

Mechanical Data Sheet

For


Seawater Cooling Booster Pump


CO₂ Capture Facility

Kårstø, Norway

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Rev.	Date	Reason for Revision	By	Check	App	App		
 Bechtel Power Corporation			Job No. 25474					
			Document No. 25474 - 000 -3SD -MPCG - 00001					Rev. 0
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GASSNOVA			Project No. - Originator - Disc Code - Doc Type - Serial No. 10112936 - PB - R -DAS - 0003					

1	SERVICE / P&ID NUMBER	Sea Water Cooling Pumps	M6-WL-00002
2	MANUFACTURER / MODEL / TYPE OF PUMP	*	*
3	QUANTITY	2	
4	TAG NUMBERS	MP-121A/B	
5	LIQUID PUMPED		
6	FLUID	Sea Water	
7	TEMPERATURE: RATED / MINIMUM / MAXIMUM (°C)	11	3.1 13
8	SPEC. GRAVITY / VISCOSITY / VAPOR PRESS.: @ DESIGN TEMP (-- / ssu / bara)	1	5.87 0.0127
9	PUMP PERFORMANCE		
10	NPSHR / NPSHA (m)	*	*
11	FLOW: RATED / MINIMUM / MAXIMUM (m ³ /hr)	5124	*
12	RATED PRESSURE: SUCTION / DISCHARGE AT FLANGE (bara)	2.06	*
13	DIFFERENTIAL HEAD: RATED / SHUTOFF (m)	8.4	*
14	RPM / ROTATION (VIEW FROM MOTOR FACING PUMP) / SPECIFIC SPEED	*	*
15	EFFICIENCY: @ RATED (%)		*
16	BRAKE HORSEPOWER: RATED CONDITIONS / MAX CONDITIONS (kW)	*	*
17	MAXIMUM ALLOWABLE NOISE LEVEL (PUMP AND MOTOR) (dBA @ m)	85	@ 1
18	PUMP CONSTRUCTION		
19	IMPELLER DIAMETER: RATED / MINIMUM / MAXIMUM (mm)	*	*
20	IMPELLER EYE AREA / SUCTION EYE PERIPHERAL VELOCITY (mm ² / m/sec)	*	*
21	NUMBER OF STAGES		*
22	MAXIMUM WORKING PRESSURE / HYDROTEST PRESSURE (barg)	*	*
23	CLEARANCE: WEAR RING / BEARING / IMPELLER (SEMI-OPEN) (mm)	*	*
24	SHAFT DIAMETER (mm)		*
25	CASING TYPE	<input type="checkbox"/> Radially Split	<input checked="" type="checkbox"/> Horizontally Split
26	CASING SUPPORT	<input type="checkbox"/> Center Line Mounted	<input checked="" type="checkbox"/> Foot Mounted
27	IMPELLER SUPPORT	<input type="checkbox"/> Overhung	<input type="checkbox"/> Between bearings
28	SUCTION: SIZE / FLANGE RATING / FLANGE FACING / POSITION (mm / -- / -- / --)	*	*
29	DISCHARGE: SIZE / FLANGE RATING / FACING / POSITION (mm / -- / -- / --)	*	*
30	BASEPLATE REQUIRED / SOLEPLATE REQUIRED	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
31	BEARING TYPE / LIFE	*	*
32	BEARING LUBE: TYPE / FLOW / PRESSURE (-- / m ³ /hr / barg)	*	*
33	SHAFT SEAL: TYPE / CONNECTION / COOLING FLOW (-- / -- / m ³ /hr)	*	*
34	ROTOR FIRST CRITICAL SPEED (rpm)		*
35	MATERIAL		
36	CASING / DIFFUSER	Duplex SS	Duplex SS
37	IMPELLER / SHAFT	Duplex SS A890 Gr. 4A	Duplex SS A890 Gr. 4A
38	WEAR RINGS: CASE / IMPELLER	*	*
39	SHAFT SLEEVE: BRG / STUFF BOX	*	*
40	COUPLING		
41	FURNISHED BY / MANUFACTURER	<input type="checkbox"/> By Buyer <input checked="" type="checkbox"/> By Seller	*
42	TYPE / GUARD TYPE	*	*
43	WEIGHT		
44	TOTAL SKID / PUMP / MOTOR (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 type="checkbox"/> NPSH <input type="checkbox"/> FIELD	
47	DRIVER		
48	MANUFACTURER / RATING / SPEED (-- / kW / rpm)	*	*
49	BEARING DESCRIPTION / THRUST RATING (-- / kg)	*	*
50	LUBRICATION: THRUST / RADIAL / COOLING	*	*
51	MISCELLANEOUS		
	SUCTION STRAINER / MATERIAL (mm / --)	*	SS
NOTES:			
1. Seller shall replace all * (asterisks) and incomplete check boxes with appropriate information. Does not relieve the Seller from performance responsibilities.			
2. Pumps and motors will be located outdoors in a sea coast environment.			
3. See Sheet 2 for motor electrical requirements.			
		PRELIMINARY SEAWATER BOOSTER PUMP DATA SHEET (MPCG) CO2 KARSTO PROJECT	
		Job No.: 25474-000	
		DS No.: 3SD-MPCG-00001	
		Rev. 0	
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SEAWATER COOLING BOOSTER PUMP		
Item No	Description	Requirement
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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