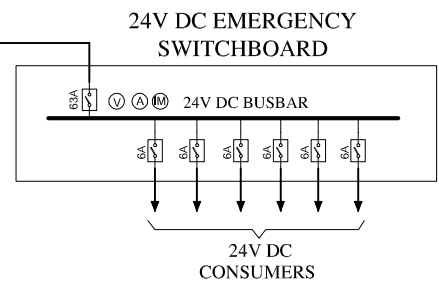
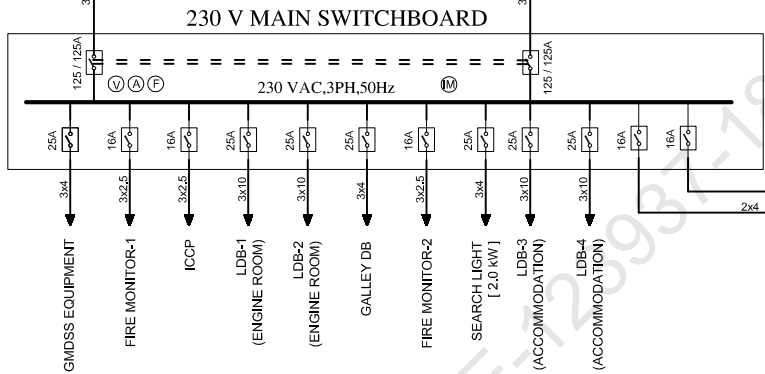
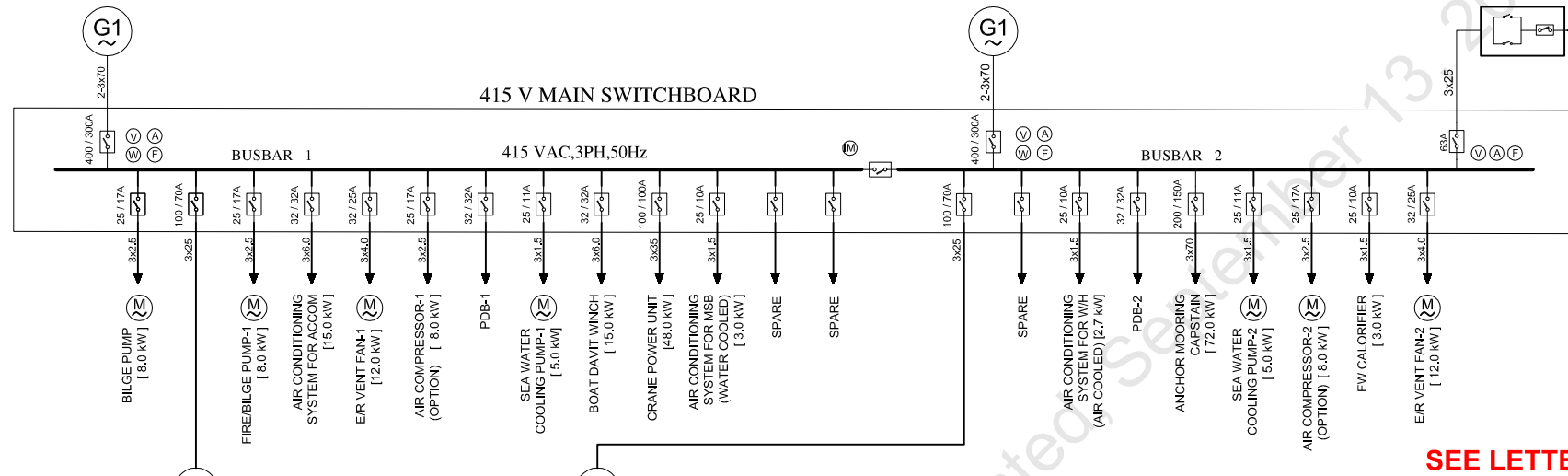


NO.1 MAIN GENERATOR
140eKW,415V,50 HZ,3PH

NO.2 MAIN GENERATOR
140eKW,415V,50 HZ,3PH

SHORE CONNECTION
415 VAC,3PH,50Hz



SEE LETTER E-123937-180809

REVIEWED



13-SEP-2021

PLAN ENDORSED FOR IN-PRINCIPLE APPROVAL

LEGENDS			
SYMBOL	DESIGNATION	SYMBOL	DESIGNATION
	AIR/ MOULDED CASE/ MINIATURE CIRCUIT BREAKER		BATTERY BANK
	TRANSFORMER		TRANS-RECTIFIER CUM BATTERY CHARGER
	GENERATOR		BUSBAR
	AMMETER		INSULATION MONITOR
	VOLTMETER	VOLTAGE & FREQUENCY 1. 415V , 50HZ, 3PH 2. 230V,50HZ,3PH 3. 24V DC	
	FREQUENCY METER		
	WATTMETER		
	MOTOR		

ABBREVIATIONS	
SYMBOL	DESIGNATION
PDB	POWER DISTRIBUTION BOX
TR	TRANSFORMER
ICCP	IMPRESSED CURRENT CATHODIC PROTECTION
LDB	LIGHTING DISTRIBUTION BOX
DB	DISTRIBUTION BOX
E/R	ENGINE ROOM

GENERAL NOTES

- ALL ELECTRICAL CABLES SHALL MEET THE REQUIREMENT OF CLASSIFICATION SOCIETY & TECHNICAL SPECIFICATION OF EQUIPMENT.
- MAIN GENERATORS ARE SELECTED - ONE WORKING & ONE STAND BY,SUITABLE INTERLOCKS TO BE PROVIDED.SHORT TERM PARALLELING BETWEEN GENERATORS CAN BE PROVIDED,IF REQUIRED BY THE OWNER TO AVOID BLACK DURING LOAD TRANSFER.
- SHORT CIRCUIT CALCULATION AND PROTECTIVE CO-ORDINATION STUDY SHALL BE CARRIED OUT THE SWITCHBOARD OEM-RATING OF BREAKERS TO BE SELECTED BY THE OEM OF SWITCHBOARD ACCORDING TO THE RATING OF THE EQUIPMENT AND BASED ON THE ABOVE STUDIES.
- DG RATINGS AND FEEDERS INDICATED ARE PRELIMINARY TO BE UPDATED AS PER THE FINAL ELECTRICAL LOAD CALCULATION.
- INTERLOCK TO BE PROVIDED BETWEEN TWO DG'S, SO THAT ONLY ONE DG CAN BE CONNECTED TO SWITCHBOARD AT A TIME ,HOWEVER PARALLELING OF MAIN DG'S CAN BE CONSIDERED AS OPTION, IF REQUIRED, BY SHIP OWNERS.
- INTERLOCK TO BE PROVIDED BETWEEN MAIN DG'S & SHORE CONNECTION BOX.
- BREAKERS AND CABLE RATINGS ARE PRELIMINARY TO BE UPDATED BASED ON THE ACTUAL EQUIPMENT RATING.
- ALL CABLES SHALL BE NON-PVC AND TYPE APPROVED CABLES
- INCOMING BREAKERS OF TRANSFORMER RECTIFIER UNITS IS TO BE MAX. 1.25 TIMES OF TRANSFORMER PRIMARY CURRENT
- INCOMING BREAKER/FUSE OF TRANSFORMER RECTIFIER UNITS IS TO BE MAX. 1.25 TIMES OF TRANSFORMER PRIMARY CURRENT

Rev. I	01 Sep 2021	For publishing on IPA website	ANJ	NFC	NFC
No:	Date	Description	Drawn	Checked	Approved
ASTDS		50T BOLLARD PULL ASD TUG			
DESIGN NO : CT3250		TITLE	SINGLE LINE DIAGRAM		
COCHIN SHIPYARD LIMITED P.O. Bag 1653, COCHIN-682015, INDIA		NTS	A4	CT3250	CT3250-870-001
		Scale	Format	Project No.	Dwg. no.

This design was developed by Cochin Shipyard Ltd. for Indian Ports Association as a part of ASTDS Package. CSI does not make any representation or warranties, express or implied as to the completeness, accuracy, suitability of the design and it shall be the responsibility of the respective builder/end-user to make its own assessment/evaluation of any such completeness, accuracy, suitability of the design prior to construction and any consequence thereof.