

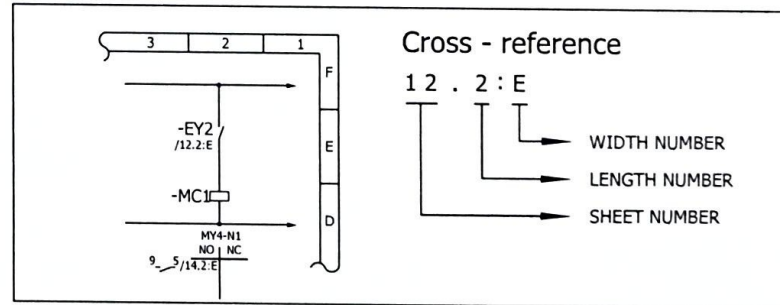
# SYMBOL & LEGEND -3

NAME	SYMBOL	NAME	SYMBOL	NAME	SYMBOL	NAME	SYMBOL	NAME	SYMBOL
PUSH BUTTON NO CONTACT		PUSH BUTTON NC CONTACT		GROUND		SHIELD		BUZZER	
NAME	SYMBOL	NAME	SYMBOL	NAME	SYMBOL	NAME	SYMBOL	NAME	SYMBOL
TIMER NO CONTACT		TIMER NC CONTACT		DIODE		RTD SENSOR (PT 100Ω)		TERMINAL	

## \* RELAY - REFERENCE

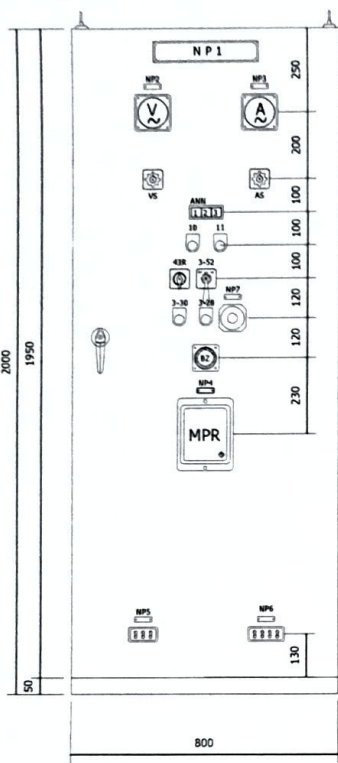
RELAY(DC/AC)	UMT-31 (DC)	UMT-22 (DC)	UMX-31 (AC)	UMX-22 (AC)
"A" CONTACTOR				
"B" CONTACTOR				

## \* CROSS - REFERENCE

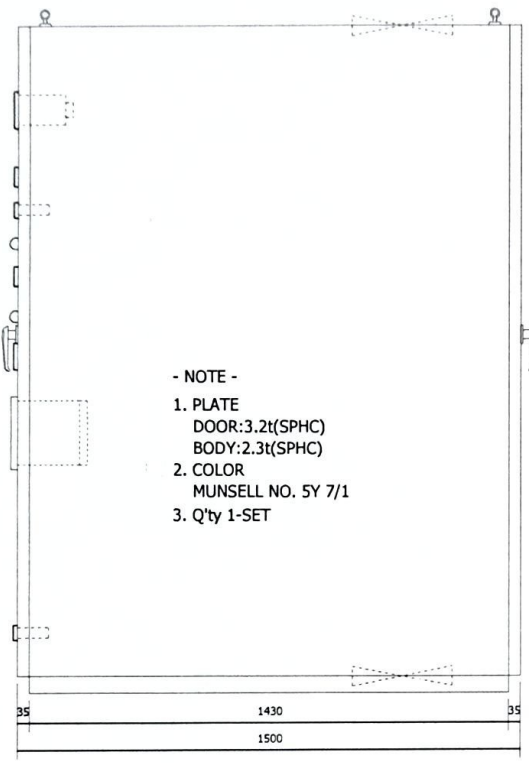


SIGNATURED	MO-DA-YR		Samsung Technw Co., Ltd.
DRAWING:		<b>SYMBOL &amp; LEGEND -3</b> <b>FOR MOTOR STARTER</b>	
CHECK :			
REVIEWED :			
APPRO :			
PROJECT	DWG NO.	REV.	
BAREZ TIRE	TS-CE0596	A	
SCALE	SHEET NO.	9 OF 23	

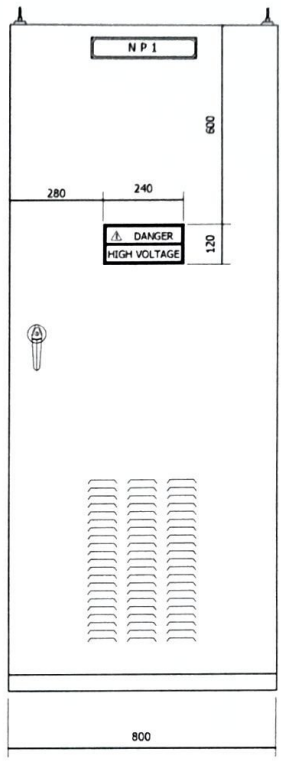
REVISION	NO.	DATE	DESCRIPTION	DRAWN	CHECKED	REVIEWED	APPROVED
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△							
△							
△							



**FRONT VIEW**



**SIDE VIEW**



**REAR VIEW**

- NOTE -
1. PLATE  
DOOR: 3.2t(SPHC)  
BODY: 2.3t(SPHC)
  2. COLOR  
MUNSELL NO. 5Y 7/1
  3. Q'ty 1-SET

THE LETTERING(ACRYL)  
IS BLACK ON WHITE BACK GROUND  
315x63

NP-NO	LETTER
NP 1	MOTOR STARTER 3Phase 3,300 V 900 HP 50 HZ

NAME PLATE (ACRYL)  
THE LETTERING  
IS BLACK ON WHITE BACK GROUND  
52x15

CP-NO	LETTER
NP2	V-METER
NP3	A-METER
NP4	MPR
NP5	PTT
NP6	CTT

**METER LIST**

SYMBOL	TYPE	SCALE
V-METER	WA-V2	0~4,500V (R: 3,300 V)
A-METER	WA-A2	0~ 200 A(O.S 500%)

**PILOT LAMP-NP (ACRYL)**

BS-NP	LETTER	COLOR
10	STOP	GREEN
11	RUN	RED

**EMERGENCY PUSH BUTTON-NP (ACRYL)**

BS-NP	LETTER	COLOR
NP7	EMERGENCY STOP	RED

**ANN NAME PLATE DESCRIPTION**

MPR FAULT	EMERGENCY STOP	SPARE

**PUSH BUTTON-NP (ACRYL)**

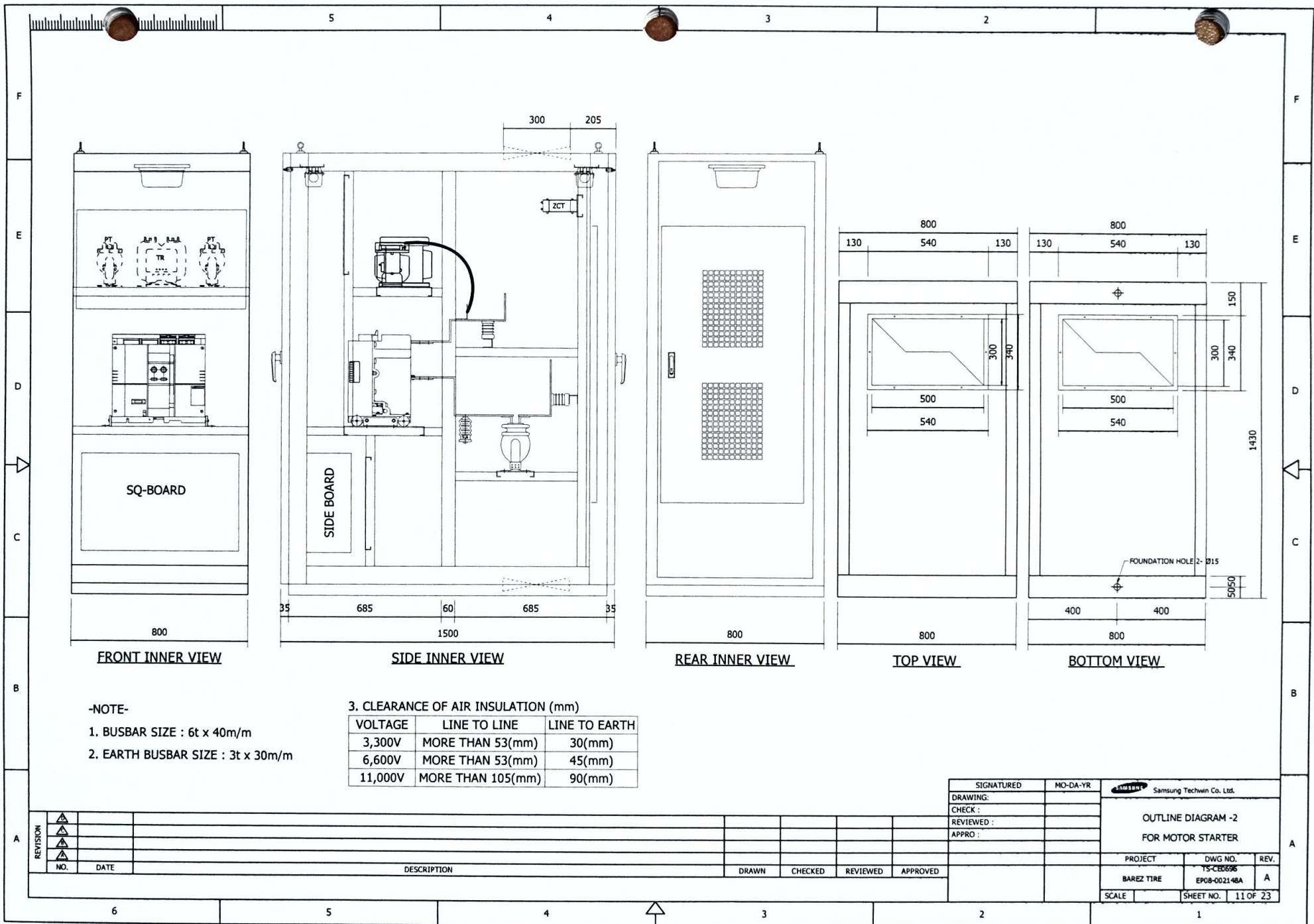
BS-NP	LETTER	COLOR
3-30	RESET	YELLOW
3-28	BZ-STOP	GREEN

**CONTROL, CAM S/W NP ALUMINUM**

DEV.NO.	A	B	C
43R	LOCAL	/	REMOTE
3-52	OFF	/	ON

REVISION	NO.	DATE	DESCRIPTION	DRAWN	CHECKED	REVIEWED	APPROVED
△							
△							
△							

SIGNATURED	MO-DA-YR	Samsung Technw Co. Ltd.	
DRAWING:		<b>OUTLINE DIAGRAM -1</b> <b>FOR MOTOR STARTER</b>	
CHECK :			
REVIEWED :			
APPRO :			
PROJECT	DWG NO.	REV.	
BAREZ TIRE	TS-CB0596	A	
SCALE	EP08-002148A	SHEET NO.	10 OF 23



-NOTE-

- 1. BUSBAR SIZE : 6t x 40m/m
- 2. EARTH BUSBAR SIZE : 3t x 30m/m

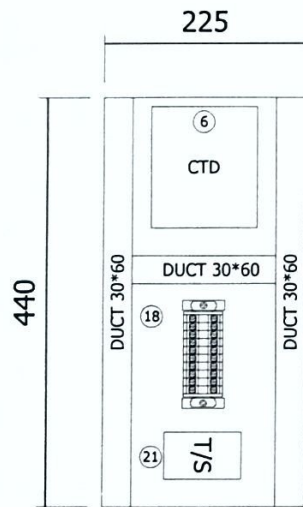
3. CLEARANCE OF AIR INSULATION (mm)

VOLTAGE	LINE TO LINE	LINE TO EARTH
3,300V	MORE THAN 53(mm)	30(mm)
6,600V	MORE THAN 53(mm)	45(mm)
11,000V	MORE THAN 105(mm)	90(mm)

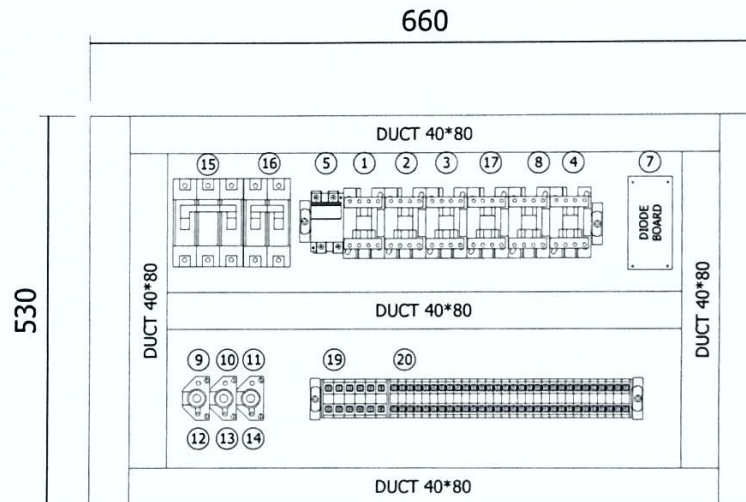
SIGNATURED	MO-DA-YR	Samsung Techwin Co. Ltd.	
DRAWING:		<b>OUTLINE DIAGRAM -2</b> <b>FOR MOTOR STARTER</b>	
CHECK :			
REVIEWED :			
APPRO :			
PROJECT	DWG NO.	REV.	
BAREZ TIRE	TS-CE0596	A	
SCALE	SHEET NO. 11 OF 23		

REVISION	NO.	DATE	DESCRIPTION	DRAWN	CHECKED	REVIEWED	APPROVED
▲							
▲							
▲							
▲							

NO.	SYMBOL	DESCRIPTION	SPECIFICATION	MAKER
1	52CX	AUX.RELAY	DC110V 3a1b	HYUNDAI
2	52TX	AUX.RELAY	DC110V 3a1b	HYUNDAI
3	86X	AUX.RELAY	DC110V 2a2b	HYUNDAI
4	BX	AUX.RELAY	DC110V 2a2b	HYUNDAI
5	CP1	CIRCUIT PROTECTOR	2P 10A	HONEYWELL
6	CTD	CONDENSER TRIP DEVICE	AC120V/DC110V	SHINIL
7	DIODE	DIODE UNIT	1A 10CC	SHINIL
8	EMX	AUX.RELAY	DC110V 3a1b	HYUNDAI
9	F1	FUSE	500V 2A	SIEMENS
10	F2	FUSE	500V 2A	SIEMENS
11	F3	FUSE	500V 2A	SIEMENS
12	FH1	FUSE HOLDER	AC/DC 600V 30A	YONG SUNG
13	FH2	FUSE HOLDER	AC/DC 600V 30A	YONG SUNG
14	FH3	FUSE HOLDER	AC/DC 600V 30A	YONG SUNG
15	MCB1	MINIATURE CIRCUIT BREAKER	3P 50AF/20AT	LSIS
16	MCB2	MINIATURE CIRCUIT BREAKER	2P 50AF/10AT	LSIS
17	MPX	AUX.RELAY	DC110V 3a1b	HYUNDAI
18	TB1	TERMINAL BLOCK	15A, 10P	JEON-O
19	TB2	TERMINAL BLOCK	35A, 6P	JEON-O
20	TB3	TERMINAL BLOCK	15A, 30P	JEON-O
21	TS	THERMOSTATS	-30 ~30	CHOYANG



SIDE BOARD(L)

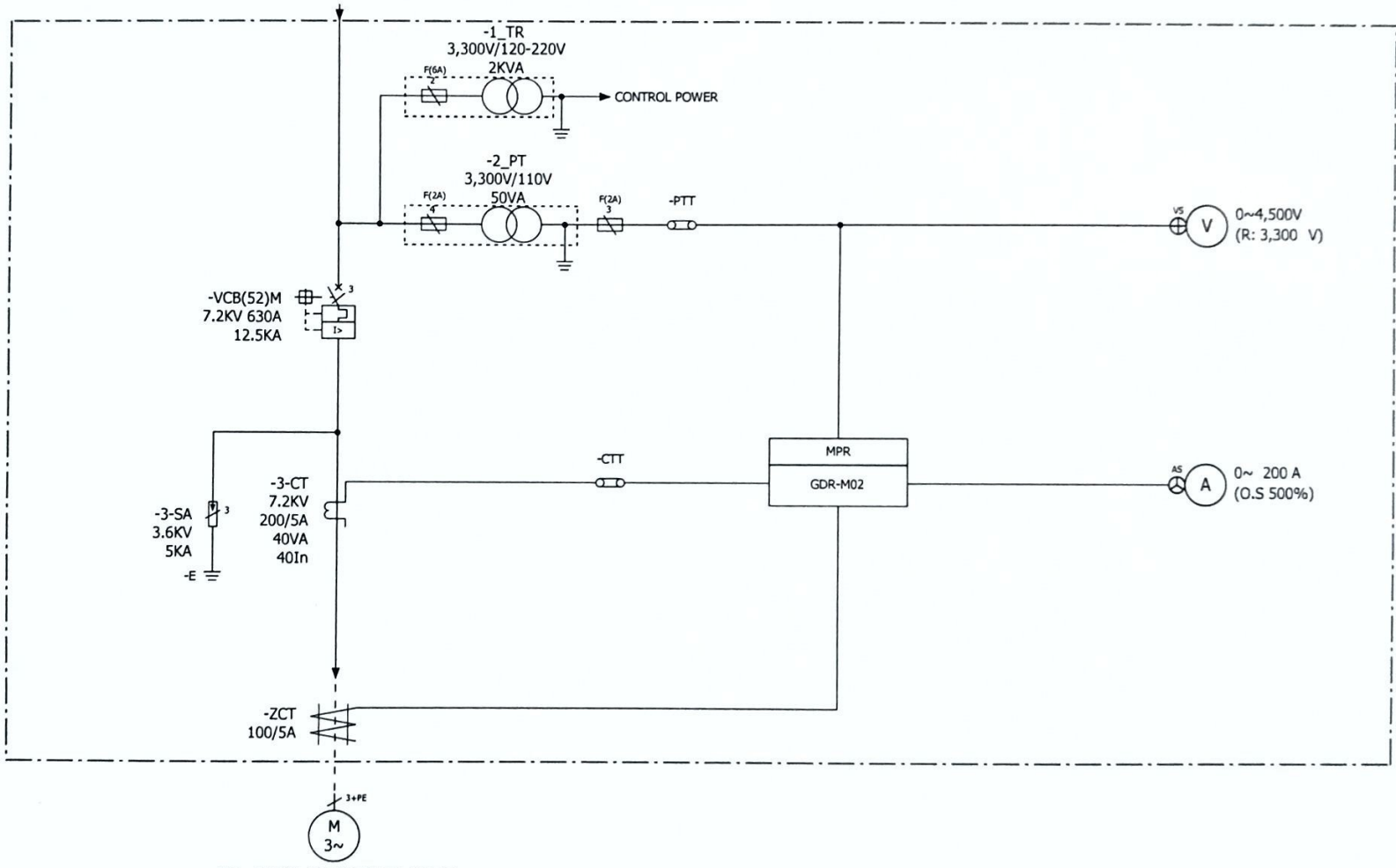


SEQUENCE BOARD

SIGNATURED	MO-DA-YR	Samsung Technw Co. Ltd.	
DRAWING:		INNER PLATE DIAGRAM FOR MOTOR STARTER	
CHECK :			
REVIEWED :			
APPRO :			
PROJECT	DWG NO.	REV.	
BAREZ TIRE	TS-CB0896 EP08-0021-48A	A	
SCALE	SHEET NO.	12 OF 23	

REVISION	NO.	DATE	DESCRIPTION	DRAWN	CHECKED	REVIEWED	APPROVED
▲							
▲							
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FROM : CUSTOMER SUPPLY  
3Phase 3,300 V 50 HZ



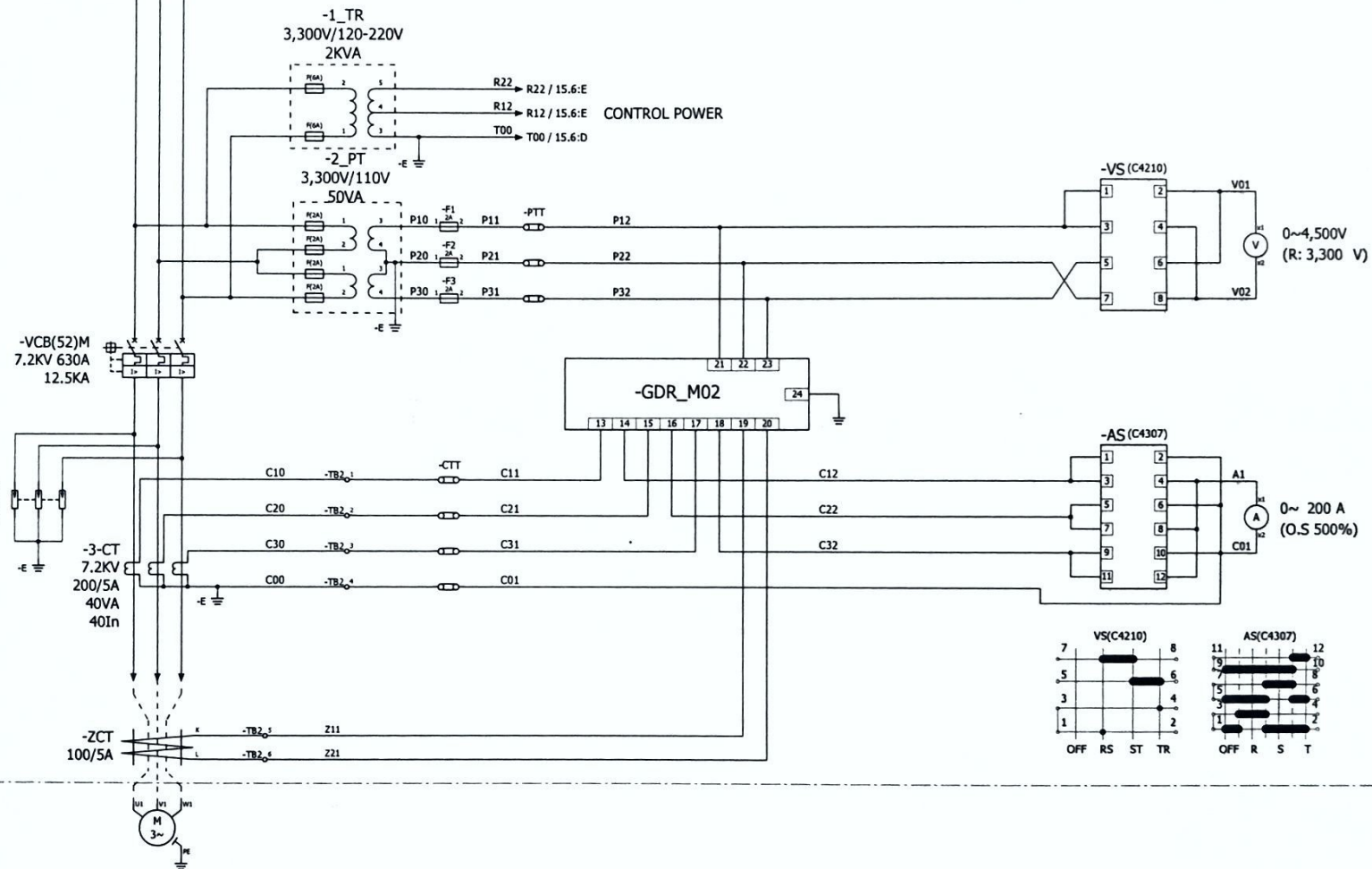
TO : TURBO-COMPRESSOR MOTOR  
3Phase 3,300 V 900 HP 50 HZ

SIGNATURED	MO-DA-YR
DRAWING	
CHECK	
REVIEWED	
APPRO	

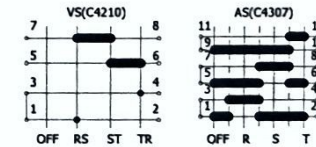
Samsung Technwin Co., Ltd.		
ONE LINE DIAGRAM FOR MOTOR STARTER		
PROJECT	DWG NO.	REV.
BAREZ TIRE	YS-CB0596	A
SCALE	SHEET NO.	13 OF 23

REVISION	NO.	DATE	DESCRIPTION	DRAWN	CHECKED	REVIEWED	APPROVED
▲							
▲							
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FROM : CUSTOMER SUPPLY  
3Phase 3,300 V 50 HZ



TO : TURBO-COMPRESSOR MOTOR  
3Phase 3,300 V 900 HP 50 HZ

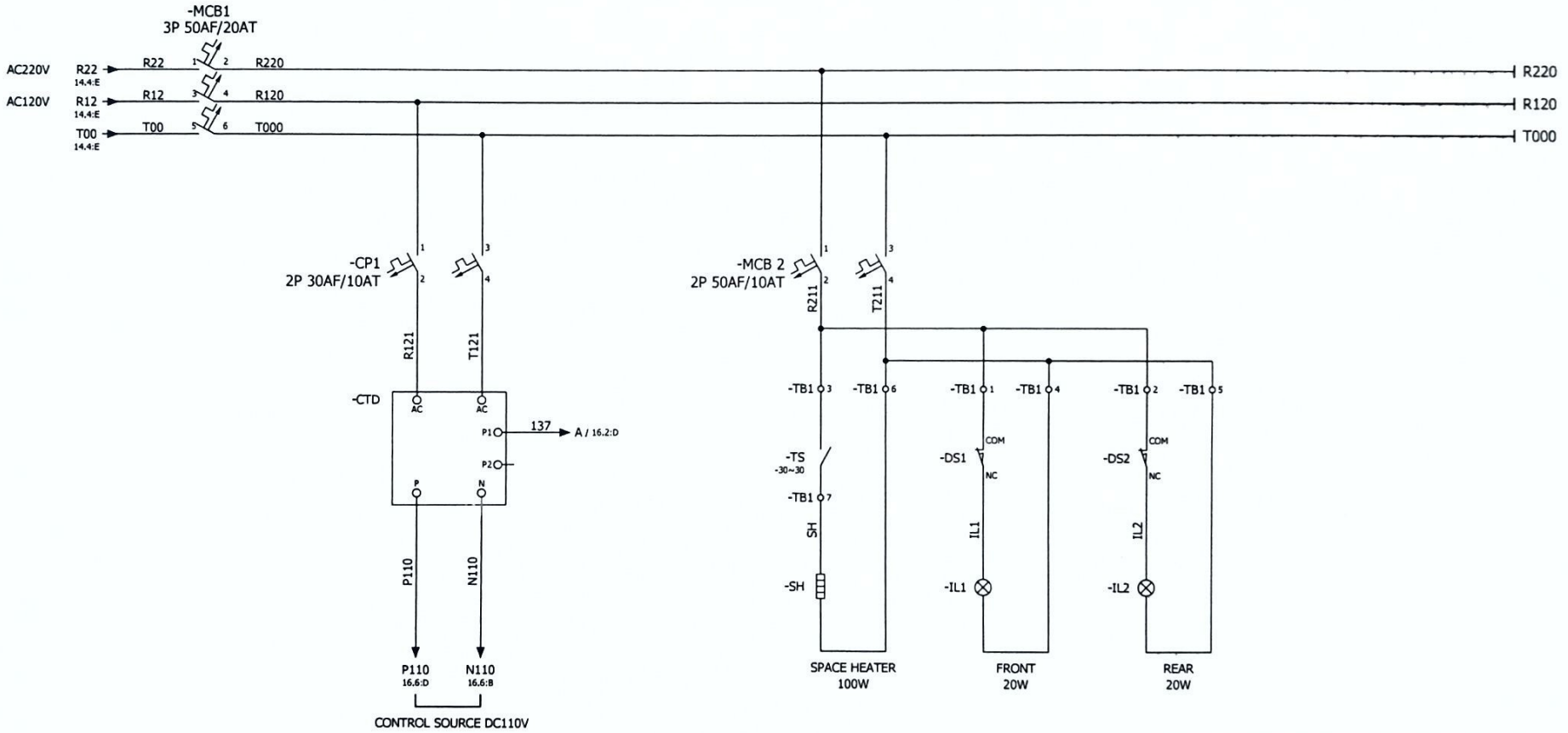


SIGNATURED	MO-DA-YR	Samsung Techwin Co. Ltd.	
DRAWING:		THREE LINE DIAGRAM	
CHECK:		FOR MOTOR STARTER	
REVIEWED:		PROJECT	DWG NO.
APPRO:		BAREZ TIRE	YS-CE0596
		SCALE	REV. A
		SHEET NO.	14 OF 23

REVISION NO.	DATE	DESCRIPTION	DRAWN	CHECKED	REVIEWED	APPROVED

CUSTOMER

MOTOR STARTER



SIGNATURED	MO-DA-YR	Samsung Techwin Co., Ltd.	
DRAWING:		CONTROL LINE DIAGRAM FOR MOTOR STARTER	
CHECK :			
REVIEWED :			
APPRO :			
PROJECT	DWG NO.	REV.	
BAREZ TIRE	YS-CE0696 EP08-002148A	A	
SCALE	SHEET NO.	15 OF 23	

REVISION	NO.	DATE	DESCRIPTION	DRAWN	CHECKED	REVIEWED	APPROVED
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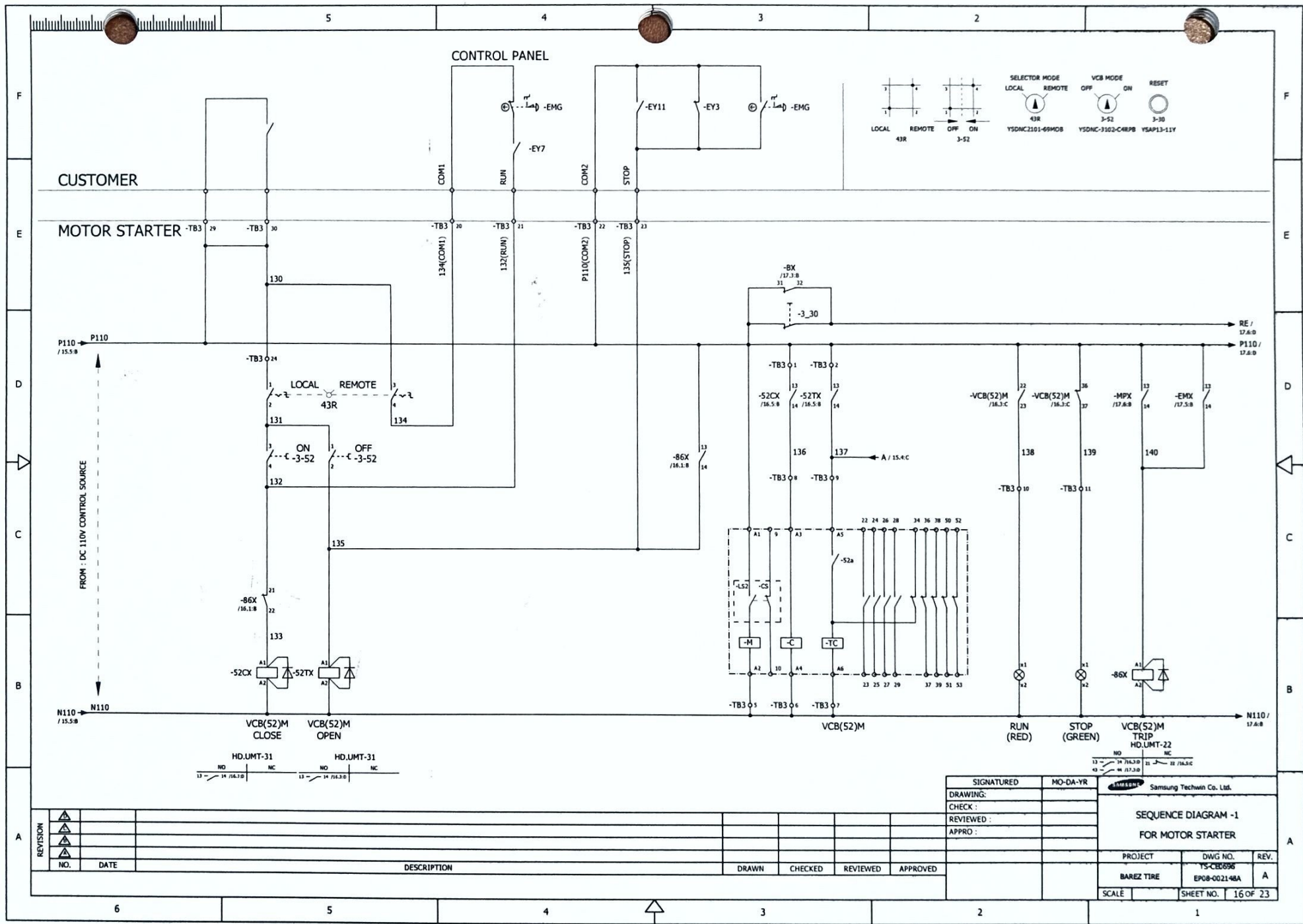
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4

3

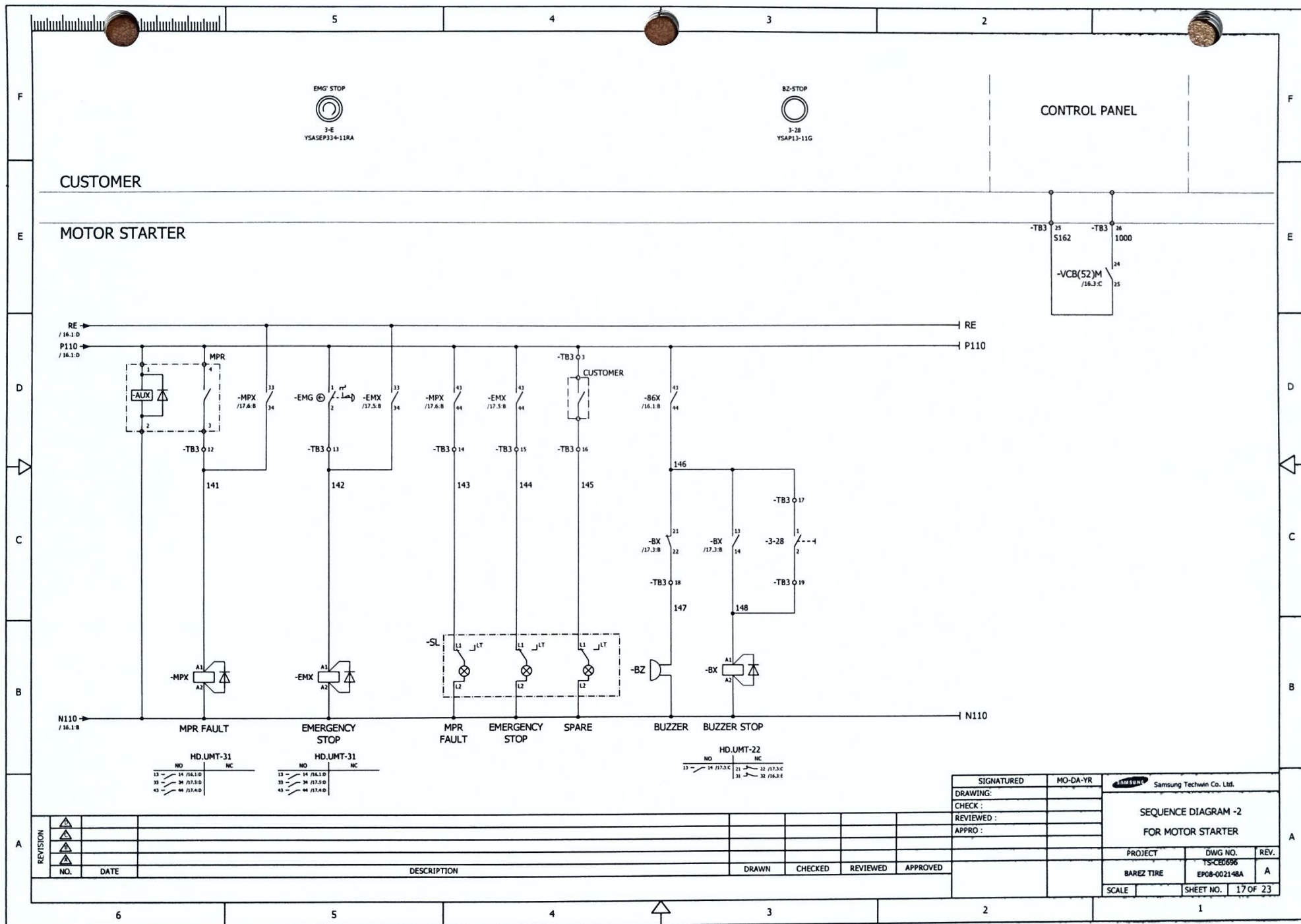
2

1



SIGNATURED	MO-DA-YR	Samsung Technw Co. Ltd.	
DRAWING:		SEQUENCE DIAGRAM -1	
CHECK :		FOR MOTOR STARTER	
REVIEWED :		PROJECT	DWG NO.
APPRO :		BAREZ TIRE	EPO8-002148A
		SCALE	SHEET NO. 16 OF 23

REVISION	NO.	DATE	DESCRIPTION	DRAWN	CHECKED	REVIEWED	APPROVED
▲							
▲							
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CONTROL PANEL

CUSTOMER

MOTOR STARTER

HD.UMT-31

NO	NC
13 - 14 /16.1.D	
33 - 34 /17.5.D	
43 - 44 /17.4.D	

HD.UMT-31

NO	NC
13 - 14 /16.1.D	
33 - 34 /17.5.D	
43 - 44 /17.4.D	

HD.UMT-22

NO	NC
13 - 14 /17.3.C	
21 - 22 /17.3.C	
31 - 32 /16.3.E	


SIGNATURED	MO-DA-YR
DRAWING:	
CHECK :	
REVIEWED :	
APPRO :	

Samsung Techwin Co. Ltd.		
SEQUENCE DIAGRAM -2 FOR MOTOR STARTER		
PROJECT	DWG NO.	REV.
BAREZ TIRE	YS-CE0596 EP08-002148A	A
SCALE	SHEET NO.	17 OF 23

REVISION	NO.	DATE	DESCRIPTION	DRAWN	CHECKED	REVIEWED	APPROVED
△							
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△							

# TERMINAL BLOCK DIAGRAM

TB1















FROM	WIRING			FUNCTION TEXT	JUMPER	WIRING	TO	LOCATION
-MCB2:2	R211	⊗	1	⊗		R211	-DS1:COM	/15.3:C
-MCB2:2	R211	⊗	2	⊗		R211	-DS2:COM	/15.2:C
-MCB2:2	R211	⊗	3	⊗		R211	-TS	/15.3:C
-MCB2:4	T211	⊗	4	⊗		T211	-IL1	/15.3:B
-MCB2:4	T211	⊗	5	⊗		T211	-IL2	/15.2:B
-MCB2:4	T211	⊗	6	⊗		T211	-SH	/15.3:B
-TS	SH	⊗	7	⊗		SH	-SH	/15.3:B
		⊗	8	⊗				
		⊗	9	⊗				
		⊗	10	⊗				

SIGNATURED		MO-DA-YR	Samsung Technw Co. Ltd.	
DRAWING:			TERMINAL BLOCK DIAGRAM FOR MOTOR STARTER	
CHECK :				
REVIEWED :				
APPRO :				
PROJECT	DWG NO.	REV.		
BAREZ TIRE	EP08-002148A	A		
SCALE	SHEET NO.	18 OF 23		


REVISION	NO.	DATE	DESCRIPTION	DRAWN	CHECKED	REVIEWED	APPROVED
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▲							

# TERMINAL BLOCK DIAGRAM

TB2

FROM	WIRING	 1 	FUNCTION TEXT	JUMPER	WIRING	TO	LOCATION
-3-CT	C10	 1 	CT LINE	.	C10	-CTT:1	/14.4:D
-3-CT2	C20	 2 	CT LINE	.	C20	-CTT:3	/14.4:C
-3-CT3	C30	 3 	CT LINE	.	C30	-CTT:5	/14.4:C
-CTT:7	C00	 4 	CT LINE	.	C00	-3-CT	/14.5:C
-ZCT:K	Z11	 5 	ZCT LINE	.	Z11	-GDR_M02	/14.3:D
-GDR_M02	Z21	 6 	ZCT LINE	.	Z21	-ZCT:L	/14.5:B




SIGNATURED		MO-DA-YR	 Samsung Technin Co. Ltd.	
DRAWING:			TERMINAL BLOCK DIAGRAM FOR MOTOR STARTER	
CHECK :				
REVIEWED :				
APPRO :				
PROJECT	DWG NO.	REV.		
BAREZ TIRE	TS-CB0595	A		
SCALE	EP08-002148A			
	SHEET NO.	19 OF 23		

REVISION	NO.	DATE	DESCRIPTION	DRAWN	CHECKED	REVIEWED	APPROVED
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# TERMINAL BLOCK DIAGRAM

TB3


FROM	WIRING		FUNCTION TEXT	JUMPER	WIRING	TO	LOCATION
-BX:31	P110	1	DC110V CONTROL	.	P110	-52CX:13	/16.3:D
-BX:31	P110	2	DC110V CONTROL	.	P110	-52TX:13	/16.3:D
-BX:31	P110	3	DC110V CONTROL	.	P110	-EXT	/17.4:D
		4		.			
-CTD:N	N110	5	DC110V CONTROL	.	N110	-VCB(52)M:A2	/16.3:B
-CTD:N	N110	6	DC110V CONTROL	.	N110	-VCB(52)M:A4	/16.3:B
-CTD:N	N110	7	DC110V CONTROL	.	N110	-VCB(52)M:A6	/16.3:B
-52CX:14	136	8	VCB CLOSE	.	136	-VCB(52)M:A3	/16.3:C
-52TX:14	137	9	VCB OPEN	.	137	-VCB(52)M:A5	/16.3:C
-VCB(52)M:23	138	10	RUN LAMP	.	138	-10:x1	/16.2:B
-VCB(52)M:37	139	11	STOP LAMP	.	139	-11:x1	/16.2:B
-MPX:A1	141	12	MPR FAULT	.	141	-MPR:3	/17.6:D
-EMX:A1	142	13	EMERGENCY STOP	.	142	-EMG:2	/17.5:D
-MPX:44	143	14	MPR FAULT LAMP	.	143	-SL:L1	/17.4:B
-EMX:44	144	15	EMERGENCY STOP LAMP	.	144	-SL:L1	/17.4:B
-SL:L1	145	16	SPARE	.	145	-EXT	/17.4:D
-86X:44	146	17	BUZZER	.	146	-3-28:1	/17.3:C
-BX:22	147	18	BUZZER	.	147	-BZ	/17.3:B
-3-28:2	148	19	BUZZER STOP	.	148	-BX:14	/17.3:C
-43R:4	134	20	REMOTE OPERATION	.	134	-CONTROL_PANEL	/16.4:E
-86X:21	132	21	REMOTE OPERATION	.	132	-CONTROL_PANEL	/16.4:E
-CTD:P	P110	22	REMOTE OPERATION	.	P110	-CONTROL_PANEL	/16.4:E
-3-52:2	135	23	REMOTE OPERATION	.	135	-CONTROL_PANEL	/16.4:E

SIGNATURED	MO-DA-YR	Samsung Techwin Co. Ltd.	
DRAWING:		TERMINAL BLOCK DIAGRAM FOR MOTOR STARTER	
CHECK :			
REVIEWED :			
APPRO :			
PROJECT		DWG NO.	REV.
BAREZ TIRE		TS-CE0896	A
SCALE		SHEET NO.	20 OF 23

REVISION	NO.	DATE	DESCRIPTION	DRAWN	CHECKED	REVIEWED	APPROVED
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▲							
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▲							

# TERMINAL BLOCK DIAGRAM

TB3

FROM	WIRING		FUNCTION TEXT	JUMPER	WIRING	TO	LOCATION
-43R:3	130	24	REMOTE OPERATION	.	130	-43R:1	/16.5:D
-VCB(52)M:25	S162	25	CB CLOSE SIGNAL	.	S162	-CONTROL_PANEL	/17.2:E
-VCB(52)M:24	1000	26	CB CLOSE SIGNAL	.	1000	-CONTROL_PANEL	/17.1:E
		27		.			
		28		.			
-CTD:P	P110	29	CB CLOSE INTERLOCK	.	P110	-CUSTOMER	/16.6:E
-43R:3	130	30	CB CLOSE INTERLOCK	.	130	-CUSTOMER	/16.5:E



SIGNATURED	MO-DA-YR	SAMSUNG Samsung Techwin Co. Ltd.		
DRAWING:		TERMINAL BLOCK DIAGRAM FOR MOTOR STARTER		
CHECK :				
REVIEWED :				
APPRO :		PROJECT	DWG NO.	REV.
		BAREZ TIRE	TS-CED696 EP08-002148A	A
		SCALE	SHEET NO.	21 OF 23

REVISION	NO.	DATE	DESCRIPTION	DRAWN	CHECKED	REVIEWED	APPROVED
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▲							
▲							
▲							



# PART LIST

ITEM NO.	NAME	CODE NO.	TYPE	SPECIFICATION	QTY	MAKER	REMARKS	DWG.LOCATION
34	TRANSFORMER	-	LM7D(3,300V/220V,50HZ)	3,300V/120-220V 2KVA	1	KYONG BO		14
35	VACUUM CIRCUIT BREAKER	-	VL-06P13A06-M1C1T1SA2	7.2KV 12.5KA 630A DC110V 4a4b, "FIXED"	1	LSIS		16
36	VOLTAGE METER	-	WA-V2(3,300V,50HZ)	0~4,500V 3,300/110V	1	KYONG BO		14
37	VOLTMETER SELECTOR SWITCH	-	YSDNC4210-64MRB	AC600V,DC250V 10A, 3P3W	1	YONG SUNG		14
38	ZERO PHASE SEQUENCE CURRENT TRANSFORMER	-	ZC-11(50HZ)	Ø110, 100/5A, 5VA	1	KYONG BO		14

SIGNATURED	MO-DA-YR	Samsung Techwin Co. Ltd.
DRAWING:		
CHECK :		
REVIEWED :		
APPRO :		
<b>PART LIST FOR MOTOR STARTER</b>		
PROJECT	DWG NO.	REV.
BAREZ TIRE	TS-CED696 EPO8-0021-48A	A
SCALE	SHEET NO.	23 OF 23

NO.	DATE	DESCRIPTION	DRAWN	CHECKED	REVIEWED	APPROVED
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