

SHOP DRAWING

PROJECT : อาคารการทางพิเศษ

CLIENT : WIN 54 CO.,LTD.

DRAWING : AIR CONDITIONING SYSTEM

DATE : 03/09/2020

SWITCHBOARD SPECIFICATION (PART II)

Cu BUSBAR CONFIGURATION

CONTINUOUS CURRENT CARRYING CAPACITY OF COPPER CONDUCTOR FOLLOWING STANDARD REFER TO		PHASE MARKING	PHASE COLOUR CODE					
			PHASE :	L1	L2	L3	N	E
<input checked="" type="checkbox"/> : IEC 61439-1 AMBIENT TEMP. 35°C TEMP RISE 50°C	<input type="checkbox"/> : PAINTED RATING	<input checked="" type="checkbox"/> : PAINT COAT	<input checked="" type="checkbox"/>	BROWN	BLACK	GREY	BLUE	GREEN
<input type="checkbox"/> : DIN 43671 AMBIENT TEMP. 35°C TEMP RISE 30°C	<input checked="" type="checkbox"/> : BARE RATING	<input type="checkbox"/> : MARKER	<input type="checkbox"/>	BLACK	RED	BLUE	WHITE	GREEN
<input type="checkbox"/> :	<input type="checkbox"/> : HEAT SHRINKABLE	<input type="checkbox"/> :	<input type="checkbox"/>	RED	YELLOW	BLUE	WHITE	GREEN
	<input type="checkbox"/> :							

METERING & CONTROL CABLE

APPLICATION	CABLE COLOUR	CABLE SIZING	REMARK
VOLTAGE CIRCUIT	BLACK	2.5 Sq.mm.
CURRENT CIRCUIT	BLACK	4 Sq.mm.
AC.CONTROL CIRCUIT		
- 220 VAC/110VAC	BLACK	1.5 Sq.mm.
- 24 VAC/12VAC	BLUE	1.5 Sq.mm.
DC.CONTROL CIRCUIT		
- 24 VDC/12VDC	BLUE	1.5 Sq.mm.
NEUTRAL & GROUND	REFER TO PHASE COLOUR CODE	1.5 Sq.mm.



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 Website : WWW.Ticcorp.Net

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5				Approved	
4				Checked	
3				Drawn	J.SIRINAT
2				DATE START	03/09/2020
1	Revision.1	J.SIRINAT	09/09/2020	File :	2008100
REVISION	DESCRIPTION	REVISE By.	DATE		

Project	อาคารทางพิเศษ	Client	WIN 54 CO.,LTD.	
DWG Name	-	Title	SWITCHBOARD SPECIFICATION (PART II)	
DWG No.		Sheet	2	Of 3
		Total pages	-	

SWITCHBOARD SPECIFICATION (PART III)

TABLE BUSBARS FOR RATED CURRENTS (Working Temp 85°C (IEC 61439-1))

No.	Size.		Continuous Current (A)			
	Width. mm.	Thick. mm.	Bare bus bar (No. of bus bar)			
			1	2	3	4
1	12	5	237	452	666	
2	15	3	209	397	583	768
3	20	5	357	673	983	1288
4	20	10	541	1018	1515	1928
5	30	5	499	929	1346	1785
6	30	10	741	1397	1962	2499
7	40	10	930	1706	2388	3037
8	50	5	768	1432	2025	2595
9	50	10	1140	1996	2793	3550
10	60	5	898	1639	2316	2968
11	60	10	1308	2273	3168	4016
12	80	5	1169	2057	2896	3704
13	80	10	1628	2811	3908	4949
14	100	10	1939	3323	4602	5814
15	120	10	2234	3818	5284	6674
16	160	10	2819	4779	6589	8303
17	200	10	3367	5652	7754	9739



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DWG No.				Sheet		3	
				Of		3	
				Total pages		-	

EQUIPMENT LIST OF PRODUCT

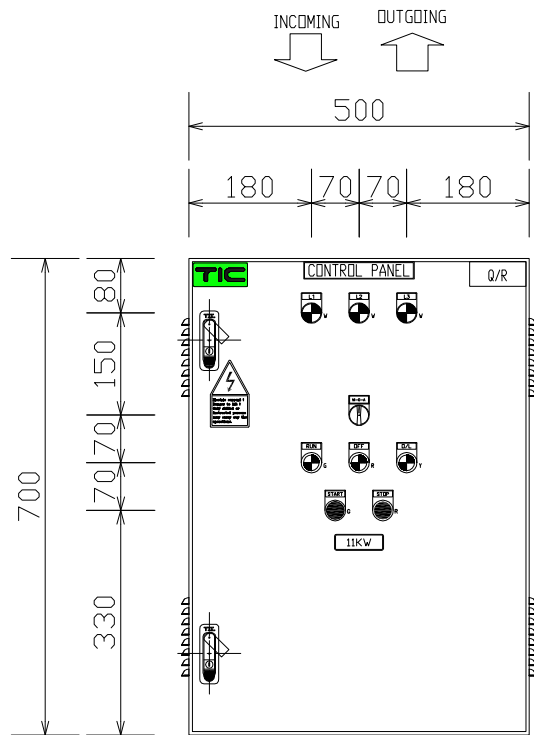
<u>LIST OF BREAKER</u>				<u>EQUIPMENT LIST OF METERING</u>						<u>EQUIPMENT LIST OF STARTER</u>					
ITEM	CIRCUIT BREAKER (EATON)	MODEL	NAME PLATE LIST	ITEM	DETAIL	MODEL	UNIT	QTY	MANUFACTURER	ITEM	DETAIL	MODEL	UNIT	QTY	MANUFACTURER
MAIN	MCCB 3P 25-32AT/16DAF 25KA (32AT)	LZMB1-A32	MAIN BREAKER	1	PILOT LAMP 220VAC W=3	XB7-EV0.MP	3	PCS	SCHNEIDER	1	PILOT LAMP 220VAC R=1,Y=1,G=1	XB7-EV0.MP	3	PCS	SCHNEIDER
				2	CONTROL FUSE 6A.	gL10x38	3	SET	MIRO	2	CONTROL FUSE 6A.	gL10x38	1	SET	MIRO
										3	PUSH BUTTON SW.	XB7-NA.P	2	PCS	SCHNEIDER
										4	SELECTOR A-O-M	XB7-ND33	1	PCS	SCHNEIDER
										5	RELAY 220VAC	MY4N-GS	2	PCS	OMRON
										<u>EQUIPMENT LIST OF STARTER S/D. 11KW</u>			1	SET	EATON
										1	CONTACTOR EA=2	DILM12-10			
										2	CONTACTOR EA=1	DILM7-10			
										3	OVERLOAD EA=1	ZB12-12			
										4	TIMER EA=1	ETR4-51			
										5	AUXILIARY CONTACT EA=3	DILM32-XH11			

<u>LIST OF BUSBAR & CABLE POWER</u> IEC 60439-1											
ITEM	BUSBAR MAIN	RATE AMP	SIZE BUSBAR (WxH)	ITEM	BUSBAR BRANCH	RATE AMP	SIZE BUSBAR (WxH)	ITEM	CABLE BRANCH	RATE AMP	SIZE CABLE
1	MAIN BUSBAR	-	- mm.	1	BRANCH BREAKER	-	- mm.	1	BRANCH BREAKER	-	- Sqmm.
2	NEUTRAL BUSBAR	-	- mm.	2	BRANCH BREAKER	-	- mm.	2	BRANCH BREAKER	-	- Sqmm.
3	GROUND BUSBAR	-	- mm.	3	BRANCH BREAKER	-	- mm.	3	BRANCH BREAKER	-	- Sqmm.
4	BUSBAR LUG FOR MAIN BREAKER	-	- mm.	4	BRANCH BREAKER	-	- mm.	4	BRANCH BREAKER	-	- Sqmm.
				5	BRANCH BREAKER	-	- mm.	5	BRANCH BREAKER	-	- Sqmm.
				6	BRANCH BREAKER	-	- mm.	6	BRANCH BREAKER	-	- Sqmm.
				7	BRANCH BREAKER	-	- mm.	7	BRANCH BREAKER	-	- Sqmm.
				8	BRANCH BREAKER	-	- mm.	8	BRANCH BREAKER	-	- Sqmm.
				9	BRANCH BREAKER	-	- mm.	9	BRANCH BREAKER	-	- Sqmm.

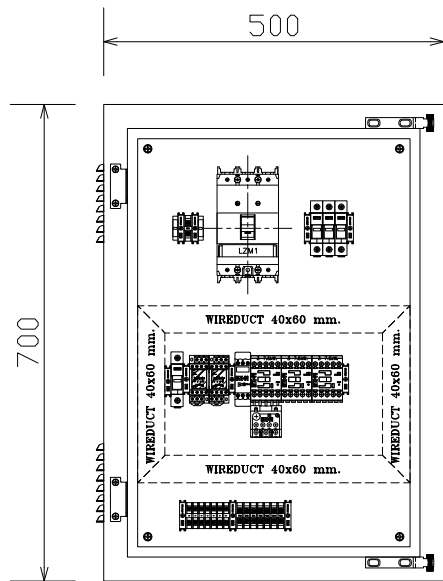


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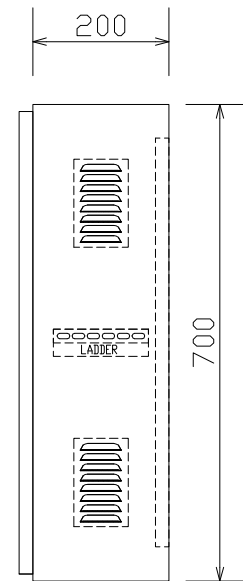
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5				Checked		DWG Name	CONTROL PANEL = 2 SET	Title	EQUIPMENT LIST OF PRODUCT
4				Drawn	J.SIRINAT	DWG No.		Sheet	1
3				DATE START	03/09/2020			Df	1
2				File :	2008100			Total pages	-
1	Revision.1	J.SIRINAT	09/09/2020						
REVISION	DESCRIPTION	REVISE By.	DATE						



FRONT VIEW



FRONT WITHOUT COVER



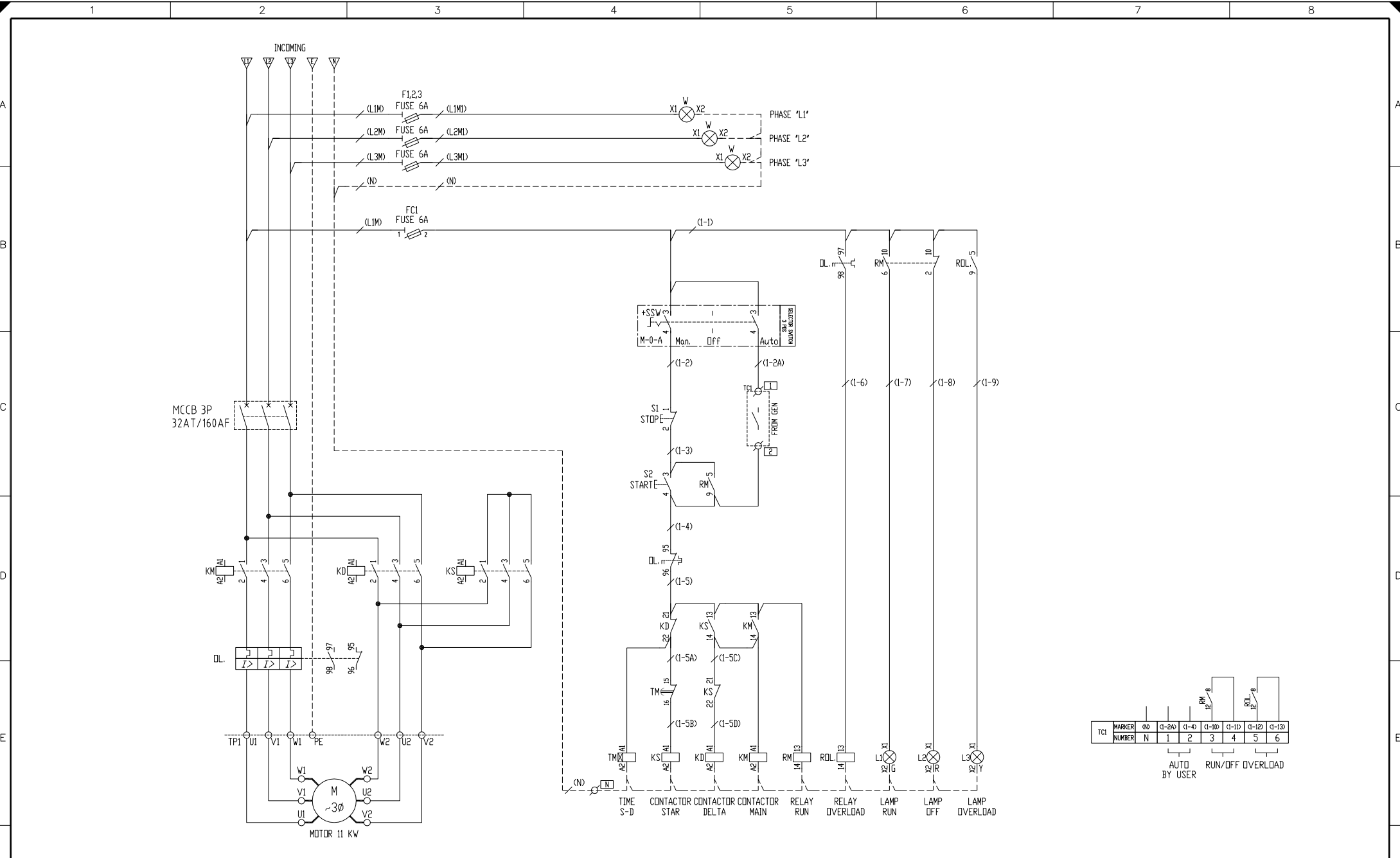
SIDE VIEW



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DWG Name		CONTROL PANEL = 2 SET		Title		LAYOUT DRAWING	
DWG No.				Sheet		Of	
				1		1	
				Total pages		-	



TCL	MARKER NUMBER	NO	(1-2A)	(1-4)	(1-10)	(1-11)	(1-12)	(1-13)
	N	1	2	3	4	5	6	

AUTO BY USER RUN/OFF OVERLOAD

TIC GROUP THAILAND

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DWG Name	CONTROL PANEL = 2 SET		Title	WIRING DIAGRAM	
DWG No.	1	Of	1	Sheet	Total pages
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EQUIPMENT LIST OF PRODUCT

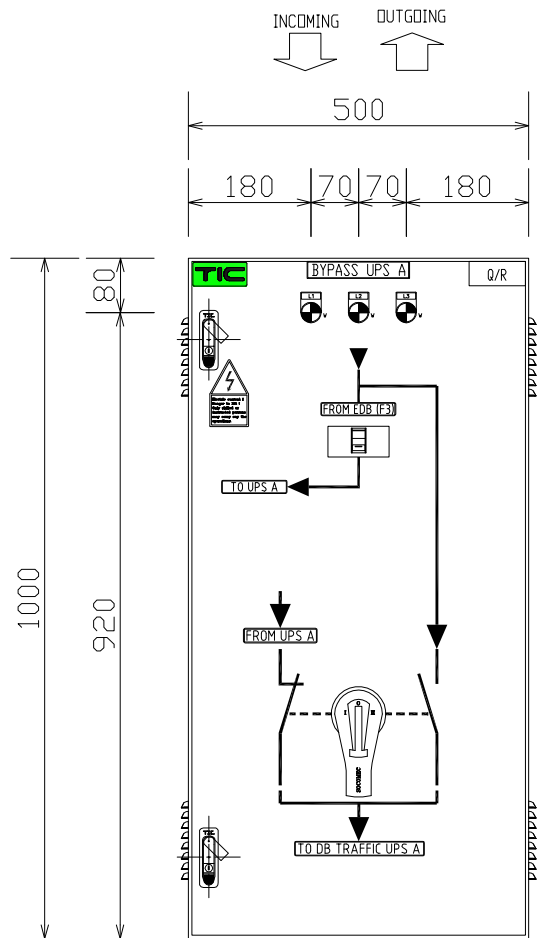
LIST OF BREAKER				EQUIPMENT LIST OF METERING					EQUIPMENT LIST OF CAPACITOR						
ITEM	CIRCUIT BREAKER (EATON)	MODEL	NAME PLATE LIST	ITEM	DETAIL	MODEL	UNIT	QTY	MANUFACTURER	ITEM	DETAIL	MODEL	UNIT	QTY	MANUFACTURER
MAIN	MCCB 3P 63-80AT/160AF 25KA (80AT)	LZMB1-A80	MAIN BREAKER	1	PILOTLAMP 220VAC W=3	XB7-EV0.MP	3	PCS.	SCHNEIDER						
	MTS VM1 3P 100A +SHAFT+HANDLE (SOCOME)			2	CONTROL FUSE 6A.	gL10x38	3	SET	MIRO						

LIST OF BUSBAR & CABLE POWER IEC 60439-1											
ITEM	BUSBAR MAIN	RATE AMP	SIZE BUSBAR (WxH)	ITEM	BUSBAR BRANCH	RATE AMP	SIZE BUSBAR (WxH)	ITEM	CABLE BRANCH	RATE AMP	SIZE CABLE
1	MAIN BUSBAR	-	- mm.	1	BRANCH BREAKER	-	- mm.	1	BRANCH BREAKER	-	- Sqmm.
2	NEUTRAL BUSBAR	100%	(15x3) mm.	2	BRANCH BREAKER	-	- mm.	2	BRANCH BREAKER	-	- Sqmm.
3	GROUND BUSBAR	100%	(15x3) mm.	3	BRANCH BREAKER	-	- mm.	3	BRANCH BREAKER	-	- Sqmm.
4	BUSBAR LUG FOR MAIN BREAKER	-	- mm.	4	BRANCH BREAKER	-	- mm.	4	BRANCH BREAKER	-	- Sqmm.
				5	BRANCH BREAKER	-	- mm.	5	BRANCH BREAKER	-	- Sqmm.
				6	BRANCH BREAKER	-	- mm.	6	BRANCH BREAKER	-	- Sqmm.
				7	BRANCH BREAKER	-	- mm.	7	BRANCH BREAKER	-	- Sqmm.
				8	BRANCH BREAKER	-	- mm.	8	BRANCH BREAKER	-	- Sqmm.
				9	BRANCH BREAKER	-	- mm.	9	BRANCH BREAKER	-	- Sqmm.

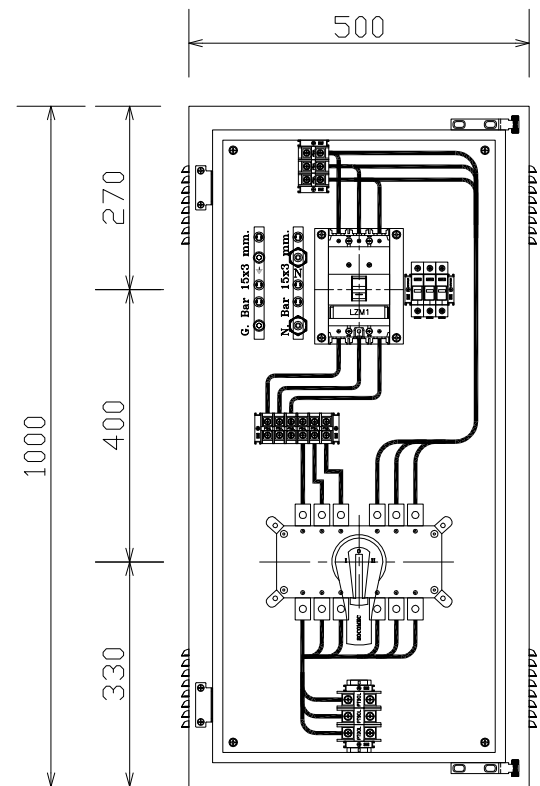


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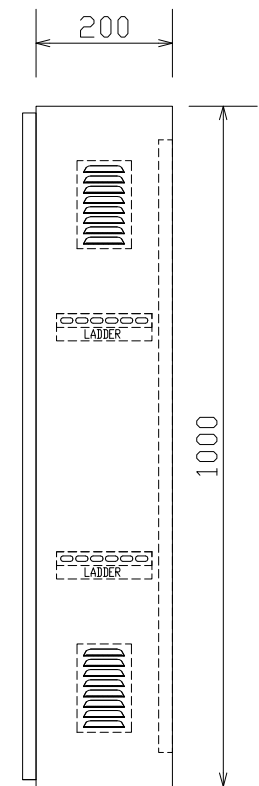
6				Approved		Project	อาคารทางพิเศษ		Client	WIN 54 CO.,LTD.	
5				Checked		DWG Name	BYPASS UPS A		Title	EQUIPMENT LIST OF PRODUCT	
4				Drawn	J.SIRINAT	DWG No.		Sheet	1	Df	1
3				DATE START	03/09/2020			Total pages	-		
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FRONT VIEW



FRONT WITHOUT COVER



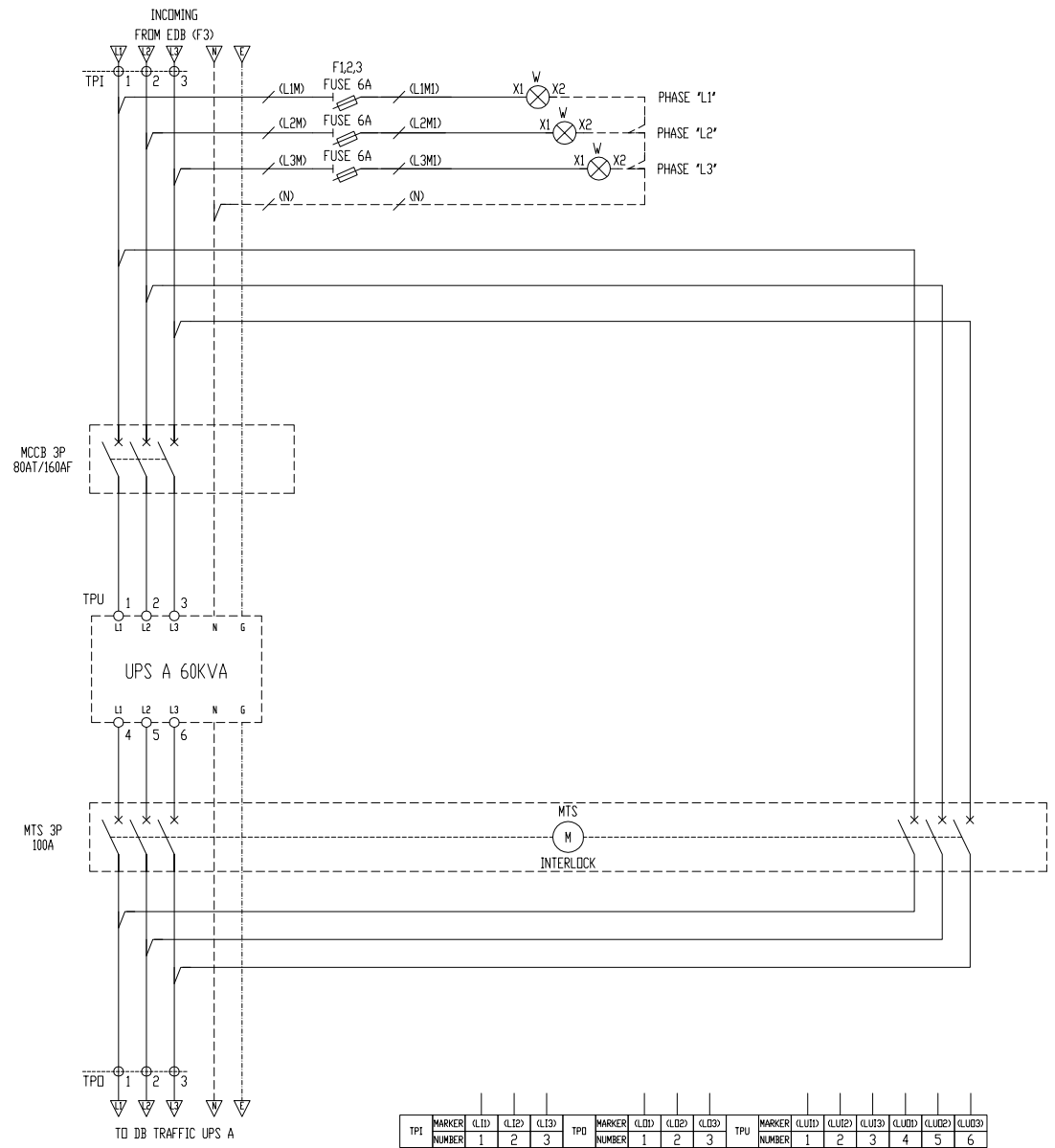
SIDE VIEW



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Project		อาคารทางพิเศษ		Client		WIN 54 CO.,LTD.	
DWG Name		BYPASS UPS A		Title		LAYOUT DRAWING	
DWG No.				Sheet		Of	
				1		1	
				Total pages		-	



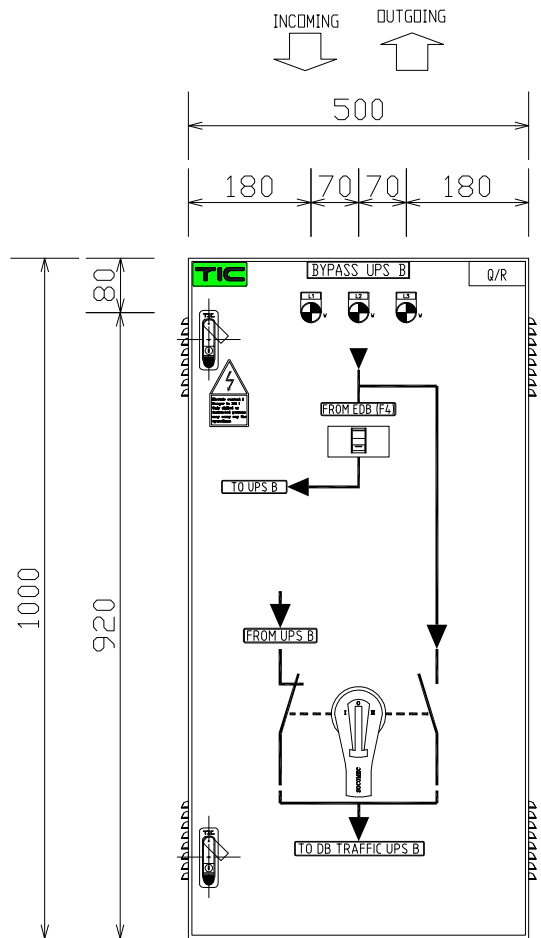
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	1	2	3			1	2	3			1	2	3	4	5	6	



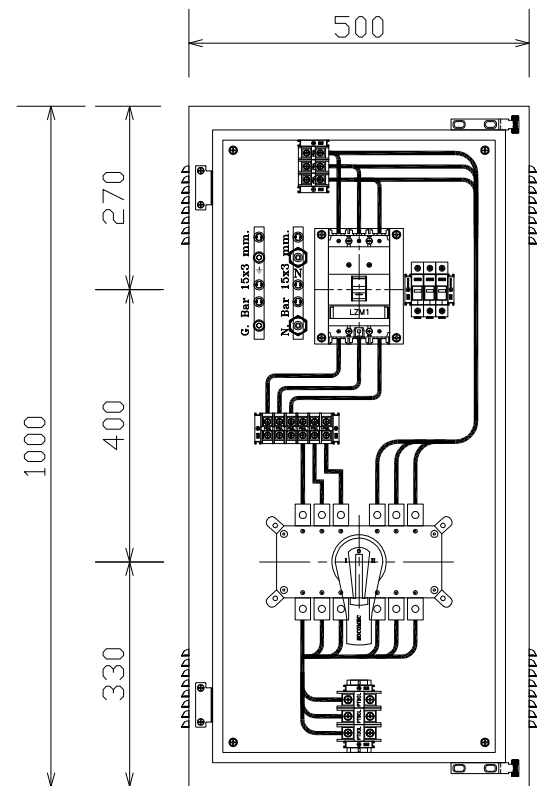
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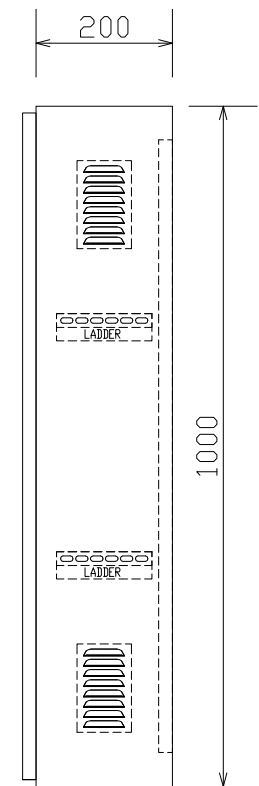
Project	อาคารการทางพิเศษ		Client	WIN 54 CO.,LTD.	
DWG Name	BYPASS UPS A		Title	WIRING DIAGRAM	
DWG No.	Sheet	Df	Total pages		
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FRONT VIEW



FRONT WITHOUT COVER



SIDE VIEW

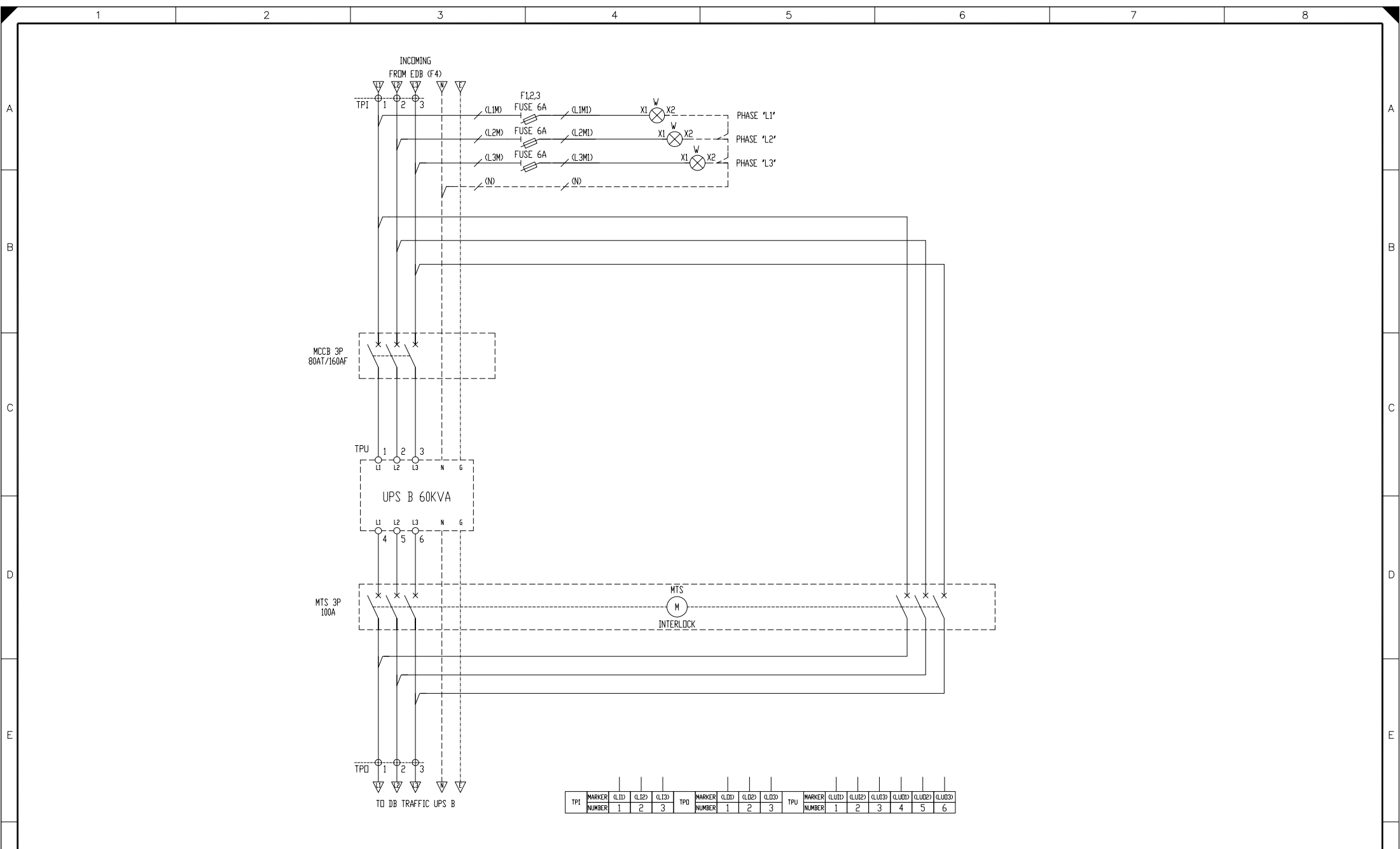


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DWG Name	BYPASS UPS B	Title	LAYOUT DRAWING
DWG No.		Sheet	1
		Df	1
		Total pages	-

1	2	3	4	5	6	7	8
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TP1	MARKER NUMBER	CL1D	CL1E	CL1F	TP1	MARKER NUMBER	CL1D	CL1E	CL1F	TP1	MARKER NUMBER	CL1D	CL1E	CL1F	CL1G	CL1H	CL1I
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		Total pages	-