Base Load Power Hub (BLPH)

TDS - FF and Safety Equipment

Document Number: 123A90-DDL-SAF-DS-30033

Document Class: 2

01	01/07/24	Accepted for Construction (AFC)	C.Caracciolo	C.Caracciolo	D.LoSterzo
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Table of Contents

SH.	DESCRIPTION	REVISIONS							
		00							
1	Cover	X							
2	Table of Contents	X							
3	Revision / Change Log	X							
4	Liferaft	X							
5	Life jacket	X							
6	Life buoy	X							
7	Descent Device	X							
8	Immersion suit	X							
9	Safety Cabinet	X							
10	Escape mask	X							
11	First aid kit	X							
12	Resuscitation unit	X							
13	Evacuation stretcher	X							
14	Electrical safety kit	X							
15	CO2 portable fire extinguisher	X							
16	Powder portable fire extinguisher	X							

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Revision / Change Log

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

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No.	Description
1.	
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CROSSWIND	HOLLANDSE KUST NOORD WIND PARK Project Contract No. CW-I-WP4-2023-05	ROSETTI MARINO
Document Title:	TDS - FF and Safety Equipment	Sh. 4 of 16 Date: 01/07/24 Rev. 01

	Rev	Item	Required	Comment
			GENERAL DATA	
1		**EQUIPMENT TYPE**	**LIFE RAFT**	
2		**TAG**	YLB-079001/2	
3		**MAIN ITEM**	Liferafts + craddles	
4		**QUANTITY**	2	
5		**STANDARDS**	IMO SOLAS/Chapter 4.1 and 4.2 of the IMO Life-Saving Appliance (LSA) Code	
6		**APPROVAL/CERTIFICATE**	Chapter 4.1 and 4.2 of the IMO Life-Saving Appliance (LSA) Code	
7		**REF. TECHNICAL SPEC.**	123A90-DDL-SAF-SP-30032	
8		**REF. DRAWING**	123A90-DDL-SAF-DL-30025/26	
			OPERATING CONDITIONS	
9		**LOCATIONS**	Outdoor, on Lower deck (27,700m LAT) - one north west and the other south east as per ref. Drawing	
10		**ENVIRONMENT CONDITION**	MARINE ENVIRONMENT	
11		**TEMPERATURE**	from -10°C to 30°C	
			TECHNICAL DATA	
13		**TYPE**	Throw-overboard liferafts, self-inflating	
14		**CAPACITY**	10 each	
15		**MATERIAL**	By Vendor	
16		**COLOR**	International Orange	
17		**DIMENSION**	By Vendor	
18		**WEIGHT**	By Vendor	
19		**DROPPED HEIGHTS**	23.31m TOS (from below deck both)	
20		**PAINTER / OPERATING LINE**	Equal to the height of the launch point above LAT plus 12 m (i.e. 40 m at minimum)	
21		**MARKING**	Name of the installation	
22		**ADDITIONAL EQUIPMENT**	as per SOLAS pack A	
23		**automatic inflation system**	yes - system by Vendor	
24				
25		**Jib Crane for the rescue of each liferaft**	Option	
			CONTAINER AND SUPPORT (CRADDLE)	
26		**MATERIAL**	Container: glass fibre Stainless steel or other suitable for marine environment	
27		**SUPPORT**	RACK/CRADLE indipendent bracket, no handrail mounting	
28		**PAINTING**	According to 123A90-DDL-MAT-SP-60006	
29		**DIMENSION**	By Vendor	
30		**WEIGHT**	By Vendor	
31		**INSTRUCTION SIGN**	Operating instructions shall be clearly fixed in English	
32		**MARKING**	“LIFE RAFT”, in English	
33		**PROTECTION RATING (IP)**	as minimum IP65	
34				

NOTES

35 Each liferaft shall be marked with the associated tag number
Each craddle shall be marked with the associated tag number
All instrumentation equipment shall be ATEX Certified Category Ex II 2G (or IECEx equivalent), Gas Group IIC, Temperature class T1.
All field instruments and instrument equipment (i.e junction boxes, outdoor control panels/cabinets; etc..) shall be certified for Zone 1 certified for Gas Group IIC Temperature Class T1 as per IEC 60079.
The cradle supporting each life raft shall allow the launching of the container and its life raft by only one person
The approved radio distress beacon (EPIRB) and the search and rescue transponder beacon (SART) will be supplied as loose item by others.

	Rev	Item	Required	Comment
			GENERAL DATA	
1		**EQUIPMENT TYPE**	**LIFE JACKET**	
2		**TAG**	YEE-079003 A uo to V	
2		**QUANTITY**	20	
3		**STANDARDS**	Chapter 2.2 and 2.3 of the IMO Life-Saving Appliance (LSA) Code	
3		**APPROVAL/CERTIFICATE**	IMO/LSA	
4		**REF. TECHNICAL SPEC.**	123A90-DDL-SAF-SP-30032	
5		**REF. DRAWING**	123A90-DDL-SAF-DL-30025/26	
OPERATING CONDITIONS				
9		**LOCATIONS**	Outdoor, as per ref. Drawing	
10		**ENVIRONMENT CONDITION**	MARINE ENVIRONMENT	
11		**TEMPERATURE**	from -10°C to 30°C	
12		**HUMIDITY**		
TECHNICAL DATA				
13		**TYPE**	Self-buoyant type	
14				
15		**BUOYANT MATERIAL**	Inherently buoyant material	
16		**COLOR**	Orange	
17		**SIZE**	Adult	
18		**WEIGHT**	By Vendor	
19		**Whistle lanyard**	yes	
20		**Reflective strips**	yes	
21		**Automatically actuated light**	yes	
22		**Lifting brackets**	yes	
23		**Water actuation battery**	yes	
24				
25				

NOTES

Each lifejacket shall be marked with the associated tag number

	Rev	Item	Required
1		**GENERAL DATA**	
2		**EQUIPMENT TYPE**	**LIFE BUOY AND CABINET**
3		**TAG**	Life buoy: YLB-079003 A/B/C/D/E/F/G/H/I/L/M/N/O
4		**MAIN ITEM**	Lifebuoys
5		**QUANTITY**	13 water activated light and smoke marker
6		**STANDARDS**	Chapter 2.1 of the IMO Life-Saving Appliance (LSA) Code
7		**APPROVAL/CERTIFICATE**	IMO/LSA
8		**REF. TECHNICAL SPEC.**	123A90-DDL-SAF-SP-30032
9		**REF. DRAWING**	123A90-DDL-SAF-DL-30025/26
10		**OPERATING CONDITIONS**	
11		**LOCATIONS**	Outdoor:, as per ref. Drawings
12		**ENVIRONMENT CONDITION**	MARINE ENVIRONMENT
13		**TEMPERATURE**	from -10°C to 30°C
14			
15		**TECHNICAL DATA**	
16		**MATERIAL**	Plastic
17		**COLOR**	International Orange
18		**DIMENSION**	outer diameter <= 800 mm; inner diameter >= 400mm
19		**WEIGHT**	By Vendor
20		**SELF-IGNITED LIGHT**	lit by an electric battery and inextinguishable in the water
21		**BUOYANT LIFELINE**	three times longer than the height above sea level (at LAT level) at which the life buoy is posted
22		**MARKING**	Name of the installation
23		**CABINET**	
24		**MATERIAL**	stainless steel or other suitable for marine environment
25		**SUPPORT**	handrail mounting
26		**PAINTING**	According to 123A90-DDL-MAT-SP-60006
27		**DIMENSION**	By Vendor
28		**WEIGHT**	By Vendor
29		**INSTRUCTION SIGN**	Operating instructions shall be clearly fixed in English

	Rev	Item	Required
1		**GENERAL DATA**	
2		**EQUIPMENT TYPE**	**DESCENT DEVICE**
3		**TAG**	YEE-079004 A up to V
4		**MAIN ITEM**	descent devices - donut type
5		**QUANTITY**	20
6		**STANDARDS**	-
7		**APPROVAL/CERTIFICATE**	IMO/LSA
8		**REF. TECHNICAL SPEC.**	123A90-DDL-SAF-SP-30032
9		**REF. DRAWING**	123A90-DDL-SAF-DL-30025/26
10		**OPERATING CONDITIONS**	
11		**LOCATIONS**	Outdoor:, as per ref. Drawings inside safety cabinets
12		**ENVIRONMENT CONDITION**	MARINE ENVIRONMENT
13		**TEMPERATURE**	from -10°C to 30°C
14			
15		**TECHNICAL DATA**	
16		**MATERIAL**	
17		**COLOR**	International Orange or fluorescent yellow
18		**DIMENSION**	By Vendor
19		**WEIGHT**	By Vendor
20		**INSTRUCTION SIGN**	Operating instructions shall be clearly fixed in English
21		**MINIMUM DESCENT HEIGHT**	25m
22		**MARKING**	N/A
23			
24		**TAPE MATERIAL**	By Vendor
25		**DESCENDER MATERIAL**	By Vendor
26			

	Rev	Item	Required	Comment
			GENERAL DATA	
1		**EQUIPMENT TYPE**	**IMMERSION SUIT**	
2		**TAG**	YEE-079002 A up to L	
3		**Typology**	Immersion suit wearable with a life jacket	
4		**QUANTITY**	10	
5		**STANDARDS**	Chapter 2.2 and 2.3 of the IMO Life-Saving Appliance (LSA) Code	
6		**APPROVAL/CERTIFICATE**	IMO/LSA	
7		**REF. TECHNICAL SPEC.**	123A90-DDL-SAF-SP-30032	
8		**REF. DRAWING**	123A90-DDL-SAF-DL-30025/26	
OPERATING CONDITIONS				
9		**LOCATIONS**	Outdoor	
10		**ENVIRONMENT CONDITION**	MARINE ENVIRONMENT	
11		**TEMPERATURE**	from -10°C to 30°C	
12				
TECHNICAL DATA				
13		**TYPE**	Self-buoyant type	
14				
15		**MATERIAL**	waterproof material	
16		**COLOR**	Internationally RED	
17		**SIZE**	Adult	
18		**WEIGHT**	By Vendor	
19		**TAPES**	Retro-reflective tapes	
20				
21				
22				
23				
24				
25				

NOTES

1. Each immersion suit shall be marked with the associated tag number
2. The suit does not allow the body temperature to drop by more than 2 degrees when immersed for 6 hours when the water temperature is between 0 and 2 degrees.

	Rev	Item	Required
1		**GENERAL DATA**	
2		**EQUIPMENT TYPE**	**SAFETY CABINET**
3		**TAG**	YEE-079001 A/B
4			Each SAFETY cabinet shall be marked with the associated tag number
5		**QUANTITY**	2
6		**STANDARDS**	Chapter 2.1 of the IMO Life-Saving Appliance (LSA) Code
7		**APPROVAL/CERTIFICATE**	IMO/LSA
8		**REF. TECHNICAL SPEC.**	123A90-DDL-SAF-SP-30032
9		**REF. DRAWING**	123A90-DDL-SAF-DL-30025/26
10		**OPERATING CONDITIONS**	
11		**LOCATIONS**	Outdoor:, as per ref. Drawings
12		**ENVIRONMENT CONDITION**	MARINE ENVIRONMENT
13		**TEMPERATURE**	from -10°C to 30°C
14			
15		**TECHNICAL DATA**	
16		**MATERIAL**	UV resistant GRP or epoxy coated steel, for marine environment
17		**COLOR**	International RED
18		**DIMENSION**	By Vendor - To fit with the available space as per attached drawing
19		**WEIGHT**	By Vendor
20		**SELF-IGNITED LIGHT**	lit by an electric battery and inextinguishable in the water
21		**BUOYANT LIFELINE**	three times longer than the height above sea level (at LAT level) at which the life buoy is posted
22		**MARKING**	Name of the installation
23		**CABINET**	
24		**MATERIAL**	stainless steel or other suitable for marine environment
25		**SUPPORT**	handrail mounting
26		**PAINTING**	According to 123A90-DDL-MAT-SP-60006
27		**DIMENSION**	By Vendor
28		**WEIGHT**	By Vendor
29		**INSTRUCTION SIGN**	Operating instructions shall be clearly fixed in English

	Rev	Item	Required
1		**GENERAL DATA**	
2		**EQUIPMENT TYPE**	**ESCAPE MASK and Associated Cabinet**
3		**TAG**	YBA-079001/ 02/03/04/05/06/ 07/08/09/10
4		**MAIN ITEM**	escape set - facemask and self-contained air supply
5		**QUANTITY**	10
6		**STANDARDS**	-
7		**APPROVAL/CERTIFICATE**	Chapter 3.2.2 of the IMO Fire System System (FSS) Code
8		**REF. TECHNICAL SPEC.**	123A90-DDL-SAF-SP-30032
9		**REF. DRAWING**	123A90-DDL-SAF-DL-30025/26
10		**OPERATING CONDITIONS**	
11		**LOCATIONS**	Indoor:, as per ref. Drawings inside ITER
12		**ENVIRONMENT CONDITION**	MARINE ENVIRONMENT
13		**TEMPERATURE**	from -10°C to 30°C
14		**TECHNICAL DATA**	
15		**MATERIAL**	weatherproof, corrosion resistant
16		**COLOR**	GREEN
17		**DIMENSION**	By Vendor
18		**WEIGHT**	By Vendor
19		**INSTRUCTION SIGN**	Operating instructions shall be clearly fixed in English
20		**MARKING**	"ESCAPE BREATHING APPARATUS" across the doors in white bold letters in both English and
21			
22			
23		**TAPE MATERIAL**	By Vendor
24		**DESCENDER MATERIAL**	By Vendor
25			

	Rev	Item	Required	
1		**GENERAL DATA**		
2		**EQUIPMENT TYPE**	**FIRST AID KIT**	
3		**TAG**	YSE-079001 A/B/C	
4		**MAIN ITEM**	Collection of supplies used to give medical treatment	
5		**QUANTITY**	3	
6		**STANDARDS**	According to Directive and Regulaton BHV and Inland Shipping	
7		**APPROVAL/CERTIFICATE**	-	
8		**REF. TECHNICAL SPEC.**	123A90-DDL-SAF-SP-30032	
9		**REF. DRAWING**	123A90-DDL-SAF-DL-30025/26	
10		**OPERATING CONDITIONS**		
11		**LOCATIONS**	Indoor:, as per ref. Drawings inside ITER	
12		**ENVIRONMENT CONDITION**	MARINE ENVIRONMENT	
13		**TEMPERATURE**	from -10°C to 30°C	
14				
15		**TECHNICAL DATA**		
16		**MATERIAL**	High Quality ABS Plastic, sturdy and shockproof, waterproof.	
17		**COLOR**	GREEN	
18		**DIMENSION**	By Vendor	
19		**WEIGHT**	By Vendor	
20		**INSTRUCTION SIGN**	Operating instructions shall be clearly fixed in English	
21		**MARKING**	white cross on a green background	
22		**CONTENT DETAIL**		
23		1 pair of heavy-duty scissors (for cutting clothes and dressings)		
24		Non-sterile examination gloves (several sizes)		
25		1 emergency trauma pressure dressing		
26		1 cloth tourniquet		
27		1 bottle of iodine-based disinfectant (BETADINE type)		
28		1 bottle of non-iodine disinfectant (HIBIDINE type)		
29		Several packs of sterile compresses (of 5 or 10)		
30		1 pack of non-sterile compresses (of 50 or 100)		
31		1 roll of adhesive plaster		
32		1 roll of adhesive elastic bandage (cotton – width 5, 10 and 20cm)		
33		Ready-to-use dressings of various sizes		
34		2 triangular cloth slings		
35		1 detailed instructions booklet describing rescue and first aid actions		
36		1 eyewash kit		
37		List of contents		

	Rev	Item	Required
1		**GENERAL DATA**	
2		**EQUIPMENT TYPE**	**RESUSCITATION UNIT**
3		**TAG**	YDF-079001
4		**MAIN ITEM**	1 Automated External Defibrillator + 1 cabinet
5		**QUANTITY**	1
6		**STANDARDS**	According to Directive and Regulaton BHV and Inland Shipping
7		**APPROVAL/CERTIFICATE**	-
8		**REF. TECHNICAL SPEC.**	123A90-DDL-SAF-SP-30032
9		**REF. DRAWING**	123A90-DDL-SAF-DL-30025/26
10		**OPERATING CONDITIONS**	
11		**LOCATIONS**	Indoor:, as per ref. Drawings inside ITER
12		**ENVIRONMENT CONDITION**	MARINE ENVIRONMENT
13		**TEMPERATURE**	from -10°C to 30°C
14			
15		**TECHNICAL DATA**	
16		**MATERIAL**	UV resistant GRP or epoxy coated steel, for marine environment
17		**COLOR**	By Vendor
18		**DIMENSION**	By Vendor
19		**WEIGHT**	By Vendor
20		**INSTRUCTION SIGN**	Operating instructions shall be clearly fixed in English
21		**MARKING**	YES
22			

	Rev	Item	Required
1		**GENERAL DATA**	
2		**EQUIPMENT TYPE**	**EVACUATION STRETCHER**
3		**TAG**	YSE-079003
4		**MAIN ITEM**	basket stretcher
5		**QUANTITY**	1
6		**STANDARDS**	LSA CODE - SOLAS
7		**APPROVAL/CERTIFICATE**	-
8		**REF. TECHNICAL SPEC.**	123A90-DDL-SAF-SP-30032
9		**REF. DRAWING**	123A90-DDL-SAF-DL-30025/26
10		**OPERATING CONDITIONS**	
11		**LOCATIONS**	Indoor:, as per ref. Drawings inside ITER
12		**ENVIRONMENT CONDITION**	MARINE ENVIRONMENT
13		**TEMPERATURE**	from -10°C to 30°C
14			
15		**TECHNICAL DATA**	
16		**MATERIAL**	waterrproof, by Vendor
17		**COLOR**	GREEN
18		**DIMENSION**	collapsible to minimum space, to be specified by Vendor
19		**WEIGHT**	minimum weight (approx. 5.5 kg), to be specified by Vendor
20		**INSTRUCTION SIGN**	Operating instructions shall be clearly fixed in English
21		**MARKING**	yes
22		**DESCENDER MATERIAL**	By Vendor

	Rev	Item	Required
1		**GENERAL DATA**	
2		**EQUIPMENT TYPE**	**ELECTRICAL SAFETY KIT**
3		**TAG**	YSE-079002
4		**MAIN ITEM**	Collection of supplies used to give medical treatment
5		**QUANTITY**	1
6		**SERVICE**	Protection of personnel from electrical risk during emergency within Technical Room
7		**APPROVAL/CERTIFICATE**	-
8		**REF. TECHNICAL SPEC.**	123A90-DDL-SAF-SP-30032
9		**REF. DRAWING**	123A90-DDL-SAF-DL-30025/26
10		**OPERATING CONDITIONS**	
11		**LOCATIONS**	Indoor:, as per ref. Drawings inside HV Room
12		**ENVIRONMENT CONDITION**	MARINE ENVIRONMENT
13		**TEMPERATURE**	from -10°C to 30°C
14			
15		**TECHNICAL DATA**	
16		**MATERIAL**	By Vendor
17		**COLOR**	GREEN
18		**DIMENSION**	By Vendor
19		**WEIGHT**	By Vendor
20		**INSTRUCTION SIGN**	Operating instructions shall be clearly fixed in English
21		**CONTENT DETAIL**	1 pair of rubber gloves for 0,6/1kV 1 safety anti-flash glasses 1 rubber mat 0,6/1kV "First aid" safety instructions and first aid posters.

	Rev	Item	Required
1		**GENERAL DATA**	
2		**EQUIPMENT TYPE**	**CO2 PORTABLE FIRE EXTINGUISHER and Associated Cabinet**
3		**TAG**	YXT-002 A/B/C/D/E/F/G/H
4		**SERVICE**	fire fighting
5		**QUANTITY**	8
6		**STANDARDS**	NFPA 10, IMO FSS Code
7		**APPROVAL/CERTIFICATE**	IMO Fire System System (FSS) Code
8		**REF. TECHNICAL SPEC.**	123A90-DDL-SAF-SP-30032
9		**REF. DRAWING**	123A90-DDL-SAF-DL-30025/26
10		**OPERATING CONDITIONS**	
11		**LOCATIONS**	Indoor and Outdoor:, as per ref. Drawings
12		**ENVIRONMENT CONDITION**	MARINE ENVIRONMENT
13		**TEMPERATURE**	from -10°C to 30°C
14			
15		**TECHNICAL DATA**	
16		**EXTINGUISHING AGENT**	CO2
17		**CHARGE / CAPACITY**	5kg
18		**FIRE RATING / CLASS**	BC
19		**METHOD OF OPERATION**	CO2 or N2
20		**DISCHARGE TIME (MINIMUM)**	10 s
21		**EFFECTIVE RANGE**	2m
22		**OVERALL SIZE**	By Vendor
23		**OVERALL WEIGHT**	By Vendor
24		**FINISH**	RAL 3000, according to project painting specification
25		**HOSE**	A flexible high-pressure hose complete with a non-conducting discharge nozzle
26		**PROTECTION COATING SYSTEM**	By Vendor
27		**SUPPORT FRAME(s)/ FLOOR MOUNTED**	Mounting brackets with marine corrosion resistant coating
28		**PRESSURE INDICATOR DEVICE**	A pressure indication device which shall incorporate a small indicator that shall break away when the extinguisher is used

	Rev	Item	Required
1		**GENERAL DATA**	
2		**EQUIPMENT TYPE**	**POWDER PORTABLE FIRE EXTINGUISHER and Associated Cabinet**
3		**TAG**	YXT-002 A/B/C
4		**SERVICE**	fire fighting
5		**QUANTITY**	3
6		**STANDARDS**	NFPA 10, IMO FSS Code
7		**APPROVAL/CERTIFICATE**	IMO Fire System System (FSS) Code
8		**REF. TECHNICAL SPEC.**	123A90-DDL-SAF-SP-30032
9		**REF. DRAWING**	123A90-DDL-SAF-DL-30025/26
10		**OPERATING CONDITIONS**	
11		**LOCATIONS**	Outdoor:, as per ref. Drawings
12		**ENVIRONMENT CONDITION**	MARINE ENVIRONMENT
13		**TEMPERATURE**	from -10°C to 30°C
14			
15		**TECHNICAL DATA**	
16		**EXTINGUISHING AGENT**	Dry Powder Potassium Bicarbonate based.
17		**CHARGE / CAPACITY**	9kg
18		**FIRE RATING / CLASS**	ABC
19		**METHOD OF OPERATION**	CO2 or N2
20		**DISCHARGE TIME (MINIMUM)**	15 s
21		**EFFECTIVE RANGE**	6m
22		**OVERALL SIZE**	By Vendor
23		**OVERALL WEIGHT**	By Vendor
24		**FINISH**	RAL 3000, according to project painting specification
25		**HOSE**	"High Flow" Hand Applicator Hose complete with nozzle
26		**PROTECTION COATING SYSTEM**	By Vendor
27		**SUPPORT FRAME(s)/ FLOOR MOUNTED**	Mounting brackets with marine corrosion resistant coating
28			