RENAULT

ENERGY EFFICIENCY

M40 MASTER
CONTROL SYSTEM

ID	23006
DATE	20.02.2023
TOTAL PAGE	18
L-B23-ASTM1	

Escon Energy	Zake Enginnering	Renault Oyak	See Elektrical V8.2

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Sheet	Diagram Type	Title	Revision Date

	Modifications Since Previous Revision
Modification #1	
Modification #2	
Modification #3	

M40

A LIST OF DOCUMENTS

Document Number:	Sheet: 1 of 18	Rev. Date:	Rev.:
		Cre. Date: 4.05.2023	
		Sheet Created by: MUHAMMED KARABULUT	

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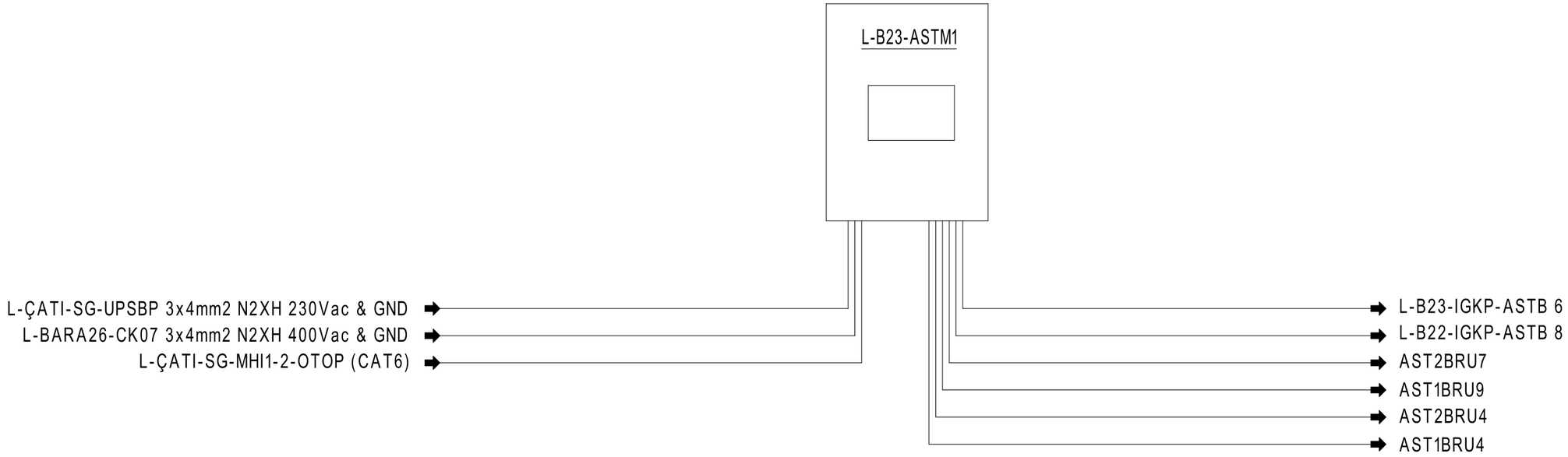


zake		SNOPTIK VIEW	Proje: M40	MUHAMMED KARABULUT		Onaylayan: MELİH CAN ÖZTÜRK	Sayfa: 2
			Tarih: 4.05.2023	Rev:	Proje Id:	Toplam Sayfa: 17	Sonraki Sayfa: 3

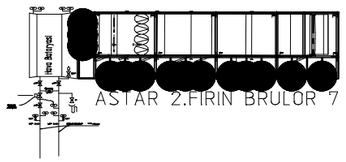
ASTAR ISI GERI KAZANIM PROJESI GÜC DAGITIM ALT YAPISI

L-ÇATI-SG
MHI1-2-OTOP
(CAT 6 HAT)

L-ÇATI-SG-UPSBP
3x4mm2 N2XH
230Vac&GND

L-BARA26-CK07
3x4mm2 N2XH
400Vac&GND

escon
L-B23-ASTM



escon
AST2BRU7
24 Vdc

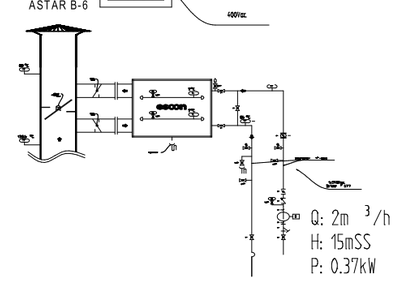
(L BINASI ASTAR ISI GERI KAZANIM HABERLESME BOX)

SUPPLY1
3X1.5MM2 LIYCY

SUPPLY5
3X2.5MM2 N2XH

escon
L-B23-IGKP-ASTB 6
400Vac

ASTAR B-6



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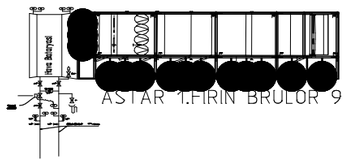
P: 0.37kW



escon
AST1BRU9
24 Vdc

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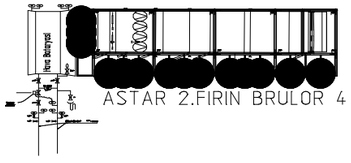

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AST2BRU4
24 Vdc

(L BINASI ASTAR ISI GERI KAZANIM HABERLESME BOX)

SUPPLY3
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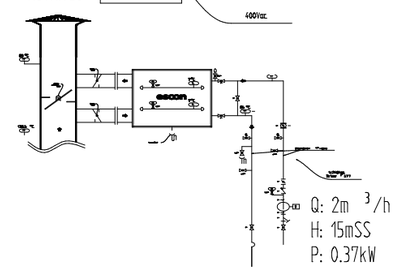
SUPPLY6
3X2.5MM2 N2XH

escon
L-B22-IGKP-ASTB 8
400Vac

ASTAR B8



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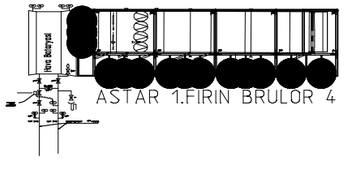


escon
AST1BRU4
24 Vdc

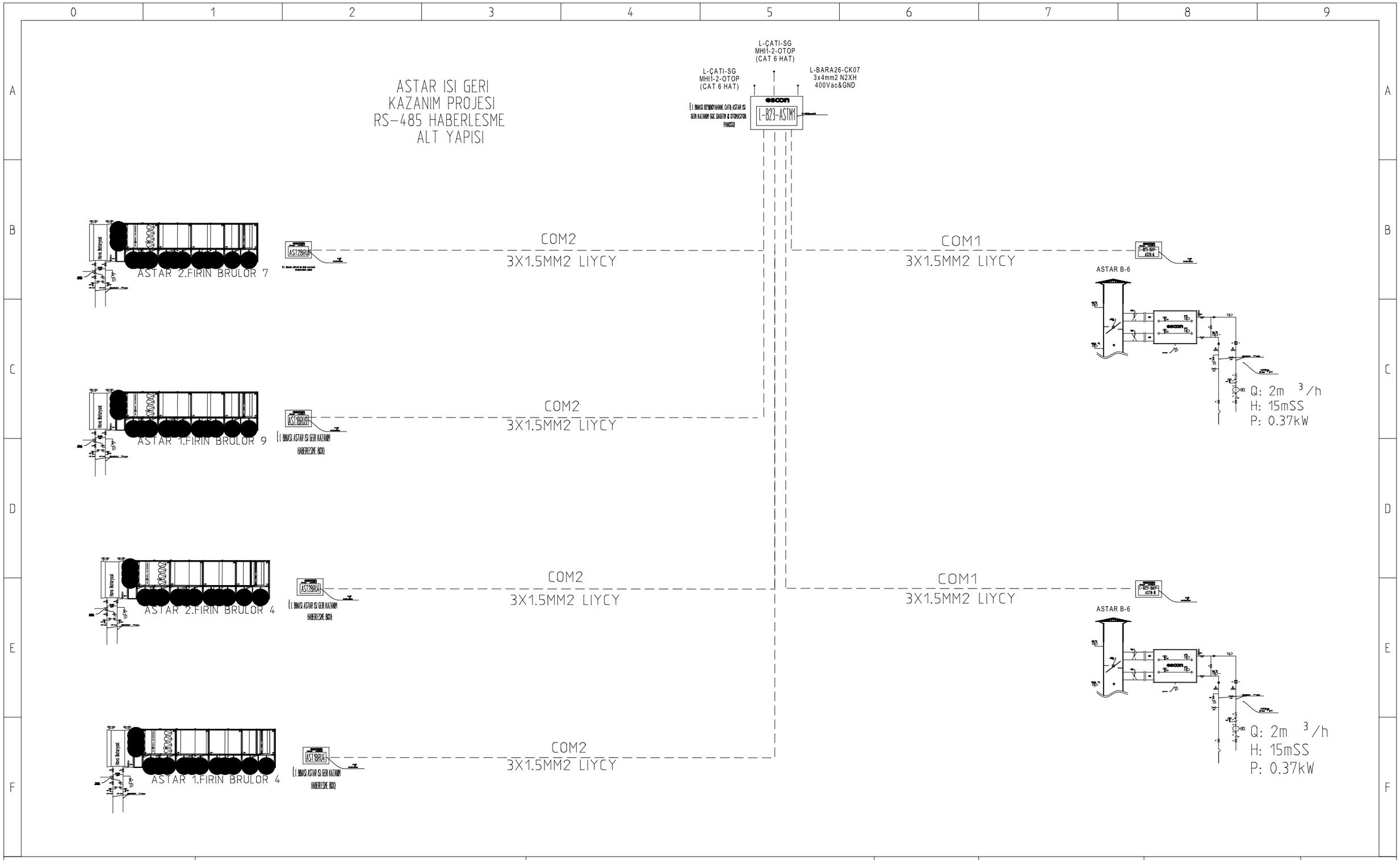
(L BINASI ASTAR ISI GERI KAZANIM HABERLESME BOX)

SUPPLY4
3X1.5MM2 LIYCY

zake

SNOPTIK VIEW POWER DISTRIBUTION

Proje:	Proje Çizen:		Onaylayan:	Sayfa:
M40	MUHAMMED KARABULUT		MELİH CAN ÖZTÜRK	3
Tarih:	Rev:	Proje Id:	Toplam Sayfa:	Sonraki Sayfa:
4.05.2023			17	3/1



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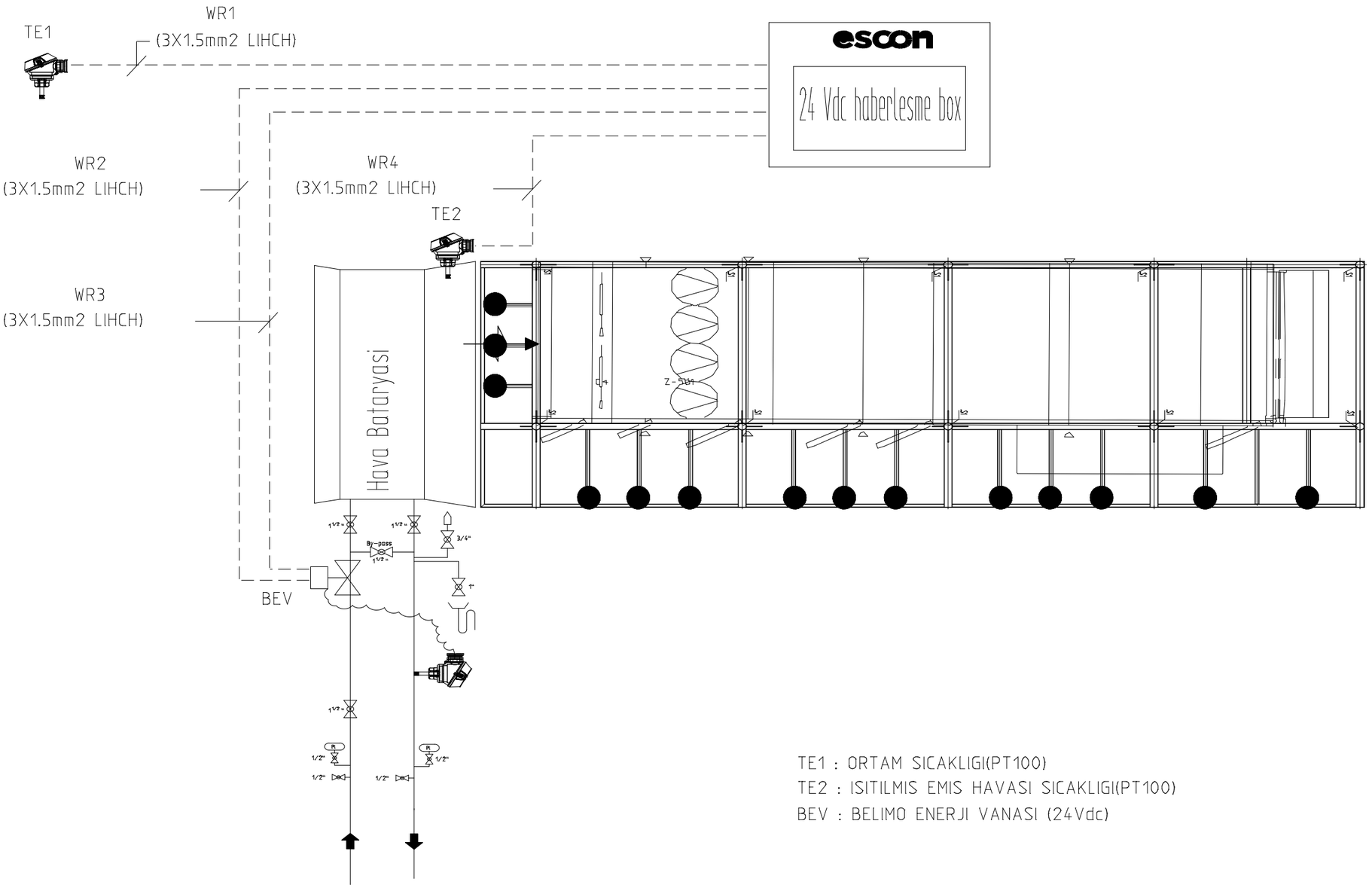
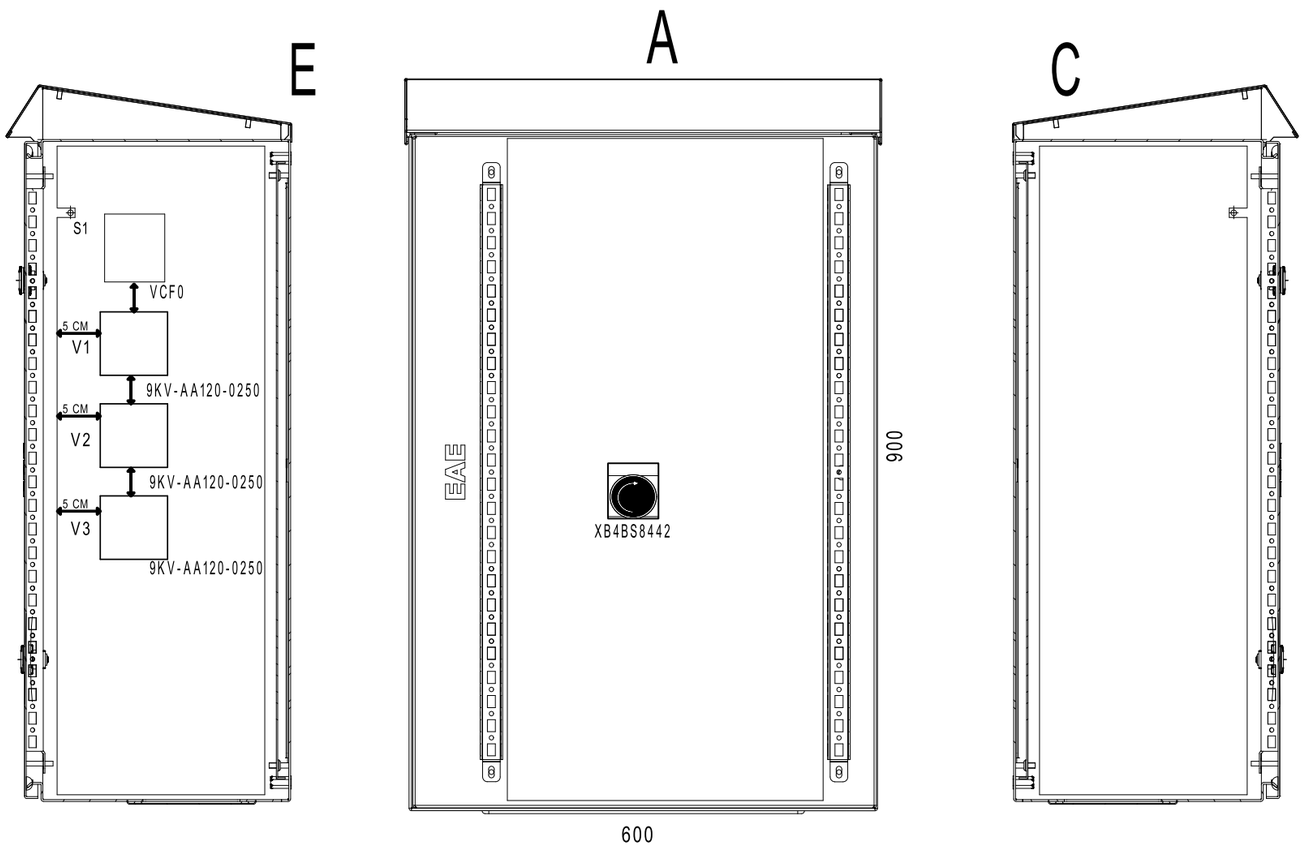
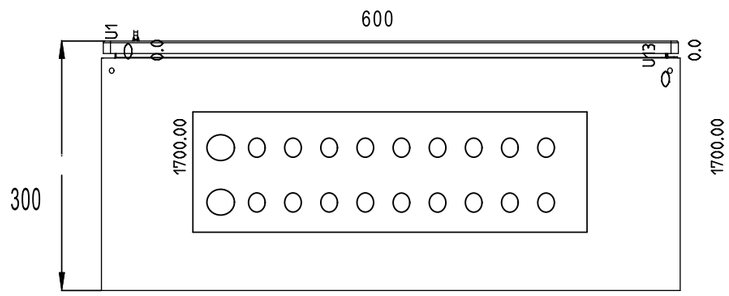
			Tarih: 20.06.2023	Rev:	Proje Id:	Toplam Sayfa: 17	Sonraki Sayfa: 3/2



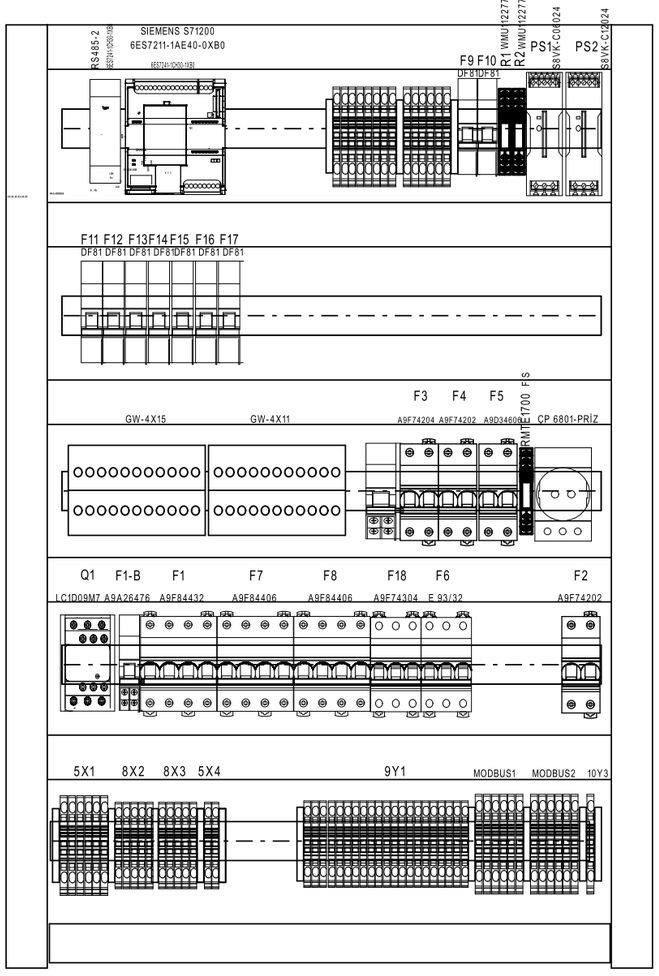
TE1 : ORTAM SICAKLIGI(PT100)
TE2 : ISITILMIS EMIS HAVASI SICAKLIGI(PT100)
BEV : BELIMO ENERJI VANASI (24Vdc)

zake		SNOPTIK VIEW BRULOR CLIENT	Proje: M40	Proje Çizen: MUHAMMED KARABULUT	Onaylayan: MELİH CAN ÖZTÜRK	Sayfa: 3 /2
			Tarih: 20.06.2023	Rev:	Proje Id:	Toplam Sayfa: 17	Sonraki Sayfa: 4

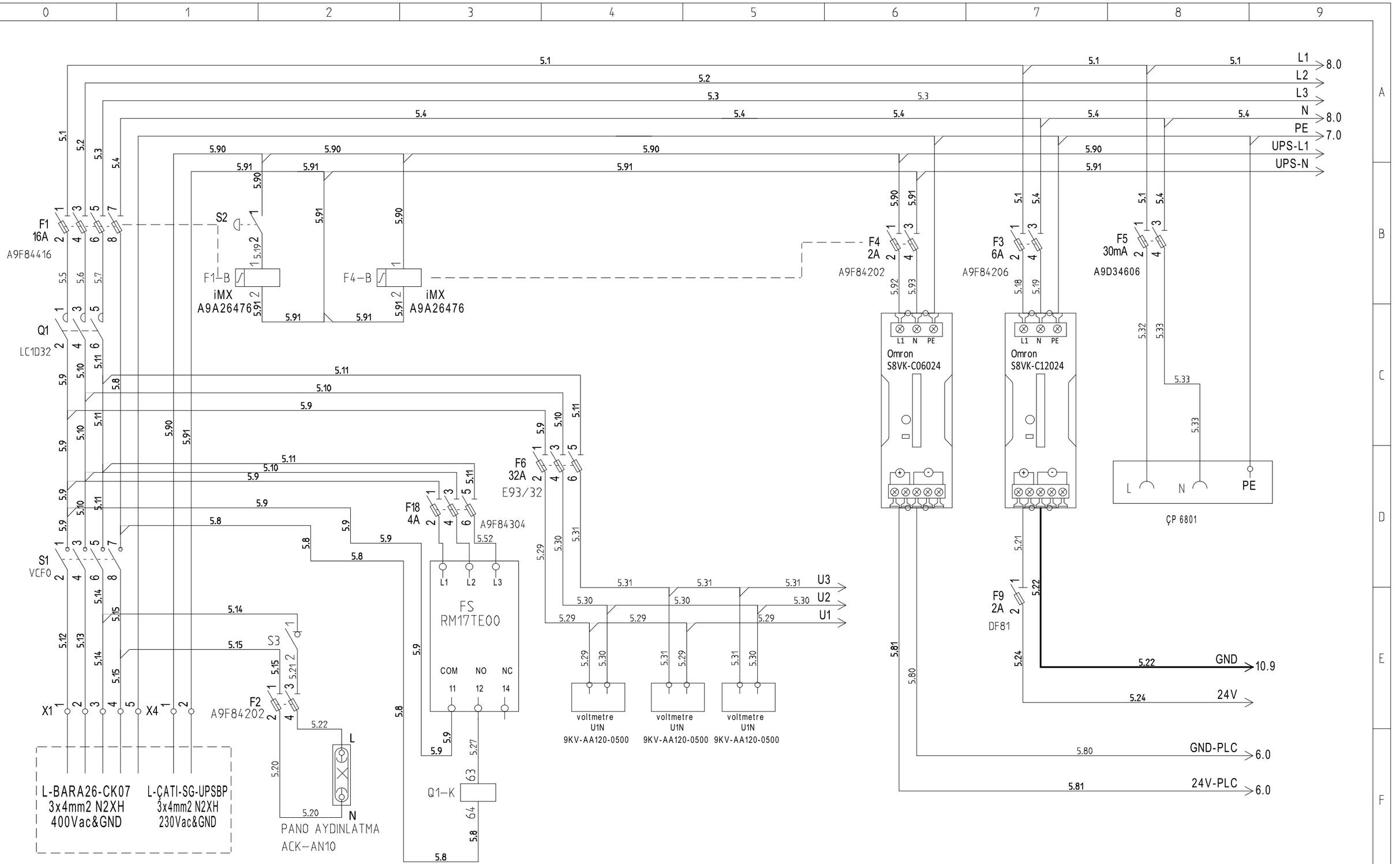




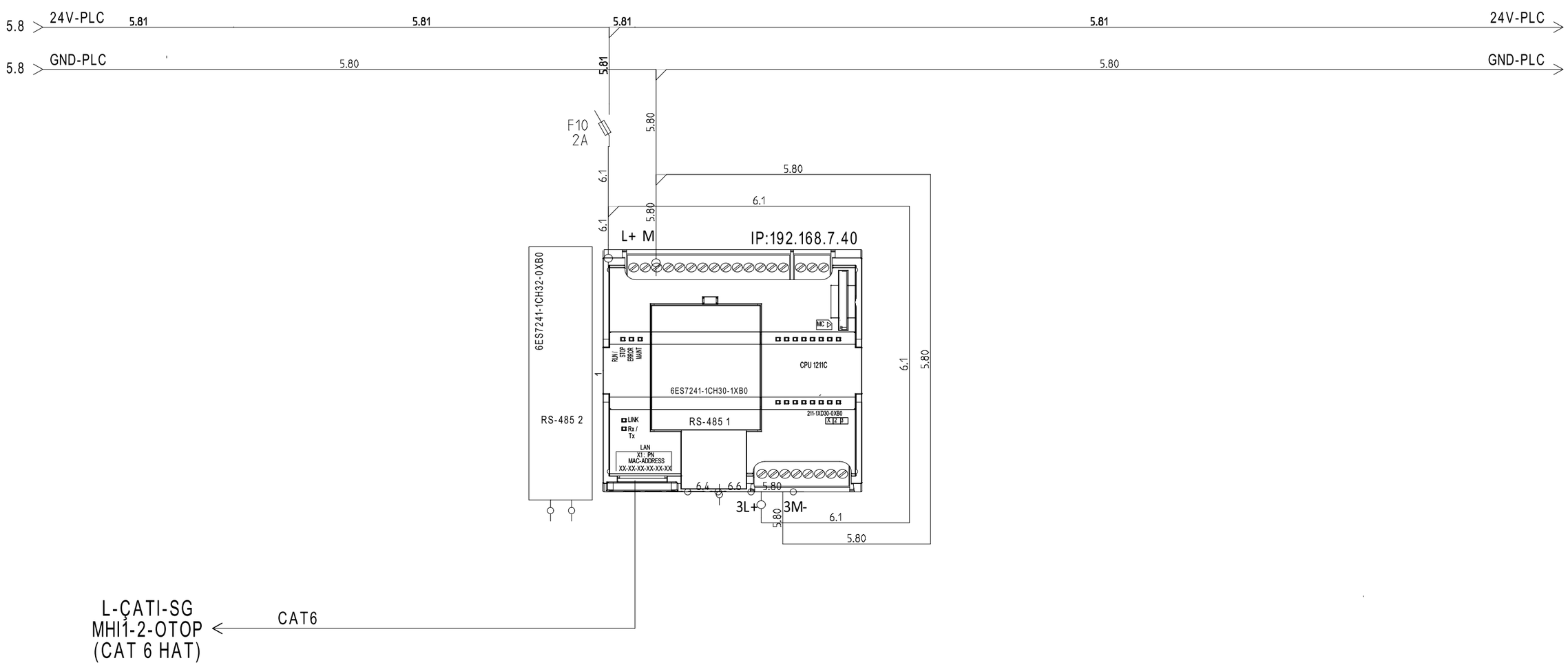
zake		DESIGN	Proje: M40	Cizen: MUHAMMED KARABULUT	Onaylayan: MELİH CAN ÖZTÜRK	Sayfa: 4
			Tarih: 4.05.2023	Rev:	Proje Id:	Toplam Sayfa: 17 / Sonraki Sayfa: 4/1



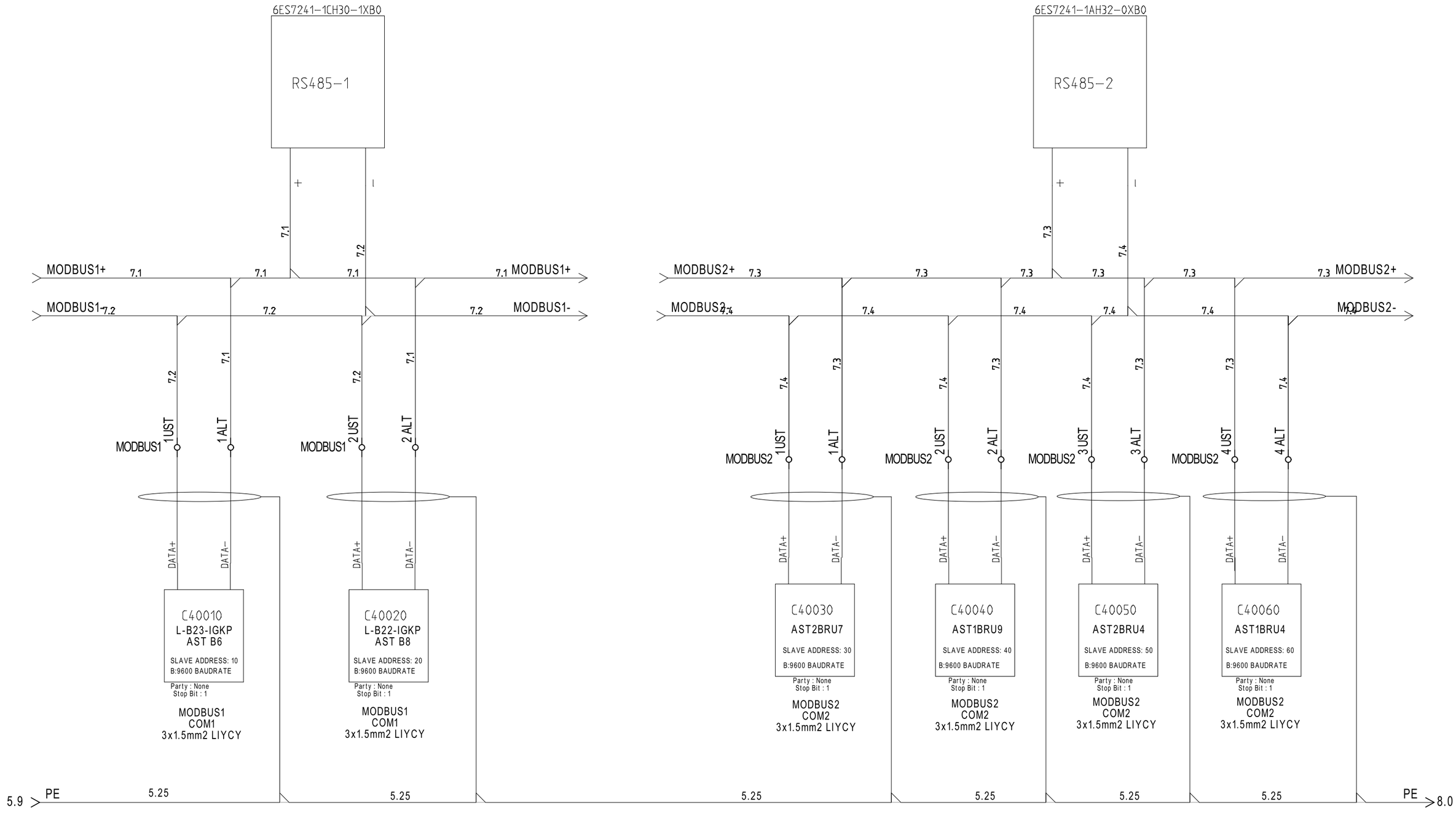
zake		DESIGN	Proje: M40	Proje Çizen: MUHAMMED KARABULUT		Onaylayan: MELİH CAN ÖZTÜRK	Sayfa: 4 /1
			Tarih: 22.06.2023	Rev:	Proje Id:	Toplam Sayfa: 17	Sonraki Sayfa: 5



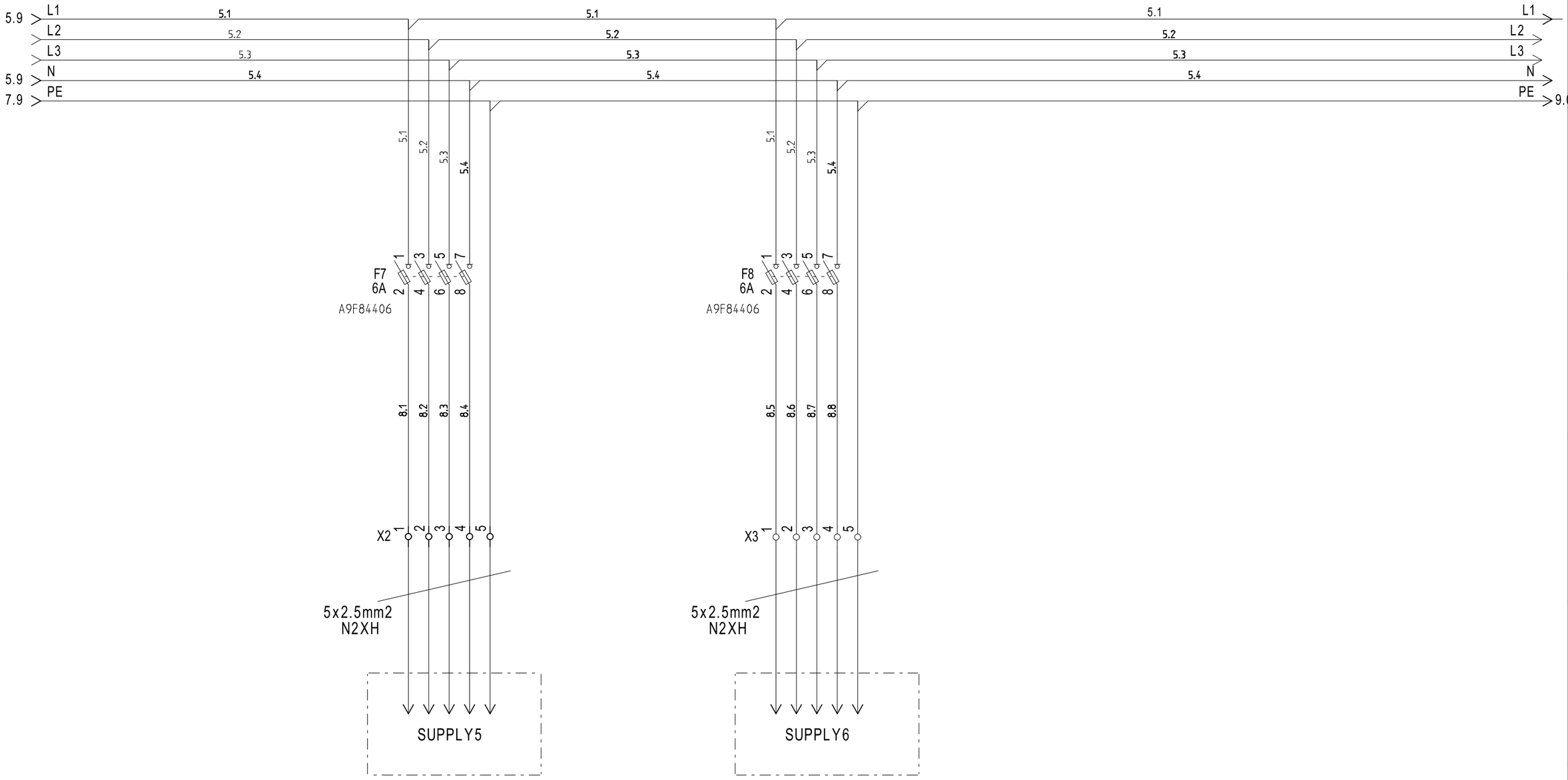
zake		MAIN POWER	Proje: M40	Proje Çizen: MUHAMMED KARABULUT	Onaylayan: MELİH CAN ÖZTÜRK	Sayfa: 5
			Tarih: 4.05.2023	Rev:	Proje Id:	Toplam Sayfa: 17 / Sonraki Sayfa: 6



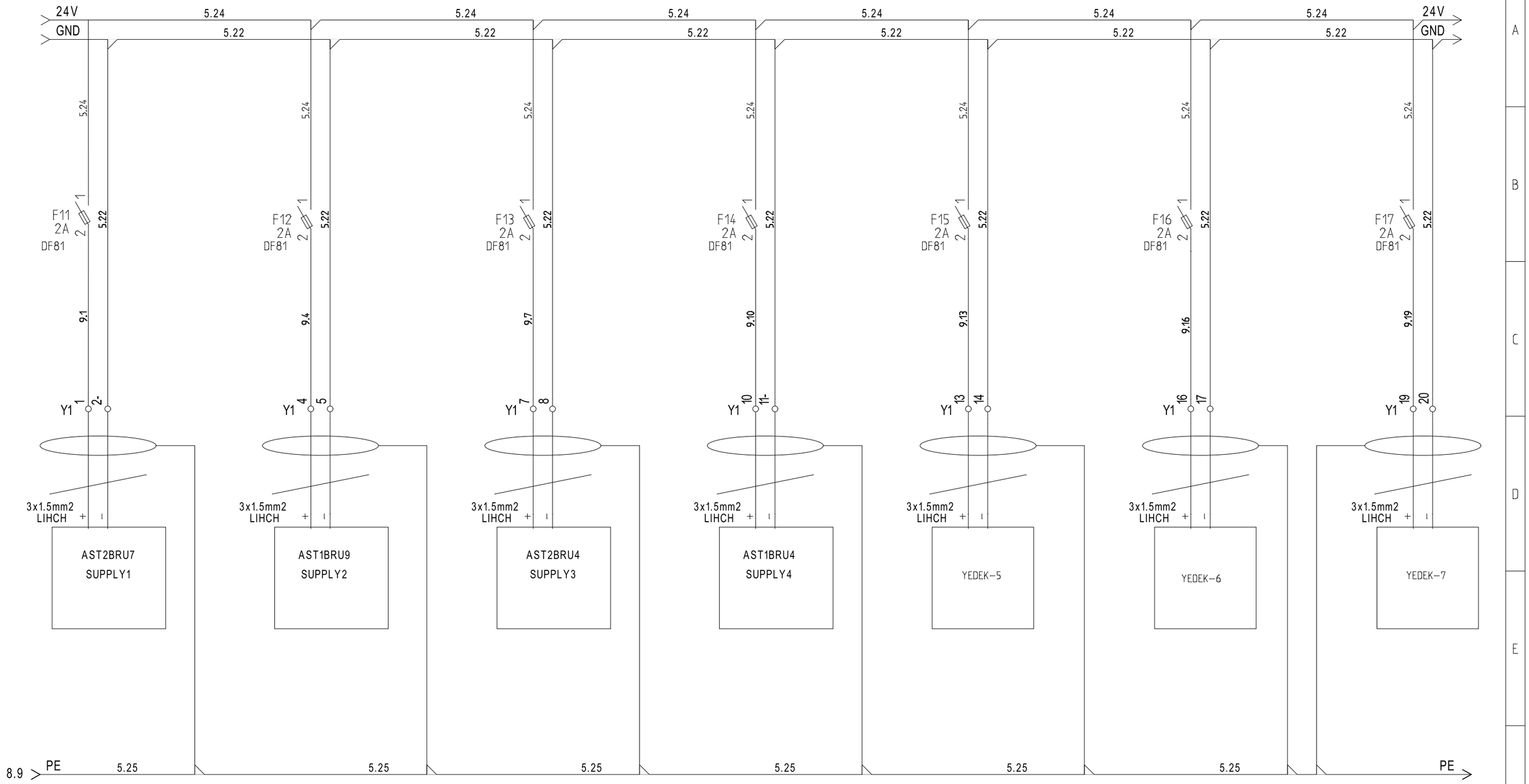
zake		PLC S7 1200	Proje: M40	Proje Çizen: MUHAMMED KARABULUT	Onaylayan: MELİH CAN ÖZTÜRK	Sayfa: 6
			Tarih: 4.05.2023	Rev:	Proje Id:	Toplam Sayfa: 17 / Sonraki Sayfa: 7



zake		COMMUNICATIONS	Proje: M40	Proje Çizen: MUHAMMED KARABULUT		Onaylayan: MELİH CAN ÖZTÜRK	Sayfa: 7
			Tarih: 4.05.2023	Rev:	Proje Id:	Toplam Sayfa: 17	Sonraki Sayfa: 8



zake		AC CONTROL	Proje: M40	Proje Çizen: MUHAMMED KARABULUT		Onaylayan: MELİH CAN ÖZTÜRK	Sayfa: 8
			Tarih: 4.05.2023	Rev:	Proje Id:	Toplam Sayfa: 17	Sonraki Sayfa: 9



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			Tarih: 4.05.2023	Rev:	Proje Id:	Toplam Sayfa: 17 / Sonraki Sayfa: 10

Baut.	PLC
Adr.	DO0
Anschl.	DO0

10.1

R1

WMU1122770000

10.2

10.2

R1
10.1

10.3

10.2

Y2 1 ALT

Y2 UST

3x1.5mm2
LIHCH

YEDEK

Baut.	PLC
Adr.	DO1
Anschl.	DO1

10.6

R2

WMU1122770000

10.4

10.4

R2
10.4

10.5

10.4

Y2 2 ALT

Y2 UST

3x1.5mm2
LIHCH

YEDEK

Baut.	PLC
Adr.	DI0
Anschl.	DI0

10.15

Y3 1

Baut.	PLC
Adr.	DI1
Anschl.	DI1

10.16

Y3 2

5.22

5.22

5.22

GND 5.22

GND 5.8

zake		AC DC CONTROL	Proje: M40	Proje Çizen: MUHAMMED KARABULUT	Onaylayan: MELİH CAN ÖZTÜRK
			Tarih: 4.05.2023	Rev:	Proje Id:
			Toplam Sayfa: 17	Sonraki Sayfa: 11	Sayfa: 10

Bill of Materials

Tag	Type (Cat. No.)	Series	Description	Product	Price	Lin. Weight	Outer Diam.	Voltage	Current	Supplier
PLC		6ES7211-1AE40-0XB0	S7-1200 CPU 1211C DC/DC/DC	SIEMENS	1					
RS485 1		6ES7241-1CH30-1XB0	Modbus kaseti (Üsten)	SIEMENS	1					
F1		A9F84432	H32A-4P	SCHNEIDER	1					
F1-B		A9A26476	ACTIRMA BOBIN	SCHNEIDER	1					
F2		A9F74202	C2A-2P	SCHNEIDER	1					
F3		A9F74204	C2A-2P	SCHNEIDER	1					
F4		A9F74204	C2A-2P	SCHNEIDER	1					
F5		A9D34606	KACAK AKIM 6A(30mA)	SCHNEIDER	1					
F6		2CSM204753R1801	E 93/32	ABB	1					
F7		A9F84406	H6A-4P	SCHNEIDER	1					
F8		A9F84406	H6A-4P	SCHNEIDER	1					
F9		DF81	Fuse carrier TeSys DF, 1P 25A, fuse size 8.5x31.5 mm	SCHNEIDER	1					
F10		DF81	Fuse carrier TeSys DF, 1P 25A, fuse size 8.5x31.5 mm	SCHNEIDER	1					
F11		DF81	Fuse carrier TeSys DF, 1P 25A, fuse size 8.5x31.5 mm	SCHNEIDER	1					
F12		DF81	Fuse carrier TeSys DF, 1P 25A, fuse size 8.5x31.5 mm	SCHNEIDER	1					
F13		DF81	Fuse carrier TeSys DF, 1P 25A, fuse size 8.5x31.5 mm	SCHNEIDER	1					
F14		DF81	Fuse carrier TeSys DF, 1P 25A, fuse size 8.5x31.5 mm	SCHNEIDER	1					
F15		DF81	Fuse carrier TeSys DF, 1P 25A, fuse size 8.5x31.5 mm	SCHNEIDER	1					
F16		DF81	Fuse carrier TeSys DF, 1P 25A, fuse size 8.5x31.5 mm	SCHNEIDER	1					
F17		DF81	Fuse carrier TeSys DF, 1P 25A, fuse size 8.5x31.5 mm	SCHNEIDER	1					
V1		9KV-AA120-0250	ANALOG VOLTMETRE	SCHNEIDER	1					
V2		9KV-AA120-0250	ANALOG VOLTMETRE	SCHNEIDER	1					
V3		9KV-AA120-0250	ANALOG VOLTMETRE	SCHNEIDER	1					
S1		VCF0	LOTO ANAHTAR	SCHNEIDER	1					
S2		XB4BS8442	T.MEKANİK PLS ACİL STOP KIRMIZI	SCHNEIDER	1					
S3		L5K13MIP311	KAPAK SWITCH-ACISAL HAREKETLİ 14 MM. PLS. MAKARALI KOL	SCHNEIDER	1					
R1		WMU1122770000	24VOLT SLIM ROLE 6A	WEIDMULLER	1					
BARA1		GW-4X15	4 KUTUP DAGITIM BARASI 500V	GWEST	1					
BARA2		GW-4X11	4 KUTUP DAGITIM BARASI 500V	GWEST	1					
LAMP		ACK AN10	Ack 7,5W 6500K Beyaz Merkür LED Bant Armatür AN10-00730	ACK	1					
PANO		HM 90 60 30	D MONOBLOK	EAE	1					
PS		S8VK-C06024	OMRON 2.5 A GÜÇ KAYNAGI	OMRON	1					
PS		S8VK-C12024	OMRON 5 A GÜÇ KAYNAGI	OMRON	1					
Q1		LC1D09M7	TeSys D kontaktör - 3P(3 NA) - AC-3 - <= 440 V 9 A - 220 V AC bobin	SCHNEIDER	1					
KONTAK		LADN20	TeSys D - yardımcı kontak BLOĞU - 2 NA	SCHNEIDER	1					
PRIZ		Çp 6801	RAY TİPİ PRİZ	CETINKAYA	1					
R2		WMU1122770000	24VOLT SLIM ROLE 6A	WEIDMULLER						

	Modifications Since Previous Revision
Modification #1	
Modification #2	
Modification #3	

M40
A LIST OF MATERIALS

Document Number:	Sheet: 11 of 18	Rev. Date:	Rev.:
		Cre. Date: 5.05.2023	
		Sheet Created by:	

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Terminal Strip

X1

No.	Term.	Sheet	Line			
1	○	5	0	5.12	5.12	S1:2
2	○	5	0	5.13	5.13	S1:4
3	⊙	5	0	5.14	5.14	S1:6
	⊙			5.14	5.14	S3:1
4	⊙	5	1	5.15	5.15	F2:1
	⊙			5.15	5.15	S1:2
5	○	5	1			PE

Terminal Strip

X3

No.	Term.	Sheet	Line			
1	○	8	1	8.5	8.5	F8:2
2	○	8	2	8.6	8.6	F8:4
3	○	8	3	8.7	8.7	F8:6
4	○	8	4	8.8	8.8	F8:8
5	○	8	5			PE

X2

No.	Term.	Sheet	Line	
1	○	8	1	F7:2
2	○	8	2	F7:4
3	○	8	3	F7:6
4	○	8	4	F7:8
5	○	8	5	PE

X4

No.	Term.	Sheet	Line			
1	○	5	1	5.90	5.90	S2:1
2	⊙	5	1	5.91	5.91	F1-B:2
	⊙			5.91	5.91	F4-B:2

zake		TERMINAL STRIPS	Proje: M40	Proje Çizen: MUHAMMED KARABULUT	Onaylayan: MELİH CAN ÖZTÜRK	Sayfa: 12
			Tarih: 4.05.2023	Rev:	Proje Id:	Toplam Sayfa: 17 / Sonraki Sayfa: 13

Terminal Strip

Y1

	No.	Term.	Sheet	Line			
AST2BRU7+	1	○	9	1	9.1	9.1	F11:2
AST2BRU7-	2	○	9	1	5.22	5.22	GND
AST1BRU9+	4	○	9	2	9.4	9.4	F12:2
AST1BRU9-	5	○	9	2	5.22	5.22	GND
AST2BRU4+	7	○	9	3	9.7	9.7	F13:2
AST2BRU4-	8	○	9	3	5.22	5.22	GND
AST1BRU4+	10	○	9	5	9.10	9.10	F14:2
AST1BRU4-	11	○	9	5	5.22	5.22	GND
YEDEK1+	13	○	9	6	9.13	9.13	F15:2
YEDEK1-	14	○	9	6	5.22	5.22	GND
YEDEK2+	16	○	9	7	9.16	9.16	F16:2
YEDEK2-	17	○	9	7	5.22	5.22	GND
YEDEK3+	19	○	9	9	9.19	9.19	F17:2
YEDEK3-	20	○	9	9	5.22	5.22	GND

Terminal Strip

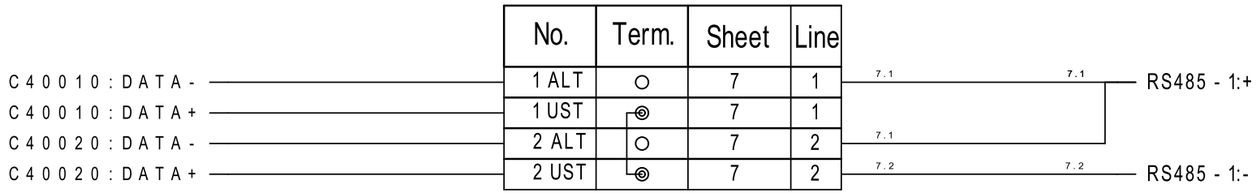
Y2

No.	Term.	Sheet	Line			
1 UST	○	10	2	10.3	10.3	R1:NO
1 ALT	○			10.2	10.2	R1:COM
2 UST	○	10	5	10.5	10.5	R2:NO
2 ALT	○			10.4	10.4	R2:COM

zake		TERMINAL STRIPS	Proje: M40	Proje Çizen: MUHAMMED KARABULUT	Onaylayan: MELİH CAN ÖZTÜRK	Sayfa: 13
			Tarih: 4.05.2023	Rev:	Proje Id:	Toplam Sayfa: 17 / Sonraki Sayfa: 14

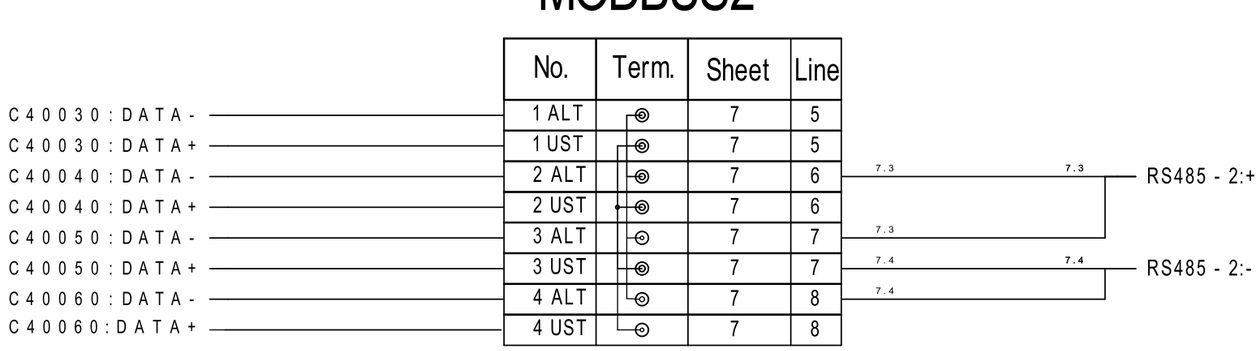
Terminal Strip

MODBUS1



Terminal Strip

MODBUS2



zake		TERMINAL STRIPS	Proje: M40	Proje Çizen: MUHAMMED KARABULUT	Onaylayan: MELİH CAN ÖZTÜRK	Sayfa: 14
			Tarih: 11.07.2023	Rev:	Proje Id:	Toplam Sayfa: 17 / Sonraki Sayfa: