

FCR Series Temperature / Humidity Test Chamber Specifications

Model	FCR10	FCR20	FCR30	FCR40	FCR64
Cubic Feet (Liters)	10 (283)	20 (566)	30 (850)	40 (1133)	64 (1812)
Work Space (WxDxH)	24" x 26" x 28" (609 mm x 660 mm x 711 mm)	30" x 32" x 36" (762 mm x 812 mm x 914 mm)	36" x 40" x 36" (914 mm x 1016 mm x 914 mm)	40" x 44" x 40" (1016 mm x 1117 mm x 1016 mm)	48" x 48" x 48" 1219 mm x 1219 mm x 1219 mm
Exterior (WxDxH)	40" x 81" x 79" (1016 mm x 2057 mm x 2007 mm)	46" x 87" x 87" (1168 mm x 2210 mm x 2210 mm)	52" x 95" x 87" (1321 mm x 2413 mm x 2210 mm)	56" x 99" x 91" (1422 mm x 2515 mm x 2311 mm)	64" x 103" x 99" 1626 mm x 2616 mm x 2515 mm
Approx Unit Weight	1700 LBS (772 kg)	2100 LBS (953 kg)	2400 LBS (1089 kg)	2700 LBS (1225 kg)	3300 LBS (1497 kg)
Available In	6HP	6HP, 10HP	6HP, 10HP, 15HP	6HP, 10HP, 15HP	6HP, 10HP, 15HP

Cooling Rate (empty chamber) °C/minute

Model	FCR10	FCR20	FCR30	FCR40	FCR64
Refrigeration HP	6 HP	6 HP	10 HP	6 HP	10 HP
Cascade 180°C to -68°C	9.0°C/min	5.5°C/min	10.0°C/min	4.25°C/min	8.5°C/min
Single Stage 180°C to -35°C	13.0°C/min	8.0°C/min	14.0°C/min	6.5°C/min	11.75°C/min

Heating Rates (empty chamber) °C/minute

Model	FCR10	FCR20	FCR30	FCR40	FCR64
Refrigeration HP	6 HP	6 HP	10 HP	6 HP	10 HP
Heating kW	6 kW	6 kW	12 kW	6 kW	12 kW
-68°C to 180°C	11.75°C/min	8.0°C/min	15.5°C/min	7.25°C/min	13.75°C/min
-35°C to 180°C	11.75°C/min	8.0°C/min	15.25°C/min	7.0°C/min	13.25°C/min

Live Load Capacity (SS = Single Stage; C = Cascade) Watts

Model	FCR10	FCR20	FCR30	FCR40	FCR64
Refrigeration HP	6 HP	6 HP	10 HP	6 HP	10 HP
Live Load Watts @ - 18°C (S,RS)	3200 W	2800 W	3900 W	3600 W	5300 W
Live Load Watts @ - 18°C (C, RC)	7300 W	6800 W	9900 W	6300 W	11800 W
Live Load Watts @ - 40°C (C, RC)	5600 W	5100 W	6100 W	6300 W	9900 W
Live Load Watts @ - 54°C (C, RC)	3100 W	2700 W	3600 W	3900 W	5300 W

General Specifications

Temperature Range	Single stage (S,RS models) -35°C to 180°C Cascade (C,RC models) -68°C to 180°C
Humidity Range	(RS,RC models only) 20% to 95% in the dry bulb range of 20°C to 85°C as limited by a 5°C dewpoint
Control Tolerances	Temperature: ± 1°C after stabilization Humidity: ± 5% RH after stabilization
Air Flow Rate	750 CFM (FCR10, FCR20) / 1500 CFM (FCR30, FCR40, FCR64)
Humidifier capacity	3kW (RS,RC models only)
Condenser	Water Cooled

Electrical Requirements (C = Cascade; S = Single Stage; R = Humidity)

Power	460V - 3PH 60HZ			460V - 3PH 60HZ			460V - 3PH 60HZ		
	6HP			10HP			15HP		
HP Temp/RH	RC/C	RS	S	RC/C	RS	S	RC/C	RS	S
Amp - Fuse	45 Amps	40 Amps	30 Amps	90 Amps	60 Amps	60 Amps	110 Amps	80 Amps	70 Amps
Amp - Under Load	36 Amps	28 Amps	24 Amps	69 Amps	48 Amps	44 Amps	84 Amps	59 Amps	55 Amps
Power	208V - 230V 3PH 60HZ			208V - 230V 3PH 60HZ			208V - 230V 3PH 60HZ		
Power	6HP			10HP			15HP		
HP Temp/RH	RC/C	RS	S	RC/C	RS	S	RC/C	RS	S
Amp - Fuse	90 Amps	70 Amps	60 Amps	175 Amps	125 Amps	125 Amps	250 Amps	175 Amps	150 Amps
Amp - Under Load	72 Amps	55 Amps	47 Amps	140 Amps	96 Amps	89 Amps	187 Amps	127 Amps	120 Amps