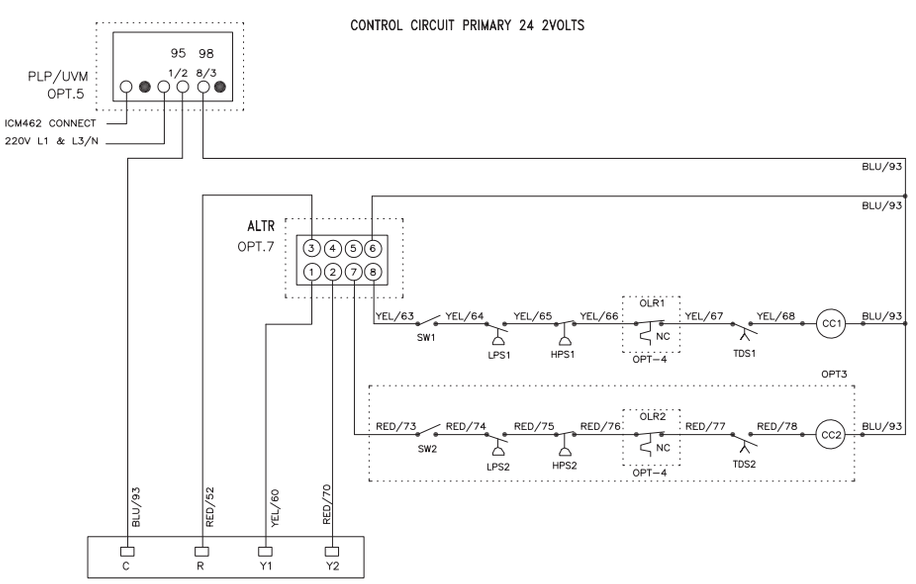
POWER SUPPLY
THIS WIRING DIAGRAM SUITS
208 – 230 VOLTS / 3 PH / 60 HZ
380–420 V / 3 PH / 50 HZ WITH NEUTRAL
380V / 3 PH / 60 HZ WITH NEUTRAL
460 VOLTS / 3 PH / 60 HZ WITH NEUTRAL
PL. REFER UNIT NAME PLATE FOR YOUR UNIT'S POWER SUPPLY

WIRING DIAGRAM FOR OUTDOOR UNITS

AWAL GULF MANUFACTURING Co. BSC (C)
SITRA, BAHRAIN.

WARNING
THIS UNIT IS BUILT AND WIRED ACCORDING TO COMPANY STANDARDS AND / OR JOB ORDER'S SPECIFICATIONS. ANY UNAUTHORISED CHANGE OR MODIFICATION OR SETTING OF ROOM THERMOSTAT TEMPERATURE BELOW 60°F WILL MAKE WARRANTY NULL & VOID.





LEGEND

ALTR – ALTERNATE RELAY
BLK – BLACK
BLU – BLUE
BRN – BROWN
CCH – CRANK CASE HEATER
COM – COMMON
COMP – COMPRESSOR
CC – COMP CONTACTOR
FM – FAN MOTOR
FSC – FAN SPEED CONTROLER
FCS – FAN CYCLING SWITCH
HM – HOUR METER
HPS – HIGH PRESSURE SWITCH
HTR – HEATER
HVTB – HIGH VOLTAGE TERMINAL BLOCK
IMP – INTERNAL MOTOR PROTECTION
L – LINE
LPS – LOW PRESSURE SWITCH
LVTB – LOW VOLTAGE TERMINAL BLOCK
N – NEUTRAL
NC – NORMALLY CLOSED
NO – NORMALLY OPEN
OLR – OVER LOAD RELAY
OPT – OPTIONAL
PLP – PHASE LOSS PROTECTION
PRI – PRIMARY
RED – RED
SEC – SECONDARY
SW – SWITCH ON/OFF
TDS – TIME DELAY SWITCH
T.STAT– THERMOSTAT
UVM – UNDER VOLTAGE MONITOR
YEL – YELLOW
—— —— – FIELD WIRING
• – TERMINAL / SPLICE
- - - - - – OPTIONAL MARKING
⏚ – EARTHING

NOTES

1) ANY WIRE REPLACEMENT SHOULD BE OF 90°C TYPE OR EQUALENT AND COPPER CONDUCTOR ONLY.
2) POWER MUST BE SUPPLIED TO CRANK CASE HEATER FOR A MINIMUM OF 12 HOURS PRIOR TO START UP. IF THE POWER SUPPLY HAS BEEN INTERRUPTED FOR LONGER PERIOD THEN AGAIN CRANK CASE HEATER MUST BE ENERGIZED FOR MINIMUM OF 12 HOURS BEFORE STARTING OF COMPRESSOR.
3) FUSED DISCONNECT SWITCH OR CIRCUIT BREAKER TO BE PROVIDED BY THE USER WITH RELEVENT RATING.
4) PLEASE ALLOW 2 TO 3 MINUTES BEFORE STARTING OF COMPRESSOR.
5) COMPRESSOR IS PROVIDED WITH INTERNAL OVERLOAD PROTECTION.
6) POWER CIRCUIT
   1 – 208–230V/3PH/60Hz
7) POWER CIRCUIT
   1 – 380–420V/3PH/50Hz WITH NEUTRAL
   2 – 380V/3PH/60Hz WITH NEUTRAL
   3 – 460V/3PH/60Hz WITH NEUTRAL
8) REFER INSTRUCTIONS WITH THE COMPONENTS FOR STAR / DELTA CONNECTIONS

OPTIONS

OPT. 1 – FAN SPEED CONTROLER
OPT. 2 – FAN CYCLING SWITCH
OPT. 3 – TWO STAGE COOLING
OPT. 4 – OVER LOAD RELAY
OPT. 5 – PHASE LOSS PROTECTION OR UNDER VOLTGE MONITOR
OPT. 6 – HOUR METER

WIR. DIA–ODU–1PH–MTR.STD

C240004	1BC011262	

UNIT SPECIFICATIONS

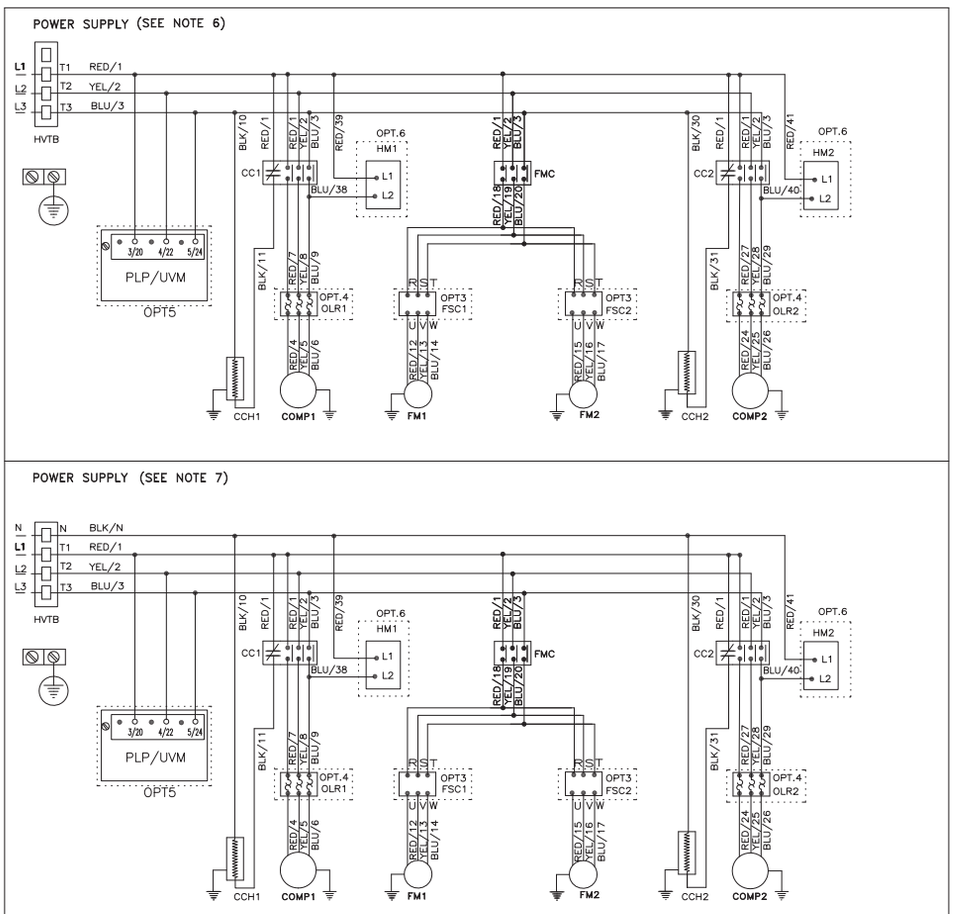
WIRING DIAGRAM - COOL 3ODD240 - 3ODD300 UNITS

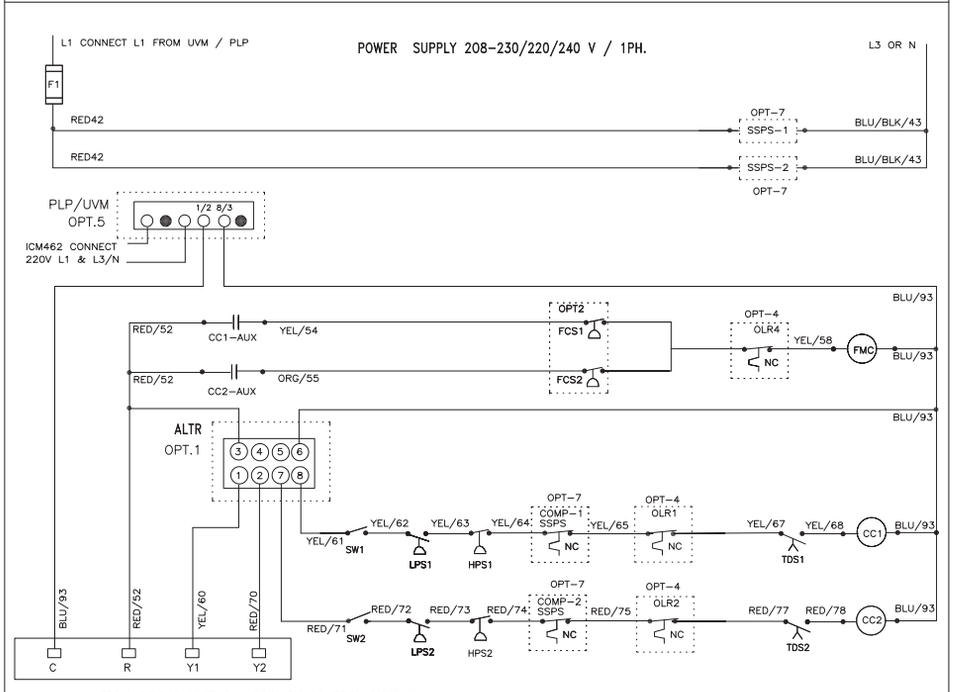
POWER SUPPLY
THIS WIRING DIAGRAM SUITS
208 – 230 VOLTS / 3 PH / 60 HZ
380–420 V / 3 PH / 50 HZ WITH NEUTRAL
380V / 3 PH / 60 HZ WITH NEUTRAL
460 VOLTS / 3 PH / 60 HZ WITH NEUTRAL
PL. REFER UNIT NAME PLATE FOR YOUR UNIT'S POWER SUPPLY

WIRING DIAGRAM FOR OUTDOOR UNITS

AWAL GULF MANUFACTURING Co. BSC (C)
SITRA, BAHRAIN.

WARNING
THIS UNIT IS BUILT AND WIRED ACCORDING TO COMPANY STANDARDS AND / OR JOB ORDER'S SPECIFICATIONS. ANY UNAUTHORISED CHANGE OR MODIFICATION OR SETTING OF ROOM THERMOSTAT TEMPERATURE BELOW 60°F WILL MAKE WARRANTY NULL & VOID.





LEGEND

ALTR – ALTERNATE RELAY
BLK – BLACK
BLU – BLUE
BRN – BROWN
CCH – CRANK CASE HEATER
COM – COMMON
COMP – COMPRESSOR
CC – COMP CONTACTOR
FM – FAN MOTOR
FMC – FAN MOTOR CONTACTOR
FSC – FAN SPEED CONTROLER
FCS – FAN CYCLING SWITCH
HM – HOUR METER
HPS – HIGH PRESSURE SWITCH
HTR – HEATER
HVTB – HIGH VOLTAGE TERMINAL BLOCK
IMP – INTERNAL MOTOR PROTECTION
L – LINE
LPS – LOW PRESSURE SWITCH
LVTB – LOW VOLTAGE TERMINAL BLOCK
N – NEUTRAL
NC – NORMALLY CLOSED
NO – NORMALLY OPEN
OLR – OVER LOAD RELAY
OPT – OPTIONAL
PLP – PHASE LOSS PROTECTION
PRI – PRIMARY
RED – RED
SEC – SECONDARY
SSPS – SOLID STATE PROTECTION SYS
SW – SWITCH ON/OFF
TDS – TIME DELAY SWITCH
T.STAT– THERMOSTAT
UVM – UNDER VOLTAGE MONITOR
YEL – YELLOW
—— —— – FIELD WIRING
• – TERMINAL / SPLICE
- - - - - – OPTIONAL MARKING
⏚ – EARTHING

NOTES

1) ANY WIRE REPLACEMENT SHOULD BE OF 90°C TYPE OR EQUALENT AND COPPER CONDUCTOR ONLY.
2) POWER MUST BE SUPPLIED TO CRANK CASE HEATER FOR A MINIMUM OF 12 HOURS PRIOR TO START UP. IF THE POWER SUPPLY HAS BEEN INTERRUPTED FOR LONGER PERIOD THEN AGAIN CRANK CASE HEATER MUST BE ENERGIZED FOR MINIMUM OF 12 HOURS BEFORE STARTING OF COMPRESSOR.
3) FUSED DISCONNECT SWITCH OR CIRCUIT BREAKER TO BE PROVIDED BY THE USER WITH RELEVENT RATING.
4) PLEASE ALLOW 2 TO 3 MINUTES BEFORE STARTING OF COMPRESSOR.
5) COMPRESSOR IS PROVIDED WITH INTERNAL OVERLOAD PROTECTION.
6) POWER CIRCUIT
   1 – 208–230V/3PH/60Hz
7) POWER CIRCUIT
   1 – 380–420V/3PH/50Hz WITH NEUTRAL
   2 – 380V/3PH/60Hz WITH NEUTRAL
   3 – 460V/3PH/60Hz WITH NEUTRAL
8) REFER INSTRUCTIONS WITH THE COMPONENTS FOR STAR / DELTA CONNECTIONS

OPTIONS

OPT. 1 – ALTERNATE RELAY
OPT. 2 – FAN CYCLING SWITCH
OPT. 3 – FAN SPEED CONTROL
OPT. 4 – OVER LOAD RELAY
OPT. 5 – PHASE LOSS PROTECTION OR UNDER VOLTGE MONITOR
OPT. 6 – HOUR METER
OPT. 7 – SOLID STATE PROTECTION SYSTEM

WIR. DIA–ODU–3PH–MTR.STD

C240060 | 1BC011589

UNIT SPECIFICATIONS

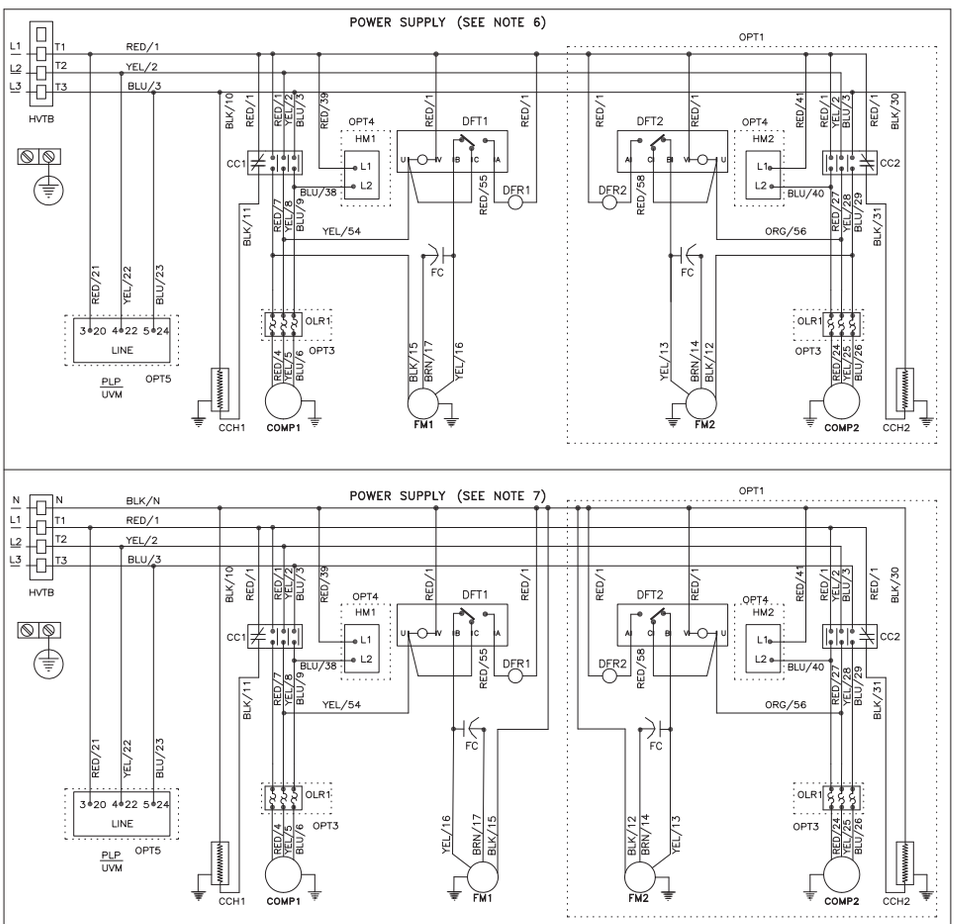
WIRING DIAGRAM - HEAT PUMP 3OND048 / 3OND060 & 3OND072 UNITS

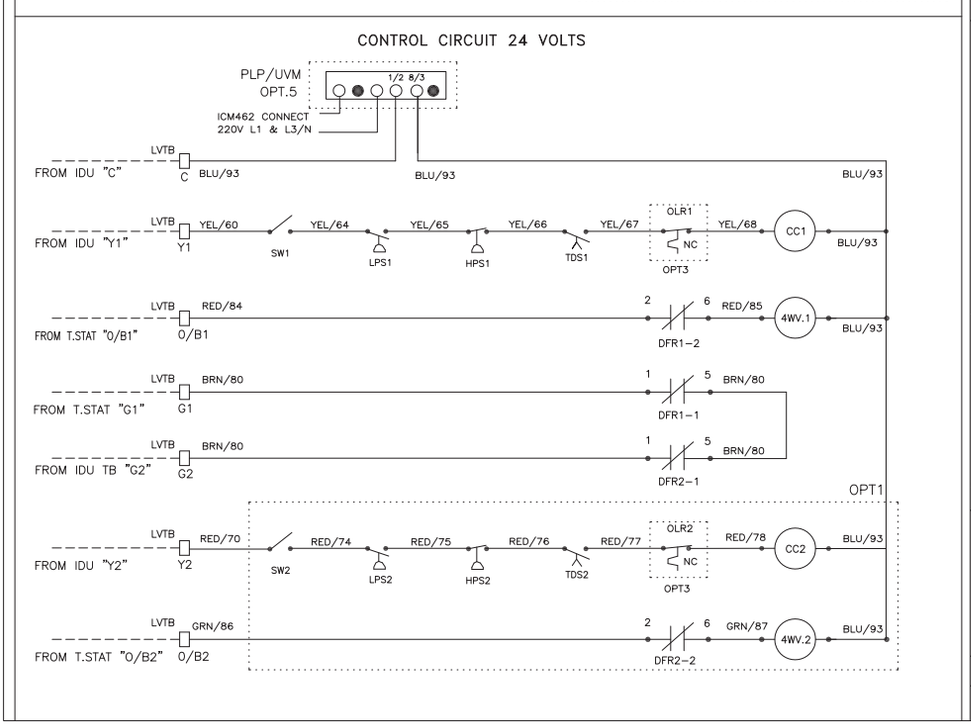
POWER SUPPLY
THIS WIRING DIAGRAM SUITS
208 – 230 VOLTS / 3 PH / 60 HZ
380–420 V / 3 PH / 50 HZ WITH NEUTRAL
380V / 3 PH / 60 HZ WITH NEUTRAL
460 VOLTS / 3 PH / 60 HZ WITH NEUTRAL
PL. REFER UNIT NAME PLATE FOR YOUR UNIT'S POWER SUPPLY

WIRING DIAGRAM OUTDOOR HEAT PUMP

AWAL GULF MANUFACTURING Co. BSC (C)
SITRA, BAHRAIN.

WARNING
THIS UNIT IS BUILT AND WIRED ACCORDING TO COMPANY STANDARDS AND / OR JOB ORDER'S SPECIFICATIONS. ANY UNAUTHORISED CHANGE OR MODIFICATION WILL MAKE WARRANTY NULL & VOID.





LEGEND

BLK – BLACK
BLU – BLUE
BRN – BROWN
CC – COMP CONTACTOR
CCH – CRANK CASE HEATER
COM – COMMON
COMP – COMPRESSOR
DFR – DEFROST TIMER RELAY
DFT – DEFROST TIMER
FC – FAN CAPACITOR
FM – FAN MOTOR
GRD – GROUNDING/EARTHING
HM – HOUR METER
HPS – HIGH PRESSURE SWITCH
HVTB – HIGH VOLTAGE TERMINAL BLOCK
IDU – INDOOR UNIT
L – LINE
LPS – LOW PRESSURE SWITCH
LVTB – LOW VOLTAGE TERMINAL BLOCK
N – NEUTRAL
NC – NORMALLY CLOSED
NO – NORMALLY OPEN
OLR – OVER LOAD RELAY
OPT – OPTIONAL
PLP – PHASE LOSS PROTECTION
RED – RED
SW – SWITCH ON/OFF
TDS – TIME DELAY SWITCH
T.STAT – THERMOSTAT
UVM – UNDER VOLTAGE MONITOR
YEL – YELLOW
4WV – FOUR WAY VALVE
— — — FIELD WIRING
• – TERMINAL / SPLICE
- - - - - – OPTIONAL MARKING
⏚ – EARTHING

NOTES

1) ANY WIRE REPLACEMENT SHOULD BE OF 90°C TYPE OR EQUALENT AND COPPER CONDUCTOR ONLY.
2) POWER MUST BE SUPPLIED TO CRANK CASE HEATER FOR A MINIMUM OF 12 HOURS PRIOR TO START UP. IF THE POWER SUPPLY HAS BEEN INTERRUPTED FOR LONGER PERIOD THEN AGAIN CRANK CASE HEATER MUST BE ENERGIZED FOR MINIMUM OF 12 HOURS BEFORE STARTING OF COMPRESSOR.
3) FUSED DISCONNECT SWITCH OR CIRCUIT BREAKER TO BE PROVIDED BY THE USER WITH RELEVENT RATING.
4) PLEASE ALLOW 2 TO 3 MINUTES BEFORE STARTING OF COMPRESSOR.
5) COMPRESSOR IS PROVIDED WITH INTERNAL OVERLOAD PROTECTION.
6) POWER CIRCUIT
   1 – 208–230V/3PH/60Hz
7) POWER CIRCUIT
   1 – 380–420V/3PH/50Hz WITH NEUTRAL
   2 – 380V/3PH/60Hz WITH NEUTRAL
   3 – 460V/3PH/60Hz WITH NEUTRAL
8) REFER INSTRUCTIONS WITH THE COMPONENTS FOR STAR / DELTA CONNECTIONS

OPTIONS

OPT. 1 – TWO STAGE COOLING & HEATING
OPT. 2 – ANTI ICE PROTECTION
OPT. 3 – OVER LOAD RELAY
OPT. 4 – HOUR METER
OPT. 5 – PHASE LOSS PROTECTION
UNDER VOLTAGE MONITOR

WIR. DIA–ODU–HEAT PUMP		
C240020	1BC011472	

UNIT SPECIFICATIONS

WIRING DIAGRAM - HEAT PUMP 3ODD090 - 3ODD216 UNITS

POWER SUPPLY
THIS WIRING DIAGRAM SUITS
208 – 230 VOLTS / 3 PH / 60 HZ
380–420 V / 3 PH / 50 HZ WITH NEUTRAL
380V / 3 PH / 60 HZ WITH NEUTRAL
460 VOLTS / 3 PH / 60 HZ WITH NEUTRAL
PL. REFER UNIT NAME PLATE FOR YOUR UNIT'S POWER SUPPLY

WIRING DIAGRAM OUTDOOR HEAT PUMP

AWAL GULF MANUFACTURING Co. BSC (C)
SITRA, BAHRAIN.

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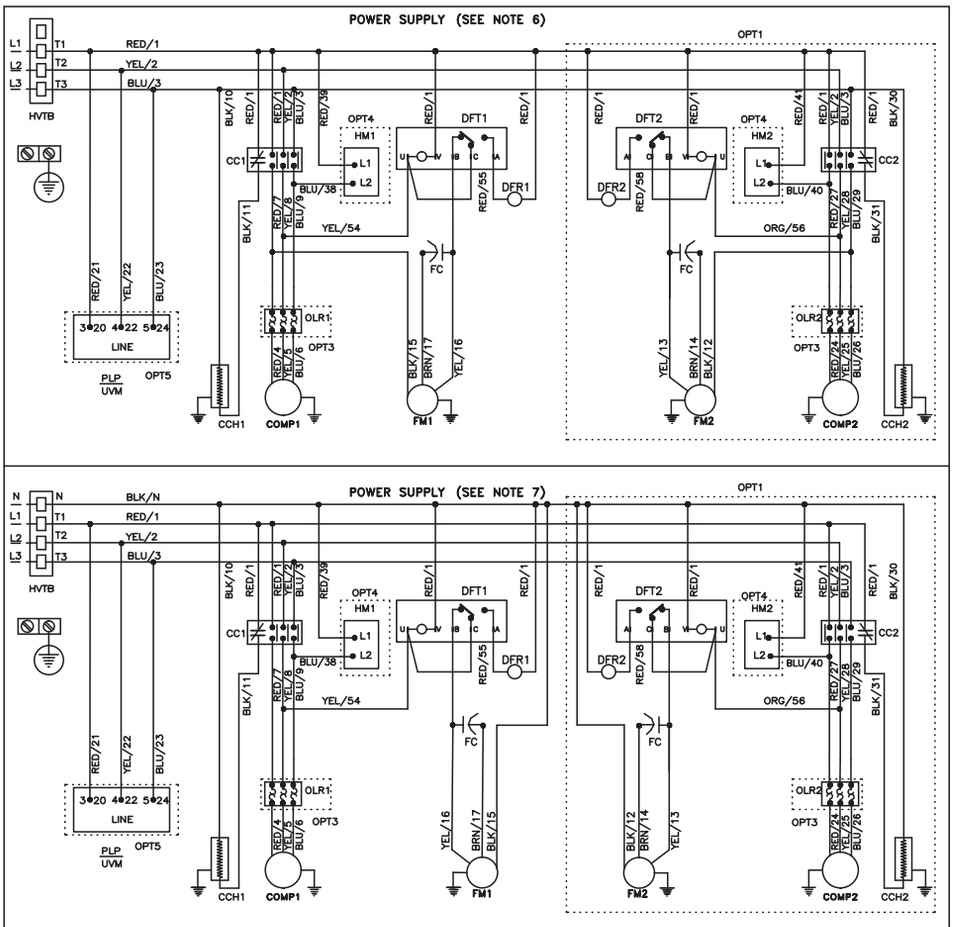

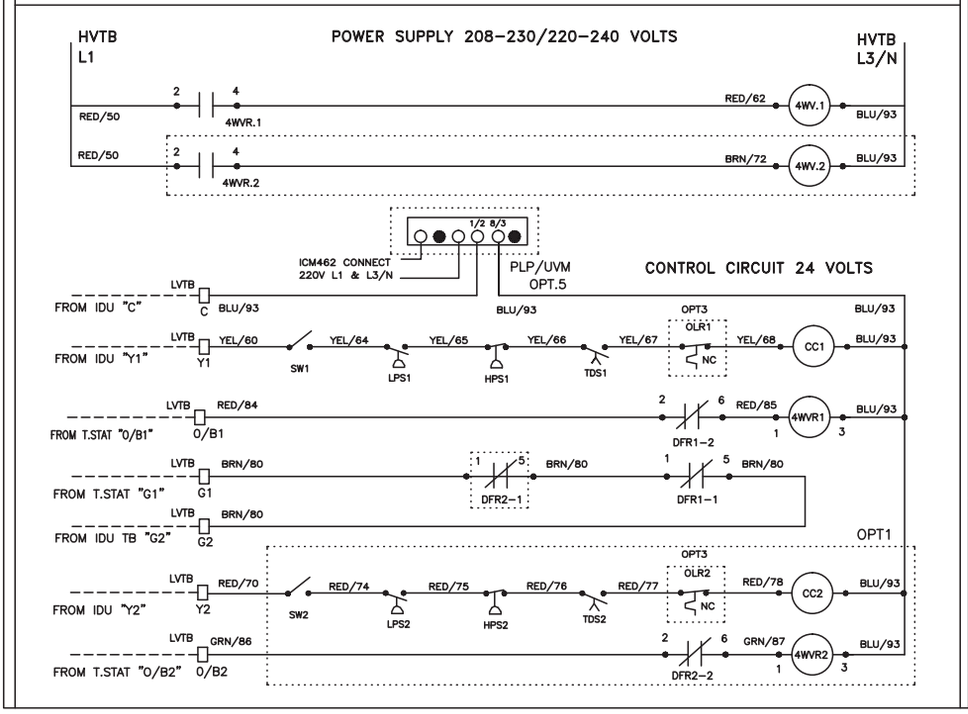

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UVM	– UNDER VOLTAGE MONITOR
YEL	– YELLOW
4WV	– FOUR WAY VALVE
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⏚	– EARTHING

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3) FUSED DISCONNECT SWITCH OR CIRCUIT BREAKER TO BE PROVIDED BY THE USER WITH RELEVENT RATING.
4) PLEASE ALLOW 2 TO 3 MINUTES BEFORE STARTING OF COMPRESSOR.
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   1 – 208–230V/3PH/60Hz
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   1 – 380–420V/3PH/50Hz WITH NEUTRAL
   2 – 380V/3PH/60Hz WITH NEUTRAL
   3 – 460V/3PH/60Hz WITH NEUTRAL
8) REFER INSTRUCTIONS WITH THE COMPONENTS FOR STAR / DELTA CONNECTIONS

OPTIONS

OPT. 1 – TWO STAGE COOLING & HEATING
OPT. 2 – ANTI ICE PROTECTION
OPT. 3 – OVER LOAD RELAY
OPT. 4 – HOUR METER
OPT. 5 – PHASE LOSS PROTECTION
UNDER VOLTAGE MONITOR

WIR. DIA-ODU-HP-2COMP-240V-4WV

C240043	1BC011580	

UNIT SPECIFICATIONS

WIRING DIAGRAM - HEAT PUMP 3ODD240 & 3ODD300 UNITS

POWER SUPPLY
THIS WIRING DIAGRAM SUITS
208 – 230 VOLTS / 3 PH / 60 HZ
380–420 V / 3 PH / 50 HZ WITH NEUTRAL
380V / 3 PH / 60 HZ WITH NEUTRAL
460 VOLTS / 3 PH / 60 HZ WITH NEUTRAL
PL. REFER UNIT NAME PLATE FOR YOUR UNIT'S POWER SUPPLY

WIRING DIAGRAM OUTDOOR HEAT PUMP

AWAL GULF MANUFACTURING Co. BSC (C)
SITRA, BAHRAIN.

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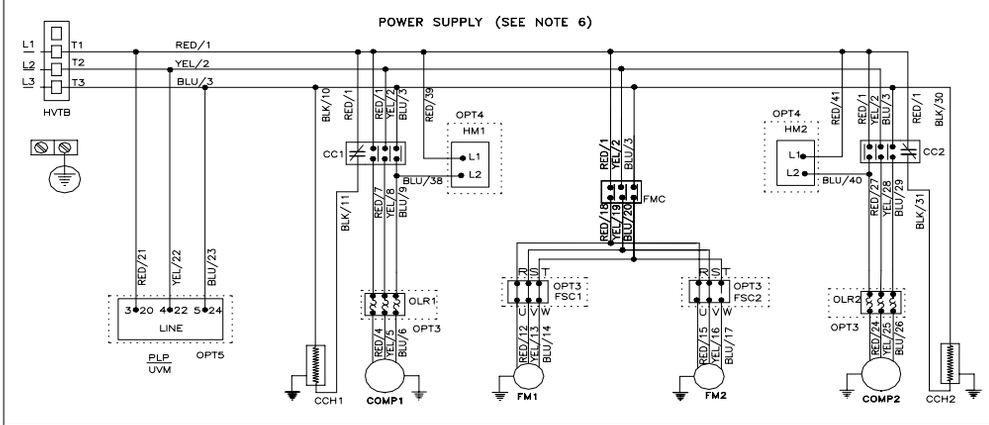

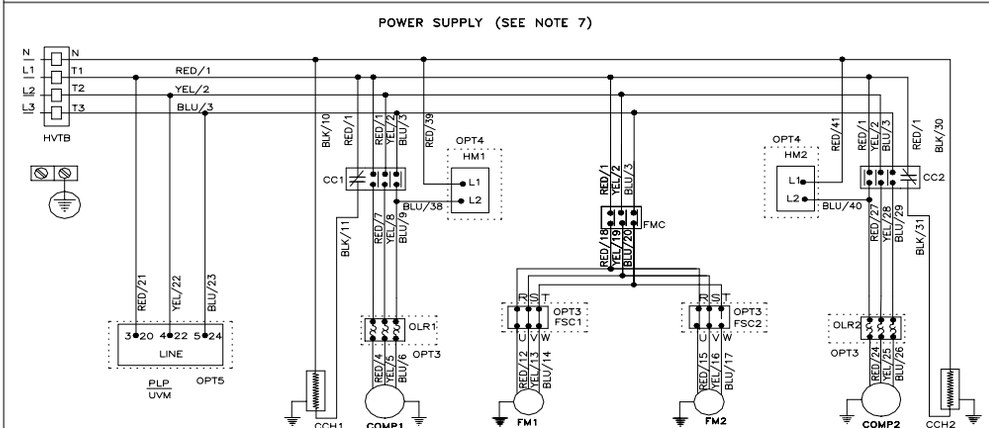

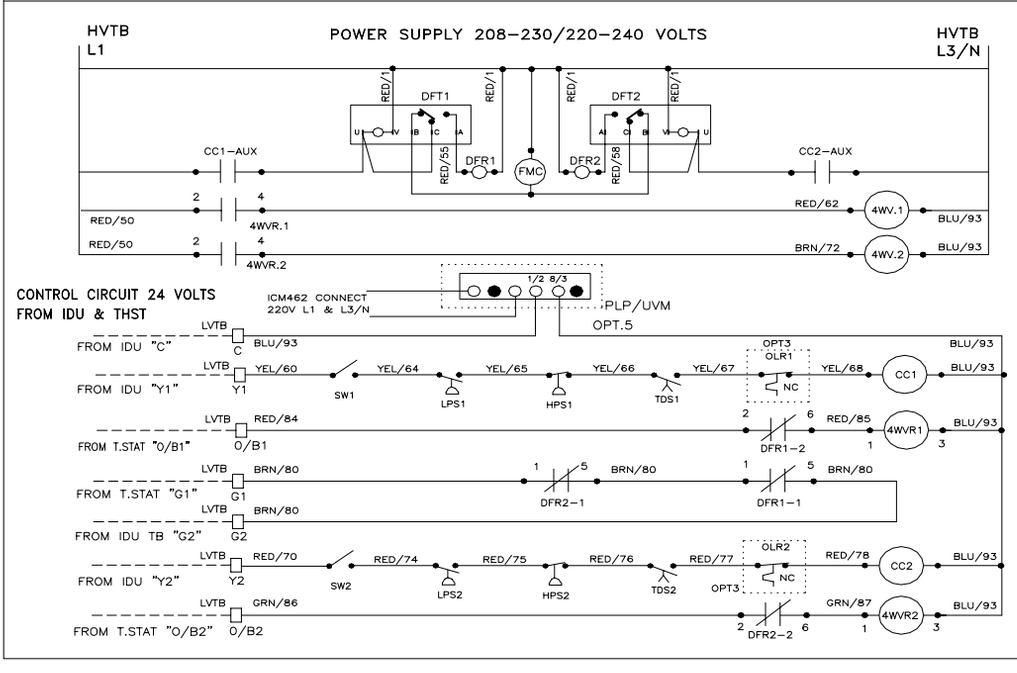

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YEL	– YELLOW
4WV	– FOUR WAY VALVE
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   1 – 208–230V/3PH/60Hz
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   1 – 380–420V/3PH/50Hz WITH NEUTRAL
   2 – 380V/3PH/60Hz WITH NEUTRAL
   3 – 460V/3PH/60Hz WITH NEUTRAL
8) REFER INSTRUCTIONS WITH THE COMPONENTS FOR STAR / DELTA CONNECTIONS

OPTIONS
OPT. 1 – NOT APPLICABLE
OPT. 2 – NOT APPLICABLE
OPT. 3 – OVER LOAD RELAY
OPT. 4 – HOUR METER
OPT. 5 – PHASE LOSS PROTECTION UNDER VOLTAGE MONITOR

WIR. DIA-ODU-HP-3PH.MTR-240V-4WV		
C240077	1BCO11666	

Authorised Distributors

Approvals*

علامة الجودة الإماراتية
Emirates Quality Mark

UL®

SASO

CE

*CE Certified in conformity with the following standard (s)
EN55014(1993) following the provisions of EMC Directive 89/336/EEC
EN60555-2(1987) as amended by 92/31/EEC and 93/68/EEC

LVD
Low Voltage Directive

MANAGEMENT SYSTEM CERTIFICATION
ISO 9001 = ISO 14001
DNV
RvA
MGMT. SYS.
RvA C024

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* Approvals are products-specific. For further details contact: export@awalgulf.com.bh

RTPA407/OCT/13