

# CTI CRYOGENICS® ON-BOARD® /S-1000 AND /S-2000V COMPRESSORS

[edwardsvacuum.com](http://edwardsvacuum.com)

The On-Board® /S-1000 and /S-2000V compressors support new and existing On-Board® /S Cryopump applications. They leverage proven On-Board® /S technology: intelligent system controls, cryopump solution integration, robust electronics and software. Like the rest of our range, they enable multiple pump configurations with the most efficient and cost-effective helium management solution.

The On-Board® /S-1000 and /S-2000V Compressors meet process engineers' demands for improved performance, greater energy efficiency, lower energy costs and design flexibility. Both compressors support multiple On-Board® /S cryopumps (up to five cryopumps for one /S-1000 and up to ten cryopumps for one /S-2000V), enabling their high vacuum performances by providing optimal helium management. /S-1000 is the standard compressor for multiple On-Board® /S cryopumps system for a lower price while /S-2000V is the premium compressor that, on top of all the /S-1000 advantages, provides the highest energy efficiency in the industry hence lowering the cost of ownership.

Edwards provides the answer to industry demands for greater efficiency and sustainable operations<sup>1</sup>. /S-2000V reduces energy consumption by more than 20% and the thermal load on facility cooling water by 40% compared to /S-1000.

/S-2000V features design refinements resulting in adaptable helium output and fault-tolerant operation. Variable speed operation enables dramatic power savings while the compressor runs at more efficient and higher pressures to optimise the helium output.

<sup>1</sup>/S-2000V aligns with the energy reduction objectives associated with SEMI Standard S23 (Guide for Conservation of Energy, Utilities and Materials Used by Semiconductor Manufacturing Equipment), and is compliant with the RoHS (Restriction of Hazardous Substances) directive.



## Features and benefits

### /S-1000 and /S-2000V Advantages:

- High Efficiency, Intelligent Compressors
  - Higher pressures deliver more Helium per kW input power
  - Embedded sensors provide new diagnostic capabilities

### /S-2000V Offers Even Lower Cost of Ownership:

- Highest energy efficiency – variable speed increases cooling capacity and reduces energy costs by at least 20%
- Single compressor solution – one /S-2000V will support up to 10 cryopumps
- Smaller footprint
- Lower thermal load – cooling water load is reduced by approximately 40%
- Fault-tolerant operation – designed to minimise operational downtime and send alerts

### On-Board® /S Benefits

- Proven reliability and operational life
- Increased tool availability for higher productivity
- Intelligent cryopumping solution to maximise pump efficiency
- Optimal helium management and power savings
- Global rapid response teams

## On-Board® *IS-1000* and *IS-2000V* Compressor Installation Specs

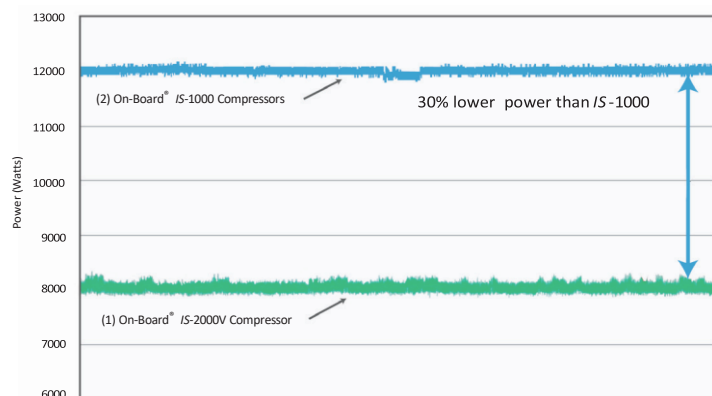
	<sup>(2)</sup> <i>IS-1000s</i>		<sup>(1)</sup> <i>IS-2000V</i>	
	Low Voltage	High Voltage	Low Voltage	High Voltage
<b>Electrical Supply</b>	3 Phase 200/230 V 50/60 Hz	3 Phase 380/480 V 50/60 Hz	3 Phase 200/230 V 50/60 Hz	3 Phase 380/480 V 50/60 Hz
<b>Electrical Service</b>	<sup>(2)</sup> Circuit Breakers		Single Circuit Breaker	
<b>Rated Full Load</b>	2 x 19 Amp	2 x 10 Amp	41 Amp	25 Amp
<b>Locked Rotor Current</b>	2 x 85 Amp	2 x 42 Amp	170 Amp	85 Amp
<b>Input Circuit Breaker</b>	2 x 25 Amp	2 x 15 Amp	60 Amp	35 Amp
<b>Cooling Water (Inlet)<sup>1</sup></b>	3.0 to 8.0 GPM 10° to 32°C (50° to 90°F)		3.0 to 4.0 GPM 10° to 32°C (50° to 90°F)	
<b>Ambient Temperature</b>	10° to 38°C (50° to 100°F)		10° to 38°C (50° to 100°F)	
<b>Dimensions (W x D x H)<sup>2</sup></b>	1,036 x 577 x 665 mm (40.8 x 22.7 x 26.2 in)		518 x 686 x 1481 mm (20.4 x 27.0 x 58.3 in)	
<b>Weight<sup>1</sup></b>	190 kg (420 lbs)	204 kg (444 lbs)	250 kg (550 lbs)	261 kg (575 lbs)

<sup>1</sup>Cooling Water and weight are for (2) *IS-1000* compressors

<sup>2</sup>Height dimension includes caster wheels (78mm / 3.1 inches for each *IS-1000* and 138mm / 5.4 inches for the *IS-2000V*)

## 30% Power Savings Over *IS-1000*

Demonstrated Energy Reduction by Large End-user.  
On-Board® *IS-2000V* Compressor Power Consumption.



The *IS-2000V* offers 30% lower power consumption than the *IS-1000*.

Edwards continually updates its products to match the evolving needs of the semiconductor industry and any specifications given here are subject to change without notice.

## Official Distributor in Australia



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