

WATER HEATER PERFORMANCE SCHEDULE

TAG	STORAGE (GALS)	INPUT (MBH)	REC.VRY (GPH)	ELECTRICAL REQUIREMENTS	BASIS OF DESIGN	AO Smith "Cyclone Plus"			
			HP	AMP'S	V/PH/Hz	SERVICE	FUEL	MODEL	
GUH-1	119	320.0	0.349	1/3	5.0	120/1/60	DOM HU	NG	BTH-302(A)

Notes:
1. ASME Code construction. Provide concentric wall vent kits and acid neutralization kits.

AIR DEVICE PERFORMANCE SCHEDULE

TAG	PANEL SIZE (IN)	NECK SIZE (IN)	AIRFLOW (CFM)	SP LOSS (INUG)	THROU(L)	THROU(S)	Nc	BASIS OF DESIGN PRICE		
								DUCT CONN(U)	PATTERN	MODEL
(A)	24x24	6x6	150	0.05	-	-	25	SEE DUG6	SEE DUG6	AMX-3AL
(B)	24x24	9x9	350	0.05	-	-	30	SEE DUG6	SEE DUG6	AMX-3AL
(C)	24x24	12x12	500	0.05	-	-	30	SEE DUG6	SEE DUG6	AMX-3AL
(D)	24x24	15x15	700	0.05	-	-	30	SEE DUG6	SEE DUG6	AMX-3AL
(E)	24x24	6" / 8"	125/300	0.07	-	-	-	SEE DUG6	SEE DUG6	FPD2
(H)	-	10"x6"	150	0.05	-	-	23	SEE DUG6	5" DN	RCG
(L)	-	8"	220	0.05	-	-	18	SEE DUG6	ADJUSTABLE	(F) RHV
(AA)	-	8x8	100	0.05	-	-	30	SEE DUG6	1/2", 45°	60DAL
(BB)	-	12x12	400	0.05	-	-	30	SEE DUG6	1/2", 45°	60DAL
(CC)	-	16x16	600	0.05	-	-	30	SEE DUG6	1/2", 45°	60DAL
(DD)	-	22x22	1200	0.05	-	-	30	SEE DUG6	1/2", 45°	60DAL
(EE)	-	14x24	4000	0.05	-	-	-	SEE DUG6	1/2", 45°	* 6355
(FF)	-	24x16	-	-	-	-	25	SEE DUG6	1/2", 45°	60DAL
(GG)	-	32x16	800	0.05	-	-	25	SEE DUG6	1/2", 45°	60DAL
(HH)	-	46x22	2500	0.05	-	-	30	SEE DUG6	1/2", 45°	60DAL

ERV PERFORMANCE SCHEDULE

TAG	AIRFLOW (CFM)	E.S.P. (in. w.g.)	FAN HP.	VOLTAGE	EFFECTIVENESS (WINTER)	OPER. WEIGHT (LBS)	BASIS OF DESIGN Lossnay		
							FILTERS	SERVICE	MODEL
ERV1	350	0.3	1/4	208/1	70%	119	MERV 1	Ventilation	LGH-F410RX5-E
ERV2	350	0.3	1/4	208/1	70%	119	MERV 1	Ventilation	LGH-F410RX5-E
ERV3	350	0.3	1/4	208/1	70%	119	MERV 1	Ventilation	LGH-F410RX5-E

LOUVER PERFORMANCE SCHEDULE

TAG	AIR FLOW (CFM)	SP LOSS (IN. WG)	AIR VEL. (FPM)	SIZE (INCHES) (SQ. FT)	FREE AREA (SQ. FT)	ADRAINABLE (Y) OR (N)	BLADE ANGLE (Y) OR (N)	FRAME DEPTH	BASIS OF DESIGN RUSKIN		
									SERVICE	MODEL	VISIBLE MILLION
LL 2	1200	-	-	24x24	2.0	Y	39 1/2°	6"	ERC's	ELF63TBOX	-
-	-	-	-	-	-	Y	39 1/2°	6"	-	ELF63TBOX	-
-	-	-	-	-	-	Y	39 1/2°	6"	-	ELF63TBOX	-

Notes: Louvers shall have a Kynar 500 finish w/ color selection by the Architect.

TEMPERATURE MIXING VALVE PERFORMANCE SCHEDULE

TAG	FLOW RATE (GPM)	INLET CONNECTION (INCHES)	OUTLET CONNECTION (INCHES)	W/P/D (PSIG)	SET POINT (DEGREES F)	PROVIDE SPARE CARTRIDGE (Y) OR (N)	BASIS OF DESIGN LEONARD "Hi-Lo" Next Generation				
							SERVICE	ARRANGEMENT	MODEL		
TMV	48	1	1 1/4	15	115	N	DOMESTIC HU	IN-LINE	TM-820B-LF-DT		

PUMP PERFORMANCE SCHEDULE

TAG	FLOW RATE (GPM)	HEAD (FT/WG)	IMP.EL. SIZE	RPM	EFF. %	ELECTRICAL REQUIREMENTS					BASIS OF DESIGN TACO		
						HP	BHP	VFD	AMP'S	V/PH/Hz	SERVICE	ARRANGEMENT	MODEL
CPH*	4	6	-	3250	-	.073	-	-	1.2	120/1/60	DOMESTIC RHU	IN-LINE	005-5F3

* - ALL BRONZE OR STAINLESS STEEL CONSTRUCTION.

SPLIT-SYSTEM HEAT PUMP INDOOR UNIT PERFORMANCE SCHEDULE

TAG	TOTAL COOLING (MBH)	AIRFLOW (CFM)	HEATING CAPACITY (BTU/H * 35°)	COND. DRAIN (IN)	EER (BTU/H * WATT)	SOUND RATING (DB)	WEIGHT (LBS)	REFRIGERANT PIPE SIZE (IN)	Liquid	Gas	MCA	MAX FUSE	V/PH/Hz	BASIS OF DESIGN MITSUBISHI		
														SERVICE	ARRANGEMENT	MODEL
SACM-1, 2, 3, 4	9.0	250	10,900	1"	12.0	40	66	1/2	1/2	1.0	-	208/1/60	TREATMENT ROOMS	WALL	MSZ-FH49NA	
SACM-2, 3, 4	9.0	250	10,900	1"	12.0	40	66	1/2	1/2	1.0	-	208/1/60	TREATMENT ROOMS	WALL	MSZ-FH49NA	
SACM-1, 2, 3, 4	12.0	350	15,600	1"	12.0	40	79	1/2	1/2	1.0	-	208/1/60	LOBBY, LOUNGE, ETC.	WALL	MSZ-FH2NA	
SACM	15.0	400	18,000	1"	12.0	40	79	1/2	1/2	1.0	-	208/1/60	LAUNDRY	WALL	MSZ-FH2NA	

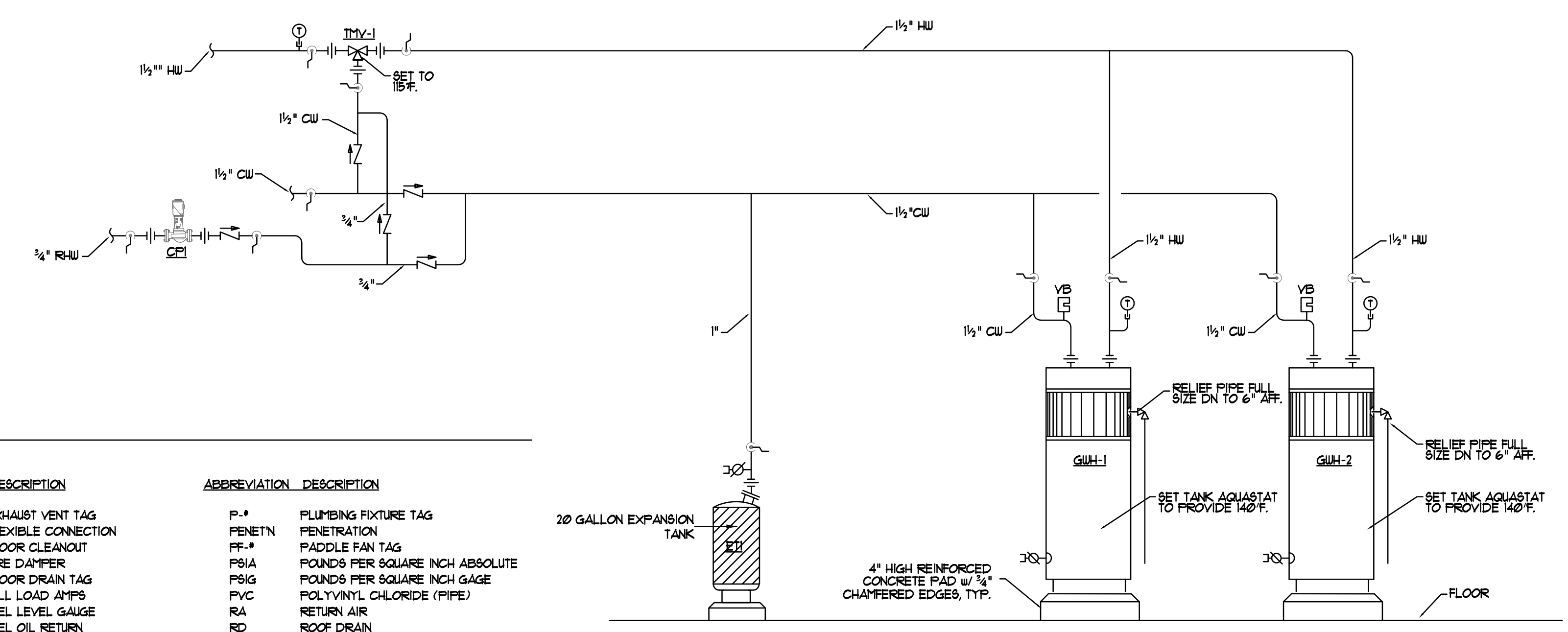
SPLIT-SYSTEM OUTDOOR UNIT PERFORMANCE SCHEDULE

TAG	TOTAL COOLING (MBH)	REFRIGERANT	EER	MINIMUM AMBIENT TEMPER.	HEATING CAPACITY (BTU/H * 5°F)	OPERATING WEIGHT (LBS)	ELECTRICAL REQUIREMENTS	MCA	MOP	V/PH/Hz	SOUND (BEL)	BASIS OF DESIGN MITSUBISHI "Hyperheat"		
													SERVICE	MODEL
* SCU-1	36.0	R-410A	13.1	-15	45,000	276	42.0	50.0	208/1/60	-	-	SAC M-1, 1-2, 1-3, 1-4	MXZ-4C36NAHZ	
* SCU-2	36.0	R-410A	13.1	-15	45,000	276	42.0	50.0	208/1/60	-	-	SAC M-1, 2-2, 2-3, 2-4	MXZ-4C36NAHZ	
* SCU-3	48.0	R-410A	13.1	-15	54,000	276	42.0	50.0	208/1/60	-	-	SAC M-1, 3-2, 3-3, 3-4	MXZ-4C48NAHZ	
* SCU-4	15.0	R-410A	13.1	-15	18,000	124	16.0	20.0	208/1/60	-	-	SAC M	MUZ-FH2NA	

* - AT ARI CONDITIONS OF 95°F AMBIENT / 61°F INDOOR WB. PROVIDE BRANCH CIRCUIT BOXES AS REQUIRED, WITH BASE PAN HEATER 4 24" H. STANDS.

LINEAR BAR GRILLE PERFORMANCE SCHEDULE

TAG	SIZE (INCHES)	AIRFLOW (CFM)	SP LOSS (INUG)	THROW (FEET)	NC	FRAME STYLE	PATTERN	BASIS OF DESIGN PRICE				
								FASTENING	SPACING	SERIES		
(A)	36x6	1000	0.04	25	20	1" FLANGE	15'	SCREWS	1/2"	LBPB 26C		



DOMESTIC HOT WATER PIPING SCHEMATIC

PLUMBING FIXTURE CONNECTION SCHEDULE

TAG	DESCRIPTION	SAN	VENT	CU	HU	GAS
P1 / P1A	FLOOR MOUNTED TANK-TYPE UC / ADA UC	3"	2"	1/2"	-	-
P2 / P2A	ADA COUNTERTOP / WALL-MOUNT LAVATORY	2"	1-1/2"	1/2"	1/2"	-
P3	SHOWER VALVE	2"	1-1/2"	1/2"	1/2"	-
P4	ADA SINGLE BOUL. STAINLESS STEEL SINK	2"	1-1/2"	1/2"	1/2"	-
P5	SINGLE BOUL. STAINLESS STEEL SINK	2"	1-1/2"	1/2"	1/2"	-
P6	MOP SERVICE SINK	3"	2"	1/2"	1/2"	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-
3"FD	3" FLOOR DRAIN w/ TRAP PRIMER CONNECTION	3"	2"	1/2"	-	-
ETP	ELECTRONIC TRAP PRIMER (ETP)	-	-	1/2"	-	-
W	INDIRECT WASTE RECEPTOR	3"	2"	-	-	-

MINIMUM SIZE OF BELOW SLAB SANITARY & VENT PIPING SHALL BE 2".
* - SUPPLY THERMOSTATIC MIXING VALVE (TMV) SET TO 95°.

SYMBOLS AND ABBREVIATIONS LEGEND

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	ABBREVIATION	DESCRIPTION	ABBREVIATION	DESCRIPTION	
-CA-	COMPRESSED AIR PIPING (CA)	(Symbol)	2 BUTTERFLY VALVES w/ SINGLE ACTUATOR	AAV	AUTOMATIC AIR VENT	P-*	PLUMBING FIXTURE TAG	
-C-	CONDENSATE DRAIN PIPING (C)	(Symbol)	BUTTERFLY VALVE w/ ACTUATOR	AD	ACCESS DOOR	PC	FLEXIBLE CONNECTION	
-CTR-	COOLING TOWER RETURN PIPING (CTR)	(Symbol)	TRIPLE-DUTY VALVE	AF	ABOVE FINISHED FLOOR	FCO	FLOOR CLEANOUT	
-CTS-	COOLING TOWER SUPPLY PIPING (CTS)	(Symbol)	UNION	AHU-*	AIR HANDLING UNIT TAG	FD	FIRE DAMPER	
-CUR-	CHILLED WATER RETURN PIPING (CUR)	(Symbol)	PIPE FLANGE	AFSD	ADJUSTABLE FLOW STATION FOR DISPLACEMENT DIFFUSERS	FD-*	FLOOR DRAIN TAG	
-CUS-	CHILLED WATER SUPPLY PIPING (CUS)	(Symbol)	CARBON DIOXIDE SENSOR	AFS	ACCESS PANEL	FLA	FULL LOAD AMP'S	
-FOR-	FUEL OIL RETURN PIPING (FOR)	(Symbol)	BASE MOUNTED PUMP	AFD	AIR PRESSURE DROP	FLG	FUEL LEVEL GAUGE	
-FOS-	FUEL OIL SUPPLY PIPING (FOS)	(Symbol)	CARBON DIOXIDE SENSOR	AS-*	AIR SEPARATOR TAG	FLR	FUEL OIL RETURN	
-G-	GAS PIPING (G)	(Symbol)	CARBON DIOXIDE SENSOR	ATC	AUTOMATIC TEMPERATURE CONTROL	FOR	FLOOR DRAIN	
-HUR-	HOT WATER RETURN PIPING (HUR)	(Symbol)	CARBON DIOXIDE SENSOR	B-*	BOILER TAG	RDE	RECOMMENDED DUAL ELEMENT RISE AMP'S	
-HUS-	HOT WATER SUPPLY PIPING (HUS)	(Symbol)	CARBON DIOXIDE SENSOR	BD-*	BYPASS DAMPER TAG	RFM-*	RADIANT FLOOR MANIFOLD TAG	
-RL-	REFRIGERANT LIQUID PIPING (RL)	(Symbol)	CARBON DIOXIDE SENSOR	BFP-*	BACKFLOW PREVENTER TAG	RG-*	RETURN GRILLE TAG	
-RG-	REFRIGERANT GAS PIPING (RG)	(Symbol)	CARBON DIOXIDE SENSOR	B-*	BOILER TAG	RS	RECIRCULATED HOT WATER	
-LTHUR-	LOW TEMP HOT WATER RETURN PIPING (LTHUR)	(Symbol)	CARBON DIOXIDE SENSOR	BTUH	BRITISH THERMAL UNITS PER HOUR	RFA	RUNNING LOAD AMP'S	
-LTHUS-	LOW TEMP HOT WATER SUPPLY PIPING (LTHUS)	(Symbol)	CARBON DIOXIDE SENSOR	B.S.	BELOW SLAB	RFM1	REVOLUTIONS PER MINUTE	
(Symbol)	SANITARY PIPING BELOW FLOOR (SAN)	(Symbol)	CARBON DIOXIDE SENSOR	BHP	BRAKE HORSEPOWER	RFZ	REDUCED PRESSURE ZONE	
(Symbol)	SANITARY PIPING ABOVE FLOOR (SAN)	(Symbol)	CARBON DIOXIDE SENSOR	BTU/H	BRITISH THERMAL UNITS PER HOUR	RR-*	RETURN REGISTER TAG	
(Symbol)	SANITARY VENT PIPING	(Symbol)	CARBON DIOXIDE SENSOR	B.S.	BELOW SLAB	RTV	ROOM TEMPERATURE SENSOR	
(Symbol)	RAINWATER LEADER ABOVE SLAB (RUIL)	(Symbol)	CARBON DIOXIDE SENSOR	CGP	CONDENSATE RETURN	RV	RELIEF VALVE	
(Symbol)	DOMESTIC COLD WATER PIPING (CU)	(Symbol)	CARBON DIOXIDE SENSOR	CPM	CUBIC FEET PER MINUTE	S	SUPPLY AIR	
(Symbol)	DOMESTIC HOT WATER PIPING (HU)	(Symbol)	CARBON DIOXIDE SENSOR	CHLR-*	CHILLER TAG	SAL	SANITARY LEADER	
(Symbol)	RECIRCULATED HOT WATER PIPING (RHU)	(Symbol)	CARBON DIOXIDE SENSOR	CO	CLEANOUT	SA	SUPPLY AIR	
(Symbol)	PIPE CAP	(Symbol)	CARBON DIOXIDE SENSOR	CONV-*	CONVECTOR TAG	SAN	SANITARY (DRAIN & WASTE)	
(Symbol)	DIRECTION OF FLUID FLOW	(Symbol)	CARBON DIOXIDE SENSOR	CABNET UNIT HEATER TAG	CRV-*	HEAT RECOVERY VENTILATOR TAG	SD	SHOWER VALVE
(Symbol)	ELBOW UP	(Symbol)	CARBON DIOXIDE SENSOR	CP-*	CIRCULATING PUMP TAG	SEER	SEASONAL ENERGY EFFICIENCY RATIO	
(Symbol)	ELBOW DOWN	(Symbol)	CARBON DIOXIDE SENSOR	CT-*	COOLING TOWER TAG	SF	SUPPLY AIR	
(Symbol)	PIPE TEE UP	(Symbol)	CARBON DIOXIDE SENSOR	Cv	VALVE COEFFICIENT	SG-*	SUPPLY GRILLE TAG	
(Symbol)	PIPE TEE DOWN	(Symbol)	CARBON DIOXIDE SENSOR	CU	COLD WATER	SP	STATIC PRESSURE	
(Symbol)	PIPE REDUCER	(Symbol)	CARBON DIOXIDE SENSOR	CHUS/R	CHILLED WATER SUPPLY AND RETURN	SP-*	SUMP PUMP TAG	
(Symbol)	PIPE WITH GUIDE	(Symbol)	CARBON DIOXIDE SENSOR	DB	DRY BULB	SR-*	SUPPLY REGISTER TAG	
(Symbol)	PIPE WITH ANCHOR	(Symbol)	CARBON DIOXIDE SENSOR	DB RE	DECIBELS RELATIVE TO	SGFT	SQUARE FEET	
(Symbol)	BUTTERFLY VALVE	(Symbol)	CARBON DIOXIDE SENSOR	DC	DOUBLE CHECK	DT	TEMPERATURE DIFFERENTIAL	
(Symbol)	3/4" BALL VALVE WITH 3/4" HOSE END	(Symbol)	CARBON DIOXIDE SENSOR	DCA	DOUBLE CHECK ATMOSPHERIC	TEMP.	TEMPERATURE	
(Symbol)	GATE VALVE	(Symbol)	CARBON DIOXIDE SENSOR	DCA	DOUBLE CHECK ATMOSPHERIC	TCP	TEMPERATURE CONTROL PANEL	
(Symbol)	PRESSURE REDUCING VALVE	(Symbol)	CARBON DIOXIDE SENSOR	DEG F	DEGREES FAHRENHEIT	TMV-*	THERMOSTATIC MIXING VALVE TAG	
(Symbol)	RISABLE VALVE	(Symbol)	CARBON DIOXIDE SENSOR	DI	DIA	TSP	TOTAL STATIC PRESSURE	
(Symbol)	STRAINER w/ BLOWDOWN BALL VALVE	(Symbol)	CARBON DIOXIDE SENSOR	DIW	DOWN IN WALL	TYP	TYPICAL	
(Symbol)	2-WAY CONTROL VALVE	(Symbol)	CARBON DIOXIDE SENSOR	DN	DOWN	UH-*	UNIT HEATER TAG	
(Symbol)	SOLENOID VALVE	(Symbol)	CARBON DIOXIDE SENSOR	DN	DOWN	VAV-*	VARIABLE AIR VOLUME BOX TAG	
(Symbol)	3-WAY CONTROL VALVE	(Symbol)	CARBON DIOXIDE SENSOR	EA	EXHAUST AIR	VB	VACUUM BREAKER	
(Symbol)	4-WAY CONTROL VALVE (TOP VIEW)	(Symbol)	CARBON DIOXIDE SENSOR	EAT	ENTERING AIR TEMPERATURE	VFD	VARIABLE FREQUENCY INVERTER DRIVE	
(Symbol)		(Symbol)	CARBON DIOXIDE SENSOR	EDB	ENTERING DRY BULB	VTR	VENT THRU ROOF	
(Symbol)		(Symbol)	CARBON DIOXIDE SENSOR	EDC-*	ELECTRIC DUCT COIL TAG	V/PH/Hz	VOLTS/PHASES/HERTZ	
(Symbol)		(Symbol)	CARBON DIOXIDE SENSOR	EF	ENERGY EFFICIENCY RATIO	WB	WET BULB	
(Symbol)		(Symbol)	CARBON DIOXIDE SENSOR	EFF	EFFICIENCY	WCO	WALL CLEANOUT	
(Symbol)		(Symbol)	CARBON DIOXIDE SENSOR	EG-*	EXHAUST GRILLE TAG	UG	WATER GAGE	
(Symbol)		(Symbol)	CARBON DIOXIDE SENSOR	ER-*	EXHAUST REGISTER TAG	UPD	WATER PRESSURE DROP	
(Symbol)		(Symbol)	CARBON DIOXIDE SENSOR	ESP	EXTERNAL STATIC PRESSURE	USA	WIRE SIZING AMP'S	
(Symbol)		(Symbol)	CARBON DIOXIDE SENSOR	ET-*	EXPANSION TANK TAG	WTD	WATER TEMPERATURE DROP	
(Symbol)		(Symbol)	CARBON DIOXIDE SENSOR	EUB	ENTERING WET BULB	W	WITH	
(Symbol)		(Symbol)	CARBON DIOXIDE SENSOR	EUH-*	ELECTRIC WATER HEATER TAG	ZD-*	ZONE DAMPER TAG	
(Symbol)		(Symbol)	CARBON DIOXIDE SENSOR	EUT	ENTERING WATER TEMPERATURE			
(Symbol)		(Symbol)	CARBON DIOXIDE SENSOR	EXG	EXISTING			