



Wiring Diagram

DHP-A Opti

BF N? Mhrg
BF N? MhrgQN

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The English language is used for the original instructions.
Other languages are a translation of the original instructions.
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1 Legend

1.1 Legend

Number/Note	Description
1	Heat pump
3	Outdoor unit
36	Circulation pump (system)
40	Expansion card
50	Outdoor sensor
51	System supply line sensor
52	Sensor for EM-Modul module/ret.line sensor
53	Hot water starting sensor
55	Hot water sensor top
62	Room Sensor
69	Shunted loop
71	Flow guard
115	Immersion heater
117	Additional heater
301	Compressor
302	Brine pump
303	Radiator pump
304	Circulation pump
305	Fan
306	System circulation pump
307	Distribution circulation pump
308	Condenser pump
309	Hot gas pump
310	Reversing valve
311	4 way valve
312	Bypass valve
313	Electronic expansion valve
317	Immersion heater
340	Temperature guard
341	Thermal overload relay
342	Circuit breaker
343	Line circuit breaker
344	Alarm relay
345	Contactora
350	Soft start
351	Capacitor
353	Drip tray heater
354	Compressor Heater
355	Drip tray heater cable
362	Shunt valve control

Number/Note	Description
363	Reversing valve hot-water
364	Shunt valve hot-water
365	Supply line sensor
366	Return line sensor
367	System shunt
368	Distribution circuit shunt
369	Pool heating valve
370	2nd distribution circuit pump
371	Auxiliary heating Oil/El
372	Auxiliary top heating
373	Distribution circuit shunt 2
374	Shunt defroster
375	Brine valve
376	Shunt cooling
403	Operating pressure switch
405	Heating out sensor
406	Room sensor
407	HGW sensor
408	EVU
410	Hot water
411	Heating return sensor
412	Brine out sensor
413	Brine in sensor
414	High pressure switch
415	Low pressure switch
416	Discharge pipe sensor
417	Defrost sensor
418	Refrigerant 1 sensor
419	Refrigerant 2 sensor
420	Pressure transmitter
421	Suction gas sensor
422	Dewpoint sensor
423	Sensor pool
424	Sensor cooling
425	Sensor buffer tank
426	Sensor system supply line
427	Sensor distribution circuit 1
428	Sensor distribution circuit 2
451	Control unit
452	I/O controller
453	Display

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Number/Note	Description
454	Electronic expansion valve controller
455	Indoor hub controller
456	Current limiter
457	WM-HPC Control module
458	HPC-RM Relay module
459	HPC-EM Expansion module
460	HPC-CM Cooling module
461	HPC-OP Operator panel
* Note 1	Strapped at delivery
* Note 2	blue
* Note 2	brown
* Note 2	grey
* Note 2	green
* Note 2	yellow
* Note 2	violet
* Note 2	pink
* Note 2	red
* Note 2	black
* Note 2	white
* Note 3	Can be connected to 230V single phase if auxiliary heater is disconnected.
* Note 4	When connected to 230V single phase straps to auxiliary heater shall be removed.
* Note 5	Remove jumper when using separate supply of control circuit

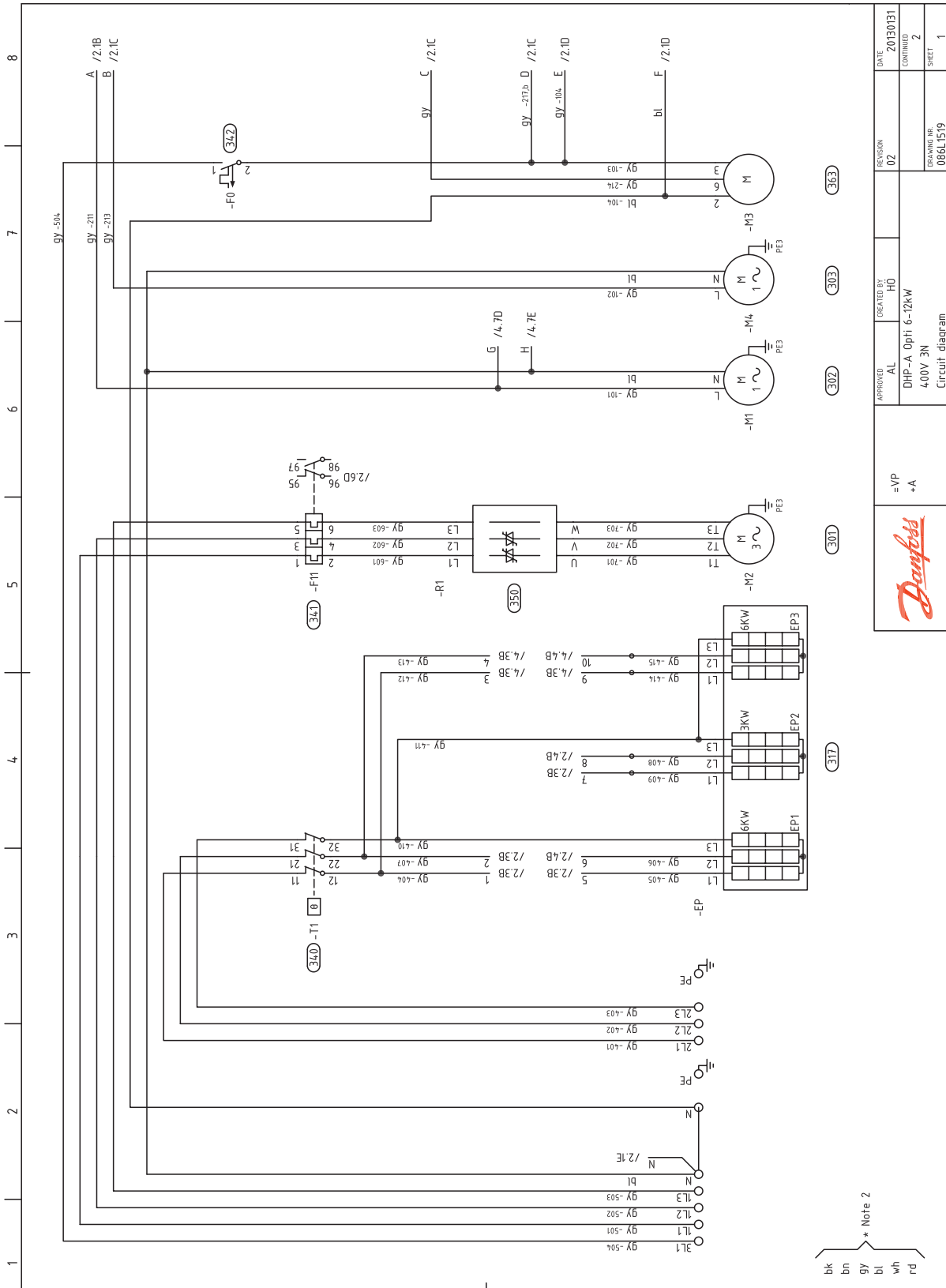
Number/Note	Description
* Note 6	Remove jumper when using flowguard
* Note 7	Overload relay trip/tripped out
* Note 8	Alarm
* Note 9	Speed control
* Note 10	Please make sure that all supply lines are disconnected before attending any work to internal electrical parts!
* Note 11	Fan overload relay
* Note 12	To indoor unit
* Note 13	To slave unit
* Note 14	To electronic expansion unit
* Note 15	Immersion heater or external auxiliary heater
* Note 16	Potential free contact
* Note 17	To outdoor unit
* Note 18	To expansion Unit
* Note 19	Communication
* Note 20	Passive cooling Brine circuit
* Note 21	Passive cooling Radiator circuit
* Note 22	Combined heat source system
* Note 23	Passive cooling
* Note 24	Remove jumper when EVU
* Note 25	EVU constant power supply
* Note 26	Remove jumper if EVU is supplied separately
* Note 27	Remove jumper when flowguard or pressure switch Brine is used

Wiring Diagram

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2 DHP-A Opti 400V 3N

2.1 DHP-A Opti 6-12kW 400V 3N

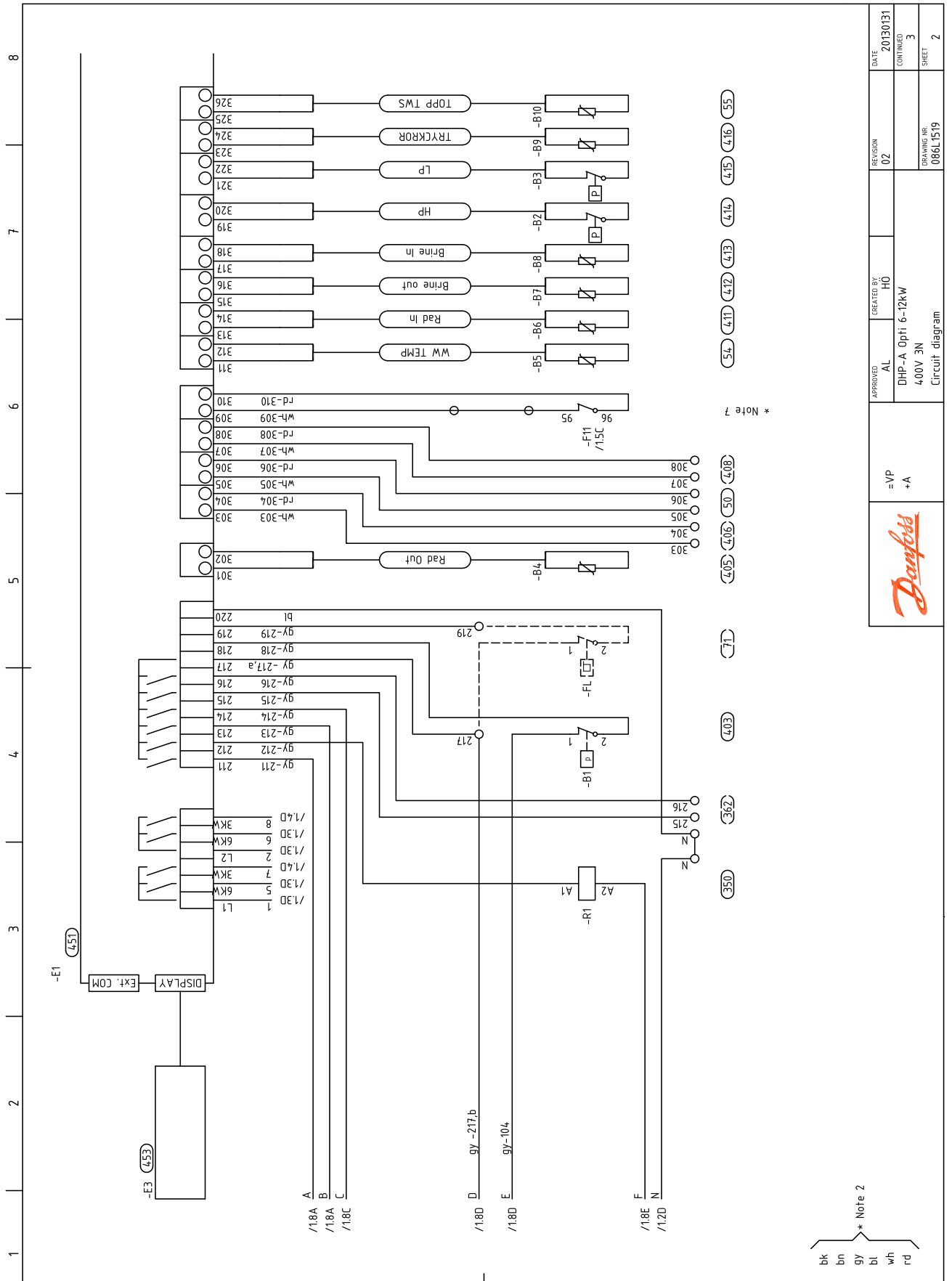


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DHP-A Opti 6-12kW 400V 3N Circuit diagram				CONTINUED	2		
=VP +A				DRAWING NR.	08611519	SHEET	
						1	

* Note 2
 bk bn gy bl wh rd

Wiring Diagram

DHP-A Opti



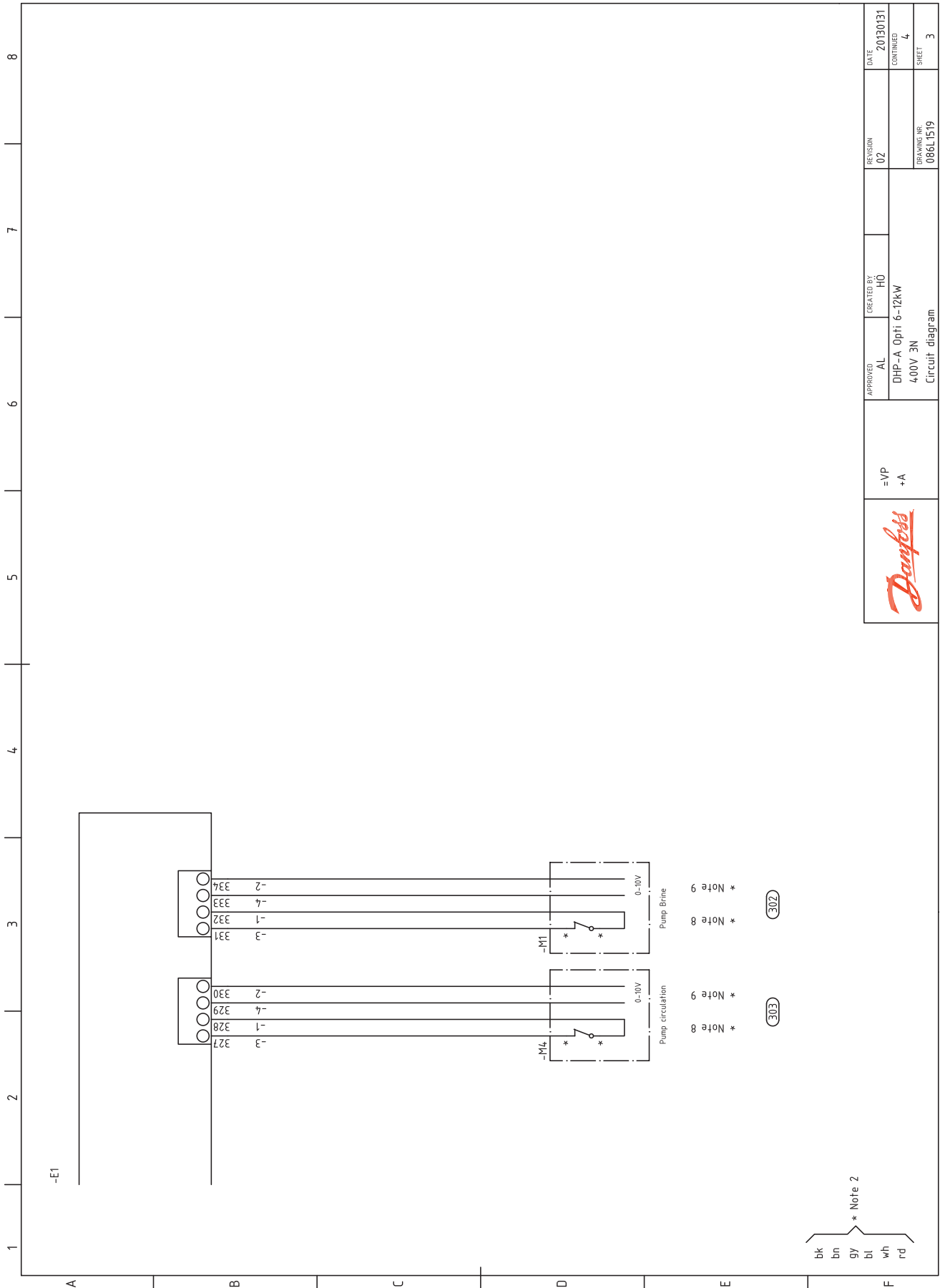
* Note 2
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* Note 7

APPROVED	AL	CREATED BY	HO	DATE	20130331
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				DRAWING NR.	086L1519
				SHEET	2
= VP		+ A		Circuit diagram	
		DHP-A Opti 6-12kW			
		400V 3N			

Wiring Diagram

DHP-A Opti



bk
bn
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* Note 2

* Note 8
* Note 9

(302)

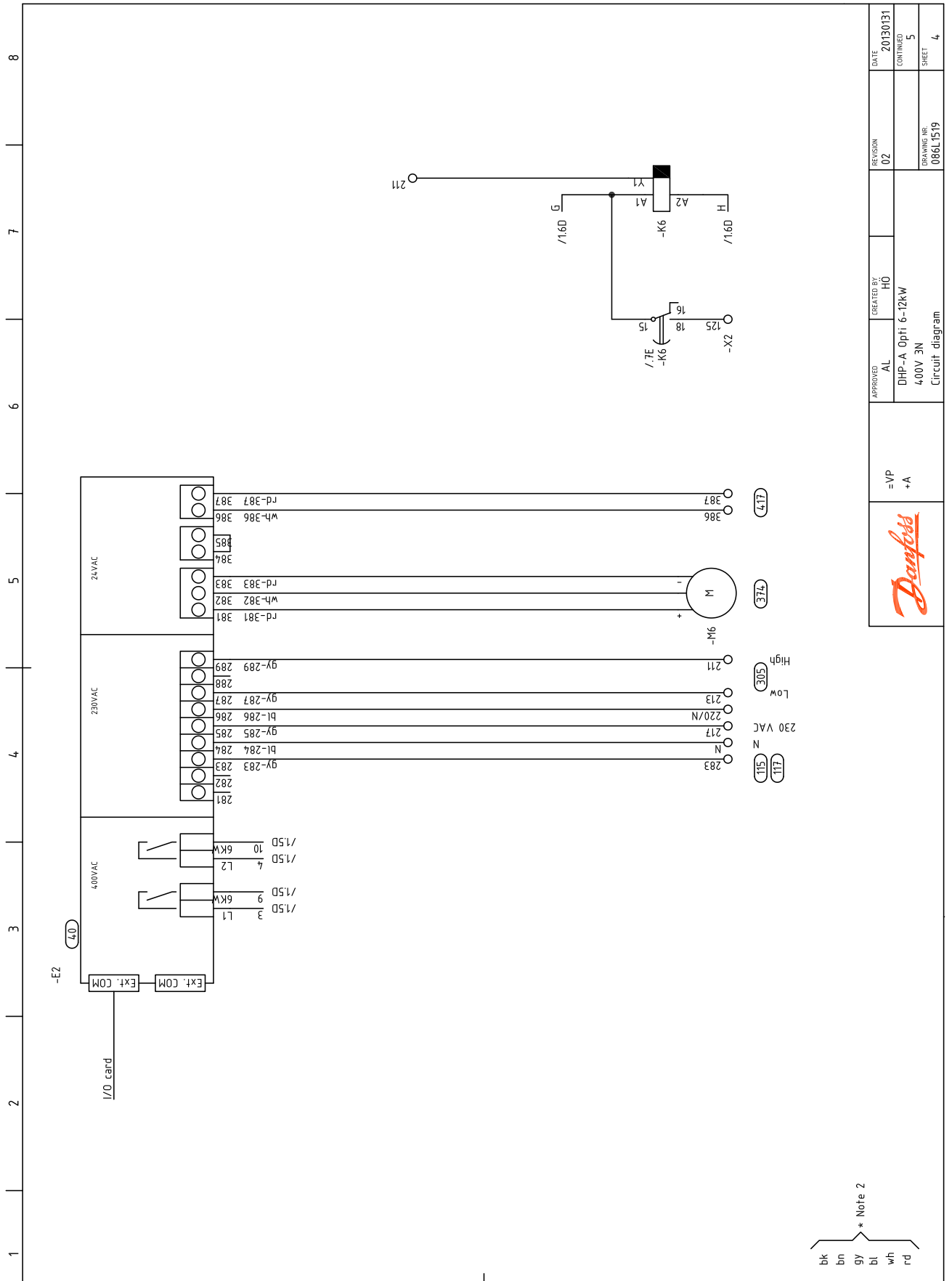
* Note 8
* Note 9

(303)

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= VP +A			

Wiring Diagram

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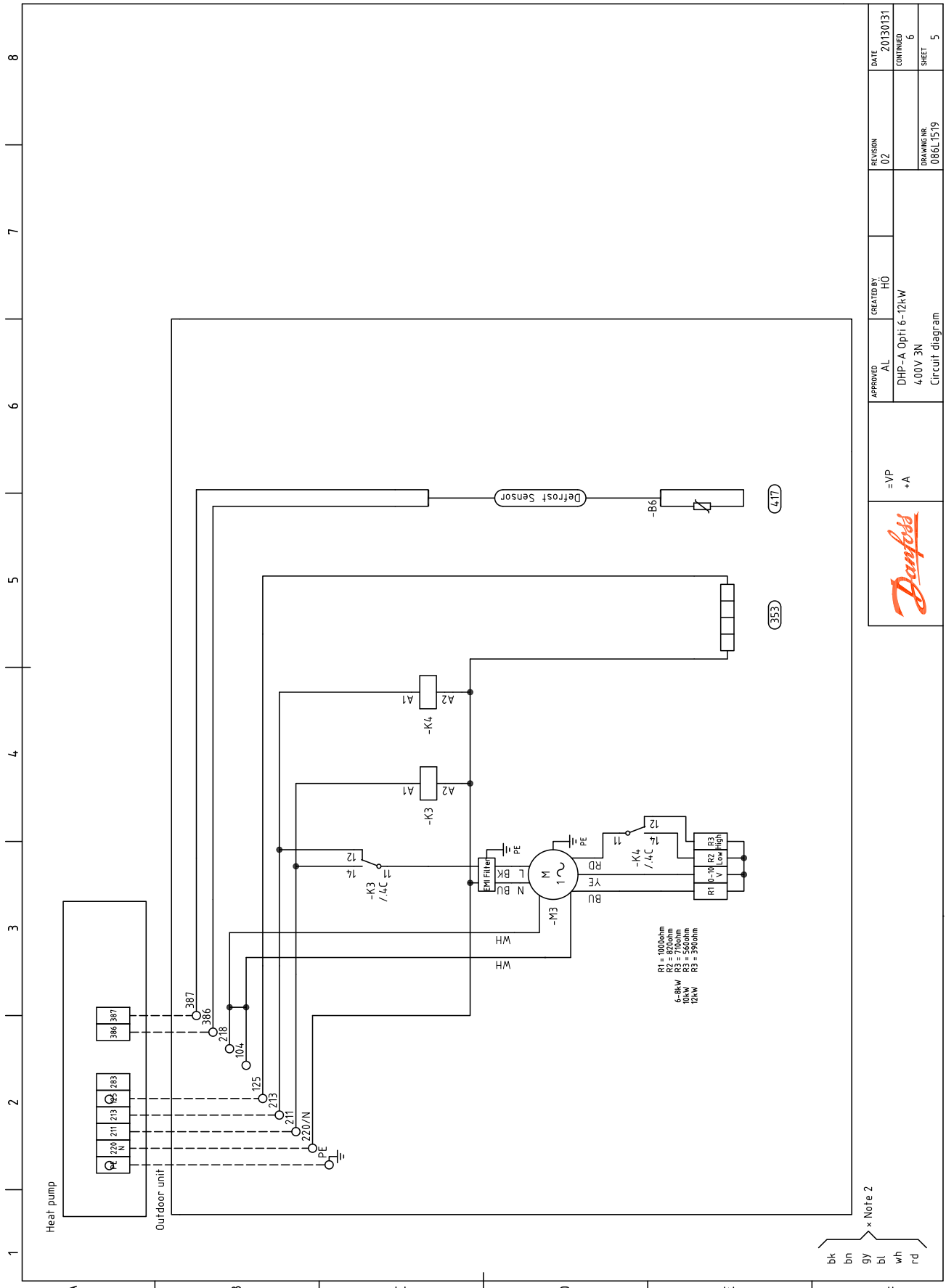
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REVISION	02
APPROVED	AL
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400V 3N	
Circuit diagram	
DRAWING NR.	086L1519
CONTINUED	5
SHEET	4



= VP
+A

Wiring Diagram

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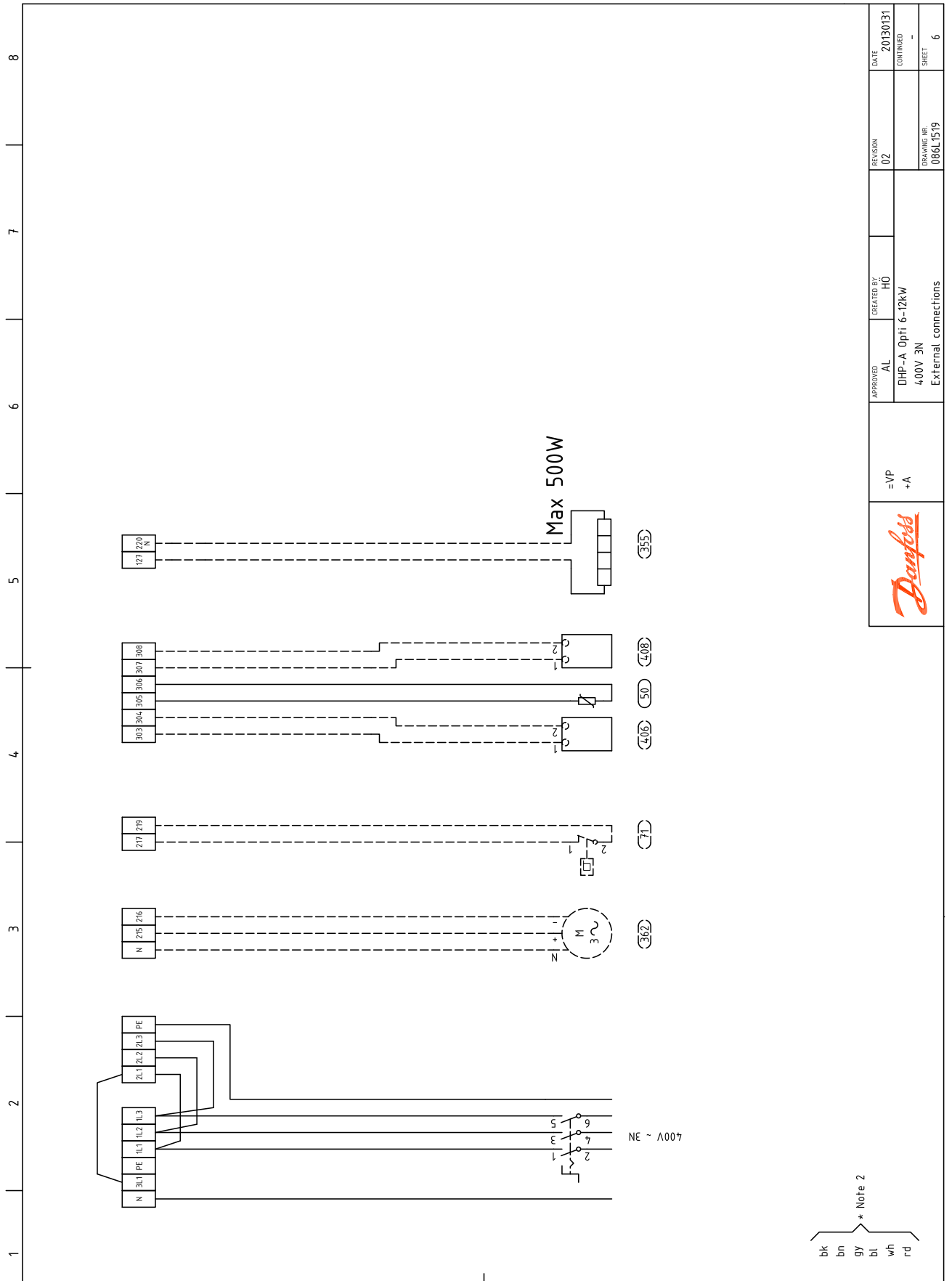


1 2 3 4 5 6 7 8

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DHP-A Opti 6-12kW 4.00V 3N Circuit diagram				DRAWING NR.	086L1519	CONTINUED	6
= VP + A				Danfoss		SHEET	5

Wiring Diagram

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* Note 2
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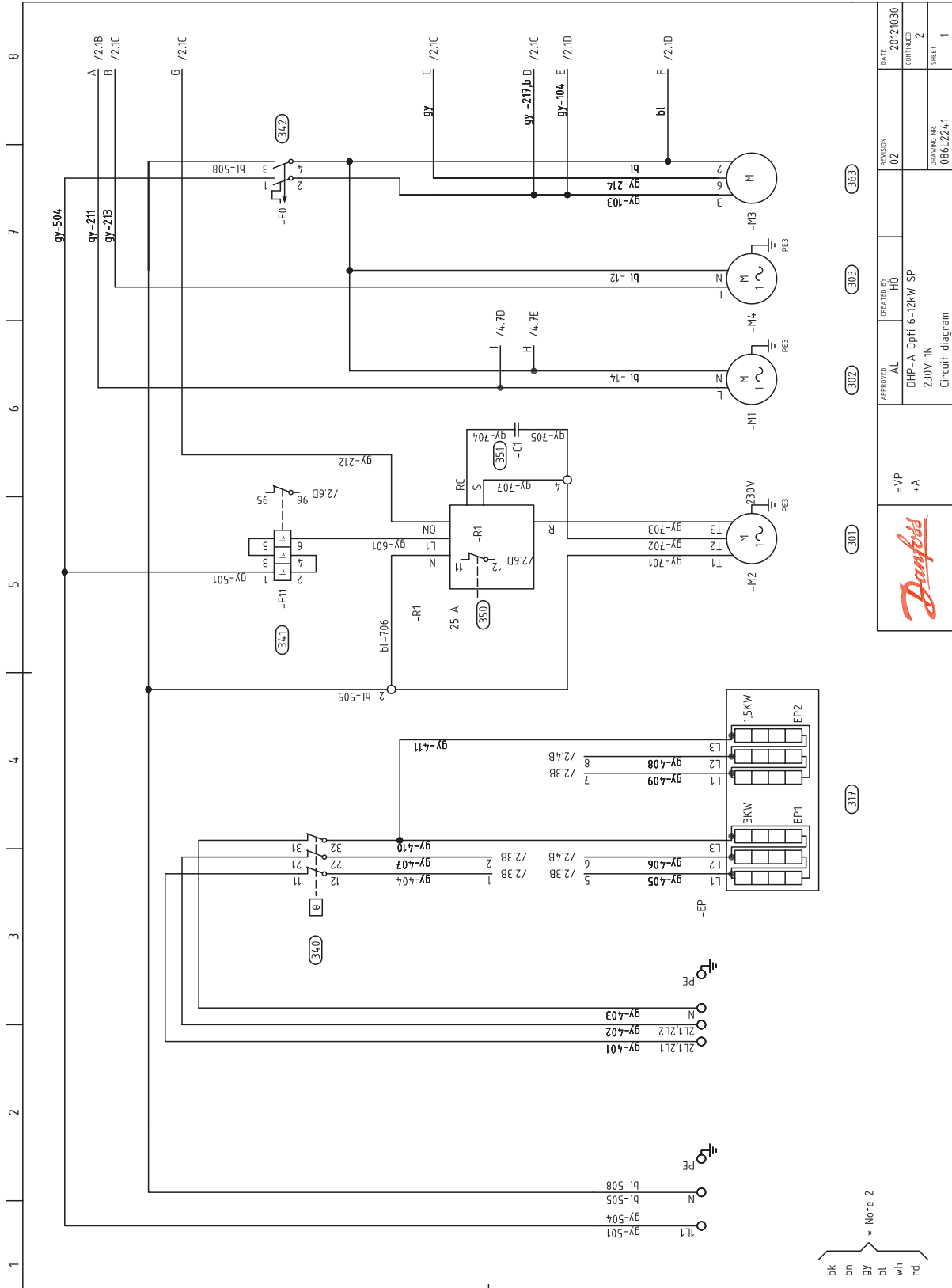
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DHP-A Opti 6-12kW 400V 3N External connections		CONTINUED -
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		SHEET 6

Wiring Diagram

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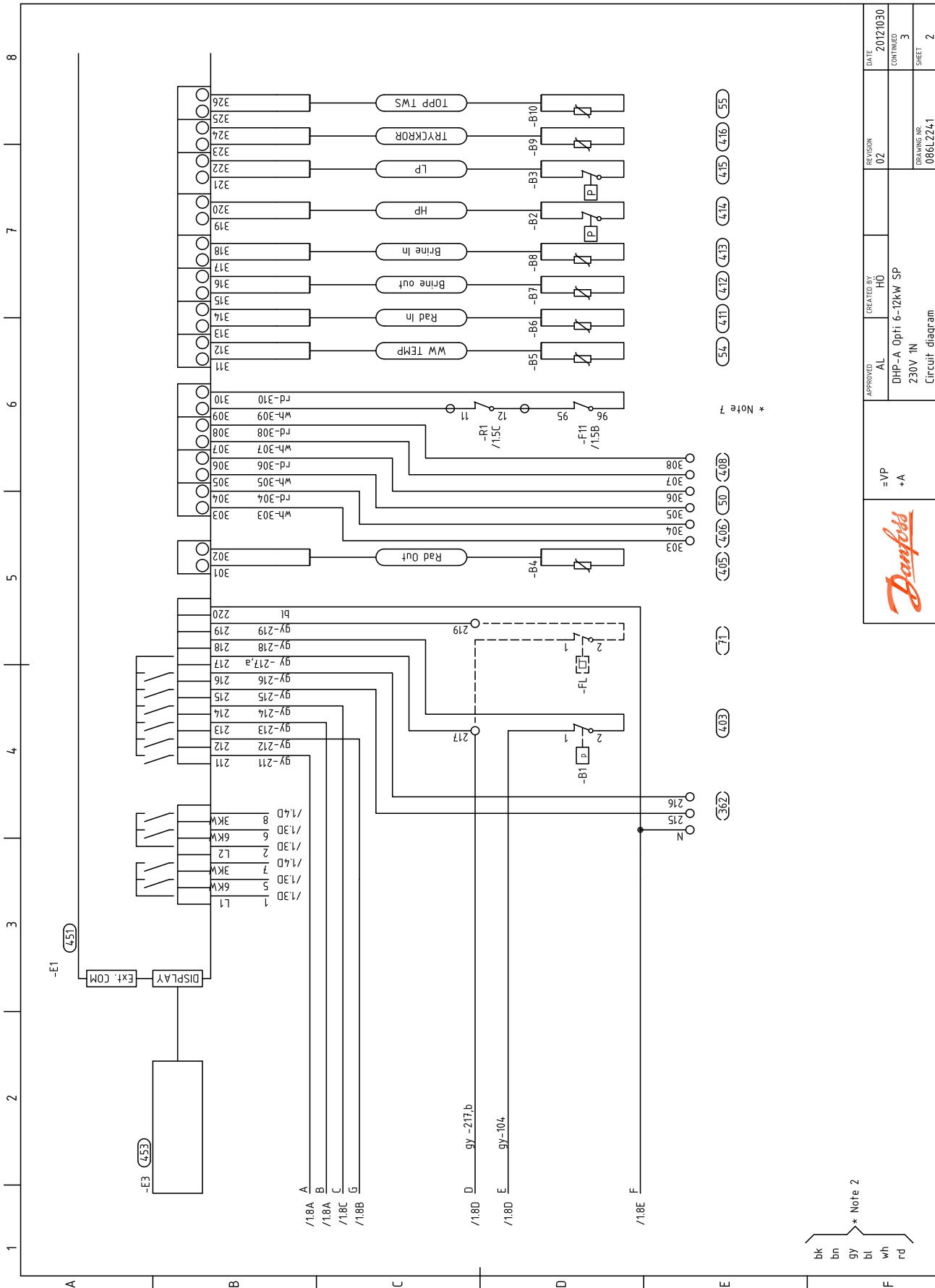
3 DHP-A Opti SP 230V 1N

3.1 DHP-A Opti 6-12kW SP 230V 1N



Wiring Diagram

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- (54) (41) (42) (43) (44) (45) (55)

- (307) (30) (50) (403) (71)

- (362)

- (451) (453)

* Note 1

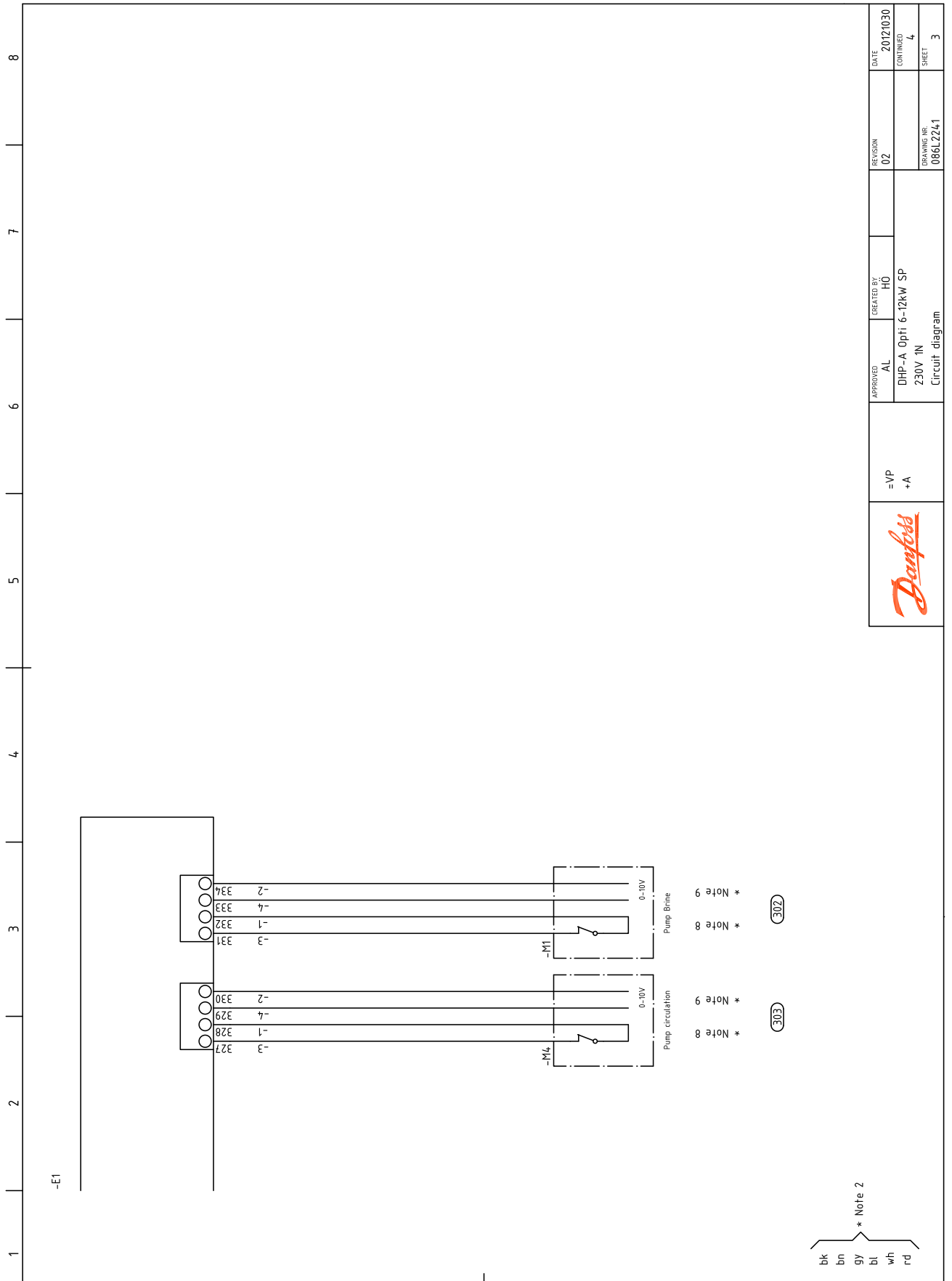
* Note 2
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APPROVED	AL	CREATED BY	HO	REVISION	02	DATE	2012030
DHP-A Opti 6-12kW SP				CONTINUED	3		
230V IN				DRAWING NR.	086L2241		
Circuit diagram				SHEET	2		

= VP + A	

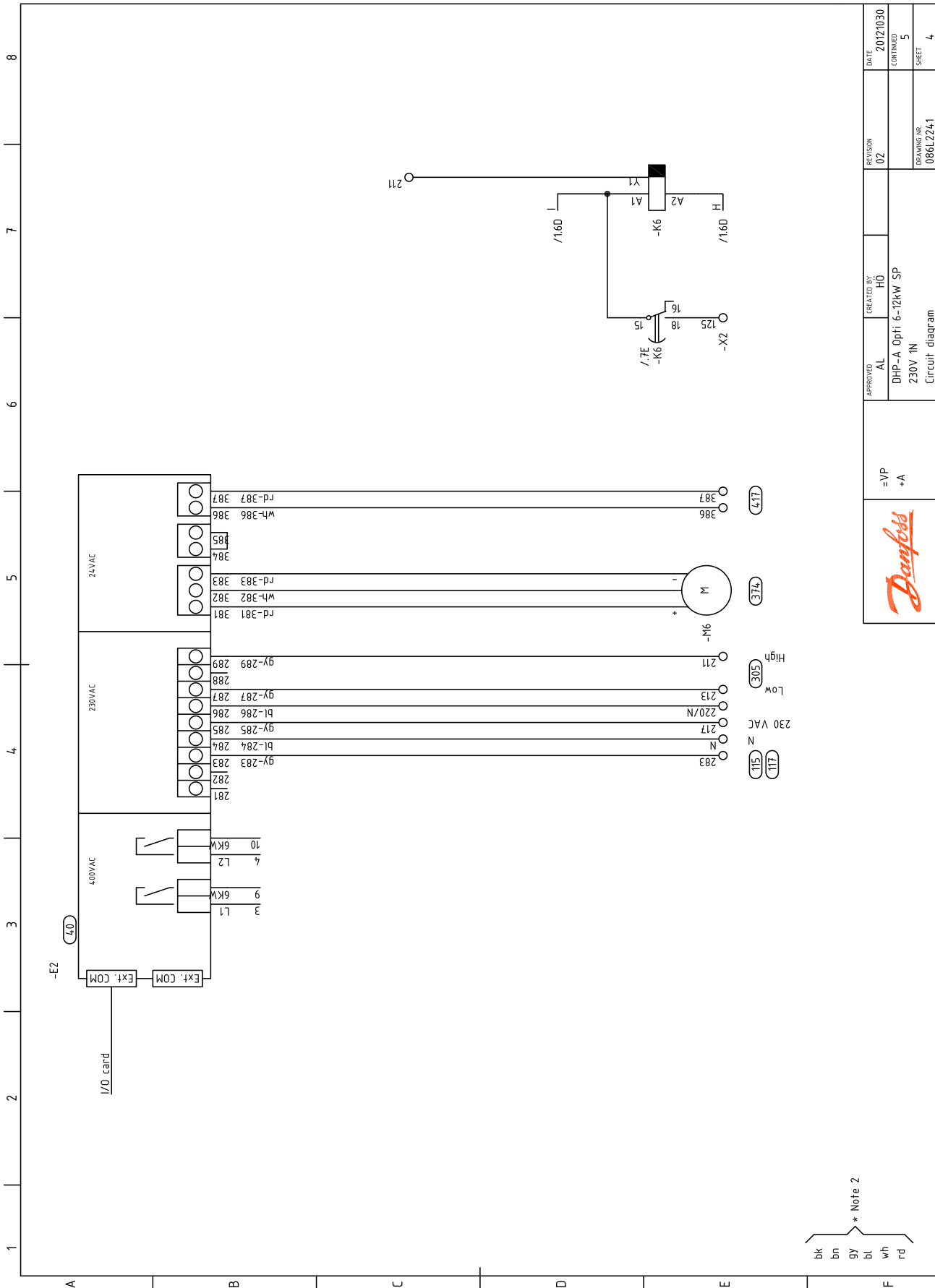
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Wiring Diagram

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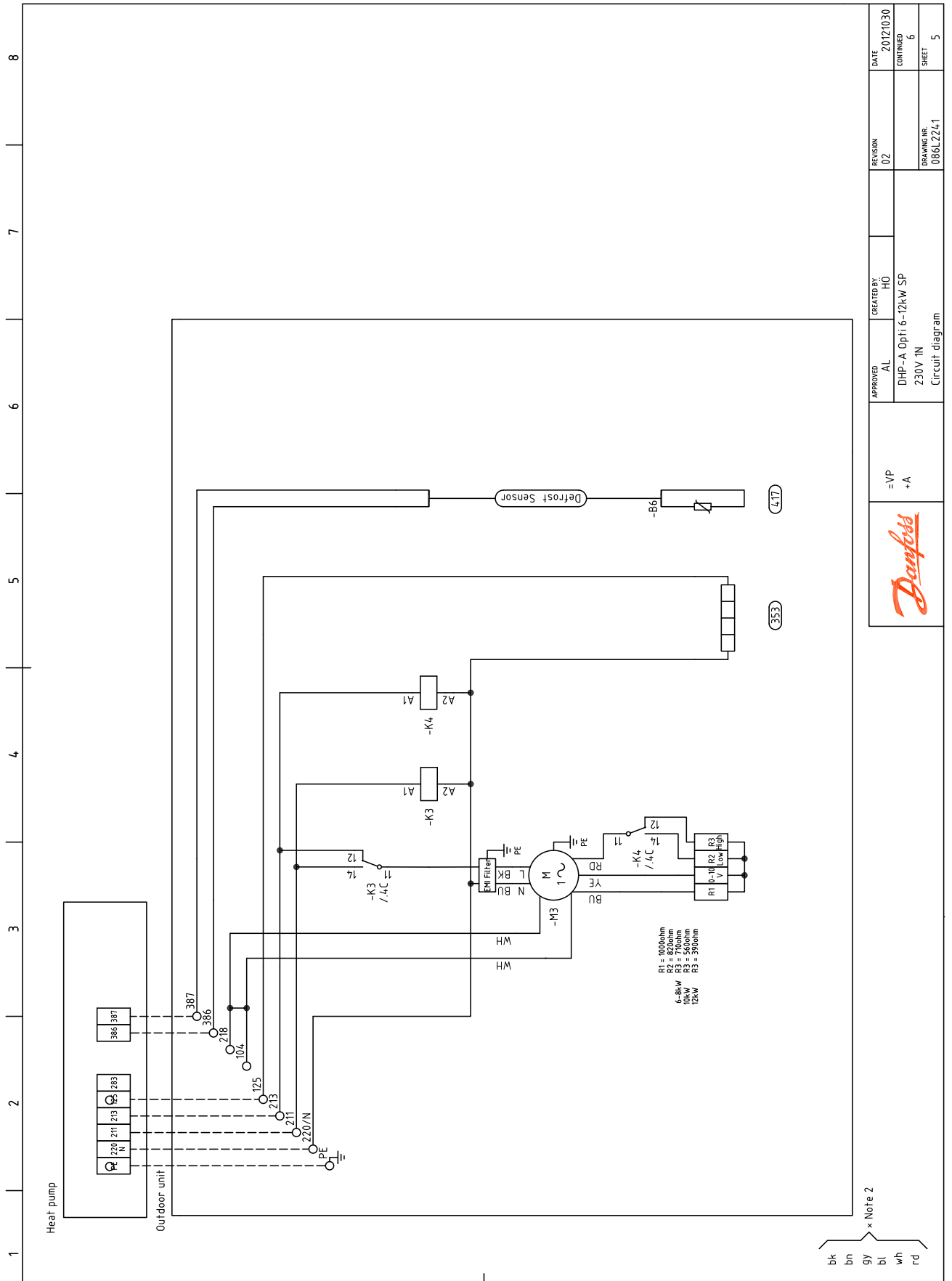


1 2 3 4 5 6 7 8

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= VP + A		DRAWING NR. 086L2241		CONTINUED 5	SHEET 4

Wiring Diagram

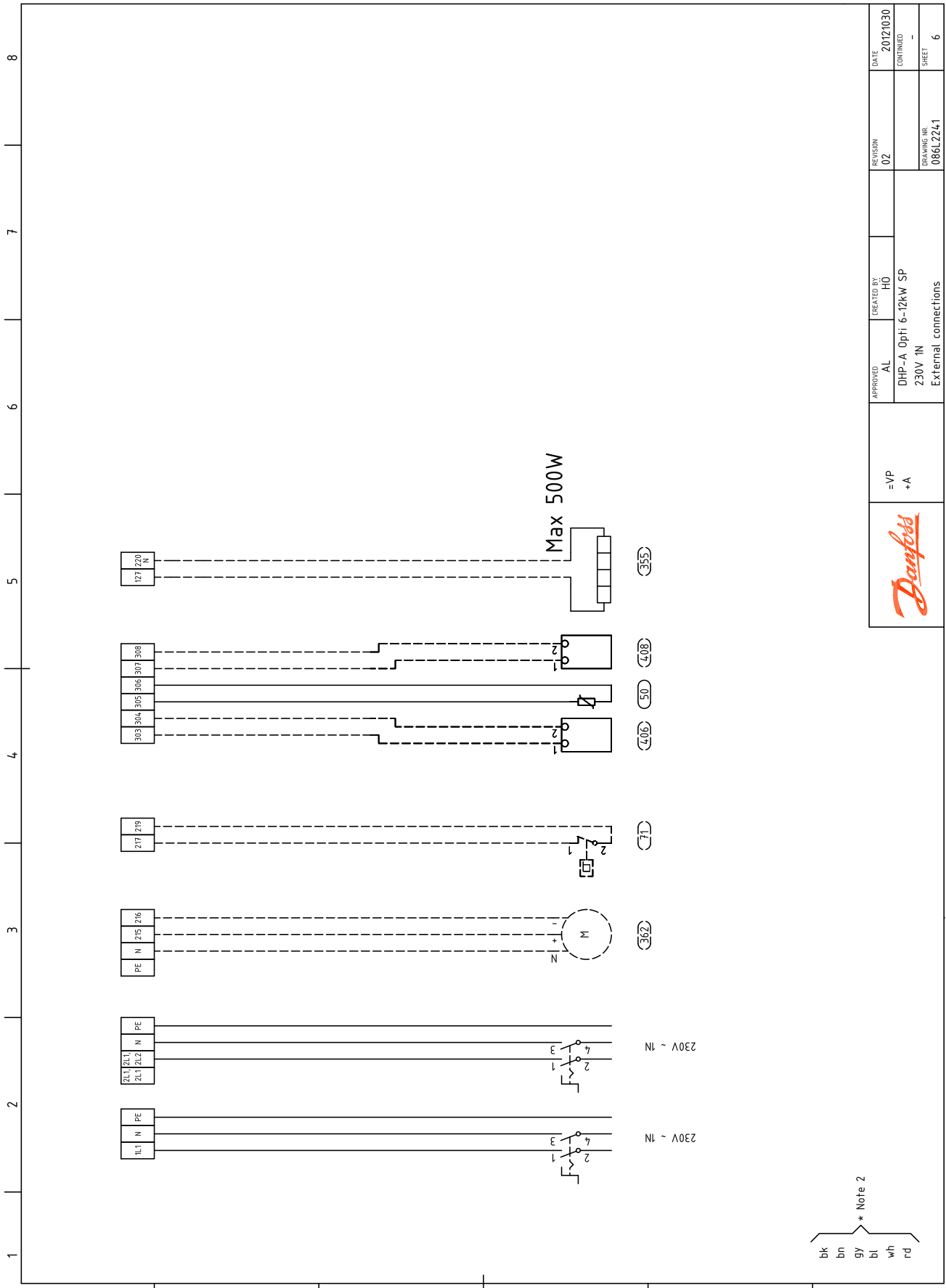
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REVISION	02			CONTINUED	6
DHP-A Opti 6-12kW SP			DRAWING NR.		
230V 1N			086L2241		
Circuit diagram			SHEET		
= VP			5		
+ A			5		

Wiring Diagram

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DHP-A Opti 6-12kW SP						CONTINUED	-
230V 1N						DRAWING NR.	086L2241
External connections						SHEET	6



* Note 2
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