

INSTRUCTIONS FOR ADJUSTING A TWO TIER 7 AND 3 PANS

Two Tier 7 pans.

- Remove the electric panels.
- Remove all blowers in order to place the suction funnels on the blowers. (The electric panels have to be mounted on the backside of the cover plate).
- Attach the suction funnel on the blower with pop rivets. So you need a pop rivet pliers. An alternative can be to use self fastening screws which are included. For this you need to tap thread M5 in the holes of the cover plate and blower.
- Replace the existing sensor on the 4 pans version and place an extra sensor with holder temperature sensor on the new suction funnel on the 3 pans version (right hand side version).
- Slide in the air blocker profile on the front of the blower.
- Place the modified blowers on their place.
- You have to replace both electric panels and replace them by new panels. Therefore you have to remove the rail from the old panel and place that on the new mounting plate electra.
- For the 7 pans version you have to remove the Danfoss EKC thermostat and replace this by a ERC version. Also on the right hand version (3 pans) you have to place an extra ERC thermostat, so that both units function independent. The thermostats are programmed already. The parameter list and the instructions are included , just in case.
- Replace the dirt shield fan above the blower.
- In the old version all the ceramic elements switch on and off with the heating elements. In the new version only the ceramic elements in the top switch on and off with the heating elements. The ceramic elements in the bottom side stay in all the time.

Change all wiring now:

Starting with the 7 pans version.

Two tier right hand side (3 pans). Diagram 9260875 and 9260875 rev.A:

- Remove wire 130 from the contactor and connect this on the connecting block left bottom side.
- Move wire 131 one place to the left on the connection block.
- Remove wire 64 and 65 from the contactor. Remove these wires also from the connector in the left side unit (the 4 pans). Throw these wires away.
- Connect the new wires 119-120-121-122 on the Danfoss ERC 211 thermostat. Connect the other end of the wires 119-120-121 on the connection block. Connect the other end of the wires 122 on the contactor.
- Connect wire 123 on the connection block. Connect the other end of wire 123 on the contactor.
- Note: the wires 110 and 125 don't need to be replaced. On the new drawing they have another place, but they stay on the same block.
- Connect the sensor wires BN and BU (brown and blue) on the Danfoss ERC thermostat.

Two tier left hand side (4 pans). Diagram 9260878 and 9260878 rev.A:

- Remove wire 64 and 65 from the contactor. Remove these wires also from the connector in the right side unit (the 3 pans). Throw these wires away.
- Remove wire 30 from the contactor and replace it on the connection block.
- Remove wire 31 from the connection block on the bottom side and connect this on the top side.
- Remove the wires 19-20-21-22 and BN and BU (brown and blue) from the old Danfoss EKC and replace them on the ERC211 thermostat.

Note: The wires 19-20-21-23- 36-37-38-39-40-41-42-43-112 don't need to be replaced. On the new drawing they have another place, but they stay on the same block.

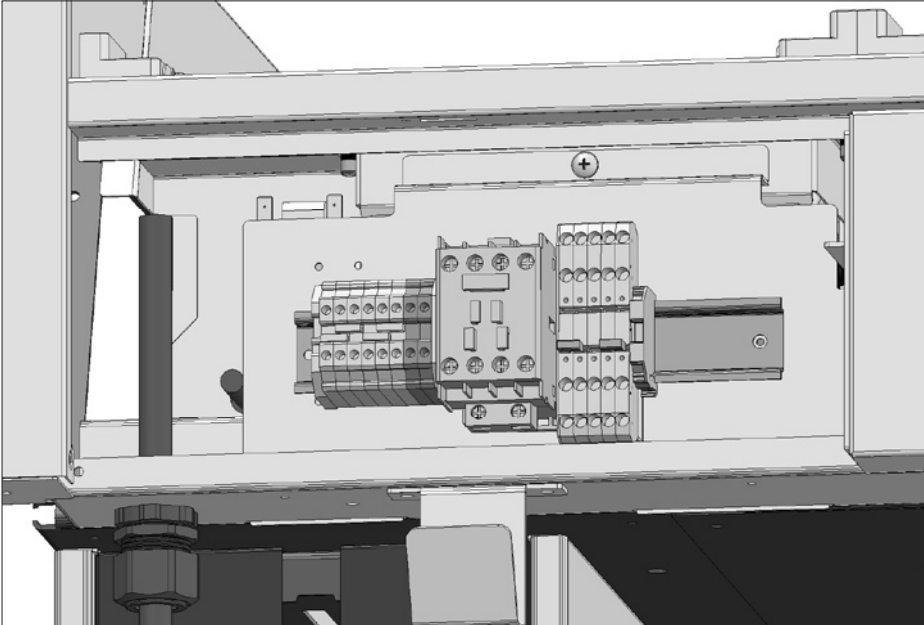
The next modifications are for the 3 pans version.

- Remove the electric panel.
- Remove all blowers in order to place the new cover plates on the blowers. (The electric panels have to be mounted on the backside of the cover plate).
- Attach the suction funnel on the blower with pop rivets. So you need a pop rivet pliers. An alternative can be to use self fastening screws which are included. For this you need to tap thread M5 in the holes of the cover plate and blower.
- Replace the existing sensor on the new suction funnel .
- Slide in the air blocker profile on the front of the blower.
- Place the modified blowers on their place.
- You have to replace the electric panel by a new panel. Therefore you have to remove the rail from the old panel and place that on the new mounting plate electra.
- Remove the Danfoss EKC thermostat and replace this by a ERC version. The thermostat is programmed already. The parameter list and the instructions are included , just in case.
- Replace the dirt shield fan above the blower.
- In the old version all the ceramic elements switch on and off with the heating elements. In the new version only the ceramic elements in the top switch on and off with the heating elements. The ceramic elements in the bottom side stay in all the time.

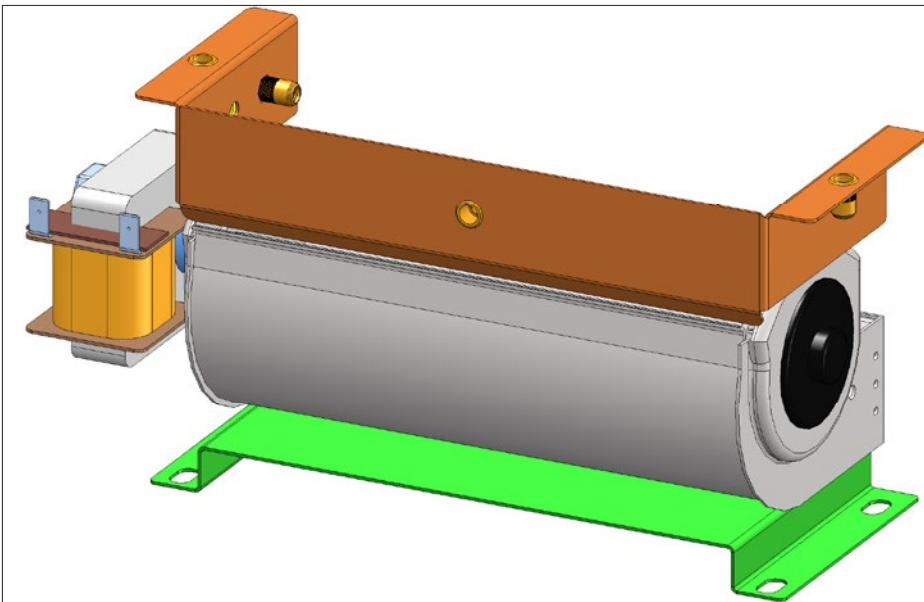
Change all wiring now:

- Two tier 3 pans. Diagram 9260874 and 9260874 rev.A:
- Remove wire 30 from the contactor and connect this on the connecting block left bottom side.
- Replace wire 31 from the bottom side on the connection block to the top side.
- Replace the wires 19-20-21-22 from the Danfos EKC to the new Danfoss ERC 211 thermostat.
- **Note:** the wires 110 and 125 don't need to be replaced. On the new drawing they have another place, but they stay on the same block.
- Connect the sensor wires BN and BU (brown and blue) from the Danfoss EKC to the new Danfoss ERC thermostat.

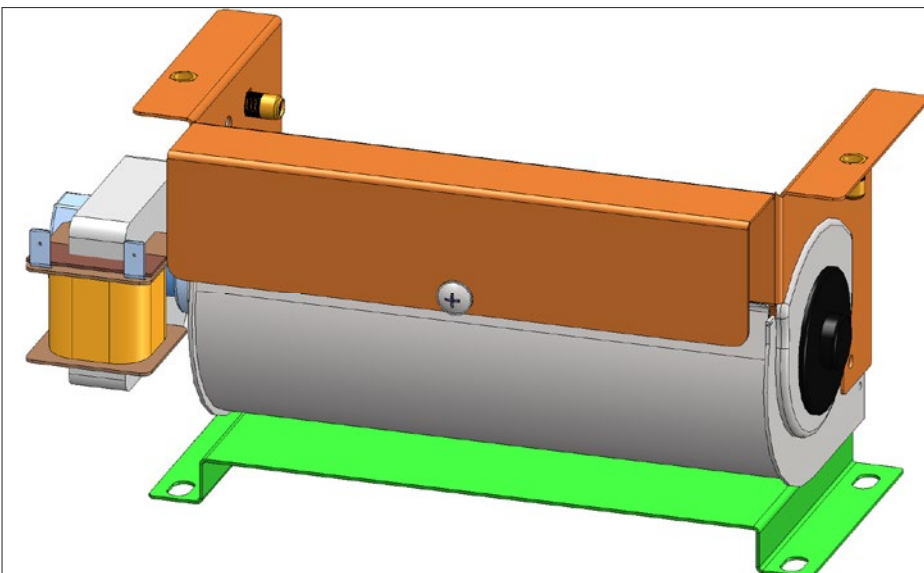
ADJUSTMENTS TWO TIER 7 PANS



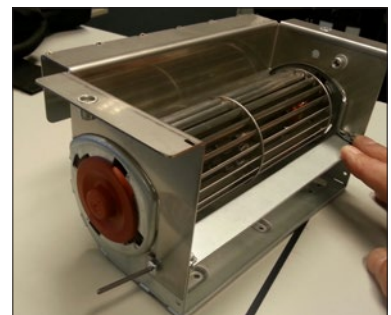
Remove electric panels

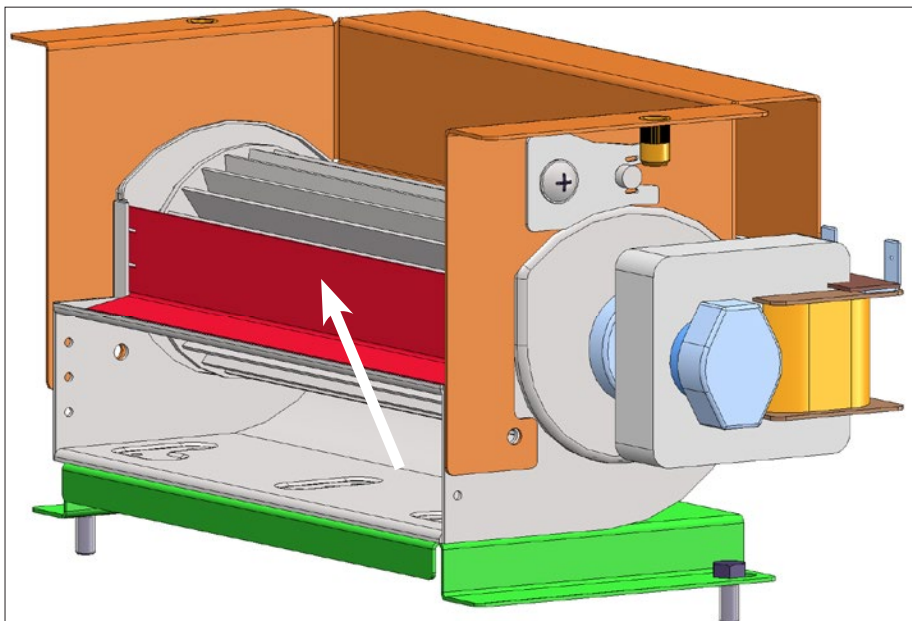


Remove blowers and
remove profile on top

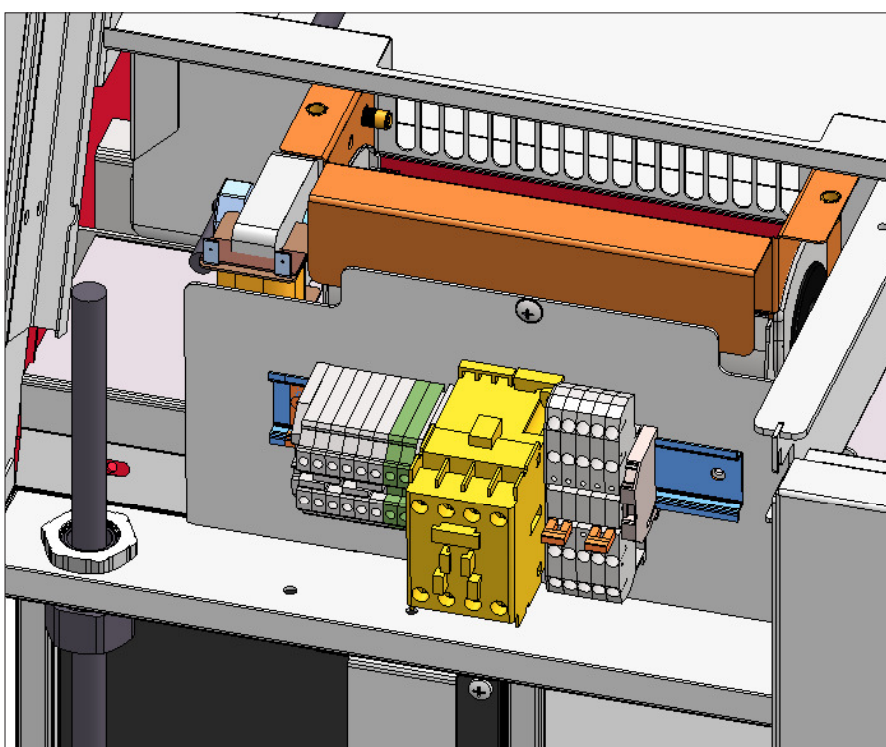
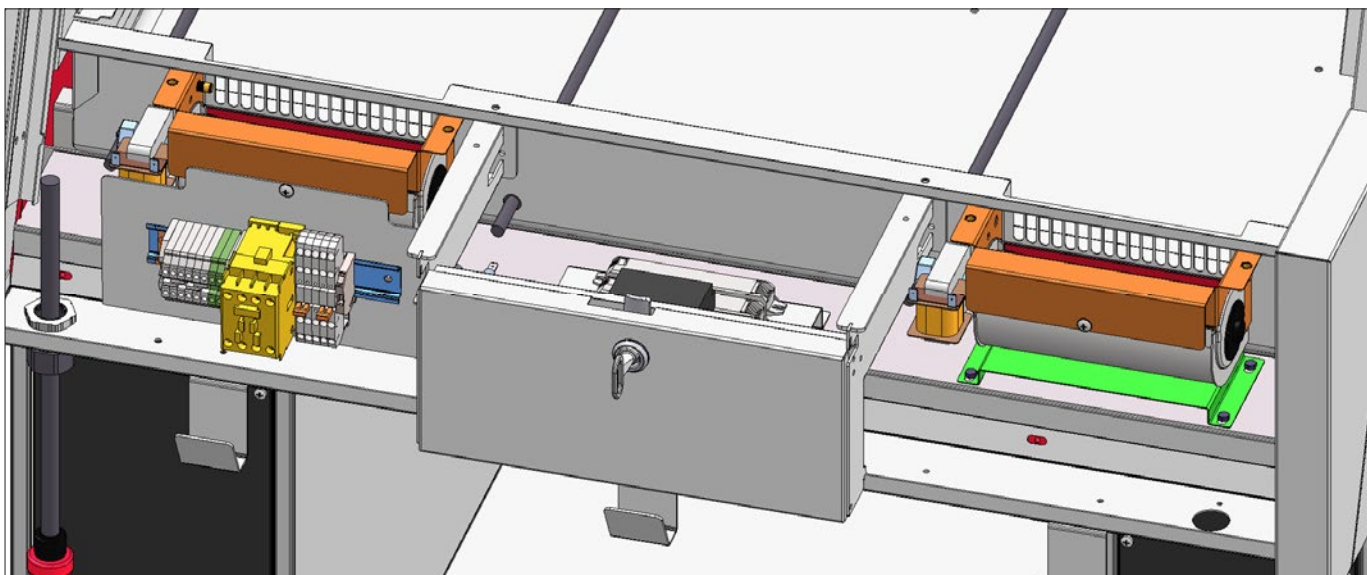


Place new suction fun-
nel on the blower. fixa-
tion with pop rivets.

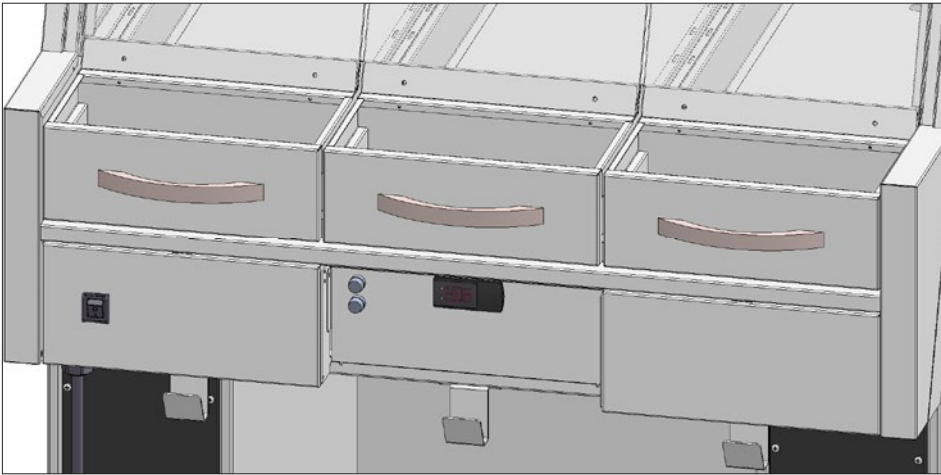




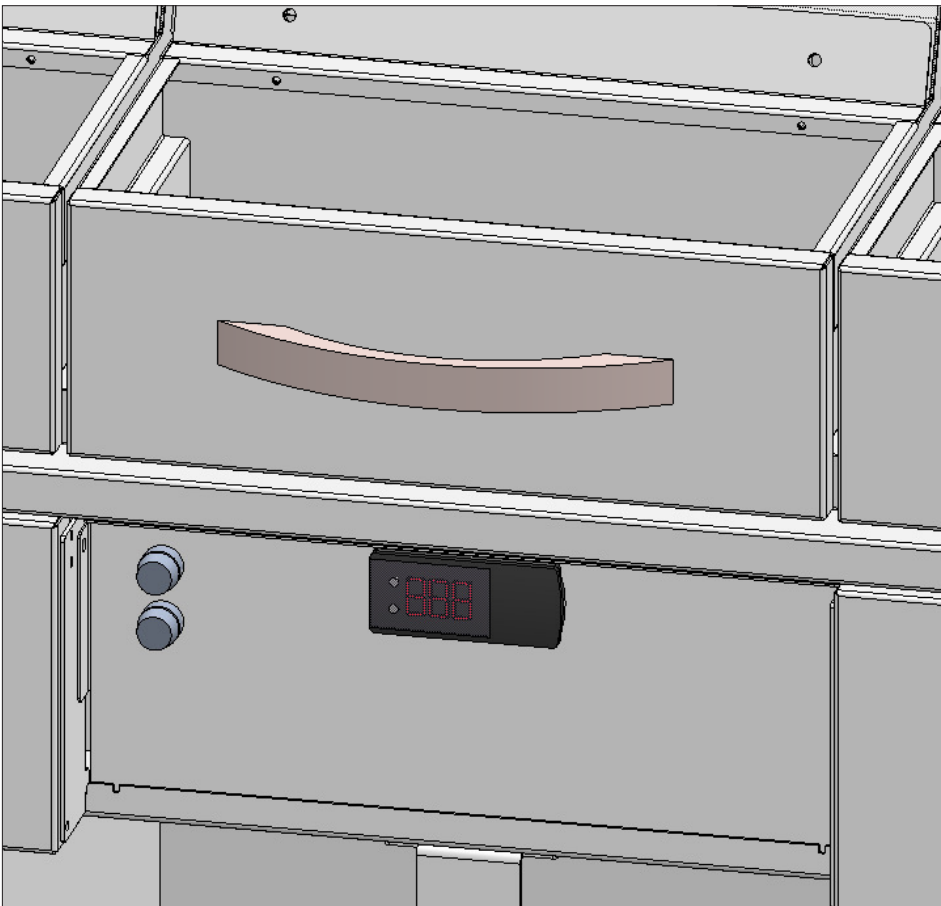
Place sensor and sensor holder.
Slide in air blocker profile (red). See arrow.



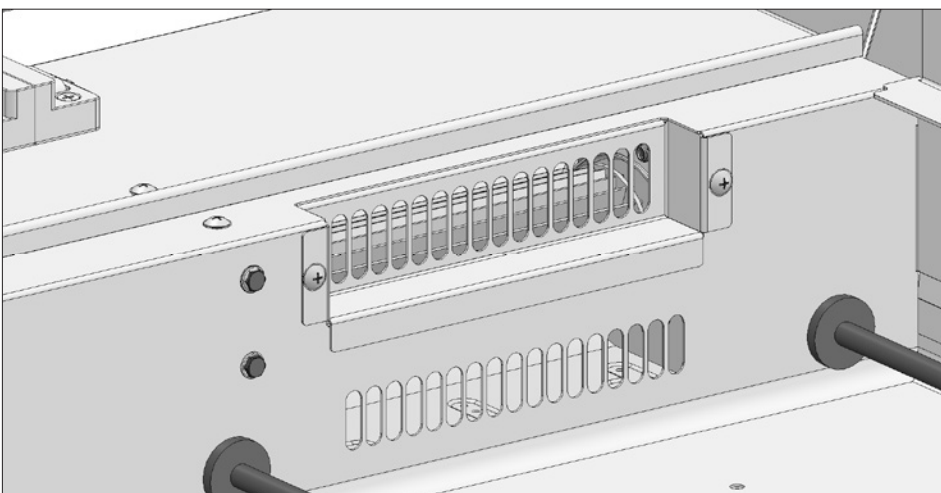
Place modified blowers
and new electric panel.



Replace Danfoss thermostat for ERC version.

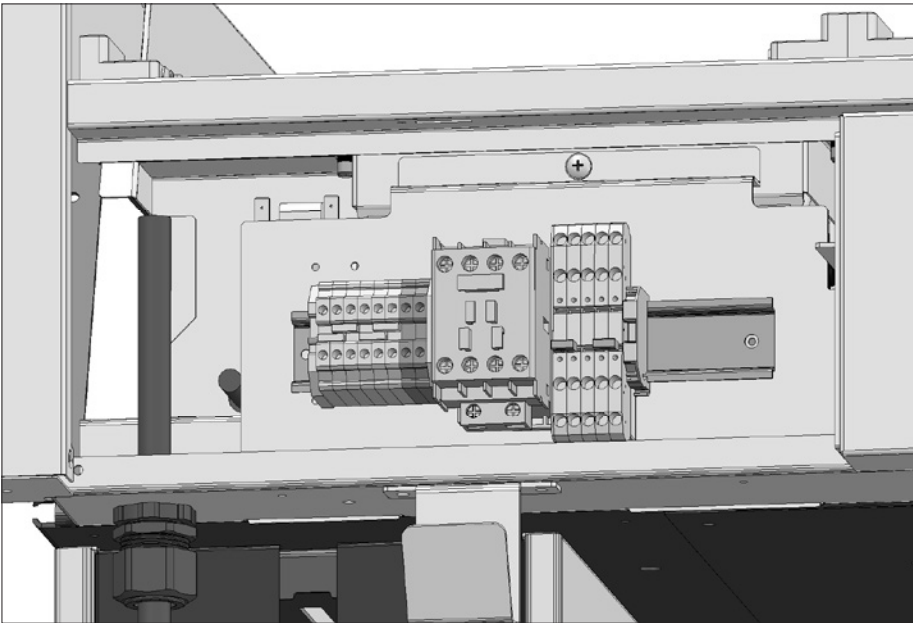


Replace dirt shield.

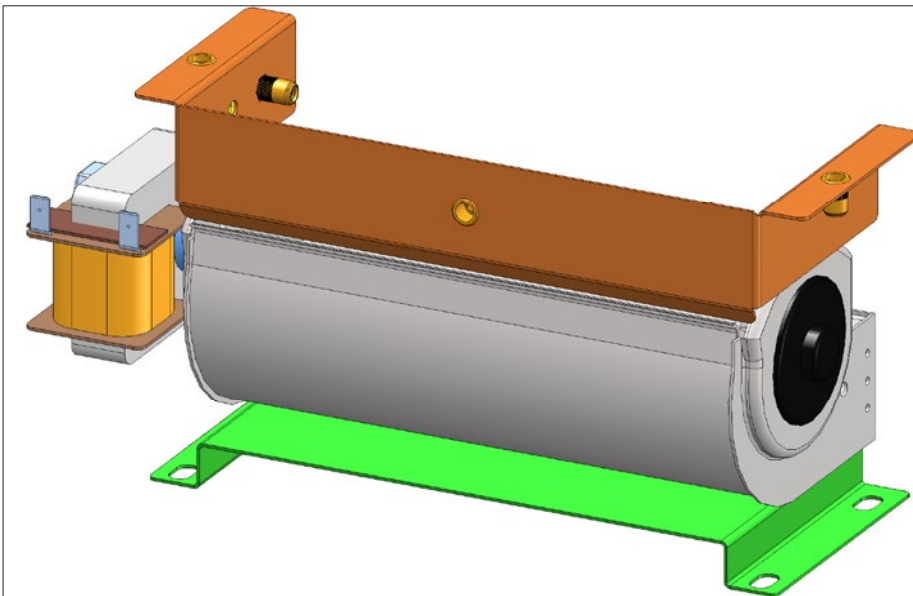


INSTRUCTIONS FOR ADJUSTING A TWO TIER 7 AND 3 PANS

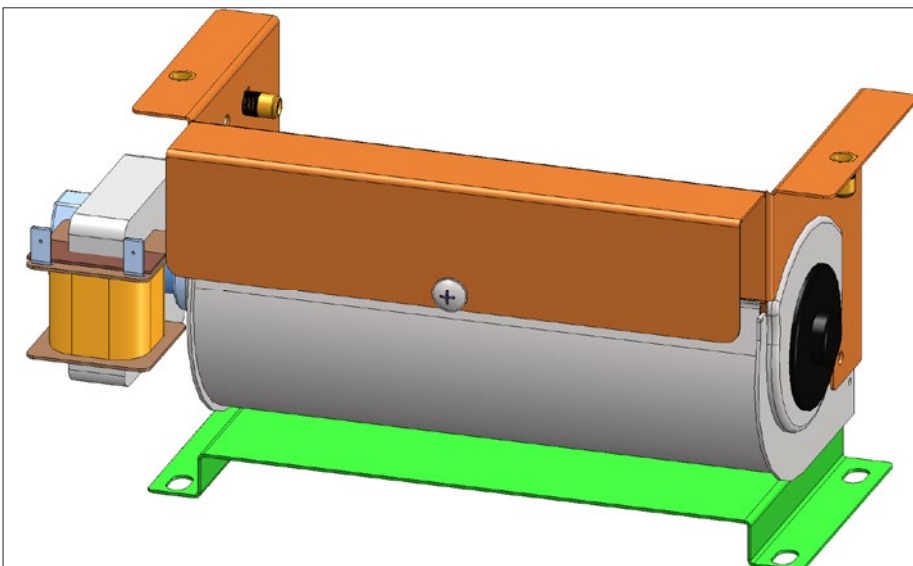
ADJUSTMENTS TWO TIER 3 PANS



Remove electric panels

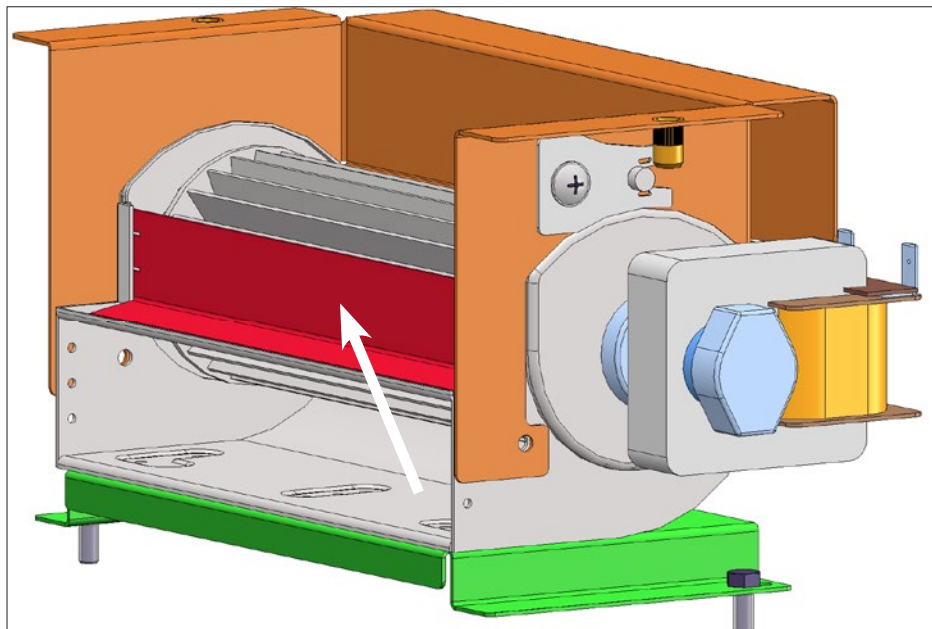


Remove blowers and
remove profile on top

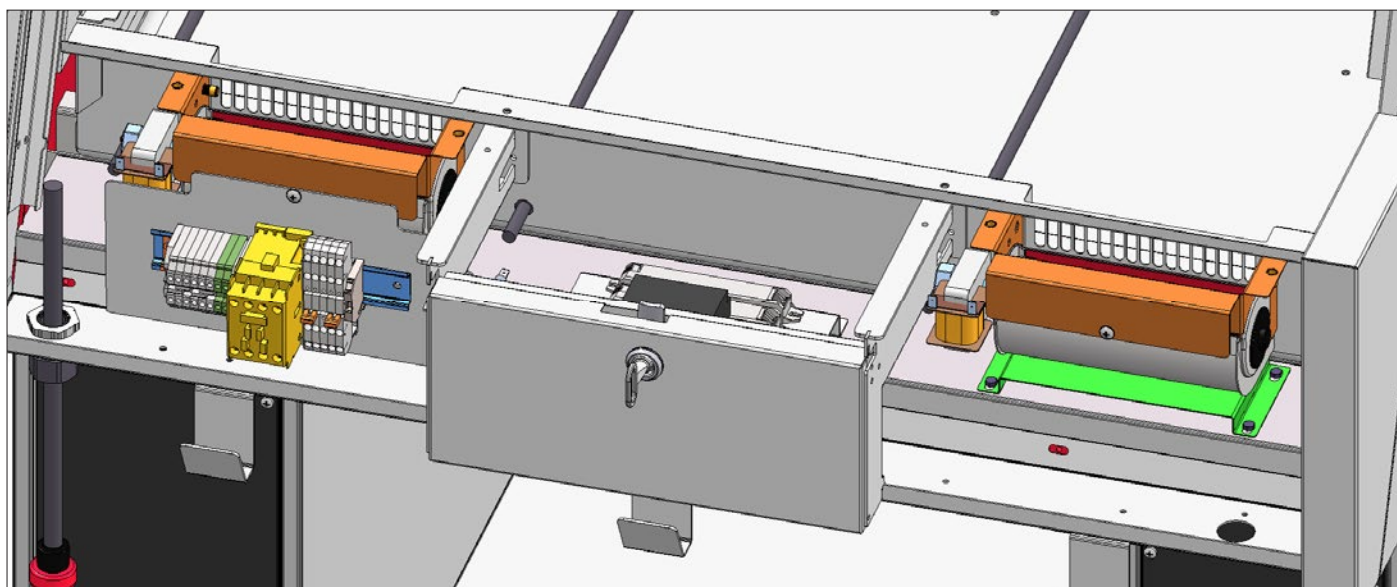


Place new suction fun-
nel on the blower. fixa-
tion with pop rivets.

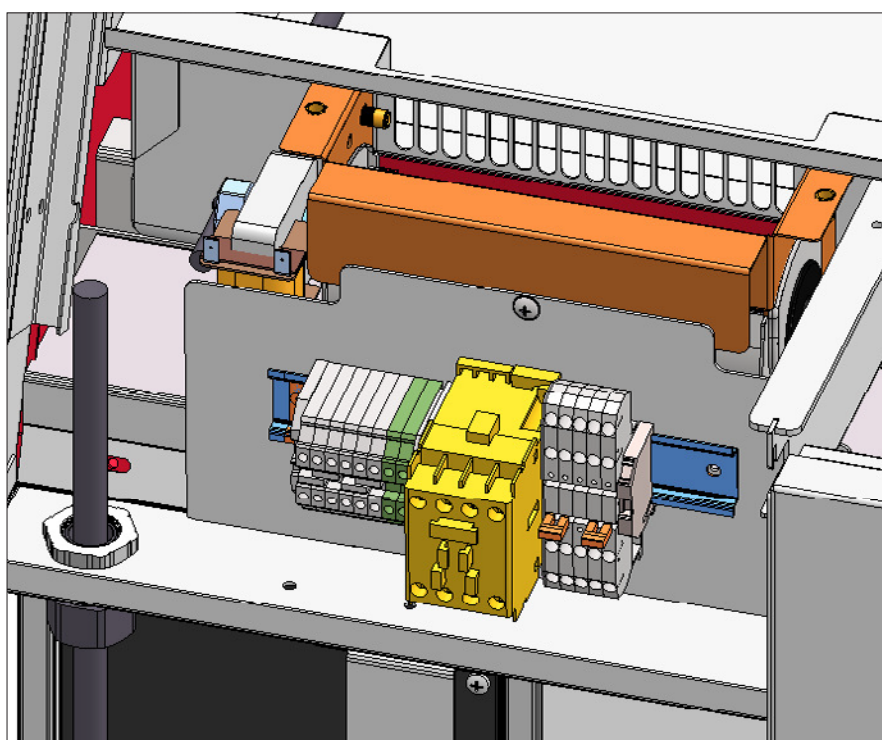


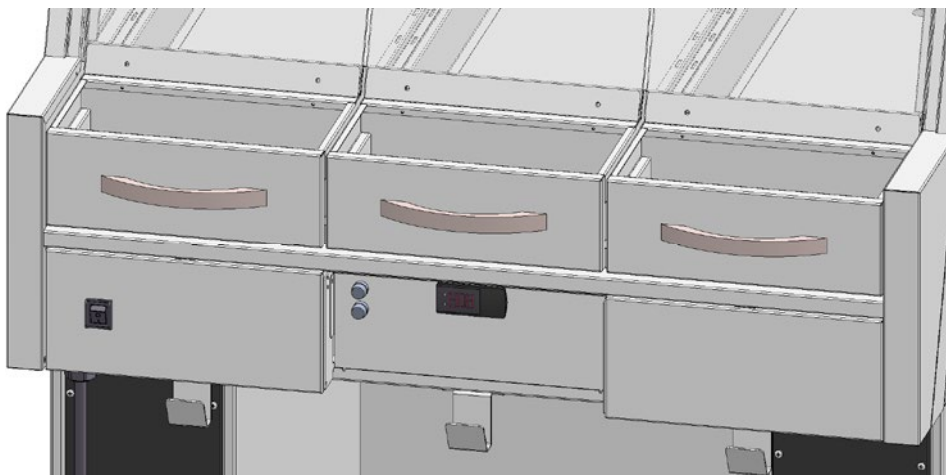


Place sensor and sensor holder. in same position as the existing sensor.
Slide in air blocker profile (red). See arrow.

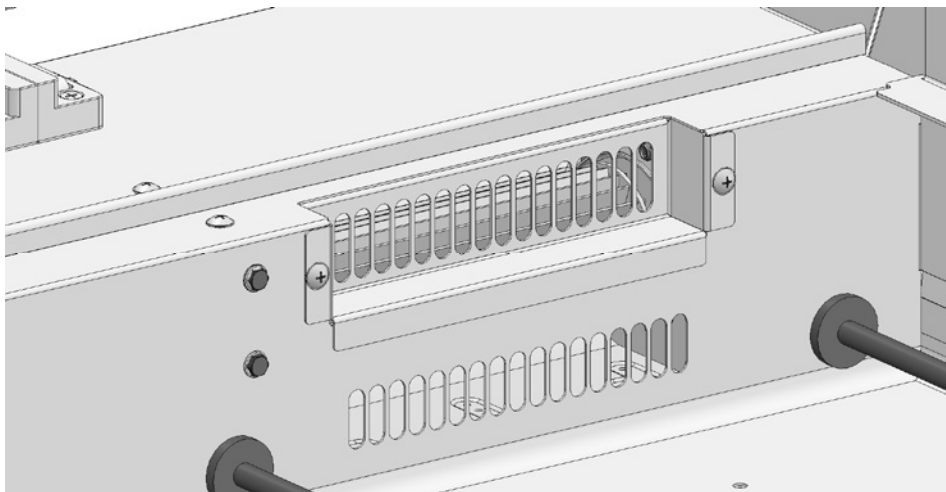
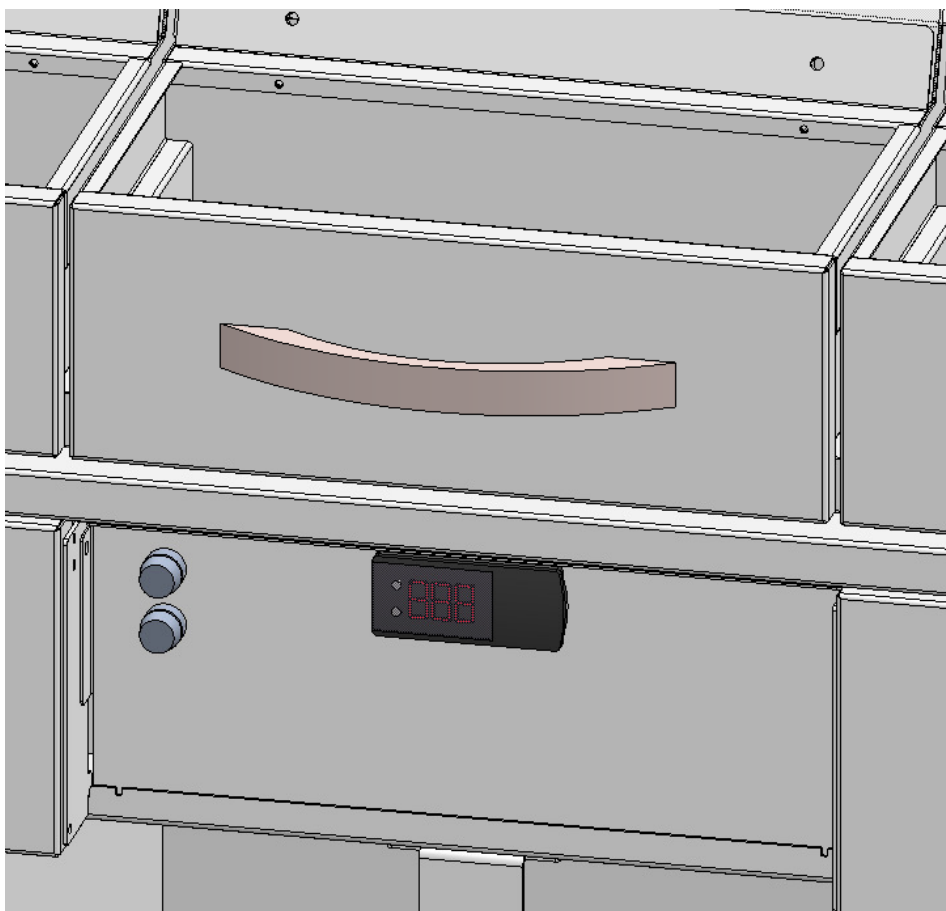


Place modified blowers and new electric panel.





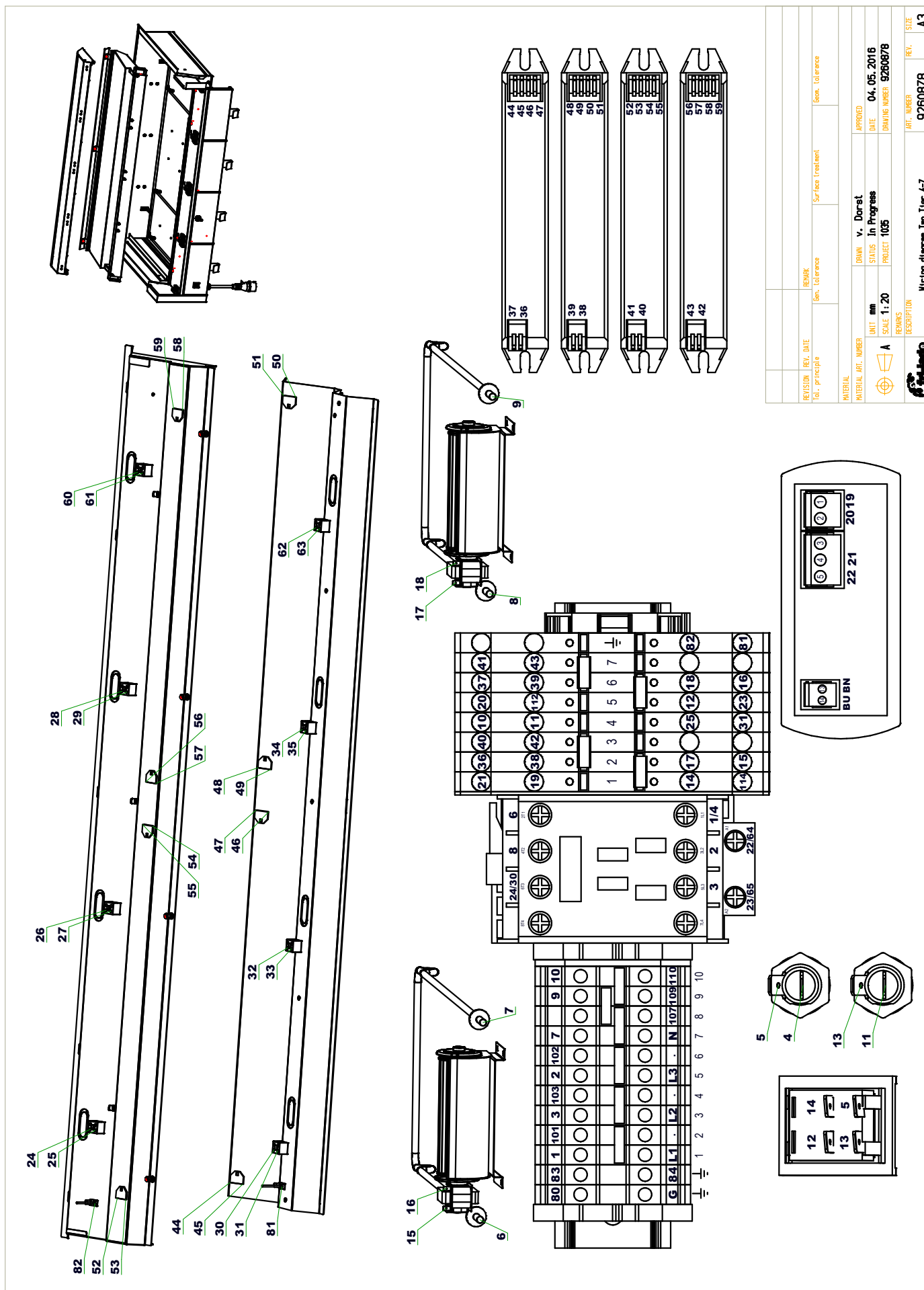
Replace Danfoss thermostat for ERC version.



Replace dirt shield.

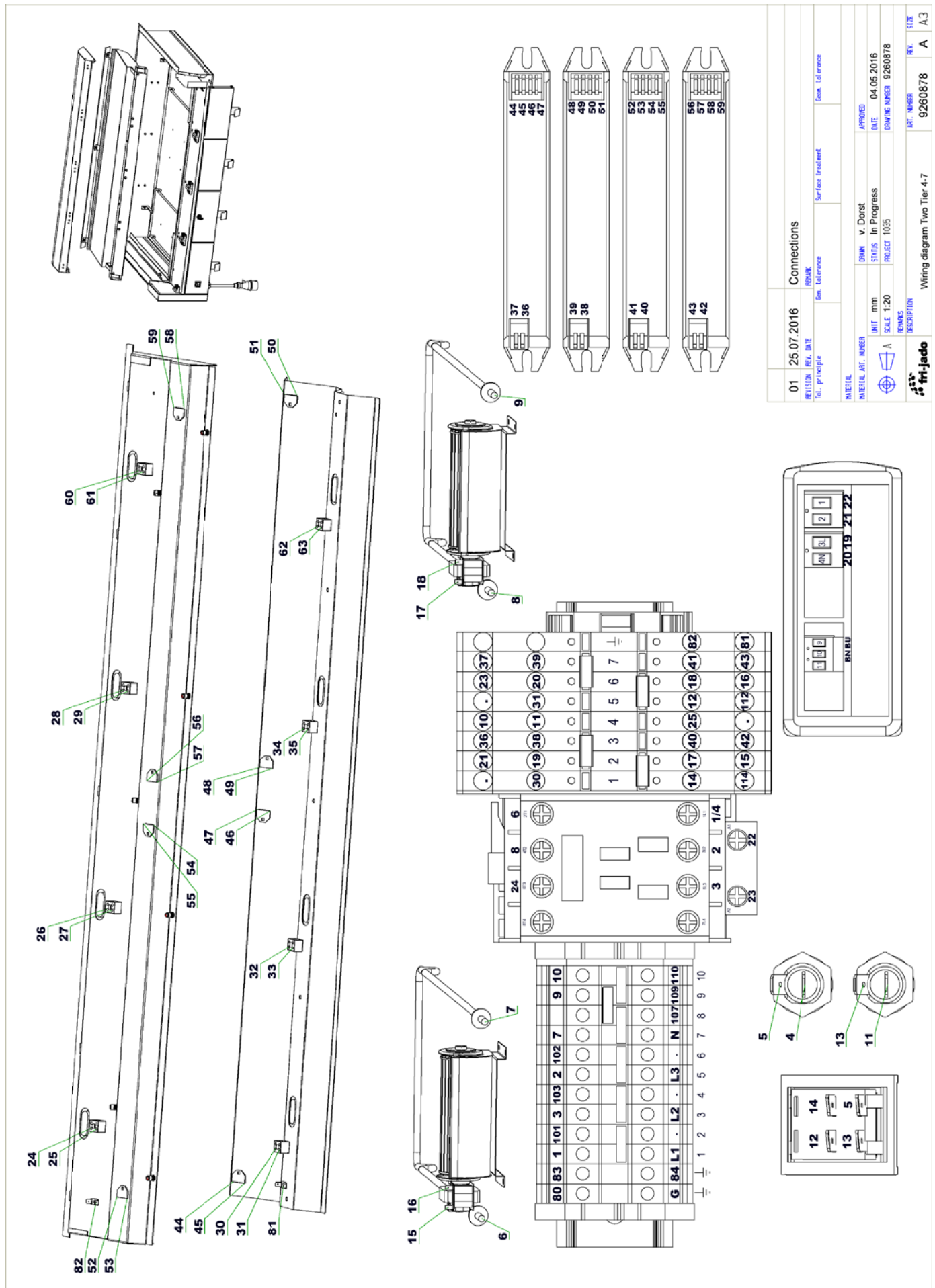
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WIRING DIAGRAM TWO TIER 4-7 OLD

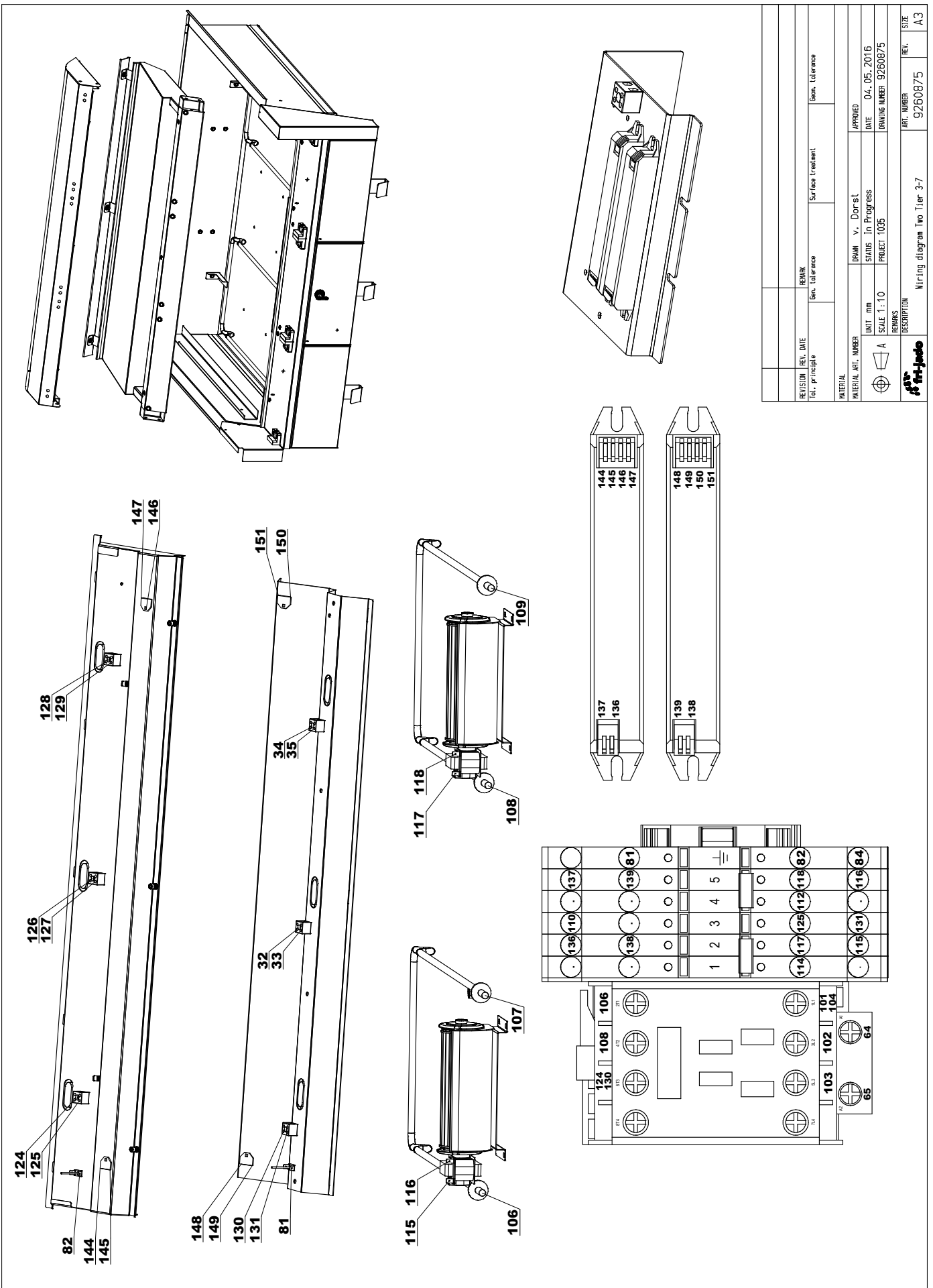


REVISION	REV. DATE	REMARK	Gen. tolerance	Surface treatment	Gen. tolerance
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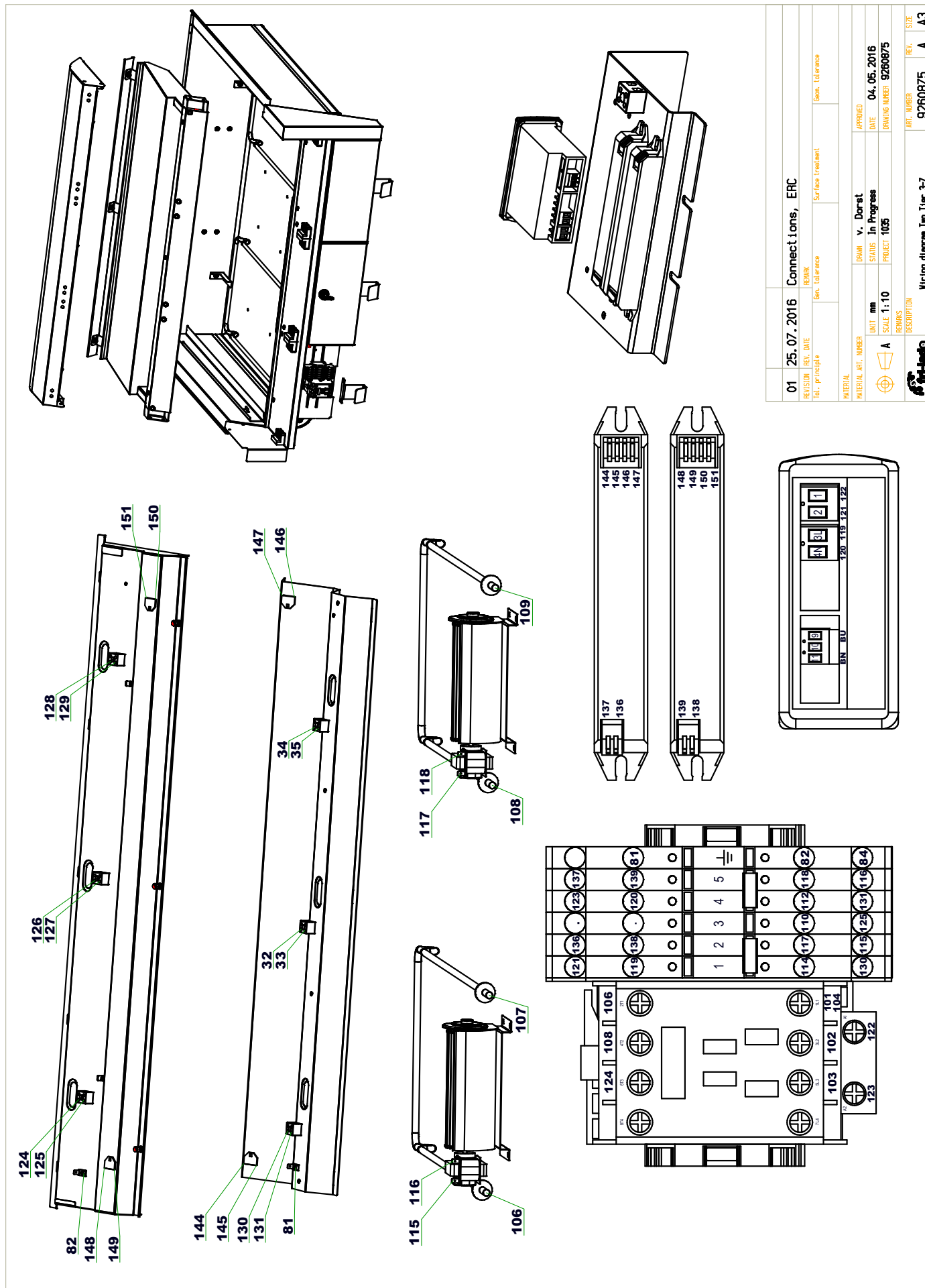
WIRING DIAGRAM TWO TIER 4-7 NEW



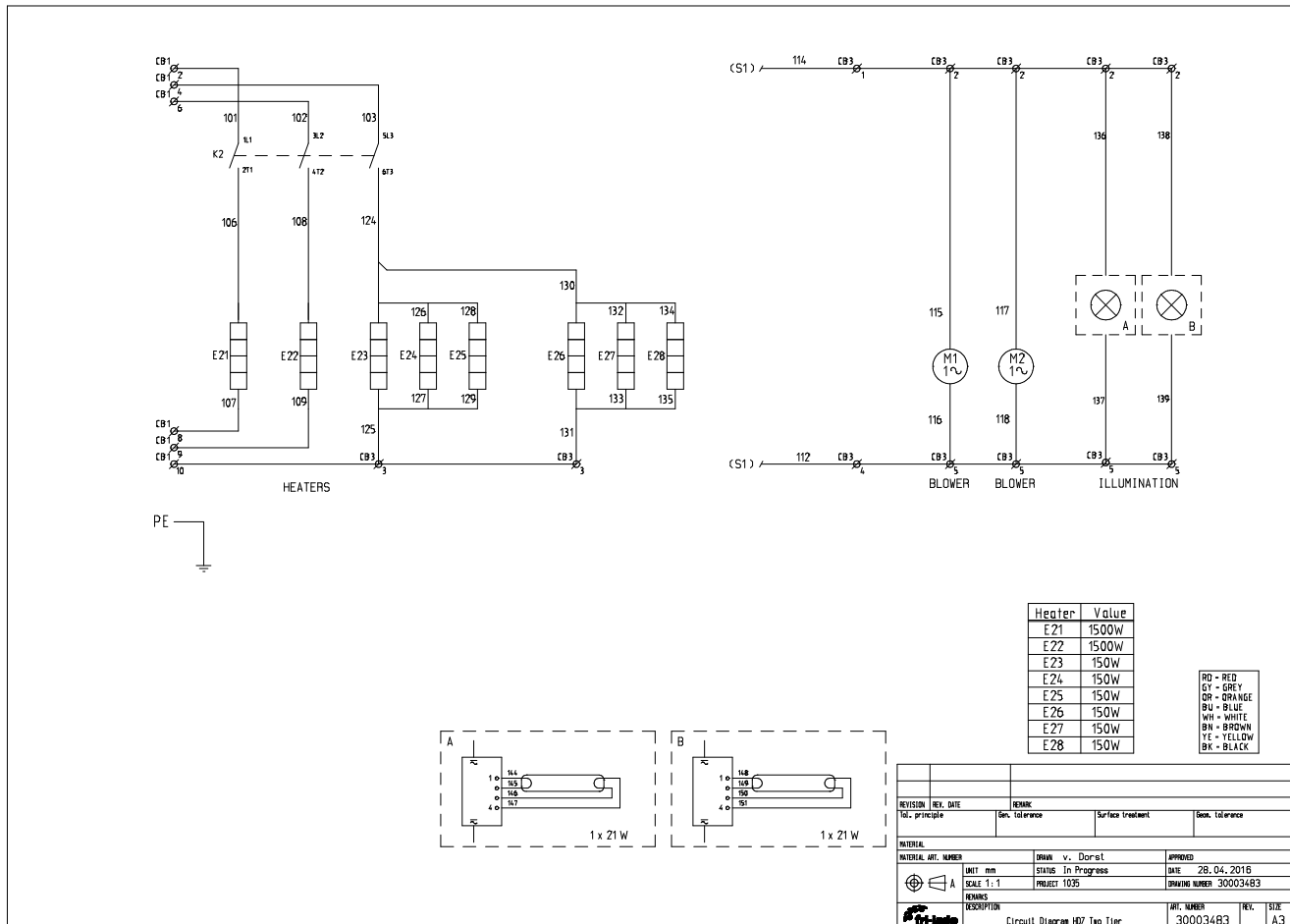
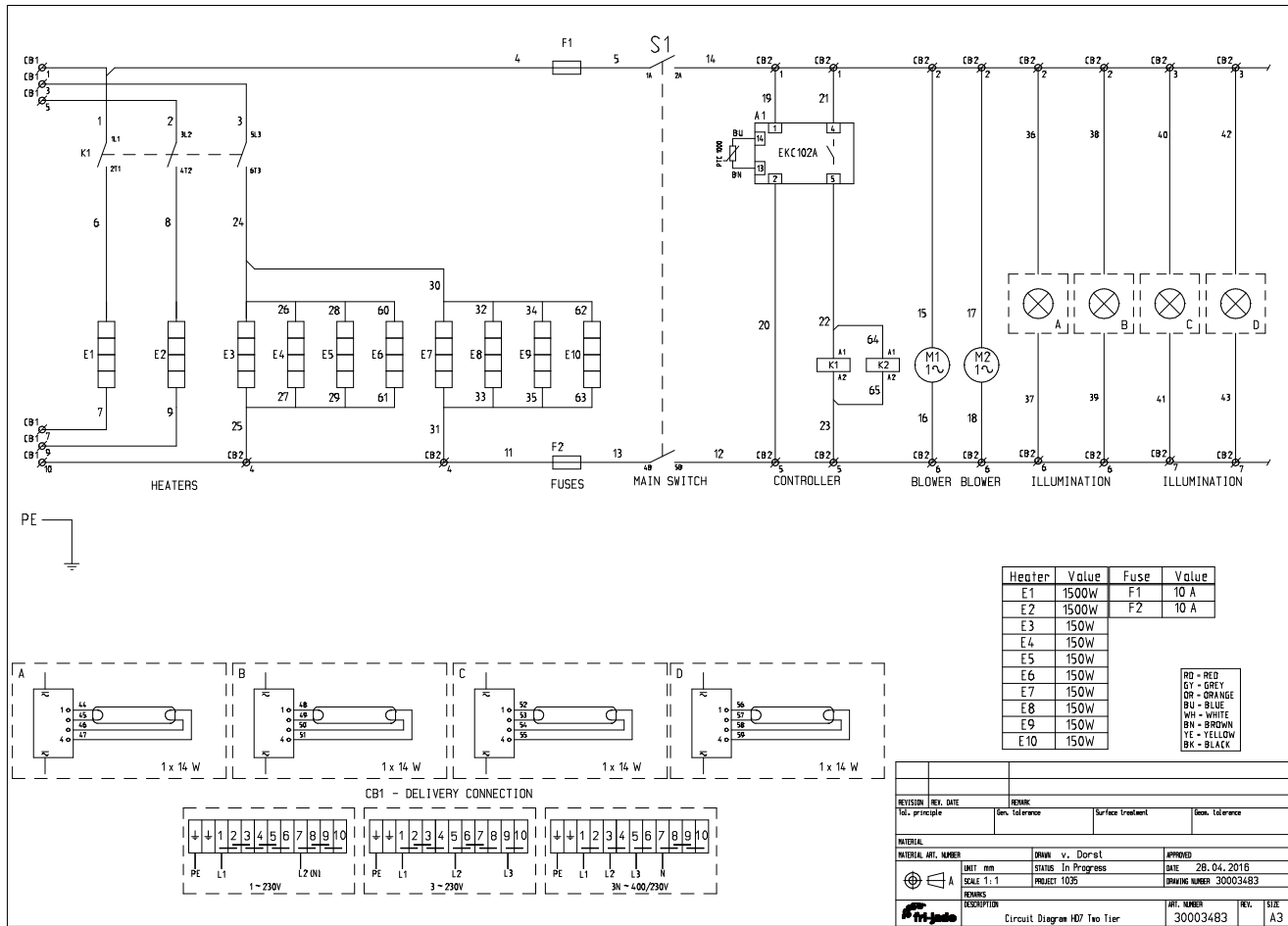
WIRING DIAGRAM TWO TIER 3-7 OLD



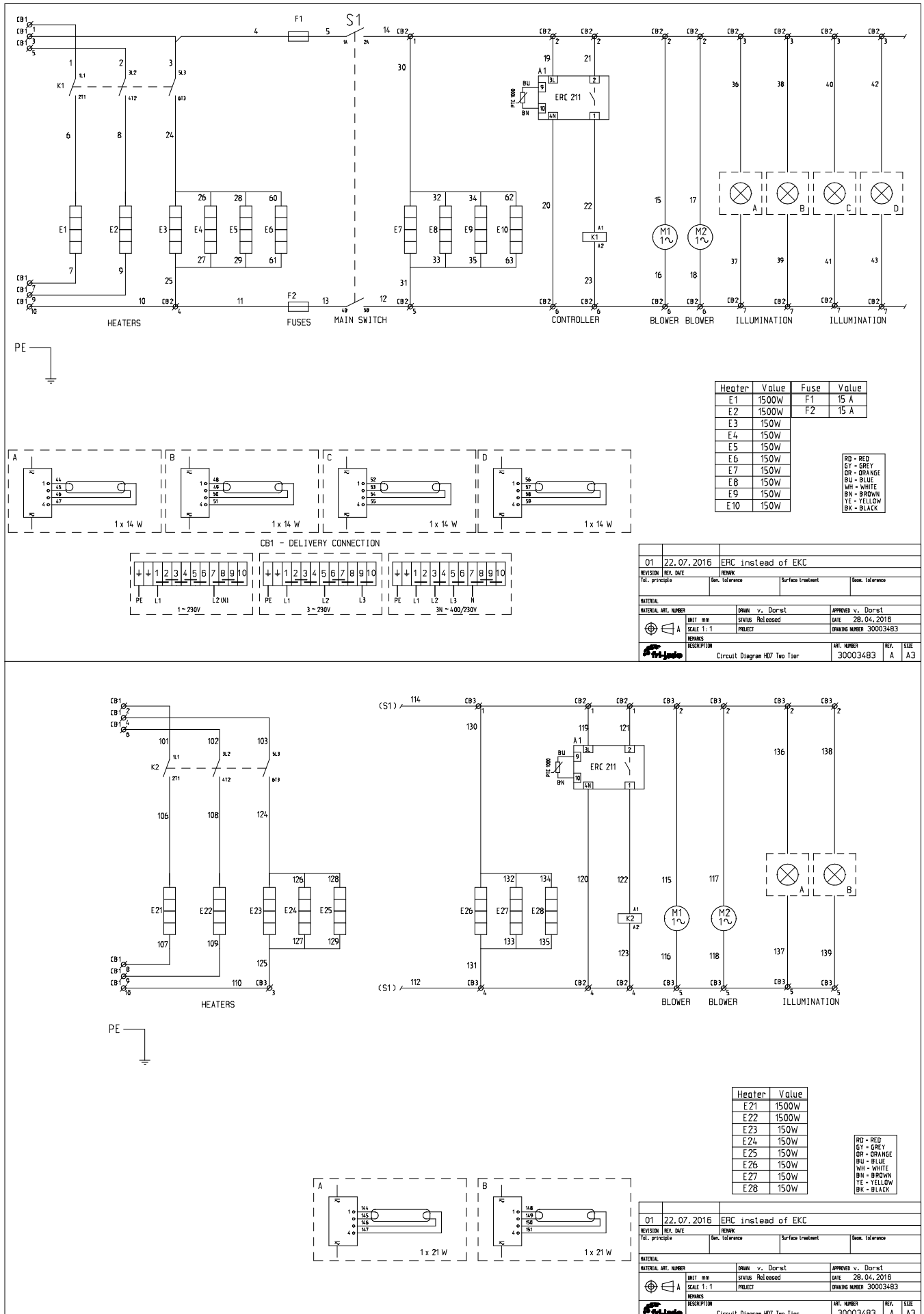
WIRING DIAGRAM TWO TIER 3-7 NEW



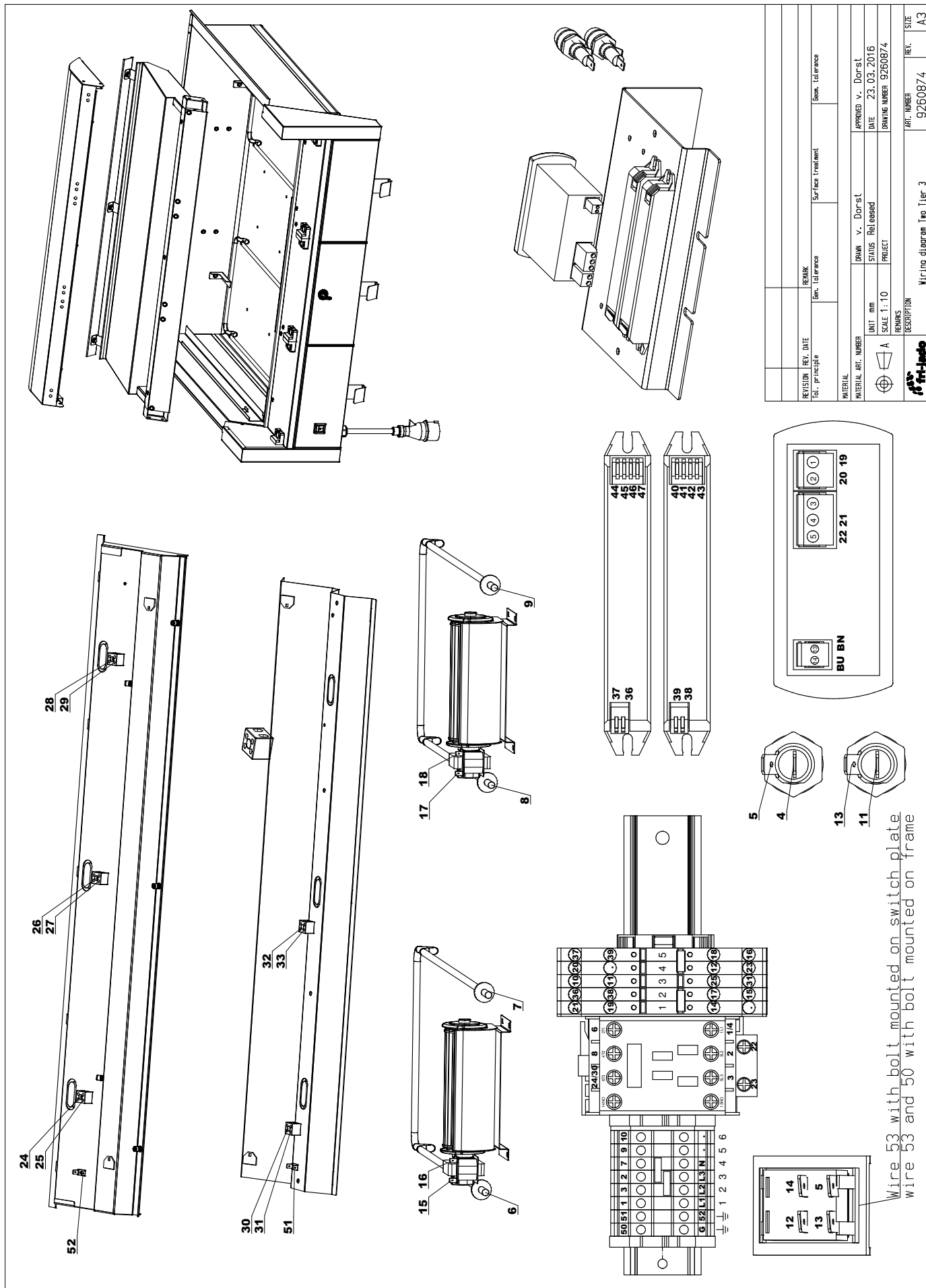
CIRCUIT DIAGRAM TWO TIER 7 OLD



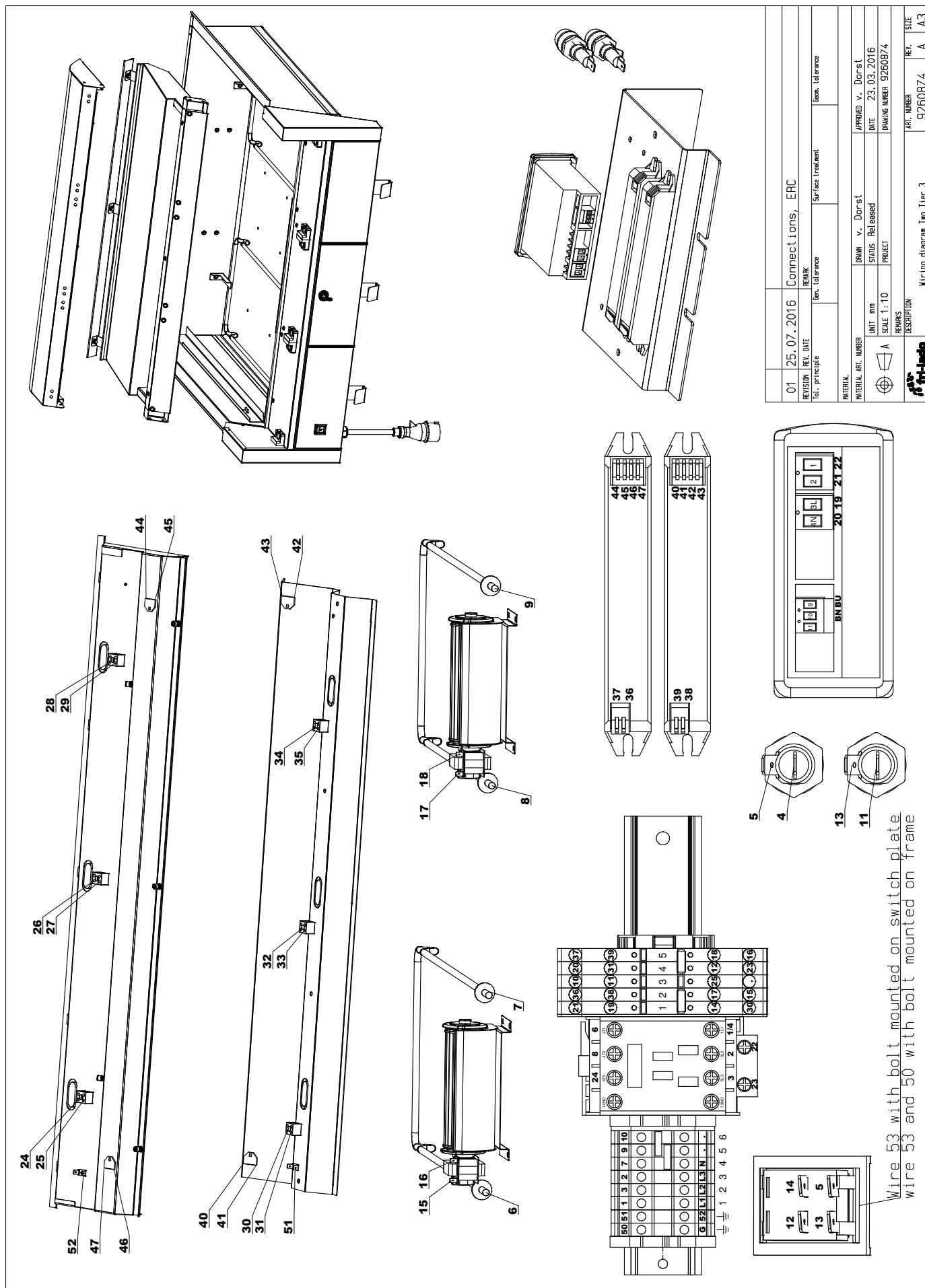
CIRCUIT DIAGRAM TWO TIER 7 NEW



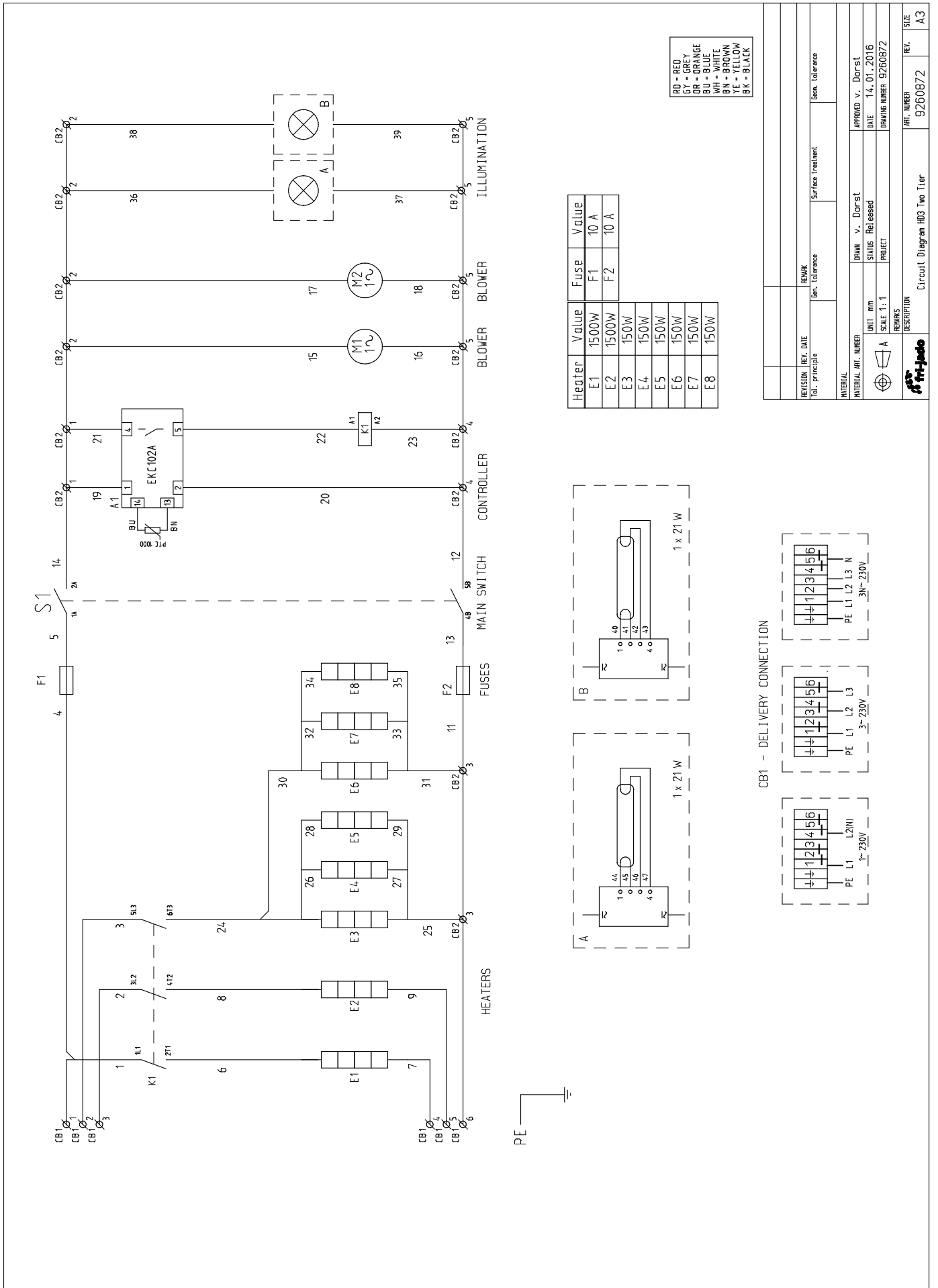
WIRING DIAGRAM TWO TIER 3 OLD



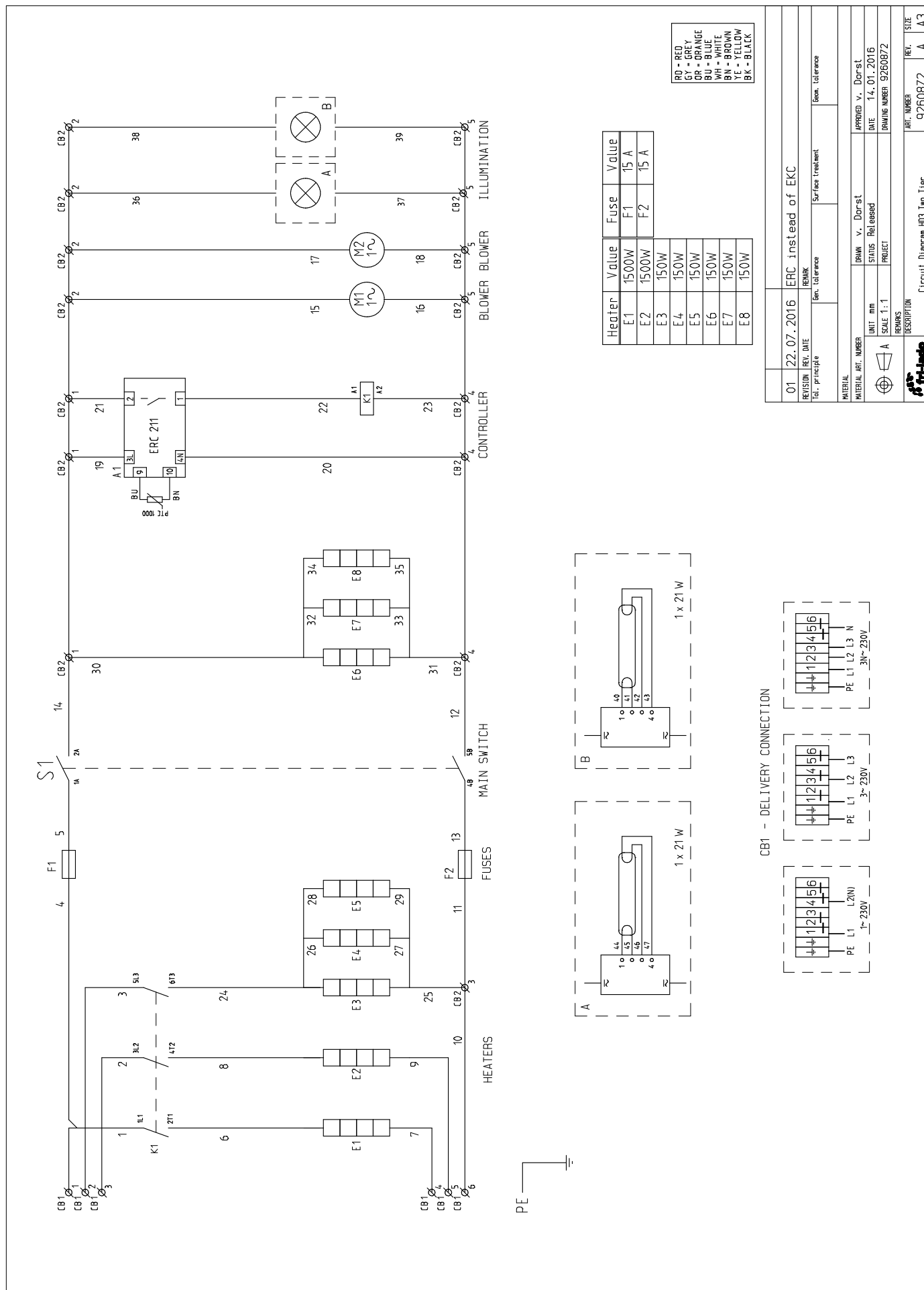
WIRING DIAGRAM TWO TIER 3 NEW



CIRCUIT DIAGRAM TWO TIER 3 OLD


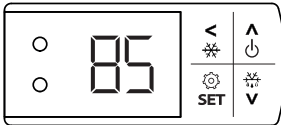




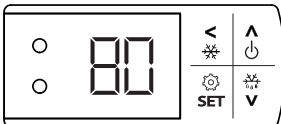


CIRCUIT DIAGRAM TWO TIER 3 NEW




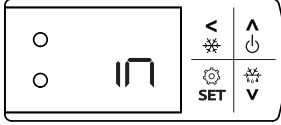


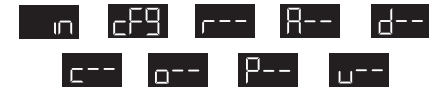

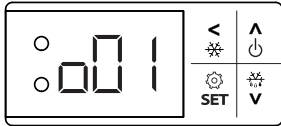




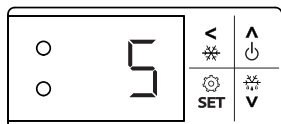







Changing temperature setpoint

Example screens

1. Press  to access setpoint mode	
2. Change value with  or 	
3. Press  to confirm	
When no key is pressed after last confirmation, the system goes back to normal operation after 10 seconds	

Programming menu

Example screens

1. Press  for 3 seconds to access the menu	
2. Scroll through parameter groups with  and 	
3. Select parameter group with 	
4. Scroll through parameter names with  and 	
5. Press  to read out the value	
6. Change value with  and 	
7. Press  to confirm	
8. Press  to select the next parameter and follow instruction 3 to 7	
Use  to go back in the parameter groups and once more to leave the programming menu	

PARAMETERS DANFOSS ERC 211 THERMOSTAT

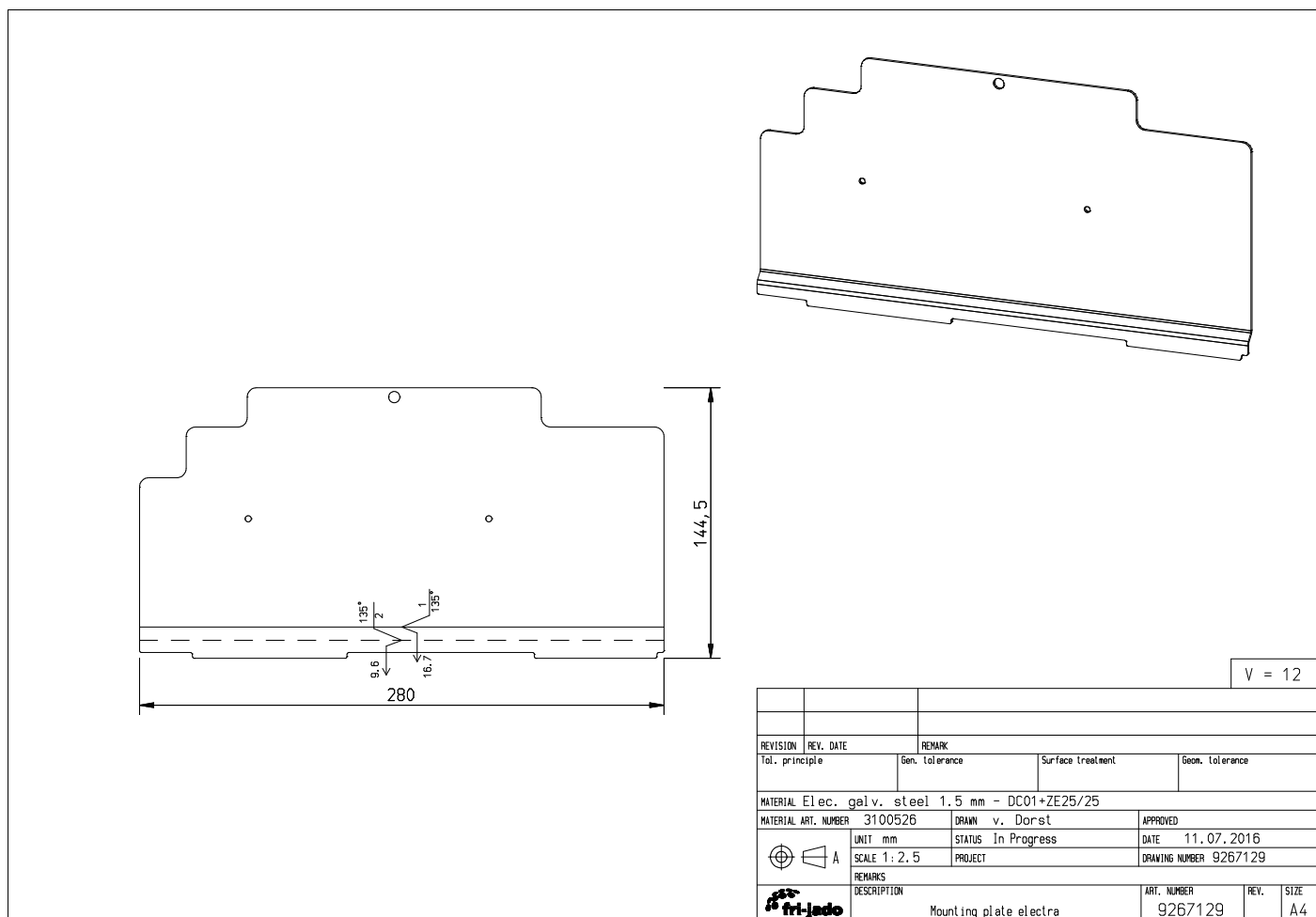
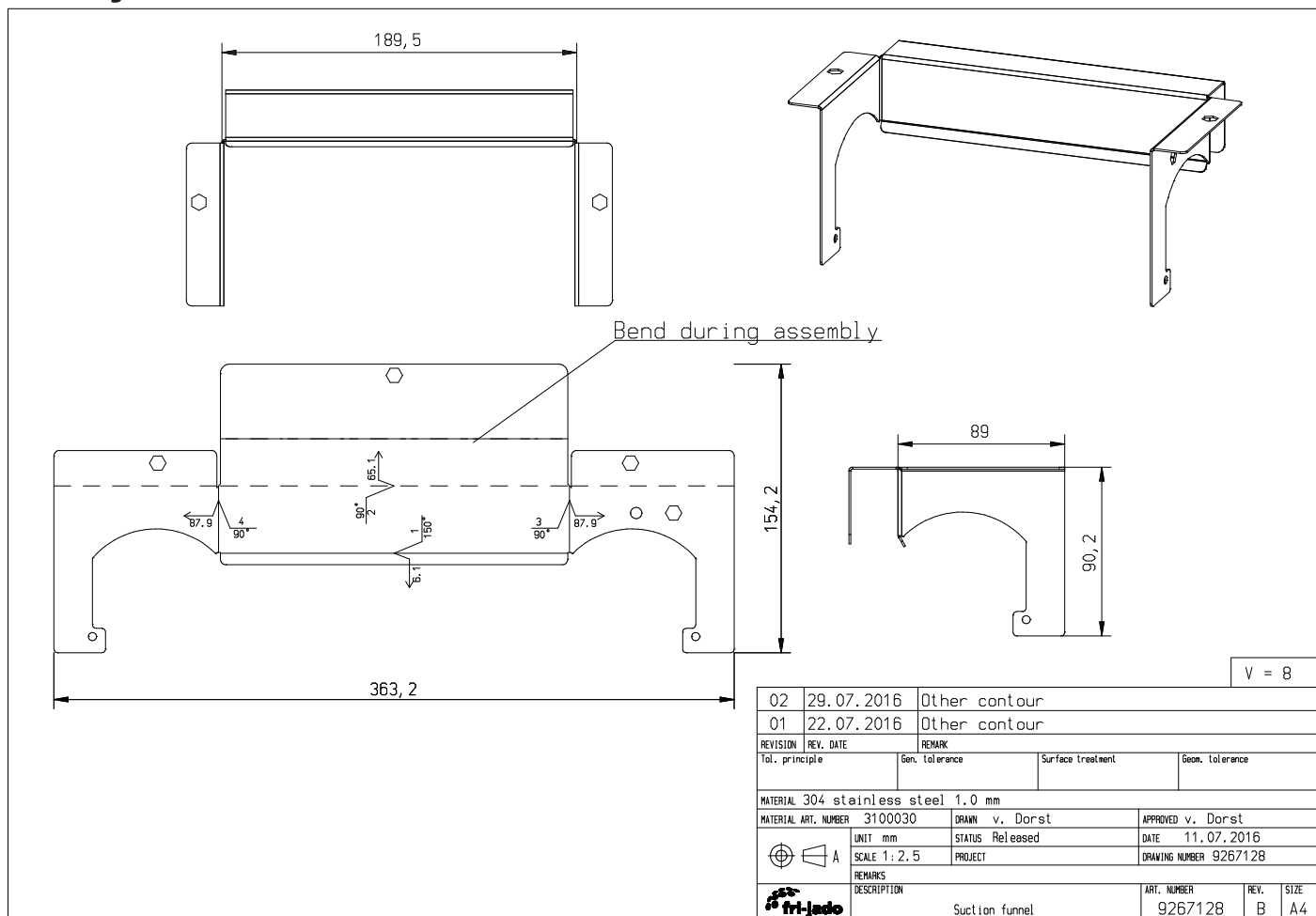
Doc. nr. 9124300	Rev. B	Registration form. Danfoss ERC 211 – 75 °C	 fri-jado
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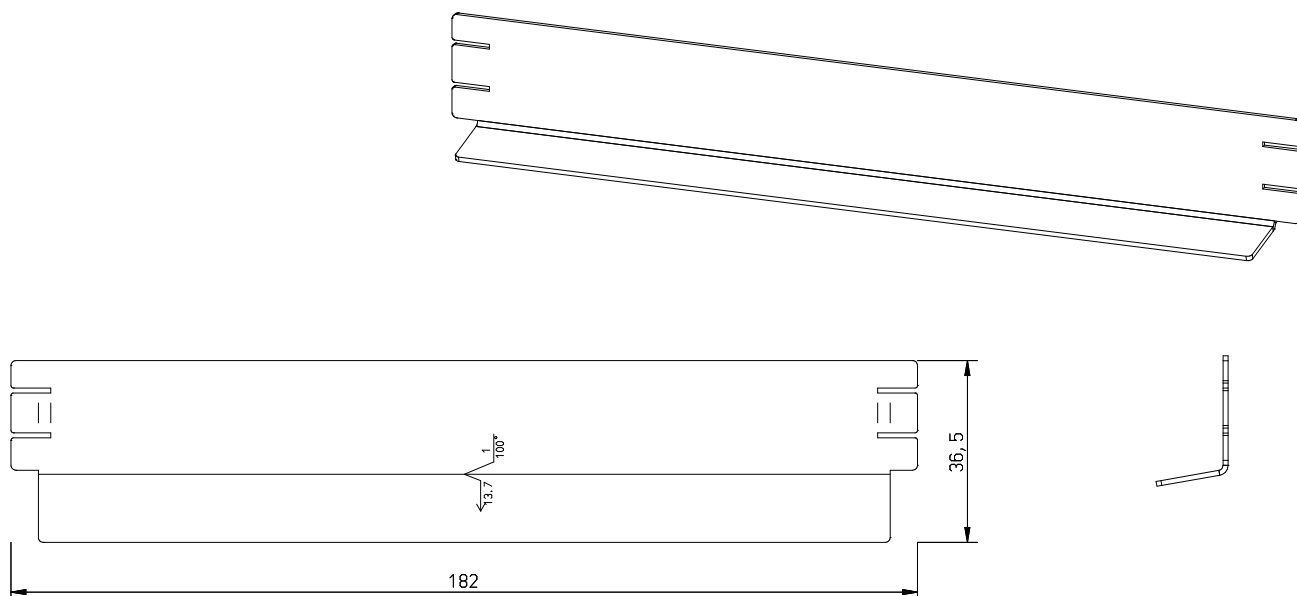
Two Tier	

Note! Change parameter r03 first!

r00	Temperature set point	75	°C
r01	Differential	1	K
r02	Min set point limitation	65	°C
r03	Max set point limitation	90	°C
r04	Display offset	0	°C
r05	Display unit (°C/°F)	°C	
r09	Calibration of Sair	0	°C
r12	Main switch	1	
r13	Night set back	0	
r40	Thermostat reference displacement	0	
r96	Pull-down duration	0	
r97	Pull-down limit temperature	0	
A03	Delay for temperature alarm (normal conditions)	30	min
A12	Delay for temperature alarm (pull down/start-up/defrost)	60	min
A13	High temperature alarm limit	100	°C
A14	Low temperature alarm limit	-30	°C
A27	DI1 delay	30	min
A37	Condenser high alarm limit	80	°C
A54	Condenser high block limit	85	°C
A72	Voltage protection enable	no	
A73	Minimum cut-in voltage	0	V
A74	Minimum cut-out voltage	0	V
A75	Maximum voltage	270	V
d01	Defrost method (no=no defrost, nAt=natural)	no	
d02	Defrost stop temperature	6	°C
d03	Defrost Interval	8	hr.
d04	Max. defrost time	30	min
d05	Defrost delay at power up	0	min
d06	Drip delay	0	min

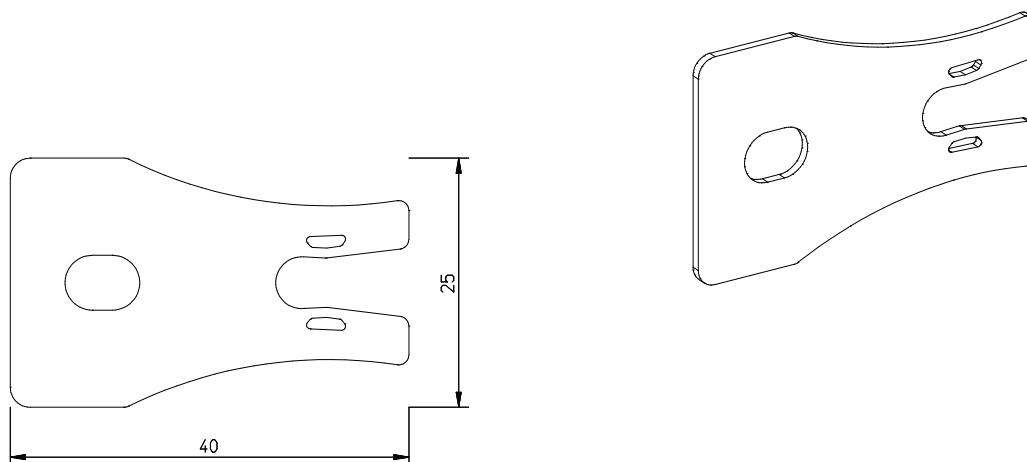
d10	Defrost stop sensor (non=time, Air=Sair)	non	
d18	Compressor accumulated	0	hr.
d30	Defrost delay after pull-down	0	min
c01	Compressor minimum ON time	0	min
c02	Compressor minimum OFF-time	0	min
c04	Compressor OFF delay	0	sec
c70	Zero crossing selection	yES	
o01	Delay of outputs	0	sec
o02	DI1 configuration	oFF	
o03	Serial address	0	
o05	Password	no	
o06	Sensor type selection (n5=NTC5 K, n10=NTC10 K, Ptc=PTC, Pt1=Pt1000)	Ptc	
o07	Cooling/heating (rE=refrigeration / Ht=heat)	Ht	
o15	Display resolution (°C)	0.1	
o23	Relay counter	0	
o61	Predefined applications	AP0	
o67	Save settings as factory	no	
o91	Display at defrost	d	
P73	DI1 input polarity	no	
P76	Keyboard lock enable	no	
u01	Air temperature (Sair)	-	°C
u02	Read the present regulation refer- ence	-	
u10	DI1 input	-	
u13	Status of night operation	-	
u58	Compressor relay status	-	-
u80	Firmware version readout	-	



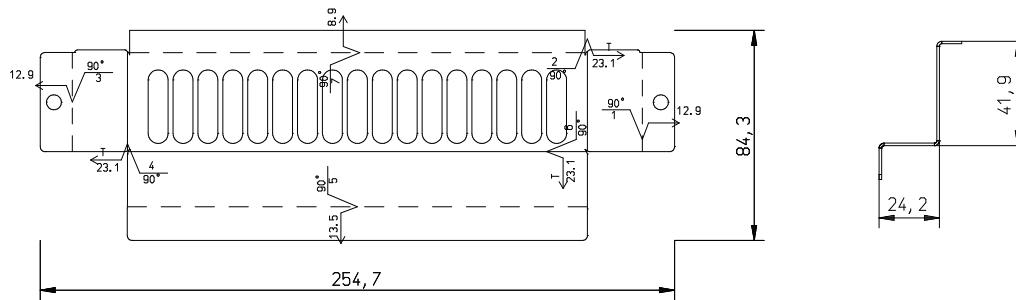


V = 8

REVISION	REV. DATE	REMARK
Tol. principle	Gen. tolerance	Surface treatment
MATERIAL 304 stainless steel 1.0 mm		
MATERIAL ART. NUMBER	3100030	DRAWN Koolen
UNIT	mm	STATUS Released
SCALE	1:1	PROJECT
DATE	05.07.2016	DRAWING NUMBER 9264512
REMARKS		
DESCRIPTION		
Air blocker		
ART. NUMBER	9264512	REV.
SIZE	A4	



01	22.07.2016	Cut out fan contour
REVISION	REV. DATE	REMARK
Tol. principle	Gen. tolerance	Surface treatment
MATERIAL 304 stainless steel 1.0 mm		
MATERIAL ART. NUMBER	3100030	DRAWN van Bergen
UNIT	mm	STATUS Released
SCALE	2:1	PROJECT
DATE	07.01.2014	DRAWING NUMBER 9267106
REMARKS		
DESCRIPTION		
Holder temperature sensor		
ART. NUMBER	9267106	REV.
SIZE	A	A4



V = 8

03	29.07.2016	Smaller model	
02	13.06.2016	Update	
REVISION	REV. DATE	REMARK	
Tol. principle	Gen. tolerance	Surface treatment	Geom. tolerance
MATERIAL 304 stainless steel 1.0 mm			
MATERIAL ART. NUMBER	3100030	DRAWN van Bergen	APPROVED v. Dorst
UNIT	mm	STATUS Released	DATE 22.10.2013
SCALE	1:2	PROJECT	DRAWING NUMBER 9267084
REMARKS			
DESCRIPTION		ART. NUMBER	REV. SIZE
Dirt shield fan		9267084	C A4

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