

User's Manual

**Synchronous Machine
AMG 1600UU14 LSEB**

Serial no. 4569892

ABB ref. 7372HD401

Project: ACP-MIRAFLORES
PANAMA

February 2002

4.

Mechanical
Drawings

User's Manual

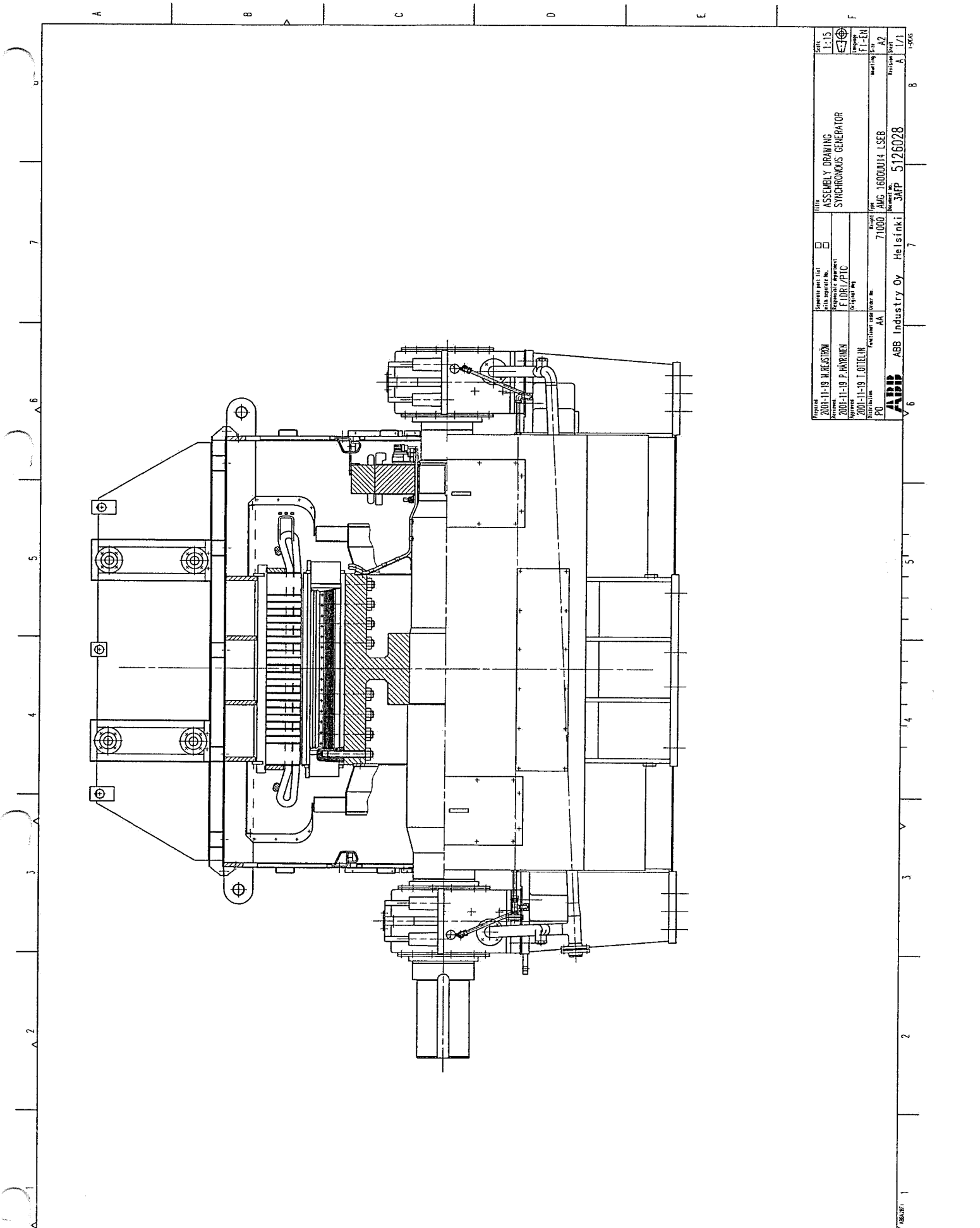
Synchronous Machine AMG 1600UU14 LSEB

Serial no. 4569892
ABB ref. 7372HD401
Project: ACP-MIRAFLORES
PANAMA

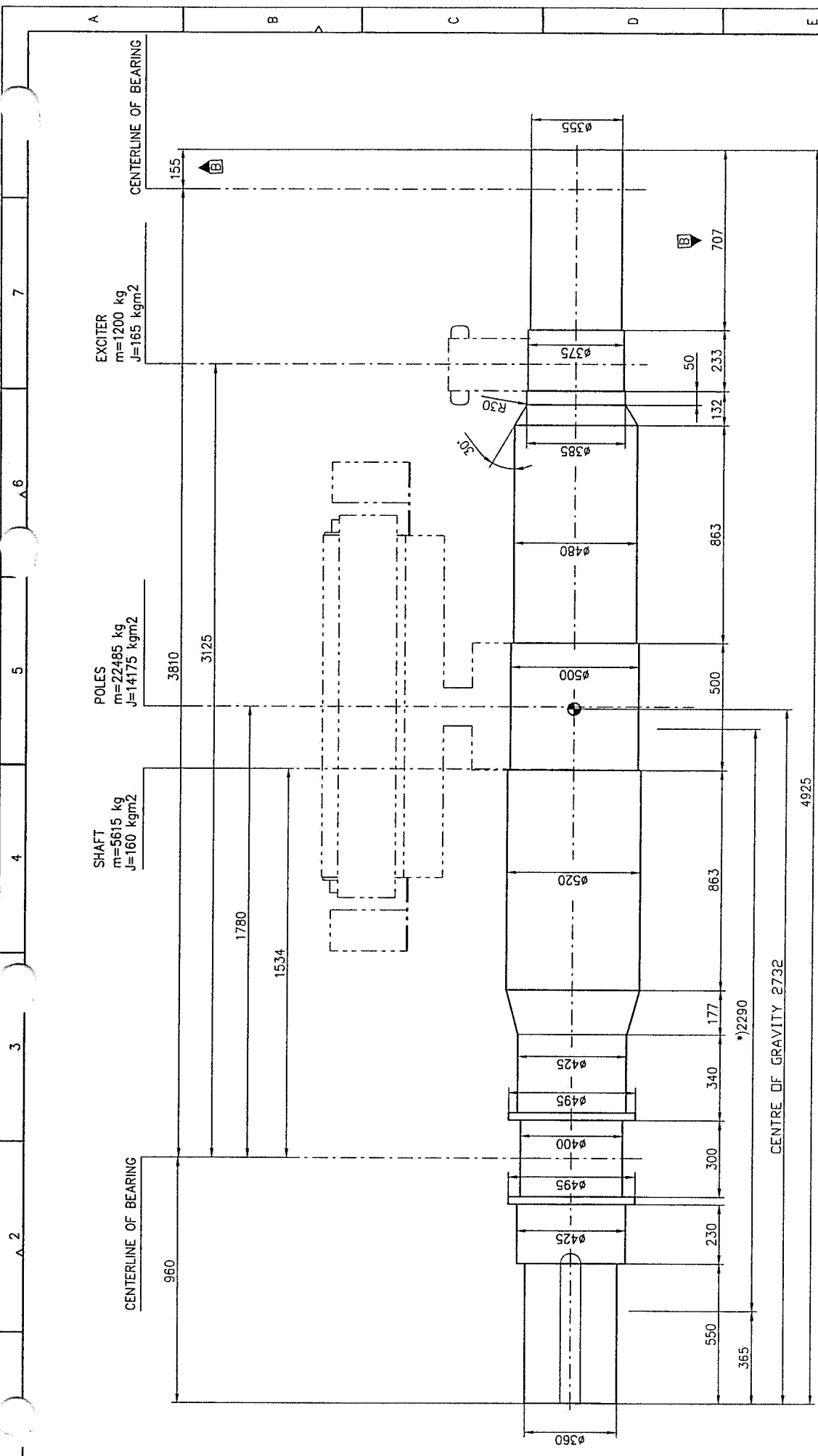
February 2002

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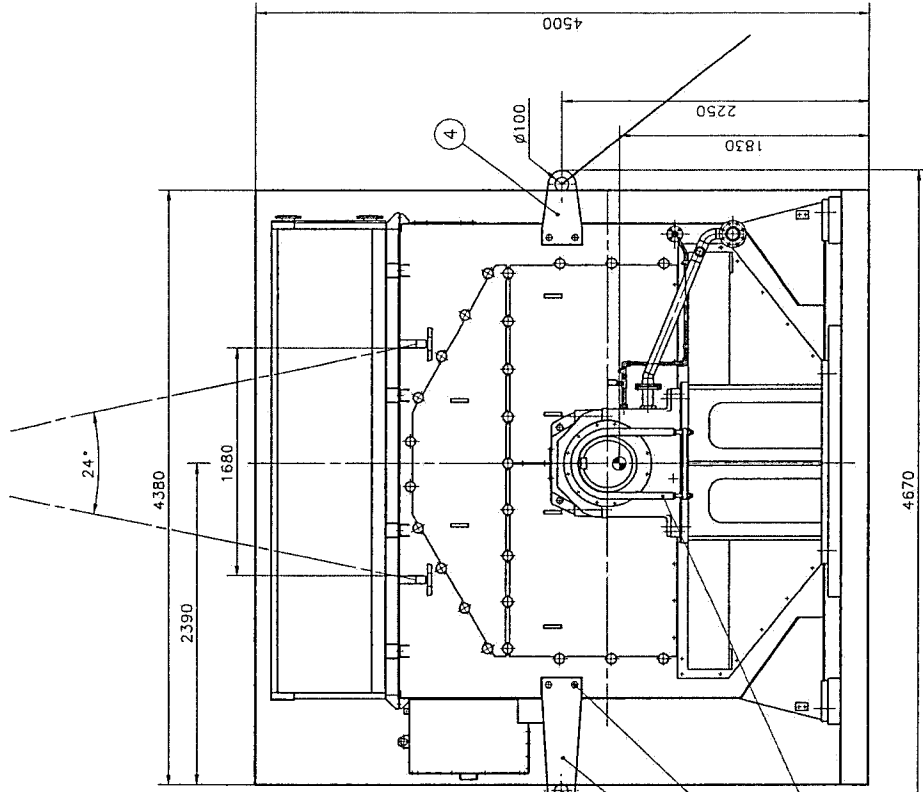
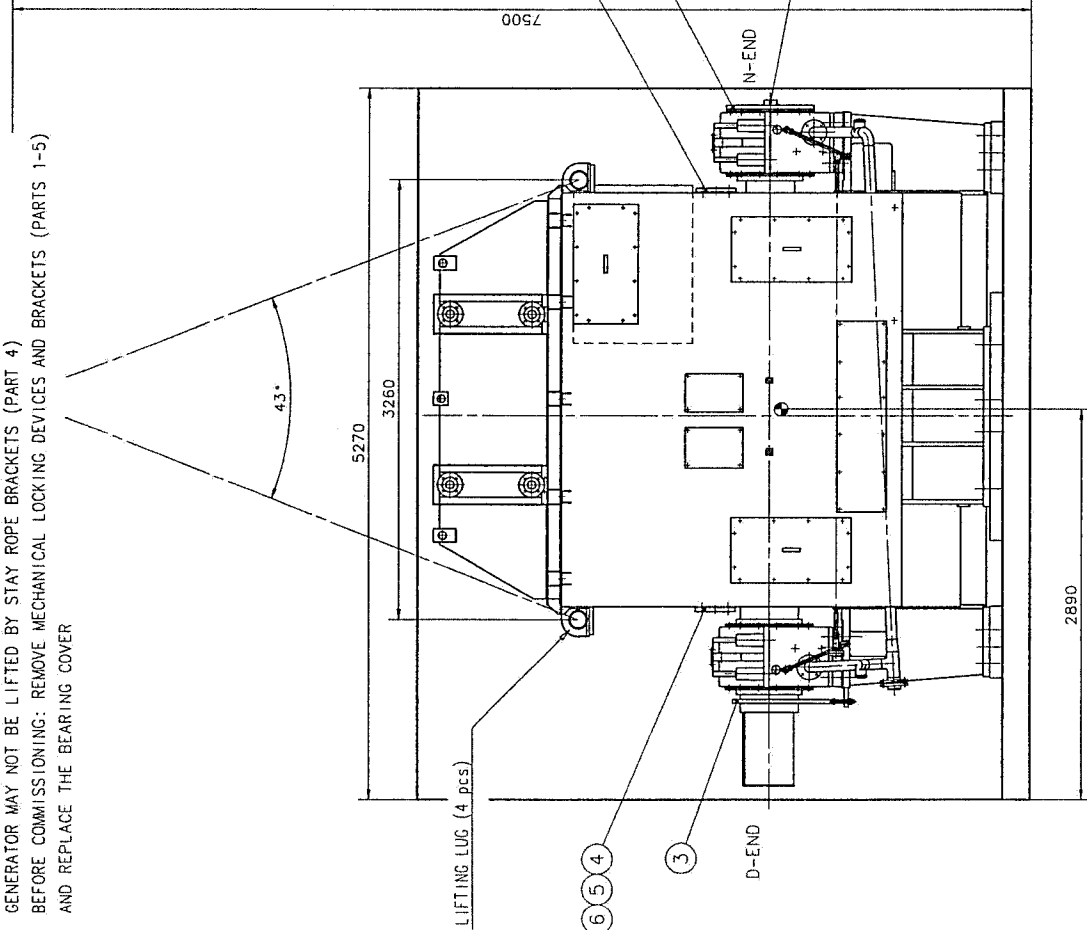
Drawing No. 2001-11-19 M. REUSTROM Approved 2001-11-19 P. HÄRNKNEK Distribution 2001-11-19 T. OTTELIN	Project No. F1081/PTC Drawing No. AA	Project Name AMG 16000J14 LSEB Project No. 71000	Scale 1:15 Drawing No. F1-EN Drawing No. A2 Drawing No. A
Title ASSEMBLY DRAWING SYNCHRONOUS GENERATOR		Drawing No. 3AFP 5126028	Drawing No. A Drawing No. 1/1
Manufacturer ABB Industry Oy, Helsinki		Drawing No. 7	Drawing No. 8



B DIMENSIONS CHANGED		Date	2000-04-13	2000	JAL	JAL	JAL
Rev.	Change	Prep.	Rev.	Appr.	Scale	Scale	Scale
1	Original				1:10		
Approved by: 2000-01-18 P.HÄRRIEN		Title: ROTOR DRAWING		Separate part list with separate No. <input type="checkbox"/>			
2000-01-18 M.SALU		Drawing department: FIDRI/PT		Original copy <input type="checkbox"/>			
2000-01-18 M.SALU		Function code: AR		Weight: 160000014			
2000-01-18 M.SALU		Order No.:		Drawing No. 3AFP-5118053			
2000-01-18 M.SALU		Drawing No.:		Revision No. 1			
2000-01-18 M.SALU		Drawing No.:		Revision No. 2			
2000-01-18 M.SALU		Drawing No.:		Revision No. 3			
2000-01-18 M.SALU		Drawing No.:		Revision No. 4			
2000-01-18 M.SALU		Drawing No.:		Revision No. 5			
2000-01-18 M.SALU		Drawing No.:		Revision No. 6			
2000-01-18 M.SALU		Drawing No.:		Revision No. 7			
2000-01-18 M.SALU		Drawing No.:		Revision No. 8			

TOTAL WEIGHT 29650 kg
 TOTAL INERTIA 14500 kgm²
 *) TORSIONAL STIFFNESS 138 X 10⁶ Nm/rad
 SHAFT MATERIAL: EN 10025-S355 J2G3-OPT.22

RECOMMENDED CRANE LIFTING CAPACITY: 80 METRIC TON
 USE ONLY LIFTING LUGS FOR LIFTING GENERATOR
 GENERATOR MAY NOT BE LIFTED BY STAY ROPE BRACKETS (PART 4)
 BEFORE COMMISSIONING: REMOVE MECHANICAL LOCKING DEVICES AND BRACKETS (PARTS 1-5)
 AND REPLACE THE BEARING COVER



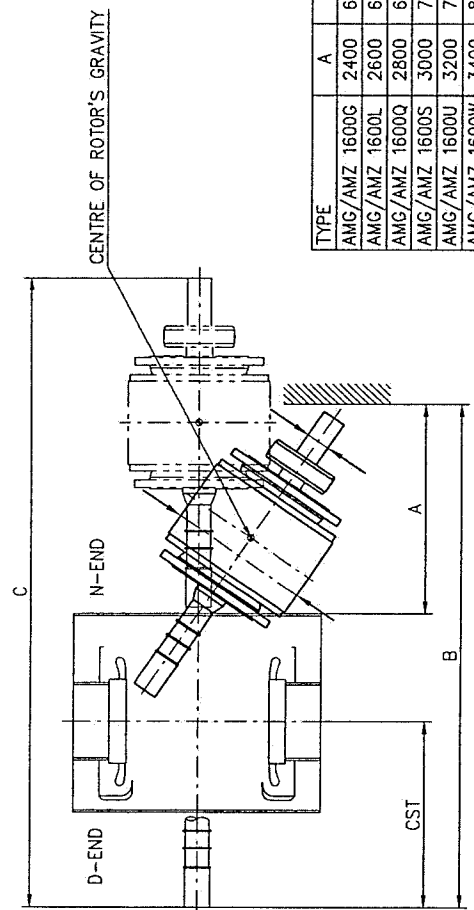
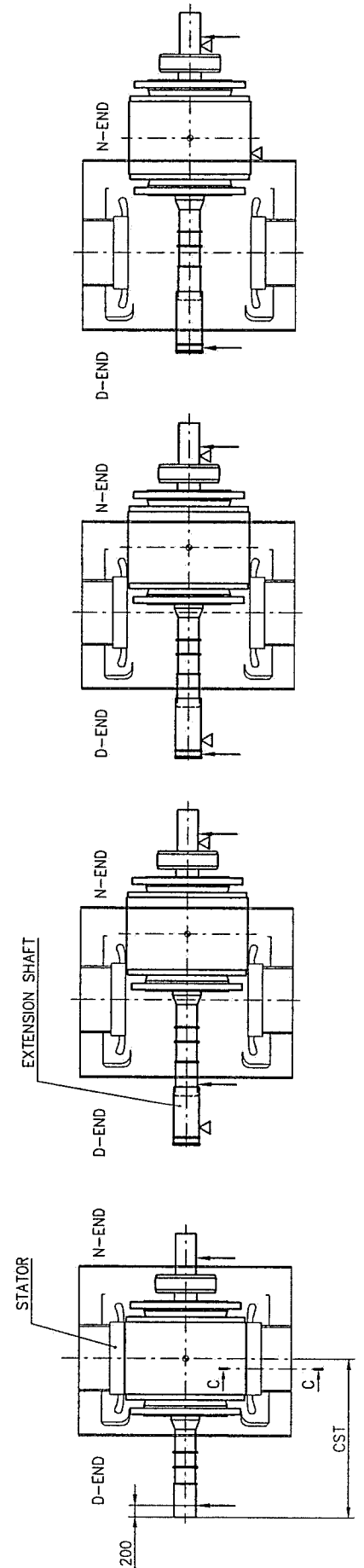
Item No.	Item Name	Quantity	Standard	Material	Remarks
1	5093688B	74.0	AS	5093688B	
2	5043331	9.00	AS	5043331	
3	5118498	23.0	AS	5118498	
4	50509184	33.1	AS	50509184	
5	5123894	40	AS	5123894	
6	27885781	0.718	AS	27885781	

Part No.	Part Name	Quantity	Material	Remarks
1	5093688B	74.0	AS	
2	5043331	9.00	AS	
3	5118498	23.0	AS	
4	50509184	33.1	AS	
5	5123894	40	AS	
6	27885781	0.718	AS	

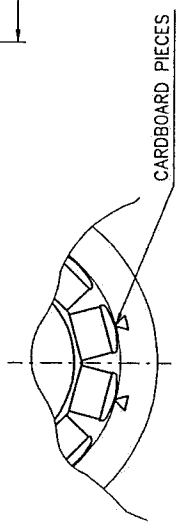
GENERATOR+SOLE PLATES WEIGHT 71000 kg
 TOTAL WEIGHT 73500 kg

Part No.	Part Name	Quantity	Material	Remarks
1	5093688B	74.0	AS	
2	5043331	9.00	AS	
3	5118498	23.0	AS	
4	50509184	33.1	AS	
5	5123894	40	AS	
6	27885781	0.718	AS	

ABB Industry Oy
 Helsinki JAPP 5126059



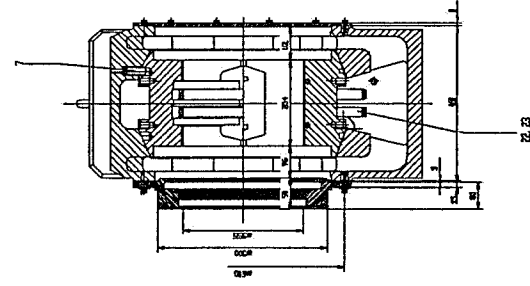
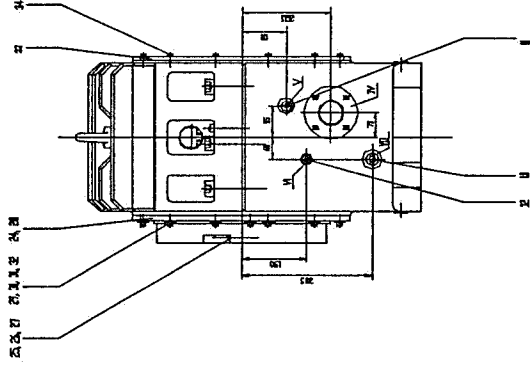
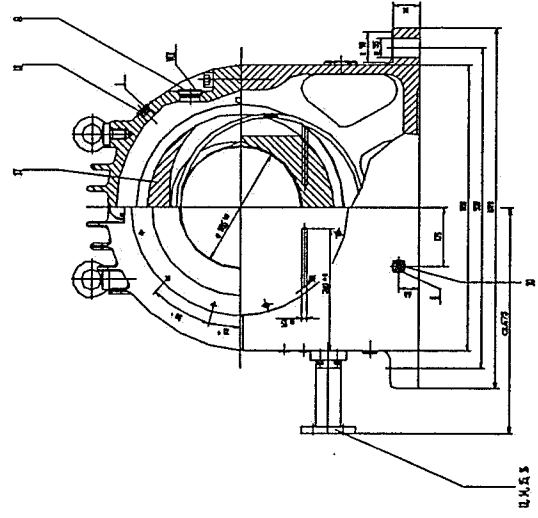
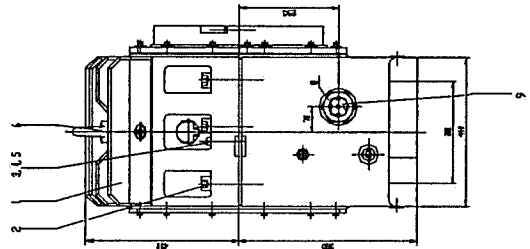
TYPE	A	B	C	CST
AMG/AMZ 1600G	2400	6000	7800	2340
AMG/AMZ 1600L	2600	6400	8200	2440
AMG/AMZ 1600Q	2800	6800	8600	2540
AMG/AMZ 1600S	3000	7200	9000	2640
AMG/AMZ 1600U	3200	7600	9400	2740
AMG/AMZ 1600W	3400	8000	9800	2840
AMG/AMZ 1600Y	3600	8400	10200	2940



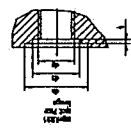
C-C (1:25)

↑ = PLACES OF LIFT
 Δ = PLACES OF SUPPORT

Project No.	2000-11-15 M. SALMI	Separate part list with separate No.	<input type="checkbox"/>	Title	REMOVING ROTOR	Scale	1:50
Version	2000-11-16 J. KORHONEN	Responsible Department	FIDRY/PIS	Language	EN	Revision	1/1
Drawn	2000-11-16 J. KORHONEN	Original Date		Weight	AMG/AMZ 1600	Reaction	A
Function	AS	Order No.		Order No.	3AFP 5121809	Material	A
PU	AS						



1	2	3	4	5	6	7	8	9	10
11	12	13	14	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	44	45	46	47	48	49	50



- I Gaskets
- J Lubricating
- K Ball-bearing
- L Oil Seal (Type M)
- M Oil Seal (Type N)
- N Rotating seal (Type O)
- O Seal for Support
- P Seal for Support
- Q Seal for Support
- R Seal for Support
- S Seal for Support
- T Seal for Support
- U Seal for Support
- V Seal for Support
- W Seal for Support
- X Seal for Support
- Y Seal for Support
- Z Seal for Support

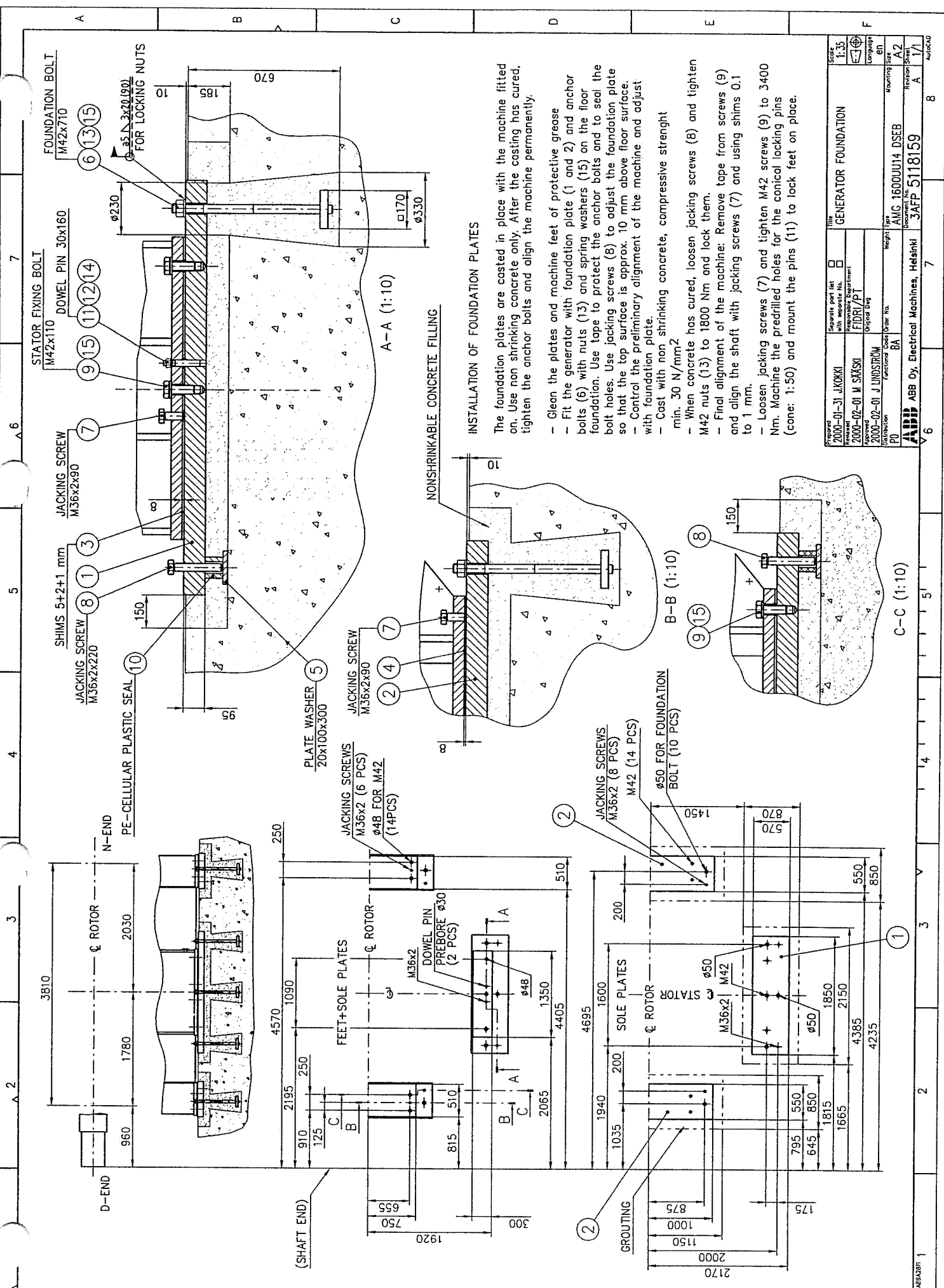
- 1 Ball-bearing
- 2 Lubricating
- 3 Oil Seal (Type M)
- 4 Oil Seal (Type N)
- 5 Rotating seal (Type O)
- 6 Seal for Support
- 7 Seal for Support
- 8 Seal for Support
- 9 Seal for Support
- 10 Seal for Support
- 11 Seal for Support
- 12 Seal for Support
- 13 Seal for Support
- 14 Seal for Support
- 15 Seal for Support
- 16 Seal for Support
- 17 Seal for Support
- 18 Seal for Support
- 19 Seal for Support
- 20 Seal for Support

21, 22, 23

Drawn by:
 P. H. ...

Part No.	3711023
Rev.	1
Date	
Drawn	
Checked	
Approved	

Material	
Quantity	
Notes	
Remarks	



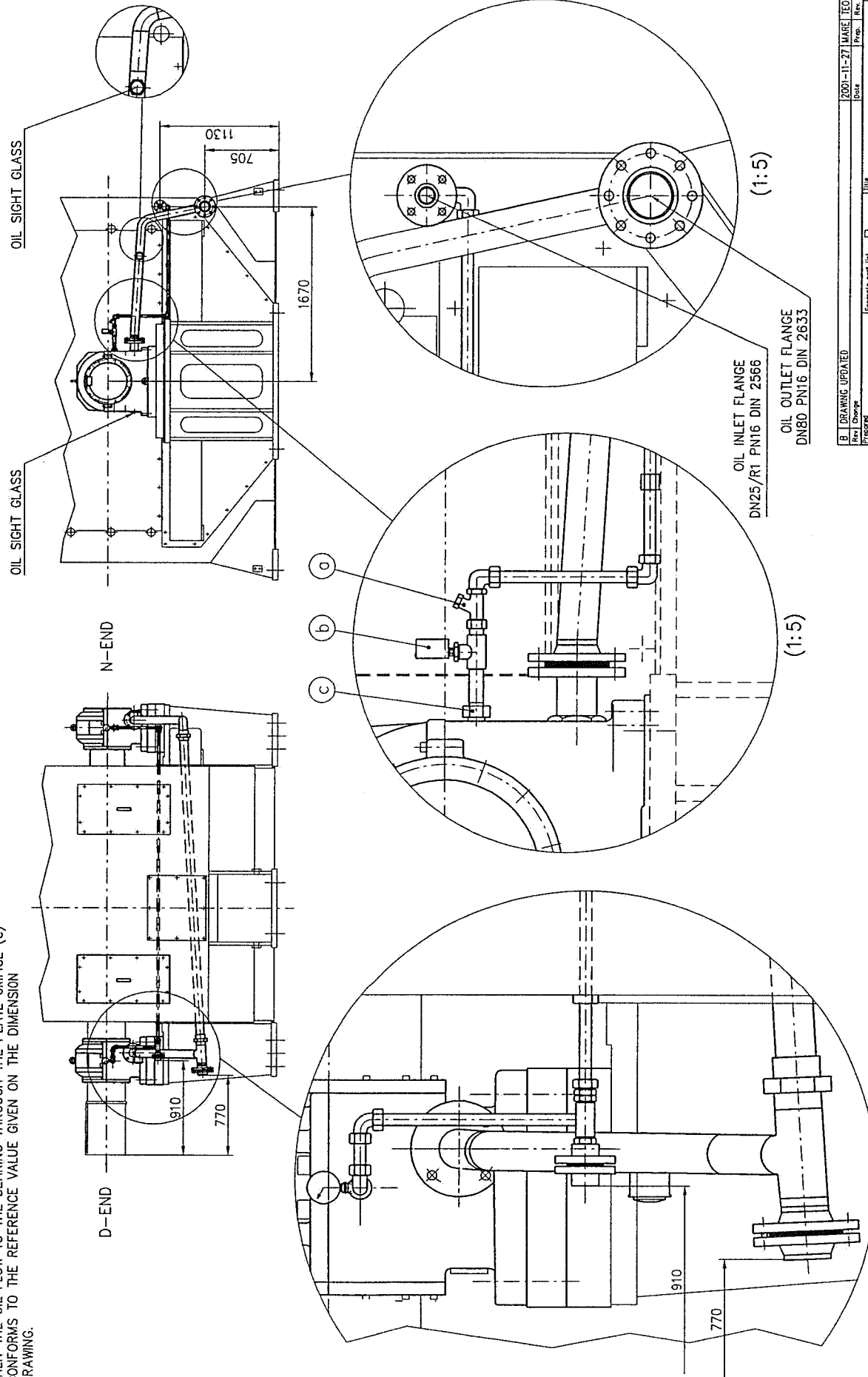
INSTALLATION OF FOUNDATION PLATES

The foundation plates are casted in place with the machine fitted on. Use non shrinking concrete only. After the casting has cured, tighten the anchor bolts and align the machine permanently.

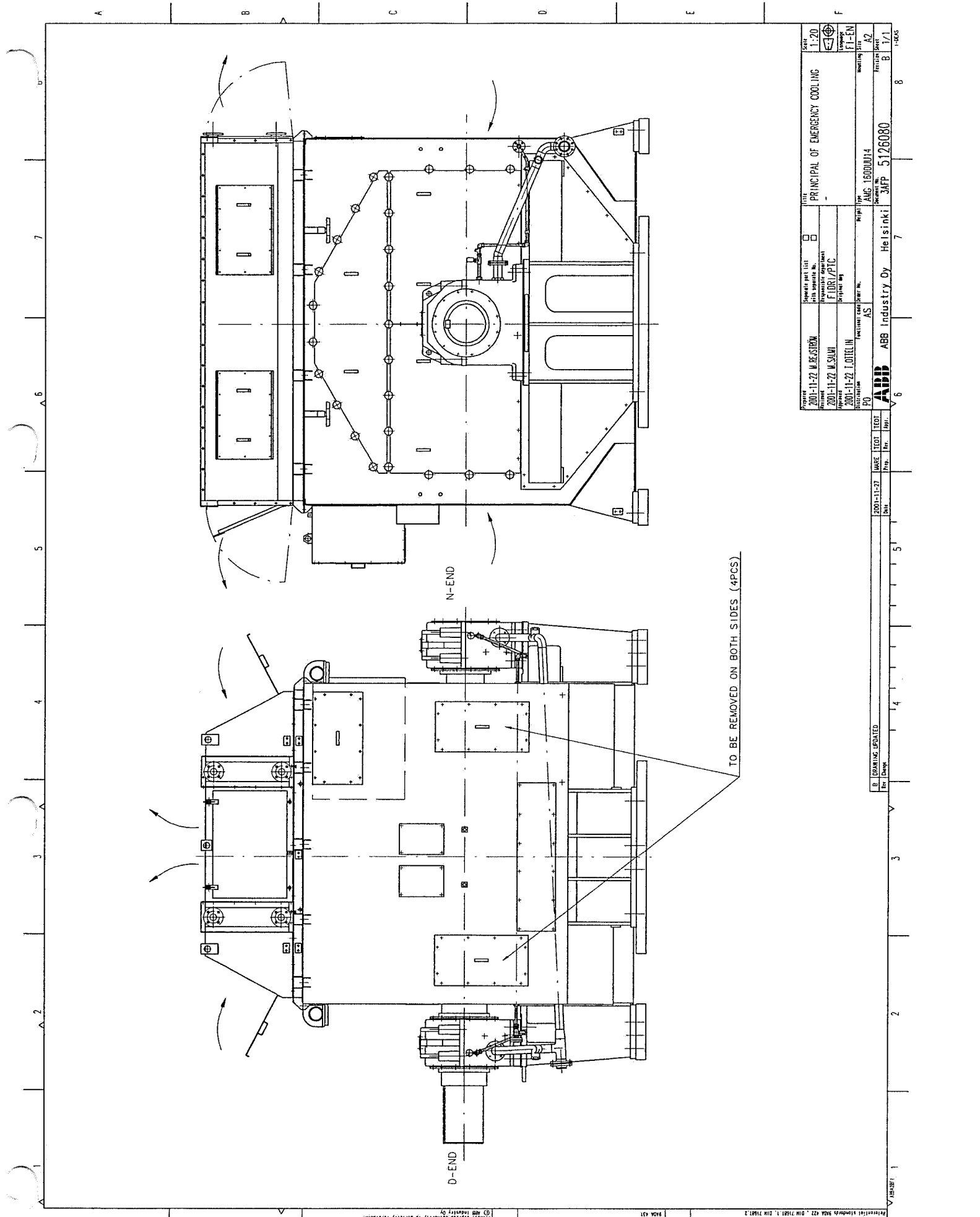
- Clean the plates and machine feet of protective grease
- Fit the generator with foundation plate (1 and 2) and anchor bolts (6) with nuts (13) and spring washers (15) on the floor foundation. Use tape to protect the anchor bolts and to seal the bolt holes. Use jacking screws (8) to adjust the foundation plate so that the top surface is approx. 10 mm above floor surface.
- Control the preliminary alignment of the machine and adjust with foundation plate.
- Cast with non shrinking concrete, compressive strenght min. 30 N/mm²
- When concrete has cured, loosen jacking screws (8) and tighten M42 nuts (13) to 1800 Nm and lock them.
- Final alignment of the machine: Remove tape from screws (9) and align the shaft with jacking screws (7) and using shims 0.1 to 1 mm.
- Loosen jacking screws (7) and tighten M42 screws (9) to 3400 Nm. Machine the predrilled holes for the conical locking pins (cone: 1:50) and mount the pins (11) to lock feet on place.

Project No.	2000-01-31 JUKOKKI	Title	GENERATOR FOUNDATION
Scale	1:35	Separate part list with separate No.	
Customer	2000-02-01 M. SAKSI	Department	FIBRI/PT
Approved	2000-02-01 J. UNDIKROM	Original Date	
Distribution	Functional Code	Weight	Part
PO	BA	AMG. 1600UJ14 DSEB	Mounting Site
		3AFP 5118159	Revision No.
			A
			1/1
			8

NOTE. AFTER STARTING THE OIL CIRCULATION SYSTEM, THE PRESSURE (INDICATED BY MANOMETER (b)) IS ADJUSTED BY MEANS OF THE REDUCTION VALVE (a) TO INDICATE THE VALUE 125 ± 25 kPa. THEN THE OIL FLOW TO THE BEARING THROUGH THE PLATE ORIFICE (c) CONFORMS TO THE REFERENCE VALUE GIVEN ON THE DIMENSION DRAWING.



Rev.	Change	Date	2000-11-27	MAREL	TEOT	TEOT
B. DRAWING UPDATED						
Prepared	2000-03-29	P. HÄYRINEN	Separate part list with separate No.	<input type="checkbox"/>	Scale	1:25
Responsible	2000-03-29	SÄÄSKI	Responsible Department	FIDRI/PT	Title	LUBRICATION OF BEARINGS
Approved	2000-03-29	LINDSTRÖM	Original User		Language	fi
Function			Functional Code	ZL	Weighting size	A2
PU			Order No.		Revision	B
			Weighting size	AMG 1600	Sheet	8
			Order No.	3AFP 5118750	Part	1/1
ABB Oy, Electrical Machines, Helsinki						



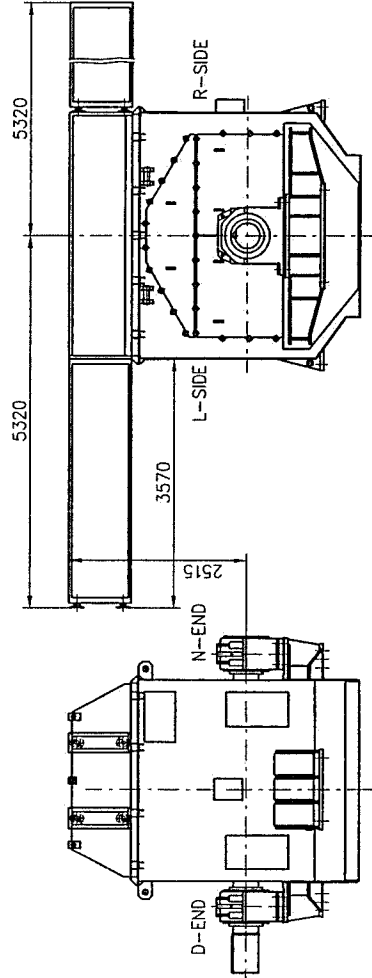
PROJECT	2001-11-27 M. RESTRÖM	DESIGNED BY	AS	DATE	1:20
CLIENT	2001-11-27 M. SALMI	PROJECT NO.	AS	TITLE	PRINCIPAL OF EMERGENCY COOLING
APPROVED	2001-11-27 J. OTTELIN	FUNCTIONAL GROUP	AS	SCALE	1:20
				PROJECT NO.	5126080
				DESIGNED BY	HELSINKI
				DATE	1:1

DATE	2001-11-27	SCALE	1:20
BY	AS	PROJECT NO.	5126080
APP. BY		DESIGNED BY	HELSINKI
DATE		DATE	

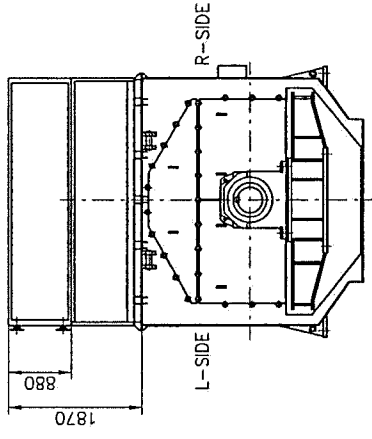
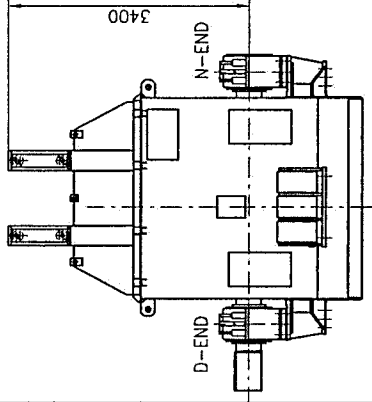
TO BE REMOVED ON BOTH SIDES (4PCS)

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 Helsinki, Finland
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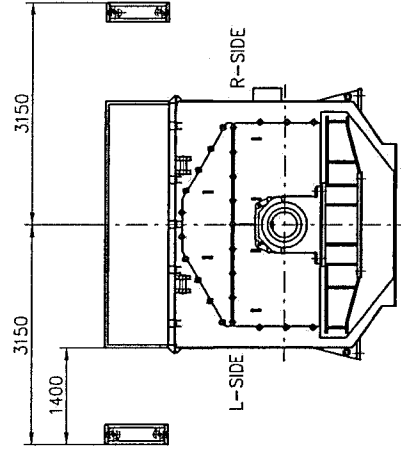
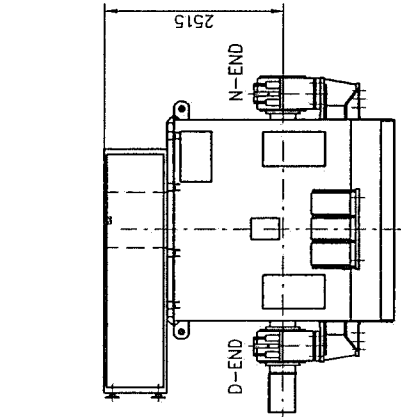
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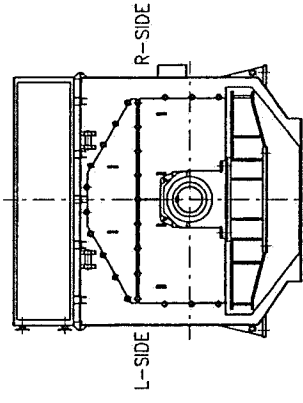
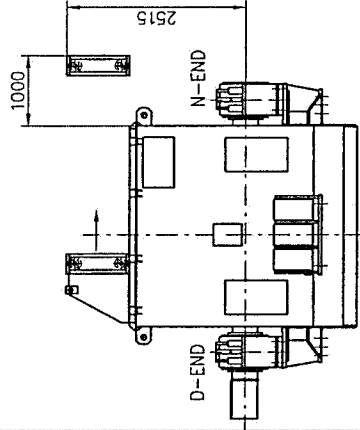
2. UPWARDS



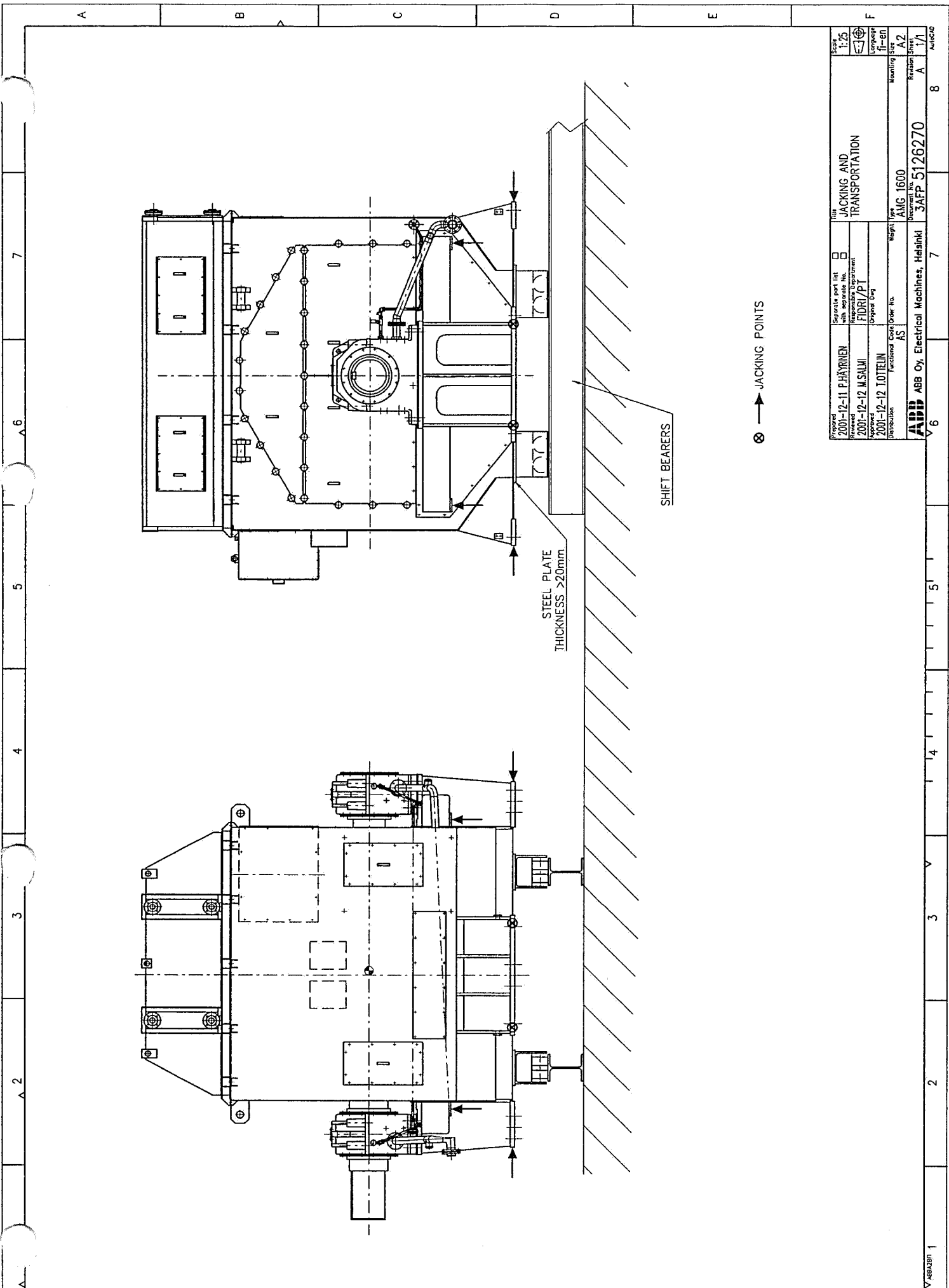
3. TURNING TO THE SIDE



4. REMOVAL AT N-END



Project	2000-11-26 M. REUSTROM	Separate part list	<input type="checkbox"/>	Part No.	COOLER DISASSEMBLY
Reviewed	2000-11-26 T. OTTELIN	Revision Order No.		Revision	ALTERNATIVES
Approved	2000-11-26 T. OTTELIN	Original Date		Weight	AMG-AMZ 1600
Distribution	PO	Functional Code	AS	Document No.	3AFP 5126134
				Manufacturing Size	A2
				Revision Sheet	A / 1
ABB Oy, Electrical Machines, Helsinki					



STEEL PLATE THICKNESS >20mm

SHIFT BEARERS

⊗ → JACKING POINTS

Project	2001-12-11 P.HÄYRYNEN	Separate part list	<input type="checkbox"/>	Unit	JACKING AND TRANSPORTATION	Scale	1:25
Client	2001-12-12 M.SALU	Revision No.		Document No.		Layout	
Approved	2001-12-12 T.OJELIN	Project Dept.	FIDRI/PT	Weight		fi-ed	
Distribution		Functional Code Order No.	AS	Mounting Size	AMG 1600		A2
				Revision Sheet	3AFP 5126270		1/1
ABB Oy Electrical Machines, Helsinki				Weight			8
				Revision Sheet			7
				Revision Sheet			6
				Revision Sheet			5
				Revision Sheet			4
				Revision Sheet			3
				Revision Sheet			2
				Revision Sheet			1

User's Manual

**Synchronous Machine
AMG 1600UU14 LSEB**

Serial no. 4569892

ABB ref. 7372HD401

Project: ACP-MIRAFLORES
PANAMA

February 2002

5.

Electrical Drawings

- 5.1 *Original drawings*
- 5.2 *BWSC revised drawings*

User's Manual

**Synchronous Machine
AMG 1600UU14 LSEB**

Serial no. 4569892
ABB ref. 7372HD401
Project: ACP-MIRAFLORES
PANAMA

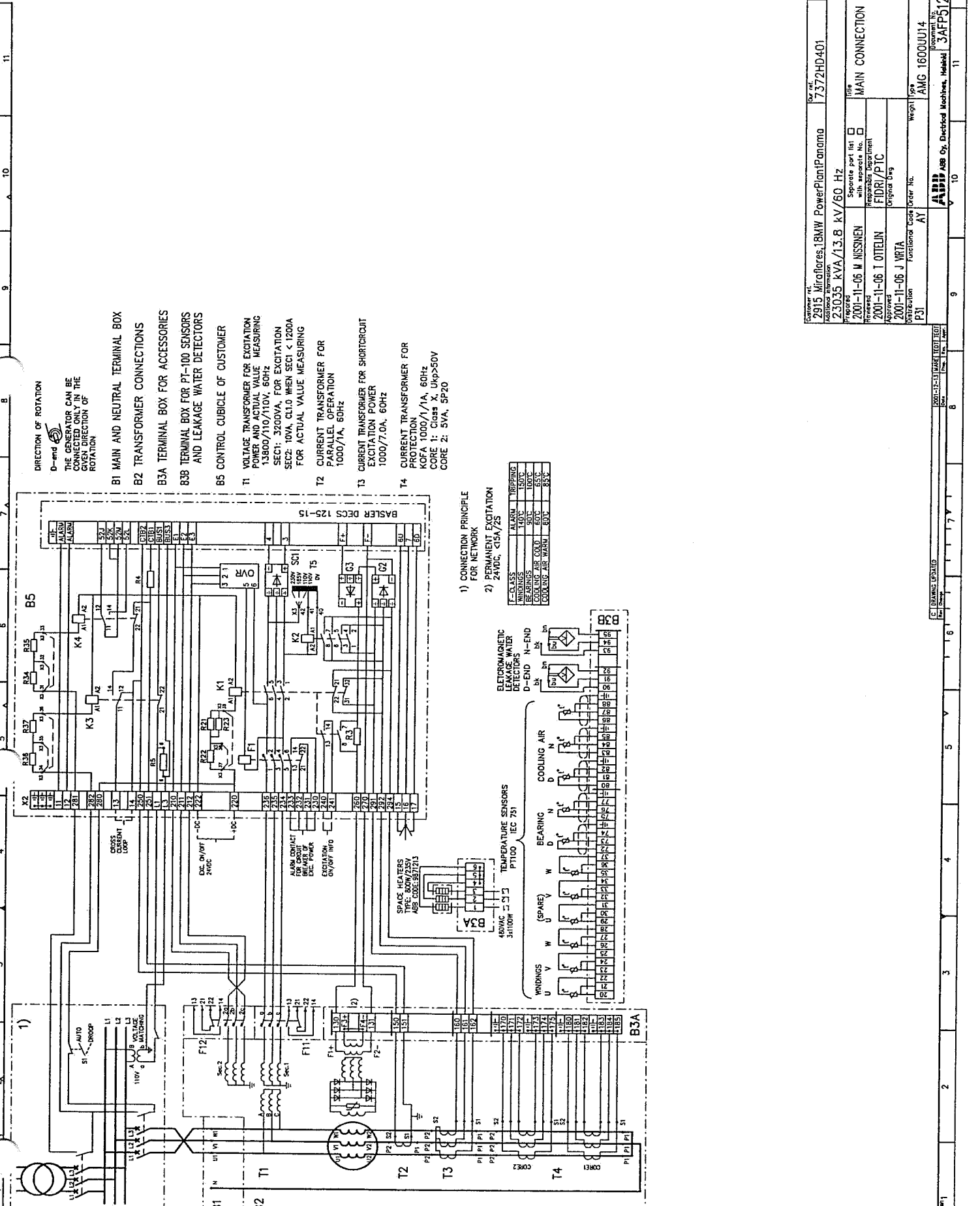
February 2002

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Electrical Drawings**

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Layout of Connection	5117547
Terminal Box for Accessories	5126145
Exciter Rotor with Diode Bridge	5122424
AVR.....	6-1103-91-120

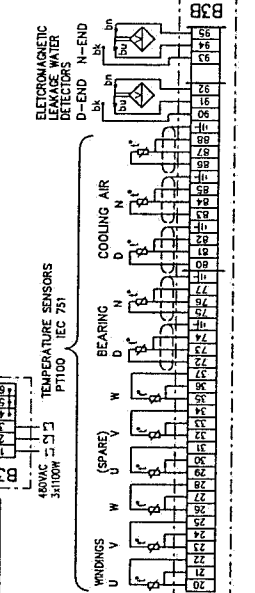


Customer Ref. 2915	MicroRes, 18MW PowerPlan	Panama	7372HD401	7372HD401	31/54/IC BA1W7
Technical Information	230.35 kVA/13.8 kV/60 Hz	11	12	11	12
Prepared	2001-11-06 M NISSINEN	MATERIAL CONNECTION DIAGRAM			11
Reviewed	2001-11-06 T OTIELIN	FIDR/PTC			11
Approved	2001-11-06 J MRTA	Original Date			11
Revision	2001-11-06 J MRTA	Function Case Order No.			11
Iteration	P31	Weight			11
		Part No			11
		Material No			11
		Revision No			11
		Revision			11
		Revision			11
		Revision			11



- 1) CONNECTION PRINCIPLE FOR NETWORK
- 2) PERMANENT EXCITATION

F-CLASS	ALARM	TRIPPING
WINDINGS	140°C	150°C
COOLING AIR	60°C	100°C
COOLING AIR WARM	60°C	85°C

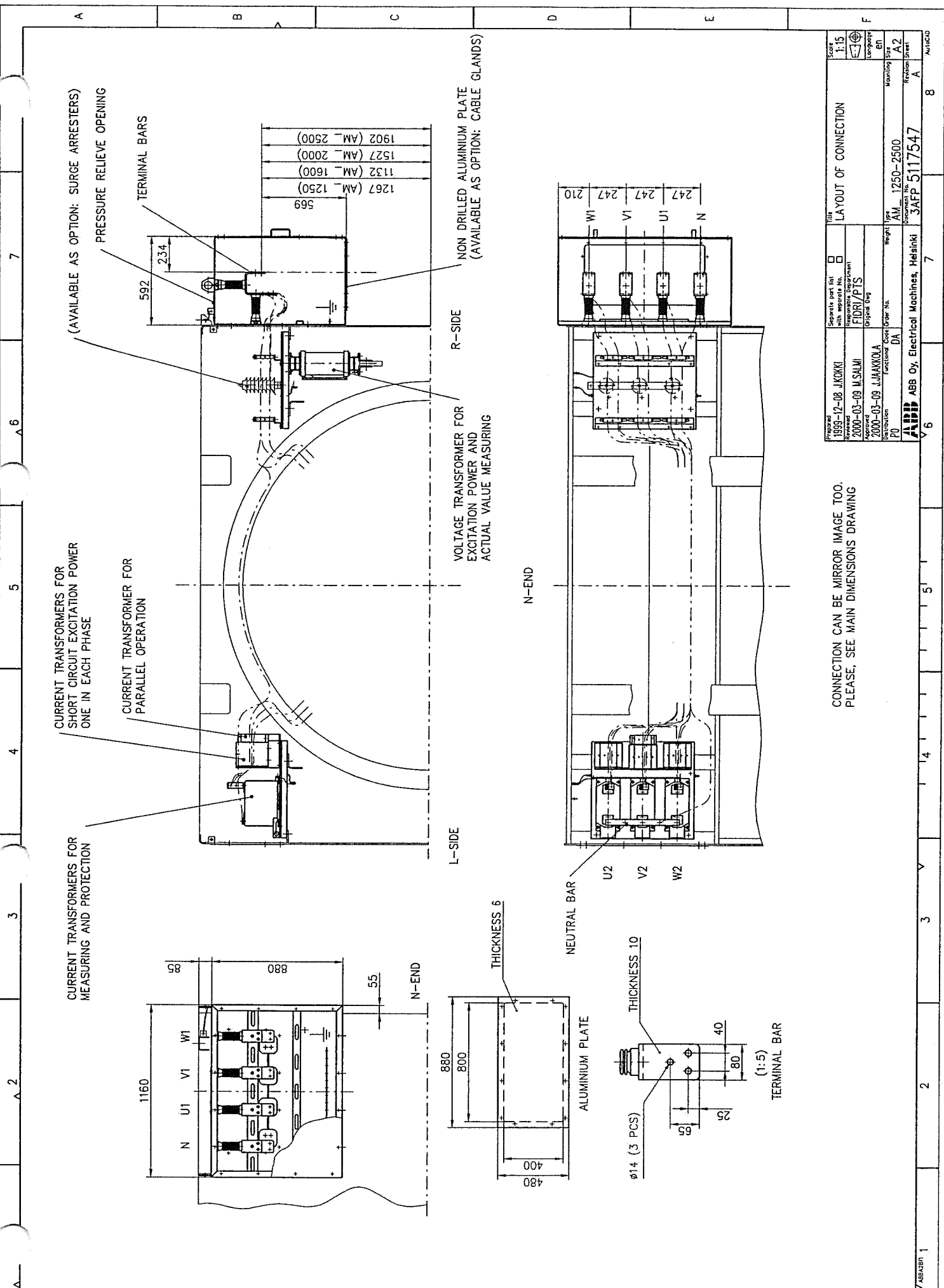


1) CONNECTION PRINCIPLE FOR NETWORK
 2) PERMANENT EXCITATION

F-CLASS	ALARM	TRIPPING
WINDINGS	140°C	150°C
COOLING AIR	60°C	100°C
COOLING AIR WARM	60°C	85°C

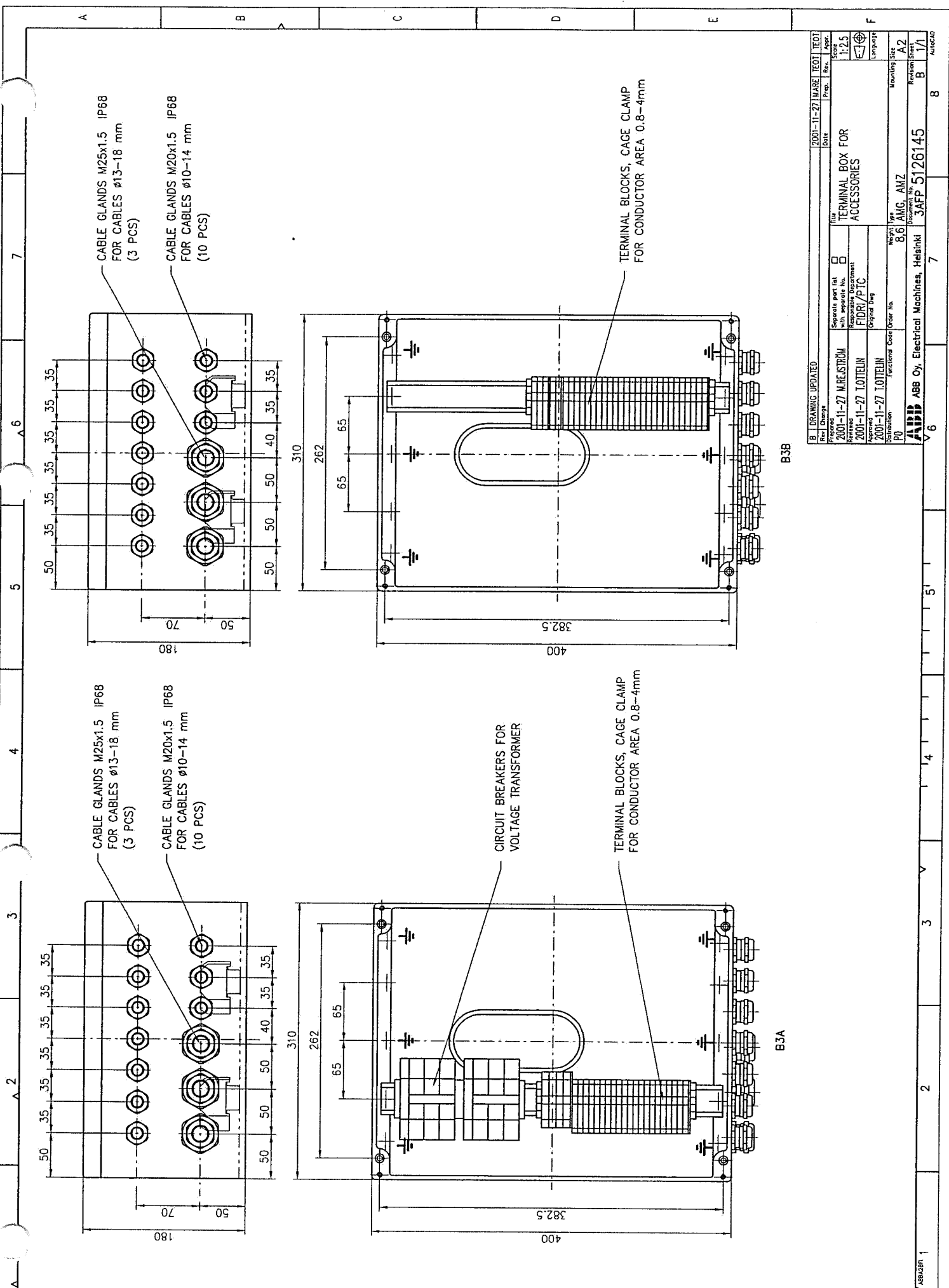
Customer Ref. 2915	MicroRes, 18MW PowerPlan	Panama	7372HD401	7372HD401	31/54/IC BA1W7
Technical Information	230.35 kVA/13.8 kV/60 Hz	11	12	11	12
Prepared	2001-11-06 M NISSINEN	MAIN CONNECTION DIAGRAM			11
Reviewed	2001-11-06 T OTIELIN	FIDR/PTC			11
Approved	2001-11-06 J MRTA	Original Date			11
Revision	2001-11-06 J MRTA	Function Case Order No.			11
Iteration	P31	Weight			11
		Part No			11
		Material No			11
		Revision No			11
		Revision			11
		Revision			11
		Revision			11

C (BANKS) INSTALLED	1	2	3	4	5	6	7	8	9	10	11	12
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CONNECTION CAN BE MIRROR IMAGE TOO.
PLEASE, SEE MAIN DIMENSIONS DRAWING

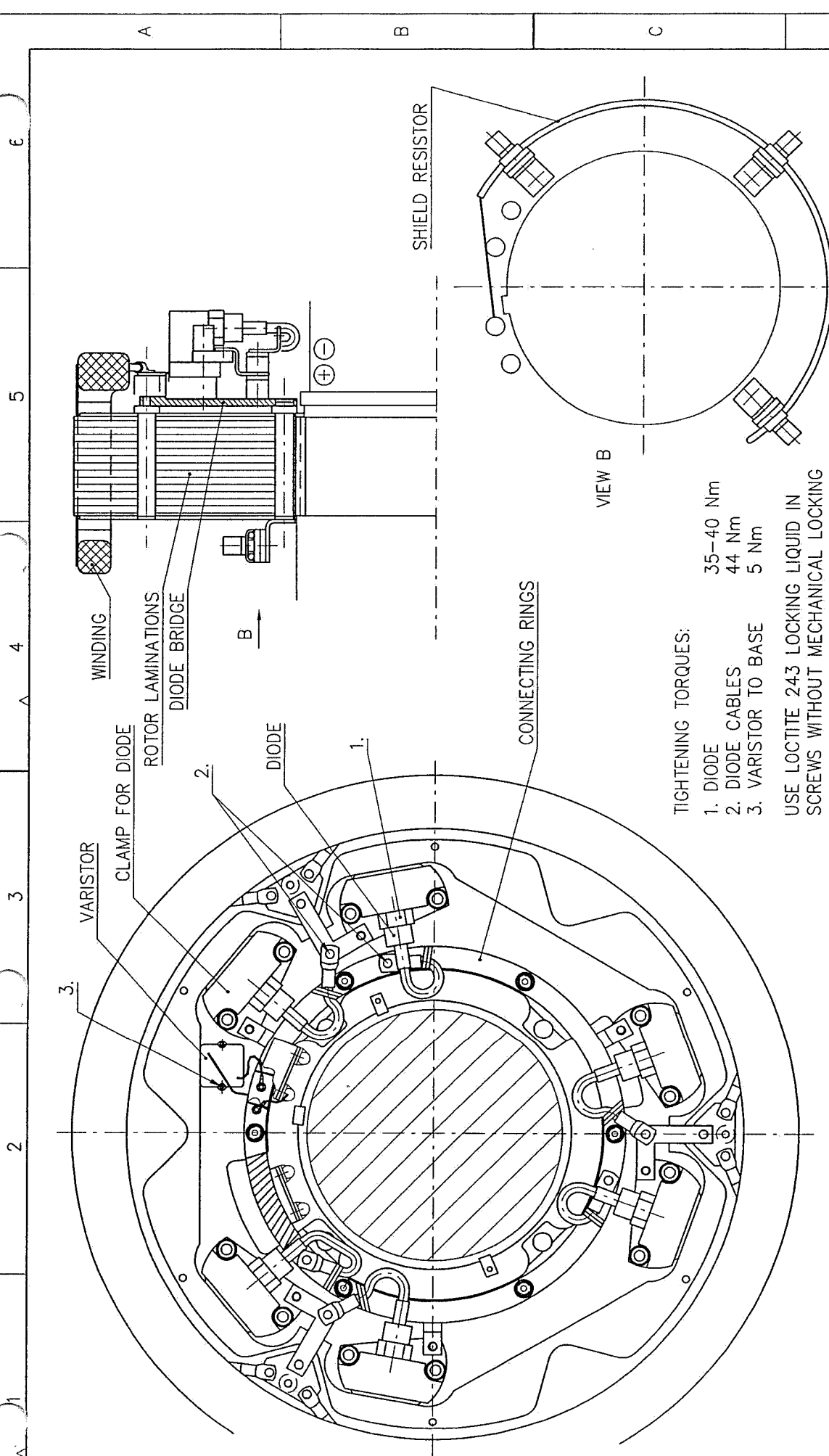
Project No.	1999-12-08 J.KOKKI	Separate part list with separate No.	<input type="checkbox"/>	Title	LAYOUT OF CONNECTION	Scale	1:15
Approved	2000-03-09 M.SALMI	Drawn by	FIDRI/PTS	Weight	AM 1250-2500	Revision No.	A2
Approved	2000-03-09 J.JAANKOLA	Original by		Material	3AFP 5117547	Revision Street	A
Distribution	PO	Functional Code	DA	Weight		Revision	
ABB Oy, Electrical Machines, Helsinki							



B3B

B3A

B. DRAWING UPDATED		2001-11-27	MARE	TEOT	TEOT
Rev.	Change	Date	Prep.	Rev.	Appr.
Prepared	2001-11-27 M. RESTRÖM			Score	1:25
Checked	2001-11-27 TOTTEIJN			Language	English
Responsible Department	FIDRI/PTC			Mounting Size	A2
Original Draw	2001-11-27 TOTTEIJN			Revision Sheet	B / 1
Order No.	8.6 AMG, ANZ			Project No.	3AFP 5126145
Manufacturer	ABB Oy, Electrical Machines, Helsinki			Author	AUGUO

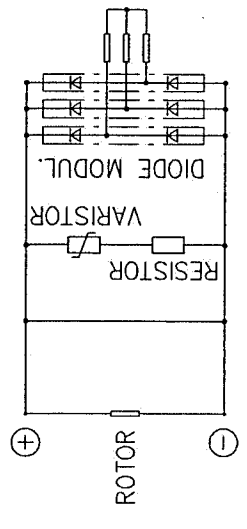


TIGHTENING TORQUES:

- 1. DIODE 35-40 Nm
- 2. DIODE CABLES 44 Nm
- 3. VARISTOR TO BASE 5 Nm

USE LOCTITE 243 LOCKING LIQUID IN SCREWS WITHOUT MECHANICAL LOCKING

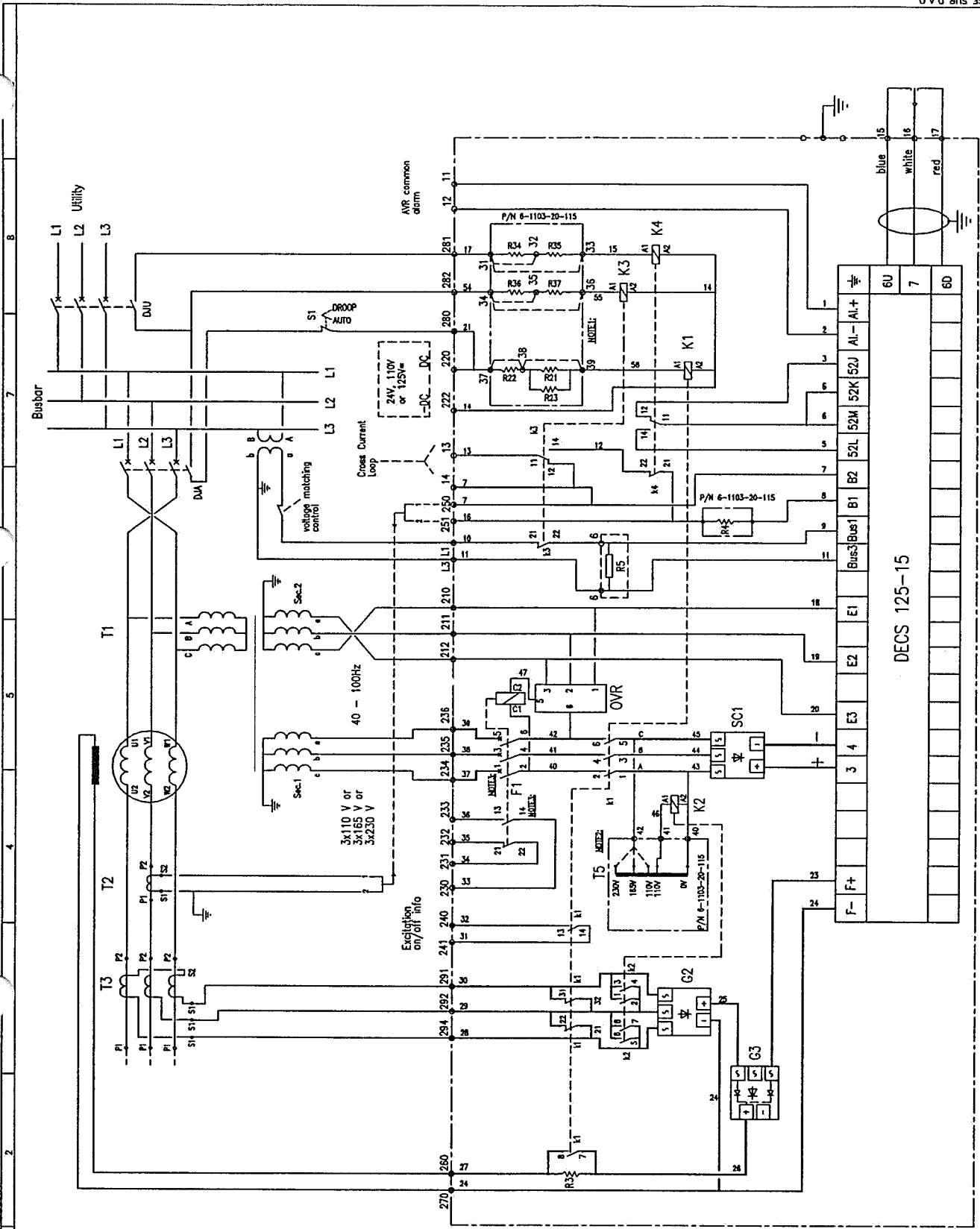
Rev	Change	2001-06-07	JAER	MISA	JAKA
Prepared	2001-01-05 J.KOKKI	Date	Prep.	Rev.	Appr.
Reviewed	2001-01-05 M.SALMI	Title			
Approved	2001-01-05 J.SHIBUTANI	EXCITER ROTOR WITH DIODE BRIDGE, 6-DIODE			
Distribution	P0	Separate part list with separate No.	Scale		
		FIDRI/PTD	1:5		
		Original Dwg	Language		
		Functional Code Order No.	EN		
		SD	Mounting Size		
			A3		
Document No.		Revision		Sheet	
3AFP 5122424		C		1/1	
ABB Oy, Electrical Machines, Helsinki					
AutCAD					



BASLER MOUNTING PLATE

DRAWING	PAGE	TITLE	REVISION	DATE	NOTE
6-1103-91-120	00	COVER SHEET	J	14-10-99	FOL-01 / FOL-05
6-1103-91-120	01	INTERCONNECT	F	14-10-99	RESISTOR R5
6-1103-91-120	02	AUXILIARY TERMINALS	D	19-03-97	X2
6-1103-91-120	03	PLATE/TOP VIEW-SIDE VIEW/EQUIPED	C	18-11-96	18-11-96
6-1103-91-120	04	SUPPORT PLATE-TOP VIEW/SIDE VIEW-EQUIPED	B	14-10-96	6-1103-91-120
6-1103-91-120	05	EQUIPEMENT LIST	I	14-10-99	ITEMS 9-11-12-19 TO 25

 BASLER ELECTRIC INTERNATIONAL WILMORING (FRANCE)	ORIGINE DRAWN P.A. CHECK J.P.R. DATE 14-10-99 J H	ABB INDUSTRY OY BASLER MOUNTING PLATE	COVER SHEET 6-1103-91-120	J J 00

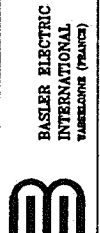
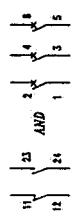


EA, R21, R22, R23, R24, R25, R26 and R27
 omitted on the reference plate P/N 6-1103-20-116

- E1: wires between terminals and 33 } for 24Vdc and 38 } for 110Vdc
- E2: wires between terminals and 32 } for 110Vdc and 39 } for 125Vdc
- E3: wires between terminals and 32 } for 110Vdc and 35 } for 125Vdc

E4: n. 45 on terminal 42 for 110V, 5V or 250V operation.

E5: for the SIEMENS circuit-breaker, use following marking:



ORIGINE:
 DRAWN P.N.
 CHECK J.P.R.
 DATE 14-10-98
 F RESISTOR R5
 E NOTE 3
 D NOTE 3

ABB INDUSTRY OY
 BASLER MOUNTING PLATE

INTERCONNECT
 6-1103-91-120

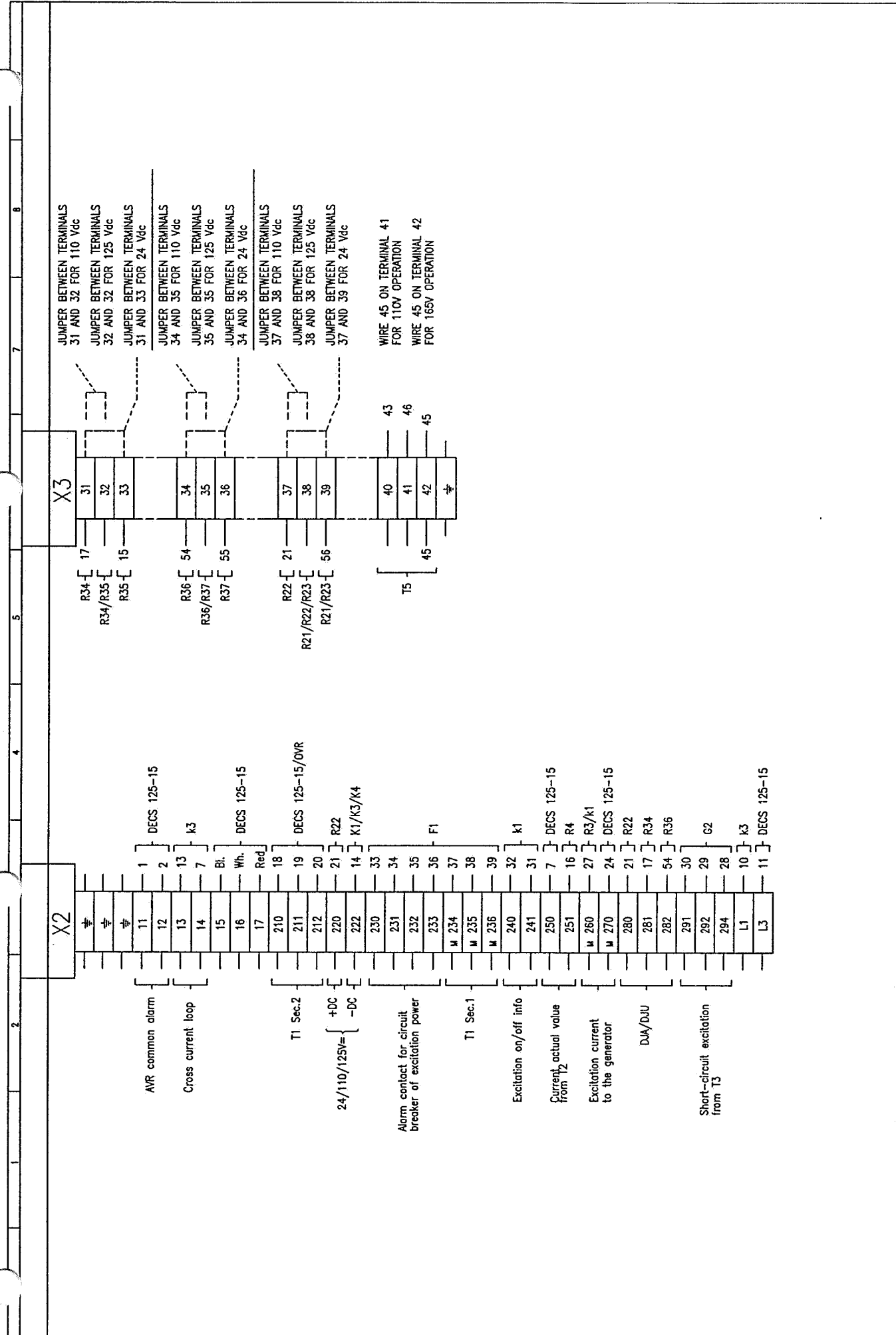


ABB INDUSTRY OY		AUXILIARY TERMINALS	
BASLER MOUNTING PLATE		6-1103-91-120	
ORIGINE	DATE	REV.	DATE
DRAWN P.N.	19-03-97	D	02
CHECK J.P.R.			



BASLER ELECTRIC INTERNATIONAL
WASSELONGE (FRANCE)

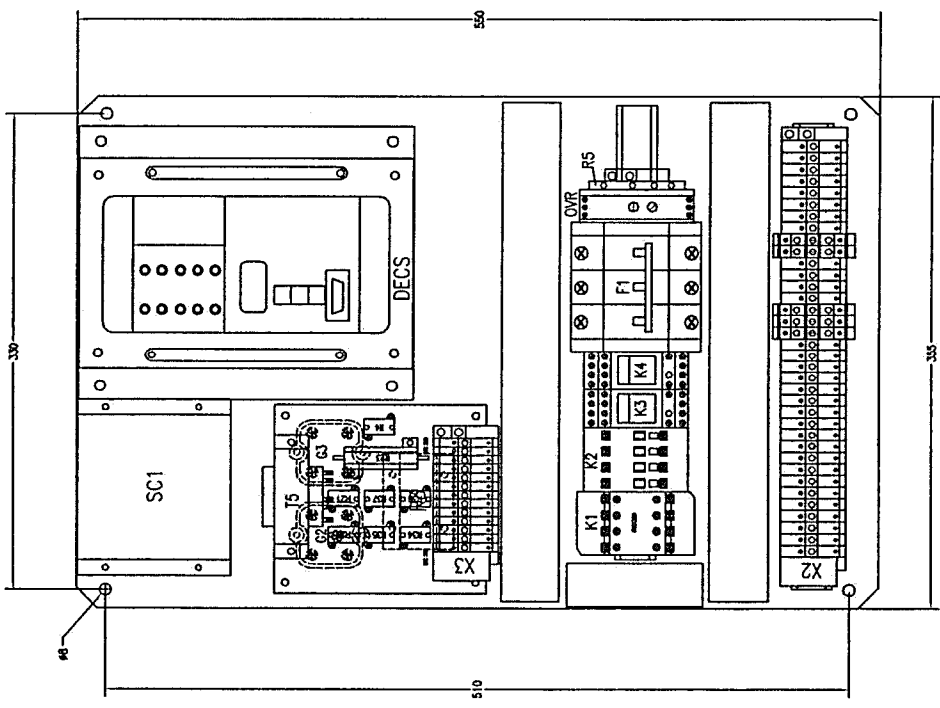
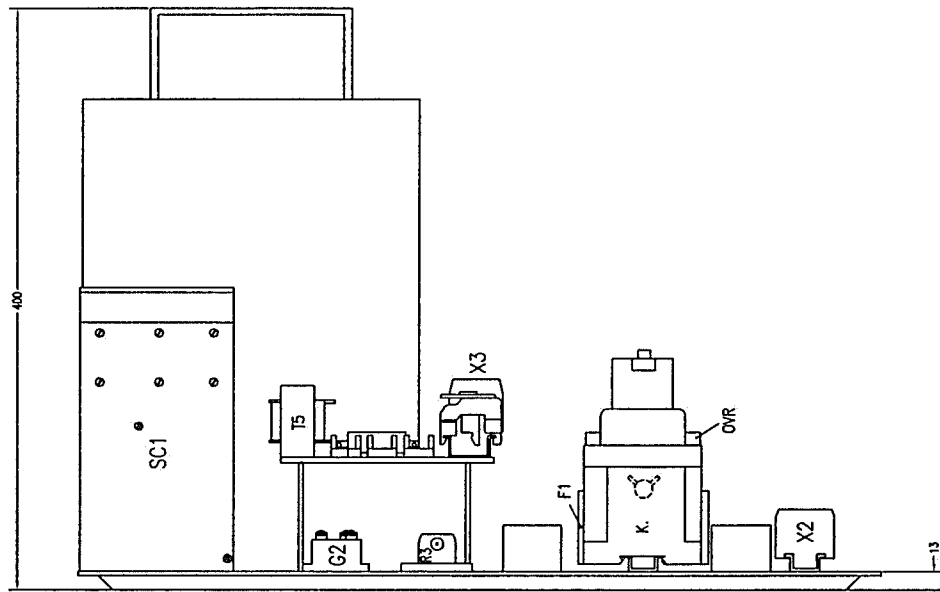
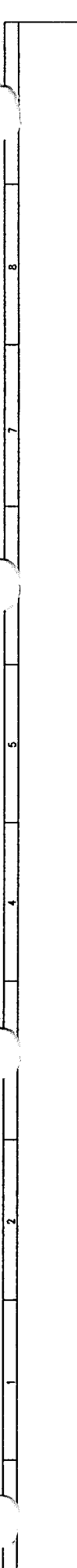


ABB INDUSTRY OY
BASLER MOUNTING PLATE

PLATE-TOP VIEW/SIDE VIEW-EQUIPED
6-1103-91-120

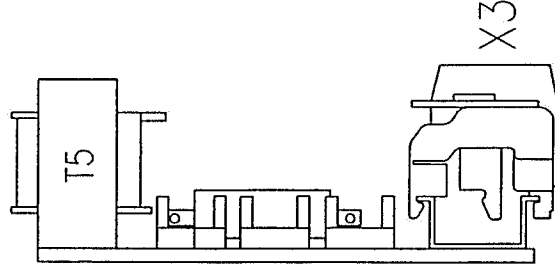
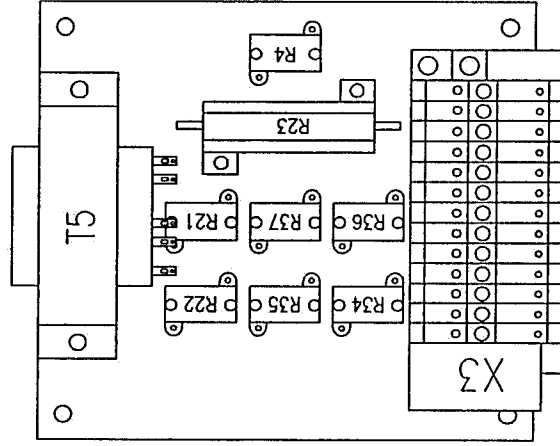
ORIGINE:	CHECK	DATE
DRAWN	J.P.R.	18-11-98
P.N.		6-1103-91-120
		A1 1st ISSUE



BASLER ELECTRIC
INTERNATIONAL
WILHELMSHOFEN (FRANCE)

SUPPORT PLATE

REP.	VAL.	TYPE
R4	0.56Ω	RCH10
R21	3300Ω	RCH10
R22	47Ω	RCH10
R23	330Ω	WH50
R34	470Ω	RCH10
R35	2200Ω	RCH10
R36	470Ω	RCH10
R37	2200Ω	RCH10



B
 BASLER ELECTRIC
 INTERNATIONAL
 VALKENBURG (THE NETHERLANDS)

ORIGINE:

DRAWN	CHECK	DATE
P.J.N.	J.P.R.	14-10-96


A	B	C
1st ISSUE	6-1103-91-120	

ABB INDUSTRY OY
 BASLER MOUNTING PLATE

SUPPORT PLATE-TOP VIEW/SIDE VIEW-EQUIPED
 6-1103-91-120
 Rev. B
 Date 04

REF.	QTE	DESCRIPTION	P/N	DRAWING	MFR/SUPPLIER	NOTES
1	1	SUPPORT PLATE 35x50 (GALVANIZED)	6-1103-01-103	6-1103-01-120/FOUD 3	BASLER	
1	1	SUPPORT PLATE 145x130x4	6-1103-11-103	6-1103-01-120/FOUD 4	BASLER	
RE1	1	DECS SUPPORT BECD	9-2853-00-026		BASLER	
F1	1	CIRCUIT BREAKER 3x16A (C CURVE) ABB S735200 REF:422196	6-8114-00-018		BASLER	OR CIRCUIT-BREAKER SIEMENS 3x16A (C CURVE) REF:582316-2 P/N 6-8114-00-012
F1	1	EMERSON TRIGGER 110V/60Hz ABB REF:331294	6-8114-00-019		BASLER	OR EMERSON TRIGGER 110V 70A/100A SIEMENS REF:5828300 P/N 6-8114-00-011
F1	1	AUXILIARY SWITCH 1NO 4-1NC ABB SZ-H11 REF:331650	6-8112-00-097		BASLER	OR AUXILIARY SWITCH 1NO+1NC SIEMENS REF:5828300 P/N 6-8112-00-086
K1	1	CONTACTOR WITH 24Vdc COIL 7N BC16-40 ABB REF:55791	6-8112-00-027		BASLER	OR AUXILIARY SWITCH 2NO+2NC ABB REF:70235 P/N 6-8112-00-041
K1	1	AUXILIARY SWITCH 2NO+2NC C45-2ZE ABB REF:212 110	6-8112-00-218		BASLER	
K2	1	CONTACTOR WITH 110Vdc COIL 50/60Hz (2.2N) A9-40-00 ABB REF:203384	6-8112-00-219		BASLER	
K3-K4	2	CONTACTOR WITH 24Vdc COIL - 4HT - 5A - FINDER REF:5534	6-8112-00-059		BASLER	OR CONTACTOR WITH 24Vdc COIL SCHACK REF:21 57024
K3-K4	2	SUPPORT FOR CONTACTOR FINDER REF:9474.1	6-8112-00-072		BASLER	OR CONTACTOR SUPPORT FOR CONTACTOR SCHACK REF:206 70700
RE1	1	A.V.R. DECS 125-15 BZC1	DECS 125-15 BZC1		BASLER	OR STURUP SCHACK REF:20 70101
SO1	1	POWER MODULE	9-2849-00-101		BASLER	
G2	1	RECTIFIER BRIDGE SEMARON REF:SKD 30/12	6-8209-00-001		BASLER	
G3	1	RECTIFIER BRIDGE SEMARON REF:SKB 30/12	6-8209-00-002		BASLER	
DR	1	OVERVOLTAGE RELAY	6-1103-03-104		BASLER	
T5	1	AUTOTRANSFORMER SINGLE PHASE 50/60Hz 230-165-110V 12VA G3 P00 *	6-8101-00-049		BASLER	
R3	1	RESISTANCE 10Ω, 10W SERNICE RCH10 REF:176-6616	6-8109-00-054/10R		BASLER	
R4	1	RESISTANCE 0.35Ω, 10W SERNICE RCH10 REF:176-6616	6-8109-00-051/0R56		BASLER	
R21	1	RESISTANCE 330Ω, 10W SERNICE RCH10 REF:176-6619	176 8919		BASLER	
R22	1	RESISTANCE 47 Ω, 10W SERNICE RCH10 REF:176-6773	176 6773		BASLER	
R23	1	RESISTANCE 330Ω, 50W SERNICE WHO REF:165-3706	165 3706		BASLER	
R4-R8	2	RESISTANCE 470 Ω, 10W SERNICE RCH10 REF:176-6682	6-8109-00-051/270R		BASLER	
R5-R7	2	RESISTANCE 2200Ω, 10W SERNICE RCH10 REF:176-6683	6-8109-00-051/2K2		BASLER	
12	12	TERMINAL ENTRELEC M6/6.3G REF:115 36225			BASLER	
5	5	TERMINAL ENTRELEC M6/8.5TP REF:115 27720			BASLER	
28	28	TERMINAL ENTRELEC M6/8.4 REF:115 21926			BASLER	
1	1	TERMINAL ENTRELEC M4/8 DEL REF:115 17714			BASLER	
1	1	RESISTANCE 100kΩ, 1/2W REF: 132-977	6-8109-00-073		BASLER	

COMPONENTS MOUNTED ON PLATE (ITEM 2) P/N 6-1103-20-115

 BASLER ELECTRIC INTERNATIONAL WALSHELONGE (FRANCE)	ORIGINE		ABB INDUSTRY OY		EQUIPMENT LIST	
	DRAWN	CHECK	DATE	BASLER MOUNTING PLATE		6-1103-01-120
P.N.	J.P.R.	27-01-98				
		ITEMS 9-11-12-13 TO 25				
		B 19-07-98				
		A 1st ISSUE				