



Service-Information

Abluft Wäschetrockner

AWZ 3411

8575 341 18011

Letzte Änderung: 04.03.2009

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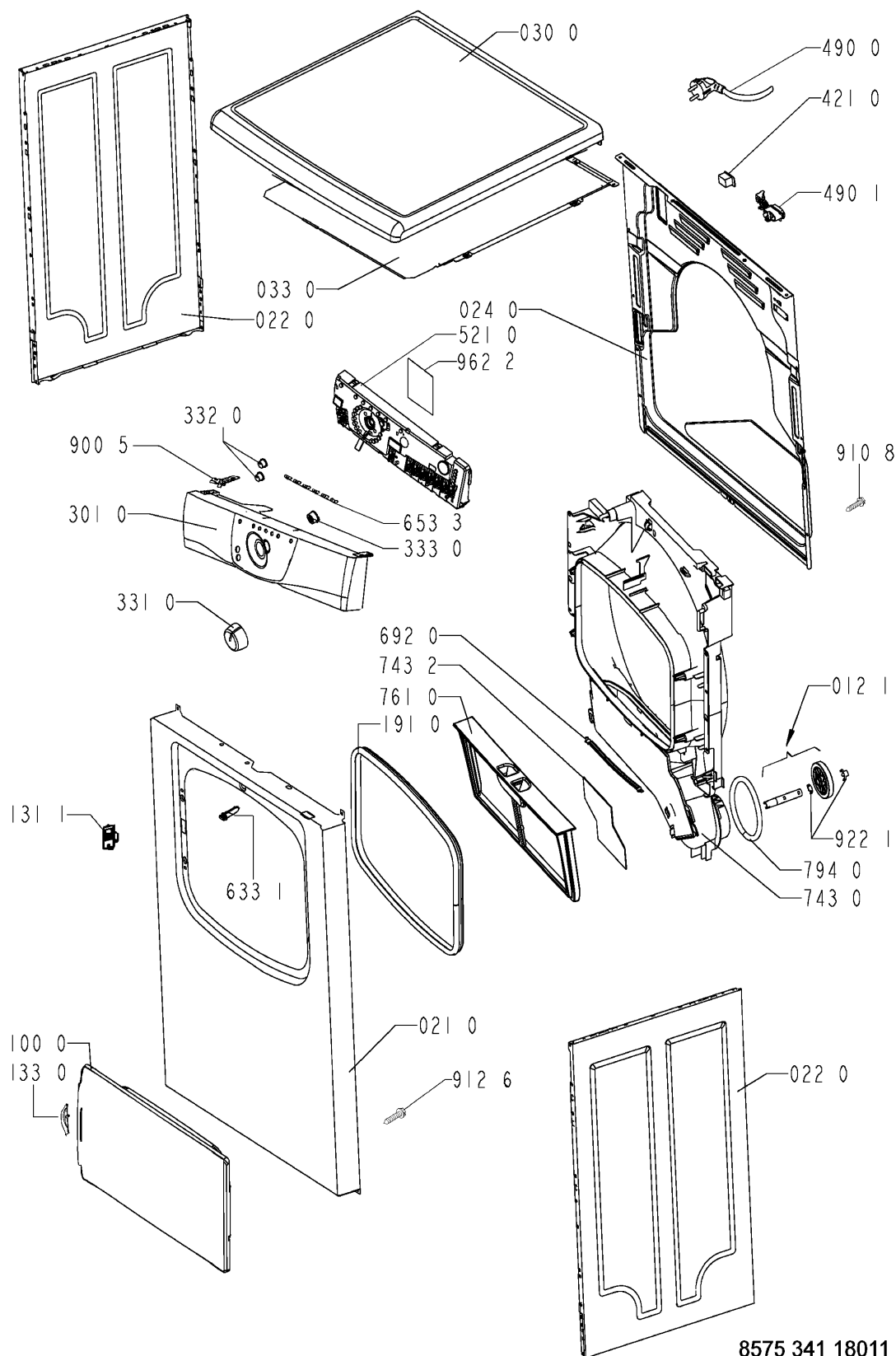
Die vorliegenden Serviceunterlagen sind ausschließlich für technisch qualifizierte Fachkräfte bestimmt, welche mit den entsprechenden einschlägigen Sicherheitsvorschriften vertraut sind.
Änderungen vorbehalten

Ersatzteilliste

Pos-Nr.	12NC	Beschreibung
004 0	4812 440 11038	Boden RO 1/2"
004 1	4812 466 38078	Schutz,el.Baut. /Boden AV
011 0	4812 500 18054	Fuss
012 0	4812 528 78033	Rolle
012 1	4812 528 98003	Drehstift vorn + Rolle
012 2	4812 520 28068	Drehstift hinten
021 0	4812 440 10867	Frontblende RO GW
022 0	4812 440 10821	Seitenplatte GW
024 0	4812 440 10713	Rueckwand AV
030 0	4812 440 11189	Arbeitsplatte R0 WH EBL
033 0	4812 310 18582	Kit Abdeckung
100 0	4812 440 11134	Tuer R0 EBL WH
131 1	4812 271 38462	Tuerverriegel. RO GW
133 0	4812 498 18359	Handgriff Tuer /Haken WH EBL
191 0	4812 466 68539	Tuerdichtung
220 0	4812 418 18177	Trommel kpl. SS
223 0	4812 418 89017	Mitnehmer GW
271 0	4812 358 18186	Riemen 1965 H6 EH80
273 0	4812 358 18055	Spannrolle
275 0	4812 492 68129	Feder
291 0	4812 466 68563	Dichtung vorne
291 2	4812 466 68837	Dichtung hinten
301 0	4812 452 15065	Schalterleiste AWZ 3411
331 0	4812 412 28044	Knopf Timer EBL GALVA
332 0	4812 410 29252	Taste Opt. EBL weiss
333 0	4812 513 18151	Taste Start EBL
401 0	4812 361 18533	Motor + Luefterrad + Klammer,AV
401 1	4812 401 18421	Klemme Motor
420 0	4812 121 18144	Kondensator 10 mF
421 0	4812 121 18158	Entstoerfilter
443 0	4812 361 18537	Geblaese Rad
443 2	4812 290 88096	Klemme Luefterrad, stainless
456 0	4812 310 28307	Heizelement 2300W KIT
490 0	4812 321 18042	Anschlusskabel 3m
490 0	4812 321 18044	Netzkabel o.Stecker 5m 4x1
490 1	4812 321 28421	Zugentlastung
492 1	4812 401 18195	Klammer f.Erdung
521 0	4812 214 79303	Steuerung (CB) WH AV ALPHA EE
551 3	4812 282 08651	Thermostat 1/2"
633 1	4812 276 18422	Stift Start Reset GW
653 3	4812 134 48324	Lichttraeger ALPHA WH
692 0	4812 278 58001	Sensor
743 0	4812 530 48631	Luftfuehrung RO GW
743 1	4812 530 18011	Heizkanal
743 2	4812 466 68538	Abschottdicht.
761 0	4812 480 58323	Filter RO GW
794 0	4812 466 28107	Dichtung
900 1	4812 290 88053	Klammer
900 5	4812 532 28923	Klemme f. Schalterleiste
902 1	4812 256 38002	Halterung Lagerrolle

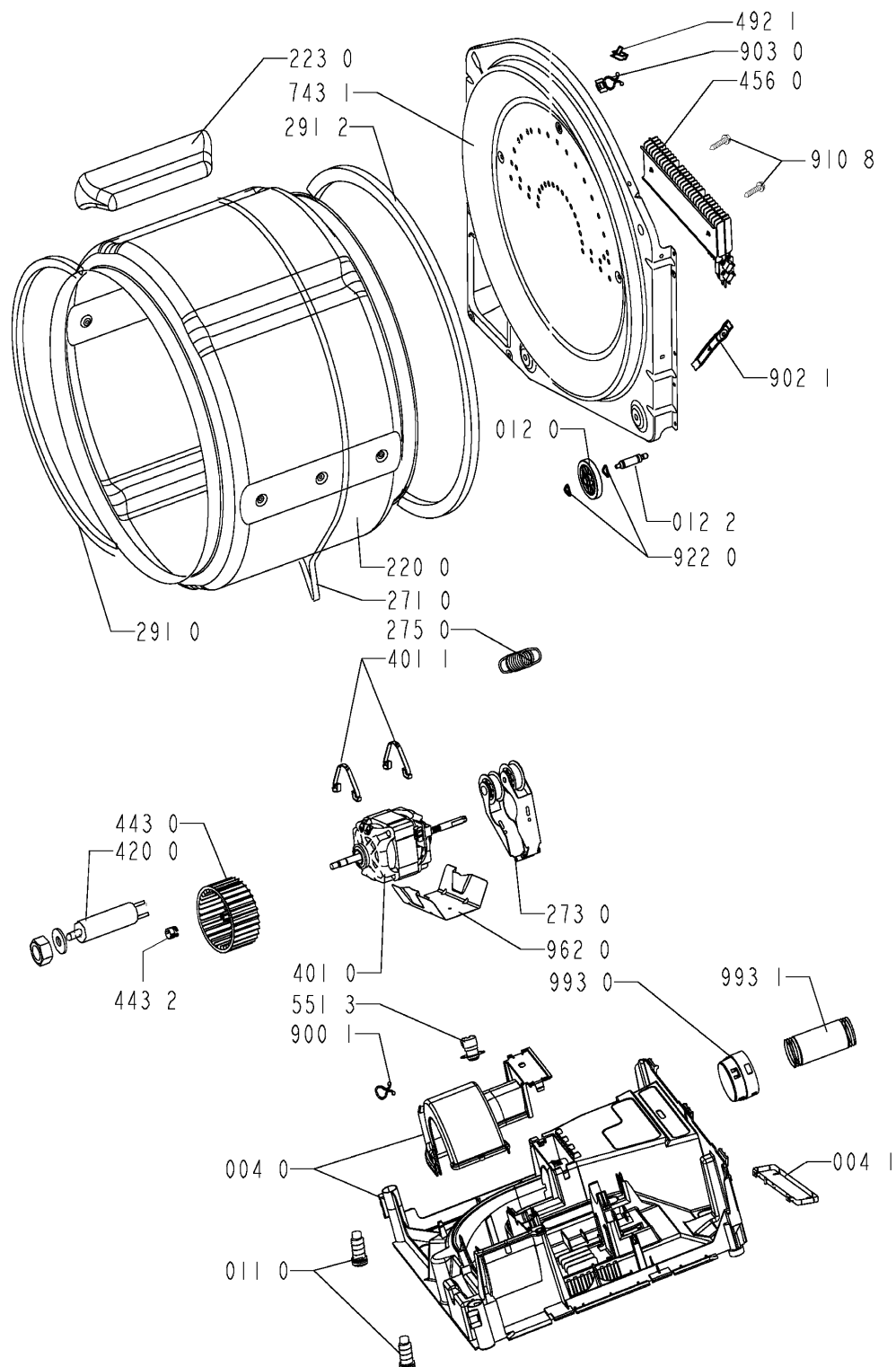
Pos-Nr.	12NC	Beschreibung
903 0	4812 532 28028	Clip Kabel
910 8	4812 502 48348	Schraube ST 4,2x11
912 6	4812 502 48353	Schraube 4x20
922 0	4812 532 58005	Sicherungsring
922 1	4812 532 58007	Sicherungsring
962 0	4812 466 38012	Schutz Motor
962 2	4812 466 38056	Folie Aluminium Anzeige Elektr.
993 0	4812 263 78014	Adapter
993 1	4812 310 18413	Zubehoer Abluftschlauch AMH 577

Explosionszeichnung



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Explosionszeichnung



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Technische Daten

Abmessungen + Gewicht

Abmessungen Gerät	
Höhe	85 cm
Breite	59.5 cm
Tiefe	56 cm
Gewicht	
Netto	31 kg

Elektrische Basisdaten

Spannung	230 V $\pm$ 10%
Frequenz	50 Hz
Sicherung	16 A
Gesamtanschlusswert	2.8 kW

Umgebungstemperatur

Zimmertemperatur	max.	35 °C
Zimmertemperatur	min.	5 °C

Fassungsvermögen

Baumwolle	6 kg
Pflegeleicht	2.5 kg

Luftschlauch (außen)

Innendurchmesser	10 cm
Max. erlaubte Länge	4 m

Heizung

Nennspannung	230 V + 10 % / - 15 %
Gesamtleistung	2300 W $\pm$ 5 %
Widerstand NTC	(R 20) 19.1 Ω - 23.5 Ω

Thermostat Ablufttrockner

Sicherheitsthermostat	TL
Ausschalttemperatur	298 °C -10 K
Abluftthermostat	TH 1.1
Einschalttemperatur	38 °C $\pm$ 5 K
Ausschalttemperatur	53 °C $\pm$ 4 K
Flusenthermostat	TH 1.2
Ausschalttemperatur	195 °C $\pm$ 7.5 K
Hysteresis	12 K - 25 K

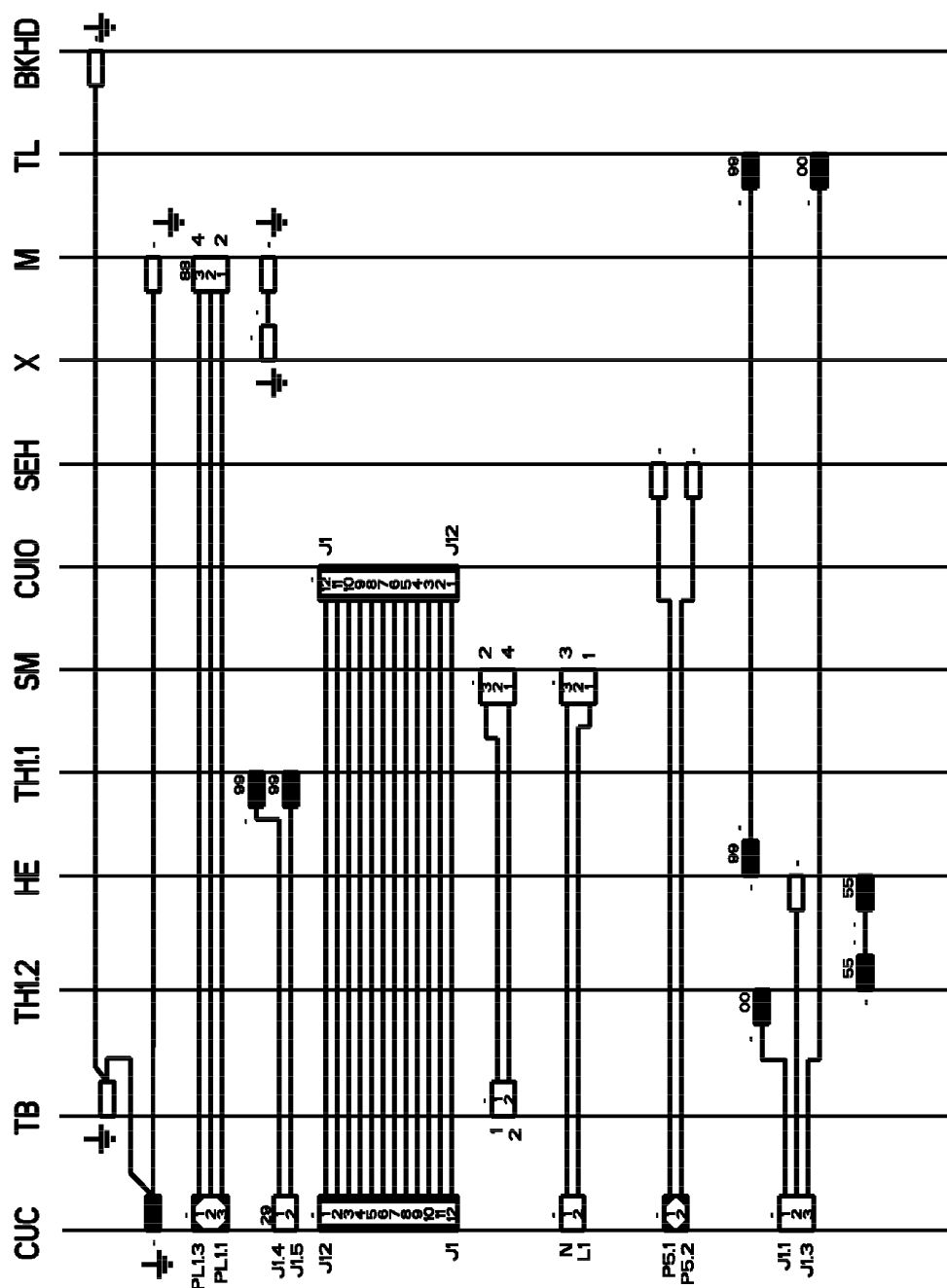
Antriebs- und Gebläsemotor

Typ	asincrono monofásico
Nennspannung	230 V + 10 % / - 15 %
Frequenz	50 ± 3 Hz
Anschlusswert	295 W
Wicklungswiderstand	
Hauptwicklung	(2 - 3) 24.7 Ω
Hilfsspule	(2 - 1) 25.6 Ω

Elektronikmodul

Typ	Alphatronic
Nennspannung	230 V + 10 % / - 15 %
Frequenz	50/60 Hz

Anschlußplan



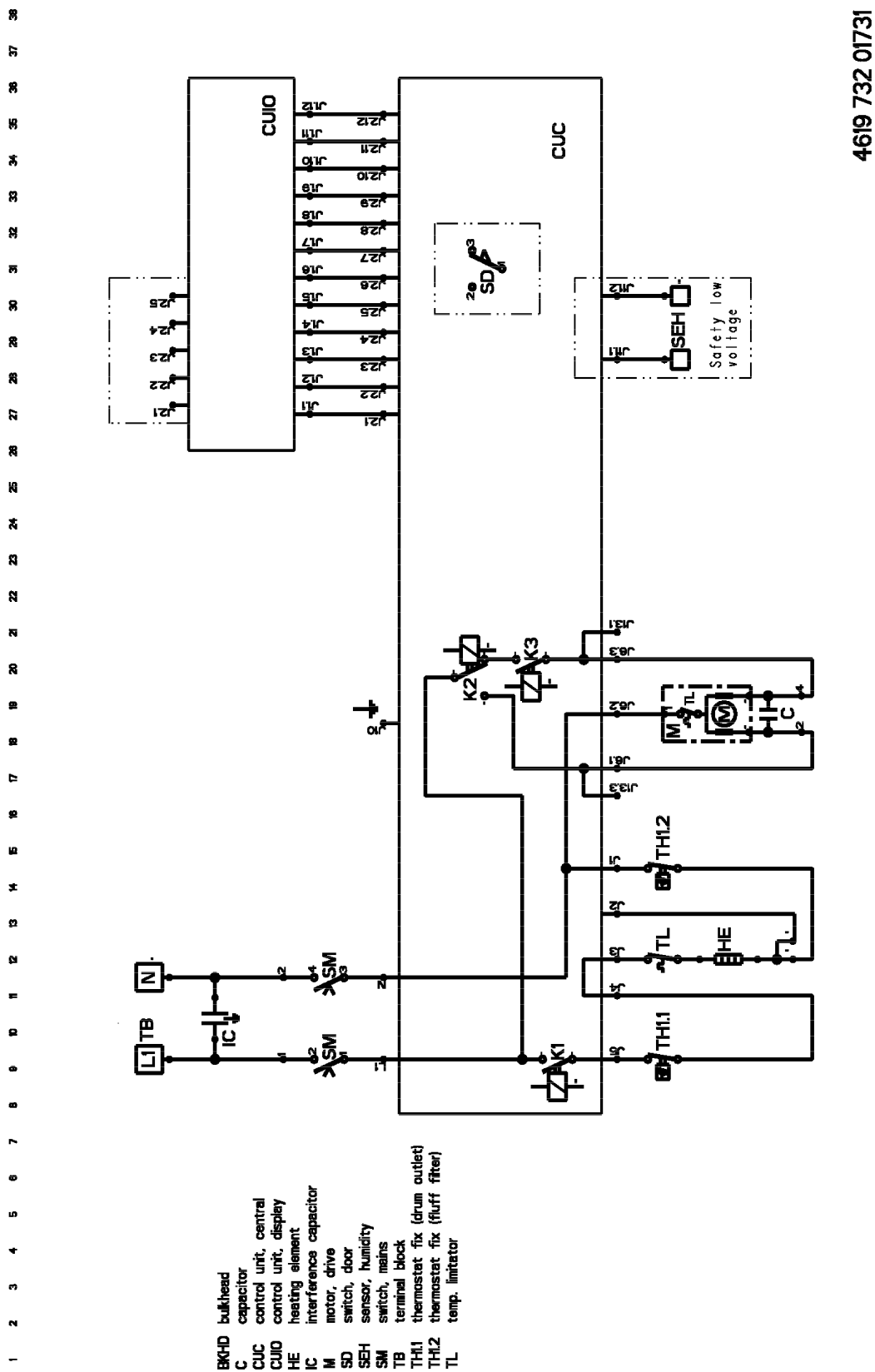
00 black
11 brown
22 red
33 orange
44 yellow
55 green
66 blue
77 violet
88 grey
99 white
29 pink

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Legende

00	black
11	brown
22	red
29	pink
33	orange
44	yellow
55	green
66	blue
77	violet
88	grey
99	white

Stromlaufplan



Legende

BKHD	bulkhead
C	capacitor
CUC	control unit, central
CUIO	control unit, display
HE	heating element
IC	interference capacitor
M	motor, drive
SD	switch, door
SEH	sensor, humidity
SM	switch, mains
TB	terminal block
TH1.1	thermostat fix (drum outlet)
TH1.2	thermostat fix (fluff filter)
TL	temp. limiter

Testprogramm

Program Flow for WH AV (Airvented)

Program Phase	Options influencing program phase	Motor movement	Heating Cycles				Humidity measurement	Duration	Conditions to go in the next phase
			Cotton	Easy Care	Time Drying (Jet)	Airing			
Programming (Selection)	-	off	off	off	off	off	off	-	push start button AND door closed
Drying I	Gentle	rev	100%	100%	75%		on	RH=HT1 or t _i	WH AV HT 1 OR duration
	Normal	rev	100%	100%	100%	↓	on	RH=HT1 or t _i	
Drying II	Gentle	rev	90%	90%	↓	-	on	RH=HT2 or timeout	WH AV HT 2 OR timeout
	Normal	rev	100%	100%	90%	↓	on	RH=HT2 or timeout	
Drying III	Gentle	rev	75%	75%	↓	-	on	RH=HT3 or timeout	WH AV HT 3 OR timeout
	Normal	rev	90%	90%	↓	↓	on	RH=HT3 or timeout	
Drying IV	Gentle	rev	75%	75%	↓	-	on	RH=target or timeout	selected humidity OR timeout
	Normal	rev	75%	75%	↓	↓	on	RH=target or timeout	
Cool Down	-	rev	off	off	off	off	off	t _{cd}	duration
Anticrease	-	rev-ac	off	off	off	off	off	t _{ac}	duration
Drying End	-	off	off	off	off	off	off		

Humidity Targets	
HT1	RH=22 %
HT2	RH=22 %
HT3	RH=15 %
selected humidity	RH= selected program target

Reversing type	off (sec)	cw (sec)	off (sec)	ccw (sec)
rev	2	80	2	6
rev-ac	2	80	2	6

Duration	
t _i	60 min Cotton / 20 min Easy Care
timeout	60 min
t _{cd}	6 min
t _{ac}	60 min

Heater cycles	Heater on	Heater off
100%	180 sec	0 sec
90%	162 sec	18 sec
75%	136 sec	44 sec

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Testprogramm

Program flow WH CD WCT and WH CD WCB (Condenser)

Program Phase	Options influencing program phase	Motor movement	Heating Cycles					Duration	Conditions to go in the next phase
			Cotton	Easy Care	Time Drying Jet	Airing	Humidity measurement		
Programming (Selection)	-	off	off	off	off	off	off	-	push start button AND door closed
Drying I	Gentle	rev	100%	100%	78%		on	RH=HT1 or t ₁	WH CD HT 1 OR duration
	Normal	rev	100%	100%	100%	∩	on	RH=HT1 or t ₁	
Drying II	Gentle	rev	90%	90%	∩	-	on	RH=HT2 or timeout	WH CD HT 2 OR timeout
	Normal	rev	100%	100%	90%	∩	on	RH=HT2 or timeout	
Drying III	Gentle	rev	78%	78%	∩	-	on	RH=HT3 or timeout	WH CD HT 3 OR timeout
	Normal	rev	90%	83%	∩	∩	on	RH=HT3 or timeout	
Drying IV	Gentle	rev	67%	67%	∩	-	on	RH=target or timeout	selected humidity OR timeout
	Normal	rev	78%	67%	∩	∩	on	RH=target or timeout	
Cool Down	-	rev	off	off	off	off	off	t _{cd}	duration
Anticrease	-	rev-ac	off	off	off	off	off	t _{ac}	duration
Drying End	-	off	off	off	off	off	off		

WH = Whirlpool, CD = Condense Dryer, WCT = Water Container Top, WCB = Water Container Bottom

Humidity Targets	
HT1	RH=22 %
HT2	RH=22 %
HT3	RH=15 %
selected humidity	RH= selected program target

Reversing type	off (sec)	cw (sec)	off (sec)	ccw (sec)
rev	2	80	2	6
rev-ac	2	80	2	6

Duration	
t ₁	60 min Cotton / 20 min Easy Care
timeout	60 min
t _{cd}	12 min, 9min for 20min jet program
t _{ac}	60 min

Heater cycles	Heater on	Heater off
100%	180 sec	0 sec
90%	162 sec	18 sec
83%	150 sec	30 sec
78%	140 sec	40 sec
67%	121 sec	59 sec

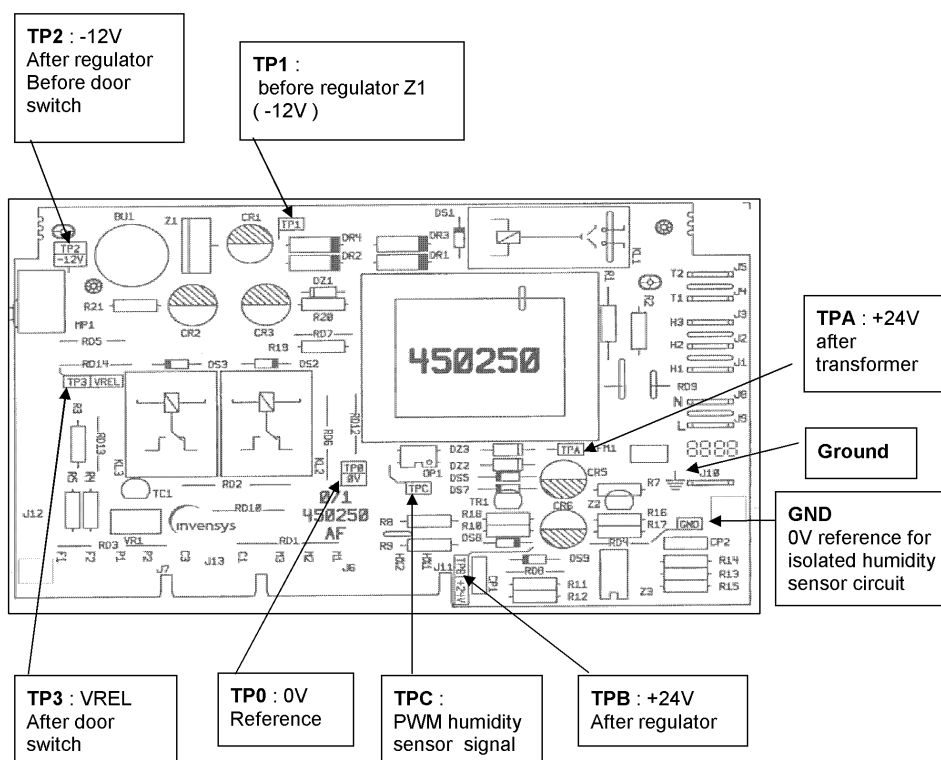
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Testprogramm

Testpoints at power board

Alphatronic WH

WH AV (AIR VENTED), WH CD WCT and WH CD WCB (CONDENSER)



TP0: reference for -12V circuit (RD6)
TP1: -12V after transformer, unregulated (DR4)
TP2: -12V regulated (MP1)
TP3: -12V regulated if door closed (RD14)
-1,1V if door opened

GND: reference for class II isolated humidity sensor circuit (RD4)
TPA: +24V after transformer, unregulated (DZ3)
TPB: +24V regulated (DS8)
TPC: PWM signal of humidity sensor (OP1)

WH = Whirlpool, CD = Condense Dryer, AV = Airvented,
WCT = Water Container Top, WCB = Water Container Bottom

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Testprogramm

Test programs

The TEST MODE delivers the possibility to check several functions of the dryer independently of the normal drying programs.

Entering the Test Mode

- a) Close door of the dryer or block door switch
- b) Rotate program selector to position „Airing“
- c) Press and release option button „Gentle“ three times within 6 sec. (If accidentally the button is pushed more than three times, this will have no negative impact. The test mode will start in step1 anyway)

If the sequence a) - c) is correct: =>Test Mode basic signal is displayed (see Test mode display)and Step1 of test program is executed.

Advance to next step

Push OPT2: "Buzzer"

Leaving the Test Mode

The TEST MODE is terminated by:

- Push Start Button
OR
- Interrupt of the mains supply for a time of 40 sec.
OR
- Open door
OR
- Turn rotary selector
OR
- Last step of test program is reached and button OPT2 is pushed once more

Test mode display

When test mode is entered:

LED group:	Behaviour:
Program sequence LEDs (PS2...PS5)	Indication of test step acc. table 'indication'
Buzzer	Beeps when button OPT1 („Gentle“) is pushed

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Testprogramm

Indication

Indicator	Test Program Step								
	Step1>>	Step2>>	Step3>>	Step4>>	Step5>>	Step6>>	Step7>>	Step8>>	Step9
LED PS2 (Overdry Protection)	ON	OFF	OFF	OFF	ON	ON	ON	ON	ON
LED PS3 (Drying)	ON	ON	OFF	OFF	ON	OFF	OFF	ON	ON
LED PS4 (End)	ON	OFF	ON	OFF	OFF	ON	OFF	ON	OFF
LED PS5 (Anticrease)	ON	OFF	OFF	ON	OFF	OFF	ON	OFF	ON

After sales service test program

The test program works sequentially, that means the change from one program step to the next has to be done only by request of pushing the OPT2 button!

Test Program Step No.	Test/Tested Component	Description	
Step 1**	Factory Test Program 1	Motor: ON, short reversing rev-x Heating Element: ON, cycle heat-x Display and Button Test: ON Humidity Input Test/float: ON	Test Mode is entered ↓ Push OPT2 button
Step 2**	Factory Test Program 2	Motor: ON, long reversing rev-y Heating Element: ON, cycle heat-y Display and Button Test**: ON Humidity Input Test/float**: ON	↓ Push OPT2 button
Step 3	Pump & Float Switch	WH CD WCT: 1) Fill in water until float switch is switched. 2) Container LED is switched ON and pump is switched ON WH CD WCB: 1) Pull out container (switch switches) 2) Container LED is switched ON WH AV: skip this test step manually!	↓ Push OPT2 button
Step 4	Motor CCW	Motor: ON, ccw Heating Element: OFF	↓ Push OPT2 button
Step 5	Motor CW	Motor: ON, cw Heating Element: OFF	↓ Push OPT2 button
Step 6	Heating Element Full Power	Heating Element: ON, 100% Motor: ON, cw	↓ Push OPT2 button
Step 7	Heating Element Reduced Power	Heating Element: ON, 78% Motor: ON, cw	↓ Push OPT2 button
Step 8**	Humidity Input	Description see below	↓ Push OPT2 button
Step 9	Display last failure/error code	Last error/failure code is displayed	↓ Push OPT2 button
EXIT	Leave Test Mode	Go to Programming phase (Selection)	

**Description see below

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Testprogramm

Heating and Reversing Cycle for Factory Test Program 1 (Step1) :

Dryer Type	Heating Element heat-x		Motor rev-x			
	Heater ON	Heater OFF	CW ON	OFF	CCW ON	OFF
Condenser	12 sec	0 sec	4 sec	2 sec	4 sec	2 sec
Airvented	11 sec	0 sec	3 sec	2 sec	4 sec	2 sec

Heating and Reversing Cycle for Factory Test Program 2 (Step2):

Dryer Type	Heating Element heat-y		Motor rev-y			
	Heater ON	Heater OFF	CW ON	OFF	CCW ON	OFF
Condenser	26 sec	0 sec	10 sec	3 sec	10 sec	3 sec
Airvented	21 sec	0 sec	10 sec	3 sec	5 sec	3 sec

Humidity Measurement Test

Max. Duration: no limit

Description:

- Test is active during Steps 1+2 and Step8
- Resistors have to be connected at the humidity sensor
- Door must be closed or door switch blocked (otherwise 24V power supply off)
- LEDs indicates measured humidity level due to following table:

Resistances	LED OPT1 ("Gentle")	LED Failure 2 ("Fluff Filter")
250 kOhm	ON	OFF
1130 kOhm	ON	ON
3700 kOhm	OFF	ON
open circuit	OFF	OFF

Display and Button test

Description:

- Test is active during all test steps.
- If option buttons are pushed LEDs are switched on and off. (exception: OPT1 button 'Gentle', this button is used for humidity measurement)

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