

## CSS SuperFreezer

### Temperaturas ultrabajas para las cargas críticas

- Capacidad de refrigeración extrema.
- Mantenga temperaturas ultrabajas de hasta -70°C.
- Proteja las cargas más sensibles y valiosas.
- Esta solución se puede utilizar para transporte terrestre o marítimo, o para almacenamiento.

DATOS TÉCNICOS			
EL CAUDAL DE AIRE		TECHNICAL SPECIFICATIONS	
Door access	Ultra-Low temperature unit for installation in Reefer containers for stationary applications. All Aluminum "Picture frame". Cascade system with dual refrigeration circuit. R134a with Copeland 3 cylinder compressor. Charge 3.5 kg (7.7 lbs) R23 with Copeland Scroll compressor. Charge 3.2 kg (7.0 lbs)	Setpoint Range	80db (A) in 250 Hz band. Measurement taken in front of the unit 1,5 m distance and 1,2 m above ground, with the unit operating at 50 Hz
Optional	Pressure equalization valve (1400 Pascal / 140 mm WG) to avoid excessive vacuum in the container	Ambient temperature Range	ISO1496-2 CE ATP AHRI USDA TIR (International Customs Regulations for Containers)
Required heat leakage of box	-70°C to -10°C (-94°F to -14°F)	Required heat leakage of 20' box	630 kg (1,390 lbs)
Container protection	-30°C to +37.8°C (-22°F to 100°F)		
At setpoint +21.1°C (70°F)	18 Watt/°K @ 20C wall temperature, to ensure set-point at ambient		
Power supply	20 Watt/°K @ 20C wall temperature, to ensure set-point at ambient		
DIMENSIONS AND WEIGHTS @ AMBIENT TEMPERATURE +37.8°C (100°F)		FEATURES	
At setpoint -70°C (-94°F)	5,850 watt @ 460V/60Hz 5,086 watt @ 400V/50Hz	Weight of SuperFreezer unit	A/C 400 to 500 Volt 3 phase 60 Hz ±2,5% A/C 360 to 460 Volt 3 phase 50 Hz ±2,5%
Maximum power draw	3,880 watt @ 460V/60Hz 3,344 watt @ 400V/50Hz	At setpoint -30°C (-22°F)	32 Amp
Weight of Magnum+ unit	8,250 watt @ 460V/60Hz 7,112 watt @ 400V/50Hz	Capacity on Battery power 0°C	18.3 m (60 LF) cable (3phase and ground) with CEE17 power plug (32 Amp; ground 3h)
		Capacity at 50 Hz 0°C	19 kw during "pull down"
COOLING CAPACITY			
Capacity at 50 Hz -20°C	Advanced Microprocessor MP3000 Emerson Controls Temperature control using 6 NTC sensors Temperature accuracy: +/- 1°C (+/-1.8°F) Datalogger document system parameters and changes, results of Pre-Trip Inspections, Alarms & messages, as well as temperature logs. Temperature logs are defaulted to 1 hour interval, and user can change to 30 min, 2 or 4 hr interval. Datalogger memory allow 15,000 temperature logs When power is disconnected, datalogger continue to log temperatures for 120 logs (3 days * 24 hr interval). 3 USDA		

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## MARINE

cargo sensor ports with Cannon receptacles (Option supply of 15m (49 LF) long cables with PT100 sensor (accuracy +/- 0.15°C (+/- 0.27°F)) Telematics (option) to allow two-way communication with controller. Using Global Network Satellite System and Global cellular LTE, 2G, 3G signal) Datalogger can be retrieved via serial port on unit, or via Telematics Controller continuously monitor health of system and components, an early indication can trigger a "message" and a critical issues trigger an "alarm" Unit controller has LED that flash red if an "Alarm" is active Defrost: To melt ice entering with cargo, and/or from door openings electrical defrost heaters are installed with capacity 8,160 watt @ 460/60Hz and 6,300 watt @ 400V/50Hz. Defrost activate every 6 hours, or per user is controller set-up using temperature difference between evaporator coil sensor and return air sensor.