Variable-Speed Compressor; Modular Expandable System

ECW Series Central Chillers are designed for cooling applications between 30 and 240 tons. They are modular and easily expandable for up to 1,400 tons, using up to six chillers and twelve refrigeration circuits. A choice of single or multiple refrigerant circuits allow for dedicated loads or redundancy and backup for critical processes.

These chillers are designed to work in a system. At any point before or after installation, you can link a control panel for up to six chillers with up to twelve total refrigeration circuits.

Model ECW
with optional 12-inch touch screen

Capacities From 30 to 240 Tons; Turbocor® Variable Speed Technology

The Conair ECW Central Chillers provide up to 1,400 tons of cooling capacity in technology-driven design, that offers an integrated variable speed drive motor control. A 7-inch high-resolution color touch screen clearly shows chiller operation for easy monitoring and control of the system.

Energy usage is lowered, and maintenance is simple due to oil-free operation. This eliminates an oil management system, potential for oil contamination of refrigerant, and compressor failure due to oil contamination. It also can save up to 40% in annual operating costs due to lower energy requirements when compared to screw-type compressors.

As your process grows, you don't need to replace the whole machine - you can add new ECW Chillers to the line, and keep them all controllable from a single unit. An integrated PLC control is designed to expand with your system.

- **Variable-speed compressor**
  Direct-drive variable-speed centrifugal compressor technology continuously adjusts the speed to match the load. This significantly reduces energy use and operating costs, while extending the life of the chiller.
- **Resilient construction and simple installation**
  ECW Chillers are built in an ISO 9001-certified facility using the highest quality materials available. Magnetic "friction-free" bearings are used to extend equipment life. Oil-free operation reduces potential for contamination of the refrigerant, and compressor failure. The chiller is factory wired and piped, ready to be connected and activated upon arrival. Components are easy to access thanks to the multi-leveled galvanized steel frame.
- **Soft-start with low noise operation**
  The variable-speed drive in the ECW Chillers limits soft-starts to 2 amps inrush current per compressor. This reduces peak energy demand and extends compressor motor life. The magnetic bearings used maintain the perfect drive shaft position under high-speed operation, keeping noise levels as low as 72 dBA.
- **Compact and expandable**
  The ECW single circuit chillers up to 90 tons are compact and easily fit through a standard 36-inch wide door. Easy for maneuvering and tight installations. The modular system provides expansion up to 1,400 tons using up to six chillers and twelve refrigeration circuits. Single circuit chillers are perfect for dedicated loads. Multiple-circuit chillers are available for redundancy and back up to critical processes.
- **Safe and reliable operation**
  Every ECW chiller has a UL label certifying the panel design and components comply with UL 508A standards.

Specifications Water-Cooled Single-Circuit Chiller 60 Hz

Model	ECW300C	ECW300E	ECW300J	ECW300M	ECW350Q	ECW350S
Performance characteristics						
Cooling capacity range* tons	30 to 90	30 to 90	30 to 90	30 to 90	40 to 120	40 to 120
Setpoint range °F {°C}	40 to 75 {4.4 to 23.9}					
Compressors (qty)	1					
Process water in/out flange inches	3		4			
Condenser water in/out flange inches	4					
Dimensions, weights, amps (chiller only)						
A - Length inches {mm}	118 {2997}		120 {3048}		141 {3581}	145 {3683}
B - Width inches {mm}	29 {737}				37 {940}	
C - Height inches {mm}	77 {1956}				75 {1905}	
Shipping weight lbs {kg}	1800 {817}	1900 {862}	2100 {953}	2400 {1089}	2774 {1258}	2825 {1281}
Operating weight lbs {kg}	2000 {907}	2100 {953}	2300 {1043}	2600 {1179}	3071 {1393}	3208 {1455}
MCA @ 460/3/60†† amps	104		129	154	229	
MOP @ 460/3/60†† amps	175		225	250	400	

Specifications Water-Cooled Dual-Circuit Chiller 60 Hz

Model	ECW600C	ECW600E	ECW600J	ECW600M	ECW700Q	ECW700S
Performance characteristics						
Cooling capacity range* tons	30 to 180	30 to 180	30 to 180	30 to 180	40 to 240	40 to 240
Setpoint range °F {°C}	40 to 75 {4.4 to 23.9}					
Compressors (qty)	2					
Process water in/out flange inches	4		6			
Condenser water in/out flange inches	6					
Dimensions, weights, amps (chiller only)						
A - Length inches {mm}	124 {3150}			126 {3200}	139 {3531}	164 {4166}
B - Width inches {mm}	54 {1372}				73 {1854}	
C - Height inches {mm}	77 {1956}				63 {1600}	
Shipping weight lbs {kg}	3700 {1678}	3800 {1723}	4100 {1860}	4700 {2183}	5548 {2517}	5650 {2563}
Operating weight lbs {kg}	4000 {1814}	4200 {1905}	4600 {2087}	5200 {2359}	6588 {2988}	6863 {3113}
MCA @ 460/3/60†† amps	184		229	274	409	
MOP @ 460/3/60†† amps	250		300	350	500	

Specification Notes

* Cooling capacity when cooling water with 50°F set point, 60°F return, 85°F condenser water, R-134a refrigerant.

† MCA is minimum circuit ampacity (for wire sizing).

†† MCA is minimum circuit ampacity (for wire sizing). MOP is maximum overcurrent protection, used for sizing main power protection device.

Operating weight varies based on system refrigeration charge and operating conditions.

Specifications may change without notice. Check with a Conair representative for the most current information.