

iS

For scientific applications

The future of refrigeration control
solutions in science

iJS for scientific applications

iJS was created to equip the best OEM machines, offering a new platform with CAREL's extensive know-how on electronic controls. A dedicated usability design and specific options to ensure top-level reliability and performance, combined with a comprehensive IoT offer, make iJS the best choice for the scientific refrigeration sector.

New historical data storage function: goodbye manual management

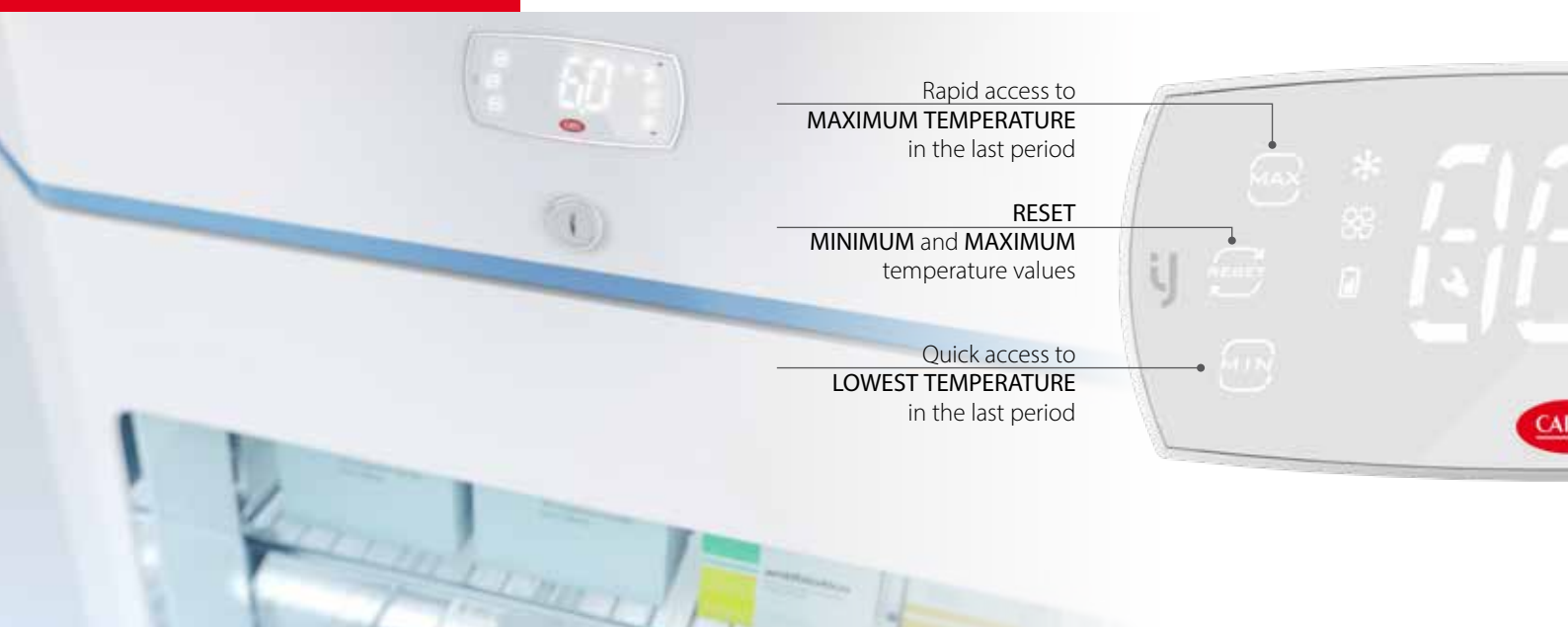
- maximum and minimum temperature automatically historicised
- historical blackout events and alarms always available and ready for export
- up to 5 months of historical details stored in iJS memory.

iJS is the new CAREL control platform designed for scientific applications. It builds on CAREL's extensive know-how in the professional and commercial refrigeration market, expanding its offer with significant technological developments.

Numerous functions are dedicated to scientific applications to ensure maximum final solution stability.

Various integrated options are also available to improve energy efficiency, storage quality and reduce the environmental impact of the unit operation.

iJS makes connectivity one of its winning cards with the integrated NFC and Bluetooth antennas for interaction with local apps and the ability to interface with dedicated cloud portals via Carel gateways thanks to the on-board RS485 port.



Usability

Dedicated keyboard to simplify everyday interactions. Enhanced user experience through the use of specific apps.



Reliability

Extreme reliability thanks to the integrated battery module to ensure temperature monitoring even during power outages.



Features

Dedicated logics for managing specific technical solutions for applications operating at ultra-low temperature (<-50°C).



Freezers

Refrigerators



Ultra-low temperature freezers

System reliability under all conditions

IJS is the ideal solution to achieve energy efficiency and reliability targets for refrigerated units. IJS, within the IJ product platform, stands out thanks to dedicated functionality for scientific applications, such as:

- **Dedicated simple and intuitive keyboard** to complete daily operations as required by the regulations
- **Bluetooth connectivity** for fast history exporting
- Monitoring of temperature, blackout events and alarm list
- **Integrated battery backup** that keeps the IJS control active even during a power failure to ensure temperature monitoring under all conditions
- **UltraLowTemperature ready** with logic for managing cascade circuits and related alarms, as well as compatibility with specific probes for $<-50^{\circ}\text{C}$ applications.



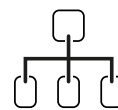
Quick and easy adoption of VCC solutions



Modulating load control



Accurate humidity control



Direct BMS connection



Integrated battery backup port



Local and remote connectivity

IJS revolutionises the way people interact with refrigerated units, simplifying user experience with **dedicated connectivity**:

- **NFC and Bluetooth** for local interaction via the dedicated apps Apply and Control
- **BMS gateway** that thanks to its direct connection to CAREL gateways allows extended control of units in the field thanks to dedicated web portals that can be accessed from PCs and smartphones 24/7.



APPLICA
For service







CONTROLLA
For end users





Cloudgate
up to 10 devices



Available versions

Characteristics	small		large	
Model	Panel mounting 	Split 	Panel mounting 	Split 
	all in one	stand-alone operation or coupled with HMI small	all in one	stand-alone operation or coupled with HMI small or large
Power supply	100-240 Vac			
Display	Up to 6 customisable buttons	-	Up to 8 customisable buttons	-
Analogue inputs	up to 2 temperature probes		up to 3 temperature probes	
Digital inputs	1 multifunctional temperature probe; 1 voltage-free contact			
Digital outputs	Up to 4 relays		Up to 6 relays	
Connectivity	NFC, Bluetooth, RS485			
Extra (mutually exclusive) functionality	Serial VCC			
	Modulating load control			
	Humidity management			
	Backup battery NEW			

Optional user interface for SPLIT versions

Characteristics	small	large
Model	HMI 	HMI 
	display only	
Power supply	12 Vdc (supplied by the control unit)	
Analogue inputs	-	1 temperature probe
Digital inputs	1 multifunctional probe	1 multifunctional probe; 1 voltage-free contact
Connectivity	NFC and Bluetooth	

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