VARIABLE REFRIGERANT FLOW MULTI-SPLIT SYSTEM HEAT PUMP UNITS

MANUFACTURER	CARRIER									
	HEAT PUMP UNITS									
HEAT PUMP UNIT IDENTIFICATION TAG	HPV-1	HPV-2								
UNIT SIZE DESIGNATION	(240)	(216)								
HEAT PUMP MODEL NUMBER (PURY-)	38VMA240	38VMA216								
TOTAL CAPACITY (BTUH)	240,000	216,000								
OUTSIDE AMBIENT TEMPERATURE (°F)	95	95								
MIN. IEER AT AHRI CONDITIONS	18	18								
REFRIGERANT LINE SIZE LIQUID/SUCTION	1-1/8" / 1-3/8"	1-1/8" / 1-1/8"								
HEAT PUMP OUTPUT (BTUH)	270,000	243,000								
OUTSIDE AMBIENT TEMPERATURE (°F)	47	47								
HEAT PUMP OUTPUT (BTUH)	201,000	180,000								
OUTSIDE AMBIENT TEMPERATURE (°F)	17	17								
	BC CONTROLLER									
UNIT DESIGNATION	BC-1-1	BC-1-2	BC-2							
CONTROLLER MODEL NUMBER	40VMD16ML	40VMD06S	40VMD16ML							
NUMBER OF BRANCHES	16	6	16							
NUMBER OF ACTIVE BRANCHES	11	6	16							
UNIT SIZE DESIGNATION	F08C	F12C	F15C	F18C	F24C	F12	F18	F24	F30	F36
FAN COIL MODEL NUMBER	PLFY-P08NCMU-E	PLFY-P12NCMU-E	PLFY-P15NCMU-E	PLFY-P18NBMU-E	PLFY-P24NBMU-E	PEFY-P12NMAU-E	PEFY-P18NMAU-E	PEFY-P24NMAU-E	PEFY-P30NMAU-E	PEFY-P36NMAU-E
FAN COIL TYPE	SQUARE CASSETTE	SQUARE CASSETTE	SQUARE CASSETTE	SQUARE CASSETTE	SQUARE CASSETTE	MED PRESS FAN COIL	MED PRESS FAN COIL	MED PRESS FAN COIL	MED PRESS FAN COIL	MED PRESS FAN COIL
FAN-COIL MAX CABINET SIZE (INCHES)	22x22	22x22	22x22	33x33	33x33					
SUPPLY AIR (CFM)	320	350	390	560	630	400	600	800	1000	1200
EXTERNAL STATIC PRESSURE ("H_2O)	--	--	--	--	--	.35	.35	.35	.35	.35
TOTAL COOLING CAPACITY (BTUH)	8,000	12,000	15,000	18,000	24,000	12,000	18,000	24,000	30,000	36,000
ENTERING AIR TEMPERATURE DB/WB (°F)	80/67	80/67	80/67	80/67	80/67	80/67	80/67	80/67	80/67	80/67
REFRIGERANT LINE SIZE LIQUID/SUCTION	1/4" / 1/2"	1/4" / 1/2"	1/4" / 1/2"	1/4" / 1/2"	3/8" / 5/8"	1/4" / 1/2"	1/4" / 1/2"	1/4" / 1/2"	3/8" / 5/8"	3/8" / 5/8"
HEAT OUTPUT (BTUH)	9,000	13,500	17,000	20,000	27,000	13,500	20,000	27,000	34,000	40,000
ENTERING AIR TEMPERATURE (°F)	70	70	70	70	70	70	70	70	70	70
WALL-MOUNTED HARD-WIRED CONTROLLER	SIMPLE MA	SIMPLE MA	SIMPLE MA	SIMPLE MA	SIMPLE MA	SIMPLE MA	SIMPLE MA	SIMPLE MA	SIMPLE MA	SIMPLE MA
PAC-715AD ADAPTER FOR EMS START/STOP	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
BUILT-IN CONDENSATE LIFT MECHANISM	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
OUTSIDE AIR DUCT CONNECTION	YES	YES	YES	YES	YES	NO	NO	NO	NO	NO
FILTER BOX WITH 2" FILTERS	NO	NO	NO	NO	NO	YES	YES	YES	YES	YES
CENTRALIZED CONTROLLER BACNET										

NOTES:
1. PROVIDE TWINNING KIT FOR PAIRED SYSTEMS.
2. FURNISH FILER BOX WITH ACCES DOOR IN THE BOTTOM SIMILAR TO WATER SOURCE HEAT PUMPS.

DUCTLESS SPLIT COOLING UNIT

UNIT DESIGNATION	FC12 / CU12	FC30 / CU30
MANUFACTURER	MITSUBISHI	MITSUBISHI
FAN-COIL UNIT MODEL NUMBER	PKA-A12GA/L	PKA-A30GA/L
CONDENSING UNIT MODEL NUMBER	PUY-A12NHA	PUY-A30NHA
SUPPLY FAN PERFORMANCE		
SUPPLY AIR (CFM)	425	705
EXTERNAL STATIC PRESSURE (" H_2O)	--	--
COOLING PERFORMANCE		
TOTAL CAPACITY (BTUH)	12,000	30,000
ENTERING AIR TEMPERATURE DB/WB (°F)	80/67	80/67
OUTSIDE AMBIENT TEMPERATURE (°F)	95	95
MIN. SEER AT ARI CONDITIONS	13.8	13.0
REFRIGERANT LINE SIZE LIQUID/SUCTION	1/4" / 1/2"	1/2" / 3/4"
ACCESSORIES		
WALL-MOUNTED, HARD-WIRED CONTROLLER	YES	YES
PAC-715AD ADAPTER FOR EMS START/STOP	YES	YES
LOW AMBIENT CONTROL, CRANKCASE HEATER	YES	YES
SNAP-ON LINESET COVERS	YES	YES
CONDENSATE PUMP		
CP-1, 60 GPH @ 5', WITH SAFETY SWITCH		HARTELL KT15

EXHAUST FANS

FAN DESIG.	TYPE	CFM	EXT. S.P. "H O	MOTOR POWER	DRIVE TYPE	MAX. RPM	MAX. SONES	MANUFACTURER & MODEL NO.	CONTROL SEQUENCE
EF-1	POWER ROOF VENTILATOR	1800	.125	1/3 HP	DIRECT	1300	10.0	PENN DX16S	[illegible]
EF-2	POWER ROOF VENTILATOR	300	.25	1/11 HP	DIRECT	1300	6.0	PENN DX11S	EMS
EF-3	AIR DOOR	3550	-	1/2 HP	DIRECT	1750	-	POWERED AIRE PCE-1-60	SW (1)
EF-4	24" OSCILLATING WALL MOUNTED	5900 (LOW)	-	1/4 HP	DIRECT	1100 2 SPEED	-	[illegible]	SW (2)
EF-5	POWER ROOF VENTILATOR	600	.25	1/12 HP	DIRECT	[illegible]	5.0	[illegible]	EMS
EF-6	POWER ROOF VENTILATOR	300	.25	1/11 HP	DIRECT	1300	[illegible]	PENN DX11S	EMST
EF-7	POWER ROOF VENTILATOR	200	.25	1/12 HP	DIRECT	1550	6.0	PENN DX10R	SW
EF-8	POWER ROOF VENTILATOR	500	.25	[illegible]	DIRECT	1550	6.0	PENN DX10R	SW
EF-9	CEILING MOUNTED	[illegible]	.20	80 W	DIRECT	1050	3.0	PENN Z8IS	EMST

(1) PROVIDE STAINLESS STEEL CABINET AND MAGNETIC REED SWITCH ON DOOR JAM.
(2) MOUNT TOP OF GUARD 4" BELOW CEILING.

DUCTLESS SPLIT SYSTEM HEAT PUMP UNITS

UNIT DESIGNATION	FCH / HP18	FCH12 / HP12
MANUFACTURER	MITSUBISHI	MITSUBISHI
FAN-COIL UNIT MODEL NUMBER	PLA-A18BA	[illegible]KA12NA
HEAT PUMP MODEL NUMBER	PUZ-A18NHA3	SUZ-KA12NA
SUPPLY FAN PERFORMANCE		
SUPPLY AIR (CFM)	[illegible]	240
EXTERNAL STATIC PRESSURE (" H_2O)	--	--
COOLING PERFORMANCE		
TOTAL CAPACITY (BTUH)	[illegible]	12,000
ENTERING AIR TEMPERATURE DB/WB (°F)	[illegible]	80/67
OUTSIDE AMBIENT TEMPERATURE (°F)	[illegible]	95
MIN. SEER AT ARI CONDITIONS	[illegible]	10
REFRIGERANT LINE SIZE LIQUID/SUCTION	1/4" / 1/2"	1/4" / 3/8"
HEATING PERFORMANCE		
HEAT PUMP OUTPUT (BTUH)	19,000	13,600
ENTERING AIR TEMPERATURE (°F)	70	70
OUTSIDE AMBIENT TEMPERATURE (°F)	47	47
ACCESSORIES		
WALL-MOUNTED, HARD-WIRED CONTROLLER	YES	YES
PAC-715AD ADAPTER FOR EMS START/STOP	YES	YES
INTEGRAL CONDENSATE PUMP	YES	YES

UTILITY DISTRIBUTION SYSTEM

DESIGNATION	UDS-1	
MANUFACTURER	DUO AIRE	
ELECTRICAL		
480V-3Φ-3 WIRE		
CONNECTED LOAD		
SPARE CAPACITY		
MAIN BREAKER		
208Y/120V-3Φ-4 WIRE		
CONNECTED LOAD		
SPARE CAPACITY		
MAIN BREAKER		
PLUMBING		
CONNECTED LOAD	750 CFH	
GAS PIPE SIZE	2"	
COLD WATER PIPE SIZE	3/4"	
HOT WATER PIPE SIZE	3/4"	

SEE KITCHEN EQUIPMENT DRAWINGS FOR REQUIREMENTS & ACTUAL LOAD OF EACH INDIVIDUAL PIECE OF EQUIPMENT.

RANGE HOOD

DESIGNATION	RH-1	
MANUFACTURER	DUO-AIRE	
MODEL NUMBER	1-192-111	
LENGTH X WIDTH	16' x 13'	
STYLE	ISLAND	
SERVICE	RANGE / OVEN	
NFPA 17A. FIRE SUPPRESSION SYSTEM	YES	
VAPORPROOF LIGHTS	YES	
CONTROL PANEL LOCATION	UDS	
EXHAUST FAN		
FAN DESIGNATION	REF-1	
EXHAUST AIR (CFM)	2 @ 4,000	
MOTOR HORSEPOWER	2	
SUPPLY FAN		
FAN DESIGNATION	RSF-1	
SUPPLY AIR (CFM)	2 @ 3360	
MOTOR HORSEPOWER	2	

CONDENSATE PUMPS

PUMP DESIG.	SERVICE	GPM	HEAD FT H_2O	PUMP EFF.	HP	RPM	MIN. GPM	TYPE	MANUFACTURER & MODEL NUMBER
CP-1	CONDENSATE PUMP	45	6	--	--	--	--	WALL MOUNTED	LITTLE GIANT VCMA-20

DRAWING ISSUE RECORD

DATE:	REVISIONS:	NO.
11-1-18	ISSUE TO BID	

ELECTRIC UNIT HEATERS

HEATER DESIG.	TYPE MOUNTING	kW / V / Ph.	MANUFACTURER & MODEL NUMBER	ACCESSORIES
EH-1	RECESSED CEILING MOUNTED	3 / 277V / 1Φ	QMARK CDF	INTEGRAL DISCONNECT, 24V CONTROL TRANSFORMER & RELAY
EH-2	CEILING SUSPENDED BOTTOM 8' AFF	3.3 / [illegible] / 1Φ	QMARK MUH	INTEGRAL DISCONNECT, 24V CONTROL TRANSFORMER & RELAY, WALL/CLG. BRACKET
EH-3	SURFACE WALL MOUNTED	[illegible] / 277 / [illegible]	[illegible]	SURFACE BOX, 16 GA. GRILLE INTEGRAL T'STAT, DISCONNECT

AIR DISTRIBUTION DEVICES

MARK (CFM)	TYPE	NOMINAL SIZE	NECK SIZE	BRANCH DUCT SIZE	SERVICE
[illegible]	[illegible]	9 x 9	6"Φ	6"Φ - FLEX. MAX. 5' LONG	SUPPLY
AA	CD	9 x 9	6"Φ	6"Φ - FLEX. MAX. 5' LONG	SUPPLY
B	LCD	12 x 12	8"Φ	8"Φ - FLEX. MAX. 5' LONG	SUPPLY
BB	CD	12 x 12	8"Φ	8"Φ - FLEX. MAX. 5' LONG	SUPPLY
C	LCD	12 x 12	10"Φ	10"Φ - FLEX. MAX. 5' LONG	SUPPLY
D	LCD	15 x 15	12"Φ	12"Φ - FLEX. MAX. 5' LONG	SUPPLY
E	LCG	24 x 24	22 x 22	-	RETURN
EE	CG	24 x 24	22 x 22	-	RETURN
F	LCG	24 x 14	22 x 12	-	RETURN
G	CG	14 x 14	14 x 14	-	RETURN
H	CR	8 x 8	6"Φ	6"Φ - FLEX. MAX. 5' LONG	EXHAUST
J	CR	10 x 10	8"Φ	8"Φ - FLEX. MAX. 5' LONG	EXHAUST
K	CR	12 x 12	10"Φ	10"Φ - FLEX. MAX. 5' LONG	EXHAUST
L	LBG	48 x 5	48 x 5	-	SUPPLY
M	TR	16 x 8	16 x 8	-	SUPPLY
N	TG	16 x 8	16 x 8	-	RETURN
O	OBD	DUCT SIZE	SEE PLANS	-	SUPPLY
P	TR	16 x 6	16 x 6	-	SUPPLY
Q	LBG	78 x 16	78 x 16	-	RETURN
R	LBG	48 x 3	48 x 3	-	SUPPLY
S	LBG	48 x 8	48 x 8	-	RETURN

NOTE: DESIGNATIONS FOR TYPE 'A' THROUGH 'D' FOLLOWED BY A NUMBER INDICATES THROW OTHER THAN 4-WAY. (I.E. 'A3' IS THREE-WAY THROW).

AIR DISTRIBUTION DEVICES LEGEND

SYMBOL	DESCRIPTION	FINISH
LCD	LAY-IN CEILING SUPPLY DIFFUSER - KRUEGER 5SH, SQUARE LOUVERED FACE ALUMINUM DIFFUSER WITH 24"x24" LAY-IN FRAME. DIFFUSER SHALL BE FOUR WAY THROW UNLESS OTHERWISE NOTED ON PLANS.	WHITE ANODIC ACRYLIC
CD	CEILING SUPPLY DIFFUSER - KRUEGER 5SH, SQUARE LOUVERED FACE ALUMINUM DIFFUSER WITH OPPOSED BLADE DAMPER & FLAT SURFACE MOUNT FRAME. DIFFUSER SHALL BE FOUR WAY THROW UNLESS OTHERWISE NOTED ON PLANS.	WHITE ANODIC ACRYLIC
LCG	LAY-IN CEILING RETURN GRILLE - KRUEGER EGC5, ALUMINUM EGGCRATE GRILLE, 1/2"x1/2"x1/2" GRID CORE WITH 24"x24" LAY-IN FRAME AND DUCT CONNECTION FLANGE.	WHITE ANODIC ACRYLIC
CG	CEILING RETURN GRILLE - KRUEGER EGC5, ALUMINUM EGGCRATE GRILLE, 1/2"x1/2"x1/2" CORE AND FLAT SURFACE MOUNT FRAME.	WHITE ANODIC ACRYLIC
CR	CEILING EXHAUST REGISTER - KRUEGER EGC5, ALUMINUM EGGCRATE GRILLE, 1/2"x1/2"x1/2" CORE, OPPOSED BLADE VOLUME DAMPER AND FLAT SURFACE MOUNT FRAME.	WHITE ANODIC ACRYLIC
LBG	SIDEWALL LINEAR BAR DIFFUSER - KRUEGER 1600, ALUMINUM BAR GRILLE WITH 1/8" BARS AT 1/2" BLADE SPACING, 0° DEFLECTION, CONCEALED MOUNTING & 1" FLAT FRAME.	SELECTED BY ARCH.
OBD	OPPOSED BLADE VOLUME DAMPER - KRUEGER OBDDM STEEL OPPOSED BLADE DAMPER FOR SQUARE DUCT, PRDIO FOR ROUND DUCT, OR SPIN-IN FITTING WITH DAMPER, SEE PLANS.	MILL
TG	HIGH SIDEWALL RETURN GRILLE - KRUEGER S85H, GRILLE WITH HORIZONTAL ANGLE ALUMINUM BLADES SPACED 1/2" @ 35° UP, FLAT ALUMINUM FRAME.	SELECTED BY ARCH.
TR	HIGH SIDEWALL SUPPLY REGISTER - KRUEGER 5815, DOUBLE DEFLECTION ALUMINUM REGISTER WITH REVERSIBLE CORE AIMED 15 DEGREES DOWN, REAR BLADES, AND CURVED FRAME. OMIT REAR BLADES IN RETURN.	WHITE ANODIC ACRYLIC

NOTE: MANUFACTURER SHALL FURNISH FINISHED SCREWS FOR ALL AIR DISTRIBUTION DEVICES TO MATCH FINISH OF THAT DEVICE.

GEORGIA REGISTERED PROFESSIONAL ENGINEER No. 19103 REBECCA L. MUIR

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FOR COBB COUNTY SCHOOL DISTRICT
COBB COUNTY, GA
CCSD PROJECT No. A004 / DOE FACILITY CODE

DATE JULY 16, 2018 | JOB NO. SHL-D02-18 | DWG. BY C.P.A./R.L.M. | CHK'D R.L.M.

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