

Global CIRCULATION-LOOP SYSTEM
Hot Water Loop AHU-1E

-1,552,379

ZONE
EL2 North Perim Zn (G.N11)

-286,610

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V
	Var 4	Var 16	Var 17	Var 303	Var 3	Var 13	Var 14	Var 17	Var 5	Var 78	Var 1	Var 6	Var 225	Var 52	Var 6	Var 7	Var 1	Var 14	Var 32	Var 55		
Month Day Hour Type	Outside dry-bulb temp (F)	Temperature entering coils or secondary loops after supply-side thermal loss	Temperature leaving coils, average for all coils	ERV Outdoor air temperature leaving HX (to mixed air plenum) (°F)	Temp of air entering coil (deg F)	Minimum temp air handler could supply (deg F)	Maximum temp air handler could supply (deg F)	Total system supply air flow rate (cfm)	Total central heat coil output (Btu/hr)	Cal'd Cap Based on Current CFM & HW Temps	The total heat capacity (Btu/hr)	Temp of air leaving heat coil - hot deck temp (deg F)	Total central cool coil output (Btu/hr)	Supply duct (cold for DDS) temp to diffusers	Maximum supply temp for zone (deg F)	Current hour zone temp (deg F)	Current hour zone thermostat setting (deg F)	Load Calc'd SPACE Sensible load at const temp (Btu/hr)	Zone supply air flow rate (cfm)	Zone coil heat (Btu/hr)	Cal'd Cap Based on Current CFM & HW Temps	Throttling range (deg F)
Example hrs when zone out of tolerance	2 3 8 2 11	180	138	39	39	41	47	26,449	-219,876	-1,210,501	-155,238	47	0	47	51	50	70	-40,616	5,956	-30,480	-272,607	2
	2 2 8 1 11	180	138	39	39	41	47	26,449	-212,844		-155,238	47	0	47	51	50	70	-44,339	5,956	-30,600		2
	2 3 5 2 11	180	138	38	38	40	45	26,449	-162,585		-155,238	45	0	45	49	49	70	-34,701	5,956	-30,427		2
	2 3 7 2 12	180	138	39	39	41	47	26,449	-193,652		-155,238	47	0	47	51	51	70	-33,665	5,956	-30,484		2
	2 2 7 1 11	180	138	39	39	40	45	26,449	-159,059		-155,238	45	0	45	50	50	70	-36,392	5,956	-30,547		2
Example hrs when zone in tolerance	11 15 10 7 36	180	145	58	58	51	62	23,935	-88,353		-578,821	62	0	62	79	70	70	-8,130	3,443	-43,365		2
	11 23 1 1 27	180	138	54	54	51	62	23,935	-173,059		-827,715	62	0	62	86	70	70	-28,599	3,443	-65,215		2
	3 8 5 7 30	180	137	56	56	51	62	23,935	-143,535		-813,340	62	0	62	86	70	70	-29,397	3,443	-65,158		2
	11 21 7 6 25	180	137	54	54	51	62	23,935	-195,070		-803,300	62	0	62	85	70	70	-26,063	3,443	-62,830		2
	12 8 7 2 23	180	139	53	53	51	62	23,935	-217,188		-758,828	62	0	62	84	71	70	-21,474	3,443	-58,379		2

Air Path: 100% OSA → ERV → HT Coil → TU → Space

- A Zone out of tolerance during low OSA temps
- B-C HW loop working correctly.
- D ERV working correctly
- E ERV working correctly
- F Seems appropriate
- 1. ? G Why can the AHU only supply 47F?
- H Correct
- 2. ? I-J Why is the heat coil output only -219,876 Btu/hr when design capacity is -1,552,379 Btu/hr?
- 3. ? J-K Why is the heat capacity only -155,238 Btu/hr when design capacity is -1,552,379 Btu/hr?
- L LAT should be 62F
- M Cooling coil is off as it should be.
- N LAT should be 62F
- O Should be about 95F
- P Zone way out of tolerance
- Q Thermostat set correctly
- R Calculated load is larger than TU heat output?
- S Correct
- 4. ? T-U Why is zone heating coil output only -30,480 Btu/hr when the design capacity is -286,610 Btu/hr?
- 5. ? V Why is throttle range only 2F when I have specified it to be 4F?