PRODUCT DATA SHEET

ClimaVision VVT Damper Kits

Damper kits with preinstalled actuator and duct sensor for ClimaVision VVT applications.



Damper Kit Part #s:

6“ Damper - 7C-DA-C54X-X
8“ Damper - 7C-DA-C50X-X
10“ Damper - 7C-DA-C51X-X
12“ Damper - 7C-DA-C52X-X
14“ Damper - 7C-DA-C57X-X
16“ Damper - 7C-DA-C26X-X
18“ Damper - 7C-DA-C27X-X
20“ Damper - 7C-DA-C28X-X

Damper Kits include:

- Damper (6”-20”)
- Actuator (7C-LMB24.1)
- 10K Duct Sensor
- Smart Node mounting bracket (7C-HW-C37X-X)

Not included:

- Smart Node (7C-SN-C1X-X)

- Comes with Smart Node mounting bracket
- Preinstalled damper actuator with custom whip for easy wiring to Smart Node
- Comes preinstalled with 10K duct sensor to ensure maximum control and comfort

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ClimaVision VVT Damper Kits



SYSTEM SIZING

Duct Sizing Tips – Review these excellent tips for sizing ductwork associated with VVT.

- Main ducts at 1200 fpm maximum
- Branch ducts at 1000 fpm maximum
- Use equal friction or static regain method
- Target friction rate = 0.08 in. wg / 100' EL
- Aerodynamic fittings – especially near unit

Sizing Bypass Duct and Damper

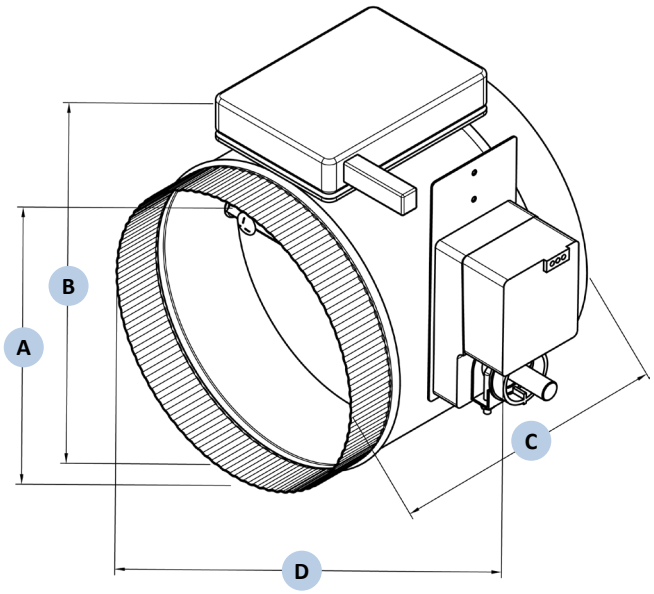
- Determine air source unit total cfm based on block load
- Find the zone with the smallest airflow (cfm) requirement
- NEVER size for less than 75% of unit design cfm
- Size duct and damper to the same size
- Bypass cfm = total cfm – (smallest zone cfm + ventilation cfm of all other zones)

  Example: 5-ton RTU providing 2000 cfm. 3 zones with design airflows of 400, 600, and 1000 cfm. Total ventilation requirement 300 cfm. Bypass airflow is 2000 - (400+300) = 1300 cfm. This is smaller than 75% of unit airflow, so size bypass for 1500 cfm @ ≤ 1000 fpm. 18-inch round duct would flow 1500 cfm at ~860 fpm.

Bypass Design Guidelines

- Layout bypass to avoid short circuiting
- Locate static pressure pickup five duct diameters downstream of bypass damper in a straight run (avoid elbows and tees)
- Facilitate mixing of bypass air with return air

CLIMAVISION VVT DAMPER KITS



DIMENSIONS

PART NUMBER	A	B	C	D
7C-DA-C54X-X	6"	8.5"	8"	9
7C-DA-C50X-X	8"	10.5"	8"	11
7C-DA-C51X-X	10"	12.5"	8"	13
7C-DA-C52X-X	12"	14.5"	8"	15
7C-DA-C57C-X	14"	16.5"	8"	17
7C-DA-C26X-X	16"	18.5"	8"	19
7C-DA-C27X-X	18"	20.5"	8"	21
7C-DA-C28X-X	20"	22.5"	8"	23

AIRFLOW SPECIFICATIONS

PART NUMBER	Duct Dia.	Weight	CFM MIN	CFM MAX
7C-DA-C54X-X	6"	4 lbs	160	240
7C-DA-C50X-X	8"	4.5 lbs	280	420
7C-DA-C51X-X	10"	6.1 lbs	440	660
7C-DA-C52X-X	12"	7 lbs	630	950
7C-DA-C57C-X	14"	8.1 lbs	850	1275
7C-DA-C26X-X	16"	9.5 lbs	1125	1575
7C-DA-C27X-X	18"	12 lbs	1425	1990
7C-DA-C28X-X	20"	15 lbs	1890	2460

For more detail, refer to: ClimaVision Damper Actuator Product Data Sheet or ClimaVision VVT System Design Guide

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