


SHANGHAI JIANGNAN CHANGXING HEAVY INDUSTRY CO., LTD

Hull No. : H2431/2432/2433

5100TEU CONTAINER VESSEL

BATTERY CHARGER PANEL

DESIGNED BY		DRAWING NO.	TC06P174-3
COMPARED BY		REVISION	A
CHECKED BY		CLASS	GL
APPROVED BY		DATE	2007-09-27
 TERASAKI <i>Ensuring Service, Maintaining Quality</i>		TERASAKI (CHINA) ELECTRIC CO., LTD	

VOL. 1

GENERAL SPECIFICATION.....	SE
ABBREVIATION	AB
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OUTLINE VIEW.....	OV
SINGLE DRAWING.....	SD

	FLAG OF SHIP	MARSHALL/LIBERIA	KIND OF SHIP	5100 TEU CLASS CONTAINER VESSEL	REF SHEET No.
GENERAL	RULE AND REGULATION	<input type="checkbox"/> ABS <input type="checkbox"/> BV <input type="checkbox"/> DNV <input checked="" type="checkbox"/> GL <input type="checkbox"/> JG <input type="checkbox"/> LRS <input type="checkbox"/> NK <input type="checkbox"/> CCS SPECIAL NOTATION: <input type="checkbox"/> AUT-0 <input checked="" type="checkbox"/> AUT			
	STANDARD	<input type="checkbox"/> JIS <input type="checkbox"/> JEM <input checked="" type="checkbox"/> GB <input checked="" type="checkbox"/> IEC PUB. 92(system design philosophy only)			
	DRAWING & DOCUMENT	LANGUAGE: <input checked="" type="checkbox"/> ENGLISH <input type="checkbox"/> CHINESE UNIT: <input checked="" type="checkbox"/> METRIC <input checked="" type="checkbox"/> SI			
	VOLTAGE RATING	<input checked="" type="checkbox"/> AC440V 60Hz 3 φ <input type="checkbox"/> AC220V 60Hz 3 φ <input type="checkbox"/> DC24V			
	ENCLOSURE TYPE	ENCLOSURE TYPE: <input checked="" type="checkbox"/> IP22 <input type="checkbox"/> IP20			
MECHANICAL CONSTRUCTION AND INSTALLATION	ACCESSIBILITY	<input checked="" type="checkbox"/> FRONT <input type="checkbox"/> REAR			
	INSTALLATION	<input checked="" type="checkbox"/> FLOOR STANDING <input type="checkbox"/> WALL MOUNTING			
	PAINT COLOR	OUTSIDE: <input checked="" type="checkbox"/> 7. 5BG7/2 <input type="checkbox"/> 2. 5G7/2 <input type="checkbox"/> SEMI-POLISHED <input checked="" type="checkbox"/> ROUGH-POLISHED INSIDE (PANEL): <input type="checkbox"/> 2. 5PB9/2 <input type="checkbox"/> 2. 5G7/2 <input type="checkbox"/> SEMI-POLISHED <input checked="" type="checkbox"/> MAKER STANDARD			
	CHANNEL OR ANGLE BASE	<input checked="" type="checkbox"/> PROVIDED <input checked="" type="checkbox"/> L6x100x63 (H=100) FOR GENERAL SERVICE BCP <input checked="" type="checkbox"/> H=200, CABLE ENTRANCE IN BASE SIDE, FOR ENGINE ROOM SERVICE BCP			
ELECTRICAL CONSTRUCTION	BUSBAR MATERIAL & COLORCODING	<input checked="" type="checkbox"/> WITH COLOR LABEL AC { PHASE (R) (A) <input checked="" type="checkbox"/> GREEN <input type="checkbox"/> RED PHASE (S) (B) <input checked="" type="checkbox"/> YELLOW <input type="checkbox"/> YELLOW DC { POLE (P) <input checked="" type="checkbox"/> RED PHASE (T) (C) <input checked="" type="checkbox"/> BROWN <input type="checkbox"/> BLUE POLE (N) <input checked="" type="checkbox"/> BLUE NEUTRAL (N) <input type="checkbox"/> BLACK <input type="checkbox"/> BLACK			
	BUSBAR PHASE ARRANGEMENT	VIEWING FROM PANEL FRONT PHASE (R) (A) (U) POLE (P) LEFT TOP FRONT PHASE (S) (B) (V) ↓ ↓ ↓ PHASE (T) (C) (W) POLE (N) RIGHT BOTTOM REAR NEUTRAL (N)			
	INTERNAL WIRING MATERIAL	MANUFACTURE: (YANGZHOU HANGXIA) POWER CIRCUIT: 600V CBYJR (85 DEG C) CONTROL CIRCUIT: 250V CBYJR (75 DEG C) MATERIAL: FLAME RETARDANT AND HALOGEN FREE, LOW SMOKE			
	MOLDED CASE CIRCUIT BREAKER	REFER TO THE MCCB BREAKER CAPACITY LIST			
	METER	<input checked="" type="checkbox"/> DEIF <input checked="" type="checkbox"/> 72X72 90° SCALE 1.5 CLASS BEZEL COLOR: <input checked="" type="checkbox"/> BLACK			
	INSULATION RESISTANCE METER	<input checked="" type="checkbox"/> PROVIDED <input checked="" type="checkbox"/> YOKOGAWA <input type="checkbox"/> NOT PROVIDED <input type="checkbox"/> DEIF			
	PHASE SEQUENCE INDICATOR	<input type="checkbox"/> PROVIDED <input checked="" type="checkbox"/> NOT PROVIDED			
	TERMINAL LUG FOR OUTGOING CABLE	<input type="checkbox"/> PROVIDED <input checked="" type="checkbox"/> NOT PROVIDED			
	FUSE	<input checked="" type="checkbox"/> PLUG TYPE <input type="checkbox"/> SCREW TYPE <input checked="" type="checkbox"/> LEGRAND <input checked="" type="checkbox"/> MAKER STANDARD <input checked="" type="checkbox"/> 500V RUPTURE CAP 100KA <input type="checkbox"/> 500V RUPTURE CAP 50KA			
	NAMEPLATE	MATERIAL <input checked="" type="checkbox"/> ACRYLIC <input type="checkbox"/> PHENOLIC			
LANGUAGE: <input checked="" type="checkbox"/> ENGLISH (NAMEPLATE) <input type="checkbox"/> ENGLISH&CHINESE (CAUTION PLATE) <input type="checkbox"/> CHINESE					
TYPE: <input type="checkbox"/> ENGRAVED <input checked="" type="checkbox"/> REVERSE ENGRAVED					
BACKGROUND: <input checked="" type="checkbox"/> WHITE <input type="checkbox"/> BLACK					
SPARE PARTS	LETTERIN: <input checked="" type="checkbox"/> GENERAL: BLACK <input checked="" type="checkbox"/> WARNING LETTERING: RED				
	<input checked="" type="checkbox"/> SUPPLIED <input type="checkbox"/> NOT SUPPLIED <input checked="" type="checkbox"/> WITH STEEL BOX <input type="checkbox"/> WITHOUT STEEL BOX BOX COLOR: <input checked="" type="checkbox"/> MAKER STANDARD				

ABBR.	DESCRIPTION	ABBR.	DESCRIPTION	ABBR.	DESCRIPTION
A	AMMETER	FSS	FLICKER STOP SWITCH	SCR	SILICON CONTROLLED RECTIFIER
AC	ALTERNATING CURRENT	GCS	GOVERNOR MOTOR CONTROL SWITCH	SEC	SECOND
ACB	AIR CIRCUIT BREAKER	GL	GREEN LIGHT	SG	SHAFT GENERATOR
AG	AUXILIARY GENERATOR	GSP	GROUP STARTER PANEL	SHS	SPACE HEATER SWITCH
AS	AMMETER SWITCH	H	HEATER/HOUR	SHT	SHUNT TRIP
ASS	AUTO SYNCHRO SWITCH	HM	RUNNING HOUR METER	ST	STARTER
ASCS	AUTO SYNCHRO & LOAD SHIFT SWITCH	IL	INCANDESCENT LAMP	STD	SHORT TIME DELAY
ATR	ACB RESET SWITCH	ILS	INCANDESCENT LAMP SWITCH	STR	SHORT CIRCUIT TROUBLE RESET
AUS	AUXILIARY SWITCH	INST	INSTANTANEOUS	SY	SYNCHROSCOPE
AUTO	AUTOMATIC	INV	INVERTER	SYS	SYNCHROSCOPE SWITCH
AUX	AUXILIARY	IRM	INSULATION RESISTANCE METER	STT	ENG START SWITCH
AVR	AUTOMATIC VOLTAGE REGULATOR	KS	KNIFE SWITCH	STP	ENG STOP SWITCH
AST	FULL AUTO START	KSDT	KNIFE SWITCH DOUBLE THROW	SL	STANDBY LIGHT
ASP	FULL AUTO STOP	KSTT	KNIFE SWITCH TRIPLE THROW		
BCS	BREAKER CONTROL SWITCH	LSS	AUTO LOAD SHIFT SWITCH	T	TEMPERATURE METER/THERMOMETER
BL	BELL	LTD	LONG TIME DELAY	TB	TERMINAL BLOCK
BL	BLUE LIGHT	LTS	LAMP TEST SWITCH	TCS	TRANSFORMER CONNECTING LINK
BS	BUZZER STOP	MANU	MANUAL	TG	TURBO GENERATOR
BZ	BUZZER	MC	MAGNETIC CONTACTOR	TL	TRANSPARENT LIGHT
CCC	CROSS CURRENT COMPENSATOR	MCCB	MOLDED CASE CIRCUIT BREAKER	TMS	TEMPERATURE METER SWITCH THERMOMETER SWITCH
COS	CHANGE OVER SWITCH	MG	MOTOR GENERATOR/MAIN GENERATOR	TPB	TRIP PUSH BUTTON
CS	CONTROL SWITCH	MIN	MINUTE	TT	TEST TERMINAL
DC	DIRECT CURRENT	M/S	MACHINE SIDE	TS	EG SEQUENCE TEST SWITCH
DG	DIESEL GENERATOR	MSB	MAIN SWITCHBOARD	UVRY	UNDERVOLTAGE RELAY
DM	DIMMER	MV	MAGNETIC VALVE	UVT	UNDERVOLTAGE TRIP
DS	DISCONNECTING SWITCH	NP	NAMEPLATE	V	VOLTMETER
ECS	ENGINE CONTROL SWITCH	OCR	OVERCURRENT RELAY	VAR	VARMETER
EG	EMERGENCY GENERATOR	OL	ORANGE LIGHT	VR	VOLTAGE REGULATOR
ELS	EARTH LAMP SWITCH	OVRY	OVERVOLTAGE RELAY	VS	VOLTMETER SWITCH
EIL	EMERGENCY LIGHT	PBS	PUSH BUTTON SWITCH	W	WATTMETER
ES	EXCITATION SWITCH	PF	POWER FACTOR METER	WH	WATT HOUR METER
ESB	EMERGENCY SWITCHBOARD	PSI	PHASE SEQUENCE INDICATOR	WL	WHITE LIGHT
ETR	ENG RESET SWITCH	PSL	PHASE SEQUENCE INDICATING LAMP	WIL	WORKING LIGHT
F	FREQUENCY METER	PSC	PHASE SEQUENCE CHECK SWITCH	YL	YELLOW LIGHT
FL	FLUORESCENT LAMP	RA	REACTOR	TSS	TRANSFORMER SELECT SWITCH
FLS	FLUORESCENT LAMP SWITCH	RL	RED LIGHT		
FS	FREQUENCY METER SWITCH	RPRY	REVERSE POWER RELAY		

MOLDED CASE CIRCUIT BREAKERS (MANUFACTURER:TERASAKI)

GL

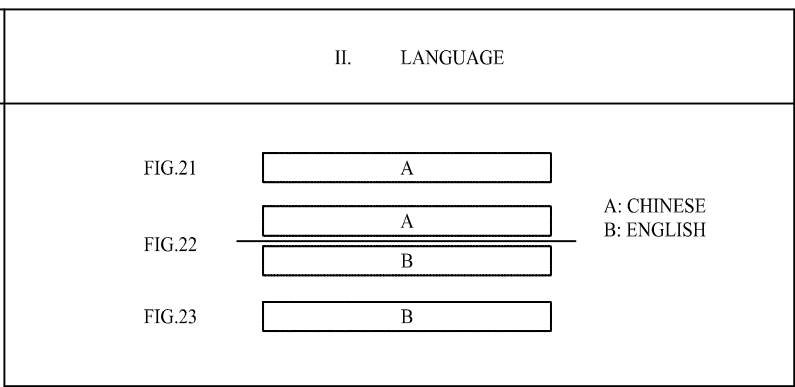
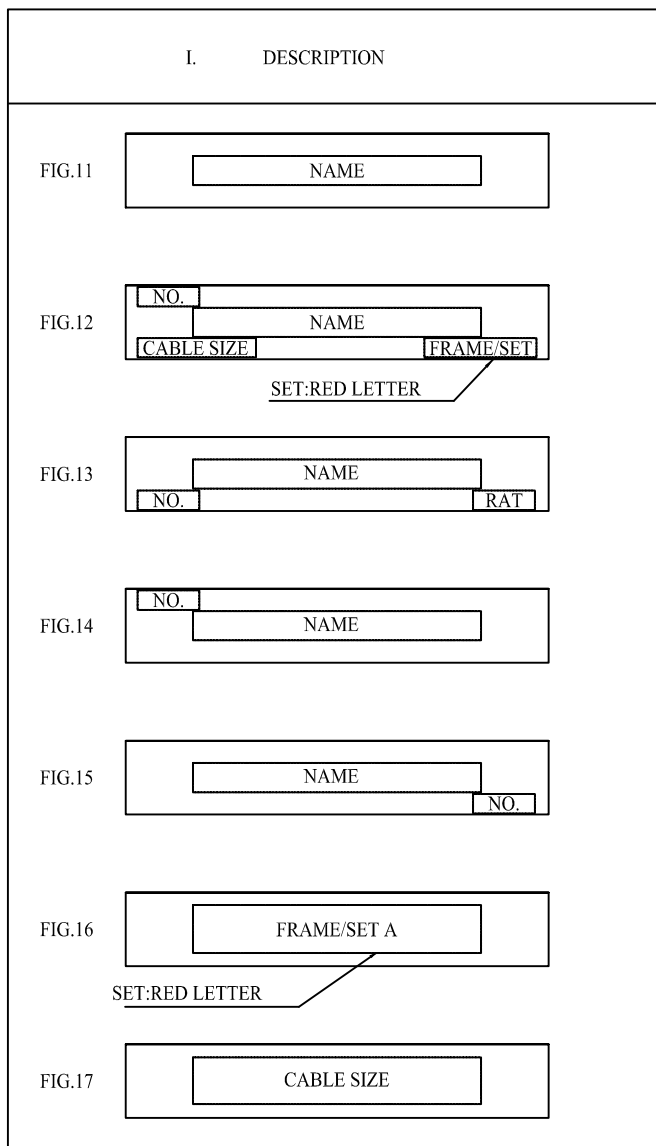
TYPE	MAXIMUM CURRENT RATING (A)	AC450V		AC240V		AC125V		DC250V	USED	
		RATED BREAKING CURRENT (kA) Sym.RMS	RATED MAKING CURRENT (kA) Asym.peak	RATED BREAKING CURRENT (kA) Sym.RMS	RATED MAKING CURRENT (kA) Asym.peak	RATED BREAKING CURRENT (kA) Sym.RMS	RATED MAKING CURRENT (kA) Asym.peak	RATED BREAKING CURRENT (kA)		
XE	XE100NS	100	10	18.5	25	52.5	42*2	95.6*2	7.5	
XS	XS50NB	50	10	18.5	25	52.5	42*2	95.6*2	7.5	
	XS100NB	100	25	52.5	50	105			15	○
	XS225NS	225	25	52.5	50	105			40	
	XS400CS	400	30	63	50	105				
	XS400NS	400	42	88.2	85	187				
	XS400NE	400	42	88.2	85	187				
	XS600CS	600	30	63	50	105				
	XS600NS	600	50	105	85	187				
	XS600NE	600	50	105	85	187				
	XS800CS	800	30	63	50	105				
	XS800NS	800	50	105	85	187				
	XS800NE	800	50	105	85	187				
	XS1200NE	1200	65	143	100	220				
	XS1600NE	1600	85	187						
XS2000NE	2000	85	187							
XH	XH50NS	50	42	88.2	85	187				
	XH100NS	100	42	88.2	85	187				○
	XH225NS	225	42	88.2	85	187				
	XH225NE	225	42	88.2	85	187				
	XH800PS	800	85	187						
TL	TL-100F	100	120	288						
	TL-225F	225	120	288					40	
	TL-400E	400	120	288					40	
	TL-600NE	600	125	298					40	
	TL-800NE	800	125	298						
	TL-100C	100	180	415						
	TL-225B	225	180	415						
	TL-400	400	180	415						
	TL-600	600	180	415						
	TL-800	800	180	415						
	TL-1000NE	1000	125	298						
	TL-1200NE	1200	125	298						
	TB	TB-5D	10			2.5*3	4.1*3	43.5*1	101.6*1	
TB-5P		15-50			5*3	8*3	43.5*1	101.6*1		○

○---USED

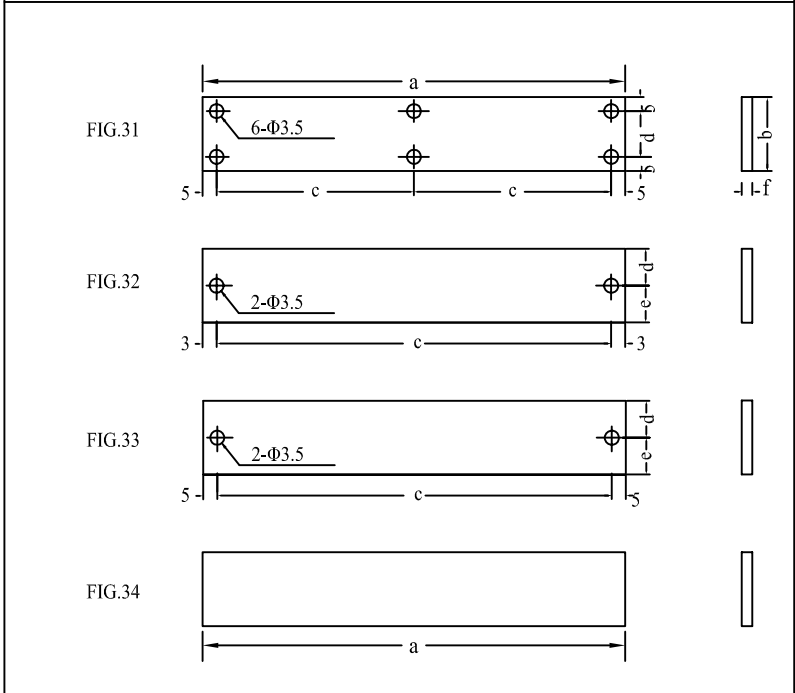
NOTE: *1 --- AT AC 110V
 *2 --- AT AC 120V
 *3 --- AT AC 220V

① --- WITH INSTANTANEOUS TRIP

② --- WITHOUT INSTANTANEOUS TRIP



III. DIMENSION



I FIG.	II FIG.	III FIG.	TYPE	a	b	c	d	e	f	REMARKS
11		31	U1	315	63	152.5	5.3	-	3	
11	23	31	U2	200	40	95	30	-	2	
11		34	U5S	63	25	-	-	-	2	
11	23	33	U6	63	16	53	8	8	2	
11	23	34	U7	50	12.5	-	-	-	2	
11	23	33	U7S	50	12.5	40	6.25	6.25	2	
11	23	33	U9	100	40	90	20	20	2	
11	23	33	U10	100	25	90	12.5	12.5	2	
12		32	U13	40	25	34	12.5	12.5	2	
13	23	34	U14	63	12.5	-	-	-	2	
12	23	33	U15	90	50	80	25	25	2	
12	23	33	U16	90	35	80	17.5	17.5	2	
12		33	U17	90	70	80	52.5	17.5	2	
13	23	34	U20	29	25	-	-	-	2	
16		34	U51	25	8	-	-	-	1	
17		34	U52	25	8	-	-	-	1	
12	23	33	U53	80	40	70	20	20	2	
11		33	U54	63	40	53	20	20	2	
11		33	U55	66	12.5	56	6.25	6.25	2	
11	23	33	U56	100	50	90	25	25	2	
15	23	34	LN13	22	22	-	-	-	1	
15		34	LN12	36	30	-	-	-	1	
12	23	33	LN21	75	35	65	17.5	17.5	2	
12	23	33	LN22	50	35	40	17.5	17.5	2	
14	23	33	LN23	63	16	53	8	8	2	

NOTE:
 GENERAL PLATE --- ACRYLIC
 MATERIAL --- ACRYLIC
 LETTER --- GENERAL: BLACK;WARNING:RED
 GROUND --- WHITE
 TYPE --- REVERSE ENGRAVED

NAMEPLATE		CIR NO.	CIRCUIT NAME	BREAKER		CABLE		REMARKS
TYPE	QT			TYPE	SET(A) OR RAT(A)	SIZE	ENT-RANCE	

GENERAL SERVICE BATTERY CHARGER PANEL

U13	1	Q01	ESB AC440V 60HZ	XS100NB 3P	20			
U13	1	Q02	MSB AC440V 60HZ	XS100NB 3P	20			
U13	1	Q1	PUBLIC ADDRESS IMCOS MAIN ELECTRONIC UNIT	TB-5P 2P	40			
U13	1	Q2	SPARE	TB-5P 2P	40			
U13	1	Q3	SPARE	TB-5P 2P	40			
U13	1	Q4	EMERGENCY SWITCHBOARD EMERGENCY GENERATOR PANEL A	TB-5P 2P	30			
U13	1	Q5	ELEVATOR	TB-5P 2P	30			
U13	1	Q6	DC 24V SOCKET BACK OF ESB	TB-5P 2P	15			
U13	1	Q7	SPARE	TB-5P 2P	15			
U13	1	Q8	SPARE	TB-5P 2P	30			
U13	1	Q9	NO.1 LOW VOLTAGE DIS. BOX	XE100NS 2P	50			

ENGINE ROOM SERVICE BATTERY CHARGER PANEL

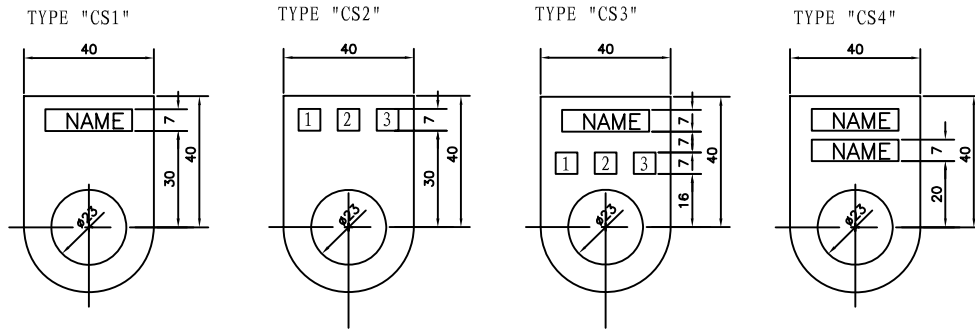
U13	1	Q01	ESB AC440V 60HZ	XS100NB 3P	20			
U13	1	Q02	MSB AC440V 60HZ	XS100NB 3P	20			
U13	1	Q10	NO.2 LOW VOLTAE DIS. BOX	XE100NS 2P	50			
U13	1	Q11	MAIN SWITCHBOARD SYNCHRO PANEL	TB-5P 2P	40			
U13	1	Q12	NO.1 D / G CONTROL PANEL	TB-5P 2P	40			
U13	1	Q13	NO.2 D / G CONTROL PANEL	TB-5P 2P	40			
U13	1	Q14	NO.3 D / G CONTROL PANEL	TB-5P 2P	40			
U13	1	Q15	NO.4 D / G CONTROL PANEL	TB-5P 2P	40			
U13	1	Q16	DC 24V SOCKET BACK OF MSB	TB-5P 2P	15			
U13	1	Q17	SPARE	TB-5P 2P	15			
U13	1	Q18	CONTACTOR CABINET WARNING BOX FOR STEERING GEAR	TB-5P 2P	15			
U13	1	Q19	SPARE	TB-5P 2P	40			

A	B	C	D	E	F	G	H	I
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NAMEPLATE (CIRCUIT BREAKER)

N3
1-7



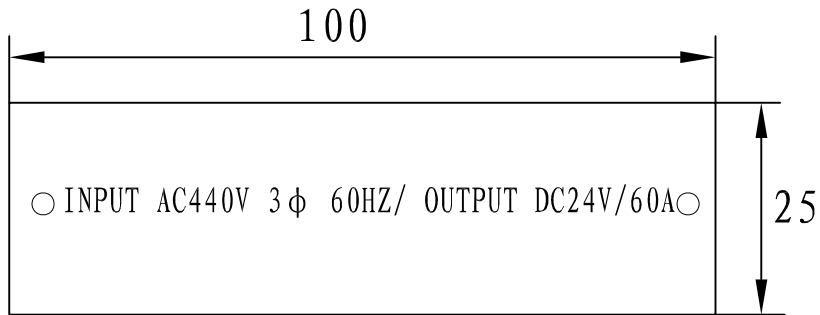
NOTE

MATERIAL : ACRYLIC RESIN

LETTER: BLACK (REVERSE ENGRAVED)

GROUND: WHITE

NAMEPLATE		SYMBOL	NAME				PARTS TYPE	NP NO.
TYPE	QT.		NAME	1	2	3		
CS1	2	WL1	MSB SOURCE	—	—	—	YW1P-1BEM45 W	
CS1	2	WL2	ESB SOURCE	—	—	—	YW1P-1BEM45 W	
CS1	2	WL3	DC24V POWER	—	—	—	YW1P-1BEQ7 W	
CS1	2	RL1	LOW INSULATION	—	—	—	YW1P-1BEQ7 R	
CS1	2	RL2	CHARGER FAIL	—	—	—	YW1P-1BEQ7 R	
CS1	2	RL3	LOW VOLTAGE	—	—	—	YW1P-1BEQ7 R	
CS1	2	RL4	BATTERY DISCHARGING	—	—	—	YW1P-1BEQ7 R	
CS1	2	TS	TEST	—	—	—	YW1B-M1E10 B	
CS1	2	BS	BUZZER STOP	—	—	—	YW1B-M1E10 B	
CS1	2	ELS	EARTH LAMP TEST	—	—	—	YW1B-M1E11 B	
CS3	2	SW	MODE SELECT	BOOST	TRICKLE	MANUAL	YW1S-3E21	

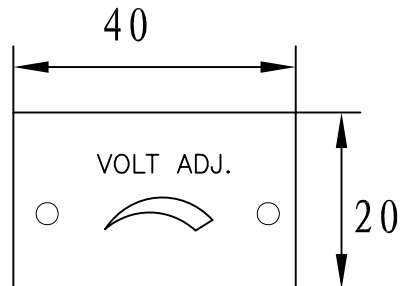


NP No. : CNP1

QT. : 2

TYPE: U10

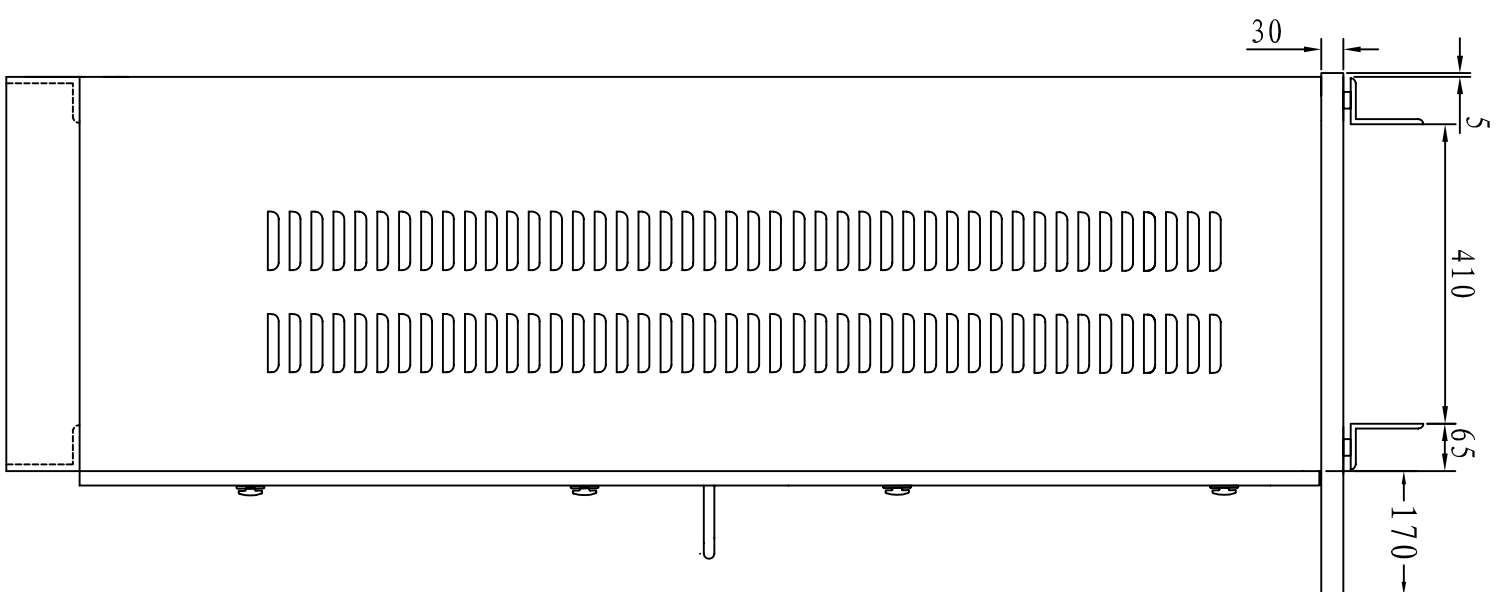
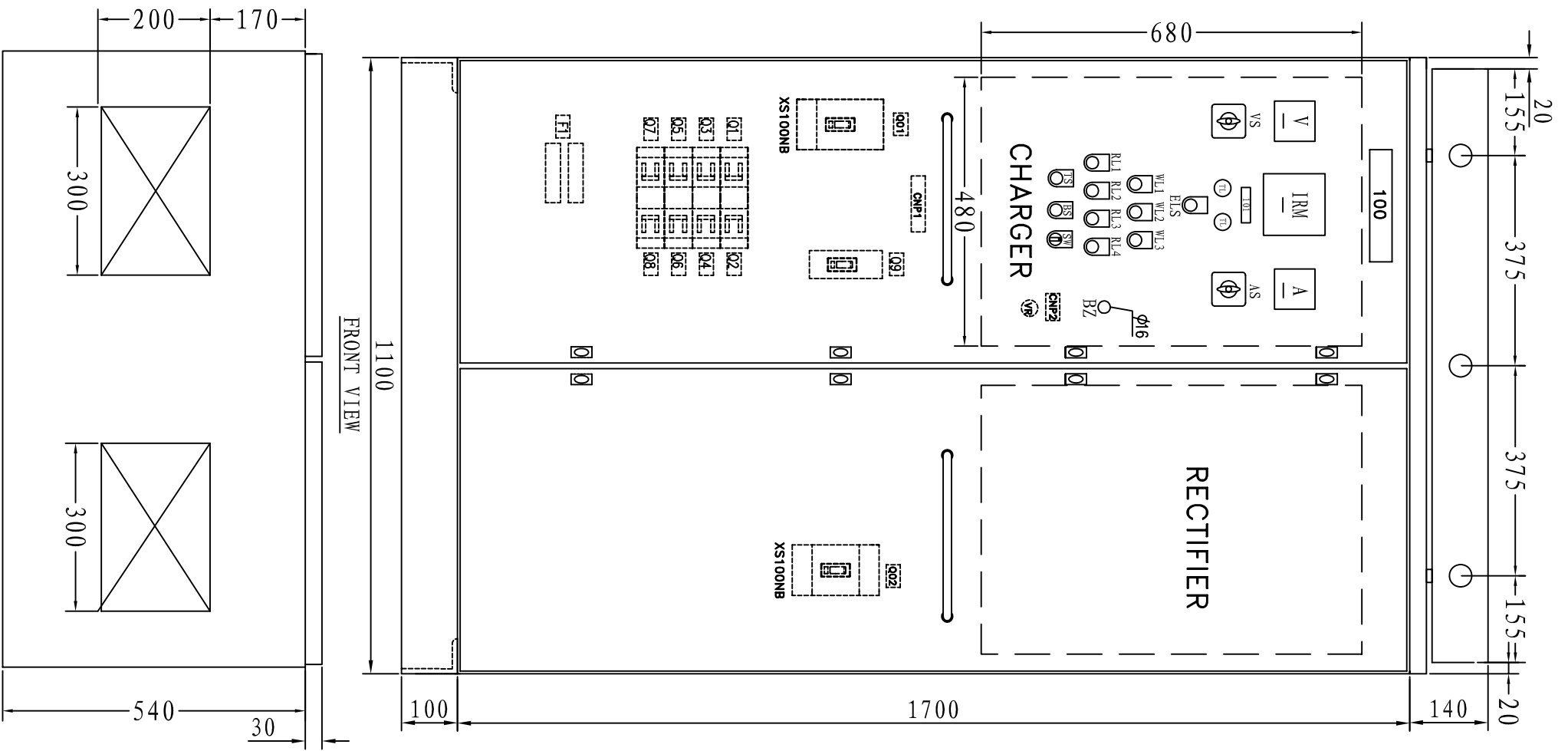
LETTER: RED (REVERSE ENGRAVED)



NP No. : CNP2

QT. : 2

LETTER: RED (REVERSE ENGRAVED)



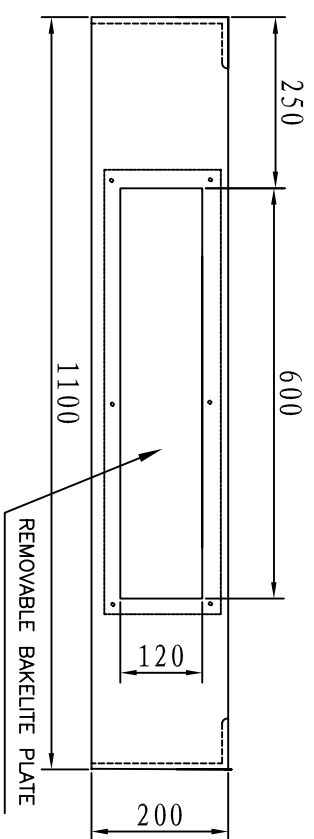
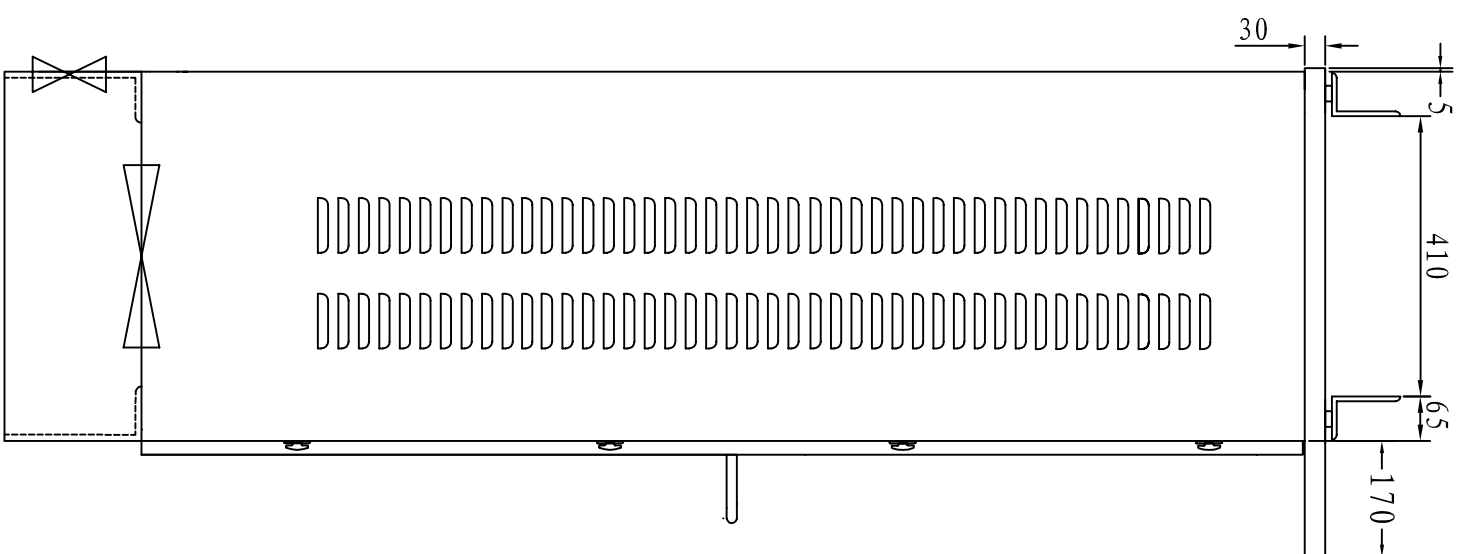
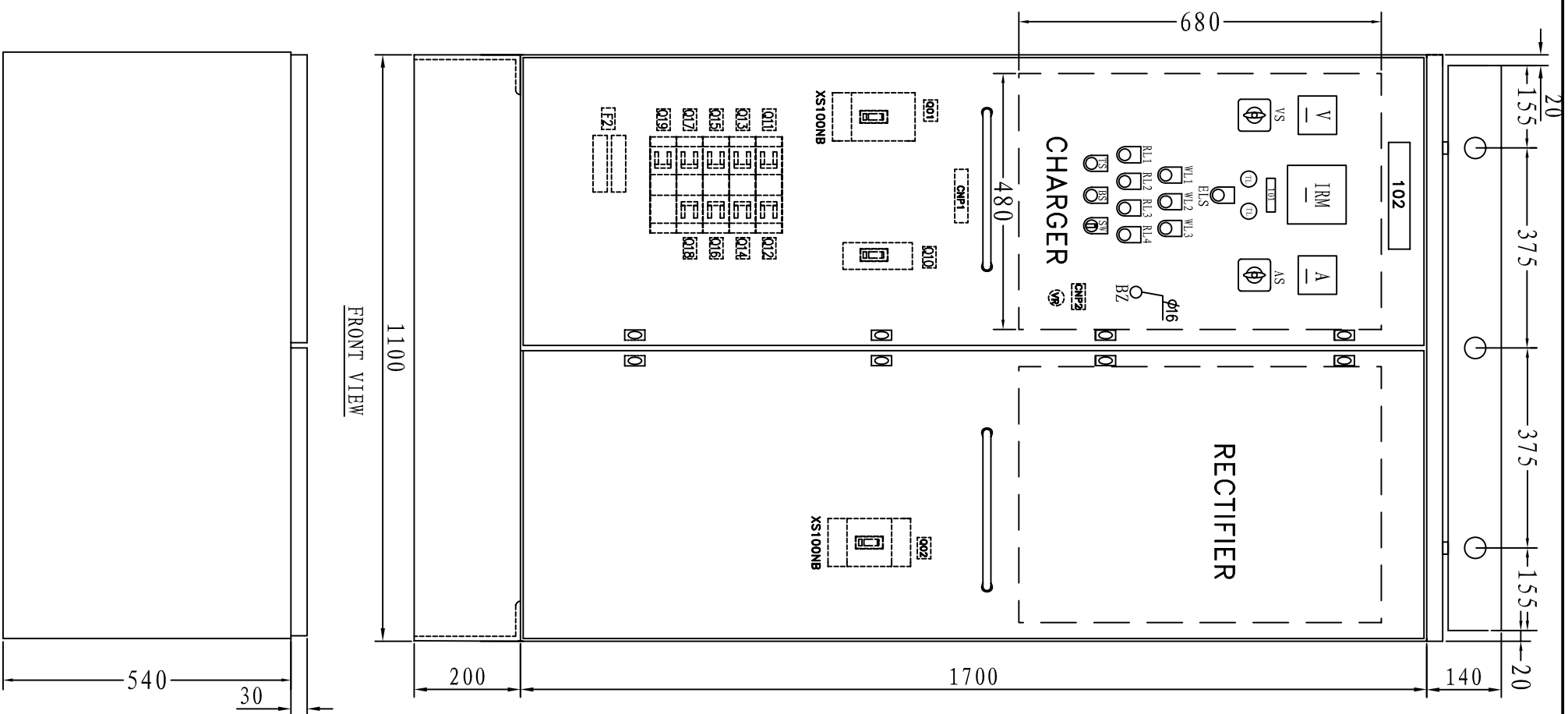
A
B
C
D
E
F
G
H
I



GENERAL SERVICE BATTERY CHARGER PANEL

OUTLINE VIEW

OV1
1-11



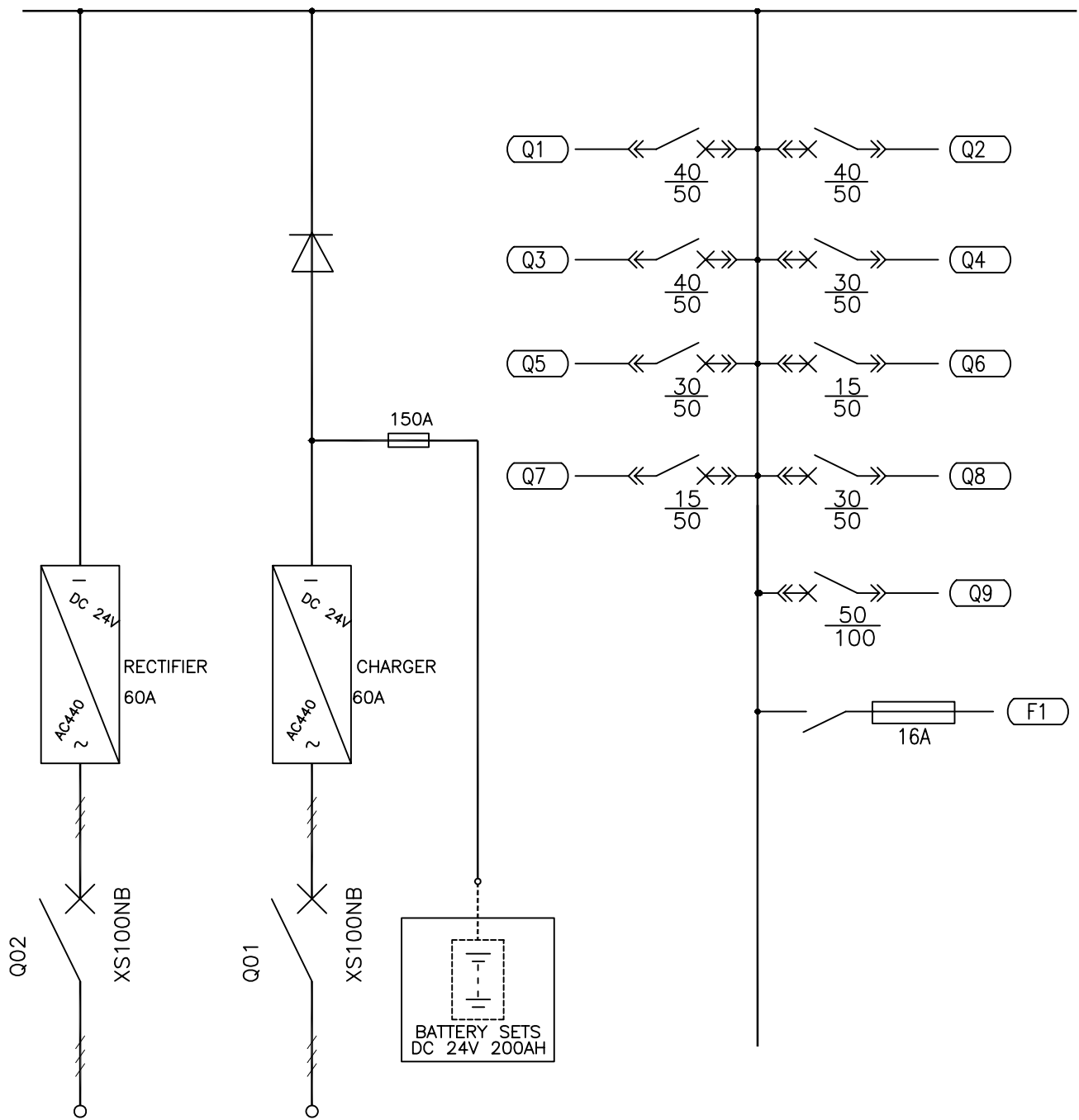
A B C D E F G H I



ENGINE ROOM SERVICE BATTERY CHARGER PANEL

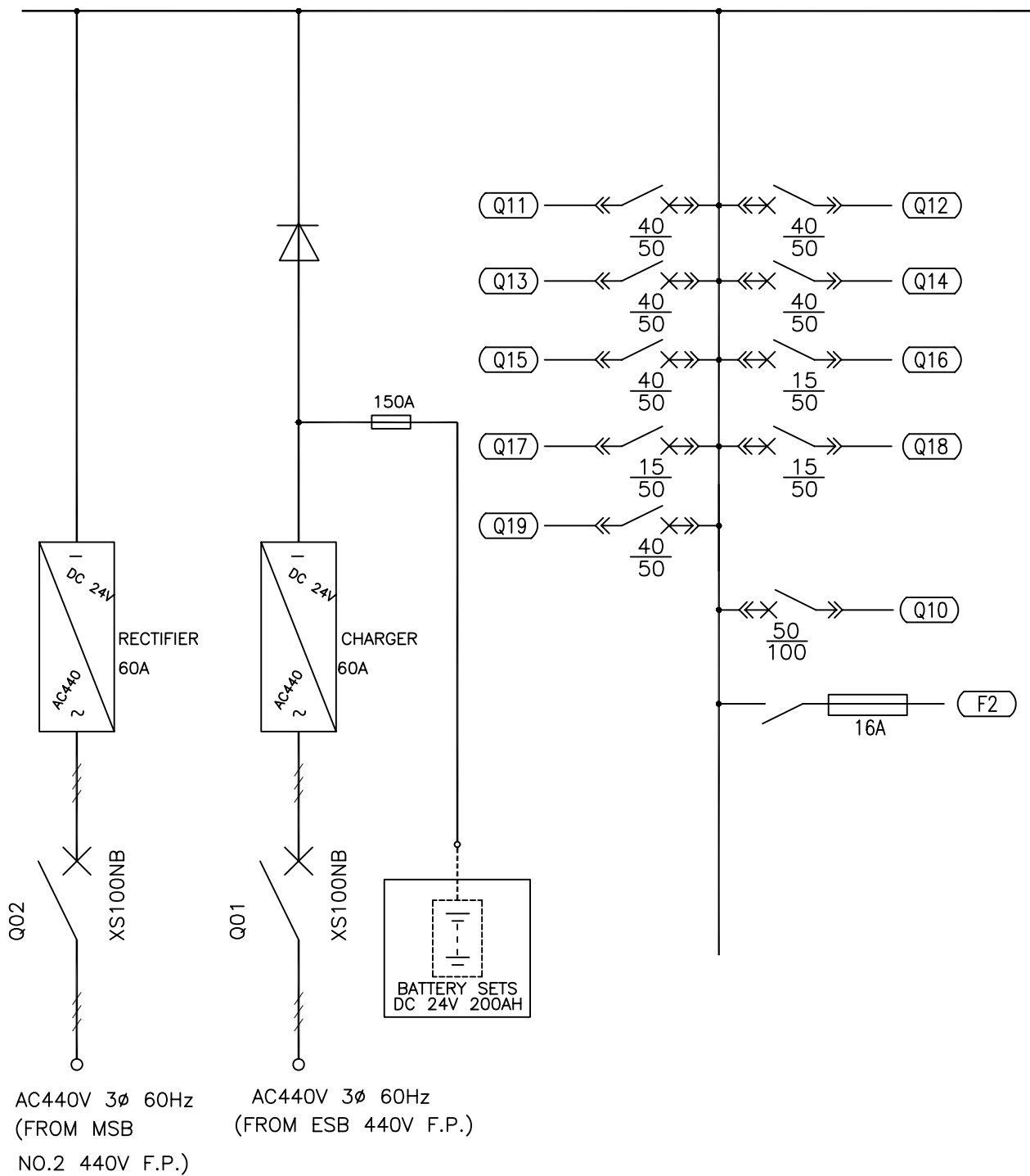
OUTLINE VIEW

OV2
1-12



AC440V 3 ϕ 60Hz
 (FROM MSB
 NO.1 440V F.P.)

AC440V 3 ϕ 60Hz
 (FROM ESB 440V F.P.)

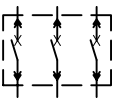
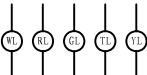

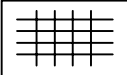


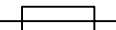
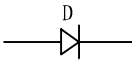

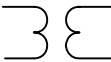


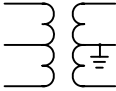


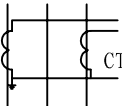
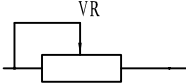


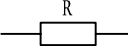

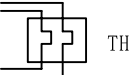












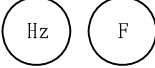



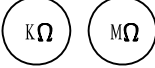







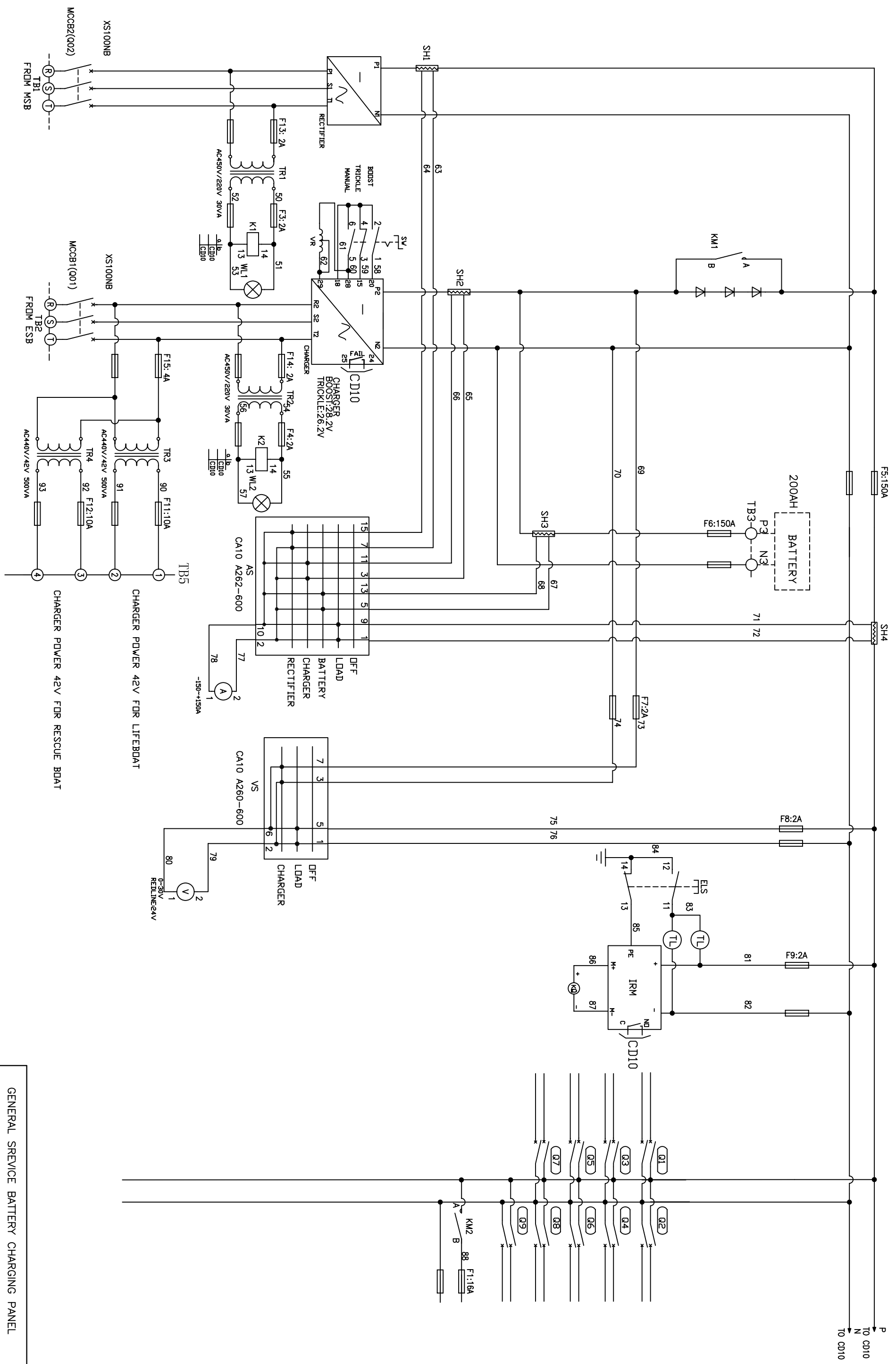
VOL. 2

PARTS LIST.....	PL
GRAPHICAL SYMBOL	GS
CONNECTION DIAGRAM	CD
TERMINAL BLOCK.....	T

DEVICE CODE	NAME	TYPE	OPERATION VOLTAGE	QT.	REMARKS	REF SHEET No.
A	DC AMMETER	DQ72-X +/-150A	DC24V	2	DEIF	CD1、 CD2
V	DC VOLTMETER	DQ72-X 0-30V REDLINE 24V	DC24V	2	DEIF	CD1、 CD2
SHT1,SHT2,SHT3,SHT4	SHUNT	150A	DC24V	8	DEIF	CD1、 CD2
F1,F2,	FUSE	013316 16A	AC 500V	4	LEGRAND	CD1、 CD2
F5,F6	FUSE	3NA3836-2C 160A	AC 500V	8	SIEMENS	CD1、 CD2
F3,F4,F7,F8,F9,F13,F14	FUSE	013302 2A	AC 500V	28	LEGRAND	CD1、 CD2
F10,F15	FUSE	013304 4A	AC 500V	6	LEGRAND	CD1、 CD2
F11, F12	FUSE	013310 10A	AC 500V	4	LEGRAND	CD1、 CD2
FUSE MOUNT		005808		42	LEGRAND	CD1、 CD2
FUSE MOUNT		3NH3030 2C		8	SIEMENS	CD1、 CD2
TS	PUSH BUTTON	YW1B-M1E10 B		2	IDEC	CD10、 CD20
BS	PUSH BUTTON	YW1B-M1E01 R		2	IDEC	CD10、 CD20
ELS	PUSH BUTTON	YW1B-M1E11 B		2	IDEC	CD1、 CD2
WL1,WL2	INDICATING LAMP	YW1P-1BEM45 W	AC220V	4	IDEC	CD1、 CD2
WL3	INDICATING LAMP	YW1P-1BEQ7 W	DC24V	2	IDEC	CD10、 CD20
RL1,RL2,RL3,RL4	INDICATING LAMP	YW1P-1BEQ4 R	DC24V	8	IDEC	CD10、 CD20
TL1,TL2	EARTH LAMP	APW299LS-3C	DC24V	4	IDEC	CD1、 CD2
BZ	BUZZER	UZ6-12	DC24V	2	IDEC	CD10、 CD20
AS	AMMETER SWITCH	CA10 A262-600		2	K&N	CD1、 CD2
VS	VOLTMETER SWITCH	CA10 A260-600		2	K&N	CD1、 CD2
EX1、 EX2、 EX3、 EX4、 EC1、 EC2、 EC3、 EC4、 EC5、 EC6、 EC7、 EC8、 BZR	RELAY	RU4S-D-D24 DC24V	DC24V	26	IDEC	CD10、 CD20
K1,K2	RELAY	RU4S-A220 (AC220V 60HZ)	AC220V	4	IDEC	CD1、 CD2
IRM	DC INSULATION MONITOR	23791913 DC24V	DC24V	2	YOKOGAWA	CD1、 CD2
CH1	CHARGER	INPUT 440V 3 φ 60HZ OUTPUT DC24V/60A		2	HEME	CD1、 CD2
CH2	RECTIFIER	INPUT 440V 3 φ 60HZ OUTPUT DC24V/60A		2	HEME	CD1、 CD2
KM2	CONTACTOR	MZJ-50A/006	DC24V	2	TIANYI	CD10、 CD20
KM1	CONTACTOR	MZJ-200A/001	DC24V	2	TIANYI	CD10、 CD20
K3	MONITOR RELAY	DUB 01 C 724 500V	DC24V	2	CARLO	CD10、 CD20
VC		WRD24S24-50W		2	CHINA	CD10、 CD20
Q01、 Q02	MCCB	XS100NB/20A 3P FC		4	TERASAKI	CD1、 CD2
Q1,Q2,Q3,Q4,Q5,Q6,Q7,Q8Q11,Q12,Q13,Q14,Q15,Q16Q17,Q18,Q19	MCB	TB-5P		17	TERASAKI	CD1、 CD2
Q9、 Q10		XE100NS/50A 2P FC		2	TERASAKI	CD1、 CD2
D1,D2,D3	DIODE	ZP200A		6	CHINA	CD1、 CD2
TR1,TR2	TRANSFORMER	AC450/220V 30VA		4	HONGQI	CD1、 CD2
TR3,TR4	TRANSFORMER	AC450/42V 500VA		2		CD1
SW	MODE SELECT	YW1S-3E30		2	IDEC	CD1、 CD2

GRAPHIC CODE

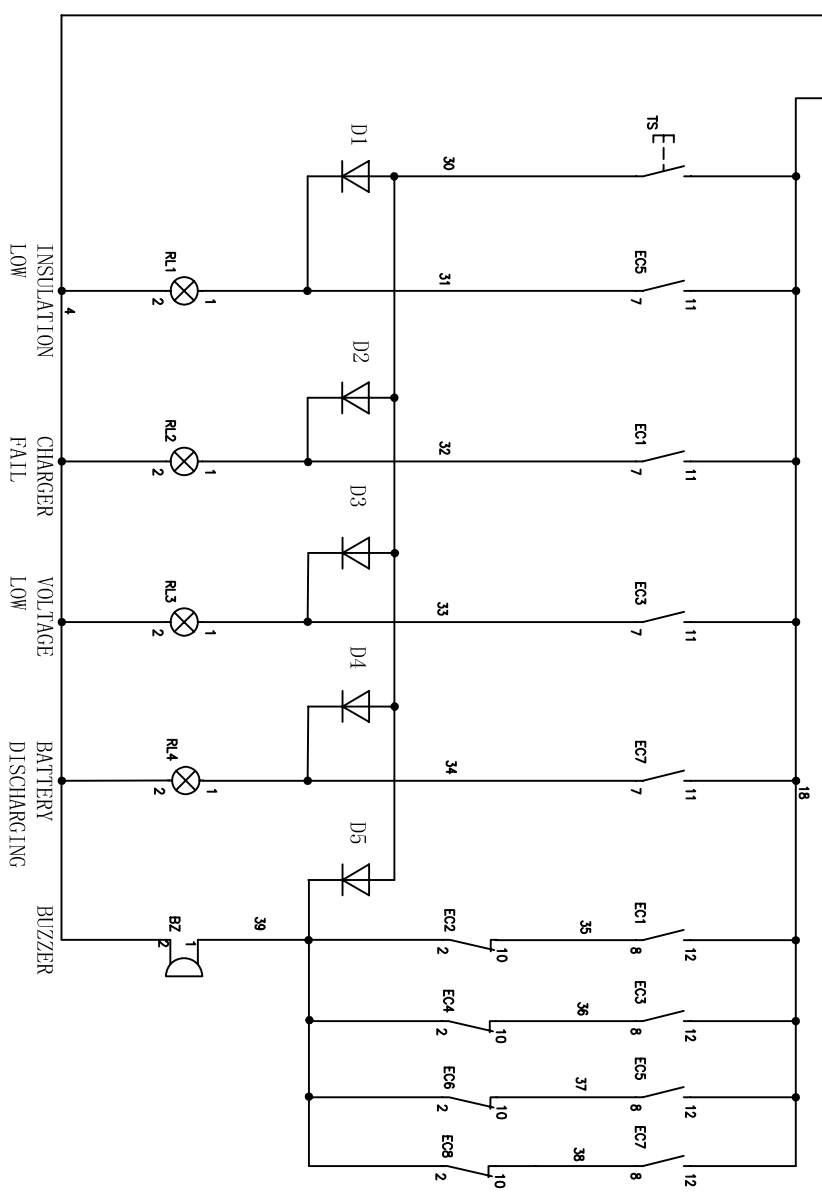
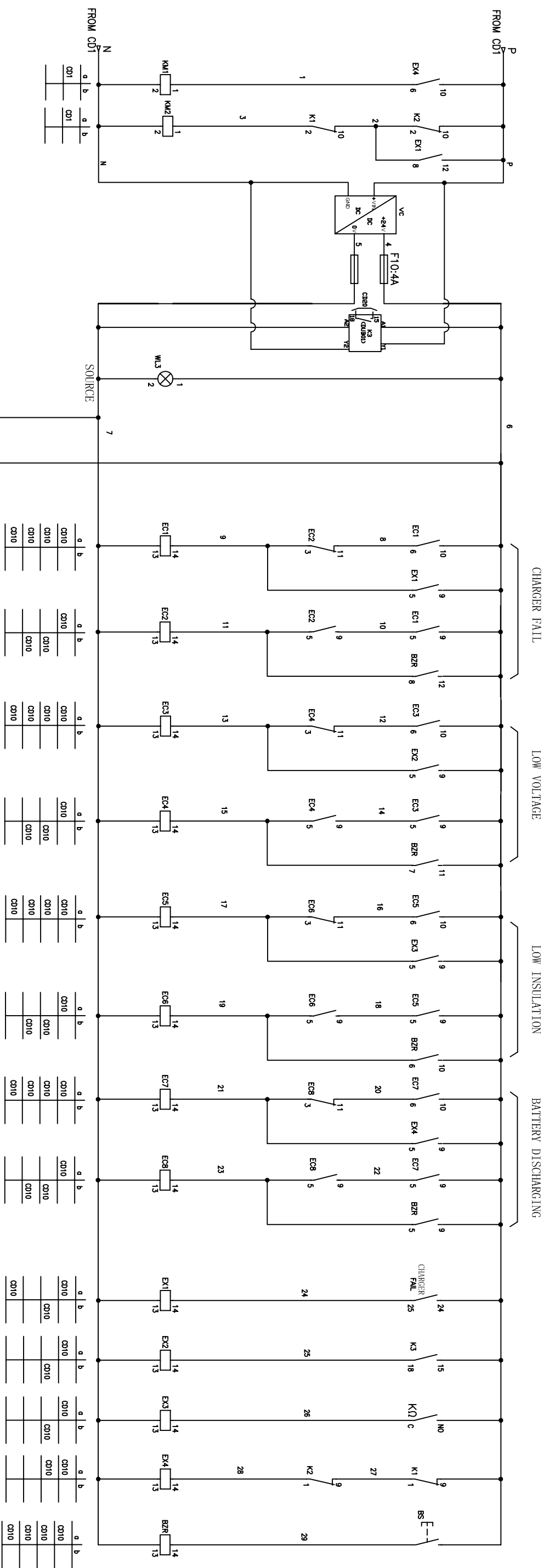
LEGEND	NAME	LEGEND	NAME	LEGEND	NAME
	ACB, MCCB		INDICATING LAMP		PUSH BUTTON OPEN CONTACT
	CHANGEOVER SWITCH		FLUORESCENT LAMP		PUSH BUTTON CLOSE CONTACT
	FUSE		DIODE		EARTH CONNECTION
	TRANSFORMER		GENERATOR		CHANGEOVER SWITCH OPEN CONTACT
	VOLTAGE TRANSFORMER		GOVERNOR MOTOR		POWER OFF TIMER RELAY OPEN CONTACT
	CURRENT TRANSFORMER		VARIABLE RESISTOR		NORMALLY OPEN CONTACT
	TIMER RELAY		RESISTOR		NORMALLY CLOSE CONTACT
	THERMAL		SHUNT		TIMER RELAY NORMALLY OPEN CONTACT
	PHASE SEQUENCE RELAY		SYNCHROSCOPE		TIMER RELAY NORMALLY CLOSE CONTACT
	POWER OFF TIMER RELAY		VOLTMETER		CHANGEOVER SWITCH CLOSE CONTACT
	REVERSE POWER RELAY		AMMETER		POWER OFF TIMER RELAY CLOSE CONTACT
	STATOR WINDING MONITOR		FREQUENCY METER		
	CONTACTOR & RELAY		POWER FACTOR METER		
	POWER TRANSDUCER		INSULATION RESISTANCE METER		
	RUNNING HOUR METER		KILOWATT METER		
	UNDER VOLTAGE TRIP		KILOWATT HOUR METER		
	SHUNT TRIP				



A	B	C	D	E	F	G	H	I
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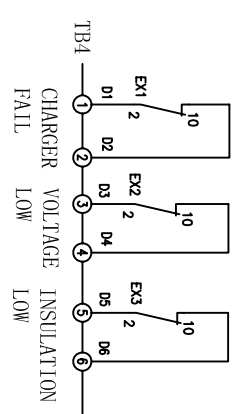


GENERAL SERVICE BATTERY CHARGING PANEL
 CONNECTION DIAGRAM
 CD1
 2-3



UNDER VOLTAGE:20VDC

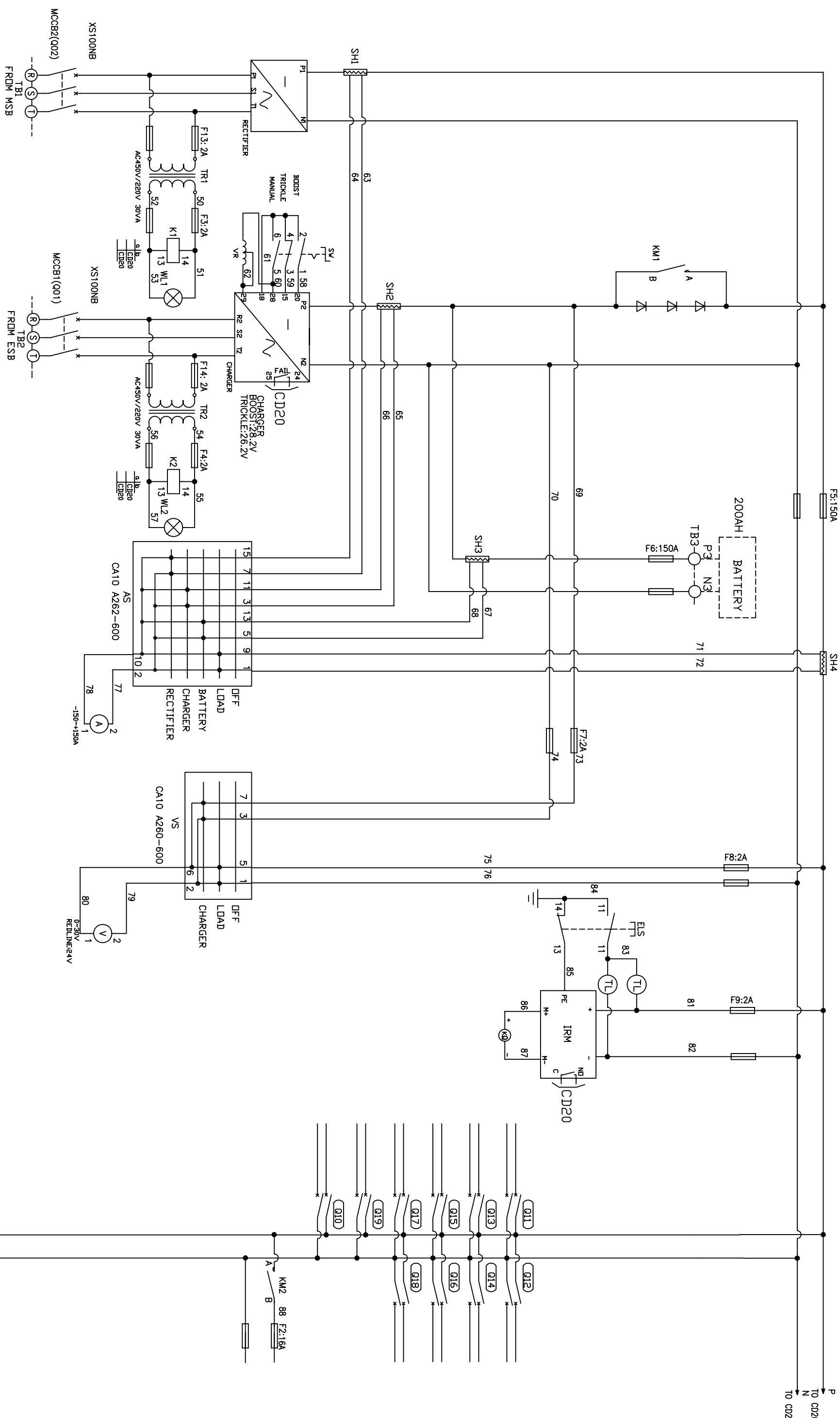
K3 PANEL SETTING	
UPPER KNDB	0%
CENTER KNDBS	40%(SP1) 56%(SP2)
UPPER KNDB	3S(SP1) 3S(SP2)
UPPER KNDB	OFF
UPPER KNDB	OFF
UPPER KNDB	DN
UPPER KNDB	DN
UPPER KNDB	OFF
UPPER KNDB	OFF



A B C D E F G H I



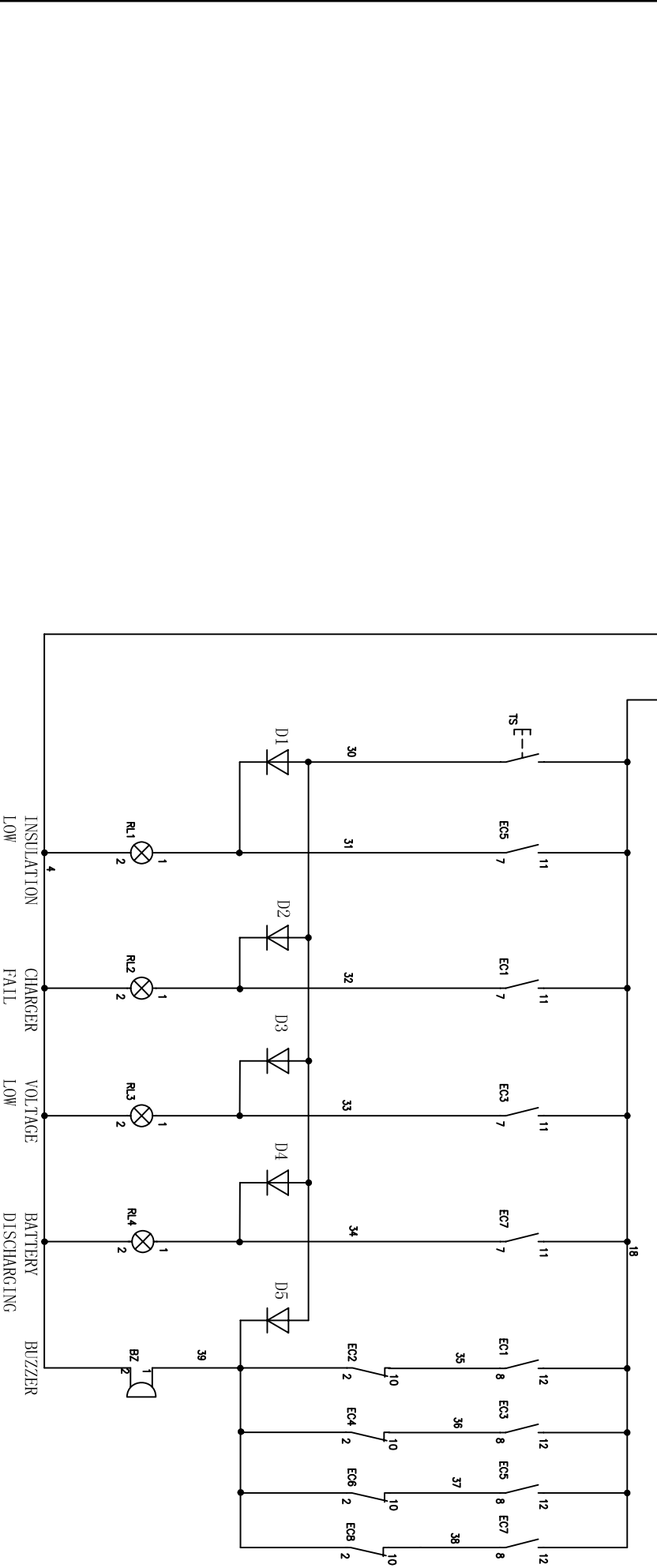
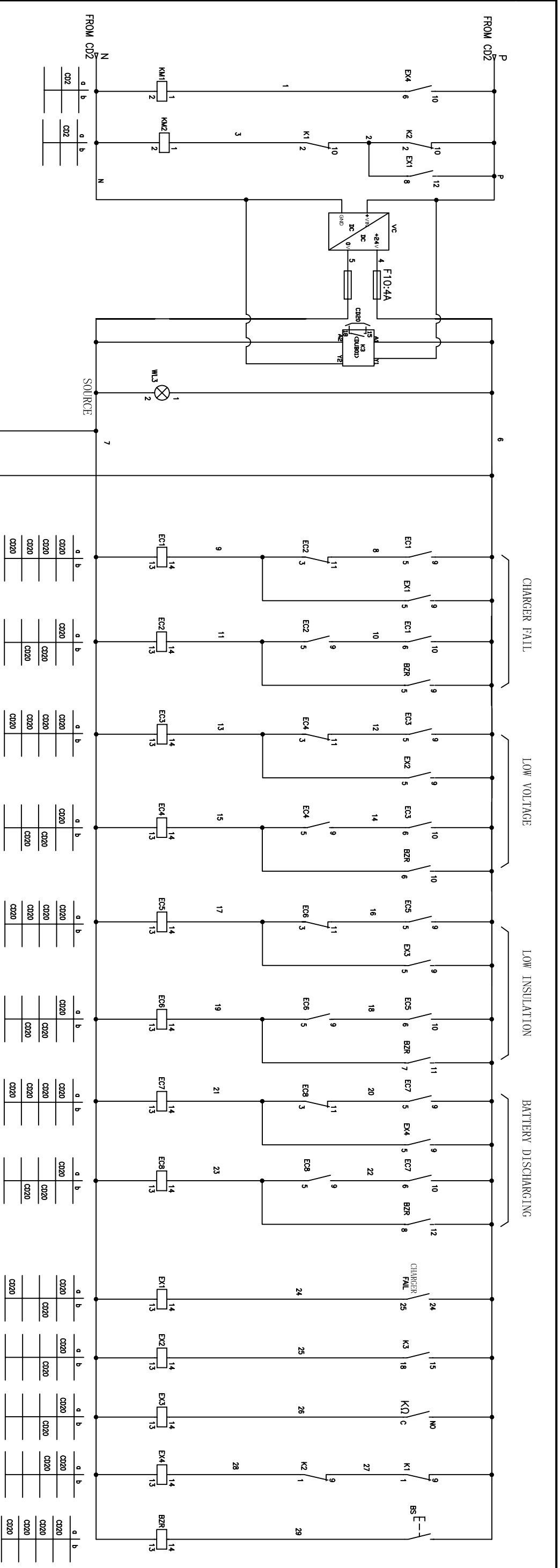
GENERAL SERVICE BATTERY CHARGER PANEL
 CONNECTION DIAGRAM



A	B	C	D	E	F	G	H	I
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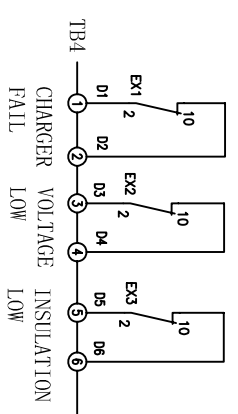


ENGINE ROOM SERVICE BATTERY CHARGING PANEL
 CONNECTION DIAGRAM
 CD2
 2-5



UNDER VOLTAGE: 20VDC

K3 PANEL SETTING	
UPPER KNDB	0%
CENTER KNDBS	
	40%(SP1)
	56%(SP2)
UPPER KNDB	
	3S(SP1)
	3S(SP2)
UPPER KNDB	
UPPER KNDB	OFF
UPPER KNDB	OFF
UPPER KNDB	DN
UPPER KNDB	DN
UPPER KNDB	OFF
UPPER KNDB	OFF



A B C D E F G H I



DC24V POWER SWITCHBOARD

CABLE ENTRANCE LOWER

TB1

R1	S1	T1
MSB NO.1 440V F.P. INPUT SOURCE		
R	S	T

TB2

R1	S1	T1
ESB INPUT SOURCE		
R	S	T

TB3

P3	N3
BATTERY	
1	2

CABLE ENTRANCE LOWER

TB4

1	2	3	4	5	6
CHARGER FAIL		VOLTAGE LOW		INSULATION LOW	
1	2	3	4	5	6

TB5

1	2	3	4
CHARGER POWER 42V FOR LIFEBOAT		CHARGER POWER 42V FOR RESCUE BOAT	
1	2	3	4

DC24V POWER SWITCHBOARD

CABLE ENTRANCE LOWER

TB1

R1	S1	T1
MSB NO. 2 440V F. P. INPUT SOURCE		
R	S	T

TB2

R1	S1	T1
ESB INPUT SOURCE		
R	S	T

TB3

P3	N3
BATTERY	
1	2

CABLE ENTRANCE LOWER

TB4

1	2	3	4	5	6
CHARGER FAIL		VOLTAGE LOW		INSULATION LOW	
1	2	3	4	5	6