11EER QH Series Q-TEC™ Heat Pump

The Q-TEC Series self contained packaged heat pump is designed to be installed inside a building structure against an exterior exposed wall. Q-TEC's design provides "whisper" quiet operation with total comfort for the occupants. This design eliminates the need for roof-mounted equipment and outside condensing units and can meet your specific architectural requirements.

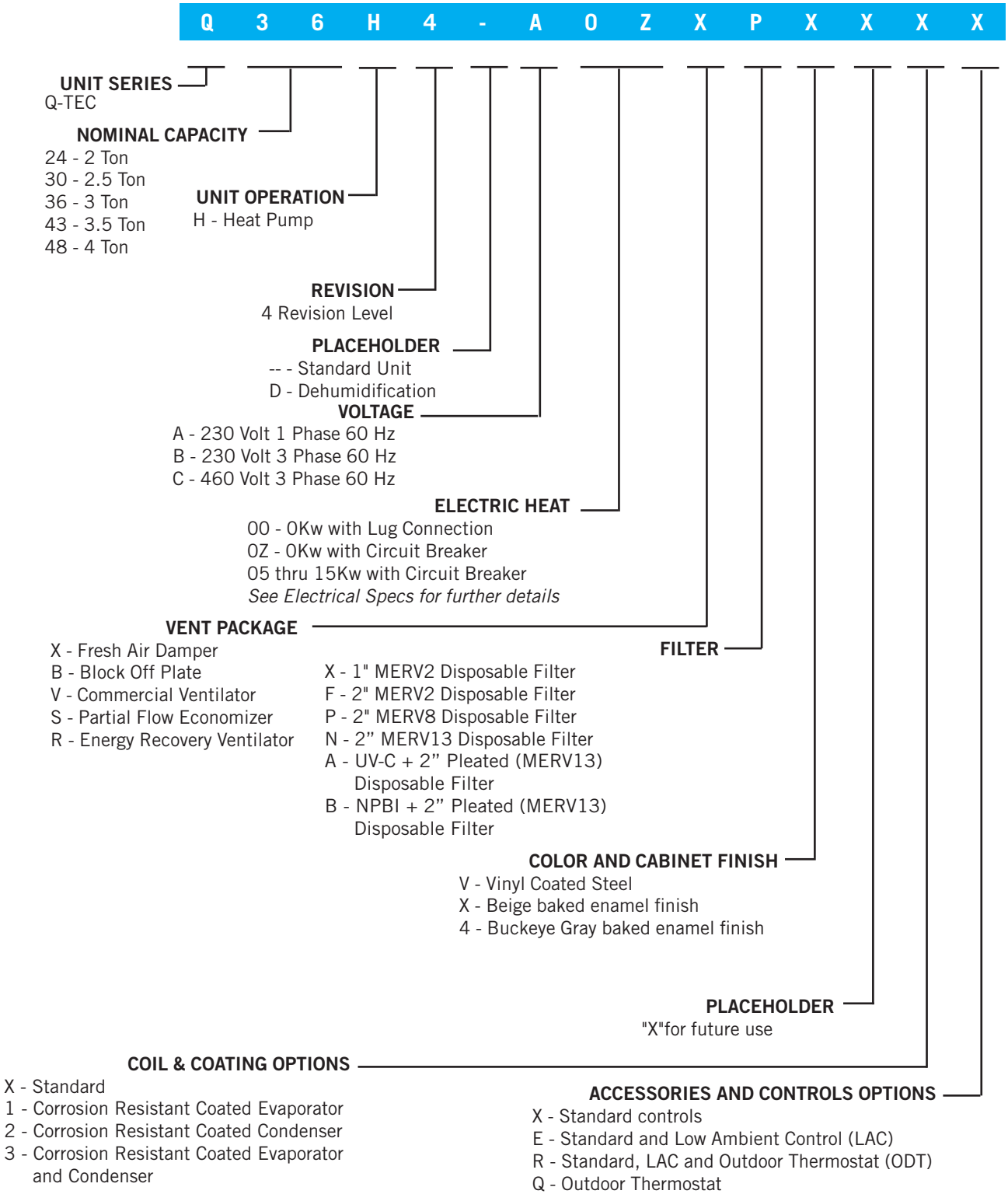
Q-TEC's "quiet technology" provides extremely low sound levels (both indoor and outdoor) by using special components and materials in the construction of the unit. By using special motors, sound insulation and other sound absorbing construction, we have built a heat pump system that is significantly quieter than the typical indoor product available today.

Q-TEC is designed for both new construction and renovation projects for schools, modular buildings and light commercial buildings. A variety of ventilation and dehumidification options are designed to address your projects' indoor air quality and dehumidification requirements.

- Complies with efficiency requirements of ASHRAE/IESNA 90.1-2019
- Certified to ANSI/AHRI Standard 390-2021 for SPVU (Single Package Vertical Units)
- Intertek ETL Listed to Standard for Safety Heating and Cooling Equipment ANSI/UL 1995, Fifth Edition/CSA 22.2 No. 236-05 Fourth Edition
- Commercial Product - Not intended for residential application
- Bard is an ISO 9001:2015 Certified Manufacturer
- The AHRI Certified® mark indicates Bard Manufacturing Company's participation in the AHRI Certification program. For verification of individual certified products, go to www.ahridirectory.org.

Bard® SINCE 1914

/////// WALL-MOUNT NOMENCLATURE



/////// ENGINEERED FEATURES

Non-Fiberglass Foil Faced Insulation: Environmentally friendly high "R" value non-fiberglass insulation that is made with recycled denim and cotton materials used with a FSK foil face that is both durable and cleanable.

Easy Filter Access: A separate filter door is provided for ease of filter access during routine unit maintenance. 1" and 2" filters are available with a rating of up to MERV13.

Factory Installed Vents: Multiple ventilation options are available as factory installed options that can be removed for service.

Electric Strip Heat: Reliable, comfortable heater packages feature an automatic limit and thermal cut-off safety control. Heater packages are factory installed.

Reliable, Easy-to-Use Controls: Easily accessible through center control panel locations. Phase rotation monitor is standard on all 3 phase models.

Green Fin Hydrophilic Evaporator Coil: Green fin stock is used to help prevent mold growth, aid with condensate drainage, and provide a limited amount of protection to corrosive particulates in the airstream.

Balanced Climate Technology: High latent capacity humidity & sound reduction removes up to 35% more humidity than any other on the market with the use of a 2 stage thermostat or controlling device. Bard Balanced Climate™ innovation comes standard on all models.

Optional Mechanical Dehumidification: Models are available with hot gas reheat dehumidification for energy efficient humidity removal. Electronic Expansion Valves are standard for all dehumidification models.

ECM Indoor Motor Technology: Programmable constant CFM motor operates efficiently while offering multiple speeds.

Enclosed Condenser Motor: An enclosed casing condenser motor with ball bearings is used for reliable operation and extended motor life. Enclosed condenser motors are standard on all units.

High Efficiency Cooling: Scroll compressors for quiet, efficient cooling. Designed with R-410A (HFC) non-ozone depleting refrigerant in compliance with the Montreal protocol and 2010 EPA requirements. A liquid line filter-drier to protect the system from moisture is standard on all units.

/////// Q-TEC UNIT MODES OF OPERATION

Cooling Operation: The Bard QH products offer single stage cooling operation using R410A refrigerant. Copper tube/Aluminum green fin coils are used to provide high efficiency and easy serviceability. Scroll compressor technology delivers years of quiet, reliable operation.

Heating Operation: The Bard QH products offer optional single or two stage heating operation using resistance heaters. Circuit breaker disconnect protection is standard in all 230V units equipped with electric heat. 460V units include toggle disconnects.

Mechanical Dehumidification Operation: The Bard QH products offer optional dehumidification operation that removes moisture while running at a quiet lower blower speed. A three-way valve, reheat coil, and electronic expansion valve (EEV) are standard with all models. The dehumidification circuit incorporates an independent heat exchanger coil in the supply air stream. The coil reheats the supply air after it passes over the cooling coil without requiring the electric resistance heater to be used for reheat purposes. This results in very high mechanical dehumidification capability from the air conditioner on demand without using electric resistance reheat.

Ventilation Operation: The Bard QH products offer optional ventilation operation that brings outdoor air into the structure. Factory installed only vent options can be used to bring in outdoor air for occupants, save energy by using outdoor air for free cooling, or positively pressurize a structure. Exhaust air options allow room air to be vented outdoors when fresh air is being brought into the structure. Energy recovery options are also available for occupied structures which condition the air being brought in to save energy when ventilation is necessary regardless of outdoor temperature.

Balanced Climate Operation: The Bard QH products offer an enhanced latent capacity stage that can be controlled by a two stage cooling thermostat. During the first cooling stage (Balanced Climate Mode), the unit will increase the amount of moisture removed during compressor operation. The second stage (standard mode) of cooling increases the sensible cooling capacity to increase the amount of heat removed from the structure during compressor operation. Available in high supply static applications. In order for Balanced Climate to be used in a Q-Tec, two jumpers must be removed between Y1 and Y2. One jumper is located on the low voltage terminal strip behind the inner blower panel in the upper right corner, and the second is installed in the control panel assembly. Unit is shipped with jumpers installed and Balanced Climate disabled.

/////// Q-TEC UNIT ADVANCED FEATURE DESCRIPTIONS

ECM Indoor Blower Motor: Energy efficient indoor blower motors use EC constant airflow technology. The QH blower motor automatically adjusts to maintain approximately the same rated airflow based on unit static pressure.

- Efficient ECM constant airflow motor. 24VAC power used for speed selection.
- Fully potted electronic control module for moisture protection.
- 6000V surge protection.

Outdoor Fan Motor: Outdoor fan motors use ball bearing construction and are fully enclosed for increased life expectancy.

- Single speed ECM motor.
- Totally enclosed motor housing protects motor windings and internal components from corrosion.
- Ball bearing design reduces motor wear from “windmill” effect when not in operation.

Non Fiberglass Cabinet Insulation: The Q-TEC products use advanced non-fiberglass insulation that is made with recycled denim materials. High "R" value, enhanced sound absorption, and reduced delamination are some of the features of this revolutionary product.

- Easy to clean and damage resistant Foil FSK Facing.
- Fiberglass and Formaldehyde free.
- Meets ASTM E84, UL 723, NFPA 90A and 90B Standards.
- Thermal performance ASTM C518 k=.27@1” & 900gsm

/////// QH CAPACITY AND EFFICIENCY RATINGS

MODELS	Q24H4	Q30H4	Q36H4	Q43H4	Q48H4
Cooling Capacity BTUH ① EER ②	23,000 11.00	27,600 11.00	35,600 11.00	41,000 11.00	47,500 11.00
High Temp Heating (47F) BTUH ① COP ②	21,400 3.3	24,800 3.3	32,600 3.3	38,500 3.3	41,500 3.3
Low Temp Heating (17F) BTUH ① COP ②	11,400 2.00	16,000 2.20	21,400 2.30	25,000 2.3	26,500 2.3

① Capacity is certified in accordance with ANSI/ARI Standard 390-2003.

② EER = Energy Efficiency Ratio and is certified in accordance with ANSI/ARI Standard 390-2003.
All ratings based on fresh air intake being 100% closed (no outside air introduction).

/////// QH SPECIFICATIONS - 2 TON THROUGH 4 TON

MODELS	Q24H4-A	Q24H4-B	Q24H4-C	Q30H4-A	Q30H4-B	Q30H4-C	Q36H4-A	Q36H4-B	Q36H4-C
Electrical Rating – 60 Hz	230/208 - 1	230/208 - 3	460 - 3	230/208 - 1	230/208 - 3	460 - 3	230/208 - 1	230/208 - 3	460 - 3
Operating Voltage Range	197-253	197-253	414-506	197-253	197-253	414-506	197-253	197-253	414-506
Compressor--Circuit A									
Voltage	230/208	230/208	460	230/208	230/208	460	230/208	230/208	460
Rated Load Amps	8.0/8.8	4.3/4.7	3.6	10/11.2	6.6/7.4	4.2	13.1/14.5	8.9/9.9	5.5
Branch Circuit Selection Current	13.5	7.1	3.5	13.5	9.7	4.6	15.4	10.5	5.8
Lock Rotor Amps	58.3/58.3	55.4/55.4	28/28	72.5/72.5	58/58	38/38	83.9/83.9	73/73	38/38
Compressor Type	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll
Fan Motor & Condenser									
Fan Motor--HP--RPM	1/2-1125 Max	1/2-1125 Max	1/2-1125 Max	1/2-1125 Max	1/2-1125 Max	1/2-1125 Max	1/2-1125 Max	1/2-1125 Max	1/2-1125 Max
Fan Motor--Amps	2.0	2.0	2.0	2.9	2.9	2.9	2.9	2.9	2.9
Fan Motor--Type	ECM - 1 SPD	ECM - 1 SPD	ECM - 1 SPD	ECM - 1 SPD	ECM - 1 SPD	ECM - 1 SPD	ECM - 1 SPD	ECM - 1 SPD	ECM - 1 SPD
Fan--DIA/CFM	20" - 1700	20" - 1700	20" - 1700	20" - 1700	20" - 1700	20" - 1700	20" - 1700	20" - 1700	20" - 1700
Blower Motor & Evap.									
Blower Motor—HP-SPD	1/3 - Variable	1/3 - Variable	1/3 - Variable	1/3 - Variable	1/3 - Variable	1/3 - Variable	1/2 - Variable	1/2 - Variable	1/2 - Variable
Blower Motor—Amps	.70	.70	.70	1.0	1.0	1.0	1.4	1.4	1.4
Motor Type	ECM Constant Airflow	Constant Airflow	Constant Airflow	Constant Airflow	Constant Airflow	Constant Airflow	Constant Airflow	Constant Airflow	Constant Airflow
CFM Cooling & E.S.P. w/Filter (Rated-Wet Coil)	825 - .10	825 - .10	825 - .10	900 - .10	900 - .10	900 - .10	1,125 - .15	1,125 - .15	1,125 - .15
Filter Sizes (inches) STD., 2 Reqd.	16x16x1	16x16x1	16x16x1	16x16x1	16x16x1	16x16x1	16x16x1	16x16x1	16x16x1
Basic Unit Weight-LBS.	474	474	474	479	479	479	499	499	499
Unit Shipping with Packaging	525	525	525	530	530	530	550	550	550

MODELS	Q43H4-A	Q43H4-B	Q43H4-C	Q48H4-A	Q48H4-B	Q48H4-C
Electrical Rating – 60 Hz	230/208 - 1	230/208 - 3	460 - 3	230/208 - 1	230/208 - 3	460 - 3
Operating Voltage Range	197-253	197-253	414-506	197-253	197-253	414-506
Compressor--Circuit A						
Voltage	230/208	230/208	460	230/208	230/208	460
Rated Load Amps	14.5/16.3	10.2/11.2	5.1	17.1/9.7	12/13.8	6.3
Branch Circuit Selection Current	19.5	13.6	6	19.7	13.8	6.3
Lock Rotor Amps	123.9/123.9	88/88	44	130/130	83.1/83.1	41
Compressor Type	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll
Fan Motor & Condenser						
Fan Motor--HP--RPM	1/2-1200	1/2-1200	1/2-1200	1/2-1200	1/2-1200	1/2-1200
Fan Motor--Amps	3.2	3.2	3.2	3.5	3.5	3.5
Fan Motor--Type	ECM - 1 SPD	ECM - 1 SPD	ECM - 1 SPD	ECM - 1 SPD	ECM - 1 SPD	ECM - 1 SPD
Fan--DIA/CFM	20" - 2100	20" - 2100	20" - 2100	20" - 2100	20" - 2100	20" - 2100
Blower Motor & Evap.						
Blower Motor—HP-SPD	1/2 - Variable	1/2 - Variable	1/2 - Variable	3/4 - Variable	3/4 - Variable	3/4 - Variable
Blower Motor—Amps	2.7	2.7	2.7	3.1	3.1	3.1
Motor Type	Constant Airflow	Constant Airflow	Constant Airflow	Constant Airflow	Constant Airflow	Constant Airflow
CFM Cooling & E.S.P. w/Filter (Rated-Wet Coil)	1300- .15	1300- .15	1300- .15	1500- .2	1500- .2	1500- .2
Filter Sizes (inches) STD., 2 Reqd.	16x16x1 16x20x1	16x16x1 16x20x1	16x16x1 16x20x1	16x16x1 16x20x1	16x16x1 16x20x1	16x16x1 16x20x1
Basic Unit Weight-LBS.	474	474	474	479	479	479
Unit Shipping with Packaging	525	525	525	530	530	530

/////// COOLING CAPACITY DATA - STANDARD OPERATION AT OUTDOOR TEMPERATURE

MODEL	RETURN AIR (DB/WB)	COOLING CAPACITY	75°F	80°F	85°F	90°F	95°F	100°F	105°F	110°F	115°F	120°F	125°F
Q24H4	75/62	Total Cooling	25,000	23,600	22,400	21,200	20,100	19,100	18,200	17,300	16,600	15,900	15,200
		Sensible Cooling	19,400	18,900	18,500	18,000	17,600	17,100	16,800	16,400	16,000	15,700	15,200
	80/67	Total Cooling	26,700	25,700	24,800	23,900	23,000	22,200	21,400	20,600	19,900	19,200	18,500
		Sensible Cooling	18,800	18,500	18,300	18,000	17,700	17,400	17,200	16,900	16,600	16,400	16,100
	85/72	Total Cooling	31,800	30,100	28,500	27,000	25,600	24,300	23,100	21,900	20,900	20,000	19,100
		Sensible Cooling	19,300	18,800	18,400	17,900	17,400	16,900	16,400	15,900	15,300	14,800	14,300
Q30H4	75/62	Total Cooling	30,100	28,500	26,900	25,400	24,100	22,900	21,700	20,700	19,600	18,700	17,800
		Sensible Cooling	23,800	22,900	22,000	21,200	20,500	20,000	19,400	19,000	18,700	18,500	17,800
	80/67	Total Cooling	32,100	31,000	29,800	28,700	27,600	26,600	25,600	24,600	23,600	22,600	21,700
		Sensible Cooling	23,100	22,400	21,800	21,200	20,700	20,300	19,900	19,600	19,400	19,300	19,200
	85/72	Total Cooling	38,300	36,300	34,300	32,400	30,700	29,100	27,600	26,200	24,800	23,500	22,400
		Sensible Cooling	23,700	22,800	21,900	21,100	20,300	19,700	19,000	18,400	17,900	17,500	17,000
Q36H4	75/62	Total Cooling	35,400	34,500	33,400	32,300	31,000	29,700	28,300	26,900	25,200	23,500	21,800
		Sensible Cooling	27,700	27,500	27,200	26,700	26,100	25,400	24,500	23,400	22,300	21,000	19,700
	80/67	Total Cooling	37,800	37,600	37,100	36,500	35,600	34,600	33,400	32,000	30,300	28,500	26,500
		Sensible Cooling	26,800	26,900	26,900	26,700	26,300	25,800	25,100	24,200	23,200	22,000	20,700
	85/72	Total Cooling	45,100	44,000	42,600	41,200	39,600	37,900	36,000	34,100	31,900	29,600	27,300
		Sensible Cooling	27,500	27,300	27,000	26,500	25,800	25,000	23,900	22,700	21,400	19,900	18,300
Q43H4	75/62	Total Cooling	44,000	41,800	39,600	37,600	35,700	34,000	32,500	31,000	29,600	28,400	27,200
		Sensible Cooling	33,200	32,300	31,400	30,600	29,700	29,000	28,300	27,700	27,000	26,400	25,800
	80/67	Total Cooling	47,000	45,500	44,000	42,500	41,000	39,600	38,300	36,900	35,600	34,400	33,100
		Sensible Cooling	32,200	31,600	31,100	30,600	30,000	29,500	29,000	28,600	28,100	27,600	27,100
	85/72	Total Cooling	56,000	53,200	50,500	48,000	45,600	43,300	41,300	39,300	37,400	35,800	34,100
		Sensible Cooling	33,000	32,100	31,300	30,400	29,400	28,600	27,700	26,800	25,900	25,000	24,000
Q48H4	75/62	Total Cooling	49,700	47,500	45,400	43,400	41,400	39,500	37,600	35,700	33,900	32,100	30,400
		Sensible Cooling	38,100	37,200	36,300	35,400	34,500	33,600	32,800	31,900	31,200	30,400	29,600
	80/67	Total Cooling	53,000	51,700	50,400	49,000	47,500	46,000	44,300	42,600	40,800	38,900	37,000
		Sensible Cooling	36,900	36,400	35,900	35,400	34,800	34,200	33,600	33,000	32,400	31,800	31,100
	85/72	Total Cooling	63,100	60,500	57,900	55,300	52,800	50,300	47,800	45,300	42,900	40,400	38,100
		Sensible Cooling	37,800	37,000	36,100	35,200	34,200	33,100	32,000	31,000	29,900	28,700	27,500

① Below 65°F, unit requires a factory or field installed low ambient control.
② Outdoor temperatures shown are measured at the condenser section air inlet.
③ Return air temperature °F.

COOLING CAPACITY DATA - BALANCED CLIMATE OPERATION AT OUTDOOR TEMPERATURES

MODEL	RETURN AIR (DB/WB)	COOLING CAPACITY	75°F	80°F	85°F	90°F	95°F	100°F	105°F	110°F	115°F	120°F	125°F
Q24H4	75/62	Total Cooling	23,300	22,400	21,600	20,700	19,800	18,900	18,000	17,100	16,100	15,100	14,200
		Sensible Cooling	16,300	16,400	15,900	15,400	14,900	14,500	14,100	13,600	13,100	12,600	14,200
		Latent Cooling	7000	6,000	5,700	5,300	4,900	4,400	3,900	3,500	3,000	2,500	0
		H2O / Hr.	6.58	5.65	5.36	4.98	4.61	4.13	3.66	3.29	2.82	2.35	0.00
	80/67	Total Cooling	24,800	24,400	23,900	23,400	22,700	22,000	21,200	20,300	19,300	18,300	17,200
		Sensible Cooling	17,400	16,000	15,700	15,400	15,000	14,700	14,400	14,000	13,600	13,200	12,800
		Latent Cooling	7400	8,400	8,200	8,000	7,700	7,300	6,800	6,300	5,700	5,100	4,400
		H2O / Hr.	6.98	7.92	7.73	7.54	7.26	6.88	6.41	5.94	5.37	4.81	4.15
	85/72	Total Cooling	29,600	28,600	27,500	26,500	25,200	24,100	22,900	21,600	20,300	19,000	17,700
		Sensible Cooling	17,900	16,300	15,800	15,300	14,700	14,300	13,800	13,200	12,600	12,000	11,400
		Latent Cooling	11700	12,300	11,700	11,200	10,500	9,800	9,100	8,400	7,700	7,000	6,300
		H2O / Hr.	11.06	11.63	11.06	10.59	9.93	9.26	8.60	7.94	7.28	6.62	5.96
Q30H4	75/62	Total Cooling	28,200	27,300	26,200	25,200	24,100	23,000	21,900	20,700	19,600	18,400	17,200
		Sensible Cooling	19,900	19,700	19,400	19,000	18,700	18,200	17,700	17,100	16,400	15,700	14,900
		Latent Cooling	8,300	7,600	6,800	6,200	5,400	4,800	4,200	3,600	3,200	2,700	2,300
		H2O / Hr.	7.80	7.15	6.39	5.83	5.08	4.51	3.95	3.38	3.01	2.54	2.16
	80/67	Total Cooling	30,100	29,700	29,100	28,400	27,600	26,800	25,800	24,700	23,600	22,300	20,900
		Sensible Cooling	19,300	19,300	19,200	19,000	18,800	18,500	18,100	17,600	17,000	16,400	15,700
		Latent Cooling	10,800	10,400	9,900	9,400	8,800	8,300	7,700	7,100	6,600	5,900	5,200
		H2O / Hr.	10.18	9.81	9.33	8.86	8.30	7.83	7.26	6.69	6.22	5,56	4.91
	85/72	Total Cooling	35,900	34,800	33,400	32,100	30,700	29,300	27,800	26,300	24,800	23,200	21,500
		Sensible Cooling	19,800	19,600	19,300	18,900	18,500	17,900	17,300	16,500	15,700	14,800	13,900
		Latent Cooling	16,100	15,200	14,100	13,200	12,200	11, 400	10,500	9,800	9,100	8,400	7,600
		H2O / Hr.	15.22	1437	13.33	12.48	11.53	10.78	9.93	9.26	8.60	7.94	7.19
Q36H4	75/62	Total Cooling	34,700	33,500	32,400	31,200	29,800	28,500	27,100	25,800	24,300	22,800	21,200
		Sensible Cooling	23,600	23,600	23,500	23,100	22,700	22,200	21,600	20,700	19,900	18,900	17,900
		Latent Cooling	11,100	9,900	8,900	8,100	7,100	6,300	5,500	5,100	4,400	3,900	3,300
		H2O / Hr.	10.44	9.31	8.37	7.62	6.67	5.92	5.17	4.79	4.13	3.66	3.10
	80/67	Total Cooling	37,000	36,500	35,900	35,200	34,200	33,200	32,000	30,700	29,200	27,600	25,800
		Sensible Cooling	22,900	23,100	23,200	23,100	22,900	22,600	22,100	21,400	20,700	19,800	18,800
		Latent Cooling	14,100	13,400	12,700	12,100	11,300	10,600	9,900	9,300	8,500	7,800	7,000
		H2O / Hr.	13.30	12.64	11.98	11.41	10.66	10.00	9.33	8.77	8.01	7.35	6.60
	85/72	Total Cooling	44,100	42,700	41,300	39,800	38,000	36,300	34,500	32,700	30,700	28,700	26,600
		Sensible Cooling	23,500	23,500	23,300	23,000	22,500	21,900	21,100	20,100	19,100	17,900	16,700
		Latent Cooling	20,600	19,200	18,000	16,800	15,500	14,400	13,400	12,600	11,600	10,800	9,900
		H2O / Hr.	19.48	18.16	17.02	15.89	14.66	13.62	12.67	11.91	10.97	10.21	9.36
Q43H4	75/62	Total Cooling	41,700	39,500	37,400	35,400	33,500	31,900	30,300	28,900	27,400	26,200	25,100
		Sensible Cooling	28,300	27,700	27,000	26,200	25,500	24,700	23,900	23,200	22,300	21,400	20,050
		Latent Cooling	13,400	11,800	10,400	9,200	8,000	7,200	6,400	5,700	5,100	4,800	4,600
		H2O / Hr.	12.64	11.13	9.81	8.67	7.54	6.79	6.03	5.37	4.81	4.52	4.34
	80/67	Total Cooling	44,500	43,000	41,500	40,000	38,500	37,100	35,700	34,400	33,000	31,700	30,500
		Sensible Cooling	27,400	27,100	26,700	26,200	25,700	25,100	24,500	23,900	23,200	22,400	21,600
		Latent Cooling	17,100	15,900	14,800	13,800	12,800	12,000	11,200	10,500	9,800	9,300	8,900
		H2O / Hr.	16.13	15	13.96	13.02	12.08	11.32	10.57	9.90	9.24	8.77	8.39
	85/72	Total Cooling	53,000	50,300	47,700	45,200	42,800	40,600	38,500	36,600	34,700	33,000	31,400
		Sensible Cooling	28,100	27,500	26,800	26,100	25,200	24,300	23,400	22,400	21,400	20,300	19,100
		Latent Cooling	24,900	22,800	20,900	19,100	17,600	16,300	15,100	14,200	13,300	12,700	12,300
		H2O / Hr.	23.49	21.51	19.72	18.02	16.6	15.38	14.25	13.4	12.55	11.98	11.6
Q48H4	75/62	Total Cooling	48,100	45,700	43,500	41,300	39,200	37,300	35,400	33,600	31,800	30,000	28,400
		Sensible Cooling	32,700	32,200	31,400	30,600	29,800	29,000	28,000	27,000	26,000	24,900	23,700
		Latent Cooling	15,400	13,500	12,100	10,700	9,400	8,300	7,400	6,600	5,800	5,100	4,700
		H2O / Hr.	14.53	12.74	11.42	10.09	8.86	7.83	6.98	6.22	5.47	4.81	4.43
	80/67	Total Cooling	51,300	49,800	48,300	46,700	45,000	43,400	41,700	40,000	38,200	36,400	34,600
		Sensible Cooling	31,700	31,500	31,100	30,600	30,100	29,500	28,700	27,900	27,000	26,000	24,900
		Latent Cooling	19,600	18,300	17,200	16,100	14,900	13,900	13,000	12,100	11,200	10,400	9,700
		H2O / Hr.	18.49	17.26	16.23	15.19	14.06	13.11	12.26	11.42	10.57	9.81	9.15
	75/62	Total Cooling	61,100	58,200	55,500	52,700	50,000	47,500	45,000	42,600	40,200	37,800	35,600
		Sensible Cooling	32,500	32,000	31,300	30,400	29,500	28,600	27,400	26,200	24,900	23,500	22,100
		Latent Cooling	28,600	26,200	24,200	22,300	20,500	18,900	17,600	16,400	15,300	14,300	13,500
		H2O / Hr.	26.98	24.72	22.83	21.04	19.34	17.83	16.6	15.47	14.43	13.49	12.74

① Below 65°F, unit requires a factory or field installed low ambient control.
② Outdoor temperatures shown are measured at the condenser section air inlet.
③ Return air temperature °F.

//////// HEATING CAPACITY DATA - STANDARD OPERATION AT OUTDOOR TEMPERATURES

MODEL		0°F	5°F	10°F	15°F	20°F	25°F	30°F	35°F	40°F	45°F	50°F	55°F	60°F	65°F
Q24H4	BTUH WATTS COP	NA	NA	4,241 1,720 0.72	8,917 1,731 1.51	13,121 1,744 2.20	16,852 1,759 2.81	20,110 1,776 3.32	22,894 1,795 3.74	25,206 1,816 4.07	27,045 1,838 4.31	28,411 1,863 4.47	29,305 1,890 4.55	29,725 1,918 4.54	29,672 1,949 4.46
Q30H4	BTUH WATTS COP	3,294 1,920 0.20	6,903 1,959 1.03	10,297 19,98 1.51	13,476 2,035 1.94	16,440 2,072 2.33	19,189 2,108 2.67	21,723 2,143 2.97	24,041 2,177 3.24	26,145 2,210 3.47	28,034 2,242 3.66	29,707 2,274 3.83	31,166 2,304 3.96	32,409 2,334 4.07	33,437 2,362 4.15
Q36H4	BTUH WATTS COP	15,348 2,408 1.87	16,900 2,420 2.05	18,467 24,34 2.22	20,049 2,450 2.40	21,646 2,469 2.57	23,257 2,489 2.74	24,882 2,512 2.90	26,523 2,537 3.06	28,177 2,565 3.22	29,847 2,594 3.37	31,531 2,626 3.52	33,229 2,660 3.66	34,945 2,697 3.80	36,670 2,735 3.93
Q43H4	BTUH WATTS COP	18800 2700 2.04	20500 2800 2.14	22200 2800 2.32	24100 2800 2.52	26000 2800 2.72	28000 2900 2.83	30000 2900 3.03	32200 3000 3.14	34500 3000 3.37	36800 3100 3.47	39200 3200 3.59	41700 3200 3.81	44300 3300 3.93	46900 3400 4.04
Q48H4	BTUH WATTS COP	19800 3300 1.75	21600 3200 1.97	23400 3200 2.14	25400 3200 2.32	27500 3200 2.51	29700 3200 2.72	32000 3200 2.93	34400 3300 3.05	36900 3300 3.27	39500 3400 3.40	42200 3500 3.53	4500 3600 3.66	47900 3700 3.79	50900 3800 3.92

ELECTRICAL SPECIFICATIONS — Q**H4 SERIES

MODEL	Rated Volts & Phase	No. Field Power Circuits	Single Circuit				Multiple Circuit							
			③ Minimum Circuit Ampacity	① Maximum External Fuse or Ckt. Brkr.	② Field Power Wire Size	② Ground Wire	③ Minimum Circuit Ampacity		① Maximum External Fuse or Ckt. Breaker		② Field Power Wire Size		② Ground Wire Size	
							Ckt. A	Ckt. B	Ckt. A	Ckt. B	Ckt. A	Ckt. B	Ckt. A	Ckt. B
Q24H4-A0Z	230/208-1	1	24	35	8	10								
A05		1	50	50	8	10								
Q24H4-B0Z	230/208-3	1	16	20	12	12								
B06		1	34	35	8	10								
B09		1	43	45	8	10								
Q24H4-C0Z	460-3	1	9	10	14	14								
C06		1	18	20	12	12								
C09		1	23	25	10	10								
Q30H4-A0Z	230/208-1	1	25	35	8	10								
A05		1	51	60	6	10								
Q30H4-B0Z	230/208-3	1	19	25	10	10								
B06		1	37	40	8	10								
B09		1	46	50	8	10								
B12		1	56	60	6	10								
Q30H4-C0Z	460-3	1	10	15	14	14								
C06		1	19	20	12	12								
C09		1	23	25	10	10								
Q36H4-A0Z	230/208-1	1	27	40	8	10								
A05		1	53	60	6	10								
A10		1 or 2	79	80	4	8	53	26	60	30	6	10	10	10
Q36H4-B0Z	230/208-3	1	21	30	10	10								
B06		1	39	45	8	10								
B09		1	48	50	8	10								
B15		1	48	50	8	10								
Q36H4-C0Z	460-3	1	12	15	14	14								
C06		1	21	25	10	10								
C09		1	25	25	10	10								
C15		1	26	30	10	10								
Q43H4-A0Z	230/208-1	1	33	40	8	10								
A05		1	59	60	6	10								
A10		1	85	90	4	8	59	26	60	30	6	10	10	10
Q43H4-B0Z	230/208-3	1	26	30	10	10								
B06		1	44	50	8	10								
B09		1	53	60	6	10								
B15		1	53	60	6	10								
Q43H4-C0Z	460-3	1	11	15	14	14								
C06		1	20	20	12	12								
C09		1	25	25	10	10								
C15		1	25	30	10	10								
Q48H4-A0Z	230/208-1	1	34	40	8	10								
A05		1	60	60	6	10								
A10		1 or 2	86	90	4	8	59	26	60	30	6	10	10	10
A15		1 or 2	86	90	4	8	59	26	60	30	6	10	10	10
Q48H4-B0Z	230/208-3	1	27	30	10	10								
B06		1	45	50	8	10								
B09		1	54	60	6	10								
B15		1	54	60	6	10								
Q48H4-C0Z	460-3	1	12	15	14	14								
C06		1	21	25	12	12								
C09		1	26	30	10	10								
C15		1	26	30	10	10								

① Maximum size of the time delay fuse or circuit breaker for protection of field wiring conductors.
② Based on 75°C copper wire. All wiring must conform to the National Electrical Code and all local codes.
③ These "Minimum Circuit Ampacity" values are to be used for sizing the field power conductors. Refer to the National Electrical code (latest version), Article 310 for power conductor sizing.

CAUTION: When more than one field power circuit is run through one conduit, the conductors must be derated. Pay special attention to Note 8 of Table 310 regarding Ampacity Adjustment Factors when more than three current carrying conductors are in a raceway.

ELECTRICAL SPECIFICATIONS — Q**H4D SERIES

MODEL	Rated Volts & Phase	No. Field Power Circuits	Single Circuit				Multiple Circuit							
			③ Minimum Circuit Ampacity	① Maximum External Fuse or Ckt. Brkr.	② Field Power Wire Size	② Ground Wire	③ Minimum Circuit Ampacity		① Maximum External Fuse or Ckt. Breaker		② Field Power Wire Size		② Ground Wire Size	
							Ckt. A	Ckt. B	Ckt. A	Ckt. B	Ckt. A	Ckt. B	Ckt. A	Ckt. B
Q24H4DA0Z	230/208-1	1	24	35	8	10								
DA05		1	50	50	8	10								
Q24H4DB0Z	230/208-3	1	16	20	12	12								
DB06		1	34	35	8	10								
DB09		1	43	45	8	10								
Q24H4DC0Z	460-3	1	9	10	14	14								
DC06		1	18	20	12	12								
DC09		1	23	25	10	10								
Q30H4DA0Z	230/208-1	1	27	35	8	10								
DA05		1	53	60	6	10								
Q30H4DB0Z	230/208-3	1	20	25	10	10								
DB06		1	38	40	8	10								
DB09		1	48	50	8	10								
Q30H4DC0Z	460-3	1	10	15	14	14								
DC06		1	19	20	12	12								
DC09		1	24	25	10	10								
Q36H4DA0Z	230/208-1	1	27	40	8	10								
DA05		1	53	60	6	10								
DA10		1 or 2	79	80	4	8	53	26	60	30	6	10	10	10
Q36H4DB0Z	230/208-3	1	22	25	10	10								
DB06		1	40	45	8	10								
DB09		1	49	50	8	10								
DB15		1	52	60	6	10								
Q36H4DC0Z	460-3	1	12	15	14	14								
DC06		1	21	25	10	10								
DC09		1	25	25	10	10								
DC15		1	26	30	10	10								
Q43H4DA0Z	230/208-1	1	33	40	8	10								
DA05		1	59	60	6	10								
DA10		1	85	90	4	8	59	26	60	30	6	8	10	10
Q43H4DB0Z	230/208-3	1	26	30	10	10								
DB06		1	44	50	8	10								
DB09		1	53	60	6	10								
DB15		1	53	60	6	10								
Q43H4DC0Z	460-3	1	12	15	14	14								
DC06		1	21	20	12	12								
DC09		1	25	25	10	10								
DC15		1	26	30	10	10								
Q48H4DA0Z	230/208-1	1	35	40	8	10								
DA05		1	60	60	6	10								
DA10		1	87	90	4	8	35	52	40	60	8	6	10	10
DA15		1	87	90	4	8	35	52	40	60	8	6	10	10
Q48H4DB0Z	230/208-3	1	27	30	10	10								
DB06		1	45	50	8	10								
DB09		1	54	60	6	10								
DB15		1	54	60	6	10								
Q48H4DC0Z	460-3	1	12	15	14	14								
DC06		1	21	25	12	12								
DC09		1	26	30	10	10								
DC15		1	26	30	10	10								

① Maximum size of the time delay fuse or circuit breaker for protection of field wiring conductors.
② Based on 75°C copper wire. All wiring must conform to the National Electrical Code and all local codes.
③ These "Minimum Circuit Ampacity" values are to be used for sizing the field power conductors. Refer to the National Electrical code (latest version), Article 310 for power conductor sizing.

CAUTION: When more than one field power circuit is run through one conduit, the conductors must be derated. Pay special attention to Note 8 of Table 310 regarding Ampacity Adjustment Factors when more than three current carrying conductors are in a raceway.

ELECTRIC HEAT TABLE - REFER TO ELECTRICAL SPECIFICATIONS FOR AVAILABILITY BY UNIT MODEL

NOMINAL KW	AT 240V (1)				AT 208V (1)				AT 480V (2)			AT 460V (2)		
	KW	1-PH AMPS	3-PH AMPS	BTUH	KW	1-PH AMPS	3-PH AMPS	KW	KW	3-PH AMPS	KW	KW	3-PH AMPS	KW
4.0	4.0	16.7		13,652	3.00	14.4		10,239						
5.0	5.0	20.8		17,065	3.75	18.0		12,799						
6.0	6.0		14.4	20,478	4.50		12.5	15,359	6.0	7.2	20,478	5.52	6.9	18,840
8.0	8.0	33.3		27,304	6.00	28.8		20,478						
9.0	9.0		21.7	30,717	6.75		18.7	23,038	9.0	10.8	30,717	8.28	10.4	28,260
10.0	10.0	41.7		34,130	7.50	36.1		25,598						
15.0	15.0	62.5	36.1	51,195	11.25	54.1	31.2	38,396	15.0	18.0	51,195	13.80	17.3	47,099
18.0	18.0		43.3	61,434	13.50		37.5	46,076	18.0	21.7	61,434	16.56	20.8	56,519
20.0	20.0	83.3		68,260	15.00	72.1		51,195						

(1) These electric heaters are available in 230/208V units only.
(2) These electric heaters are available in 480V units only.

Q-TEC VENTILATION OPTION SELECTION CHART

VENT CODE	UNIT	OPERATION	DESCRIPTION
X	ALL UNITS	Barometric	Air damper provides slight positive room pressure during blower operation, no room air exhaust.
B	ALL UNITS	No Ventilation	Insulated plates used to seal vent intake and exhaust openings.
V	ALL UNITS	24V On/Off	Vent provides motorized spring return modulating or on/off operation to bring in outdoor air and exhaust room air.
S	ALL UNITS	JADE Controller	Partial flow Economizer that uses the JADE controller and included sensors to operate free cooling. Enthalpy or Dry Bulb operation user selectable.
R	ALL UNITS	24V On/Off, 3 blower speeds	Energy Recovery ventilator with energy wheel media. 3 independently selected intake and exhaust blower speeds.

INDOOR BLOWER PERFORMANCE

MODEL	RATED ESP*	MAX. ESP*	RATED CFM*	BALANCED CLIMATE CFM*
Q24H4	0.10	0.5	825	600
Q30H4	0.10	0.5	900	650
Q36H4	0.15	0.5	1125	900
Q43H4	0.15	0.5	1300	910
Q48H4	0.20	0.5	1500	1050

* E.S.P. is the total combined external static pressure of both the supply and return ducts or grills.

Note: These units are equipped with a variable speed (ECM) indoor motor that automatically adjusts to maintain approximately the same rate of indoor airflow in both heating and cooling, dry and wet coil conditions and at both 230/208 or 460 volts.
① Max. ESP (inches WC) shown is with 1" thick disposable filter (reduced by .2 for 2" filter).
② Reduced indoor airflow option to provide lowest possible indoor air sound level. Reduces system capacity performance by approximately 2%.
③ Continuous fan CFM is the total air being circulated during continuous fan mode.
④ Applies to Dehumidification models only. Indoor airflow during periods of high humidity when system is operating under control of optional humidistat for maximum humidity reduction.

Q-TEC™ VENTILATION OPTIONS SPECIFICATIONS

"X" Vent Code Option – Standard Fresh Air Damper No Exhaust

The barometric fresh air damper without exhaust is a standard feature on all models. It is installed on the inside of the service door and allows outside ventilation air, up to 20% of the total airflow rating of the unit, to be introduced through the air inlet openings and to be mixed with the conditioned air. The damper opens during blower operation and closes when the blower is off. Adjustable blade stops allow different amounts of outside air to be introduced into the building and can be easily locked closed if required. The room exhaust air path is sealed with an insulated blank-off plate.

"B" Vent Code Option – Blank Off Plate

Blank off plates are installed on the inside of the service door and over the exhaust opening in the condenser partition. The plates cover the air inlet and room exhaust openings, which restricts any outside air from entering the unit or room air from leaving the conditioned space. The blank off plate option may be utilized in applications where outside air intake is not required by state or local codes.

"V" Front Vent Code Option – Commercial Room Ventilator with ON/OFF Blade position

The built-in commercial room ventilator with fixed blade position is internally mounted behind the service doors and allows outside ventilation air, up to 50% of the total airflow rating of the unit. It includes a built-in exhaust air damper for room pressurization relief. Blade stops are easily adjustable to set intake airflow. The commercial room ventilator with fixed blade position (CRV-F) is a simple and innovative approach to improving the indoor air quality by providing fresh air intake and exhaust capability. The CRV can be activated by indoor blower operation or independently controlled by a thermostat or controller using a 24VAC occupancy or schedule signal. Blade operation is controlled by an on/off spring return motor that closes rapidly when de-energized. Blade seals provide minimal blade leakage.

"S" Vent Code Option – Economizers with JADE® Controller

The JADE controlled economizer is internally mounted behind the service door and allows outside ventilation air. The economizer allows up to 50% of the total airflow of the unit. It includes a built-in exhaust air damper for room pressurization relief. The economizer is designed to provide "free cooling" when outside air conditions are cool and dry enough to satisfy cooling requirements without running the compressor. This provides lower operating costs, extended equipment life, and cooling operation down to -40°F outdoor temperatures.

"S" Vent Code Option – JADE® Controller Information

JADE Economizer controls provide demand ventilation control, operational checkout, an easy to read LCD screen, configurable freeze protection, and LCD displayed economizer component failure alarms. Minimum vent position, occupancy ventilation, and 0-10V CO2 input is available for use with select CO2 room sensors. Economizer operation can be controlled by outdoor dry bulb or outdoor enthalpy measurement. When used with a Bard economizer assembly, the JADE controller is able to meet most state and local codes for economizer use.

JADE Controller Specifications:

- Operating Humidity Range (% RH) 5 to 95% RH, non-condensing
- Contact Ratings 30 VAC-- 1.5 A Run, 3.5 A Inrush
- Voltage 20 to 30 VAC RMS
- Operating Temperature Range (F) -40 F to +150 F
- Operating Temperature Range (C) -40 C to +65 C
- Approvals, Federal Communications Commission Compliant
- Approvals, CE Compliant
- Complies with California Title 24
- Mixed air and Outdoor Enthalpy Sensor using Sylk Bus.
- Output 2-10 VDC to actuator, Sylk Bus.

Economizer, Jade Control

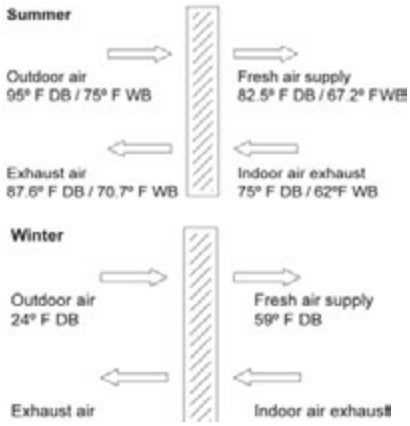
Jade Control Module

"R" Vent Code Option – Energy Recovery Ventilator

The energy recovery ventilator (ERV) is a highly innovative approach to meeting indoor air quality ventilation requirements as established by ANSI/ASHRAE Standard 62.1. The ERV allows up to 450 CFM (depending upon model) of fresh air and exhaust through the unit while maintaining superior indoor comfort and humidity levels. In most cases this can be accomplished without increasing equipment sizing or operating costs. Heat transfer efficiency is up to 67% during summer and 75% during winter conditions.

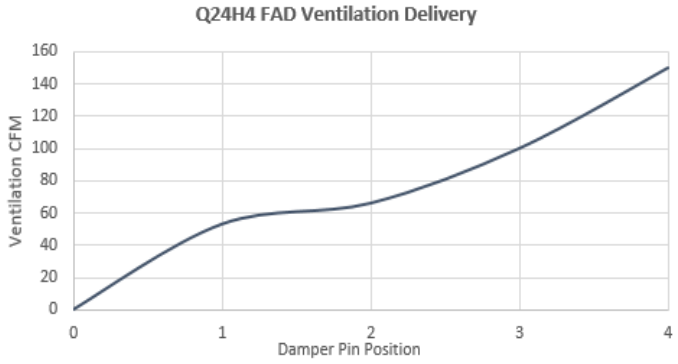
The ERV consists of a unique "rotary energy recovery cassette" that provides effective sensible and latent heat transfer capabilities during summer and winter conditions. Various control schemes are addressed including limiting ventilation during building occupancy only. The ERV is designed to be internally mounted behind the service door, and includes independent blowers for intake air and exhaust air balancing.

Typical load reductions for ERV-F3

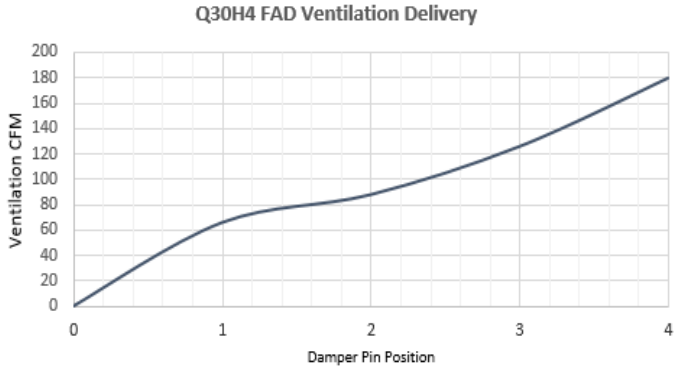


/////// Q-TEC™ BAROMETRIC DAMPER (FAD) PERFORMANCE

"X" Barometric Damper Without Exhaust Ventilation CFM



Constant CFM .10 Through .5 Static



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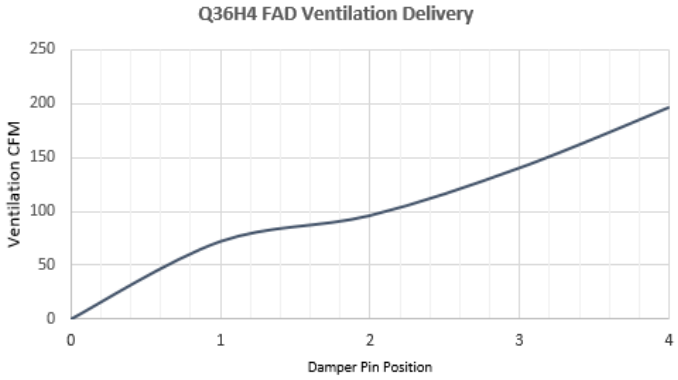
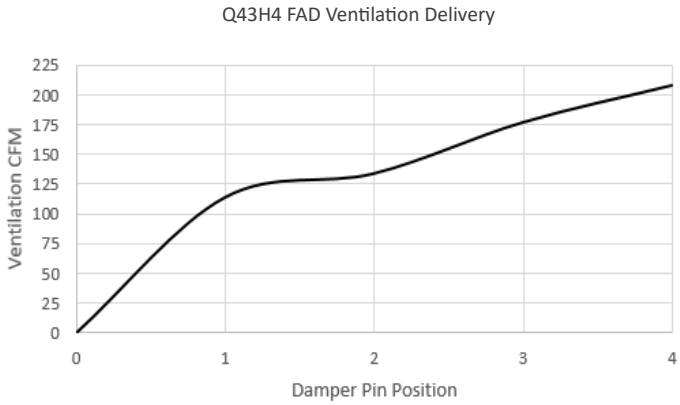
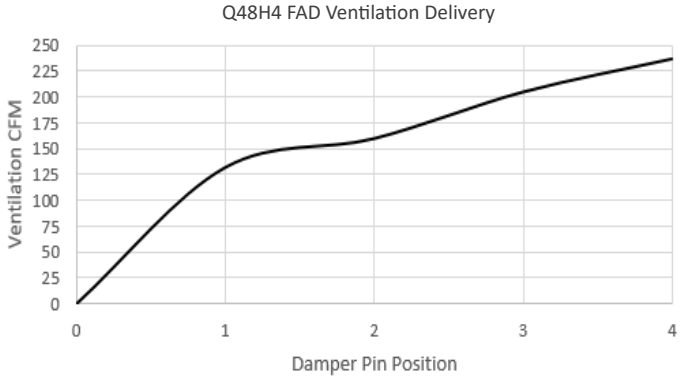


Constant CFM .10 Through .5 Static



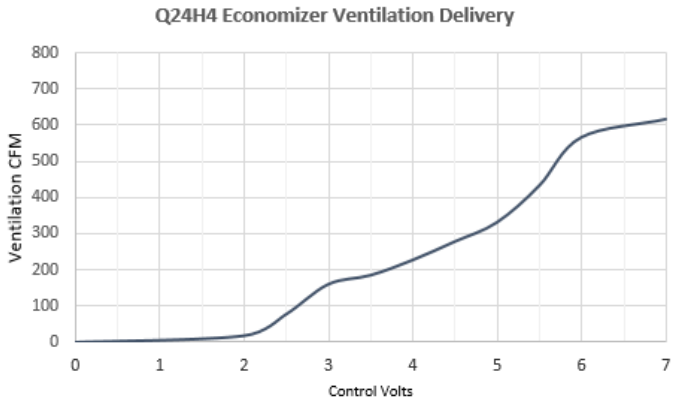
Constant CFM .10 Through .5 Static



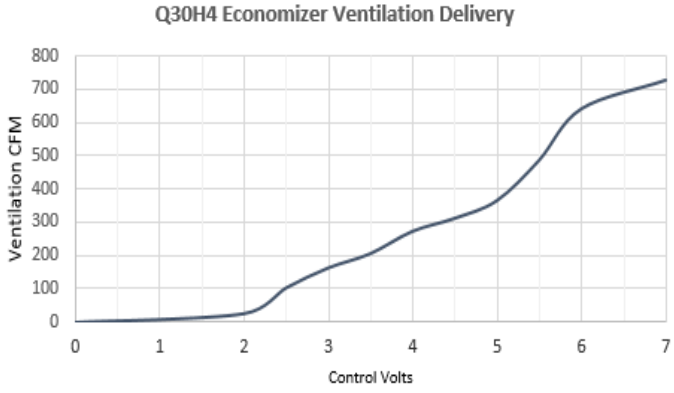
Constant CFM .10 Through .5 Static

////// Q-TEC™ VENTILATION AIRFLOW CHARTS

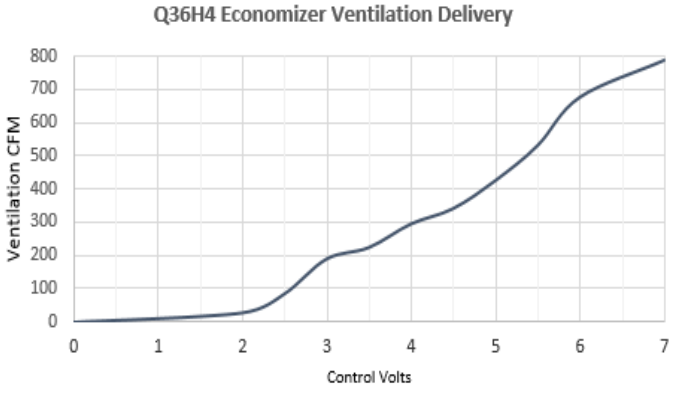
"S" Economizer Ventilation CFM



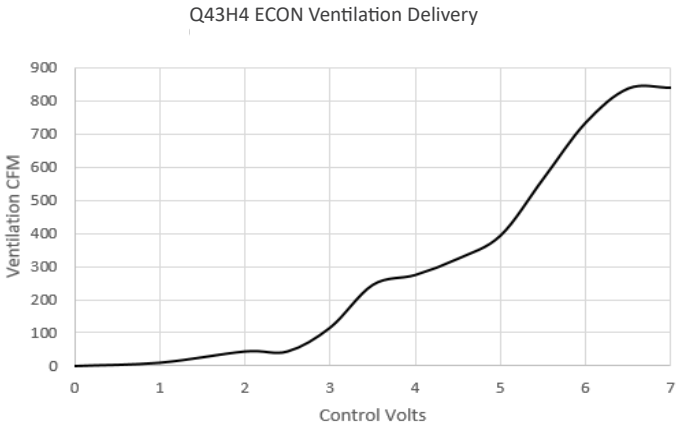
Constant CFM .10 Through .5 Static



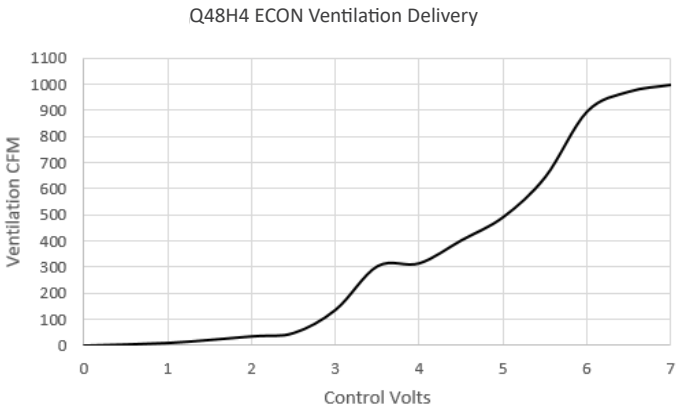
Constant CFM .10 Through .5 Static



Constant CFM .10 Through .5 Static



Constant CFM .10 Through .5 Static



Constant CFM .10 Through .5 Static

Q-TEC ENERGY RECOVERY VENTILATION (ERV) PERFORMANCE

"R" Energy Recovery Ventilator Performance

SUMMER COOLING PERFORMANCE
(INDOOR DESIGN CONDITIONS 75° DB / 62° WB)

Ambient O.D.		VENTILATION RATE – 450 CFM 65% EFFICIENCY						VENTILATION RATE – 375 CFM 66% EFFICIENCY						VENTILATION RATE – 300 CFM 67% EFFICIENCY					
DB/WB	F	VLT	VLS	VLL	HRT	HRS	HRL	VLT	VLS	VLL	HRT	HRS	HRL	VLT	VLS	VLL	HRT	HRS	HRL
	75	21465	14580	6884	13952	9477	4475	17887	12150	5737	11805	8018	3786	14310	9720	4590	9587	6512	3075
105	70	14580	14580	0	9477	9477	0	12150	12150	0	8018	8018	0	9720	9720	0	6512	6512	0
	65	14580	14580	0	9477	9477	0	12150	12150	0	8018	8018	0	9720	9720	0	6512	6512	0
	80	31590	12150	19440	20533	7897	12635	26325	10125	16200	17374	6682	10692	21060	8100	12960	14110	5427	8683
	75	21465	12150	9314	13952	7897	6054	17887	10125	7762	11805	6682	5123	14310	8100	6210	9587	5427	4160
100	70	12352	12150	202	8029	7897	131	10293	10125	168	6793	6682	111	8235	8100	135	5517	5427	90
	65	12150	12150	0	7897	7897	0	10125	10125	0	6682	6682	0	8100	8100	0	5427	5427	0
	60	12150	12150	0	7897	7897	0	10125	10125	0	6682	6682	0	8100	8100	0	5427	5427	0
	80	31590	9720	21870	20533	6318	14215	26325	8100	18225	17374	5345	12028	21060	6480	14580	14110	4341	9768
	75	21465	9720	11744	13952	6318	7634	17887	8100	9787	11805	5345	6459	14310	6480	7830	9587	4341	5246
95	70	12352	9720	2632	8029	6318	1711	10293	8100	2193	6793	5345	1447	8235	6480	1755	5517	4341	1175
	65	9720	9720	0	6318	6318	0	8100	8100	0	5345	5345	0	6480	6480	0	4341	4341	0
	60	9720	9720	0	6318	6318	0	8100	8100	0	5345	5345	0	6480	6480	0	4341	4341	0
	80	31590	7290	24300	20533	4738	15794	26325	6075	20250	17374	4009	13365	21060	4860	16200	14110	3256	10854
	75	21465	7290	14175	13952	4738	9213	17887	6075	11812	11805	4009	7796	14310	4860	9450	9587	3256	6331
90	70	12352	7290	5062	8029	4738	3290	10293	6075	4218	6793	4009	2784	8235	4860	3375	5517	3256	2261
	65	7290	7290	0	4738	4738	0	6075	6075	0	4009	4009	0	4860	4860	0	3256	3256	0
	60	7290	7290	0	4738	4738	0	6075	6075	0	4009	4009	0	4860	4860	0	3256	3256	0
	80	31590	4860	26730	20533	3159	17374	26325	4050	22275	17374	2672	14701	21060	3240	17820	14110	2170	11939
	75	21465	4860	16605	13952	3159	10793	17887	4050	13837	11805	2672	9132	14310	3240	11070	9587	2170	7416
85	70	12352	4860	7492	8029	3159	4870	10293	4050	6243	6793	2672	4120	8235	3240	4995	5517	2170	3346
	65	4860	4860	0	3159	3159	0	4050	4050	0	2672	2672	0	3240	3240	0	2170	2170	0
	60	4860	4860	0	3159	3159	0	4050	4050	0	2672	2672	0	3240	3240	0	2170	2170	0
	75	21465	2430	19035	13952	1579	12372	17887	2025	15862	11805	1336	10469	14310	1620	12690	9587	1085	8502
	70	12352	2430	9922	8029	1579	6449	10293	2025	8268	6793	1336	5457	8235	1620	6615	5517	1085	4432
80	65	4252	2430	1822	2764	1579	1184	3543	2025	1518	2338	1336	1002	2835	1620	1215	1899	1085	814
	60	2430	2430	0	1579	1579	0	2025	2025	0	1336	1336	0	1620	1620	0	1085	1085	0
	70	12352	0	12352	8029	0	8029	10293	0	10293	6793	0	6793	8235	0	8235	5517	0	5517
75	65	4252	0	4252	2764	0	2764	3543	0	3543	2338	0	2338	2835	0	2835	1899	0	1899
	60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

LEGEND

VLT = Ventilation Load – Total
VLS = Ventilation Load – Sensible
VLL = Ventilation Load – Latent
HRT = Heat Recovery – Total
HRS = Heat Recovery – Sensible
HRL = Heat Recovery – Latent

WINTER HEATING PERFORMANCE
(INDOOR DESIGN CONDITIONS 70°F DB)

Ambient O.D.	VENTILATION RATE					
	450 CFM 80% EFFICIENCY		375 CFM 81% EFFICIENCY		300 CFM 82% EFFICIENCY	
DB/°F	VLT	VLS	VLT	VLS	VLT	VLS
65	2430	1944	2025	1640	1620	1328
60	4860	3888	4050	3280	3240	2656
55	7290	5832	6075	4920	4860	3985
50	9720	7776	8100	6561	6480	5313
45	12150	9720	10125	8201	8100	6642
40	14580	11664	12150	9841	9720	7970
35	17010	13608	14175	11481	11340	9298
30	19440	15552	16200	13122	12960	10627
25	21870	17496	18225	14762	14580	11955
20	24300	19440	20250	16402	16200	13284
15	26730	21384	22275	18042	17820	14612

LEGEND

VLT =
VLS =

NOTE: Sensible performance only is shown for winter application.

/////// CABINET AND COIL OPTIONS

Cabinet Finish Options
Unit models are available in Beige, Buckeye Gray, and Vinyl Coated Steel.

Painted cabinet construction is comprised of 20 gauge Zinc coated steel. Parts are cleaned, rinsed, sealed, and dried before a polyurethane primer is applied. The cabinet coating is completed with a baked on textured enamel. The resulting finish is designed to withstand 1000 hours of salt spray tests per ASTM B117-03.

Vinyl coated steel cabinet construction uses darker color Slate front panels and lighter color Platinum side panels. The coated finish is textured and resistant to marring and scratching.

All QH units use tamper resistant screws for securing doors and panels. Keyed entry fasteners are provided for the front doors.

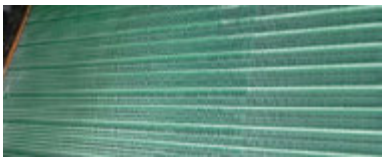

X—Beige


4—Gray


V—Slate front/Platinum sides

Green Fin Hydrophilic Evaporator Coils Standard On All Units
Bard Q-TEC products include a green protective coating applied to the aluminum fin stock used for the evaporator coil. The evaporator coil coating is hydrophilic (attracts water) and allows for proper condensate drainage along with mild corrosion protection. Resistance to corrosive agents include ammonia, sodium hydroxide, sodium chloride, acidic solutions and solvents.

Note: The green fin hydrophilic evaporator coil is not a replacement for technicoat coil coating. Green fin stock does provide additional coil protection, but corrosion resistant coated coils are recommended for harsh environments where strong acidic or alkali chemicals are being used.


Hydrophilic Green Coil
(standard)

/////// OPTIONAL CORROSION RESISTANT DIP COATED EVAPORATOR AND CONDENSER COIL

Bard now offers TECHNICOAT AA, a robust dipped coating option for the evaporator and condenser coil. TECHNICOAT AA has passed all HVAC accelerated tests like salt spray, flexibility and SWAAT 3,000+ hours. It has been tested in the field in the most severe industrial exposure conditions, such as a coastal refinery in Saudi Arabia, mining facilities in central Africa, and various Pacific islands. TECHNICOAT AA did not show any deterioration after multiple years of function with coils directly exposed to such harsh environmental conditions. The TECHNICOAT AA coating system is based on modified acrylic waterborne binders with high elongation properties. Aluminum pigmentation has been added to establish exceptional heat transfer, chemical resistance, and UV blocking properties. Corrosion resistance reaches >10,000+ hours in ASTM B-117 and >3,120 hours in SWAAT testing. Coating is gray in color.

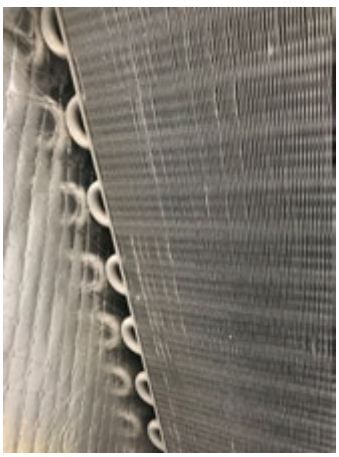
TEMPERATURE RESISTANCE:
- Maximum up to 248°F (120°C), 480°F (250°C) peak exposure
- Minimum -40°F (-40°C)

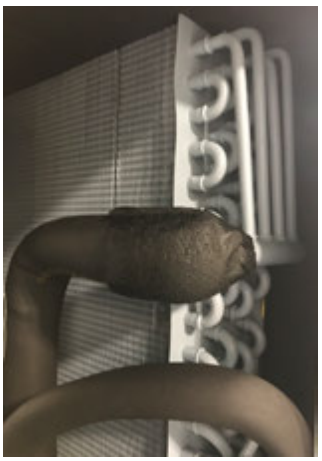
CHEMICAL RESISTANCE:
- Alkalines including Ammonaic solution, Potassium Hydroxide, Calcium Hydroxide, and Magnesium Hydroxide.
- Alcohols including Isopropanol, Butanol, Amyl Alcohol, Benzyl Alcohol, Diaceton Alcohol, Glycerine, Propanol, and Pentanol
- Aliphatic Hydrocarbons including White Spirit, Shellsol, Bitumen, Isopar G, and Paraffin.
- Amines including Triethanolamine, Aniline Sulphate, Hexamethylenetetraamine, Phenyldiamine, Triethylamine, and Methylamine.
- Inorganic Compounds including Hydrogen Carbonate, Hydrogen Sulfide, Nitrous Acid, Sulphuric Acid, and Selenic Acid.
- Aromatic Hydrocarbons including Xylene, Toluene, Asphalt, Anthracene, Benzapherene, Gumlac, Benzine, and Naphtha.
- Fuels and Oils including Diesel, Fuel Oil, Petrol, Super Petrol, Lubricating Oils, Kerosene, Spheric Oils, LPG, and Mineral Oil.
- Ethers including Enthric Oils, Vegetable Oils, Butane, Acetylene, and Methane.
- Halogenated Hydrocarbons including Amyl Acetate, Propyl Acetate, Ethyl Oxalate, Butyl Acetate, and Butyl Propionate.
- Softeners including Palatinol C, Chloraparaffine 5XX, Dioctylphosphate, Desavin, Mesamol, and Dibutylphosphate.
- Organic Compounds including Benzoic Acid, Lactic Acid, Phenols, Fatty Acids, Malic Acid, and Picric Acid.
- Salts and water solutions including Sodium, Potassium, Calcium, Aluminum, Ammonium, Barium, Copper, Lead, and Lithium.
- Many other agents including Phosphor, Zinc, Glucose Syrup, Sulfur, Urea, Menthol, Antimony, Hydrogen, Rubber, and Shellac.

Contact your local Bard distributor or representative for a list of all chemicals and chemical resistance information.

SPECIAL PROPERTIES:
- Anti-Odor
- Hydrophilic / Hydrophobic
- Anti-Corrosive

EXPOSURE CONDITIONS INCLUDE:
Food Processing & Storage, Airports, Office Buildings, Hotels, Schools, Warehouses, Water Treatment, Breweries, Paper Mills, Refineries, Power Plants, Meat Processing Industries, Automotive Industries and other locations near shorelines and salt water.





/////// Q-TEC FACTORY INSTALLED CONTROLS OPTIONS

Factory installed controls are provided by Bard to enhance a Q-TEC product before it is shipped. All Q-TEC products are shipped with an auto-reset high pressure switch and an auto-reset low pressure switch to help protect refrigeration components. A compressor control module with adjustable voltage protection, delay on make and break, and high/low pressure diagnostics is also standard.

CONTROL CODE	DESCRIPTION OF FACTORY INSTALLED COMPONENTS
X	Hi Pressure Switch, Low Pressure Switch, Heat Pump Control Board.
E	Hi Pressure Switch, Low Pressure Switch, Heat Pump Control Board, **Low Ambient Control**
R	Hi Pressure Switch, Low Pressure Switch, Heat Pump Control Board, **Low Ambient Control, Outdoor Thermostat**
Q	Hi Pressure Switch, Low Pressure Switch, Heat Pump Control Board, **Outdoor Thermostat**

/////// OPTIONAL CONTROLS AND KIT COMPONENT DEFINITIONS

Hi Pressure Control (HPC) - The high pressure control provides a means of protecting the refrigeration circuit when high system pressures occur. It is an auto-reset device that is connected to the Compressor Control Module. When activated, the compressor is disabled until pressures reach an acceptable level. If activated twice in the same cooling call, compressor operation is locked out until the cooling call is interrupted.

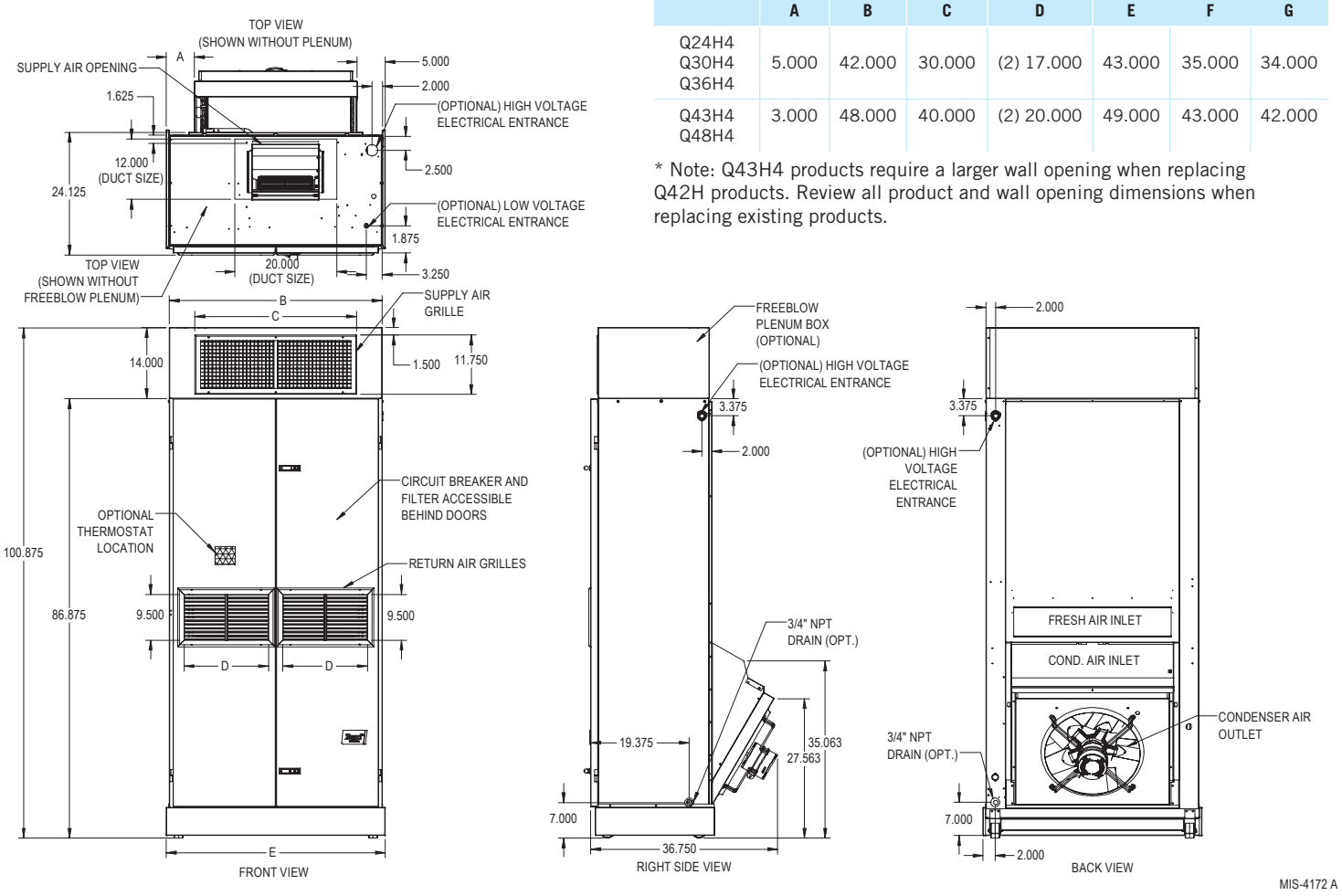
Low Pressure Control (LPC) - The low pressure control provides a means of protecting the refrigeration circuit when extremely low system pressures occur. It is an auto-reset device that is connected to the Compressor Control Module. When activated, the compressor is disabled until pressures reach an acceptable level.

Low Ambient Control (LAC) - The low ambient control pressure sensor is attached to the suction line of the system, and monitors low side system pressure. Operation of the LAC occurs as outdoor temperatures drop below the 65°F to 50°F range. On/Off and modulating controls are used. On/Off LAC operation cycles the condenser fan operation based on outdoor temperature. Modulating LAC operation is factory adjusted and slows the condenser fan speed RPM based on outdoor temperature.

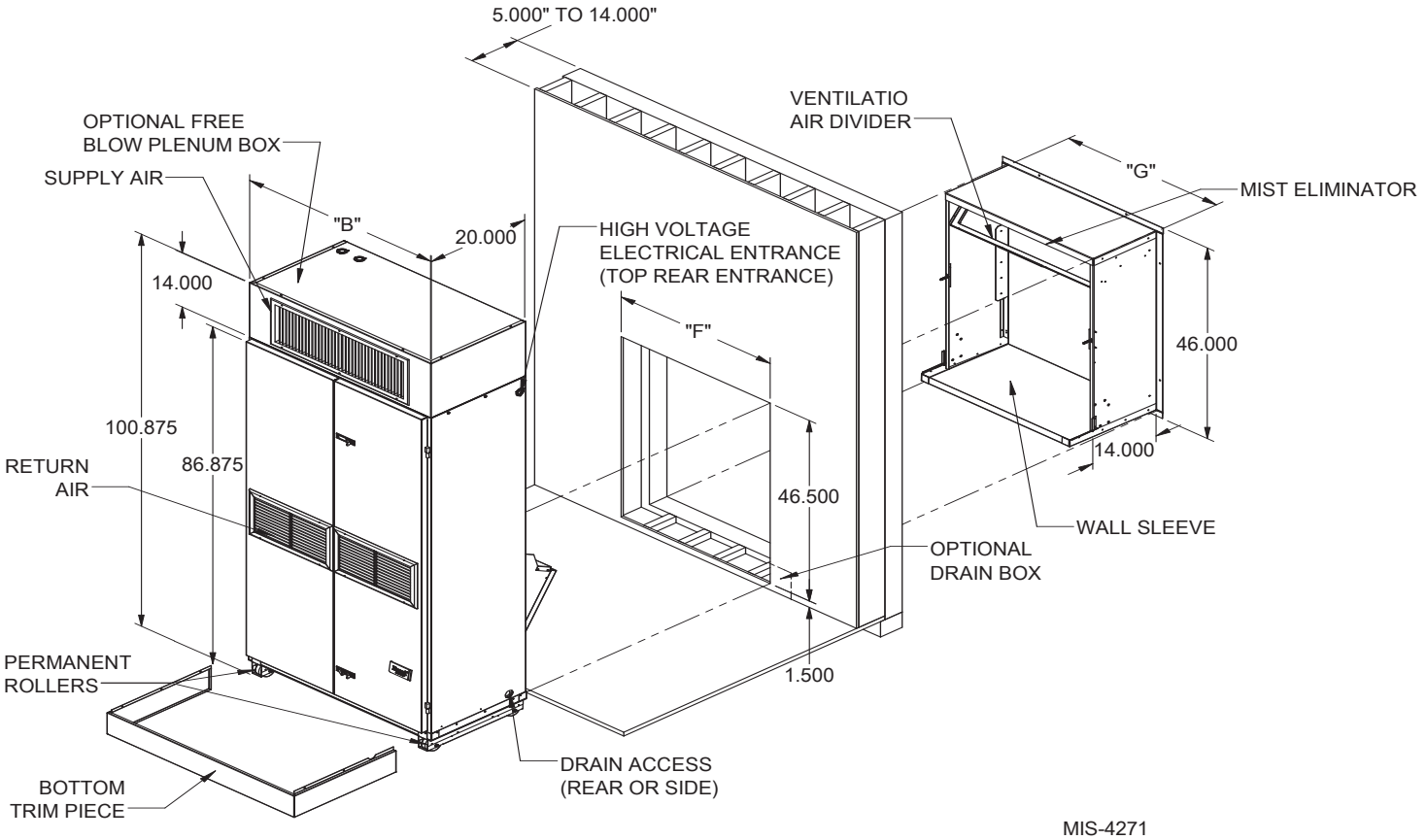
Q-TEC CABINET AND CLEARANCE DIMENSIONS

	A	B	C	D	E	F	G
Q24H4 Q30H4 Q36H4	5.000	42.000	30.000	(2) 17.000	43.000	35.000	34.000
Q43H4 Q48H4	3.000	48.000	40.000	(2) 20.000	49.000	43.000	42.000

* Note: Q43H4 products require a larger wall opening when replacing Q42H products. Review all product and wall opening dimensions when replacing existing products.



MIS-4172 A



MIS-4271

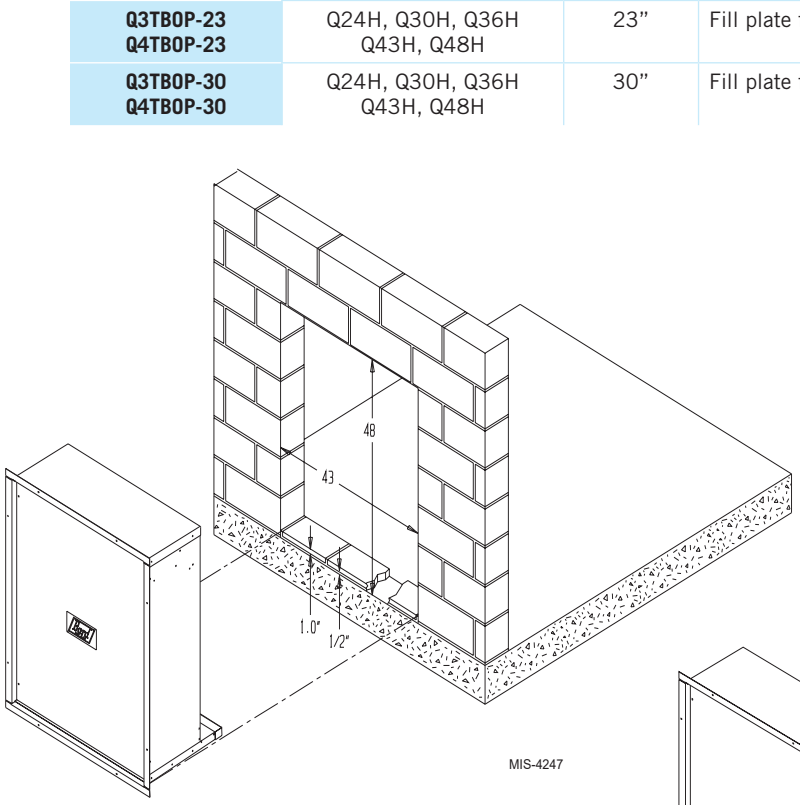
Q-TEC WALL SLEEVE OPTIONS

The Q-TEC wall sleeve is a required accessory for the QH unit. It allows for condenser fan air intake and exhaust used during cooling and heating operation. It also provides a path for outdoor ventilation air intake and room air exhaust when using the QH optional ventilation options. It is important to use Bard approved wall sleeve and louver designs to ensure proper condenser airflow and ventilation airflow occurs. Various wall sleeve depths are available to match the building wall depth or to allow QH installation in buildings where the unit will need to have a gap between the wall and the unit.

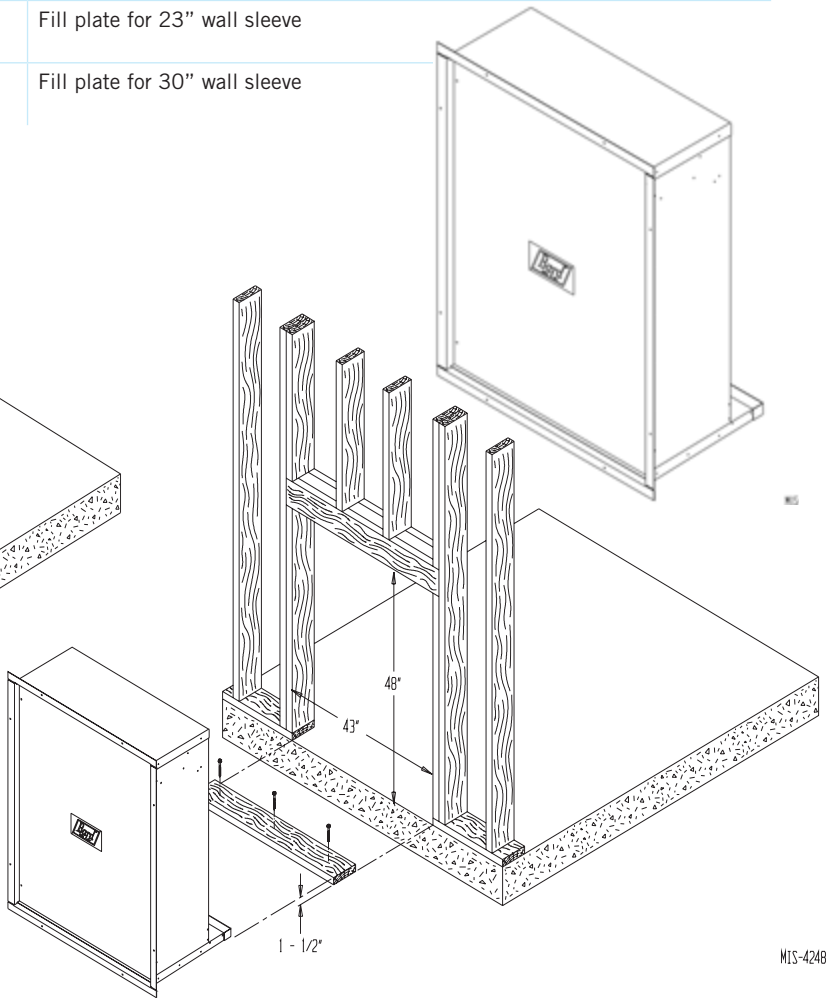
Wall Sleeve	Unit	Wall Depth	Description
QWS42A **QWS48A**	Q24H, Q30H, Q36H Q43H, Q48H	14”	Sleeve designed for 35” x 48” wall opening in 14” or less depth wall.
QWS42A-16 **QWS48A-16**	Q24H, Q30H, Q36H Q43H, Q48H	16”	Sleeve designed for 35” x 48” wall opening in 16” depth wall.
QWS42A-19 **QWS48A-19**	Q24H, Q30H, Q36H Q43H, Q48H	19”	Sleeve designed for 35” x 48” wall opening in 19” depth wall.
QWS42A-20 **QWS48A-20**	Q24H, Q30H, Q36H Q43H, Q48H	20”	Sleeve designed for 35” x 48” wall opening in 20” depth wall.
QWS42A-23 **QWS48A-23**	Q24H, Q30H, Q36H Q43H, Q48H	23”	Sleeve designed for 35” x 48” wall opening in 23” depth wall.
QWS42A-30 **QWS48A-30**	Q24H, Q30H, Q36H Q43H, Q48H	30”	Sleeve designed for 35” x 48” wall opening in 30” depth wall.
QWS42A-H19 **QWS48A-H19**	Q24H, Q30H, Q36H Q43H, Q48H	19”	Special sleeve design for hurricane louver. 19” wall depth or less required.

When performing a replacement installation where you intend to reuse the existing wall sleeve a condenser section blank off plate is required to ensure adequate seal between the condenser inlet and the outdoor louver.

Plate Kit	Unit	Wall Depth	Description
Q3TBOP-16 **Q4TBOP-16**	Q24H, Q30H, Q36H Q43H, Q48H	16”	Fill plate for 16” wall sleeve
Q3TBOP-20 **Q4TBOP-20**	Q24H, Q30H, Q36H Q43H, Q48H	19-20”	Fill plate for 19” & 20” wall sleeves
Q3TBOP-23 **Q4TBOP-23**	Q24H, Q30H, Q36H Q43H, Q48H	23”	Fill plate for 23” wall sleeve
Q3TBOP-30 **Q4TBOP-30**	Q24H, Q30H, Q36H Q43H, Q48H	30”	Fill plate for 30” wall sleeve



MIS-4247

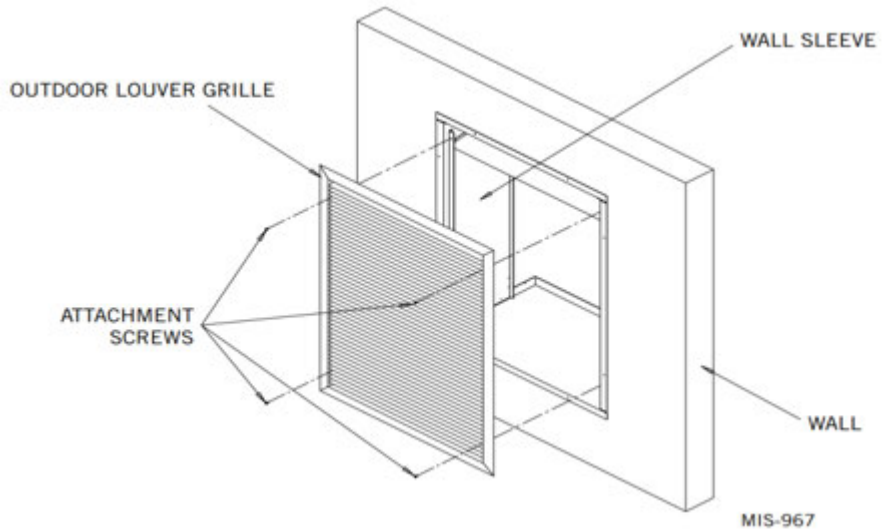


MIS-4248

Q-TEC WALL LOUVER OPTIONS

The Q-TEC wall sleeve is a required accessory for the QH unit. It allows for condenser fan air intake and exhaust used during cooling and heating operation. It also provides a path for outdoor ventilation air intake and room air exhaust when using the QH optional ventilation options. It is important to use Bard approved wall sleeve and louver designs to ensure proper condenser airflow and ventilation airflow occurs. Various wall sleeve depths are available to match the building wall depth or to allow QH installation in buildings where the unit will need to have a gap between the wall and the unit.

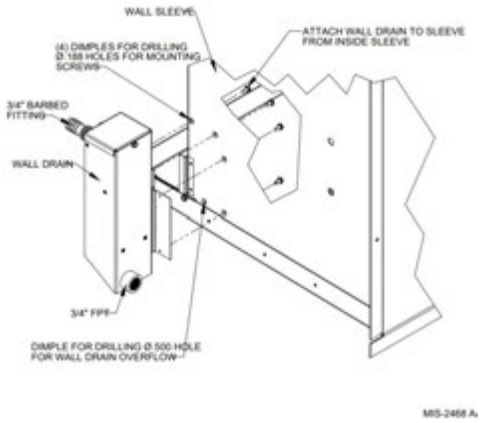
Wall Louver	Unit	Inner Louver Size	Description
QLS2-10 **QLS4-10**	Q24H, Q30H, Q36H Q43, Q48	32.5 x 45.5” 40.5 x 45.5”	Aluminum Finish
QLS2-20 **QLS4-20**	Q24H, Q30H, Q36H Q43, Q48	32.5 x 45.5” 40.5 x 45.5”	Medium Bronze
QLS2-30 **QLS4-30**	Q24H, Q30H, Q36H Q43, Q48	32.5 x 45.5” 40.5 x 45.5”	Dark Bronze
QLS2-12 **QLS4-12**	Q24H, Q30H, Q36H Q43, Q48	32.5 x 45.5” 40.5 x 45.5”	Arctic White
QLS2-14 **QLS4-14**	Q24H, Q30H, Q36H Q43, Q48	32.5 x 45.5” 40.5 x 45.5”	Storm White
QLS2-18 **QLS4-18**	Q24H, Q30H, Q36H Q43, Q48	32.5 x 45.5” 40.5 x 45.5”	Milano Beige
QLS2-40 **QLS4-40**	Q24H, Q30H, Q36H Q43, Q48	32.5 x 45.5” 40.5 x 45.5”	School Bus Yellow
QLS2-42 **QLS4-42**	Q24H, Q30H, Q36H Q43, Q48	32.5 x 45.5” 40.5 x 45.5”	Florida Orange
QLS2-44 **QLS4-44**	Q24H, Q30H, Q36H Q43, Q48	32.5 x 45.5” 40.5 x 45.5”	School House Red
QLS2-46 **QLS4-46**	Q24H, Q30H, Q36H Q43, Q48	32.5 x 45.5” 40.5 x 45.5”	Chili Red
QLS2-50 **QLS4-50**	Q24H, Q30H, Q36H Q43, Q48	32.5 x 45.5” 40.5 x 45.5”	Deep Sea Blue
QLS2-52 **QLS4-52**	Q24H, Q30H, Q36H Q43, Q48	32.5 x 45.5” 40.5 x 45.5”	Bahama Blue
QLS2-54 **QLS4-54**	Q24H, Q30H, Q36H Q43, Q48	32.5 x 45.5” 40.5 x 45.5”	Ivy Green
QLS2-56 **QLS4-56**	Q24H, Q30H, Q36H Q43, Q48	32.5 x 45.5” 40.5 x 45.5”	Sage Green
QLS2-32 **QLS4-32**	Q24H, Q30H, Q36H Q43, Q48	32.5 x 45.5” 40.5 x 45.5”	Jet Black
QLS2-36 **QLS4-36**	Q24H, Q30H, Q36H Q43, Q48	32.5 x 45.5” 40.5 x 45.5”	Graphite Grey
QLS2-75 **QLS4-75**	Q24H, Q30H, Q36H Q43, Q48	32.5 x 45.5” 40.5 x 45.5”	Custom Color
QLG-30-4H **QLG-35-4H**	Q24H, Q30H, Q36H Q43, Q48	33.5” x 45.5” 41.5 x 45.5”	Dark Bronze, Requires QWS42A-H19 wall sleeve. Dark Bronze, Requires QWS48A-H19 wall sleeve.

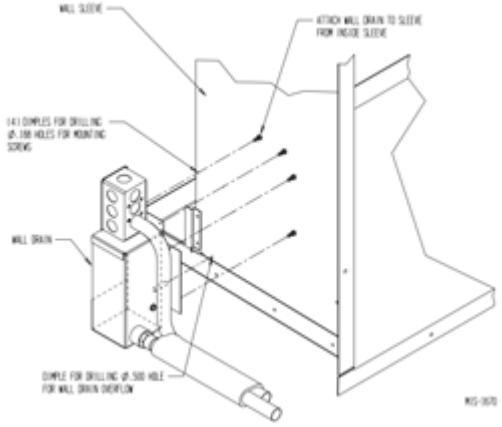


Q-TEC OPTIONAL DRAIN KITS

The Q-TEC unit drain kits are designed to allow the rear condensate drain to be used while not hindering the ability to disconnect the unit from the wall sleeve and pull the unit away from the wall for servicability. The drain kit box is mounted inside the wall cavity and the unit drain is enclosed by the box during normal operation.

Drain Kit	Unit	Description
QCDS48A	Q24H, Q30H, Q36H Q43H, Q48H	Rear Condensate drain system for easy removal of unit from wall sleeve.
QCDS48H	Q24H, Q30H, Q36H Q43H, Q48H	Rear Condensate drain system with 115VAC 20W heated drain for freezing climates. Requires separate electrical circuit.





DOOR MOUNTED THERMOSTAT KITS

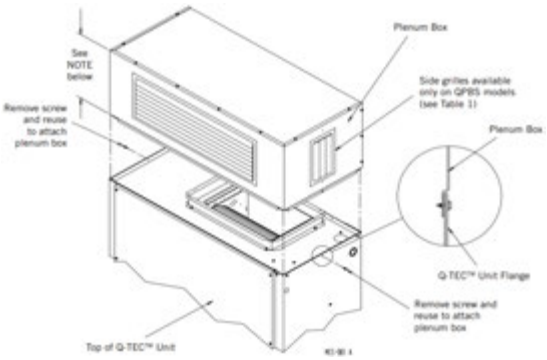
The Q-TEC door mounted thermostat kit provides installation instructions and required wiring to mount a standard thermostat on the left front door.

Kit	Unit	Description
QDMCK	Q24H, Q30H, Q36H Q43H, Q48H	The kit provides a 15 pin male / female connector with wires. The kit also includes wire ties, grommets, bushings, and edge guards.

/////// DUCT FREE PLENUM BOXES

The Q-TEC duct free plenum boxes allow for conditioned supply air distribution throughout a room without the use of duct work. The duct free plenum boxes are designed to provide quiet operation by using non-fiberglass sound reducing insulation. A 4 front way deflection grille is standard, and side grilles are optional. An 8" plenum box height is available, but the standard 14" plenum box height is recommended for the best sound reduction characteristics.

Plenum Box	Unit	Plenum Box Height	Description
QPB36-X **QPB49-X**	Q24H, Q30H, Q36H Q43H, Q48H	14"	Beige finish. 4 way front deflection grille.
QPB36-V **QPB49-V**	Q24H, Q30H, Q36H Q43H, Q48H	14"	Vinyl finish. 4 way front deflection grille.
QPB36-4 **QPB49-4**	Q24H, Q30H, Q36H Q43H, Q48H	14"	Buckeye Grey finish. 4 way front deflection grille.
QPBS36-X **QPBS49-X**	Q24H, Q30H, Q36H Q43H, Q48H	14"	Beige finish. Front and side deflection grilles.
QPBS36-V **QPBS49-V**	Q24H, Q30H, Q36H Q43H, Q48H	14"	Vinyl finish. Front and side deflection grilles.
QPBS36-4 **QPBS49-4**	Q24H, Q30H, Q36H Q43H, Q48H	14"	Buckeye Grey finish. Front and side deflection grilles.
QPBS36-X-8 **QPBS49-X-8**	Q24H, Q30H, Q36H Q43H, Q48H	8"	Beige finish. Front and side deflection grilles. 8" plenum box height.
QPBS36-V-8 **QPBS49-V-8**	Q24H, Q30H, Q36H Q43H, Q48H	8"	Vinyl finish. Front and side deflection grilles. 8" plenum box height.
QPBS36-4-8 **QPBS49-4-8**	Q24H, Q30H, Q36H Q43H, Q48H	8"	Buckeye Grey finish. Front and side deflection grilles. 8" plenum box height.



/////// HOT WATER HEATING PLENUM BOXES - STANDARD ON/OFF VALVE

The Q-TEC plenum boxes with hot water heating allow for conditioned supply air distribution throughout a room. They also include a water coil that can be used as a primary or secondary heating source. A 3-way ON/OFF valve is included for heating activation or water bypass when not being used. The duct free plenum boxes are designed to provide quiet operation by using non-fiberglass sound reducing insulation. A duct free version is available with a 4 way deflection grille. A ducted version is also available that uses a top discharge 8" x 30" supply opening.

Plenum Box	Unit	Description
QPBHW36-F-X **QPBBH49-F-X**	Q24H, Q30H, Q36H Q43H, Q48H	Beige finish. Duct free plenum box
QPBHW36-F-V **QPBHW49-F-V**	Q24H, Q30H, Q36H Q43H, Q48H	Vinyl finish. Duct free plenum box
QPBHW36-F-4 **QPBHW49-F-4**	Q24H, Q30H, Q36H Q43H, Q48H	Buckeye Grey finish. Duct free plenum box
QPBHW36-D-X **QPBHW49-D-X**	Q24H, Q30H, Q36H Q43H, Q48H	Beige finish. Ducted plenum box
QPBHW36-D-V **QPBHW49-D-V**	Q24H, Q30H, Q36H Q43H, Q48H	Vinyl finish. Ducted plenum box
QPBHW36-D-4 **QPBHW49-D-4**	Q24H, Q30H, Q36H Q43H, Q48H	Buckeye Grey finish. Ducted plenum box

HOT WATER HEATING PLENUM BOXES - STANDARD ON/OFF VALVE (CONTINUED)

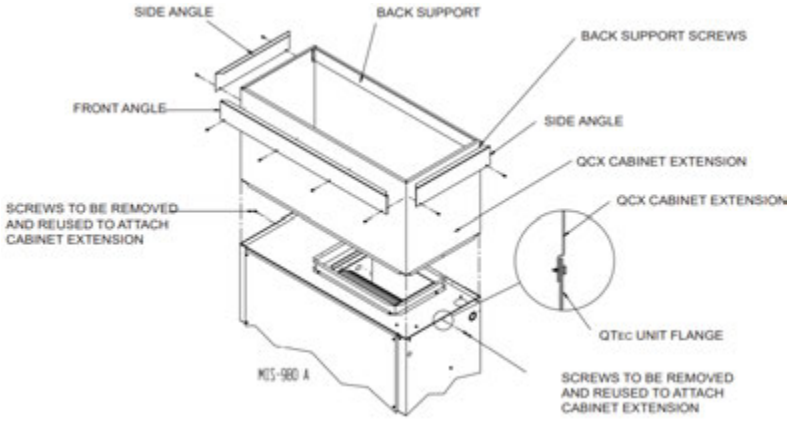
Optional Hot Water Coil Performance-Heating Capacity @ 180°F Water & 70° Return Air

GPM	CFM									
	800	900	1000	1100	1200	1300	1400	1500	1600	1700
1.5	32,000	32,667	33,333	34,000	34,500	35,000	35,500	36,000	36,400	36,750
2	42,000	43,200	44,400	45,600	46,400	47,200	48,000	48,500	49,000	49,500
3	49,000	51,667	53,750	57,000	59,400	61,750	64,000	65,200	66,000	67,000
4	56,000	59,000	62,000	65,000	69,000	73,000	77,000	79,500	82,000	84,000
5	59,000	62,583	66,167	69,750	72,833	75,917	79,000	81,000	83,000	85,000
6	62,000	66,167	70,333	74,500	77,000	79,500	82,000	83,500	85,000	86,500
7	63,500	67,708	71,917	76,125	78,917	81,708	84,500	86,500	88,000	89,200
8	65,000	69,250	73,500	77,750	80,833	83,917	87,000	88,900	90,500	91,750
9	66,000	70,525	75,050	79,575	82,883	86,192	89,500	91,500	93,000	94,500
10	67,000	71,800	76,600	81,400	84,933	88,467	92,000	94,500	96,000	97,500

Q-TEC CABINET EXTENSION KITS

The Q-TEC cabinet extension kits allow enclosing the top of the Q-TEC unit when duct work is to be used. The front and sides are finished to match the unit finish and are available in both prepaint and vinyl. The kit also contains 5" height extension angles that can be used to extend the kit to the ceiling.

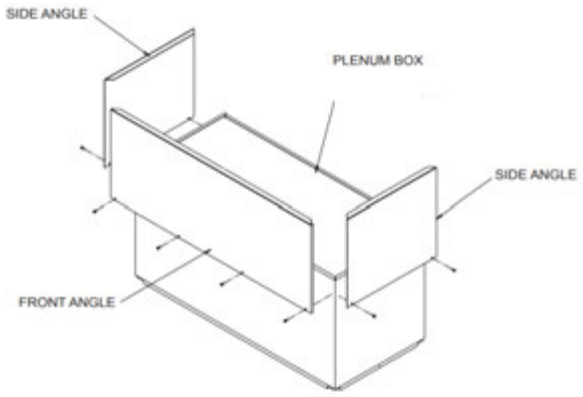
Plenum Extension	Unit	Extension Height	Description
Q4CX10A-X	Q24H Q30H Q36H	10" + 5"	Beige finish 10" height trim kit with 5" height extension angles.
Q4CX10A-V	Q24H Q30H Q36H	10" + 5"	Vinyl finish 10" height trim kit with 5" height extension angles.
Q4CX10A-4	Q24H Q30H Q36H	10" + 5"	Grey finish 10" height trim kit with 5" height extension angles.
Q4CX15A-X	Q43H Q48H	10" + 5"	Beige finish 10" height trim kit with 5" height extension angles.
Q4CX15A-V	Q43H Q48H	10" + 5"	Vinyl finish 10" height trim kit with 5" height extension angles.
Q4CX15A-4	Q43H Q48H	10" + 5"	Grey finish 10" height trim kit with 5" height extension angles.



Q-TEC PLENUM BOX EXTENSION KITS

The Q-TEC plenum box extension kits allow enclosing the top of the Q-TEC free blow or ducted plenum box options. The front and sides are finished to match the unit and plenum finish and are available in both prepaint and vinyl. The kit can be field modified for various ceiling heights, but a separate kit for 9'-6" ceilings and 10'-2" ceilings is available.

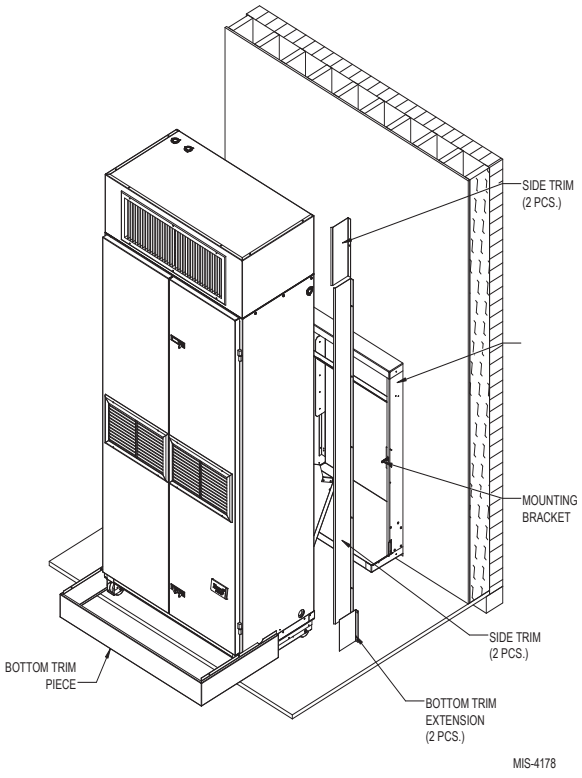
Extension Kit	Unit	Extension Height	Description
QPBX36-9-X **QPBX49-9-X**	Q24H, Q30H, Q36H Q43H, Q48H	14"	Beige finish trim kit for 9'-6" ceiling heights.
QPBX36-9-V **QPBX49-9-V**	Q24H, Q30H, Q36H Q43H, Q48H	14"	Vinyl finish trim kit for 9'-6" ceiling heights.
QPBX36-9-4 **QPBX49-9-4**	Q24H, Q30H, Q36H Q43H, Q48H	14"	Grey finish trim kit for 9'-6" ceiling heights.
QPBX36-10-X **QPBX49-10-X**	Q24H, Q30H, Q36H Q43H, Q48H	22"	Beige finish trim kit for 10'-2" ceiling heights.
QPBX36-10-V **QPBX49-10-V**	Q24H, Q30H, Q36H Q43H, Q48H	22"	Vinyl finish trim kit for 10'-2" ceiling heights.
QPBX36-10-4 **QPBX49-10-4**	Q24H, Q30H, Q36H Q43H, Q48H	22"	Grey finish trim kit for 10'-2" ceiling heights.



Q-TEC UNIT WALL TRIM KITS

The Q-TEC plenum box extension kits allow enclosing the top of the Q-TEC free blow or ducted plenum box options. The front and sides are finished to match the unit and plenum finish and are available in both prepaint and vinyl. The kit can be field modified for various ceiling heights, but a separate kit for 9'-6" ceilings and 10'-2" ceilings is available. Each Q-TEC unit ships with a 4" trim kit from the factory.

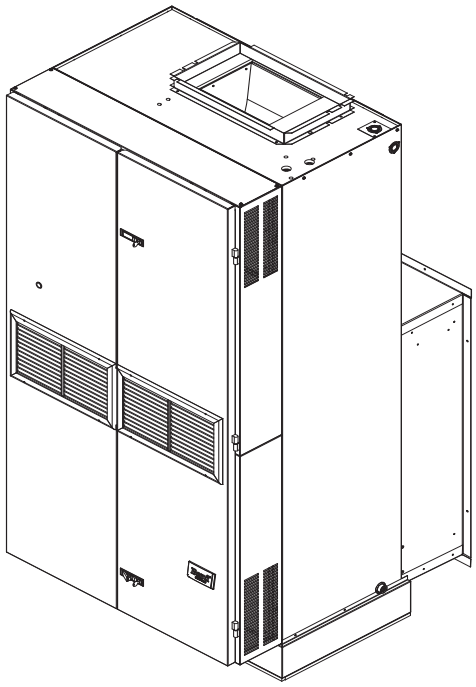
Trim Kit	Unit	Trim Width	Description
Factory Shipped	Q24H, Q30H, Q36H Q43H, Q48H	4"	Beige finish, will cover 4" gap between unit and finished wall.
Factory Shipped	Q24H, Q30H, Q36H Q43H, Q48H	4"	Vinyl finish, will cover 4" gap between unit and finished wall.
Factory Shipped	Q24H, Q30H, Q36H Q43H, Q48H	4"	Grey finish, will cover 4" gap between unit and finished wall.
QSTX42A-X-S10	Q24H, Q30H, Q36H Q43H, Q48H	10"	Beige finish, will cover 9.5" gap between unit and finished wall.
QSTX42A-V-S10	Q24H, Q30H, Q36H Q43H, Q48H	10"	Vinyl finish, will cover 9.5" gap between unit and finished wall.
QSTX42A-4-S10	Q24H, Q30H, Q36H Q43H, Q48H	10"	Grey finish, will cover 9.5" gap between unit and finished wall.
QSTX42A-X-S13	Q24H, Q30H, Q36H Q43H, Q48H	13"	Beige finish, will cover 12.5" gap between unit and finished wall.
QSTX42A-V-S13	Q24H, Q30H, Q36H Q43H, Q48H	13"	Vinyl finish, will cover 12.5" gap between unit and finished wall.
QSTX42A-4-S13	Q24H, Q30H, Q36H Q43H, Q48H	13"	Grey finish, will cover 12.5" gap between unit and finished wall.
QSTX42A-X-S16	Q24H, Q30H, Q36H Q43H, Q48H	16"	Beige finish, will cover 15.5" gap between unit and finished wall.
QSTX42A-V-S16	Q24H, Q30H, Q36H Q43H, Q48H	16"	Vinyl finish, will cover 15.5" gap between unit and finished wall.
QSTX42A-4-S16	Q24H, Q30H, Q36H Q43H, Q48H	16"	Grey finish, will cover 15.5" gap between unit and finished wall.



Q-TEC SOUND PLENUMS

The Q-TEC sound plenum reduces sound of unit during operation offering an even quieter experience for the occupied space.

Sound Plenum	Unit	Width	Finish
Q4SP3-X	Q24H, Q30H, Q36H	42”	Beige
Q4SP3-V	Q24H, Q30H, Q36H	42”	Vinyl
Q4SP3-4	Q24H, Q30H, Q36H	42”	Buckeye Grey
Q4SP5-X	Q43H, Q48H	48”	Beige
Q4SP5-V	Q43H, Q48H	48”	Vinyl
Q4SP5-4	Q43H, Q48H	48”	Buckeye Grey



MIS-4324

THERMOSTAT, HUMIDISTAT AND CO2 VENTILATION CONTROL OPTIONS

Bard provides a wide variety of controllers for equipment cooling, thermostats for equipment and comfort cooling, humidistats for dehumidification units, and CO2 sensors for ventilation control. Lockable thermostat covers are available for applications where security or supervisory control is desired.

Thermostat	Operation	Description
8403-060	3 Heat/3 Cool	Programmable or Nonprogrammable, ventilation output, dehumidification operation.
8403-095	2 Heat/1 Cool	Temp. Settings per Day 4, 2, 1, 0 Programs per Week 7, 5-2, 5-1-1 or Nonprogrammable.
8403-090	2 Heat/2 Cool	Temp. Settings per Day 4, 2, 1, 0 Programs per Week 7, 5-2, 5-1-1 or Nonprogrammable.
8403-092	2 Heat/2 Cool	Programmable or Nonprogrammable, ventilation output, Wi-Fi

Humidistat	Operation	Description
8403-038	Humidity %RH	Easy to use w/SPDT switching. Ratings: Pilot duty 50VA @24V, 120VA @120/240V
8403-047	Humidity %RH	Electronic with display, EEPROM memory, lockable keypad, humidity sensor calibration.

CO2	Operation	Description
8403-056	CO2 PPM	CO2 ventilation control with digital display. Use with JADE Economizer for modulating ventilation.
8403-067	CO2 PPM	CO2 cventilation control with digital display. On/Off or modulating ventilation operation.

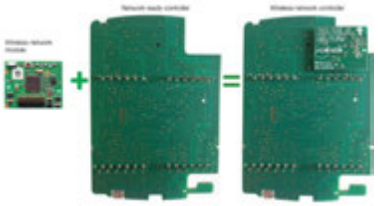
Thermostat Cover*	Size	Description
8405-003	(Inside) 5-1/16” H x 6-1/16” W, (Outside) 6-1/2” H x 7-1/2” W x 2-15/16” D	Clear acrylic ventilation. Fits all thermostats except 8403-060.
8405-005	(Inside) 5-7/8” H x 8-3/8” W, (Outside) 7-1/4” H x 9-3/4” W x 3-3/8” D	Clear acrylic with ventilation. Fits all thermostats.
8405-006	(Inside) 5-1/16” H x 6-1/16” W, (Outside) 6-3/8” H x 7-3/8” W x 2-7/8” D	Beige painted steel cover with ventilation. Fits all thermostats except 8403-060.
8405-007	(Inside) 5-7/8” H x 8-3/8” W, (Outside) 7-1/8” H x 9-5/8” W x 3-1/4” D	Beige painted steel cover with ventilation. Fits all thermostats.

* Thermostat covers include ventilation, but may affect temperature control reaction time. If security control lockout is needed, the 8403-060 thermostat provides input control lockout features.

BRIGHTSTAT ENVIRONMENTAL CONTROLLER OPTIONS

The BrightStat provides heating, cooling, humidity, and motion sensing/scheduled occupancy and ventilation control all in one controller. A color touch screen interface is standard on all models. Options are available for modulating ventilation based on CO2 level and ZigBee Wireless. All controllers are BACnet compatible.

Model	Operation	Description
8403-081	3H/2C, %RH, Motion Sensor	BrightStat includes Cooling, Heating, Humidity, Motion and Scheduled Occupancy. 2 wire BACnet daisy chain communication. Can use either a CO2 or ZigBee expansion card.
8403-083	3H/2C, %RH	BrightStat includes Cooling, Heating, Humidity, and Scheduled Occupancy. 2 wire BACnet daisy chain communication. Can use either a CO2 or ZigBee expansion card.
8403-084	3H/2C	BrightStat includes Cooling, Heating, and Scheduled Occupancy. 2 wire BACnet daisy chain communication. Can use either a CO2 or ZigBee expansion card.



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Due to our continuous product improvement policy, all specifications subject to change without notice.

Before purchasing this appliance, read important energy cost and efficiency information available from your retailer.