

# DOMETIC VARIABLE CAPACITY CHILLER

## Smoothly adjusts BTUs as needed



Maximize chiller efficiency and reduce electrical load fluctuations with Dometic's innovative Variable Capacity Chiller (VARC). At full speed, the VARC provides its maximum output of cooling or heating. It also has the ability to modulate its speed in order to precisely match demand.

Other chillers use a basic all-on or all-off method for water-loop temperature control, continuously starting and stopping which greatly changes the load on the generator. By precisely balancing output to load, the swing (hysteresis) in loop water temperature is minimized. The VARC uses a precision PID (proportional integral derivative) loop control algorithm that modulates the compressor speed and balances chiller output with required load. This smooth operation eliminates large swings in current on the generator.

The VARC uses the advanced technology of an Electronic Expansion Valve (EEV). This provides more precise control of superheat across a broad range of conditions with no erratic swings as the valve reacts to temperature and pressure changes (no "hunting"). Using an advanced algorithm, superior superheat control is maintained over extreme operating conditions.

The innovative design of plumbing connections improves ease of installation and maintenance. All connections come straight out of the unit to simplify the manifold and minimize the final installation depth while also presenting clean and professional plumbing connections.

An optional high-resolution color touchscreen provides a dynamic interface and improved system metrics and control. Access detailed, complex system information from a single location and interact accordingly.

### KEY BENEFITS

- Variable capacity increases or decreases BTUs as thermal load changes
- Compact footprint
- Operates steadily at lower speeds to provide maximum efficiency
- Select from 3 user-adjustable amp limits: Econo, Standard, or Boost
- Electronic expansion valve for precise control of superheat
- Easy, flexible plumbing configurations with less depth needed
- The VARC72 has a remote mountable electric box (up to 5 ft/1.5 m) with two mounting positions on the unit
- The VARC72 has built-in lifting handles

### SPECIAL OPTIONS

- High-resolution, interactive touchscreen display
- Dometic STIIC software provides interactive management via smart phone, tablet, or computer
- Dometic STIIC software provides secure access from Dometic global technical support



Built-in variable frequency drive.



Integrated digital chiller control/display.



Electronic expansion valve for precise control of superheat.



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# VARIABLE CAPACITY CHILLER

DometicVARC48/72

## SPECIFICATIONS

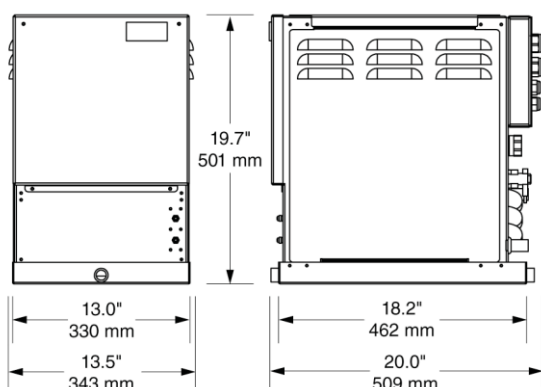
Model	VARC 48	VARC 72
Capacity (BTU/h)	48,000	72,000
Voltage/Cycle/Ph	208-230V/50 or 60Hz/1 Ph	208-230V/50 or 60Hz/1 Ph
Full Load Amps (FLA) Cool	15.9 <sup>(1)</sup>	22.0 <sup>(2)</sup>
Full Load Amps (FLA) Heat	17.0 <sup>(1)</sup>	14.0 <sup>(2)</sup>
Seawater Connection	7/8 in. OD tube	1 in. OD tube
Chilled Water Connection	1 in. FPT	1 in. FPT
Drain Connection	1/2 in. NPT	1/2 in. NPT
Seawater Pressure Drop @ 12 GPM	7.1 PSI	7.0 PSI
Chilled Water Pressure Drop @ 12 GPM	11.8 PSI	11.5 PSI
Gross Weight (lbs/kg)	205/92.9	270/122.4

<sup>1</sup> At full speed and 230V/50 or 60Hz/1-phase input power.

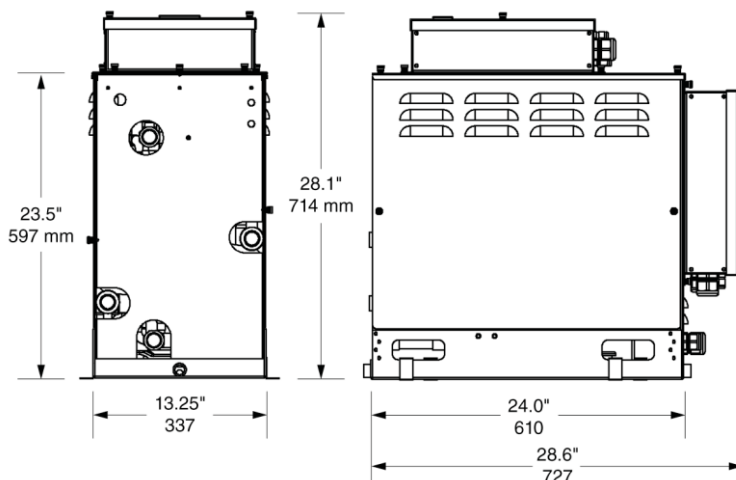
<sup>2</sup> FLA amps are in normal mode default setting.

## DIMENSIONS

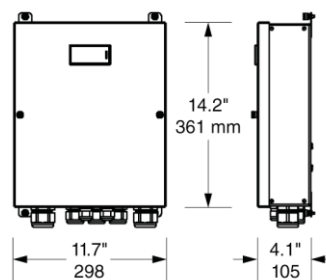
VARC 48



VARC 72



VARC 72 Electrical Box



All dimensions ± 0.25 in.a



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Specifications and availability subject to change without notice.

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