INSTALLATION INSTRUCTIONS

FULL FLOW ECONOMIZER & COMMERCIAL ROOM VENTILATOR (WITH 0-10 VDC MODULATING AND INTEGRAL EXHAUST)

Models:

QWSECON (920-0292 & 920-0293)
QWSCRV (920-0294)

For Use with Bard QW*S Series
Geothermal 2-Stage Heat Pumps

Bard® SINCE 1914
Climate Control Solutions

Bard Manufacturing Company, Inc.
Bryan, Ohio 43506
www.bardhvac.com

Manual: 2100-655
Supersedes: ***NEW***
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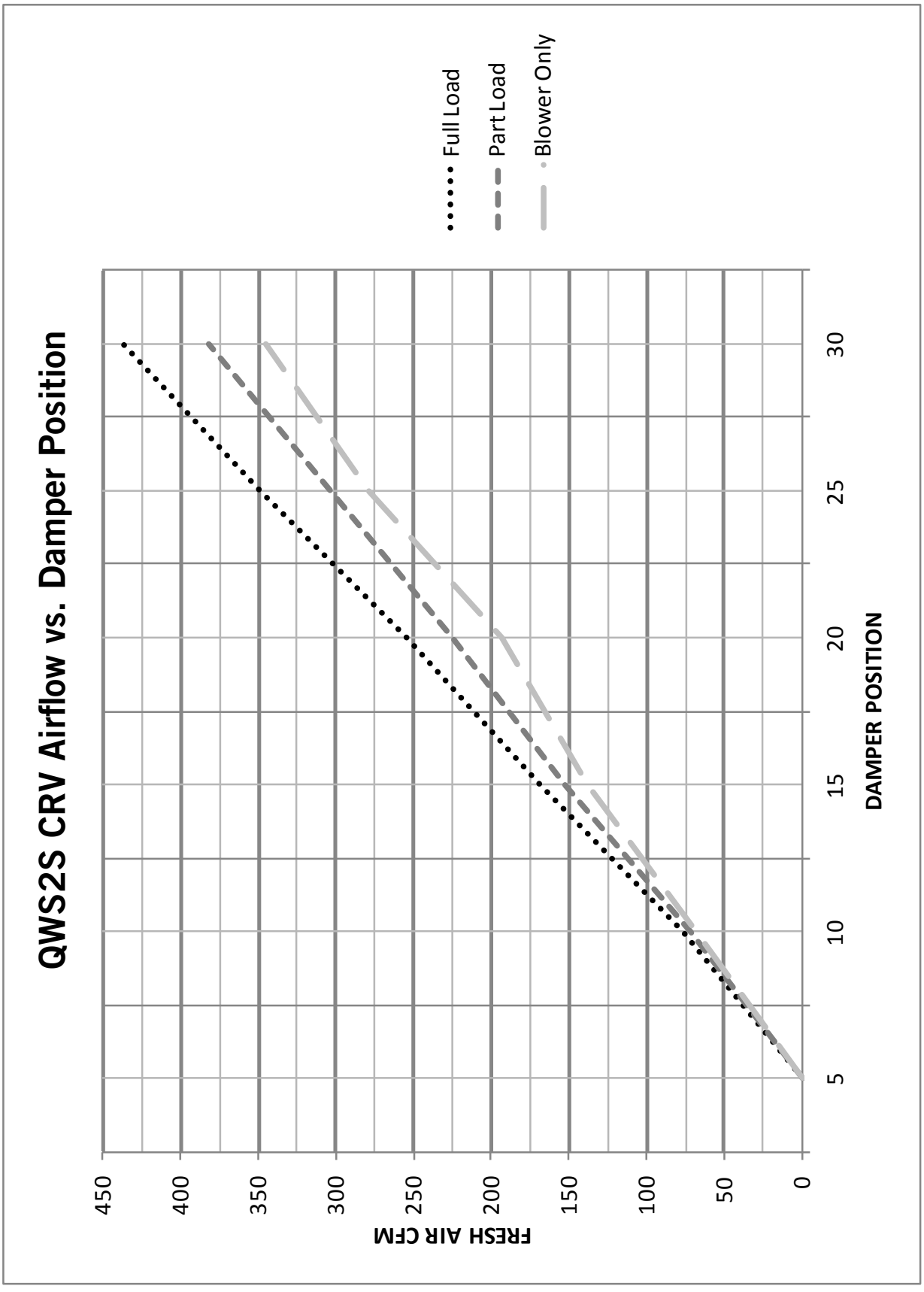
DESCRIPTION

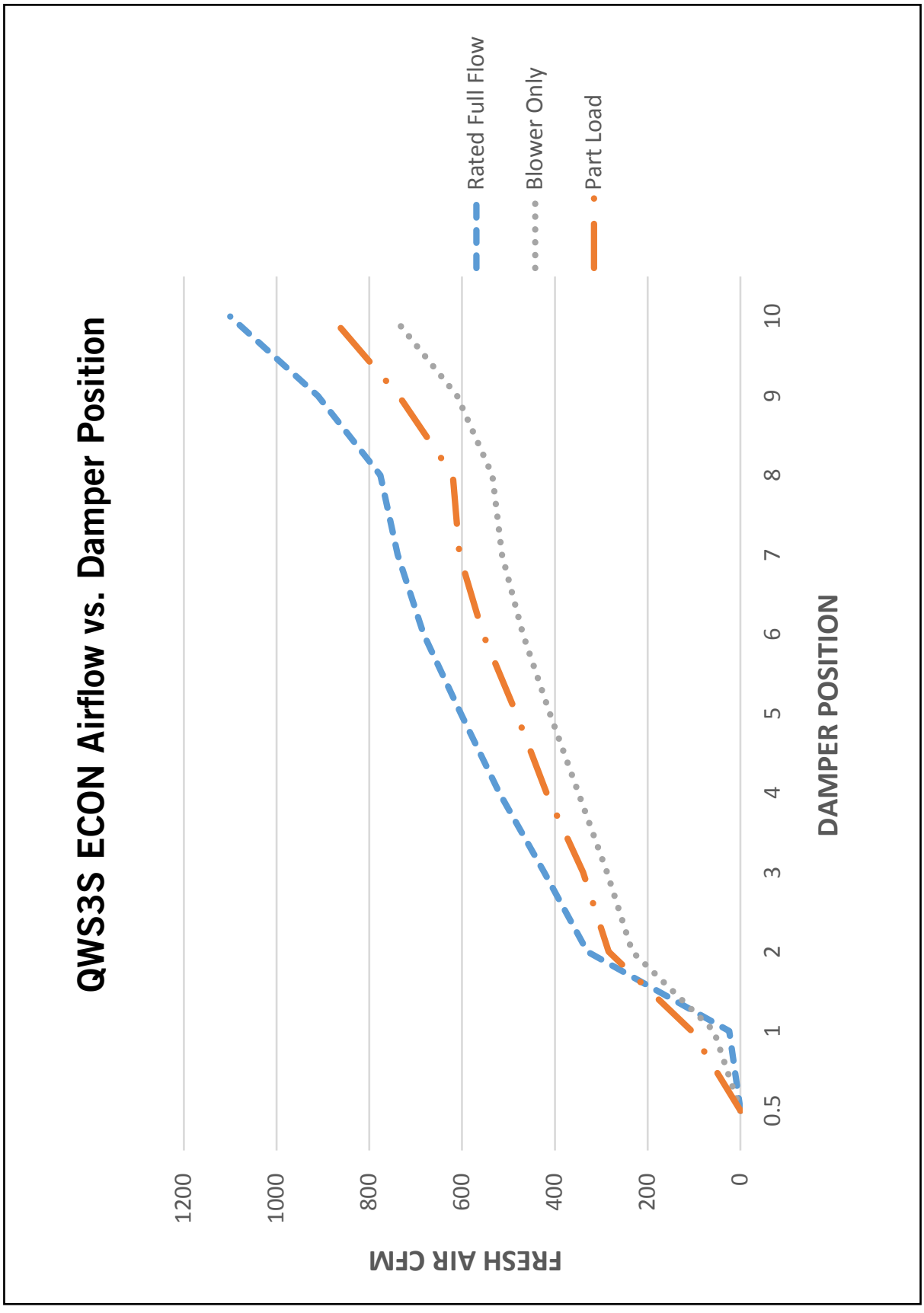
The QWSECON and QWSCRV ventilator are designed to be used with Bard QW*S Q-TEC series 2-stage geothermal heat pumps. They are electromechanical vent systems designed to provide fresh air to meet indoor air quality standards.

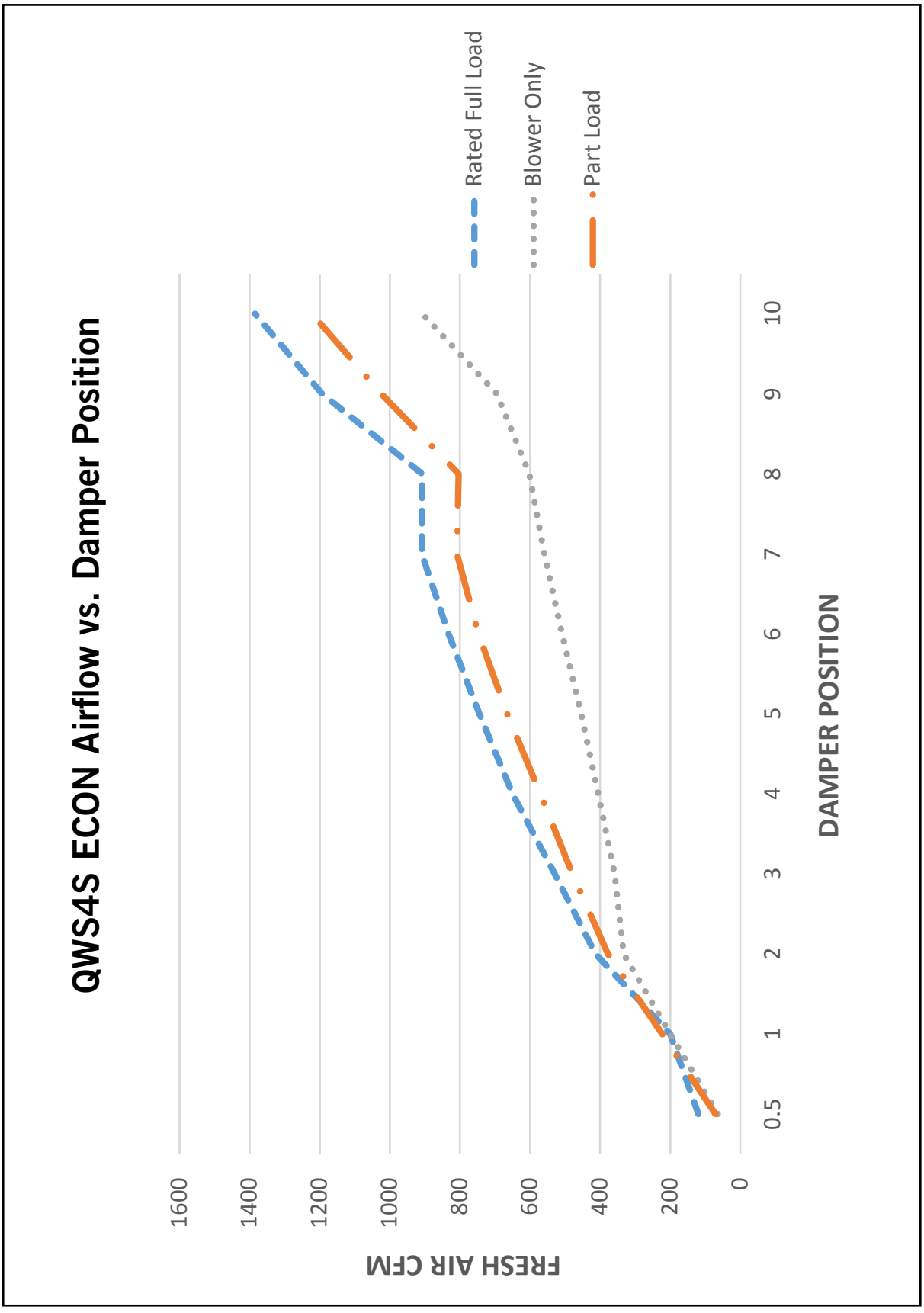
The 920-0292, -0293 and-0294 ventilation systems are designed specifically to allow control through the building DDC control. These systems do this by allowing a 0-10 Vdc modulating signal provided through the building DDC control to determine their position/ventilation CFM.

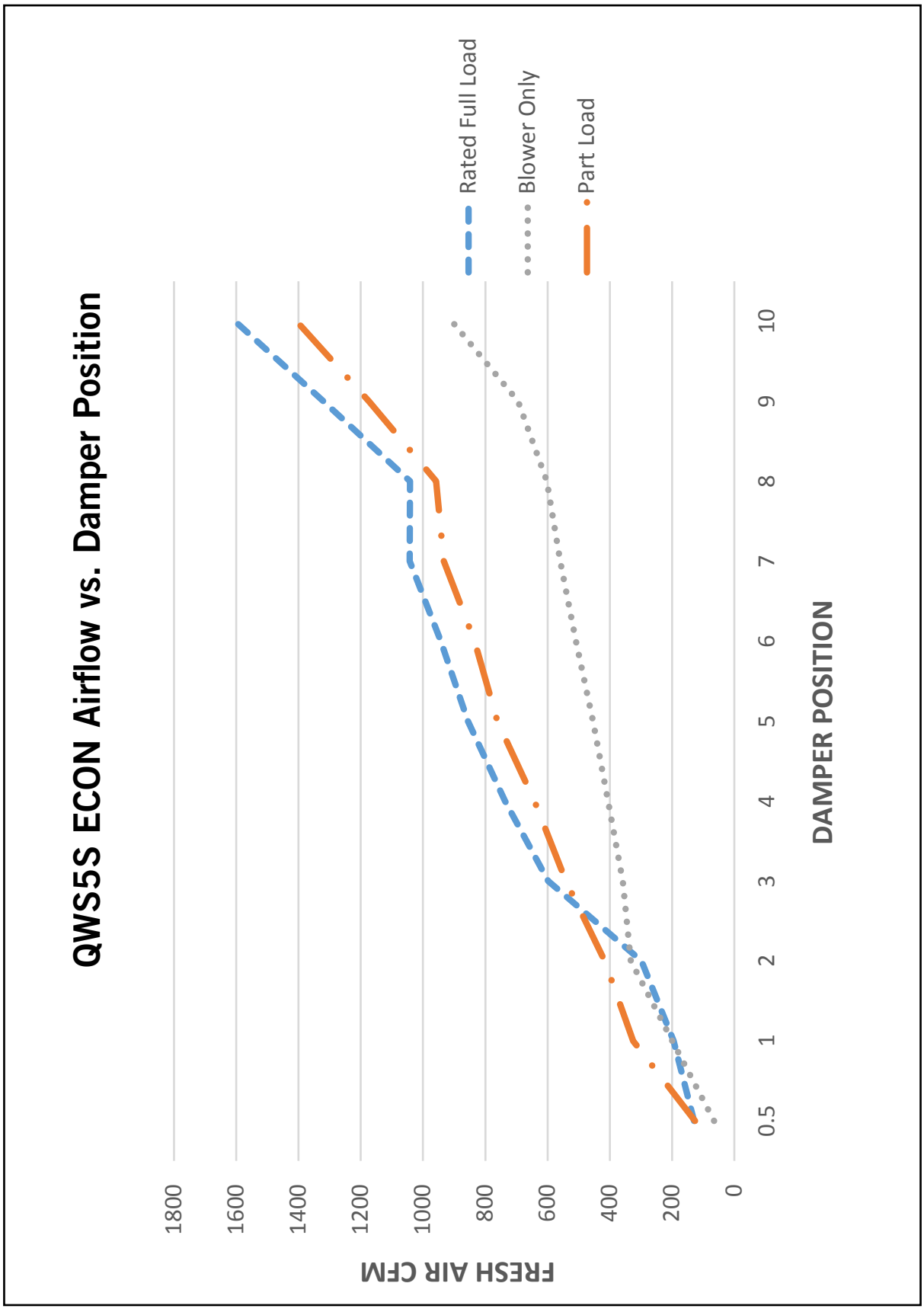
A subroutine will need to be created within the DDC system to regulate the damper position based upon the mode of operation. This is due to the fact that this is a multi-stage system in which the indoor airflow changes with the mode of operation. With the change in indoor airflow, the ventilation CFM also changes.

To develop/create these subroutines, see the charts on the following pages that match the QW*S Q-TEC series 2-stage geothermal heat pump models to specific ventilation CFMs based upon the mode of operation.


QWS2S CRV Airflow vs. Damper Position
Full Load
Part Load
Blower Only
FRESH AIR CFM
0
50
100
150
200
250
300
350
400
450
DAMPER POSITION
5
10
15
20
25
30


QWS3S ECON Airflow vs. Damper Position
Rated Full Flow
Blower Only
Part Load
FRESH AIR CFM
1200
1000
800
600
400
200
0
0.5
1
2
3
4
5
6
7
8
9
10
DAMPER POSITION


QWS4S ECON Airflow vs. Damper Position
FRESH AIR CFM
1600
1400
1200
1000
800
600
400
200
0
0.5
1
2
3
4
5
6
7
8
9
10
DAMPER POSITION
Rated Full Load
Blower Only
Part Load


QWS5S ECON Airflow vs. Damper Position
Rated Full Load
Blower Only
Part Load
FRESH AIR CFM
1800
1600
1400
1200
1000
800
600
400
200
0
0.5
1
2
3
4
5
6
7
8
9
10
DAMPER POSITION