

COMPRESSOR SAFETIES

DISCHARGE SAFETIES

	<u>setting</u>	<u>default</u>	<u>range</u>
High discharge temp stop load	_____	230 °F	0 - 249.8 °F
High discharge temp force unload	_____	240 °F	0 - 249.8 °F
High discharge temp alarm	_____	220 °F	0 - 249.8 °F
High discharge temp alarm delay	_____	5 sec.	0 - 60 sec.
High discharge temp shutdown	_____	230 °F	0 - 249.8 °F
High discharge temp shutdown delay	_____	5 sec.	0 - 60 sec.
Low discharge pressure shutdown	_____	25 psig	0-380**psig
Low discharge pressure shutdown delay	_____	60 sec.	0 - 90 sec.
High disch press stop load	_____	135 psig	0-225 psig
High disch press force unload	_____	140 psig	0-225 psig
High disch press alarm	_____	145 psig	0-225 psig
High disch press alarm delay	_____	2 sec.	0 - 5 sec.
High disch press shutdown	_____	148 psig	0-225 psig
High disch press shutdown delay	_____	2 sec.	0 - 5 sec.

** based on maximum discharge pressure setting in factory set-up.

SUCTION SAFETIES

	<u>setting</u>	<u>default</u>	<u>range</u>
High suction pressure stop load	_____	120 psig	0 - 200 psig
High suction pressure force unload	_____	130 psig	0 - 200 psig
High suction pressure alarm	_____	140 psig	0 - 200 psig
High suction pressure alarm delay	_____	5 sec.	0 - 60 sec.
High suction pressure shutdown	_____	150 psig	0 - 200 psig
High suction pressure shutdown delay	_____	5 sec.	0 - 60 sec.



SGC 2817 Open System

CoolWare v7.1.1

Registered To: Johnson Controls-Australia ERS Pty

Customer Name	Reference	Date 25/09/2007	Run # 5
End User Name	Item	Atmospheric Pressure	1.014 bar
Project	Screw Open	Elevation	0 m

COMPRESSOR - SGC 2817

Compressor Power	131.2 kW	Compression Ratio	4.52	Eff Model	Hydrocarbon Mix
Speed	1800 rpm	Volume Ratio	3.68	Volumetric Eff	63.1%
Percent Suct Vol Flow	70.0%	Ideal Volume Ratio	3.68	Adiabatic Eff	70.5%
		Discharge Port	Standard		

	Temperature (°C)	Pressure (barg)	Mass Flow (kg/min)	Volume Flow (m3/min)	Standard Volume Flow (scmm) (MSCMH)	
Suction	26.7	0.45	21.5	21.2	29.65	1.779
Discharge	86.9	5.60	21.5	5.6	29.65	1.779

OIL SYSTEM

Oil Type	CP-1516-100	Oil Cooler Heat Rej	84.7 kW	Oil Pump Boost	0.00 bar
Oil Flow	155.0 lpm	Main Inj Oil Temp	71.1 °C	Oil System Pres Drop	0.69 bar
Main Inj Oil Flow	115.1 lpm	Bearing Oil Temp	71.1 °C	Main Inj Orifice Dia	1.191 cm
Bearing Oil Flow	39.9 lpm	Oil Cooling	All Oil	Main Inj Cv	5.0
Oil Pump Piping	All Oil	Main Inj Valve Pos	100.0%	Main Inj Valve Dia	2.54 cm

SYSTEM

Upstream Temperature	26.7 °C	Downstream Temperature	86.9 °C
Upstream Pressure	0.45 barg	Downstream Pressure	5.60 barg
Suct Line Superheat	0.0 °C	Disc Line Desuperheat	0.0 °C
Suct Line Pres Drop	0.00 bar	Disc Line Pres Drop	0.00 bar
		Separator Pres Drop	0.00 bar
		Discharge Dew Point	-78.6 °C

FLUID

Gas	Mole %
Methane	94.300
Ethane	2.220
Propane	0.500
n-Butane	0.160
Carbon Dioxide	1.820
Nitrogen	1.000
Molecular Weight	17.19

ERRORS AND WARNINGS

Disclaimer: the information contained in this program is subject to change without notice. Frick reserves the right to final verification of all rating results.



SGC 2817 Open System

CoolWare v7.1.1

Registered To: Johnson Controls-Australia ERS Pty

Customer Name	Reference	Date	Run #
End User Name	Item	21/09/2007	1
Project	Screw Open	Atmospheric Pressure	1.014 bar
		Elevation	0 m

COMPRESSOR - SGC 2817

Compressor Power	164.6 kW	Compression Ratio	1.65	Eff Model	Hydrocarbon Mix
Speed	1800 rpm	Volume Ratio	2.20	Volumetric Eff	92.8%
Percent Suct Vol Flow	100.0%	Ideal Volume Ratio	1.41	Adiabatic Eff	67.2%
		Discharge Port	Standard		

	Temperature (°C)	Pressure (barg)	Mass Flow (kg/min)	Volume Flow (m3/min)	Standard Volume Flow (scmm) (MSCMH)	
Suction	26.7	3.00	87.3	31.3	120.33	7.220
Discharge	77.3	5.60	87.3	22.2	120.33	7.220

OIL SYSTEM

Oil Type	CP-1516-100	Oil Cooler Heat Rej	4.3 kW	Oil Pump Boost	0.00 bar
Oil Flow	20.0 lpm	Main Inj Oil Temp	71.1 °C	Oil System Pres Drop	0.69 bar
Main Inj Oil Flow	0.0 lpm	Bearing Oil Temp	71.1 °C	Main Inj Orifice Dia	1.191 cm
Bearing Oil Flow	20.0 lpm	Oil Cooling	All Oil	Main Inj Cv	5.0
Oil Pump Piping	All Oil	Main Inj Valve Pos	5.0%	Main Inj Valve Dia	2.54 cm

SYSTEM

FLUID

Upstream Temperature	26.7 °C	Downstream Temperature	77.3 °C	<u>Gas</u>	<u>Mole %</u>
Upstream Pressure	3.00 barg	Downstream Pressure	5.60 barg	Methane	94.300
Suct Line Superheat	0.0 °C	Disc Line Desuperheat	0.0 °C	Ethane	2.220
Suct Line Pres Drop	0.00 bar	Disc Line Pres Drop	0.00 bar	Propane	0.500
		Separator Pres Drop	0.00 bar	n-Butane	0.160
		Discharge Dew Point	-78.6 °C	Carbon Dioxide	1.820
				Nitrogen	1.000
				Molecular Weight	17.19

ERRORS AND WARNINGS

Oil pressure differential is too low.

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