

EE24-4

SCHEMATIC DIAGRAM



PROJECT NAME : DOL MOTOR STARTER WITH PLC CONTROL PANEL

PROJECT NO : AWP-EDU-02-PT-PLC-SD

USER NAME : The 16th Nation Rajamangala Engineering
Academic Contest



OWNER : JFAC TRAINING CENTER

REVISE DATE : 2025-JULY-31

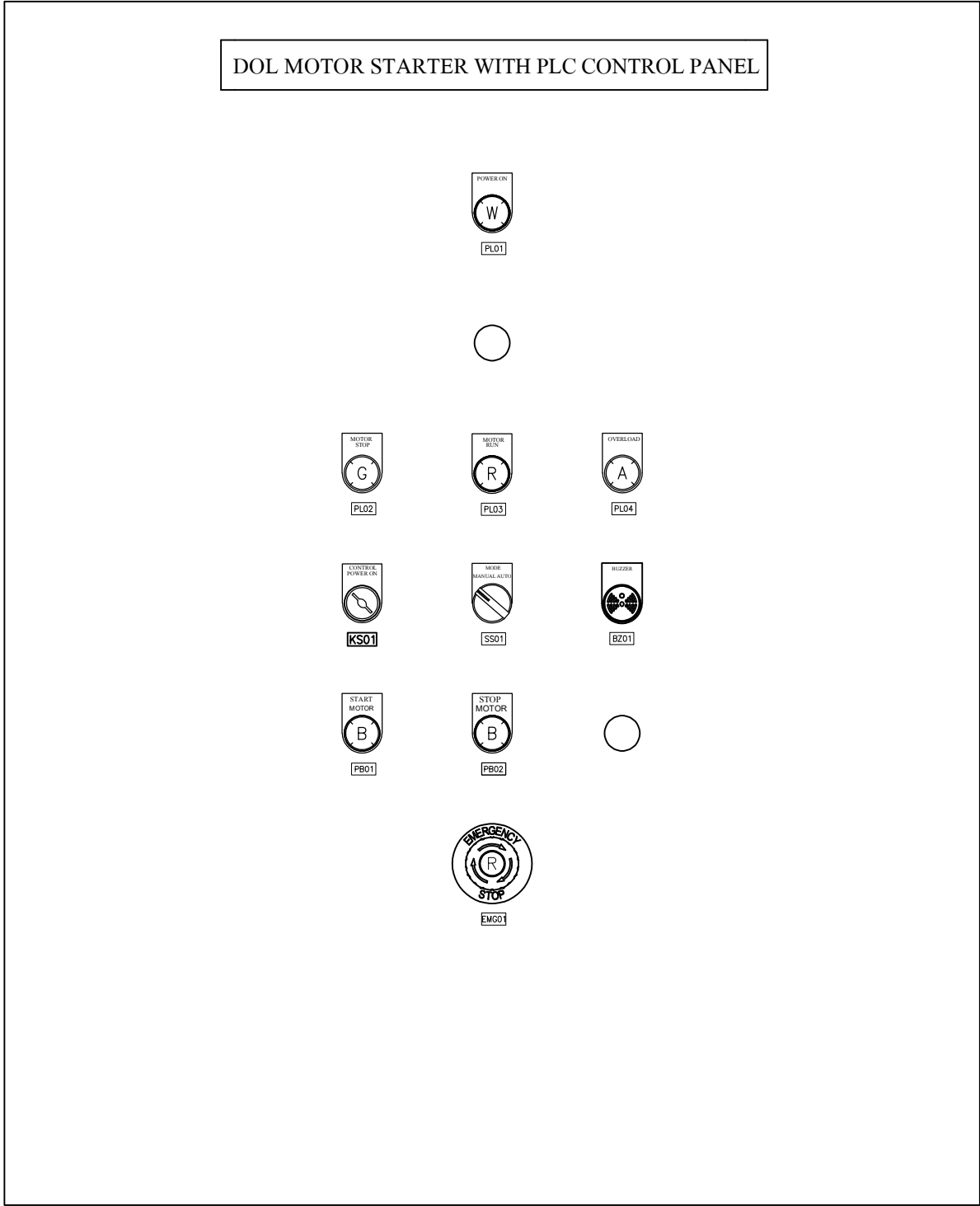
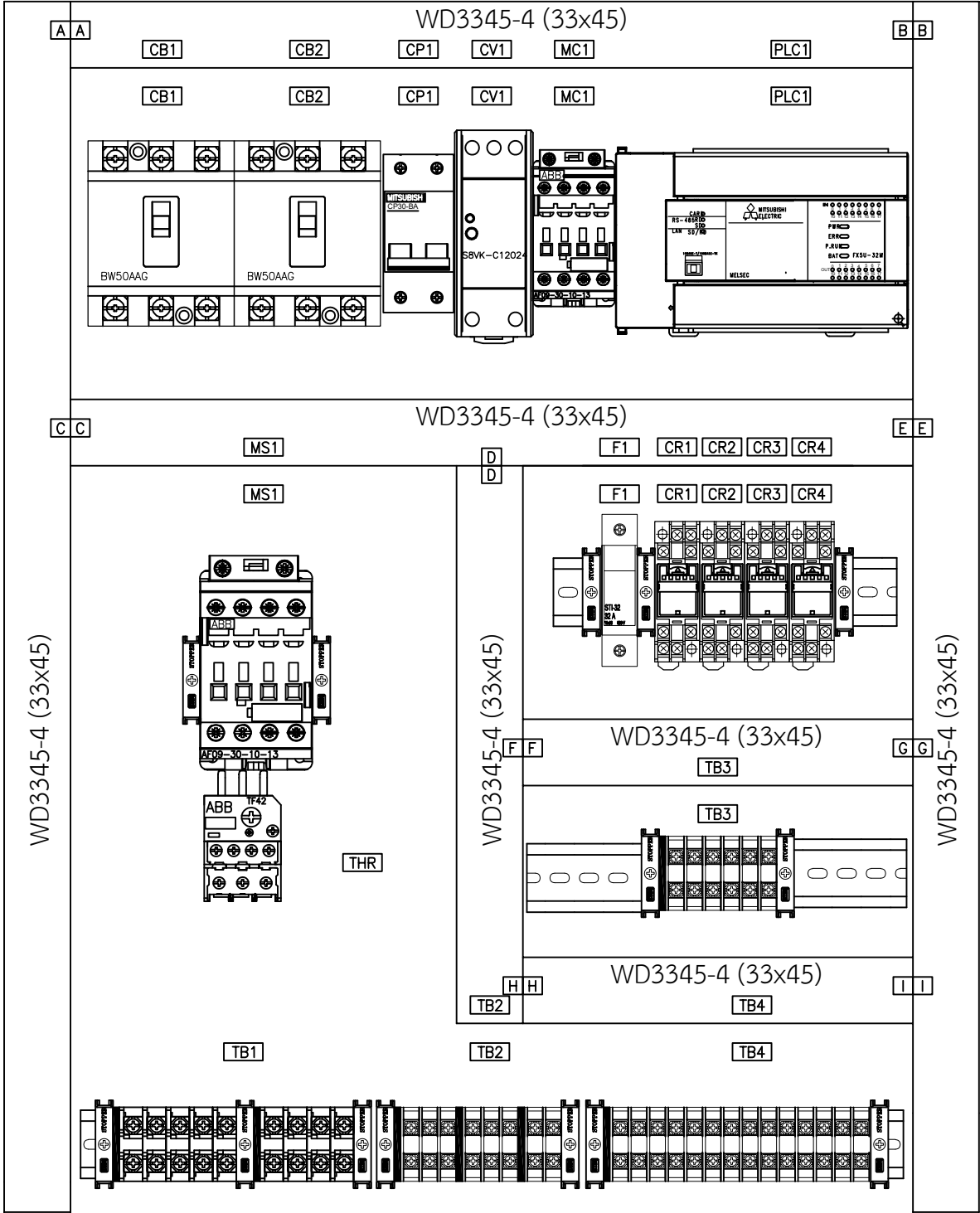
	DRAWING NAME : COVER PAGE		REVISION		CONCEPT BY : SOMPOCH V.	PROJECT NAME : DOL MOTOR STARTER WITH PLC CONTROL PANEL	
	PAGE NO: 1	PROJECT NO :	REV_1 :	2025-JULY-31	DESIGN BY : THONGCHAI I.	PLAN NAME : --	
	PAGE SIZE: A3	DRAWING NO : AWP-EDU-02-PT-PLC-SD	REV_2 :	--	DRAWING BY : THONGCHAI I.	USER NAME :The 16th Nation Rajamangala Engineering Academic Contest	
	SCALE: 1:1	DRAWING STD :JFAC PATTERN	REV_3 :	--	APPROVE BY : SOMPOCH V.	OWNER NAME :JFAC TRAINING CENTER	
	QUANTITY: 1	WIRING STD :JFAC PATTERN	REV_4 :	--	CS CHECK BY : SOMPOCH V.	SI&MAKER NAME : JFAC TRAINING CENTER	

01	02	03	04	05	06	07	08
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Symbols	Designation	Symbols	Designation	Symbols	Designation	Symbols	Designation
	3 POLE CIRCUIT BREAKER		2 POLE CIRCUIT BREAKER		3 POLE CIRCUIT BREAKER		2 POLE CIRCUIT BREAKER
	MAGNETIC SWITCHES		MAGNETIC CONTACTOR		THERMAL OVERLOAD RELAY		1 PHASE TRANSFORMER
	NOISE FILTER		CONTROL VOLTAGE (SWITCHING POWER SUPPLY) AC to DC		INVERTER (VSD) CR CONVERTER		3 PHASE INDUCTION MOTOR
	PROXIMITY SENSOR 3 WIRE		PROXIMITY SENSOR 2 WIRE		PHOTO SENSOR 3 WIRE (NPN) RETRO REFLECTIVER		PHOTO SENSOR 3 WIRE (NPN) DIFFUSE
	PHOTO SENSOR 3 WIRE (NPN) THROUGH BEAM		TEMPERATURE CONTROLLER		AUTO SWITCH 2 WIRE (REED SWITCH)		NO CONTACT (NORMALLY OPEN)
	NC CONTACT (NORMALLY CLOSED)		SELECTOR SWITCH (NC CONTACT) (MAINTAINED)		SELECTOR SWITCH (NO CONTACT) (MAINTAINED)		KEY SWITCH (NO CONTACT) (MAINTAINED)
	KEY SWITCH (NC CONTACT) (MAINTAINED)		PUSH BATTON SWITCH (NO CONTACT MAINTAINED)		PUSH BATTON SWITCH (NC CONTACT MAINTAINED)		PUSH BATTON SWITCH (SPRING RETURN) (NO CONTACT MOMENTARY)
	PUSH BATTON SWITCH (SPRING RETURN) (NC CONTACT MOMENTARY)		EMERGENCY SWITCH (TURN RESET) (NC CONTACT MAINTAINED)		PILOT LAMP		BUZZER
	LIMIT SWITCH (NO CONTACT)		LIMIT SWITCH (NC CONTACT)		FUSE		AC CONTACTOR COIL
	DC CONTACTOR RELAY COIL		SOLENOID VALVE		TERMINAL BLOCK		JUNCTION POINT
	TWIST PAIR CABLE		CABLE SPECIFICATION		MALE CONNECTOR		FEMALE CONNECTOR

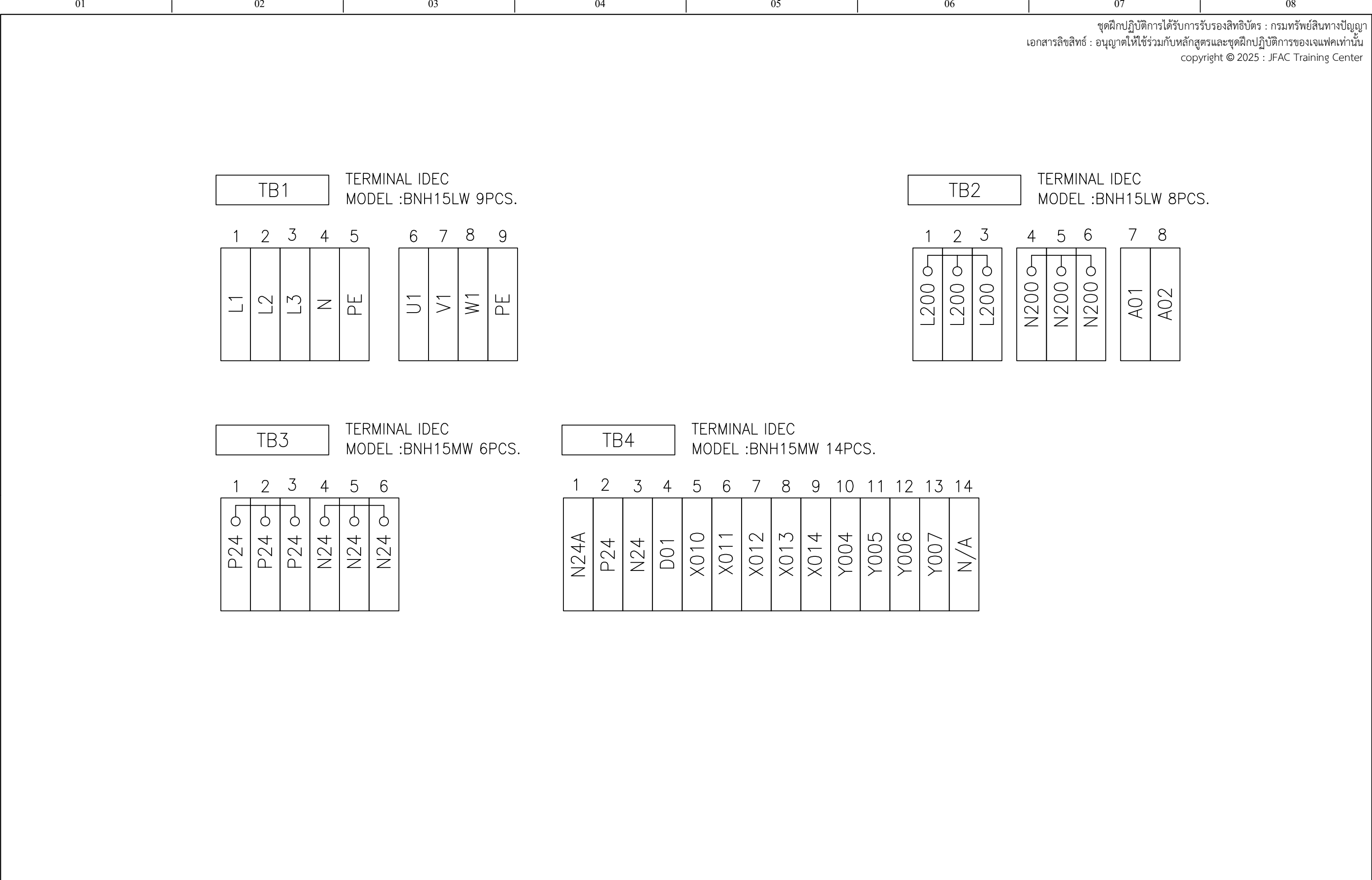
	DRAWING NAME : ELECTRICAL SYMBOL			REVISION		CONCEPT BY : SOMPOCH V.		PROJECT NAME : DOL MOTOR STARTER WITH PLC CONTROL PANEL		
	PAGE NO:	3	PROJECT NO:	REV_1:	2025-JULY-31	DESIGN BY:	THONGCHAI I.	PLAN NAME:	--	
	PAGE SIZE:	A3	DRAWING NO:	REV_2:	--	DRAWING BY:	THONGCHAI I.	USER NAME:	The 16th Nation Rajamangala Engineering Academic Contest	
	SCALE:	1:1	DRAWING STD:	REV_3:	--	APPROVE BY:	SOMPOCH V.	OWNER NAME:	JFAC TRAINING CENTER	
	QUANTITY:	1	WIRING STD:	REV_4:	--	CS CHECK BY:	SOMPOCH V.	SI&MAKER NAME:	JFAC TRAINING CENTER	

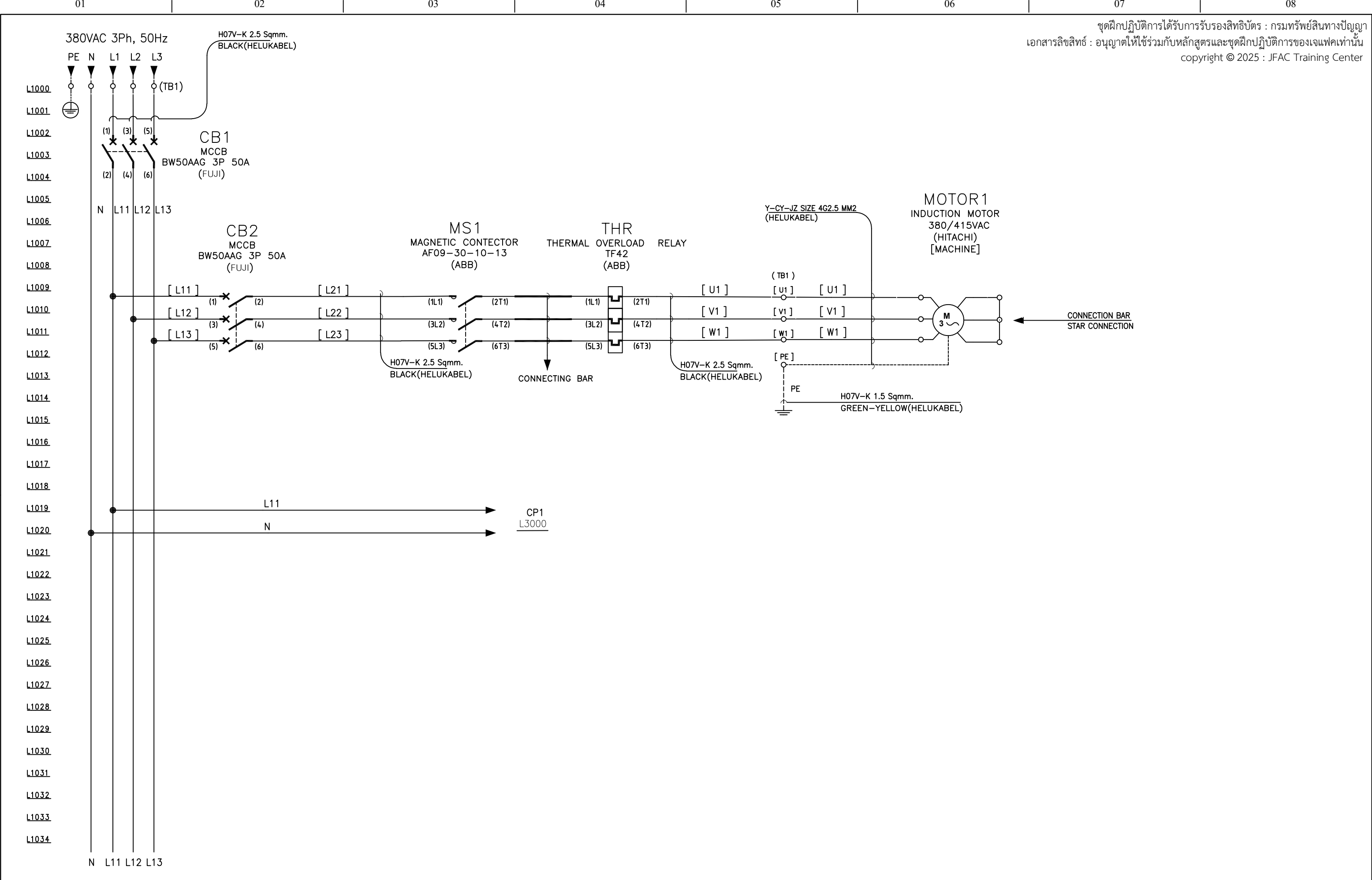
THE COMPOSITION OF PARTS1 CE1

NO	SYMBOL	DESCRIPTION	BRAND	MODEL	QTY	REMARK
1	CB1	MOLDED CASE CIRCUIT BREAKER 50A	FUJI	BW50AAG-3P-50A	1.00	
2	CB2	MOLDED CASE CIRCUIT BREAKER 50A	FUJI	BW50AAG-3P-50A	1.00	
3	CP1	CIRCUIT PROTECTION	ABB	S-202 M C10	1.00	
4	CV1	SWITCHING POWER SUPPLY 120W 220VAC/24VDC	OMRON	S8VK-C12024-24V120W-5A	1.00	
5	F1	FUSE 1P	P-TEN	STI-32-1P	1.00	
6	PLC1	PLC COMPACT TYPE 16IN/16OUT	mitsubishi	FX5U-32MT/ES	1.00	
7	MC1	MAGNETIC CONECTOR @ 220VAC	ABB	AF26-30-00-13	1.00	
8	MS1	MAGNETIC CONECTOR @ 220VAC	ABB	AF09-30-10-13	1.00	
9	THR	THERMAL OVERLOAD RELAY	ABB	TF42	1.00	
10	CR1	CIRCUIT RELAY (DPDT) @ 24VDC + SOCKET RELAY	OMRON	RUMY2N-GS + PYFZ-08	1.00	
11	CR2	CIRCUIT RELAY (DPDT) @ 24VDC + SOCKET RELAY	OMRON	RUMY2N-GS + PYFZ-08	1.00	
12	CR3	CIRCUIT RELAY (DPDT) @ 24VDC + SOCKET RELAY	OMRON	RUMY2N-GS + PYFZ-08	1.00	
13	CR4	CIRCUIT RELAY (DPDT) @ 24VDC + SOCKET RELAY	OMRON	RUMY2N-GS + PYFZ-08	1.00	
14	TB1	TERMINAL BLOCK	IDEC	BNH15LW	9.00	
15		END PLATE TERMINAL BLOCK	IDEC	BNE15W	2.00	
16	TB2	TERMINAL BLOCK	IDEC	BNH15MW	8.00	
17		END PLATE TERMINAL BLOCK	IDEC	BNE15W	3.00	
18	TB3	TERMINAL BLOCK	IDEC	BNH15MW	6.00	
19		END PLATE TERMINAL BLOCK	IDEC	BNE15W	1.00	
20	TB4	TERMINAL BLOCK	IDEC	BNH15MW	14.00	
21		END PLATE TERMINAL BLOCK	IDEC	BNE15W	1.00	
22	PL01	PILOT LAMP @220VAC (PURE WHITE) "POWER ON"	IDEC	YW1P-2EQM3PW	1.00	
23	PL02	PILOT LAMP @24VDC (GREEN) "MOTOR STOP"	IDEC	YW1P-2EQ4G	1.00	
24	PL03	PILOT LAMP @24VDC (RED) "MOTOR RUN"	IDEC	YW1P-2EQ4R	1.00	
25	PL04	PILOT LAMP @24VDC (AMBER) "OVERLOAD"	IDEC	YW1P-2EQ4A	1.00	
26	BZ01	BUZZER @24VDC "BUZZER"	TEND	TS2BCL7	1.00	
27	KS01	KEY SELECTOR SWITCH 1NO "CONTROL POWER ON"	IDEC	YW1K-2AE10	1.00	
28	SS01	SELECTOR SWITCH 2 POS "MODE MANUAL AUTO"	IDEC	YW1S-2E11	1.00	
29	PB01	PUSHBUTTON SWITCH 1NO (B)"START MOTOR "	IDEC	YW1B-M1E10B	1.00	
30	PB01	PUSHBUTTON SWITCH 1NO (B)"STOP MOTOR "	IDEC	YW1B-M1E10B	1.00	
31	EMG01	EMERGENCY STOP SWITCH 1NC "EMERGENCY STOP"	IDEC	YW1B-V4E01R	1.00	
32		STOPPER TERMINAL	IDEC	BNL6	16.00	



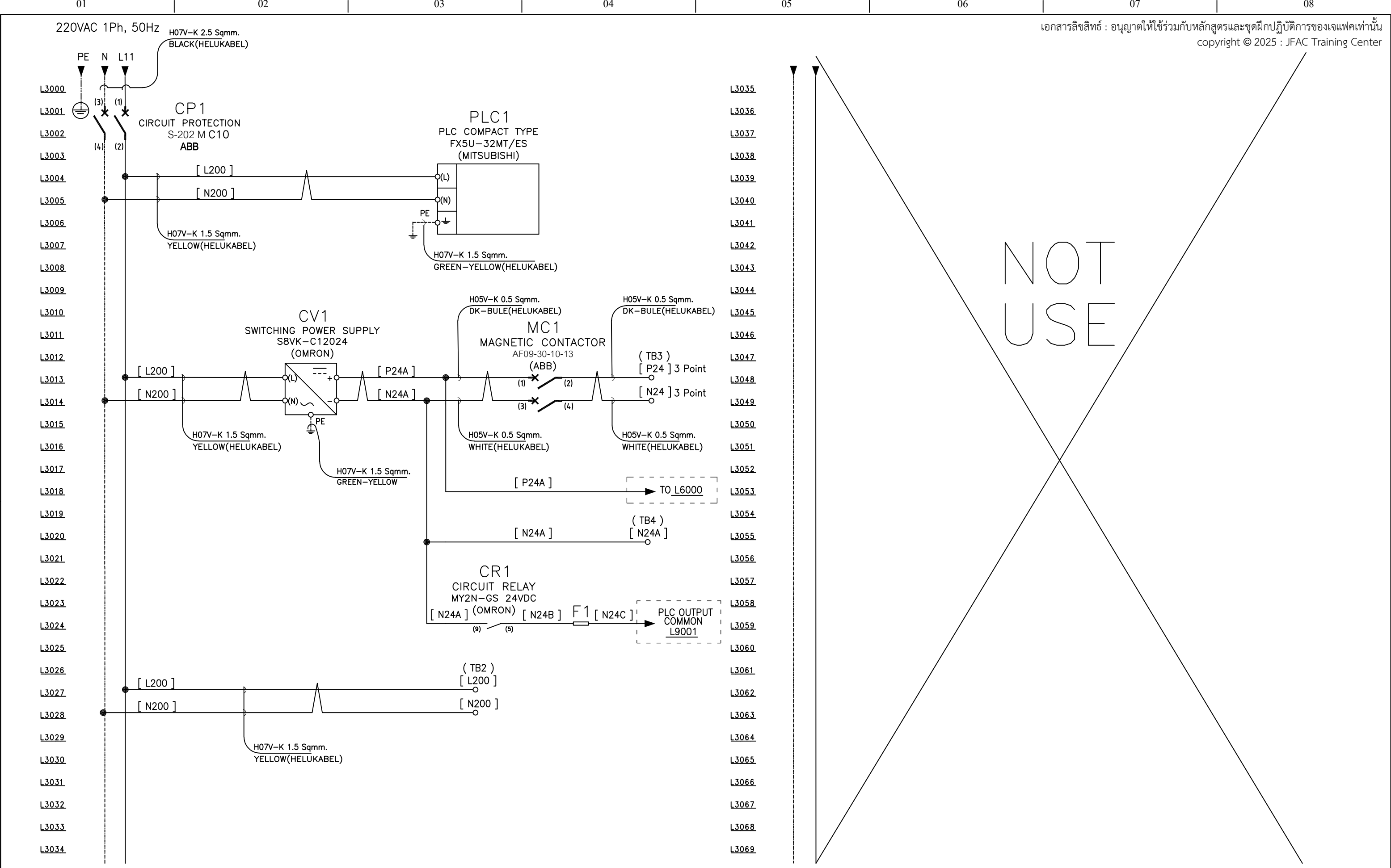
	DRAWING NAME : LAYOUT MAIN PANAL		REVISION		CONCEPT BY : SOMPOCH V.	PROJECT NAME : DOL MOTOR STARTER WITH PLC CONTROL PANEL	
	PAGE NO: 5	PROJECT NO :	REV_1 :	2025-JULY-31	DESIGN BY : THONGCHAI I.	PLAN NAME :	--
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	DRAWING NAME : (1000) AC 380V 3PH POWER CIRCUIT		REVISION		CONCEPT BY : SOMPOCH V.		PROJECT NAME : DOL MOTOR STARTER WITH PLC CONTROL PANEL	
	PAGE NO:	7	PROJECT NO:		REV_1:	2025-JULY-31	DESIGN BY:	THONGCHAI I.
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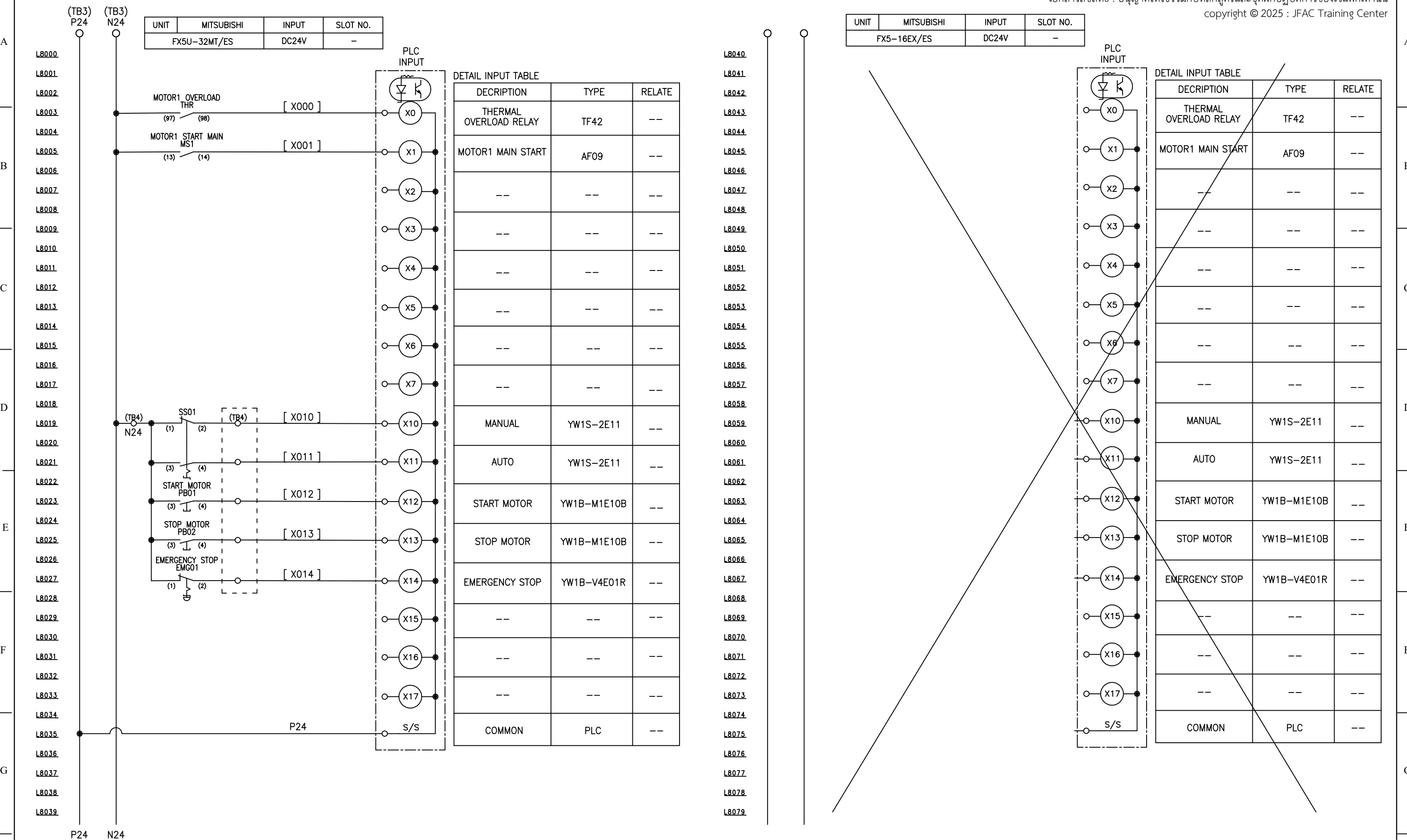




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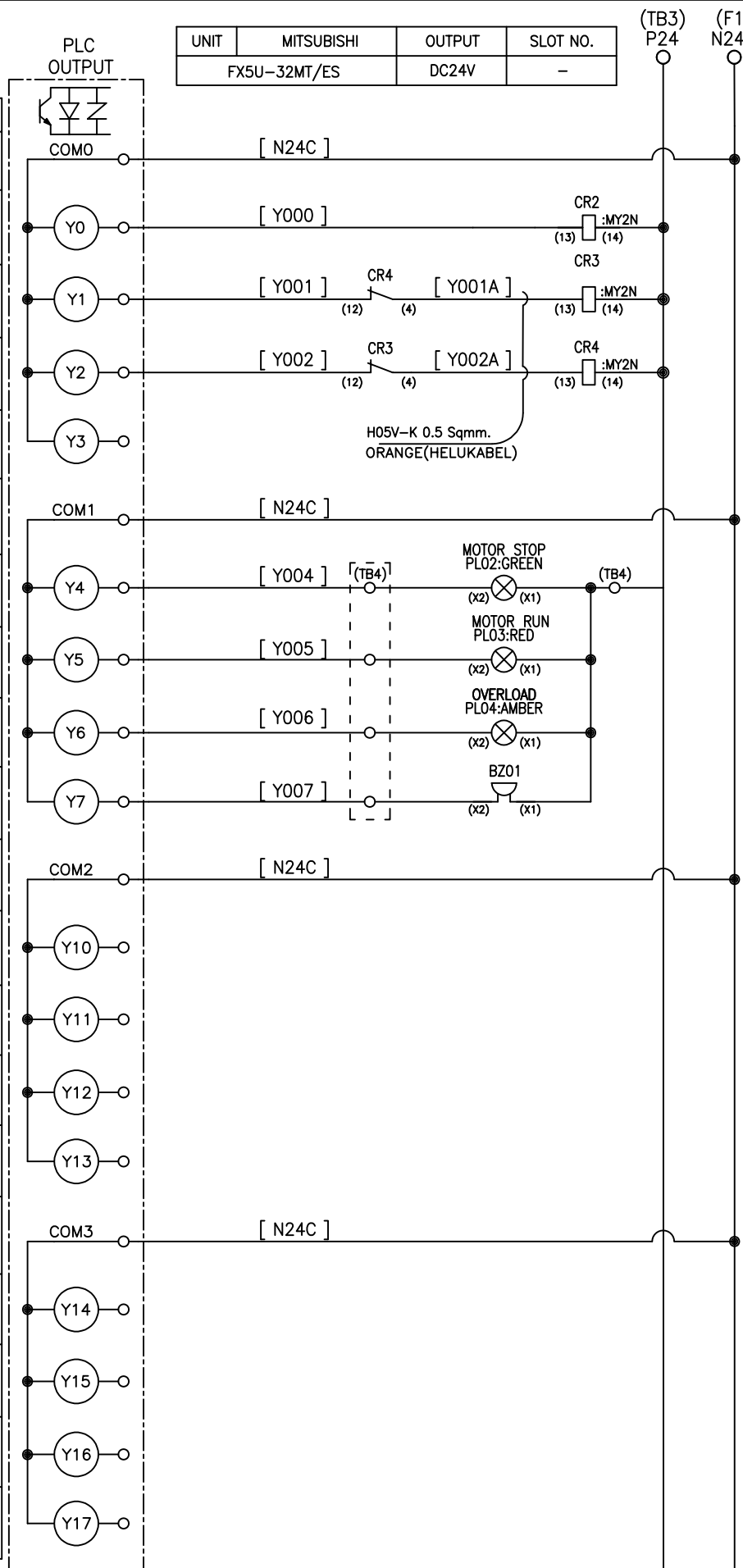
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UNIT	MITSUBISHI	OUTPUT	SLOT NO.
FX5U-32MT/ES		DC24V	—

UNIT	MITSUBISHI	OUTPUT	SLOT NO.
FX5-16EYR/ES		DC24V	—

DETAIL OUTPUT TABLE

L9000	DESCRIPTION	TYPE	RELATE
L9001	COMMON	PLC	--
L9002	MS1 MAIN	RUMY2N-GS	--
L9003			
L9004	--	RUMY2N-GS	--
L9005	--	RUMY2N-GS	--
L9006	--	RUMY2N-GS	--
L9007	--	--	--
L9008	COMMON	PLC	--
L9009	MOTOR STOP	YW1P-1EQ4G	--
L9010	MOTOR START	YW1P-1EQ4R	--
L9011	OVERLOAD	YW1P-1EQ4A	--
L9012	BUZZER	TS2BC7	--
L9013	COMMON	PLC	--
L9014			--
L9015			--
L9016			--
L9017			--
L9018	--	--	--
L9019	--	--	--
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L9038	--	--	--
L9039	--	--	--

DETAIL OUTPUT TABLE

L9040	DESCRIPTION	TYPE	RELATE
L9041	COMMON	PLC	--
L9042	MS1 MAIN	RUMY2N-GS	--
L9043	--	RUMY2N-GS	--
L9044	--	RUMY2N-GS	--
L9045	--	--	--
L9046	COMMON	PLC	--
L9047	MOTOR STOP	YW1P-1EQ4G	--
L9048	MOTOR START	YW1P-1EQ4R	--
L9049	OVERLOAD	YW1P-1EQ4A	--
L9050	BUZZER	TS2BC7	--
L9051	COMMON	PLC	--
L9052			--
L9053			--
L9054			--
L9055	--	--	--
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L9079			

