

Air System Design Load Summary for Packaged Rooftop AHU

Project Name: Example Problem
Prepared by: Carrier Corporation

08/27/2002
03:22PM

	DESIGN COOLING			DESIGN HEATING		
	COOLING DATA AT Aug 1600 COOLING OA DB / WB 91.0 °F / 74.0 °F			HEATING DATA AT DES HTG HEATING OA DB / WB -6.0 °F / -7.2 °F		
ZONE LOADS	Details	Sensible (BTU/hr)	Latent (BTU/hr)	Details	Sensible (BTU/hr)	Latent (BTU/hr)
Window & Skylight Solar Loads	504 ft²	25626	-	504 ft²	-	-
Wall Transmission	2662 ft²	3386	-	2662 ft²	17469	-
Roof Transmission	9700 ft²	10404	-	9700 ft²	42175	-
Window Transmission	504 ft²	4412	-	504 ft²	25513	-
Skylight Transmission	0 ft²	0	-	0 ft²	0	-
Door Loads	112 ft²	9258	-	112 ft²	9872	-
Floor Transmission	7726 ft²	0	-	7726 ft²	14149	-
Partitions	0 ft²	0	-	0 ft²	0	-
Ceiling	0 ft²	0	-	0 ft²	0	-
Overhead Lighting	31428 W	62683	-	0	0	-
Task Lighting	0 W	0	-	0	0	-
Electric Equipment	0 W	0	-	0	0	-
People	202	36734	28660	0	0	0
Infiltration	-	645	898	-	4439	0
Miscellaneous	-	0	0	-	0	0
Safety Factor	10% / 10%	15315	2956	20%	22724	0
>> Total Zone Loads	-	168463	32513	-	136341	0
Zone Conditioning	-	177342	32513	-	132516	0
Plenum Wall Load	20%	1109	-	0	0	-
Plenum Roof Load	70%	24276	-	0	0	-
Plenum Lighting Load	30%	32170	-	0	0	-
Return Fan Load	7815 CFM	0	-	3136 CFM	0	-
Ventilation Load	3142 CFM	24784	77129	3136 CFM	248251	0
Supply Fan Load	7815 CFM	15559	-	3136 CFM	-3245	-
Space Fan Coil Fans	-	0	-	-	-1036	-
Duct Heat Gain / Loss	0%	0	-	0%	0	-
>> Total System Loads	-	275238	109642	-	376486	0
Central Cooling Coil	-	275238	109628	-	0	0
Preheat Coil	-	0	-	-	191700	-
Terminal Reheat Coils	-	0	-	-	184786	-
>> Total Conditioning	-	275238	109628	-	376485	0
Key:	Positive values are clg loads Negative values are htg loads			Positive values are htg loads Negative values are clg loads		