
Operation Manual

**MODEL
QCRV-A4A**

**COMMERCIAL ROOM VENTILATORS
WITH EXHAUST**

FOR USE WITH BARD QTEC SERIES HEAT PUMPS



Bard Manufacturing Company
Bryan, Ohio 43506

*Since 1914...Moving ahead, just as
planned.*

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DESCRIPTION

The QCRV ventilator is designed to be used with Bard QT_{EC} Series Heat Pumps. They are electromechanical ventilation systems designed to provide fresh air to meet indoor air quality standards with built in exhaust provisions.

BLADE ADJUSTMENT FOR DESIRED VENTILATOR AIR

The amount of ventilation air supplied by the commercial room ventilator is dependant on three factors.

1. Supply air duct static pressure drop
2. Indoor blower speed
3. Damper blade open position setting.

To determine the amount of fresh air that will be supplied to the structure, first determine the pressure drop of the supply air duct. For free blow applications with return air filter grille and supply grille, use the free blow column in the tables provided.

1. Determine the ventilation CFM required.
2. Choose the table following for your specific unit, mode of operation and static pressure.
3. Find the ventilation CFM required in the appropriate table. Read left to determine required blade position for the desired ventilation CFM.
4. Energize ventilator and adjust thumb wheel to open the blade to the position desired. Label on right side of QCRV indicates the A, B, C, D and E positions. Remove filter for better viewing.
5. Program thermostat, CS2000 or DDC control system to turn on ventilator during occupied periods only.

QH241 VENTILATION MODE CFM				
Damper Position	Free Blow	Static Pressure		
		0.1	0.3	0.5
A	125	120	100	75
B	135	130	115	100
C	165	160	160	140
D	255	255	235	195
E	375	320	290	265

QH241 COOLING & HEATING MODE CFM				
Damper Position	Free Blow	Static Pressure		
		0.1	0.3	0.5
A	220	215	200	175
B	245	235	210	185
C	255	260	245	225
D	335	335	330	290
E	385	385	360	320

NOTE: Ventilation airflow will increase up to 50 CFM during backup or emergency heat operation due to increased total airflow.

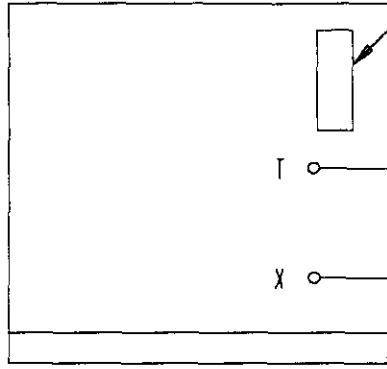
QH301 VENTILATION MODE CFM QH361 VENTILATION MODE CFM QH421 VENTILATION MODE CFM				
Damper Position	Free Blow	Static Pressure		
		0.1	0.3	0.5
A	140	135	125	130
B	180	170	160	160
C	220	210	205	195
D	315	315	315	290
E	410	400	385	380

QH301 COOLING & HEATING MODE CFM QH361 LOW SPEED COOLING & HEATING MODE CFM QH421 LOW SPEED COOLING & HEATING MODE CFM				
Damper Position	Free Blow	Static Pressure		
		0.1	0.3	0.5
A	235	220	225	230
B	265	250	245	240
C	325	315	300	290
D	400	400	390	380
E	465	460	445	430

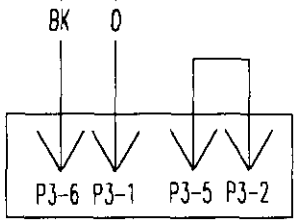
QH361 HIGH SPEED COOLING & HEATING MODE CFM QH421 HIGH SPEED COOLING & HEATING MODE CFM				
Damper Position	Free Blow	Static Pressure		
		0.1	0.3	0.5
A	255	250	250	230
B	285	280	280	280
C	360	360	350	345
D	445	445	445	440
E	500	500	500	490

CLASSROOM VENTILATOR MOTOR

POSITION
ADJUSTMENT
THUMBWHEEL



ADJUST FULL OPEN
POSITION WITH THUMBWHEEL
ROTATE UP TO OPEN
DOWN TO CLOSE



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