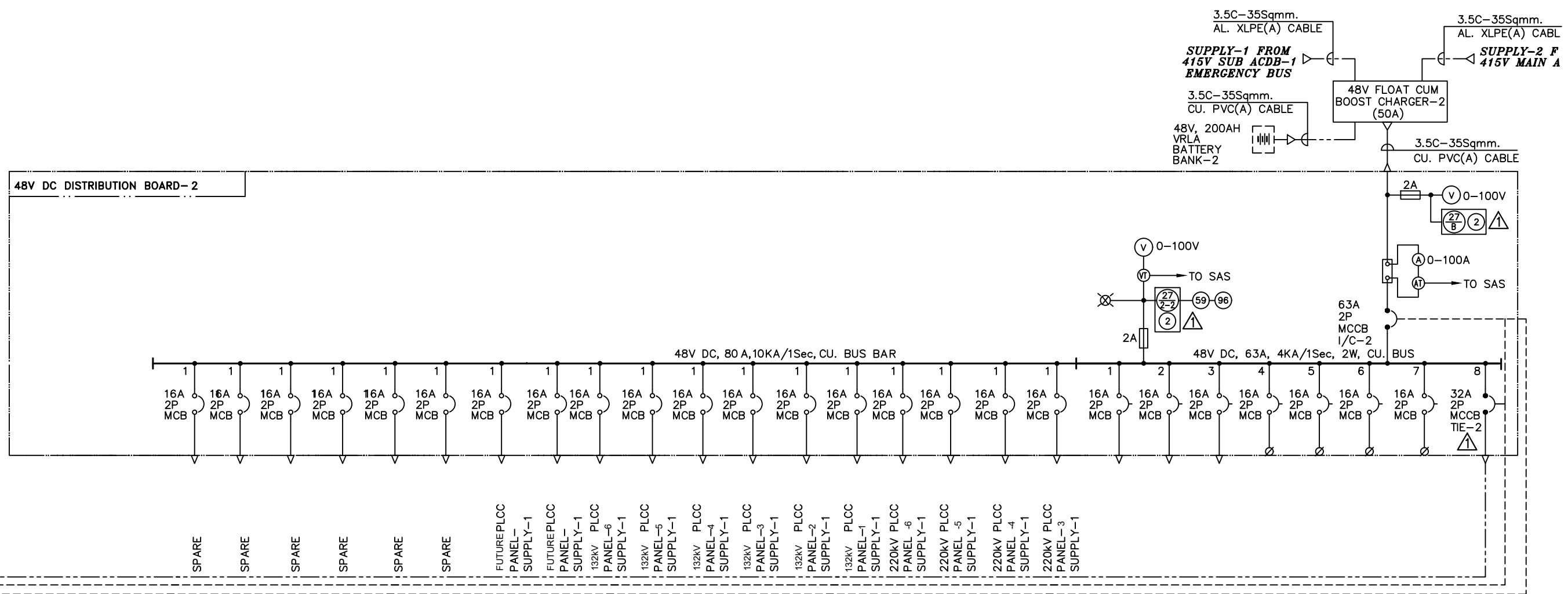
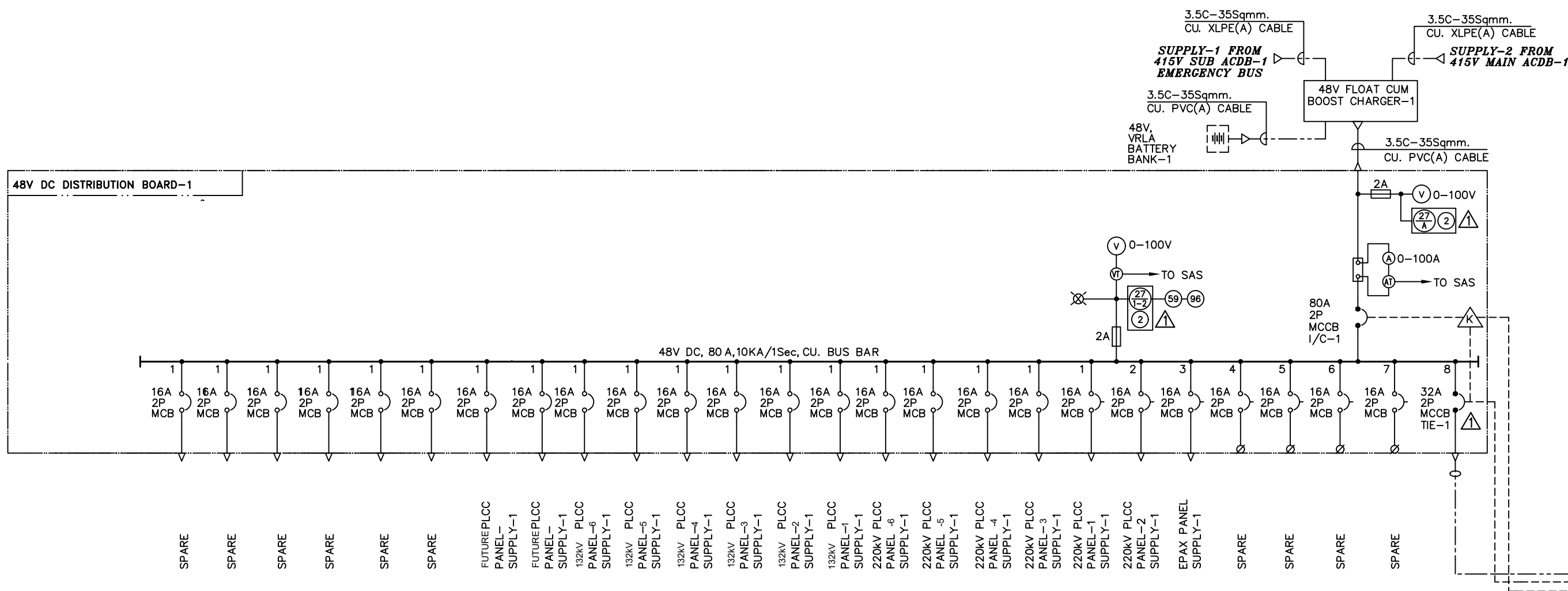




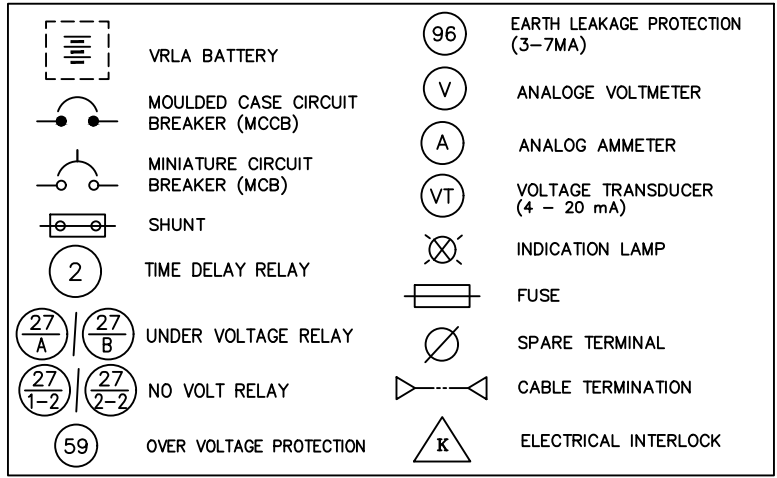
PANEL LEGEND :-

PLCC POWER LINE CARRIER COMMUNICATION
EPAX ELECTRONIC PRIVATE AUTOMATIC EXCHANGE

NOTES :-

- 1.. INTERLOCKING LOGIC FOR 48V DCDB 1 & 2 :-
 - a. INTERLOCK SHALL BE PROVIDED SUCH THAT IT IS POSSIBLE TO OPEN THE CURBICE DOOR ONLY WHEN THE MCCB IS IN 'OFF' POSITION AND TO CLOSE THE MCCB WHEN THE DOOR IS CLOSED.
 - b. NORMALLY INCOMER OF BOTH DCDBs SHALL REMAIN CLOSED AND BUS TIE-1 & 2 OF DCDB-1 & 2 SHALL BE OPEN. IN CASE OF FAILURE OF ANY INCOMER SUPPLY THE BREAKER OF THE INCOMER SHALL BE TRIP THROUGH UNDER-VOLTAGE RELAY AND BUS TIE-1 & 2 OF BOTH DCDBs SHALL CLOSE AUTOMATICALLY TO CONTINUE FEEDING OF LOADS CONNECTED AT THE AFFECTED BUS.
 - c. UNDER VOLTAGE RELAY CONNECTED AT THE INCOMER SHALL PROVIDE ALARM IN CASE OF SUSTAINED UNDER VOLTAGE CONDITION.
 - d. THERE SHALL BE ELECTRICAL INTERLOCK AMONG THE I/C-1, I/C-2, TIE-1 & TIE-2 OF DCDB-1 & 2 IN SUCH A WAY THAT THE CBs SHALL REMAIN OPEN UNDER NORMAL CONDITION. HENCE BEFORE CLOSING OF TIE-1 & 2, FAULTY INCOMER OF THE AFFECTED DCDB MUST TRIP FIRST.
 - e. AFTER THE FAULTY BATTERY CHARGER IS REPAIRED, RESTORATION OF THE INCOMER WILL BE MANUAL. TIE-1 & 2 SHALL BE MANUALLY OPENED TO ISOLATE DCDB-1 AND DCDB-2.
 - f. AUTO MANUAL SELECTOR SWITCH SHALL BE PROVIDED IN ONE OF THE DCDBs TO IMPLEMENT THE ABOVE BUS TRANSFER SCHEME.
 - g. DURING AUTOMATIC OPERATION OF THE BUS TRANSFER, A TRIP SELECTOR SWITCH PROVIDED IN ONE OF THE DCDBs SHALL DECIDE THE TRIPPING SEQUENCE AMONG THE INCOMERS AND TIE-1 & 2 OF DCDB-1 & 2.
 - h. ALL INCOMER AND BUS TIE MCCBs SHALL BE MOTOR OPERATED SPRING CHARGED AND WITH CLOSING & TRIP COILS. PUSH BUTTON SHALL BE PROVIDED TO ALL INCOMER MCCBs.
3. ALL MCCBs & MCBs SHALL BE PROVIDED WITH BUILT IN THERMO MAGNETIC TYPE O/C & S/C RELEASE.
4. ALL MCCBs SHALL BE PROVIDED WITH ON, OFF & TRIP INDICATION LAMP.
5. ALL MCCBs & MCBs SHALL BE CURRENT LIMITING TYPE.
6. ALL AMMETER AND VOLTMETER SHALL BE ANALOG TYPE.
7. ONE BATTERY CHARGER SHALL BE CAPABLE OF BOOST CHARGING ONE SET OF BATTERY AND FEED THE ENTIRE LOAD OF THE STATION SIMULTANEOUSLY.
8. CABLE SIZES SHOWN ARE INDICATIVE AND SHALL BE FINALISED DURING SIZING CALCULATION.
9. THE DB SHALL COMPLY WITH THE TECHNICAL SPECIFICATION OF AEGCL.
10. THE DB SHALL BE METAL ENCLOSED, WALL MOUNTED TYPE.
11. CABLE ENTRY TO THE DB SHALL BE FROM THE BOTTOM.
12. THE DB SHALL HAVE ENCLOSURE PROTECTION CLASS OF NOT LESS THAN IP 52.
13. THE CONSTRUCTION OF THE DB SHALL BE SUCH THAT TEMPERATURE RISE AT NO PART OF THE DB SHALL EXCEED THE LIMITS SPECIFIED IN IS/IEC 60947.
14. THE PANEL PAINTING SHADE SHALL BE RAL 7032 (PEBBLE GREY).

LEGENDS :-



OPERATION & INTERLOCK LOGIC OF INCOMER & TIE CIRCUIT BREAKERS OF DCDB-1 & 2 :

CONDITIONS	CIRCUIT BREAKER			
	I/C-1	I/C-2	TIE-1	TIE-2
NORMAL - BOTH THE CHARGER ARE IN OPERATION	NC	NC	NO	NO
CHARGER-1 SUPPLY FAIL OR	NO	NC	NC	NC
CHARGER-2 SUPPLY FAIL	NC	NO	NC	NC
RESTORATION OF CHARGER-1	NC*	NC	NO*	NO*
OR				
RESTORATION OF CHARGER-2	NC	NC*	NO*	NO*

NC - NORMALLY CLOSE
NO - NORMALLY OPEN
* - MANUAL OPERATION

SINGLE LINE DIAGRAM OF
48V DC. DISTRIBUTION BOARD-1 & 2