

# CSS SuperFreezer

## Extrem niedrige Temperaturen für kritische Fracht

- Extreme Kühlleistung
- Halten Sie extrem niedrige Temperaturen von bis zu -70 °C aufrecht
- Schützen Sie die empfindlichsten und wertvollsten Frachten
- Lösung kann für den Straßen- oder Schiffstransport oder als Lager verwendet werden

### TECHNISCHE DATEN

Luftstrom		Merkmale	
Maschinentyp		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)	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
Schutz des Containers		Pressure equalization valve (1400 Pascal / 140 mm WG) to avoid excessive vacuum in the container	Zertifizierungen und Designstandards ISO1496-2 CE ATP AHRI USDA TIR (International Customs Regulations for Containers)
Sollwertbereich		-70°C to -10°C (-94°F to -14°F)	Gewicht der Maschine SuperFreezer 630 kg (1,390 lbs)
Umgebungstemperaturbereich		-30°C to	

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	+37,8°C (-22°F to 100°F)
Erforderliche Wärmeleckage eines 10-Fuß-Laderaums (3-Meter-Laderaums)	18 Watt/°K @ 20C wall temperature, to ensure set-point at ambient
Erforderliche Wärmeleckage eines 20-Fuß-Laderaums (6-Meter-Laderaums)	20 Watt/°K @ 20C wall temperature, to ensure set-point at ambient

### Kühlleistung

Bei Umgebungstemperatur +37,8 °C (100 °F)

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

### Elektrizität

Stromversorgung	A/C 400 to 500 Volt 3 phase 60 Hz ±2,5% A/C 360 to 460 Volt 3 phase 50 Hz ±2,5%
Unterbrecher des Hauptstromkreises	32 Amp
Stromkabel	18.3 m (60 LF) cable (3phase and ground) with CEE17 power plug (32 Amp; ground 3h)
Maximale Leistungsaufnahme	19 kw during "pull down"

### Regler

General	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
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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 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 component

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