



10-ton Air-Cooled Chiller

Standard Features

Direct Drive Scroll Compressors

Direct drive hermetically sealed scroll compressors with proven performance in industrial cooling for reliable, low maintenance, and efficient operation.

Stainless Steel Evaporators

High-efficiency stainless steel plates with copper brazing provide maximum performance, long life, and an enhanced level of protection from harsh process conditions.

Stainless Steel Pump

Stainless steel pump selected for peak performance with the utmost in corrosion protection to ensure a long useful life under severe industrial conditions.

Nonferrous Reservoir and Water Lines

The insulated reservoir, fluid lines, pumps, and other components in the process fluid circuit will remain free of rust for maximum corrosion protection.

Evaporator Inlet Strainer

The evaporator inlet strainer removes any debris present in the process fluid to prevent costly downtime and repair due to a clogged chiller evaporator.

Wide Ambient Range

A wide range of indoor-duty air-cooled, water-cooled, or remote air-cooled condensers as well as outdoor air-cooled chillers fit a variety of applications.

Easy Access Cabinet

Heavy-gauge machine access doors with industrial grade tools-free latches provide quick access to all components for easy operation and maintenance.

Compressor Protection Technology

Our compressor protection technology uses start-to-start anti-recycle control logic to limit cycling under low-load operating conditions to extend compressor life.

Compressor and Pump Run Hour Displays

The ability to monitor compressor and pump running hours is an important tool to assist with scheduling maintenance.

Power Monitor

The main power monitoring system protects the chiller from extensive damage to the compressor and pump due to loss of phase or phase reversal in the main supply.

Reservoir Low Level Alarm

Indicates a low process fluid condition and protects the process pump and chiller from expensive damage caused by a critically low operating level in the reservoir.

Temperature Deviation Warnings and Alarms

A warning alerts the operator of a potential problem before a fault occurs and if the condition gets worse, an alarm stops the chiller to prevent damage.

Adjustable Deviation Alarm Time Delays

Allows for programming a start-up alarm time delay to deactivate the alarms long enough for the process loop to stabilize before activating the alarms.

High-Quality 24 VDC Power Supply

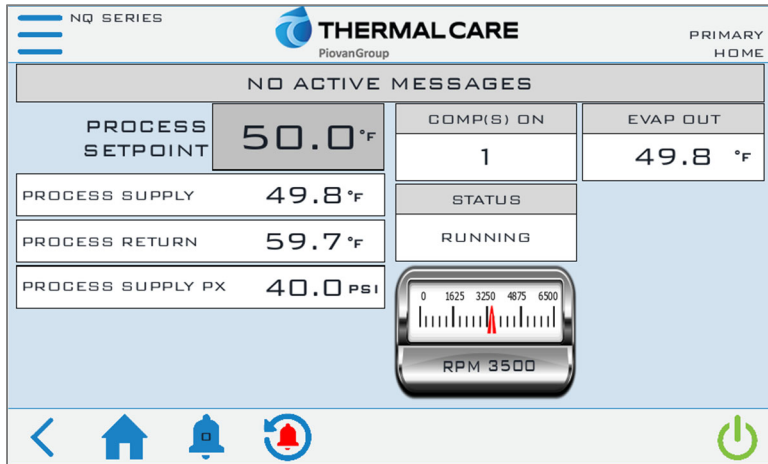
The 24-volt DC power supply ensures dependable control circuit power and isolates the control circuit from static interference to ensure stable and precise operation.

Warranty

18 months parts on entire unit
12 months labor

Accuchiller NQ Portable Chiller

7-Inch Color Touch Screen



Description of Functions	Standard Controls	Premium Controls
Display Parameters		
Process Fluid Supply and Return Temperatures	●	●
Evaporator Fluid Leaving Temperature	●	●
Process Fluid Supply Pressure	●	●
Compressor Running Hours	●	●
Pump Running Hours	●	●
Condenser Fan Running Hours	●	●
Refrigerant Suction Pressure	●	●
Refrigerant Suction Temperature & Superheat	-	●
Refrigerant Liquid Temperature & Subcooling	-	●
Refrigeration Discharge Pressure	-	●
Refrigerant Discharge Temperature	-	●
Alarms & Warnings		
High Process Fluid Temperature	●	●
Low Process Fluid Temperature	●	●
Evaporator Fluid Freeze	●	●
Evaporator Fluid Low Flow	●	●
Refrigerant High Pressure	●	●
Refrigerant Low Pressure	●	●
Compressor Overload	●	●
Pump Overload	●	●
Condenser Fan Overload	●	●
Reservoir Low Level	●	●
Communications & Remote Interfaces		
Process Fluid Supply Temperature (0-10 VDC)	●	●
Remote Start/Stop	●	●
Alarm Contact	●	●
CONNEX4.0 Ready	●	●
Modbus RTU	●	●
Modbus TCP/IP	-	●
BACnet MS/TP	-	○
BACnet/IP	-	○

● = standard, ○ = optional, - = not available

Available Options

- High flow/high pressure pumps
- High flow unit design
- Alarm horn
- Alarm relay
- Rotary non-fused or fused disconnect switch
- C-UL508A industrial control panel construction
- Outdoor-duty construction
- Extended condenser air range (0°F to 110°F) (-18°C to 43°C)
- High temperature condenser air (60°F to 122°F) (16°C to 50°C)
- Low temperature condenser air (-20°F to 110°F) (-29°C to 43°C)
- Wide temperature condenser air (0°F to 122°F) (-18°C to 50°C)
- Air-cooled condenser coating for coastal regions
- Pump and tank duct
- Oversized reservoirs
- Water circuit for use with de-ionized water
- Stainless steel cabinetry
- Automatic electric water make-up valve
- High pressure fans for ducting of discharge air
- Emergency stop button
- Remote HMI with 50 foot wire
- Special color paint

Accuchiller NQ Portable Chiller

Air-Cooled Condenser Chillers

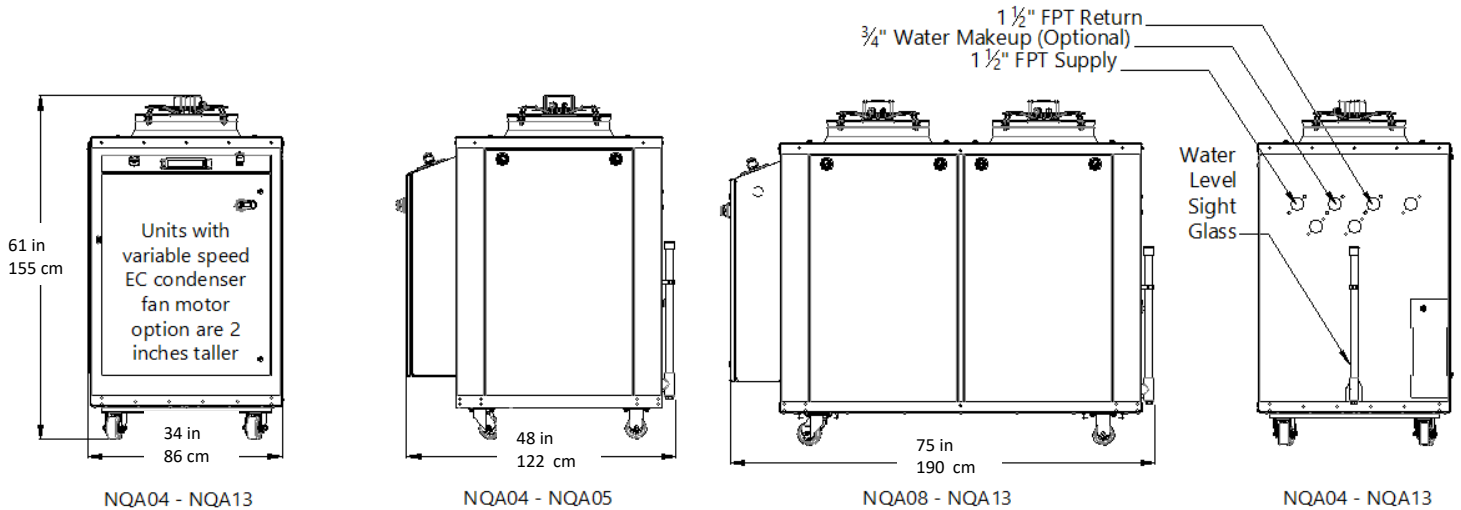
Model	NQA04	NQA05	NQA08	NQA10	NQA13	NQA15	NQA20	NQA25	NQA30
Cooling Capacity ¹	4 tons 14 kW	5 tons 18 kW	8 tons 28 kW	11 tons 39 kW	13 tons 46 kW	15 tons 53 kW	21 tons 74 kW	26 tons 91 kW	31 tons 109 kW
Set Point Range	20 to 80°F -7 to 27°C	20 to 80°F -7 to 27°C	20 to 80°F -7 to 27°C	20 to 80°F -7 to 27°C	20 to 80°F -7 to 27°C	20 to 80°F -7 to 27°C	20 to 80°F -7 to 27°C	20 to 80°F -7 to 27°C	20 to 80°F -7 to 27°C
Compressor (qty)	1	1	1	1	1	1	2	2	2
Sound Pressure @ 1 meter (dBA)	74	74	76	76	76	82	84	84	86
Pump Motor Size (hp)	2	2	2	3	3	3	5	5	5
Pump Flow	10 gpm 38 lpm	12 gpm 45 lpm	19 gpm 72 lpm	27 gpm 102 lpm	30 gpm 114 lpm	36 gpm 136 lpm	48 gpm 182 lpm	60 gpm 227 lpm	72 gpm 273 lpm
Net Available Pump Pressure ²	43 psi 3.0 bar	41 psi 2.8 bar	41 psi 2.8 bar	48 psi 3.3 bar	46 psi 3.2 bar	40 psi 2.8 bar	45 psi 3.1 bar	48 psi 3.3 bar	43 psi 3.0 bar
Reservoir Holding Capacity	14 gal 53 L	14 gal 53 L	30 gal 114 L	30 gal 114 L	30 gal 114 L	60 gal 227 L	60 gal 227 L	67 gal 254 L	67 gal 254 L
Shipping Weight	720 lbs 327 kg	720 lbs 327 kg	1,195 lbs 542 kg	1,195 lbs 542 kg	1,215 lbs 551 kg	3,200 lbs 1,452 kg	3,300 lbs 1,497 kg	3,800 lbs 1,724 kg	4,150 lbs 1,882 kg
Operating Weight	810 lbs 367 kg	810 lbs 367 kg	1,380 lbs 626 kg	1,380 lbs 626 kg	1,400 lbs 635 kg	3,535 lbs 1,603 kg	3,715 lbs 1,685 kg	4,360 lbs 1,978 kg	4,710 lbs 2,136 kg
MCA @ 460/3/60 (amps) ³	16	19	28	36	41	46	65	74	86
MOP @ 460/3/60 (amps) ⁴	25	30	45	60	70	80	90	100	125

¹Cooling tons based on 12,000 BTU/Hr/ton with 50°F (10°C) leaving coolant and 95°F (35°C) ambient air, R410A or R454B refrigerant.

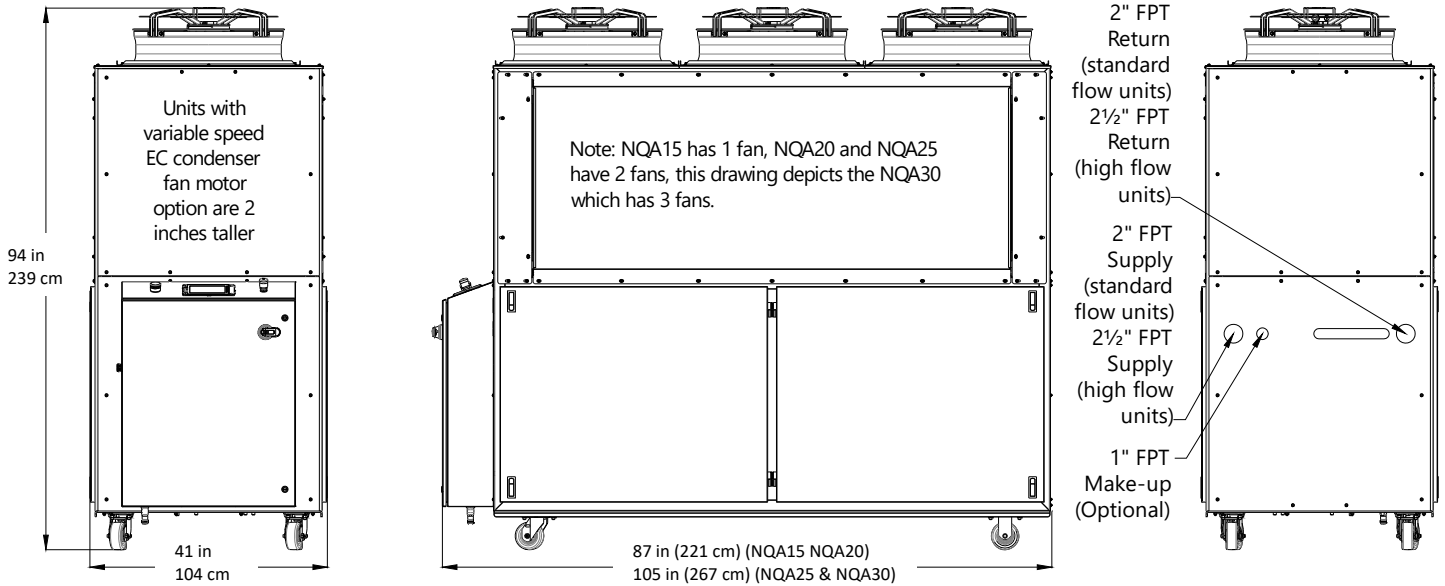
²Net available pressure at outlet of chiller is pump discharge pressure less the internal pressure loss through the fluid circuit.

³MCA is Minimum Circuit Amps with standard condenser fan(s) and pump under full load, used for minimum wire size requirement.

⁴MOP is Maximum Overcurrent Protection with standard condenser fans(s) and pump, used for sizing main power protection devices.



Accuchiller NQ Portable Chiller



Water-Cooled Condenser Chillers

Model	NQW05	NQW08	NQW10	NQW15	NQW20	NQW25	NQW30	NQW35	NQW40
Cooling Capacity ¹	6 tons 21 kW	8 tons 28 kW	12 tons 42 kW	17 tons 60 kW	23 tons 81 kW	28 tons 98 kW	33 tons 116 kW	38 tons 134 kW	43 tons 151 kW
Set Point Range	20 to 80°F -7 to 27°C	20 to 80°F -7 to 27°C	20 to 80°F -7 to 27°C	20 to 80°F -7 to 27°C	20 to 80°F -7 to 27°C	20 to 80°F -7 to 27°C	20 to 80°F -7 to 27°C	20 to 80°F -7 to 27°C	20 to 80°F -7 to 27°C
Compressor (qty)	1	1	1	1	2	2	2	2	2
Sound Pressure @ 1 meter (dBA)	70	70	71	73	74	74	75	77	78
Pump Motor Size (hp)	2	2	3	3	5	5	5	5	5
Pump Flow	13 gpm 49 lpm	20 gpm 76 lpm	29 gpm 110 lpm	39 gpm 148 lpm	54 gpm 204 lpm	67 gpm 254 lpm	79 gpm 299 lpm	92 gpm 348 lpm	102 gpm 386 lpm
Net Available Pump Pressure ²	40 psi 2.8 bar	40 psi 2.8 bar	46 psi 3.2 bar	35 psi 2.4 bar	41 psi 2.8 bar	44 psi 3.0 bar	39 psi 2.7 bar	38 psi 2.6 bar	34 psi 2.3 bar
Reservoir Holding Capacity	14 gal 53 L	30 gal 114 L	30 gal 114 L	30 gal 114 L	60 gal 227 L	60 gal 227 L	67 gal 254 L	67 gal 254 L	67 gal 254 L
Shipping Weight	720 lbs 327 kg	1,195 lbs 542 kg	1,195 lbs 542 kg	1,315 lbs 597 kg	1,900 lbs 862 kg	2,100 lbs 953 kg	2,250 lbs 1,021 kg	3,400 lbs 1,542 kg	3,900 lbs 1,769 kg
Operating Weight	810 lbs 367 kg	1,380 lbs 626 kg	1,380 lbs 626 kg	1,500 lbs 680 kg	2,315 lbs 1,050 kg	2,515 lbs 1,141 kg	2,810 lbs 1,275 kg	3,960 lbs 1,796 kg	4,460 lbs 2,023 kg
MCA @ 460/3/60 (amps) ³	17	25	32	41	56	65	72	74	90
MOP @ 460/3/60 (amps) ⁴	30	45	60	70	80	100	100	110	150

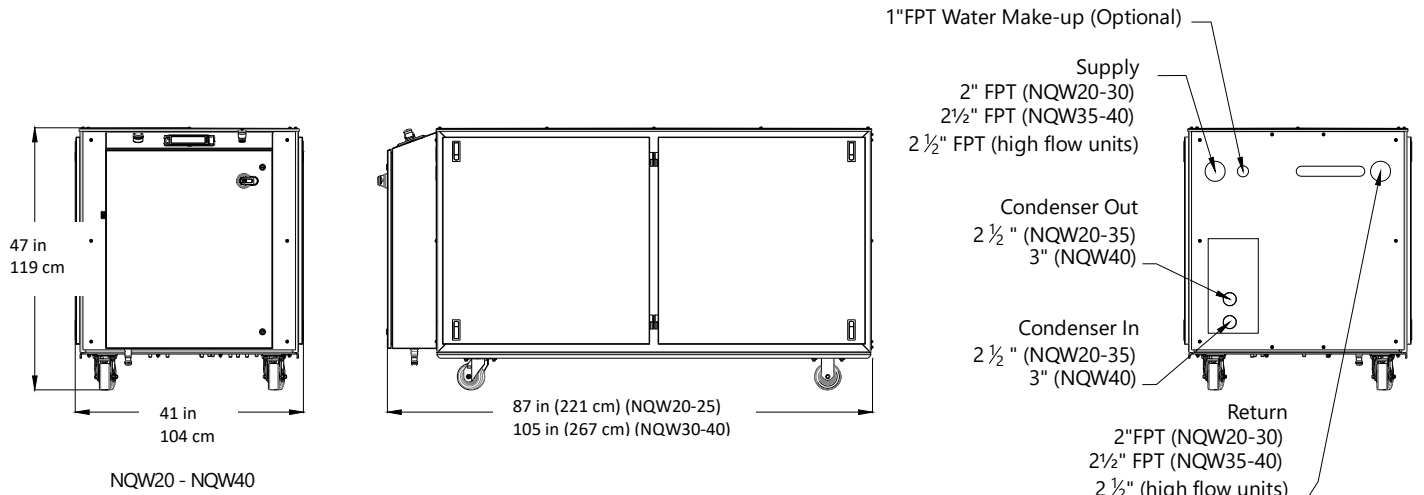
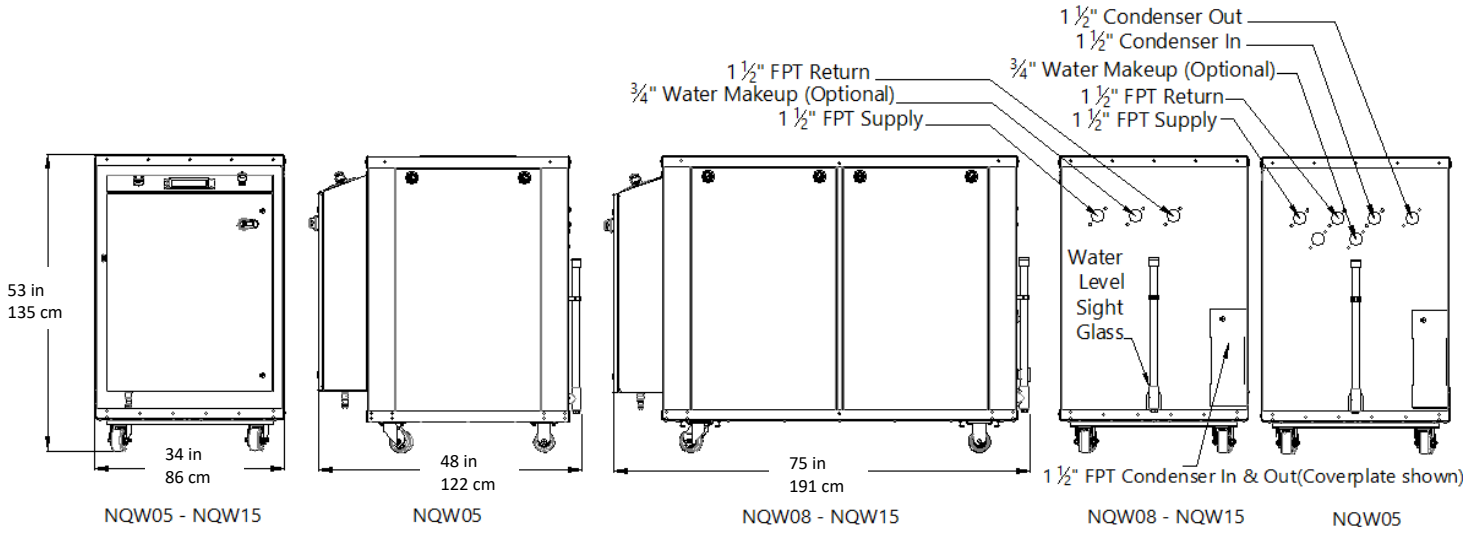
¹Cooling tons based on 12,000 BTU/Hr/ton with 50°F (10°C) leaving coolant and 85°F (29°C) condenser water, R410A or R454B refrigerant.

²Net available pressure at outlet of chiller is pump discharge pressure less the internal pressure loss through the fluid circuit.

³MCA is Minimum Circuit Amps with standard pump under full load, used for minimum wire size requirement.

⁴MOP is Maximum Overcurrent Protection with standard pump, used for sizing main power protection device.

Accuchiller NQ Portable Chiller



Accuchiller NQ Portable Chiller

Remote Air-Cooled Condenser Chillers

Model	NQR05	NQR08	NQR10	NQR15	NQR20	NQR25	NQR30	NQR35	NQR40
Cooling Capacity ¹	5 tons 18 kW	8 tons 28 kW	11 tons 39 kW	15 tons 53 kW	21 tons 74 kW	26 tons 91 kW	31 tons 109 kW	35 tons 123 kW	40 tons 141 kW
Set Point Range	20 to 80°F -7 to 27°C	20 to 80°F -7 to 27°C	20 to 80°F -7 to 27°C	20 to 80°F -7 to 27°C	20 to 80°F -7 to 27°C	20 to 80°F -7 to 27°C	20 to 80°F -7 to 27°C	20 to 80°F -7 to 27°C	20 to 80°F -7 to 27°C
Compressor (qty)	1	1	1	1	2	2	2	2	2
Sound Pressure @ 1 meter (dBA) ²	70	70	71	73	74	74	75	77	78
Pump Motor Size (hp)	2	2	3	3	5	5	5	5	5
Pump Flow	13 gpm 49 lpm	18 gpm 68 lpm	27 gpm 102 lpm	36 gpm 136 lpm	50 gpm 189 lpm	61 gpm 231 lpm	73 gpm 276 lpm	83 gpm 314 lpm	92 gpm 348 lpm
Net Available Pump Pressure ³	40 psi 2.8 bar	41 psi 2.8 bar	48 psi 3.3 bar	40 psi 2.8 bar	44 psi 3.0 bar	47 psi 3.2 bar	43 psi 2.9 bar	42 psi 2.9 bar	40 psi 2.8 bar
Reservoir Holding Capacity	14 gal 53 L	30 gal 114 L	30 gal 114 L	30 gal 114 L	60 gal 227 L	60 gal 227 L	67 gal 254 L	67 gal 254 L	67 gal 254 L
Shipping Weight	720 lbs 327 kg	1,195 lbs 542 kg	1,195 lbs 542 kg	1,315 lbs 597 kg	1,900 lbs 862 kg	2,100 lbs 953 kg	2,250 lbs 1,021 kg	3,400 lbs 1,542 kg	3,900 lbs 1,769 kg
Operating Weight (lbs)	810 lbs 367 kg	1,380 lbs 626 kg	1,380 lbs 626 kg	1,500 lbs 680 kg	2,315 lbs 1,050 kg	2,515 lbs 1,141 kg	2,810 lbs 1,275 kg	3,960 lbs 1,796 kg	4,460 lbs 2,023 kg
MCA @ 460/3/60 (amps) ⁴	17	25	32	41	56	65	72	74	90
MOP @ 460/3/60 (amps) ⁵	30	45	60	70	80	100	100	110	150

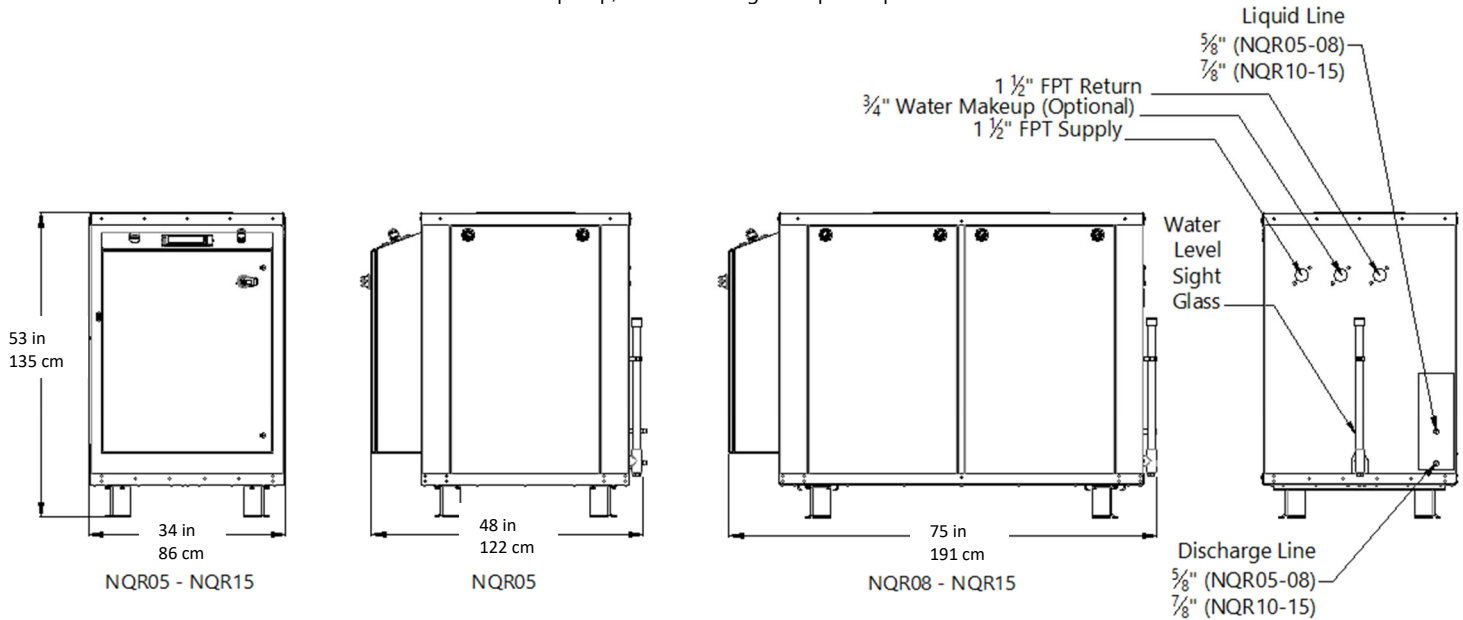
¹Cooling tons based on 12,000 BTU/Hr/ton with 50°F (10°C) leaving coolant and 95°F (35°C) ambient air, R410A or R454B refrigerant.

²Sound pressure is for the chiller unit only. See the Remote Air-Cooled Condenser table for remote condenser sound pressures.

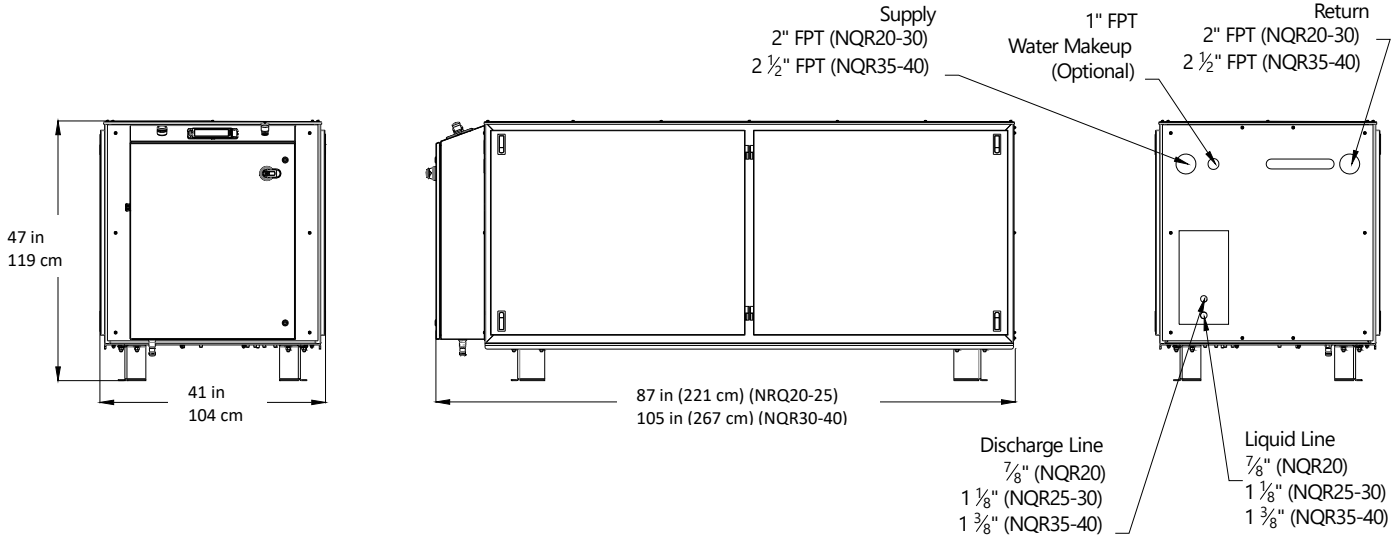
³Net available pressure at outlet of chiller is pump discharge pressure less the internal pressure loss through the fluid circuit.

⁴MCA is Minimum Circuit Amps with standard pump under full load, used for minimum wire size requirement.

⁵MOP is Maximum Overcurrent Protection with standard pump, used for sizing main power protection device.



Accuchiller NQ Portable Chiller

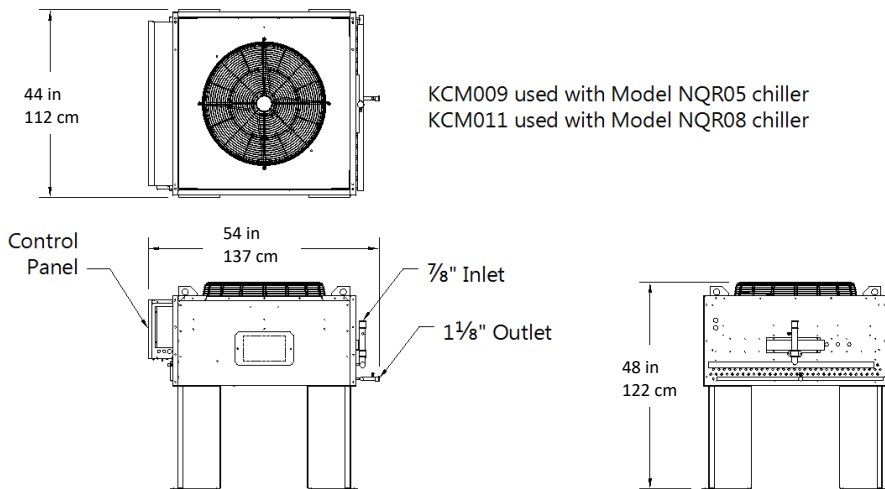


Remote Air-Cooled Condensers

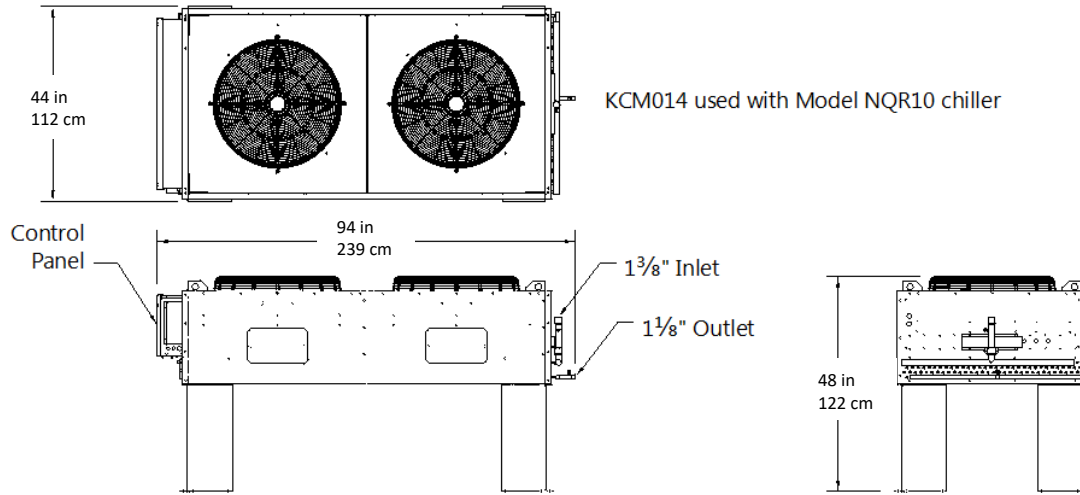
Condenser Model	KCM009	KCM011	KCM014	KCL023	KCL030	KCL037	KCL045	KCL054	KCL056
Chiller Used With	NQR05	NQR08	NQR10	NQR15	NQR20	NQR25	NQR30	NQR35	NQR40
Fans (qty)	1	1	2	2	2	2	3	3	3
Shipping Weight	245 lbs 111 kg	265 lbs 120 kg	415 lbs 188 kg	680 lbs 308 kg	720 lbs 327 kg	1,050 lbs 476 kg	1,075 lbs 488 kg	1,175 lbs 533 kg	1,450 lbs 658 kg
Operating Weight (lbs)	Varies based on system charge and operating conditions								
MCA @ 460/3/60 (amps) ¹	1.4	1.4	2.6	7	7	7	10.1	10.1	10.1
MOP @ 460/3/60 (amps) ²	15	15	15	15	15	15	15	15	15

¹MCA is Minimum Circuit Amps, used for minimum wire size requirement.

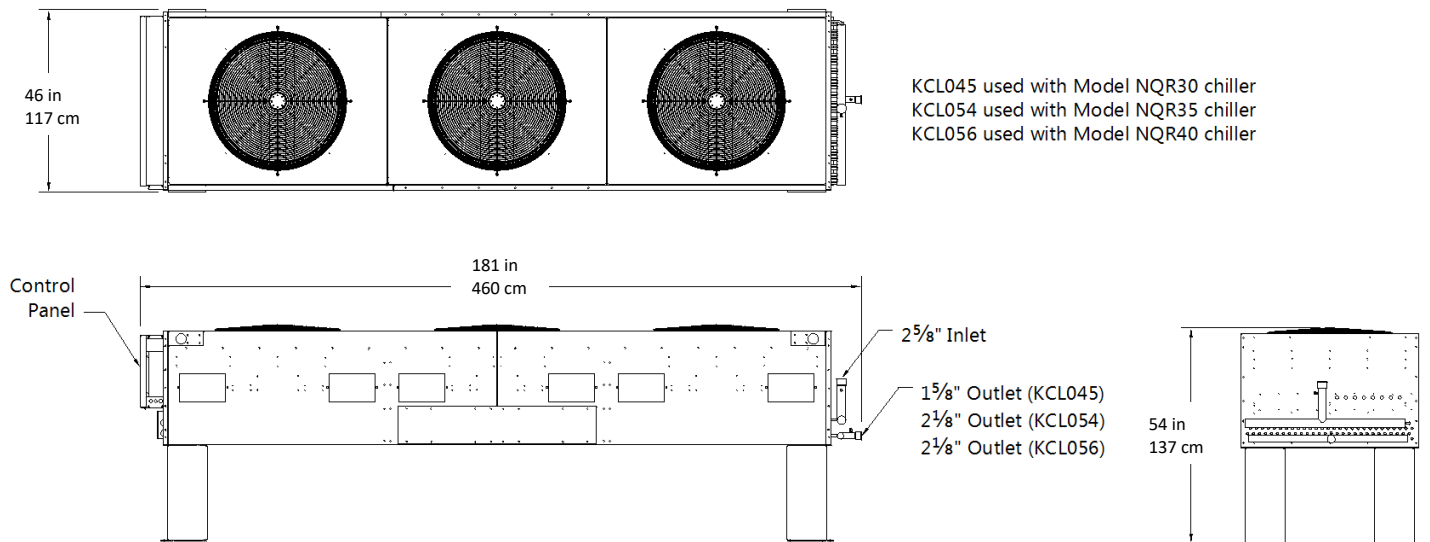
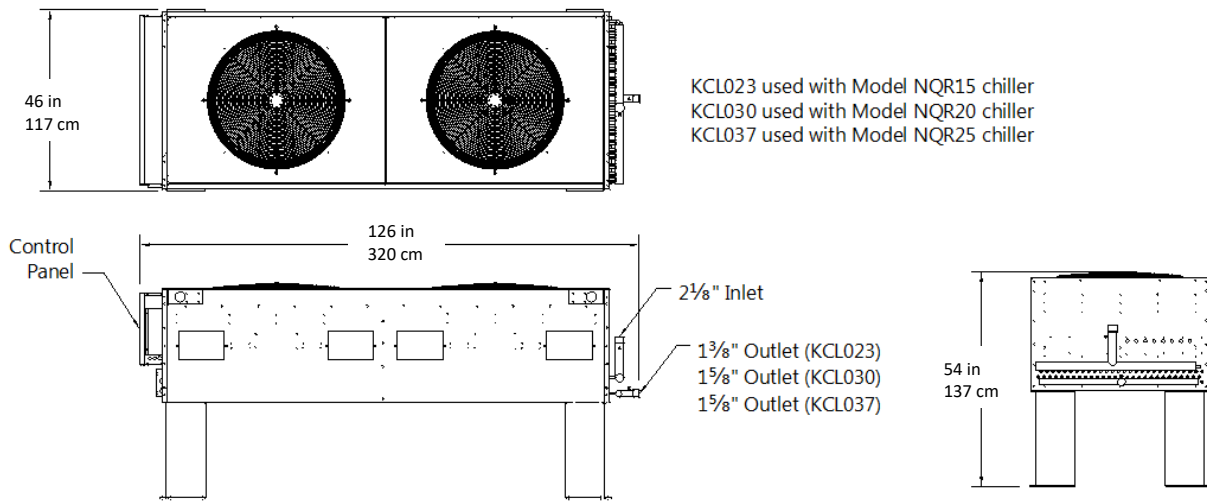
²MOP is Maximum Overcurrent Protection, used for sizing main power protection device.



Accuchiller NQ Portable Chiller



Accuchiller NQ Portable Chiller



Piovan Group

5680 W. Jarvis Ave • Niles, IL 60714
847.966.2260 • sales@thermalcare.com
www.thermalcare.com
January 2024

Thermal Care is ISO 9001 Certified
Manufacturer reserve the right to change specification
or design without notification or obligation
NQ Specification 12