



# Commissioning expert technician

Expert technician: .....  
Commissioning date: .....  
OEG customer number: .....  
Location/Customer address: .....  
Serial number heat pump: AC \_\_\_\_ DBP \_\_\_\_  
Construction year of building: .....  
New building: .....  
Existing building: .....  
Building heating load  
(in accordance with DIN EN 12831): .....  
Heat distribution system  
(underfloor heating, panel radiators,  
radiators, convectors, wall heating): .....  
DHW heating with heat pump:  yes  no

**Free fax number:**

**EU 00 800-63 43 29 24**

**Email:**

**sales@oeg.net**

Activity	Done	Remark
Heat pump connection application to electricity supplier	<input type="checkbox"/>	
Electrical connection acc. to wiring diagram	<input type="checkbox"/>	
Have the installation clearances been observed?	<input type="checkbox"/>	
Have the safety clearances (R290!) been observed?	<input type="checkbox"/>	
Visual inspection of heat pump for damages inside and outside	<input type="checkbox"/>	
Which hydraulic diagram from the operating instructions has been chosen?		
1 <sup>st</sup> storage tank used		manufacturer, type:
2 <sup>nd</sup> storage tank used		manufacturer, type:
Solar system	yes <input type="checkbox"/> no <input type="checkbox"/>	manufacturer, type:
Changeover valve heating/hot water	yes <input type="checkbox"/> no <input type="checkbox"/>	manufacturer, type:
Changeover valve heating/cooling	yes <input type="checkbox"/> no <input type="checkbox"/>	manufacturer, type:
Pre-charge pressure and size external expansion vessel	Bar	manufacturer, type, size:
Pre-charge pressure internal expansion vessel	Bar	
System pressure	Bar	
If required: Has an auxiliary pump been installed?	yes <input type="checkbox"/> no <input type="checkbox"/>	manufacturer, type, size:
Has a strainer/dirt separator been installed?	yes <input type="checkbox"/> no <input type="checkbox"/>	manufacturer, type, size:
Has the system been flushed?	yes <input type="checkbox"/> no <input type="checkbox"/>	
Has the system been filled with antifreeze?	Vol.%	manufacturer, type:
Volume flow acc. to display at controller	l/min	
Nominal flow rate reached acc. to type plate	m <sup>3</sup> /h	
Visual heat pump inspection for leakages	<input type="checkbox"/>	
Has the system been vented?	<input type="checkbox"/>	

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Activity	Done	Remark
Piping supply/return heat pump, cross section	mm	total length, material:
Condensation drain connected	<input type="checkbox"/>	
Have date and time been set?	<input type="checkbox"/>	
Which operating mode has been selected?		
Design temperature supply	°C	
Design temperature return	°C	
Bivalence point	°C	
Activation Auto temperature and heating curve adjustment	<input type="checkbox"/>	
Electrical booster heater	<input type="checkbox"/>	manufacturer, type, output:
2 <sup>nd</sup> heat generator		manufacturer, type, output:
<b>After 10-minute operating time:</b>		
Supply heat pump	°C	
Return heat pump	°C	
Air inlet	°C	
Air outlet	°C	
High pressure refrigerant	Mpa	
Low pressure refrigerant	Mpa	
Has the installation company optimised the system parameters?	<input type="checkbox"/>	
Have the modified system parameters been documented (list)?	<input type="checkbox"/>	
Has a system diagram been created?	<input type="checkbox"/>	
Have photos of the heat pump system been taken?	<input type="checkbox"/>	
Have the documents been handed over to the final customer?	<input type="checkbox"/>	
Briefing final customer	<input type="checkbox"/>	
Miscellaneous		

The OEG heat pump has been connected and tested in accordance with the valid, accepted rules of technology (VDE 0100, 0701-0702, DIN EN 12828, 14336, 15450, 12831, VDI 2035, 4650, 4645) and OEG's installation and operating instructions.

.....  
Place | Date

.....  
Customer signature

.....  
Expert technician signature

Appendix 1: Parameter list  
Appendix 2: System drawing / Hydraulic diagram

## Appendix 1: Parameter list

No	Description	Range	Standard 6kW 650 001 330	Standard 9kW 650 001 331	Standard 12kW 650 001 332	Standard 18kW 650 001 333	modified
P00	ON/OFF	0: OFF 1: ON	0	0	0	0	
P01	Working mode	1: DHW heating 2: A/C heating 3: Hot water + A/C heating 4: A/C cooling 5: Hot water + A/C cooling	2	2	2	2	
P02	Heating target temperature	10~75 °C	45	45	45	45	
P03	Cooling target temperature	7~25 °C	12	12	12	12	
P04	DHW target temperature	10~70 °C (Value ≥ P35. only electric booster heater operation)	45	45	45	45	
P05	Room target temperature	10~35 °C	21	21	21	21	
P06	A/C Temperature difference	1~15 °C	5	5	5	5	
P07	DHW temperature difference	1~15 °C	5	5	5	5	
P08	A/C heating OTC curve max. temp. value (weather-compensated OTC curve)	35~70 °C	45	45	45	45	
P09	A/C heating OTC curve parallel shifting value (weather-compensated OTC curve)	-10~10 °C	0	0	0	0	
P10	Thermal sterilisation cycle	1~99 days	7	7	7	7	
P11	Thermal sterilisation start time	0~23 (time)	23	23	23	23	
P12	Thermal sterilisation run time	5~99 min.	10	10	10	10	
P13	Thermal sterilisation temperature	50~70 °C	70	70	70	70	
P14	Thermal disinfection mode selection	0-Auto 1-manual 2-OFF	2	2	2	2	
P15	Night mode start	0~23 (time)	22	22	22	22	
P16	Night mode end	0~23 (time)	6	6	6	6	
P17	Night mode OFF/ON	0-OFF 1-ON	0	0	0	0	
P18	Hot water AU OFF/ON	0-OFF 1-ON	0	0	0	0	
P19	A/C AU OFF/ON	0-OFF 1-ON	0	0	0	0	
P20	Working mode circulation pump	0: no stop. 1: stop when temp. reached 2: runtime: 1 min. every 15 min.	0	0	0	0	
P21	Frost protection interval circulation pump	5~50 min.	30	30	30	30	
P22	Ambient temp. to activate booster heater for heating (E2)	-30~20 °C	0	0	0	0	
P23	Ambient temp. to activate second energy source for DHW (E1)	-30~20 °C	0	0	0	0	
P24	Electrical booster heater to activate temperature parallel shift value	1~15 °C	5	5	5	5	
P25	A/C frost protection temperature	-15~5 °C	3	3	3	3	
P26	Multi-control defrost interval	0~4 0: no defrost 1~4 defrost interval time multiple rate	1	1	1	1	
P27	First defrost interval	15~99 min.	50	50	50	50	
P28	Defrost selection	0: Auto 1: Manual defrost (after defrost back to default 0)	0	0	0	0	
P29	Evaporator temperature to activate defrost	-8~5 °C	-3	-3	-3	-3	
P30	Evaporator temperature to de-activate defrost	5~30 °C	20	20	20	20	
P31	Max. defrost time	2~20 min.	12	12	12	12	
P32	EEV control mode	0: no 1: test chart 2: manual 3: suction gas superheat 4: discharge gas superheat	3	3	3	3	
P33	EEV manually initiate opening steps (heating)	50~480 (only valid if P32=2)	400	400	400	400	
P34	EEV manually initiate opening steps (cooling)	50~480	400	400	400	400	
P35	In DHW mode, highest water temperature for running compressor	0~70 °C	70	70	70	70	
P36	Time interval between compressor and E1 commissioning (reserved)	0~999 min.	5	5	5	5	
P37	Temperature difference for variable DC fan speed (heating)	2~15 °C	6	6	6	6	
P38	Temperature difference for variable DC fan speed (cooling)	3~18 °C	8	8	8	8	
P39	Selection of compressor model (reserved)	0~999	358	59	73	69	
P40	Setting of compressor frequency	0: manual 1: auto	1	1	1	1	
P41	Compressor oil return frequency	10~100 Hz	50	50	50	50	
P42	Compressor frequency limiting current	1~50A	11	14	6	9	

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P43	Compressor frequency reduction current	1~50A	13	16	8	11	
P44	Compressor frequency shutdown current	1~50A	15	18	9	13	
P45	Maximum running frequency	50~120 Hz	90	90	85	85	
P46	Minimum running frequency	0~90 Hz	35	35	35	35	
P47	Defrost running frequency	30~90 Hz	65	65	65	65	
P48	Maximum frequency DHW	2~10 (max. frequency x 20~100%)	10	10	10	10	
P49	DHW maximum frequency	0~99	0.2	0.2	0.2	0.2	
P50	Discharge superheat differential coefficient. desired superheat degree in percent	0~99	1	1	1	1	
P51	High pressure value to limit <u>compressor frequency rising</u>	2.0~4.5MPa (display value multiply 0.1)	29.5	29.5	29.5	29.5	
P52	High pressure value to cancel compressor frequency limit	2.0~4.5MPa (display value multiply 0.1)	26	26	26	26	
P53	Protection pressure (high)	2.5~5.0MPa (display value multiply 0.1)	32	32	32	32	
P54	Protection pressure (low)	0.01~1.0MPa (display value multiply 0.1)	0.3	0.3	0.3	0.3	
P55	Pressure difference for high pressure protection recovery	0.2~1.5MPa (display value multiply 0.1)	5	5	5	5	
P56	Pressure difference for low pressure protection recovery	0.01~1.0MPa	0.15	0.15	0.15	0.15	
P57	Discharge gas protection temperature	100~125 °C	105	105	105	105	
P58	Temperature difference for variable	3~8 °C	5	5	5	5	
P59	circulation pump 1-stage	2~8 (stands for 20% to 80% of the speed)	8	8	8	8	
P60	Min. running speed of PWM circulation pump	500~1.500 rpm	800	850	900	850	
P61	Max. running speed of DC motor	3~80 l/min. step 1	6	8	11	14	
P62	Minimum water flow	0: Cooling + heating 1: Only cooling 2: Only heating	0	0	0	0	
P63	Definition of A/C function	0: No 1: Yes	1	1	1	1	
P64	DHW heating ON/OFF	0~480	90	90	90	90	
P65	EEV minimum open step	0: Auxiliary pump 1: Circulation pump for DHW circulation	0	0	0	0	
P66	Function definition for circulation pump C2	0: Air 1: Water (reserved)	0	0	0	0	
P67	Selected heat source	0: OFF 1: ON	0	0	0	0	
P68	Room thermostat (reserved)	0: Water flow switch 1: Water flow sensor	1	1	1	1	
P69	Flow switch selection	0: AC motor 1: First DC motor 2: Second DC motor 3: Two DC motors	1	1	1	3	
P70	Fan motor type	0:OFF 1:ON	1	1	1	1	
P71	Automatic restart	0: Manual 1: Auto	1	1	1	1	
P72	DC motor speed control	0~1.500 rpm (display value multiply 10)	0	0	0	0	
P73	DC motor fixed speed	0: Pressure sensor 1: Pressure switch	0	0	0	0	
P74	EVI EEV control mode	0: no 1: checking 2: manual 3: auto	0	0	0	0	
P75	EVI EEV manually initial open steps (heating)	40~480	40	40	40	40	
P76	EVI EEV manually initial open steps(cooling)	40~480	40	40	40	40	
P77	EVI Target superheat (heating)	-5~10 °C	3	3	3	3	
P78	EVI Target superheat (heating)	-5~10 °C	3	3	3	3	
P79	WIFI data upload interval	30~9999 s	300	300	300	300	
P80	Reserved	0~10 (display value multiply 0.1)	10	10	10	10	
P81	E2 function definition	0: Electrical booster heater 1: Second heating source 2: Combined together with electrical booster heater 3: Combined with a boiler	0	0	0	0	
P82	Ambient temperature to activate the second energy source in auxiliary mode (E2, E1)	-30~20 °C	-25	-25	-25	-25	
P83	DHW heating circulation pump mode (C3 pump P88=1)	0: No 1: Timer 2: Temperature 3: Timer + temperature	3	3	3	3	

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No	Description	Range	Standard 6kW 650 001 330	Standard 9kW 650 001 331	Standard 12kW 650 001 332	Standard 18kW 650 001 333	modified
P84	Temperature difference for DHW heating pump (C3 pump P88=1)	4~20 °C	5	5	5	5	
P85	Ambient defrost temperature	0~20 °C	5	5	5	5	
P86	Difference ambient defrost temperature and coil temperature ΔT1	0~20 °C	8	8	8	8	
P87	Factory default	0: No 1: Timer 2: Temperature 3: Timer + temperature	0	0	0	0	
P88	C3 pump selection	0: DHW auxiliary pump 1: DHW circulation pump	0	0	0	0	
P89	Discharge gas superheat percentage coefficient. desired superheat degree in percent	0.1~2	0.3	0.3	0.3	0.3	
P90	Discharge gas superheat differential coefficient. difference between actual and desired superheat	0~20	1	1	1	1	
P91	Difference defrost ambient temperature and evaporator temperature ΔT2 (ambient temperature < -7 °C)	0~20°C	8	8	8	8	
P92	Target suction superheat (heating) (ambient temperature < -5)	-20~50°C	0.5	0	0.5	0.5	
P108	R485 monitoring address	1		1	1	1	
P109	Discharge gas temperature value 1 to limit compressor frequency	80~125	100	100	100	100	
P110	Discharge gas temperature value 2 to limit compressor frequency	80~125	97	97	97	97	
P111	Discharge gas temperature value 2 to limit compressor frequency	80~125	95	95	95	95	
P112	EEV adjustment temperature when discharge gas temperature is too high	80~125	100	100	100	100	
P113	EEV adjustment time when discharge gas temperature is too high	1~120	30	30	30	30	
P114	Compressor frequency reduction percentage after set temperature reached.	0~60 %		2	2	2	
P115	Protection value outlet temperature too high	70~90	83	83	83	83	
P116	Calculation booster heater	0~1	0	0	0	0	
P117	E0 reserviert	0~20.0kw	0	0	0	0	
P118	E1 capacity booster heater DHW	0~20.0kw	0	0	0	0	
P119	E1 capacity booster heater space heating	0~20.0kw	0	0	0	0	
P120	reserved		0	0	0	0	
P121	PV activation	0=OFF 1=ON	0	0	0	0	
P122	PV activation	0=OFF, 1=ON. After the entire process automatic reset to „0“	0	0	0	0	
P123	1st period	1~15 Tage	10	10	10	10	
P124	1st period start temperature	10~60 °C	20	20	20	20	
P125	1st period end temperature	10~60 °C	20	20	20	20	
P126	2nd period	1~15 Tage	5	5	5	5	
P127	2nd period start temperature	10~60 °C	20	20	20	20	
P128	2nd period end temperature	10~60 °C	50	50	50	50	
P129	3rd period	1~15 days	10	10	10	10	
P130	3rd period start temperature	10~60 °C	50	50	50	50	
P131	3rd period end temperature	10~60 °C	50	50	50	50	
P132	4th period	1~15 days	5	5	5	5	
P133	4th period start temperature	10~60 °C	50	50	50	50	
P134	4th period end temperature	10~60 °C	20	20	20	20	
P135	OTC heating limiting temperature	15~25 °C	17	17	17	17	
P136	OTC heating recovery temperature	3~13 °C	5	5	5	5	
P201	SG Ready activation	ON/OFF	OFF	OFF	OFF	OFF	
P202	Heating switch-on recommendation target temperature	OFF 10 °C~70 °C	OFF	OFF	OFF	OFF	
P203	Heating switch-on command target temperature	OFF 10 °C~70 °C	OFF	OFF	OFF	OFF	

## Appendix 1: Parameter list

No	Description	Range	Standard 6KW 650.001.330	Standard 9KW 650.001.331	Standard 12KW 650.001.332	Standard 18KW 650.001.333	modified
P204	Cooling switch-on recommendation target temperature	OFF 10 °C~30 °C	OFF	OFF	OFF	OFF	
P205	Cooling switch-on command target temperature	OFF 10 °C~30 °C	OFF	OFF	OFF	OFF	
P206	DHW switch-on recommendation target temperature	OFF 10 °C~70 °C	OFF	OFF	OFF	OFF	
P207	DHW switch-on command target temperature	OFF 10 °C~70 °C	OFF	OFF	OFF	OFF	
P208	Heating device for DHW heating and heating modes	0: Heat Pump+E1/E2 1: E1/E2 only 2: Heat Pump only	OFF	OFF	OFF	OFF	



## Appendix 2: System drawing / Hydraulic diagram

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