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LEGEND:

SYMBOL	DESCRIPTION
	CONNECTION
	EARTH
	PLUG AND SOCKET
	CABLE WITH PLUG
	FUSE ISOLATOR
	CONTACTOR WITH CONTROL COIL
	MCB - 2 POLES MINIATURE CIRCUIT BREAKER (DRAW-OUT TYPE)
	MCCB - 3 POLES MOULDED CASE CIRCUIT BREAKER (DRAW-OUT TYPE)
	XXX - RATED CURRENT FOR CASE; Ir = xxA - RATED CURRENT FOR OVERLOAD RELEASE
	MCCB - 3 POLES MOULDED CASE CIRCUIT BREAKER (DRAW-OUT TYPE) NORMAL CLOSED
	SWITCH
	ELECTRIC MOTOR 3 PHASE; 60Hz
	ELECTRIC MOTOR 1 PHASE; 60Hz
	MOTOR STARTER
	VARIABLE FREQUENCY DRIVE
	STOP BUTTON
	START BUTTON/ RUNNING LAMP
	SWITCH
	TRANSFORMER; 3 PHASE
	GENERATOR 3 PHASE; 600V; 60Hz Δ/Δ
	TRANSFORMERS; 3 x 1PH. CONNECTED Δ/Δ
	UPS
	BATTERY CHARGER
	BATTERY
	HEATING ELEMENT
	MCCB - 3 POLES FOR GENERATORS (DRAW-OUT TYPE)
	STARTER MOUNTED IN SWITCHBOARD WITH BREAKER, CONTROL, THERMAL RELAY (DRAW-OUT TYPE)
	EARTH DETECTION RELAY
	SWITCHBOARDS / CONTROL PANEL
	SWITCH 2 POLE 115V; 60Hz; 15A; IP56; SURFACE
	TRANSFORMER 1PH.
	3 POLE DISCONNECT SWITCH
	SWITCH 3 POLE 230V; 60Hz; 15A; IP54; SURFACE
	MOTOR STARTER WITH START, STOP BUTTON AND SWITCH FOR REMOTE OR LOCAL CONTROL
	PRESSURE SWITCH
	JUNCTION BOX
	DISCONNECT SWITCH

GENERAL NOTES:

1. ALL ELECTRICAL INSTALLATIONS ARE IN ACCORDANCE WITH: LRS RULES AND REGULATIONS FOR THE CLASSIFICATION OF SPECIAL SERVICE CRAFT, JULY 2009, VOL. 7, PART 16 (CONTROL AND ELECTRICAL ENGINEERING); TRANSPORT CANADA TP127E "SHIPS ELECTRICAL STANDARDS".  
2."LOCAL" MEANS THAT THE STARTER/CONTROL PANELS ARE INSTALLED IN THE VICINITY OF MECHANICAL EQUIPMENT.  
3. SYMBOLS FOR ELECTRICAL EQUIPMENT ARE VALID FOR ALL SHEETS.

ABBREVIATIONS:

BWA = BRAIDED WIRE ARMOUR  
ESB = EMERGENCY SWITCHBOARD  
FR = FIRE RESISTANT  
MCB = MINIATURE CIRCUIT BREAKER  
MCCB = MOULDED CASE CIRCUIT BREAKER  
MSB = MAIN SWITCHBOARD  
UPS = UNINTERRUPTIBLE POWER SUPPLY  
VFD = VARIABLE FREQUENCY DRIVE  
MCR = MACHINERY CONTROL ROOM  
MCS = MACHINERY CONTROL STATION  
PMS = POWER MANAGEMENT SYSTEM

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CCGS A. LeBLANC

AF	10/12/2012	AS FITTED	PM	AJM	BF
Rev	Date	Description	Perform	Check	Appr.
Client: CANADIAN COAST GUARD			Title: SINGLE LINE DIAGRAM		
			MID-SHORE PATROL VESSEL		
			Scale: NTS Size: A2 Project No: 6094		
P.O. Box 9110, 3099 Barrington Street, Halifax NS, Canada B3K 5M7, Tel: 902.423.9271, Fax: 902.429.4510			Drawn by: G.Frangopol Checked by: A. Lepadatu Dwg. date: 10/06/2011		
Contract No. F7045-06001/002/NQ			Proj.		Rev. AF
			© IRVING SHIPBUILDING INC.		Sheet: 1 of 10

REFERENCE DOCUMENTS

NO.	DESCRIPTION	DOCUMENT NUMBER
1	ELECTRICAL LOAD ANALYSIS	AF6101-83560-01

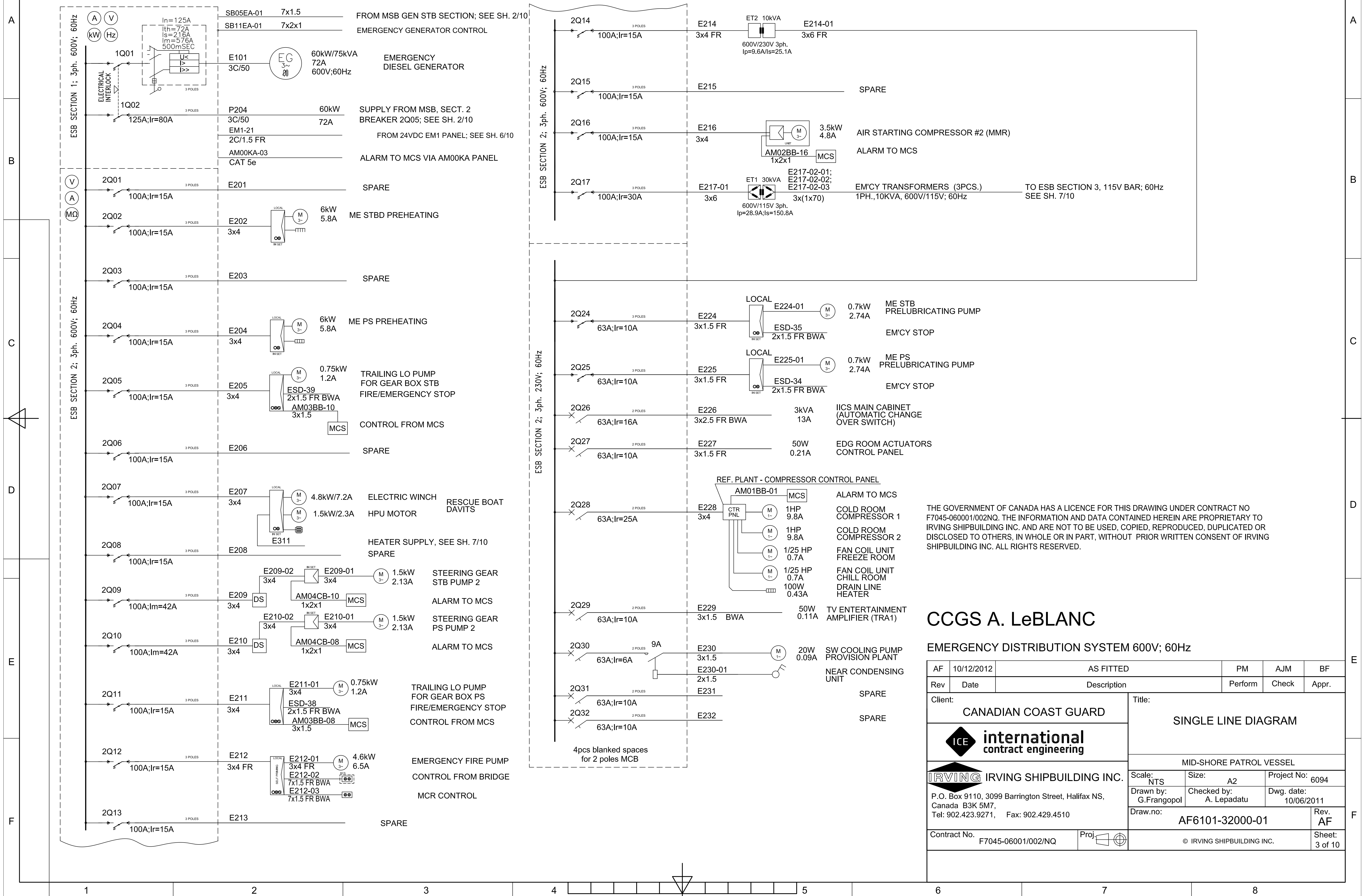
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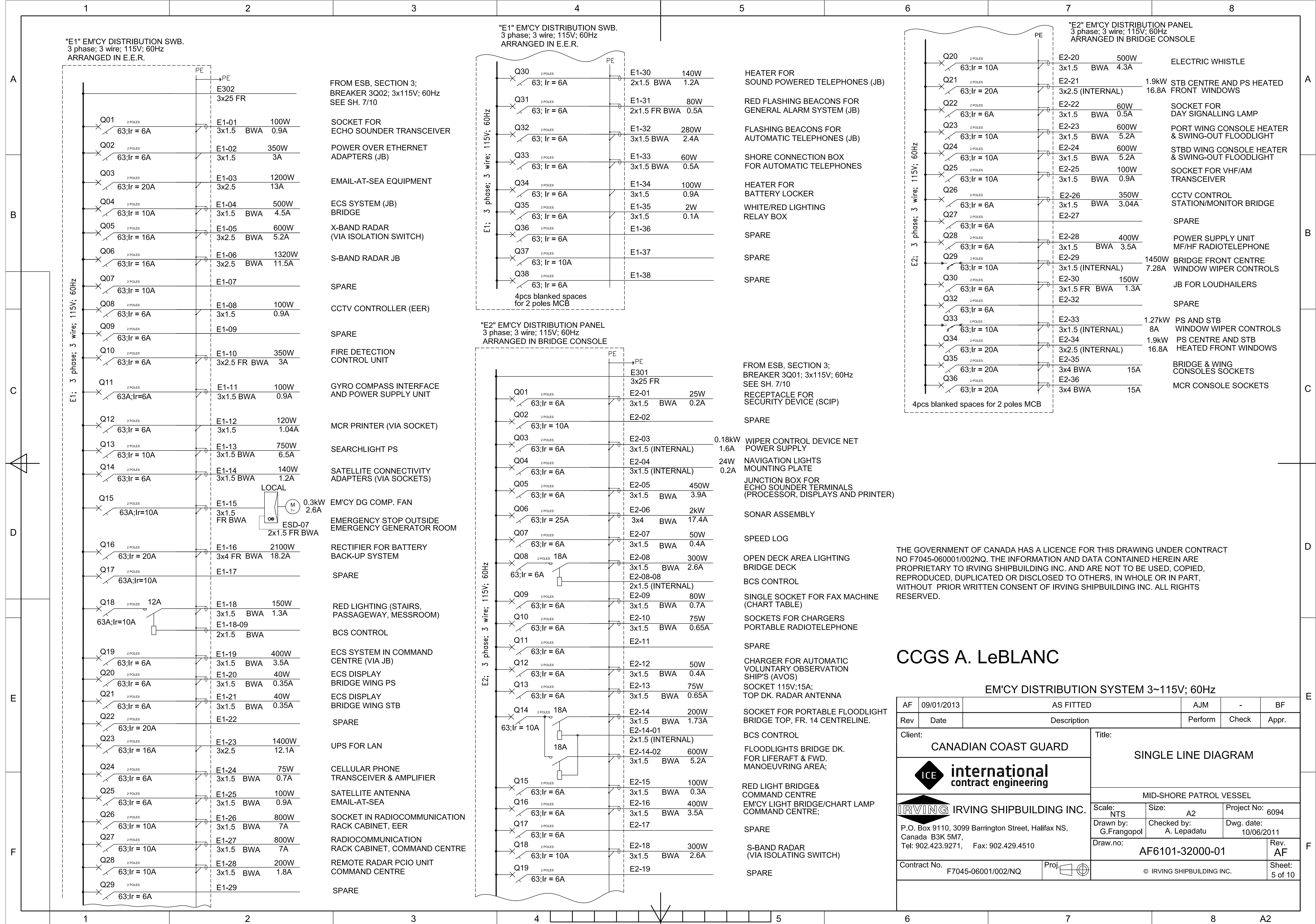
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EMERGENCY SWITCHBOARD (ESB)  
ARRANGED IN EMERGENCY D.G. COMP.

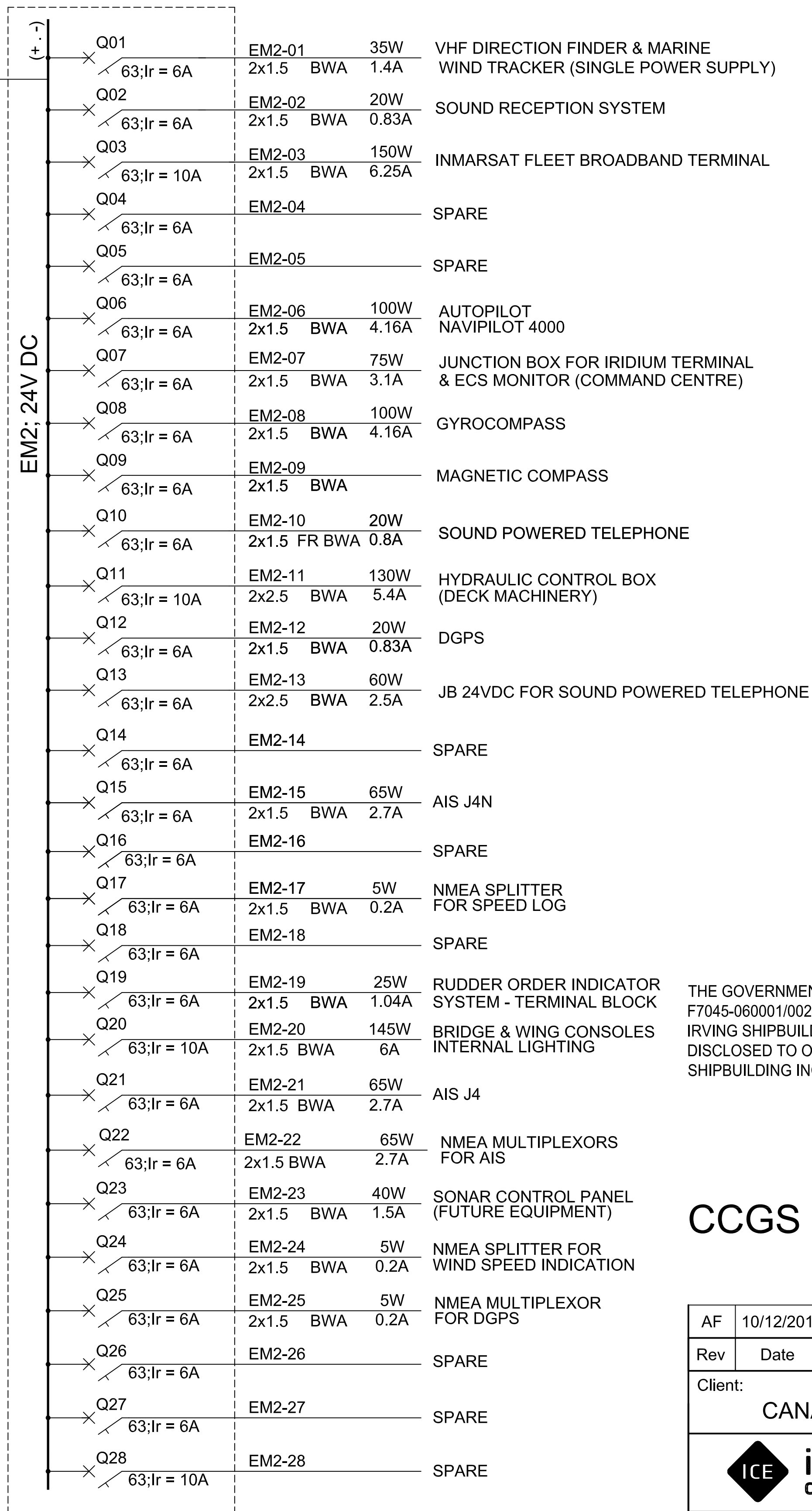
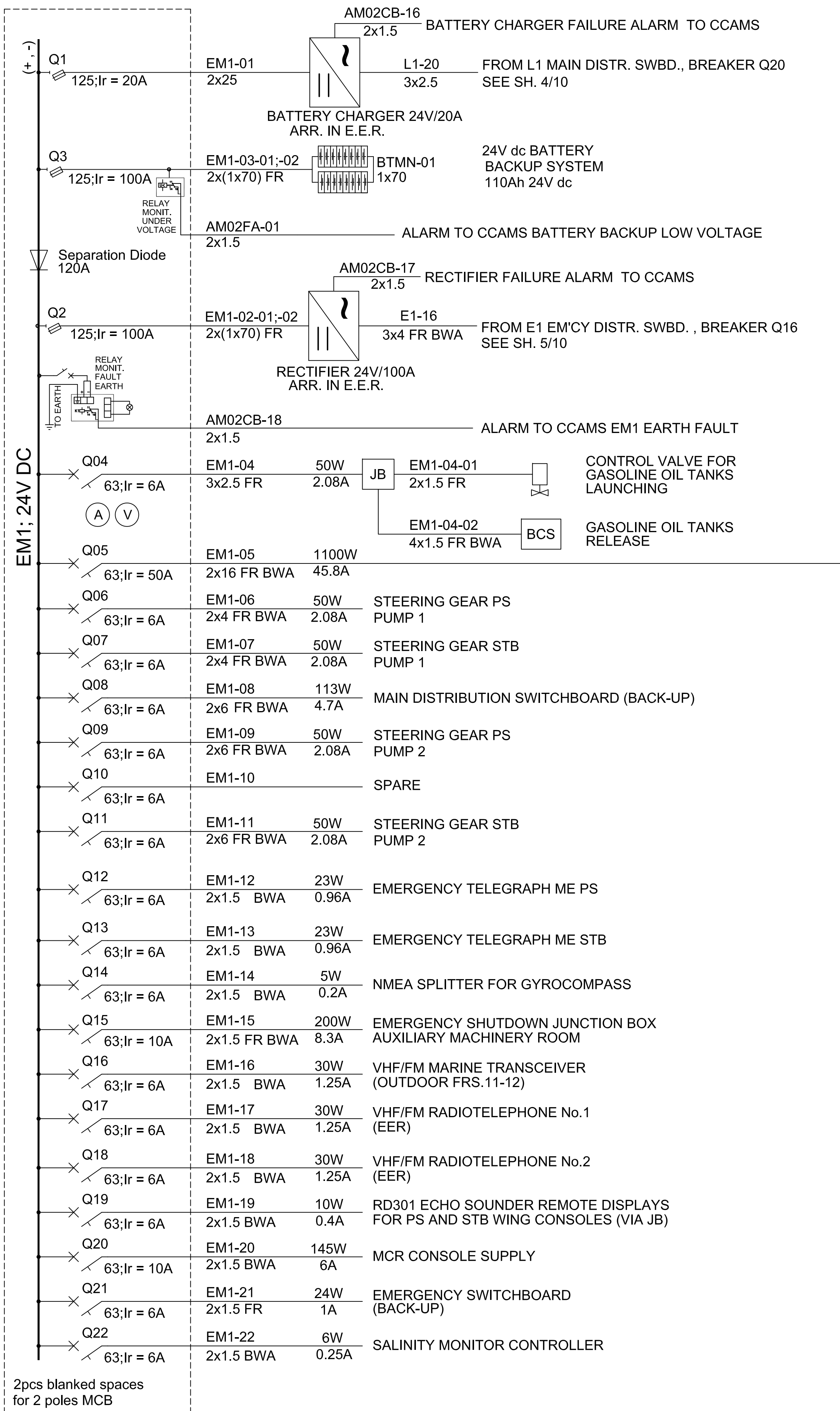






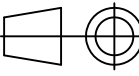




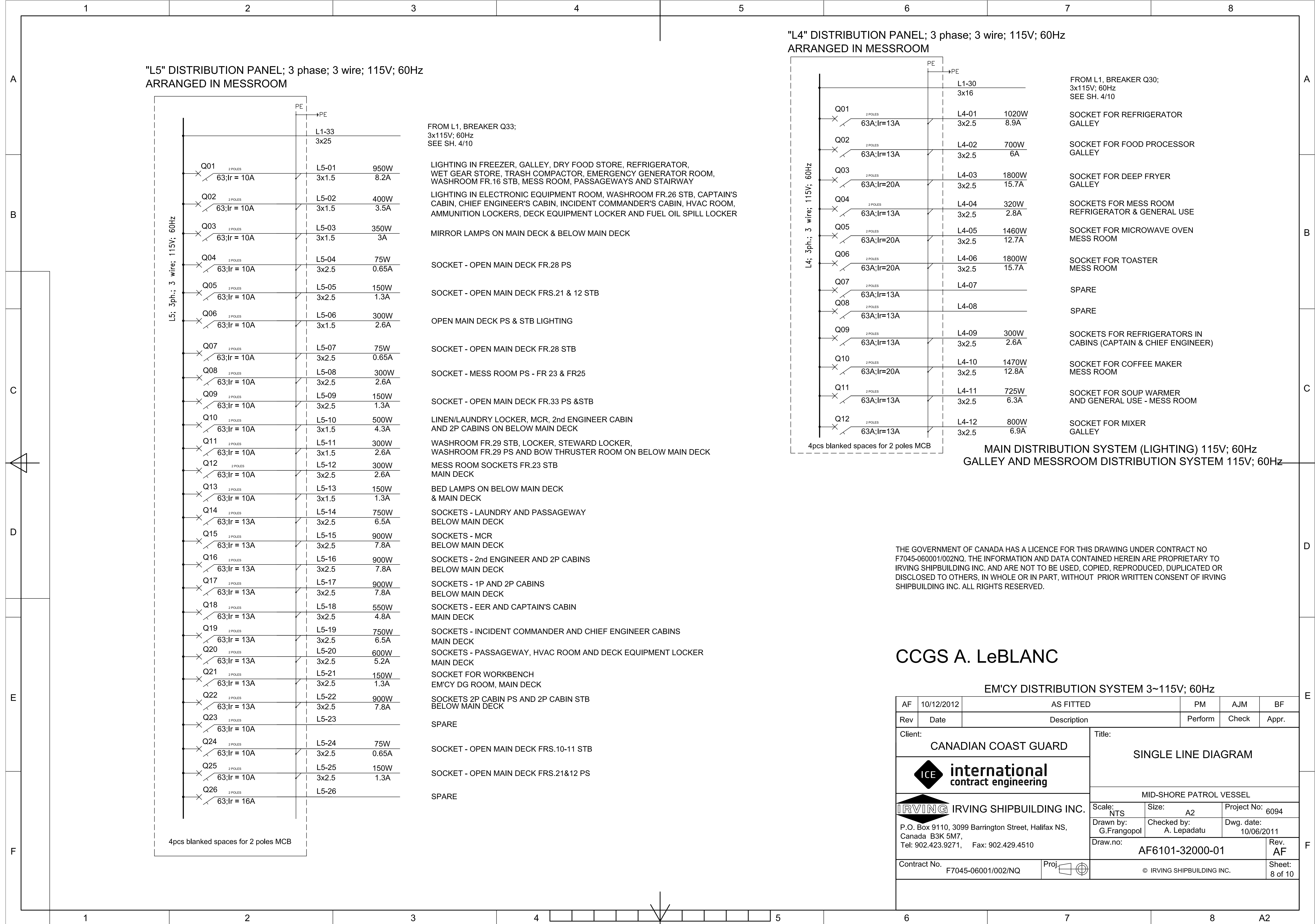




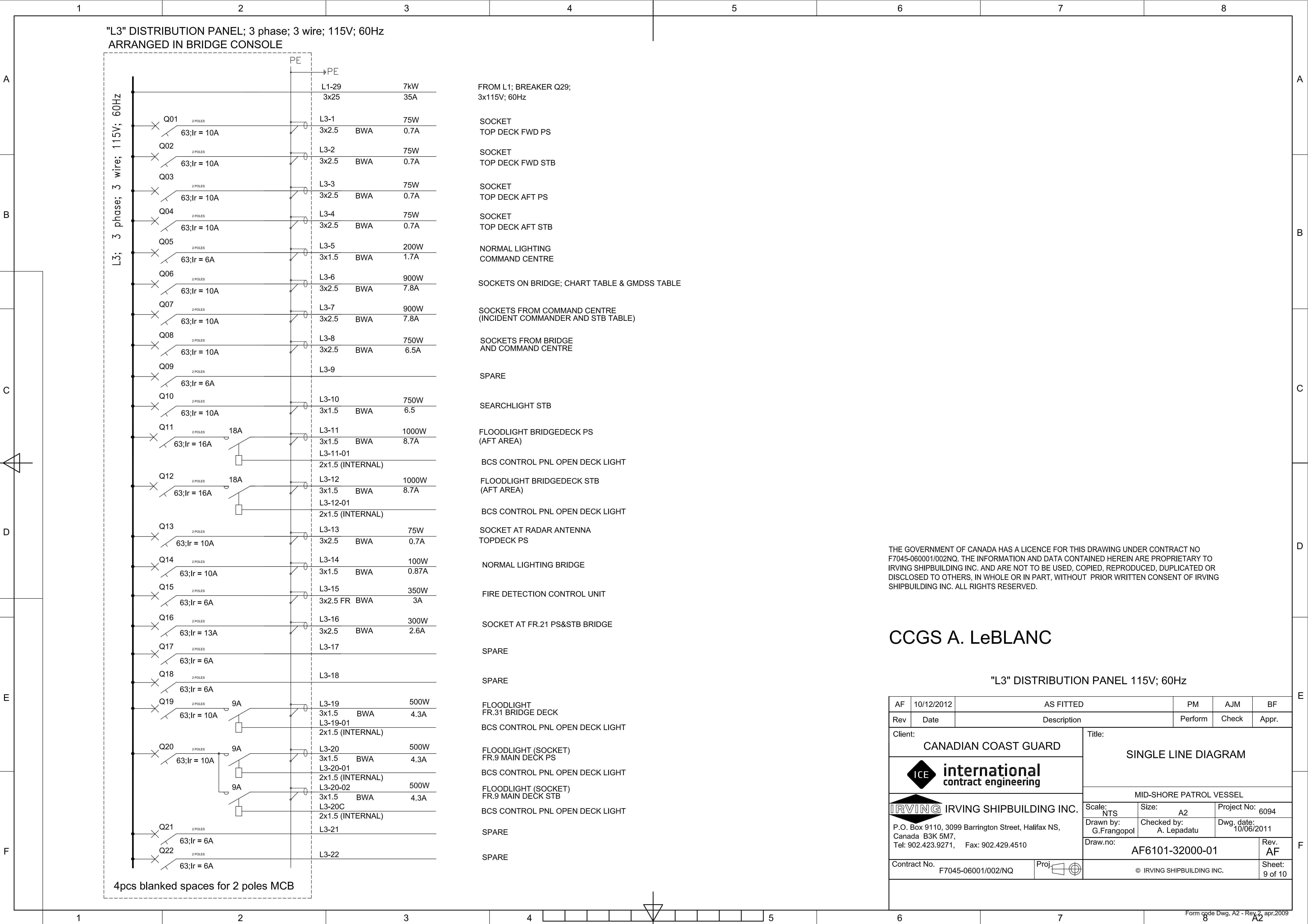
CCGS A. LeBLANC

AF	10/12/2012	AS FITTED		PM	JM	BF	
Rev	Date	Description			Perfrom	Check	Appr.
Client:				Title:			
CANADIAN COAST GUARD							
 <b>international</b> contract engineering							
 IRVING SHIPBUILDING INC. P.O. Box 9110, 3099 Barrington Street, Halifax NS, Canada B3K 5M7, Tel: 902.423.9271, Fax: 902.429.4510				MID-SHORE PATROL VESSEL			
				Scale:	Size:	Project No:	
				Drawn by:	Checked by:	Dwg. date:	
				NTS	A2	6094	
				G.Frangopol	A. Lepadatu	10/06/2011	
				Draw no:		Rev.	
				AF6101-32000-01		AF	
Contract No.		Proj.	Sheet:				
F7045-06001/002/NQ			6 of 10				
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[illegible]







Pt; 3ph.; 3 wire; 600V; 60Hz

Q01 3 POLES 100A;Ir=15A

Q02 3 POLES 100A;Ir=15A

Q03 3 POLES 100A;Ir=15A

Q04 3 POLES 100A;Ir=15A

Q05 3 POLES 100A;Ir=15A

Q06 3 POLES 100A;Ir=15A

4pcs blanked spaces for 3 poles MCCB

BLAST HEATERS MMR

BLAST HEATERS  
BOW THRUSTER ROOM

SPARE

SPARE

SPARE

Diagram illustrating the terminal configuration for a 3-phase, 3-wire, 600V, 60Hz MCCB. The terminals are labeled Q01 through Q06, each with a 3-POLE specification and a 100A;Ir=15A rating. The terminals are connected to a common busbar on the left. Below the terminals, it states "4pcs blanked spaces for 3 poles MCCB".

BLAST HEATERS AMR

BLAST HEATER  
STEERING GEAR ROOM PS

BLAST HEATER  
STEERING GEAR ROOM STB

SPARE

SPARE

Diagram of a 4-pole MCB with 8 poles. The poles are labeled Q01 through Q08. Poles Q01, Q02, Q03, and Q04 are grouped together and labeled "2 POLES" and "63;Ir = 10A". Poles Q05, Q06, Q07, and Q08 are grouped together and labeled "2 POLES" and "63;Ir = 16A". There are 4 blanked spaces for 2 poles MCB.

WASHROOMS FR.29 & STEWARD'S LOCKER  
BELOW MAIN DECK CONVECTION HEATERS

MCR & MEDICAL SAR LOCKER  
BELOW MAIN DECK CONVECTION HEATERS

WET GEAR STORE ROOM  
MAIN DECK CONVECTION HEATERS

HVAC ROOM  
MAIN DECK CONVECTION HEATERS

WASHROOMS FR.26 STB, GALLEY, STAIRCASE AND  
WASHROOMS FR.16 STB MAIN DECK, CONVECTION HEATERS

SPARE



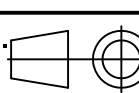
SPARE

SPARE

CCGS A. LeBLANC

BLAST HEATER DISTRIBUTION PANELS P1 AND P2; 600V; 60Hz

CONVECTION HEATER DISTRIBUTION PANEL P5; 230V; 60Hz

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