

TECHNICAL SPECIFICATIONS

TypeASR 1.0P
 Rated power1270kVA / 381kVA
 Rated voltage6,35kV
 The highest permanently permissible operating voltage of net..12kV
 Operational frequency50Hz
 Operation range of current20-200A / 60A
 Measuring current transformer200/1A, 15VA 1FS5
 Type of operation100% 15min / 30% cont.
 Auxiliary power winding500V±10%, 400A, 90s
 Measuring winding110V±10% / 3A
 Insulation levelLI75 AC28 / AC3
 Type of coolingONAN
 Ambient air temperature-40°C bis +40°C
 Material of main windingCu
 Transformer oilNynas Nytro 10XN
 Total weight2320 kg
 Weight of oil520 kg
 Number of wiring diagram3-227616

TECHNICAL SPECIFICATIONS – AIR COOLED RESISTOR

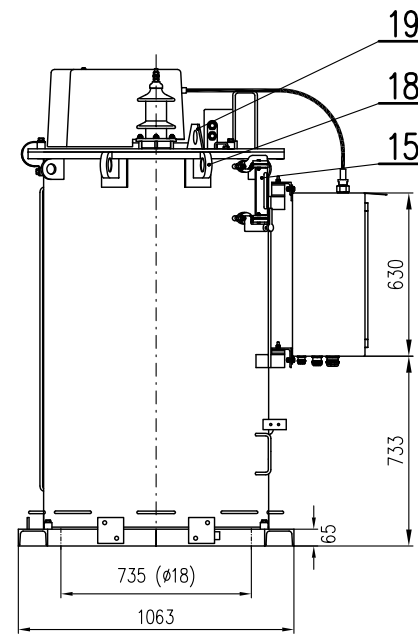
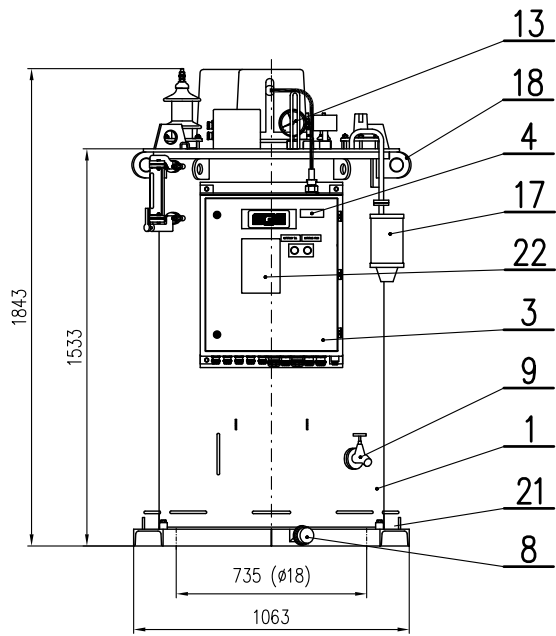
TypeSR63/30-19
 Rated voltage500V
 Rated current63A
 Type of operation30 sec
 Continuous duty19A
 Impedance7,9 Ohm
 Operational frequency50 Hz
 Contactor coil voltage110V/DC
 Type of coolingAN

SYSTEM OF ANTICORROSION PROTECTION

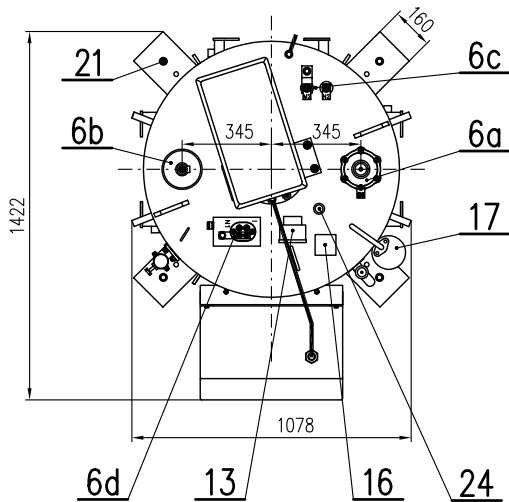
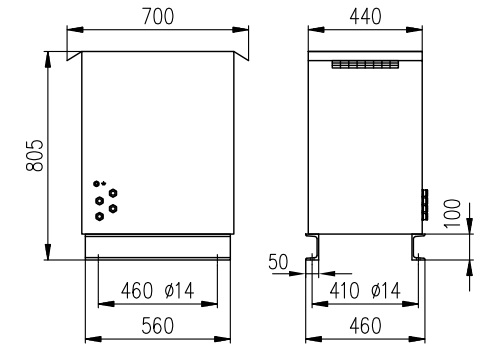
TypeEGE 3.D.1
 Hot galvanizing-
 Metallizingmin. 100µm
 Total coating layermin. 120µm
 Coating layer shadeRAL 7033
 Outside screw couplingA2

AIR COOLED RESISTOR:
 Stainless steel

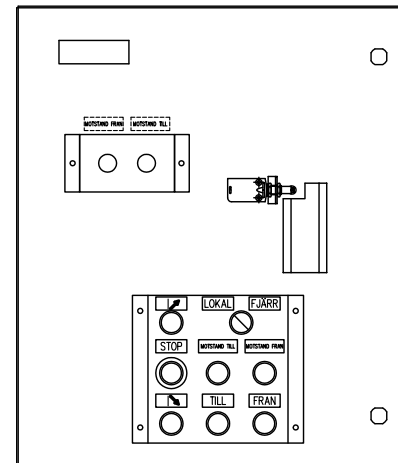
DATE		25.7.2013		DESTIN AB			ASR1.0P		Weight ±2%	
DRAWN		Štáľ		Vattenfall AB			TECHNICAL SPECIFICATIONS		Dimension ±2%	
VERIFIED		Procházka							E1300202	
NR.	MODIFICATION	DATE	NAME	ORIGINAL	REPLACEMENT					SHEET 1
1										4



STANDALONE AIR COOLED RESISTOR



DOOR - CONTROL PANEL (3:1)



DATE 25.7.2013		DESTIN AB		EGE	DIMENSIONAL DRAWING	ASR1.0P	Weight ±2%	
DRAWN Šrtal		Vattenfall AB					Dimension ±2%	
VERIFIED Procházka							E1300202	
NR.	MODIFICATION	DATE	NAME	ORIGINAL	REPLACEMENT			4



EGE, spol. s r.o.
Novohradská 34
České Budějovice
CZECH REPUBLIC

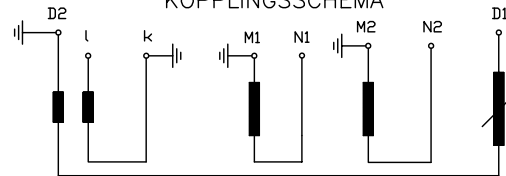
STEGLÖS REGLERBAR NOLLPUNKTSREAKTOR

TYP	ASR1.0P	SERIENUMMER	8841	IEC 60076-6
KONSTRUKTION	UTOMHUS	TOTAL VIKT t	2,32	
MÄRKSPÄNNING kV	6,35	OLJEVIKT t	0,52	TILLV.AR 2013
FREKVENNS Hz	50	AKTIV DEL t	1,52	KYLNING DNAN
EFFEKT kVar	381	STRÖM A	60	DRIFTSTID KONTINUERLIG
EFFEKT kVar	1270	STRÖM A	20-200	DRIFTSTID 15min
IMPEDANS KONT. Ω	105,8	IMPEDANS 15m Ω	317,5-31,8	
ISOLATIONSNIVÅ	LI75 AC28/AC3			
MOTORDATA kW	0,55	230/400 V AC		

SEKUNDÄRLINDING

UTTAG	SPÄNNING	STRÖM	EFFEKT	DRIFTSTID
M2 - N2 V	500 ±10%	A 400	kVA 200	90s
M1 - N1 V	110 ±10%	A 3	VA 330	DB
k - l A	200/1	VA 15	KLASS	1FS5

KOPPLINGSSCHEMA



D1 - D2 HUVUDKOPPLING
M2 - N2 HJÄLPLINDNING
M1 - N1 MÄTLINDNING
k - l SEKUNDÄRUTTAG STRÖMTRANSF.

DATE	25.7.2013
DRAWN	Šrtal
VERIFIED	Procházka

DESTIN AB
Vattenfall AB



RATING PLATE

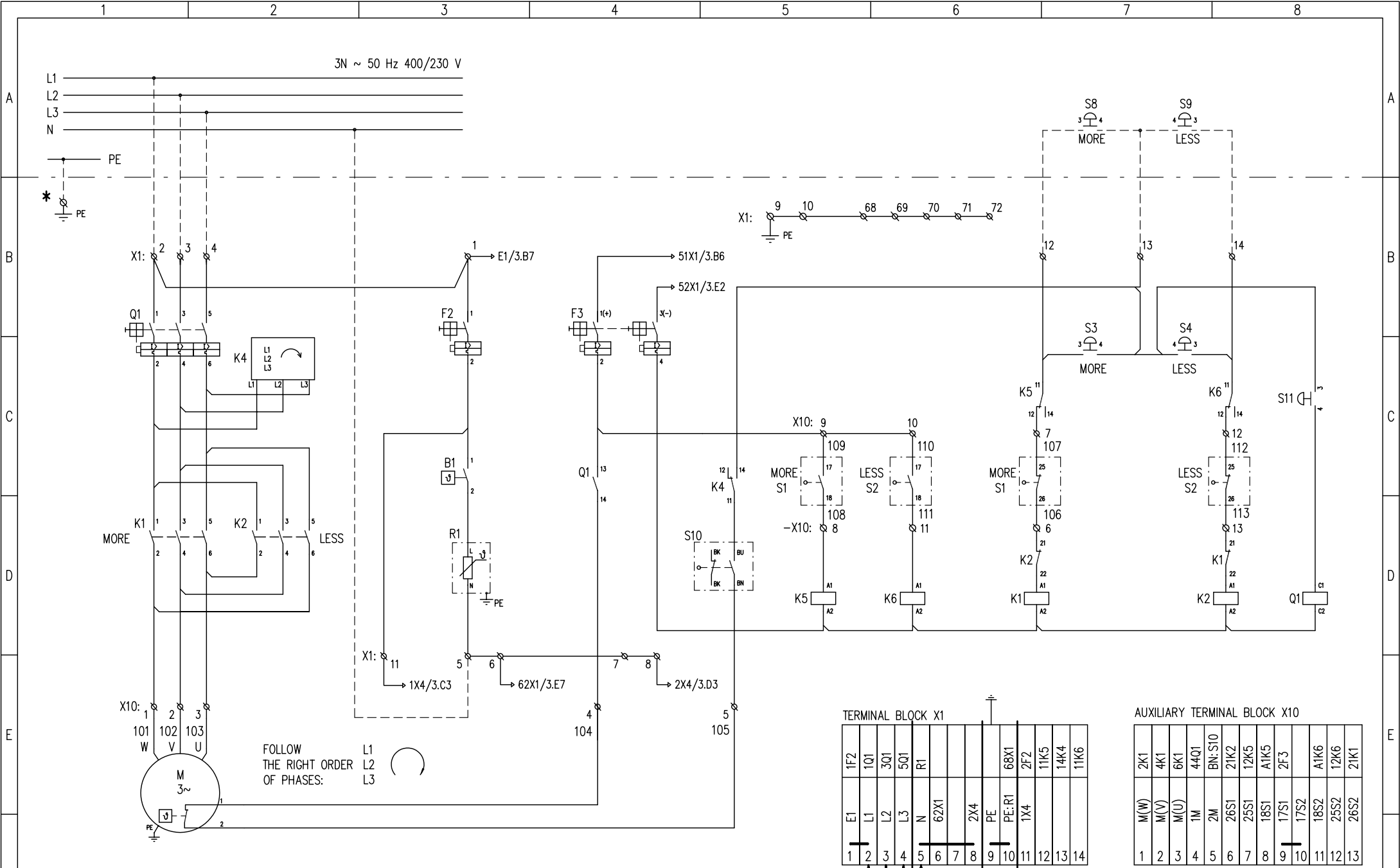
ASR1.0P

Weight ±2%
Dimension ±2%

E1300202

SHEET 4
4

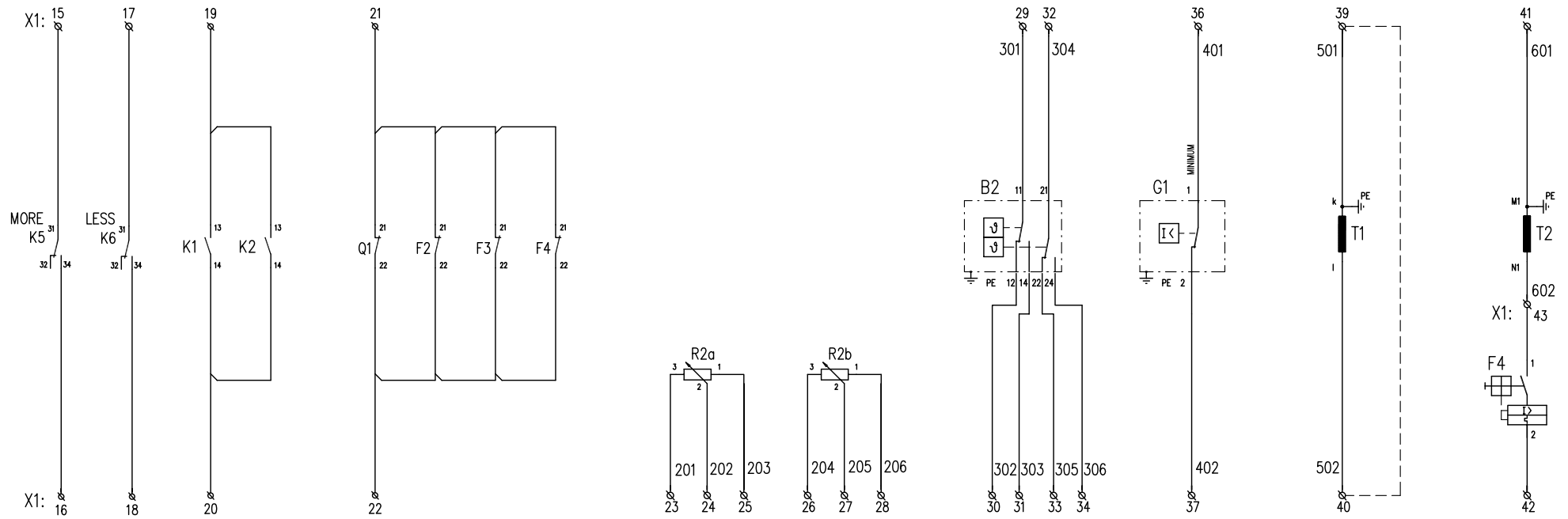
NR.	MODIFICATION	DATE	NAME	ORIGINAL	REPLACEMENT
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* CONNECTION POINT OF THE PROTECTIVE INTERCONNECTION SYSTEM ON THE PETERSEN COIL

LEGEND:

B1	THERMOSTAT	G1	MAGNET- MIN. OIL LEVEL INDICATION	R2	POTENTIOMETER 2x200 Ohm	S11	EMERGENCY STOP SWITCH
B2	THERMOMETER	K1,K2	MOTOR CONTACTOR	S1,S2	LIMIT SWITCH FOR A CONTROLLER	SA1	POWER SWITCH
Q1	CIRCUIT BREAKER 1,6-2,5A	K4	RELAY PHASE SEQUENCE	S3	BUTTON MORE	T1	CURRENT TRANSFORMER
F2	CIRCUIT BREAKER 4A	K5,K6	AUXILIARY RELAIS 110V DC	S4	BUTTON LESS	T2	MEASURING WINDING 110V
F3	CIRCUIT BREAKER 4A DC	M	MOTOR	S8	BUTTON MORE - CONTROL ROOM	X1	MAIN TERMINAL BLOCK
F4	CIRCUIT BREAKER 4A	R1	HEATER	S9	BUTTON LESS - CONTROL ROOM	X10	AUXILIARY TERMINAL BLOCK



TERMINAL BLOCK X1

31K5	34K5	31K6	34K6	13K1	14K1	31Q1	32Q1	3R2a	2R2a	1R2a	3R2b	2R2b	1R2b	11B2	12B2	14B2	21B2	22B2	24B2	1G1	2G1	k: T1	l: T1	M1: T2	2F4	NI: T2	1F4	
15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43

TERMINAL BLOCK CONTINUES ON SHEET 3

DATE 25.7.2013
 DRAWN Štáľ
 VERIFIED Procházka



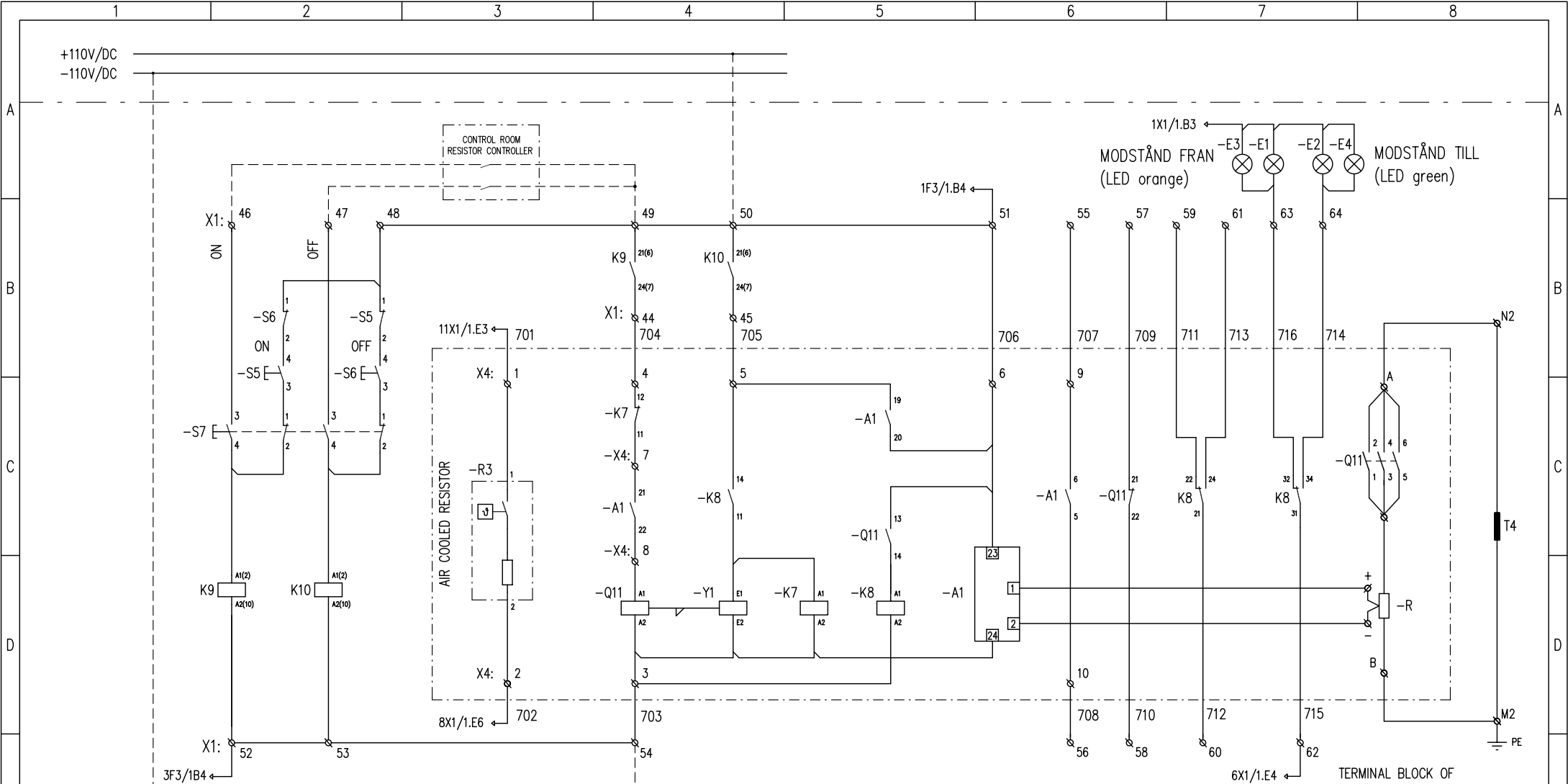
WIRING DIAGRAM

MD-3

3-227616

SHEET 2
5

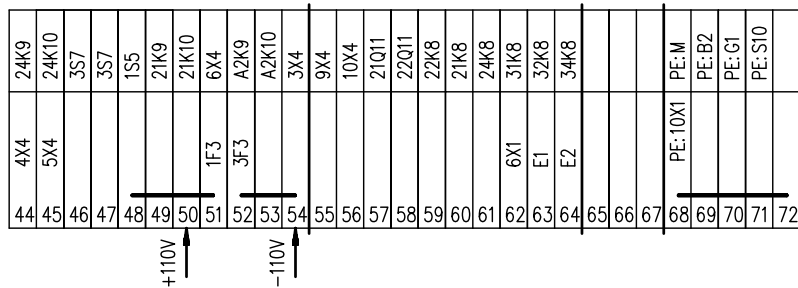
NR.	MODIFICATION	DATE	NAME	ORIGINAL	REPLACEMENT
1					
2					
3					
4					
5					
6					
7					
8					



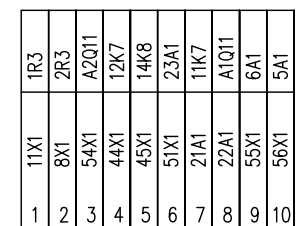
LEGEND:

A1	THERMAL PROTECTION RELAIS (WITH TEMPERATURE INDICATION)	B5	THERMOSTAT
R	AIR RESISTOR	R3	HEATER
Q11	MAIN CONTACTOR	T4	POWER AUXILIARY WINDING
Y1	LATCHING DEVICE FOR CONTACTOR -Q11	X1	MAIN TERMINAL BLOCK
K7,K8	AUXILIARY RELAIS	X4	TERMINAL BLOCK OF AIR RESISTOR
K9	AUXILIARY RELAY	S5	PUSH BUTTON (RESISTOR ON)
K10	AUXILIARY RELAY	S6	PUSH BUTTON (RESISTOR OFF)
E1,E2	RESISTOR STATUS LAMP (INDOOR)	S7	SWITCH (AUTOMATIC/MANUAL)
		E3,E4	RESISTOR STATUS LAMP (OUTDOOR)

TERMINAL BLOCK X1



TERMINAL BLOCK OF AIR COOLED RESISTOR X4



MD3 – LIST OF EXTERNAL WIRES CONNECTIONS

NO. OF WIRE	TERMINAL NO.	CONNECTION LOCATION	CABLE NO. ASR1.0P	CABLE NO. ASR3.2P, 4.0P
MOTOR DRIVE				
101	1:X10	W:M	1	1
102	2:X10	V:M	1	1
103	3:X10	U:M	1	1
104	4:X10	1:M	2	2
105	5:X10	2:M	2	2
106	6:X10	26:S1	3	3
107	7:X10	25:S1	3	3
108	8:X10	18:S1	3	3
109	9:X10	17:S1	3	3
110	10:X10	17:S2	4	4
111	11:X10	18:S2	4	4
112	12:X10	25:S2	4	4
113	13:X10	26:S2	4	4
POTENTIOMETER				
201	23:X1	3:R2a	5	5
202	24:X1	2:R2a	5	5
203	25:X1	1:R2a	5	5
204	26:X1	3:R2b	5	5
205	27:X1	2:R2b	5	5
206	28:X1	1:R2b	5	5

NO. OF WIRE	TERMINAL NO.	CONNECTION LOCATION	CABLE NO. ASR1.0P	CABLE NO. ASR3.2P, 4.0P
THERMOMETER				
301	29:X1	11:B2	6	6
302	30:X1	12:B2	6	6
303	31:X1	14:B2	6	6
304	32:X1	21:B2	6	6
305	33:X1	22:B2	6	6
306	34:X1	24:B2	6	6
MAGNET- MIN. OIL LEVEL INDICATION				
401	36:X1	1:G1	7	7
402	37:X1	1:G1	7	7
CURRENT TRANSFORMER				
501	39:X1	k:T1	8	8
502	40:X1	l:T1	8	8
MEASURING WINDING				
601	41:X1	M1:T2	9	8
602	43:X1	N1:T2	9	8
POWER AUXILIARY WINDING				

DATE	25.7.2013
DRAWN	Šrtal
VERIFIED	Procházka



WIRING DIAGRAM

MD-3

3-227616

SHEET	4
	5

A

B

C

D

E

F

NO. OF WIRE	TERMINAL NO.	CONNECTION LOCATION	CABLE NO. ASR1.0P	CABLE NO. ASR3.2P, 4.0P
RESISTOR				
701	11:X1	1:X4	11	10
702	8:X1	2:X4	11	10
703	54:X1	3:X4	11	10
704	44:X1	4:X4	11	10
705	45:X1	5:X4	11	10
706	51:X1	6:X4	11	10
707	55:X1	9:X4	11	10
708	56:X1	10:X4	11	10
709	57:X1	21:Q11	11	10
710	58:X1	22:Q11	11	10
711	59:X1	22:K8	12	11
712	60:X1	21:K8	12	11
713	61:X1	24:K8	12	11
714	64:X1	34:K8	12	11
715	62:X1	31:K8	12	11
716	63:X1	32:K8	12	11
	A	M2:T4	13	12
	B	N2:T4	14	13