Base Load Power Hub (BLPH)

TDS - Sea Water Coarse Filter Package - A-50003

Document Number: 123A90-DDL-MAC-DS-50019

Document Class: 2

01	11/06/2024	Acceptred for Construction (AFC)	F.Mura	M.Marchetti	D. Lo Sterzo
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Rev.	Date	Description	Prepared	Reviewed	Approved

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Revision / Change Log

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

HOLDS LIST

No.	Description
1.	
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General Notes

1) The Coarse Filter is sized to provide 2.9 m3/h of filtered sea water. The Coarse Filter is all particulates above 50 µm to satisfy the downstream user. The Coarse Filter has the ability to self-clean via designed to remove backwash when necessary (i.e. when the pressure drop across it is above the acceptable threshold or the flow through the filter decreases beyond acceptable bounds).
   This backwash will be disposed of via the Brine Discharge Caisson

2) Vendor of Water Treatment Package (WTP) is responsible of final product quality, Fresh Water, according to Doc n° K559-2254-PM-PLN-003, para 8.3.2 Fresh Water Quality.
   Said the above Vendor is free to propose alternative soloution to cope the final result, therfore note 1) is not stritctly mandatory and shall be consisdered as a reference

3) The Coarse Filter is included in the Water Treatment package (WTP) A-50000

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Rev

APPLICABLE TO: ○ PROPOSAL ● PURCHASE ○ AS BUILT

FOR **CROSSSWIND** QUANTITY: **1**

SITE **BLPH - Hollandse Kust Noord (HKN)** MANUFACTURER

SERVICE **SEA WATER FILTRATION** MODEL

UNIT **WATER UNIT** SERIAL NO.

DESIGN, MANUFACTURE & TESTING SHALL CONFORM TO ○ KBR SPECIFICATION: ● OTHER: **MFR Standard**

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

OPERATING CONDITIONS

SITE DATA: ELEVATION **23,31** (m) BAR (barA)

AMBIENT TEMPERATURE: MIN **-8.4** (°C) MAX **25** (°C)

WIND LOAD (kg/m2) VELOCITY **Note A** (Km/h)

OPERATING MODE ○ CONTINOUS ○ STANDBY ● INTERMITTENT

LOCATION: **(1)** ● INDOOR ○ OUTDOOR ○ UNDER ROOF

● HEATED ○ UNHEATED ○ PARTIAL SIDES

○ GRADE ○ MEZZANINE ● OTHER **Monopile**

● WINTERIZATION REQUIRED ○ TROPICALIZATION REQUIRED 1

		Normal	Maximum	Design
INLET PRESSURE **(2)**	(barG)	**15**		
OUTLET PRESSURE	(barG)	**9.5**		
INLET TEMPERATURE	(°C))	**1.3 - 22.5**		
INLET FLOW	(m3/h)	**3**		
OUTLET FLOW	(m3/h)	**2,2**		
BACKWASH FLOW	(m3/h)			

FILTERED FLUID: CONTAMINATES:

UNUSUAL CONDITIONS: ○ DUST ○ FUMES

OTHER **Marine Environment**

AREA CLASSIFICATION ● UNCLASSIFIED 1

○ CLASS GROUP DIVISION

○ ZONE GROUP TEMP CLASS

STRAINER δP: (barG)

○ MAX ALLOWED: ☐ CLEAN:

☐ 75% PLUGGED ☐ BACKWASH SET POINT:

PERFORMANCE

☐ ELEMENT TYPE

☐ NUMBER OF ELEMENTS

☐ TOTAL STRAINING AREA (m2)

☐ TOTAL OPEN STRAINER AREA (m2)

☐ ELEMENT YIELD (barG)

☐ ELEMENT LENGTH OD: (mm)

MESH SIZE

☐ ASTM STANDARD SIEVE NUMBER:

☐ (mm) DIA HOLE ON (mm) CENTERS

INTERNAL LINING:

☐ MATERIAL:

☐ NUMBER OF COATS: OVERALL THICKNESS: (mm)

REQUIRED ACCESSORIES

◯ ΔP TRANSMITTER

◯ ΔP ALARM SWITCH

◯ PRESSURE GAUGE

◯ ELECTRONIC TIMER

◯ BACKWASH VALVE

◯ BACKWASH VALVE ACTUATOR (ELECTRIC)

◯ BACKWASH VALVE ACTUATOR (PNEUMATIC)

◯

MATERIALS OF CONSTRUCTION

◯ VESSEL: **Super Duplex or equivalent**

◯ NOZZLES **Super Duplex or equivalent**

◯ TUBE SHEET:

◯ STRAINER ELEMENTS:

◯ BACKWASH ARM/NOZZLE: **Super Duplex or equivalent**

◯ SHAFT:

◯ BEARINGS:

◯ SEAL PLATES

◯ GASKETS:

◯ COUPLING:

◯ COUPLING GUARD:

◯ BOLT/NUTS:

REMARKS

A. 1 Year Return, 3 sec. gust = 35 m/sec, 100 Year Return, 3 sec. gust = 45 m/sec

B. Filtration Package may be required. To be determined

1. Inside a container featuring HVAC plant

2. Vendor to indicate the actual inlet pressure, in order to allow RM to determine required discharge pressure of P-50001 A/B

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DESIGN, MANUFACTURE & TESTING SHALL CONFORM TO ○ KBR SPECIFICATION: _____ ● OTHER: **ASME VIII Div 1**

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

○ SERVICE: **SEA WATER FILTRATION** ○ NUMBER REQUIRED: **1**

☐ MANUFACTURER: _____ ☐ SERIAL NUMBER: _____

VESSEL DESIGN ☐

☐ HEIGHT:	by vendor	(mm)
☐ THICKNESS:	by vendor	(mm)
☐ O.D.	by vendor	(mm)
☐ CORR. ALLOWANCE:	by vendor	(mm)
○ DESIGN TEMPERATURE:	by vendor	(°C)
○ DESIGN PRESSURE:	by vendor	(barG)
○ HYDRO TEST PRESSURE:		(barG)

● ASME DESIGN w/o STAMP. ○ ASME DESIGN w/STAMP.

☐ **WEIGHTS:**

SHIPPING: by vendor

OPERATING: by vendor (kg)

HYDRO TEST: _____ (kg)

CONNECTIONS ☐

ITEM	DESC	NO.	SIZE	RATING/FACING/TYPE	Rev
A	INLET				1
B	OUTLET				1
C	BACKWASH				1
D	VENT				1
					1

MISCELLANEOUS ☐

○ SHOP COATING: ○ INSPECTION

○ SANDBLAST ○ SPOT RADIOGRAPHY

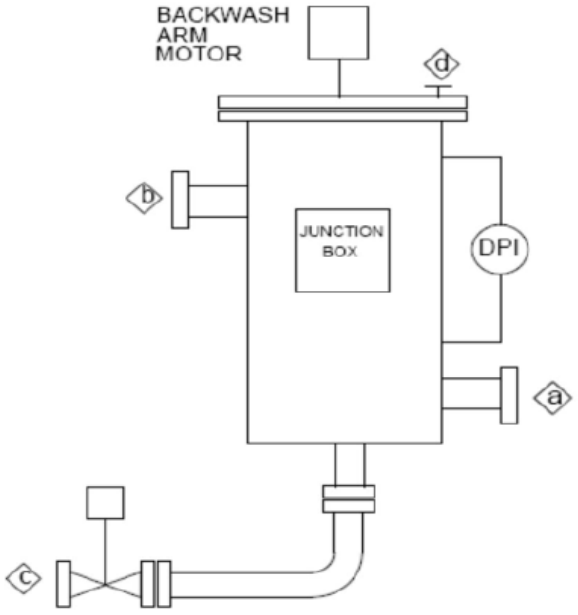
○ FINISH PAINT ○ HYDROTEST

○ INTERNAL LINING ○ _____

TYPE: _____ ○ _____

COATS _____

OVERALL THK: _____ (mm)



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

DESIGN, MANUFACTURE & TESTING SHALL CONFORM TO SPECIFICATION : 123A90-DDL-EL-SP-20084 - Technical Specification for LV Motors
FOR CROSSWIND — UNIT Water Treatment
SITE BLPH - Hollandse Kust Noord (HKN)
SERVICE SEA WATER FILTRATION — DRIVEN EQUIPMENT TYPE FILTER — DRIVEN EQUIP. ITEM NO.: A-50003 — QUANTITY: 2
MANUFACTURER ____ MODEL: ____ SERIAL NO. ____ FRAME NO: ____
NOTE: INFORMATION TO BE COMPLETED BY: ○ PURCHASER ☐ MANUFACTURER ◯ PURCHASER OR MANUFACTURER

OPERATING CONDITIONS (1)

Site Data: marine enviroment
○ Altitude: ○ Less than ____ ● Other 23,31 (m)
○ Ambient Temperature: Min/Max 8,4 / 25 (°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

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