



LQ Family of Chillers

General

The LQ Series portable chillers are designed for indoor use in industrial manufacturing locations. The chillers are produced in our ISO 9001:2008 certified facility. Water-cooled and air-cooled units ship with a full refrigerant charge. Units with a remote air-cooled condenser ship with a nitrogen charge. All units are housed in a heavy gauge painted steel cabinet with tool-free access.

Mechanical Features

- Energy efficient and reliable scroll compressor(s)
- Electronic hot gas bypass for capacity control
- Stainless steel brazed plate evaporator provides higher heat transfer coefficients due to reduced fouling.
- (Air-Cooled Units) Generously sized copper tube/aluminum finned air-cooled condensers designed for industrial environments. Includes air inlet filters.
- (Water-Cooled Units) Generously sized cleanable shell-and-tube water-cooled condenser for industrial environments.
- (Remote Condenser Units) Modular design with divided fan sections to prevent 'wind-milling' during fan cycling. Includes galvanized steel fan sections and coil baffles, copper tube/aluminum fin coils tested to 400 PSIG, direct drive multi-blade propeller fans with venture orifices to optimize efficiency, and a nitrogen holding charge.
- (Water-Cooled Units) Condenser water regulating valve to provide constant head pressure
- Refrigerant TXV, filter/drier, and sight glass
- Freezestat safety switch with solid state sensor
- Encapsulated high and low refrigerant pressure safeties
- Nonferrous water circuit construction
- Insulated polyethylene reservoir with removable cover
- Stainless steel process pump with pressure gauge

- Fail safe flow switch interlocked with compressor
- Y-strainer to protect evaporator from contamination
- Internal valved bypass line to protect pump and evaporator
- (Air and Water-Cooled Units) Factory tested under full load conditions prior to shipment

Electrical Features

- Compressor, pump and condenser fan (air-cooled units only) starters mounted in control panel and wired to motors
- Single-point main power block for simple wiring connection

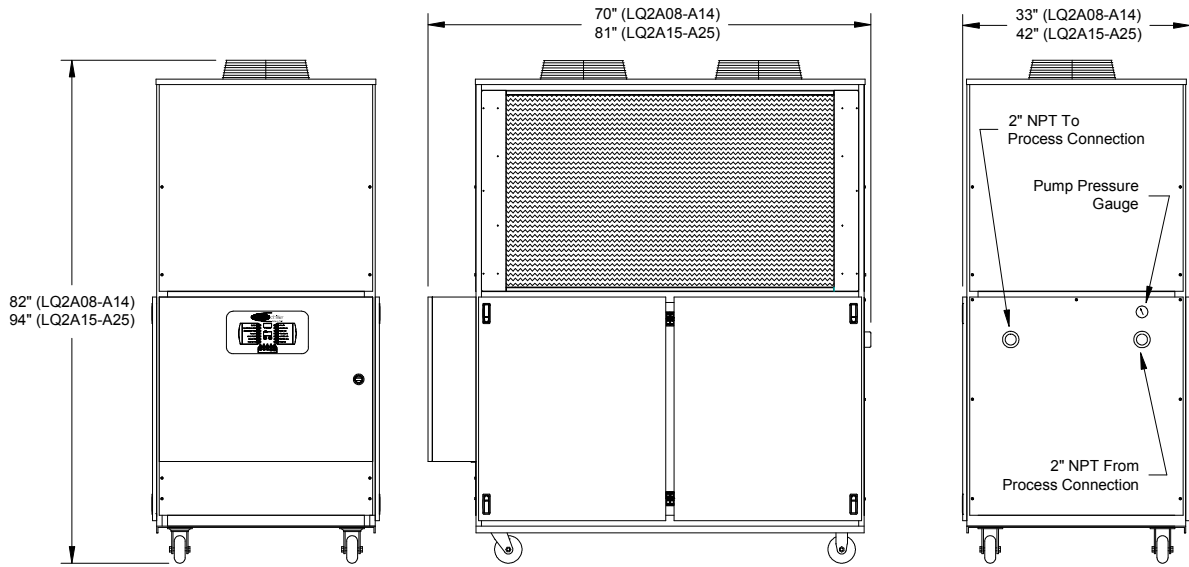
Microprocessor Features

- Dual LED digital displays of actual and set point temperatures
- Anti-cycle 2.5 minute timer to prevent short-cycling of compressor
- Deviation alarm 30 minute timer delay to prevent nuisance alarms during start-up and set point changes
- Display temperatures easily switched from °F to °C from the front panel
- Easy front panel alarm reset button
- Diagnostic lights: no flow, high refrigerant pressure, low refrigerant pressure, freezestat, over set point, under set point, pump on, compressor on, partial load, water make-up (active if option is purchased), low water level (active if option is purchased), high water temperature and probe fault
- Operation lights: control power on, start, stop, alarm reset, alarm horn silence (active if option is purchased)
- PID control algorithm

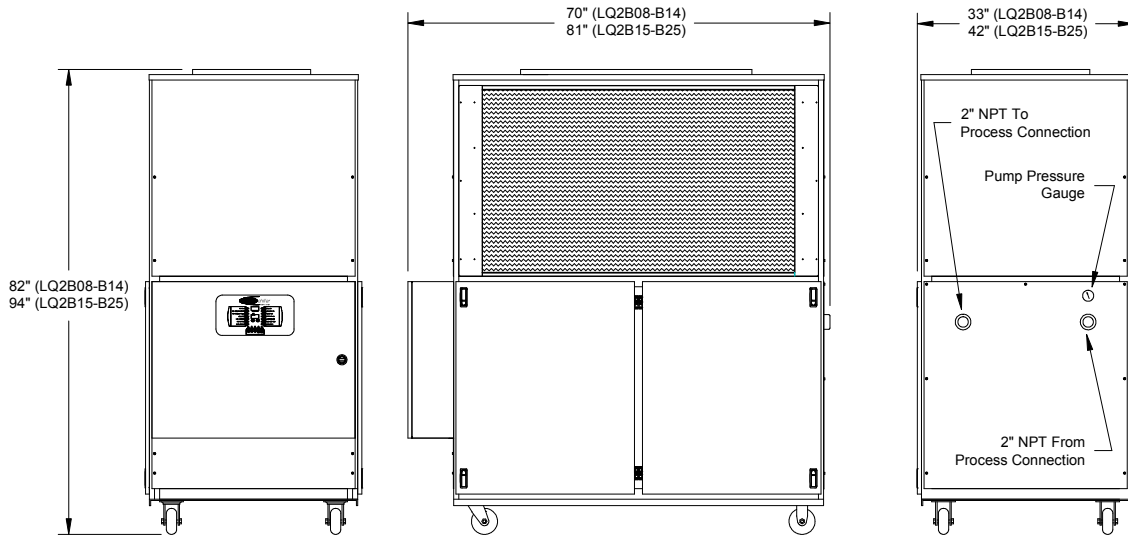
Warranty

- 5 year parts warranty for microprocessor with a lifetime \$175 exchange policy after initial 5 year warranty period
- 18 months parts warranty
- 1 year labor warranty

LQ2A Series Air-Cooled Chillers With Fans



LQ2B Series Air-Cooled Chillers With Blowers

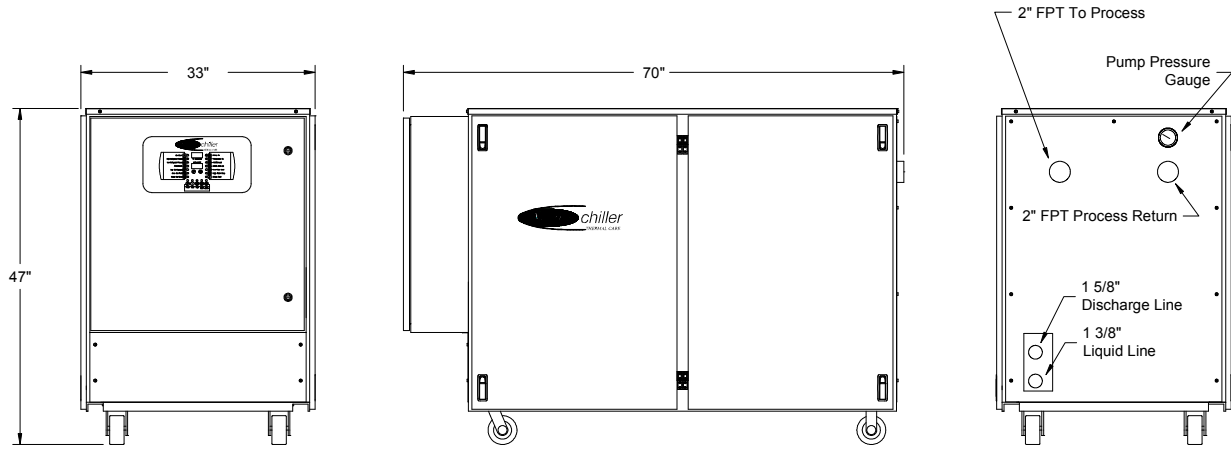


Model	Cooling Tons ¹	Set Point Range °F	Refrigerant	Condenser Fan Air Flow CFM	Standard Pump			Unit MCA @ 460/3/60	Shipping Weight Lbs.
					HP	GPM	PSI		
LQ2A08	7.0	20 – 80	R407C	10,000	1½	17	40	21	1,650
LQ2A10	10.0	20 – 80	R407C	10,000	1½	24	37	27	1,800
LQ2A14	13.6	20 – 80	R407C	10,000	1½	33	34	41	2,000
LQ2A15	15.0	20 – 80	R407C	14,000	3	36	57	46	3,200
LQ2A20 ²	20.0	20 – 80	R407C	14,000	3	48	52	53	3,300
LQ2A25 ²	23.2	20 – 80	R407C	14,000	5	56	60	67	3,800
LQ2B08	7.0	20 – 80	R407C	10,000	1½	17	40	26	1,750
LQ2B10	10.0	20 – 80	R407C	10,000	1½	24	37	32	1,900
LQ2B14	13.6	20 – 80	R407C	10,000	1½	33	34	47	2,100
LQ2B15	15.0	20 – 80	R407C	14,000	3	36	57	49	3,300
LQ2B20 ²	20.0	20 – 80	R407C	14,000	3	48	52	56	3,400
LQ2B25 ²	23.2	20 – 80	R407C	14,000	5	56	60	70	3,900

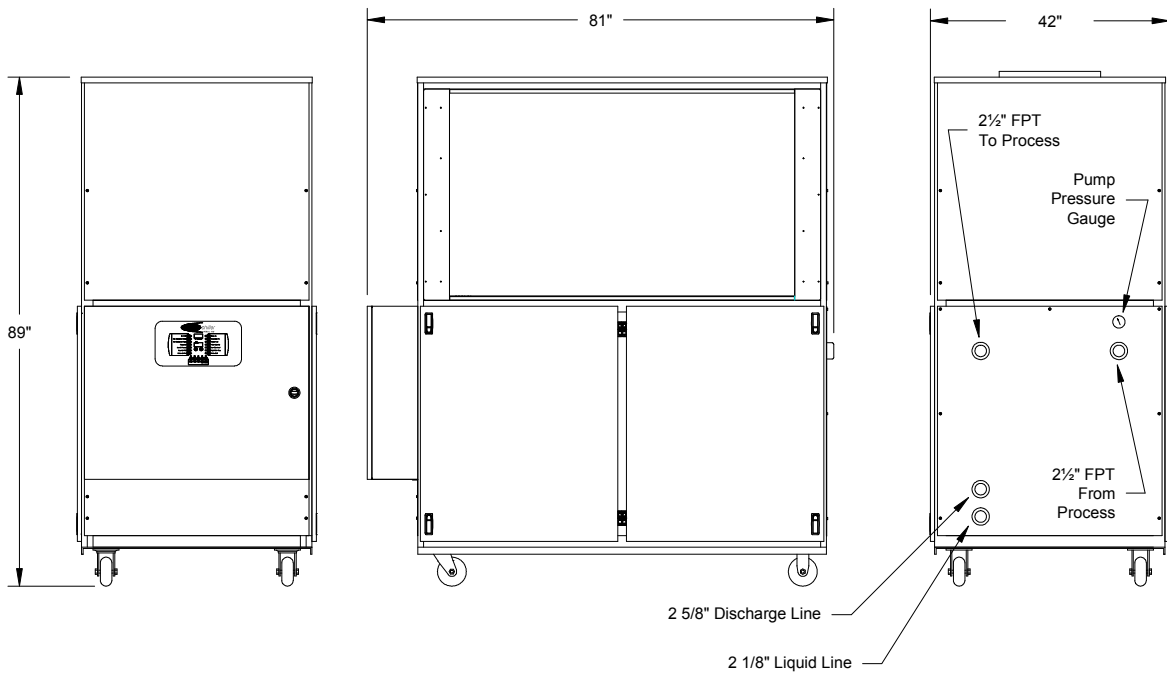
¹Cooling tons based on 12,000 BTU/Hr/ton with 50°F leaving coolant and 95°F ambient air

²Uses multiple compressors in one common refrigerant circuit

LQ2R08 - LQ2R30 Remote Condenser Chillers



LQ2R35 - LQ2R40 Remote Condenser Chillers



Model	Cooling Tons ¹	Set Point Range °F	Refrigerant	Standard Pump			Unit MCA @ 460/3/60	Shipping Weight Lbs.
				HP	GPM	PSI		
LQ2R08	7.0	20 – 80	R407C	1½	17	40	17	1,200
LQ2R10	10.0	20 – 80	R407C	1½	24	37	23	1,300
LQ2R15	15.9	20 – 80	R407C	3	38	56	40	1,500
LQ2R20 ²	19.7	20 – 80	R407C	3	47	51	47	1,900
LQ2R25 ²	24.2	20 – 80	R407C	5	58	60	61	2,100
LQ2R30 ²	29.3	20 – 80	R407C	5	70	56	71	2,250
LQ2R35 ²	33.9	20 – 80 ³	R407C	5	81	53	78	3,400
LQ2R40 ²	38.4	20 – 80 ³	R407C	7½	92	66	88	3,900

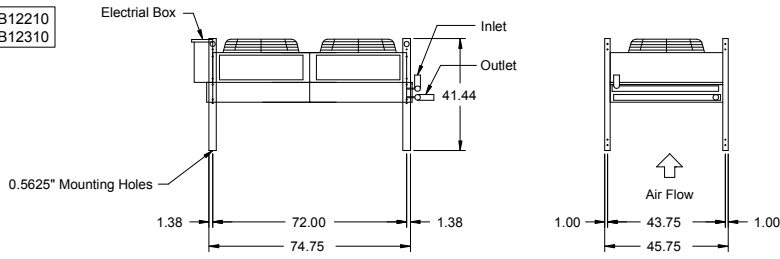
¹Cooling tons based on 12,000 BTU/Hr/ton with 50°F leaving coolant and 95°F ambient air

²Uses multiple compressors in one common refrigerant circuit

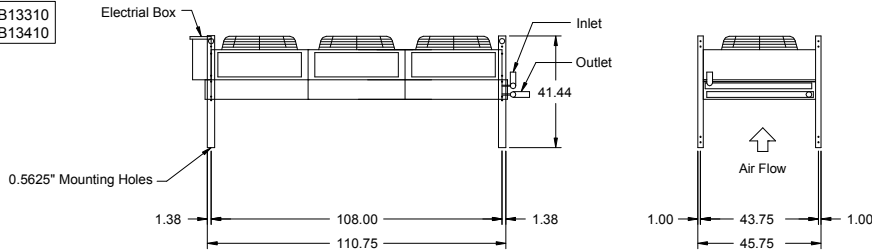
³Standard set point range is 20°F to 65°F for LQR35 & LQR40. To extend range to 20°F to 80°F the CPR valve option is required.

Remote Condensers (used with LQ2R Series Chillers)

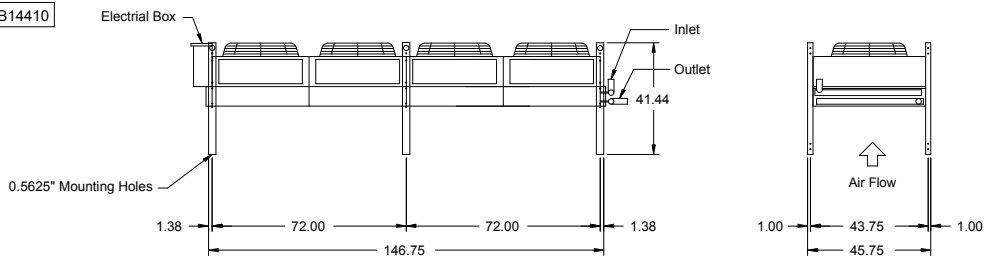
LAVB12210
LAVB12310



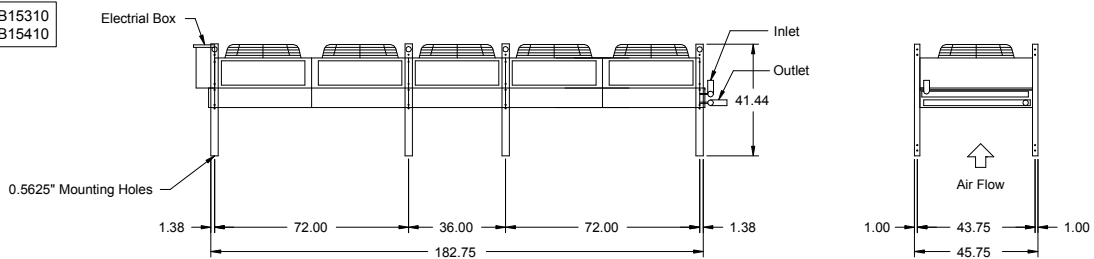
LAVB13310
LAVB13410



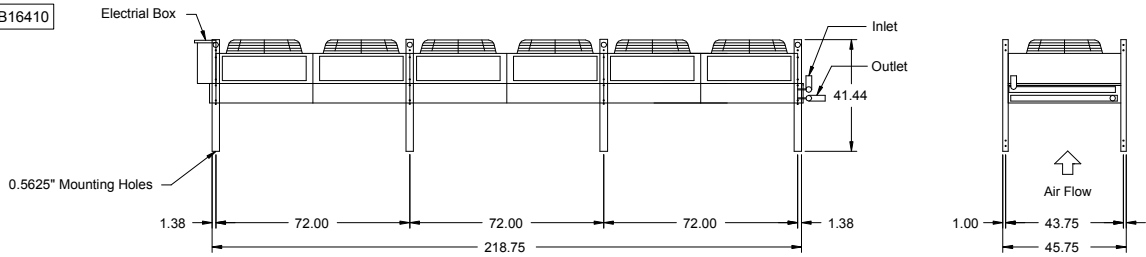
LAVB14410



LAVB15310
LAVB15410

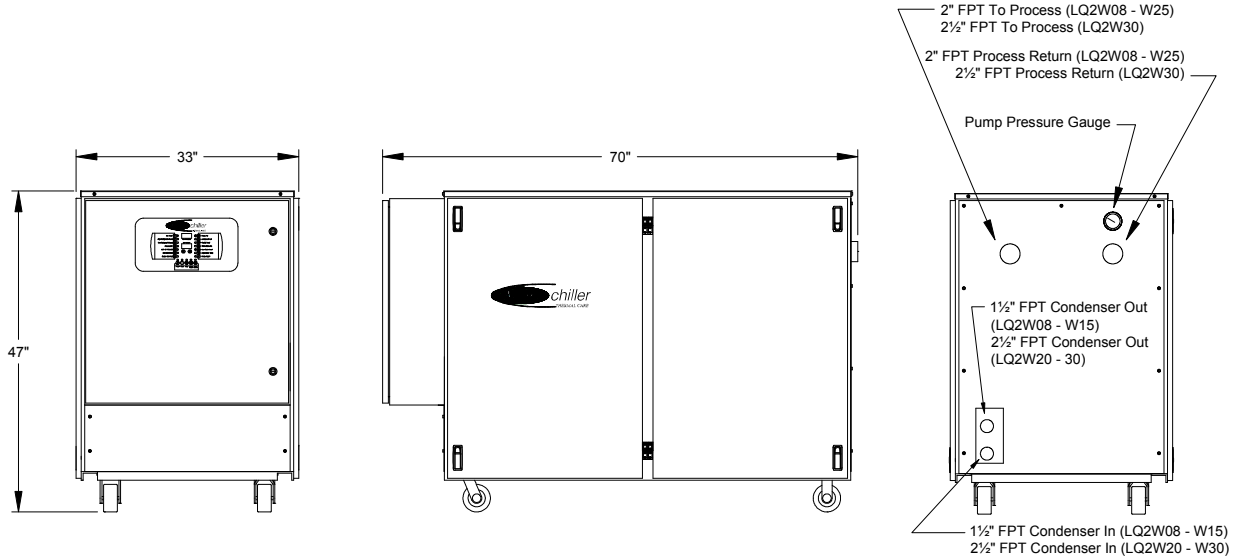


LAVB16410

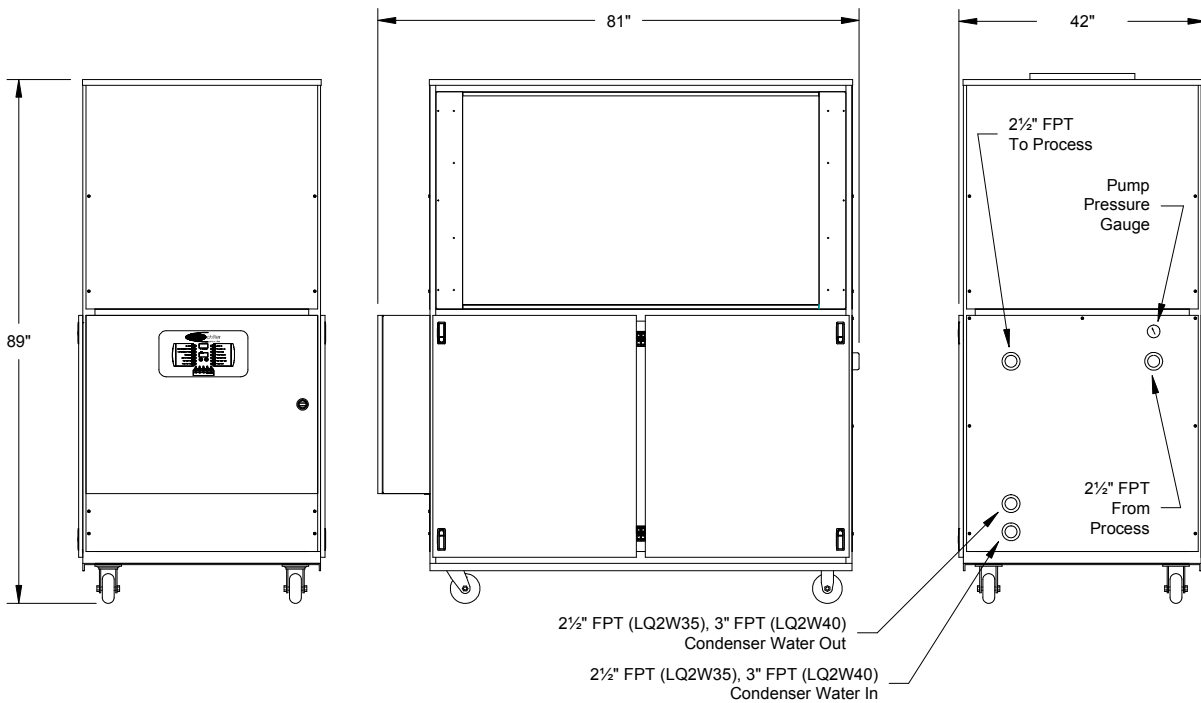


Model	Chiller Model Used With	Refrigerant	Condenser Air Flow CFM	Connection Size (inch)		Condenser Fans		Unit MCA @ 460/3/60	Shipping Weight Lbs.
				Inlet	Outlet	Qty	HP Each		
LAVB12210	LQ2R08	R407C	13,500	1 3/8	1 1/8	2	1/2	5	355
LAVB12310	LQ2R10	R407C	12,800	1 5/8	1 3/8	2	1/2	5	375
LAVB13310	LQ2R15	R407C	19,200	2 1/8	1 5/8	3	1/2	7	560
LAVB13410	LQ2R20	R407C	18,000	2 5/8	2 1/8	3	1/2	7	600
LAVB14410	LQ2R25	R407C	24,000	2 5/8	2 1/8	4	1/2	9	900
LAVB15310	LQ2R30	R407C	32,000	2 5/8	2 1/8	5	1/2	11	865
LAVB15410	LQ2R35	R407C	30,000	2 5/8	2 5/8	5	1/2	11	950
LAVB16410	LQ2R40	R407C	35,850	2 5/8	2 5/8	6	1/2	13	1,150

LQ2W08 - LQ2W30 Water-Cooled Chillers



LQ2W35 - LQ2W40 Water-Cooled Chillers



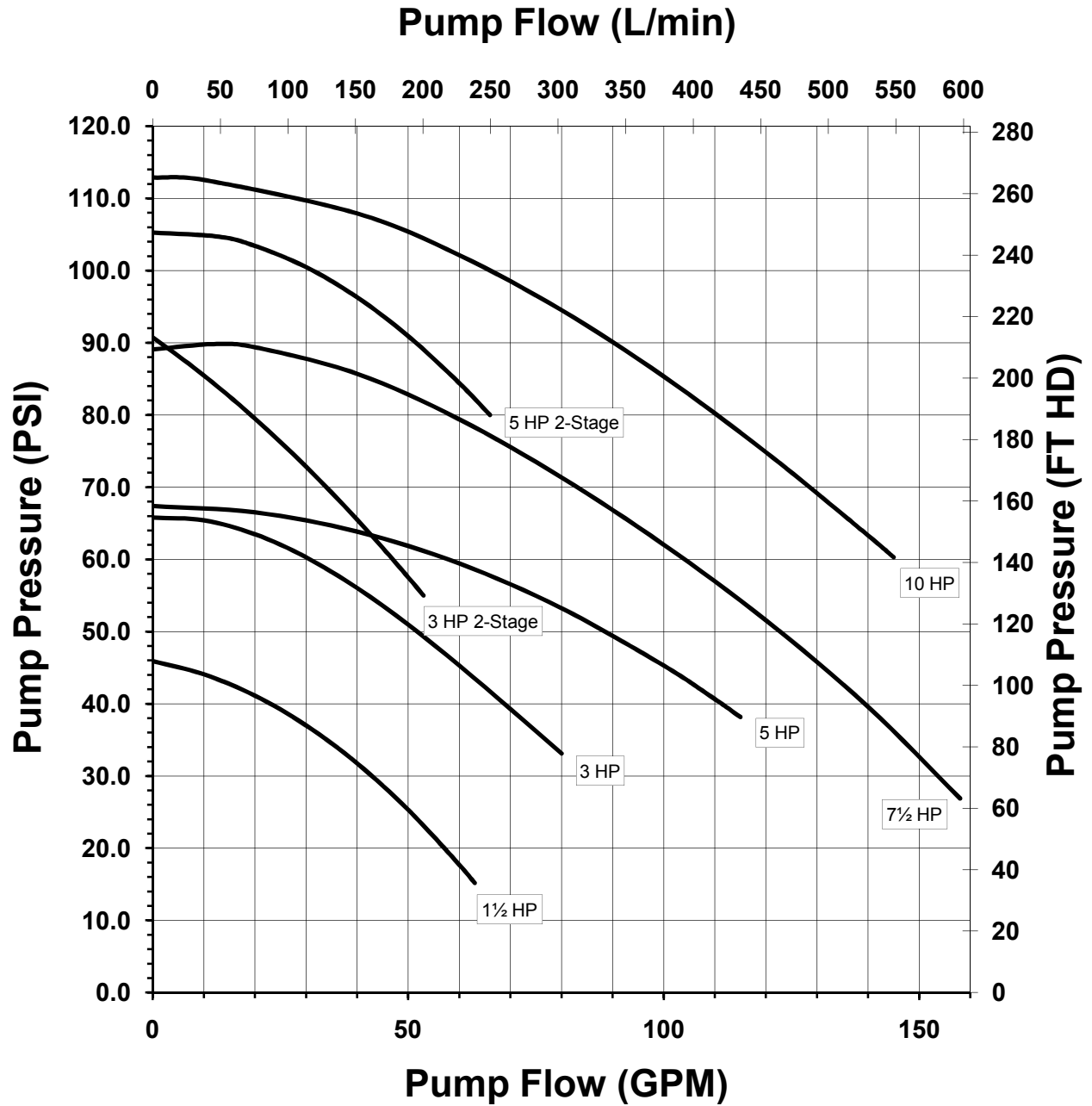
Model	Cooling Tons ¹	Set Point Range °F	Refrigerant	Condenser Water GPM	Standard Pump			Unit MCA @ 460/3/60	Shipping Weight Lbs.
					HP	GPM	PSI		
LQ2W08	7.5	20 – 80	R407C	23	1½	18	39	17	1,200
LQ2W10	10.6	20 – 80	R407C	32	1½	25	37	23	1,300
LQ2W15	15.9	20 – 80	R407C	47	3	38	55	40	1,500
LQ2W20 ²	21.2	20 – 80	R407C	64	3	51	51	47	1,900
LQ2W25 ²	26.2	20 – 80	R407C	79	5	63	58	61	2,100
LQ2W30 ²	31.4	20 – 80	R407C	93	5	75	54	71	2,250
LQ2W35 ²	36.4	20 – 80 ³	R407C	105	5	87	50	78	3,400
LQ2W40 ²	40.7	20 – 80 ³	R407C	120	7½	98	63	88	3,900

¹Cooling tons based on 12,000 BTU/Hr/ton with 50°F leaving coolant and 85°F condenser water

²Uses multiple compressors in one common refrigerant circuit

³Standard set point range is 20°F to 65°F for LQW35 & LQW40. To extend range to 20°F to 80°F the CPR valve option is required.

Pump Curves (60 Hz)



Unit MCA @ 460/3/60 with Optional Pumps

Pump	1½ HP	3 HP	3 HP 2-stage	5 HP	5 HP 2-Stage	7½ HP	10 HP
LQ2A08	21	23	23	26	26	29	---
LQ2A10	27	29	29	32	32	35	---
LQ2A14	41	43	43	46	46	50	---
LQ2A15	---	46	46	49	49	53	56
LQ2A20	---	53	53	56	56	59	62
LQ2A25	---	---	---	67	67	71	74
LQ2B08	26	29	29	32	32	35	---
LQ2B10	32	34	34	37	37	41	---
LQ2B14	47	49	49	52	52	56	---
LQ2B15	---	49	49	52	52	56	59
LQ2B20	---	56	56	59	59	62	65
LQ2B25	---	---	---	70	70	74	77
LQ2R08	17	20	20	23	23	26	---
LQ2R10	23	25	25	28	28	32	---
LQ2R15	---	40	40	43	43	47	53
LQ2R20	---	47	47	50	50	53	59
LQ2R25	---	---	---	61	61	65	68
LQ2R30	---	---	---	71	71	74	77
LQ2R35	---	---	---	78	78	81	84
LQ2R40	---	---	---	---	---	88	91
LQ2W08	17	20	20	23	23	26	---
LQ2W10	23	25	25	28	28	32	---
LQ2W15	---	40	40	43	43	47	50
LQ2W20	---	47	47	50	50	53	56
LQ2W25	---	---	---	61	61	65	68
LQ2W30	---	---	---	71	71	74	77
LQ2W35	---	---	---	78	78	81	84
LQ2W40	---	---	---	---	---	88	91



7720 North Lehigh Avenue
Niles, Illinois 60714-3491
Tel: (847) 966-2260
Toll Free: (888) 828-7387
Fax: (847) 966-9358

Email: info@thermalcare.com
Website: www.thermalcare.com

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