

Operating Manual

Electric Heater

EL 3 / EL 9 / EL 15



Wilms®



Perfection is our aim.

EC – Declaration of Conformity

in sense of EC machine directive 2006 / 42 / EEC

Type of machine:

EL 3 / EL 9 / EL 15

is designed, constructed and manufactured in accordance with the above-mentioned directive, the directive for low tension 2006 / 95 EEC and EMV directive 2004 /108 EEC.

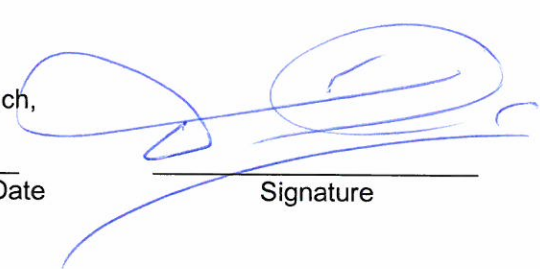
The following harmonized standards have been used:

- EN ISO 12100-1 / 2, Safety of machines
- DIN EN 294 Safety of machines, safety distances
- DIN EN 60204-1 Electrical equipment for industrial machines
- EN 61000-6-3 Generic standards – emission standard for residential, commercial and light industrial environments
- EN 61000-6-4 Electromagnetic Compatibility

Note: The observance of EN 294 refers only to the protection against accidental contacts of the unit. For the complete fulfillment of EN 294 the user resp. installer is responsible.

Mönchengladbach,
07.12.2010

Place, Date



Signature

Managing Director

Summary Manual EL 3 / EL 9 / EL 15

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1. SPECIFICATIONS

Type	EL 3	EL 9	EL 15
Order No.	2900003	2900009	2900015
Heat capacity	3 kW 2580 kcal/h 10.238 BTU/h	4,5 / 9 kW 3.870 / 7740 kcal/h 15.355 / 30.709 BTU/h	6 / 9 / 15 kW 5160 / 7740 / 12900 20.472 / 30.709 / 51.187 BTU/h
Air volume	200 m ³ /h	450 m ³ /h	900 m ³ /h
Voltage	230 V – 50 Hz	400 V – 50 Hz	400 V-3 – 50 Hz
Rated current	13 A	13 A	22 A
Overheat protection	standard	standard	standard
Room thermostat	standard	standard	standard
Outlet diameter	100 mm	120 mm	150 mm
Dimensions (L x W x H)	400 x 335 x 310 mm	680 x 335 x 310 mm	980 x 515 x 480 mm
Weight	10,5 kg	17 kg	28 kg
Electric connection	Schuko-plug	5-pin CEE plug 16 A	5-pin CEE plug 32 A
Noise level	44 dB (A)	57 dB (A)	62 dB (A)

2. General information

The units EL 3 / EL 9 / EL 15 are easily portable electrically operated heaters. The heaters can be operated continuously and can also be controlled by thermostat.

The air is sucked in by a radial type fan, streams through the insulation cover, is heated on the heating elements and comes out as warm air at the end of the insulation cover.

The electric heaters are equipped with a built-in thermostat and according to the type with 2 or 3-stage switches. This means you have the choice between different possibilities (Off-Heating-Ventilating).

The heaters are suitable for heating, drying, warming-up and defrosting, wherever you have an electrical outlet with 400 V -50 Hz resp. 230 V – 50 Hz. They can be used for various applications such as heating of greenhouses, drying of rooms during the construction as well indoors as outdoors. They speed up all drying processes, for example ceramics, paint works or, heating of working premises and smaller workshops.

An ideal partner for trade and industry.

3. Operating instructions

ATTENTION!

The heaters may be operated only from persons who have been advised in the use of the heaters. Please, refer to the operating manual.

Repair and service on electrical components may be carried out by an electric expert only.

On construction sites the heaters may be connected only according to the VDE standard 0100 with a terminal with FI-protection switch. The heaters EL 9 / EL 15 may be separated from the power supply only 5 min. after stopping (fan runs for cooling).

Keep air intake at a minimum distance of 50 cm to a wall.

Do not cover air outlet.

STARTING PROCEDURE

To start EL 3

Set main switch to „O“, then connect the electric heater to a properly fused socket (refer to serial plate).

To heat

Put selector switch (black) to „I“. Set main switch to „I“. Turn knob of thermostat to desired temperature. If the thermostat shuts off the heating elements the fan continues to operate at reduced rpm.

To ventilate

Set black selection switch to position „II“. Main switch to „I“. In this operating mode the thermostat is without function.

To stop EL 3

Set main switch to „O“. The heater shuts off.

Important note: Switch the heater on and off only by using the main switch and not by putting in resp. or pulling the plug.

To start EL 9 / EL 15

To connect:

Set main switch (with red control light) to „0“. Then connect the electric heater to an accordingly fused plug (refer to serial plate).

To heat

Set black selector switch to „0“. Set main switch to „I“ (with EL 15 choose 6/9/15 kW) (with EL 9 choose 4,5/9 kW).

Turn knob of thermostat to desired temperature.

To ventilate

Set black selection switch to position „I“. Turn knob of thermostat to „0“.

To stop EL 9 / EL 15

Set main switch to position „0“. The heater will continue to run until it is cooled down and then stops. Pull the plug only after the unit stops.

Important note: Switch the heater on and off only by using the main switch and not by putting in resp. or pulling off the plug.

Attention: If the selector switch is set to position „I“ and additionally one of the main switches is switched on the unit will heat also in this position. When the heating elements are shut off by the thermostat the fan will however continue to operate.

4. Faults and remedies

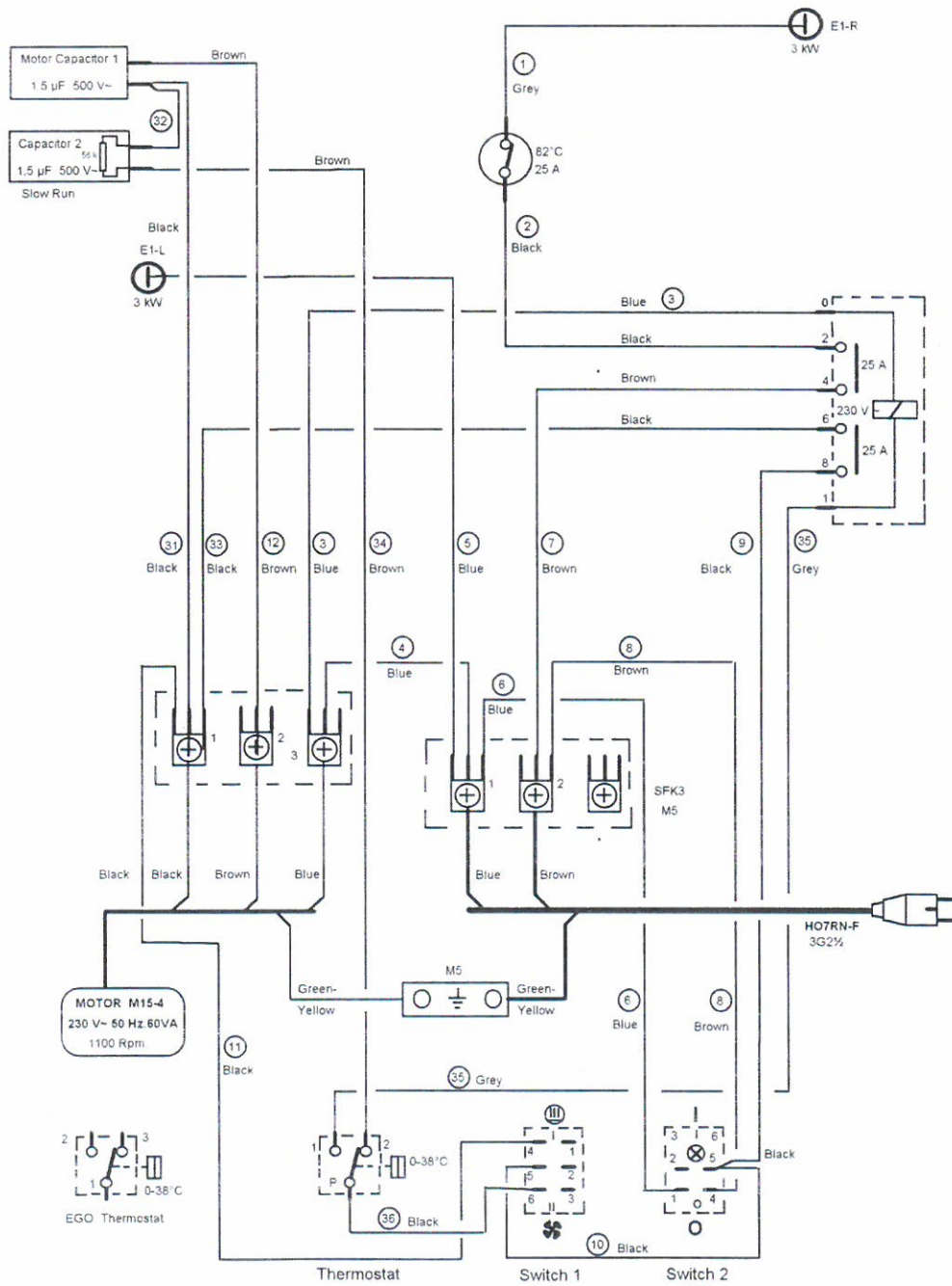
<u>Fault</u>	<u>Cause</u>	<u>Remedy</u>
Heater switched on, fan does not start.	No electricity. Cable defective.	Check power supply. Check cable, replace if necessary.
	On/Off-Switch or thermostat defective.	Check main switch resp. thermostat and replace if necessary.
Fan starts but no warm air comes out.	Heating element defective.	Open control box, check connections of heating element and replace if necessary.

EL 3 Wiring Diagram Drawing EL 3-02-03

June 2017

230 V~ 50 Hz 3Kw.13Amp.200 m³/h
Wiring: SIF 1,5 + 2,5 mm²

Principal Drawing EL 3-01-03
Exploded View EL 3-03-03
Spare parts EL 3-04-03
Start Serial Nr 16.876

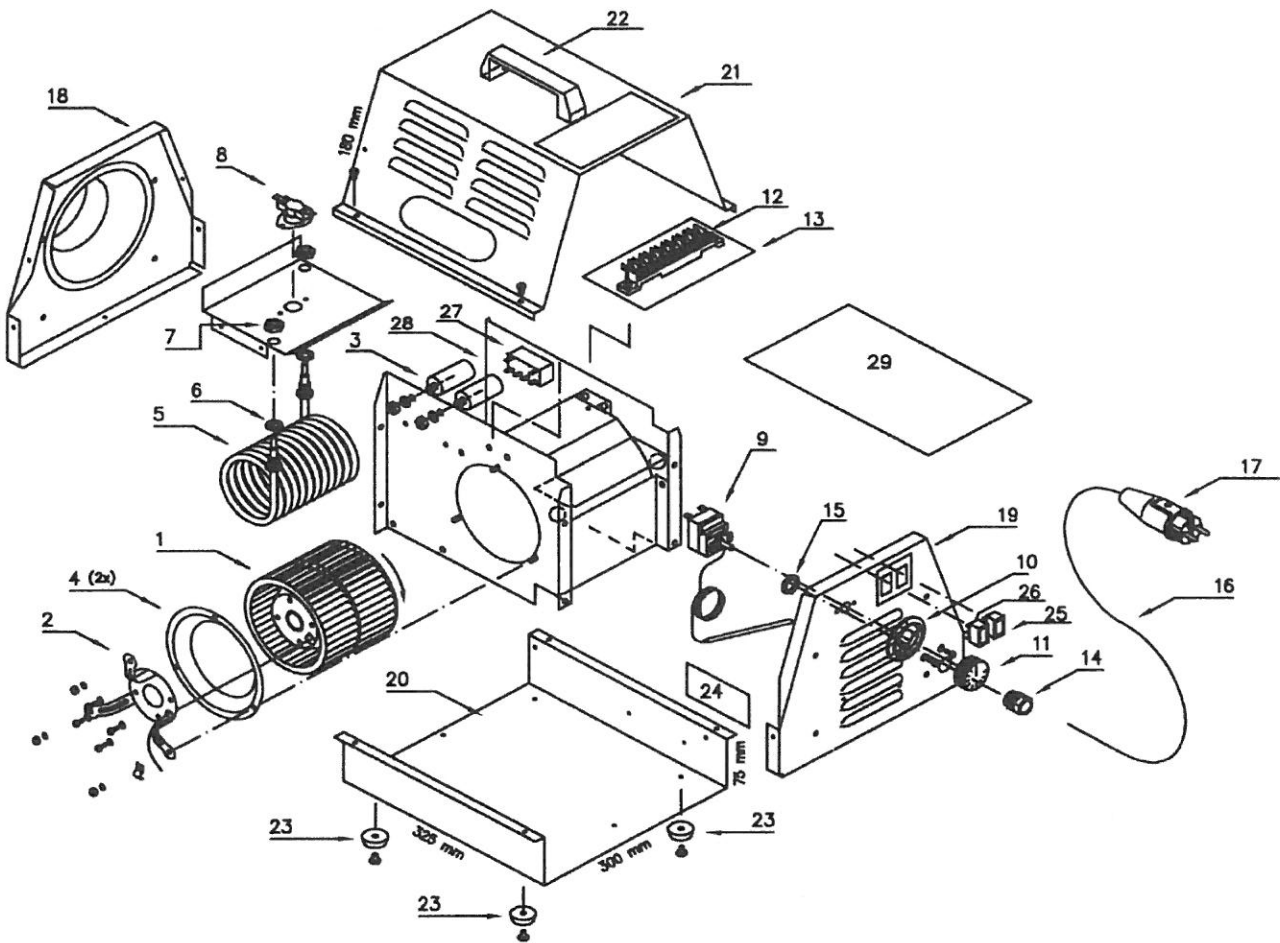


Spare Parts List EL 3

from machine No. 4301

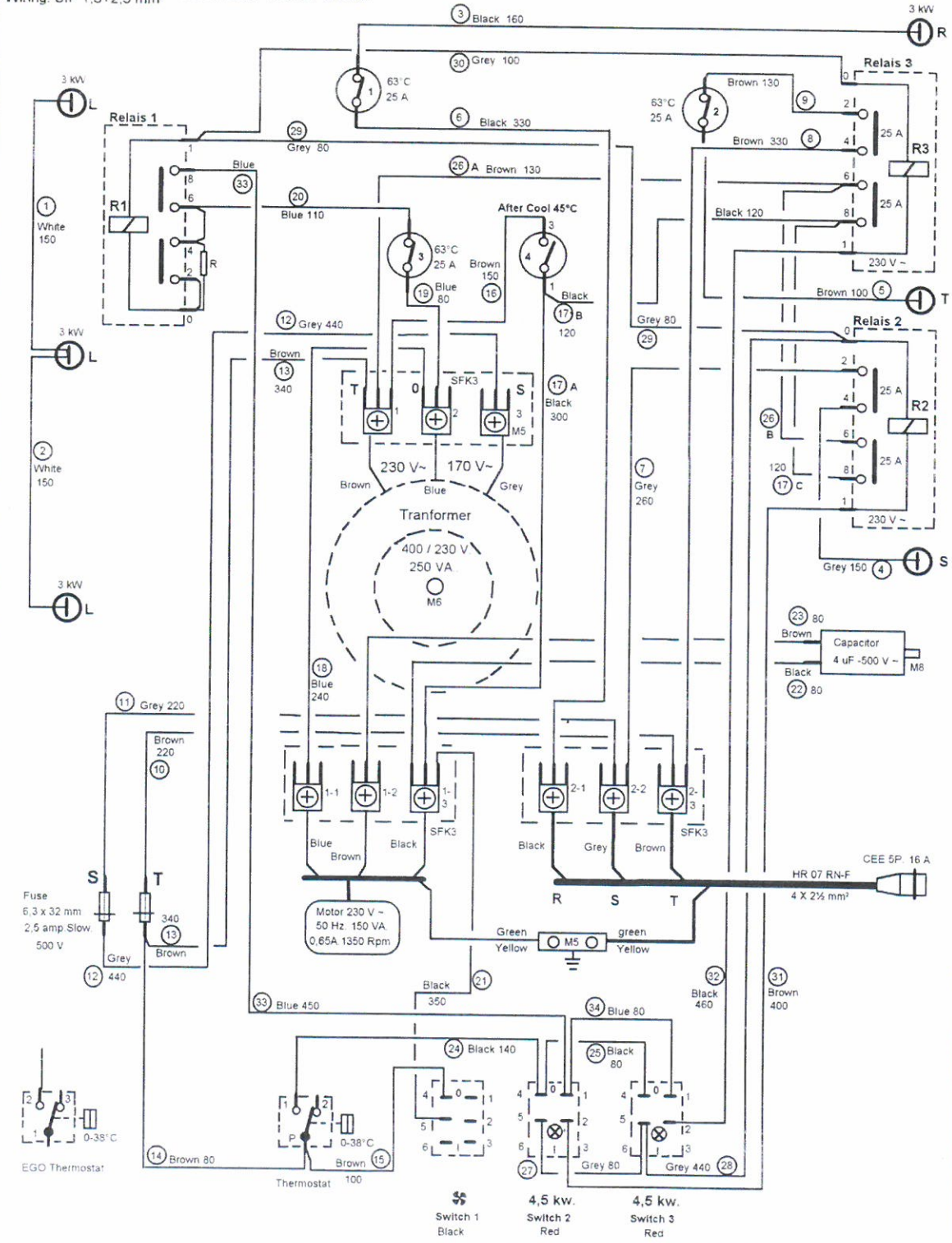
<u>Pos.</u>	<u>Part-No.</u>	<u>Description</u>	<u>Qty.</u>
01	6163100	Motor W 50 with radial fan	1
02	6163101	Motor holder	1
03	6163102	Motor capacitor	1
04	6163103	Air ring	2
05	6163104	Heating Element 3 kW	1
06	6163105	Washer	2
07	6163106	Nut	2
08	6163107	Clixon 82 °C, 25 Amp.	1
09	6163108	Room thermostat	1
10	6163109	Thermostat ring	1
11	6163110	Thermostat knob	1
12	6163175	Terminal block	2
13	6163130	Isolation plate	1
14	6163122	Strain relief bushing PG 16	1
15	6163123	Brass nut PG 16	1
16	6163113	Power cord 2,5 m	1
17	1131018	Schuko plug	1
18	6163114	End cover air outlet	1
19	6163131	End cover air intake	1
20	6163116	Bottom	1
21	6163117	Top cover	1
22	6163132	Grip black	1
23	6163119	Rubber foot	4
24	6163120	Serial plate EL 3	1
25	6163126	Main switch with red control light	1
26	6163127	Selector switch (black), 2-poles	1
27	6163199	Relais	1
28	6163125	Capacitor 1.5 NF	1
29	6163112	Cover	1

Exploded View EL 3



EL 9 Wiring Diagram Drawing EL 9-02 - 08 June.2017

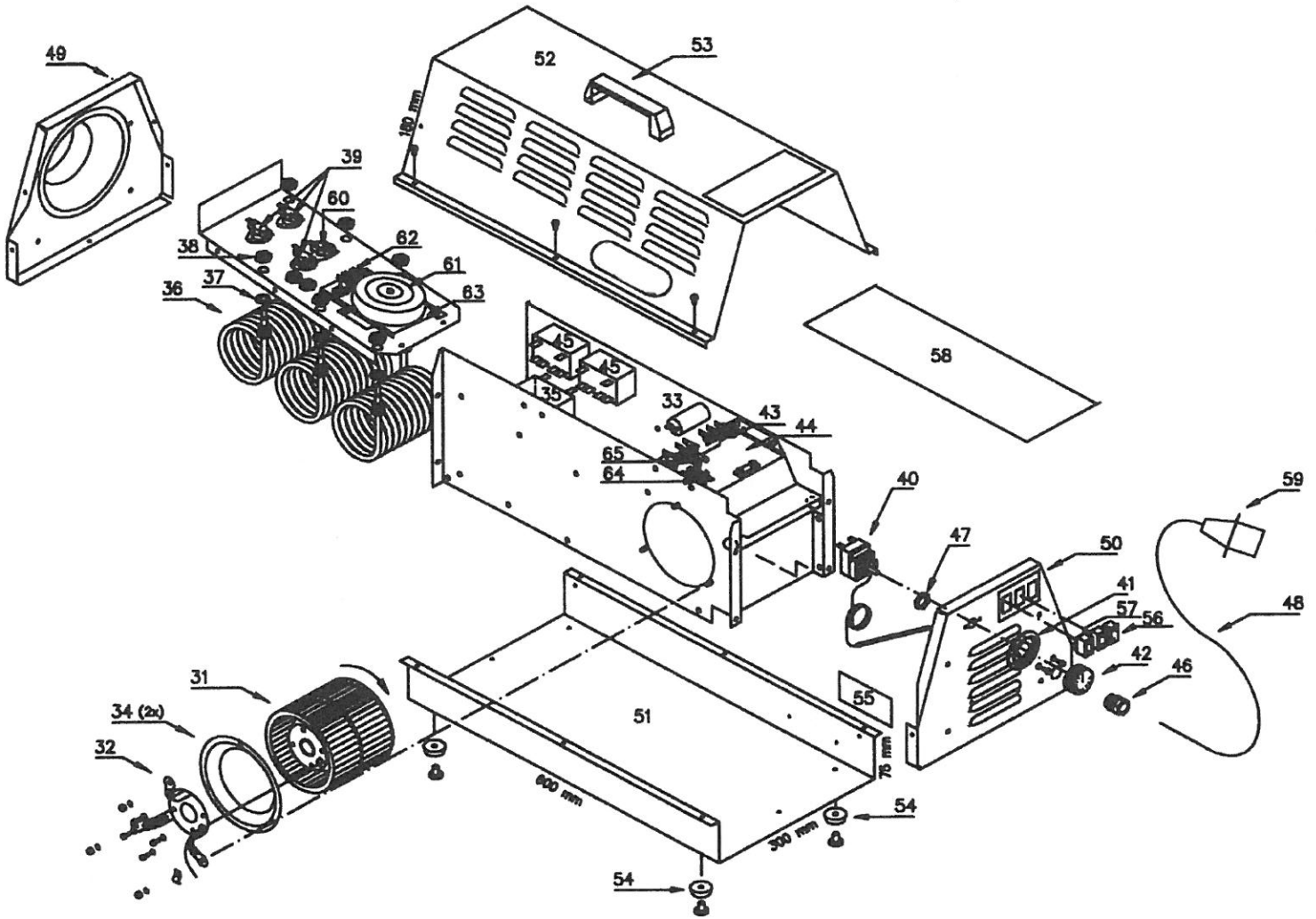
400 V 3 ~ 50 Hz Principal Drawing EL 9-01-08 mai 2006
4,5 + 4,5 kW, 13 A Exploded View EL 9-03-06
480 m³/h 12 m/s Spare Parts List EL 9-04-08
Wiring: SIF 1,5+2,5 mm² Start with Serial Nr 19 024 okt. 2006



Spare Parts List EL 9
from machine No. 19024

Pos.	Part-No.	Description	Qty.
31	6163150	Motor W 150 with radial fan	1
32	6163101	Motor holder	1
33	6163151	Motor capacitor	1
34	6163103	Air ring	2
35	6163172	Relais with resistor	1
36	6163104	Heating Element 3 kW	3
37	6163105	Washer	6
38	6163106	Nut	6
39	6163152	Clixon 63°C, 25 Amp.	3
40	6163108	Room thermostat	1
41	6163109	Thermostat ring	1
42	6163110	Thermostat knob	1
43	6163175	Terminal block	2
44	6163166	Isolation plate	1
45	6163199	Relais	2
46	6163122	Strain relief bushing PG 16	1
47	6163123	Brass nut PG 16	1
48	6163154	Power cord 4 x 2,5 mm ² L 2,5 m	1
49	6163155	End cover outlet	1
50	6163171	End cover intake	1
51	6163156	Bottom	1
52	6163157	Top cover	1
53	6163132	Grip black	1
54	6163119	Rubber foot	4
55	6163158	Serial plate EL 9	1
56	6163126	Main switch with red control light	2
57	6163169	Selector switch (black) 2-poles	1
58	6163170	Cover	1
59	6555005	CEE plug 16 A	1
60	6163185	Clixon cooling	1
61	6163174	Transformer	1
62	6163175	Strain relief bushing	1
63	6163176	Fixing plate for transformer	1
64	6163178	Holder	2
65	6163179	Fuse 2 A	2

Exploded View EL 9

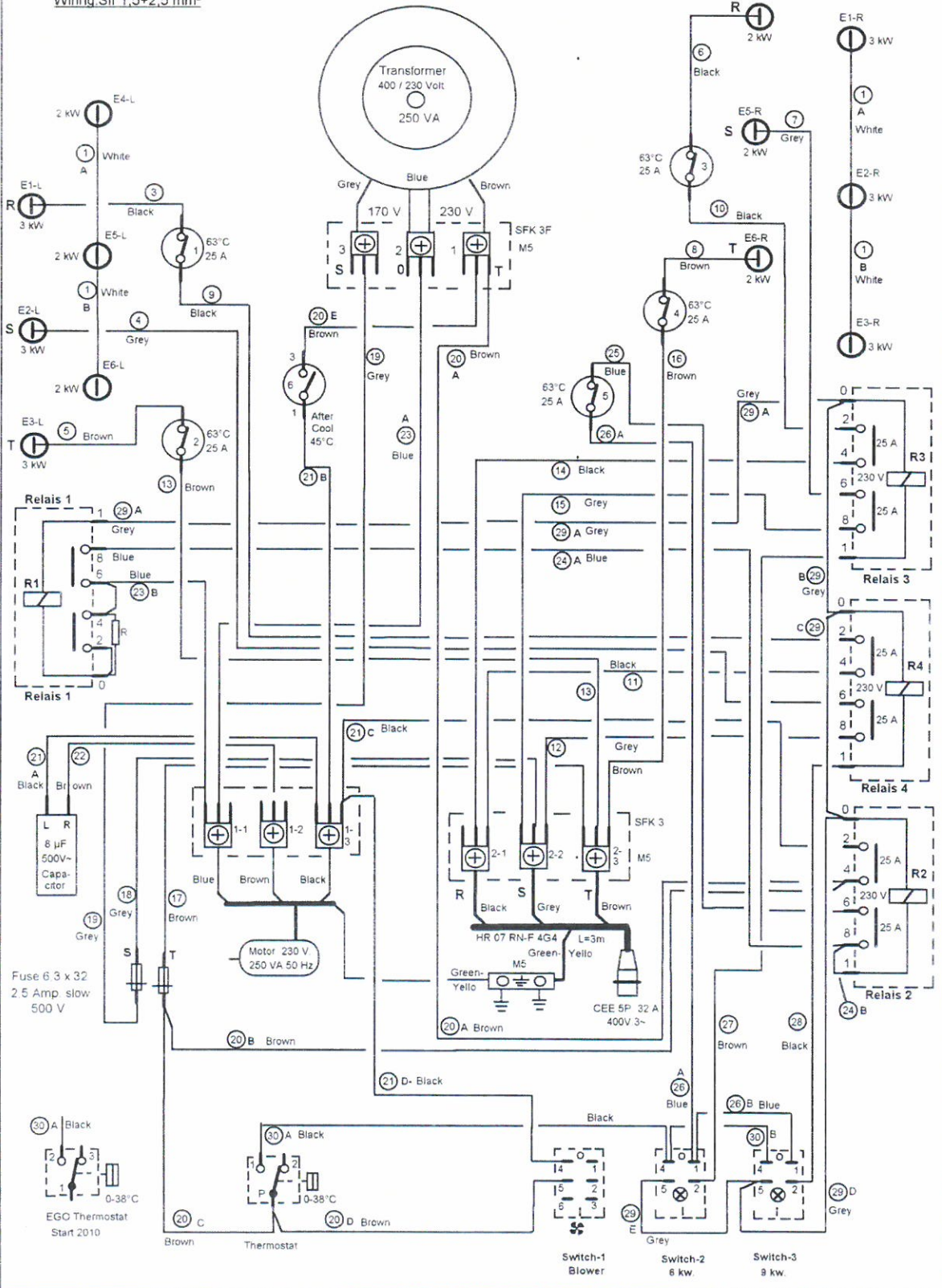


EL 15 Wiring Diagram

Drawing EL 15-02-08

June.2017

Wiring.Sif 1,5+2,5 mm²

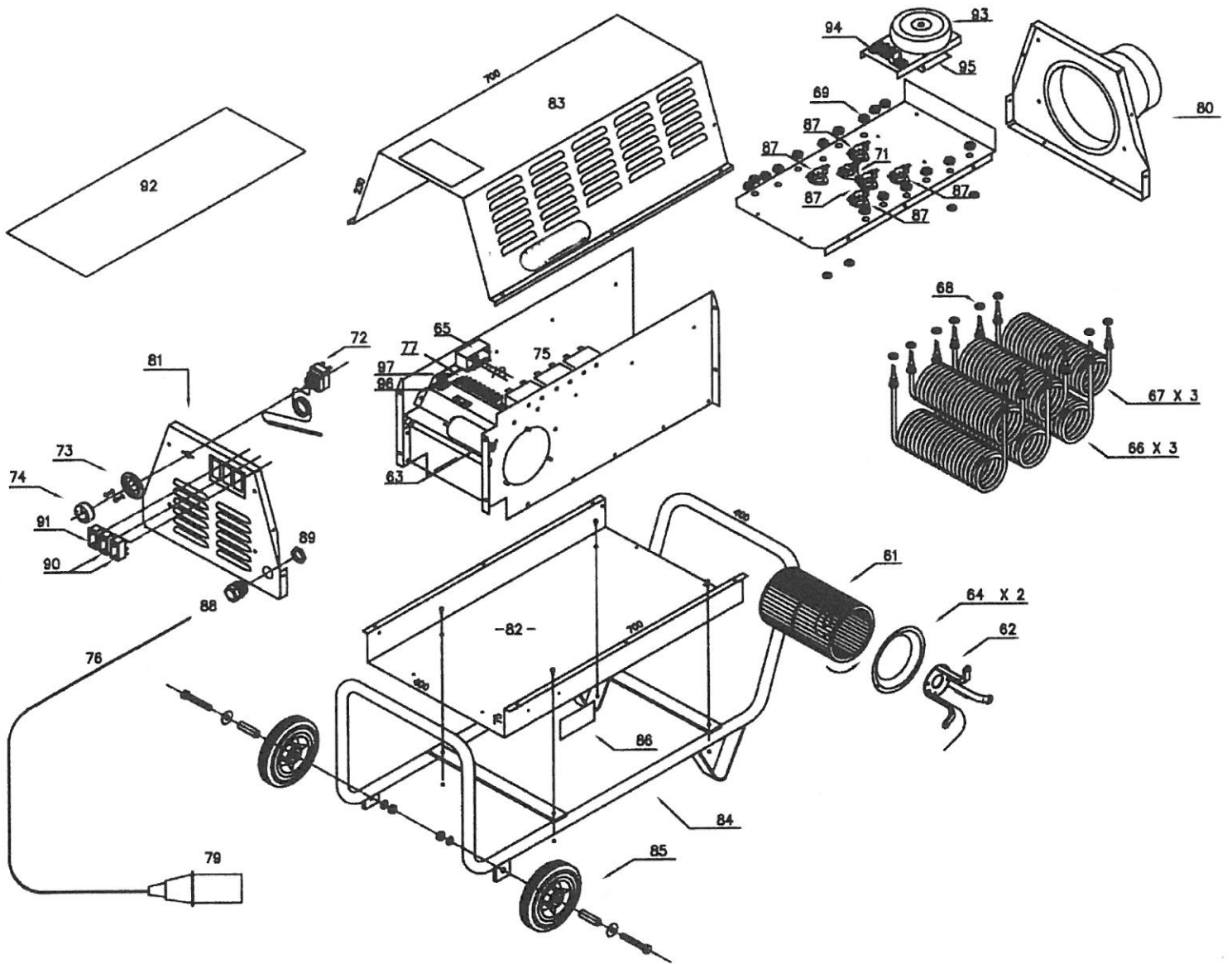


Spare Parts List EL 15

from machine No. 19144

Pos.	Part-No.	Description	Qty.
61	6163180	Motor W 250 with radial fan	1
62	6163181	Motor holder	1
63	6163197	Motor capacitor	1
64	6163103	Air ring	2
65	6163172	Relais with resistor	1
66	6163205	Heating Element 3 kW	3
67	6163183	Heating Element 2 kW	6
68	6163105	Washer	12
69	6163106	Nut	12
71	6163185	Clixon 63°C, 25 Amp.	1
72	6163108	Room thermostat	1
73	6163109	Thermostat ring	1
74	6163110	Thermostat knob	1
75	6163199	Relais 230 V 2-poles, 25 Amp.	3
76	6163200	Power cord 4 x 4 mm ² L 2,5 m	1
77	6163175	Terminal block	2
78	6163207	Isolation plate	1
79	6163202	CEE-plug 32 Amp. 5-poles	1
80	6163190	End cover air outlet	1
81	6163208	End cover air intake	1
82	6163192	Bottom	1
83	6163193	Top cover	1
84	6163194	Chassis	1
85	6163195	Wheel	2
86	6163196	Serial plate EL 15	1
87	6163152	Clixon 63C 25 Amp.	5
88	6163216	Strain relief bushing PG 21	1
89	6163217	Counter nut PG 21	1
90	6163126	Main switch with red contral light	1
91	6163169	Selector switch (black) 2-poles	1
92	6163209	Cover	1
93	6163174	Transformer	1
94	6163175	Terminal block	1
95	6163176	Fixing plate for transformer	1
96	6163178	Fuse holder	2
97	6163179	Fuse 2 Amp. 6.3 x 32 – 500 V	2

Exploded View EL 15



Mounting drawing chassis EL 15

