Base Load Power Hub (BLPH)

TDS - Fresh Water Pump - P-50009 A-B

Document Number: 123A90-DDL-MAC-DS-50018

Document Class: 2

01	10/06/2024	Accepted for Construction (AFC)	F.Mura	M.Marchetti	D. Lo Sterzo
00	14/11/2023	Issue for Review (IFR)	F.Mura	M.Marchetti	D. Lo Sterzo
Rev.	Date	Description	Prepared	Reviewed	Approved

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1	Cover	X	X						
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4	General Notes	X	X						
5	Pump TDS	X	X						
6	Motor TDS	X	X						

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Revision / Change Log

Rev.	Description
00	ISSUE FOR REVIEW (IFR)
01	ACCEPTED FOR CONSTRUCTION (AFC)

HOLDS LIST

No.	Description
1.	
2.	
3.	
4.	

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General Notes :

1) This data sheet is typical for centrifugal pumps, but Vendor are allowed to propose a different kind of pump if more suitable for the purpose

2) The pump is included in the Water Treatment package (WTP) A-50000

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CROSSWIND	HOLLANDSE KUST NOORD WIND PARK Project Contract No. CW-I-WP4-2023-05	ROSETTI MARINO
Document Title:	TDS - Fresh Water Pump - P-50009 A-B	Sh. 5 of 6 Date : 10/06/2024 Rev. 01

APPLICABLE TO: ○ PROPOSAL ● PURCHASE ○ AS BUILT — Rev

CLIENT CROSSWIND — UNIT Water System

LOCATION BLPH - Hollandse Kust Noord (HKN) — SERVICE Fresh Water

NOTE: INFORMATION TO BE COMPLETED BY: ○ PURCHASER ☐ MANUFACTURER

DESIGN, MANUFACTURE & TESTING SHALL CONFORM TO: ○ KBR SPECIFICATIONS: ____ ● OTHER: (1)

NO. PUMPS REQ'D 2 — NO.MOTORS REQ'D 2 — ITEM NO. ____ — PROVIDED BY: ____ — MTD. BY ____

NO. TURBINES REQ'D ____ — ITEM NO. ____ — PROVIDED BY: ____ — MTD. BY ____

PUMP MANUFACTURE ____ — SIZE AND TYPE ____ — NO.STAGES ____

SERIAL NUMBER ____

○ OPERATING CONDITIONS, EACH PUMP

LIQUID 0,8 **(2)** (m3h) @PT,NOR. — RATED: **(2)**

DISCHARGE PRESSURE: 6 (barG)

TDS PT, (°C) NOR. 24,7 MAX 80 — SUCT.PRESS (barG) MAX ____ RATED: ____

SP.GR.AT PT ____ — DIFF.PRESS (barG) NOR. 5,8

VAP.PRESS. AT PT (barA) ____ — DIFF.HEAD (m) NOR. ____

VIS AT PT, CP ____ — NPSHA AT BOTTOM OF BASEPLATE, (m) 7 (3)

CORROSION / EROSION CAUSED BY Marine Environment — HYD. KW 0,2

AREA CLASSIFICATION : Safe Area (unclassified)

☐ PERFORMANCE

PROPOSAL CURVE NUMBER ____

(rpm) ____ MIN. CONT. (m3/h) ____

EFF.-N/R ____ BHP - RTD. ____

BHP RATED IMP. NOR. ____

Max. Head Rated Imp. Nor. ____

NPSHR (Water at Bottom of Baseplate), (m) ____ — 1

Rotation (Viewed from Coupling End) ____

Suction Specific Speed ____ — 1

CONSTRUCTION

NOZZLES	SIZE	RATING	FACING	LOCATION	FINISH
SUCTION	By Vendor	By Vendor	By Vendor	By Vendor	
DISCHARGE	By Vendor	By Vendor	By Vendor	By Vendor	

CASE - MOUNT: ■ HORIZONTAL: ☐ C.L. ☐ FOOT ☐ BRACKET ☐ VERTICAL ☐ INLINE ☐ PIT

- SPLIT: ☐ AXIAL ☐ RADIAL

- TYPE: ☐ VOLUTE: ☐ SINGLE ☐ DOUBLE ☐ DIFFUSER

- PRESSURE: ☐ MAWP ____ (barG) @ ____ (°C) ☐ HYDROTEST ____ (barG)

IMPELLER - DIAM: ☐ RATED ____ (m) MAX: ____ (m) MIN: ____ (m)

- TYPE: ☐ CLOSED

- SUCT: ☐ SINGLE ☐ DOUBLE

- MOUNT: ☐ BETWEEN BEARING ☐ OVERHUNG

BEARING -TYPE / IDENTIFYING NO. -(OR SIZE) ☐ RADIAL ☐ THRUST

LUBE ☐ FLOOD ☐ RING ☐ FLINGER ☐ PRESSURE ☐ GREASE ○ MIST ○ PURE ○ PURGE

COUPLING: MANUFACTURE: ____ MODEL: ____ SIZE: ____

SPACER LENGTH: ____

☐ RATED ____ (kW) @ ____ (rpm)

☐ DRIVER HALF MOUNTED BY - ○ PUMP MANUFACTURE ○ DRIVER MANUFACTURE ○ PURCHASER

SHAFT SEALING DATA

● MECHANICAL SEAL: API CLASS CODE: Single Seal

○ ☐ MANUFACTURE: ____ TYPE: ____

○ ☐ MANUFACTURE CODE: ____

○ PACKING: MANUFACTURE: ____ TYPE: ____

☐ SIZE: ____ NUMBER OF RINGS: ____

APPROX WEIGHT ☐ PUMP & BASE: ____ (Kg)

☐ MOTOR: ____ (kg) ☐ TURBINE: ____ (Kg)

MATERIALS

○ API 610 CLASS

☐ CASING Stainless Steel

☐ IMPELLER(S) Stainless Steel

☐ CASE WEAR RINGS: ____

☐ IMPELLER WEAR RINGS: ____

☐ SHAFT: ____

☐ SLEAVE: ____

☐ BASEPLATE: ____

☐ BASEPLATE TYPE: ____

☐ BASEPLATE STD. NO. ○ API: ____ ○ ANSI: ____

☐ BASEPLATE CONST: ○ STANDARD ○ HEAVY DUTY

AUXILARY PIPING

○ API CW PLAN: ____ ○ CS ○ SS ○ CU ○ GALV ○ TUBE ○ PIPE ○ SIGHT FLOW

○ OUTLET SHUTOFF VALVE

☐ CW IN ____ (barG) @ ____ (°C)

☐ CW OUT ____ (barG) @ ____ (°C)

☐ FLOW PER PUMP ____ (m3/h)

○ MAX ALLOW DP ____ (barG)

○ PRIMARY SEAL FLUSH PLAN ____

○ PRIMARY SEAL FLUSH PLAN ○CS ○SS ○TUBE ○PIPE

○ SECONDARY SEAL FLUSH ○CS ○SS ○TUBE ○PIPE

○ EXTERNAL SEAL FLUSH FLUID ____

____ (m3/h) ____ (barG) ○ TI ○ PS ○ FI

○ AUXILARY SEAL QUENCH FLUID ____

____ (m3/h) ____ (barG) ○ ____ (°C)

○ PIPING ASSEMBLY ○ THREADED ○ FLANGED ○ SEAL WELDED ○ SOCKET WELDED

○ CASE DRAINS: SIZE: ____ (m) ○ PLUGGED ○ FLANGED

○ VENTS: SIZE: ____ (m) ○ PLUGGED ○ FLANGED

FOR SHOP TESTS (4) — 1

	REQ	WIT	OBS	BY*	
HYDRO	●	○	○	○	
PERF	●	○	○	○	
NPSH	●	○	○	○	1
OTHER	○	○	○	○	1

* I : KBR INSPECTOR, E : KBR ENGINEER, C : CLIENT — 1

REMARKS: Pumps to be winterised

(1) WTP Vendor is allowed to change the type of pump into a type suitable to handle low flow

(2) Capacity does not include pump recircultion flow (if any), in case pump needs recirculation, Vendor shall indicate the value (3) Eximated considering atm pressure at T-50008 low level. Vendor to caclulate actual value according to final layout of A-50000 — 1

(4) Pump performace /running test to be carried out during performance the of the whole package. WTP supplyer to provide standard test certificates sourced from pump vendor — 1

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Applicable to : ○ Proposal ● Purchase ○ As Built | PAGE ____ OF ____ REQ'N NO. NA | Rev

DESIGN, MANUFACTURE & TESTING SHALL CONFORM TO SPECIFICATION : 123A90-DDL-EL-SP-20084 - Technical Specification for LV Motors
FOR CROSSWIND | UNIT Water System
SITE BLPH - Hollandse Kust Noord (HKN)
SERVICE FRESH WATER PUMP | DRIVEN EQUIPMENT TYPE PUMP | DRIVEN EQUIP. ITEM NO.: P-50009 A-B | QUANTITY: 2
MANUFACTURER ____ MODEL: ____ SERIAL NO. ____ FRAME NO: ____
NOTE: INFORMATION TO BE COMPLETED BY: ○ PURCHASER ☐ MANUFACTURER ◯ PURCHASER OR MANUFACTURER

OPERATING CONDITIONS (1)

Site Data: ____
○ Altitude: ○ Less than ____ ○ Other ____ (m)
○ Ambient Temperature: Min/Max ____ / ____ (°C)
Electrical Characteristics:
○ Volts 400 ○ Phase 3 ○ Hertz 50
Starting Voltage: ○ Full ○ Reduced ____ %
○ Volt Dip +10/-20 % ○ Loaded ○ Unloaded

Installation: ○ Indoor ○ Outdoor
Operating Mode ○ Continuous ○ Standby ○ Intermittent ○ Alter.
Electrical Area Classification ____ ● Unclassified
○ Class ____ ○ Group ____ ○ Division ____
○ Unusual Conditions ○ Dust ○ Fumes
○ Gasses/Vapours ____
○ Ignition Temp ____ (°C) ○ Temperature Code ____

PERFORMANCE

Nameplate Power ____ (kW) ____ (rpm)

Load	Current (AMPS)	Efficiency	Power Factor
Full			
75%			
50%			
Locked Rotor			

☐ No Load Current: ____ (A)
☐ Starts per Hour: ____ Hot ____ Cold
☐ Full Load Torque: ____ (N-m)
☐ L. R. Torque: ____ %FLT
☐ Breakdown Torque: ____ %FLT
☐ Acceleration Time: ____ (sec)

CONSTRUCTION FEATURES

Enclosure ○ TEFC ○ WP1 ○ WP2
○ Explosion Proof ○ Other
Insulation Class ○ B ● F ○ Other
○ Non-Hygroscopic ○ Tropicalized
○ Temperature Rise: ____ (°C) Above ____ (°C)
By: ____ @ ____ S.F.
○ NEMA Torque Design ○ A ○ B ○ C ○ D
◯ Locked rotor kVA Code ____
Mounting
○ Horizontal ○ Foot Mounted ○ Flange Mounted
○ Vertical ○ Shaft Up ○ Shaft Down ○ With Canopy
Coupling
○ Supplied By ____ ○ Mounted By ____
○ Suitable for Belt Drive
Bearing type ☐ Ball ☐ Roller ☐ Sleeve
Bearing Lubrication ◯ Grease ◯ Ring Oil ○ Oil Mist
Grease Fitting ◯ Plugged ○ Alemite ○ Other
Bearing Shielding ◯ Single ◯ Double ◯ Sealed for Life
Motor Rotation (facing end opposite shaft extension)
○ CW ○ CCW ○ Bidirectional
Fan ○ Reversible ○ Unidirectional
○ Non-Sparking ○ Aluminium ○ Non-Metallic
Main Terminal Box Location ◯ F-1 ◯ F-2

○ Space Heater (2) ☐ ____ (kW)
○ Volts 230 ○ Phase 1P+N+PE ○ Hertz 50
○ Max. Sheath Temperature ____ (°C)
○ Winding Temperature Detectors
○ No. per Phase ____ Type: RTD
○ Bearing temperature Detectors
○ Location ____ Type: ____
○ Separate JB for Space Heaters, Winding/Bearing Detectors
○ Adjustable Frequency Drive
◯ Speed range: From ____ (rpm) to: ____ (rpm)
Materials of Construction
◯ Frame
◯ Junction Box
○ Copper Bar Rotor
○ Stainless Steel Filters
○ Differential Pressure Switch for Inlet Filters
○ Vertical Jackscrews
Ground Connection
○ Drilled and tapped Hole in Conduit Box
○ Ground Lug ☐ Size ____ (mm)
Motor Thrust Load ○ None ○ ____ (N)
Thrust Direction ○ Toward ○ Away
☐ Motor Thrust Rating
Nameplate Material ○ 316 SS ○ Other

TESTING & MISCELLANEOUS

Testing	Required	Witness
Routine Test	○	○
Complete Test	○	○
Noise Test	○	○
Certified Results	○	○

☐ Weight Net ____ (kg) Shipping ____ (kg)
Painting ○ Mfr. Std. ○ Other ○ IEEE 841
Noise Design
○ Max sound Pressure Level @ ____ (m) ____ dBA
☐ Expected Sound Pressure Level @ ____ (m) ____ dBA

Notes:
(1) Refer to pump DS
(2) Vendor to installspace heater if necessary according to enviromental conditions (Ref. IOGP S-703 par. 11.3.6.1)

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