

ENERGY RECOVERY VENTILATOR PERFORMANCE SCHEDULE

TAG	AIR STREAM	DUCT CONNECTIONS		UNIT AIRFLOW				ENERGY RECOVERY - WINTER							ENERGY RECOVERY - SUMMER							HEATING			ELECTRICAL DATA				BASIS OF DESIGN - MITSUBISHI	
		ENTERING	LEAVING	CFM	E.S.P. (INUC)	T.S.P. (INUC)	HP.	B.H.P.	E.D.B. (°F)	E.W.B. (°F)	L.D.B. (°F)	L.W.B. (°F)	RH (%)	EFF. (%)	E.D.B. (°F)	E.W.B. (°F)	L.D.B. (°F)	L.W.B. (°F)	RH (%)	EFF. (%)	TAG	L.A.T. (°F)	KW	OUTPUT (MBH)	PREHEAT KW	M.C.A.	BREAKER	VOLTAGE	WEIGHT	MODEL
ERV-1	SUPPLY	END	END	575	0.5	-	0.5	-	-5.0	-6.0	45.0	-	-	61	81.0	14.0	-	-	-	61	SEE HC-1	-	-	-	SEE PHC-1	3.6	15	208/160	135	LGH-F600RX5-E1
	EXHAUST	END	END	575	0.5	-	0.5	-	12.0	58.0	-	-	-	61	15.0	63.0	-	-	-	61	-	-	-	-	-	-	-	-	-	

PROVIDE ERV-1 W/ FILTERS AND MOTORIZED DAMPERS.

EXPANSION TANK PERFORMANCE SCHEDULE

TAG	TANK VOLUME (GAL)	ACCEPTANCE VOLUME (GAL)	MIN. REQ'D. ACCEPT. VOL. (GAL)	MAX. WORK'G. TEMPERATURE (DEG F)	MAX. WORK'G. PRESSURE (PSI)	WEIGHT (LBS)	BASIS OF DESIGN - AMTROL		
							MOUNTING	SERVICE	MODEL
ET	3.0	-	-	200	150	80	INLINE	DOM. HW	ST-5-C

PACKAGED ROOFTOP UNIT PERFORMANCE SCHEDULE

TAG	NOMINAL COOLING (TONS)	TOTAL COOLING (MBH)	SENSIBLE COOLING (MBH)	E.D.B./E.W.B. (°F)	TOTAL AIRFLOW (CFM)	OUTSIDE AIR (CFM)	E.S.P. (INUC)	SUPPLY FAN RPM	EER (BTUH/WATT)	HEAT FUEL	HEATING INPUT (MBH)	WEIGHT (LBS)	TYPE OF REFRIG. ERANT	ELECTRICAL REQUIREMENTS				BASIS OF DESIGN - TRANE		
														FLA	MCA	MOCF	V/PH/Hz	dBa (max)	SERVICE	MODEL
RTU-1	5.0	51	43	76/64	2000	150	0.5	-	15.0	NAT GAS	130	115	R-410a	-	30	45	208/3/60	55	GREAT HALL	YHC060

* - SOUND RATING BASED ON FACTORY PROVIDED ACOUSTICAL OPTIONS SUCH AS QUIETER CONDENSER FAN, MODULATING FAN MOTOR AND COMPRESSOR ENCLOSURE.

PLUMBING FIXTURE CONNECTION SCHEDULE

TAG	DESCRIPTION	SAN	VENT	CW	HW
P-1	FLOOR MOUNTED TT WC	3"	2"	1/2"	-
P-1A	ADA FLOOR MOUNTED TT WC	3"	2"	1/2"	-
P-1B	ADA FLOOR MOUNTED TT WC	3"	2"	1/2"	-
P-2	VANITY TOP LAVATORY	1-1/2"	1-1/2"	1/2"	1/2"
P-2A	ADA VANITY TOP LAVATORY	1-1/2"	1-1/2"	1/2"	1/2"
P-2B	ADA WALL HUNG LAVATORY	1-1/2"	1-1/2"	1/2"	1/2"
P-2C	WALL HUNG LAVATORY	1-1/2"	1-1/2"	1/2"	1/2"
P-3	STALL SHOWER	2"	1-1/2"	1/2"	1/2"
P-3A	LARGE STALL SHOWER	2"	1-1/2"	1/2"	1/2"
P-3B	TUB/SHOWER	2"	1-1/2"	1/2"	1/2"
P-3C	ADA STALL SHOWER	2"	1-1/2"	1/2"	1/2"
P-4	ADA SINGLE BOWL SS KITCHEN SINK	1-1/2"	1-1/2"	1/2"	1/2"
P-4A	DOUBLE BOWL SS KITCHEN SINK	1-1/2"	1-1/2"	1/2"	1/2"
P-4B	ADA DOUBLE BOWL SS KITCHEN SINK	1-1/2"	1-1/2"	1/2"	1/2"
P-4C	ADA DOUBLE BOWL SS KITCHEN SINK	1-1/2"	1-1/2"	1/2"	1/2"
P-4D	SINGLE BOWL SS KITCHEN SINK	1-1/2"	1-1/2"	1/2"	1/2"
P-5	WASHING MACHINE HOOK-UP	2"	1-1/2"	1/2"	1/2"
P-6	MOP BASIN	3"	2"	3/4"	3/4"
P-1	ICE MAKER HOOK-UP	-	-	1/2"	-
FPHB	FREEZE PROOF HOSE BIBB	-	-	3/4"	-
FD	FLOOR DRAIN (W/ TRAP PRIMER)	3"	2"	1/2"	-

MINIMUM SIZE OF BELOW SLAB SANITARY & VENT PIPING SHALL BE 2". ALL FLOOR DRAINS SHALL BE CONNECTED TO TRAP PRIMER.

ELECTRIC WALL HEATER PERFORMANCE SCHEDULE

TAG	OUTPUT (MBH)	AIRFLOW (CFM)	THROW	MTG.HT. (FEET)	ELECTRICAL REQUIREMENTS			BASIS OF DESIGN - QMARK		
					AMPS	WATTS	V/PH/Hz	SERVICE	ARRANGEMENT	MODEL
WH-1	25	-	-	-	-	150	120/160	SPACE HEAT	SURFACE MNT	CWH151D5
WH-2	61	-	-	-	-	1800	120/160	SPACE HEAT	SURFACE MNT	CWH201D5

PROVIDE WITH SURFACE MOUNT KIT AND INTEGRAL THERMOSTAT.

ELECTRIC WATER HEATER PERFORMANCE SCHEDULE

TAG	STORAGE (GALS)	REC.VRY @ 100°F	ELECTRICAL REQUIREMENTS			BASIS OF DESIGN - BRADFORD WHITE	
			AMPS	WATTS	V/PH/Hz	SERVICE	MODEL
EUH-A	50	18.0	-	4500	208/160	DHW	LE25063-3
EUH-H	80	31.0	25.0	9000	208/3/60	DHW	CEHD80

EUH-A IS TYPICAL FOR EUH-B, C & D.

PUMP PERFORMANCE SCHEDULE

TAG	FLOW RATE (GPM)	HEAD (FT/UG)	IMPEL. SIZE	RPM	EFF %	ELECTRICAL REQUIREMENTS			BASIS OF DESIGN - TACO				
						HP	VFD	WATTS	AMPS	V/PH/Hz	SERVICE	ARRANGEMENT	MODEL
CP-A	2.0	8.0	-	3250	-	1/35	N	-	0.52	120/160	RHW	INLINE	005-55

CP-A IS TYPICAL FOR CP-B, C, D & H. PUMP SHALL BE S.S. CONSTRUCTION.

ELECTRIC DUCT COIL PERFORMANCE SCHEDULE

TAG	HTG. AIR FLOW (CFM)	APD (INUC)	VELOCITY (FPM)	COIL AREA (LxW)	ELECTRICAL REQUIREMENTS			BASIS OF DESIGN - WARREN TECHNOLOGY	
					KW	V/PH/Hz	MODEL	SERVICE	
HC-1	600	0.1	-	12"x12"	6.0	208/160	CBK	ERV-1 HEAT	
PHC-1	600	0.1	-	12"x12"	4.0	208/160	CBK	ERV-1 PREHEAT	

FAN PERFORMANCE SCHEDULE

TAG	AIRFLOW L/H (CFM)	T.S.P. (INUC)	NOISE (SONES)	RPM	DRIVE	ELECTRICAL REQUIREMENTS					BASIS OF DESIGN - PANASONIC, (G) GREENHECK		
						HP	BHP	WATTS	AMPS	V/PH/Hz	SERVICE	ARRANGEMENT	MODEL
EF-1	80	0.10	0.5	829	DIRECT	-	-	-	0.12	120/160	EXHAUST W/LIGHT	CEILING	FV-05-1NKL1
EF-2	80	0.10	0.5	829	DIRECT	-	-	-	0.12	120/160	EXHAUST	CEILING	FV-08VQ5
EF-3	150	0.10	0.5	691	DIRECT	-	-	-	0.24	120/160	EXHAUST	CEILING	FV-15VQ5
EF-4	225	0.25	2.0	-	DIRECT	-	-	-	0.5	120/160	EXHAUST	CEILING	FV-30VQ3
EF-5	50	0.10	0.5	829	DIRECT	-	-	-	0.12	120/160	EXHAUST	CEILING	FV-05VQ5
EF-T1	50/100	0.25	0.8	-	DIRECT	-	-	-	0.16	120/160	EXHAUST W/LIGHT	CEILING	FV-05-1NKL1
EF-T2	80	0.25	0.8	-	DIRECT	-	-	-	0.16	120/160	EXHAUST	CEILING	FV-08VQ5
EF-G	1150	0.25	10.4	1158	DIRECT	3/4	0.19	-	-	120/160	GARAGE VENTILATION	SIDEWALL	(G) SEI-16-428-VG

EF-T1 SHALL BE WIRED PER INSTALL MANUAL TO OPERATE CONTINUOUSLY ON LOW SPEED. MOTION SENSOR SHALL ACTIVATE HIGH SPEED. PROVIDE EACH W/ CRD WHERE INSTALLED IN RATED CEILING.

LOUVER PERFORMANCE SCHEDULE

TAG	AIR FLOW (CFM)	SP LOSS (INUC)	AIR VEL. (FPM)	SIZE (INCHES) (W x H)	FREE AREA (SQFT)	DRAINABLE (Y) OR (N)	BLADE ANGLE & FRAME DEPTH	BASIS OF DESIGN - RUSKIN	
								SERVICE	MODEL
L-1A	525	0.10	410	24x18	128	Y	35°, 6"	ERV-1 INTAKE	ELF6315DX
L-1B	525	0.10	410	24x18	128	Y	35°, 6"	ERV-1 EXHAUST	ELF6315DX
L-G	1150	0.10	610	24x24	189	Y	35°, 6"	EF-G INTAKE	ELF6315DX
L-E	-	-	-	48x24	318	Y	35°, 6"	ELEVATOR VENT W/ MOD	ELC6315DAX

GAS-FIRED UNIT HEATER PERFORMANCE SCHEDULE

TAG	INPUT (MBH)	OUTPUT (MBH)	THERMAL EFF. %	AIRFLOW (CFM)	VELOCITY (FPM)	MTG.HT. (FEET)	ELECTRICAL REQUIREMENTS				BASIS OF DESIGN - REZNR		
							HP	FLA	WATTS	V/PH/Hz	SERVICE	ARRANGEMENT	MODEL
GFUH-1	15.0	6.225	83	961	110	-	0.06	3.3	211	120/160	GARAGE	HORIZ.	UDA5-15

MECHANICAL AND PLUMBING SYMBOLS AND ABBREVIATIONS LEGEND

NOTE - USE SYMBOLS AND ABBREVIATIONS AS APPLICABLE FOR THIS MECHANICAL DRAWING SET. SOME SYMBOLS AND ABBREVIATIONS IN THIS LEGEND MAY NOT APPLY.

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	ABBREVIATION	DESCRIPTION	ABBREVIATION	DESCRIPTION	ABBREVIATION	DESCRIPTION	ABBREVIATION	DESCRIPTION	ABBREVIATION	DESCRIPTION
—CA—	COMPRESSED AIR PIPING (CA)	⊘	BALL VALVE	⊕	TSTAT OR SENSOR W/ TAMPERPROOF GUARD	B-*	BOILER TAG	EUB	ENTERING WET BULB	LB	POUNDS	RPZ	REDUCED PRESSURE ZONE		
—C—	CONDENSATE DRAIN PIPING (C)	⊘	BALL VALVE	⊕	MANUAL AIR VENT	BD-*	BYPASS DAMPER TAG	EUH-*	ELECTRIC WATER HEATER TAG	LD-*	LINEAR DIFFUSER TAG	RR-*	RETURN REGISTER TAG		
—CTR—	COOLING TOWER RETURN PIPING (CTR)	⊘	3/4" BALL VALVE WITH 3/4" HOSE END	⊕	NOTE TAG (NUMBER)	BFP-*	BACKFLOW PREVENTER TAG	EUT	ENTERING WATER TEMPERATURE	LTHUS/R	LOW TEMPERATURE HOT WATER	RTU	ROOM TEMPERATURE SENSOR		
—CTS—	COOLING TOWER SUPPLY PIPING (CTS)	⊘	GATE VALVE	⊕	AIR DEVICE TAG (LETTER) WITH CFM	BHP	BRAKE HORSEPOWER	EXG	EXISTING	LRA	LOCKED ROTOR AMPS	RV	RELIEF VALVE		
—CUR—	CHILLED WATER RETURN PIPING (CUR)	⊘	PRESSURE REDUCING VALVE	⊕	ROOM NUMBER	BTUH	BRITISH THERMAL UNITS PER HOUR	EXH	EXHAUST	LUCCO	LOW WATER CUTOFF	RWL	RAINWATER LEADER		
—CWS—	CHILLED WATER SUPPLY PIPING (CWS)	⊘	FUSIBLE VALVE	⊕	TURNING VANES	CBD	COUNTER BALANCED DAMPER	FC	FLEXIBLE CONNECTION	LUT	LEAVING WATER TEMPERATURE	RWL	RAINWATER LEADER		
—FOR—	FUEL OIL RETURN PIPING (FOR)	⊘	STRAINER W/BLOWDOWN BALL VALVE	⊕	DUCT W/MANUAL DAMPER	CC-*	COOLING COIL TAG	FCO	FLOOR CLEANOUT	MAX	MAXIMUM	SA	SANITARY (DRAIN & WASTE)		
—FOS—	FUEL OIL SUPPLY PIPING (FOS)	⊘	2-WAY CONTROL VALVE	⊕	DUCT W/FLEXIBLE CONNECTION (FC)	CFM	CUBIC FEET PER MINUTE	FD	FIRE DAMPER	MBH	THOUSANDS OF BTU PER HOUR	SD	SMOKE DAMPER		
—G—	GAS PIPING (G)	⊘	SOLENOID VALVE	⊕	LAGGED DUCT	CHLR-*	CHILLER TAG	FD-*	FLOOR DRAIN TAG	MCA	MINIMUM CIRCUIT AMPACITY	SEER	SEASONAL ENERGY EFFICIENCY RATIO		
—HUR—	HOT WATER RETURN PIPING (HUR)	⊘	3-WAY CONTROL VALVE	⊕	DUCT W/ACOUSTIC LINING	CO	CLEANOUT	FLA	FULL LOAD AMPS	MIN	MINIMUM	SF	SUPPLY FAN		
—HUS—	HOT WATER SUPPLY PIPING (HUS)	⊘	4-WAY CONTROL VALVE (TOP VIEW)	⊕	DUCT W/SQUARE-TO-ROUND TRANSITION	CONV-*	CONVECTOR TAG	FOR	FUEL OIL RETURN	NC	NOISE CRITERION	SG-*	SUPPLY GRILLE TAG		
—RL—	REFRIGERANT LIQUID PIPING (RL)	⊘	2 BUTTERFLY VALVES W/SINGLE ACTUATOR	⊕	FLEXIBLE DUCT	CUH-*	CABINET UNIT HEATER TAG	FOS	FUEL OIL SUPPLY	NIC	NOT IN CONTRACT	SP	STATIC PRESSURE		
—RG—	REFRIGERANT GAS PIPING (RG)	⊘	BUTTERFLY VALVE W/ACTUATOR	⊕	MOTOR OPERATED DAMPER	CP-*	CIRCULATING PUMP TAG	FPFH	FROST PROOF HOSE BIBB	NTS	NOT TO SCALE	SP-*	SUMP PUMP TAG		
—SAN—	SANITARY PIPING BELOW FLOOR (SAN)	⊘	TRIPLE-DUTY VALVE	⊕	AIRFLOW OUT	CT-*	COOLING TOWER TAG	FPM	FEET PER MINUTE	OA	OUTSIDE AIR	SR-*	SUPPLY REGISTER TAG		
—SAN—	SANITARY PIPING ABOVE FLOOR (SAN)	⊘	UNION	⊕	AIRFLOW IN	Cv	VALVE COEFFICIENT	FS-*	FLOOR SINK TAG	OBD	OPPOSED BLADE DAMPER	SQFT	SQUARE FEET		
—SAN—	SANITARY VENT PIPING	⊘	PIPE FLANGE	⊕	DIAMETER OR FLAT OVAL	CU	COLD WATER	FT	FEET	OD	OUTSIDE DIAMETER	ΔT	TEMPERATURE DIFFERENTIAL		
—RUL—	RAINWATER LEADER ABOVE SLAB (RUL)	⊘	RUMP WITH FLANGES	⊕	FIRE DAMPER	CHUS/R	CHILLED WATER SUPPLY AND RETURN	FTR-*	FINTUBE RADIATION TAG	OED	OPEN ENDED DUCT	TEMP.	TEMPERATURE		
—CW—	COLD WATER PIPING (CW)	⊘	BASE MOUNTED PUMP	⊕	ROUND OR FLAT OVAL DUCT DOWN	DB	DRY BULB	GA	GAGE	OFRL	OVERFLOW RAINWATER LEADER	TCP	TEMPERATURE CONTROL PANEL		
—HW—	HOT WATER PIPING (HW)	⊘	CARTRIDGE TYPE INLINE PUMP	⊕	ROUND OR FLAT OVAL DUCT UP	DB RE	DECIBELS RELATIVE TO	GAL	GALLONS	OFUH-*	OIL FIRED WATER HEATER TAG	TMV-*	THERMOSTATIC MIXING VALVE TAG		
—RHW—	RECIRCULATED HOT WATER PIPING (RHW)	⊘	VERTICAL INLINE PUMP	⊕	SUPPLY DIFFUSER	DC	DOUBLE CHECK	GFUH-*	GAS FIRED WATER HEATER TAG	OFRD	OVERFLOW ROOF DRAIN	TSP	TOTAL STATIC PRESSURE		
—CAP—	PIPE CAP	⊘	FLEXIBLE PIPE CONNECTION (FC)	⊕	RETURN GRILLE	DCA	DOUBLE CHECK ATMOSPHERIC	GPH	GALLONS PER HOUR	OPD	OVERCURRENT PROTECTIVE DEVICE	TYP	TYPICAL		
—ELB—	ELBOW UP	⊘	PITCH DOWN	⊕	STEAM TRAP	DEG F	DEGREES FAHRENHEIT	GPM	GALLONS PER MINUTE	P-*	PLUMBING FIXTURE TAG	UH-*	UNIT HEATER TAG		
—ELB—	ELBOW DOWN	⊘	PETCOCK	⊕	WATER HAMMER ARRESTOR	DIA	DIAMETER	GUH-*	GAS UNIT HEATER TAG	PENETN	PENETRATION	UNO.	UNLESS NOTED OTHERWISE		
—TEE—	PIPE TEE UP	⊘	FLOW METER	⊕	ABBREVIATION	DN	DOWN IN WALL	HC-*	HEATING COIL TAG	FF-*	PADDLE FAN TAG	VAV-*	VARIABLE AIR VOLUME BOX TAG		
—TEE—	PIPE TEE DOWN	⊘	PRESSURE GAGE WITH GAGE COCK	⊕	DESCRIPTION	DOW	DOWN	HP	HORSEPOWER	PSIA	POUNDS PER SQUARE INCH ABSOLUTE	VB	VACUUM BREAKER		
—RED—	PIPE REDUCER	⊘	THERMOMETER IN WELL	⊕	AAV	EA	EXHAUST AIR	HRV-*	HEAT RECOVERY VENTILATOR TAG	PSIG	POUNDS PER SQUARE INCH GAGE	VFD	VARIABLE FREQUENCY INVERTER DRIVE		
—GUIDE—	PIPE WITH GUIDE	⊘	WATER FLOW SWITCH	⊕	AD	EAT	ENTERING AIR TEMPERATURE	HU	HOT WATER	PVC	POLYVINYL CHLORIDE (PIPE)	VTR	VENT THRU ROOF		
—ANCHOR—	PIPE WITH ANCHOR	⊘	PRESSURE SWITCH OR SENSOR	⊕	AFF	EDB	ENTERING DRY BULB	HUS/R	HOT WATER SUPPLY AND RETURN	RA	RETURN AIR	V/PH/Hz	VOLTS/PHASES/HERTZ		
—VALVE—	BUTTERFLY VALVE	⊘	IMMERSION TEMPERATURE SENSOR	⊕	AHU-*	EDC-*	ELECTRIC DUCT COIL TAG	I-B-R	INSTITUTE OF BOILER AND RADIATOR MANUFACTURERS	RDE	ROOF DRAIN	WB	WET BULB		
—VALVE—															