



Before installing this product, please read this installation manual carefully.

Installation must be performed in accordance with national electrical installation standards and only by authorized personnel. After reading it carefully, keep this installation manual for future reference.

EN

**Connection diagrams
for EC motors 1.5kW, 2.4kW, 3.3kW,
5.25kW to VENTUS control gears**

CE

***Appendix to the CG UPC Instruction for VENTUS
Air Handling Units***

ventus

IOMM CG UPC – Appendix 1 - ver. 2.0.0 (11.2025)



ATTENTION!

- ! INSTALLATION, MAINTENANCE, AND REPAIRS MUST BE PERFORMED BY QUALIFIED TECHNICAL PERSONNEL OR SUPERVISED BY AUTHORIZED SPECIALISTS.
- ! INSTALLATION, COMMISSIONING, AND SERVICING OF AIR HANDLING UNITS AND THEIR EQUIPMENT MAY INVOLVE CERTAIN SAFETY RISKS AND THUS REQUIRES SPECIFIC KNOWLEDGE AND TRAINING.
- ! WHEN CONNECTING, SERVICING, AND USING AIR HANDLING UNITS, ALL PRECAUTIONS COMMUNICATED BY THE MANUFACTURER AND THOSE RESULTING FROM GOOD PRACTICES FOR HVAC INSTALLATION AND EQUIPMENT MUST BE OBSERVED.
- ! THE TERM "QUALIFIED TECHNICAL PERSONNEL" REFERS TO TRAINED SPECIALISTS WHO, THANKS TO THEIR PROFESSIONAL EXPERIENCE AND KNOWLEDGE OF THE RELEVANT STANDARDS, DOCUMENTATION, AND REGULATIONS REGARDING OPERATING PROCEDURES AND RELATED SAFETY, ARE AUTHORIZED TO PERFORM THE NECESSARY ACTIVITIES, AS WELL AS THOSE WHO IS ABLE TO DIAGNOSE AND CORRECT ANY POTENTIAL PROBLEMS. ALL ELECTRICAL WORK MAY BE PERFORMED BY A LICENSED ELECTRICIAN WHO HAS AT LEAST A CERTIFICATE OF QUALIFICATION FOR THE OPERATION OF DEVICES, INSTALLATIONS, AND NETWORKS (E1) AND A CERTIFICATE OF QUALIFICATION FOR SUPERVISION OF DEVICES, INSTALLATIONS, AND NETWORKS (D1).
- ! IF THE DEVICE IS EQUIPPED WITH COMPONENTS OR IS CONNECTED TO INSTALLATIONS THAT REQUIRE E2 AND D2 QUALIFICATIONS, THE INSTALLER AND TECHNICAL SUPERVISION PERSON MUST HAVE SUCH QUALIFICATIONS.
- ! ALWAYS INSTALL A DEDICATED CIRCUIT AND BREAKER. IMPROPER WIRING OR INSTALLATION CAN CAUSE FIRE OR ELECTRIC SHOCK.
- ! IF THE POWER SUPPLY IS IMPROPERLY RATED OR ELECTRICAL WORK IS PERFORMED IMPROPERLY, ELECTRIC SHOCK OR FIRE MAY OCCUR.
- ! DO NOT USE A DAMAGED OR INCORRECTLY SELECTED BREAKER OR CABLE.



DANGER!

- ! ALWAYS INSTALL A DEDICATED CIRCUIT AND BREAKER.
- ! IMPROPER WIRING OR INSTALLATION CAN CAUSE FIRE OR ELECTRIC SHOCK.
- ! IF THE POWER SUPPLY IS IMPROPERLY RATED OR ELECTRICAL WORK IS PERFORMED IMPROPERLY, ELECTRIC SHOCK OR FIRE MAY OCCUR.
- ! DO NOT USE A DAMAGED OR INCORRECTLY SELECTED BREAKER OR CABLE..



ATTENTION!

- ! WARRANTY REPAIRS MAY ONLY BE PERFORMED BY SERVICE PERSONNEL WITH AUTHORIZATIONS GRANTED BY VTS, CONFIRMED BY AN APPROPRIATE CERTIFICATE PERMITTING THEM TO PERFORM THIS TYPE OF WORK. WE ALSO RECOMMEND THAT A VTS-AUTHORIZED SERVICE PERFORM INSTALLATION, COMMISSIONING, POST-WARRANTY REPAIRS, TECHNICAL INSPECTIONS, AND MAINTENANCE WORK REQUIRED FOR AIR HANDLING UNITS.
- ! VTS RESERVES THE RIGHT TO MAKE CHANGES WITHOUT PRIOR NOTICE.



INFORMATION FOR USERS ON THE CORRECT HANDLING OF ELECTRICAL AND ELECTRONIC WASTE (WEEE).

IN ACCORDANCE WITH THE EUROPEAN UNION DIRECTIVE 2002/96/EC ISSUED ON 27 JANUARY 2003 AND RELATED NATIONAL REGULATIONS, PLEASE NOTE THAT:

- ! WASTE ELECTRICAL AND ELECTRONIC EQUIPMENT (WEEE) CANNOT BE DISPOSED OF AS MUNICIPAL WASTE, AND SUCH WASTE MUST BE COLLECTED AND DISPOSED OF SEPARATELY.
- ! PUBLIC OR PRIVATE WASTE COLLECTION SYSTEMS SHOULD BE USED AS DEFINED IN LOCAL REGULATIONS.
- ! EQUIPMENT MAY CONTAIN HAZARDOUS SUBSTANCES: IMPROPER USE OR IMPROPER DISPOSAL OF SUBSTANCES MAY HAVE A NEGATIVE EFFECT ON HUMAN HEALTH AND THE ENVIRONMENT.
- ! THE SYMBOL (CROSSED-OUT WASTE BIN) ON THE PRODUCT OR ON THE PACKAGING AND IN THE TECHNICAL LEAFLET MEANS THAT THE EQUIPMENT WAS PLACED ON THE MARKET AFTER 13 AUGUST 2005 AND MUST BE DISPOSED OF SEPARATELY! BY SEPARATEING AND SUBMITTING USED ELECTRICAL AND ELECTRONIC EQUIPMENT FOR PROCESSING, RECOVERY, RECYCLING, AND DISPOSAL, YOU PROTECT THE ENVIRONMENT FROM POLLUTION AND CONTAMINATION, CONTRIBUTE TO REDUCING THE CONSUMPTION OF NATURAL RESOURCES, AND REDUCING THE COSTS OF PRODUCING NEW EQUIPMENT.
- ! IN THE CASE OF ILLEGAL DISPOSAL OF ELECTRICAL AND ELECTRONIC WASTE, PENALTIES ARE SET OUT IN LOCAL WASTE DISPOSAL REGULATIONS.

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1 WIRING GUIDANCE

Fan sections with EC motors in VENTUS modular AIR HANDLING UNITS

AHU	FAN SECTION	FLA [A]	MCA [A]	M.C.B. [A]	MAX [rpm]	IMPELLER [-]	WIRE
VVS030	315/1.5kW x1	2,9	10	10	3250	315	4x1,5 mm ²
VVS040	315/1.5kW x1	2,9	10	10	3250	315	4x1,5 mm ²
VVS055	315/1.5kW x2	5,8	10	10	3250	315	4x1,5 mm ²
VVS075	315/1.5kW x2	5,8	10	10	3250	315	4x1,5 mm ²
VVS075	315/1.5kW x3	8,7	16	10	3250	315	4x1,5 mm ²
VVS075	355/2.4kW x2	10,2	16	16	3200	355	4x1,5 mm ²
VVS100	355/2.4kW x2	10,2	16	16	3200	355	4x1,5 mm ²
VVS100	355/2.4kW x3	15,3	20	20	3200	355	4x1,5 mm ²
VVS120	355/2.4kW x2	10,2	16	16	3200	355	4x1,5 mm ²
VVS120	355/2.4kW x3	15,3	20	20	3200	355	4x1,5 mm ²
VVS150	355/2.4kW x3	15,3	20	20	3200	355	4x1,5 mm ²
VVS150	355/2.4kW x4	20,4	25	25	3200	355	4x4,0 mm ²
VVS180	355/2.4kW x4	20,4	25	25	3200	355	4x4,0 mm ²
VVS180	355/2.4kW x5	25,5	32	32	3200	355	4x4,0 mm ²
VVS180	355/2.4kW x6	30,6	40	40	3200	355	4x6,0 mm ²
VVS230	355/2.4kW x4	20,4	25	25	3200	355	4x4,0 mm ²
VVS230	355/2.4kW x5	25,5	32	32	3200	355	4x4,0 mm ²
VVS230	355/2.4kW x6	30,6	40	40	3200	355	4x6,0 mm ²
VVS230	355/2.4kW x7	35,7	40	40	3200	355	4x6,0 mm ²
VVS300	355/2.4kW x5	25,5	32	32	3200	355	4x4,0 mm ²
VVS300	355/2.4kW x6	30,6	40	40	3200	355	4x6,0 mm ²
VVS300	355/2.4kW x8	40,8	50	50	3200	355	4x10,0 mm ²
VVS400	450 3.3kW x5	25,5	32	40	2200	450	4x6,0 mm ²
VVS400	450 5.25kW x5	40,5	50,6	63	2600	450	4x16 mm ²
VVS500	450 3.3kW x6	30,6	38,2	50	2200	450	4x10 mm ²
VVS500	450 5.25kW x6	48,6	60,7	80	2600	450	4x16 mm ²
VVS650	450 3.3kW x8	40,8	51,0	63	2200	450	4x16 mm ²
VVS650	450 5.25kW x8	64,8	81,0	100	2600	450	4x25 mm ²

2 RATED POWER SUPPLY CURRENTS OF 3X400V~ CG

Rated currents [A] of power supply of Control Gear CG UPC at voltage 3x400V~ for VENTUS modular control units equipped with EC motors.

SUPPLY → ↓ EXHAUST		1.5kW x1	1.5kW x2	1.5kW x3	2.4kW x2	2.4kW x3	2.4kW x4	2.4kW x5	2.4kW x6	2.4kW x7	2.4kW x8
-	L1	4,9	7,8	10,7	12,2	17,3	22,4	27,5	32,6	37,7	42,8
	L2	4,4	7,3	10,2	11,7	16,8	21,9	27,0	32,1	37,2	42,3
	L3	9,9	12,8	15,7	17,2	22,3	27,4	32,5	37,6	42,7	47,8
1.5kW x1	L1	7,8	10,7	13,6	15,1	20,2	25,3	30,4	35,5	40,6	45,7
	L2	7,3	10,2	13,1	14,6	19,7	24,8	29,9	35,0	40,1	45,2
	L3	12,8	15,7	18,6	20,1	25,2	30,3	35,4	40,5	45,6	50,7
1.5kW x2	L1	10,7	13,6	16,5	18,0	23,1	28,2	33,3	38,4	43,5	48,6
	L2	10,2	13,1	16,0	17,5	22,6	27,7	32,8	37,9	43,0	48,1
	L3	15,7	18,6	21,5	23,0	28,1	33,2	38,3	43,4	48,5	53,6
1.5kW x3	L1	13,6	16,5	19,4	20,9	26,0	31,1	36,2	41,3	46,4	51,5
	L2	13,1	16,0	18,9	20,4	25,5	30,6	35,7	40,8	45,9	51,0
	L3	18,6	21,5	24,4	25,9	31,0	36,1	41,2	46,3	51,4	56,5
2.4kW x2	L1	15,1	18,0	20,9	22,4	27,5	32,6	37,7	42,8	47,9	53,0
	L2	14,6	17,5	20,4	21,9	27,0	32,1	37,2	42,3	47,4	52,5
	L3	20,1	23,0	25,9	27,4	32,5	37,6	42,7	47,8	52,9	58,0
2.4kW x3	L1	20,2	23,1	26,0	27,5	32,6	37,7	42,8	47,9	53,0	58,1
	L2	19,7	22,6	25,5	27,0	32,1	37,2	42,3	47,4	52,5	57,6
	L3	25,2	28,1	31,0	32,5	37,6	42,7	47,8	52,9	58,0	63,1
2.4kW x4	L1	25,3	28,2	31,1	32,6	37,7	42,8	47,9	53,0	58,1	63,2
	L2	24,8	27,7	30,6	32,1	37,2	42,3	47,4	52,5	57,6	62,7
	L3	30,3	33,2	36,1	37,6	42,7	47,8	52,9	58,0	63,1	68,2
2.4kW x5	L1	30,4	33,3	36,2	37,7	42,8	47,9	53,0	58,1	63,2	68,3
	L2	29,9	32,8	35,7	37,2	42,3	47,4	52,5	57,6	62,7	67,8
	L3	35,4	38,3	41,2	42,7	47,8	52,9	58,0	63,1	68,2	73,3
2.4kW x6	L1	35,5	38,4	41,3	42,8	47,9	53,0	58,1	63,2	68,3	73,4
	L2	35,0	37,9	40,8	42,3	47,4	52,5	57,6	62,7	67,8	72,9
	L3	40,5	43,4	46,3	47,8	52,9	58,0	63,1	68,2	73,3	78,4
2.4kW x7	L1	40,6	43,5	46,4	47,9	53,0	58,1	63,2	68,3	73,4	78,5
	L2	40,1	43,0	45,9	47,4	52,5	57,6	62,7	67,8	72,9	78,0
	L3	45,6	48,5	51,4	52,9	58,0	63,1	68,2	73,3	78,4	83,5
2.4kW x8	L1	45,7	48,6	51,5	53,0	58,1	63,2	68,3	73,4	78,5	83,6
	L2	45,2	48,1	51,0	52,5	57,6	62,7	67,8	72,9	78,0	83,1
	L3	50,7	53,6	56,5	58,0	63,1	68,2	73,3	78,4	83,5	88,6

Rated currents [A] of power supply of Control Gear CG UPC at voltage 3x400V~ for VENTUS modular control units equipped with EC motors.

SUPPLY →		1.5kW	1.5kW	1.5kW	2.4kW	2.4kW	2.4kW	2.4kW	2.4kW	2.4kW	2.4kW
EXHAUST ↓		x1	x2	x3	x2	x3	x4	x5	x6	x7	x8
3.3kW x5	L1	30,4	33,3	36,2	37,7	42,8	47,9	53,0	58,1	63,2	68,3
	L2	29,9	32,8	35,7	37,2	42,3	47,4	52,5	57,6	62,7	67,8
	L3	35,4	38,3	41,2	42,7	47,8	52,9	58,0	63,1	68,2	73,3
5.25kW x5	L1	45,4	48,3	51,2	52,7	57,8	62,9	68,0	73,1	78,2	83,3
	L2	44,9	47,8	50,7	52,2	57,3	62,4	67,5	72,6	77,7	82,8
	L3	50,4	53,3	56,2	57,7	62,8	67,9	73,0	78,1	83,2	88,3
3.3kW x6	L1	35,5	38,4	41,3	42,8	47,9	53,0	58,1	63,2	68,3	73,4
	L2	35,0	37,9	40,8	42,3	47,4	52,5	57,6	62,7	67,8	72,9
	L3	40,5	43,4	46,3	47,8	52,9	58,0	63,1	68,2	73,3	78,4
5.25kW x6	L1	53,5	56,4	59,3	60,8	65,9	71,0	76,1	81,2	86,3	91,4
	L2	53,0	55,9	58,8	60,3	65,4	70,5	75,6	80,7	85,8	90,9
	L3	58,5	61,4	64,3	65,8	70,9	76,0	81,1	86,2	91,3	96,4
3.3kW x8	L1	45,7	48,6	51,5	53,0	58,1	63,2	68,3	73,4	78,5	83,6
	L2	45,2	48,1	51,0	52,5	57,6	62,7	67,8	72,9	78,0	83,1
	L3	50,7	53,6	56,5	58,0	63,1	68,2	73,3	78,4	83,5	88,6
5.25kW x8	L1	69,7	72,6	75,5	77,0	82,1	87,2	92,3	97,4	102,5	107,6
	L2	69,2	72,1	75,0	76,5	81,6	86,7	91,8	96,9	102,0	107,1
	L3	74,7	77,6	80,5	82,0	87,1	92,2	97,3	102,4	107,5	112,6

Rated currents [A] of power supply of Control Gear CG UPC at voltage 3x400V~ for VENTUS modular control units equipped with EC motors.

SUPPLY→		3.3kW	5.25kW	3.3kW	5.25kW	3.3kW	5.25kW
EXHAUST↓		x5	x5	x6	x6	x8	x8
-	L1	27,5	42,5	32,6	50,6	42,8	66,8
	L2	27,0	42,0	32,1	50,1	42,3	66,3
	L3	32,5	47,5	37,6	55,6	47,8	71,8
1.5kW x1	L1	30,4	45,4	35,5	53,5	45,7	69,7
	L2	29,9	44,9	35,0	53,0	45,2	69,2
	L3	35,4	50,4	40,5	58,5	50,7	74,7
1.5kW x2	L1	33,3	48,3	38,4	56,4	48,6	72,6
	L2	32,8	47,8	37,9	55,9	48,1	72,1
	L3	38,3	53,3	43,4	61,4	53,6	77,6
1.5kW x3	L1	36,2	51,2	41,3	59,3	51,5	75,5
	L2	35,7	50,7	40,8	58,8	51,0	75,0
	L3	41,2	56,2	46,3	64,3	56,5	80,5
2.4kW x2	L1	37,7	52,7	42,8	60,8	53,0	77,0
	L2	37,2	52,2	42,3	60,3	52,5	76,5
	L3	42,7	57,7	47,8	65,8	58,0	82,0
2.4kW x3	L1	42,8	57,8	47,9	65,9	58,1	82,1
	L2	42,3	57,3	47,4	65,4	57,6	81,6
	L3	47,8	62,8	52,9	70,9	63,1	87,1
2.4kW x4	L1	47,9	62,9	53,0	71,0	63,2	87,2
	L2	47,4	62,4	52,5	70,5	62,7	86,7
	L3	52,9	67,9	58,0	76,0	68,2	92,2
2.4kW x5	L1	53,0	68,0	58,1	76,1	68,3	92,3
	L2	52,5	67,5	57,6	75,6	67,8	91,8
	L3	58,0	73,0	63,1	81,1	73,3	97,3
2.4kW x6	L1	58,1	73,1	63,2	81,2	73,4	97,4
	L2	57,6	72,6	62,7	80,7	72,9	96,9
	L3	63,1	78,1	68,2	86,2	78,4	102,4
2.4kW x7	L1	63,2	78,2	68,3	86,3	78,5	102,5
	L2	62,7	77,7	67,8	85,8	78,0	102,0
	L3	68,2	83,2	73,3	91,3	83,5	107,5
2.4kW x8	L1	68,3	83,3	73,4	91,4	83,6	107,6
	L2	67,8	82,8	72,9	90,9	83,1	107,1
	L3	73,3	88,3	78,4	96,4	88,6	112,6

Rated currents [A] of power supply of Control Gear CG UPC at voltage 3x400V~ for VENTUS modular control units equipped with EC motors.

SUPPLY→		3.3kW	5.25kW	3.3kW	5.25kW	3.3kW	5.25kW
EXHAUST ↓		x5	x5	x6	x6	x8	x8
3.3kW x5	L1	53,0	68,0	58,1	76,1	68,3	92,3
	L2	52,5	67,5	57,6	75,6	67,8	91,8
	L3	58,0	73,0	63,1	81,1	73,3	97,3
5.25kW x5	L1	68,0	83,0	73,1	91,1	83,3	107,3
	L2	67,5	82,5	72,6	90,6	82,8	106,8
	L3	73,0	88,0	78,1	96,1	88,3	112,3
3.3kW x6	L1	58,1	73,1	63,2	81,2	73,4	97,4
	L2	57,6	72,6	62,7	80,7	72,9	96,9
	L3	63,1	78,1	68,2	86,2	78,4	102,4
5.25kW x6	L1	76,1	91,1	81,2	99,2	91,4	115,4
	L2	75,6	90,6	80,7	98,7	90,9	114,9
	L3	81,1	96,1	86,2	104,2	96,4	120,4
3.3kW x8	L1	68,3	83,3	73,4	91,4	83,6	107,6
	L2	67,8	82,8	72,9	90,9	83,1	107,1
	L3	73,3	88,3	78,4	96,4	88,6	112,6
5.25kW x8	L1	92,3	107,3	97,4	115,4	107,6	131,6
	L2	91,8	106,8	96,9	114,9	107,1	131,1
	L3	97,3	112,3	102,4	120,4	112,6	136,6

3 POWER SUPPLY CABLES FOR CG 3X400V~

Below are the minimum cross-sectional areas [mm²] of electrical wires powering CG UPC distribution boards, assuming their length does not exceed 10m and they are not exposed to significant heat (hot technical areas, hot climate zones, roof exposure to sunlight). For longer distances or locations in hot areas, their cross-sectional area should be adjusted based on factors specified in industry regulations and standards.

SUPPLY → EXHAUST ↓		1.5kW x1	1.5kW x2	1.5kW x3	2.4kW x2	2.4kW x3	2.4kW x4	2.4kW x5	2.4kW x6	2.4kW x7	2.4kW x8
-	L1	1,5	1,5	2,5	2,5	4,0	4,0	6,0	10,0	10,0	10,0
	L2	1,5	1,5	2,5	2,5	4,0	4,0	6,0	10,0	10,0	10,0
	L3	1,5	1,5	2,5	2,5	4,0	4,0	6,0	10,0	10,0	10,0
1.5kW x1	L1	1,5	2,5	2,5	4,0	4,0	6,0	10,0	10,0	10,0	16,0
	L2	1,5	2,5	2,5	4,0	4,0	6,0	10,0	10,0	10,0	16,0
	L3	1,5	2,5	2,5	4,0	4,0	6,0	10,0	10,0	10,0	16,0
1.5kW x2	L1	2,5	2,5	4,0	4,0	6,0	6,0	10,0	10,0	16,0	16,0
	L2	2,5	2,5	4,0	4,0	6,0	6,0	10,0	10,0	16,0	16,0
	L3	2,5	2,5	4,0	4,0	6,0	6,0	10,0	10,0	16,0	16,0
1.5kW x3	L1	2,5	4,0	4,0	4,0	6,0	10,0	10,0	10,0	16,0	16,0
	L2	2,5	4,0	4,0	4,0	6,0	10,0	10,0	10,0	16,0	16,0
	L3	2,5	4,0	4,0	4,0	6,0	10,0	10,0	10,0	16,0	16,0
2.4kW x2	L1	4,0	4,0	4,0	6,0	6,0	10,0	10,0	16,0	16,0	16,0
	L2	4,0	4,0	4,0	6,0	6,0	10,0	10,0	16,0	16,0	16,0
	L3	4,0	4,0	4,0	6,0	6,0	10,0	10,0	16,0	16,0	16,0
2.4kW x3	L1	4,0	6,0	6,0	6,0	10,0	10,0	16,0	16,0	16,0	16,0
	L2	4,0	6,0	6,0	6,0	10,0	10,0	16,0	16,0	16,0	16,0
	L3	4,0	6,0	6,0	6,0	10,0	10,0	16,0	16,0	16,0	16,0
2.4kW x4	L1	6,0	6,0	10,0	10,0	10,0	16,0	16,0	16,0	16,0	25,0
	L2	6,0	6,0	10,0	10,0	10,0	16,0	16,0	16,0	16,0	25,0
	L3	6,0	6,0	10,0	10,0	10,0	16,0	16,0	16,0	16,0	25,0
2.4kW x5	L1	10,0	10,0	10,0	10,0	16,0	16,0	16,0	16,0	25,0	25,0
	L2	10,0	10,0	10,0	10,0	16,0	16,0	16,0	16,0	25,0	25,0
	L3	10,0	10,0	10,0	10,0	16,0	16,0	16,0	16,0	25,0	25,0
2.4kW x6	L1	10,0	10,0	10,0	16,0	16,0	16,0	16,0	25,0	25,0	25,0
	L2	10,0	10,0	10,0	16,0	16,0	16,0	16,0	25,0	25,0	25,0
	L3	10,0	10,0	10,0	16,0	16,0	16,0	16,0	25,0	25,0	25,0
2.4kW x7	L1	10,0	16,0	16,0	16,0	16,0	16,0	25,0	25,0	25,0	35,0
	L2	10,0	16,0	16,0	16,0	16,0	16,0	25,0	25,0	25,0	35,0
	L3	10,0	16,0	16,0	16,0	16,0	16,0	25,0	25,0	25,0	35,0
2.4kW x8	L1	16,0	16,0	16,0	16,0	16,0	25,0	25,0	25,0	35,0	35,0
	L2	16,0	16,0	16,0	16,0	16,0	25,0	25,0	25,0	35,0	35,0
	L3	16,0	16,0	16,0	16,0	16,0	25,0	25,0	25,0	35,0	35,0

Below are the minimum cross-sectional areas [mm²] of electrical wires powering CG UPC distribution boards, assuming their length does not exceed 10m and they are not exposed to significant heat (hot technical areas, hot climate zones, roof exposure to sunlight). For longer distances or locations in hot areas, their cross-sectional area should be adjusted based on factors specified in industry regulations and standards.

SUPPLY →		1.5kW x1	1.5kW x2	1.5kW x3	2.4kW x2	2.4kW x3	2.4kW x4	2.4kW x5	2.4kW x6	2.4kW x7	2.4kW x8
EXHAUST ↓											
3.3kW x5	L1	10,0	10,0	10,0	10,0	16,0	16,0	16,0	16,0	25,0	25,0
	L2	10,0	10,0	10,0	10,0	16,0	16,0	16,0	16,0	25,0	25,0
	L3	10,0	10,0	10,0	10,0	16,0	16,0	16,0	16,0	25,0	25,0
5.25kW x5	L1	16,0	16,0	16,0	16,0	16,0	25,0	25,0	25,0	35,0	35,0
	L2	16,0	16,0	16,0	16,0	16,0	25,0	25,0	25,0	35,0	35,0
	L3	16,0	16,0	16,0	16,0	16,0	25,0	25,0	25,0	35,0	35,0
3.3kW x6	L1	10,0	10,0	10,0	16,0	16,0	16,0	16,0	25,0	25,0	25,0
	L2	10,0	10,0	10,0	16,0	16,0	16,0	16,0	25,0	25,0	25,0
	L3	10,0	10,0	10,0	16,0	16,0	16,0	16,0	25,0	25,0	25,0
5.25kW x6	L1	16,0	16,0	25,0	25,0	25,0	25,0	25,0	35,0	35,0	35,0
	L2	16,0	16,0	25,0	25,0	25,0	25,0	25,0	35,0	35,0	35,0
	L3	16,0	16,0	25,0	25,0	25,0	25,0	25,0	35,0	35,0	35,0
3.3kW x8	L1	16,0	16,0	16,0	16,0	16,0	25,0	25,0	25,0	35,0	35,0
	L2	16,0	16,0	16,0	16,0	16,0	25,0	25,0	25,0	35,0	35,0
	L3	16,0	16,0	16,0	16,0	16,0	25,0	25,0	25,0	35,0	35,0
5.25kW x8	L1	25,0	25,0	25,0	25,0	35,0	35,0	35,0	35,0	50,0	50,0
	L2	25,0	25,0	25,0	25,0	35,0	35,0	35,0	35,0	50,0	50,0
	L3	25,0	25,0	25,0	25,0	35,0	35,0	35,0	35,0	50,0	50,0

Below are the minimum cross-sectional areas [mm²] of electrical wires powering CG UPC distribution boards, assuming their length does not exceed 10m and they are not exposed to significant heat (hot technical areas, hot climate zones, roof exposure to sunlight). For longer distances or locations in hot areas, their cross-sectional area should be adjusted based on factors specified in industry regulations and standards.

SUPPLY →		3.3kW	5.25kW	3.3kW	5.25kW	3.3kW	5.25kW
EXHAUST ↓		x5	x5	x6	x6	x8	x8
-	L1	6,0	10,0	10,0	16,0	10,0	25,0
	L2	6,0	10,0	10,0	16,0	10,0	25,0
	L3	6,0	10,0	10,0	16,0	10,0	25,0
1.5kW x1	L1	10,0	16,0	10,0	16,0	16,0	25,0
	L2	10,0	16,0	10,0	16,0	16,0	25,0
	L3	10,0	16,0	10,0	16,0	16,0	25,0
1.5kW x2	L1	10,0	16,0	10,0	16,0	16,0	25,0
	L2	10,0	16,0	10,0	16,0	16,0	25,0
	L3	10,0	16,0	10,0	16,0	16,0	25,0
1.5kW x3	L1	10,0	16,0	10,0	16,0	16,0	25,0
	L2	10,0	16,0	10,0	16,0	16,0	25,0
	L3	10,0	16,0	10,0	16,0	16,0	25,0
2.4kW x2	L1	10,0	16,0	16,0	25,0	16,0	25,0
	L2	10,0	16,0	16,0	25,0	16,0	25,0
	L3	10,0	16,0	16,0	25,0	16,0	25,0
2.4kW x3	L1	16,0	16,0	16,0	25,0	16,0	35,0
	L2	16,0	16,0	16,0	25,0	16,0	35,0
	L3	16,0	16,0	16,0	25,0	16,0	35,0
2.4kW x4	L1	16,0	25,0	16,0	25,0	25,0	35,0
	L2	16,0	25,0	16,0	25,0	25,0	35,0
	L3	16,0	25,0	16,0	25,0	25,0	35,0
2.4kW x5	L1	16,0	25,0	16,0	25,0	25,0	35,0
	L2	16,0	25,0	16,0	25,0	25,0	35,0
	L3	16,0	25,0	16,0	25,0	25,0	35,0
2.4kW x6	L1	16,0	25,0	25,0	35,0	25,0	35,0
	L2	16,0	25,0	25,0	35,0	25,0	35,0
	L3	16,0	25,0	25,0	35,0	25,0	35,0
2.4kW x7	L1	25,0	35,0	25,0	35,0	35,0	50,0
	L2	25,0	35,0	25,0	35,0	35,0	50,0
	L3	25,0	35,0	25,0	35,0	35,0	50,0
2.4kW x8	L1	25,0	35,0	25,0	35,0	35,0	50,0
	L2	25,0	35,0	25,0	35,0	35,0	50,0
	L3	25,0	35,0	25,0	35,0	35,0	50,0

Below are the minimum cross-sectional areas [mm²] of electrical wires powering CG UPC distribution boards, assuming their length does not exceed 10m and they are not exposed to significant heat (hot technical areas, hot climate zones, roof exposure to sunlight). For longer distances or locations in hot areas, their cross-sectional area should be adjusted based on factors specified in industry regulations and standards.

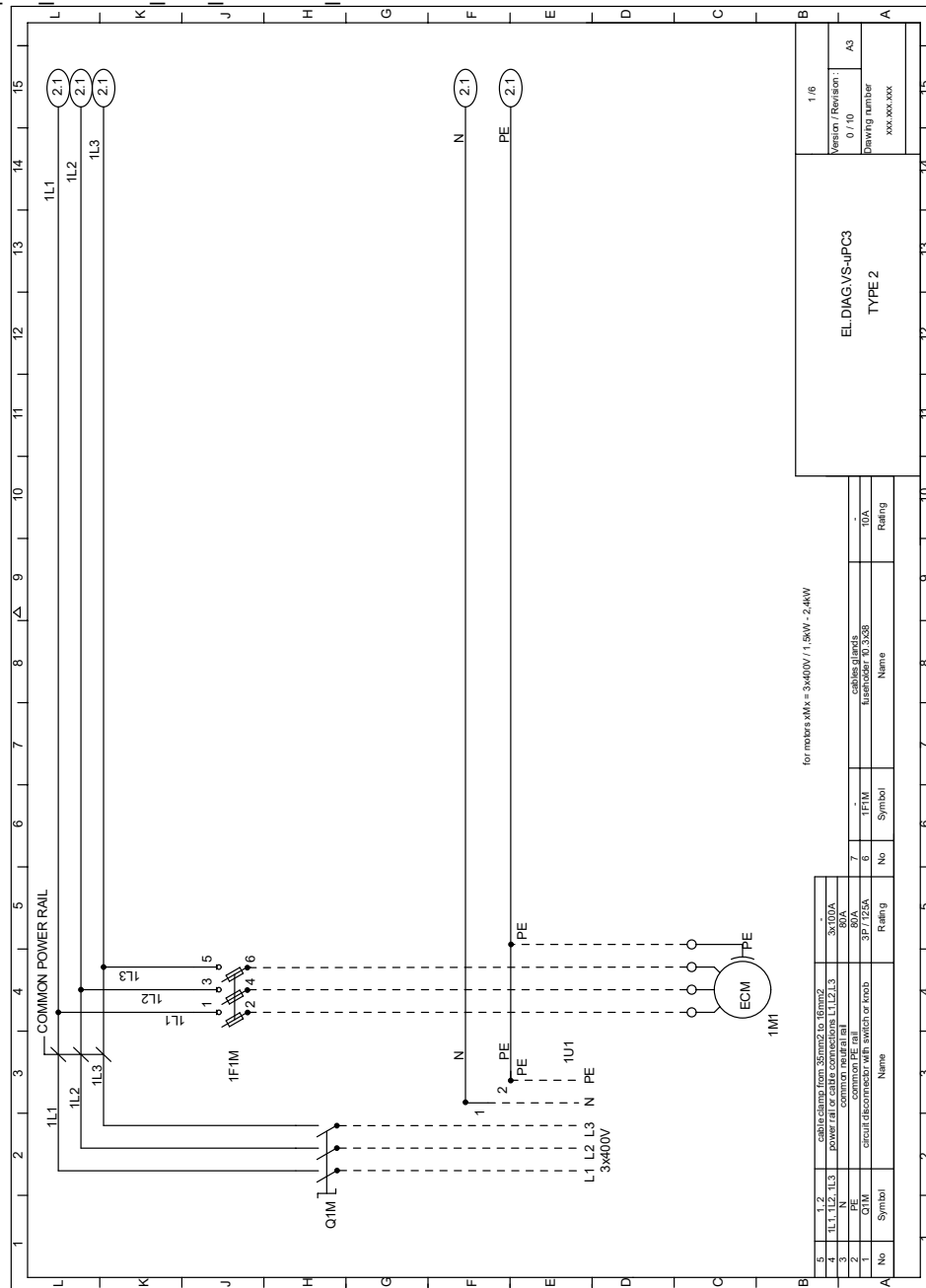
SUPPLY →		3.3kW	5.25kW	3.3kW	5.25kW	3.3kW	5.25kW
EXHAUST ↓		x5	x5	x6	x6	x8	x8
3.3kW x5	L1	16,0	25,0	16,0	25,0	25,0	35,0
	L2	16,0	25,0	16,0	25,0	25,0	35,0
	L3	16,0	25,0	16,0	25,0	25,0	35,0
5.25kW x5	L1	25,0	35,0	25,0	35,0	35,0	50,0
	L2	25,0	35,0	25,0	35,0	35,0	50,0
	L3	25,0	35,0	25,0	35,0	35,0	50,0
3.3kW x6	L1	16,0	25,0	25,0	35,0	25,0	35,0
	L2	16,0	25,0	25,0	35,0	25,0	35,0
	L3	16,0	25,0	25,0	35,0	25,0	35,0
5.25kW x6	L1	25,0	35,0	35,0	50,0	35,0	50,0
	L2	25,0	35,0	35,0	50,0	35,0	50,0
	L3	25,0	35,0	35,0	50,0	35,0	50,0
3.3kW x8	L1	25,0	35,0	25,0	35,0	35,0	50,0
	L2	25,0	35,0	25,0	35,0	35,0	50,0
	L3	25,0	35,0	25,0	35,0	35,0	50,0
5.25kW x8	L1	35,0	50,0	35,0	50,0	50,0	70,0
	L2	35,0	50,0	35,0	50,0	50,0	70,0
	L3	35,0	50,0	35,0	50,0	50,0	70,0

4 DIAGRAMS FOR CG WITH: 1.5KW OR 2.4KW

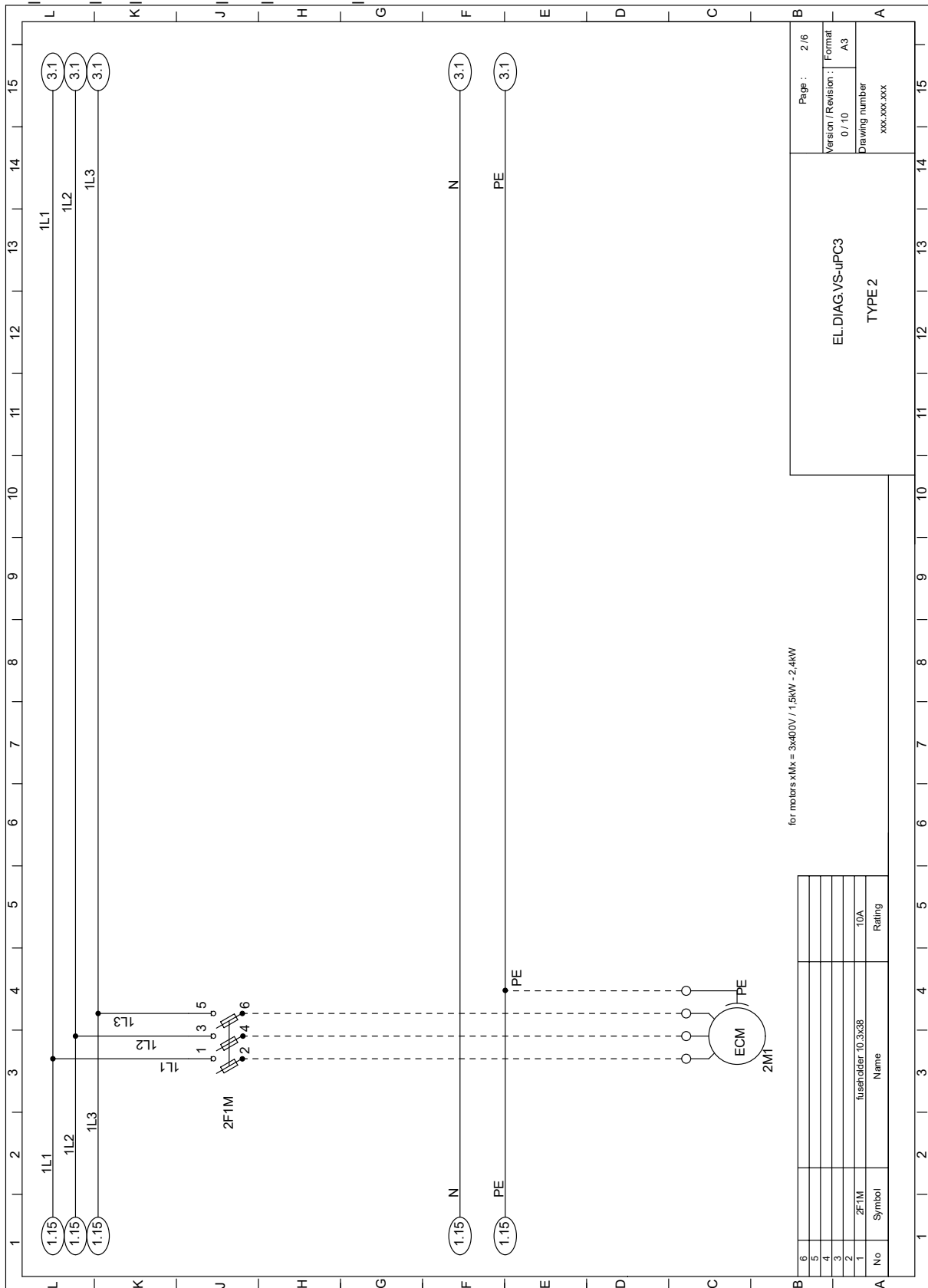
4.1 CONNECTION DIAGRAMS FOR SUPPLY-EXHAUST UNITS.

4.1.1 VVS030-VVS040- 2.4kW x 1, 1.5kW x 1

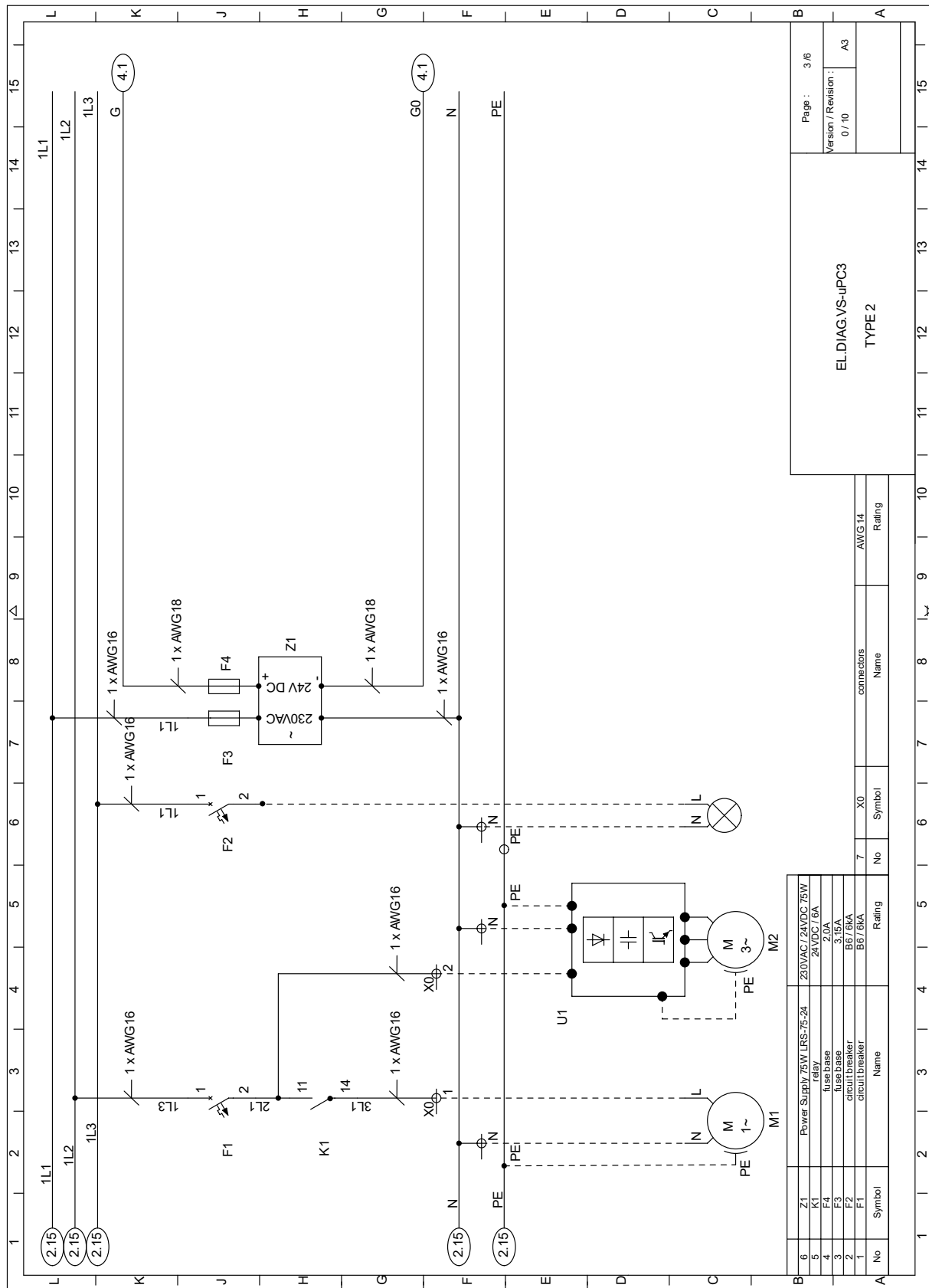
EL_DIAG_EC_VVS030_040_2.4kWx1_1/6



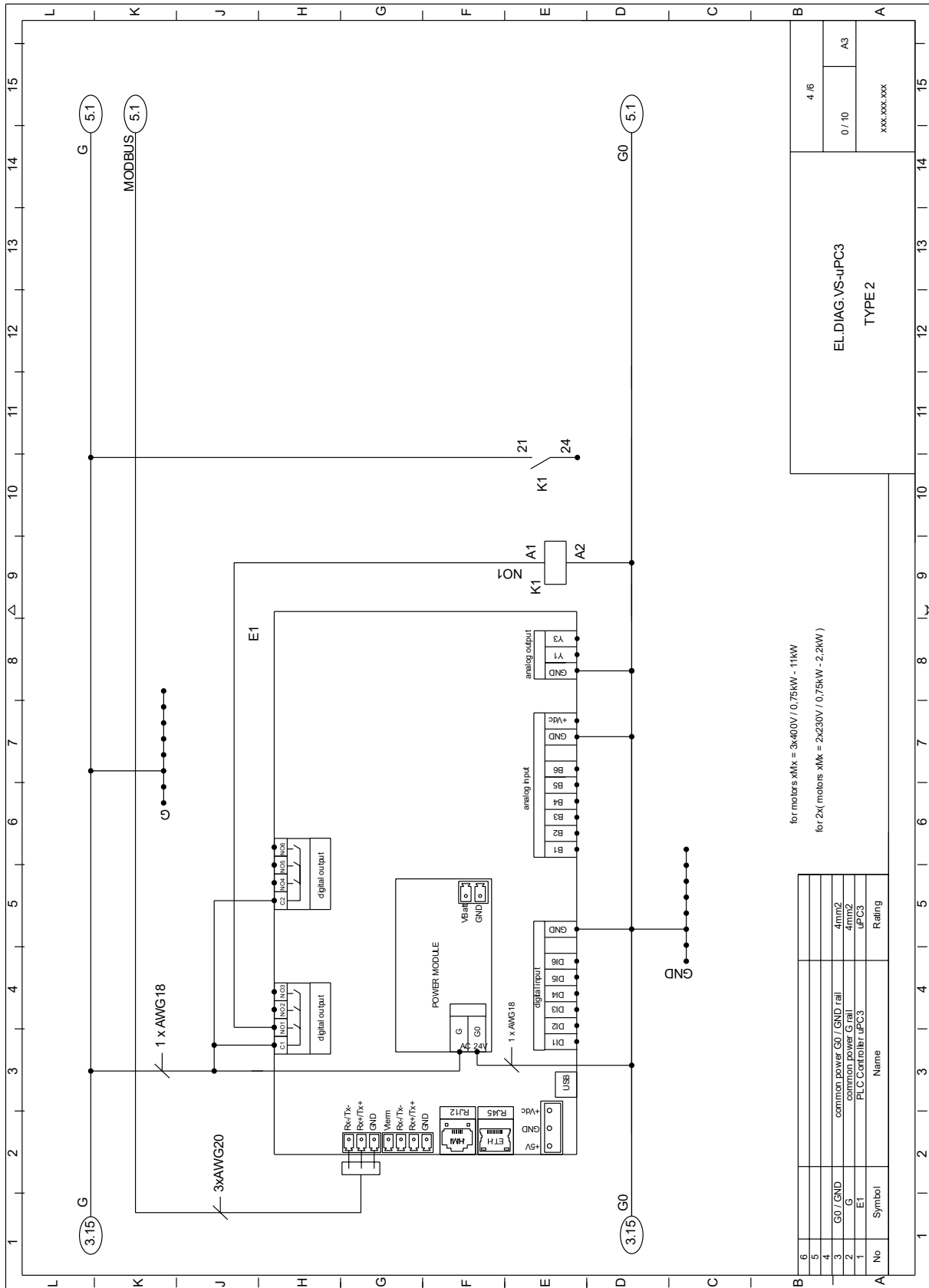
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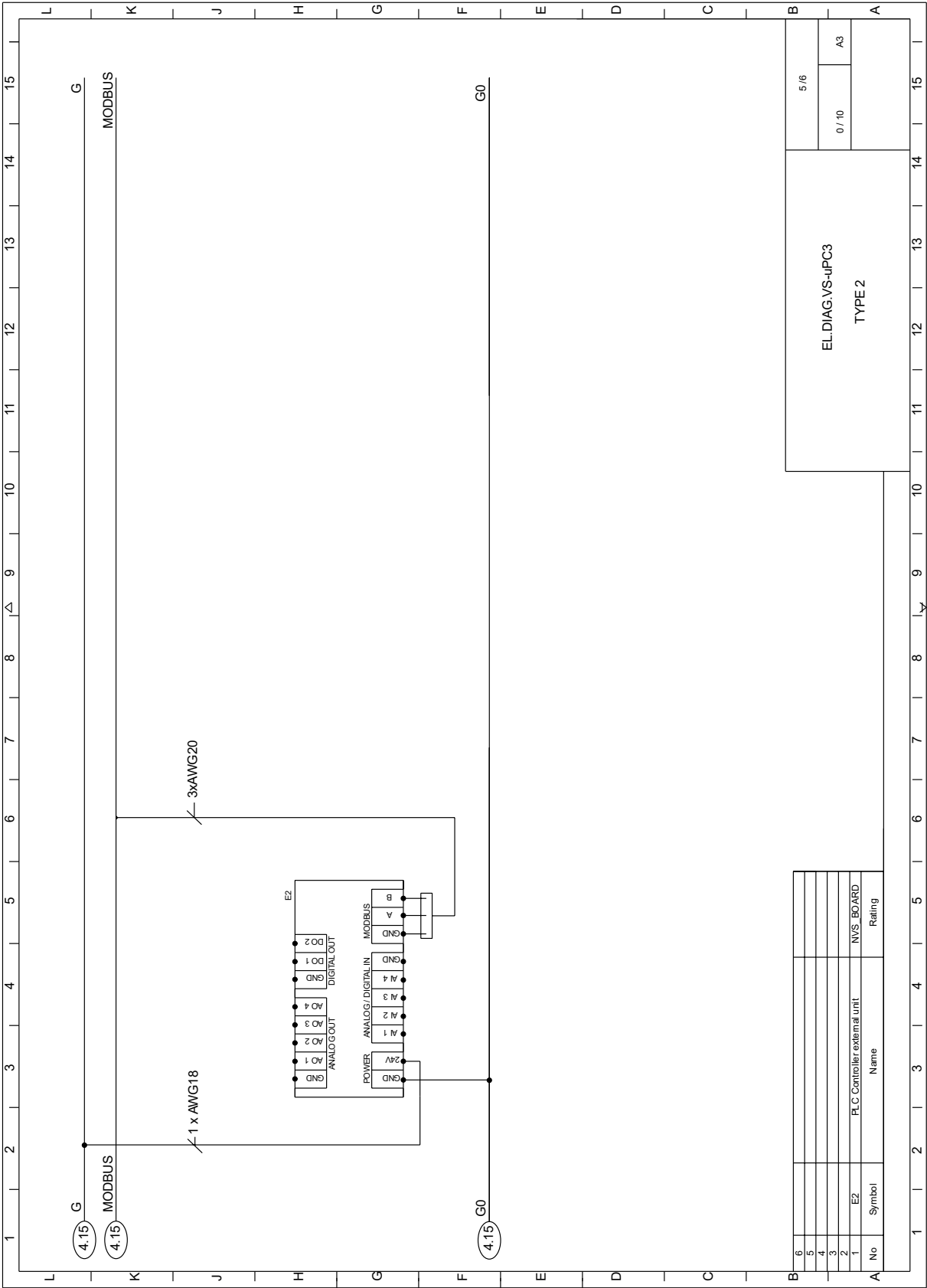


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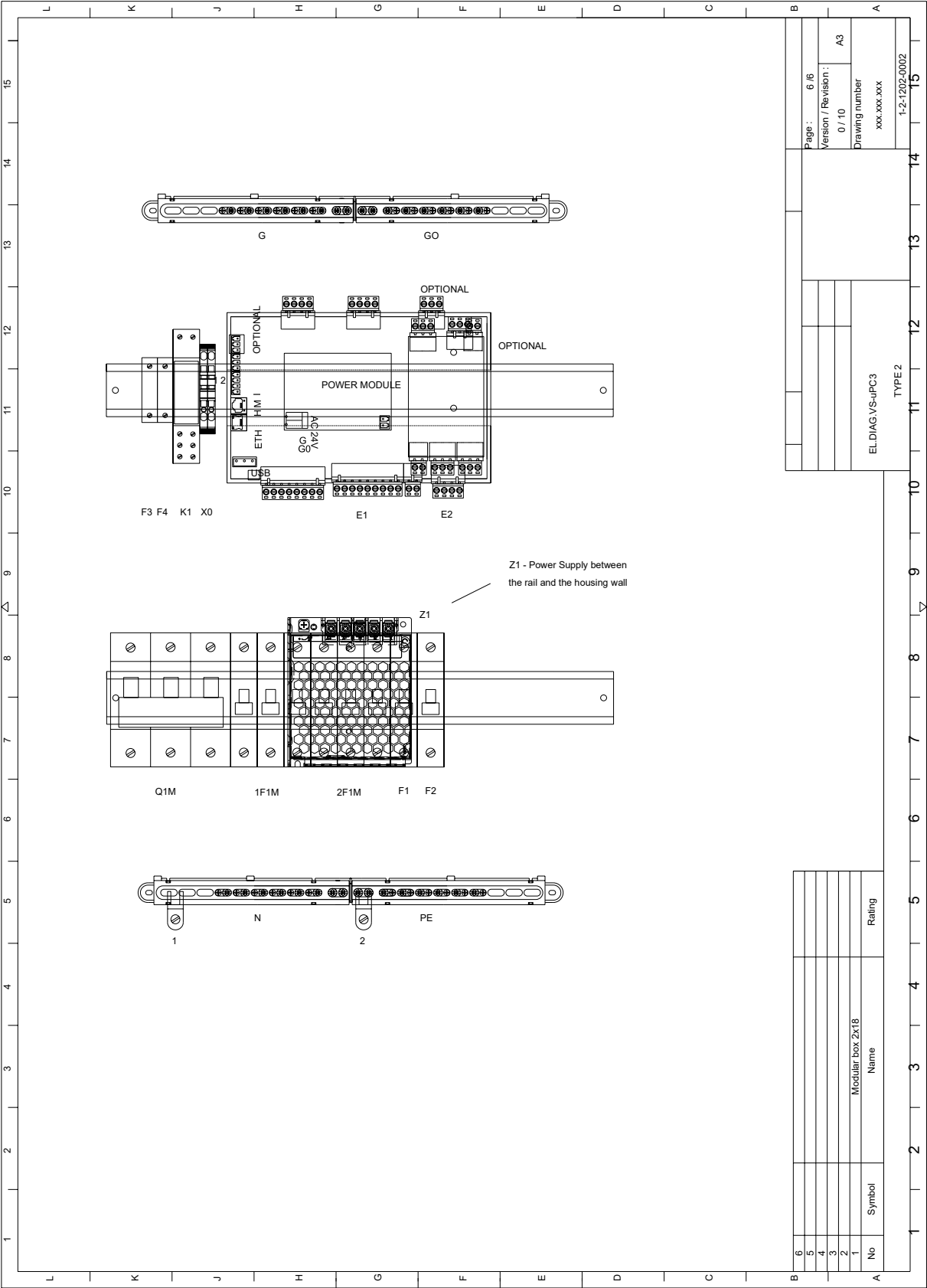


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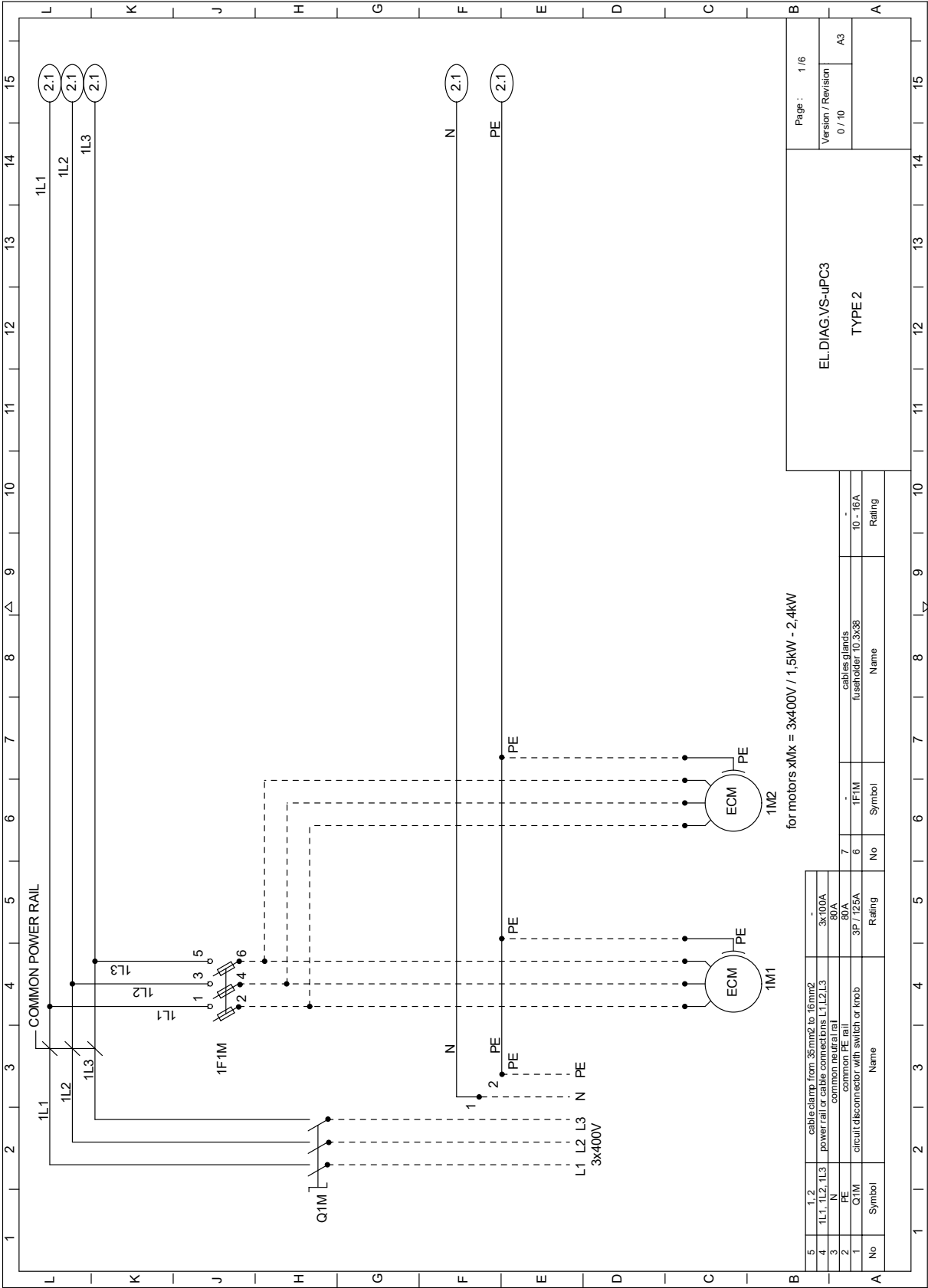


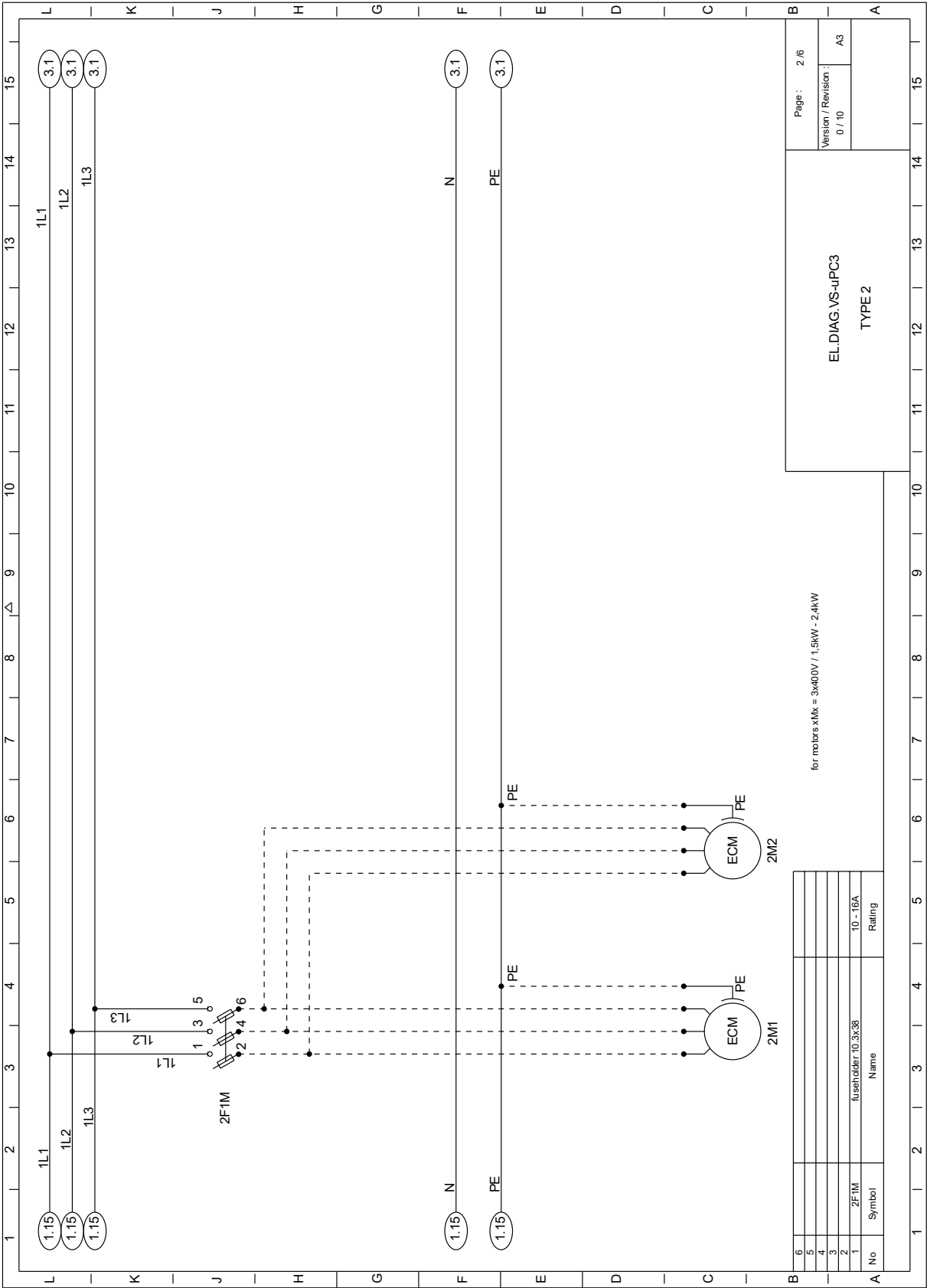


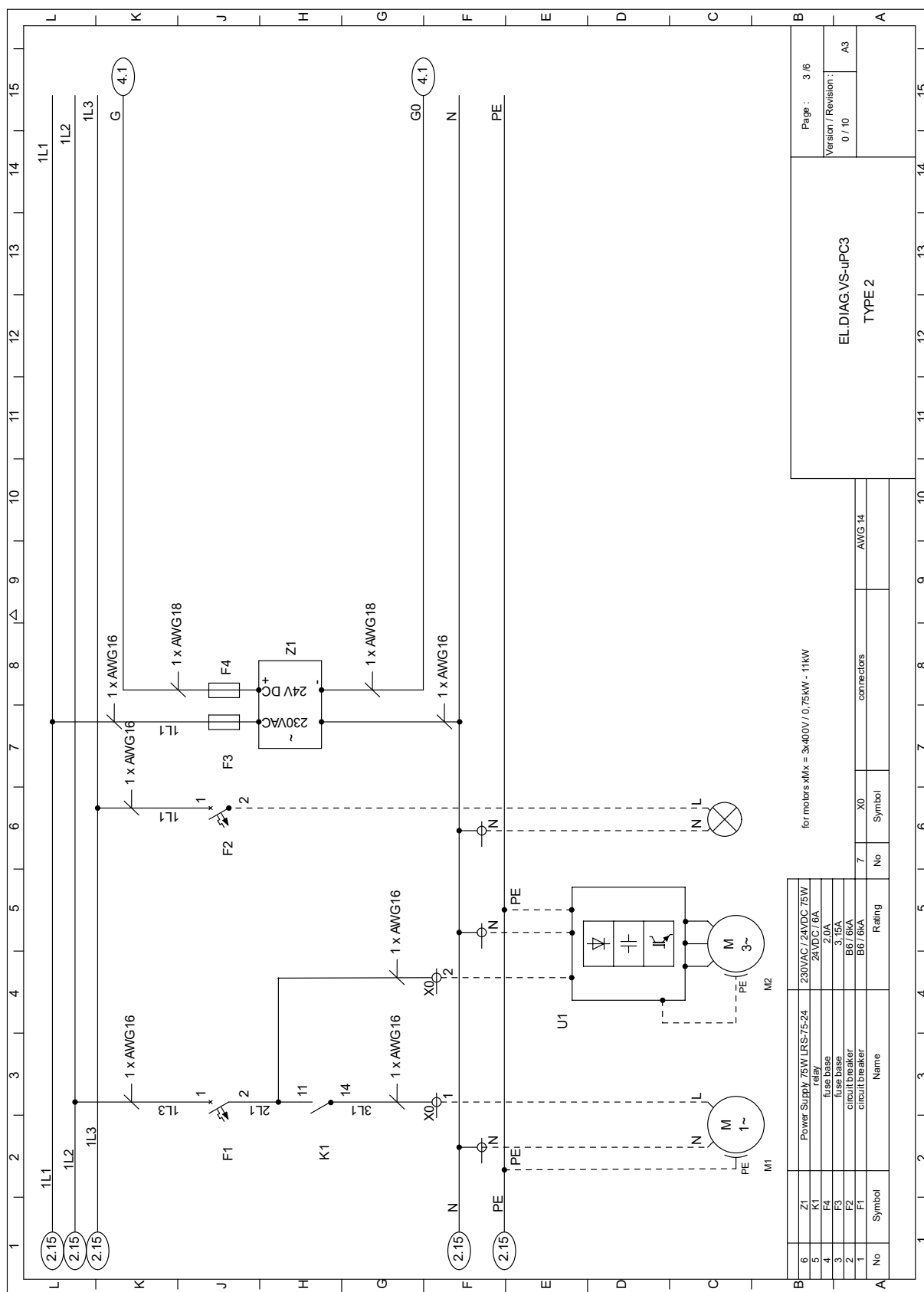
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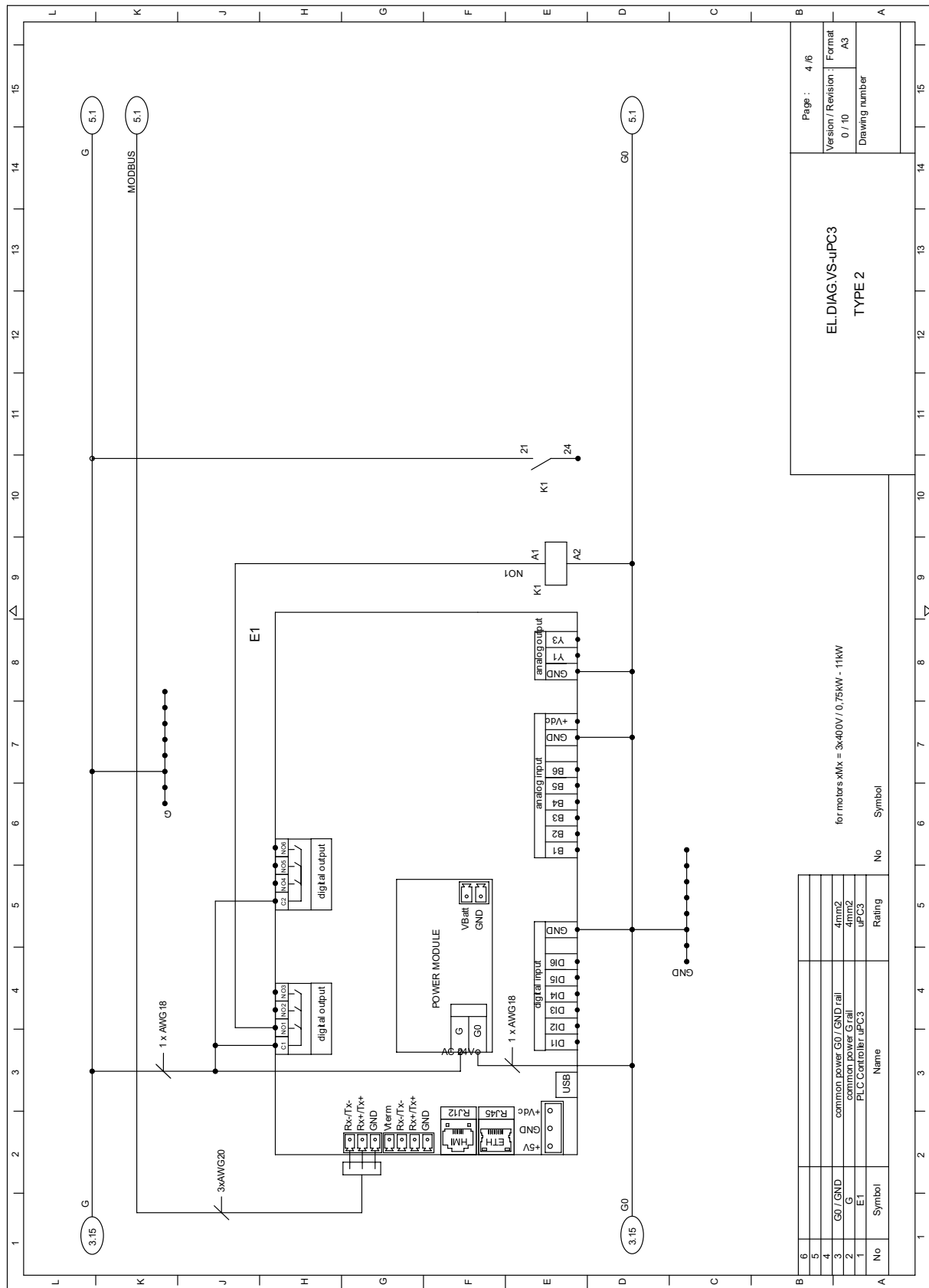
4.1.2 VVS055-VVS120- 2.4kW x2
EL_DIAG_EC_VVS055-VVS120-2.4kWx2_1/6

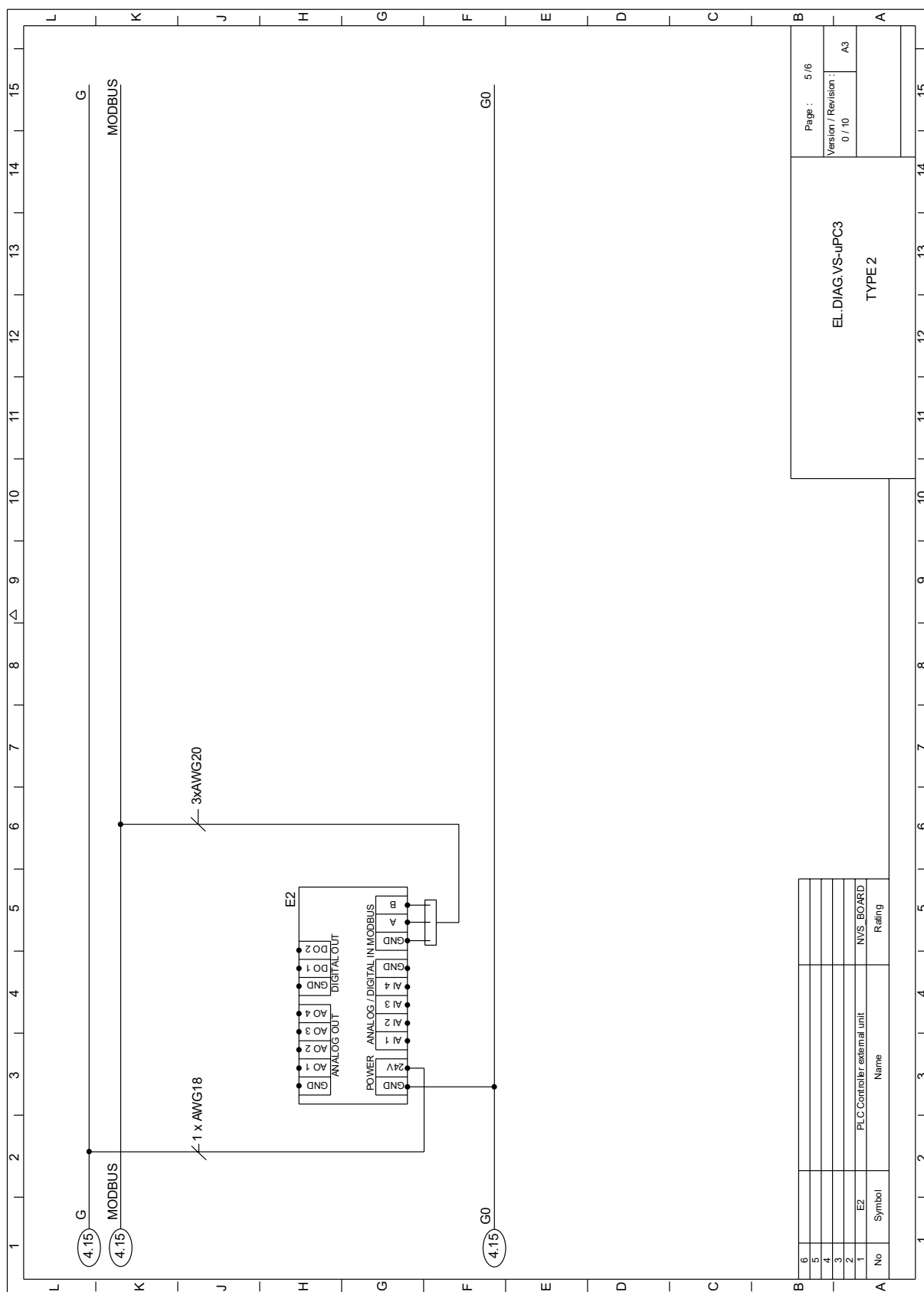




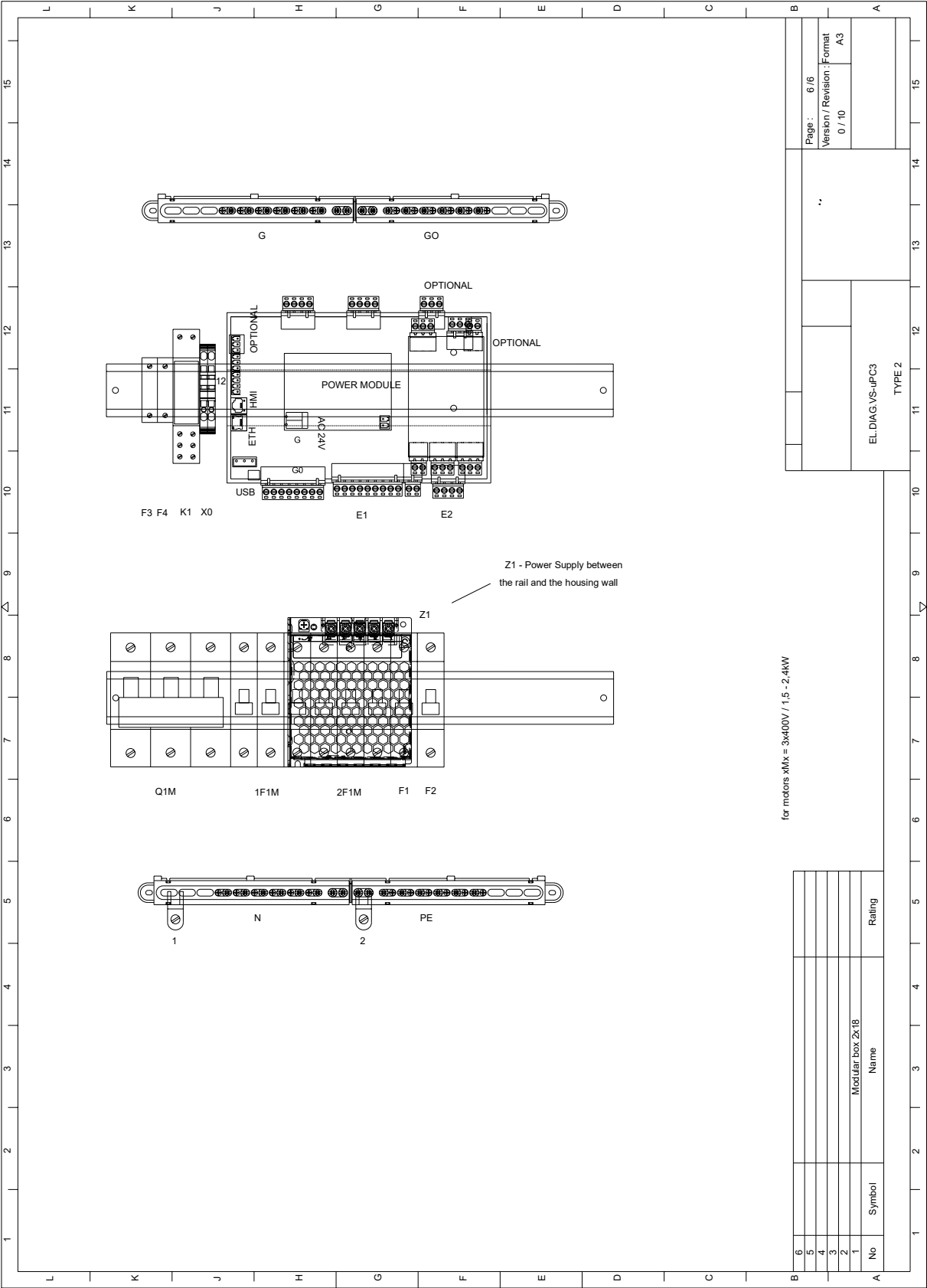


EL_DIAG_EC_VVS055-VVS120-2.4kWx2_4/6





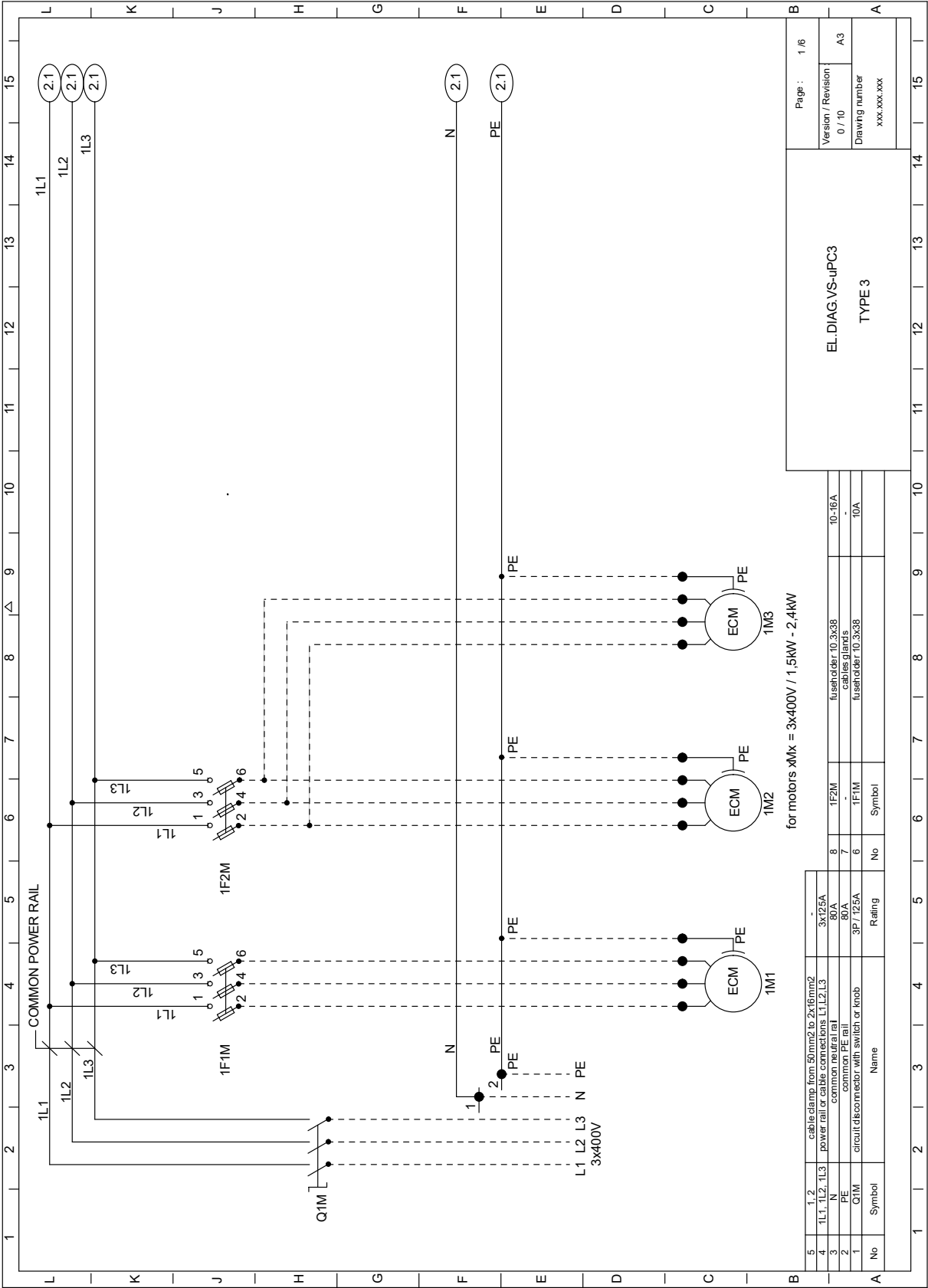
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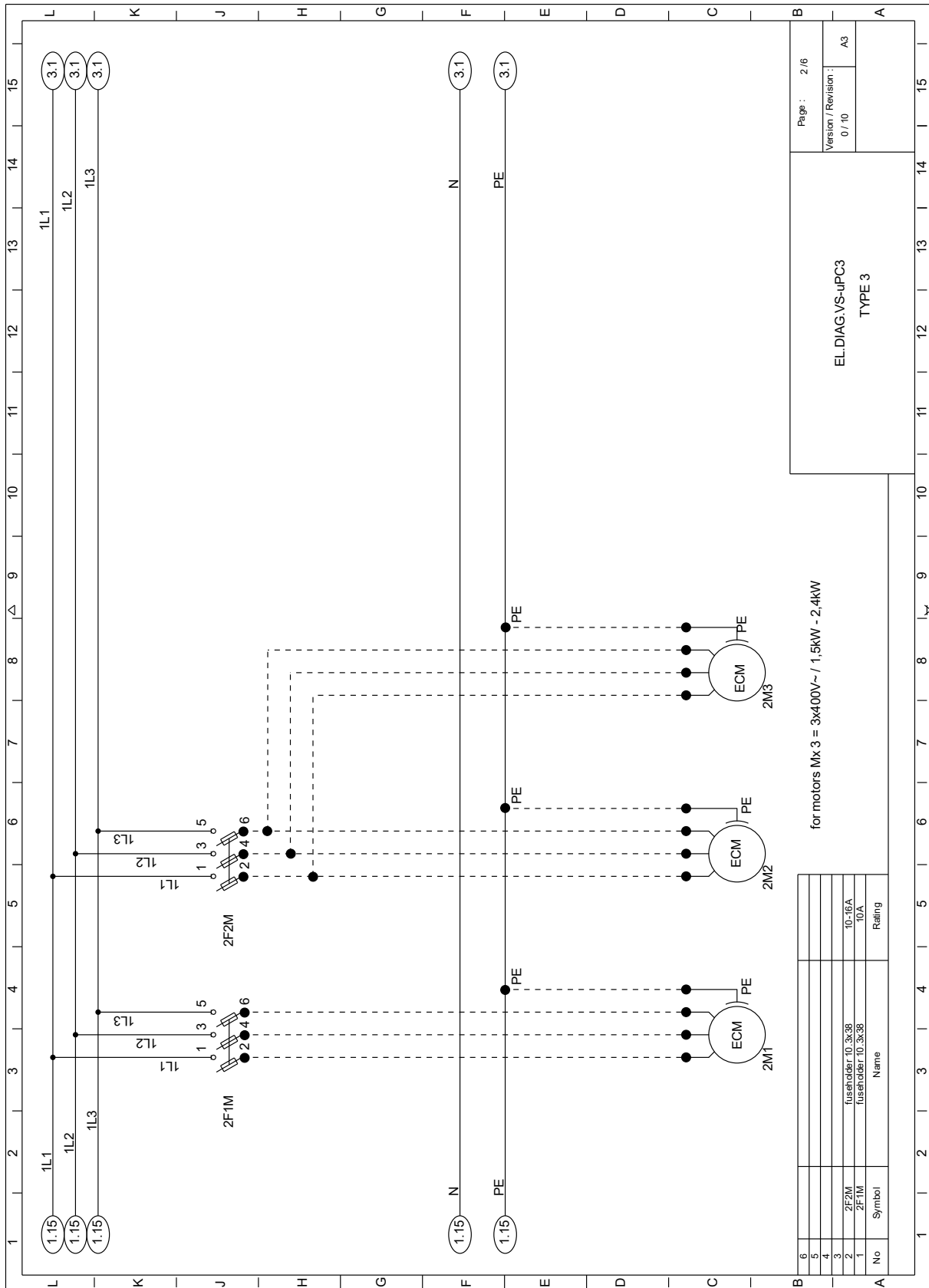
for motors xlix = 3x400V / 1.5 - 2.4kW

4.1.3 EC VVS075-VVS150- 2.4kW x3

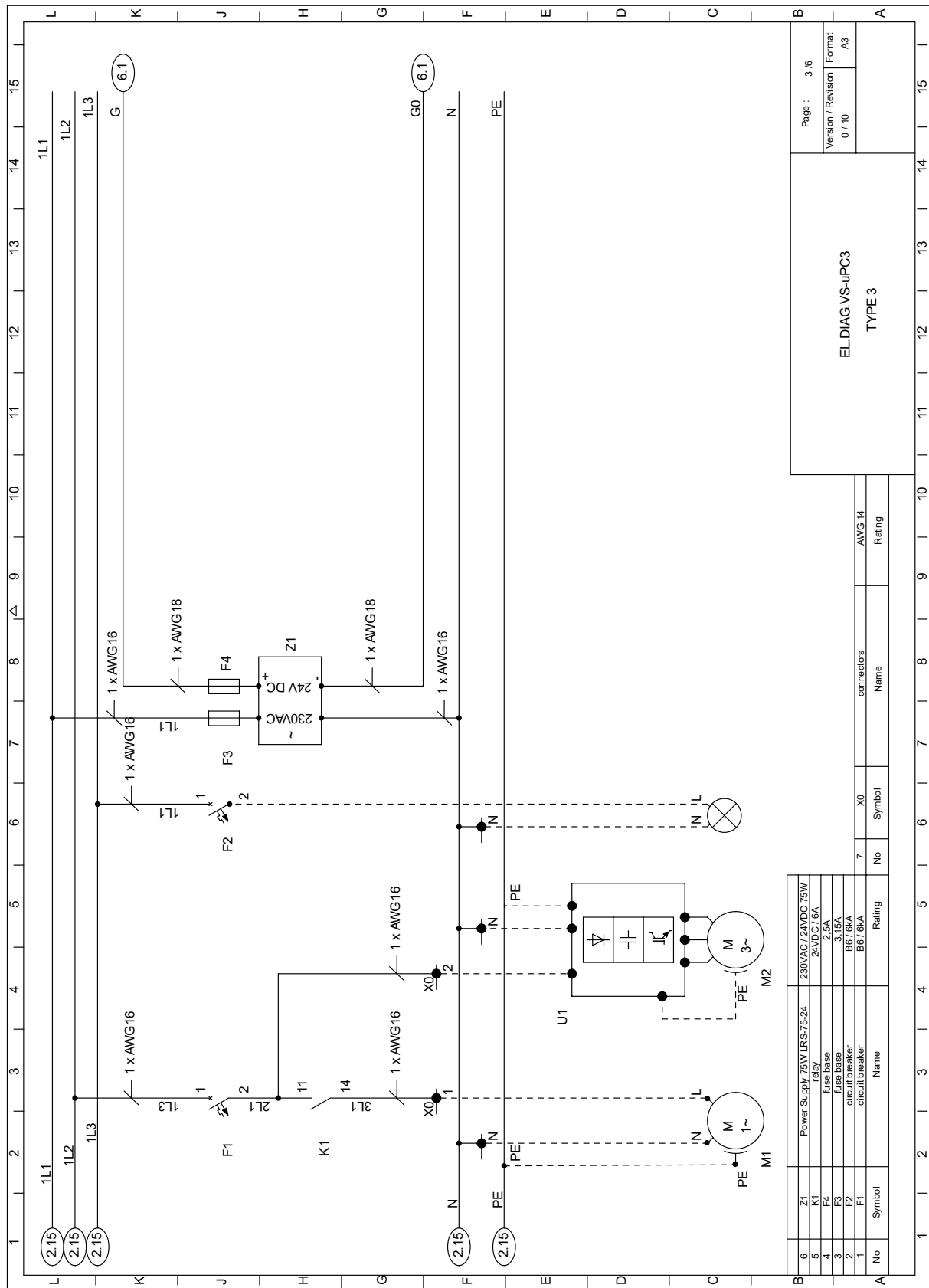
EL_DIAG_EC_VVS075-VVS150-2.4kWx3_1/6



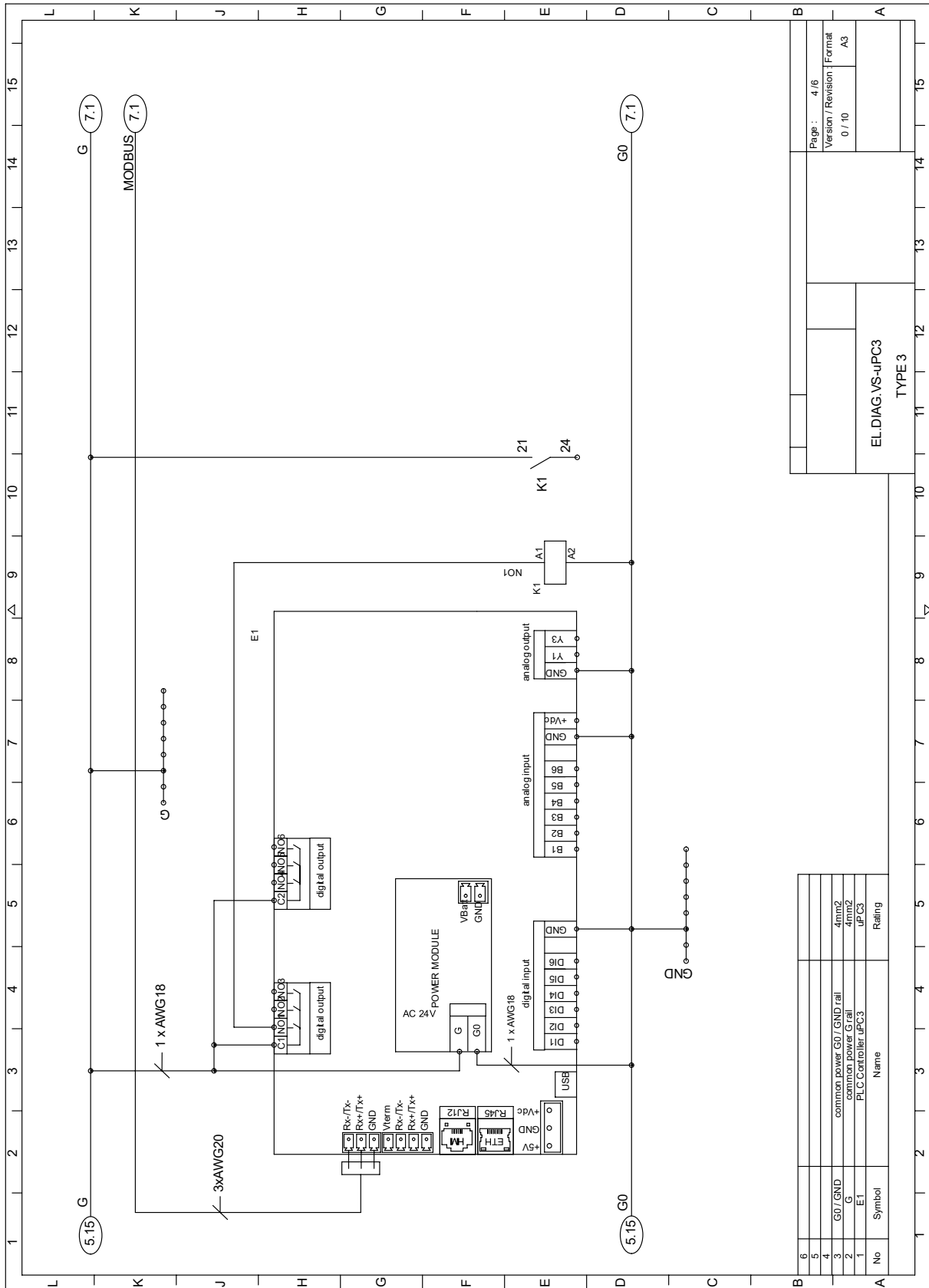
EL_DIAG_EC_VVS075-VVS150-2.4kWx3_2/6

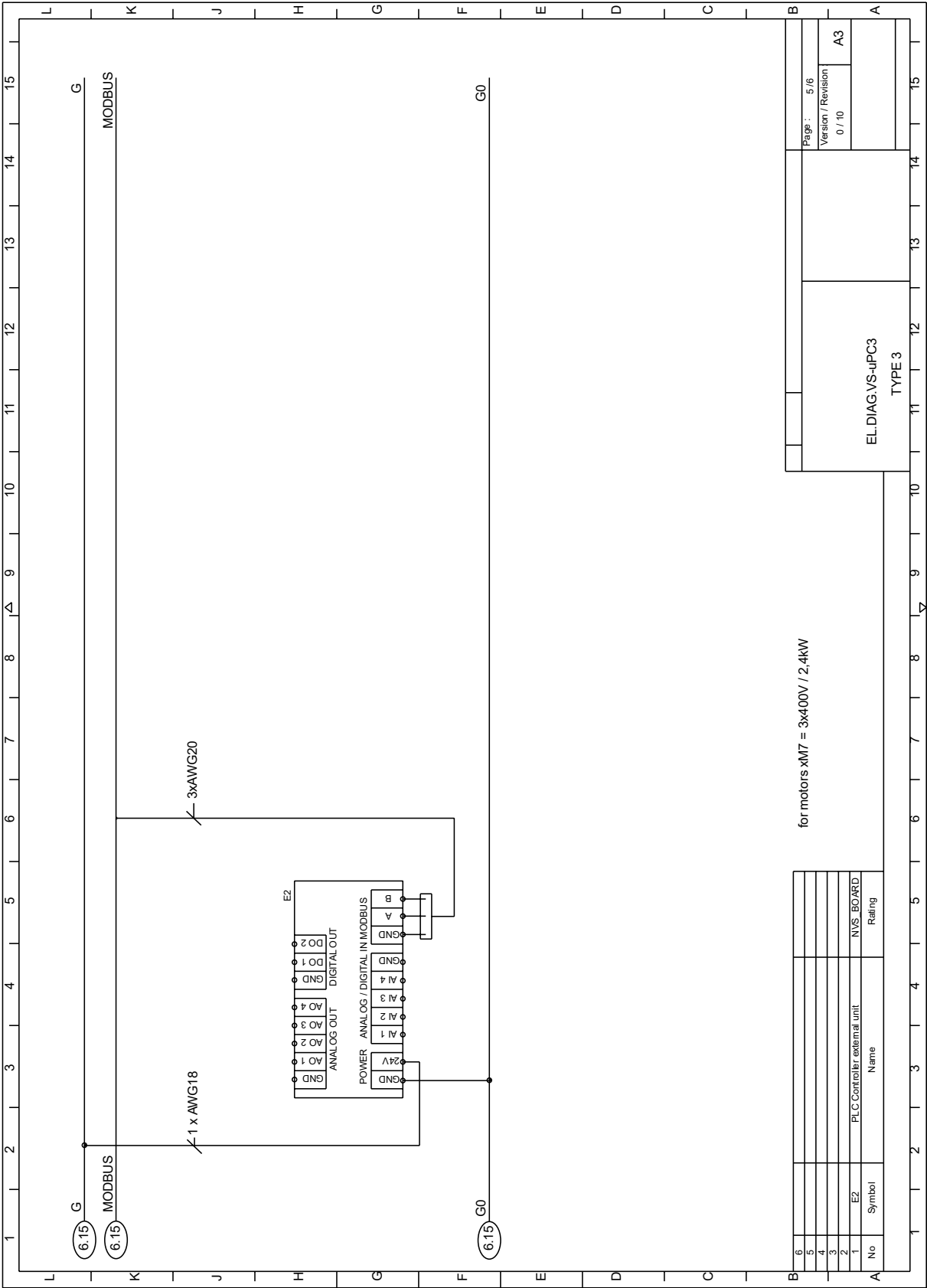


EL_DIAG_EC_VVS075-VVS150-2.4kWx3_3/6

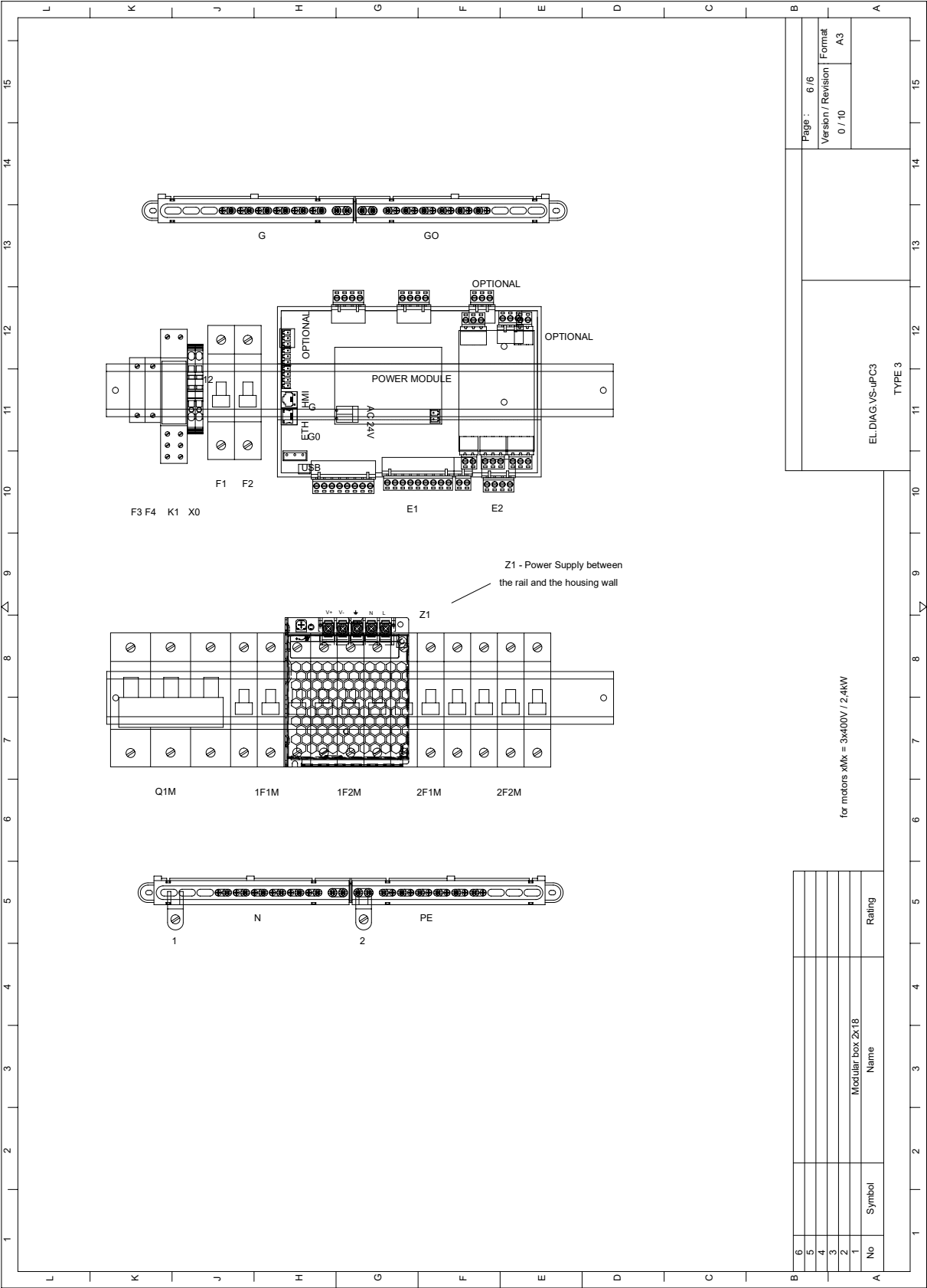


EL_DIAG_EC_VVS075-VVS150-2.4kWx3_4/6



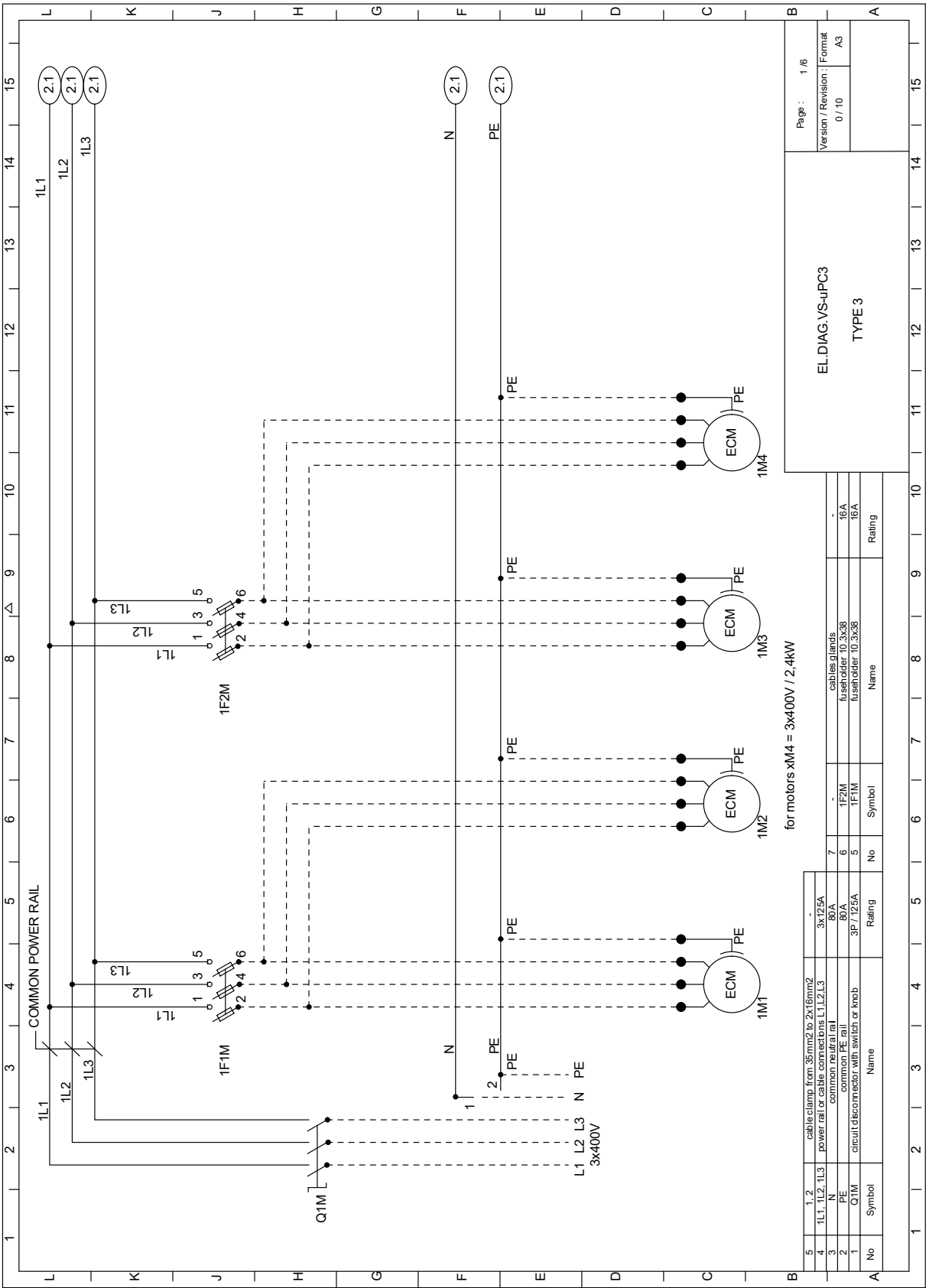


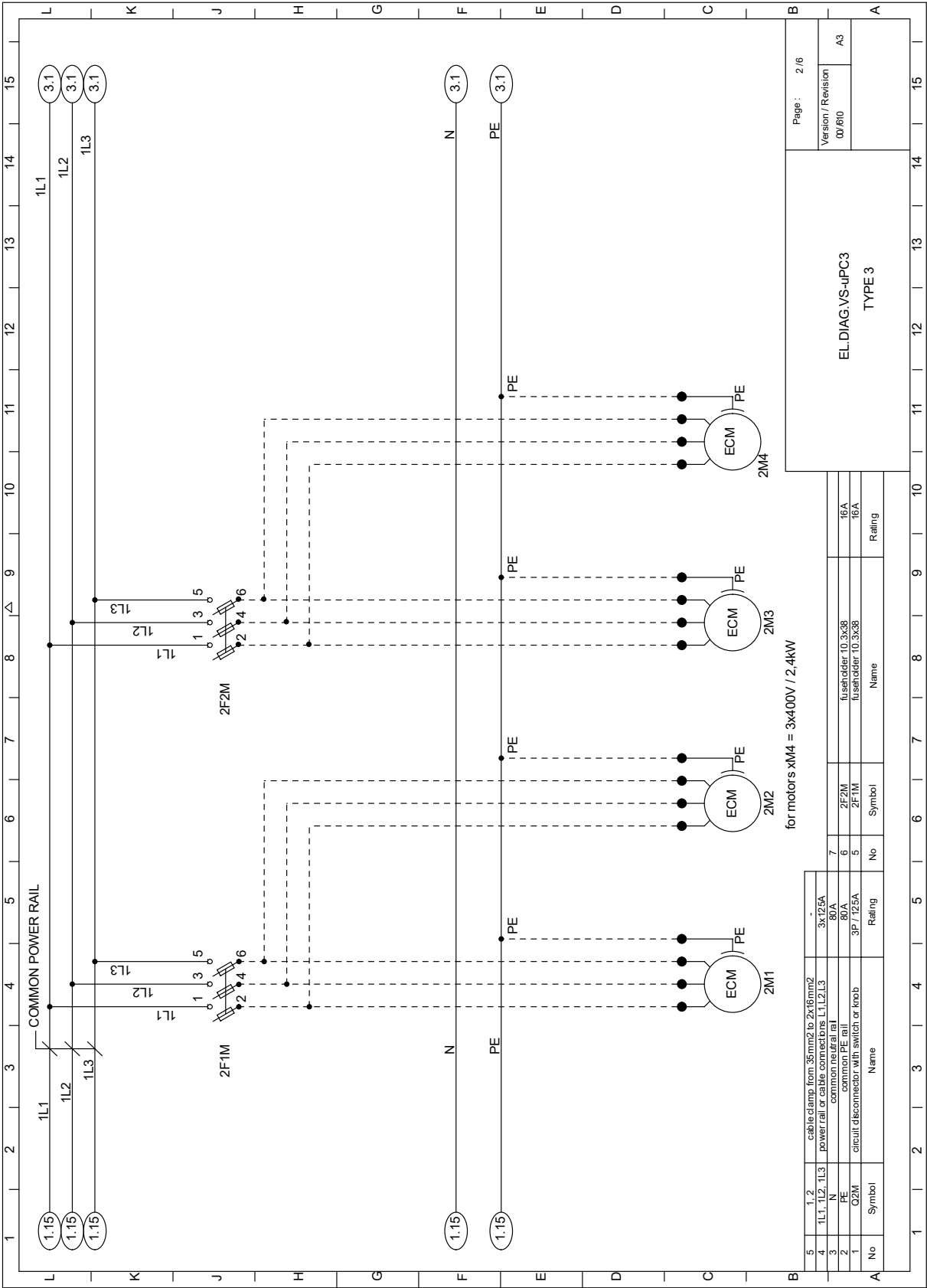
EL_DIAG_EC_VVS075-VVS150-2.4kWx3_6/6



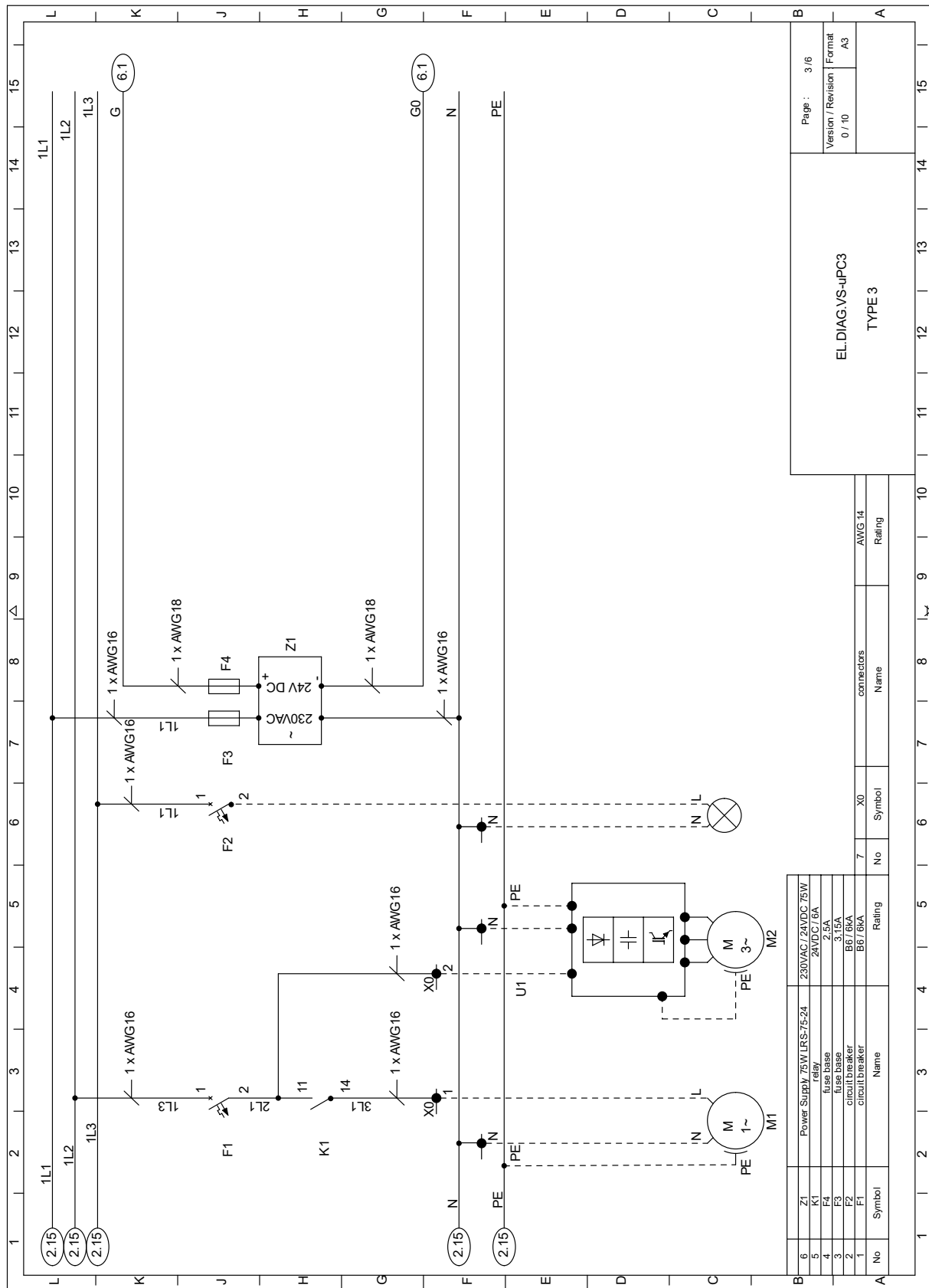
4.1.4 EC VVS150-VVS230- 2.4kW x4

EL_DIAG_EC_VVS150-VVS230-2.4kWx4_1/6

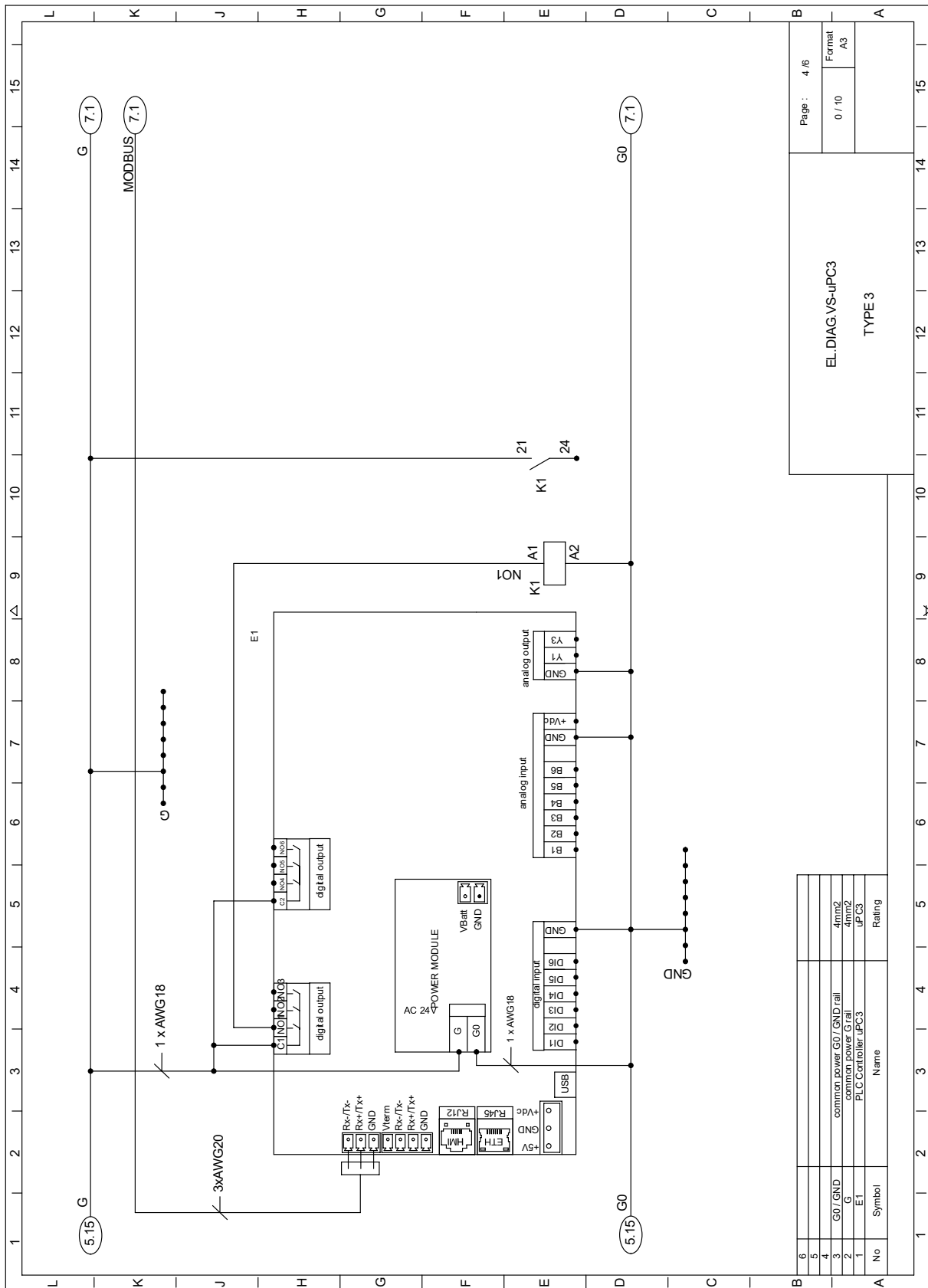


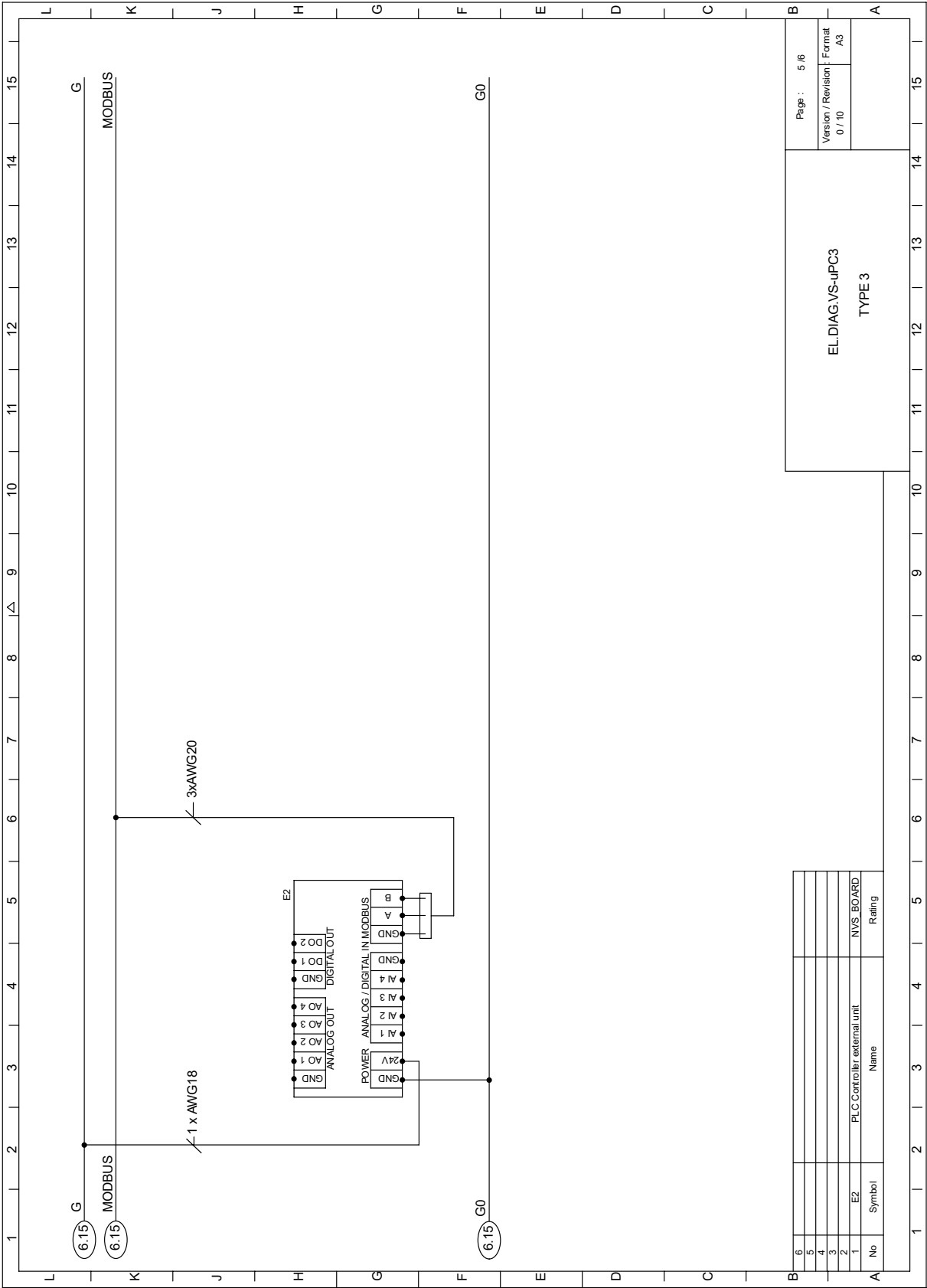


EL_DIAG_EC_VVS150-VVS230-2.4kWx4_3/6

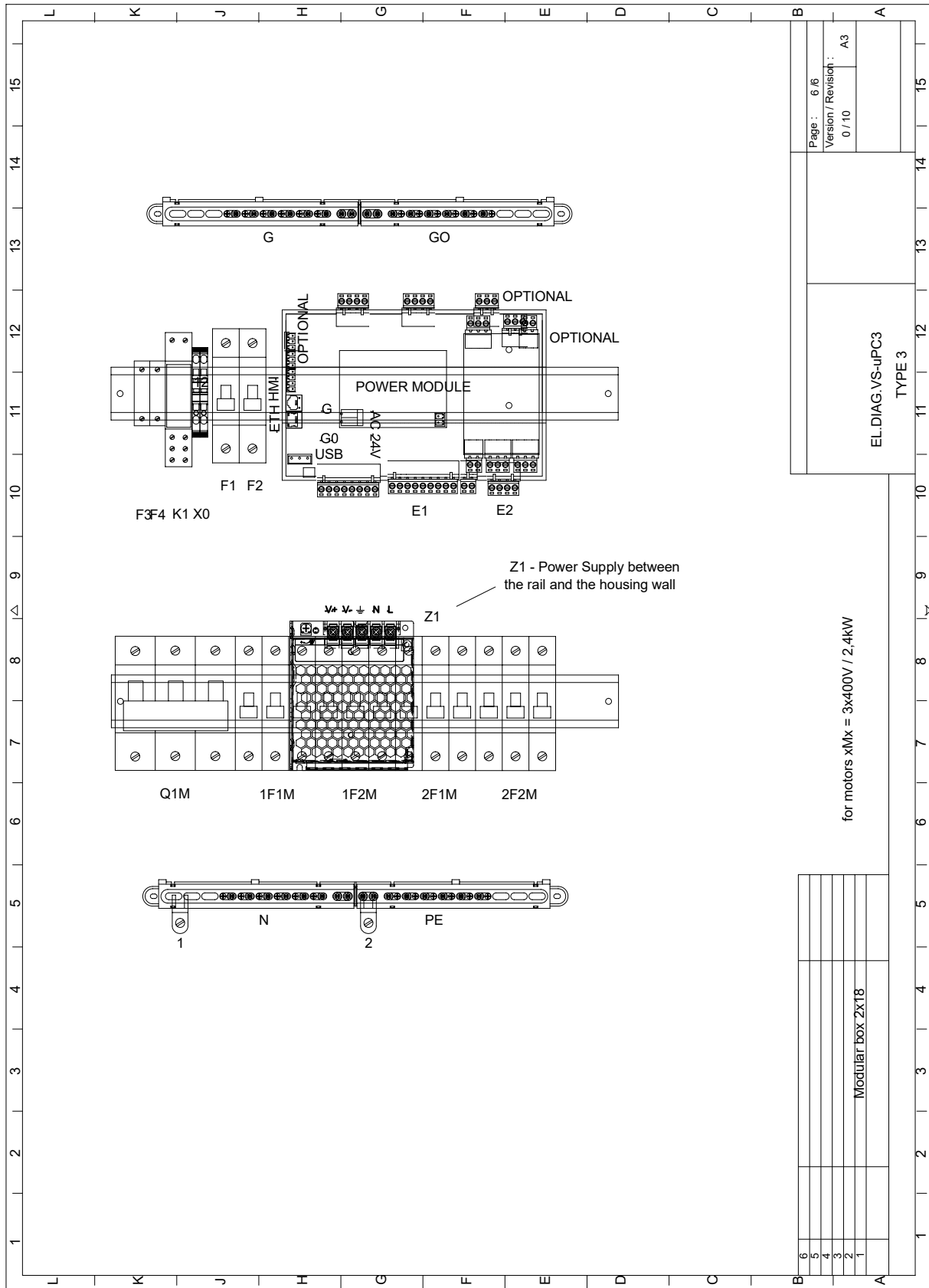


EL_DIAG_EC_VVS150-VVS230-2.4kWx4_4/6



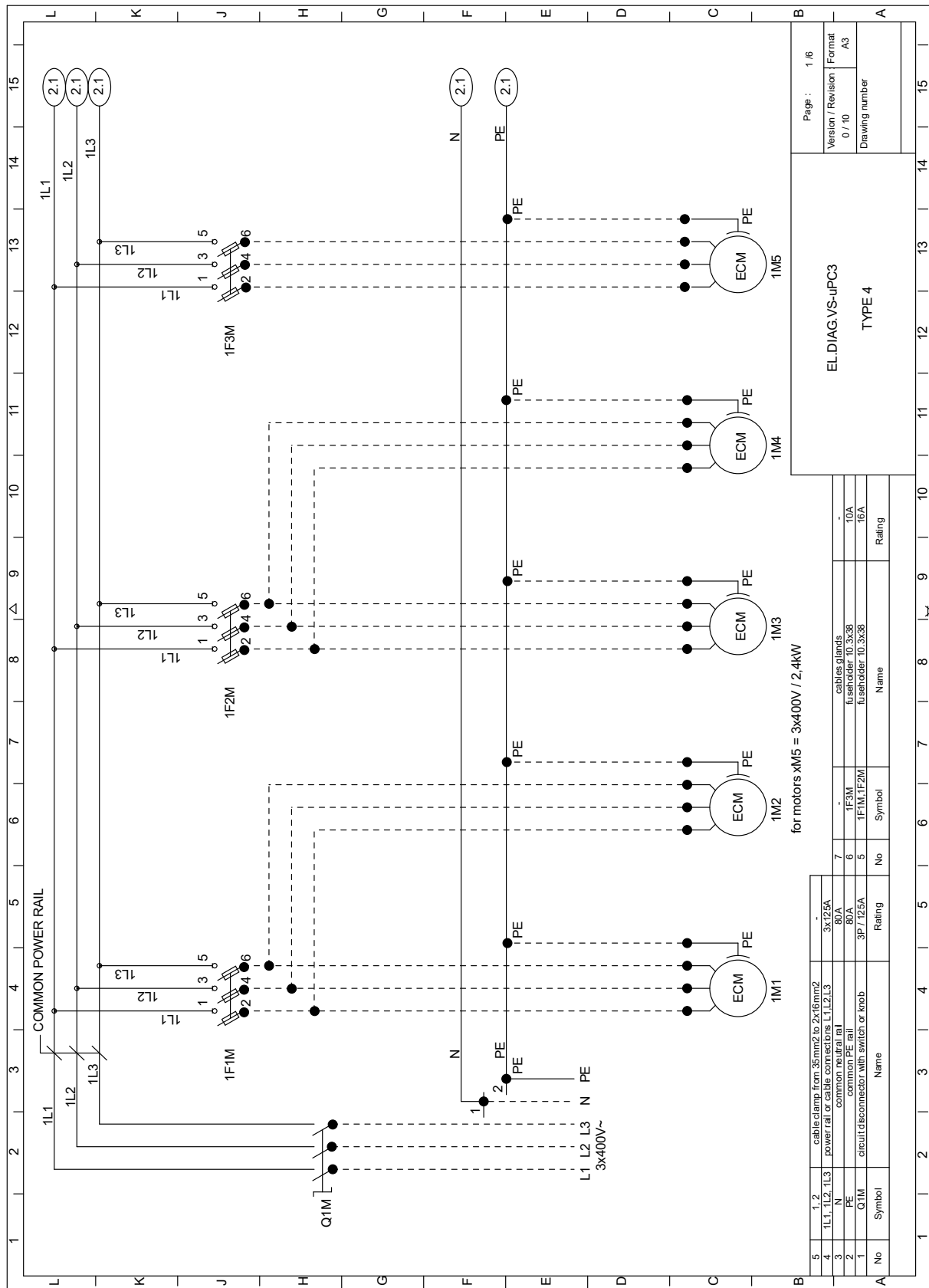


EL_DIAG_EC_VVS150-VVS230-2.4kWx4_6/6

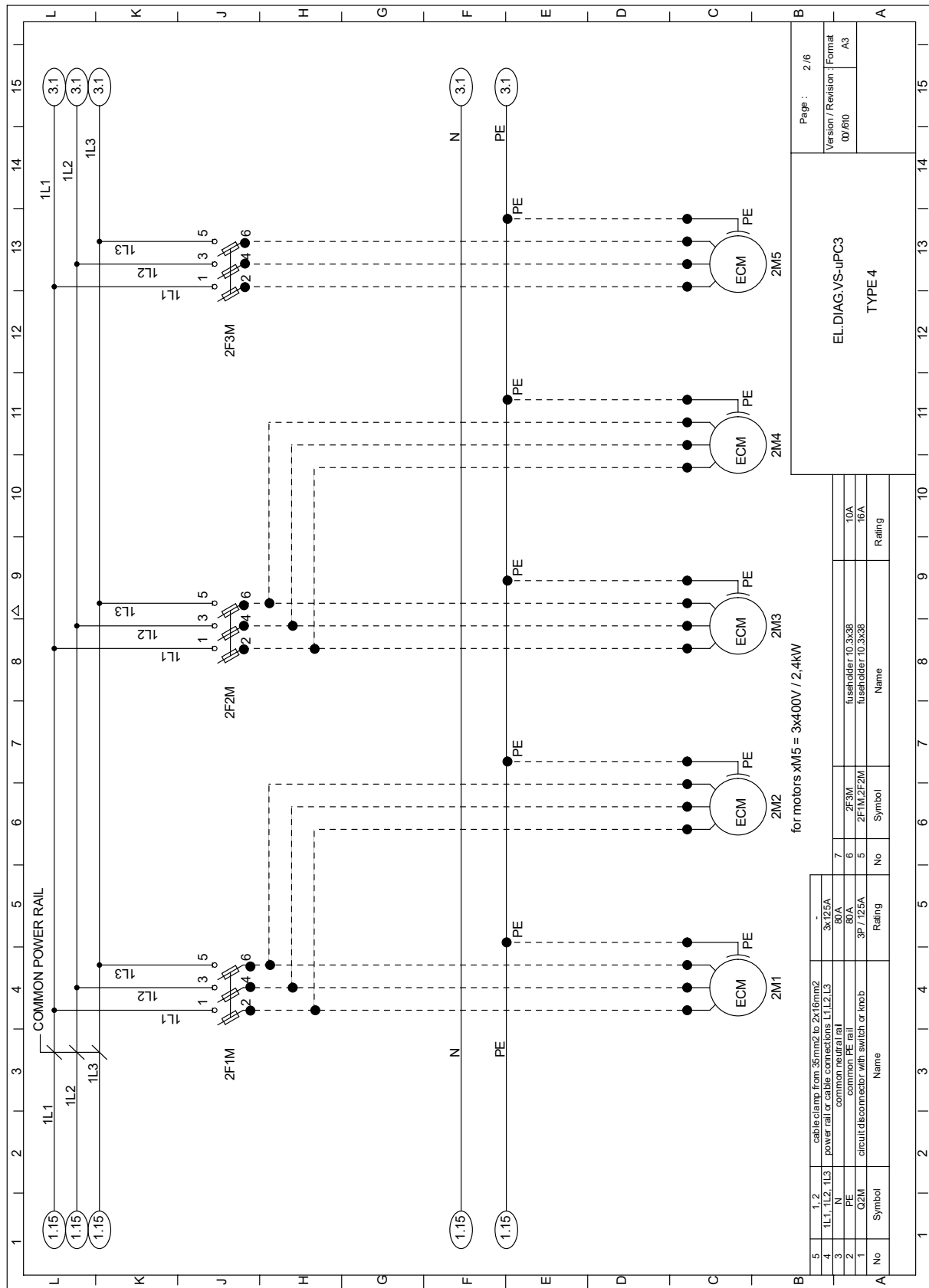


4.1.5 EC VVS180-VVS230- 2.4kW x5

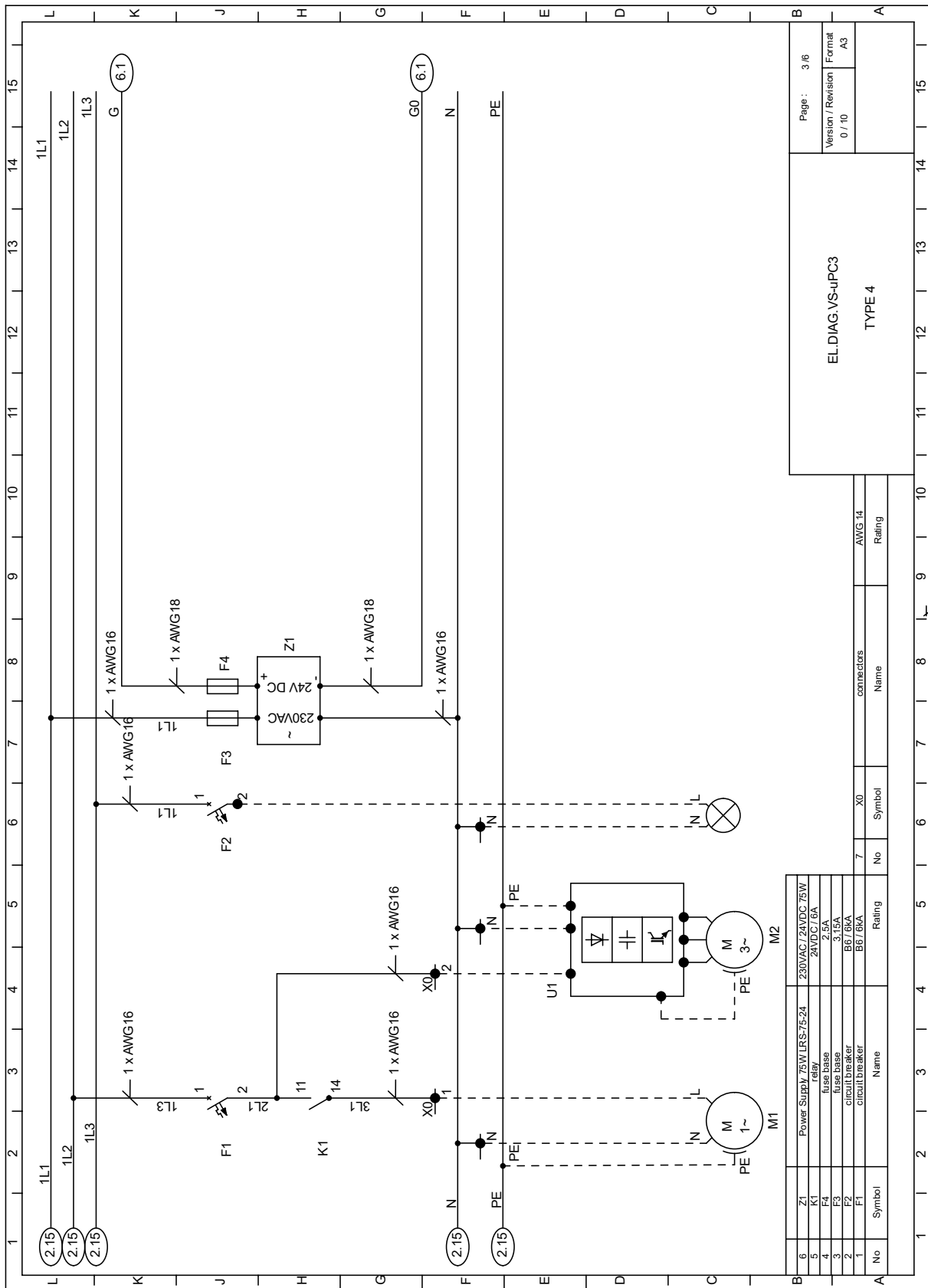
EL_DIAG_EC_VVS180-VVS230-2.4kWx5_1/6



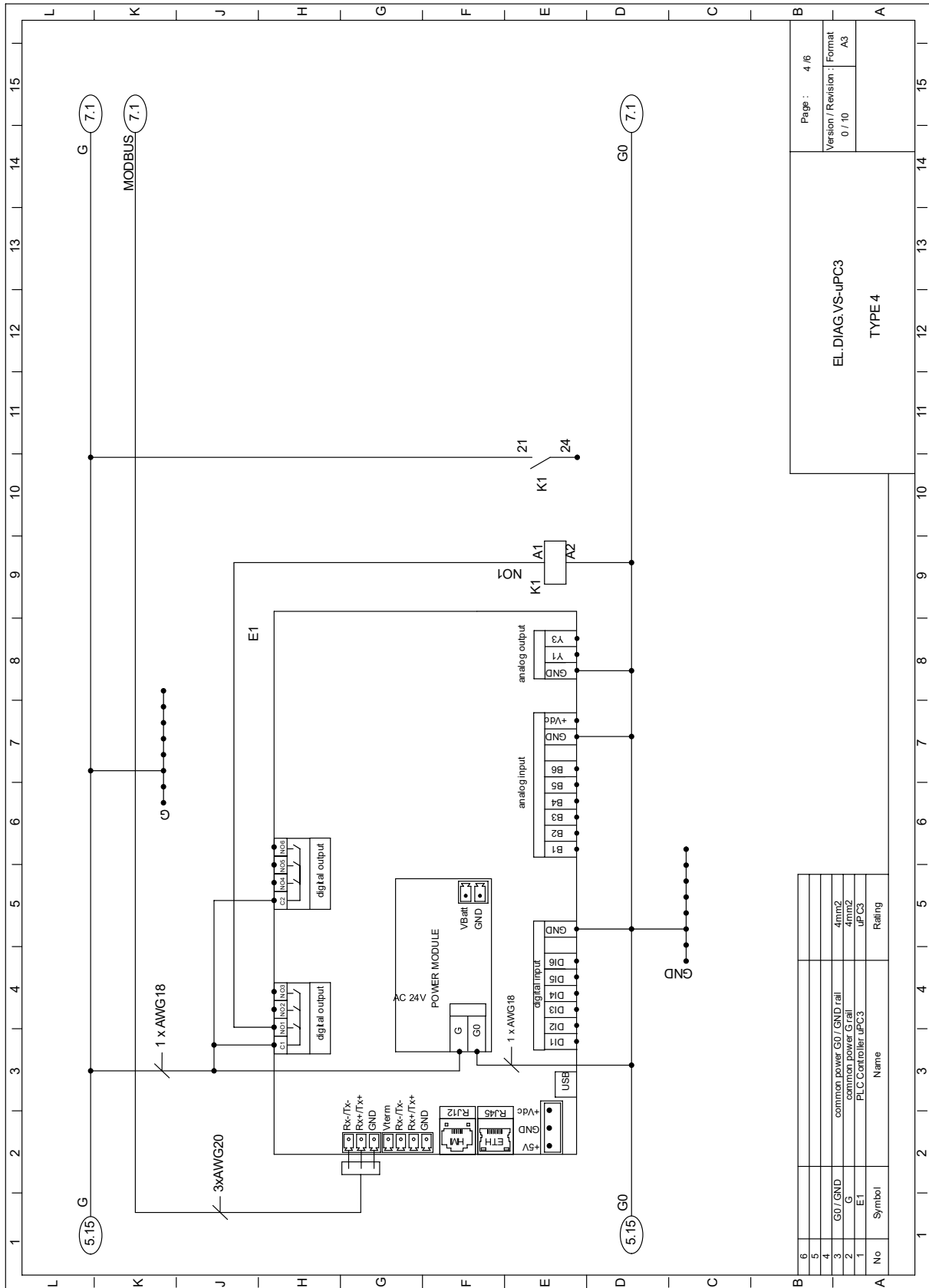
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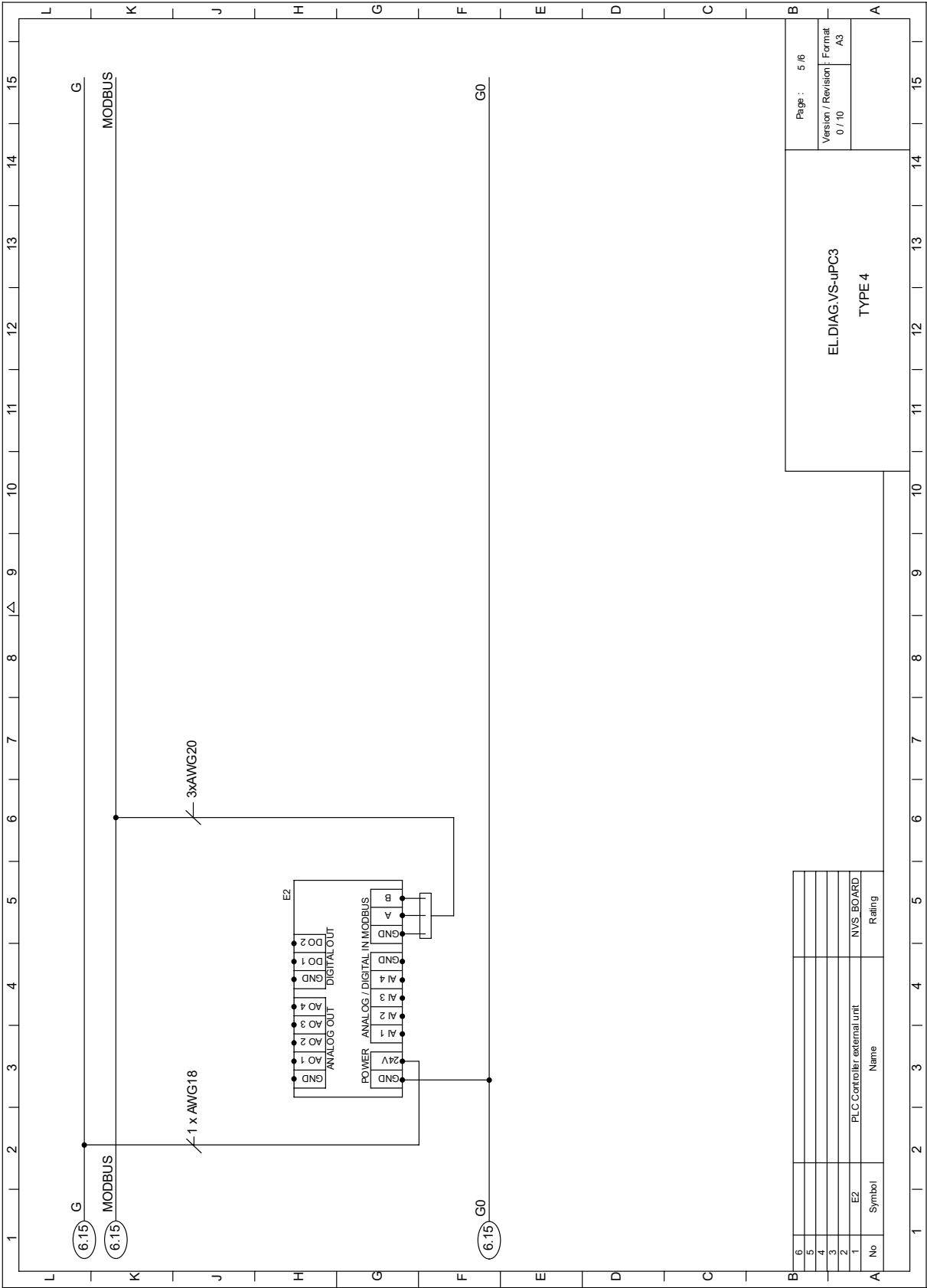


EL_DIAG_EC_VVS180-VVS230-2.4kWx5_3/6

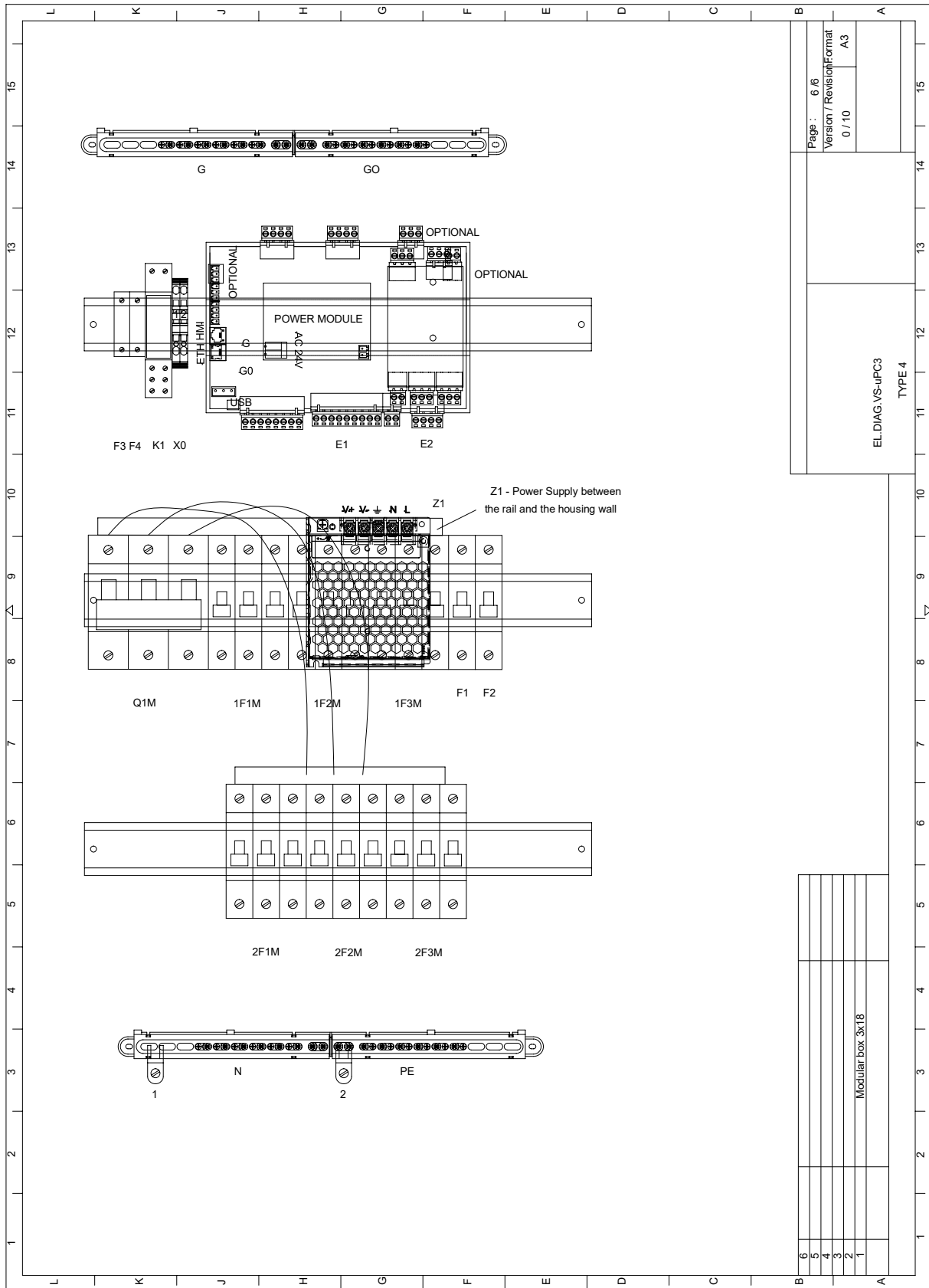


EL_DIAG_EC_VVS180-VVS230-2.4kWx5_4/6



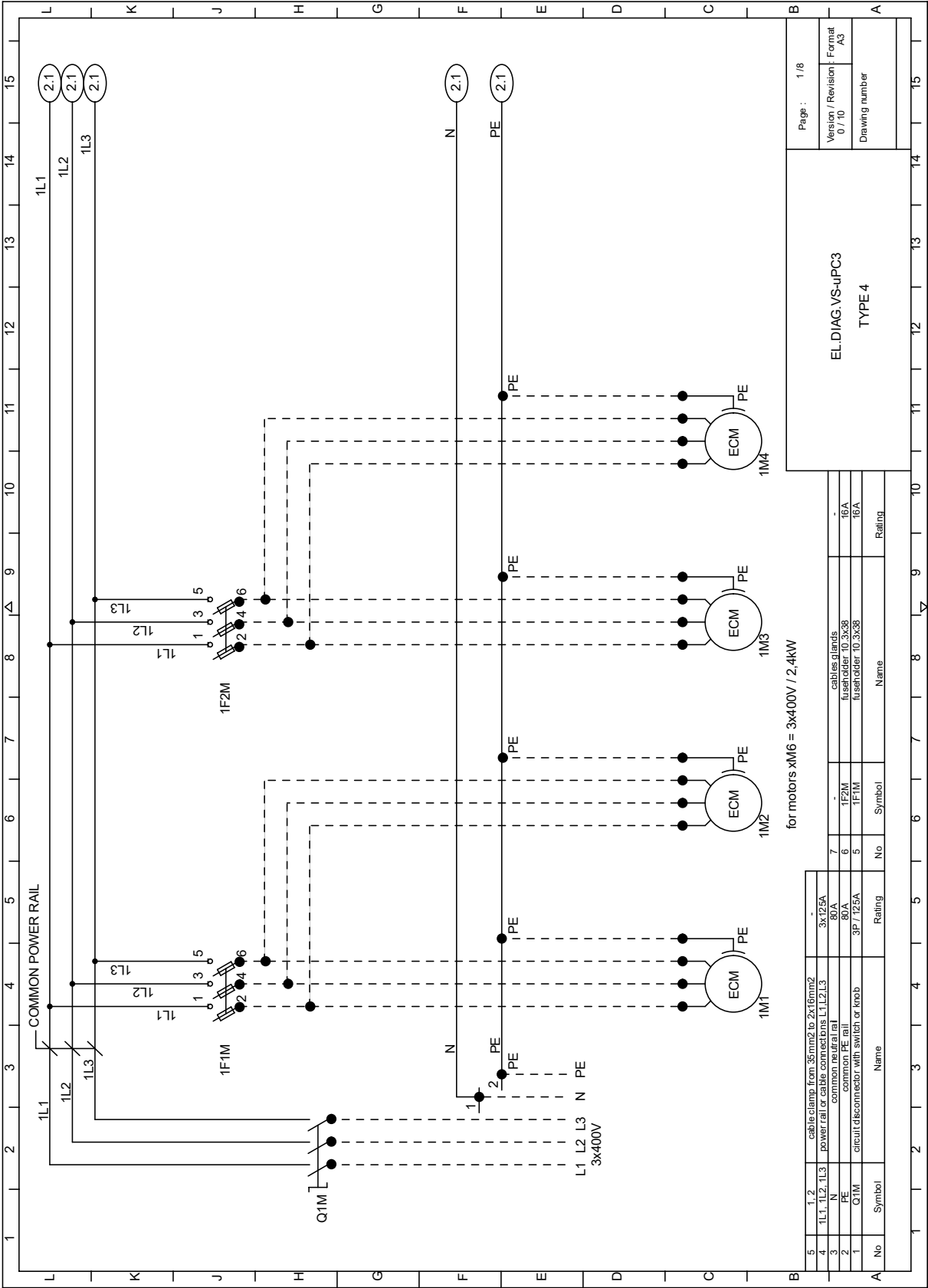


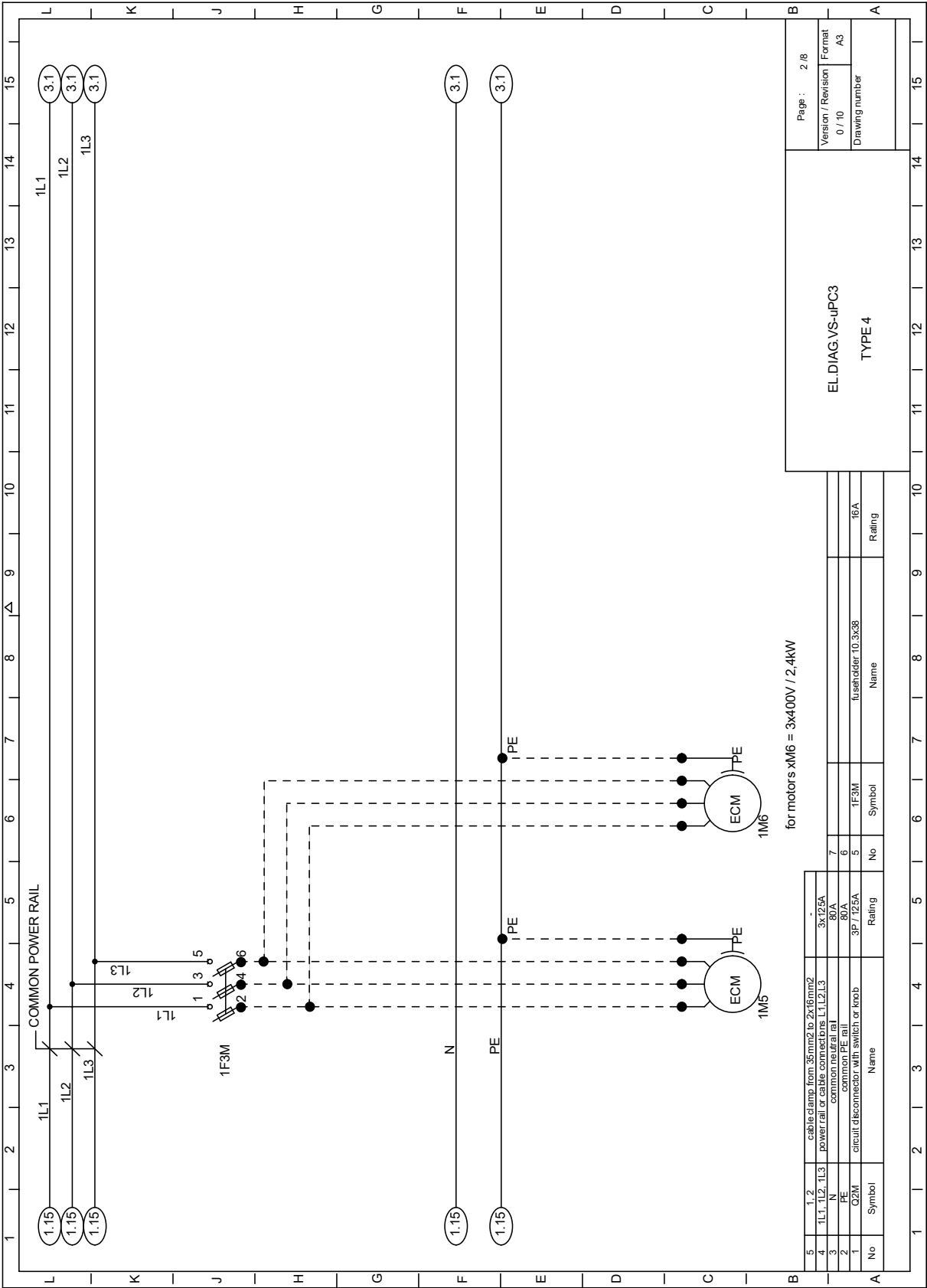
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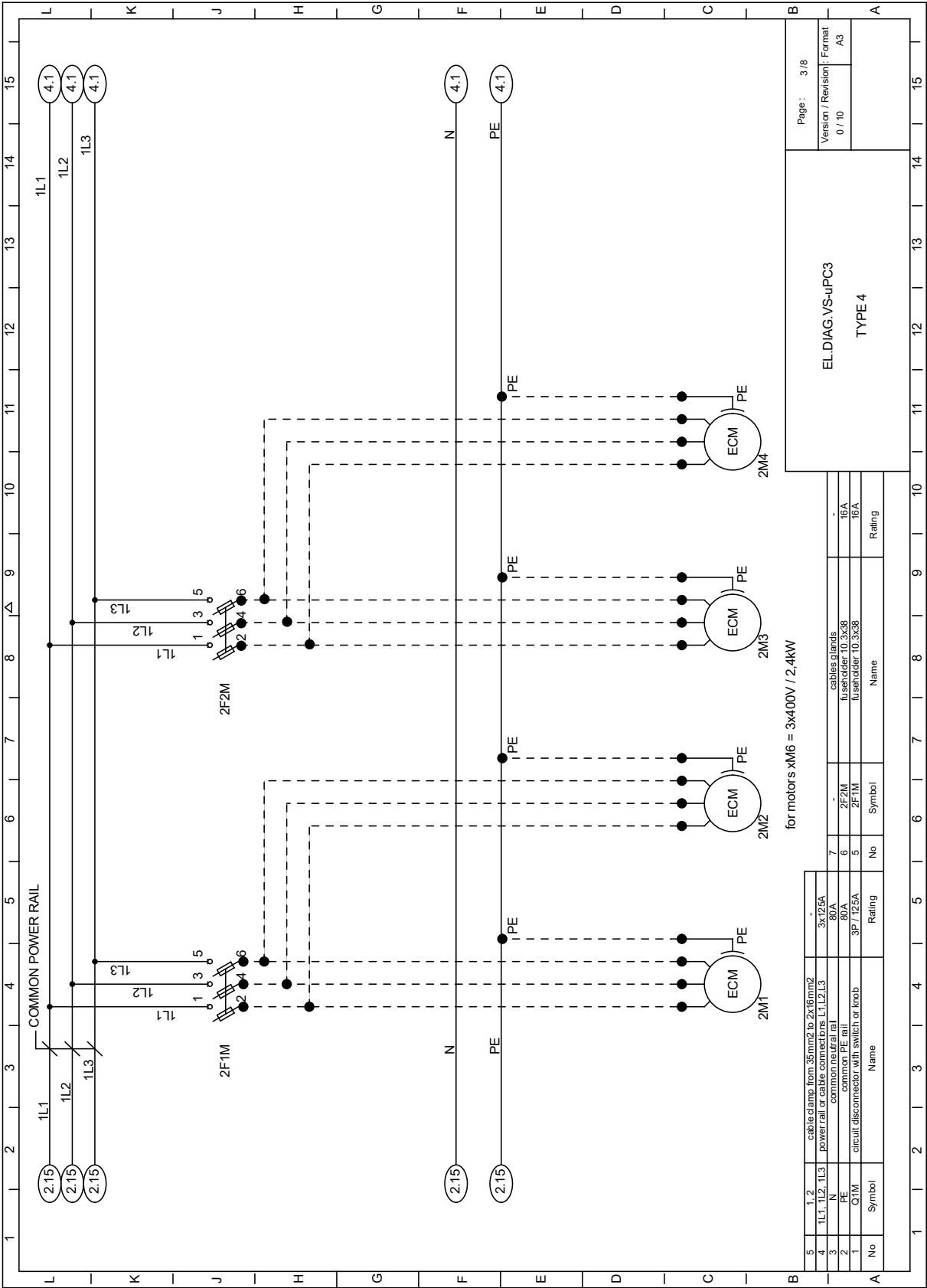


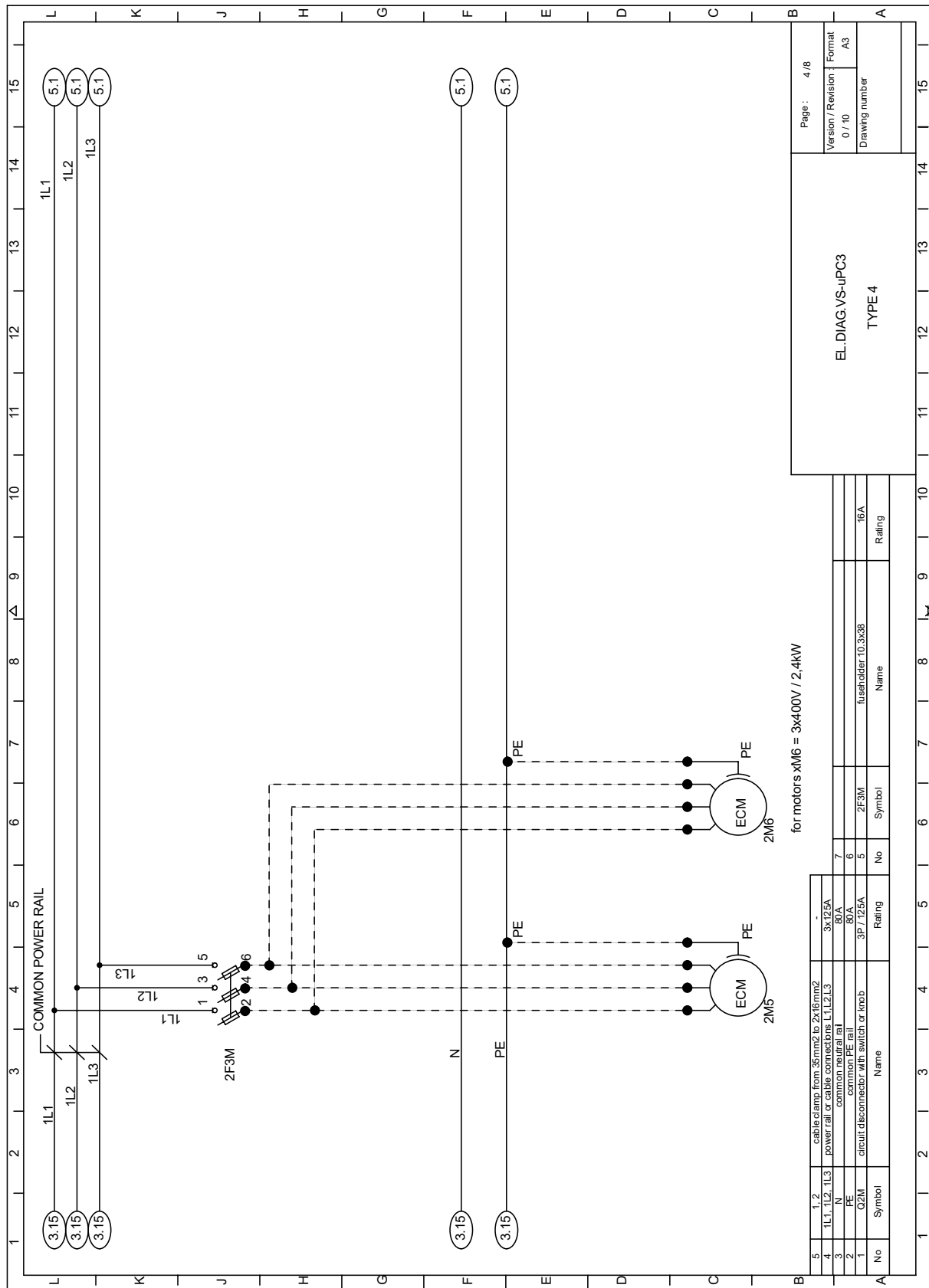
4.1.6 EC VVS180-VVS230- 2.4kW x6

EL_DIAG_EC_VVS180-VVS230-2.4kWx6_1/8

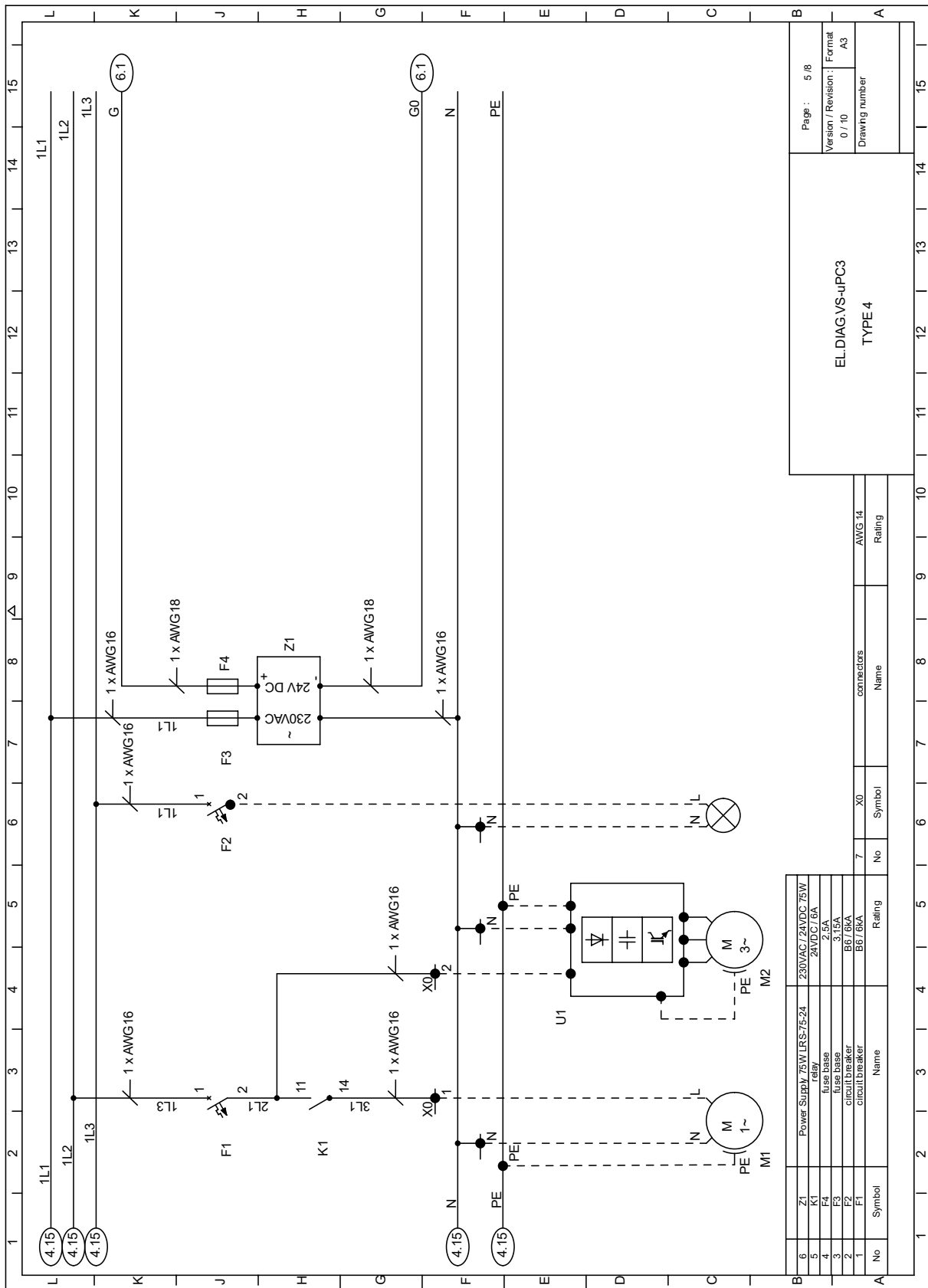


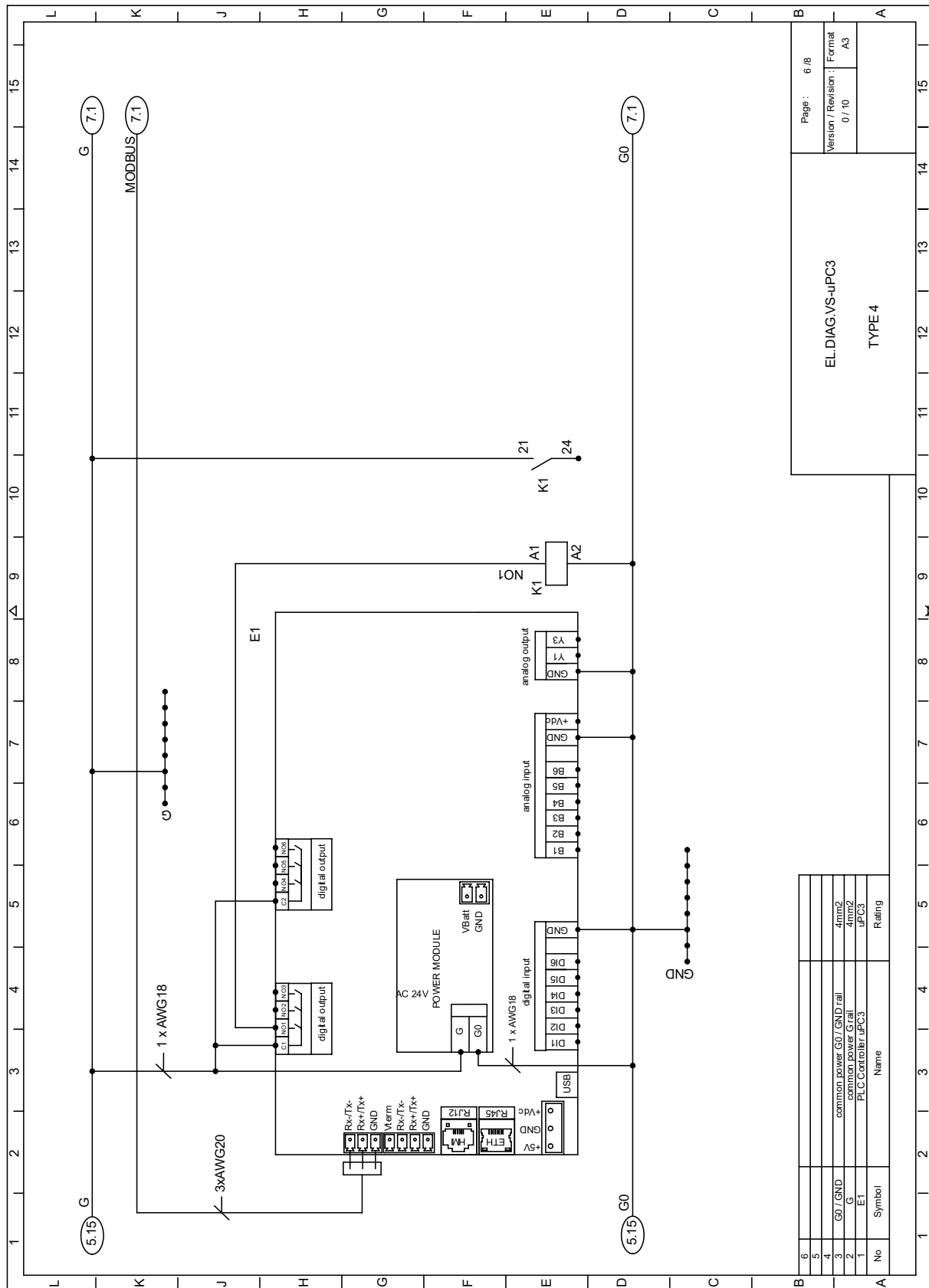


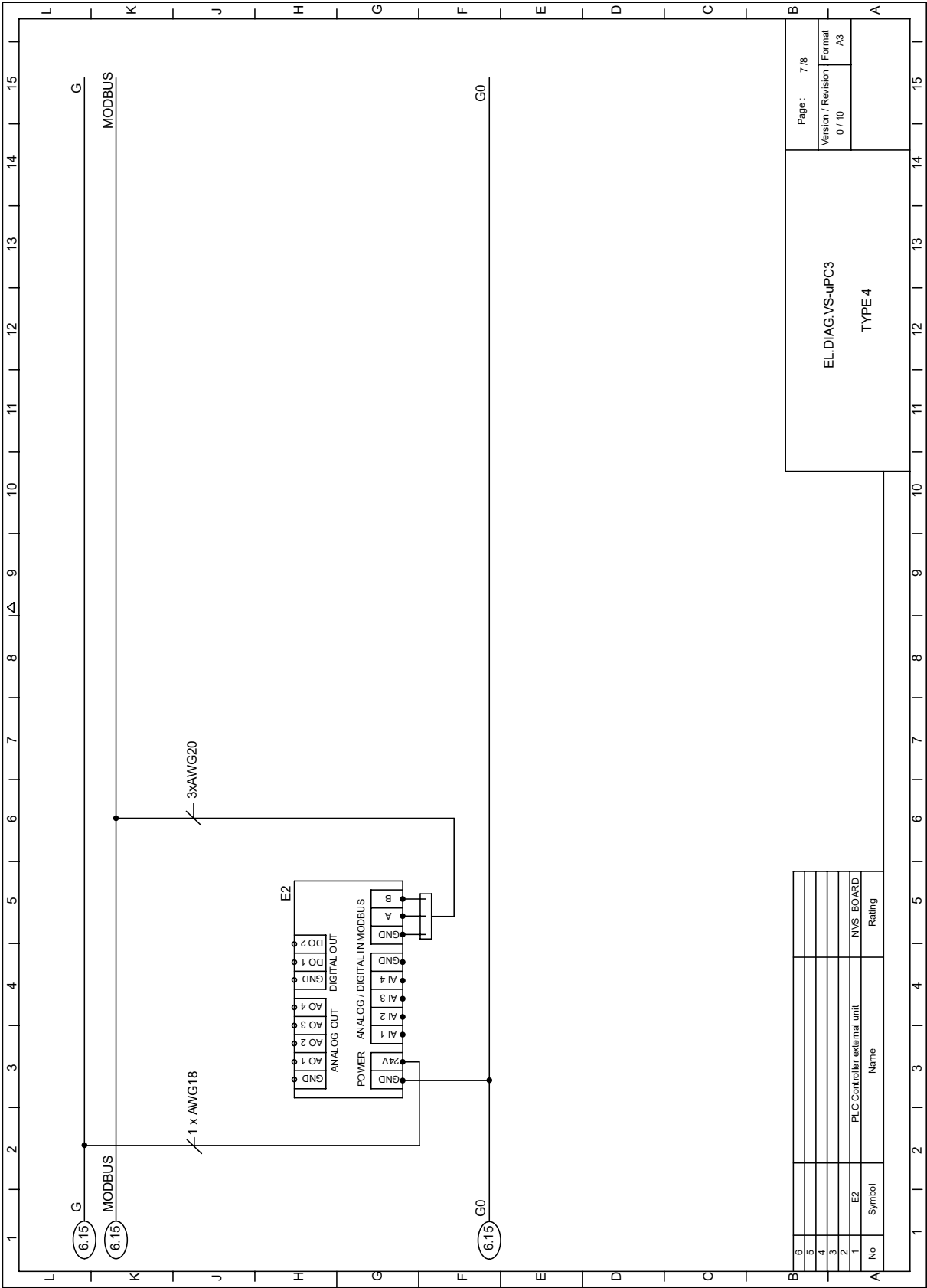




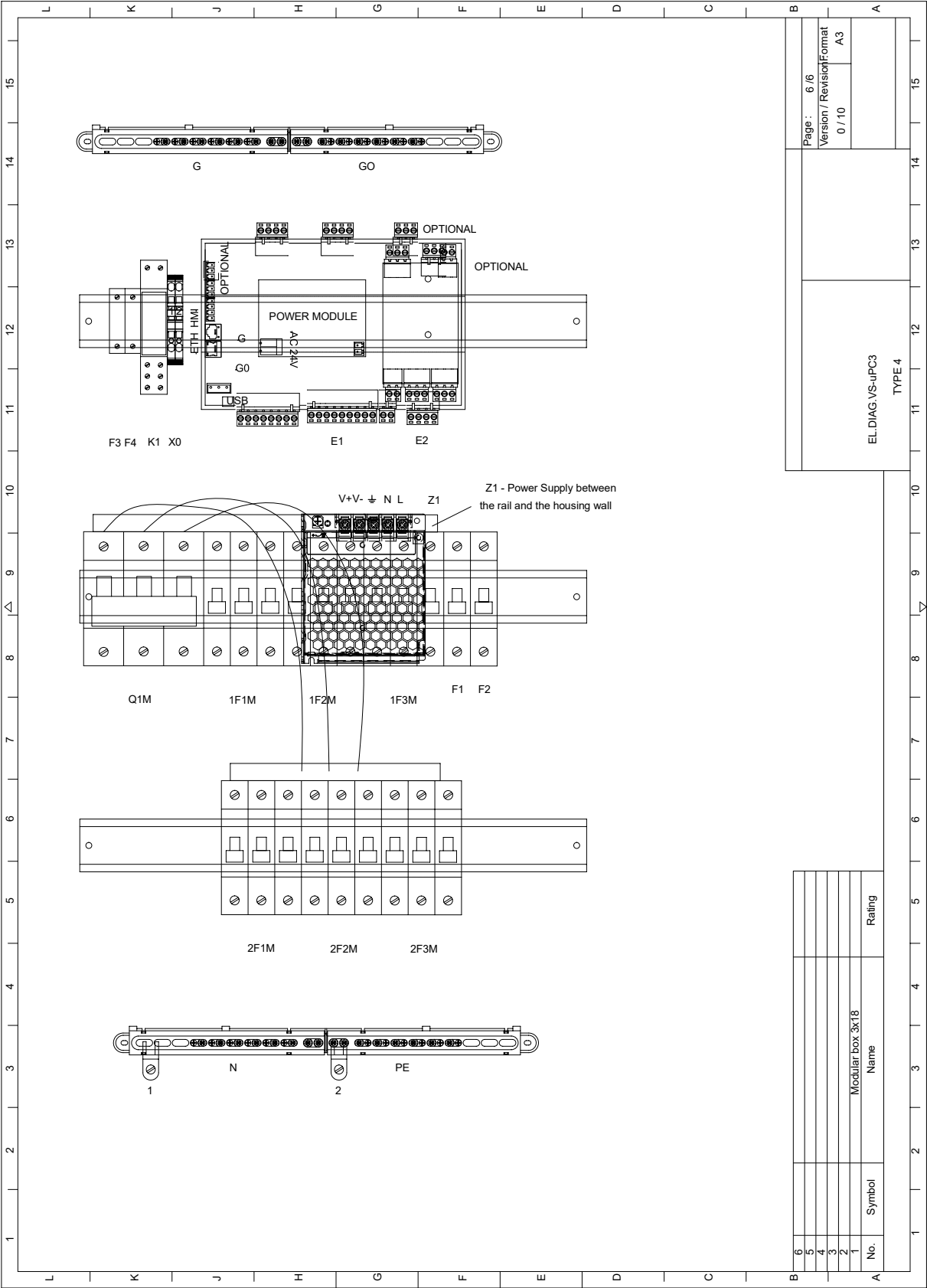
EL_DIAG_EC_VVS180-VVS230-2.4kWx6_5/8





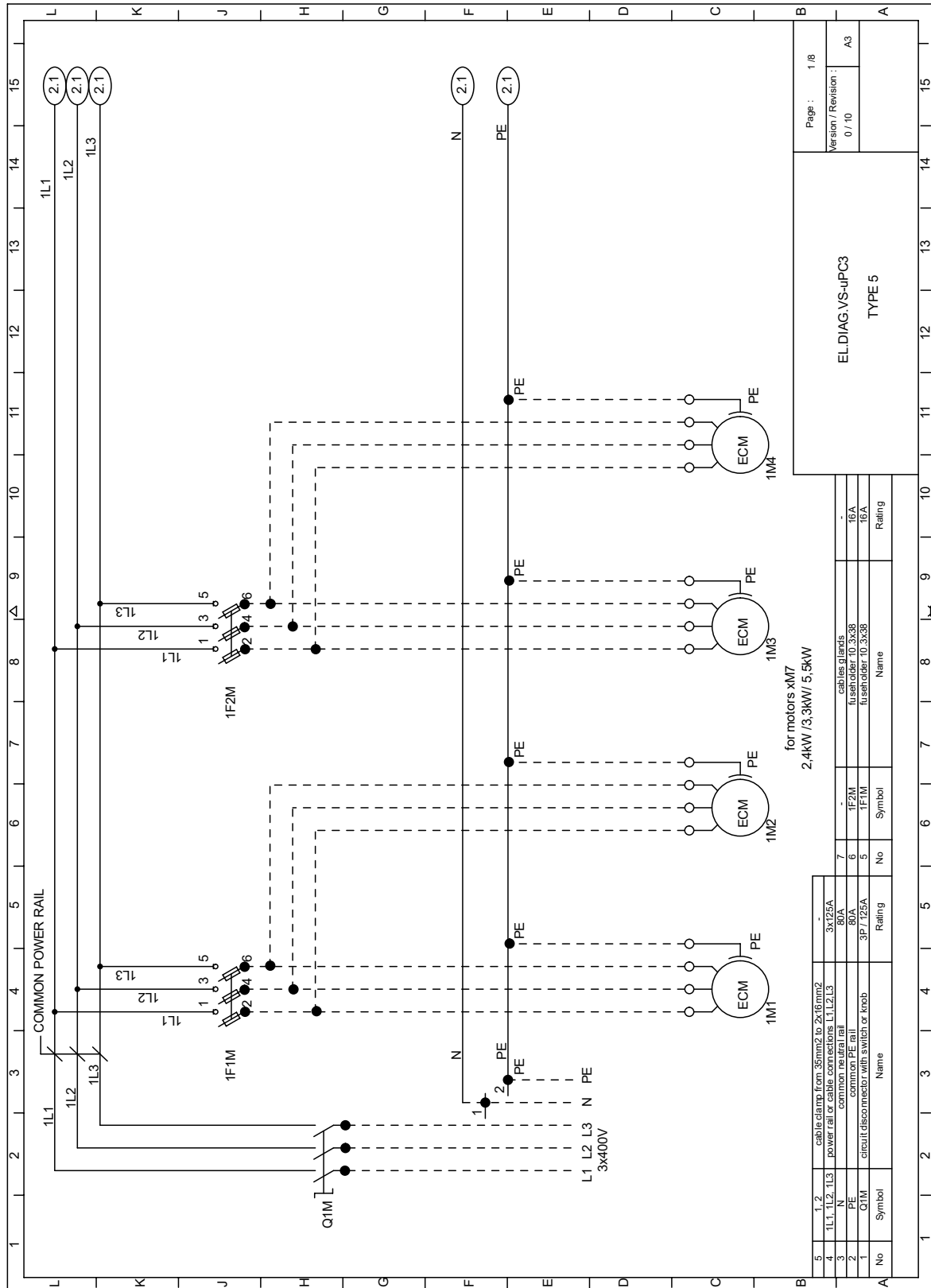


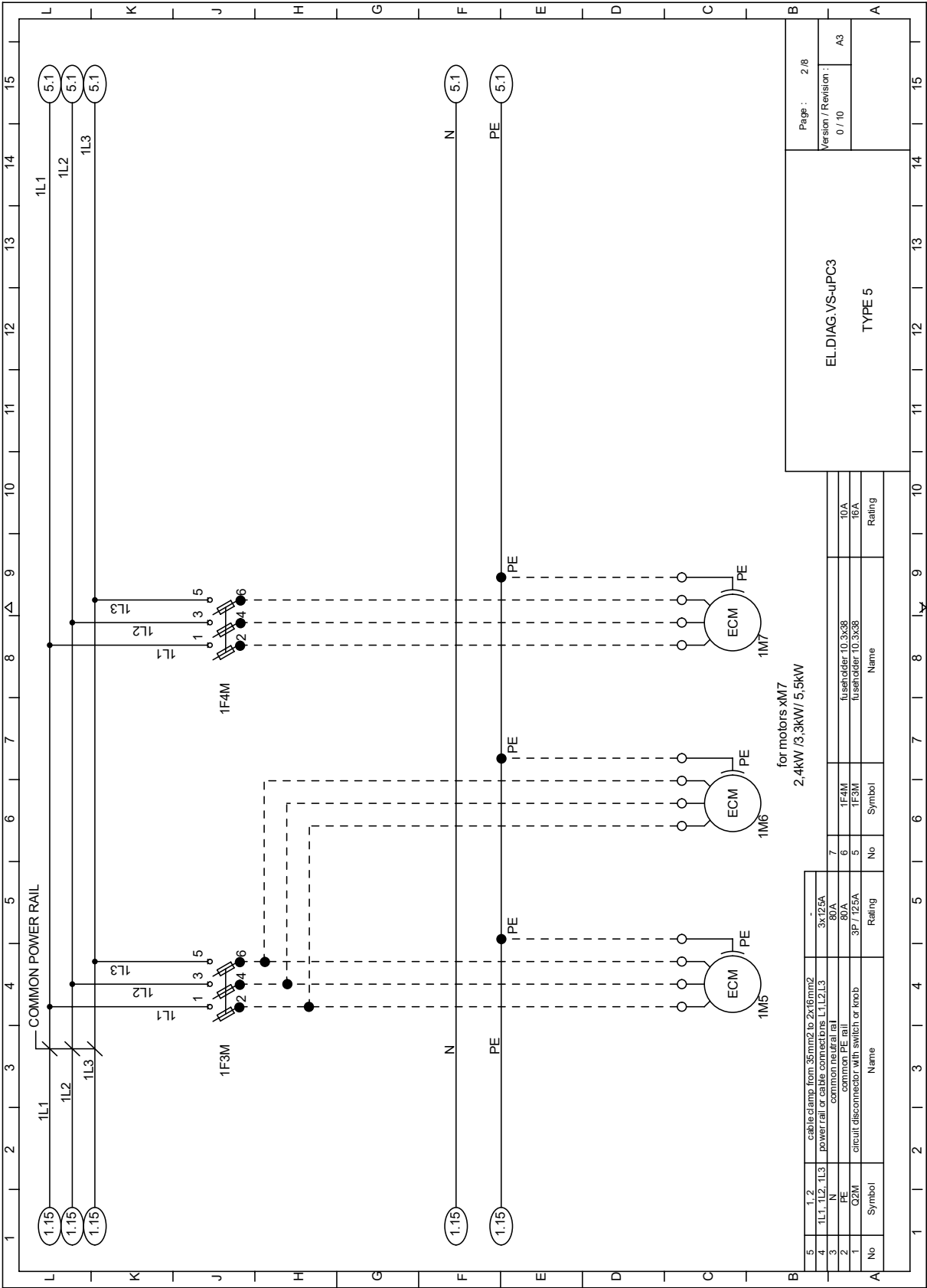
EL_DIAG_EC_VVS180-VVS230-2.4kWx6_8/8



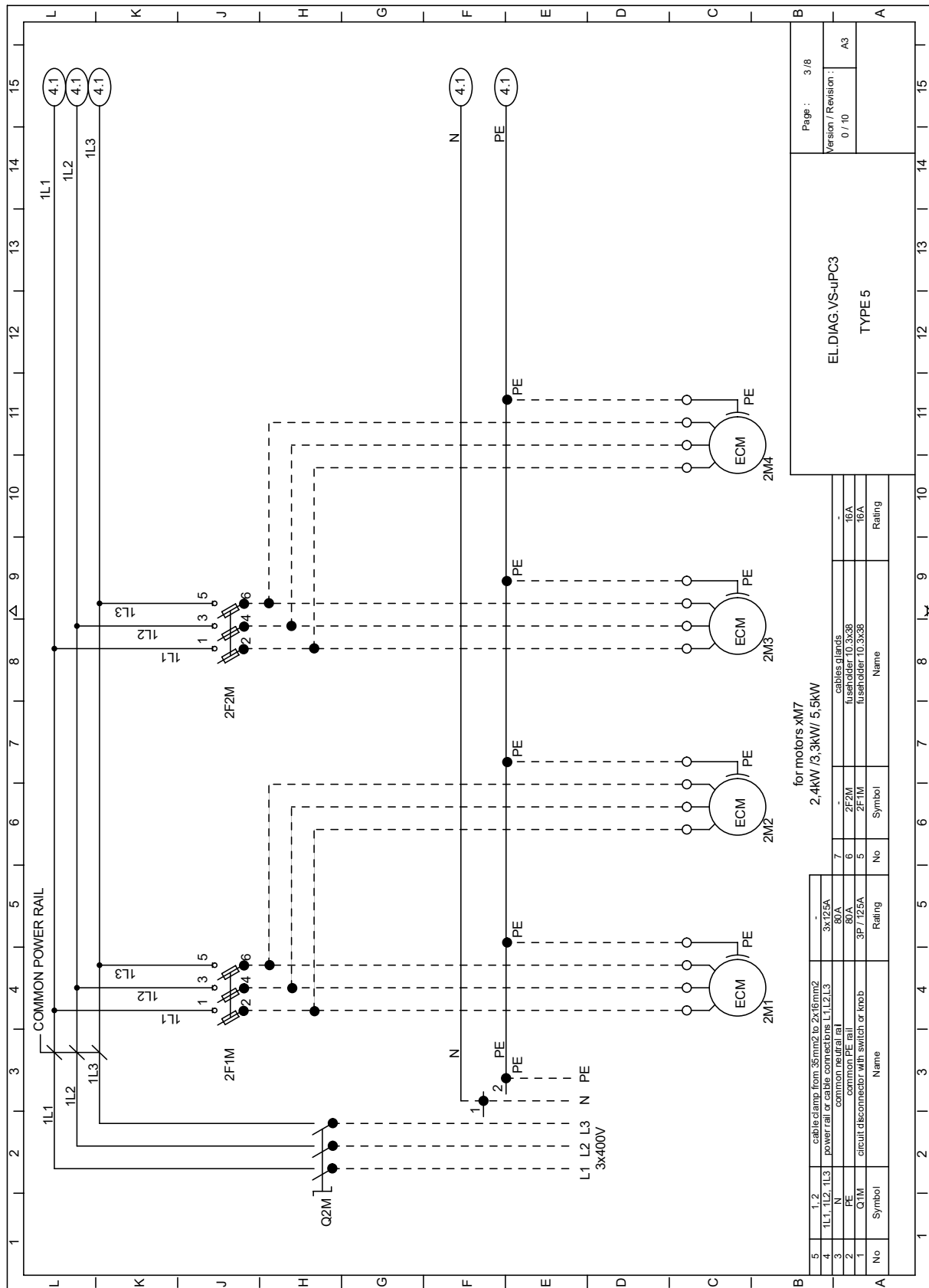
4.1.7 EC VVS180-VVS230- 2.4kW x7

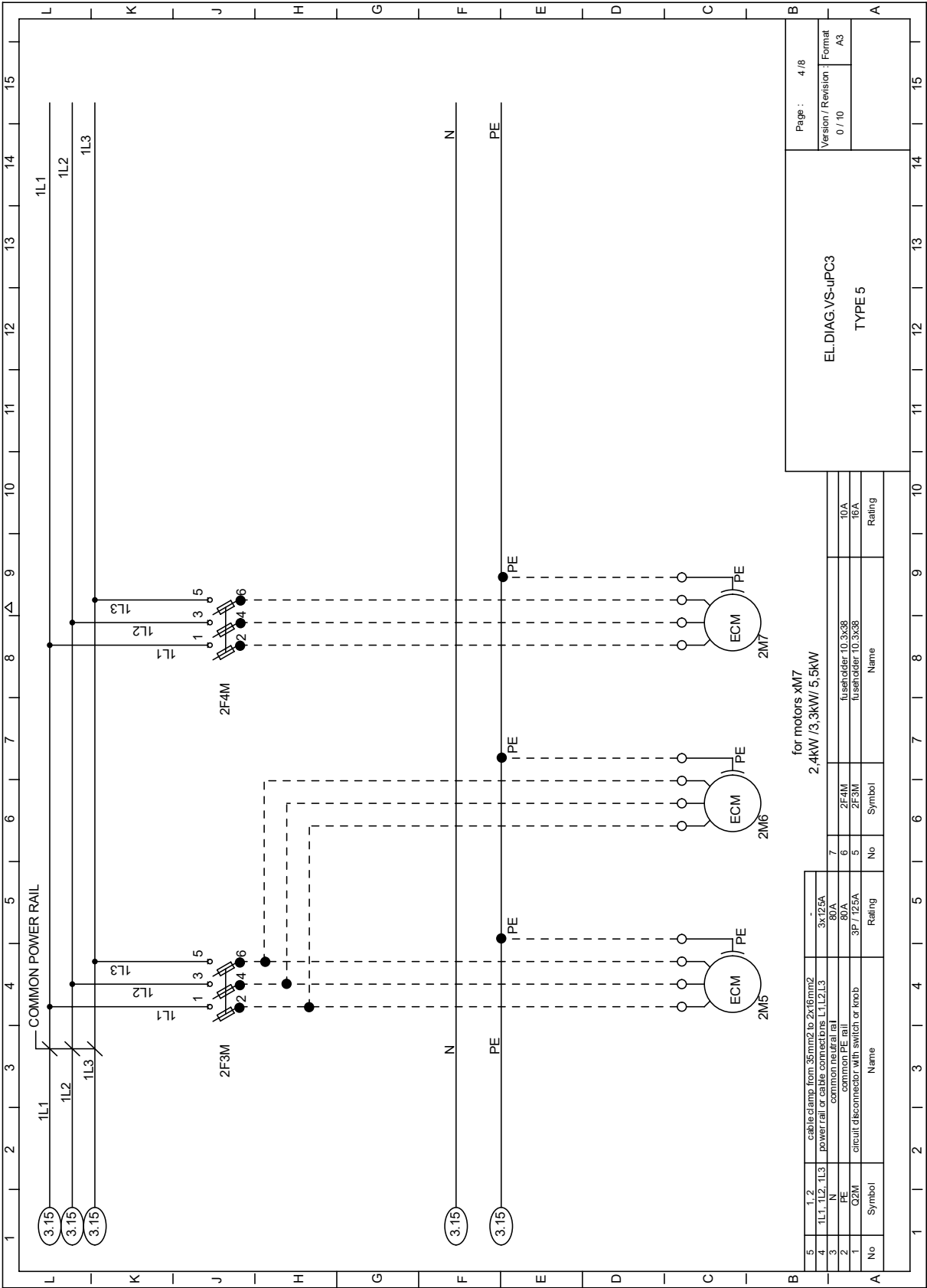
EL_DIAG_EC_VVS230-2.4kWx7_1/8



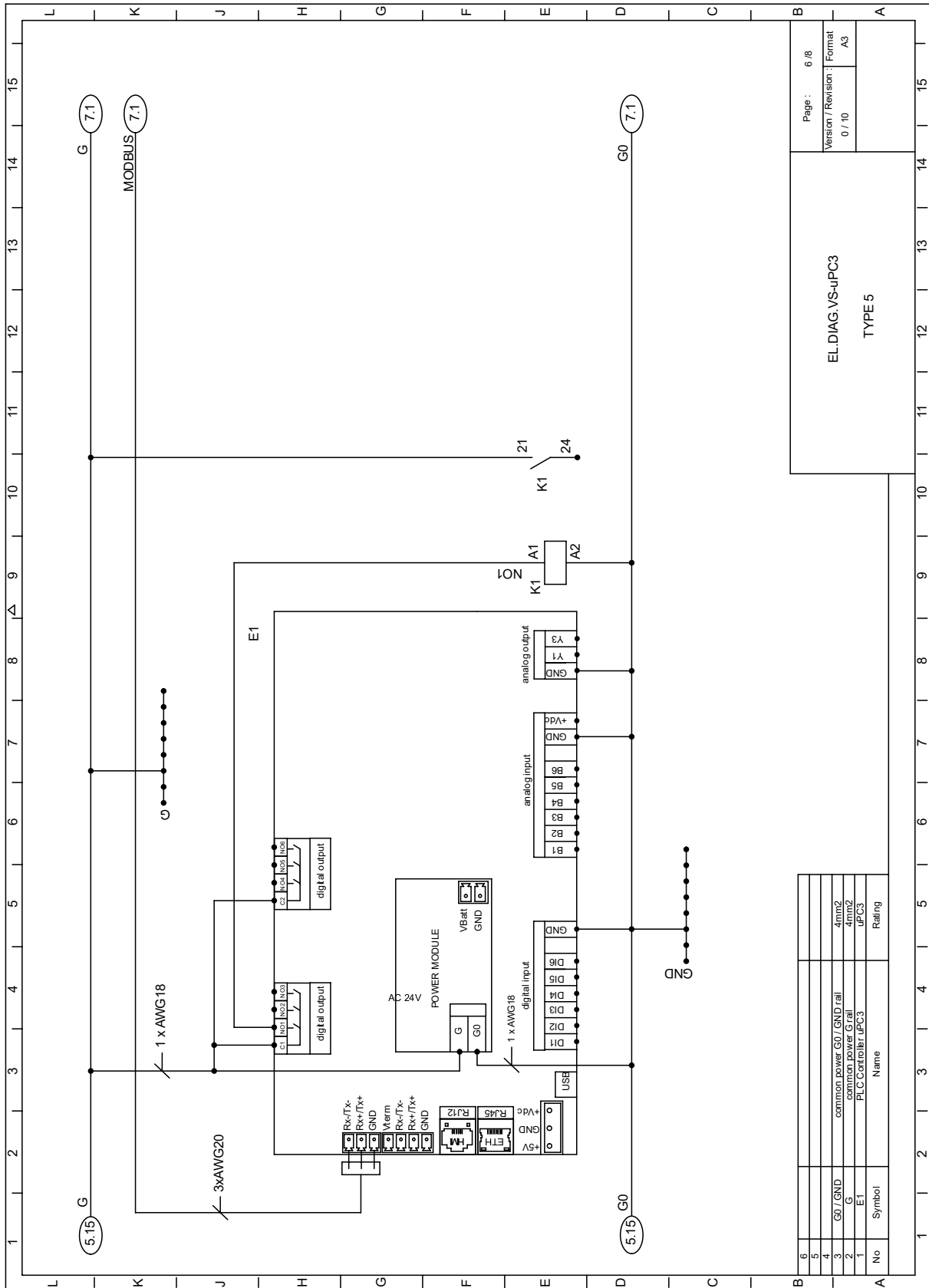


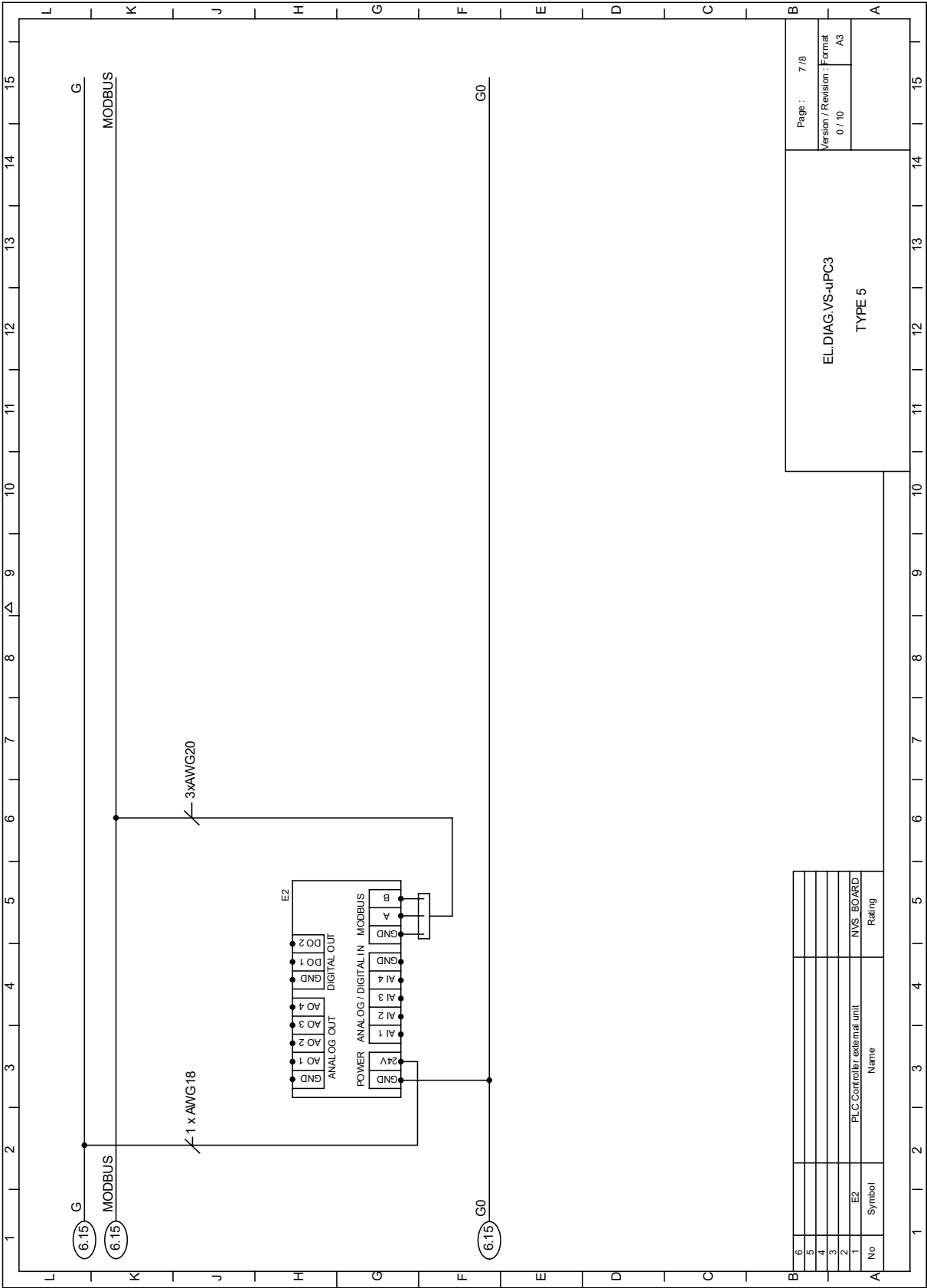
EL_DIAG_EC_VVS230-2.4kWx7_3/8

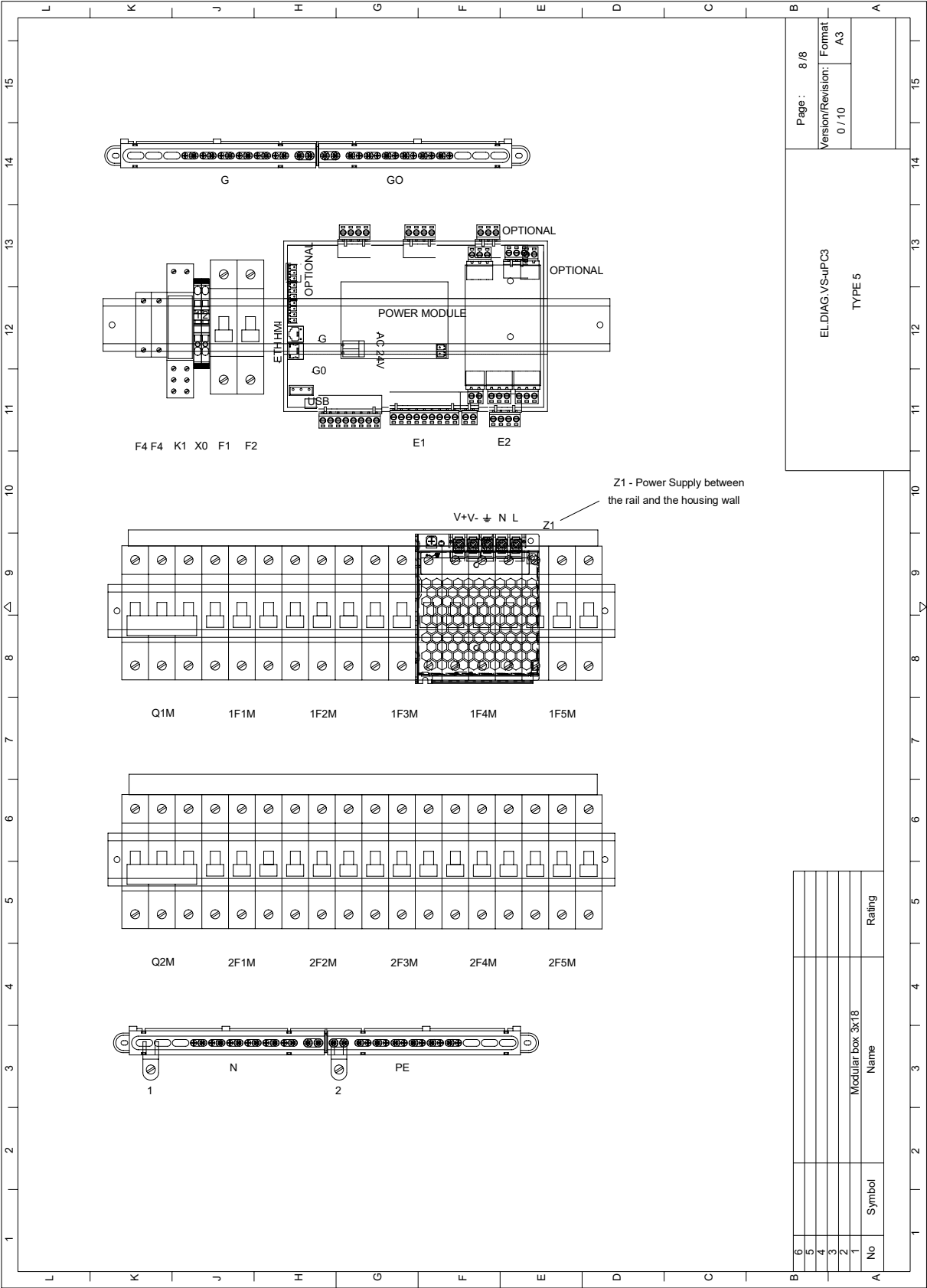




EL_DIAG_EC_VVS230-2.4kWx7_6/8

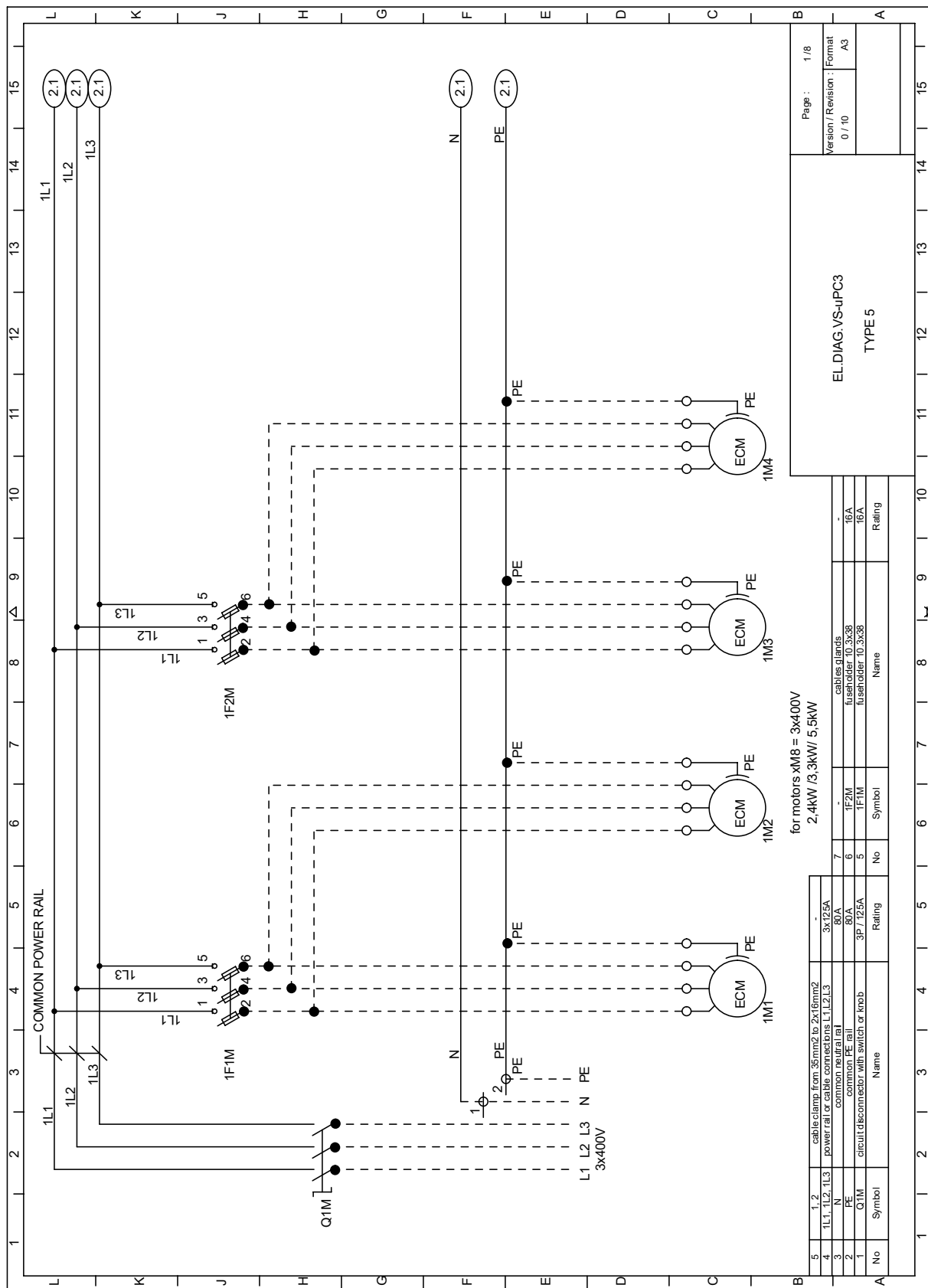




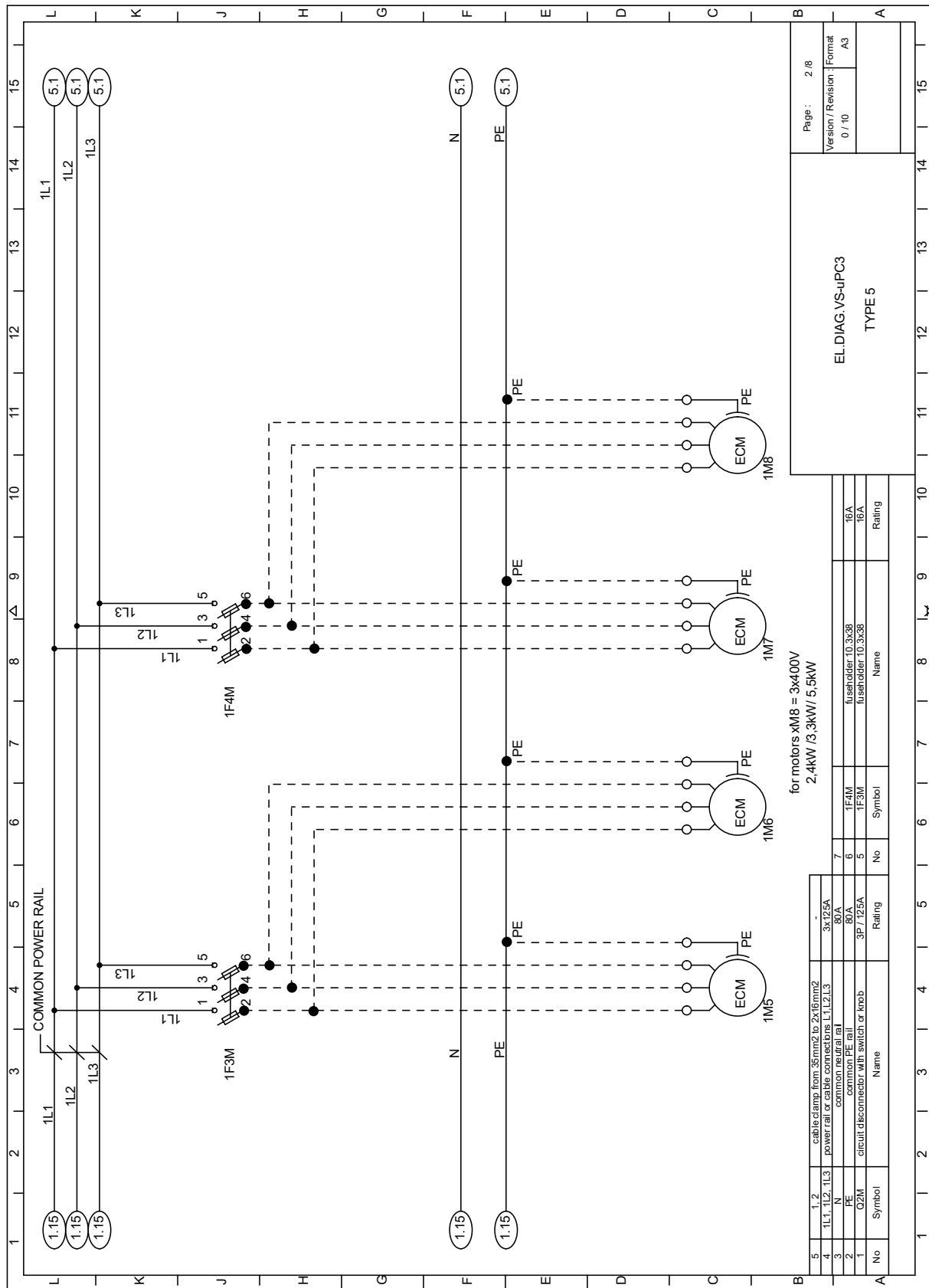


4.1.8 EC VVS300- 2.4kW x8

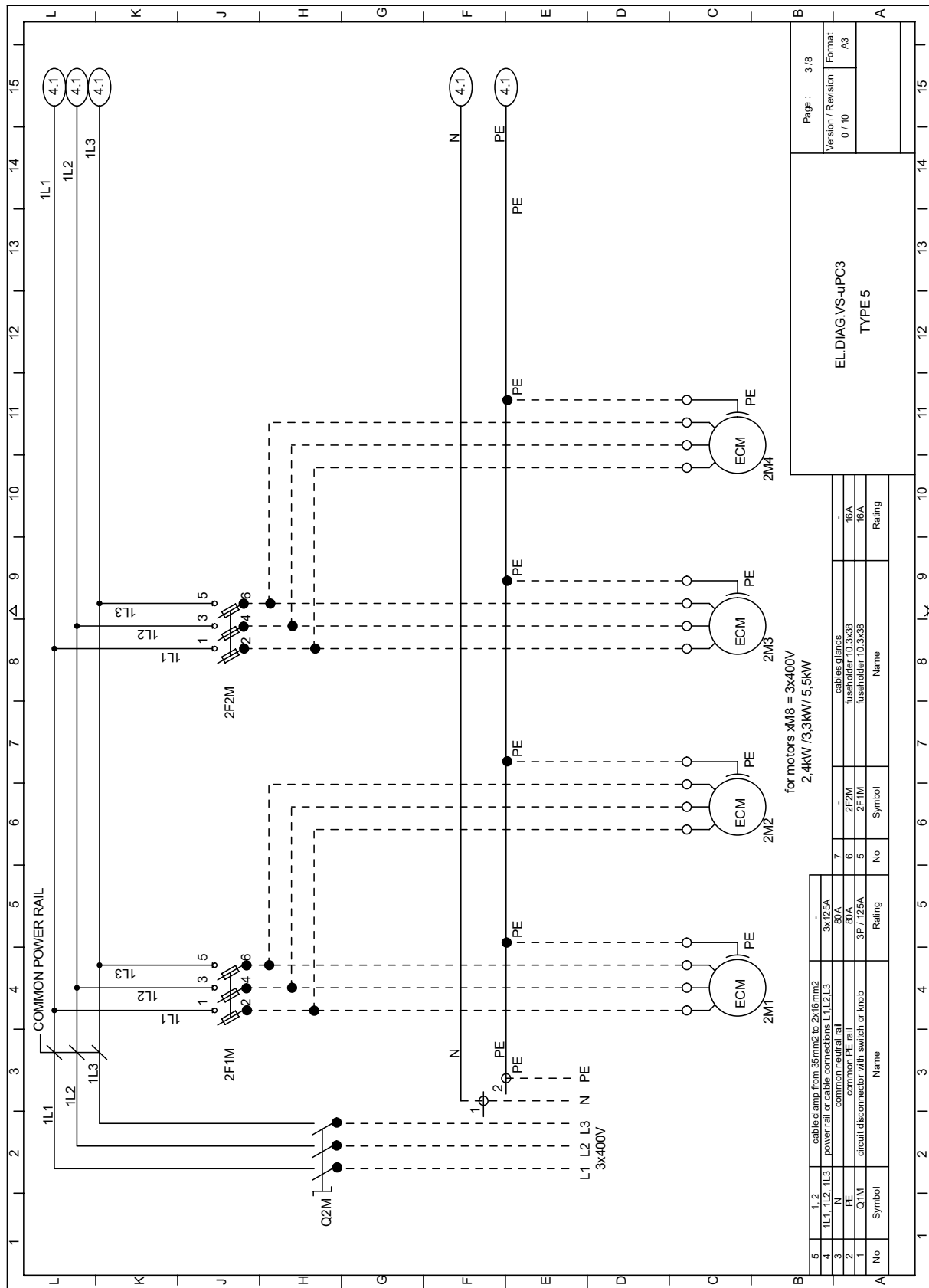
EL_DIAG_EC_VVS300-2.4kWx8_1/8



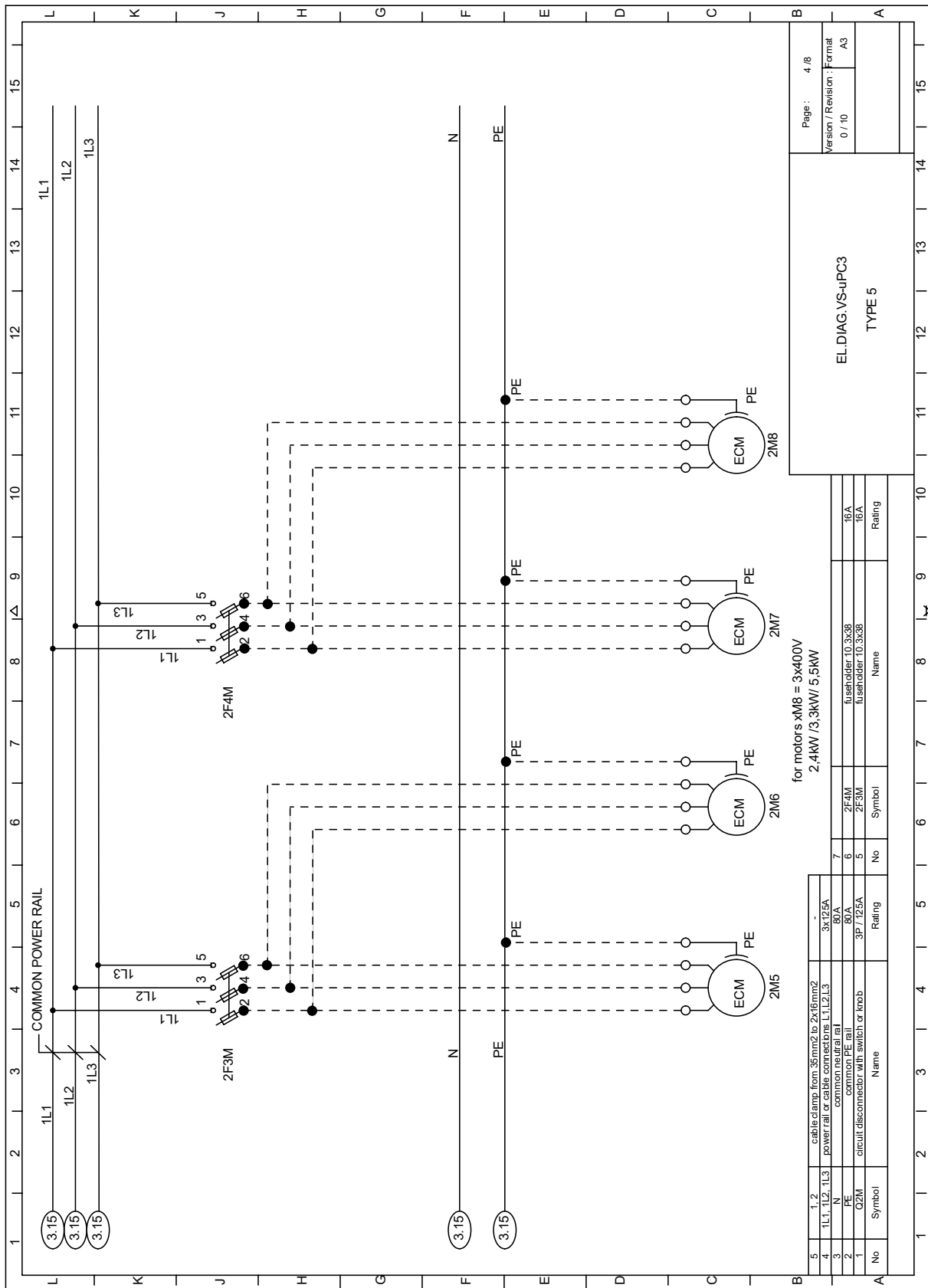
EL_DIAG_EC_VVS300-2.4kWx8_2/8



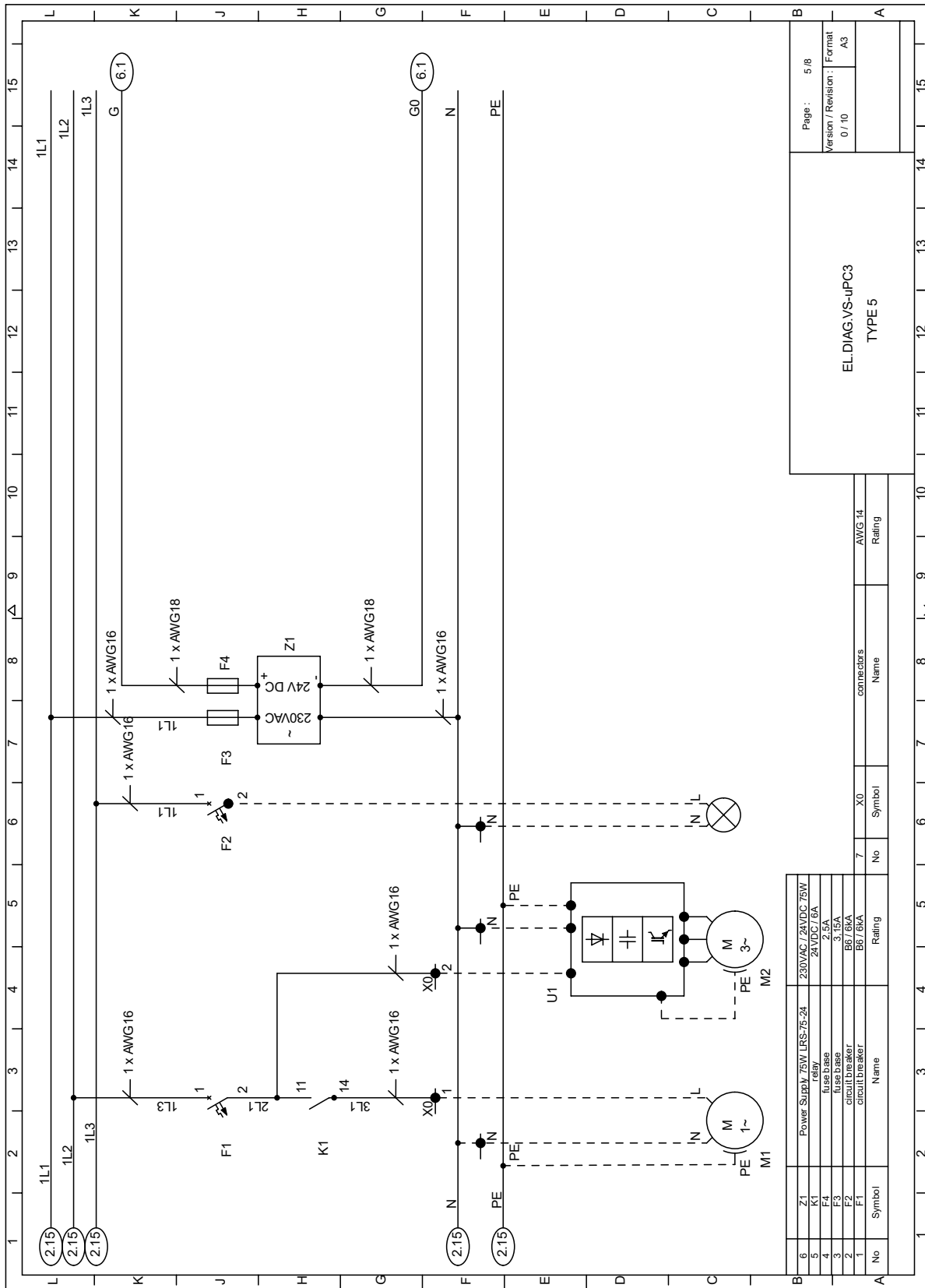
EL_DIAG_EC_VVS300-2.4kWx8 3/8

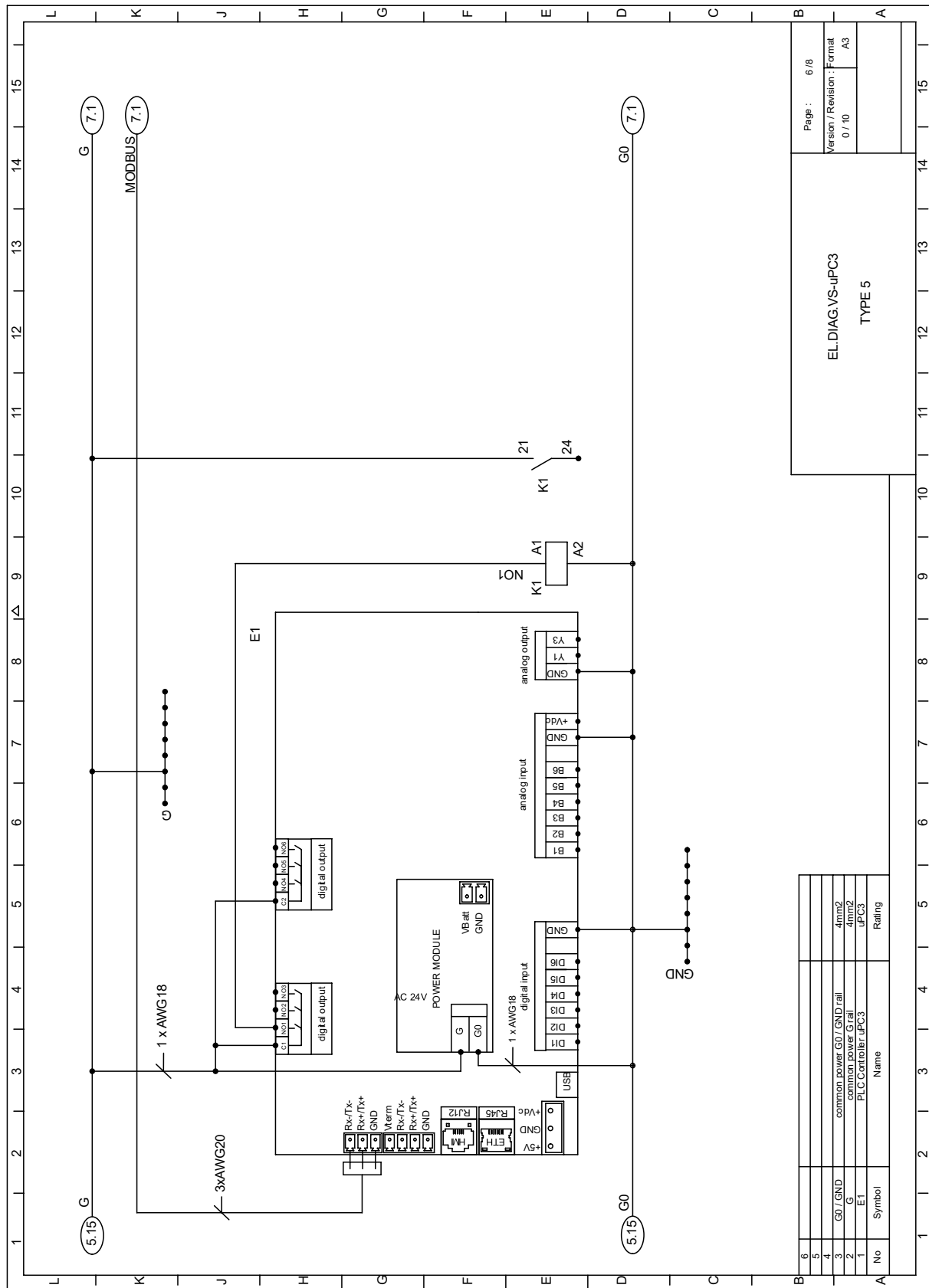


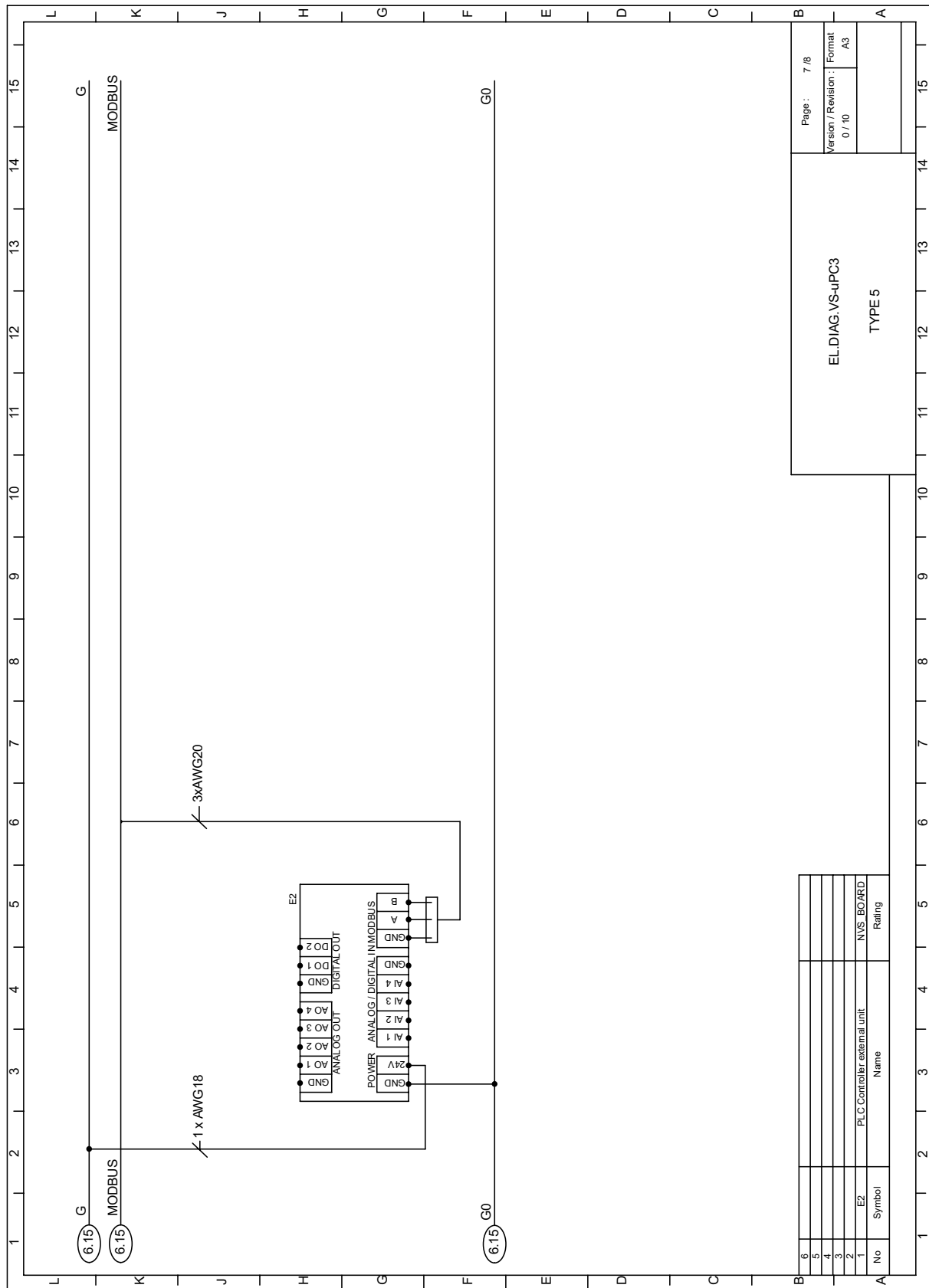
EL_DIAG_EC_VVS300-2.4kWx8_4/8

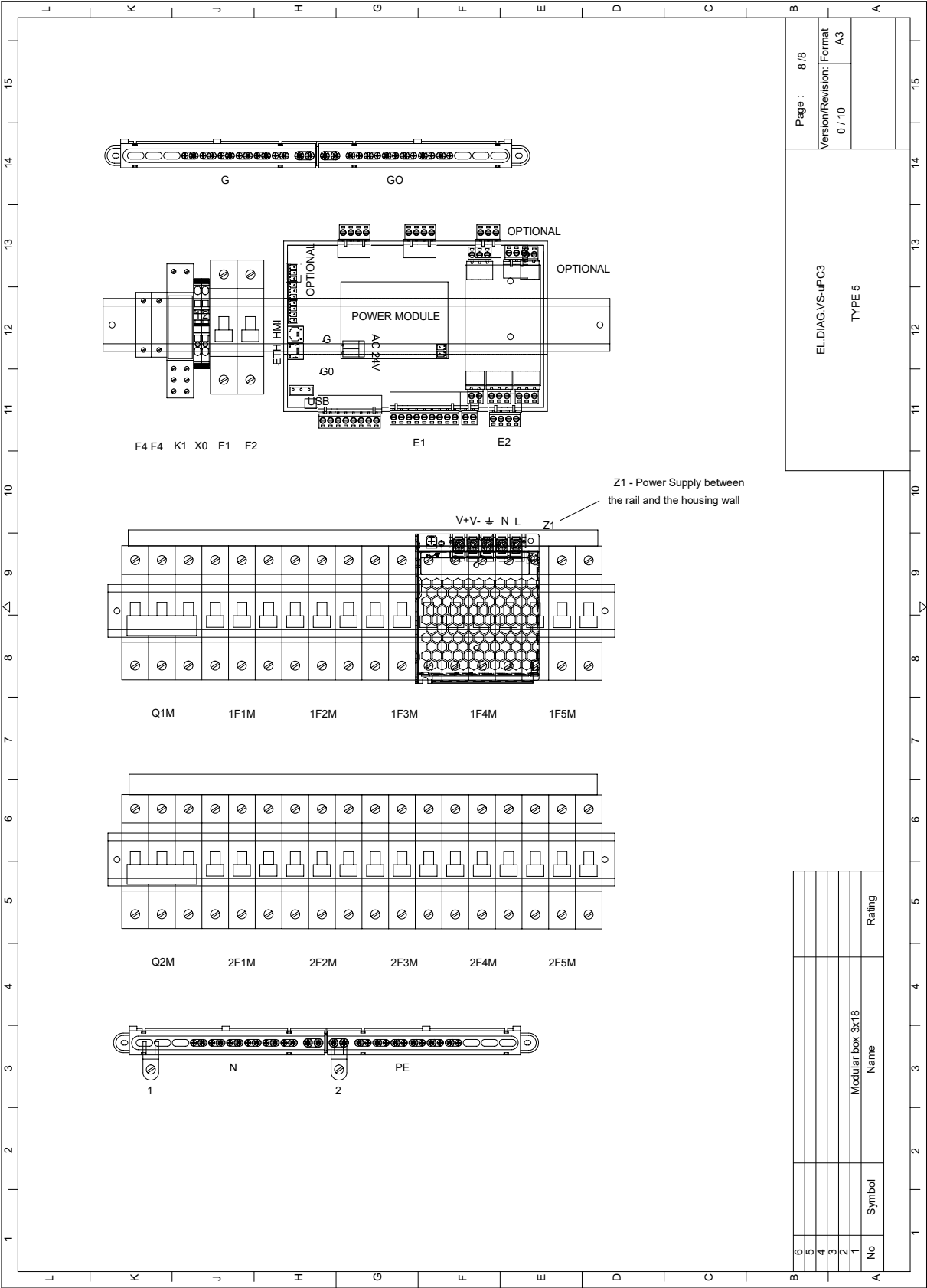


EL_DIAG_EC_VVS300-2.4kWx8_5/8





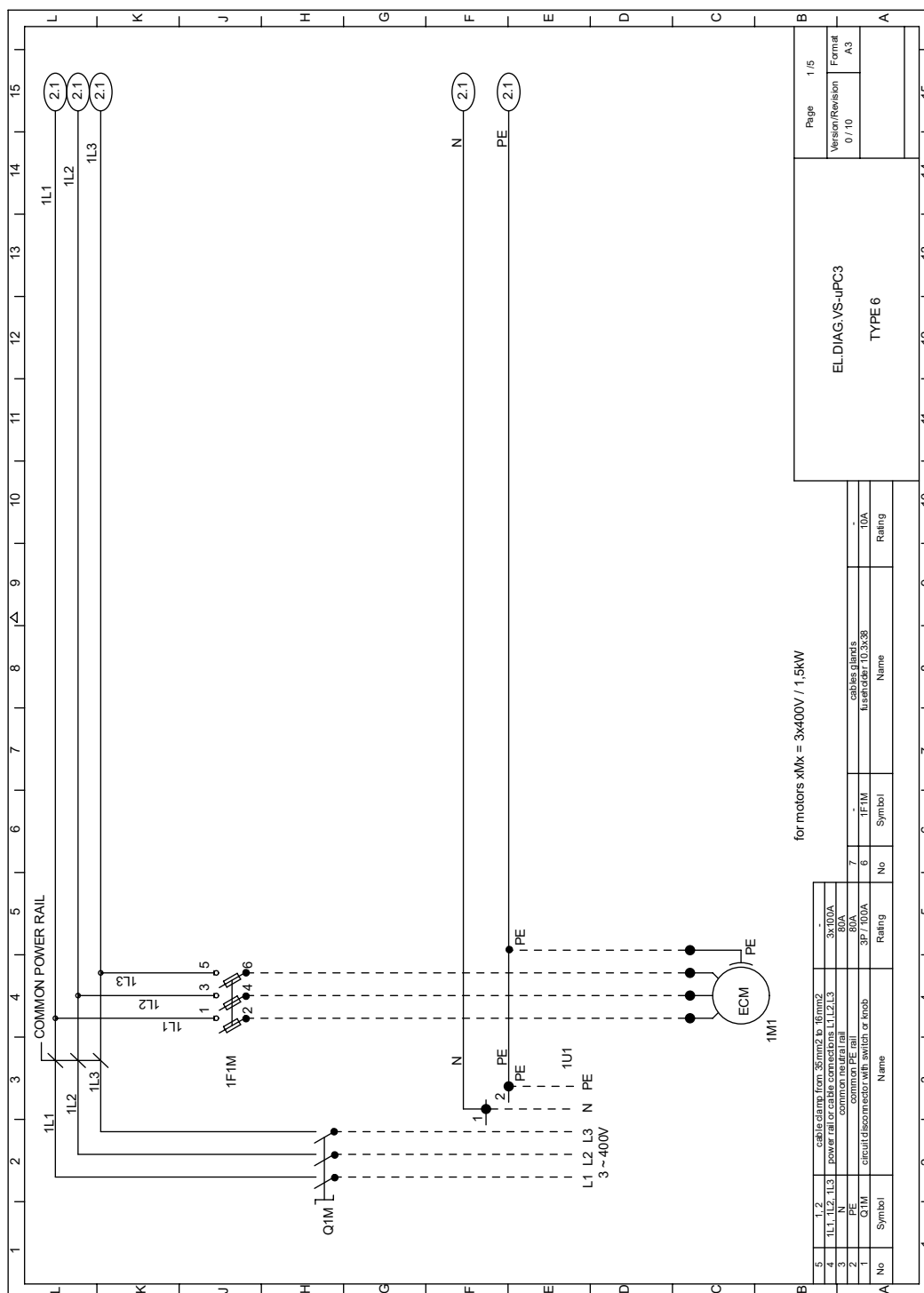




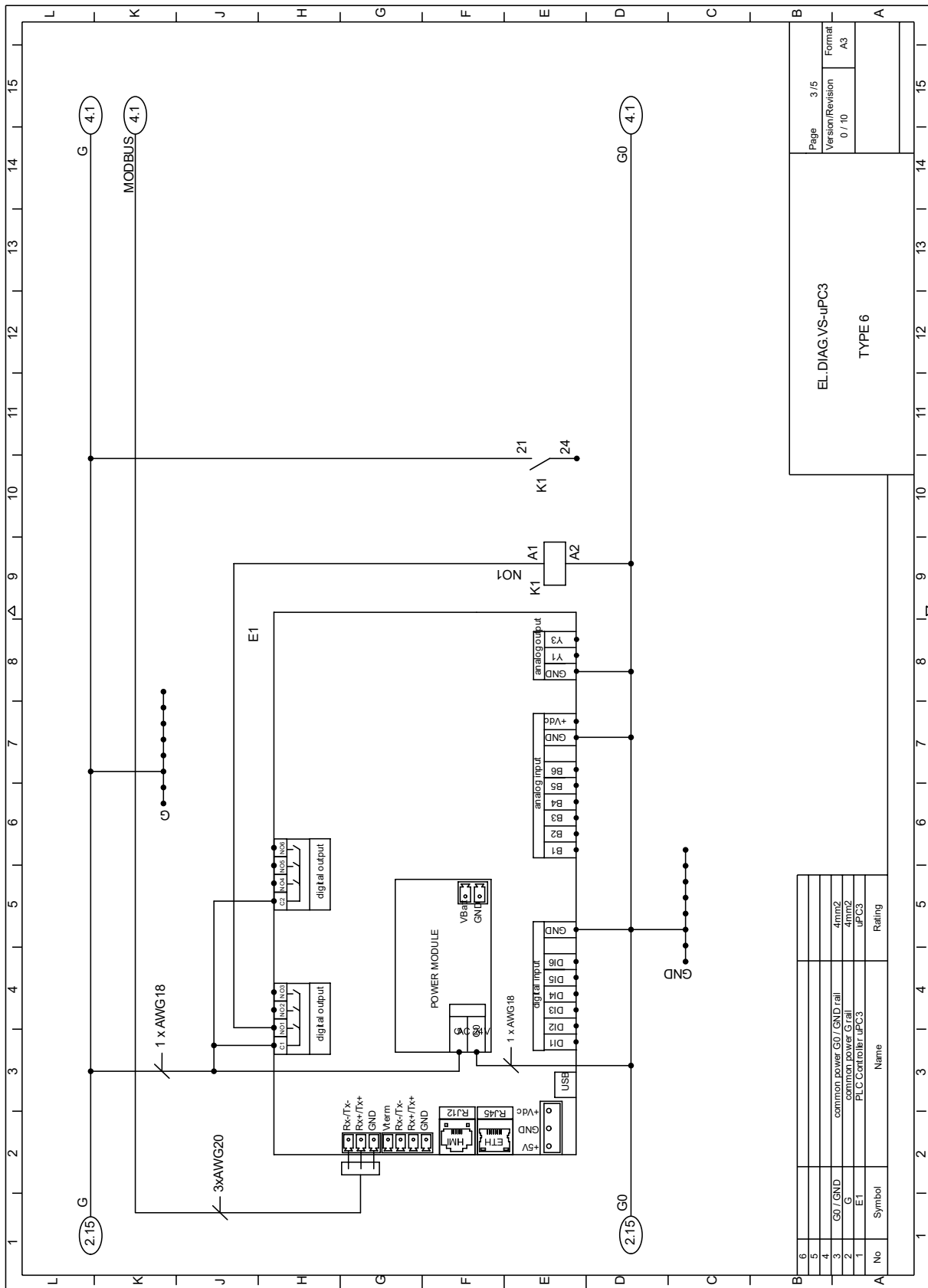
4.2 CG DIAGRAMS FOR SUPPLY UNITS

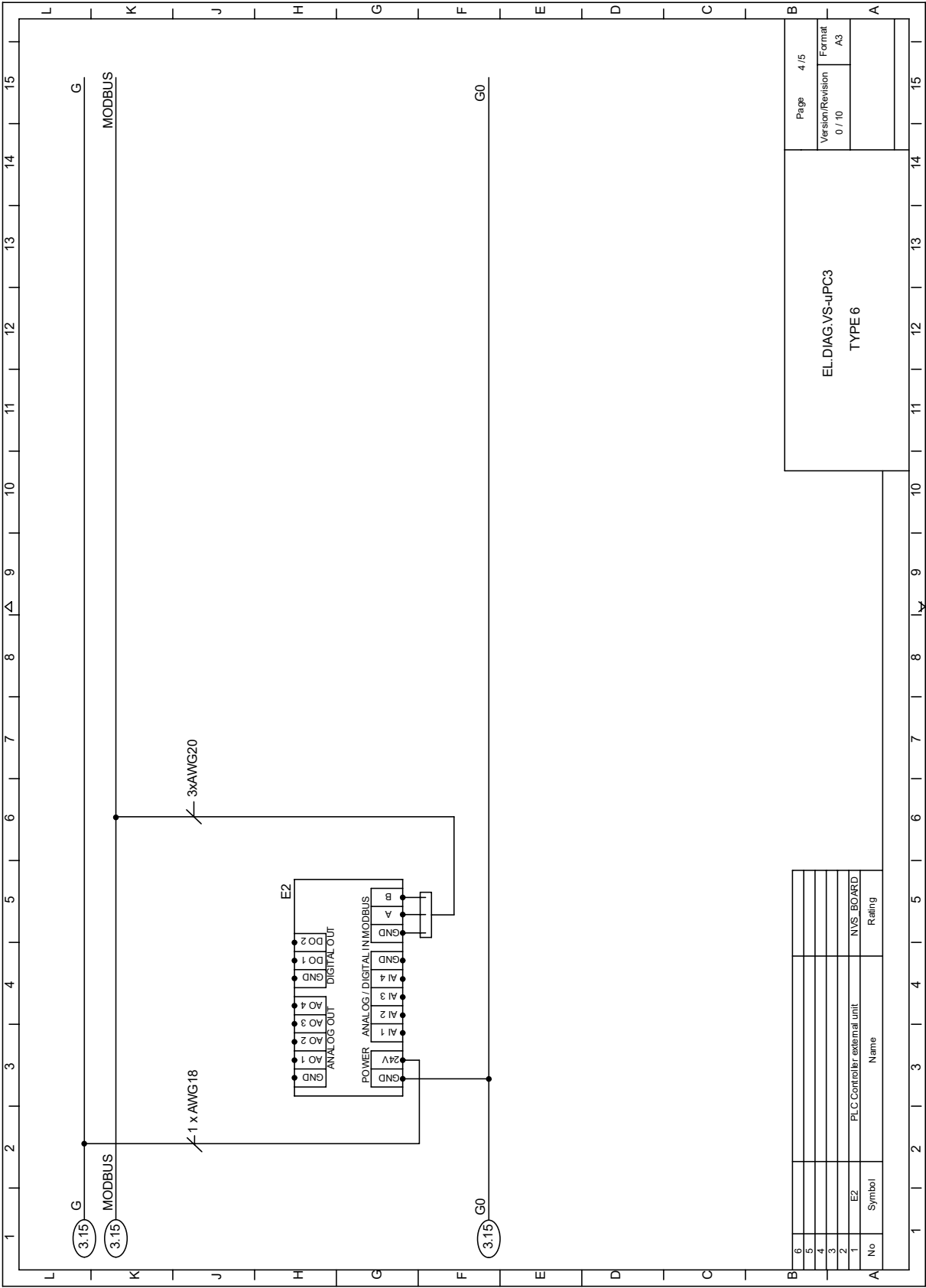
4.2.1 EC VVS030-VVS040- 2.4kW x 1, 1.5kW x 1

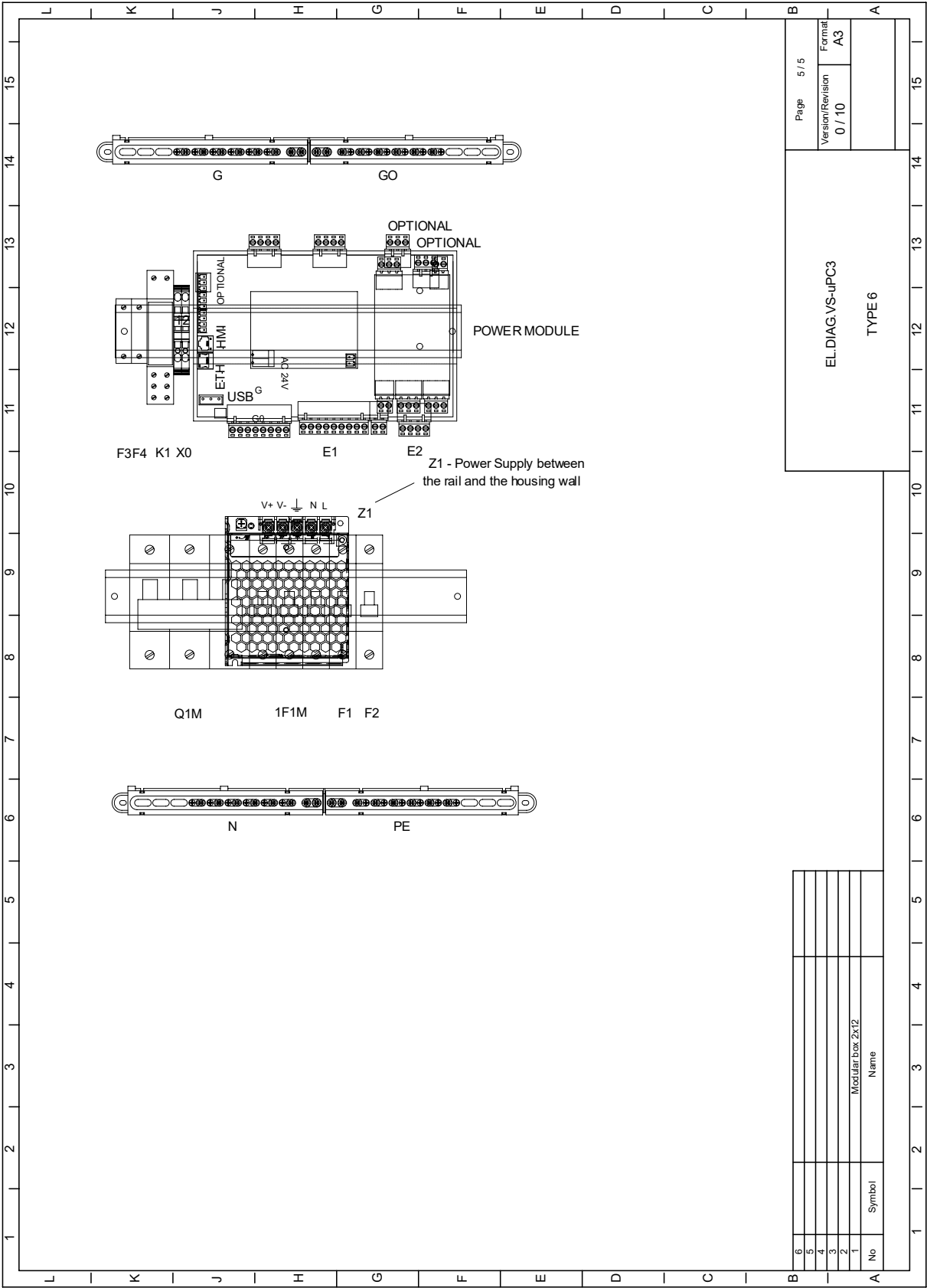
EL_DIAG_EC_SUPP_VVS030_040_x1_1/5



EL_DIAG_EC_SUPP_VVS030_VVS040_x1_3/5

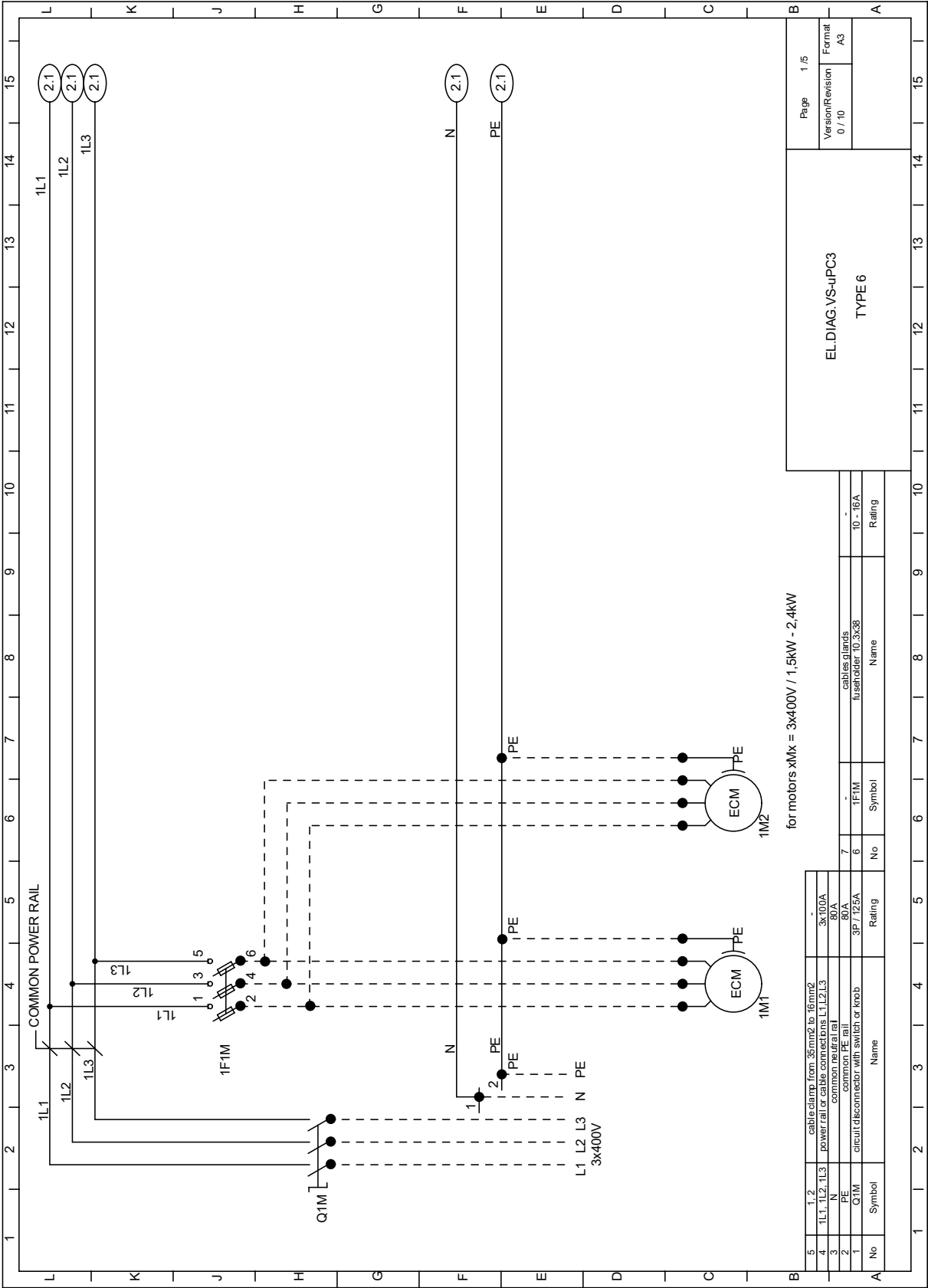




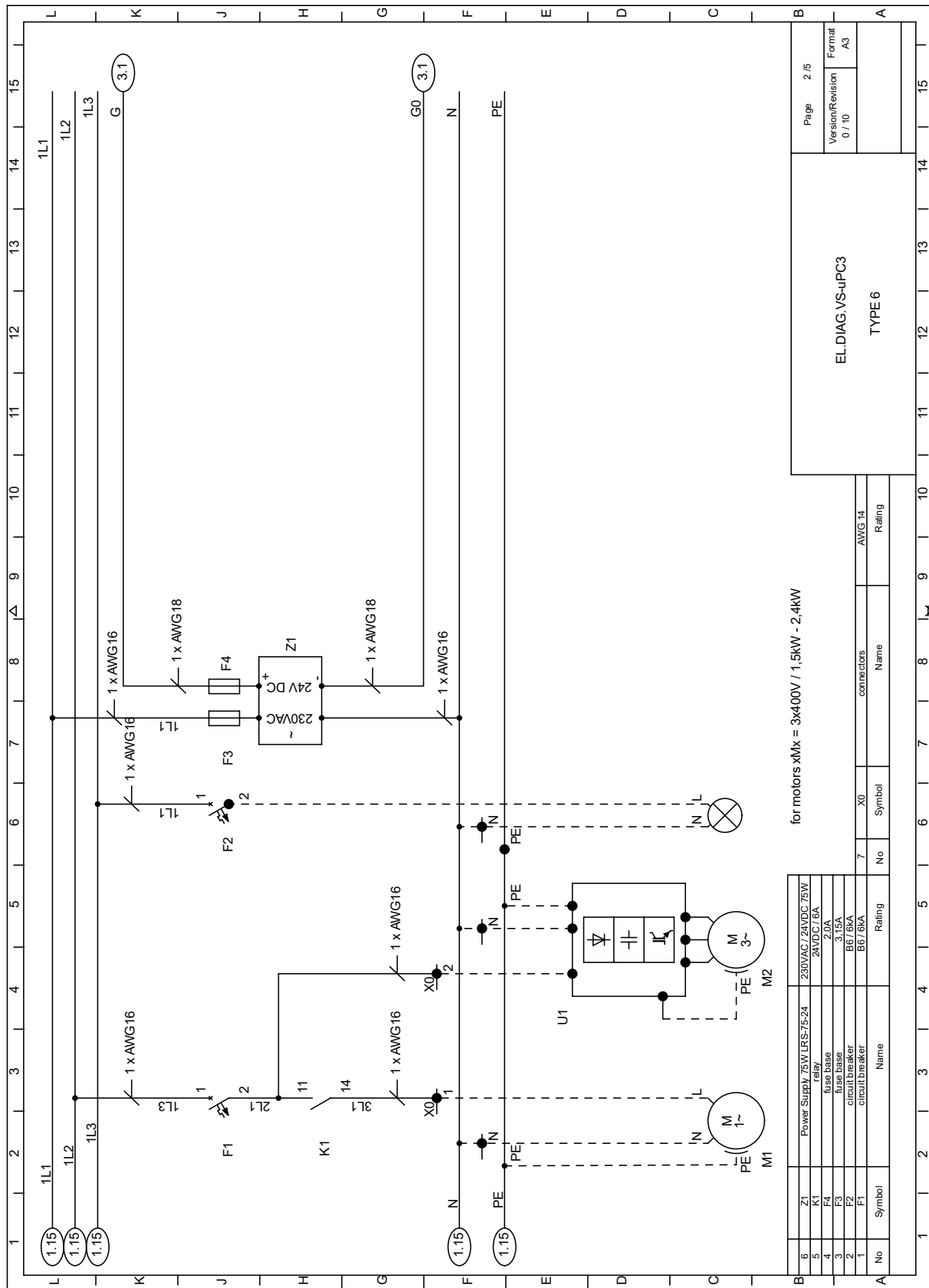


4.2.2 EC VVS055-VVS120- 2.4kW x2

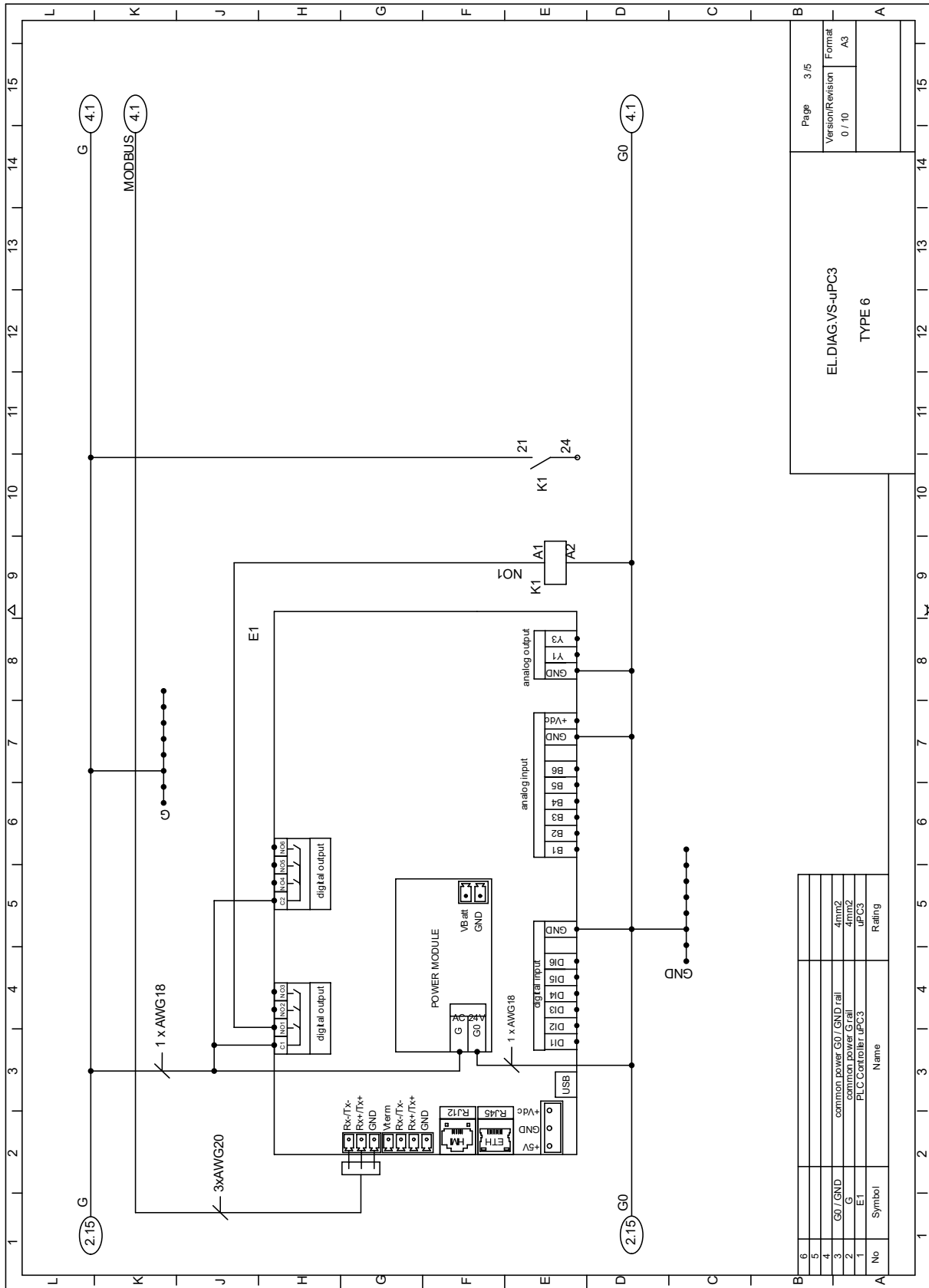
EL_DIAG_EC_SUPP_VVS055_VVS120_x2_1/5

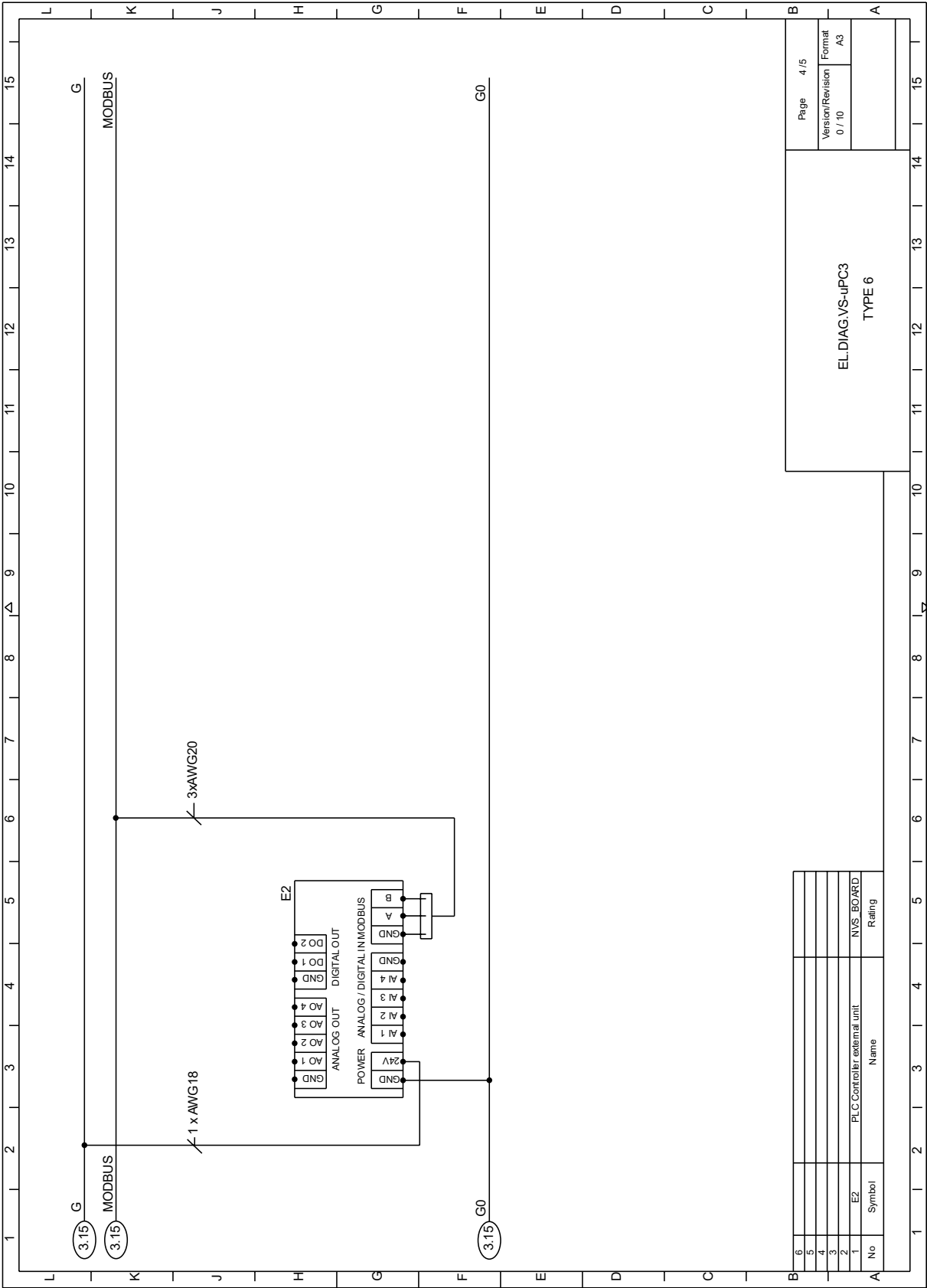


EL_DIAG_EC_SUPP_VVS055_VVS120_x2_2/5

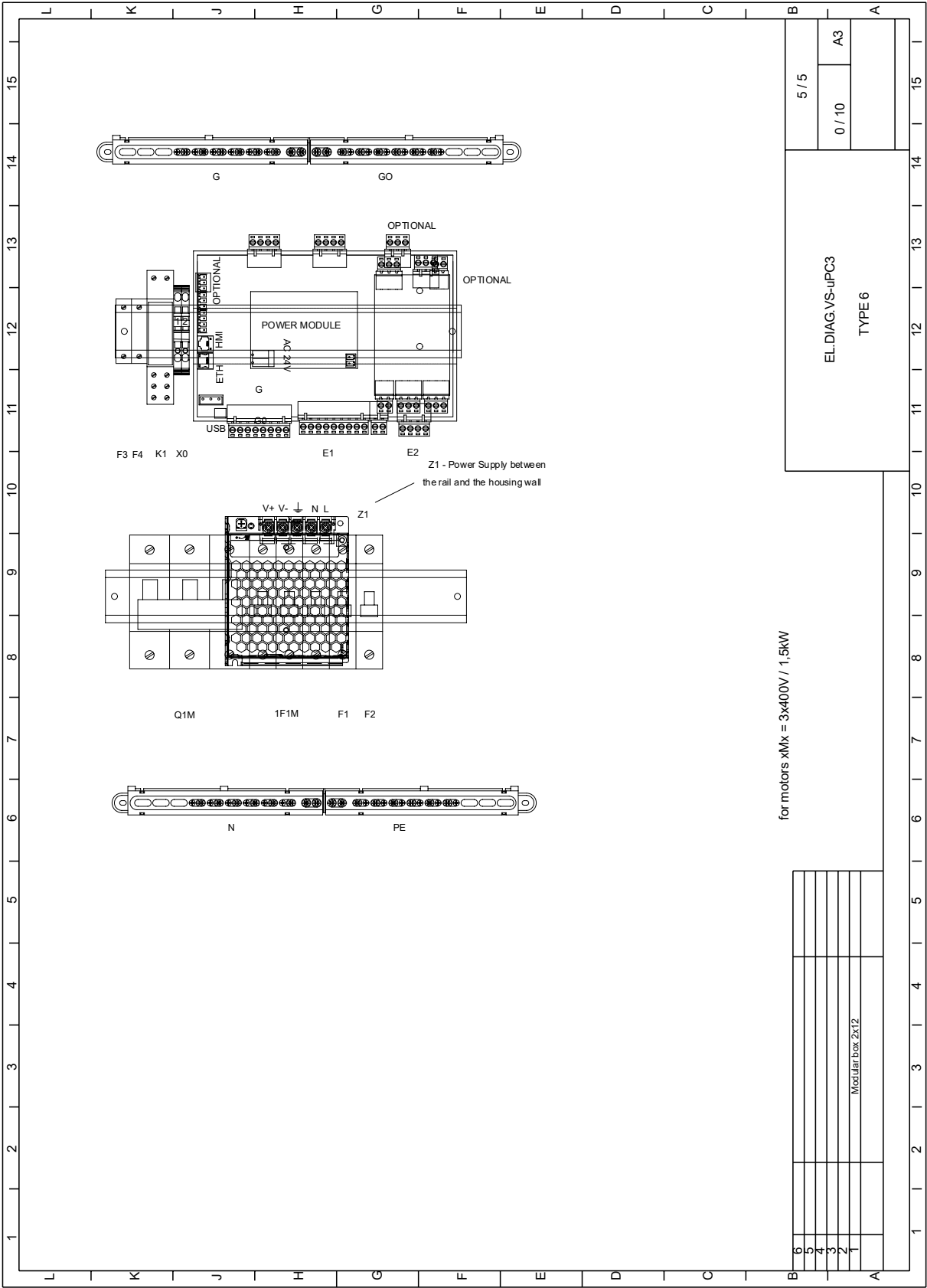


EL_DIAG_EC_SUPP_VVS055_VVS120_x2_3/5



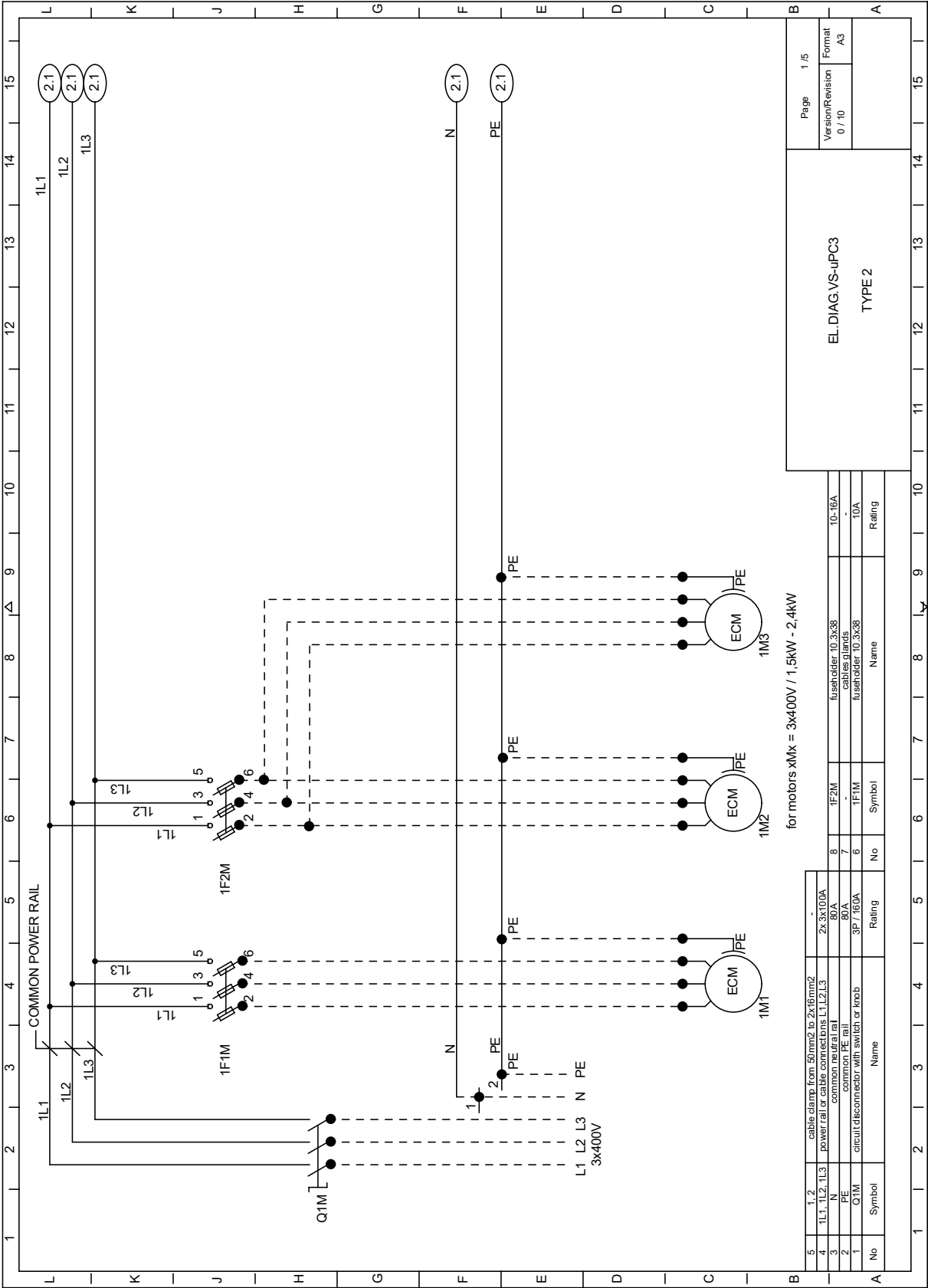


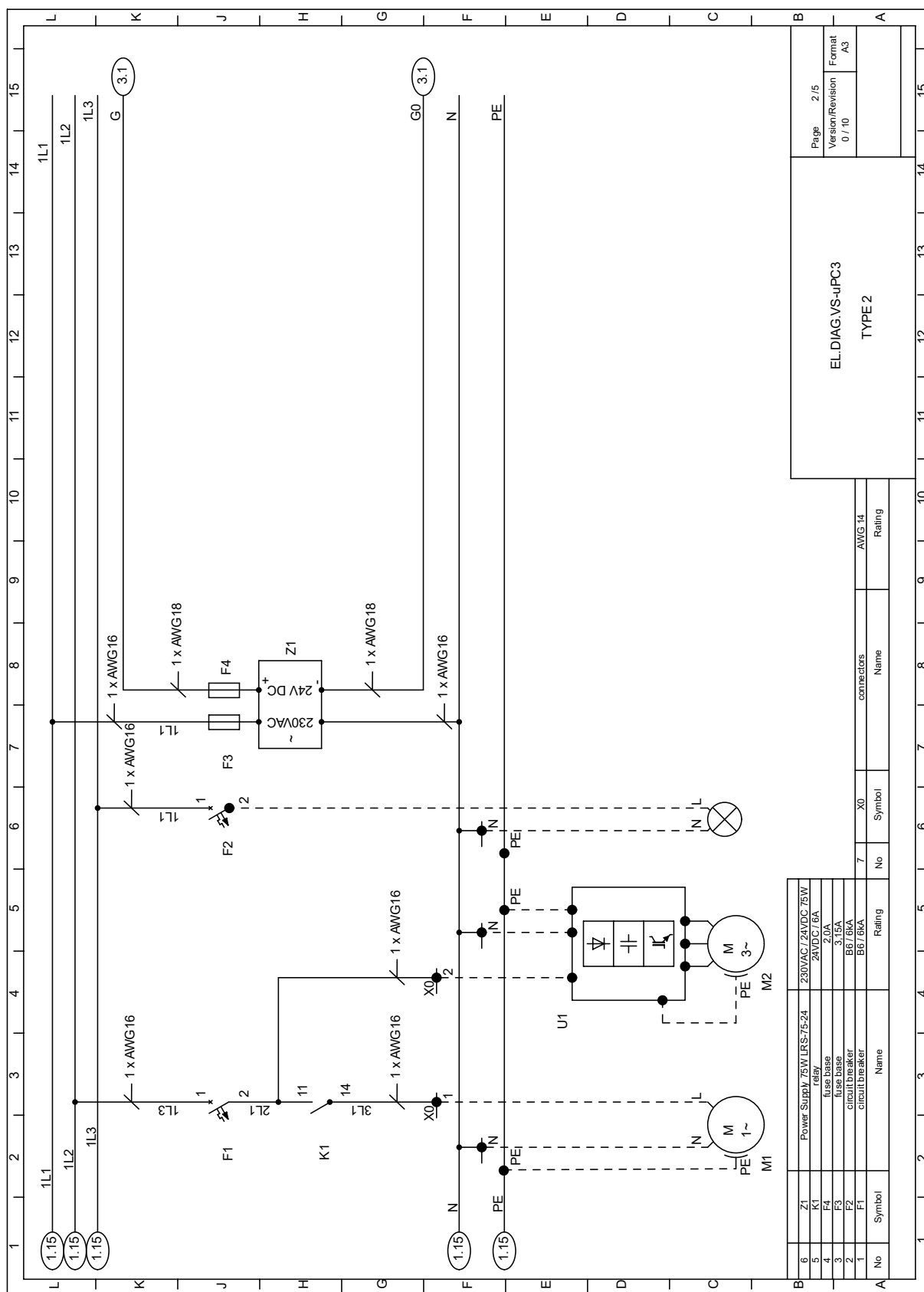
EL_DIAG_EC_SUPP_VVS055_VVS120_x2_5/5



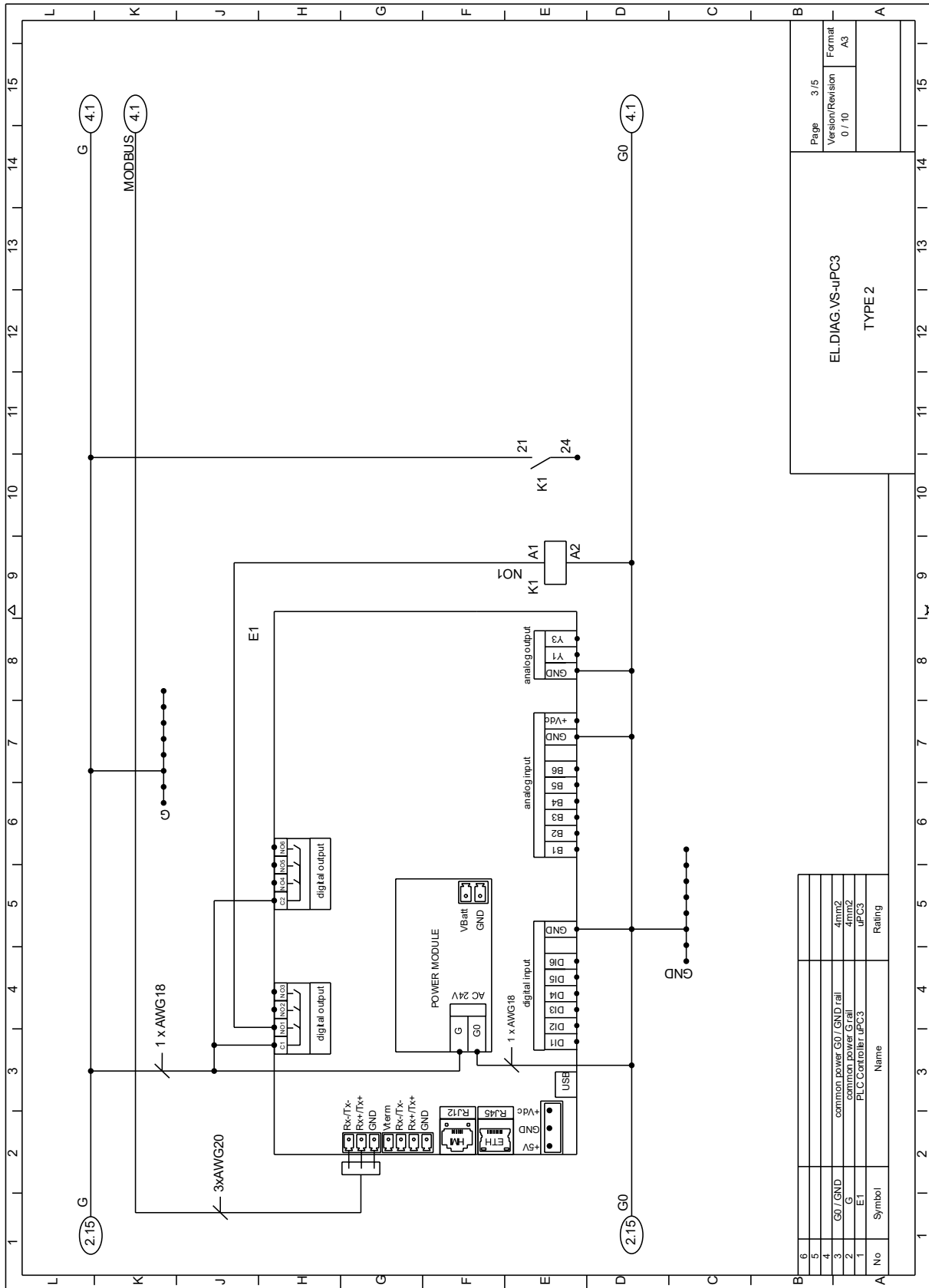
4.2.3 EC VVS075-VVS150- 2.4kW x3

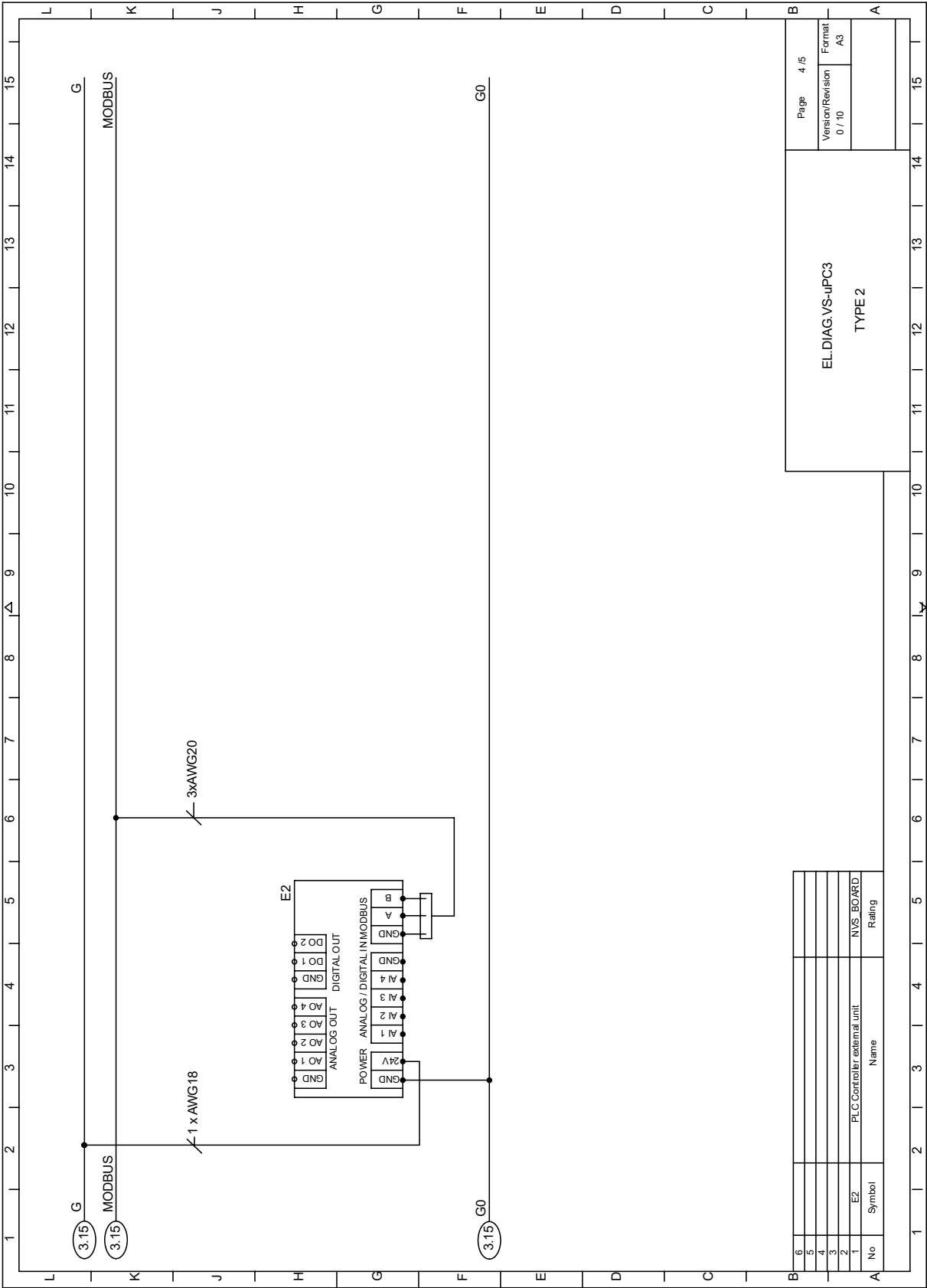
EL_DIAG_EC_SUPP_VVS075_VVS150_x3_1/5

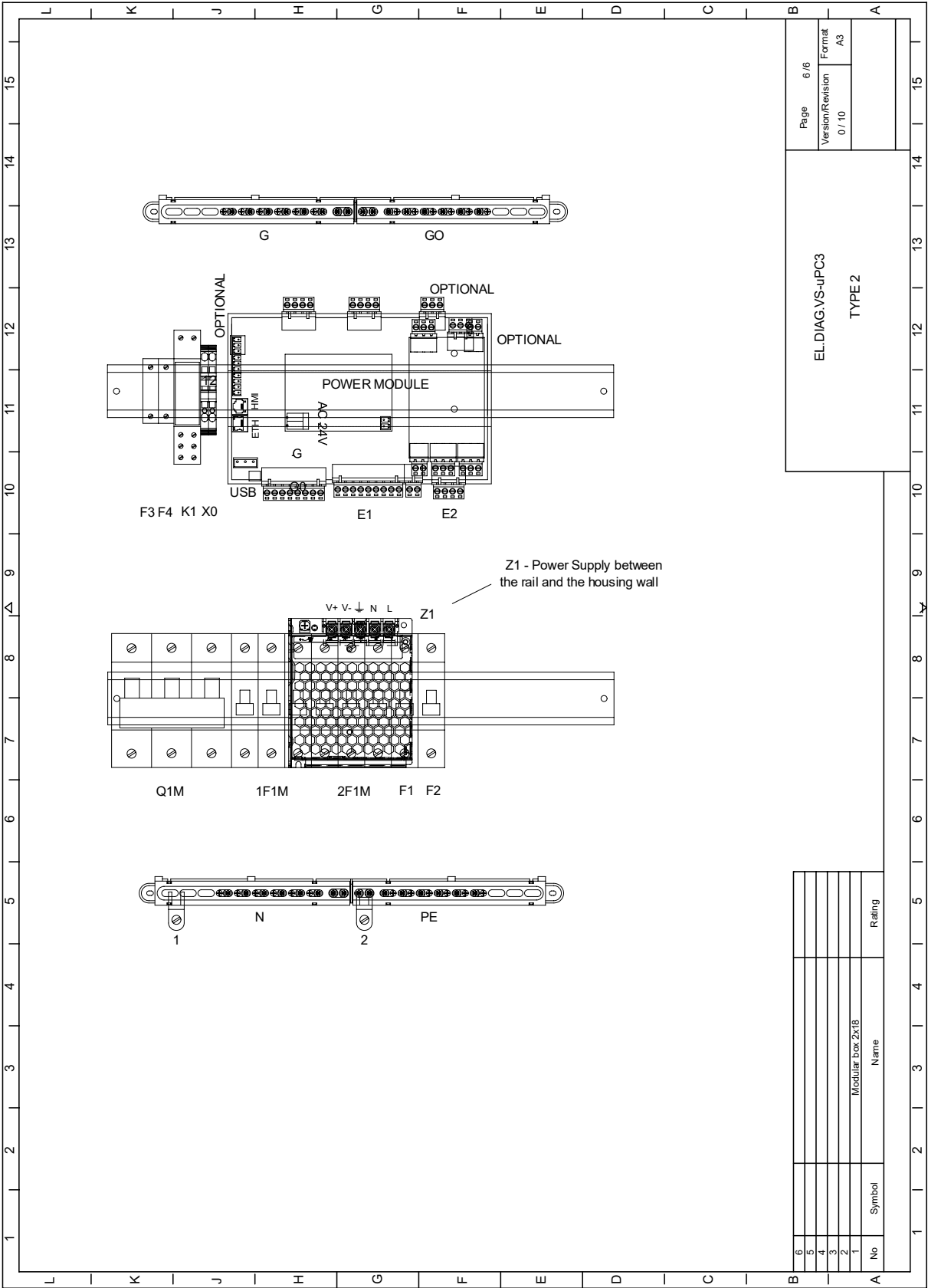




EL_DIAG_EC_SUPP_VVS075_VVS150_x3_3/5

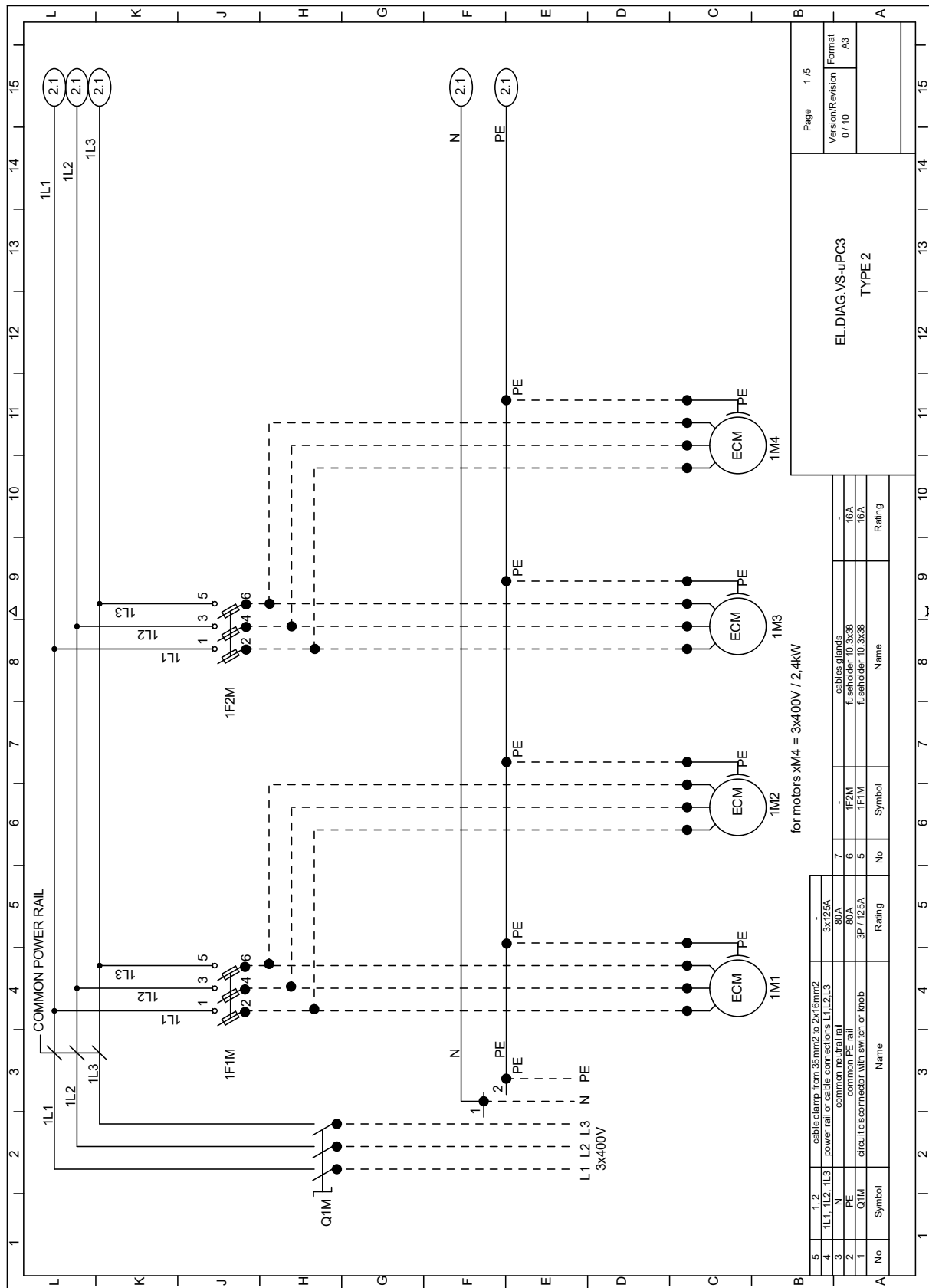




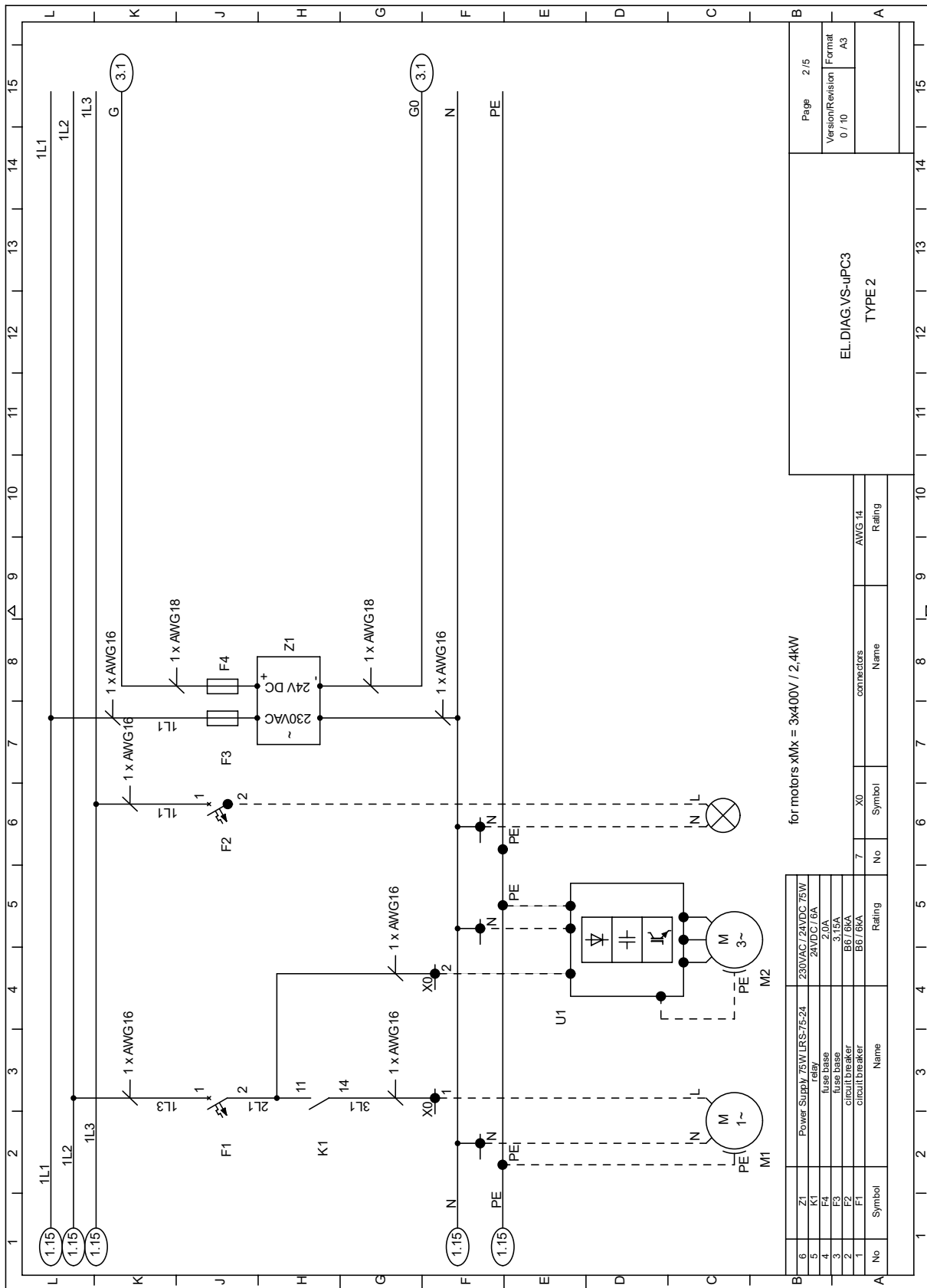


4.2.4 EC VVS150-VVS230- 2.4kW x4

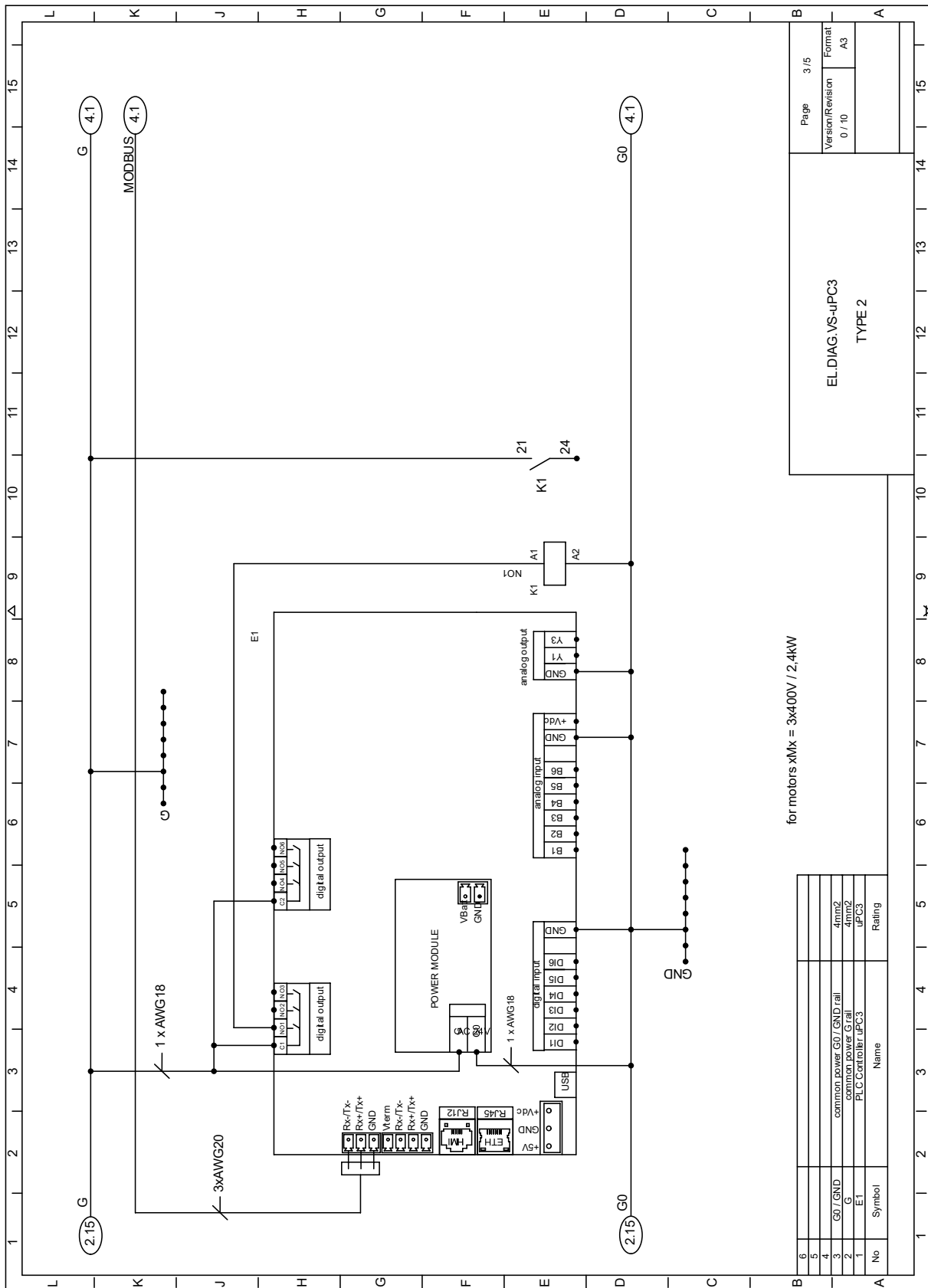
EL_DIAG_EC_SUPP_VVS150_VVS230_x4_1/5

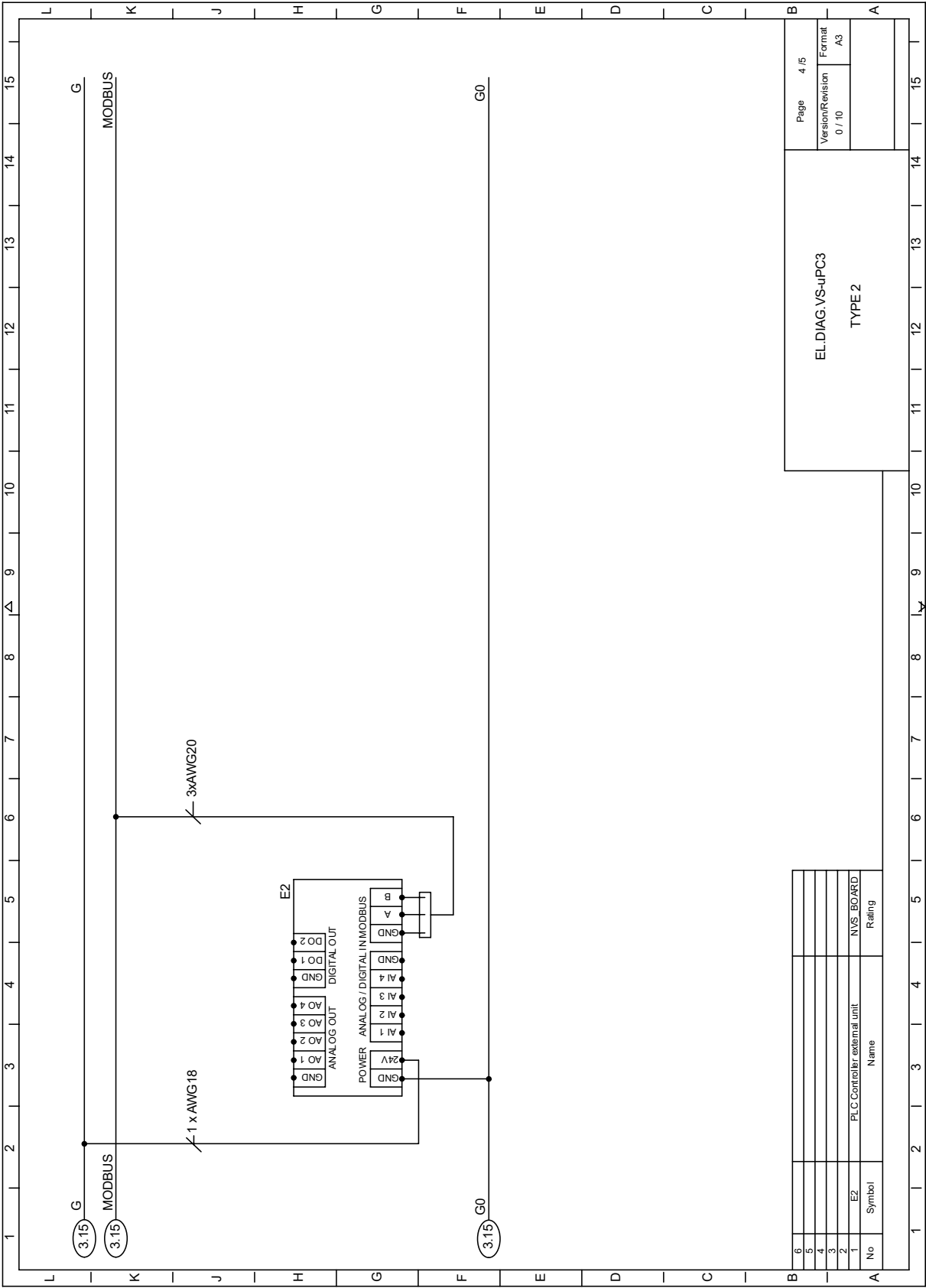


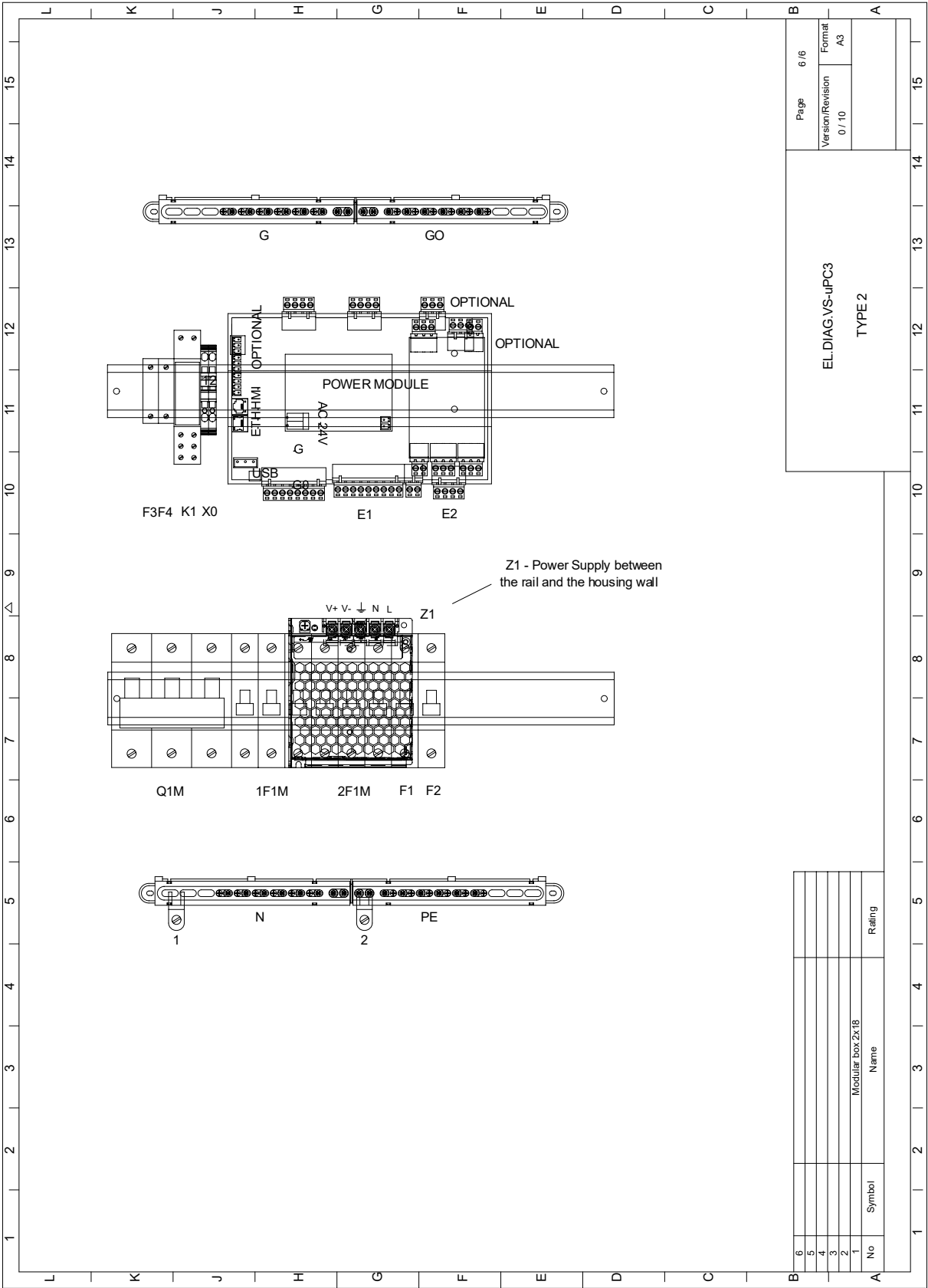
EL_DIAG_EC_SUPP_VVS150_VVS230_x4_2/5



EL_DIAG_EC_SUPP_VVS150_VVS230_x4_3/5

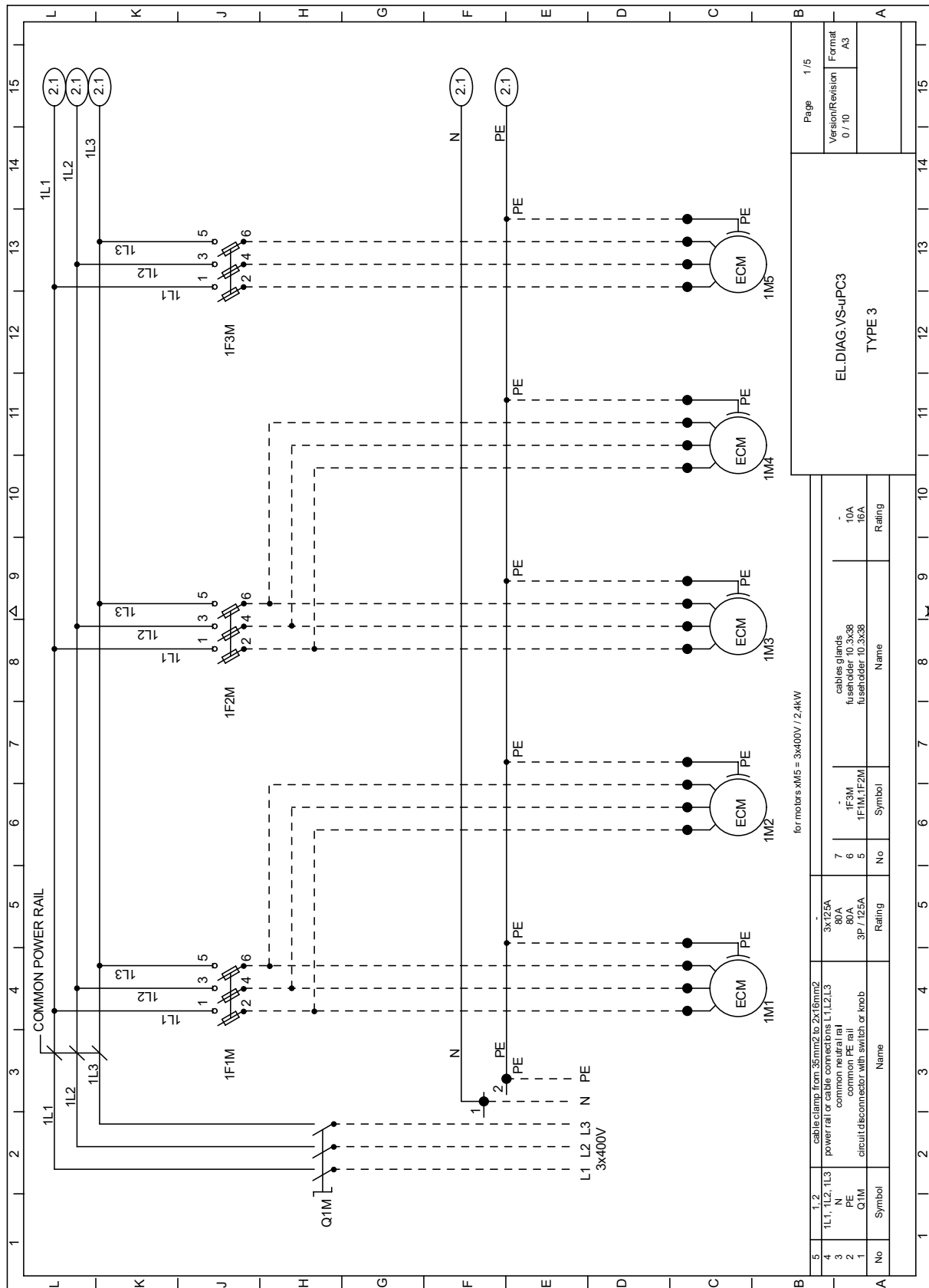




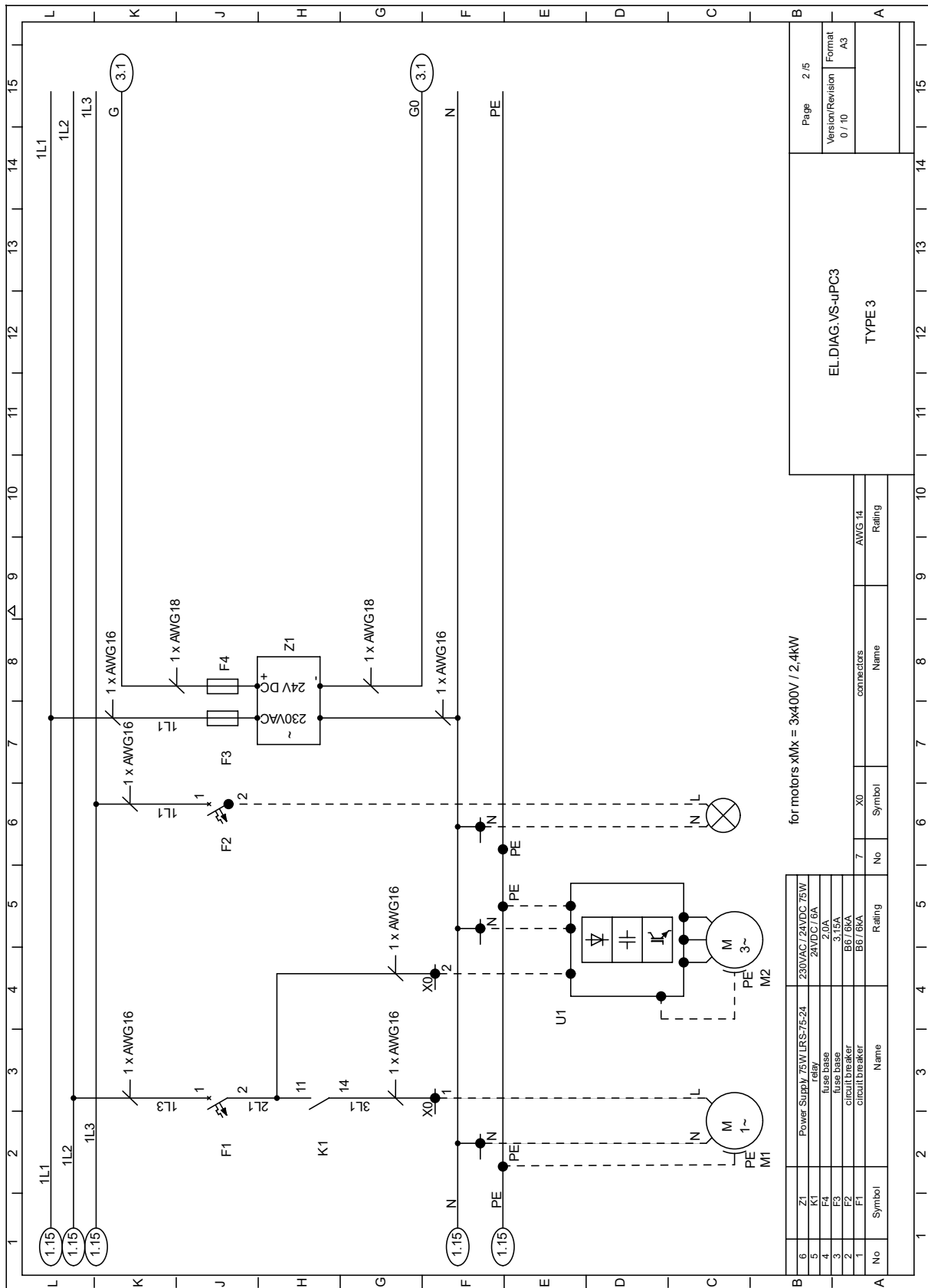


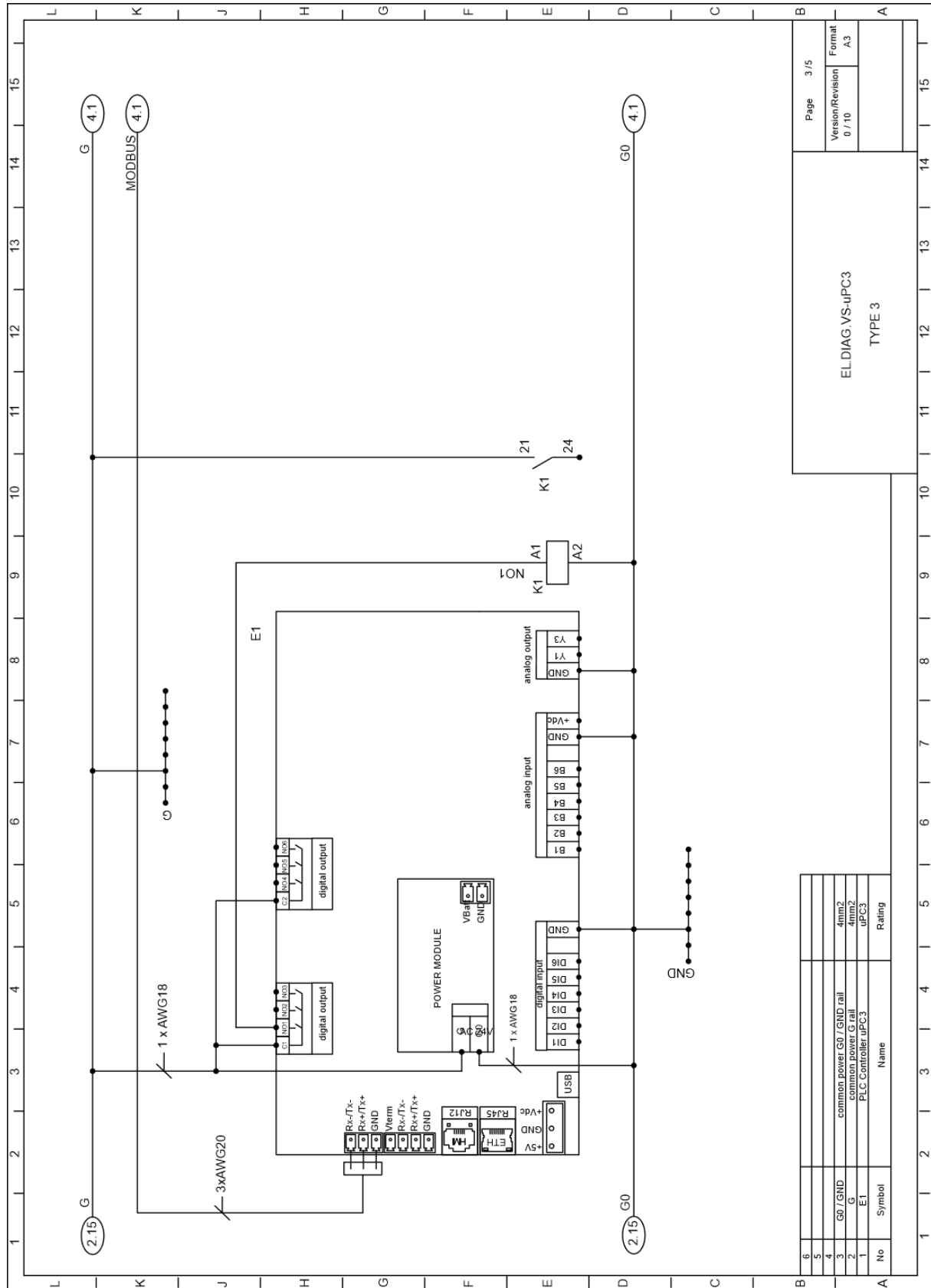
4.2.5 EC VVS180-VVS300- 2.4kW x5

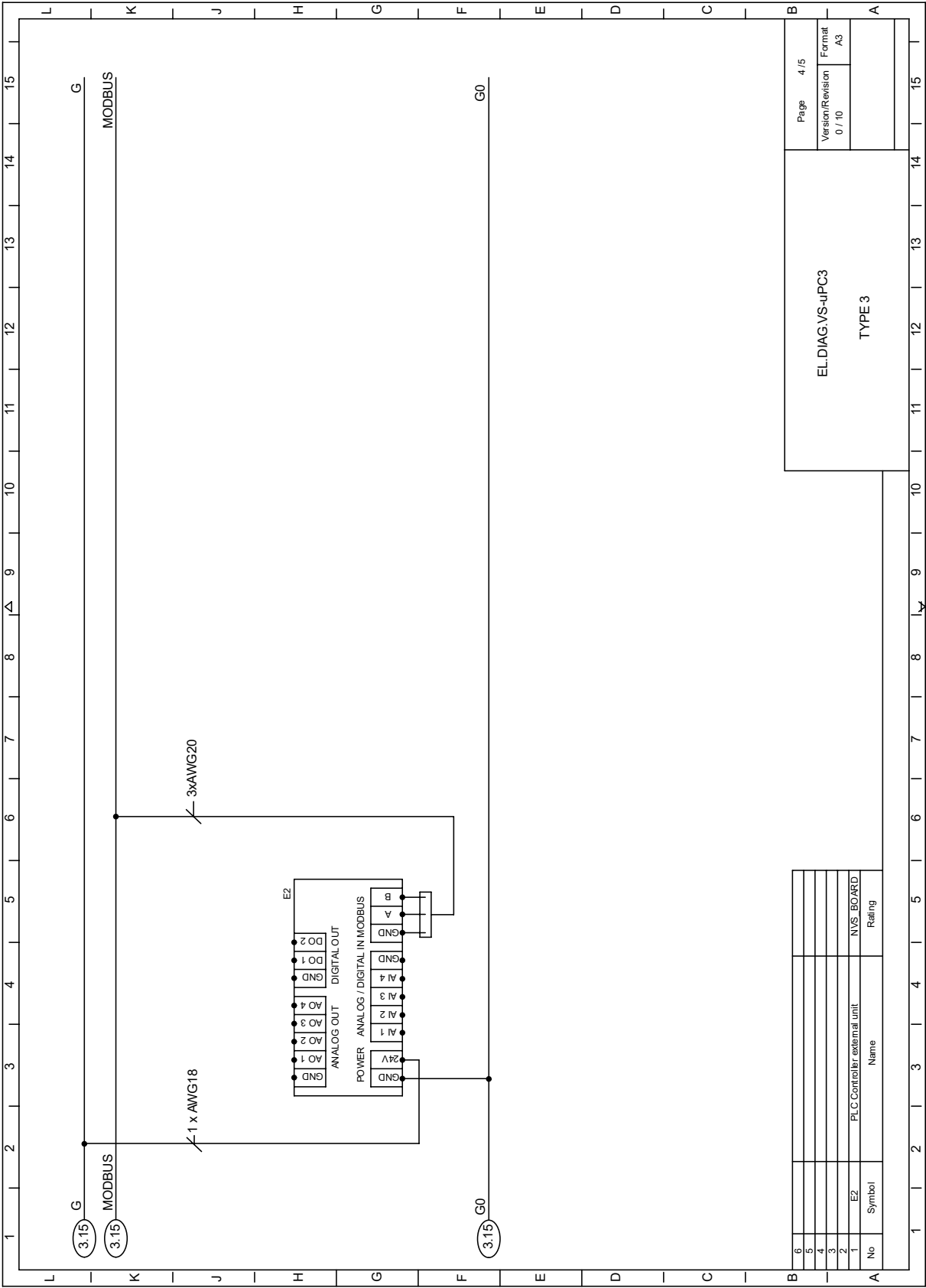
EL_DIAG_EC_SUPP_VVS180_VVS300_x5_1/5

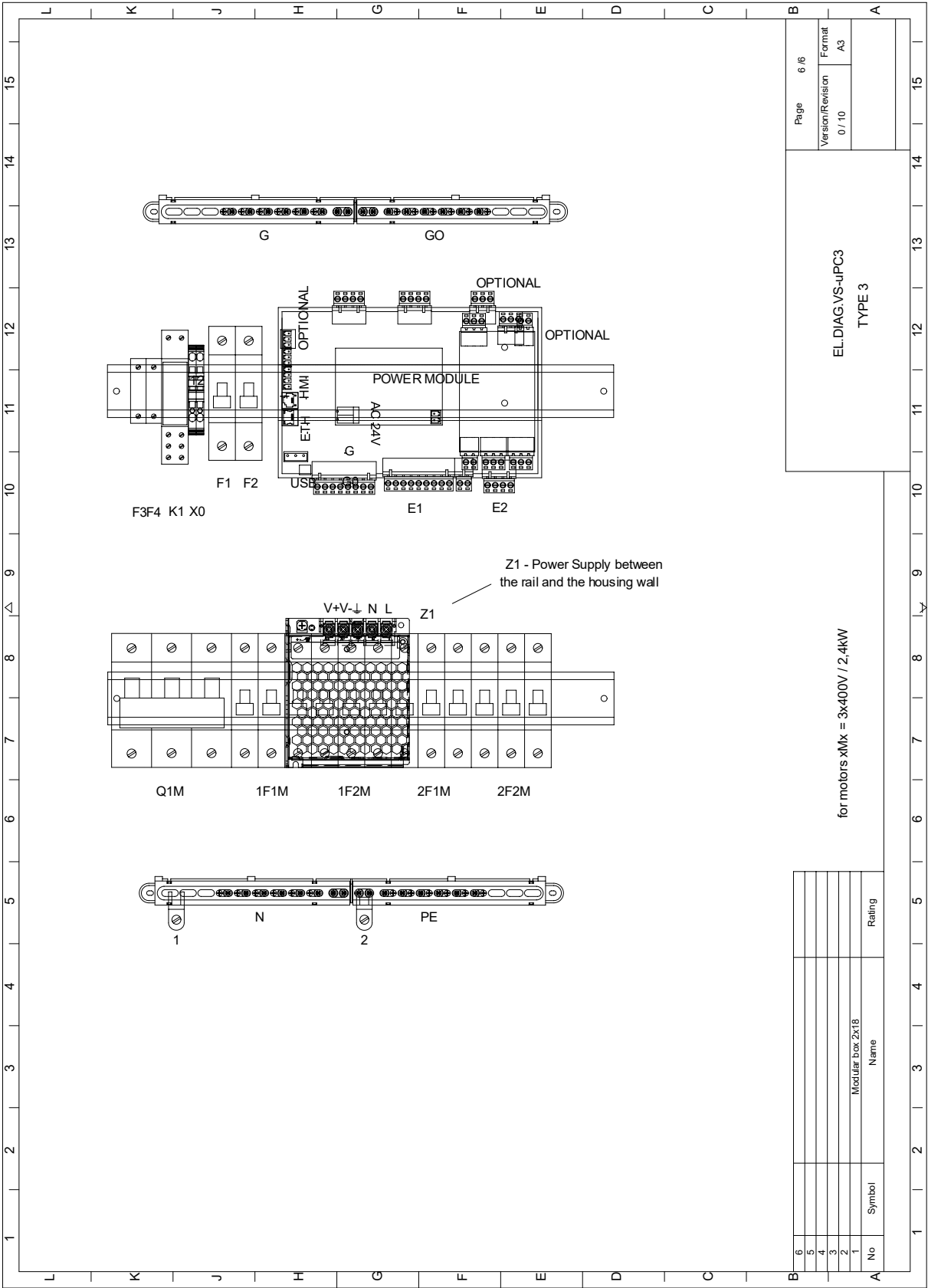


EL_DIAG_EC_SUPP_VVS180_VVS300_x5_2/5



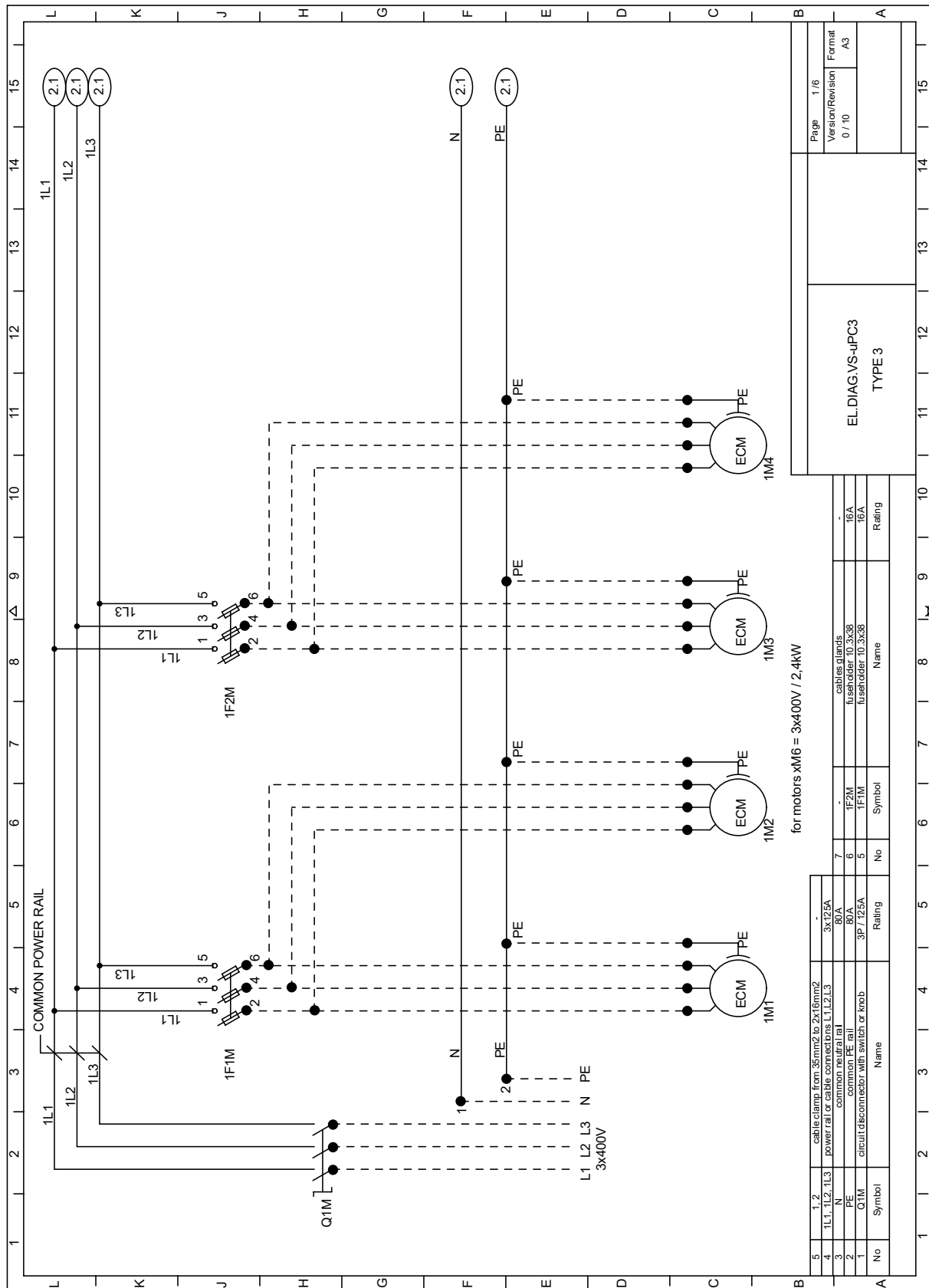


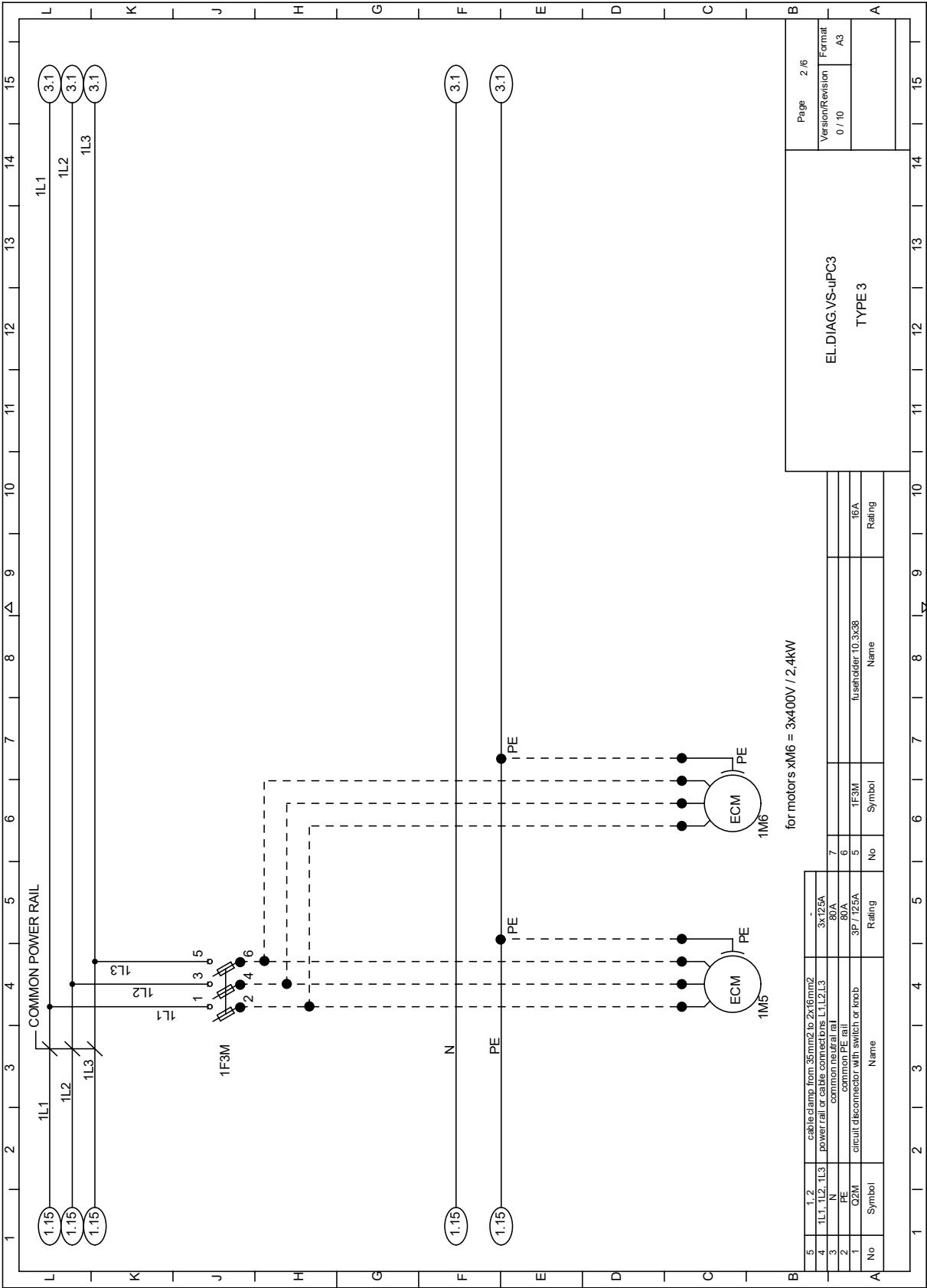




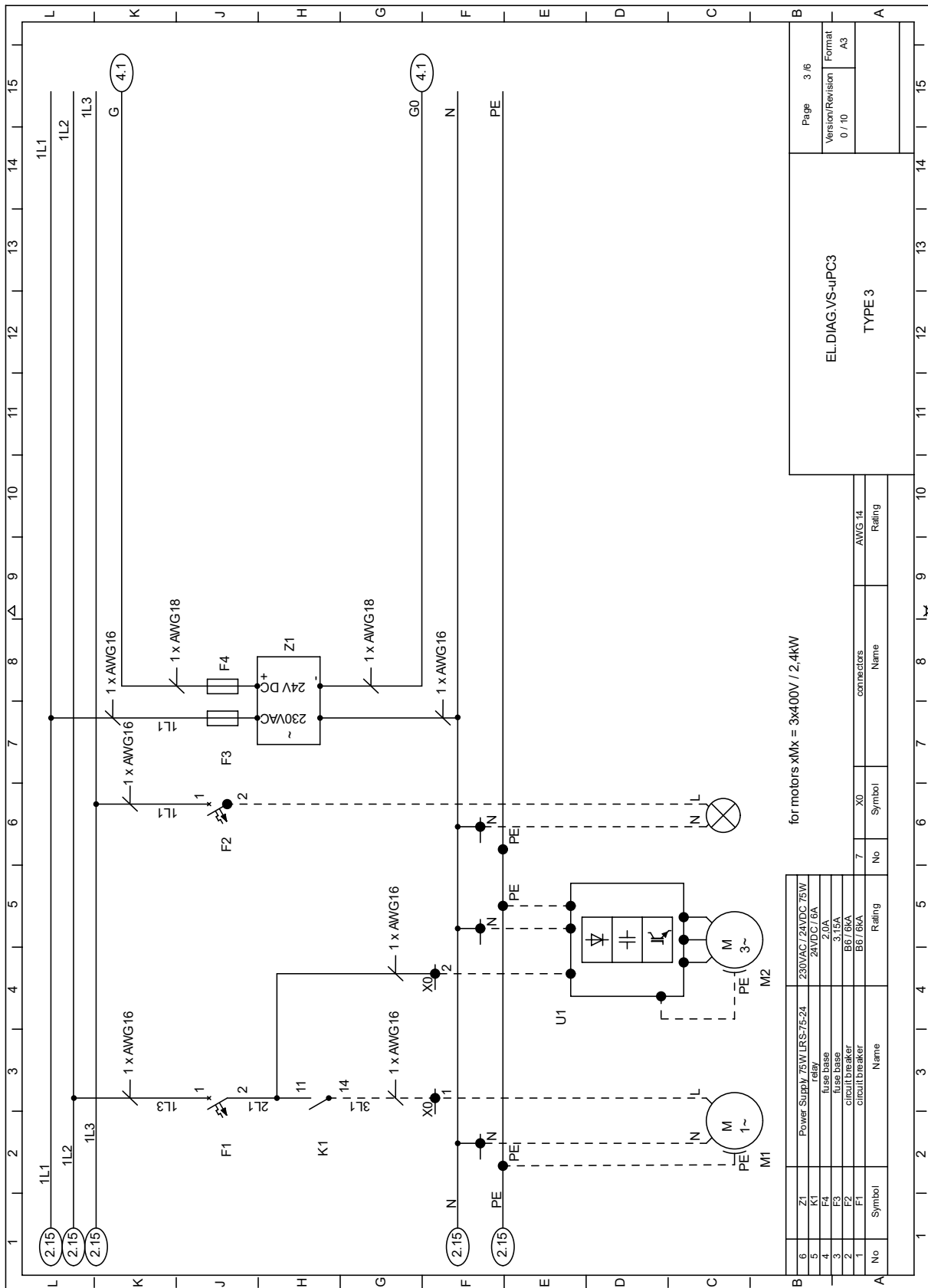
4.2.6 EC VVS180-VVS300- 2.4kW x6

EL_DIAG_EC_SUPP_VVS180_VVS300_x6_1/6

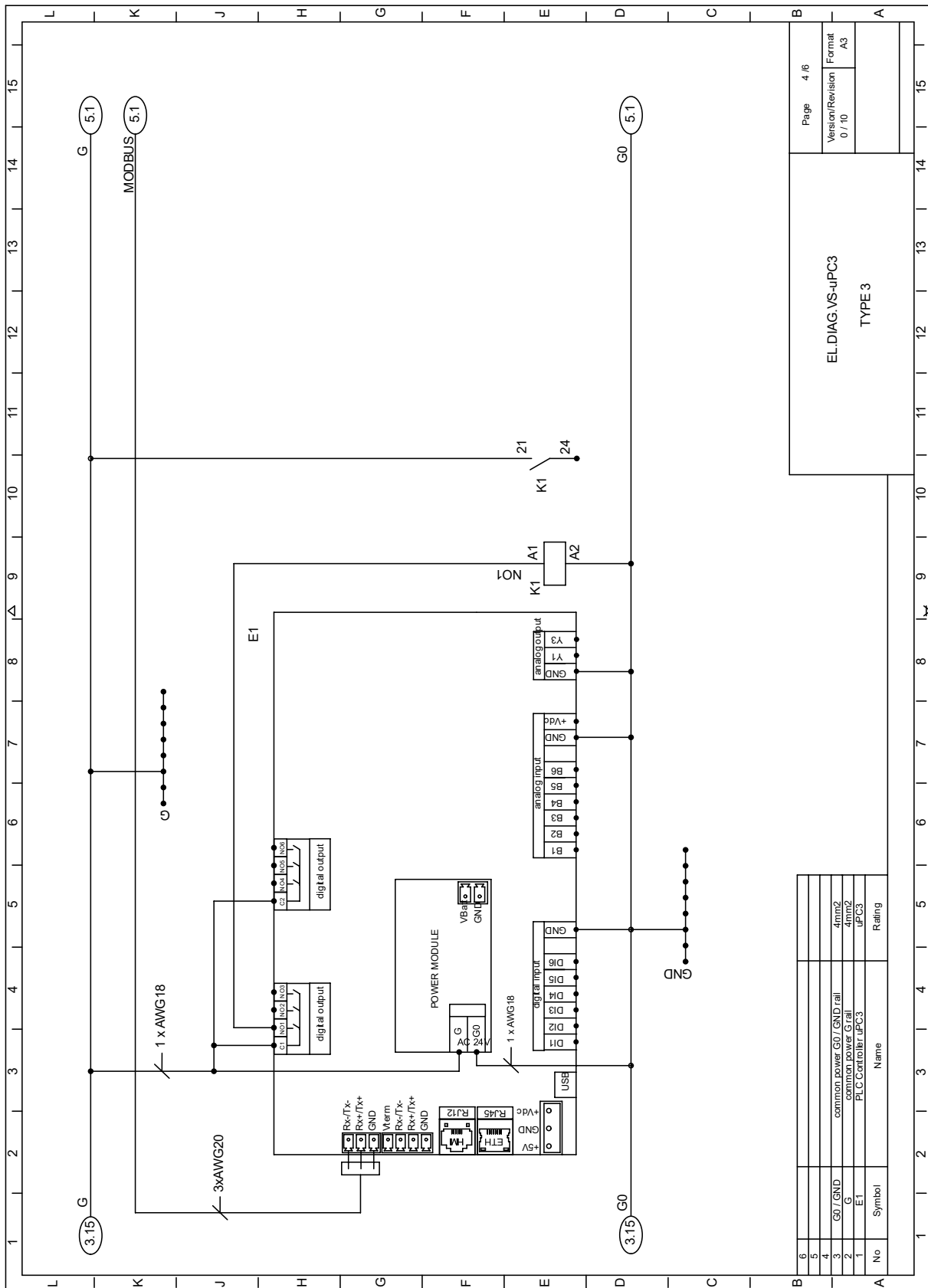


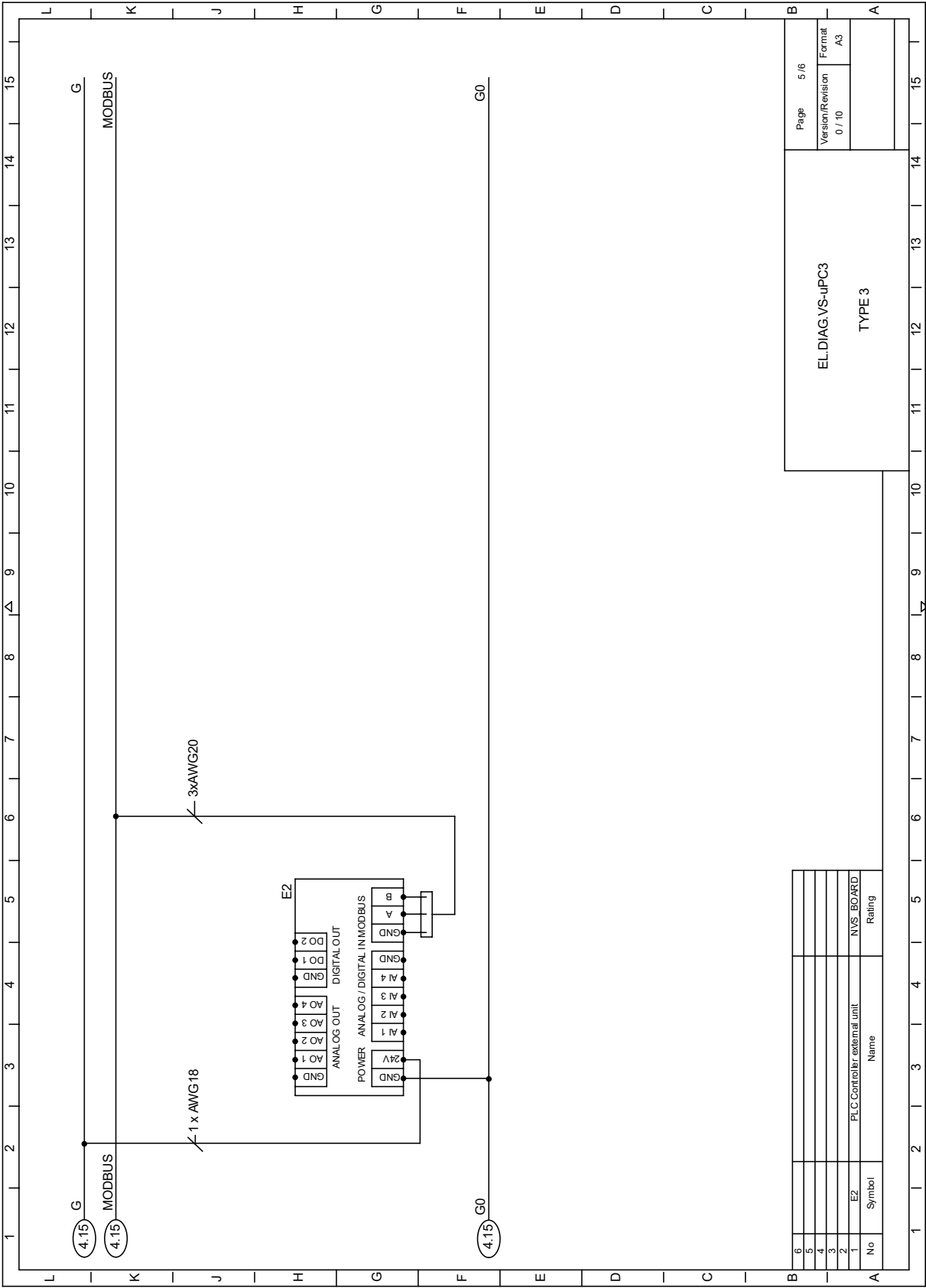


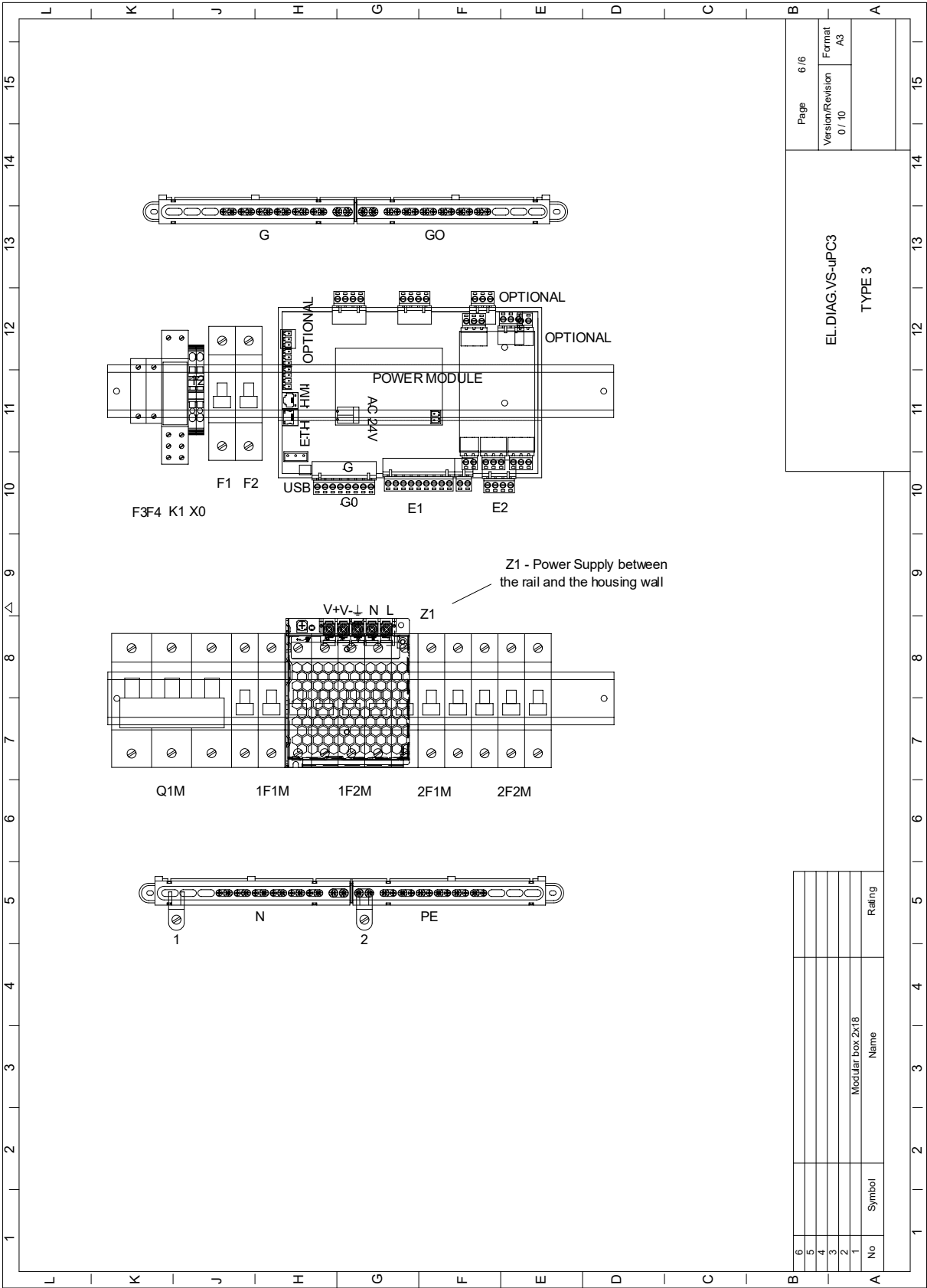
EL_DIAG_EC_SUPP_VVS180_VVS300_x6_3/6



EL_DIAG_EC_SUPP_VVS180_VVS300_x6_4/6

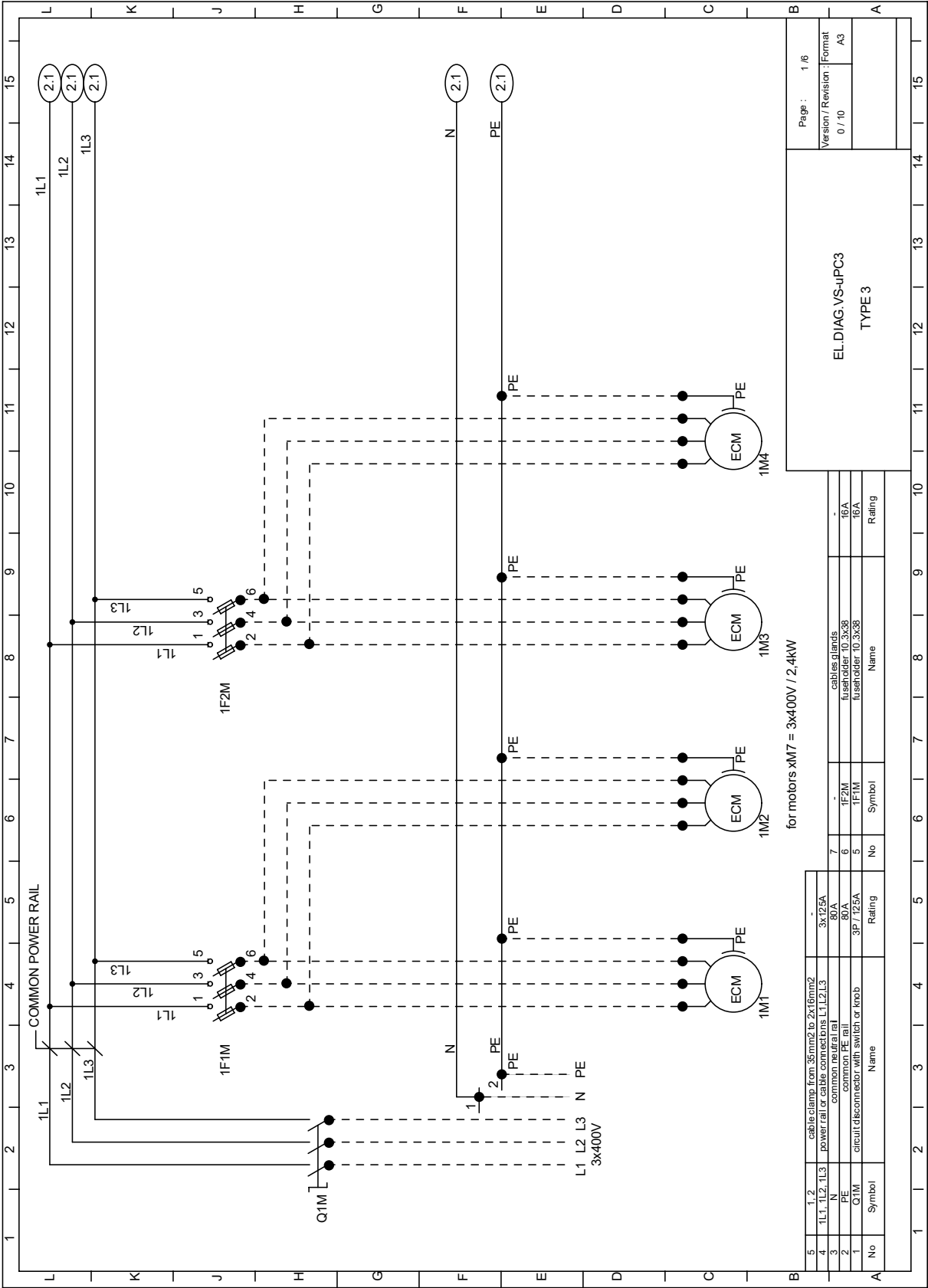


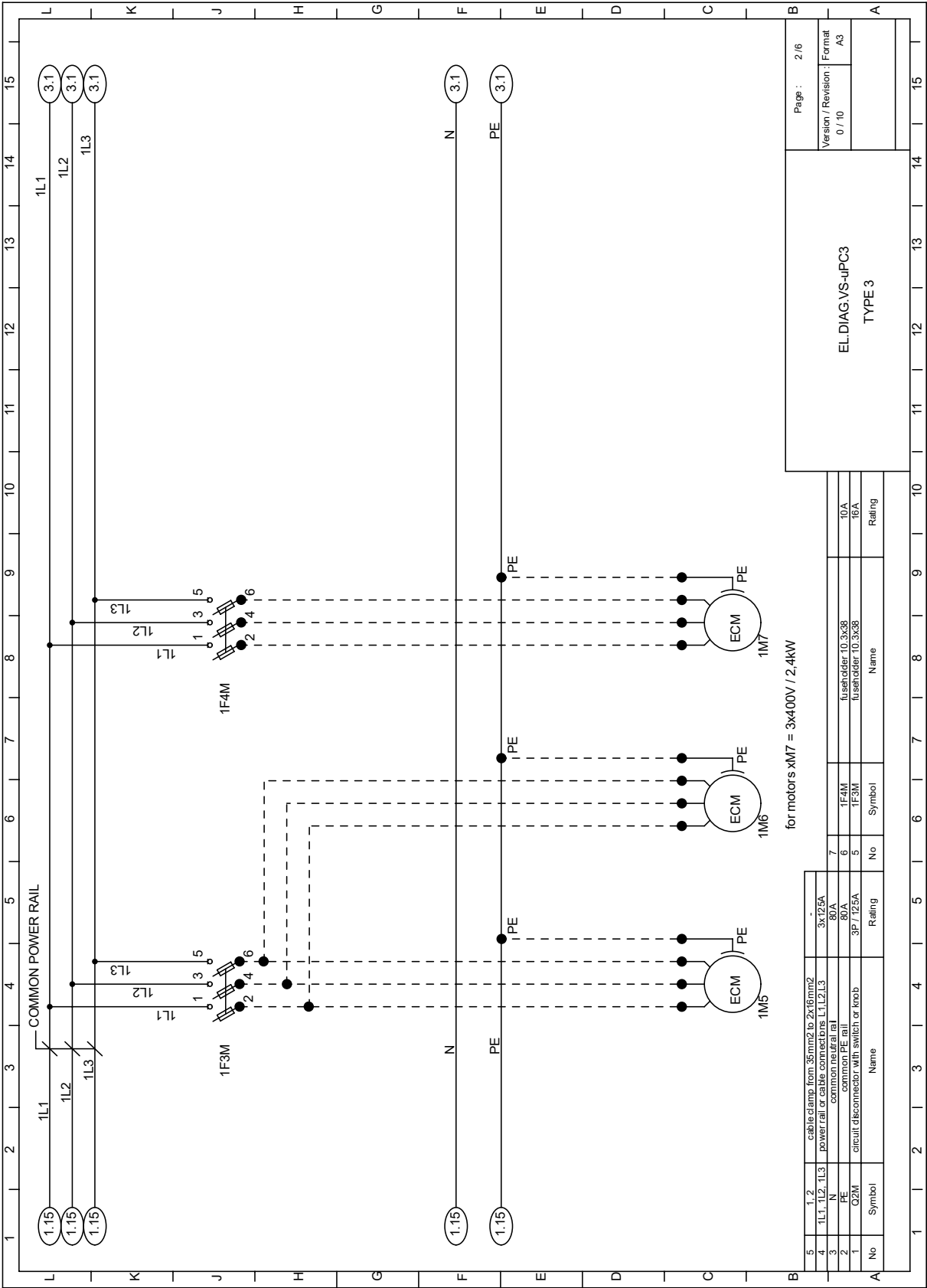


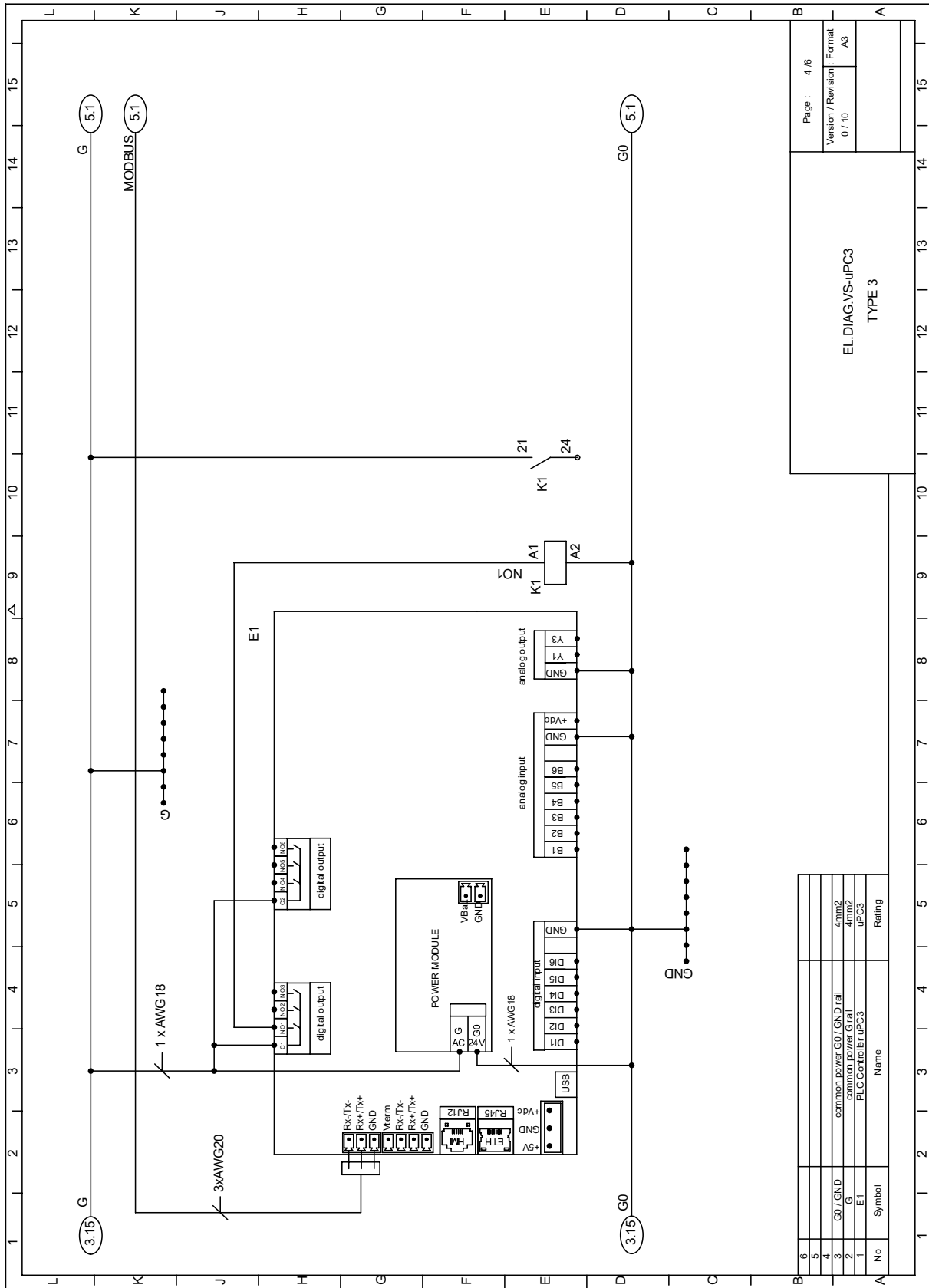


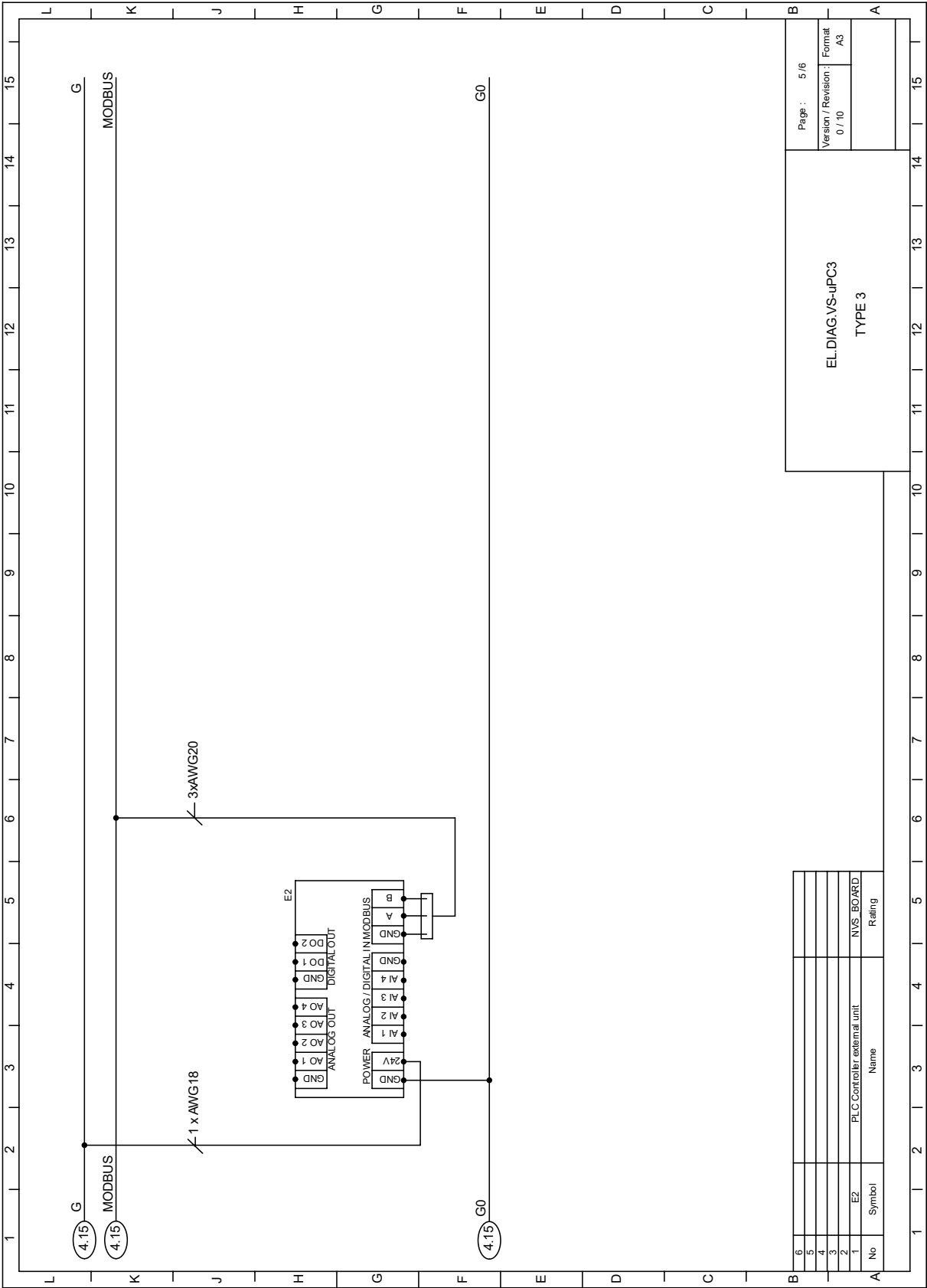
4.2.7 EC VVS180-VVS300- 2.4kW x7

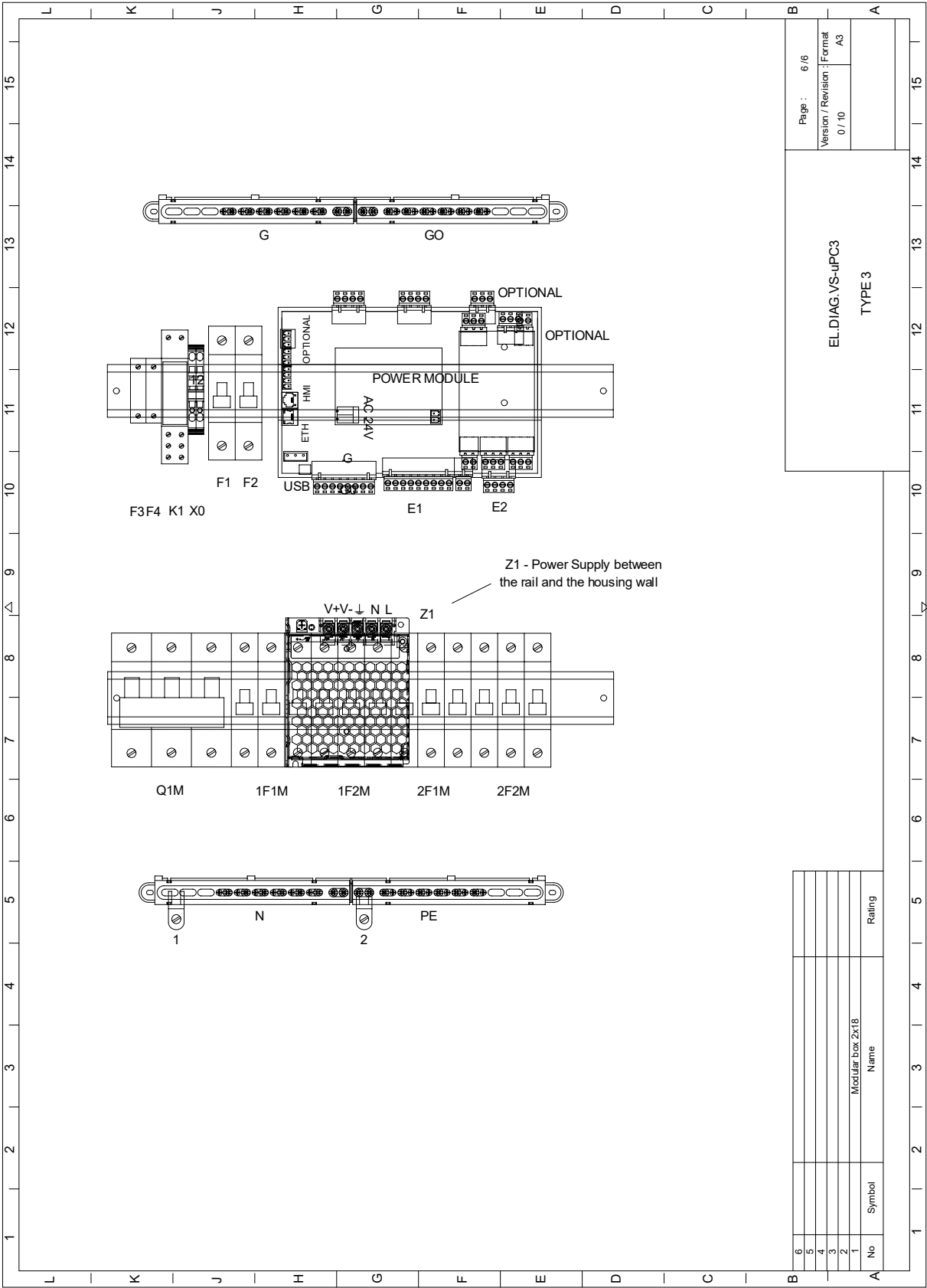
EL_DIAG_EC_SUPP_VVS180_VVS300_x7_1/6





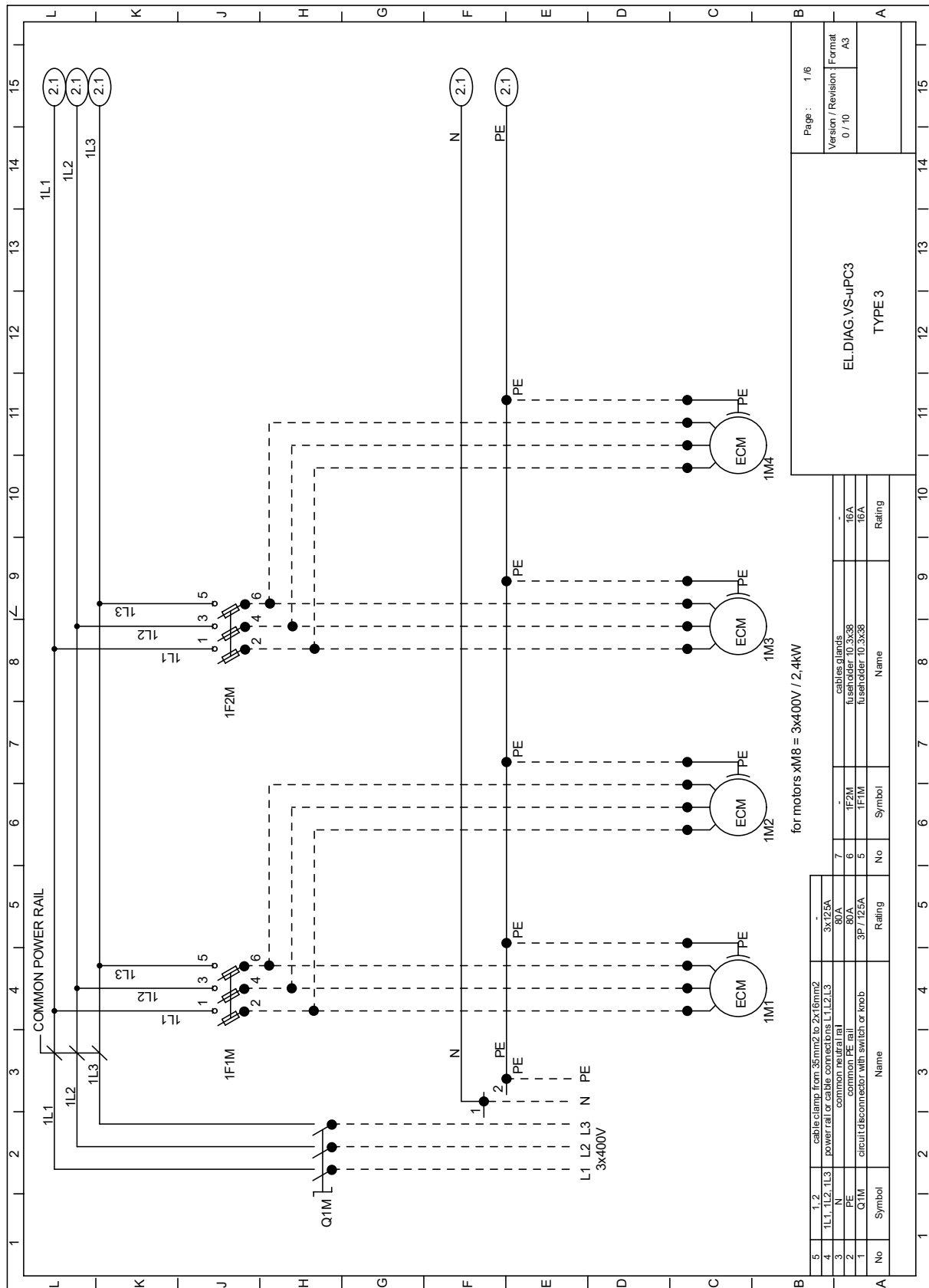


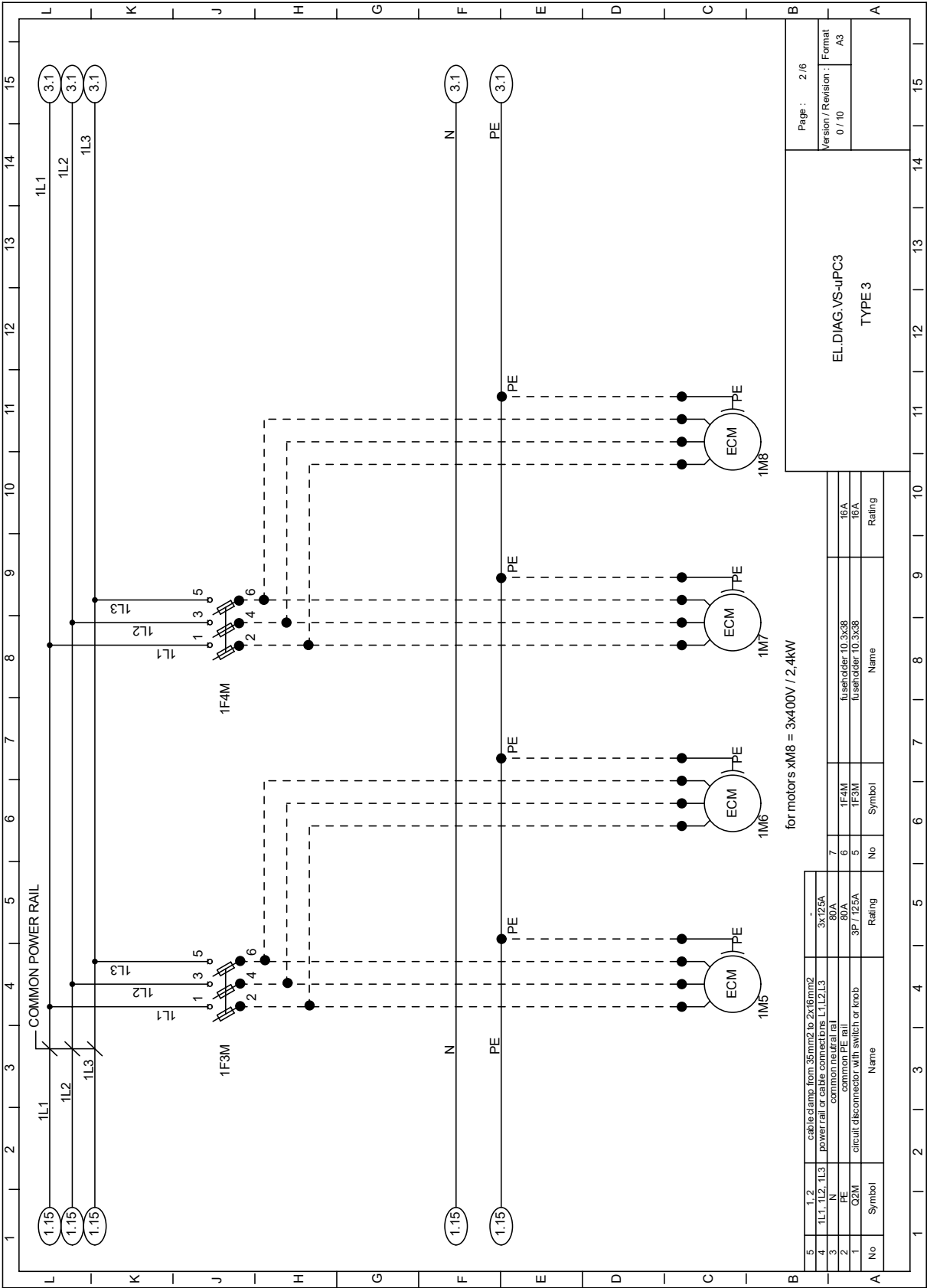




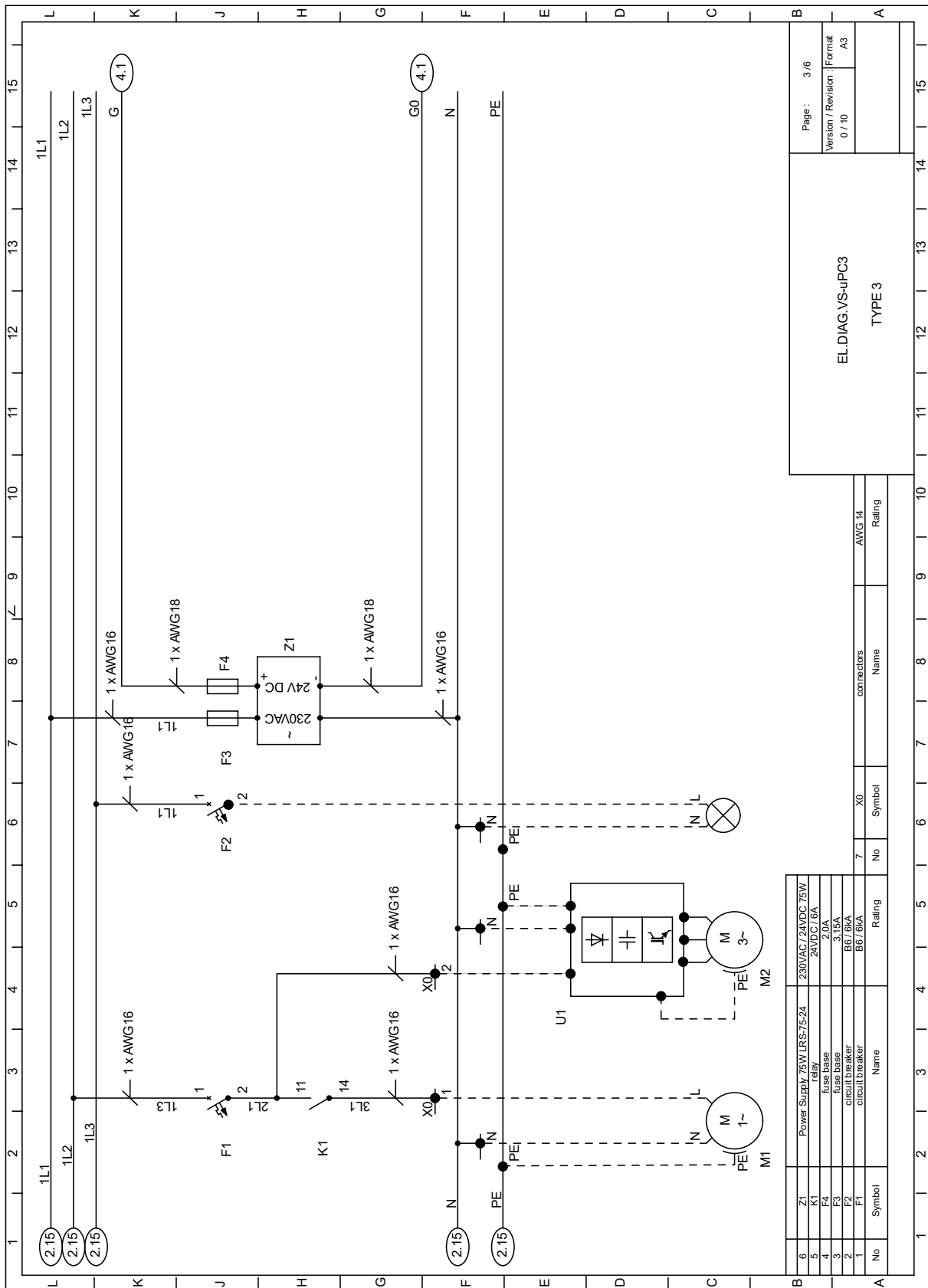
4.2.8 EC VVS180-VVS300- 2.4kW x8

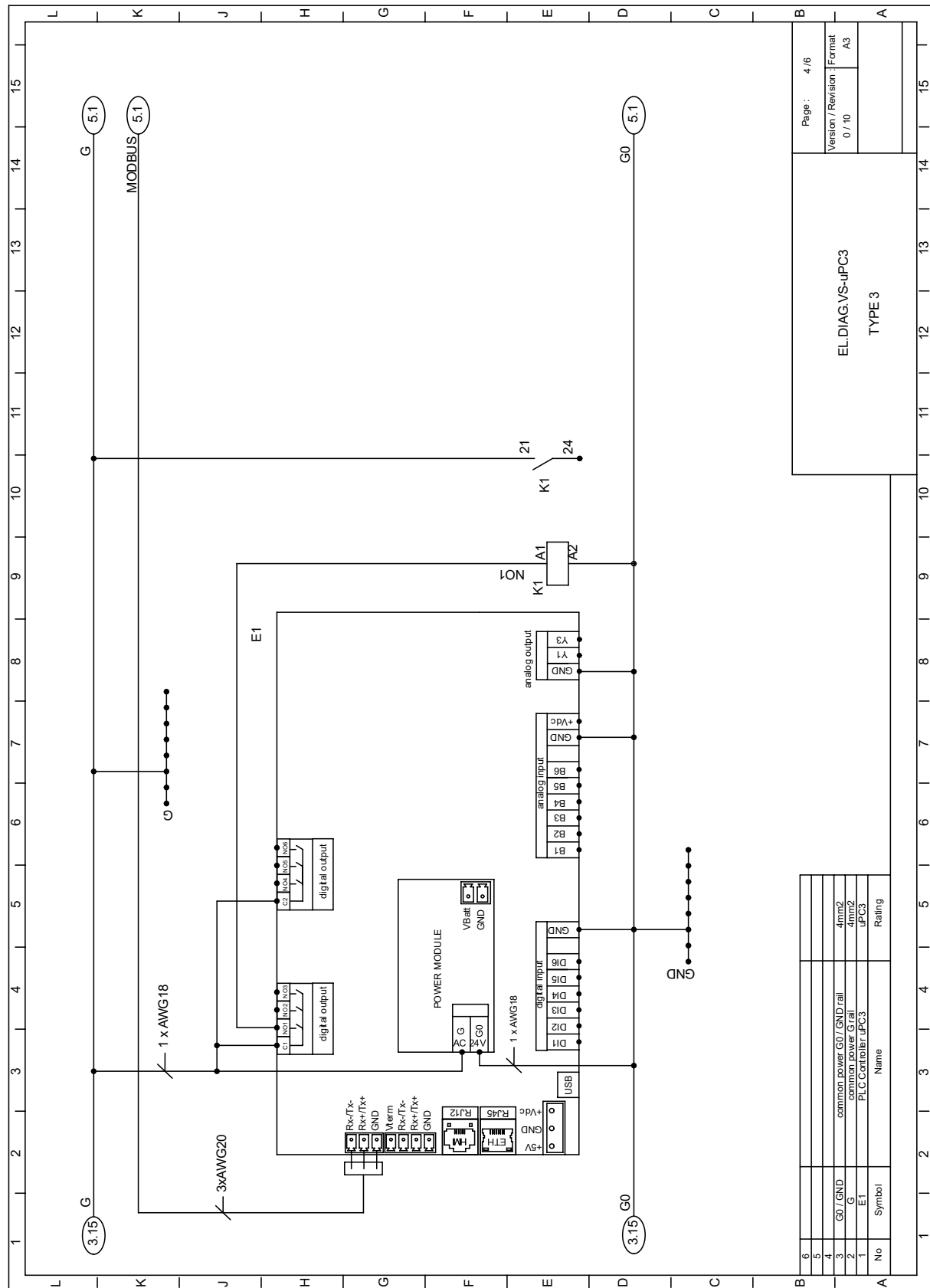
EL_DIAG_EC_SUPP_VVS180_VVS300_x8_1/6

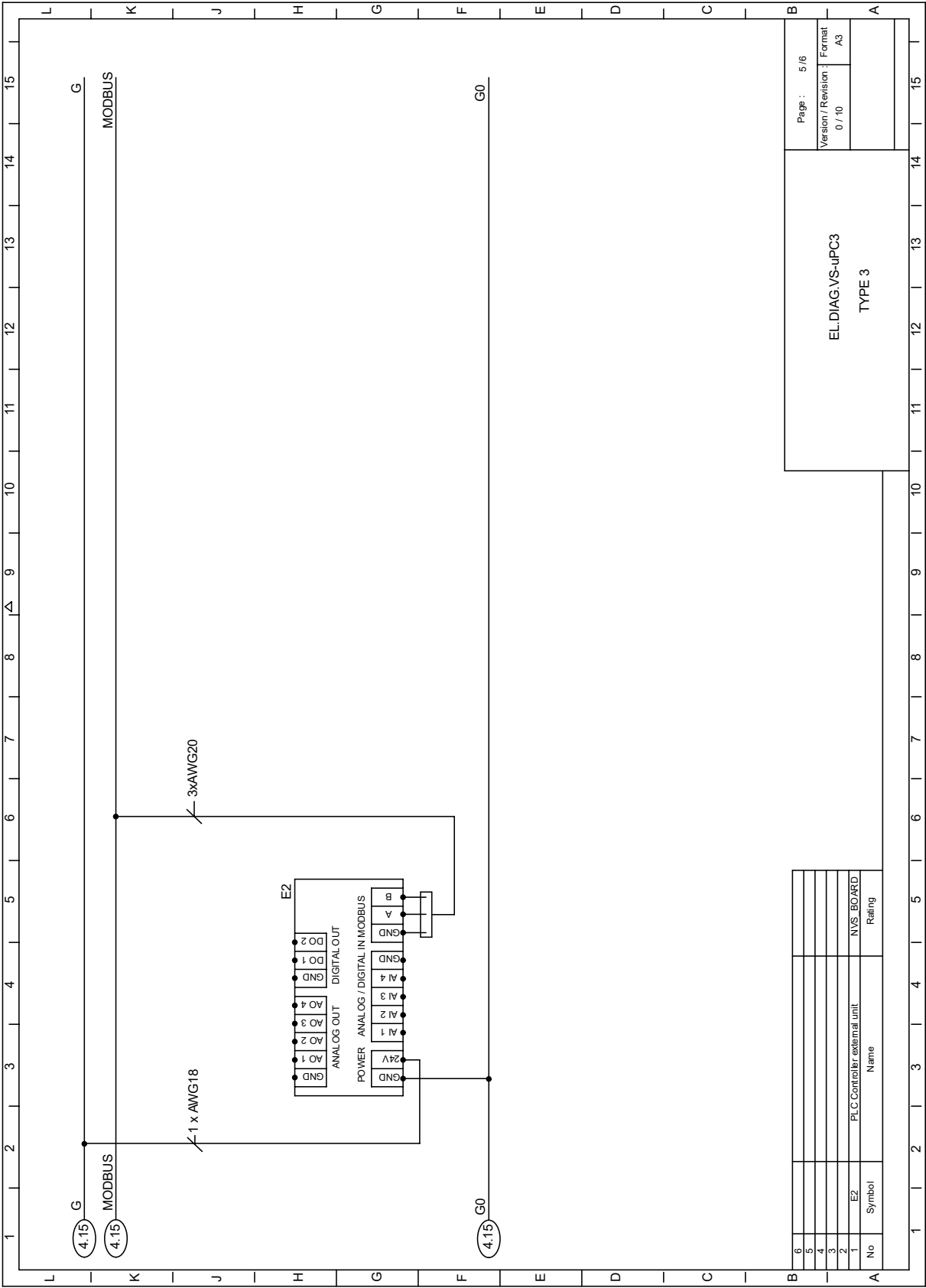


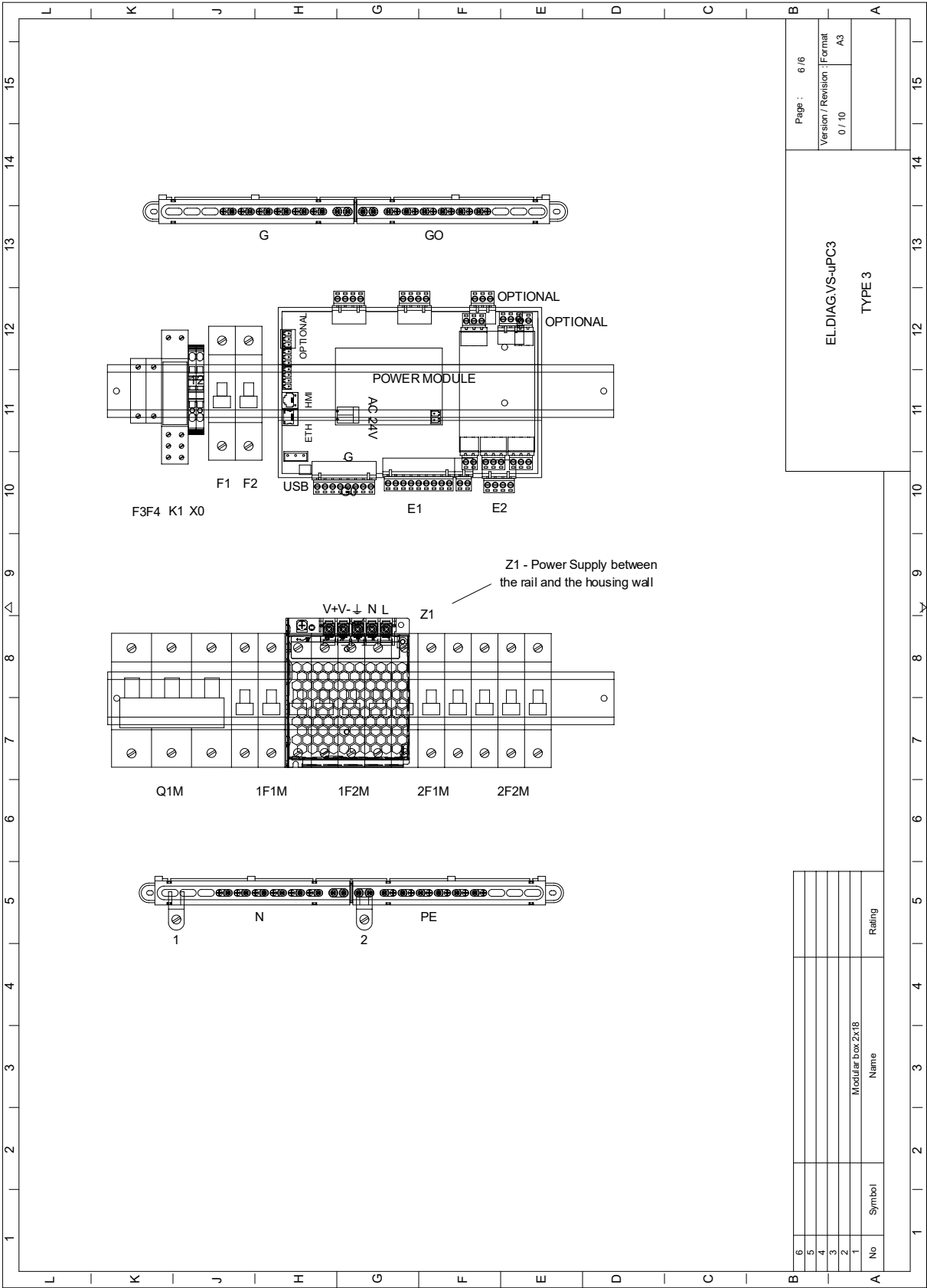


EL_DIAG_EC_SUPP_VVS180_VVS300_x8_3/6







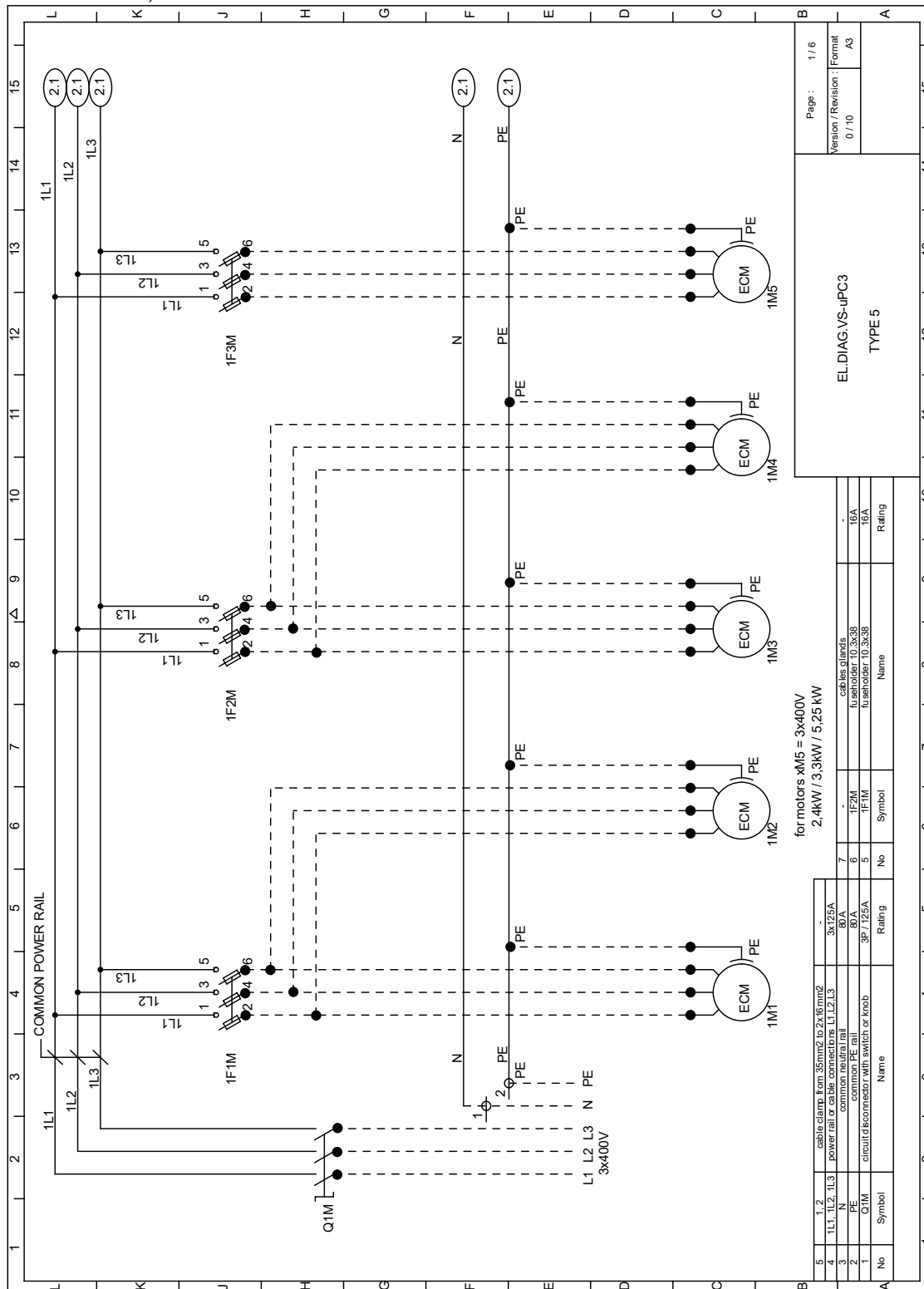


5 DIAGRAMS FOR CG WITH: 3.3kW oraz 5.25kW

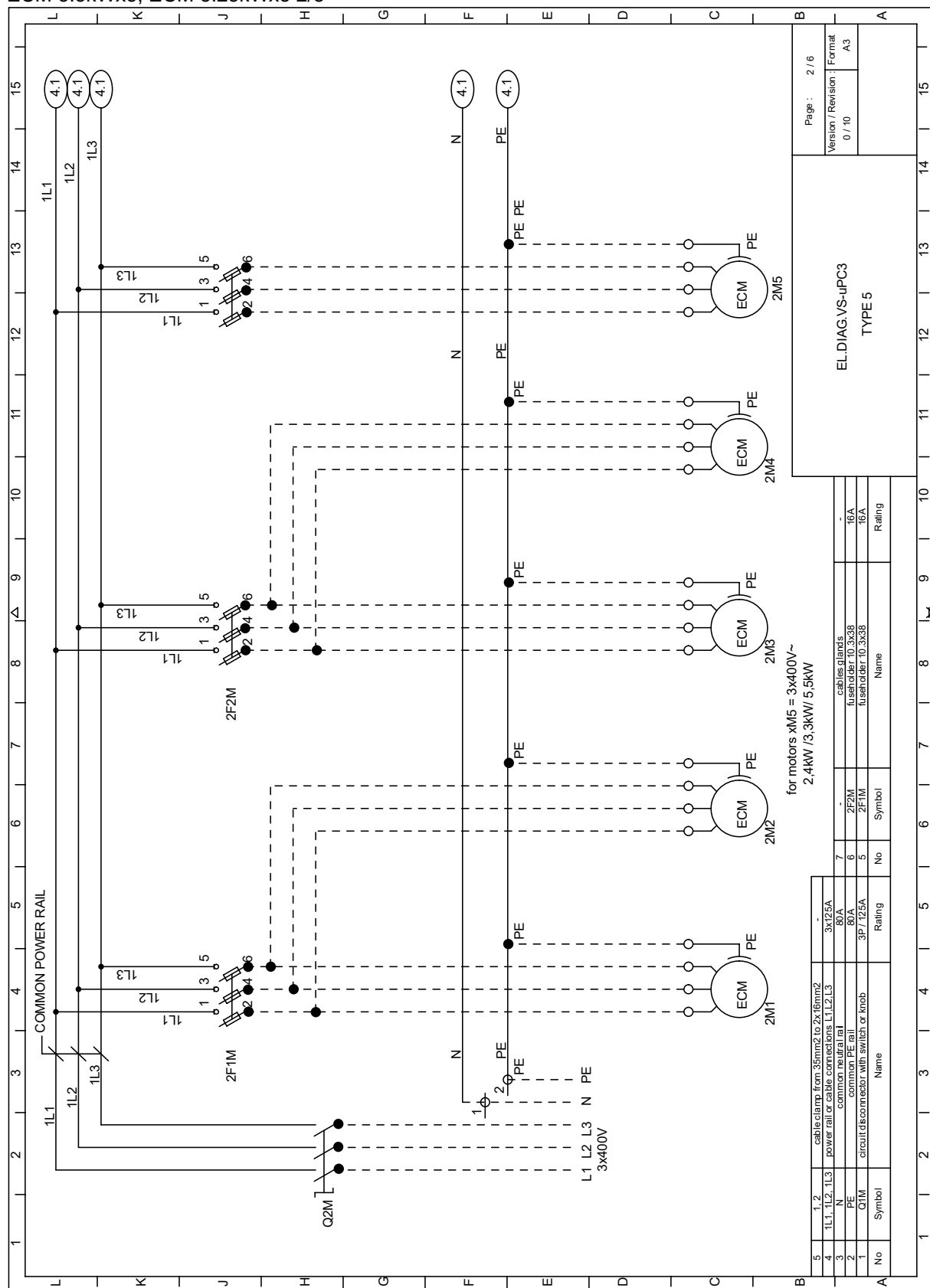
5.1 CONNECTION DIAGRAMS DOR SUPPLY-EXHAUST UNITS.

5.1.1 EC VVS400- 3.3kW x5, 5.25kW x5

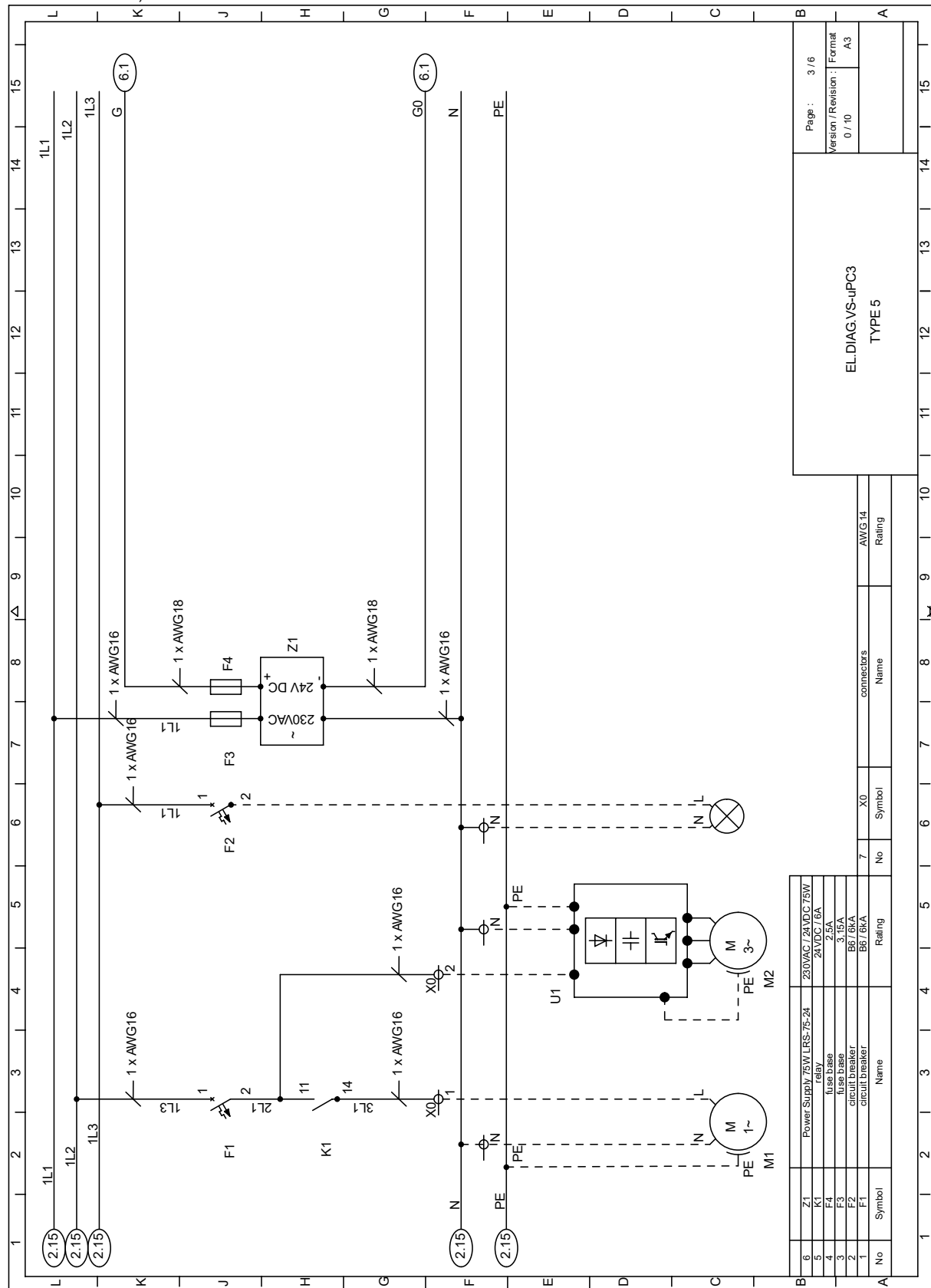
ECM 3.3kWx5; ECM 5.25kWx5 1/6



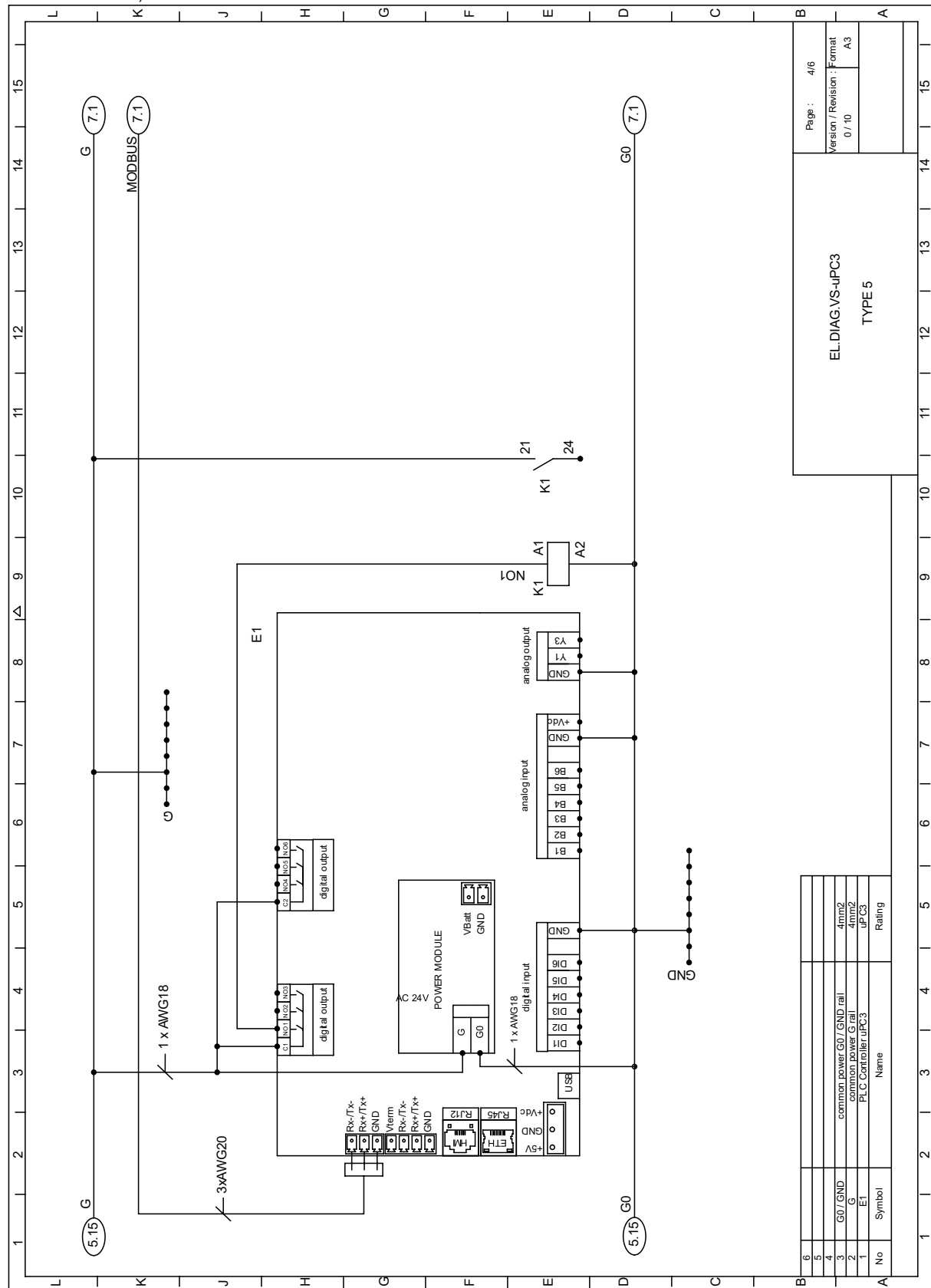
ECM 3.3kWx5; ECM 5.25kWx5 2/8



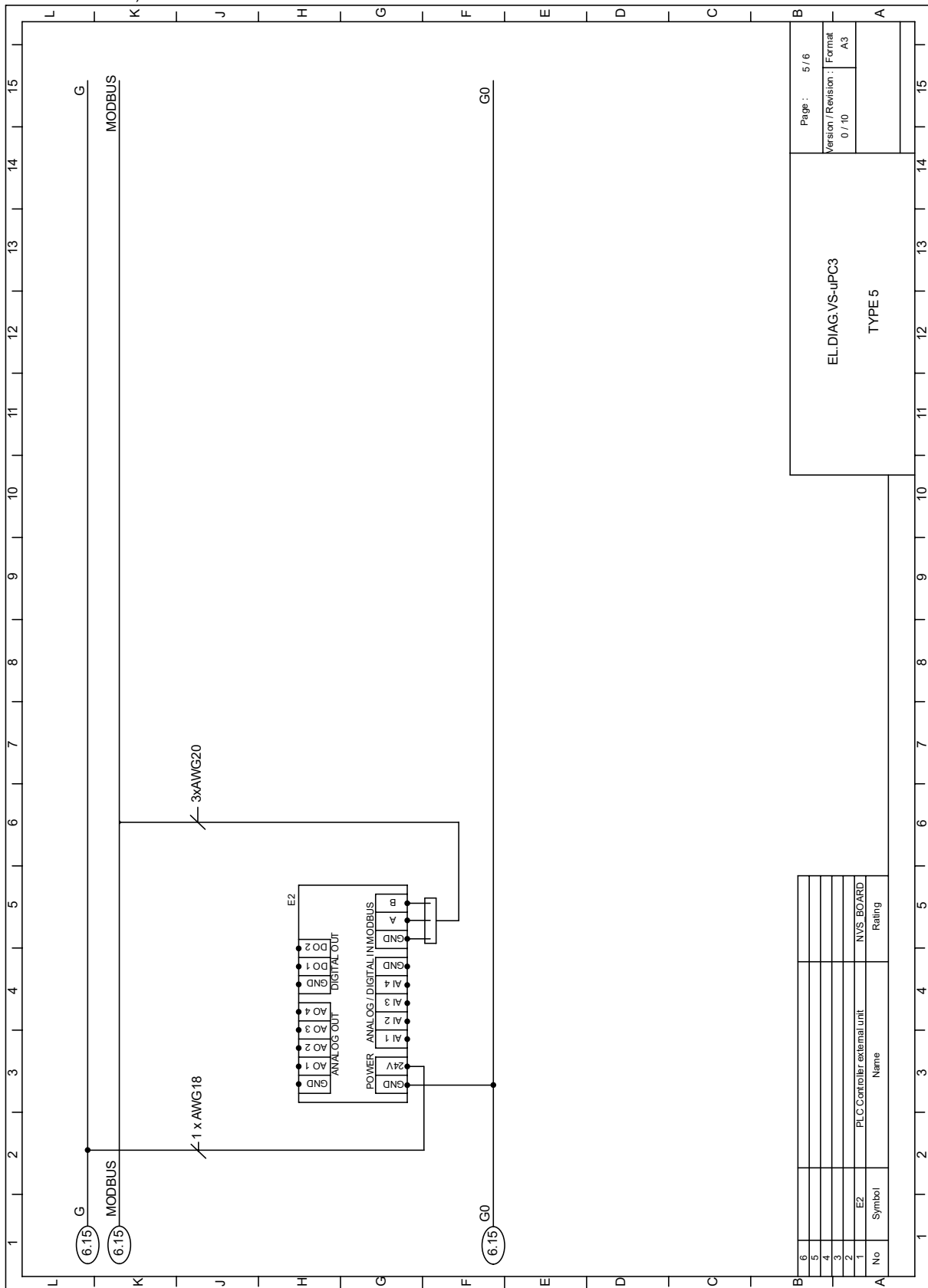
ECM 3.3kWx5; ECM 5.25kWx5 3/6



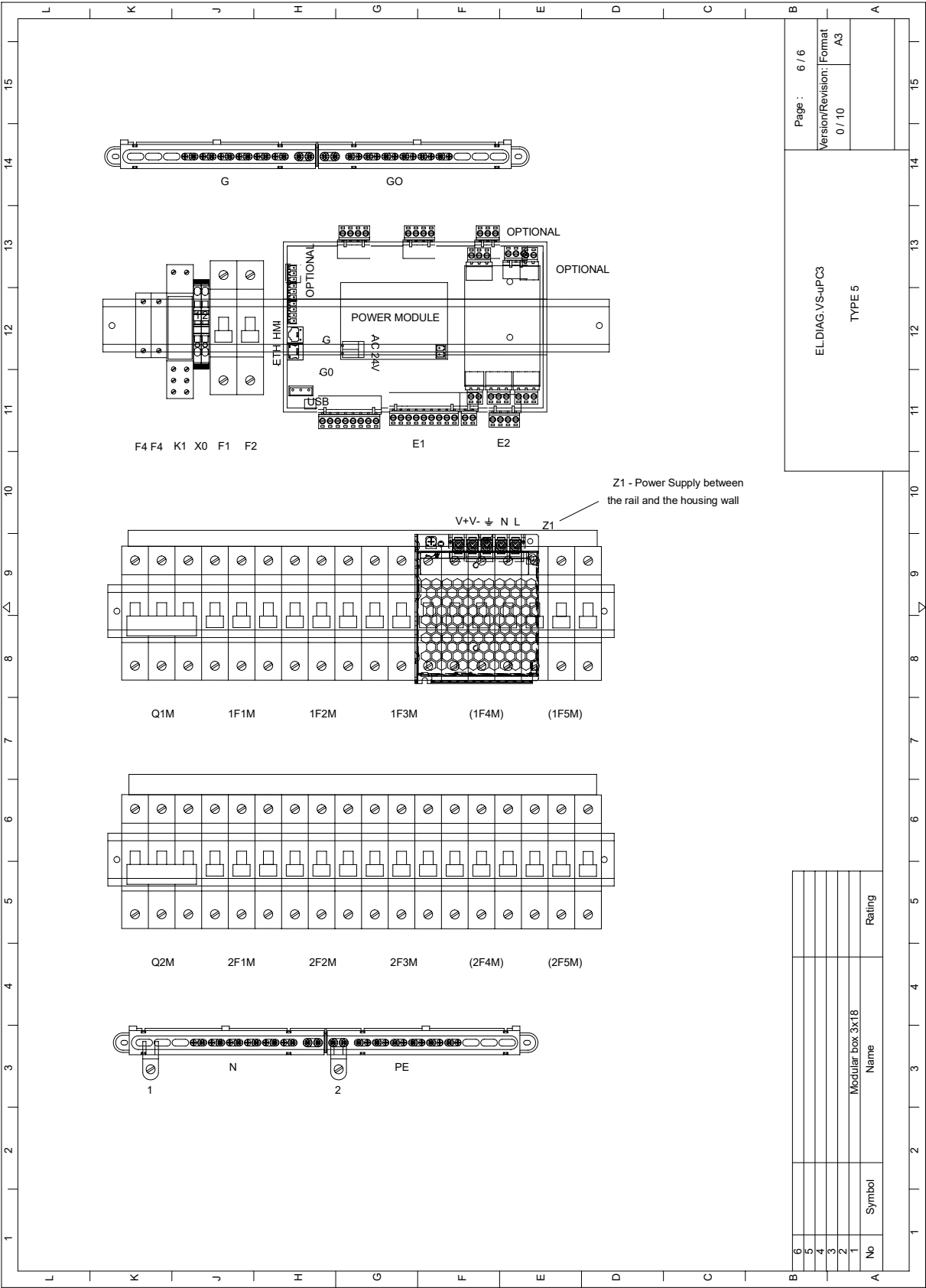
ECM 3.3kWx5; ECM 5.25kWx5 4/6



ECM 3.3kWx5; ECM 5.25kWx5 5/6

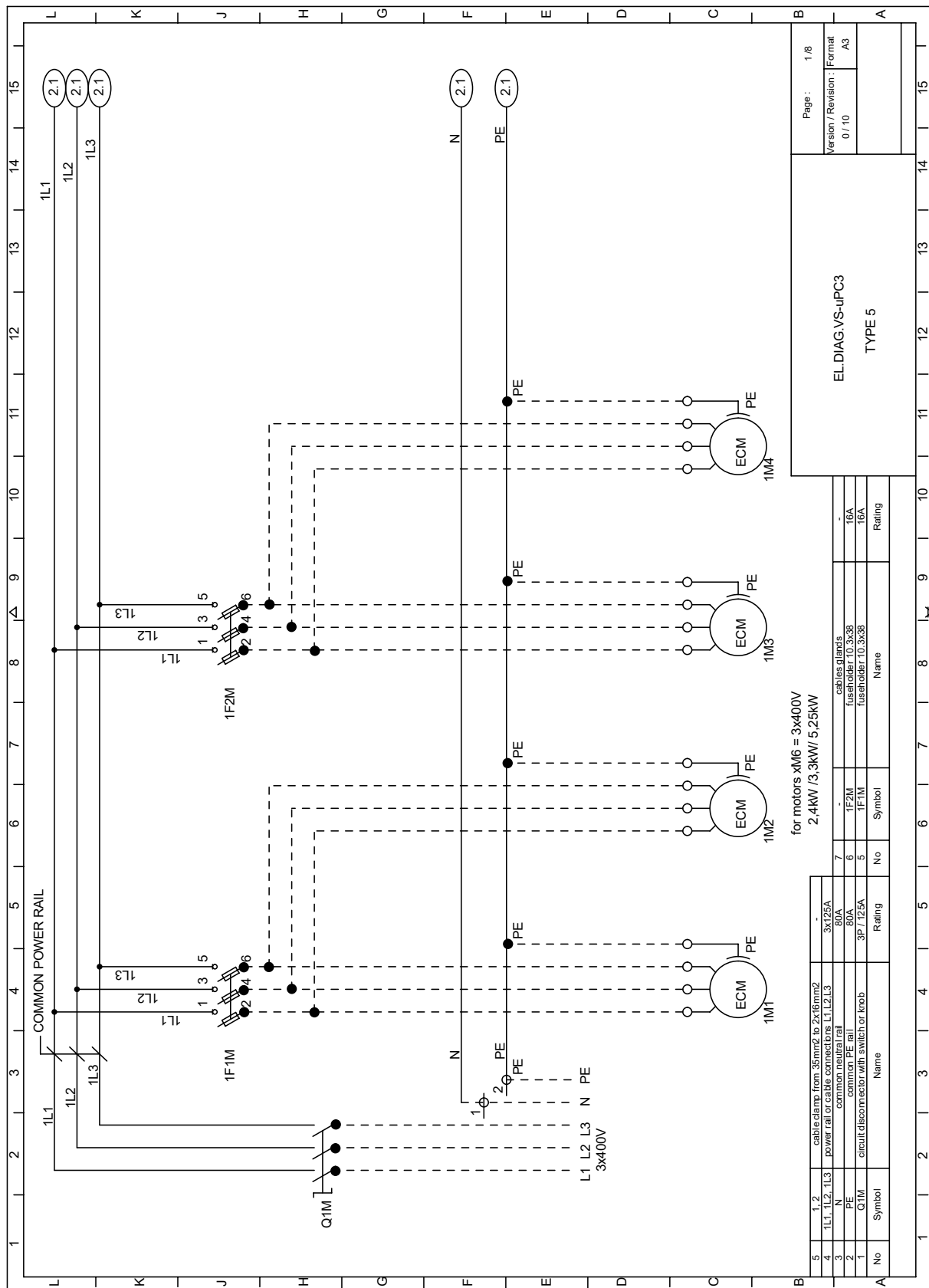


ECM 3.3kWx5; ECM 5.25kWx5 6/6

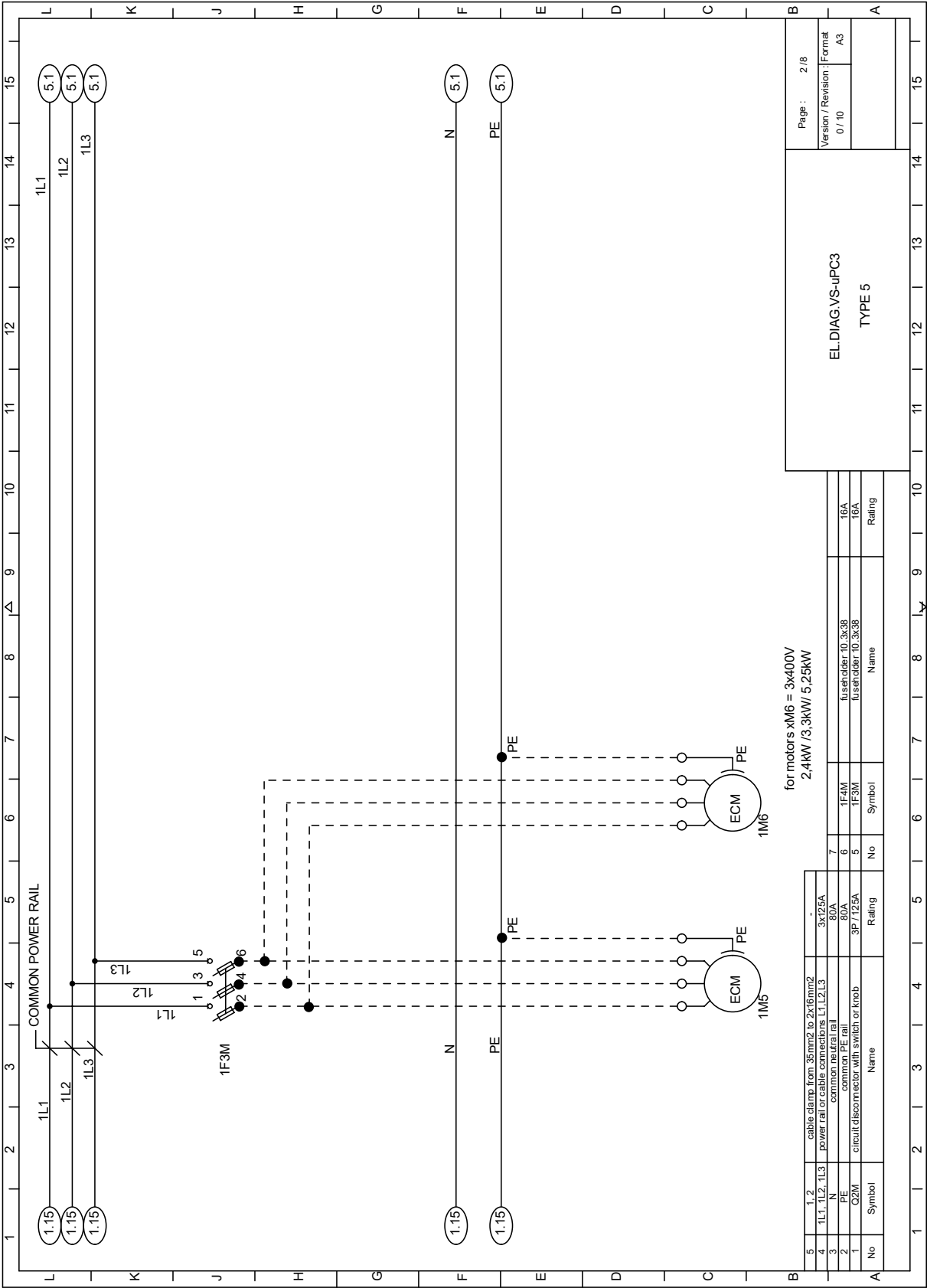


5.1.2 EC VVS500- 3.3kW x6, 5.25kW x6

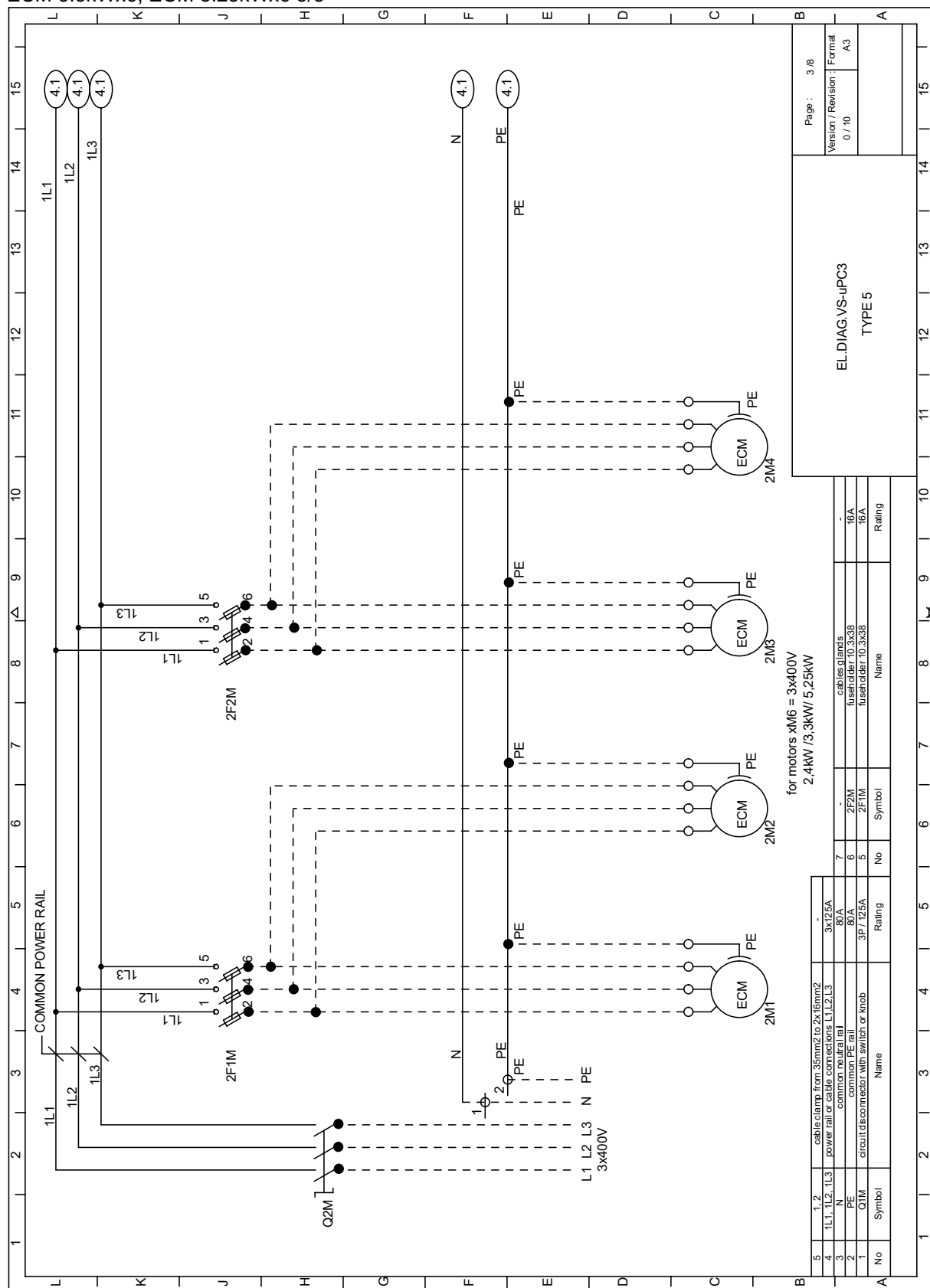
EC VVS500- 3.3kWx6, 5.25kWx6 1/8



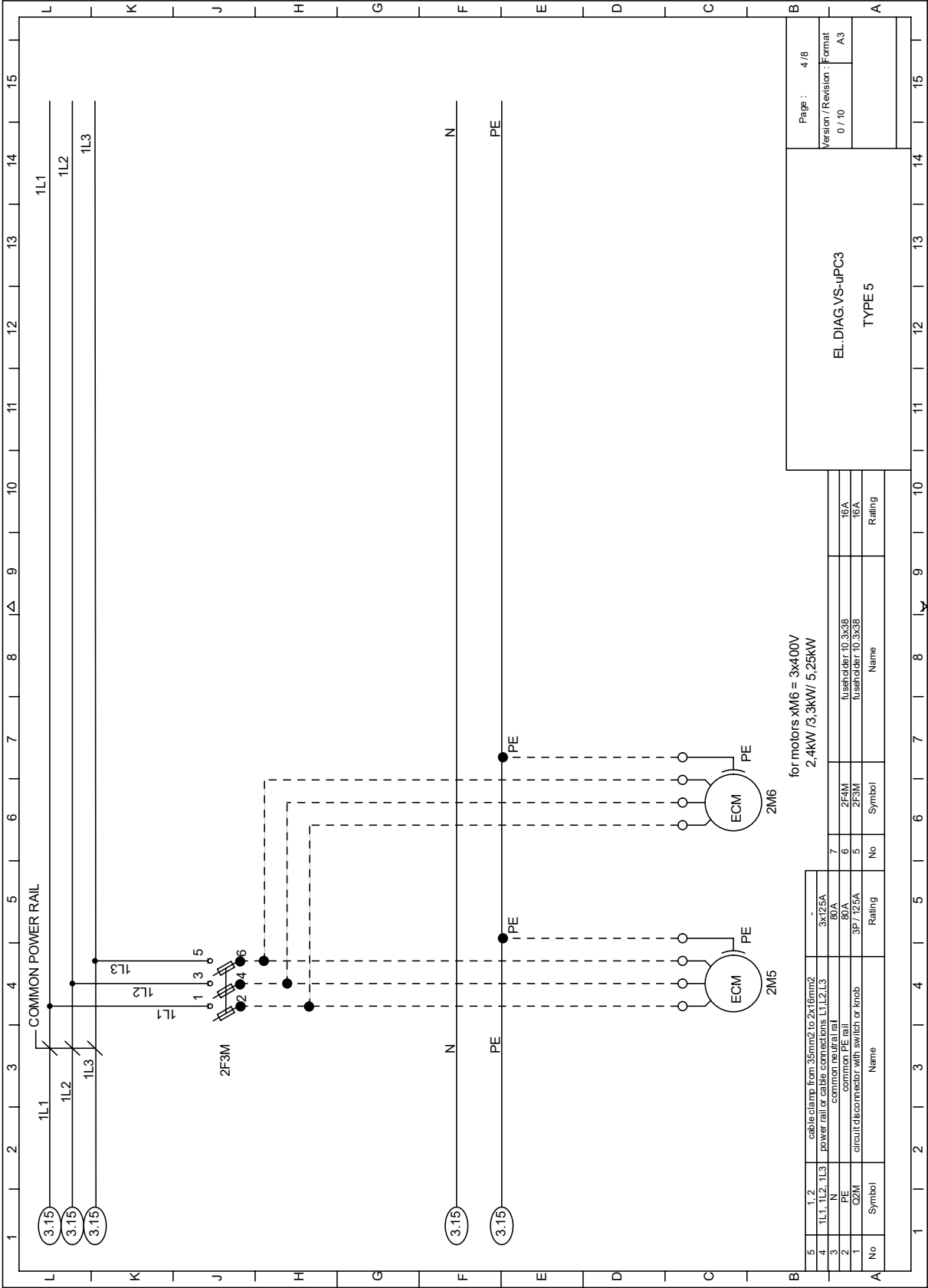
ECM 3.3kWx6; ECM 5.25kWx6 2/8



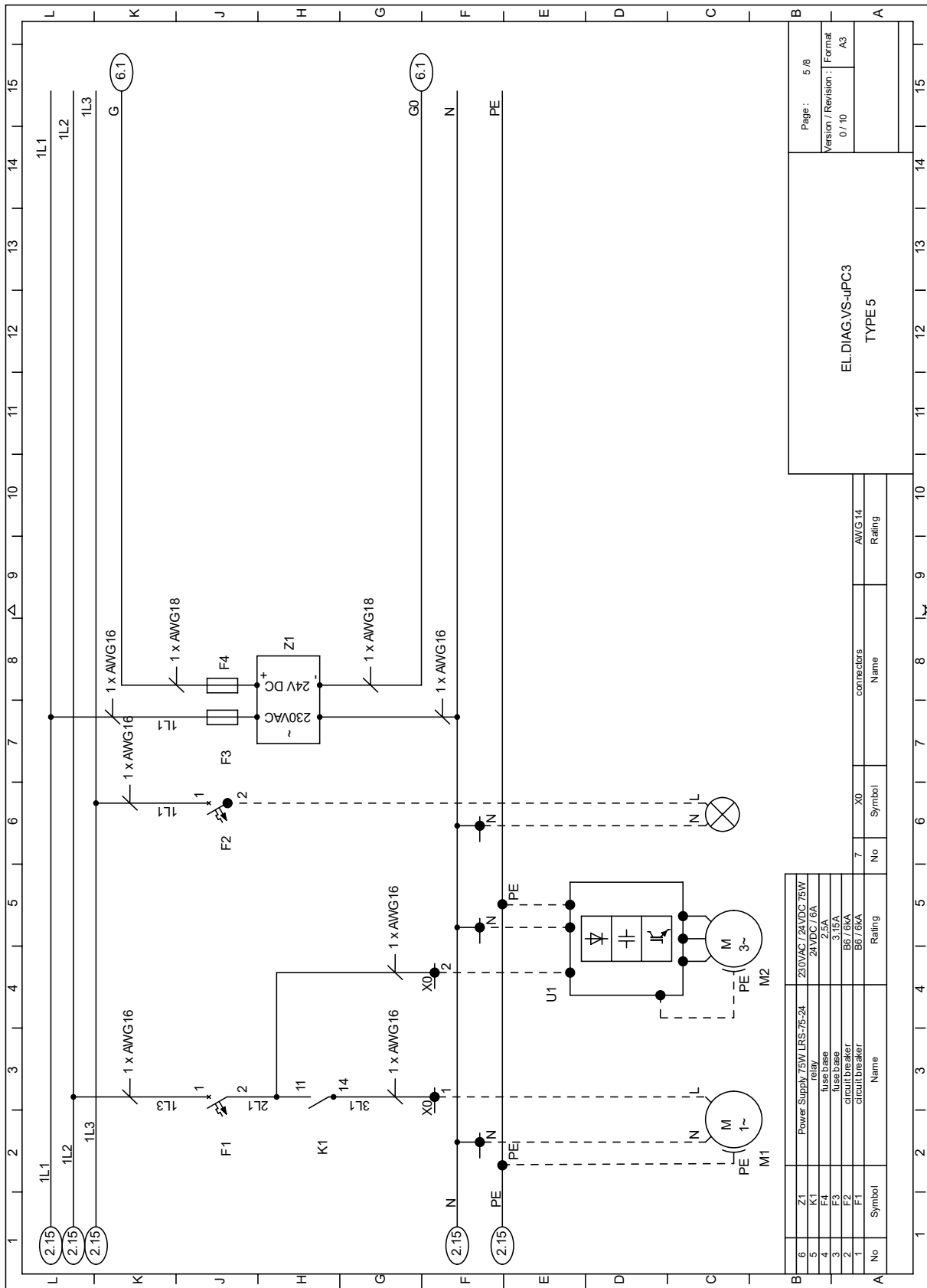
ECM 3.3kWx6; ECM 5.25kWx6 3/8



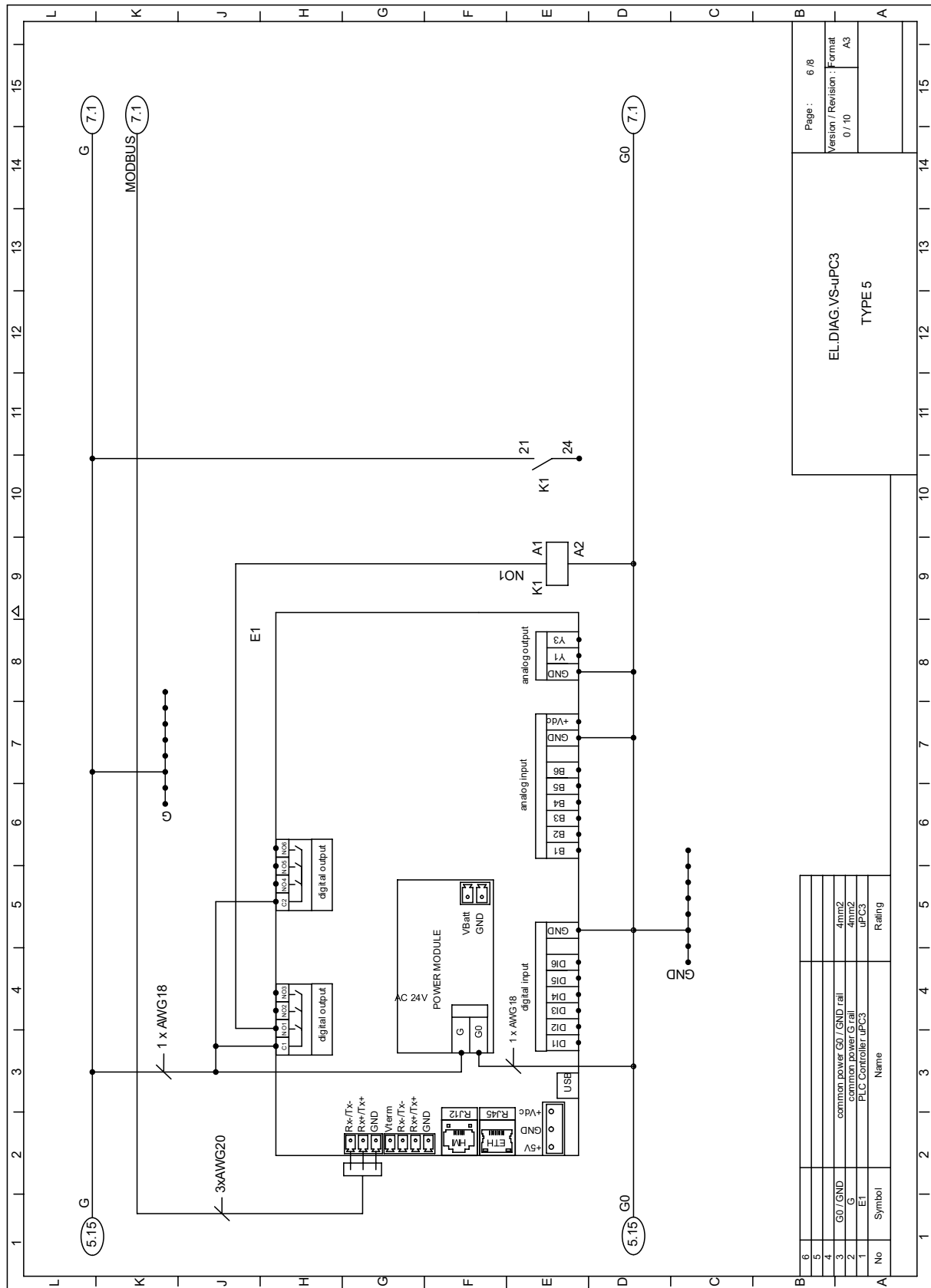
ECM 3.3kWx6, ECM 5.25kWx6 4/8



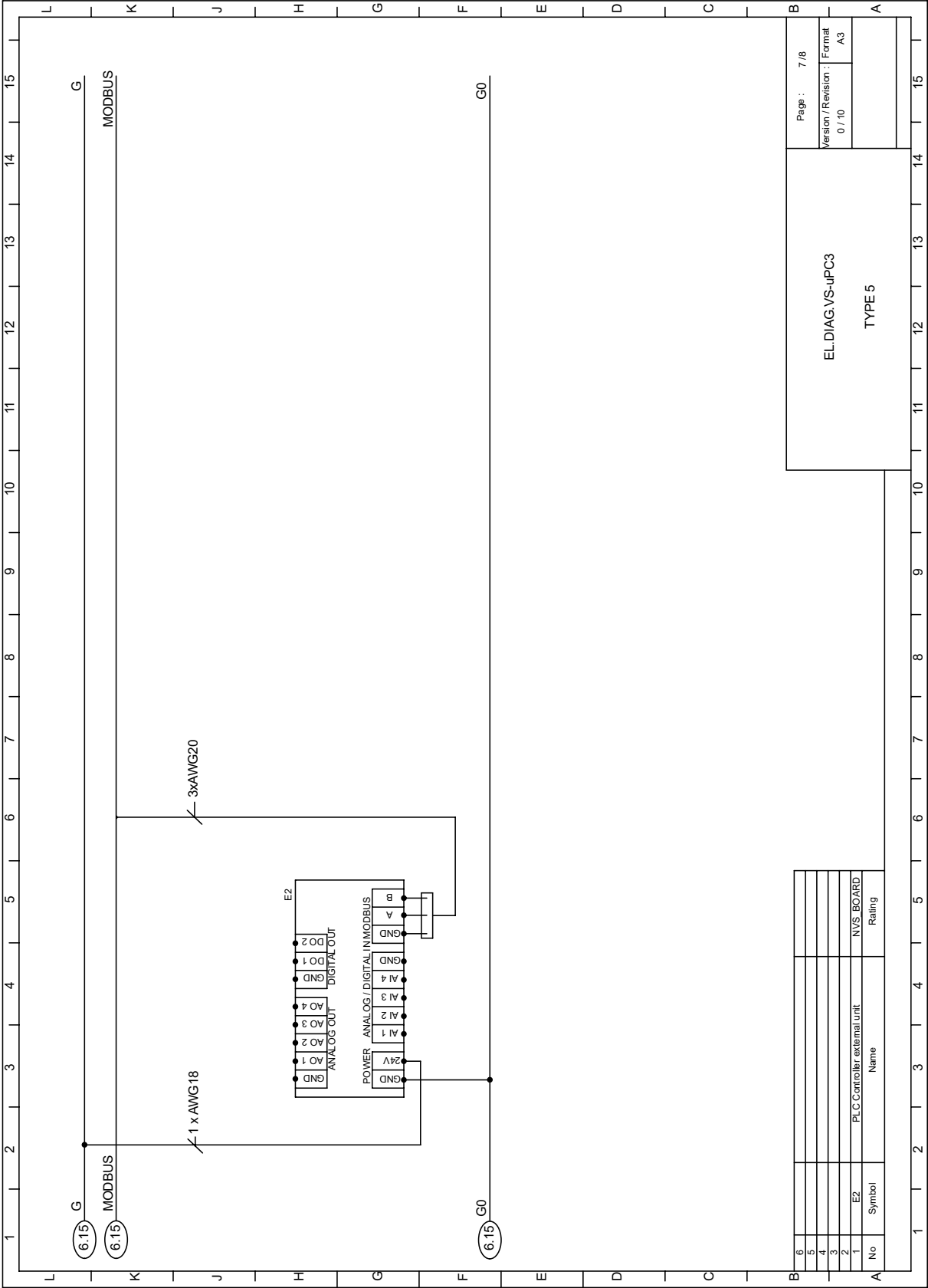
ECM 3.3kWx6, ECM 5.25kWx6 5/8



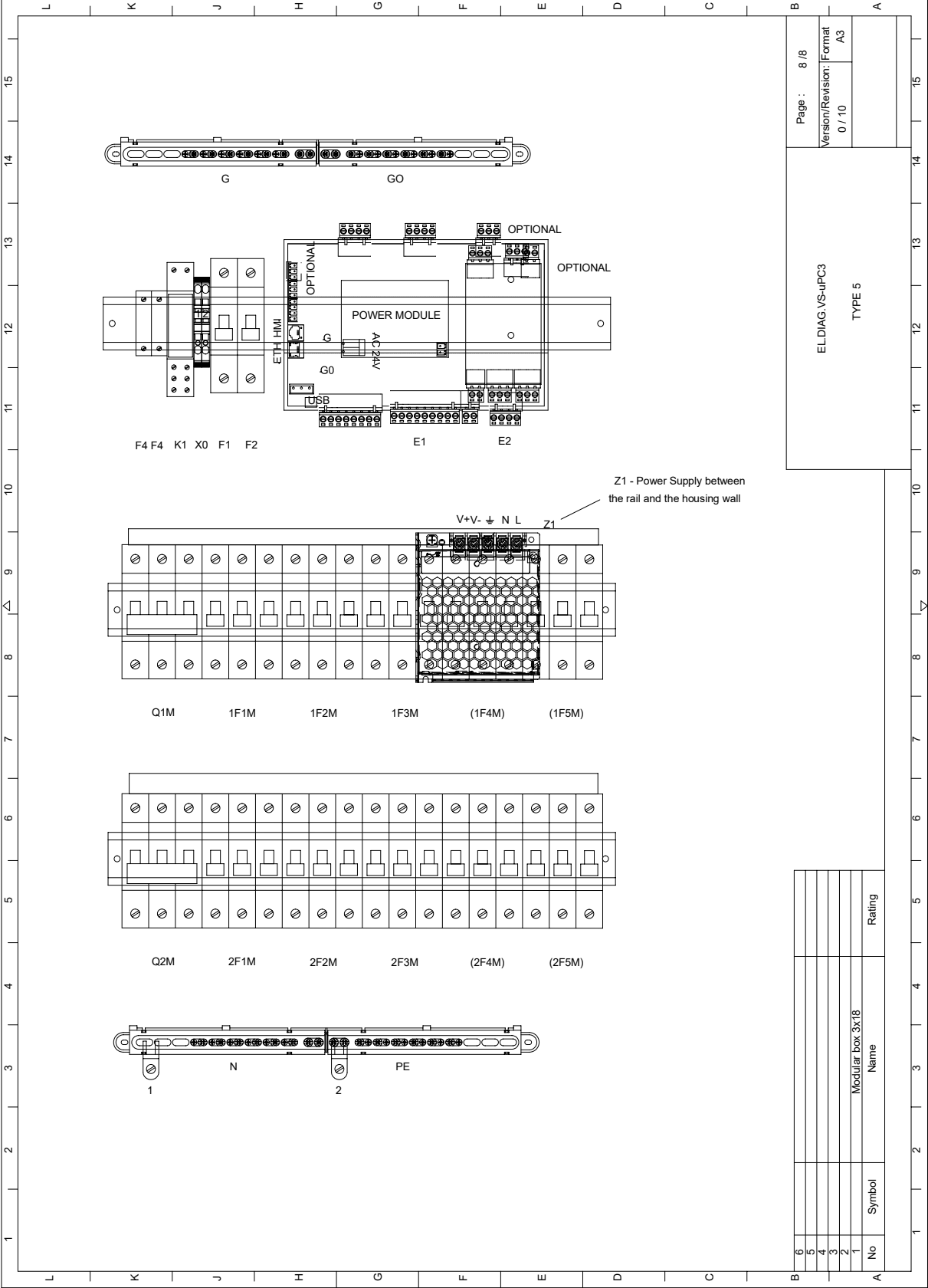
ECM 3.3kWx6, ECM 5.25kWx6 6/8



ECM 3.3kWx6, ECM 5.25kWx6 7/8

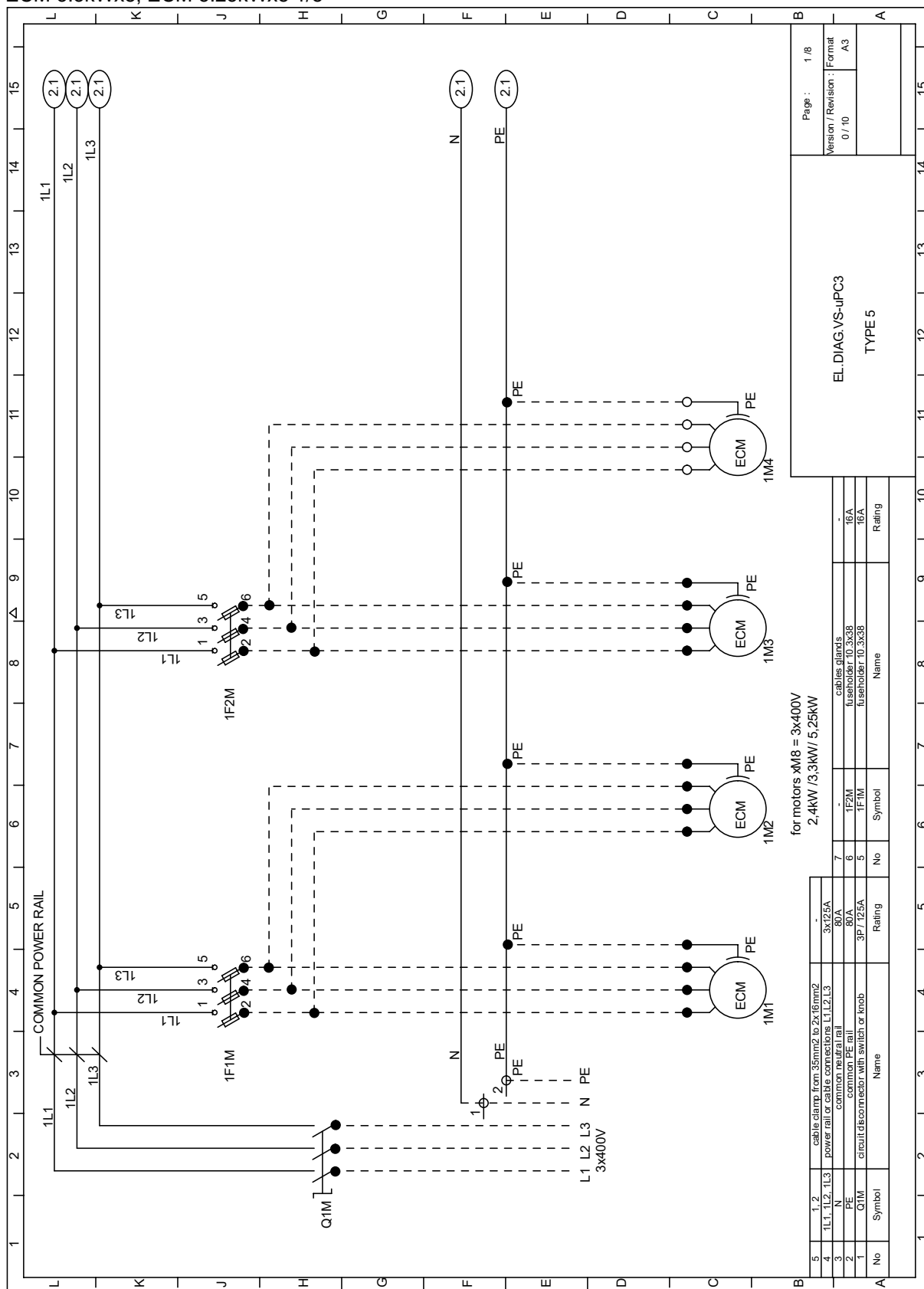


ECM 3.3kWx6, ECM 5.25kWx6 8/8

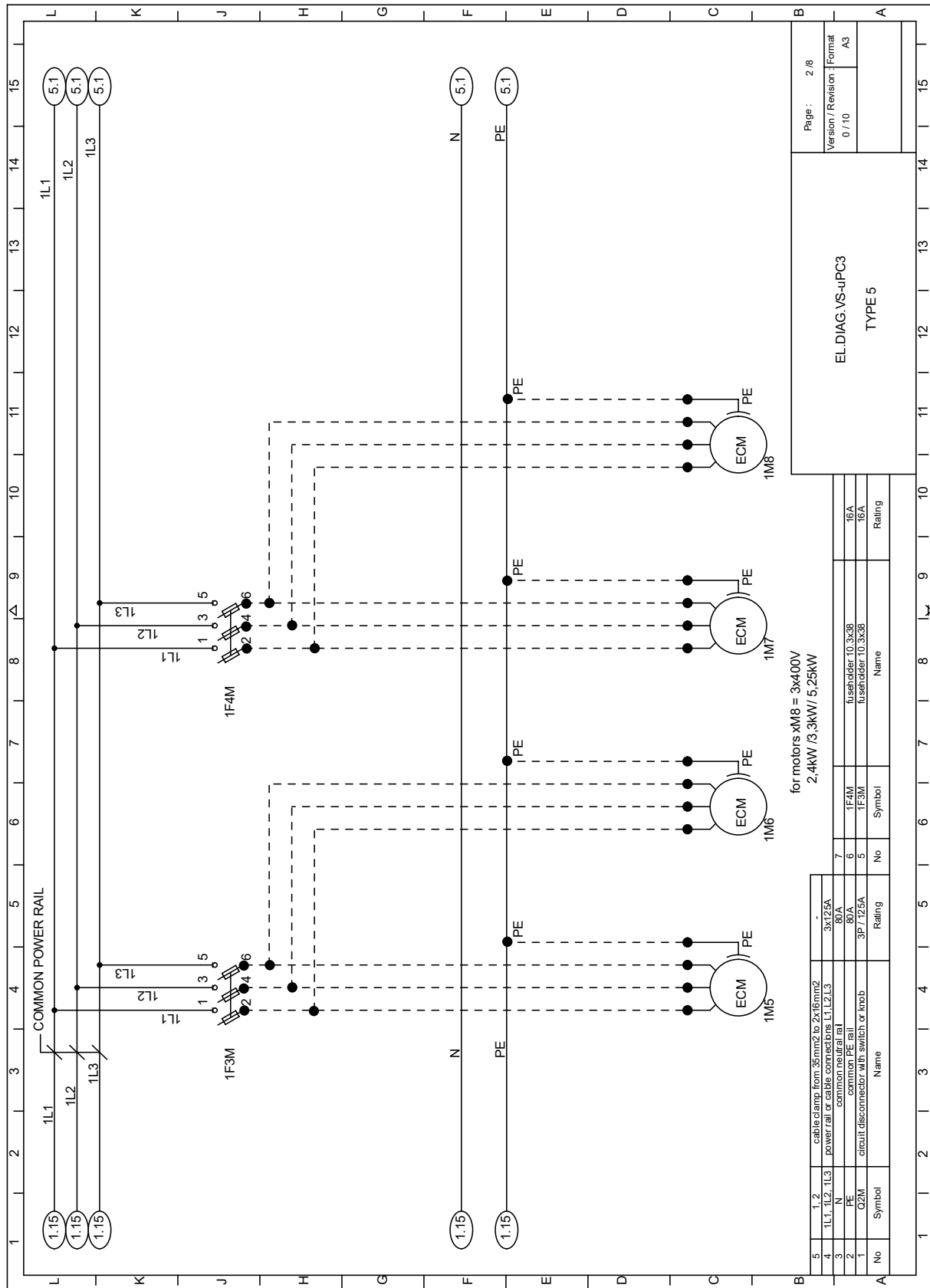


5.1.3 EC VVS650- 3.3kW x8, 5.25kW x8

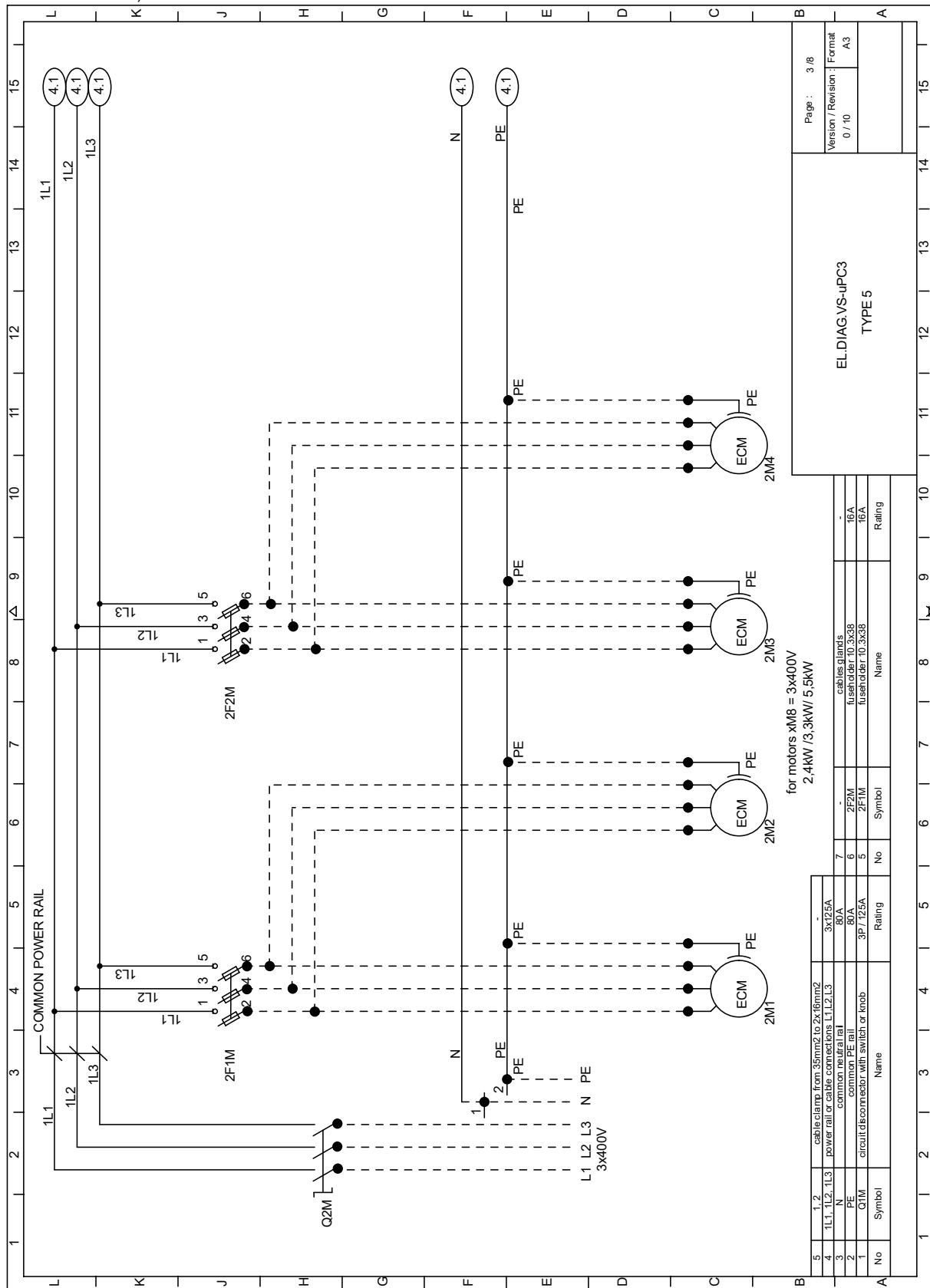
ECM 3.3kWx8, ECM 5.25kWx8 1/8



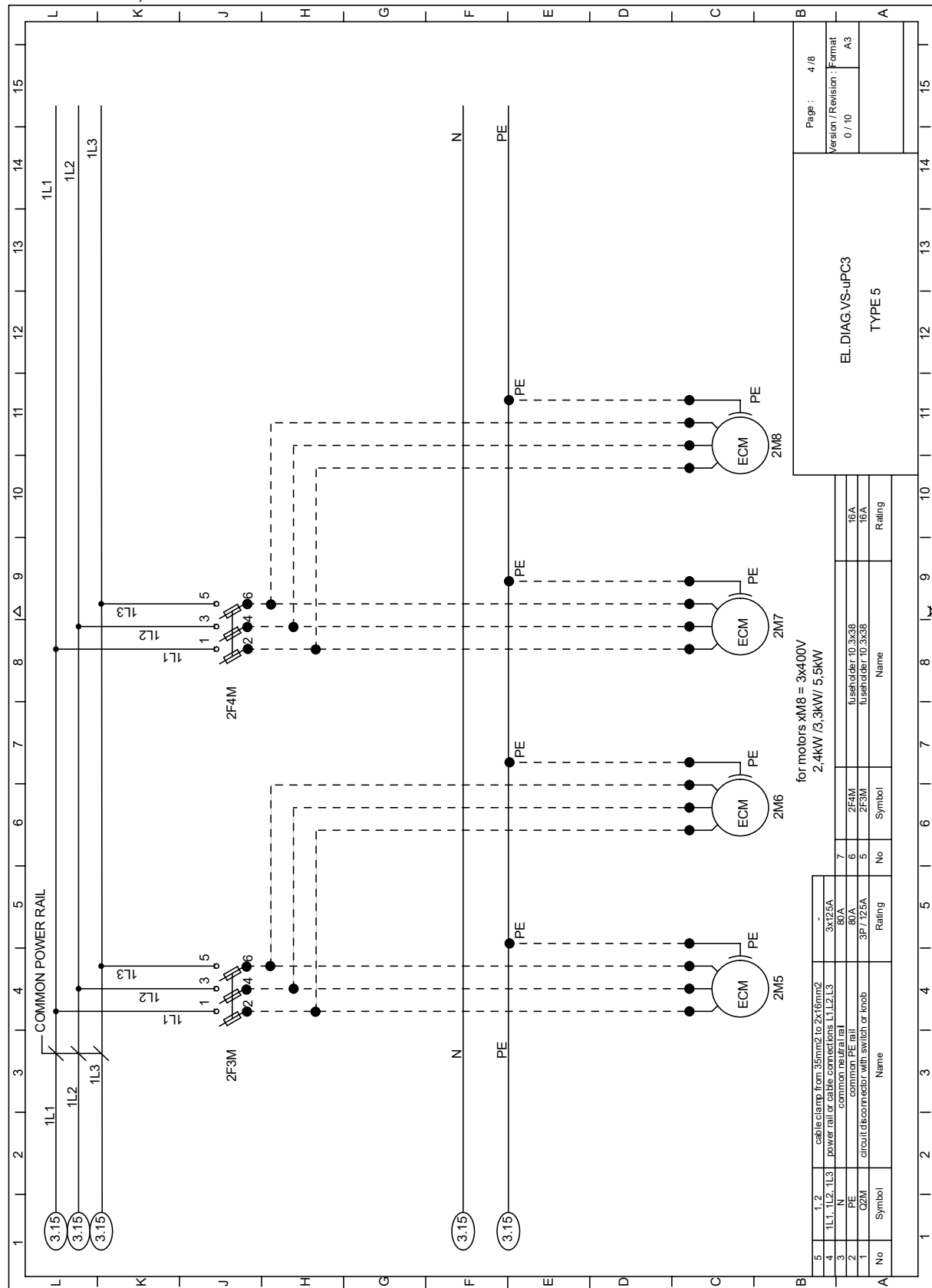
ECM 3.3kWx8, ECM 5.25kWx8 2/8

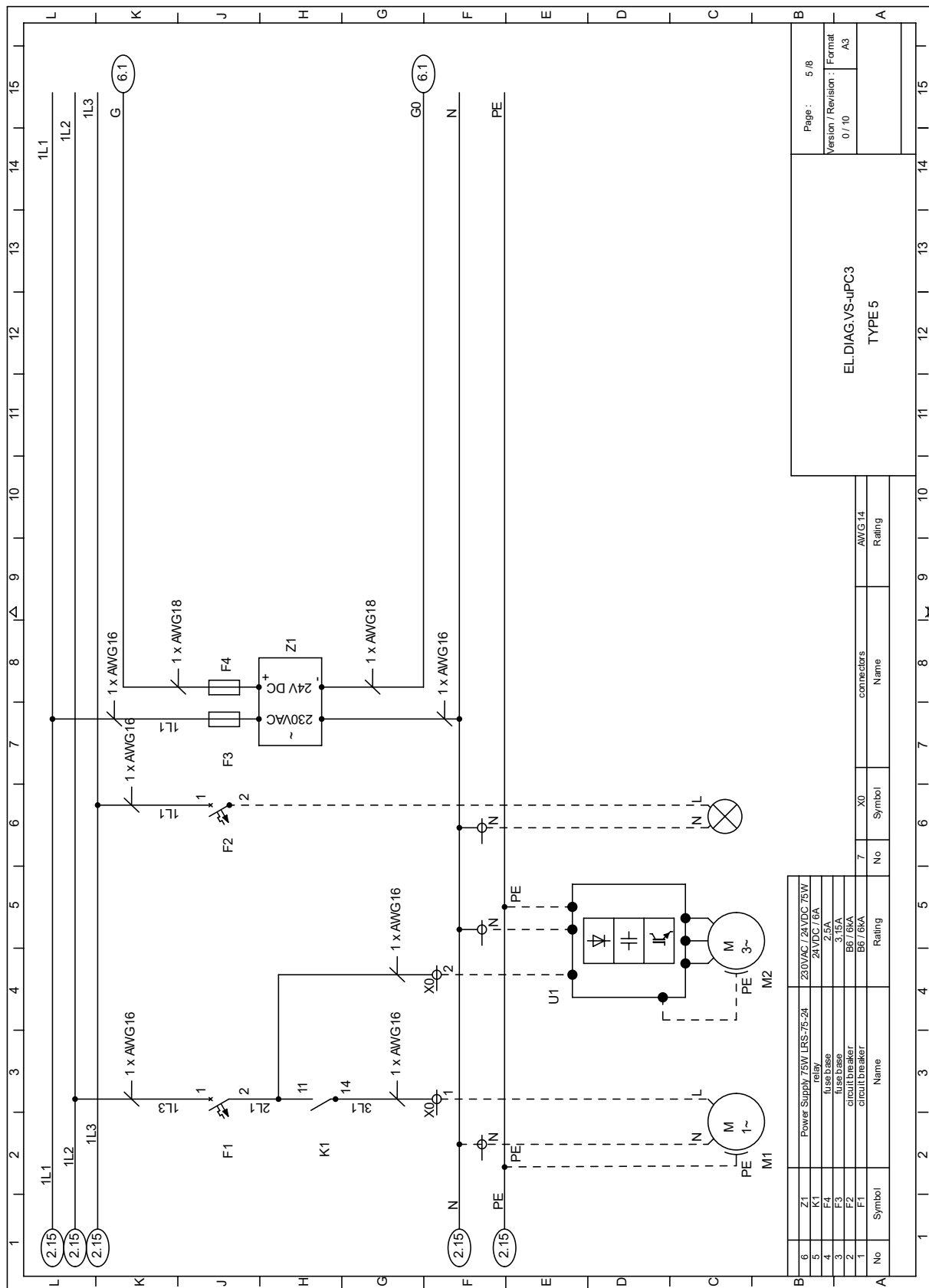


ECM 3.3kWx8, ECM 5.25kWx8 3/8

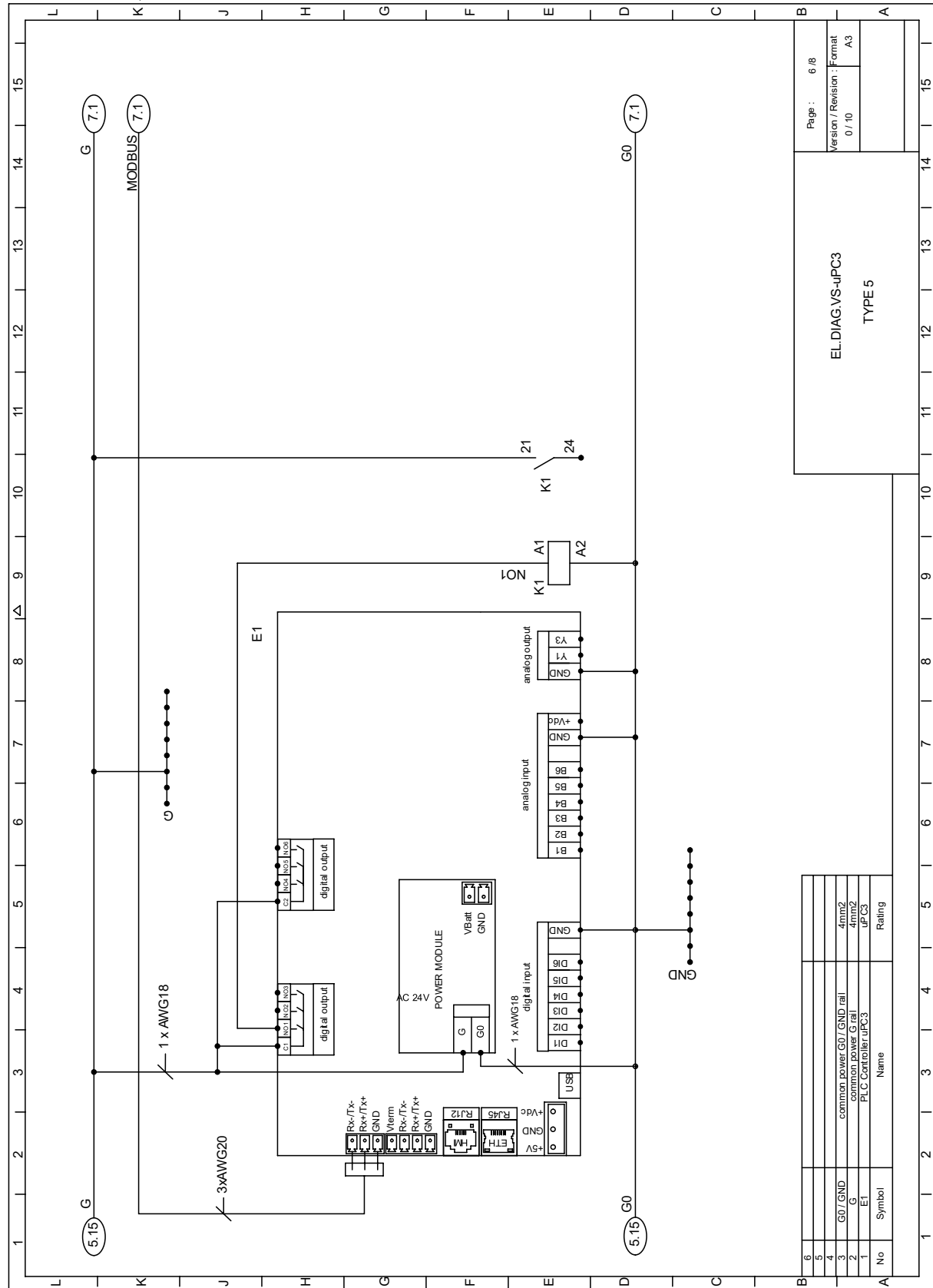


ECM 3.3kWx8, ECM 5.25kWx8 4/8

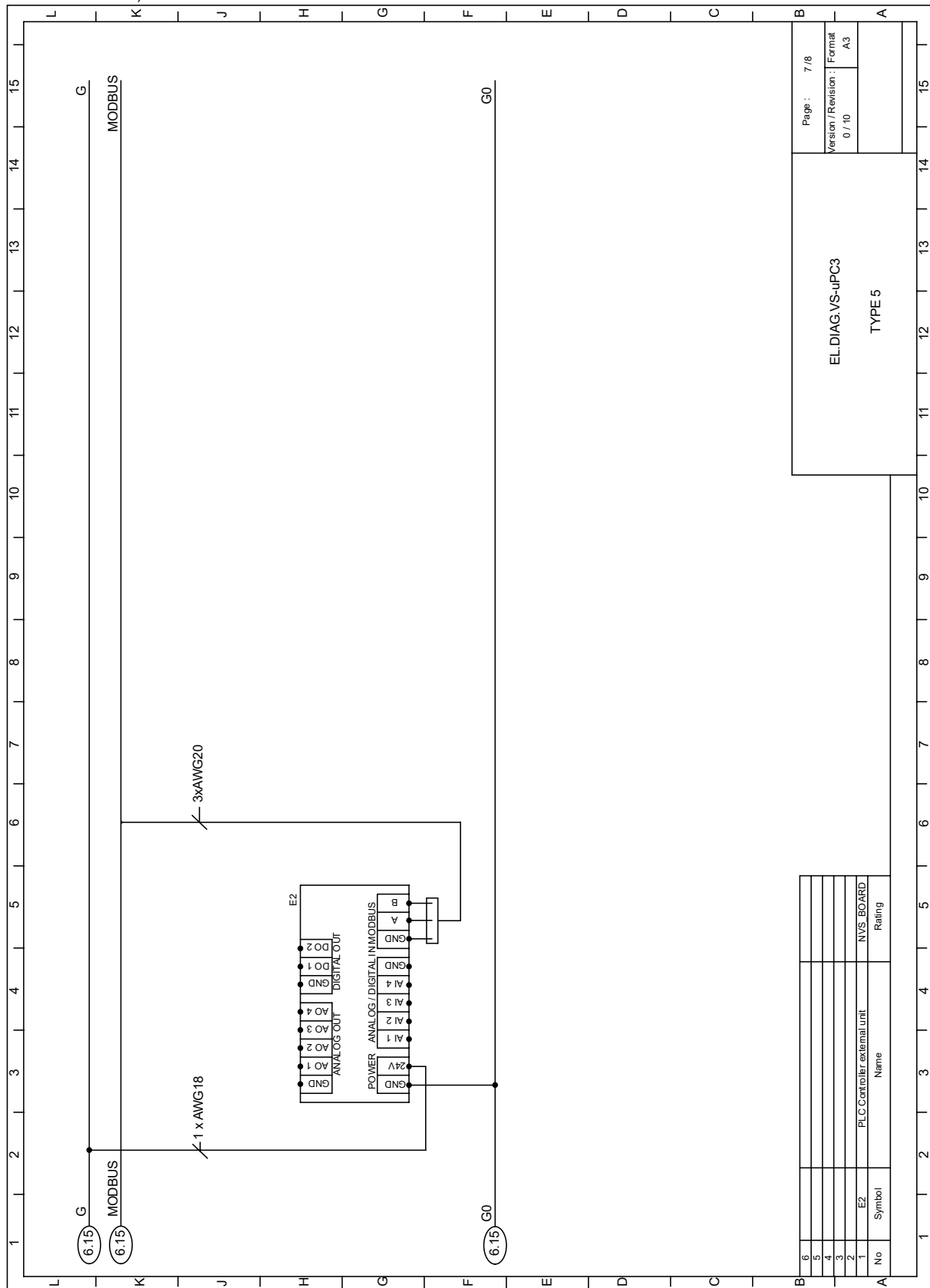




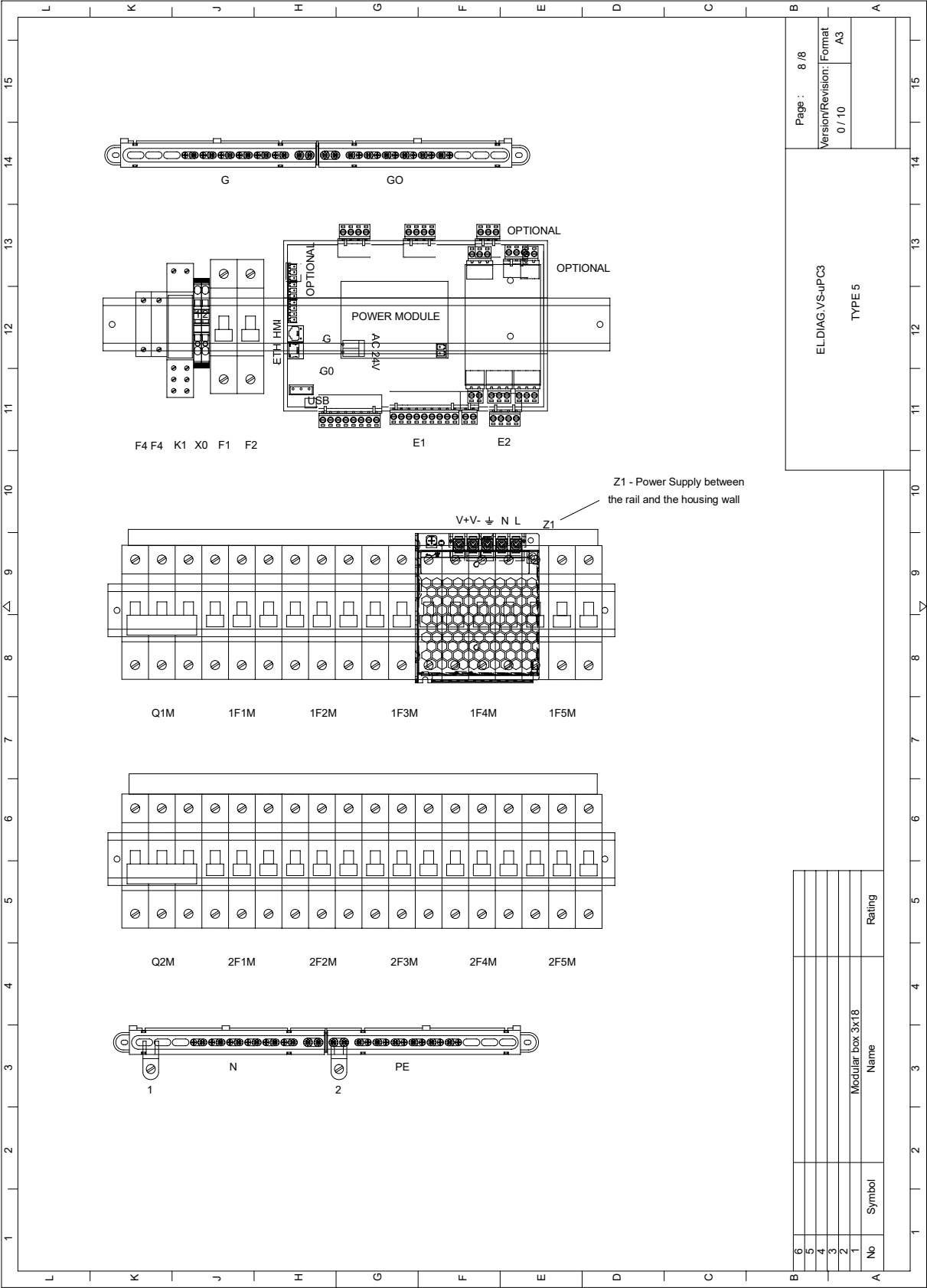
ECM 3.3kWx8, ECM 5.25kWx8 6/8



ECM 3.3kWx8, ECM 5.25kWx8 7/8



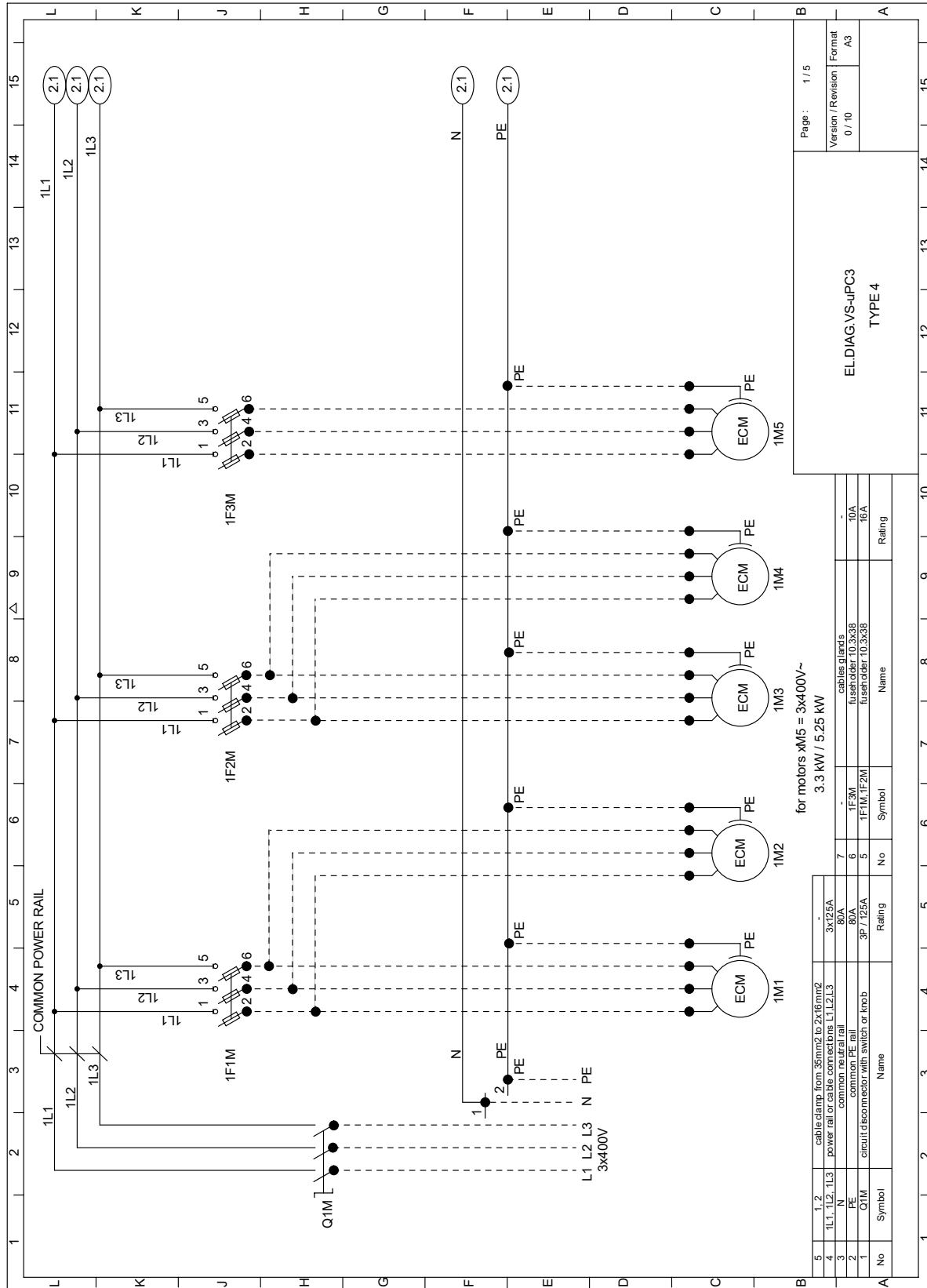
ECM 3.3kWx8, ECM 5.25kWx8 8/8



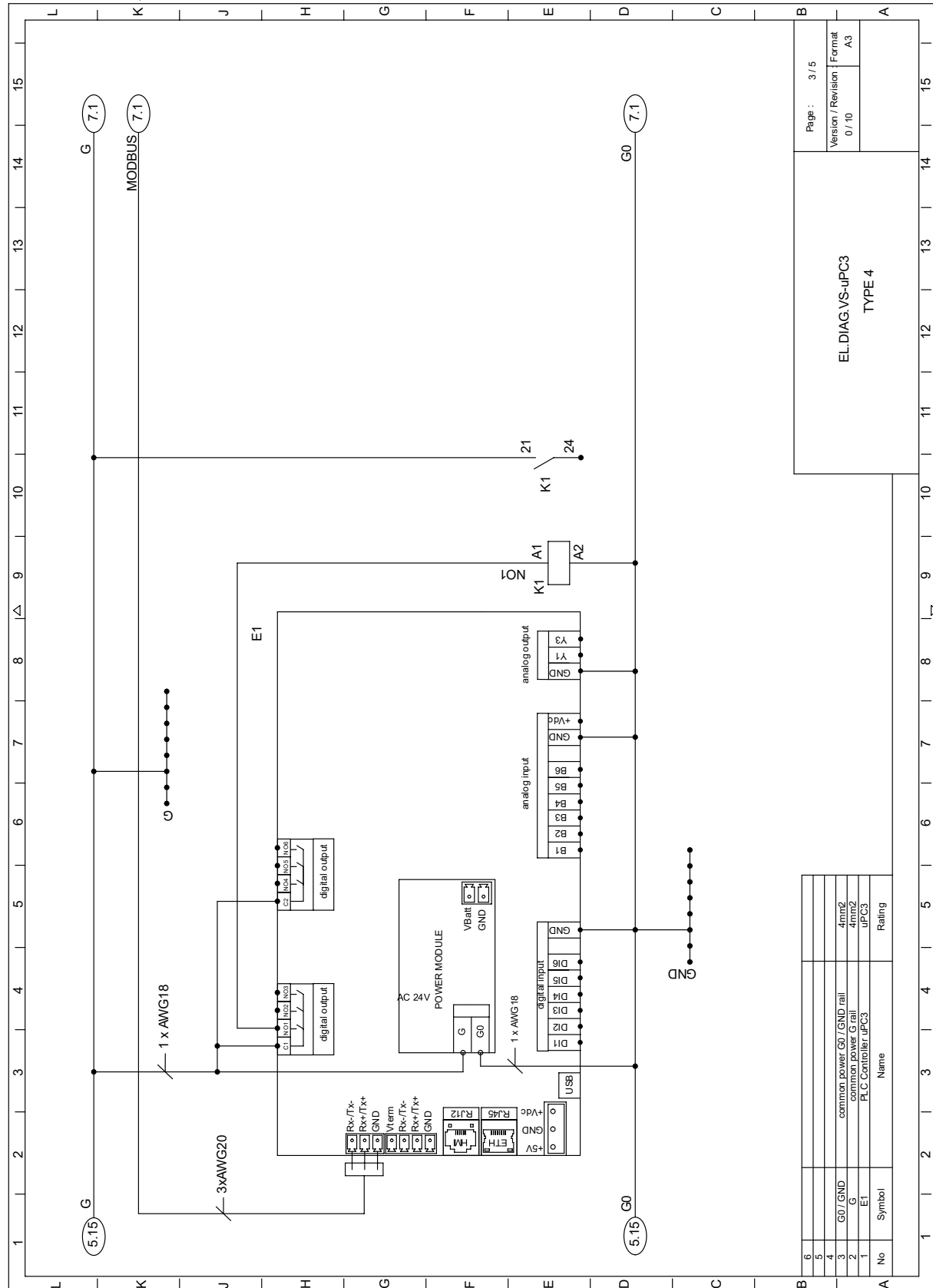
5.2 CONNECTION DIAGRAMS DOR SUPPLY UNITS

5.2.1 EC VVS400- 3.3kW x5, 5.25kW x5

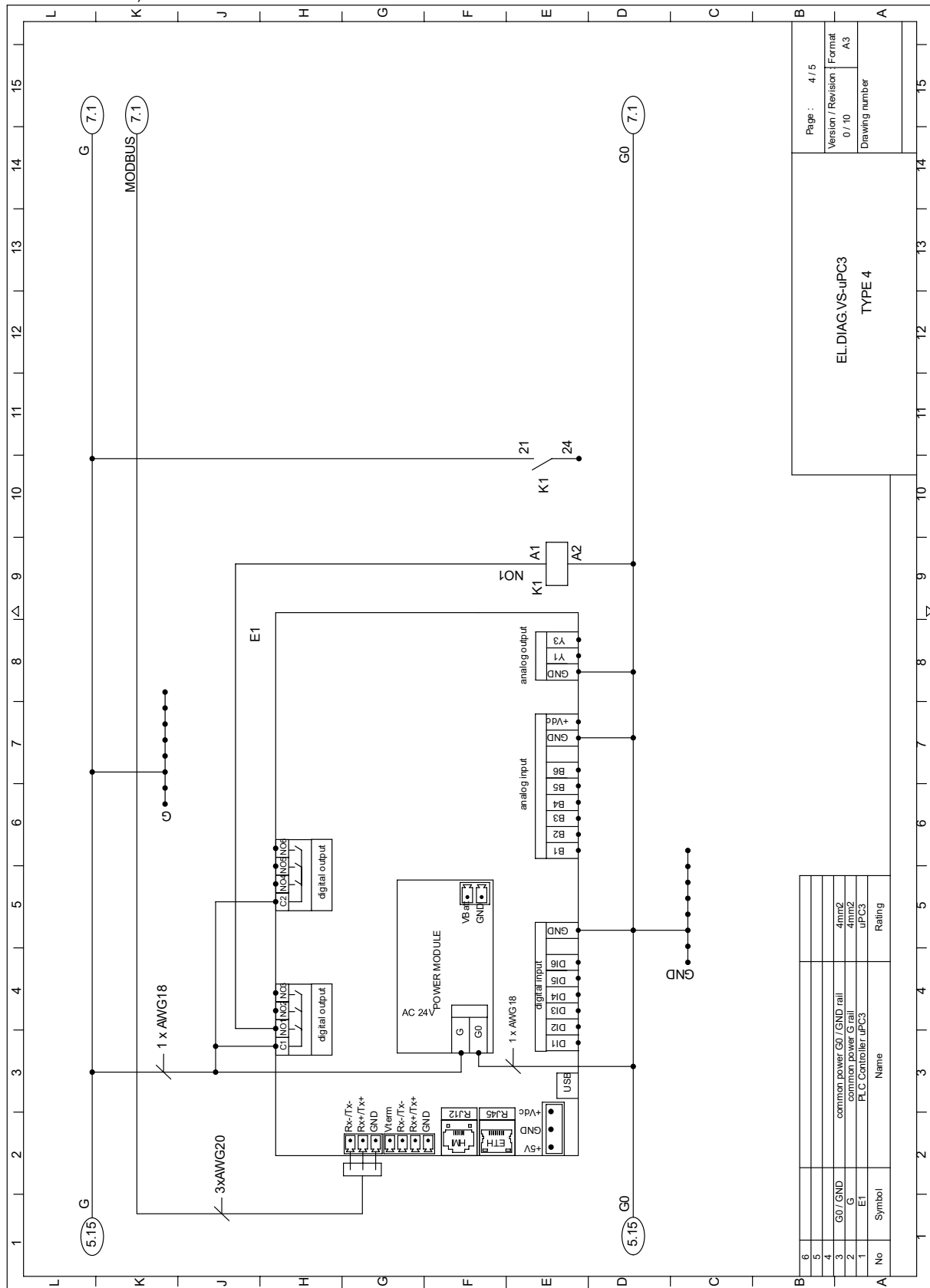
ECM 3.3kWx5, ECM 5.25kWx5 1/5



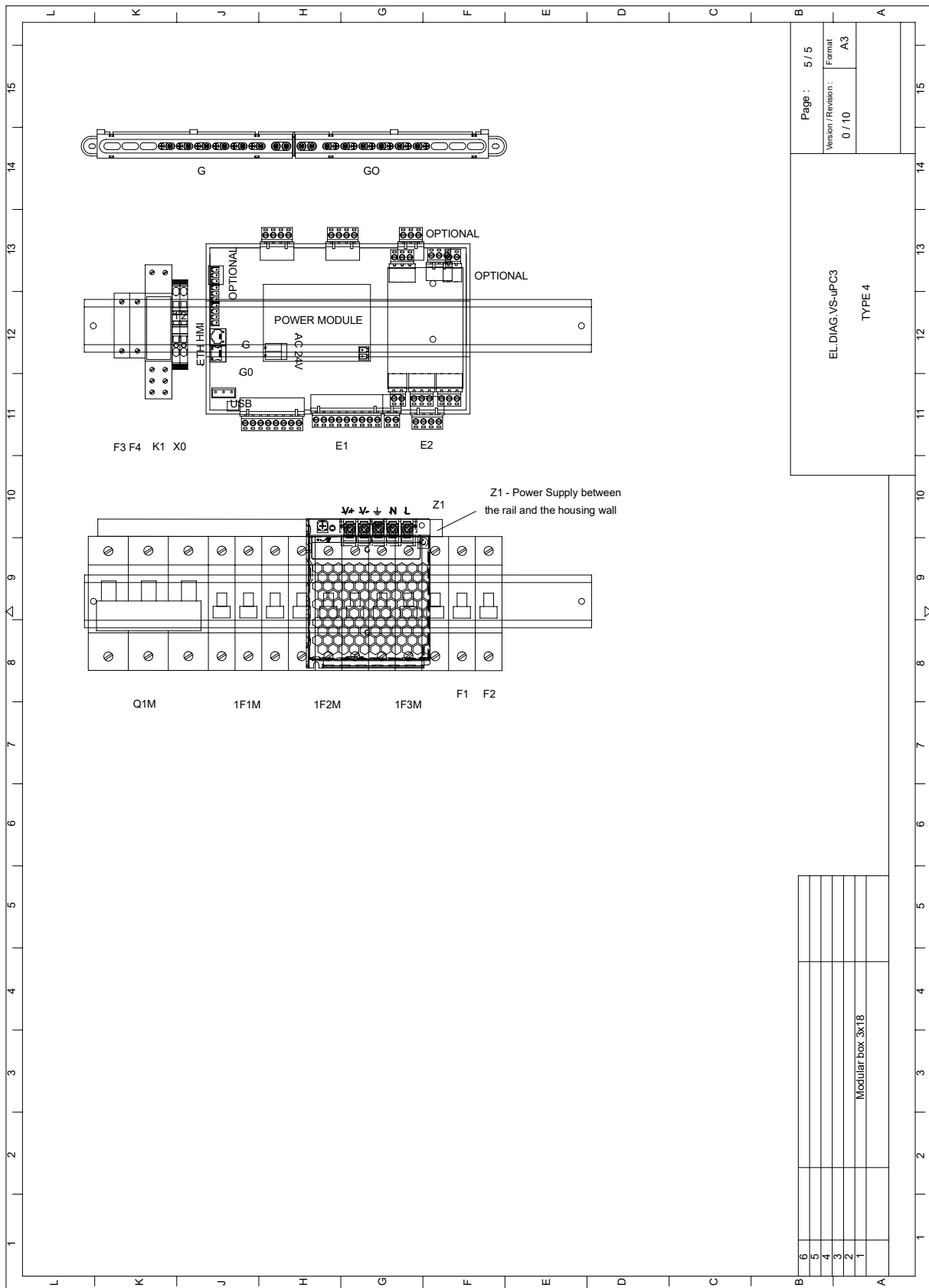
ECM 3.3kWx5, ECM 5.25kWx5 3/5



ECM 3.3kWx5, ECM 5.25kWx5 4/5

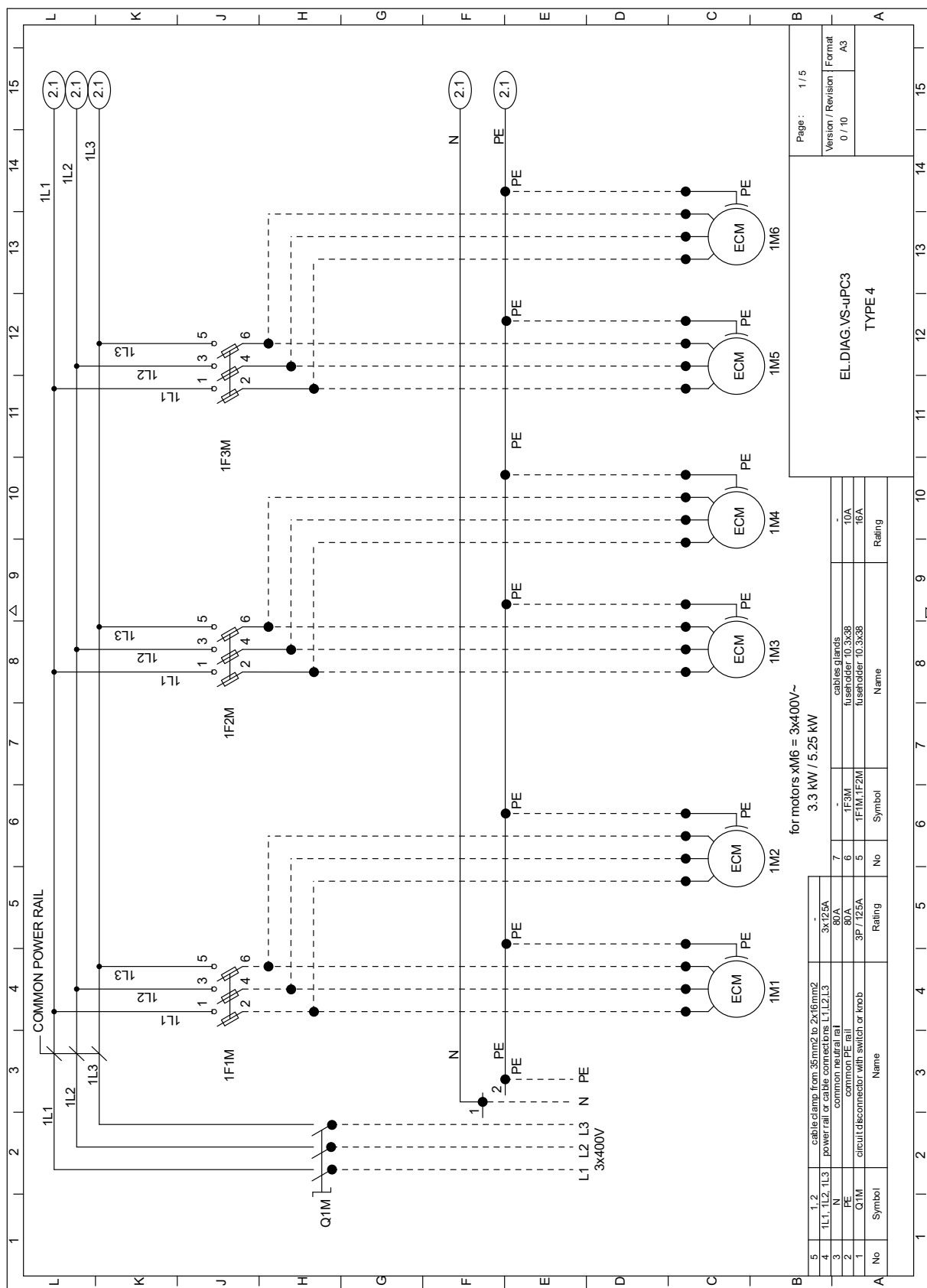


ECM 3.3kWx4, ECM 5.25kWx4 5/5

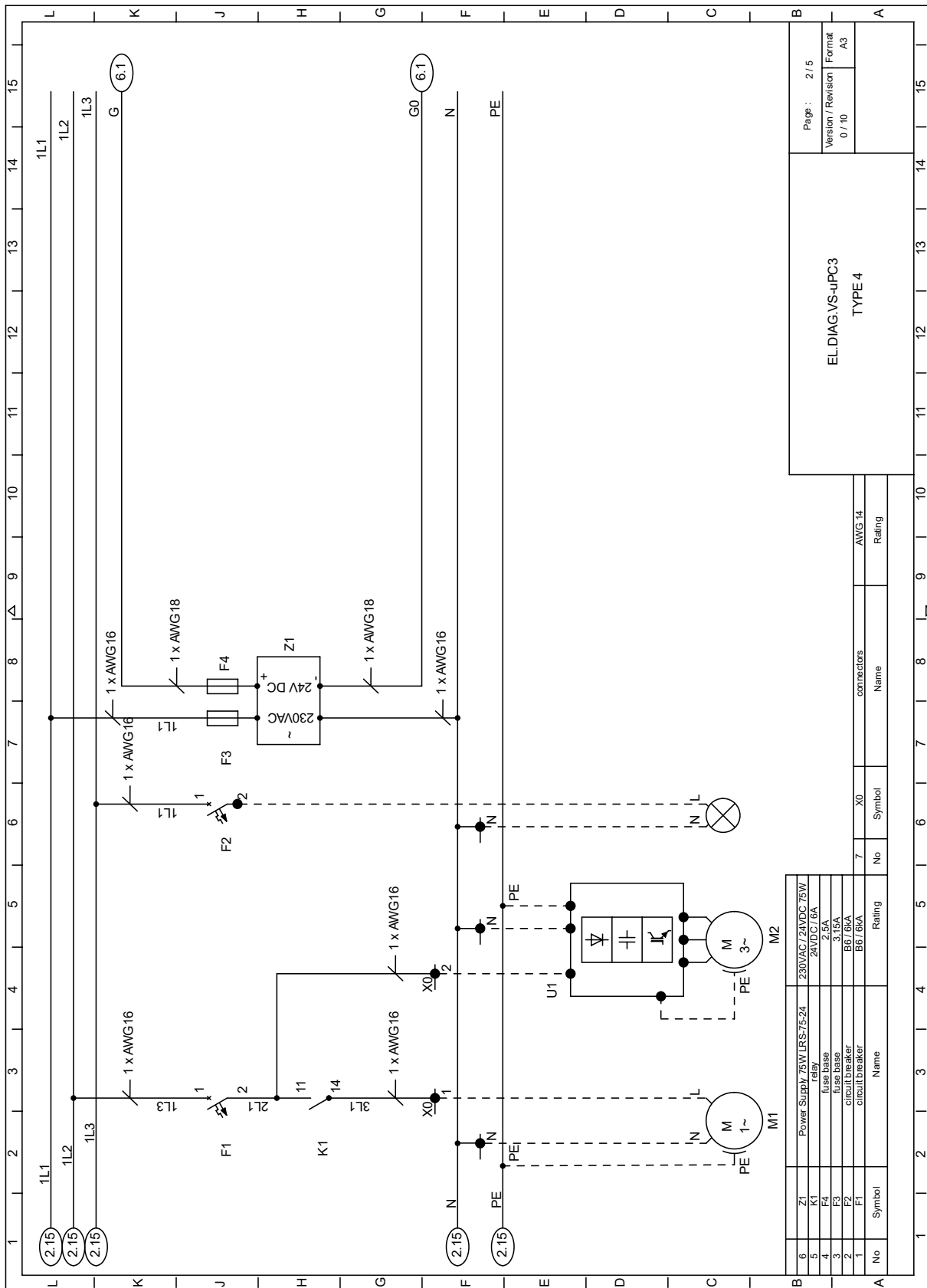


5.2.2 EC VVS500- 3.3kW x6, 5.25kW x6

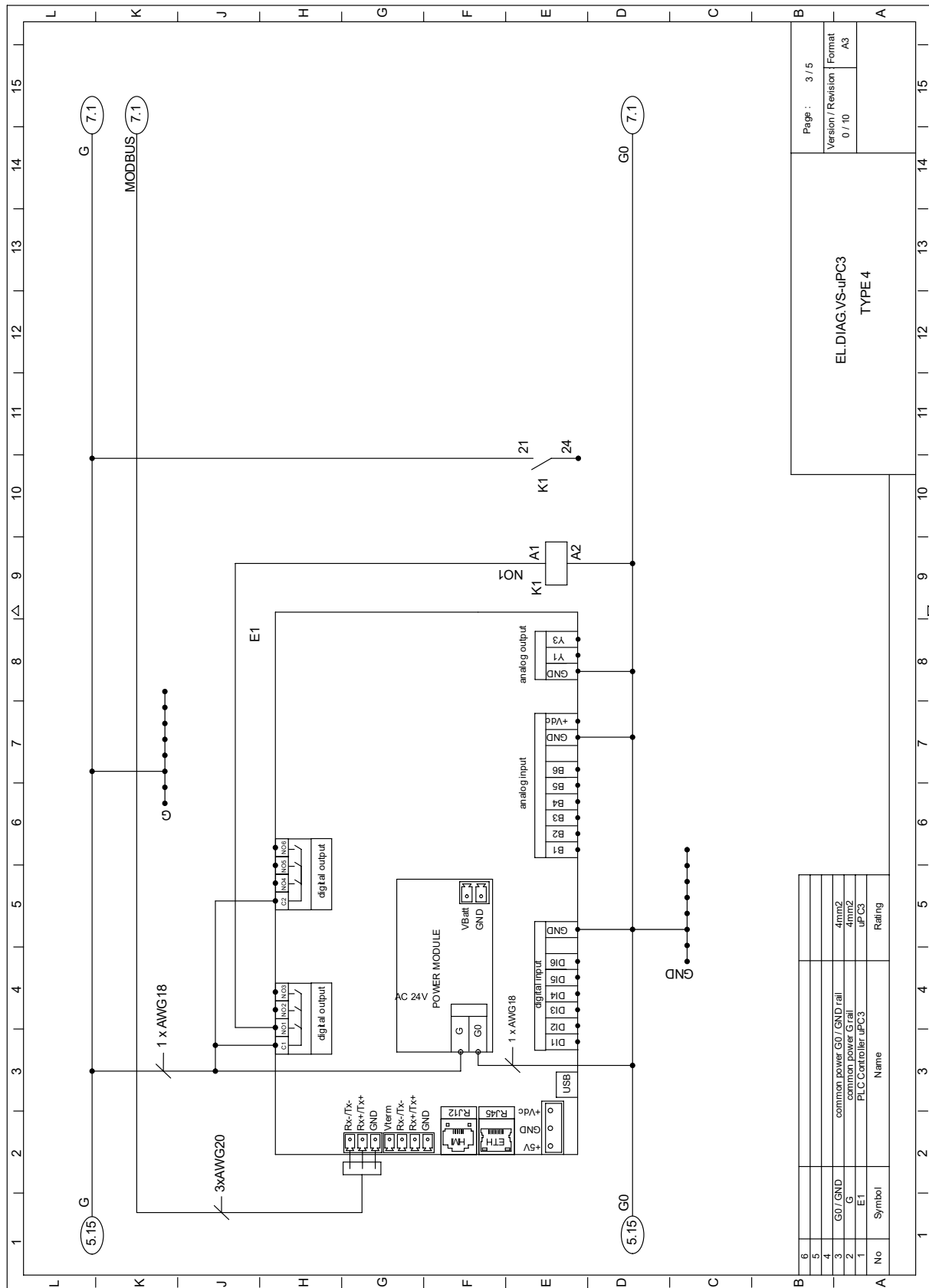
ECM 3.3kWx6, ECM 5.25kWx6 1/5



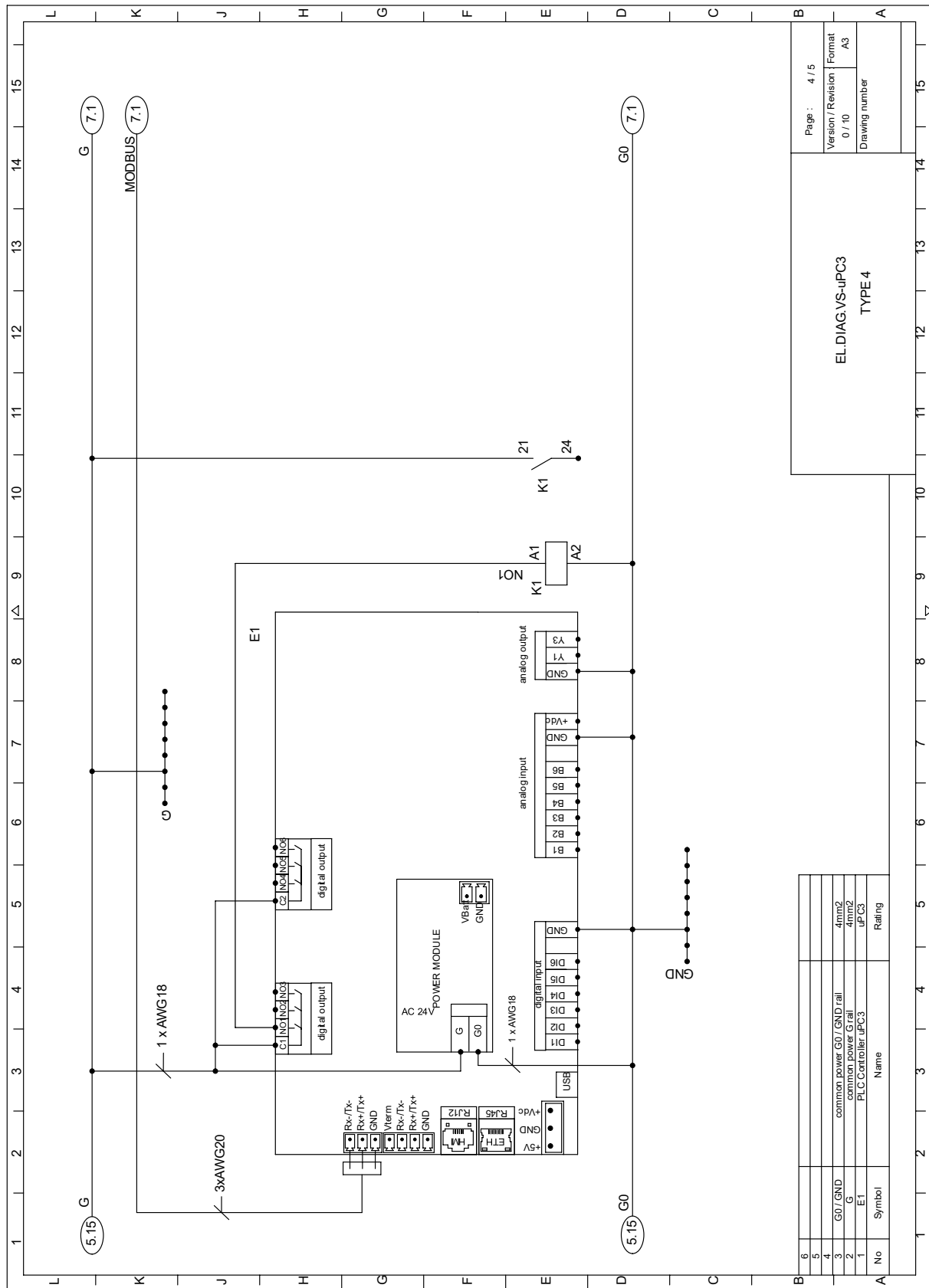
ECM 3.3kWx6, ECM 5.25kWx6 2/5



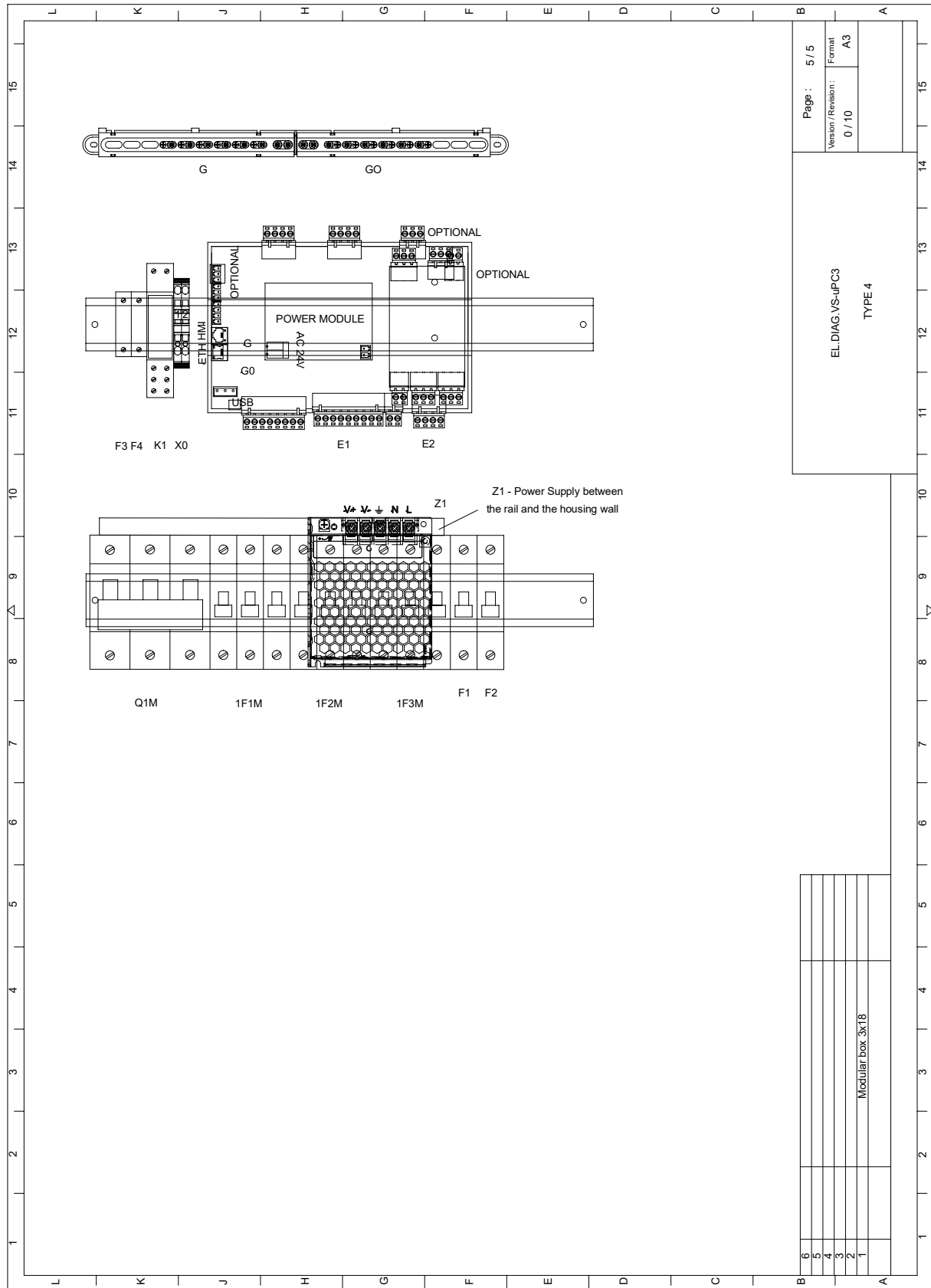
ECM 3.3kWx6, ECM 5.25kWx6 3/5



ECM 3.3kWx6, ECM 5.25kWx6 4/5

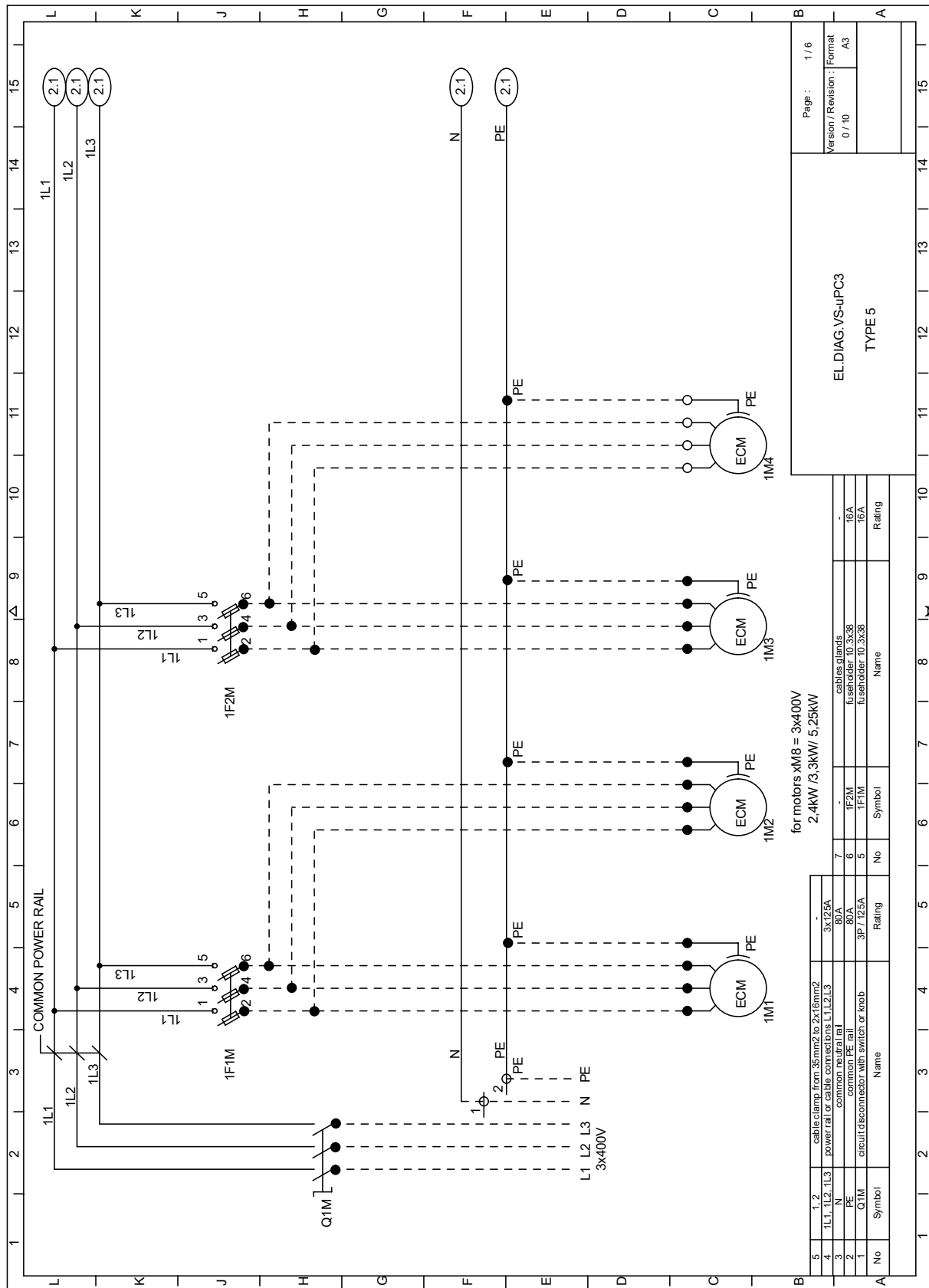


ECM 3.3kWx6, ECM 5.25kWx6 5/5

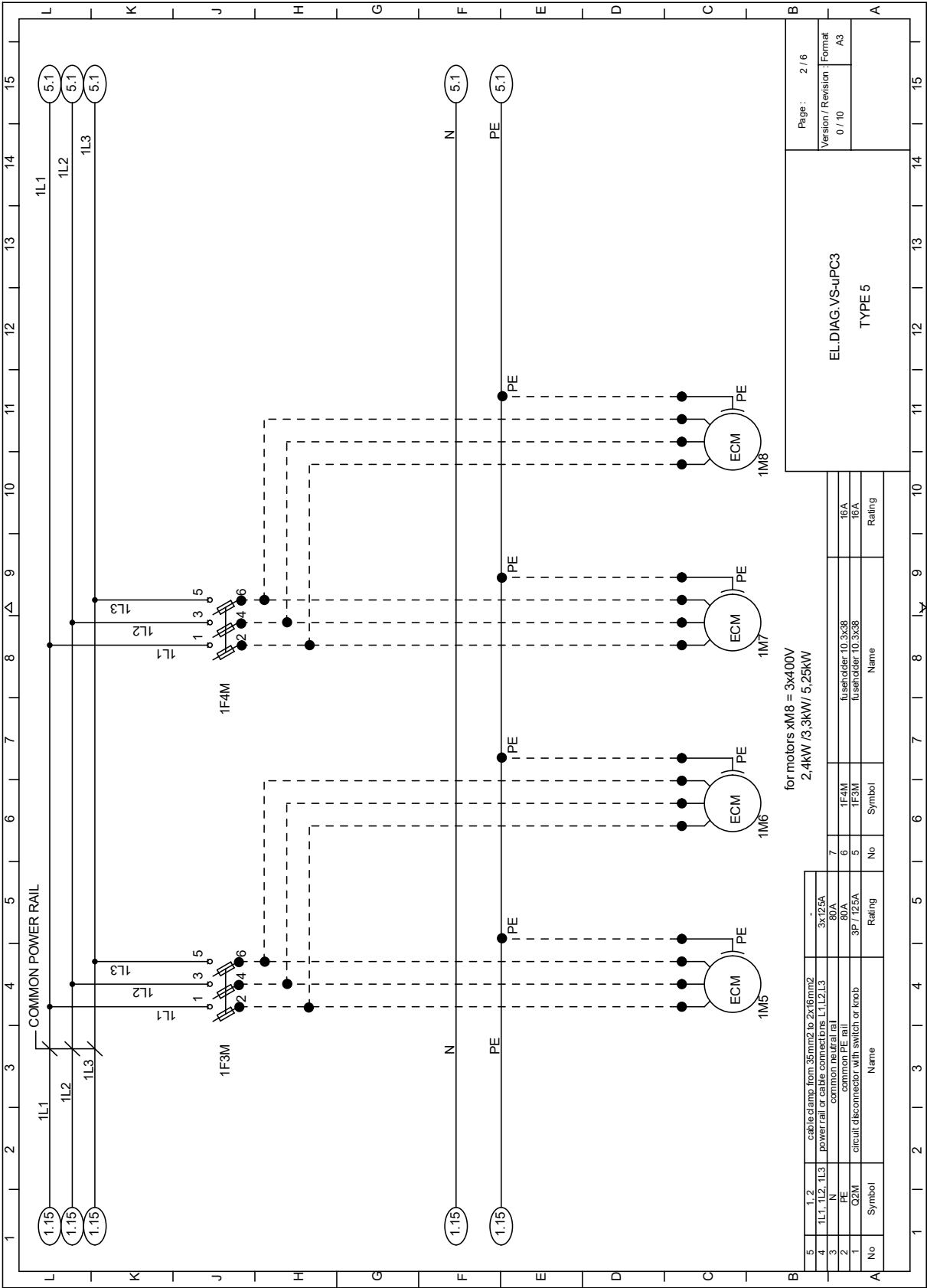


5.2.3 EC VVS650- 3.3kW x8, 5.25kW x8

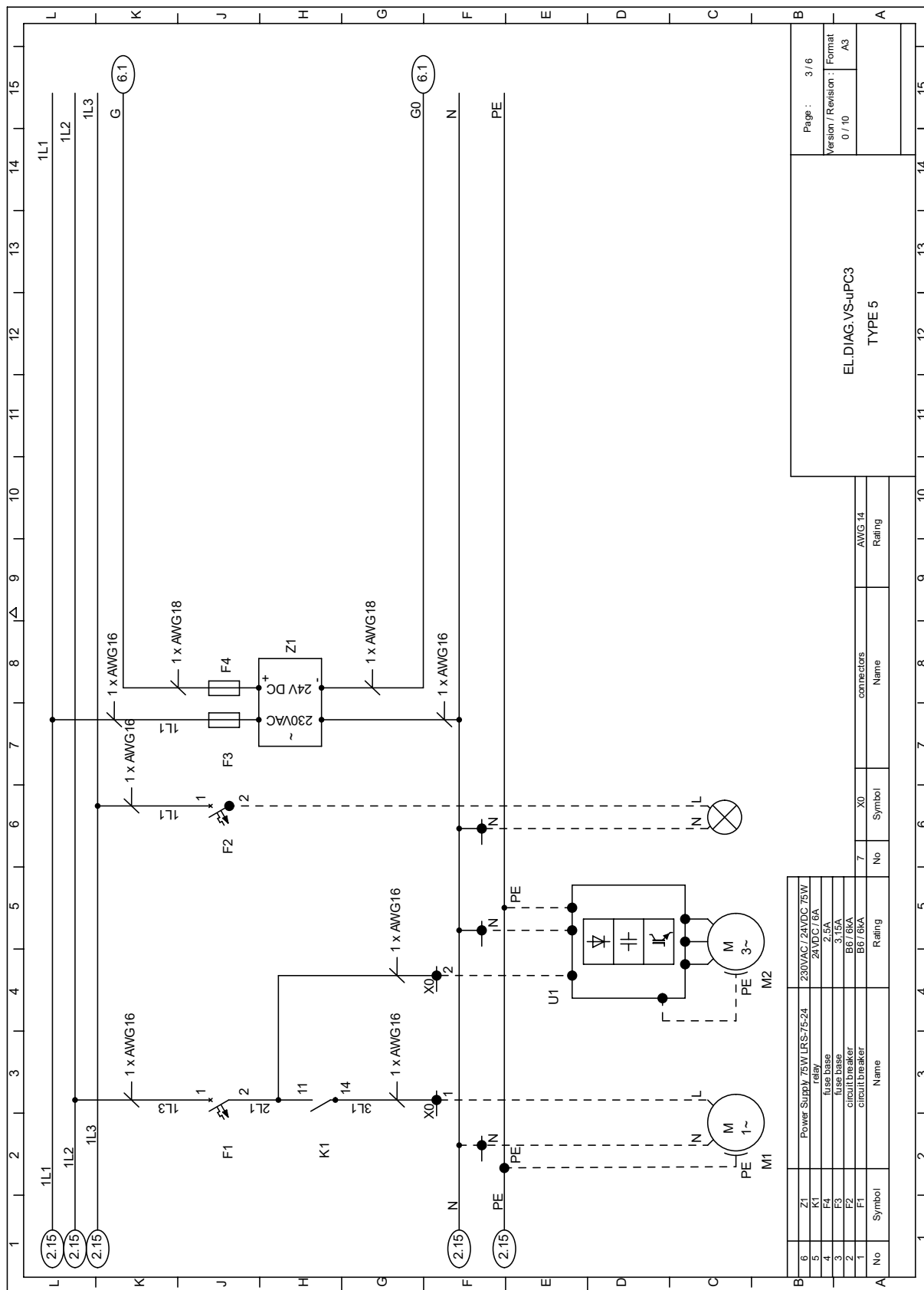
ECM 3.3kWx8, ECM 5.25kWx8 1/6



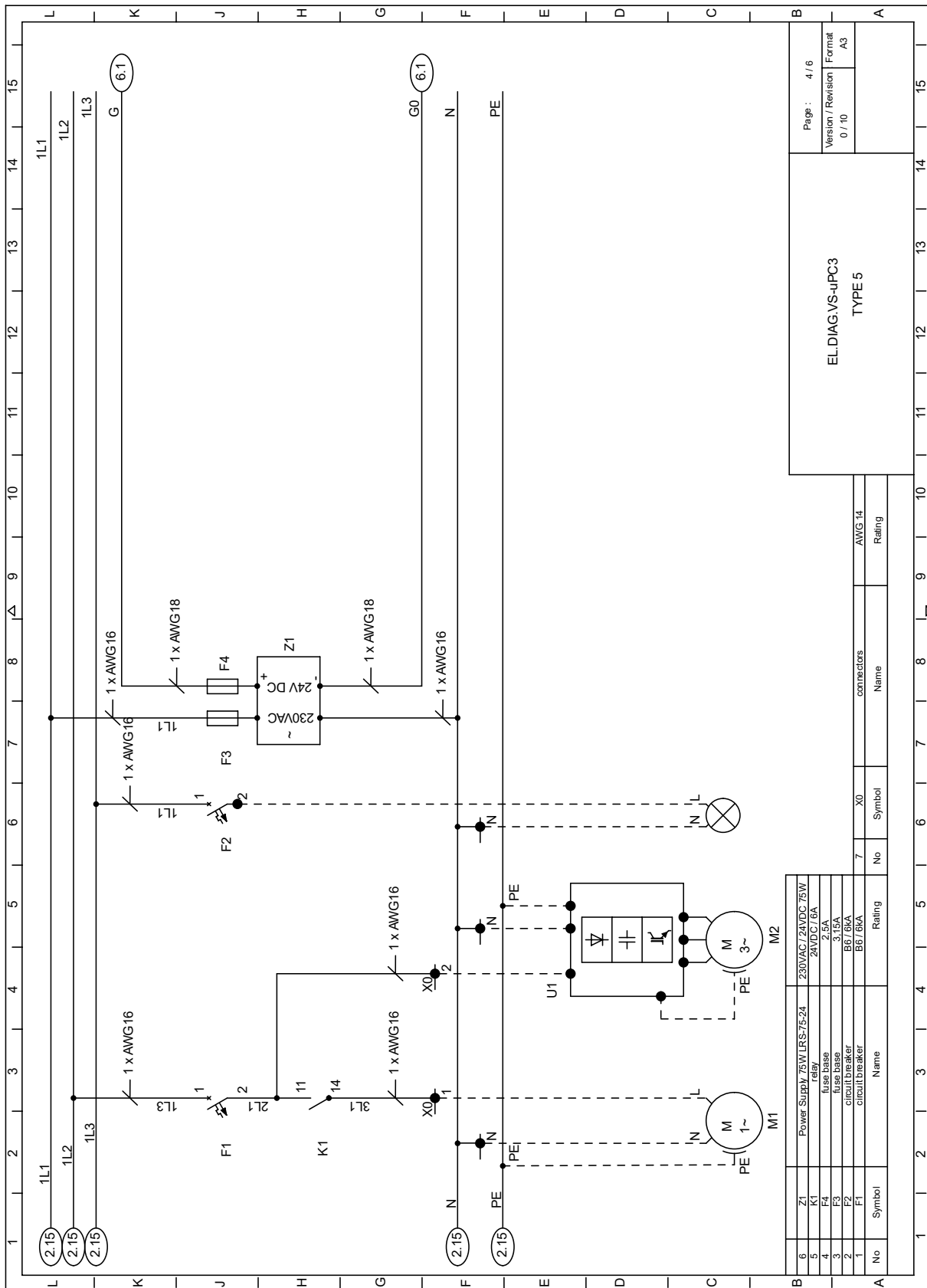
ECM 3.3kWx8, ECM 5.25kWx8 2/6

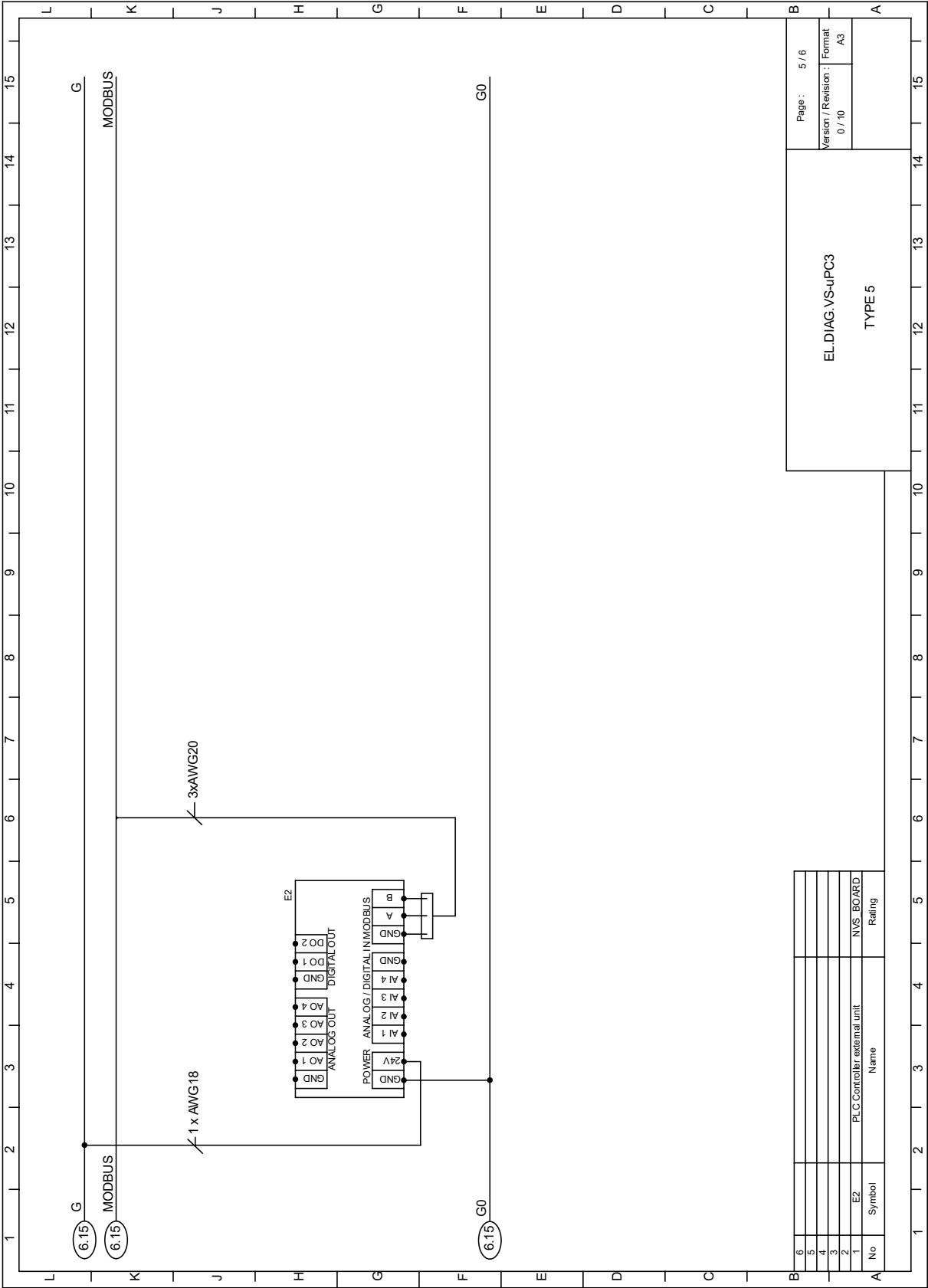


ECM 3.3kWx8, ECM 5.25kWx8 3/6



ECM 3.3kWx8, ECM 5.25kWx8 4/6





ECM 3.3kWx8, ECM 5.25kWx8 6/6

