BASE LOAD POWER HUB (BLPH)

NAVIGATION AIDS SYSTEM

SINGLE-LINE DIAGRAM

ROSETTI MARINO

1	NO COMMENTS - APPROVED - WORK MAY PROCEED
2	MINOR COMMENTS - REVISE AND RESUBMIT - WORK MAY PROCEED
3	MAJOR COMMENTS – REJECTED – DO NOT PROCEED
4	APPROVAL NOT REQUIRED

NOTE: Approval doesn't relieve the supplier from mandatory compliance with contractual documents and specifications. Comments made do not imply acceptance of any cost or delivery impact.

Sign	Date
	05/11/2024

SICE P.O. No : 1724000775 123A90A	SICE JOB No : JB-2416/C	SICE DOC. No : DW-864-2			

sice

CROSSWIND

ROSETTI MARINO

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
05	28/10/24	A.B.	M.G.	R.M.	AS-BUILT (ASB)
04	16/10/24	A.B.	M.G.	R.M.	ACCEPTED FOR CONSTRUCTION (AFC)
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00	31/05/24	A.B.	M.G.	R.M.	ISSUE FOR REVIEW (IFR)

TITLE : BASE LOAD POWER HUB (BLPH)
SINGLE-LINE DIAGRAM
FRONT PAGE

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK | SCALE : NTS

	DRAWING NO.	SHEET	REV.
A3	1724000775-EL-DG-00005	001	05

F.to UNI A3: 420mmx297mm

File Name : 1724000775-EL-DG-00005 REV.5.DWG

REV. No.	SHEET No.	DESCRIPTION	REF. CODE
05	001	FRONT PAGE	
05	002	SUMMARY AND GENERAL NOTES	
05	003	SYMBOL LIST	
05	004	NAVIGATION AIDS SYSTEM – SINGLE-LINE DIAGRAM	

GENERAL NOTES

(1) = EQUIPMENT TO BE PROVIDED BY OTHERS (NOT INCLUDED IN SICE SCOPE OF SUPPLY).

(2) = INTERCONNECTING CABLES TO BE PROVIDED BY OTHERS (NOT INCLUDED IN SICE SCOPE OF SUPPLY).

(3) = FOR A DETAILED LIST OF THE REMOTE SIGNALS, PLEASE REFER TO THE I/O LIST (DOC. No. 1724000775-EL-LIS-00011).

(4) = FEEDER TO BE CURVE D/K WITH RATED CURRENT 16A.

(5) = DEVICE OPERABLE FROM THE FRONT COVER OF THE ENCLOSURE (ONCE THE COVER IS CLOSED).

(6) = TEMPERATURE PROBE TO BE INSTALLED BY CUSTOMER IN THE BATTERY BOX.

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sice

CROSSWIND

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TITLE : BASE LOAD POWER HUB (BLPH)
SINGLE-LINE DIAGRAM
SUMMARY AND GENERAL NOTES

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK

SCALE : NTS

A3

DRAWING NO. 1724000775-EL-DG-00005

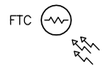
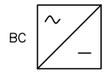
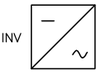
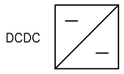
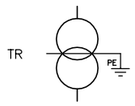
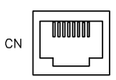
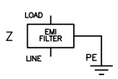
SHEET 002

REV. 05

F.to UNI A3: 420mmx297mm

File Name : 1724000775-EL-DG-00005 REV.5.DWG

SYMBOL LIST

 AUTOMATIC CIRCUIT BREAKER (MAGNETO–THERMIC)	 AUTOMATIC CIRCUIT BREAKER (ONLY MAGNETIC)	 AUXILIARY / RELAY CONTACT (NORMALLY OPEN)	 AUXILIARY / RELAY CONTACT (NORMALLY CLOSED)	 RELAY COIL (COIL POWERED AT 24VDC)	 RELAY COIL (COIL POWERED AT 230VAC)
 POWER CONTACTOR (COIL POWERED AT 24VDC)	 UNDERCURRENT MONITORING RELAY	 24VDC EARTH INSULATION MONITORING RELAY	 230VAC EARTH INSULATION MONITORING RELAY	 PHOTOCELL RELAY (POWERED AT 24VDC)	 THERMIC SWITCH (CLOSED WHEN TEMPERATURE HIGHER THAN THRESHOLD)
 COOLING FAN	 230VAC SOCKET	 DIODE	 CURRENT SHUNT	 0...60mV TO 4...20mA TRANSDUCER	 TERMINAL
 TERMINAL WITH FUSE	 PILOT LIGHT	 CABINET INTERNAL LIGHT	LIMIT SWITCH	 PHOTOCELL (RESISTANCE SENSIBLE TO LIGHT)	 MARINE SIGNAL LIGHT CODER CIRCUIT
 STATUS LIGHT CODER CIRCUIT	 MEDIUM INTENSITY OBSTRUCTION LIGHT CODER CIRCUIT	 BATTERY CHARGER MODULE (AC/DC)	 POWER AC/DC CONVERTER MODULE (AC/DC)	 POWER INVERTER MODULE (DC/AC)	 POWER DC/DC CONVERTER MODULE (DC/DC)
 VOLTAGE TRANSFORMER	 CONTROL SYSTEM	 MODBUS INTERFACE (SLAVE)	 MECHANICAL INTERLOCK BETWEEN POWER CONTACTORS (KM)	 PUSH–BUTTON	 2–POSITION SELECTOR SWITCH
 3–POSITION SELECTOR SWITCH	 AUTOMATIC CHANGE–OVER	 RJ–45 MODULAR JACK	 EMI FILTER	ASTRONOMIC SWITCH	SURGE ARRESTER

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REV.	DATE	DRN	CHKD	APPD	DESCRIPTION

SICE P.O. No : 1724000775 123A90A | SICE JOB No : JB–2416/C | SICE DOC. No : DW–864–2

SICE ELETTRONICA sice

CROSSWIND

ROSETTI MARINO

TITLE : BASE LOAD POWER HUB (BLPH)
SINGLE–LINE DIAGRAM
SYMBOL LIST

CONTRACT NO./TITLE CW–I–WP4–2023–05/HOLLANDSE KUST NOORD WIND PARK | SCALE : NTS

A3 | DRAWING NO. 1724000775–EL–DG–00005 | SHEET 003 | REV. 05

F.to UNI A3: 420mmx297mm

File Name : 1724000775–EL–DG–00005 REV.5.DWG

LV SWITCHGEAR (SG–200N1)

(4) NORMAL POWER SUPPLY (LINE A) 230Vac (207÷253Vac) 50Hz (47÷63Hz) 1Ph+N

(4) ESSENTIAL POWER SUPPLY (LINE B) 230Vac (207÷253Vac) 50Hz (47÷63Hz) 1Ph+N

(1)

3G16 mm² (2) 83036–CEL

3G16 mm² (2) 83037–CEL

X1–3/4 X1–PE

X1–5/6 X1–PE

24VDC

Q2 Q3 Q6 Q7 Q8 Q9 Q10 Q11

230Vac K1 K2

ACO1

BC–200F2A BC–200F2B

DC AC 230V 24V I2C

K5 24Vdc K6 24Vdc

24V 230V INV1 INV2

CG1 MARINE LIGHT CODER

CG2 MARINE LIGHT CODER

CG3 STATUS LIGHT CODER

RS485

NA1 VA V A

NA2 A V W

K3 K4 K7 K8

Q4 Q5 Q1

230VAC

KE2 EARTH KE3 EARTH

<I KU1 KU2

Z1 EMI FILTER LINE LOAD PE

K14 24Vdc

CONTROL SYSTEM ALARM

STATUS LIGHT ON MANUALLY (5) P5

STATUS LIGHT OFF MANUALLY (5) P6

RESET/RETURN TO AUTO (5) P7

K11 24Vdc K12 24Vdc K13 24Vdc

RS485 DO DI

24VDC

K9 24Vdc SPARE DIGITAL OUTPUT 1

K10 24Vdc

KE1 EARTH

KA1 ASTRO SWITCH

ON AUTO OFF

S1 MAIN MARINE & OBSTRUCTION LIGHTS ACTIVATION SELECTOR SWITCH (ON/AUTO/OFF) (5)

CONTROL SYSTEM HMI P1 P2 P3 P4

DI DO RS485 I2C AI

SA1 SA2 SA3 SA4 SA5 SA6 SA7 SA8 SA9 SA10

X2–8 (+) X2–9 (–)

X1–1 (+) X1–2 (–)

X2–12/13

X1–7/8 X1–PE

X1–9/10 X1–PE

X1–11 (+) X1–12 (–)

X1–13 (+) X1–14 (–)

X1–15 (+) X1–16 (–)

X2–10/11

X2–1 (+) X2–2 (–)

X2–3...6

F&G SYSTEM (B400–FGS–002)

(1)

HARD–WIRED REMOTE COMMANDS (4)

BOAT LANDING STATUS LIGHT ACTIVATION COMMAND (24VDC=OFF/0VDC=ON) [72–XS–001]

VISIBILITY METER ACTIVATION COMMAND (24VDC=ON/0VDC=OFF) [72–XS–002]

2x2.5mm² (2) C–NC–200F2/B400–FGS–002.01

2x2.5mm² (2) C–NC–200F2/B400–FGS–002.02

SIS (B400–SIS–001)

(1)

HARD–WIRED REMOTE CONTROLS (4)

NAVIGATION AIDS GENERAL SYSTEM ALARM (CUMULATIVE) (CLOSED=OK/OPEN=ALARM) [72–XA–001]

1x2x0.75mm² (2) C–NC–200F2/B400–SIS–001

X3–1/2 X3–IE

X3–3/4

X3–5/6

X3–7/8 X3–IE

NAVAIDS CENTRAL CONTROL PANEL (NCCP) c/w BATTERY CHARGER/RECTIFIER (NC–200F2/BC–200F2A/B)

2x1x70 mm² (2) 72214–CEL–P 72214–CEL–N

2x2.5 mm² (2) 72208–CEC

BATTERY BREAKER ALARM (5) H1 OFF ON Q1 Q1 F1/F2

NAVAIDS BATTERY BREAKER (CB–200F2)

2x2.5 mm² (2) 72209–CEC

2x1x70 mm² (2) 72215–CEL–P 72215–CEL–N

NAVAIDS BATTERY BANK (BA–200F2) (6)

24VDC 1680Ah (C10)

BATTERY TEMPERATURE PROBE (ETM–200–01)

3x2.5 mm² (2) 72202–CEL

MEDIUM INTENSITY AOL 1/2 JUNCTION BOX (EJB–200F2–01) (1)

MEDIUM INTENSITY AOL 3/4 JUNCTION BOX (EJB–200F2–02) (1)

2x2.5 mm² (2) 72201–CEL

2x2.5 mm² (2) 72202–CEL

2x2.5 mm² (2) 72210–CEL

2x2.5mm² (2) 72203–CEC

7x1.5 mm² (2) 72217–CEC

MEDIUM INTENSITY AOL 1 (TOP) (EOL–200–01)

MEDIUM INTENSITY AOL 2 (TOP) (EOL–200–02)

MEDIUM INTENSITY AOL 3 (INTERM.) (EOL–200–03)

MEDIUM INTENSITY AOL 4 (INTERM.) (EOL–200–04)

MAIN MARINE YELLOW LIGHT 1 (EML–200–01)

MAIN MARINE YELLOW LIGHT 2 (EML–200–02)

BOAT LANDING STATUS LIGHT (ESL–200–01)

PHOTOCELL SYSTEM (EPH–200–01)

VISIBILITY METER (EVM–200–01)

24Vdc POWER SUPPLY

DIAGNOSTIC RELAY

CONTROL RELAY #1

RED STEADY LIGHTS INSTALLED OUTDOOR

"U" MORSE SIGNAL LIGHTS INSTALLED OUTDOOR (UPPER DECK)

FLASHING LIGHT INSTALLED OUTDOOR (BOAT LANDING AREA)

AUTOMATIC ON SYSTEM FOR MARINE LIGHTS INSTALLED OUTDOOR (UPPER DECK – NORTH)

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
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sice

CROSSWIND

ROSETTI MARINO

TITLE : BASE LOAD POWER HUB (BLPH) NAVIGATION AIDS SYSTEM SINGLE–LINE DIAGRAM

CONTRACT NO./TITLE CW–I–WP4–2023–05/HOLLANDSE KUST NOORD WIND PARK

SCALE : NTS

A3

DRAWING NO. 1724000775–EL–DG–00005

SHEET 004

REV. 05

F.to UNI A3: 420mmx297mm

File Name : 1724000775–EL–DG–00005 REV.5.DWG