

ABBREVIATIONS

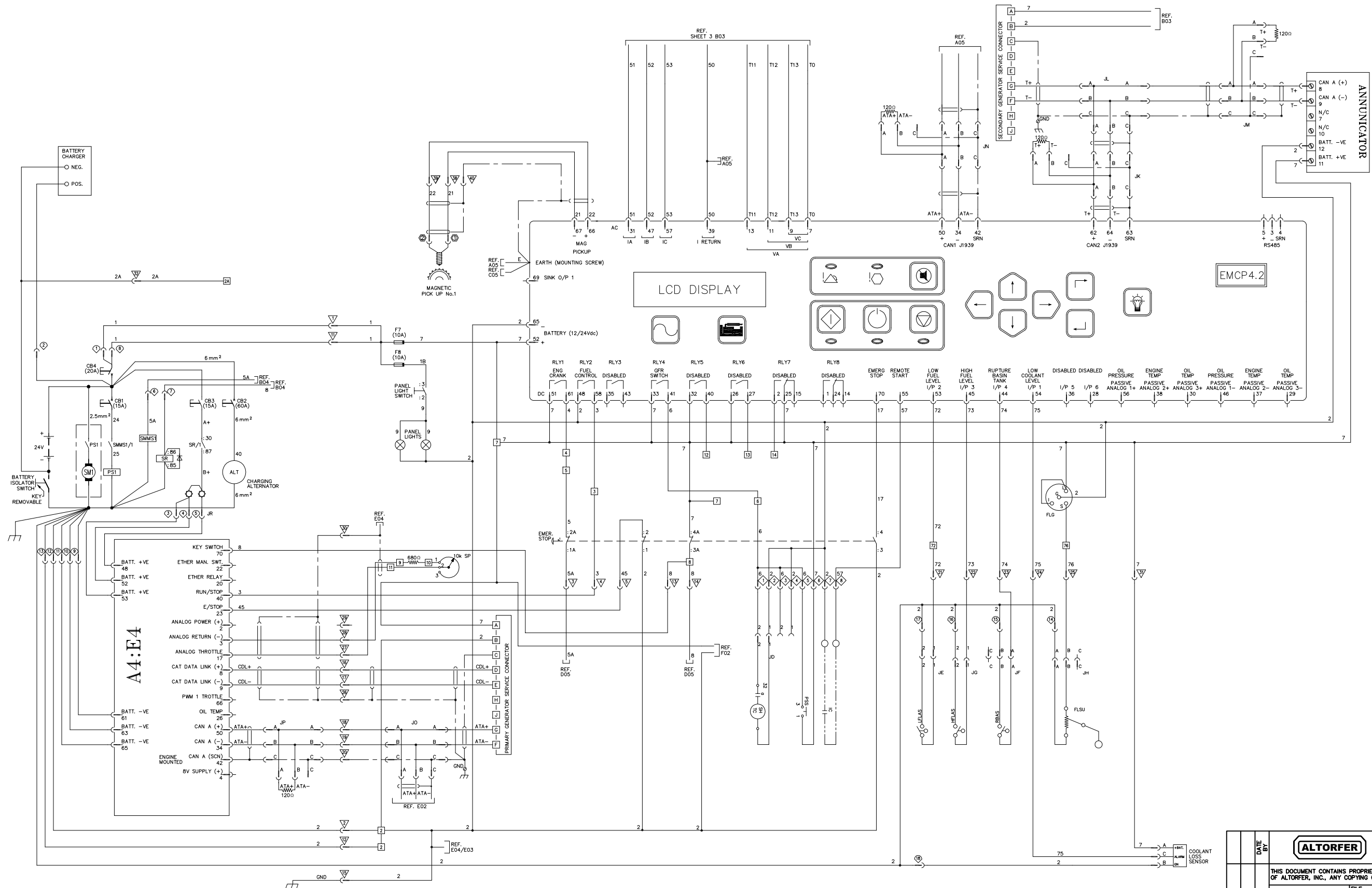
A	AMMETER	OCL	OVERCRANK LIGHT
ADS	ENGINE COMBUSTION AIR DAMPER POSITION SWITCH	OCR	OVERCURRENT RELAY
AFCR	AUXILIARY FUEL CONTROL RELAY	OCT	OVERCRANK TIMER
AL	AMBER LIGHT	OP	OIL PRESSURE
ALM	ALARM MODULE	OVR	OVERVOLTAGE RELAY
ALS	ALARM SILENCE PUSH BUTTON	OPG	OIL PRESSURE GAGE
ALT	ALTERNATOR	OPL	OIL PRESSURE LIGHT
AR	ARMING RELAY	OSL	OVERSPEED LIGHT
ASOS	AIR SHUT-OFF SOLENOID		
ASR	AIR SHUT-OFF RELAY	PL	PANEL ILLUMINATION LIGHT
ASSV	AIR START SOLENOID VALVE	PLS	PANEL LIGHT SWITCH
ATB	AC TRANSFORMER BOX	POT	POTENTIOMETER
AUX	AUXILIARY TERMINAL STRIP	PP	PRELUBE PUMP
AUXREL	AUXILIARY RELAY (CRANK TERMINATION)	PPMS	PRELUBE PUMP MAGNETIC SWITCH
AWG	AMERICAN WIRE GAUGE	PPPS	PRELUBE PUMP OIL PRESSURE SWITCH
BATT	BATTERY	PR	PRE-REGULATOR
BCF	BATTERY CHARGER FAILURE SWITCH	PROG	PROGRAMMABLE
BVPR	BATTERY VOLTAGE PRESENT RELAY	PS	PINION SOLENOID
C	COMMON	PSS	PERSONNEL SAFETY SWITCH
CAM	CUSTOM ALARM MODULE	RAN	REMOTE ANNUNCIATOR
CAR	COMMON ALARM RELAY	RES	RESISTOR
CB	CIRCUIT BREAKER	RL	RED LIGHT
CCM	CUSTOMER COMMUNICATION MODULE	RLY	RELAY
CDM	ENGINE COOLDOWN TIMER MODULE	RPL	REVERSE POWER LIGHT
CR	CONTROL RELAY	RPR	REVERSE POWER RELAY
CT	CURRENT TRANSFORMER	RPSR	REVERSE POWER SLAVE RELAY
CTR	CRANK TERMINATION RELAY	RR	RUN RELAY
D	DIODE	SASV	START AID SOLENOID VALVE
DCV	DC VOLTMETER	SATS	START AID TEMPERATURE SWITCH
DS	DIAGNOSTIC SWITCH	SAS	START AID SWITCH
ECLS	ENGINE COOLANT LOSS SENSOR	SBCT	SERIES BOOST CURRENT TRANSFORMER
ECS	ENGINE CONTROL SWITCH	SBM	SERIES BOOST MODULE
ECTS	ENGINE COOLANT TEMPERATURE SENSOR	SEC	SECOND
EFGR	EMERGENCY FUEL CONTROL RELAY	SHTC	CIRCUIT BREAKER SHUNT TRIP COIL
EFL	ENGINE FAILURE LIGHT	SIG	SIGNAL
EG	ELECTRONIC GOVERNOR (SPEED SENSING)	SL	SYNCHRONIZING LIGHT
EGA	ELECTRONIC GOVERNOR ACTUATOR	SLM	SYNCHRONIZING LIGHT MODULE
EGR	ELECTRONIC GOVERNOR RELAY	SLR	SYNCHRONIZING LIGHT RESISTOR
ENFR	ENGINE FAILURE RELAY	SM	STARTING MOTOR
ENG	ENGINE	SMMS	STARTING MOTOR MAGNETIC SWITCH
EOPS	ENGINE OIL PRESSURE SENSOR	SMR	STARTING MOTOR RELAY
EOTS	ENGINE OIL TEMPERATURE SENSOR	SP	SPEED ADJUST POTENTIOMETER
ESPB	EMERGENCY STOP PUSH BUTTON	SR	SLAVE RELAY
ESL	EMERGENCY STOP LIGHT	SS	SYNCHRONIZING SWITCH
F	FUSE	T	GENERATOR LINE LEADS
FGR	FUEL CONTROL RELAY	TD	TIME DELAY RELAY
FLG	FUEL LEVEL GAUGE	TSC	TRANSFER SWITCH POSITION INDICATING CONTACT
FLSU	FUEL LEVEL SENDING UNIT	V	AC VOLTMETER
FS	FUEL SOLENOID	VAR	VOLTAGE ADJUST RHEOSTAT
FSOS	FUEL SHUT-OFF SOLENOID	VAS	VOLTMETER / AMMETER SWITCH
FCTM	FUEL CONTROL TIMER MODULE	WT	WATER TEMPERATURE
GFR	GENSET FAULT RELAY	WTG	WATER TEMPERATURE GAGE
GOV	GOVERNOR	WTL	WATER TEMPERATURE LIGHT
GRR	GENSET RUN RELAY		
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		
L	LOAD LEADS		
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		
NC	NORMALLY CLOSED		
NO	NORMALLY OPEN		

SYMBOLS

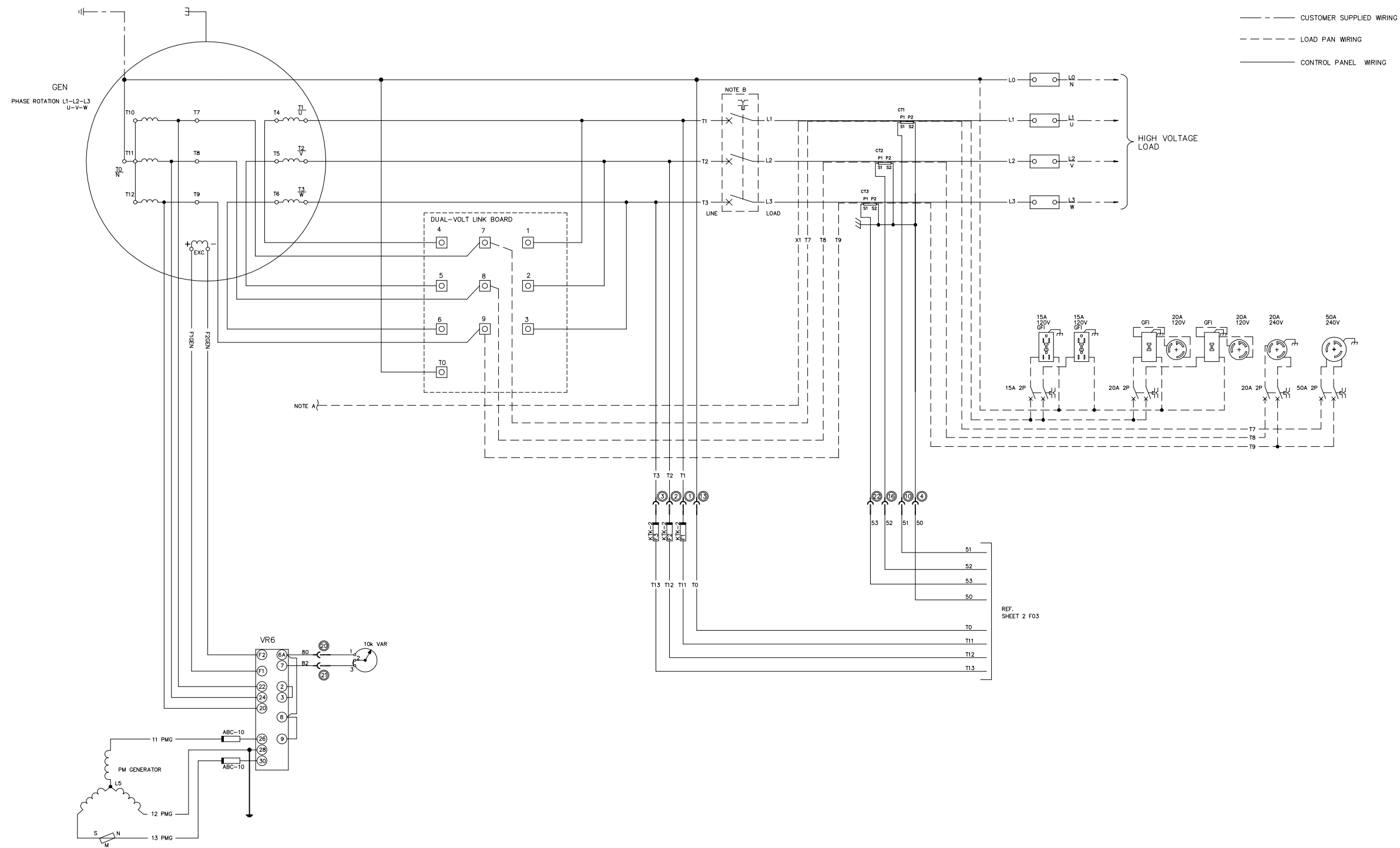
	A.C. CONNECTOR (JC)		AUTOMATIC RESET
	CONTROL PANEL TERMINAL POINT (TS1)		NON-AUTO RESET
	VOLTAGE REGULATOR TERMINAL POINT		AUTOMATIC START-STOP MODE
	DC CONNECTOR #1 (JA)		SYSTEM NOT IN AUTOMATIC START-STOP MODE
	DC CONNECTOR #2 (JB)		CRANK
	DC POWER BOX CONNECTOR (JR)		ADJUSTABLE LOW-HI
	DC POWER BOX TERMINAL POINT (TB1)		AC VOLTS
	STANDARD WIRING		LOW OIL PRESSURE
	ENGINE WIRING		OVERSPEED
	CUSTOMER WIRING		EMERGENCY STOP
	ALTERNATIVE WIRING		FAIL TO START (OVER CRANK)
	SHIELDED WIRE		LOW FUEL LEVEL
	ENGINE MOUNTED COMPONENT		LOW COOLANT TEMPERATURE
	TIME CLOSED CONTACT		HIGH COOLANT TEMPERATURE
	TIMED OPENED CONTACT		STARTING AID-ETHER
	TIMED CLOSED TIMED OPENED CONTACT		HORN
	RELAY CONTACT (NORMALLY OPEN)		HORN SILENCE/ACKNOWLEDGE SWITCH
	RELAY CONTACT (NORMALLY OPEN)		RAISE
	RELAY CONTACT (NORMALLY CLOSED)		LOWER
	RELAY CONTACT (NORMALLY CLOSED)		ON
	GENERATOR FRAME (CHASSIS) GROUND		OFF
	EARTH GROUND		LIQUID LEVEL SWITCH
	PRESSURE SWITCH		LAMP
	PRESSURE SWITCH		LAMP
	TEMPERATURE SWITCH		PANEL ILLUMINATION LIGHT
	TEMPERATURE SWITCH		ENGINE INTAKE AIR DAMPER CLOSED
	MANUALLY OPERATED CONTROL		SYSTEM BATTERY VOLTAGE
	OPERATED BY TURNING		SERVICE HOURS
	SPEED SWITCH CONTACT		ENGINE-STOP
	SPEED SWITCH CONTACT		ENGINE RPM
	SPEED SWITCH CONTACT		LAMP/DISPLAY TEST
	BREAKDOWN DIODE BIDIRECTIONAL		GENERATOR SYNCHRONIZING INDICATOR
	BREAKDOWN DIODE BIDIRECTIONAL		AMMETER VOLTMETER PHASE SELECTOR SWITCH
	DIODE		REVERSE POWER
	DIODE		BATTERY CHARGER MALFUNCTION
	FUSE		
	FUSE		
	EMERGENCY SWITCH		
	RELAY COIL		
	RELAY COIL		
	CIRCUIT BREAKER		
	CIRCUIT BREAKER		

ABBREVIATIONS AND SYMBOLS

		<b>ALTORFER</b>		<b>ALTORFER POWER SYSTEMS</b>	
		6315 W. FAUBER RD. BARTONVILLE, IL 61607		PHONE (309) 697-1234 FAX (309) 282-7546	
THIS DOCUMENT CONTAINS PROPRIETARY INFORMATION OF ALTORFER, INC. WITHOUT THE WRITTEN PERMISSION OF ALTORFER, INC., ANY COPYING OR OTHER USE EXCEPT THAT FOR WHICH IT WAS INTENDED IS PROHIBITED					
CHANGE NOTICE	ALL DIMENSIONS IN INCHES UNLESS OTHERWISE SPECIFIED	FILE	PROJECT REFERENCE		
	TOLERANCES: X.X ± 0.100 X.XX ± 0.050 X.XXX ± 0.005	DF\54E	APS400 C15 ACERT		
	THIRD ANGLE PROJECTION	SCALE/SHEET SIZE	DRAWN BY	QUOTE NUMBER	
	ANGULAR ± 1'	1=30/D	P. PETERSON	0	
	SHEET	DATE	WORK ORDER NUMBER		
	1 OF 3	5/23/2013	0		
TITLE	APS400 DUAL VOLTAGE (240/480V) EMCP 4.2		DRAWING NUMBER		
	DIAGRAM - WIRING		54E302		



		<b>ALTORFER POWER SYSTEMS</b> 6315 W. FAUBER RD.      PHONE (309) 697-1234 BARTONVILLE, IL 61607      FAX (309) 282-7546	
		THIS DOCUMENT CONTAINS PROPRIETARY INFORMATION OF ALTORFER, INC. WITHOUT THE WRITTEN PERMISSION OF ALTORFER, INC., ANY COPYING OR OTHER USE EXCEPT THAT FOR WHICH IT WAS INTENDED IS PROHIBITED.	
CHANGE NOTICE ALL DIMENSIONS IN INCHES UNLESS OTHERWISE SPECIFIED TOLERANCES: X.X ± 0.100 X.XX ± 0.050 X.XXX ± 0.005 ANGULAR ± 1°	FILE DF\54E	PROJECT REFERENCE APS400 C15 ACERT	
	SCALE/SHEET SIZE 1=30/D	DRAWN BY P. PETERSON	QUOTE NUMBER 0
	SHEET 2 OF 3	DATE 5/23/2013	WORK ORDER NUMBER 0
	TITLE APS400 DUAL VOLTAGE (240/480V) EMCP 4.2 DIAGRAM - WIRING		DRAWING NUMBER 54E302



--- CUSTOMER SUPPLIED WIRING  
 - - - - - LOAD PAN WIRING  
 \_\_\_\_\_ CONTROL PANEL WIRING

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

NOTE B: FOR 240/480V MAIN CIRCUIT BREAKER  
 APS400 - 1600 AMP

REF. SHEET 2 F03

DATE BY		<b>ALTORFER</b>		<b>ALTORFER POWER SYSTEMS</b>	
		8315 W. FAUBER RD. PHONE (309) 697-1234 BARTONVILLE, IL 61607 FAX (309) 282-7546			
THIS DOCUMENT CONTAINS PROPRIETARY INFORMATION OF ALTORFER, INC. WITHOUT THE WRITTEN PERMISSION OF ALTORFER, INC., ANY COPYING OR OTHER USE EXCEPT THAT FOR WHICH IT WAS INTENDED IS PROHIBITED		FILE DF\54E		PROJECT REFERENCE APS400 C15 ACERT	
ALL DIMENSIONS IN INCHES UNLESS OTHERWISE SPECIFIED		SCALE/SHEET SIZE 1=30/D		DRAWN BY P. PETERSON	
TOLERANCES: X.X ± 0.100 X.XX ± 0.060 X.XXX ± 0.005		THIRD ANGLE PROJECTION		DATE 5/23/2013	
CHANGE NOTICE		SHEET 3 OF 3		WORK ORDER NUMBER 0	
ANGULAR ± 1'		TITLE APS400 DUAL VOLTAGE (240/480V) EMCP 4.2 DIAGRAM - WIRING		DRAWING NUMBER 54E302	