

# CSS SuperFreezer

## Temperature ultra basse per carichi critici

- Capacità frigorifera estrema
- Mantenimento di temperature ultra basse, fino a -70 °C
- Protezione dei carichi più sensibili e preziosi
- La soluzione può essere utilizzata per il trasporto via terra o mare o per la conservazione

DATI TECNICI	
Flusso d'aria	
Tipo di unità	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)
Protezione container	Pressure equalization valve (1400 Pascal / 140 mm WG) to avoid excessive vacuum in the container
Gamma di mantenimento del punto di riferimento	-70°C to -10°C (-94°F to -14°F)
Intervallo temperatura ambiente	-30°C to +37.8°C (-22°F to 100°F)
Dispersione termica richiesta della cella da 10'	18 Watt/°K

  

Funzioni	
Livello di rumorosità	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
Certificazioni e norme di progettazione	ISO1496-2 CE ATP AHRI USDA TIR (International Customs Regulations for Containers)
Peso dell'unità SuperFreezer	630 kg (1,390 lbs)

## MARINE

	@ 20C wall temperature, to ensure set-point at ambient
Dispersione termica richiesta della cella da 20'	20 Watt/°K @ 20C wall temperature, to ensure set-point at ambient

### Capacità di raffreddamento

A temperatura ambiente +37,8 °C (100 °F)

Al punto di riferimento -60 °C (-76 °F)	5,850 watt @ 460V/60Hz 5,086 watt @ 400V/50Hz
Al punto di riferimento -70 °C (-94 °F)	3,880 watt @ 460V/60Hz 3,344 watt @ 400V/50Hz
Al punto di riferimento -30 °C (-22 °F)	8,250 watt @ 460V/60Hz 7,112 watt @ 400V/50Hz

### Sistema di controllo

Generale

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

### Elettricità

Alimentatore	A/C 400 to 500 Volt 3 phase 60 Hz ±2,5% A/C 360 to 460 Volt 3 phase 50 Hz ±2,5%
Interruttore principale	32 Amp
Cavo di alimentazione	18.3 m (60 LF) cable (3phase and ground) with CEE17 power plug (32 Amp; ground 3h)
Assorbimento di potenza massimo	19 kw during "pull down"

## MARINE

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 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"

## MARINE

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 ■s controller set-up using temperature difference between evaporator coil sensor and return air sensor.