



Specifications

BC-N4 Series Outdoor Air-Cooled Glycol Chillers 5, 7 1/2 & 10 Horsepower

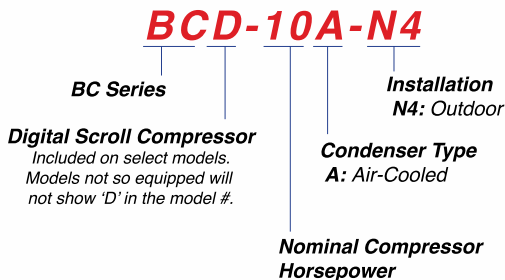
| MODEL | BC / BCD ¹ | 5A | 7.5A | 10A |
|---|-----------------------|------------|------------|------------|
| COMPRESSOR | HP | 5 | 7 1/2 | 10 |
| | Type ² | DSC | SC | DSC |
| CAPACITY @ 25°F (LFT) | BTH ³ | 30,283 | 45,083 | 59,683 |
| REFRIGERANT | Type | 410A | 410A | 410A |
| PROCESS PUMP <small>(stainless steel, centrifugal)</small> | HP | 2 | 2 | 2 |
| | GPM | 12 | 18 | 24 |
| | PSI | 52 | 50 | 48 |
| CONNECTION SIZES | Process (To/From) | 1 1/4" NPT | 1 1/4" NPT | 1 1/4" NPT |
| AIR-COOLED | Type ⁴ | F | F | F |
| CONDENSER | CFM x 1000 | 5 | 10 | 10 |
| | Ambient ⁵ | 95 | 95 | 95 |
| FULL LOAD ⁷ | 230/1/60 ⁶ | 50 | C/F | C/F |
| AMPERAGE | 230 volt | 34 | 60 | 56 |
| | 460 volt | 17 | 30 | 28 |
| | 575 volt | 14 | 19 | 23 |
| TANK CAPACITY <small>(gallons)</small> | Holding | 60 | 80 | 80 |
| | Tank Lid ⁸ | S | S | S |
| DIMENSIONS <small>(inches)</small> | Height | 61 | 61 | 61 |
| | Width | 34 | 34 | 34 |
| | Depth | 60 | 81 | 81 |
| WEIGHT <small>(pounds)</small> | Shipping ⁹ | 1,200 | 1,500 | 1,600 |

Notes

1. BC = units with fixed displacement scroll compressors. BCD = models with digital scroll compressors.
2. SC = hermetic scroll. DSC = Copeland Digital Scroll™.
3. BTH capacity at 12,000 Btu/hr/ton @ 25°F LFT. The minimum recommended operating temperature when no glycol is used is 48°F.
4. F = fan.
5. 95°F design ambient conditions. Loss of capacity and/or difficulty operating will occur at higher ambient.
6. Single phase, 5 HP. Not available with digital compressor. Change model to BC-5A-N4. Consult factory for single phase 7.5 & 10 HP models.
7. Full load amps are higher than run load amps and must be used for sizing disconnects and supply wiring.
8. S = standard.
9. Approximate unit weight crated for shipment.

Since product innovation and improvement is our constant goal, all features and specifications are subject to change without notice or liability. Selection of certain optional features may change listed specifications.

Model Designator for BC-N4 Series Glycol Chillers



Standard Features

CONSTRUCTION:

- Powder coated and galvanized steel frame with outdoor rated electrical enclosure

REFRIGERANT CIRCUIT:

- Hermetic scroll compressor
- Finned tube air-cooled condensers with fan generated air flow
- Refrigerant sight glass with moisture indicator
- Thermostatic expansion valve
- Microprocessor controlled 50% hot gas by-pass capacity control system (7½ HP)
- Microprocessor controlled 20-100% energy saving capacity modulation with Digital Scroll compressor on 5 & 10 HP models.
- Stainless steel brazed plate evaporator
- Filter-drier
- Liquid line solenoid valve

PRESSURE GAUGES:

- Refrigerant high pressure
- Refrigerant low pressure
- Coolant pressure gauge

COOLANT CIRCUIT:

- High flow stainless steel centrifugal pump
- Large capacity insulated non-ferrous reservoir
- Reservoir level sight tube
- Standard NPT process fittings
- Automatic low flow bypass circuit
- Manual fluid make-up.

LIMIT DEVICES:

- High refrigerant pressure
- Low refrigerant pressure
- Refrigerant pressure relief valve
- Process pump motor overload
- Instrument control circuit fuse

ELECTRICAL:

- Outdoor rated electrical enclosure
- Process pump motor starter
- UL508A enclosed electrical panel
- Compressor contactor
- Fused transformer
- Power entry terminal block
- 5 kA RMS SSCR

CHILLER CONTROLS:

- Remote mounted microprocessor control instrument with 50' cable.

SUPPORT:

- Equipment selection assistance - standard
- Facility pipe sizing & routing drawings - standard
- Quick online selection tool
(www.advantageengineering.com/BC)
- Quick online pricing available 24 - 7
(www.advantageengineering.com)
- System start up assistance and training - optional

WARRANTY:

- 1 Year covering parts and labor
- Free preventative maintenance check in the 2nd year
- 4 Years covering the control instrument



Options

COOLANT CIRCUIT • Overhead piping kit - prevents tank overflow when overhead piping is used • Process line shut-off valves • Larger process pump

ALARMS • Audible alarm • Visual / audible alarm beacon

WARRANTY • Extended compressor warranty

ELECTRICAL • Fused or non-fused power disconnect



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