

## Copeland Scroll<sup>®</sup> Cryogenic Compressor Specifications

Specification	ZCH22C#G-PFV/PFJ	ZCH48C#G-TF5/TFD	ZCH68C#G-TF5/TFD	ZCH72C#G-TF5/TFD
Compressor Type	Hermetic			
Refrigerant	Helium (R-704)			
Oil Type	PAG (UCON LB 300X)			
Oil Charge (L / oz)	1.1 / 38	1.4 / 46	1.7 / 57	1.7 / 57
Motor Speed	50 & 60 Hz			
Mass (kg / lb)	25 / 54	33 / 62	39 / 87	39 / 85
Length (mm / in)	377 / 14.84	431 / 16.95	451 / 17.75	451 / 17.75
Width (mm / in)	243 / 9.57	243 / 9.57	247 / 9.71	247 / 9.71
Power Supply (volts)	TF5	200/230 @ 50Hz		
		220/230 @ 60Hz		
	TFD	380/420 @ 50Hz		
		460 @ 60Hz		
PFJ	220/240 @ 50Hz 265 @ 60Hz			
PFV	200 @ 50Hz 208/230 @ 60Hz			
Max Allowable Tilt Angle (Degrees)	+/- 10			
Operating Pressure (bar / psia)	Discharge: 3.0-25.5 / 43-370 ; Suction: 2.8-7.7 / 40-112			
Max. Discharge Line Temp. (°C / °F)	93 °C / 200 °F			
Displacement (cc/rev / CIR)	30.7 / 1.873	65.5 / 4.004	93.0 / 5.676	98.0 / 5.983
Max Sound Power Level (dBA)	50 Hz : 60 Hz 70 : 73	73 : 76	77 : 80	77 : 80

*Performance @ CCRP (100 Suction and 300 Discharge) - 50Hz/60Hz*

Helium Flow (Nm <sup>3</sup> /hr) / (lb/hr) / SCFM	50 Hz	28.3 / 12.0 / 19.3	59.0 / 25 / 40.3	87.3 / 37 / 59.6	91.8 / 38.9 / 62.7
	60 Hz	34.5 / 14.6 / 23.5	72.0 / 30.5 / 49.2	106.2 / 45 / 72.5	110.7 / 46.9 / 76.6
Efficiency (Nm <sup>3</sup> /kW-hr) / (lb/kW-hr) / (SCFM / kW)	50 Hz	13.5 / 5.7 / 9.2	14.4 / 6.1 / 9.8	14.3 / 6.1 / 9.8	14.6 / 6.2 / 10.0
	60 Hz	13.8 / 5.8 / 9.3	14.6 / 6.2 / 10.0	14.2 / 6.0 / 9.7	14.4 / 6.1 / 9.8
Oil Injection Flow (L/min / gal/min)		3.0 / 0.8	5.7 / 1.5	6.8 / 1.8	6.8 / 1.8
Power Consumption (kW)	50 Hz	2.1	4.1	6.1	6.3
	60 Hz	2.5	4.9	7.5	7.7
Return Gas Temperature (°C / °F)	21 °C / 70 °F				
Ambient Air Temperature (°C / °F)	35 °C / 95 °F				

S = Standard (70°F; 1 atm) N = Normal (0°C; 1 atm)