

2020/06/08

ÎLE ST-OURS, S18-0920-EN

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REV	DRAWN	CHKD	APPRVD	DATE	DESCRIPTION	SHEETS
00	AG	MTa	ML	2018-07-20	FIRST ISSUE.	ALL SECTIONS
01	MTa/AG	MTa	ML	2020-02-20	GENERAL REVISION FOR VALIDATION.	ALL SECTIONS
02	MTa	MTa	ML	2020-06-08	GENERAL REVISION INCORPORATING ALL CHANGES FOR NEW GENERATORS AND SWITCHBOARDS REPLACEMENT AND ALSO INCORPORATION OF COMMENTS FROM INSTALLATION TEAM.	ALL SECTIONS

M. Poirier
2020-06-08

ELECTRICAL ONE-LINE DIAGRAM

L'approbation de la présente révision de ce dessin se limite aux équipements remplacés par Techsol Marine Inc. ainsi qu'aux non-conformités qui ont été relevées et corrigées par l'équipe d'installation de Techsol Marine Inc.

The approval of this revision of this drawing is limited to equipment replaced by Techsol Marine Inc. as well as to non-conformities that have been identified and corrected by the installation team of Techsol Marine Inc.

IMPORTANT INFORMATION

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ELECTRICAL ONE-LINE DIAGRAM
COVER PAGE

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ELECTRICAL ONE-LINE DIAGRAM CONTENT						
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NOTES

- THE ELECTRICAL INSTALLATION TO BE IN ACCORDANCE WITH CANADIAN COAST GUARD RULES AND REGULATION AND ELECTRICAL STANDARDS TP127 LATEST REVISION.
- CABLE SHOWN IS X-LINKED POLYETHYLENE PVC. JACKET 750 VOLT MARINE CABLE. ARMoured-CANADA WIRE MARINEX X81 CABLE SIZE IN AWG.
- NEW CABLES ARE TRICAB LSZH 110DEG. C FLEXIBLE IEEE MARINE CABLES WITH AMPACITY BASED ON IEEE 45-2002 TABLE 25. CABLE SIZE ARE IN MM2.
- STEERING MOTOR BREAKERS TO BE SET AT 200% L.R. CURRENT.
- MOTOR STARTERS (SIZE 1 AND LARGER) TO HAVE DISCONNECTS.
- TRANSFORMERS TO HAVE CLASS F INSULATION DRIP HOODS, CU WINDINGS, WITH MAX. 145C TEMP RISE IN 50C AMBIENT.

SYMBOL LEGEND

XXXXXX	EQUIPMENT TAG NUMBER
UVR	UNDervOLTAGE RELEASE
ACL LVR	LOW VOLTAGE RELEASE
ACL LVP	LOW VOLTAGE PROTECTION
1.5 HP	1.5 HP MOTOR
C	CONTACTEUR
PS	PRESSURE SWITCH
HEATER	HEATER
S	MANUAL STARTER
P 0.33 HP S	PUMP 0.33 HP WITH INTEGRATED PRESSURE SWITCH
	RECEPTACLE
	SWITCHED RECEPTACLE
	DOUBLE NAV LIGHT
	SINGLE NAV LIGHT
2X20	FLUORESCENT FIXTURE
2X20 S	FLUORESCENT FIXTURE SWITCHED
60	INCANDESCENT FIXTURE
60 S	INCANDESCENT FIXTURE SWITCHED
\$	SWITCH
\$	2 WAY SWITCH
	FLOODLIGHT
B/C	BATTERY CHARGER
P/S	POWER SUPPLY

AWG

PAIR/TRIPLE CABLE TYPE DESCRIPTION (BR) TPISOS#16-4 (2)

- Qty of Spare Conductors
- Quantity of Pairs
- AWG Wiring Gage
- With Overall Shield
- With Individual Shield
- TP=Twisted Pair
- TT=Twisted Triple
- BR=Braided cable
- FR=Fire resistant cable
- CAN=Canbus
- MOD=Modbus

MULTICONDUCTOR CABLE TYPE DESCRIPTION (VFD) 4c#12 (2)

- Qty of Spare Conductors
- AWG Wiring Gage
- Xc= Quantity Of Conductors
- XG= Quantity Of Conductors C/W One YE/GN Core
- VFD=Variable Frequency Drive Shielded Cable
- SH=Overall Shielded Cable
- FR=Fire Resistant Cable

THERMOCOUPLE CABLE TYPE DESCRIPTION TPOS#20-4 TC Type K (2)

- Qty of Spare Conductors
- Thermocouple Type
- TC=Thermocouple
- Quantity of Pairs
- AWG Wiring Gage
- With Overall Shield
- Twisted Pair

ETHERNET CABLE DESCRIPTION CAT SE, UTP

- TP=Twisted pair
- U=Unshielded
- S=Shielded
- F=Foiled
- Ethernet cable

REFERENCE DRAWINGS

REF. No.	DWG. No.	TITLE
1	42-83-600	ONE-LINE DIAGRAM-ELECTRICAL
2	B0301-EDWG-SB	240/120VAC MAIN SWITCHBOARD

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BASED ON INFORMATION RECEIVED FROM
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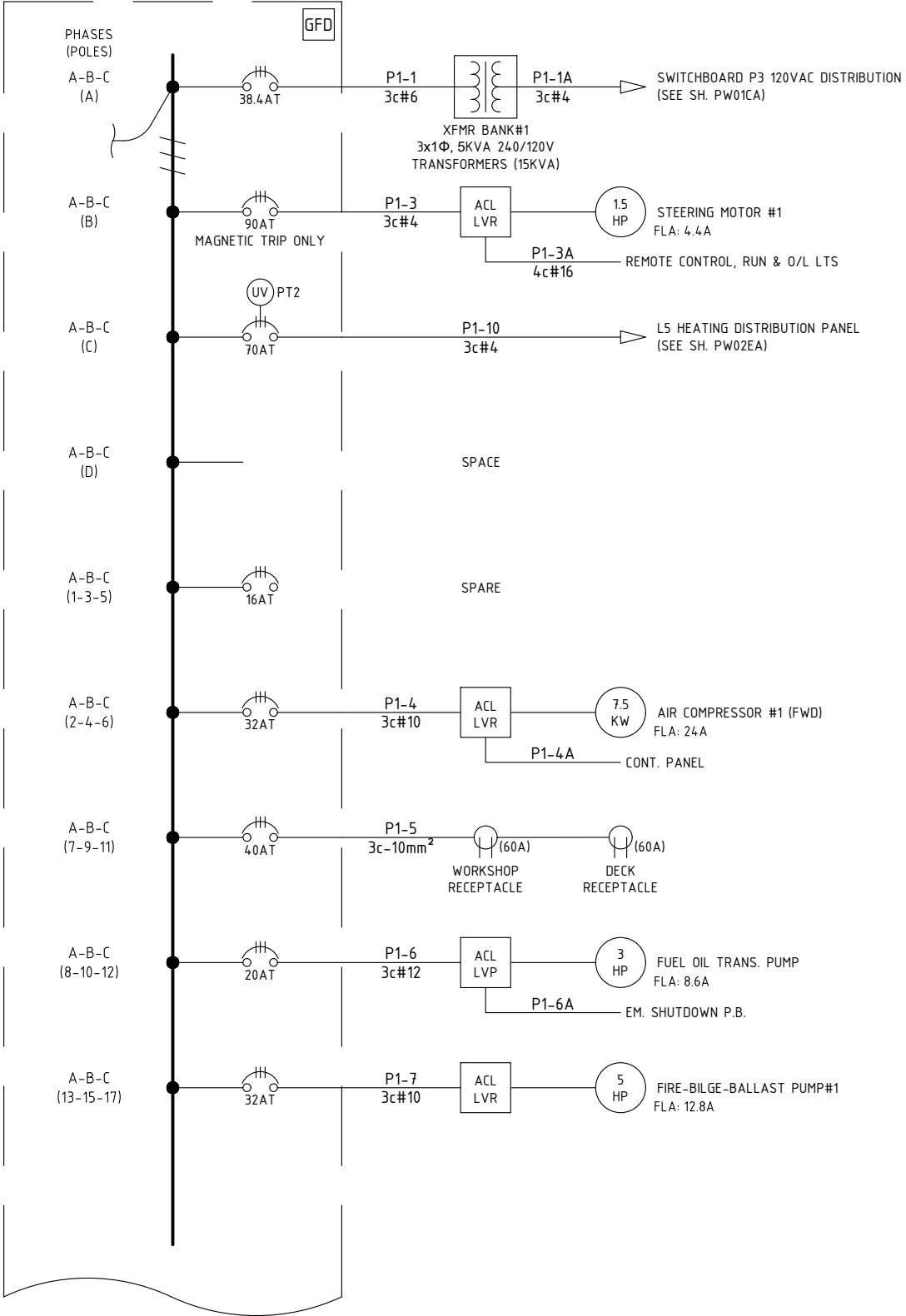


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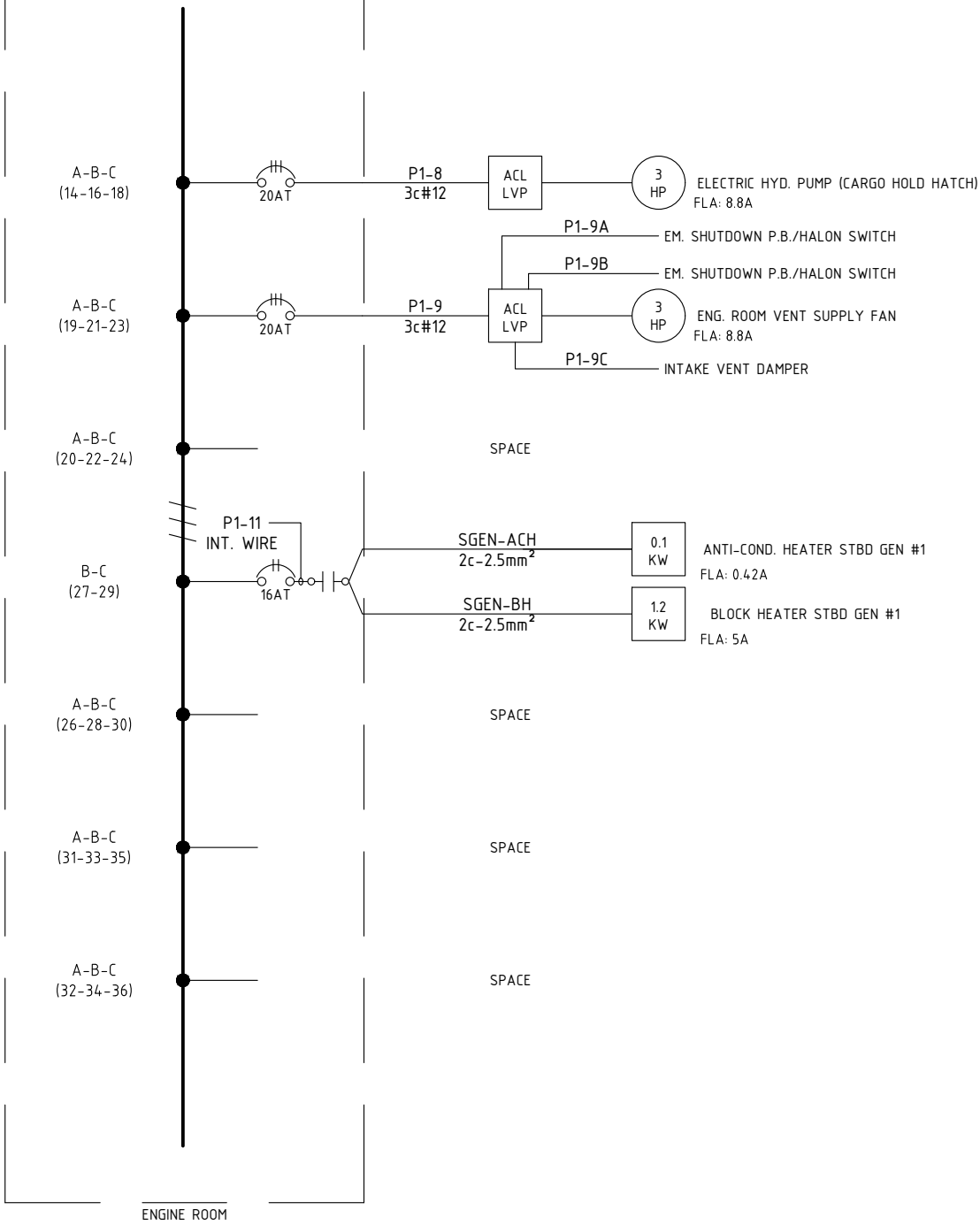
ELECTRICAL ONE-LINE DIAGRAM
INDEX, GENERAL NOTES & REFERENCE DWGS

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SWITCHBOARD P1 240VAC DISTRIBUTION



(Suite)



ENGINE ROOM

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ELECTRICAL ONE-LINE DIAGRAM
SWITCHBOARD
SWITCHBOARD P1 240VAC DISTRIBUTION

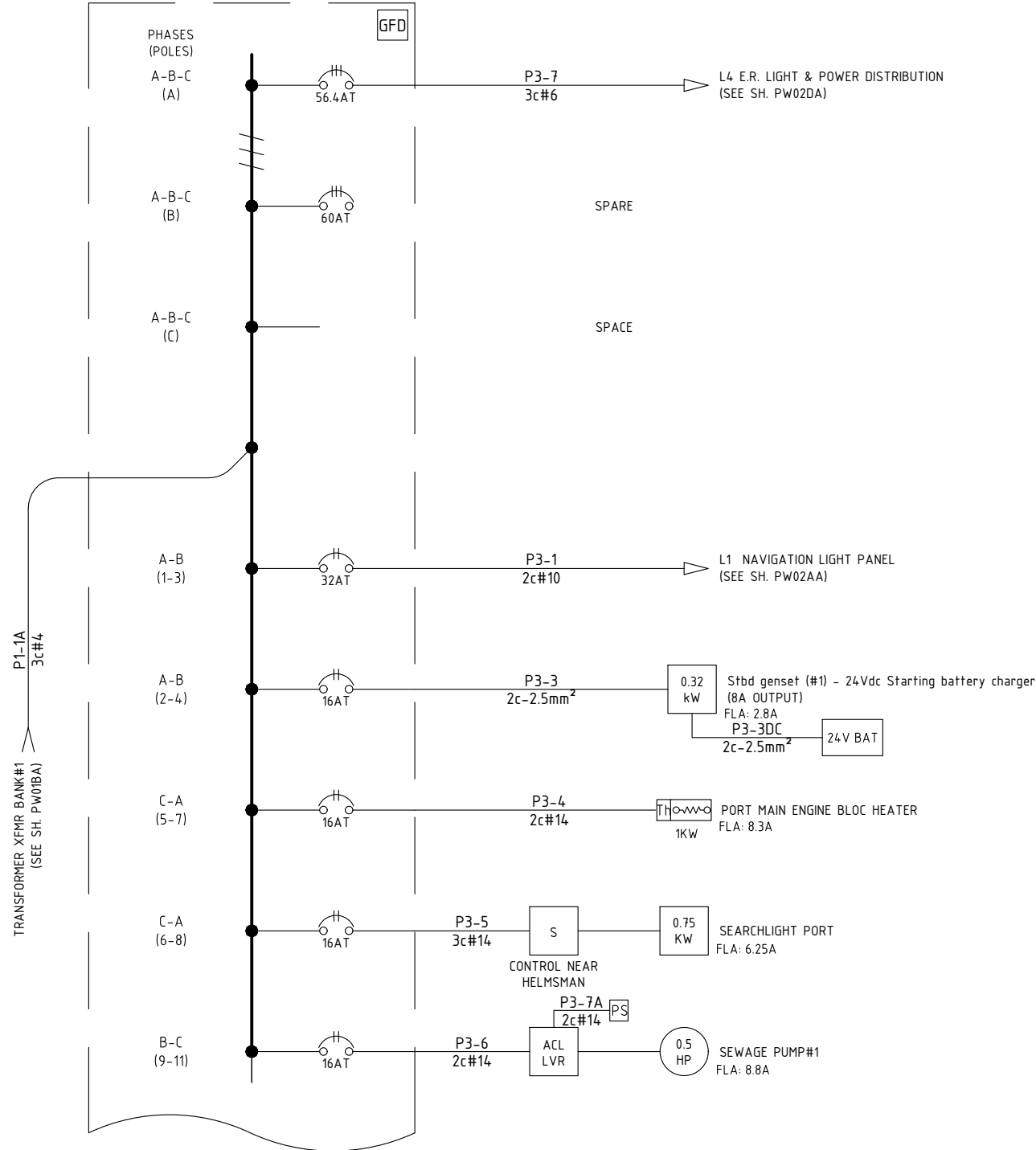
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SWITCHBOARD P3 120VAC DISTRIBUTION



(Suite)

B-C (10-12)

A-B (13-15)

A-B (14-16)

C-A (17-19)

C-A (18-20)

B-C (21-23)

B-C (22-24)

SPARE

P3-8 2c#14

PORT KOBELT SYSTEM
FLA: 8.3A

SPACE

SPACE

SPACE

SPACE

SPACE

ENGINE ROOM

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ELECTRICAL ONE-LINE DIAGRAM
SWITCHBOARD
SWITCHBOARD P3 120VAC DISTRIBUTION

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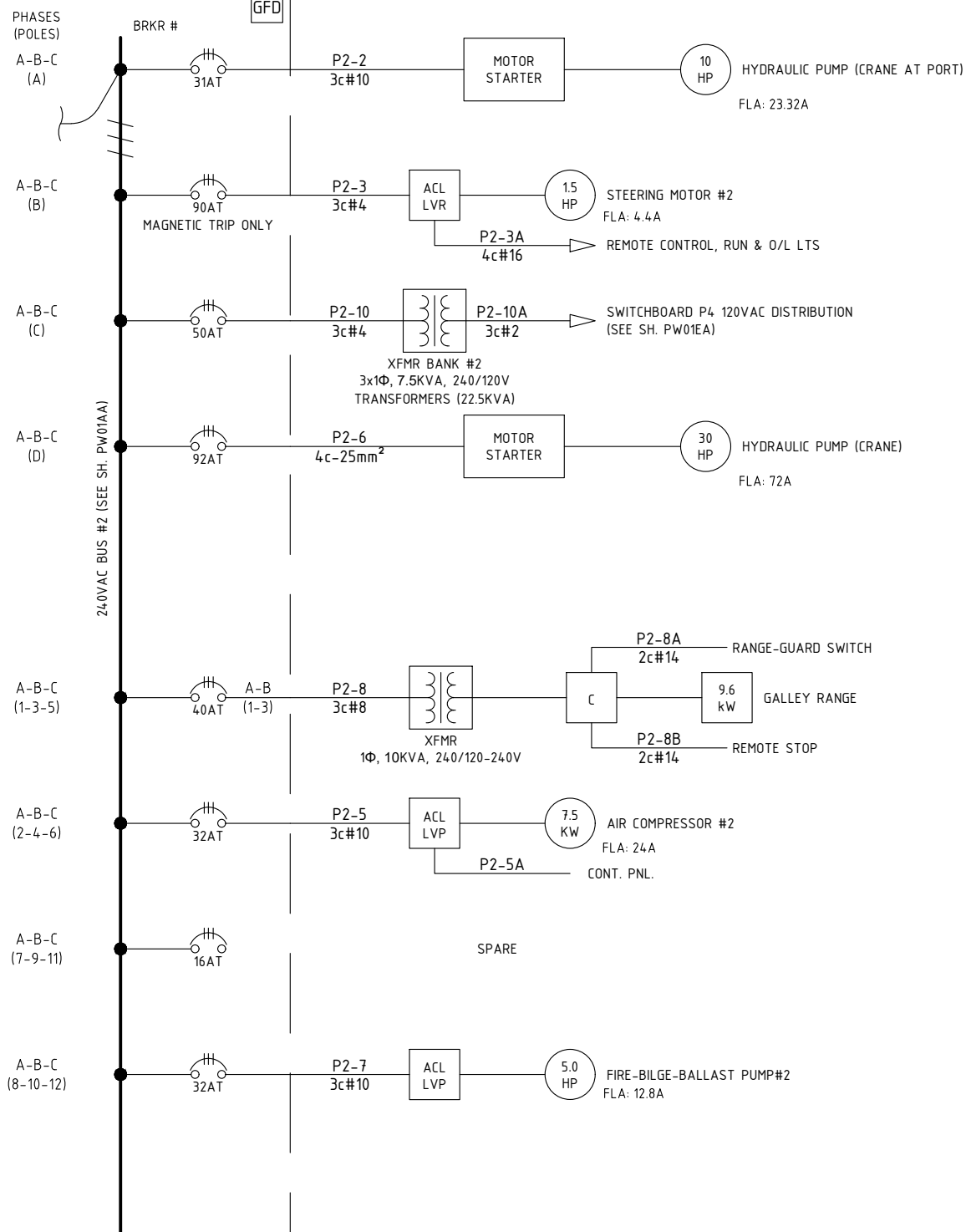
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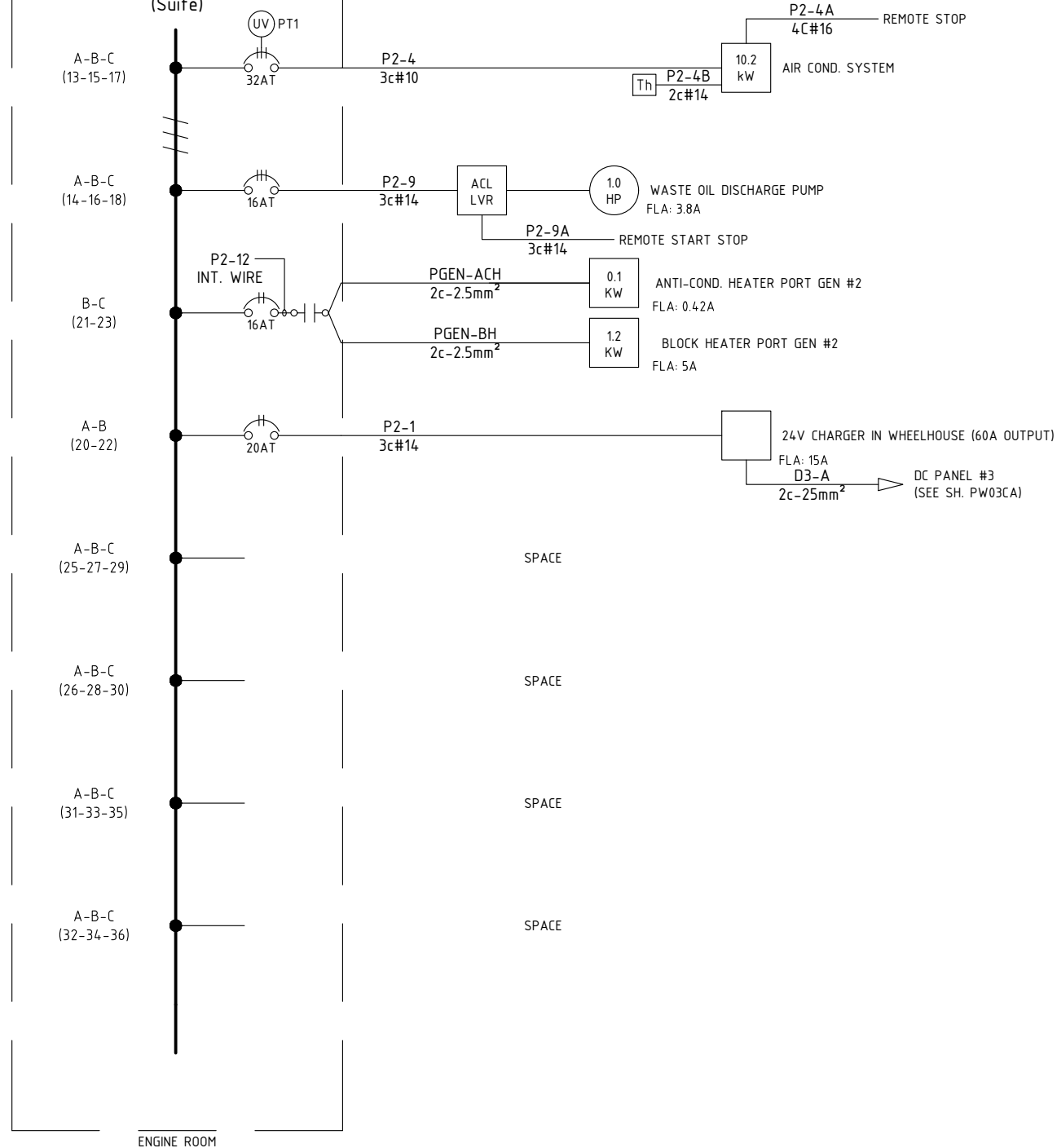
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P2
SWITCHBOARD P2 240VAC DISTRIBUTION



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ELECTRICAL ONE-LINE DIAGRAM
SWITCHBOARD
SWITCHBOARD P2 240VAC DISTRIBUTION

DRAWING NUMBER
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02

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MTa
CHKD

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PW01EA

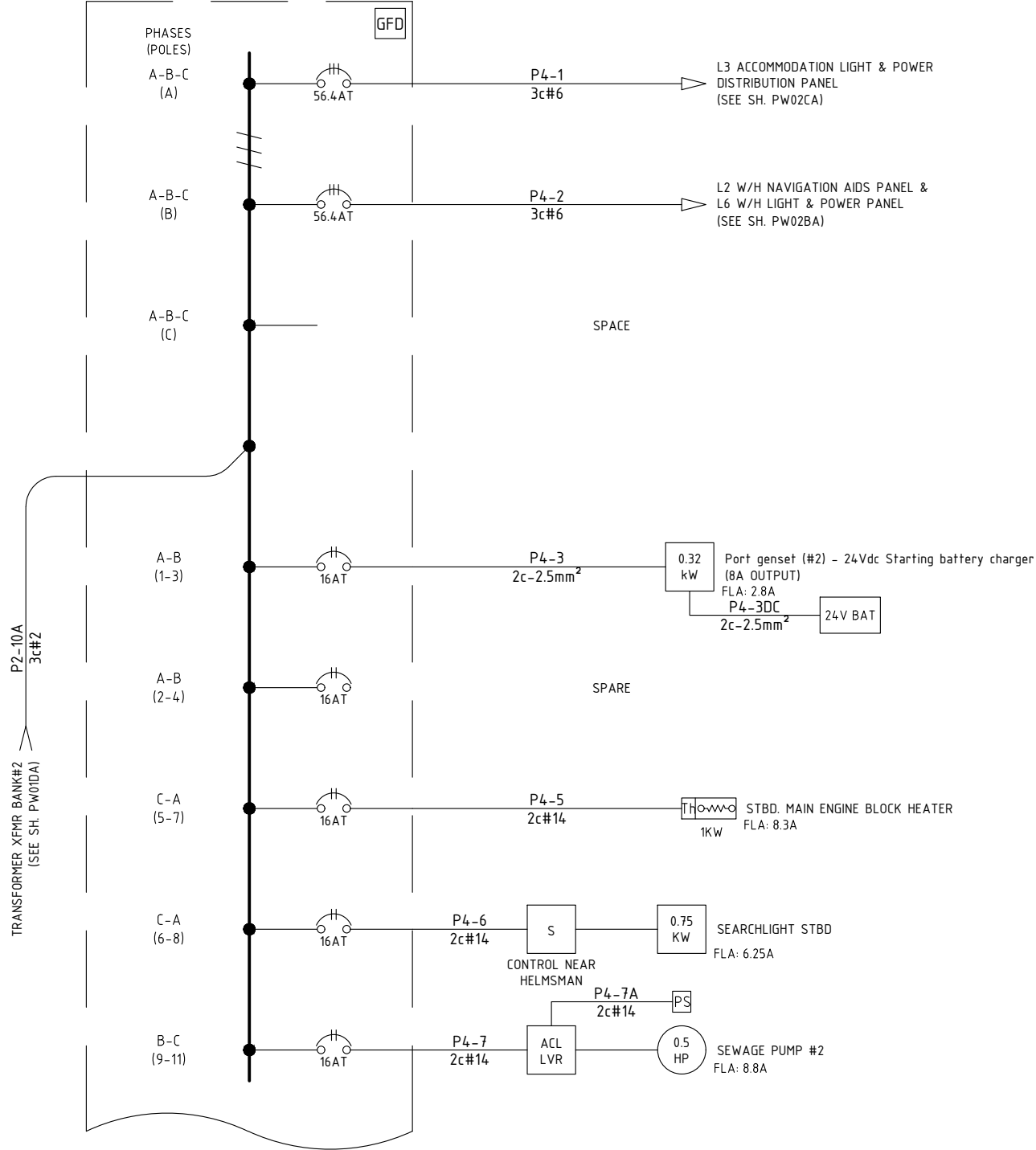
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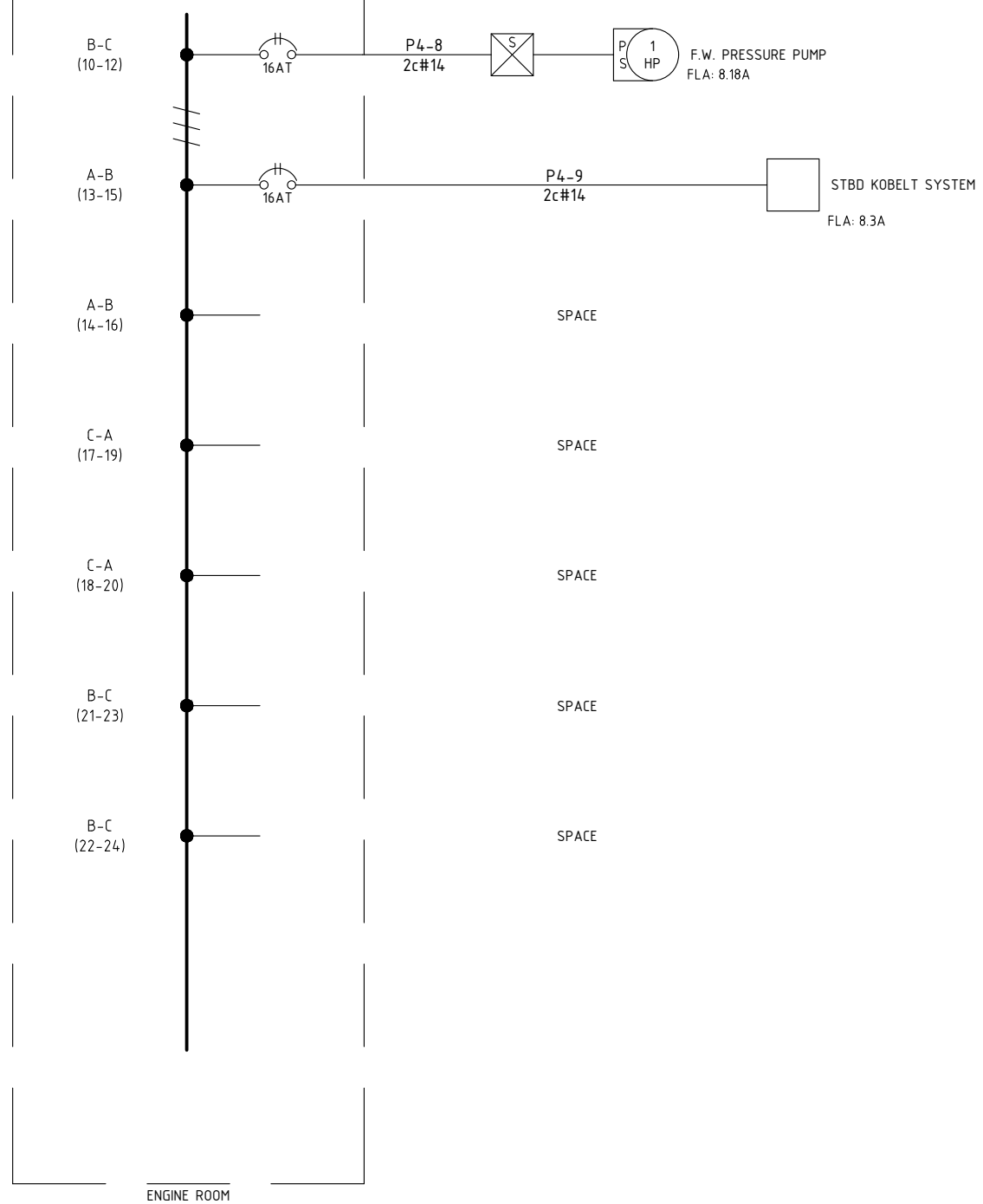
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SWITCHBOARD P4 120VAC DISTRIBUTION



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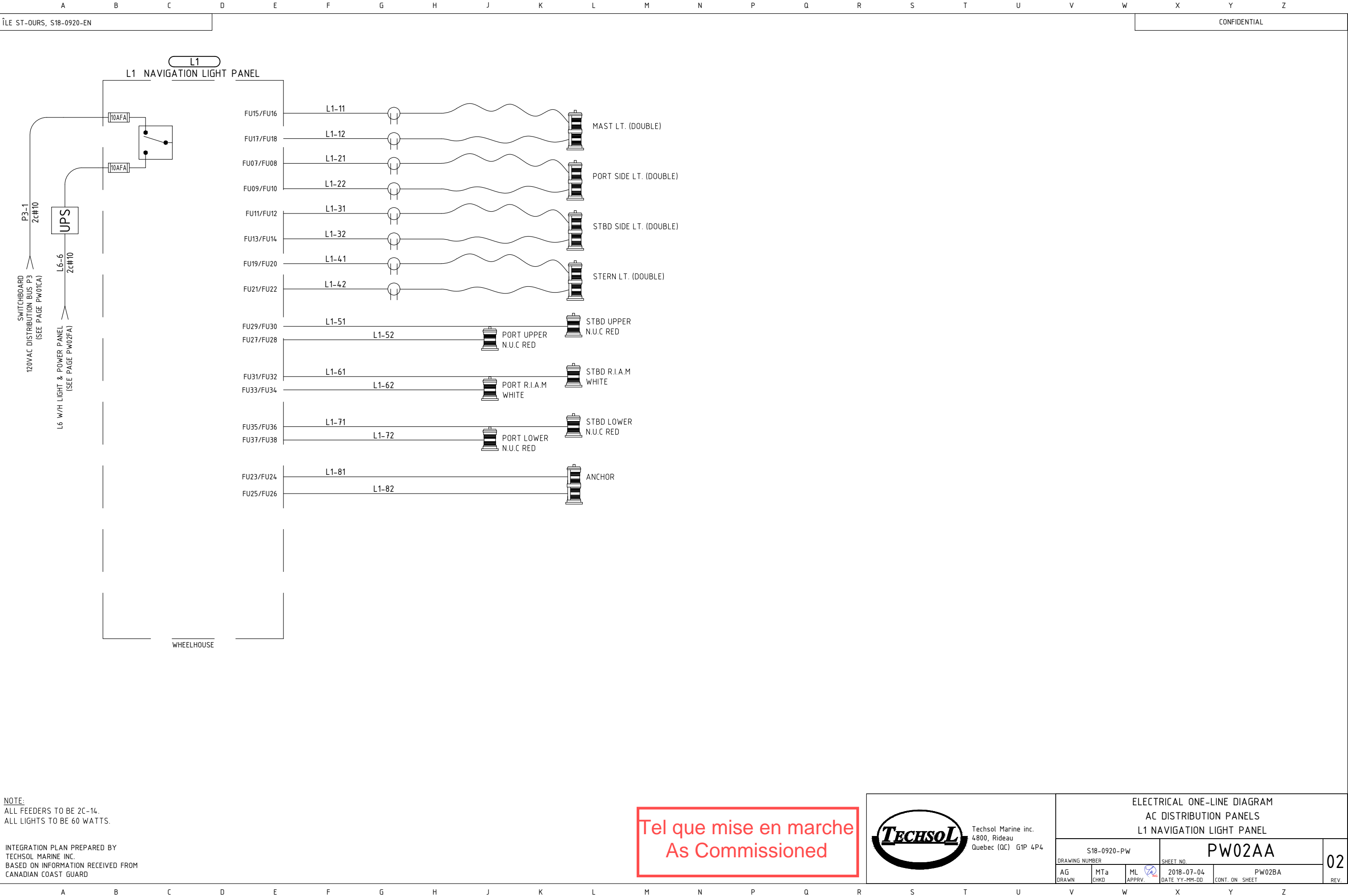
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ELECTRICAL ONE-LINE DIAGRAM SWITCHBOARD SWITCHBOARD P4 120VAC DISTRIBUTION					
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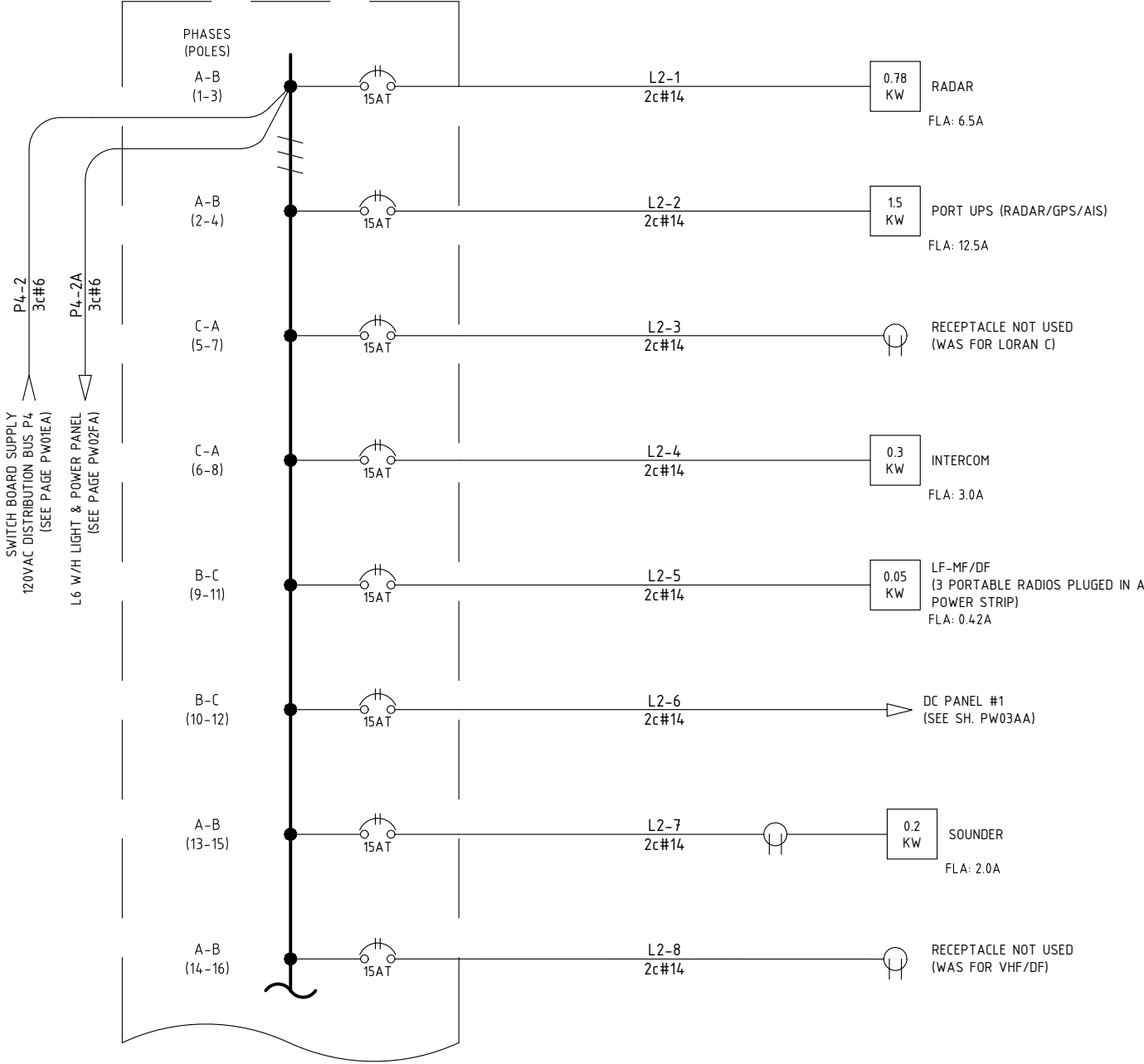


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L2
L2 W/H NAVIGATION AIDS PANEL



(Suite)

C-A
(17-19)

C-A
(18-20)

B-C
(21-23)

B-C
(22-24)

A-B
(25-27)

A-B
(26-28)

L2-9
2c#14

SPACE

L2-11
2c#14

SPACE

SPACE

L2-14
2c#14

0.17 KW

12V BATTERY CHARGER
FOR STBD RADIO
FLA: 1.75A

TOP OF WHEELHOUSE

B/C

BATTERY CHARGER 12V
FOR DC PANEL #2
FLA: 2.9A

D2-A
2c#10

DC PANEL #2
(SEE SH. PW03BA)

WHEELHOUSE

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ELECTRICAL ONE-LINE DIAGRAM
AC DISTRIBUTION PANELS
L2 W/H NAVIGATION AIDS PANEL

S18-0920-PW

PW02BA

02

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CHKD

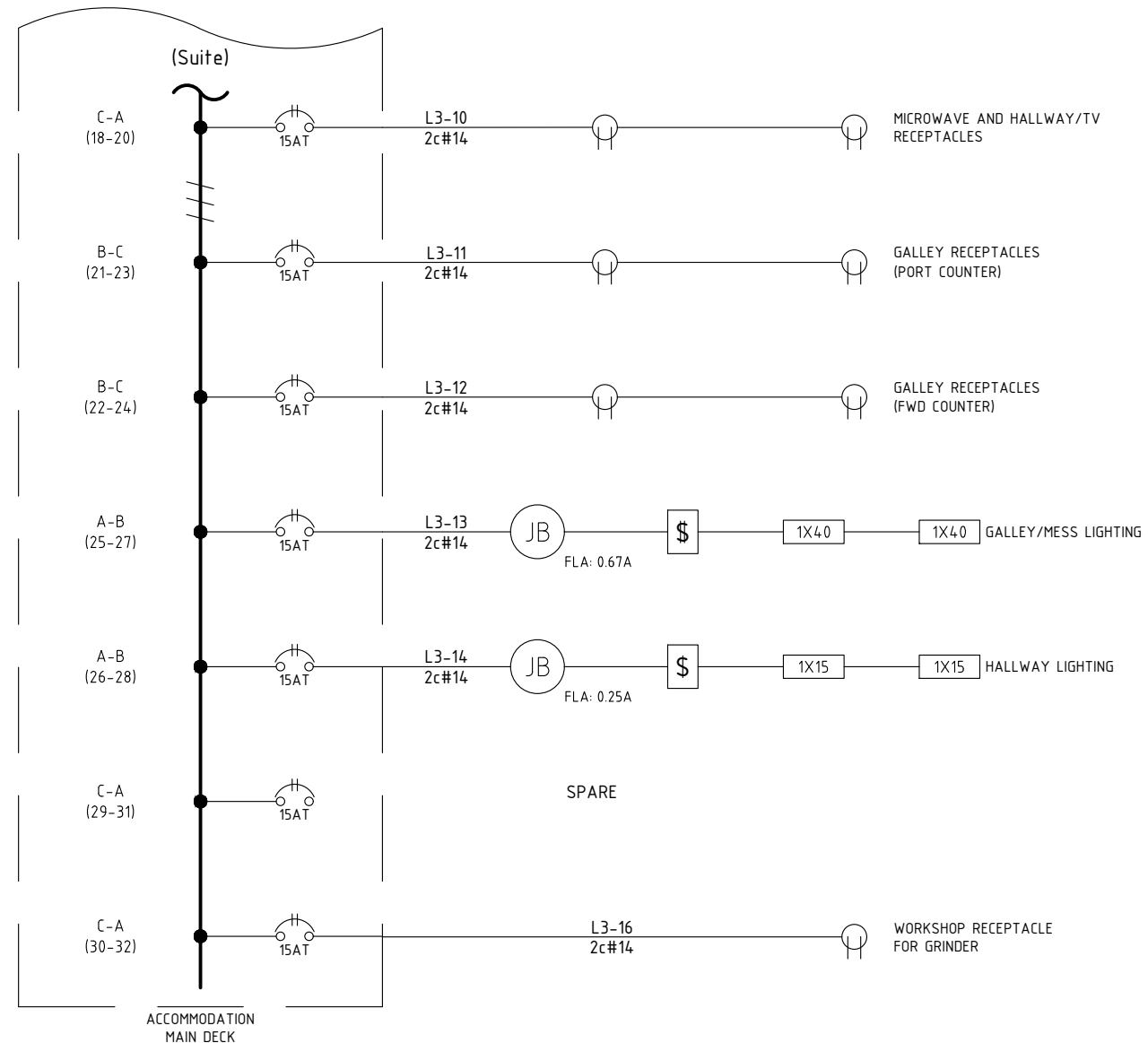
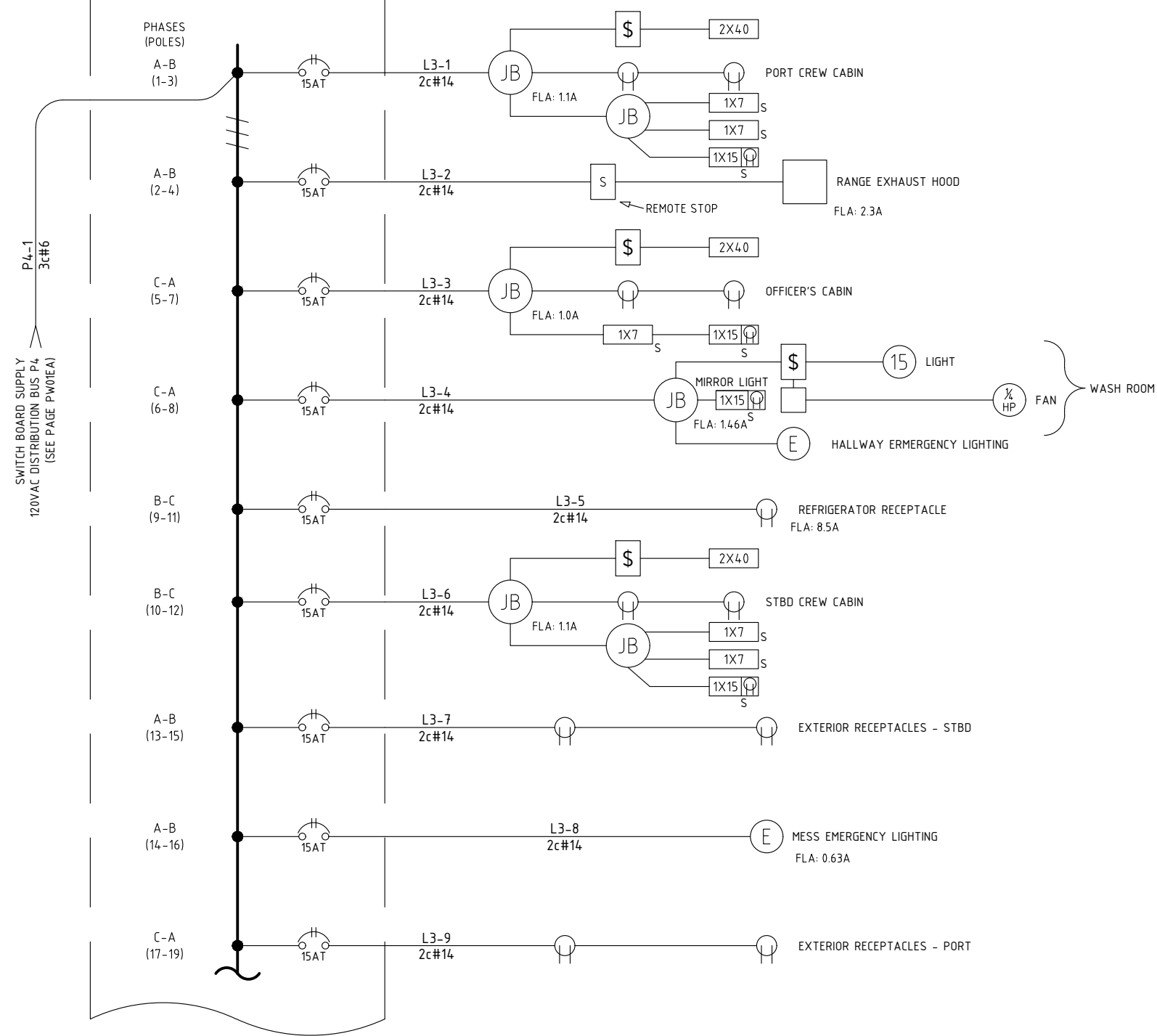
ML
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REV.

L3
L3 ACCOMMODATION LIGHT & POWER DISTRIBUTION PANEL



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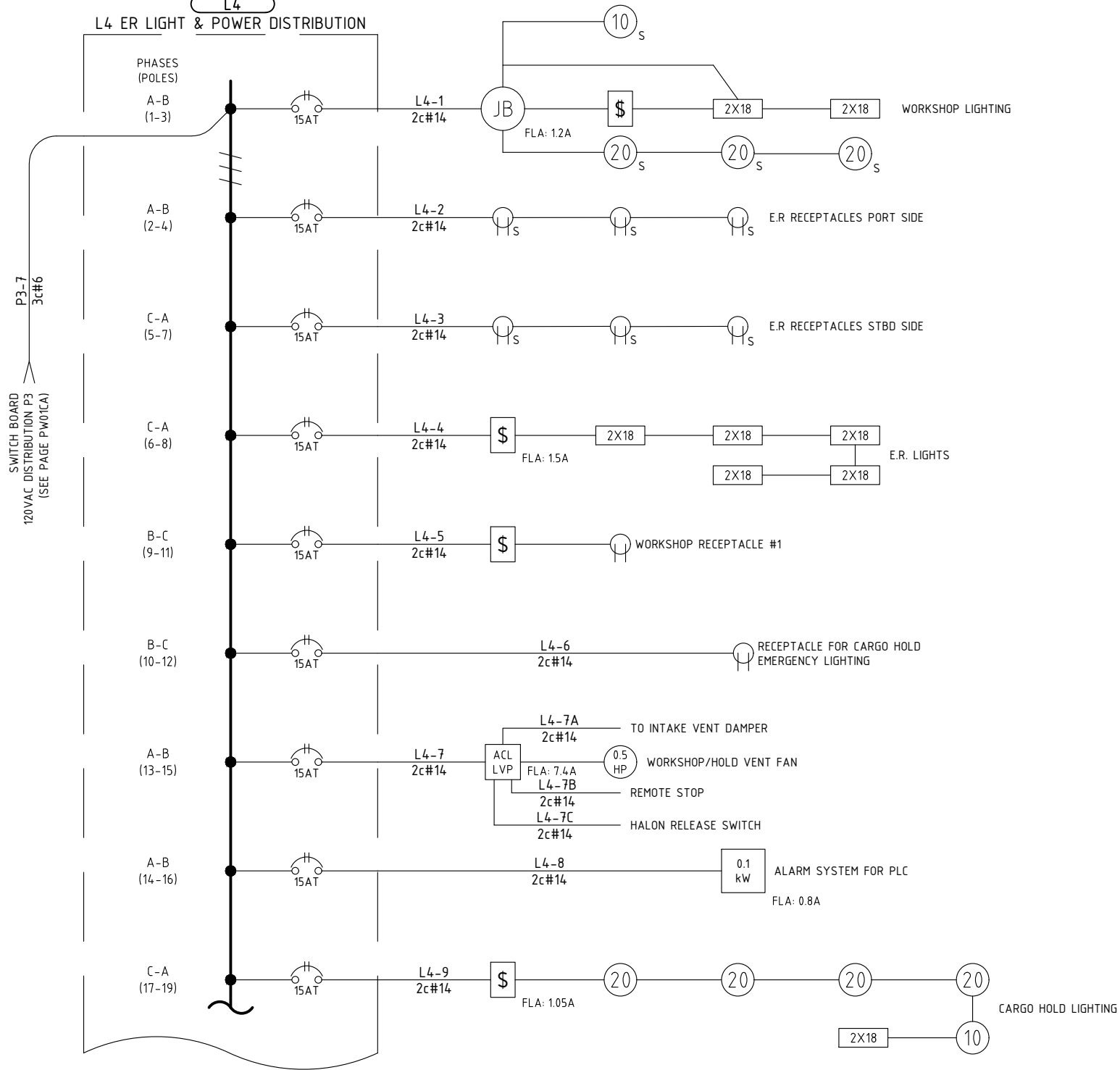
ELECTRICAL ONE-LINE DIAGRAM AC DISTRIBUTION PANELS L3 ACCOMMODATION LIGHT & POWER DISTRIBUTION PANEL			
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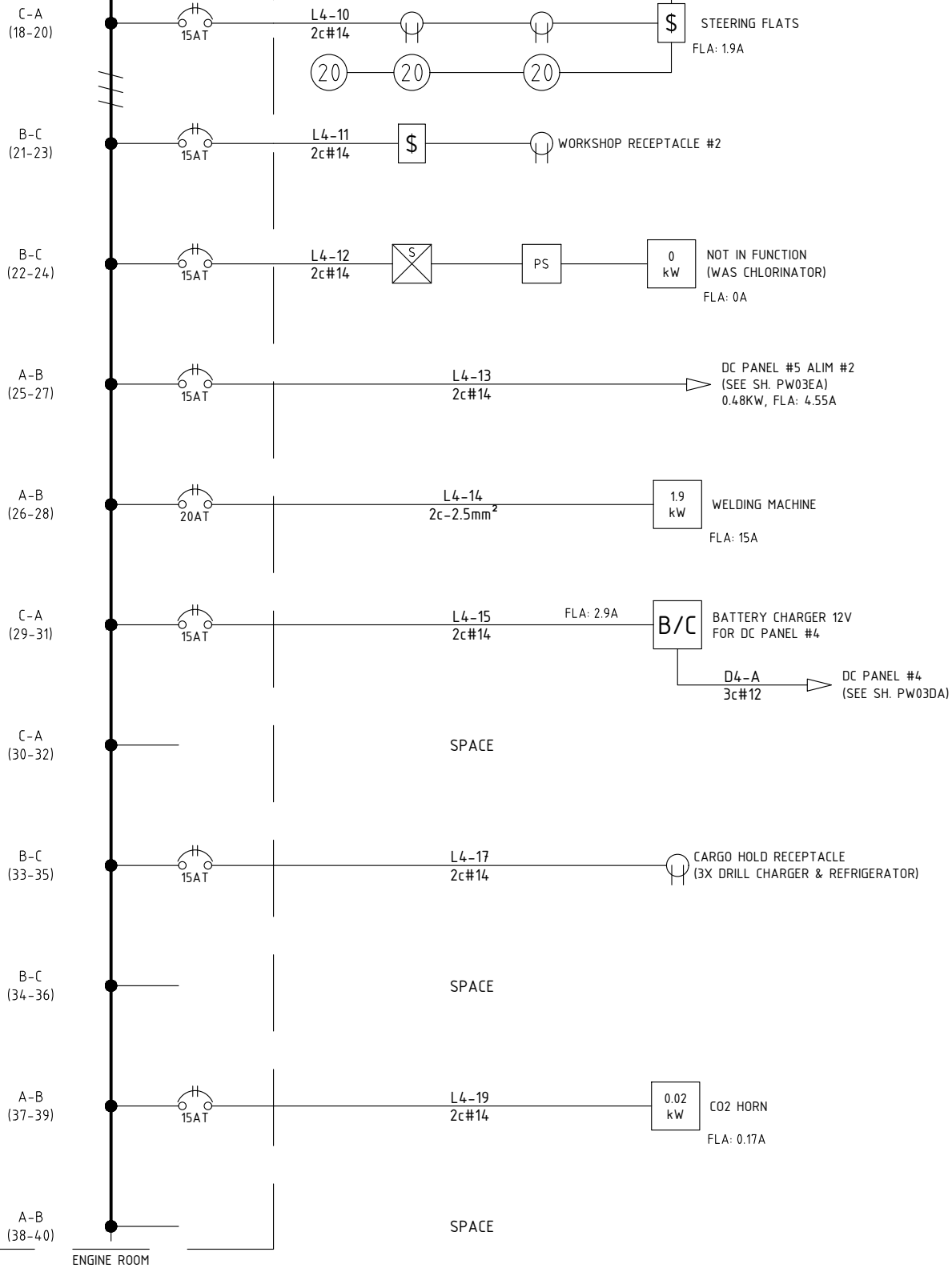
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L4
L4 ER LIGHT & POWER DISTRIBUTION



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ELECTRICAL ONE-LINE DIAGRAM
AC DISTRIBUTION PANELS
L4-ER LIGHT & POWER DISTRIBUTION

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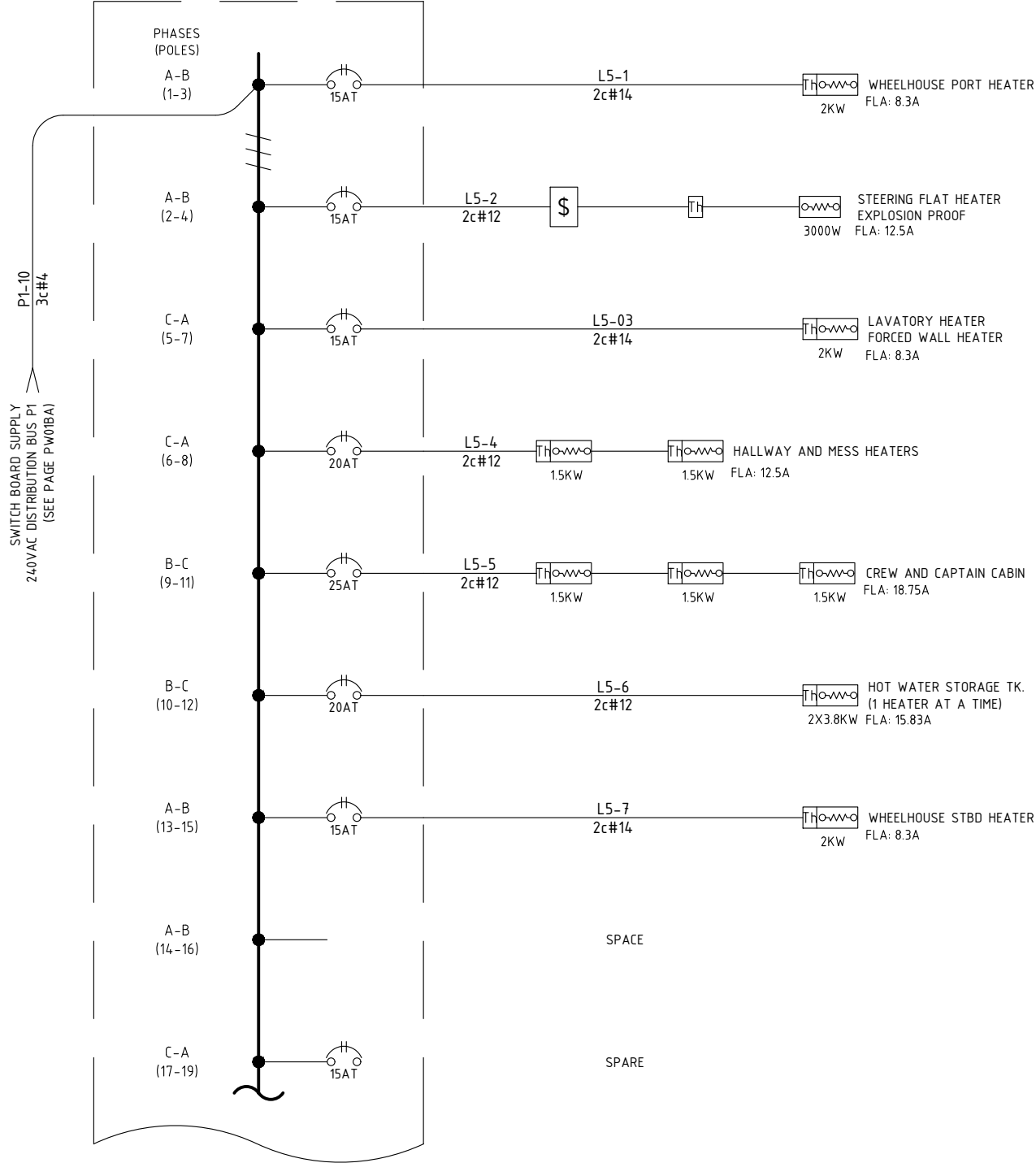
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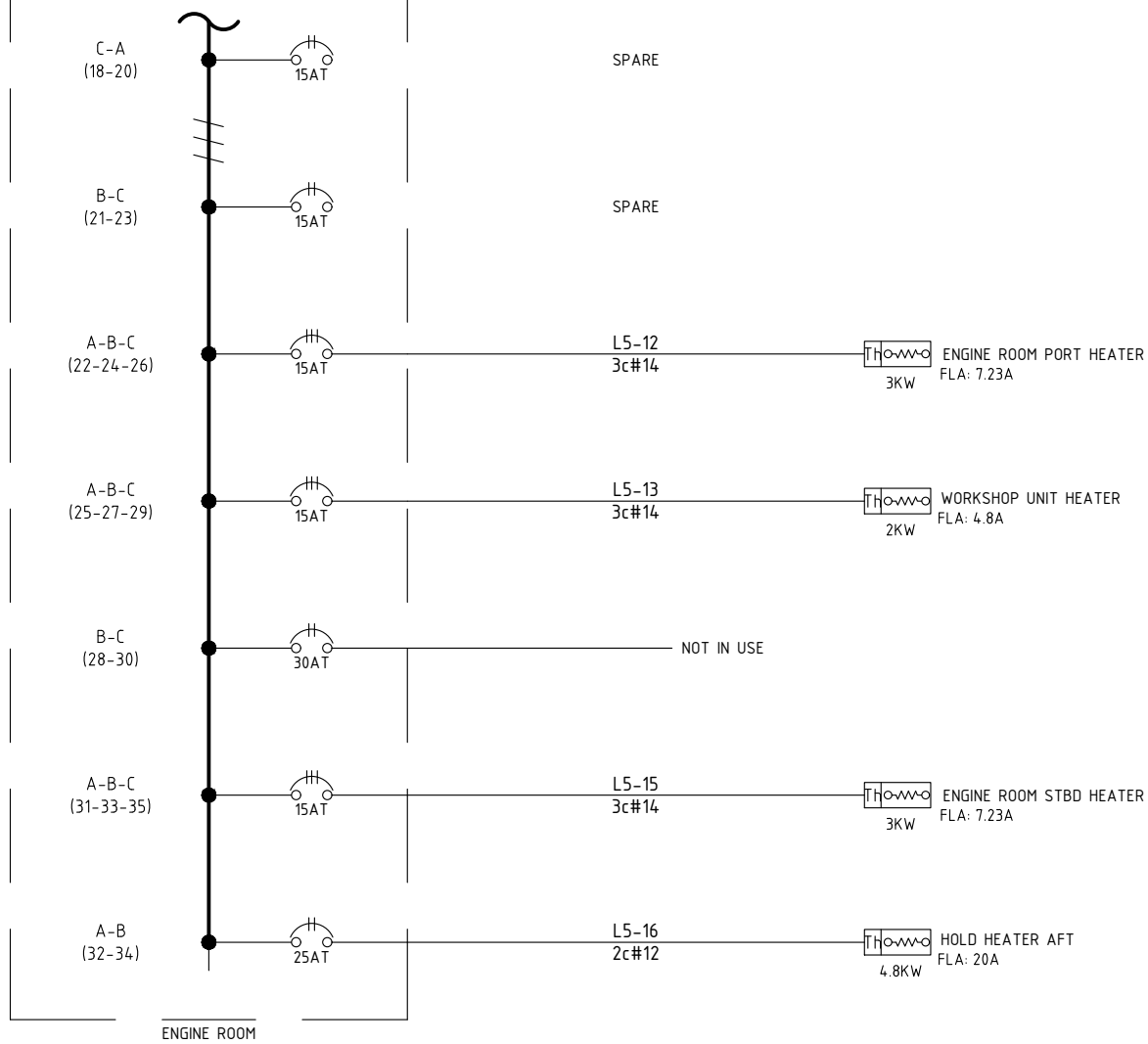
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L5
L5 HEATING DISTRIBUTION PANEL



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ELECTRICAL ONE-LINE DIAGRAM
AC DISTRIBUTION PANELS
L5 HEATING DISTRIBUTION PANEL

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02

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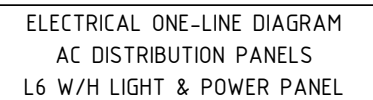
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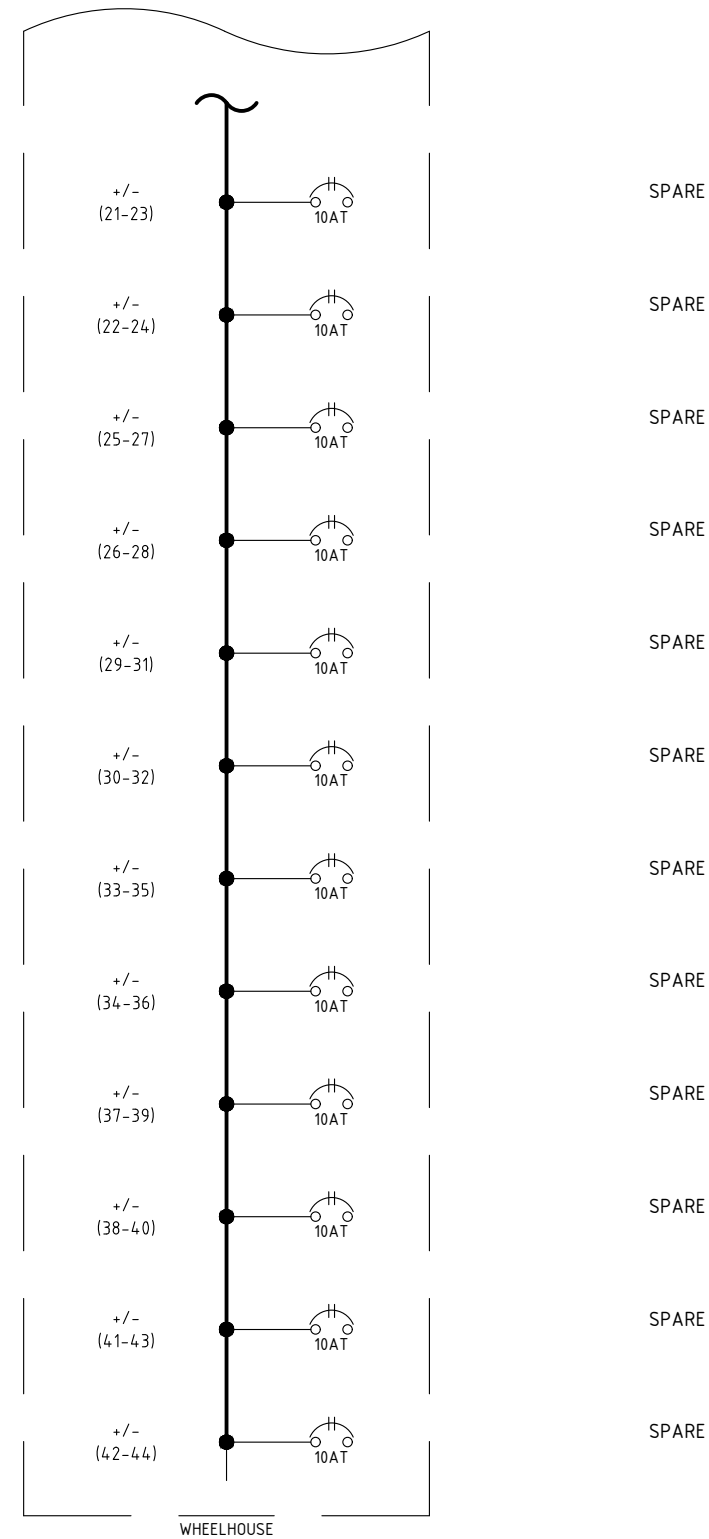
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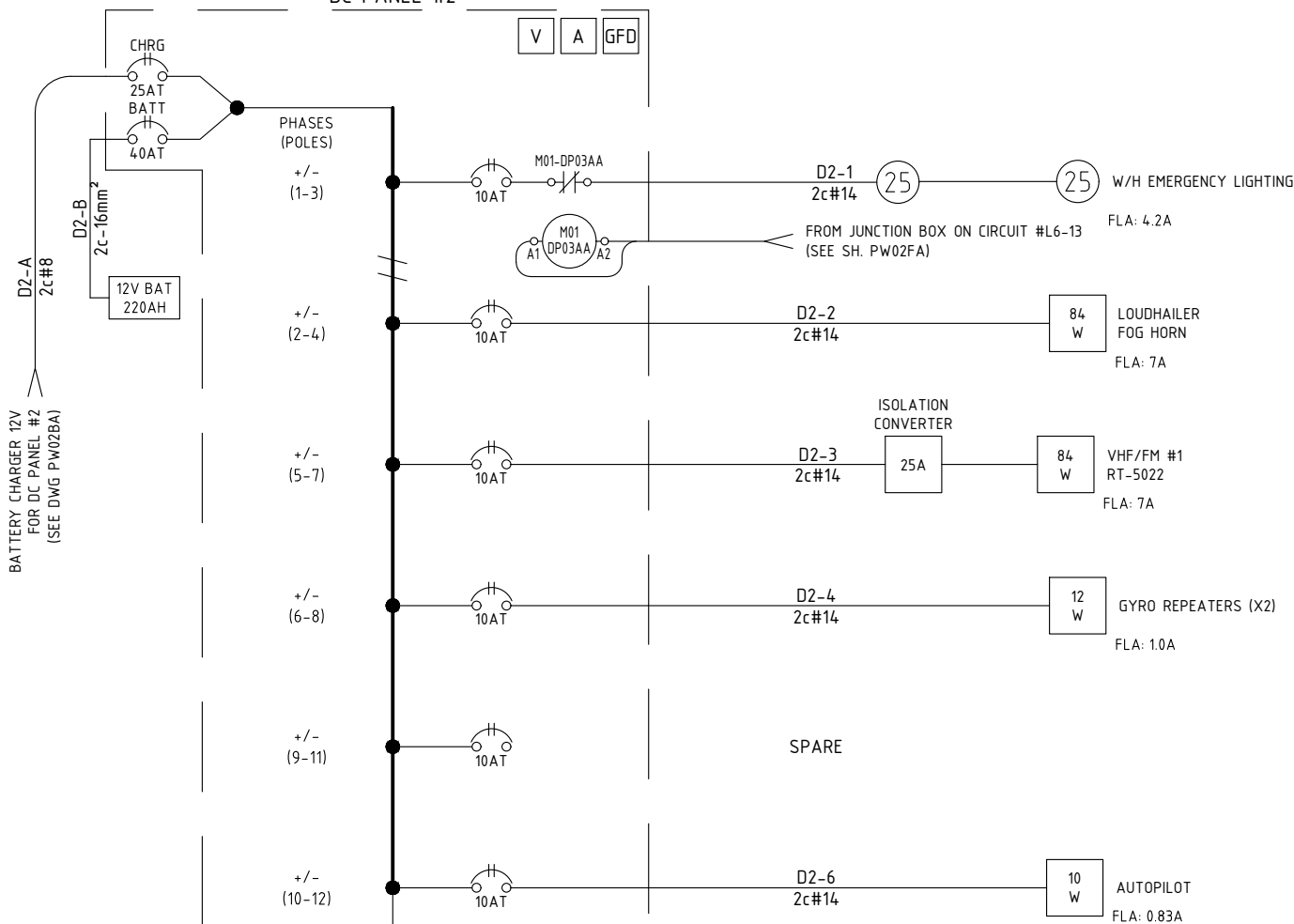
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DC #2
DC PANEL #2

V A GFD



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ELECTRICAL ONE-LINE DIAGRAM
DC DISTRIBUTION PANELS
DC PANEL #2 (12VDC)

DRAWING NUMBER
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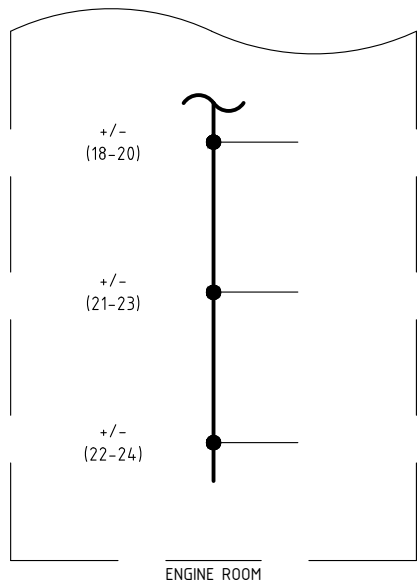
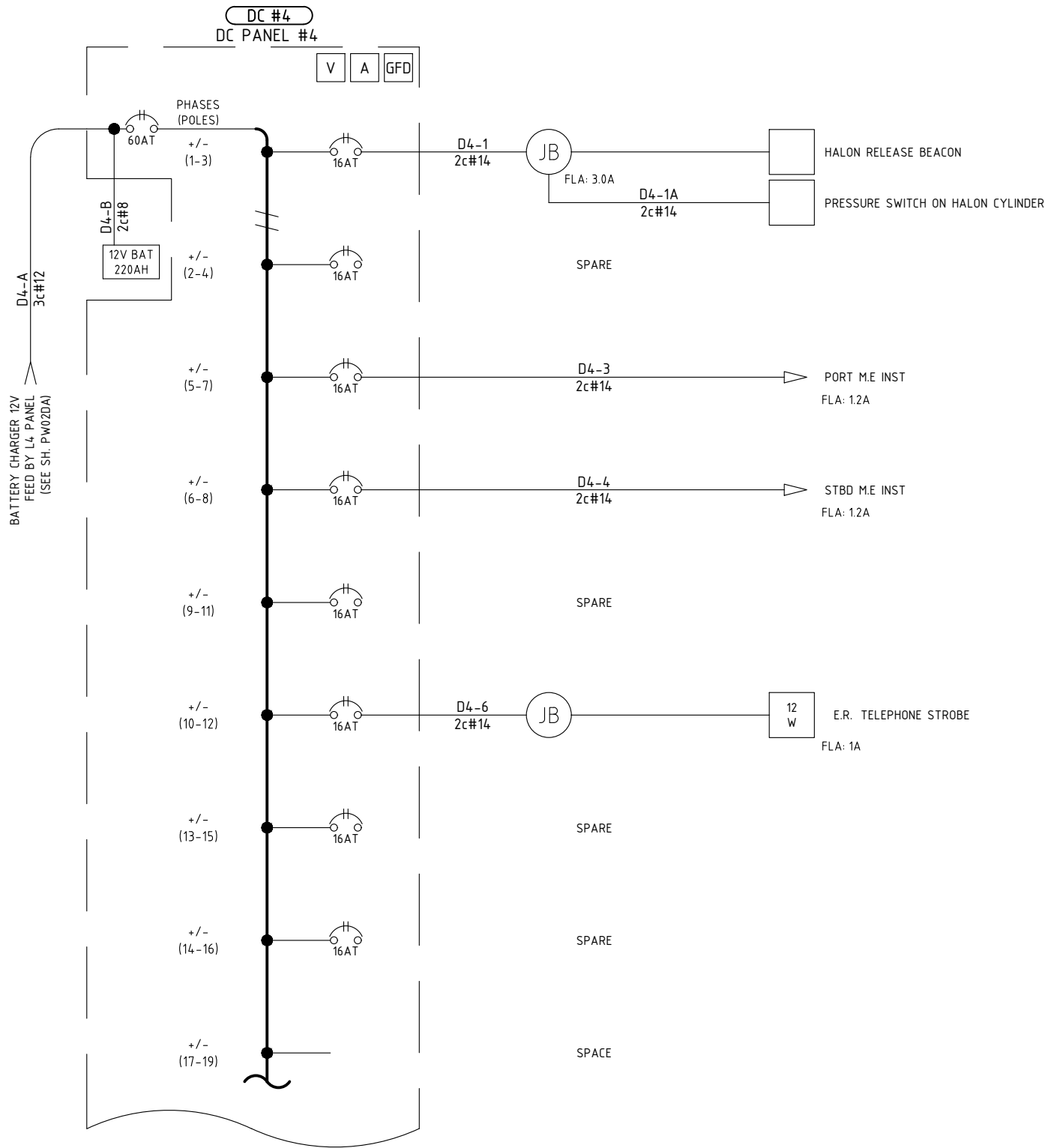
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ELECTRICAL ONE-LINE DIAGRAM
DC DISTRIBUTION PANELS
DC PANEL #4 (12VDC)

S18-0920-PW

PW03DA

DRAWING NUMBER

SHEET NO.

02

AG

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ML

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