

ABBREVIATIONS

A	AMMETER	NC	NORMALLY CLOSED
ACS	AUTO CONFIG SWITCH	NO	NORMALLY OPEN
ADS	ENGINE COMBUSTION AIR DAMPER POSITION SWITCH	OCL	OVERCRANK LIGHT
AFCR	AUXILIARY FUEL CONTROL RELAY	OCR	OVERCURRENT RELAY
AL	AMBER LIGHT	OCT	OVERCRANK TIMER
ALM	ALARM MODULE	OP	OIL PRESSURE
ALS	ALARM SILENCE PUSH BUTTON	OVR	OVERVOLTAGE RELAY
ALT	ALTERNATOR	OPG	OIL PRESSURE GAGE
AR	ARMING RELAY	OPL	OIL PRESSURE LIGHT
ASOS	AIR SHUT-OFF SOLENOID	OSL	OVERSPEED LIGHT
ASR	AIR SHUT-OFF RELAY	PGSC	PRIMARY GENERATOR SERVICE CONNECTOR
ASSV	AIR START SOLENOID VALVE	PL	PANEL ILLUMINATION LIGHT
ATB	AC TRANSFORMER BOX	PLS	PANEL LIGHT SWITCH
AUX	AUXILIARY TERMINAL STRIP	PMG	PERMANENT MAGNET GENERATOR
AUXREL	AUXILIARY RELAY (CRANK TERMINATION)	POT	POTENTIOMETER
AWG	AMERICAN WIRE GAUGE	PP	PRELUBE PUMP
BATT	BATTERY	PPMS	PRELUBE PUMP MAGNETIC SWITCH
BCF	BATTERY CHARGER FAILURE SWITCH	PPPS	PRELUBE PUMP OIL PRESSURE SWITCH
BVPR	BATTERY VOLTAGE PRESENT RELAY	PR	PRE-REGULATOR
C	COMMON	PROG	PROGRAMMABLE
CAM	CUSTOM ALARM MODULE	PS	PINION SOLENOID
CAR	COMMON ALARM RELAY	PSS	PERSONNEL SAFETY SWITCH
CB	CIRCUIT BREAKER	RAN	REMOTE ANNUNCIATOR
CCM	CUSTOMER COMMUNICATION MODULE	RES	RESISTOR
CDM	ENGINE COOLDOWN TIMER MODULE	RL	RED LIGHT
CR	CONTROL RELAY	RLY	RELAY
CT	CURRENT TRANSFORMER	RPL	REVERSE POWER LIGHT
CTR	CRANK TERMINATION RELAY	RPR	REVERSE POWER RELAY
D	DIODE	RPSR	REVERSE POWER SLAVE RELAY
DCV	DC VOLTMETER	RR	RUN RELAY
DS	DIAGNOSTIC SWITCH	SASV	START AID SOLENOID VALVE
ECLS	ENGINE COOLANT LOSS SENSOR	SATS	START AID TEMPERATURE SWITCH
ECS	ENGINE CONTROL SWITCH	SAS	START AID SWITCH
ECTS	ENGINE COOLANT TEMPERATURE SENSOR	SBCT	SERIES BOOST CURRENT TRANSFORMER
EFCR	EMERGENCY FUEL CONTROL RELAY	SBM	SERIES BOOST MODULE
EFL	ENGINE FAILURE LIGHT	SEC	SECOND
EG	ELECTRONIC GOVERNOR (SPEED SENSING)	SGSC	SECONDARY GENERATOR SERVICE CONNECTOR
EGA	ELECTRONIC GOVERNOR ACTUATOR	SHTC	CIRCUIT BREAKER SHUNT TRIP COIL
EGR	ELECTRONIC GOVERNOR RELAY	SIG	SIGNAL
EMCP	EMCP4.2 CONTROLLER	SL	SYNCHRONIZING LIGHT
ENFR	ENGINE FAILURE RELAY	SLM	SYNCHRONIZING LIGHT MODULE
ENG	ENGINE	SLR	SYNCHRONIZING LIGHT RESISTOR
EOPS	ENGINE OIL PRESSURE SENSOR	SM	STARTING MOTOR
EOTS	ENGINE OIL TEMPERATURE SENSOR	SMMS	STARTING MOTOR MAGNETIC SWITCH
ESPB	EMERGENCY STOP PUSH BUTTON	SMR	STARTING MOTOR RELAY
ESL	EMERGENCY STOP LIGHT	SP	SPEED ADJUST POTENTIOMETER
EXC	GENERATOR EXCITER	SR	SLAVE RELAY
F	FUSE	SS	SYNCHRONIZING SWITCH
FCR	FUEL CONTROL RELAY	T	GENERATOR LINE LEADS
FLG	FUEL LEVEL GAUGE	TD	TIME DELAY RELAY
FLSU	FUEL LEVEL SENDING UNIT	TSC	TRANSFER SWITCH POSITION INDICATING CONTACT
FS	FUEL SOLENOID	V	AC VOLTMETER
FSOS	FUEL SHUT-OFF SOLENOID	VAR	VOLTAGE ADJUST RHEOSTAT
FCTM	FUEL CONTROL TIMER MODULE	VAS	VOLTMETER / AMMETER SWITCH
GFR	GENSET FAULT RELAY	WT	WATER TEMPERATURE
GOV	GOVERNOR	WTG	WATER TEMPERATURE GAGE
GRR	GENSET RUN RELAY	WTL	WATER TEMPERATURE LIGHT
GS	GOVERNOR SWITCH	XDUCER	TRANSDUCER
GSC	GENERATOR SET CONTROL	Z	ZENER DIODE
GSM	GOVERNOR SYNCHRONIZING MOTOR		
GSOV	GAS SHUT-OFF VALVE		
HZ	FREQUENCY METER		
HFLAS	HIGH FUEL LEVEL ALARM SWITCH		
IC	REMOTE START/STOP INITIATE CONTACT		
IAHR	INTAKE AIR HEATER RELAY		
IH	INTAKE HEATER		
IVR	INTEGRATED VOLTAGE REGULATOR		
L	LOAD LEADS		
LBS	LINK BOARD SWITCH		
LDS	LOAD DOOR SWITCH		
LFL	LOW FUEL LEVEL LIGHT		
LFLAS	LOW FUEL LEVEL ALARM SWITCH		
LFLR	LOW FUEL LEVEL RELAY		
LFS	LATCHING FUEL CONTROL SOLENOID		
LOLAS	LOW OIL LEVEL ALARM SWITCH		
LWLAS	LOW WATER LEVEL ALARM SWITCH		
MAN	MANUAL		
MPU	MAGNETIC SPEED PICKUP		

SYMBOLS

	A.C. CONNECTOR (JC)		ADJUSTABLE LOW-HI
	CONTROL PANEL TERMINAL POINT		AC VOLTS
	VOLTAGE REGULATOR TERMINAL POINT		LOW OIL PRESSURE
	DC CONNECTOR #1 (JA)		OVERSPEED
	DC CONNECTOR #2 (JB)		EMERGENCY STOP
	DC POWER BOX CONNECTOR		FAIL TO START (OVER CRANK)
	DC POWER BOX TERMINAL POINT		LOW FUEL LEVEL
	STANDARD WIRING		LOW COOLANT TEMPERATURE
	ENGINE WIRING		HIGH COOLANT TEMPERATURE
	CUSTOMER WIRING		STARTING AID-ETHER
	ALTERNATIVE WIRING		HORN
	SHIELDED WIRE		HORN SILENCE/ACKNOWLEDGE SWITCH
	ENGINE MOUNTED COMPONENT		RAISE
	TIME CLOSED CONTACT		LOWER
	TIMED OPENED CONTACT		ON
	TIMED CLOSED TIMED OPENED CONTACT		OFF
	RELAY CONTACT (NORMALLY OPEN)		LIQUID LEVEL SWITCH
	RELAY CONTACT (NORMALLY OPEN)		LAMP
	RELAY CONTACT (NORMALLY CLOSED)		LAMP
	RELAY CONTACT (NORMALLY CLOSED)		PANEL ILLUMINATION LIGHT
	GENERATOR FRAME (CHASSIS) GROUND		ENGINE INTAKE AIR DAMPER CLOSED
	EARTH GROUND		SYSTEM BATTERY VOLTAGE
	PRESSURE SWITCH		SERVICE HOURS
	PRESSURE SWITCH		ENGINE-STOP
	TEMPERATURE SWITCH		ENGINE RPM
	TEMPERATURE SWITCH		LAMP/DISPLAY TEST
	MANUALLY OPERATED CONTROL		GENERATOR SYNCHRONIZING INDICATOR
	OPERATED BY TURNING		AMMETER VOLTMETER PHASE SELECTOR SWITCH
	SPEED SWITCH CONTACT		REVERSE POWER
	SPEED SWITCH CONTACT		BATTERY CHARGER MALFUNCTION
	BREAKDOWN DIODE BIDIRECTIONAL		
	BREAKDOWN DIODE BIDIRECTIONAL		
	DIODE		
	DIODE		
	FUSE		
	FUSE		
	EMERGENCY SWITCH		
	RELAY COIL		
	RELAY COIL		
	CIRCUIT BREAKER		
	CIRCUIT BREAKER		
	AUTOMATIC RESET		
	NON-AUTO RESET		
	AUTOMATIC START-STOP MODE		
	SYSTEM NOT IN AUTOMATIC START-STOP MODE		
	CRANK		

EMCP4.2 SETTINGS
 ANALOG INPUT #2 (VOLTAGE)
 0.5 TO 4.5V
 DESIRED GEN VOLT
 MIN DATA -10
 MAX DATA 10

FOR USE WITH
 XQ300ARM - C9
 XQ400ARM - C15

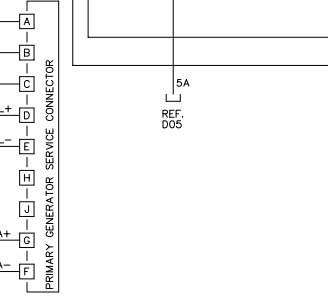
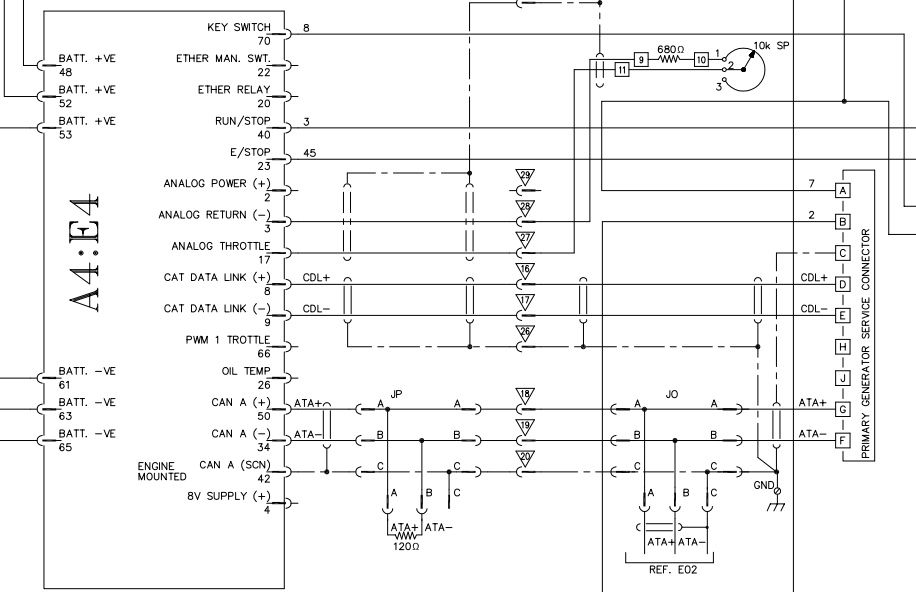
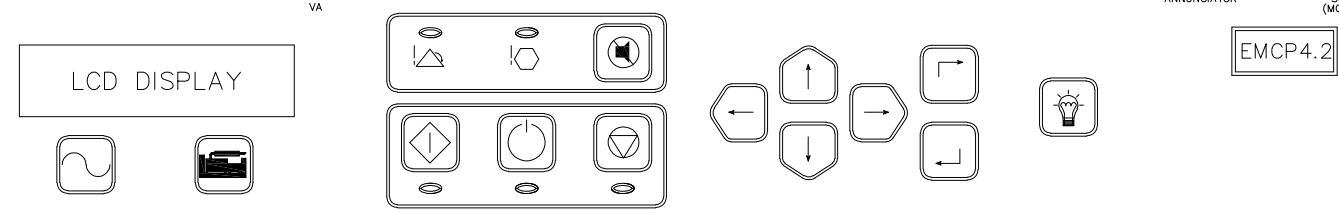
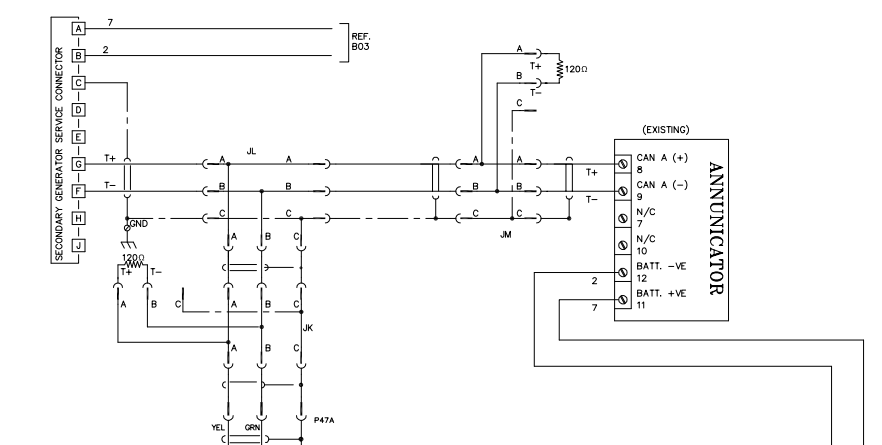
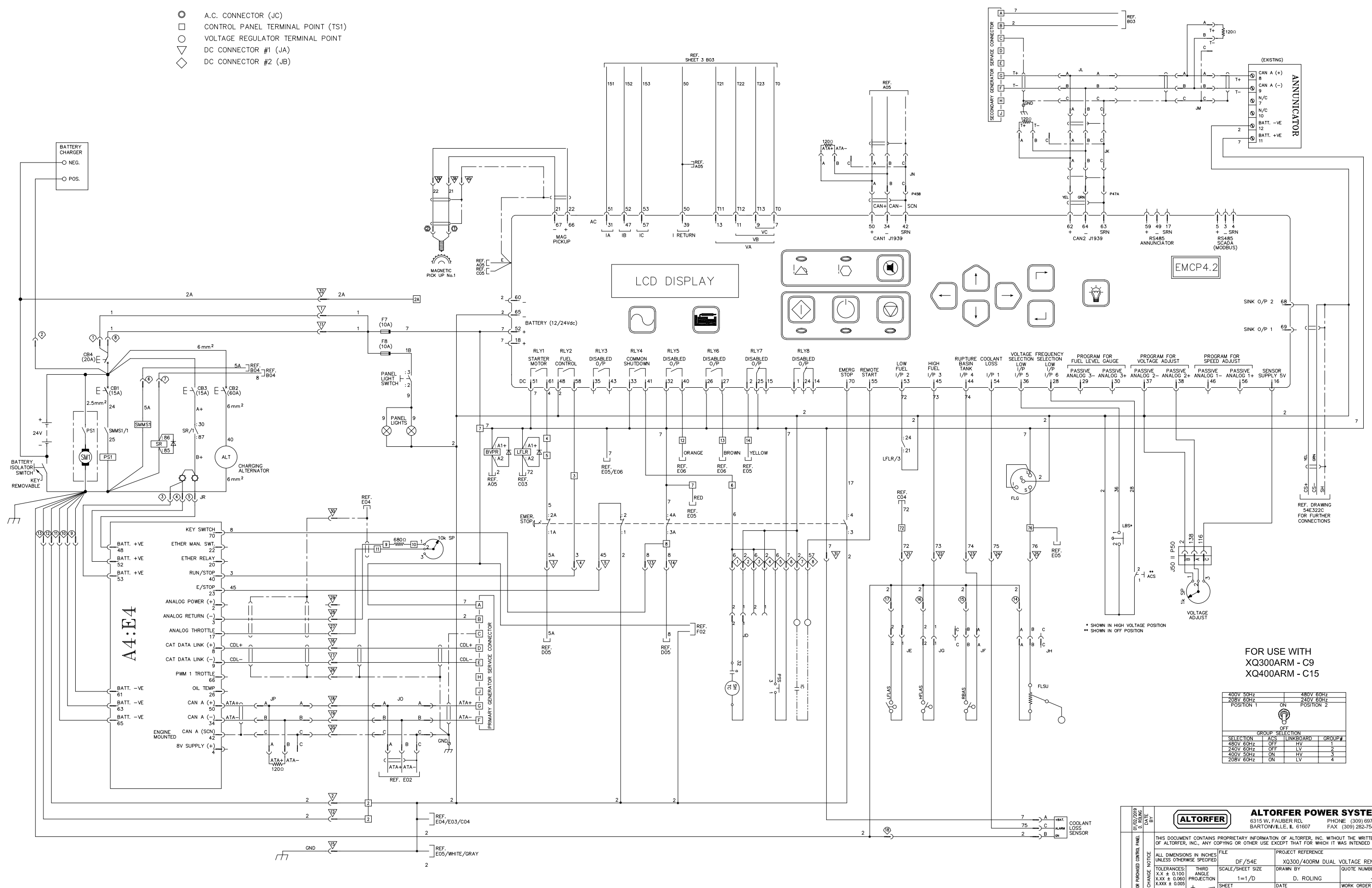
400V 50Hz	480V 60Hz		
208V 60Hz	240V 60Hz		
POSITION 1	POSITION 2		
ON			
OFF			
GROUP SELECTION			
SELECTION	ACS	LINKBOARD	GROUP#
480V 60Hz	OFF	HV	1
240V 60Hz	OFF	LV	2
400V 50Hz	ON	HV	3
208V 60Hz	ON	LV	4

ABBREVIATIONS AND SYMBOLS

FOR NOTES SEE SHEET 1

07/02/2019 D. ROLING DATE		ALTORFER POWER SYSTEMS 8315 W. FAUBER RD. PHONE (309) 697-1234 BARTONVILLE, IL 61607 FAX (309) 282-7546	
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CHANGE NOTICE 1 UPDATE FOR PURCHASE CONTROL PANEL	ALL DIMENSIONS IN INCHES UNLESS OTHERWISE SPECIFIED TOLERANCES: X.X ± 0.100 X.XX ± 0.060 X.XXX ± 0.005 ANGULAR ± 1°	FILE DF/54E SCALE/SHEET SIZE 1=1/D SHEET 1 OF 3	PROJECT REFERENCE XQ300/400RM DUAL VOLTAGE RENTAL UNIT DRAWN BY D. ROLING DATE 08/24/2015
	QUOTE NUMBER - WORK ORDER NUMBER - DRAWING NUMBER 54E401A-01		

- A.C. CONNECTOR (JC)
- CONTROL PANEL TERMINAL POINT (TS1)
- VOLTAGE REGULATOR TERMINAL POINT
- ▽ DC CONNECTOR #1 (JA)
- ◇ DC CONNECTOR #2 (JB)



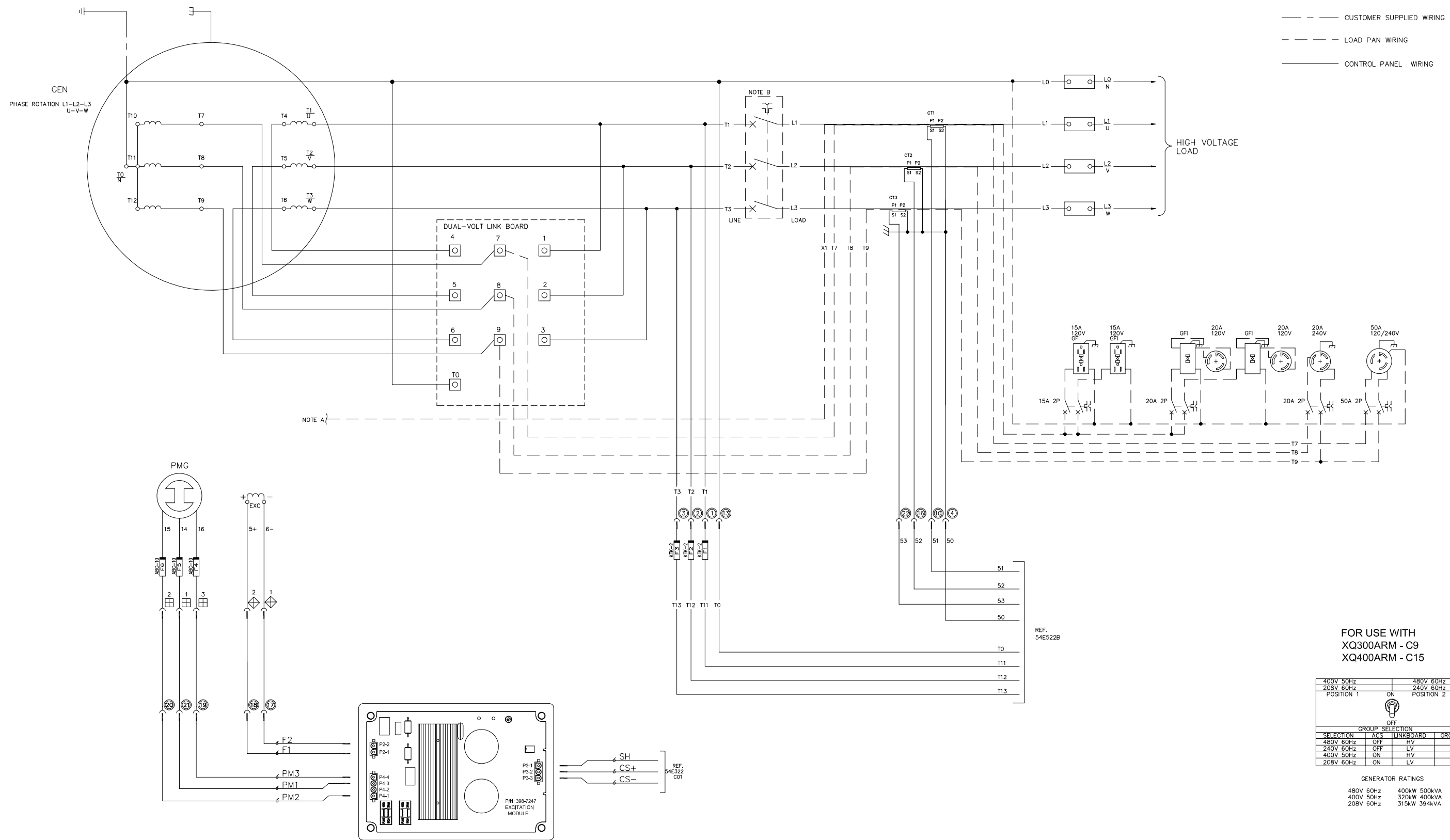
FOR USE WITH
XQ300ARM - C9
XQ400ARM - C15

400V 50Hz	ON	480V 60Hz	OFF
208V 60Hz	OFF	240V 60Hz	ON
POSITION 1 POSITION 2			
GROUP SELECTION			
SELECTION	ACS	LINKBOARD	GROUP#
480V 60Hz	OFF	HV	1
240V 60Hz	OFF	LV	2
400V 50Hz	ON	HV	3
208V 60Hz	ON	LV	4

ALTORFER POWER SYSTEMS
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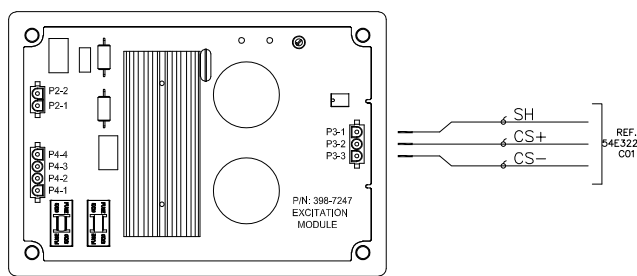
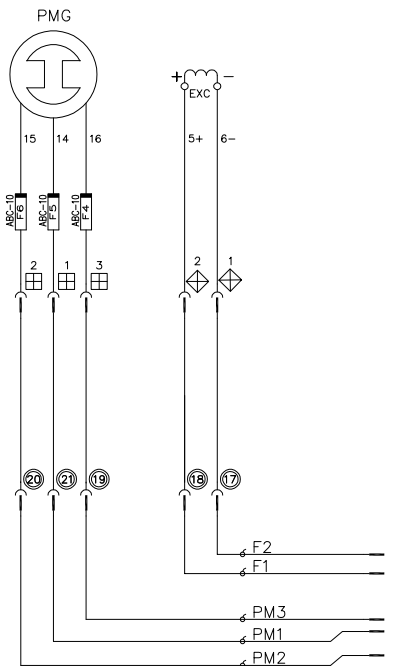
DATE: 07/22/2019	FILE: DF/54E	PROJECT REFERENCE: XQ300/400RM DUAL VOLTAGE RENTAL UNIT
BY: D. ROLING	SCALE/SHEET SIZE: 1=1/D	DRAWN BY: D. ROLING
CHANGE NOTICE: 1	TOLERANCES: THIRD ANGLE PROJECTION	QUOTE NUMBER: -
DATE: 08/24/2015	ANGULAR ± 1	WORK ORDER NUMBER: -
TITLE: EMCP 4.2 WIRING DIAGRAM (DUAL VOLTAGE)	SHEET: 2 OF 3	DRAWING NUMBER: 54E401B-01



--- CUSTOMER SUPPLIED WIRING
 - - - LOAD PAN WIRING
 —○— CONTROL PANEL WIRING

NOTE A

NOTE B



NOTE A: WINDING CENTERTAP CONNECTION FOR 120 V.A.C.

NOTE B: FOR 240/480V MAIN CIRCUIT BREAKER
 XQ300 - 1200 AMP
 XQ400 - 1600 AMP

- A.C. CONNECTOR (JC)
- CONTROL PANEL TERMINAL POINT (TS1)
- VOLTAGE REGULATOR TERMINAL POINT
- ◇ DC CONNECTOR #1 (JA)
- ◇ DC CONNECTOR #2 (JB)

FOR USE WITH
 XQ300ARM - C9
 XQ400ARM - C15

400V 50Hz	480V 60Hz
208V 60Hz	240V 60Hz
POSITION 1	ON POSITION 2
OFF	
GROUP SELECTION	
SELECTION	ACS LINKBOARD GROUP #
480V 60Hz	OFF HV 1
240V 60Hz	OFF LV 2
400V 50Hz	ON HV 3
208V 60Hz	ON LV 4

GENERATOR RATINGS

480V 60Hz	400kW 500kVA
400V 50Hz	320kW 400kVA
208V 60Hz	315kW 394kVA

07/02/2019 E. ROLING BY	ALTORFER 8315 W. FAUBER RD. BARTONVILLE, IL 61607 PHONE (309) 697-1234 FAX (309) 262-7546	ALTORFER POWER SYSTEMS		
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1 UPDATE FOR PERMANENT CONTROL PANEL CHANGE NOTICE	FILE DF/54E	PROJECT REFERENCE XQ400RM DUAL VOLTAGE RENTAL UNIT		
	TOLERANCES: X.X ± 0.100 X.XX ± 0.060 X.XXX ± 0.005	SCALE/SHEET SIZE 1=1/D	DRAWN BY D. ROLING	QUOTE NUMBER -
	THIRD ANGLE PROJECTION SHEET 3 OF 3	DATE 08/24/2015	WORK ORDER NUMBER -	DRAWING NUMBER 54E401C-01
	ANGULAR ± 1'	TITLE EMCP 4.2 WIRING DIAGRAM (DUAL VOLTAGE)	DRAWING NUMBER 54E401C-01	