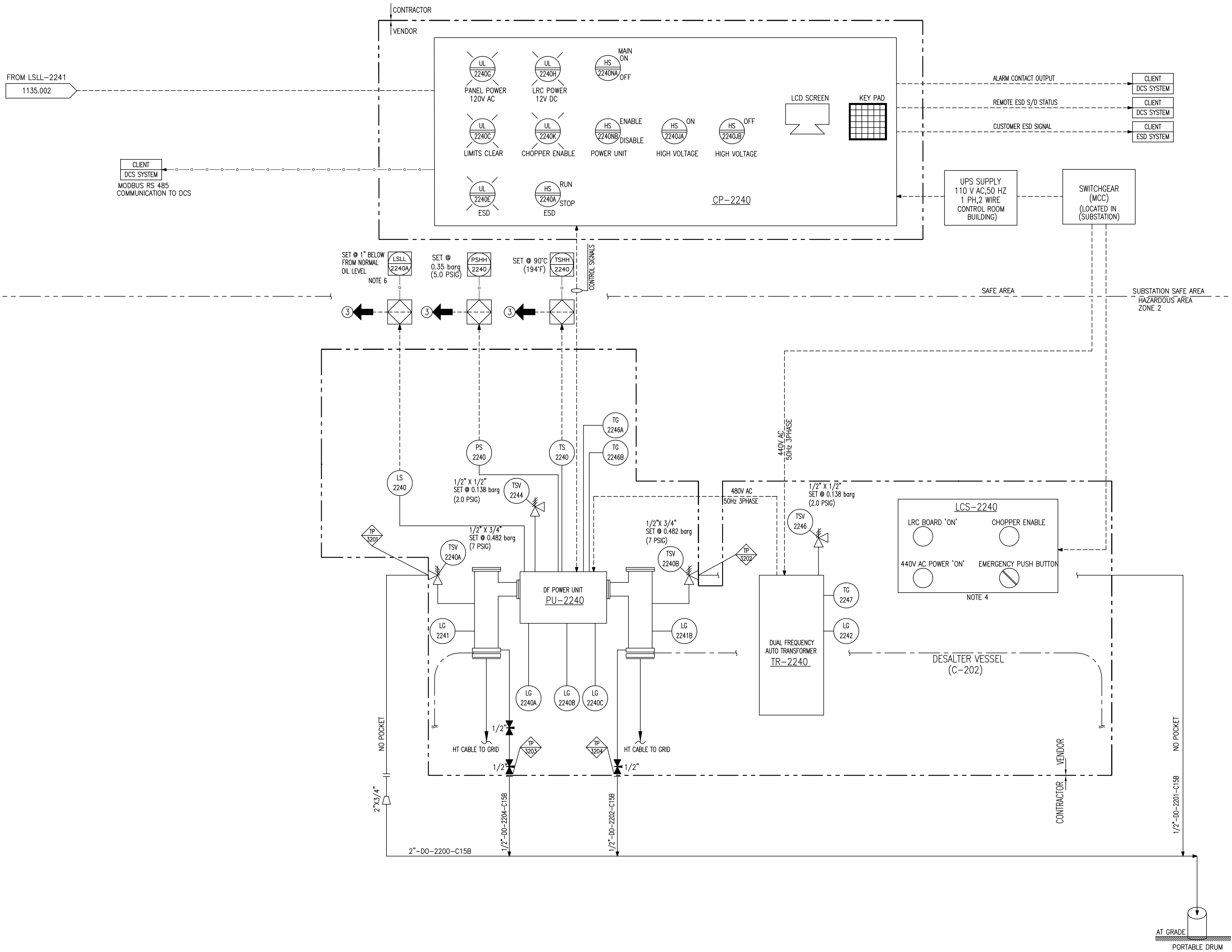


PU-2240  
DF POWER UNIT  
RATING : 100 KVA, 480 VAC, 50 HZ, 3PHASE  
PRIMARY CURRENT : 138AAC  
SECONDARY VOLTAGE : 34 KV DC PEAK.

TR-2240  
DUAL FREQUENCY AUTO TRANSFORMER  
RATING : 136 KVA, 440 VAC, 50 HZ, 3PHASE  
PRIMARY CURRENT : 179AAC  
SECONDARY CURRENT : 164AAC  
SECONDARY VOLTAGE : 480VAC

CP-2240  
DF LRC-II PANEL  
RATING : 110VAC, 50HZ, 1PHASE



## GENERAL NOTES:

- FOR STANDARD SYMBOLS AND NOMENCLATURE SEE DRAWINGS 50489-530-020-PID-1104.001 & .002.
- ALL EQUIPMENT NUMBERS SHOWN ON THIS P&ID ARE PRECEDED BY 530--.
- ALL INSTRUMENT NUMBERS SHOWN ON THIS P&ID ARE PRECEDED BY 030--.
- FOR TYPICAL INSTRUMENT CONNECTION SBDV, XV, MOV & ESDV DETAILS SEE DRAWINGS 50489-530-020-PID-1106.001, .002, .003, .004, .005, .006 & .007.
- FOR MISCELLANEOUS PIPING TYPICAL VALVING, DRAINAGE & GENERAL ARRANGEMENT OF LEVEL INSTRUMENTS, PUMPS, STRAINERS & CONTROL VALVES SEE DRAWINGS 50489-530-020-PID-1108.001 TO 1108.010.
- DRAWING NUMBERS SHOWN IN P&ID CONTINUATION BOXES ARE ABBREVIATED SHOWING DRAWING SEQUENTIAL NUMBERS ONLY. THE FULL FORM OF THE DRAWING NUMBER IS 50489-530-020-PID-XXXX.SHT.NO.
- FOR MATERIAL SELECTION DIAGRAM SEE DRAWINGS 50489-530-020-MSD-1001.001 TO 1023.
- DETAIL NUMBERING FOR CI, SC, CC & CP SEE DRAWING 50489-530-020-PID-1108.003.
- PAINTING & COATING ARE IN ACCORDANCE WITH KOC-P-001.
- LOW POINT DRAIN & HIGH POINT VENT ARE INDICATED IN P&ID.
- FOR CAUSE & EFFECT REFER DOC. NO. 50489-530-020-PHL-1009.
- FOR ALARM VALUES REFER DOC. NO. 50489-530-020-SUM-1006.

## NOTES:

- DELETED
- DELETED
- DELETED
- EACH DUAL FREQUENCY DESALTER IS PROVIDED WITH LCS (LOCAL CONTROL STATION) IN THE FIELD FOR FOLLOWING:
  - LRC BOARD 'ON' (INDICATION)
  - CHOPPER ENABLE (INDICATION)
  - 440V AC POWER 'ON' (INDICATION)
  - EMERGENCY PUSH BUTTON.
- TSV MOUNTED ON THE POWER UNIT IS PIPED TO AN OPEN DRAIN.
- THERE ARE THREE INTERNAL LIQUID LEVEL SWITCHES IN POWER UNIT (ONE IN EACH TANK) WHICH ARE WIRED IN SERIES TO A COMMON TERMINAL IN THE JUNCTION BOX.
- VENDOR REFERENCE DOCUMENT/DRAWING IS AS FOLLOWS:  
DESALTER P&ID-(50489-530-020-07226-PID-V006).  
POWER UNIT DATA SHEET-(50489-530-070-07226-DAT-V001).  
AUTO TRANSFORMER DATA SHEET-(50489-530-070-07226-DAT-V002).  
INSTRUMENT CABLE BLOCK DIAGRAM-(50489-530-080-07226-BLD-V001).  
CAUSE & EFFECT DIAGRAM-(50489-530-020-07226-CAE-V001).
- DELETED
- TYPE OF FLUID IN TRANSFORMER: CROSS 206 MINERAL OIL (NON-PCB).
- LIST OF ABBREVIATION  
DF : DUAL FREQUENCY  
HT : HIGH TENSION  
CP : DF LRC II PANEL  
LCS : LOCAL CONTROL SWITCH  
LRC : LOAD RESPONSIVE CONTROLLER  
TR : DF AUTO TRANSFORMER  
PCB : POLYCHLORINATED & BI-PHENYL  
PU : POWER UNIT

## AS-BUILT

### KOC APPROVAL

NAME / KOC No.:  
DESIGNATION :  
GROUP / TEAM :  
SIGNATURE :  
DATE :

## AS-BUILT

### LARSEN & TOUBRO LIMITED

NAME : VAIBHAV VERMA  
DESIGNATION : AGM  
SIGNATURE :  
DATE : 01-Sep-2018  
DEPT/ DIVISION : ENGINEERING

ZO	ISSUED FOR AS-BUILT	HSB/SSI	AKG	SRA	DER	01.09.18
01	ISSUED FOR CONSTRUCTION	HSB/SSI	AKG	SRA	DER	27.12.16
0	ISSUED FOR CONSTRUCTION	PAK/PRS	AKG	SRA	RAK	09.06.16
B	ISSUED INCORPORATED CLIENT COMMENTS	PAK/ABY	AKG	SRA	RAK	14.04.16
A	ISSUED FOR APPROVAL	JSI/VSA	AKG	SRA	RAK	28.10.15
REV.	DESCRIPTION	DRAWN	CHECKED	HOD	PEM	DATE
				APPRD.		

## CONTRACTOR REVISION



CONTRACTOR DETAILS:-  
**LARSEN & TOUBRO LIMITED**  
FARIDABAD

PROJECT TITLE:-  
NEW GATHERING CENTRE GC-30  
IN NORTH KUWAIT

DOCUMENT TITLE:-  
**PIPING & INSTRUMENTATION DIAGRAM**  
**FIRST STAGE DESALTER POWER UNIT TRAIN-B (530-C-202)**

PROJECT NO.	DRAWING NO.	REV.	KOC DRG. NO.	REV.
50489-530-020-PID-1135.004	ZO			
SHEET NO. 4 OF 4	SHEET NO.			
COMPANY DRG. NO.	REV.			
SHEET NO.				