

# AIR REFRIGERATION UNIT – ARU

WINNER OF AIRBUS INNOVATION AWARD 2018



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Aviation

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Together**

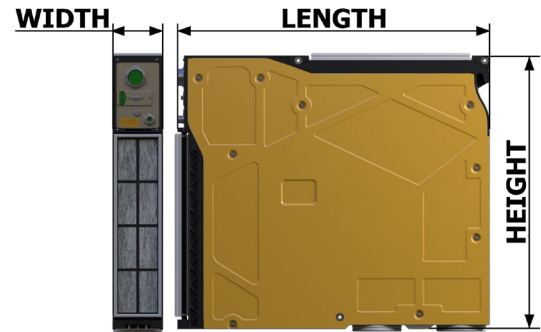
## CHARACTERISTICS

A lot has changed since the release of our last model. The ARU design has been completely reimagined and is now at the very cutting edge of galley cooling technology. Already half the weight of competing units, the ARU is two steps ahead in terms of performance and cost-effectiveness. A single plug-and-play ARU unit cools up to 6 trolleys at once, using intelligent cooling controls and automatically regulated fan speeds to increase efficiency.

## BENEFITS

- Significant weight advantage over conventional chilling units, reducing weight by a factor of 2
- Compact Plug & Play concept allows for simple aircraft installation (few air ducts, no pipes, no pumps)
- Self-controlled performance results in reduced power consumption and lower noise emission compared to conventional chillers
- Designed to be used across all programs and retrofittable
- No additional boost fan and no additional electronics
- Low noise emission

## TECHNICAL DATA



### DIMENSIONS & WEIGHT

Length [mm/inch]	Height [mm/inch]	Width [mm/inch]	Weight [kg/lb]
630 mm / 24.8 inch	550 mm / 21.65 inch	101.6 mm / 4 inch	20/44 (maximum)

### ELECTRICAL

Power Supply	115 VAC variable frequency		
Power Consumption [VA]	< 1600		
Power Factor	0.98		
Connector Type	EN 3646 RS7 22 55 FN (signal)   EN 3646 RS7 10 06 MN (power)		
Interfaces	I/O	2 x CAN bus   1 x motor driver and control interface 28VDC	
	Inputs	8 x pin programming   6 x temperature sensors, external, digital   3 x temperature selection	
	Outputs	1 x ON indication light   1 x FAULT indication light   1 x temperature warning indication light	

### PERFORMANCE DATA

Cooling Capacity incl. Defrost Cycle	comparable to chillers from 1000 up to 4000 BTU
Galley Target Temperature adjustable	from 4°C / 39°F to 16°C / 60°F in steps of 2°C / 4°F
Cooling Performance up to max. Cabin Temp.	50°C / 122°F
Evaporator Air Outlet Temperature limited to	-2°C / 28°F
Evaporator Fan Air Volume Flow (through Galley)	120 l/s / 254 cfm (averaged over cooling cycle)
Evaporator Fan Pressure Rise	650 Pa / 2.6 inch H <sub>2</sub> O
Condenser Fan Air Volume Flow	120 l/s / 254 cfm
Condenser Fan Pressure Rise including inlet filter pressure loss	600 Pa / 2.4 inch H <sub>2</sub> O