

KITCHEN VENTILATION SYSTEM SCHEDULE														BASIS OF DESIGN: CAPTIVEAIRE	
SYMBOL	SUPPLY FAN				ELECTRICAL			GAS HEATING			ZONES	FAN UNIT MODEL NO.	BLOWER MODEL NO.	MAX. OPERATING WEIGHT	REMARKS
	CFM	E.S.P.	H P	RPM	ELEC.	MCA	MOP	MBH INPUT	MBH OUTPUT	TEMP. RISE °F					
KVS-1	7440	.75"	7-1/2	855	460-3-60	14.3	20	744.0	602.6	75.0	20.3	CASRTU4-1800-30	30MF-4-RTU	3750 lbs.	

NOTES: 1. PROVIDE EACH UNIT WITH THE FOLLOWING OPTIONS:  
 - STANDARD ELECTRICAL CONNECTION (MAIN AND CONTROL PANEL) FOR STANDING POWER - SINGLE MODULE. IF A NON-DVS PREWIRE IS USED ON THE IBT HEATER, THE #28, #47, "NS", "MA", OR "EZ" OPTION PREWIRE MUST BE SELECTED. DO NOT PROVIDE SUPPLY STARTER IN PREWIRE.  
 - REMOTE INTERFACE PANEL FOR SWITCHING OF/OFF OF LIGHTS AND FANS.  
 - INLET PRESSURE GAUGE, 0-35".  
 - MANIFOLD PRESSURE GAUGE, 0 TO 10" WC, FOR EACH FURNACE.  
 - EXTRA SET OF BELTS.  
 - HIGH PRESSURE GAS SWITCH FOR SIZE "IF" WITH 2 FURNACES.  
 - LOW PRESSURE GAS SWITCH.  
 - CONVENIENCE OUTLET (GFCI), 15 AMP - POWER SUPPLY BY OTHERS.  
 - SEPARATE 120V WIRING PACKAGE (REQUIRED AND USED ONLY FOR DCV OR PREWIRE WITH VFD). THREE PHASE ONLY.  
 - DOWNDRAW DISCHARGE.  
 - MOTORIZED BACKDRAFT DAMPER ON OUTSIDE AIR INTAKE.  
 - ALUMINUM MESH WASHABLE/REUSABLE OUTSIDE AIR INTAKE FILTER.  
 - GAS BURNER MUST BE INDIRECT-FIRED, PUSH-THROUGH TYPE.  
 - INVERTER TYPE MOTOR WITH VFD CONTROL.  
 - FULLY INSULATED 24" HIGH ROOF EQUIPMENT CURB AND EQUIPMENT RAIL SYSTEM.  
 - EXTERNAL MOUNTED DISCONNECT SWITCH.  
 - INSULATED BLOWER SECTION.  
 - HEATING DRAIN SYSTEM FOR BOTH FURNACES.  
 - CLOGGED FILTER SWITCH WITH NOTIFICATION ON HMI.  
 - LOAD REACTOR MOUNTED IN FAN.

KITCHEN VENTILATION FAN SCHEDULE												BASIS OF DESIGN: CAPTIVEAIRE
SYMBOL	EXHAUST FAN				ELECTRICAL		TYPE	SONES	CONTROL	MODEL	MAX. OPERATING WEIGHT	REMARKS
	CFM	E.S.P.	H P	RPM	ELEC.	FLA						
KEF-1	9300	1.75"	7-1/2	884	460-3-60	11.1	UPBLAST	21.4	INTERLOCK WITH KVS-1	DU300HFA	950 lbs.	

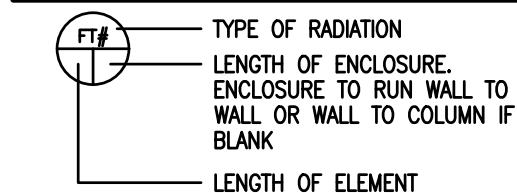
NOTES: 1. PROVIDE EACH UNIT WITH THE FOLLOWING OPTIONS:  
 - EXTRA SET OF BELTS.  
 - GREASE BOX.  
 - LOAD REACTOR MOUNTED IN FAN.  
 - INVERTER TYPE MOTOR FOR VFD CONTROL.  
 - EXTERNAL MOUNTED DISCONNECT SWITCH.  
 - HINGED AND VENTED 24" HIGH (MIN.) ROOF EQUIPMENT CURB.

PERFORATED SUPPLY PLENUM(S)															BASIS OF DESIGN: CAPTIVEAIRE	
SYMBOL	POSITION	LENGTH	WIDTH	HEIGHT	TYPE	RISER(S)					TOTAL SUPPLY CFM	MODEL	HOOD CONSTRUCTION	HOOD HANGING WEIGHT LBS.	FIRE SYSTEM PIPING	REMARKS
						QTY.	WIDTH	LENGTH	DIA.	CFM						
SP-1	FRONT	186"	22"	6"	MUA	5	12"	28"	—	744	.208"	3720	226MISC-PSP	430 STAINLESS STEEL WHERE EXPOSED	281	NO
SP-2	FRONT	186"	22"	6"	MUA	5	12"	28"	—	744	.208"	3720	226MISC-PSP	430 STAINLESS STEEL WHERE EXPOSED	281	NO

NOTE: 1. PROVIDE EACH PLENUM WITH 23.5% OPEN STAINLESS STEEL PERFORATED SUPPLY AIR PANELS.  
 2. PROVIDE EACH PLENUM WITH 18" HIGH STAINLESS STEEL FIELD WRAPPER FOR FRONT, LEFT AND RIGHT SIDES.

FINNED TUBE SCHEDULE															BASIS OF DESIGN: SIGMA
SYMBOL	CAPACITY AT DESIGN CONDITIONS (BTU/LF)	GPM/LIN. FT.	WPD	EAT °F	AWT °F	ROWS	FIN SIZE SIZE	FINS PER INCH	ENCLOSURE DIMENSIONS		BRANCH PIPING SIZE	RETURN PIPE HANGER IN ENCLOSURE	MODEL	ENCLOSURE FINISH	REMARKS
									H	D					
FT1	627	0.25	0.6'	65	145	1	2-3/4"x4"	48	12"	5.25"	3/4"	NO	SWE-S	STD. BAKED ENAMEL	MOUNT 6", ABOVE FINISHED FLOOR
FT2	727	0.29	1.2'	65	145	1	4"x4"	48	12"	5.25"	3/4"	NO	SWE-T	STD. BAKED ENAMEL	MOUNT INVERTED 7"-0", ABOVE FINISHED FLOOR
FT3	735	0.15	1.5'	65	145	1	4"x4"	48	12"	5.25"	1"	YES	SWE-T	STD. BAKED ENAMEL	MOUNT INVERTED 15'-0", ABOVE FINISHED FLOOR
FT4	735	0.12	4.3'	65	145	1	4"x4"	48	12"	5.25"	1-1/4"	YES	SWE-T	STD. BAKED ENAMEL	MOUNT INVERTED 15'-0", ABOVE FINISHED FLOOR

NOTE: 1. PROVIDE MANUFACTURER'S KNOB DAMPER ON ALL FT1 ENCLOSURES.  
 2. PROVIDE MANUFACTURER'S ACCESS DOORS, END CAPS, WALL TRIM AND FULL BACK PANEL ON UNITS WITH ENCLOSURE.  
 3. PROVIDE ALL FT3 & FT4 ENCLOSURES WITH A LOWER SUPPORT BRACKET FOR RETURN PIPING, TYPICAL.  
 4. ENCLOSURE COLOR TO BE SELECTED BY ARCHITECT.



GRILLE AND REGISTER SCHEDULE						
SYMBOL	SIZE	MODEL	N.C.	BORDER TYPE	MANUFACTURER	REMARKS
G1	6x6	350FL	<20	SURFACE	TITUS	
G2	8x8	350FL	<20	SURFACE	TITUS	
G3	10x10	350FL	<20	SURFACE	TITUS	
G4	12x12	350FL	<20	SURFACE	TITUS	
G5	14x14	350FL	<20	SURFACE	TITUS	
G6	16x16	350FL	<20	LAYIN	TITUS	PROVIDE WITH 24"x24" PANEL
G7	22x22	350FL	<20	LAYIN	TITUS	PROVIDE WITH 24"x24" PANEL
G8	12x12	350RL-SS	<20	SURFACE	TITUS	PROVIDE W/ OPPOSED BLADE DAMPER
G9	18x30	350FS	<20	SURFACE	TITUS	
G10	18x30	350FS	<20	LAYIN	TITUS	PROVIDE WITH 24"x48" PANEL
G11	22x36	350FS	<20	LAYIN	TITUS	PROVIDE WITH 24"x48" PANEL
G12	22x46	350FS	<20	SURFACE	TITUS	
G13	12x48	350FS	<20	SURFACE	TITUS	
G14	12x42	350FL	<20	SURFACE	TITUS	
G15	12x6	355FL	<20	SURFACE	TITUS	
G16	12x8	355FL	<20	SURFACE	TITUS	
G17	16x8	355FL	<20	SURFACE	TITUS	
G18	16x10	33RL	<20	SURFACE	TITUS	
G19	24x18	33RL	<20	SURFACE	TITUS	
G20	36x16	33RL	<20	SURFACE	TITUS	
G21	36x48	33RS	<20	SURFACE	TITUS	
G22	16x16	350FL	<20	SURFACE	TITUS	
G23	14x24	350FL	<20	SURFACE	TITUS	
G24	22x46	50F	<20	LAYIN	TITUS	PROVIDE WITH 24"x48" PANEL
G25	42x20	33RL	<20	SURFACE	TITUS	
G26	18x10	350FL	<20	SURFACE	TITUS	
R1	16x6	272FL	<10	SURFACE	TITUS	PROVIDE W/ OPPOSED BLADE DAMPER
R2	18x6	272FL	<10	SURFACE	TITUS	PROVIDE W/ OPPOSED BLADE DAMPER
R3	20x6	272FL	<10	SURFACE	TITUS	PROVIDE W/ OPPOSED BLADE DAMPER
R4	18x8	272FL	<20	SURFACE	TITUS	PROVIDE W/ OPPOSED BLADE DAMPER
R5	30x6	272FL	<20	SURFACE	TITUS	
R6	16x8	272FL	<20	SURFACE	TITUS	
R7	8x6	272FL	<10	SURFACE	TITUS	
R8	12x8	272FL	<20	SURFACE	TITUS	
R9	18x8	272FL	<20	SURFACE	TITUS	PROVIDE WITH FLAT BLACK FINISH

DIFFUSER SCHEDULE									
SYMBOL	NECK SIZE	FACE SIZE	BORDER TYPE	BLOW	MODEL	N. C.	MANUFACTURER	REMARKS	
D1	6"	18x18	LAYIN	4 WAY	TDC-AA	< 20	TITUS	PROVIDE WITH 24"x24" PANEL	
D2	8"	18x18	LAYIN	4 WAY	TDC-AA	< 20	TITUS	PROVIDE WITH 24"x24" PANEL	
D3	10"	18x18	LAYIN	4 WAY	TDC-AA	< 20	TITUS	PROVIDE WITH 24"x24" PANEL	
D4	12"	18x18	LAYIN	4 WAY	TDC-AA	< 20	TITUS	PROVIDE WITH 24"x24" PANEL	
D5	6"	9x9	SURFACE	4 WAY	TDC-AA	< 20	TITUS		
D6	8"	12x12	SURFACE	4 WAY	TDC-AA	< 20	TITUS		
D7	9x9	15x15	LAYIN	3 WAY	TDV-AA	< 20	TITUS	PROVIDE WITH 24"x24" PANEL	
D8	12x12	18x18	LAYIN	3 WAY	TDV-AA	< 20	TITUS	PROVIDE WITH 24"x24" PANEL	
D9	15x15	21x21	LAYIN	3 WAY	TDV-AA	< 20	TITUS	PROVIDE WITH 24"x24" PANEL	
D10	18x18	24x24	LAYIN	3 WAY	TDV-AA	< 20	TITUS	PROVIDE WITH 24"x24" PANEL	
D11	10"	18x18	LAYIN	2 WAY OPPOSED	TDC-AA	< 20	TITUS	PROVIDE WITH 24"x24" PANEL	
D12	6"	18x18	LAYIN	2 WAY CORNER	TDC-AA	< 20	TITUS	PROVIDE WITH 24"x24" PANEL	
D13	14"	18x18	LAYIN	4 WAY	TDC-AA	< 20	TITUS	PROVIDE WITH 24"x24" PANEL	
D14	8"	18x18	LAYIN	2 WAY OPPOSED	TDC-AA	< 20	TITUS	PROVIDE WITH 24"x24" PANEL	
D15	12"	18x18	LAYIN	2 WAY OPPOSED	TDC-AA	< 20	TITUS	PROVIDE WITH 24"x24" PANEL	
D16	16"	18x18	LAYIN	4 WAY	TDC-AA	< 20	TITUS	PROVIDE WITH 24"x24" PANEL	
D17	15x15	21x21	SURFACE	4 WAY	TDC-AA	< 20	TITUS		
D18	10"	18"	SURFACE	4 WAY	TMR-AA	< 20	TITUS		
D19	6"	18x18	LAYIN	2 WAY OPPOSED	TDC-AA	< 20	TITUS	PROVIDE WITH 24"x24" PANEL	
D20	8"	18x18	LAYIN	3 WAY	TDC-AA	< 20	TITUS	PROVIDE WITH 24"x24" PANEL	
D21	18x6	-	SURFACE	1 WAY	DL	< 20	TITUS		
D22	24x8	-	SURFACE	1 WAY	DL	< 20	TITUS		

LOUVER SCHEDULE							BASIS OF DESIGN: POTTORFF
SYMBOL	FUNCTION	CFM	WIDTH x HEIGHT	MIN. FREE AREA (SQ. FT.)	STATIC PRESSURE	MODEL	REMARKS
L-1	RETURN	3000	48" x 30"	5.0	0.07"	ECD-635	PROVIDE WITH 1-1/2" FLANGE FRAME
L-2	RETURN	4050	48" x 36"	7.0	0.07"	ECD-635	PROVIDE WITH 1-1/2" FLANGE FRAME
L-3	INTAKE	600	36" x 12"	1.1	0.06"	ECD-635	PROVIDE WITH 1-1/2" FLANGE FRAME
L-4	EXHAUST	1125	31 1/8" x 15 1/8"	1.7	0.12"	EBV-145	PROVIDE WITH 1" FLANGE FRAME
L-5	INTAKE	3400	48" x 48"	8.6	0.04"	ECD-635	PROVIDE WITH 1-1/2" FLANGE FRAME
L-6	RETURN	8000	54" x 102"	16.5	0.06"	ECD-245	PROVIDE WITH 1-1/2" FLANGE FRAME

NOTES: 1. PROVIDE EACH LOUVER WITH A BIRDSCREEN AND IN A CUSTOM POWDER COATED FINISH.  
 COLOR TO BE SELECTED BY ARCHITECT.

CABINET HEATER SCHEDULE															BASIS OF DESIGN: SIGMA	
SYMBOL	FAN DATA				GPM	MBH	EWT (°F)	WPD	MOUNTING	FRONT PANEL WIDTH x HEIGHT	WALL OPENING WIDTH x HEIGHT	RECESS DEPTH	CABINET FINISH	MODEL	PIPING CONN. SIZE	REMARKS
	CFM	RPM	H.P.	ELECTRICAL												
CH-1	154	881	1/10	120V-1#	0.7	8.3	150	0.3'	CEILING	28" x 28"	26" x 26"	9-1/2"	STANDARD COLOR	SFF-02	3/4"	SELECTED ON LOW SPEED
CH-2	210	881	(2)01/10	120V-1#	1.2	14.1	150	0.4'	CEILING	42-1/2" x 28"	40-1/2" x 26"	9-1/2"	STANDARD COLOR	SFF-03	3/4"	SELECTED ON LOW SPEED
CH-3	280	881	(2)01/10	120V-1#	1.4	17.2	150	0.6'	CEILING	42-1/2" x 28"	40-1/2" x 26"	9-1/2"	STANDARD COLOR	SFF-04	3/4"	SELECTED ON LOW SPEED
CH-4	420	881	(2)01/10	120V-1#	1.9	22.6	150	1.0'	CEILING	42-1/2" x 28"	40-1/2" x 26"	9-1/2"	STANDARD COLOR	SFF-06	3/4"	SELECTED ON LOW SPEED
CH-5	420	881	(2)01/10	120V-1#	1.9	22.6	150	1.0'	WALL	40-1/2" x 26"	-	-	STANDARD COLOR	SFF-06	3/4"	SELECTED ON LOW SPEED

NOTES: 1. MODEL NUMBERS ARE INDICATED FOR REFERENCE ONLY. THE DUTIES AND CAPACITIES ARE TO BE USED FOR FINAL UNIT SELECTION BY THE MANUFACTURER.  
 2. DIMENSIONS ARE FOR REFERENCE ONLY. REFER TO VENDOR'S SHOP DRAWINGS FOR ACTUAL CONSTRUCTION DIMENSIONS.  
 3. PROVIDE ALL UNITS WITH FRONT IN/FRONT OUT AIR FLOW CONFIGURATION.  
 4. PROVIDE ALL UNITS WITH A 3-SPEED SWITCH AND NON-FUSED DISCONNECT.  
 5. PROVIDE ALL CEILING MOUNTED UNITS WITH A RECESSING CEILING AND COVER SAFETY CHAIN.

EXHAUST FAN SCHEDULE													BASIS OF DESIGN: LOREN COOK	
SYMBOL	CFM	SP	FAN DATA			DRIVE	BMS INTERLOCK	DAMPER	SONES	CONTROL	MOUNTING	MODEL	REMARKS	
			H.P.	RPM	ELECTRICAL									
EF-1	100	0.31"	39 WATTS	929	120V-1#	DIRECT	YES	BDD	2.0	TIME OF DAY SCHEDULE	CEILING	GC	PROVIDE WITH ALUMINUM CEILING GRILLE, SPEED CONTROLLER AND DISCONNECT SWITCH	
EF-2	325	0.56"	1/8	1590	120V-1#	DIRECT	YES	BDD	6.9	TIME OF DAY SCHEDULE	ROOF	ACE-D	PROVIDE WITH 20" HIGH ROOF CURB, SPEED CONTROLLER AND DISCONNECT SWITCH	
EF-3	800	0.28"	1/6	774	120V-1#	DIRECT	YES	BDD	3.8	MANUAL SWITCH BY E.C.	ROOF	ACE-D	PROVIDE WITH ROOF CURB ADAPTOR, SPEED CONTROLLER AND DISCONNECT SWITCH	
EF-4	750	1.00"	1/2	1383	120V-1#	BELT	YES	BDD	13.4	INTERLOCKED W/ DISHWASHER	ROOF	ACE-B	PROVIDE WITH 20" HIGH ROOF CURB, ADJUSTABLE SHEAVE AND DISCONNECT SWITCH	
EF-5	800	0.41"	1/4	1071	120V-1#	DIRECT	YES	BDD	5.8	MANUAL SWITCH BY E.C.	ROOF	ACE-D	PROVIDE WITH 20" HIGH ROOF CURB, SPEED CONTROLLER AND DISCONNECT SWITCH	
EF-6	300	0.25"	1/8	1010	120V-1#	DIRECT	YES	BDD	4.5	MANUAL SWITCH BY E.C.	ROOF	ACE-D	PROVIDE WITH ROOF CURB ADAPTOR, SPEED CONTROLLER AND DISCONNECT SWITCH	
EF-7	750	0.25"	1/6	729	120V-1#	DIRECT	YES	BDD	3.3	MANUAL SWITCH BY E.C.	ROOF	ACE-D	PROVIDE WITH ROOF CURB ADAPTOR, SPEED CONTROLLER AND DISCONNECT SWITCH	
EF-8	450	0.25"	1/6	773	120V-1#	DIRECT	YES	BDD	2.7	MANUAL SWITCH BY E.C.	ROOF	ACE-D	PROVIDE WITH 20" HIGH ROOF CURB, SPEED CONTROLLER AND DISCONNECT SWITCH	
EF-9	500	0.25"	1/6	785	120V-1#	DIRECT	YES	BDD	2.8	TIME OF DAY SCHEDULE	ROOF	ACE-D	PROVIDE WITH 20" HIGH ROOF CURB, SPEED CONTROLLER AND DISCONNECT SWITCH	
EF-10	1125	0.50"	1/2	934	120V-1#	DIRECT	YES	BDD	4.0	HUMIDITY SENSOR	CEILING	GC	PROVIDE WITH SPEED CONTROLLER, ALUMINUM CEILING GRILLE AND DISCONNECT SWITCH, INTERLOCK MOD ON OA-1 TO OPEN WHEN ENERGIZED & CLOSE WHEN DE-ENERGIZED	
EF-11	1125	0.59"	1/2	1005	120V-1#	DIRECT	YES	-	4.5	HUMIDITY SENSOR	CEILING	GC	PROVIDE WITH SPEED CONTROLLER, ALUMINUM CEILING GRILLE AND DISCONNECT SWITCH, INTERLOCK MOD ON OA-1 AND EXIST. RELIEF VENT TO OPEN WHEN ENERGIZED & CLOSE WHEN DE-ENERGIZED	
EF-12	250	0.38"	82 WATTS	1078	120V-1#	DIRECT	YES	BDD	1.4	TIME OF DAY SCHEDULE	CEILING	GC	PROVIDE WITH ALUMINUM CEILING GRILLE, SPEED CONTROLLER AND DISCONNECT SWITCH	
EF-13	250	0.31"	79 WATTS	1006	120V-1#	DIRECT	YES	BDD	1.1	TIME OF DAY SCHEDULE	CEILING	GC	PROVIDE WITH ALUMINUM CEILING GRILLE, SPEED CONTROLLER AND DISCONNECT SWITCH	
EF-14	200	0.38"	73 WATTS	1017	120V-1#	DIRECT	YES	BDD	1.2	TIME OF DAY SCHEDULE	CEILING	GC	PROVIDE WITH ALUMINUM CEILING GRILLE, SPEED CONTROLLER AND DISCONNECT SWITCH	
EF-15	350	0.53"	1/8	1588	120V-1#	DIRECT	YES	BDD	7.0	TIME OF DAY SCHEDULE	ROOF	ACE-D	PROVIDE WITH 20" HIGH ROOF CURB, SPEED CONTROLLER AND DISCONNECT SWITCH	
EF-16	470	0.38"	1/8	1255	120V-1#	DIRECT	NO	BDD	6.6	REVERSE ACTING T-STAT	ROOF	ACE-D	PROVIDE WITH 20" HIGH ROOF CURB, SPEED CONTROLLER AND DISCONNECT SWITCH	
EF-17	250	0.38"	1/8	1295	120V-1#	DIRECT	YES	BDD	5.1	MANUAL SWITCH BY E.C.	ROOF	ACE-D	PROVIDE ROOF CURB ADAPTOR, SPEED CONTROLLER AND DISCONNECT SWITCH	
EF-18	600	0.25"	1/6	824	120V-1#	DIRECT	YES	BDD	3.2	REVERSE ACTING T-STAT	ROOF	ACE-D	PROVIDE WITH 20" HIGH ROOF CURB, SPEED CONTROLLER AND DISCONNECT SWITCH INTERLOCK MOD ON LOUVER L-3 TO OPEN WHEN ENERGIZED & CLOSE WHEN DE-ENERGIZED	
EF-19	250	0.41"	74 WATTS	1337	120V-1#	DIRECT	YES	BDD	5.3	REVERSE ACTING T-STAT	ROOF	ACE-D	PROVIDE WITH 20" HIGH ROOF CURB, SPEED CONTROLLER AND DISCONNECT SWITCH INTERLOCK LOWER MOD ON EXIST. LOUVER TO OPEN WHEN ENERGIZED & CLOSE WHEN DE-ENERGIZED	
EF-20	500	0.50"	1/8	1409	120V-1#	DIRECT	YES	BDD	7.8	REVERSE ACTING T-STAT	ROOF	ACE-D	PROVIDE WITH 20" HIGH ROOF CURB, SPEED CONTROLLER AND DISCONNECT SWITCH INTERLOCK UPPER MOD ON EXIST. LOUVER TO OPEN WHEN ENERGIZED & CLOSE WHEN DE-ENERGIZED	
EF-21	3400	0.25"	1/2	677	120V-1#	DIRECT - ECM	YES	BDD	8.8	REVERSE ACTING T-STAT	ROOF	ACE-D-VF	PROVIDE WITH 20" HIGH ROOF CURB, FAN MOUNTED SPEED CONTROLLER AND DISCONNECT SWITCH INTERLOCK MOD ON LOUVER L-5 TO OPEN WHEN ENERGIZED & CLOSE WHEN DE-ENERGIZED	
EF-22	750	0.44"	1/6	911	120V-1#	DIRECT	YES	BDD	5.1	REVERSE ACTING T-STAT	ROOF	ACE-D	PROVIDE WITH 20" HIGH ROOF CURB, FAN MOUNTED SPEED CONTROLLER AND DISCONNECT SWITCH	