

Mechanical Data Sheet

For


LP Condensate Return Pump


CO₂ Capture Facility

Kårstø, Norway

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GASSNOVA			Project No. - Originator - Disc Code - Doc Type - Serial No. 10112936 - PB - R - DAS - 0004					

1	SERVICE / P&ID NUMBER	LP Condensate Return	M6-SC-00001		
2	MANUFACTURER / MODEL /TYPE	*	(ANSI)		
3	QUANTITY	2			
4	EQUIPMENT TAG NUMBERS	1-SC-MP-114A/B			
5	LIQUID PUMPED				
6	FLUID	Water (LP Condensate)			
7	TEMPERATURE: RATED / MAXIMUM / MINIMUM (°C)	175	180 122		
8	SPEC. GRAVITY / VISCOSITY / VAPOR PRESS: @ RATED TEMP (/ssu / bara)	0.892	0.154 cP 9		
9	PUMP PERFORMANCE				
10	NPSHA / NPSHR @ RATED FLOW/ NPSHR @ MAXIMUM FLOW (Note 2)	4.5	* *		
11	FLOW: RATED / MINIMUM / MAXIMUM (m ³ /hr)	225	* *		
12	RATED PRESSURE: SUCTION / DISCHARGE (bara)	2.1	9		
13	PUMP TOTAL HEAD: RATED / SHUTOFF (m)	70	*		
14	RPM / ROTATION (VIEW FROM MOTOR FACING PUMP)	*	*		
15	PUMP EFFICIENCY: @ RATED CONDITIONS (%)		*		
16	PUMP BRAKE HORSEPOWER: RATED FLOW / MAX. FLOW (kW)	*	*		
17	SPECIFIC SPEED @ BEP / SUCTION SPECIFIC SPEED @ BEP	*			
18	MAXIMUM ALLOWABLE NOISE LEVEL(PUMP AND MOTOR) (dBA @ m)	85	@ 1 m		
19	PUMP CONSTRUCTION				
20	NUMBER OF STAGES		*		
21	IMPELLER DIAMETER: RATED / MAXIMUM / MINIMUM (mm)	*	* *		
22	MAXIMUM WORKING PRESSURE / HYDROTEST PRESSURE (barg)	*	*		
23	CLEARANCE: WEAR RING / BEARING / IMPELLER LIFT (mm)	*	*		
24	SUCTION: SIZE / ANSI FLANGE RATING / FLANGE FACING / POSITION (mm)	*	FF * *		
25	DISCHARGE: SIZE / ANSI FLANGE RATING / FLANGE FACING / POSITION (mm)	*	* * *		
26	BASEPLATE REQUIRED / SOLE PLATE REQUIRED	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		
27	BEARING LUBE: TYPE / FLOW / PRESSURE (/m ³ /hr/ barg)	*	*		
28	SHAFT SEAL: TYPE / CONNECTION / COOLING FLOW (/m ³ /hr)	*	*		
29	COLUMN: DIAMETER / THICKNESS (mm)	*	*		
30	LINESHAFT: DIAMETER / BEARING SPACING / BEARING TYPE (mm)	*	*		
31	CAN: DIAMETER / LENGTH (mm / m)	*	*		
32	ROTOR FIRST CRITICAL SPEED (rpm)		*		
33	MATERIAL / ASTM NUMBER				
34	BOWLS / IMPELLERS	CAST IRON	316 SS		
35	SHAFT SLEEVE: BEARING / STUFF BOX	N/A	316 SS		
36	WEAR RINGS: BOWL / IMPELLER	12% CHROME	*		
37	COLUMN / DISCHARGE HEAD	CARBON STEEL	CARBON STEEL		
38	LINE SHAFT / PUMP SHAFT	410 SS	410 SS		
39	SLEEVE BEARING: BOTTOM / BOWL / LINESHAFT	CARBON STEEL	CARBON STEEL CARBON STEEL		
40	COUPLING				
41	FURNISHED BY / MANUFACTURER	<input type="checkbox"/> By Buyer <input checked="" type="checkbox"/> By Seller	*		
42	TYPE / COUPLING GUARD	*	*		
43	WEIGHT				
44	CAN / PUMP / MOTOR / TOTAL (kg)	*	* * *		
45	EXAMINATION AND TESTING	<input checked="" type="checkbox"/> ULTRASONIC <input type="checkbox"/> MAG. PART.	<input checked="" type="checkbox"/> LIQ. PEN.		
46		<input checked="" type="checkbox"/> HYDROSTATIC <input checked="" type="checkbox"/> PERFORMANCE	<input checked="" type="checkbox"/> NPSH <input type="checkbox"/> FIELD		
47	DRIVER				
48	MANUFACTURER / RATING / RPM (kW)	*	* *		
49	BEARING DESCRIPTION / THRUST RATING (kg)	*	*		
50	LUBRICATION: THRUST / RADIAL / COOLING	*	*		
51	TOTAL COMBINED PUMP/MOTOR POWER REQ. (kW)		*		
52	TOTAL COMBINED PUMP / MOTOR POWER REQUIRED: GUARANTEE (kW)		*		
53	MISCELLANEOUS				
54	RECOMMENDATION: SUCTION STRAINER MESH SIZE/ MATERIAL	40 MESH OR BETTER	STAINLESS STEEL		
NOTES: 1. Seller shall replace all * (asterisks) with appropriate information. 2. NPSHA at first stage impeller centerline is based on zero NPSHA at centerline of suction nozzle. NPSHR values at first stage impeller centerline is based on 1% head deviation.					
		PRELIMINARY LP CONDENSATE PUMP DATA SHEET (MPGC) CO2 KARSTO PROJECT			
				Job No.:	25474-000
				DS No.:	3SD-MPGC-00001
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Item No	Description	Requirement
		LP CONDENSATE PUMP
1	TYPE	Induction
2	VOLTAGE	400 V
3	PHASE	3
4	FREQUENCY (Hz)	50 Hz
5	STARTING VOLTAGE	80 to 105% Nominal Voltage
6	INSULATION CLASS	F
7	TEMP RISE (°C @ RATING)	Limited to 10 K BELOW CLASS B
8	STARTING CURRENT	Limited to 5 times
9	PULL OUT TORQUE @ FULL VOLTAGE	At least 200% of rated
10	NO. OF STARTS - HOT	2
11	NO. OF STARTS - COLD	3
12	MOTOR ENCLOSURE	IP54, EEx(d) OR EEx(e)
13	COOLING	TEFC
14	PLUG-IN TERMINALS	Yes (Fully Insulated Suitable for 25 kA Fault Current)
15	TERMINAL BOX ENCLOSURE	IP55
16	SOUND LEVEL	Not to Exceed 80 dB @ one Meter
17	BEARING TYPE	Same Style As Driven Equipment
18	QUALITY STANDARD	ISO 9001:2000 or Equivalent
19	ROUTINE TEST PER IEC 60034	YES
20	INSULATION RESISTANCE TEST	FOR WINDINGS, RTDS AND BEARINGS
21	FULL LOAD LOSS AND EFFICIENCY TEST	YES
22	LOCKED ROTOR TEST	YES
23	OVER SPEED	YES
24	VIBRATION	YES
25	NOISE	YES
26	WITHSTAND VOLTAGE TEST	YES
27	POWER	At 100% service load (power requirement of the driven machine), the electric motor shall not be loaded more than 90%
28	PTC THERMISTOR PROTECTION	REQUIRED
29	TEMPERATURE RISE TEST AT FULL LOAD	YES (2 FREQUENCY TEST MAYBE USED)
30	COIL IMPULSE TEST	Yes, 10 % additional coil to be produced and randomly tested for impulse with increasing voltage until breakdown

	ELIMINARY SEAWATER BOOSTER PUMP DATA SHEET (MPC) CO2 KARSTO PROJECT	Job No.: 25474-000
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