

Air Conditioning Contractors of America, Manual D, Third Edition

Friction Rate Worksheet			
Step 1) Manufacturer's Blower Data			
	External static pressure (ESP)	0.36	IWC
	CFM from manufacturers tables	Heating 383	Cooling 383
	Fan Speed	High	High
Step 2) Component Pressure Losses (CPL)			
	Direct expansion refrigerant coil		
	Electric resistance heating coil		
	Hot water coil		
	heat exchanger		
	Low efficiency filter		
	High or mid-efficiency filter	0.1	
	Electronic filter		
	Humidfier		
	Supply outlet	0.1	
	Return grille		
	Balancing damper ◀		
	UV lights or other device		
	Total component losses (CPL)	0.2	IWC
Step 3) Available Static Pressure (ASP)		0.16	IWC
Step 4) Total Effective Length (TEL)		200.5	Feet
Step 5) Friction Rate Design Value (FR)		0.08	IWC/100