

Drybox-2

Instruction Manual



Manual No.: 13707001

Date of Release 10.08.2009





Drybox-2 Safety Precaution Sheet

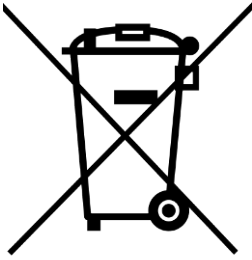
To be read carefully before use

1. The operator(s) should be fully instructed in the use of the machine.
2. Be careful when working with long and thin samples, as there may be a shock hazard if the samples by mistake stick through the safety grid.
3. Drybox-2 may not be used in room temperatures below 5⁰C/41⁰F. Do not use Drybox-2 for room heating.
4. **Warning** Specimens in Drybox-2 may become very hot.
5. Specimens may be damaged by incorrect heating in Drybox-2.


The equipment should only be used for its intended purpose and as detailed in the Instruction Manual.

The equipment is designed for use with consumables supplied by Struers. If subjected to misuse, improper installation, alteration, neglect, accident or improper repair, Struers will accept no responsibility for damage(s) to the user or the equipment.

Dismantling of any part of the equipment, during service or repair, should always be performed by a qualified technician (electromechanical, electronic, mechanical, pneumatic, etc.)



Disposal

Equipment marked with a WEEE symbol  contain electrical and electronic components and must not be disposed of as general waste.

Please contact your local authorities for information on the correct method of disposal in accordance with national legislation.

Instruction Manual

Table of Contents

1. Installation
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Always state *Serial No* and *Voltage/frequency* if you have technical questions or when ordering spare parts. You will find the Serial No. and Voltage on the type plate of the machine itself. We may also need the *Date* and *Article No* of the manual. This information is found on the front cover.

The following restrictions should be observed, as violation of the restrictions may cause cancellation of Struers legal obligations:

Instruction Manuals: Struers Instruction Manuals may only be used in connection with Struers equipment covered by the Instruction Manual.

Service Manuals: Struers Service Manuals may only be used by a trained technician authorised by Struers. The Service Manual may only be used in connection with Struers equipment covered by the Service Manual.

Struers assumes no responsibility for errors in the manual text/illustrations. The information in this manual is subject to change without notice. The manual may mention accessories or parts not included in the present version of the equipment.

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1. Installation

Check that voltage and frequency are as stated on the plate. Connect the electrical cables to a suitable plug, so that yellow/green are connected to earth, blue to neutral and brown to phase.

2. Operation

Drybox-2 is a combined drying and hardening oven for metallographic and mineralogical sample preparation. It is used to accelerate the hardening of cold mountings and glues, and to dry specimens after cleaning after grinding and polishing steps as well as before and after etching.

Cold mounting itself gives off heat during the hardening. Therefore, the acceleration of the hardening process must take place in an air-current, removing the heat, which is above the temperature of the air. If you do not let the air blow, the temperature rises beyond control in the mounting resins, destroying it.

When Drybox-2 is used for drying, the specimens are put in the wire basket with the polished area upwards or towards the hot-air fan. If the specimens are clamped in a specimen holder, the complete holder is placed 'upside down' in Drybox-2. The air temperature is set to maximum, unless:

- The specimens cannot withstand the temperature
- The specimen holder becomes so hot, that it cannot be handled afterwards
- The specimens have cracks or pores, from where detergent or etching liquid come out. In this case you dry in cold air.

When Drybox-2 is used for cold mounting the hardening time can be reduced.

3. Technical Data

Voltage/Frequency

110-120V/ 50-60Hz	1500 W
220V/ 50Hz	2000 W
220V/ 60Hz	2000 W

Air flow

5 m/s

Dimensions

Height: 172 mm
Length: 290 mm
Width: 297 mm

Weight

4.5 kg

English

Declaration of Conformity

Manufacturer

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Pederstrupvej 84
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Telephone +45 44 600 800

Herewith declares that

<i>Name:</i>	Drybox
<i>Cat. No.:</i>	03706133, 03706134
<i>Function:</i>	Drying apparatus
<i>Type No.:</i>	370

fulfils all the relevant provisions of the:

Low Voltage Directive 2014/35/EU according to the following standard(s):
EN 60204-1:2006/AC:2010.

and is in conformity with the:

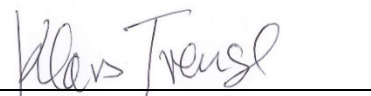
EMC Directive 2014/30/EU according to the following standard(s):
EN 61000-6-1:2007, EN 61000-6-3:2007/A1:2011.

RoHS Directive 2011/65/EU according to the following standard(s):
EN 50581:2012.

Supplementary Information The equipment complies with the following standards:
UL 508, FCC 47 CFR part 15.

The above has been declared according to the global approach, module A.

Authorized to compile the Technical File:



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Drybox-2

Spare Parts and Diagrams



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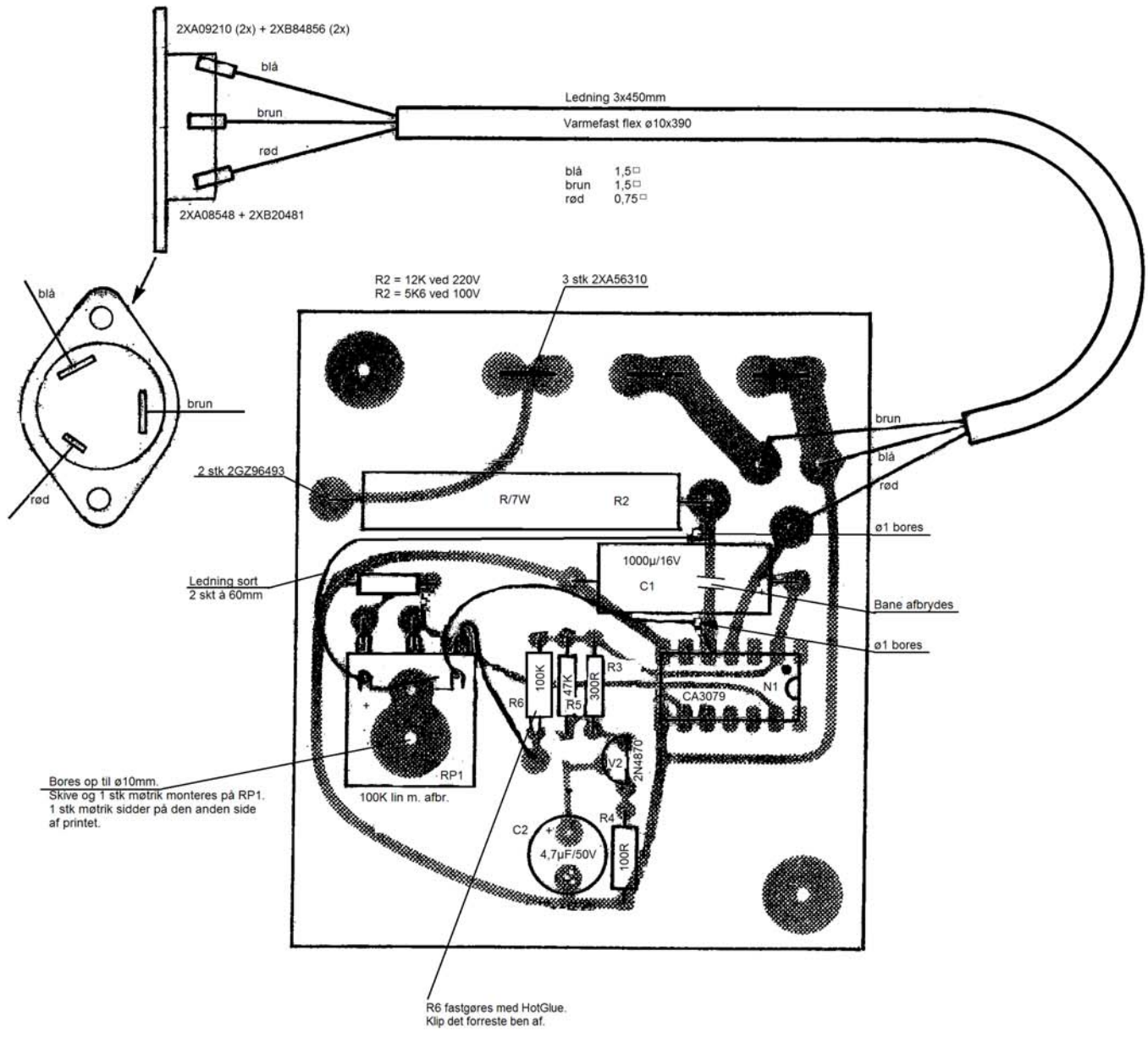
Spare Parts and Diagrams

Spare Parts

Description	Spare Part No.
Cabinet, complete	370MP001
Front plate	370MP002
Specimen table, complete	370MP003
Bottom plate, complete	370MP004
Angular blower plate	370MP005
Grid	370MP006
Printed circuit board, complete.....	370MP010
Tangential blower 220V-240/50Hz	370MP011A
Tangential blower 220-240V/60Hz	370MP011B
Tangential blower 110-120V/50-60Hz.....	370MP012
Transformer for tangential blower (220-240V/50-60Hz).....	376MP013
Switch.....	404MP024
Pilot-lamp	370MP021
Knob with cover and arrow disc	370MP025
Triac 0 4015	359MP024B
Terminal strip	370MP027
Screwed cable entry with connecting piece and nut	370MP029
Basket	042366904

Diagrams

Table of Contents	Drawing
Component illustration	13700021B
Circuit diagram, 220V/50Hz	13700023C
Circuit diagram, 110-115V/50Hz-60Hz.....	13700029C
Circuit diagram, 220V/60Hz	13700033B
Wiring diagram, 220V/60Hz	13700036B
Wiring diagram, 110-115V/50Hz-60Hz.....	13700037B



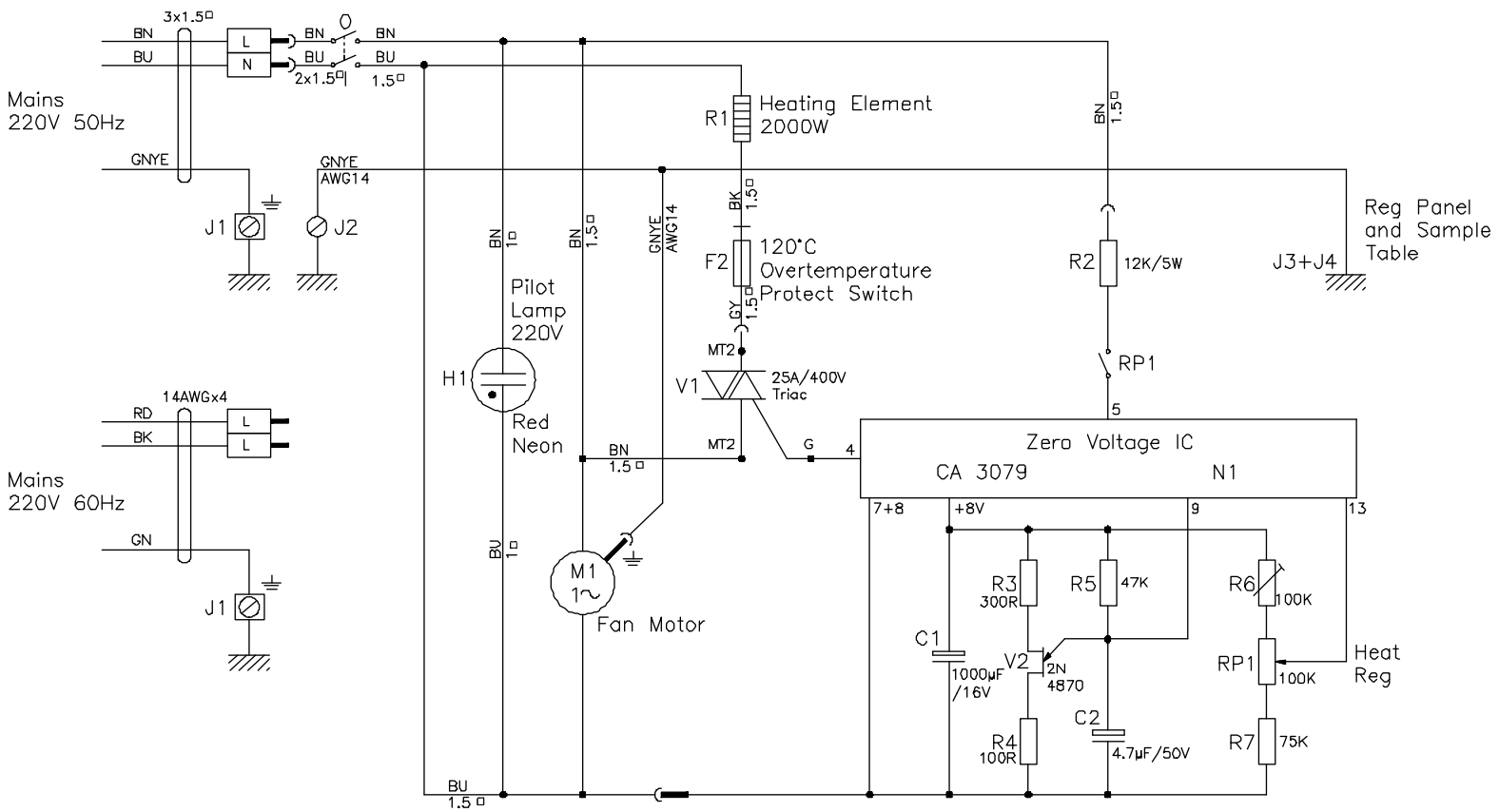
C. Hul til RP1 bores op til ø10. R6: 62K->56K. Scannet til TIF-
fil. 2016-01-05 BRY/CZO

D. Tekst om 110V ved 3 polet ledning fjernet. 2016-08-09 BRY/CZO.

E. R6: Fast modstand 56K -> Trim modstand 100K.
2017-06-28 bry/czo

Matr. : .		
STRUERS K/S		
Målestok:	Tegn. <i>Ra / b. H</i>	
	Dato 15-12-80	
Anvendes i type:	Eratetter:	
Component illustration	13700021 E	

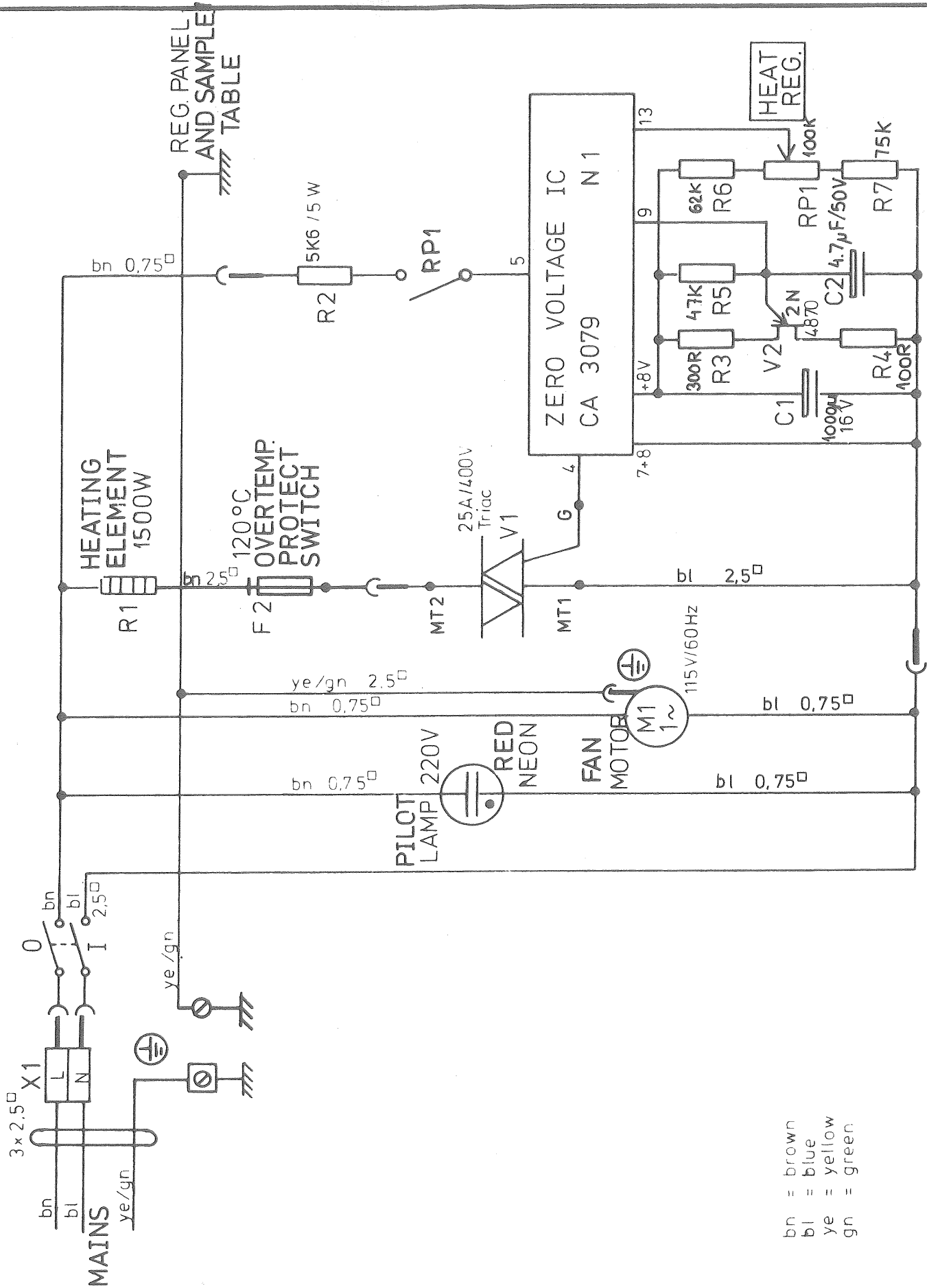
A B C D



Color codes:
 BK = BLACK
 BN = BROWN
 RD = RED
 GN = GREEN
 BU = BLUE
 GY = GREY
 GNYE = GREEN/YELLOW

G. R6: Fast modstand 56K-> Trím modstand 100K. 2017-06-28 BRY/CZO		F. R6: 62K -> 56K. 2016-01-05 BRY/CZO	
Matr.:	Overfl.beh.:	Målfarhold:	Ikke ang. tol. efter DS/ISO 2768-
	Projektionsmetode:	1:1	Dato
			Tegn: 1980.12.09Ra
Circuit Diagram 220V 50-60Hz Drybox-2		Erst.: 13700023 G	

A B C D



D. Scannet som TIF. 2012-03-08 BRY

Matr

STRUERS K/S

Målestok:

Tegn

Ra

Dato

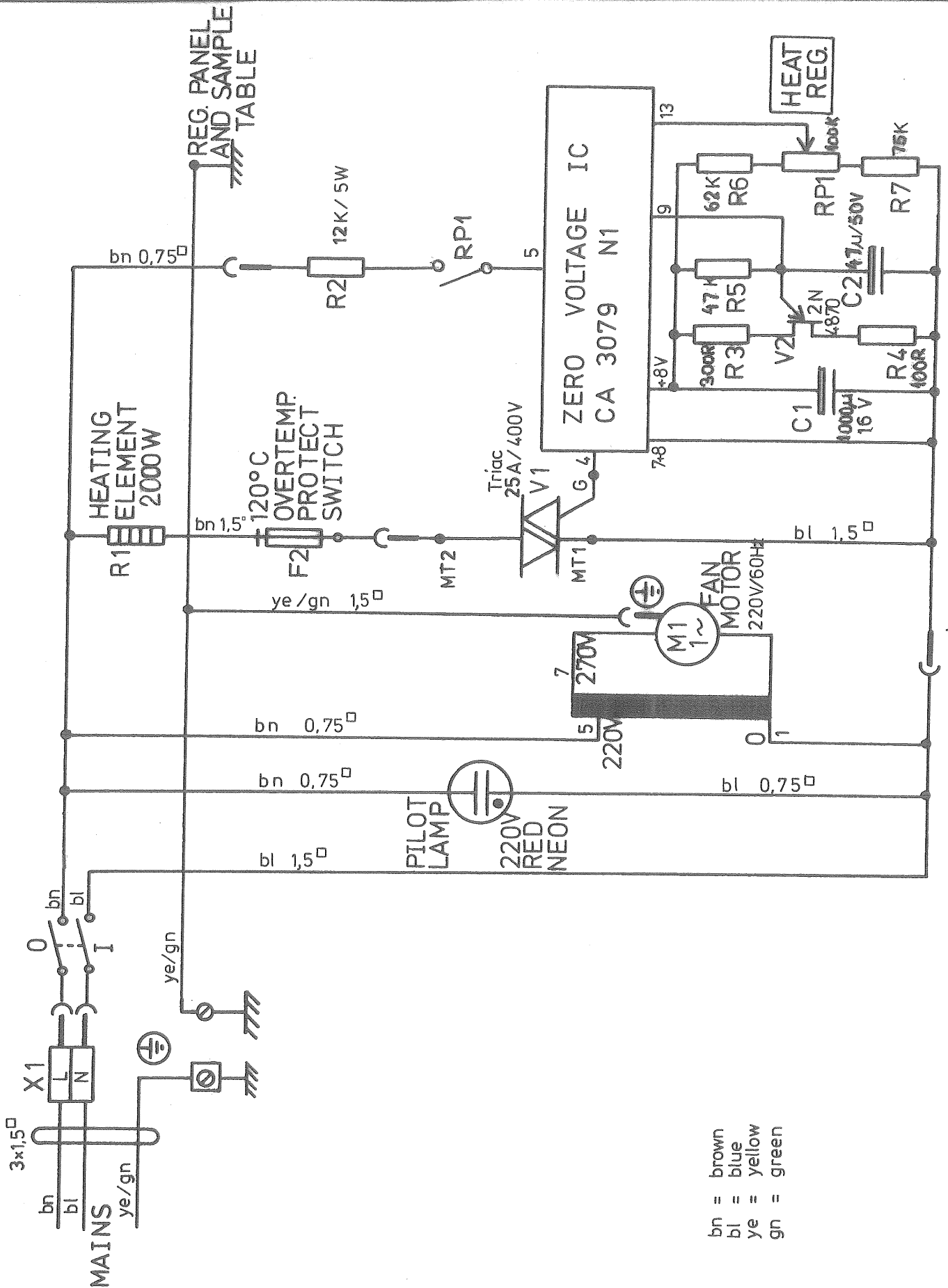
08-12-80

Anvendes til:

Erstatter:

DRYBOX -2 CIRCUIT DIAGRAM
110 - 115 V / 50 - 60 Hz

13700029 D



C. Scannet som TIF. 2012-03-08 BRY.

Metr. :-

STRUERS K/S

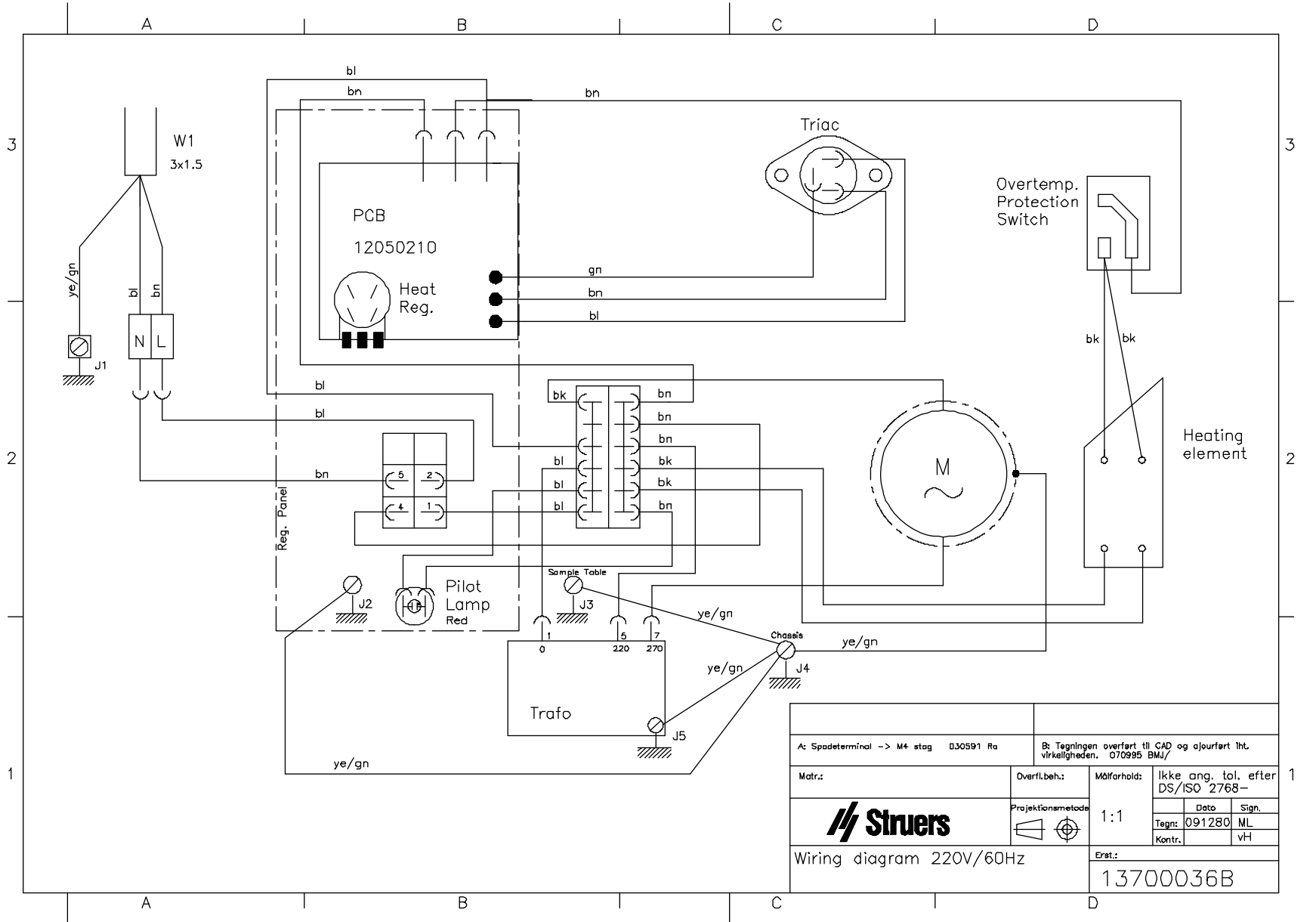
Målestok: Tegn. *Ra / k.H*
Dato 09-12-80

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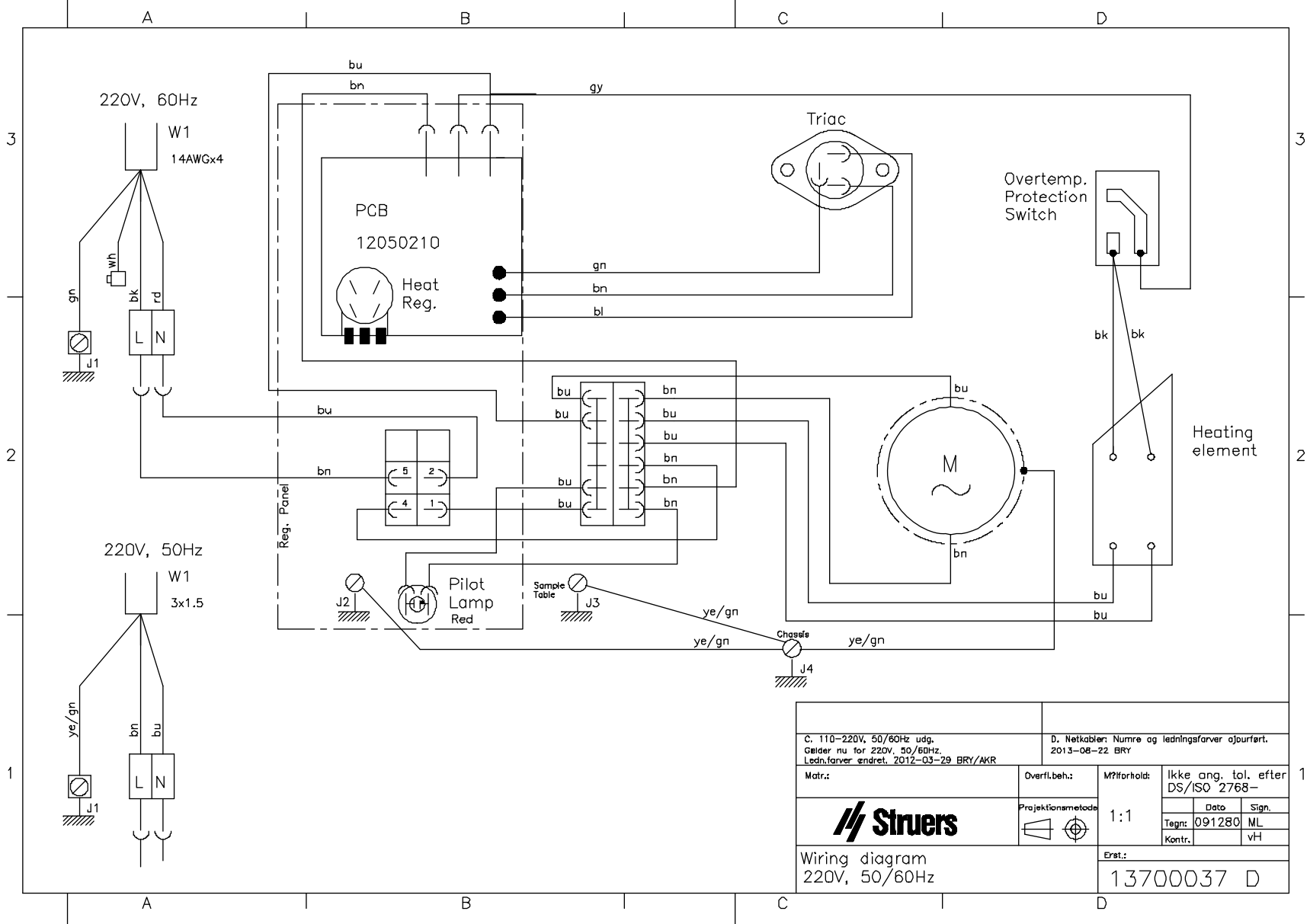
Erstatter:

DRYBOX -2 CIRCUIT DIAGRAM
220V / 60Hz

13700033 C



A: Spadeterminál -> M4 stog 030591 Ra		B: Tegningen overført til CAD og ajourført iht. virkeligheden. 070995 BMJ/		
Matr.:	Overfl.beh.:	Målfarhold:	Ikke ang. tol. efter DS/ISO 2768-	
Struers	Projektionsmetode 	1:1	Date	Sign.
			Tegn: 091280	ML
			Kontr.	vH
Wiring diagram 220V/60Hz		Erst.:		
		13700036B		



C. 110-220V, 50/60Hz udg. Gælder nu for 220V, 50/60Hz. Ledn.farver ændret. 2012-03-29 BRY/AKR		D. Netkabler: Numre og ledningsfarver ojourført. 2013-08-22 BRY		
Matr.:	Overfl.beh.:	M?forhold:	Ikke ang. tol. efter DS/ISO 2768-	
Struers	Projektionemetode 	1:1	Date	Sign.
			Tegn: 091280	ML
			Kontr.	vH
Wiring diagram 220V, 50/60Hz		Erat.:		
		13700037 D		



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