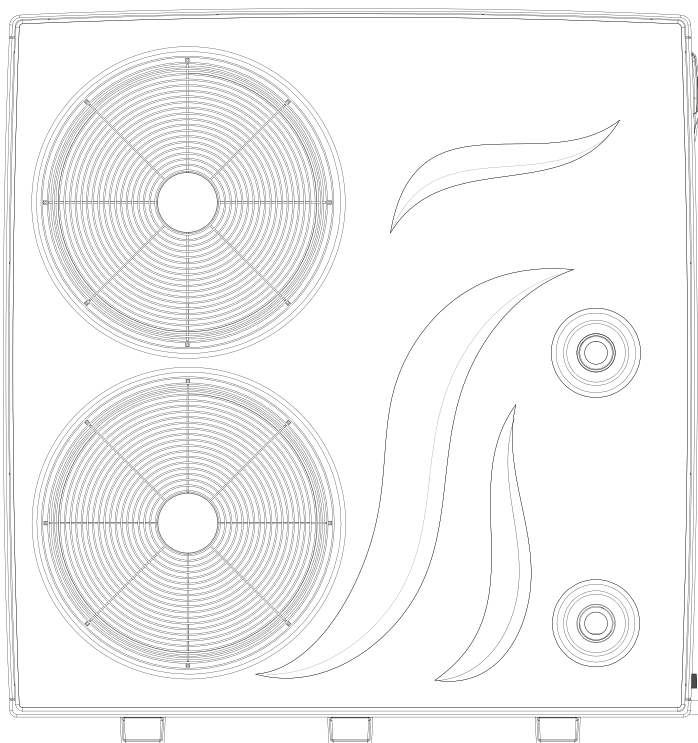
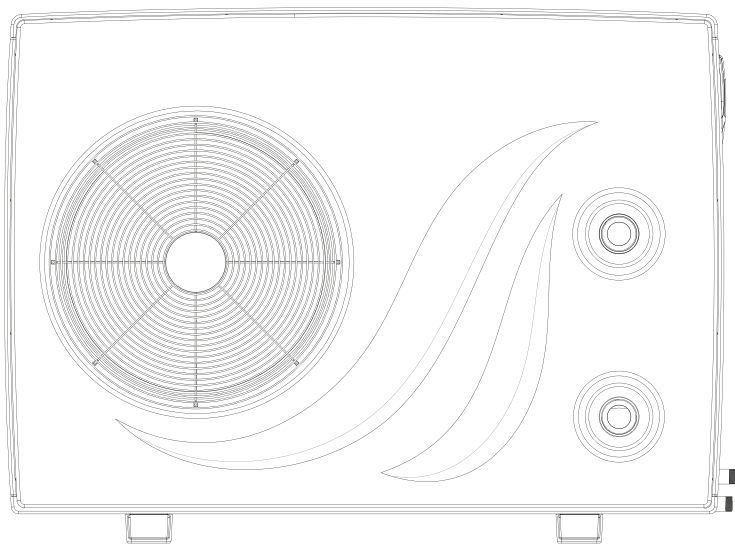


OWNER'S MANUAL

POOL HEAT PUMP



30HPRA-E-410 | 50HPRA-E-410 | 80 HPRA-E-410 | 100 HPRA-E-410
50HPRA-E-410 (3PH) | 80HPRA-E-410 (3PH) | 100HPRA-E-410 (3PH)



MDPL-000028-V1-E

Shipping Damage **MUST** be reported to the Carrier **IMMEDIATELY!!!** Examine the exterior. Remove cover and examine compressor and piping for signs of damage.

Warning:

Prior to starting the heat pump, you must ensure that:

- > Electricity is supplied to the heat pump.
- > The filter pump is operating with a minimum water circulation of 5.1 m³/h with a maximum pressure of 3 BARS.

If these two conditions are not met, the heat pump will not start. In such case, the digital display thermometer will be unusable.

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Dear Valued Customer,

Thank you for purchasing this **DPL** product.

We hope that you will derive as much pleasure from using this product as we did in manufacturing it. In order to bring you the best possible products, we want to know your comments about the product. You can e-mail us at **info@dplpool.com** or contact customer service at +1.450.818.4758

For easy reference, we suggest that you attach a copy of your sales slip/receipt to this page, along with the following information which can be found on the manufacturer's nameplate located on the side of the unit.

Model number: _____

Serial number: _____

Date of purchase: _____

Date of installation: _____

Dealer's Name and Address: _____

You will be asked this information if your unit requires servicing and/or for general inquiries.

DPL POOL HEAT PUMP FEATURES

- > Digital display thermostat.
- > ROTARY or SCROLL energy-efficient compressor.
- > Aluminium/copper evaporator with one or two vertically-positioned ventilator(s). This configuration greatly reduces noise output while improving heat exchange efficiency.
- > Titanium double coil, according to model. Titanium heat exchangers are very resistant to all chemical imbalances.
- > The cabinet of all our product are with vacuum plastic, and with Aluminium.
- > Stainless steel screws with nylon washers and painted steel grill.
- > Access holes for service gauges.
- > Superior quality thermostatic expansion valve, distributor and filter.
- > Safety approval by CE.
- > Each Pool Heat Pump is factory run tested.

Specifications

				(3 PH)		(3 PH)		(3 PH)		
Model				30HPRA-E-410	50HPRA-E-410	80HPRA-E-410	100HPRA-E-410	50HPRA-E-410	80HPRA-E-410	100HPRA-E-410
Features										
Temperature control				Digital display	Digital display	Digital display	Digital display	Digital display	Digital display	Digital display
Adjustable thermostat (°C and °F)				16~35 °C (60-95 °F)	16~35 °C (60-95 °F)	16~35 °C (60-95 °F)	16~35 °C (60-95 °F)	16~35 °C (60-95 °F)	16~35 °C (60-95 °F)	16~35 °C (60-95 °F)
Heat exchanger				Titanium	Titanium	Titanium	Titanium	itanium	Titanium	Titanium
Heat exchanger special feature				Double coil	Double coil	Double coil	Double coil	Double coil	Double coil	Double coil
Refrigerant type				R410A	R410A	R410A	R410A	R410A	R410A	R410A
Refrigerant charge kg				1.65	2.0	2.65	3.2	2.0	2.65	3.2
Automatic restart function after power failure				Yes	Yes	Yes	Yes	Yes	Yes	Yes
Compatible with salt chlorination systems				Yes	Yes	Yes	Yes	Yes	Yes	Yes
Automatic defrost operation				Yes	Yes	Yes	Yes	Yes	Yes	Yes
Galvanized steel cabinet				Yes	Yes	Yes	Yes	Yes	Yes	Yes
Compressor type				Rotary	Rotary	Scroll	Scroll	Rotary	Scroll	Scroll
Thermostatic expansion valve				Included	Included	Included	Included	Included	Included	Included
Performance ratings										
Power restored * kw				10.5	14	21	26.5	14	21	26.5
Power consumed * kw				2.17	2.65	4.7	6.3	2.65	4.7	6.3
COP (Power restored / Power consumed) *				4.9	5.3	4.5	4.2	5.3	4.5	4.2
Acoustic power dB(A)				52	55	59	61	55	59	61
Water flow rate m³/h				Minimum	5.1	5.1	8.2	5.1	8.2	8.2
				Maximum	15	15	15	15	15	15
Dimensions & Weight										
Unit	Dimensions	mm	Width	1140	1255	1255	1255	1255	1255	1255
			Height	890	930	1135	1135	930	1135	
			Depth	385	415	415	415	415	415	
			Net	77	88	128	128	88	128	
Carton	Dimensions	mm	Width	1160	1275	1275	1275	1275	1275	1275
			Height	920	960	1360	1360	960	1360	
			Depth	450	480	480	480	480	480	
			Weight	Kg	Shipping	85	95	138	138	95

All technical data subject to change without notice.

This manual is a guide to the proper installation of the **DPL** Pool Heat Pump. Improper installation may result in unsafe and dangerous conditions that will void the factory warranty. Prior to installation, read these instructions and any instructions that are packaged with separate pieces of equipment that make up the system. Please read these instructions thoroughly and carefully before attempting installation or operation. Failure to follow these instructions may result in improper installation, operation, service, or maintenance, possibly resulting in fire, electrical shock, property damage, personal injury, or death.

General Precautions:

- > Ensure proper supervision of unit in the presence of children or persons unfamiliar with pump operation.

- > Do not hang or lay clothes or other objects on the unit.

- > Keep the evaporator coil clean. Any restrictions to the air flow of the evaporator coil can seriously affect system performance.

- > This device must be installed in compliance with national electrical standards.

- > Do not insert foreign objects between the air flow swivelling blades as this may damage the ventilator or cause injury.

- > The unit must never be placed on its side or upside down, as the compressor oil will run into the cooling circuit and seriously damage the unit.

- > Please be advised that attempting to repair this unit by yourself is done at your own risk. It is recommended to contact the store of purchase or an authorized service centre.

Caution:

The manufacturer disclaims all liability for any accident, during the installation or use of this product, as a result of the unsafe installation of the heat pump. If you encounter difficulties during installation, please contact the store of purchase or an authorized service centre.



Caution:

This device is not intended for use by persons with reduced physical, sensory or mental capacities (including children), or lack of experience and knowledge, unless they are supervised by an adult or have been given instruction concerning the use of the device. Children should be supervised to ensure that they do not play with the device.

OPERATING THE POOL HEAT PUMP

The **DPL Swimming Pool Heat Pump** is designed for easy operation. The side panel contains a digital temperature control readout. The Heat Pump is set to reach and then maintain the selected pool water temperature, as long as the pool pump is running.

To start the unit:


> Press the  button. In normal operating mode, the display indicates the water temperature in centigrade degrees. To stop the heat pump, press the  button again.


To adjust the temperature to the desired value:



> Press the  button until the red pilot light  turns on.

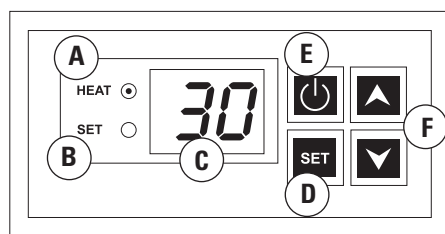
> To adjust the water temperature, press the  or  buttons until the targeted temperature is displayed. The available temperature range is between 18 °C and 35 °C.



> To return to normal operating mode, press the  button again, for at least 5 seconds.

The **HEAT**  pilot light turns on whenever the heat pump is in operation, which means that the ventilator(s) and the compressor are functioning in order to heat the pool.

All models use a 5-minute time delay to prevent repeated tripping of the compressor's overload protection mechanism, which is caused by attempting startup before system pressures are equalized. Any interruption will result in a 5-minute time delay. The **HEAT**  pilot light will blink during this 5-minute time delay.

To display the temperature in fahrenheit (°F) or celcius (°C), Press the  and  buttons simultaneously for 3 seconds to select the desired temperature scale.



- A: HEAT  pilot light
- B: SET  pilot light
- C: Digital display
- D: Button to set temperature at desired value
- E: Start/stop button
- F: Temperature adjustment buttons

! Warning:

Prior to starting the heat pump, you must ensure that:

- > There is electricity supplied to the heat pump.
- > The filter pump is operating with a minimum water circulation of 6 m³/h.

If these two conditions are not met, the heat pump will not start. In such a case, the digital display thermometer will be unusable.

☀ TIP:

Setting the thermostat to its highest setting will not heat the water faster than setting it at the desired temperature.

GENERAL INFORMATION ON HEAT PUMP OPERATION

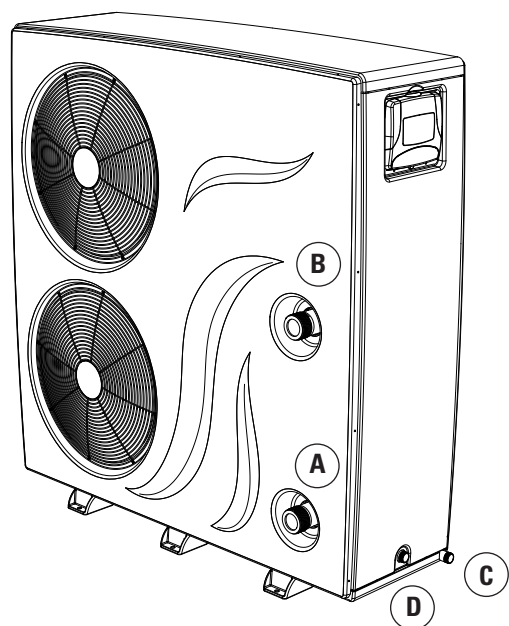
Beginning of season:

- > Make sure that the electrical breaker for the pool heat pump is in the **OFF** position.
- > Ensure the water lines and the heat pump are reconnected **and/or** drain valves are closed.
- > Clean the pool filter and make sure the water is flowing adequately through the pool return line (5.1 m³/h to 15 m³/h).
- > Complete your normal preparation **and/or** cleaning of the pool for the start of the season.
- > Switch **ON** the breaker for the electrical supply to the heat pump.
- > Then you need only start the unit and adjust the temperature to the desired value.

End of season (Winterizing)

- > Switch **OFF** the breaker for the electrical supply to the heat pump.
- > You must empty the unit of all water. Simply disconnect the **WATER INLET** and **WATER OUTLET** lines by unscrewing the two union fittings on the front of the unit. To completely remove the water from the heat exchanger, you must remove the drain cap (**WINTERIZING DRAIN**) that is located on the side of the unit. You must then let the water flow out until the unit is completely emptied. (See the illustration below.)

It is recommended to cover the heat pump with a protective cover that is available from your dealer.



- A: WATER INLET
- B: WATER OUTLET
- C: CONDENSATION WATER DRAIN PIPE
- D: WINTERIZING DRAIN (with plastic caps)

POOL HEAT PUMP INSTALLATION

Determining Optimum Location

Choose a location where the noise of the heat pump, when running, and the discharged air will not disturb the neighbours.

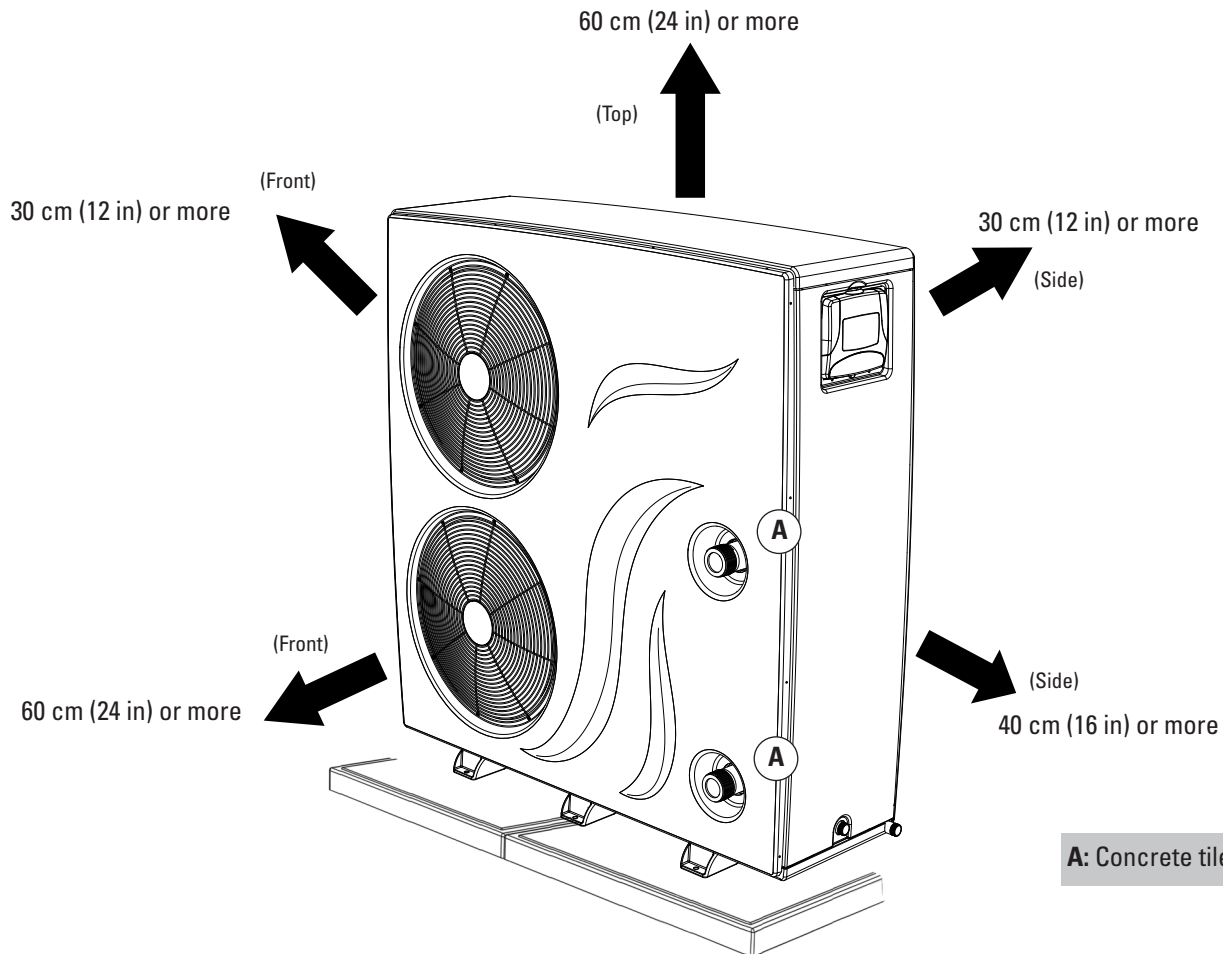
Install the Pool Heat Pump unit on a flat, stable surface that can support its weight and does not generate any unnecessary noise and vibration.

Clearance

Choosing the location of your heat pump is very important. You should install it as close as possible to the filter system. You should obey the clearance distances around the heat pump that are given in the drawing below.

Level Placement

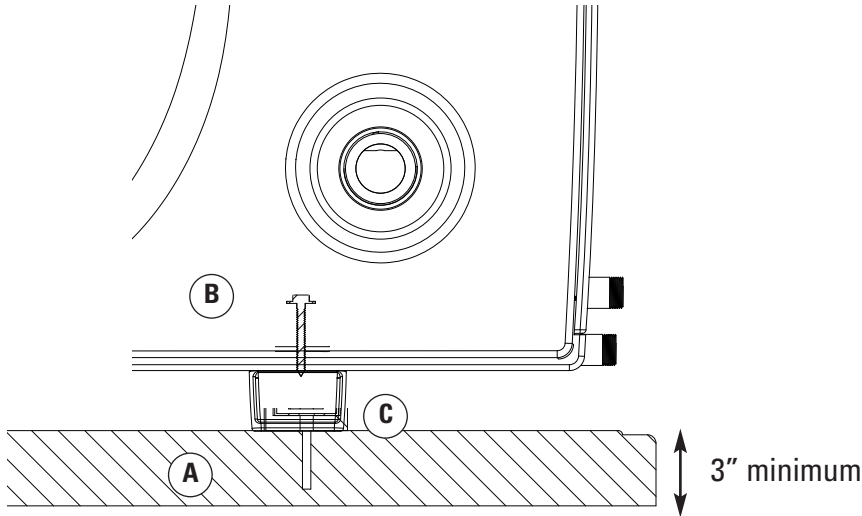
We recommend that you install your heat pump on a solid base, for example two concrete tiles. Four (4) rubber pads (absorbent pads) are provided to lessen the transfer of vibrations. (See drawing below.)



POOL HEAT PUMP INSTALLATION

Securing the unit

We recommend that you secure the unit to the concrete pad by using four (4) TAPCON screws and washers. (See drawing below.)

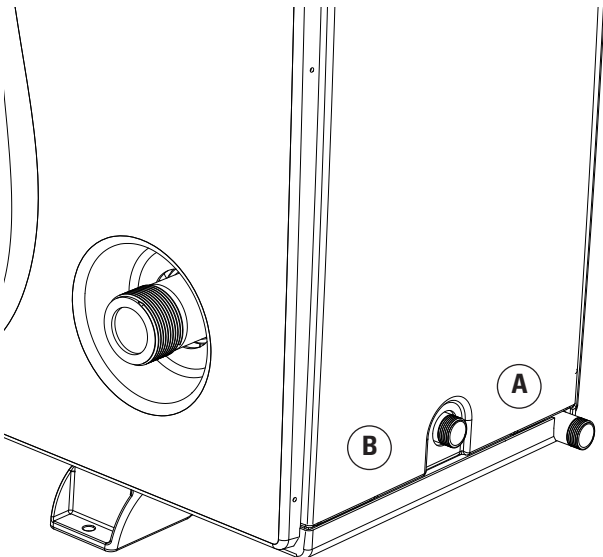


- A:** Concrete Pad
- B:** 1/4" x 1-1/2" Stainless Steel Concrete Screw and Washer (Provided by installer)
- C:** 3/16" Drilled Hole

Condensation and Drainage

The evaporator coil will produce condensation while the unit is running and drain at a steady rate, usually 11 to 19 liters, depending on the ambient air temperature and humidity.

It is normal for condensation to drip out the **CONDENSATION WATER DRAIN PIPE** that is located on the side of the unit. (See drawing below.)



- A:** CONDENSATION WATER DRAIN PIPE
- B:** WINTERIZING DRAIN (with plastic caps)

POOL HEAT PUMP INSTALLATION

Water flow

To minimize heating time, make sure all water valves are open completely, that the water level of the pool is at the correct height. **DPL** Pool Heat Pump is designed to operate at full flow through the heat exchanger (condenser). A flow rate of 6 m³/h to 15 m³/h should be maintained.



Caution:

Either no flow or a low flow rate will cause the unit to shut down. The Pool Heat Pump will not operate without a flow of water.

Electrical connections

This includes the heat pump, swimming pool metal panels, light, heat pump, filter, chlorine generator, as well as any other metal component or electrical equipment.

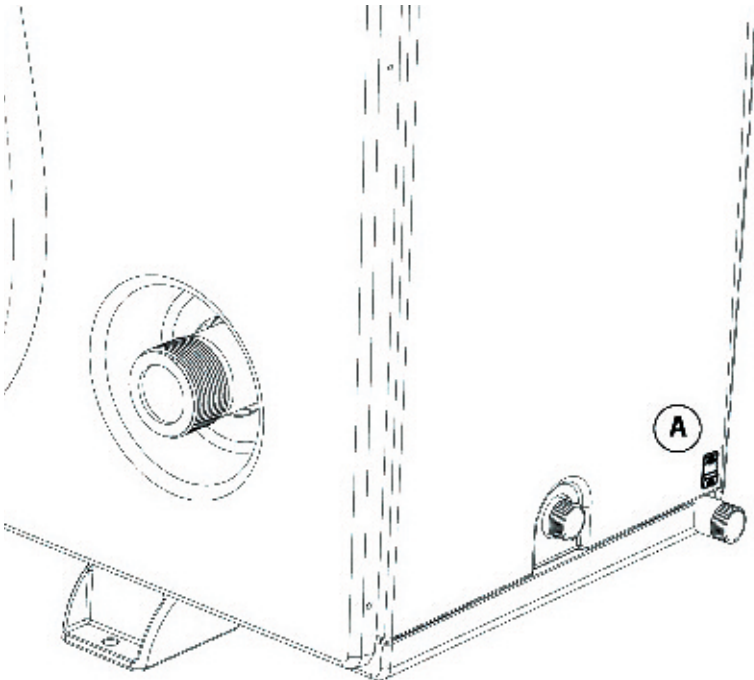
Some older swimming pools might not have an electrical connector cable. In such cases, you must drive a 0.9 to 1.2 meters copper rod into the ground next to the equipment.

The ground connector of the **DPL** heat pump is located on the side of the unit.
(See drawing below.)



Warning:

Your warranty may be voided if the equipment is improperly connected.



A: Ground connector

ELECTRICAL SPECIFICATIONS

- > A qualified person must install the unit in accordance with all national and local codes and guidelines (NFC - 15 - 100).
- > Power supply wires must be such a certification YZW, and shall not be lighter than code designation 60245 IEC 57.
- > An electrical circuit exclusive to the heat pump must be used as the power supply.
- > The supply voltage, size of over-current protective device, and size of supply conductors for the heat pump are shown below.
- > Pool Heat Pump condensing unit must be connected to a properly grounded electrical supply.
You must ensure this unit is properly grounded.
- > Check local electrical codes and regulations before obtaining wire.
- > Use copper supply wires only.

Electrical Specifications

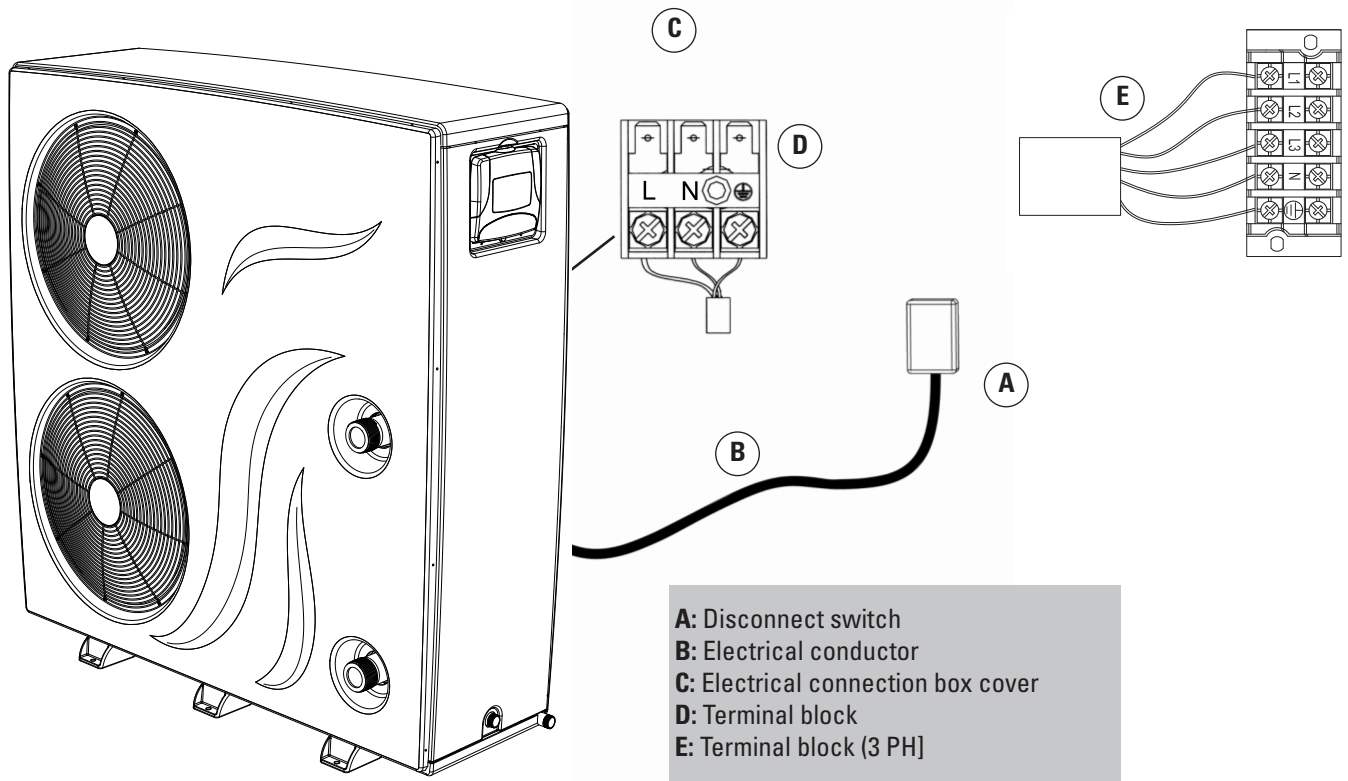
							(3 PH)	(3 PH)	(3 PH)
Model			30HPRA-E-410	50HPRA-E-410	80HPRA-E-410	100HPRA-E-410	50HPRA-E-410	80HPRA-E-410	100HPRA-E-410
Electrical ratings									
Voltage rating	V		220-240 V~	220-240 V~	220-240 V~	220-240 V~	220-240 V~	220-240 V~	220-240 V~
Frequency / Phase	Hz / ø		50 / 1	50 / 1	50 / 1	50 / 1	50 / 1	50 / 1	50 / 1
Compressor	w	Capacity	6650	8150	14881	21100	8150	14881	21100
		Input Power	2270	2760	2355	3398	2760	2355	3398
	A	RLA	10.9	13.1	25.6	29.0	13.1	25.6	29.0
		LRA	56	63	130	135	63	130	135
Motor (s)	A	FLA	0.65	0.72	0.72 Each	0.72 Each	0.72	0.72 Each	0.72 Each
Rated heating current input	A		9.5	10.8	15.6	19.1	10.8	15.6	19.1
Maximum current input	A		13.6	15	26.9	32	15	26.9	32
Maximum current surge protection	A		25	25	40	63	25	40	63
Circuit breaker (Curve D) delayed designed for motors									
Maximum current surge protection	A		20	20	32	50	20	32	50
Fuse (Am) delayed designed for motors									
Conductor type	mm ²		2.5	2.5	6	6	2.5	6	6
Number of conductors			2 + ground	2 + ground	2 + ground	2 + ground	2 + ground	2 + ground	2 + ground

All technical data subject to change without notice.

CONNECTING ELECTRICAL CONDUCTORS

You must remove the electrical connection box cover to access the electrical compartment. Wiring connections must be made exactly as shown in the wiring diagram found under the top cover inside the Pool Heat Pump.

A disconnect switch must be installed near the outdoor unit for easy disconnection of power to the Pool Heat Pump.



! CAUTION

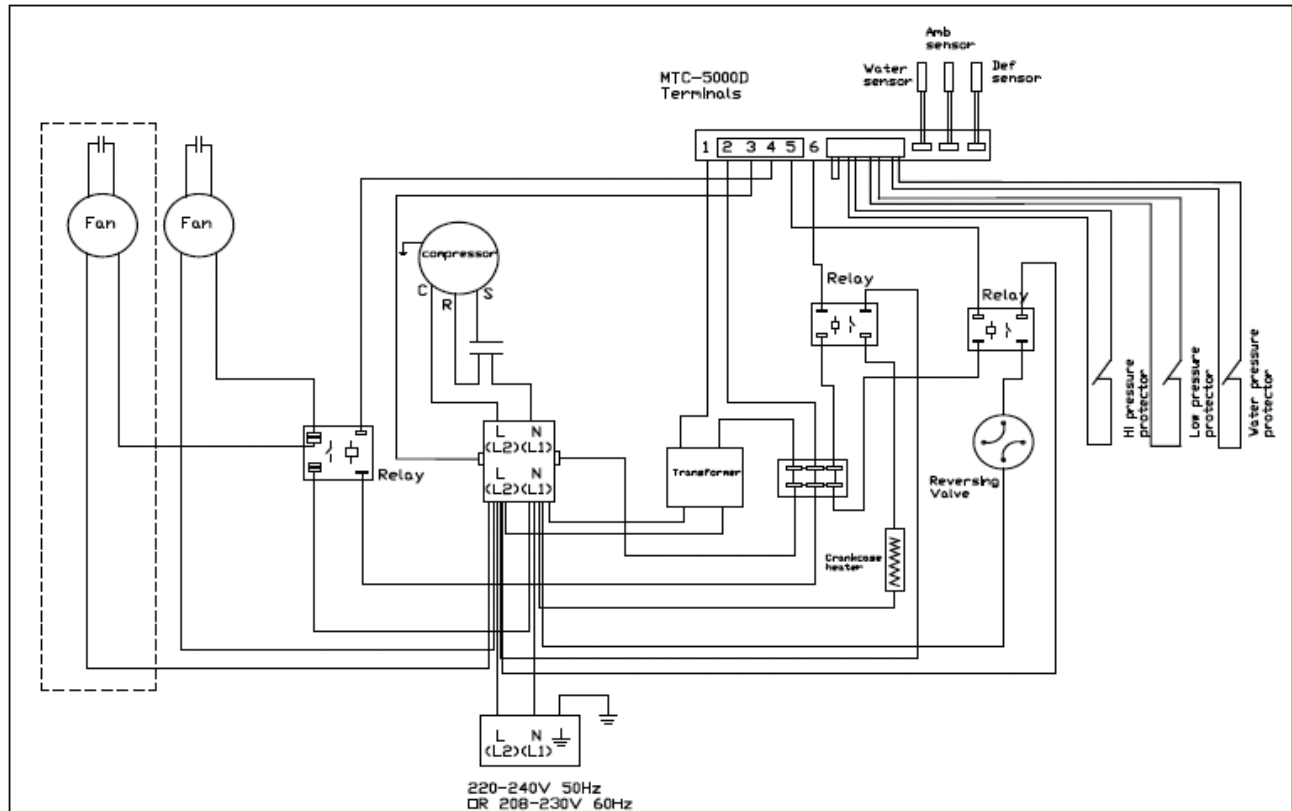
Operating the unit with improper line voltages constitutes abuse and will affect unit reliability and operation. Do not install a system where voltage or phase imbalances may occur above or below permissible limits.

! WARNING

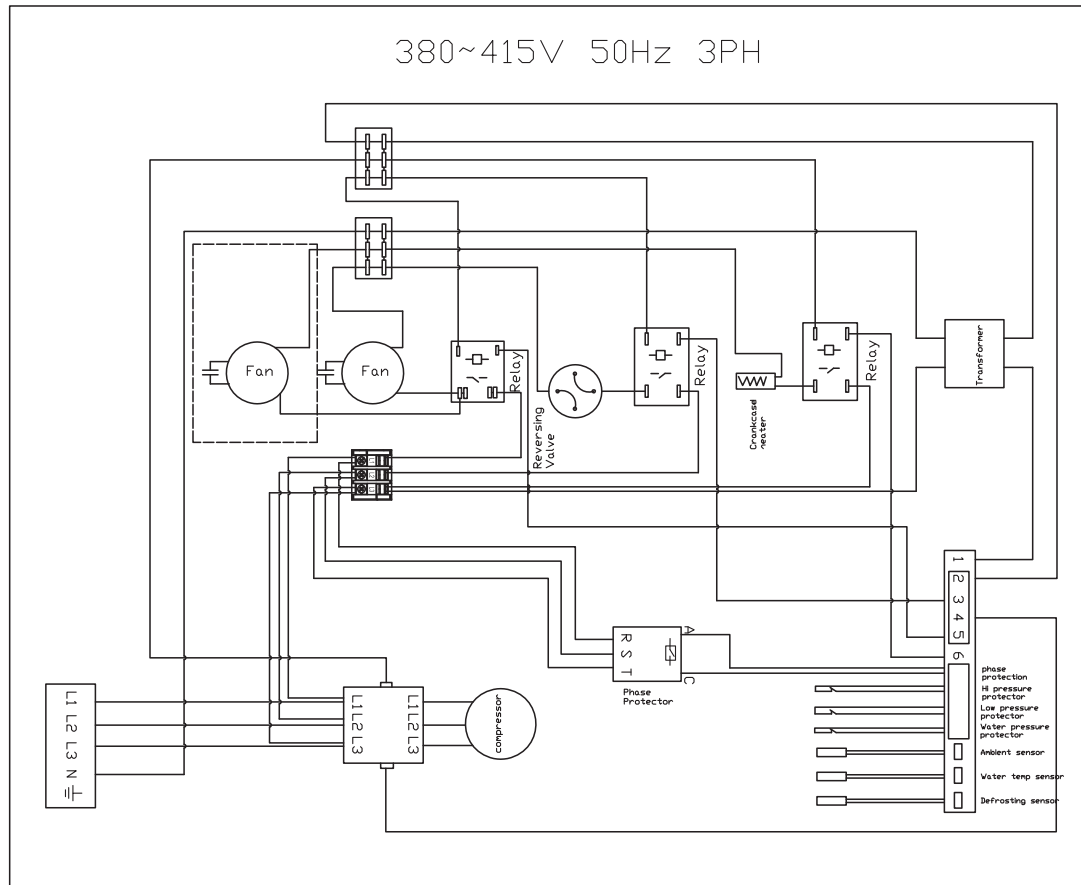
Disengage main power disconnect before attempting installation

WIRING DIAGRAM

30HPRA-E-410 - 50HPRA-E-410 - 80HPRA-E-410 - 100HPRA-E-410



3PH



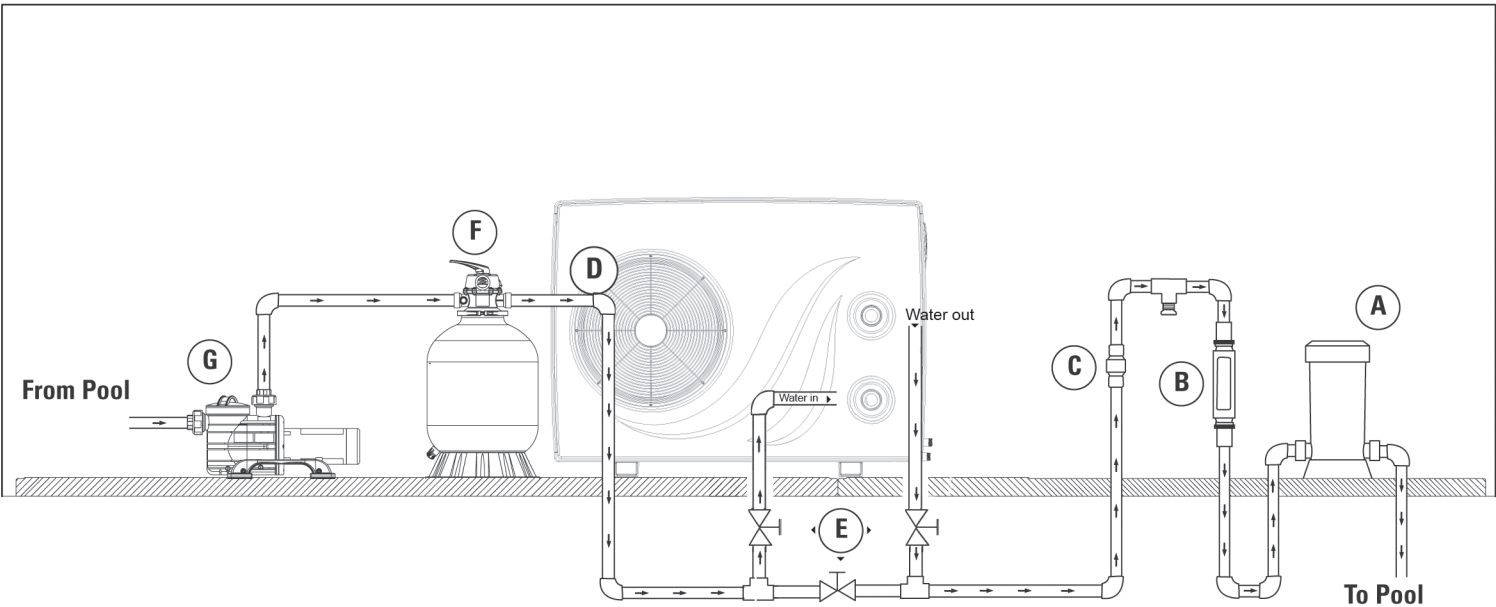
PLUMBING SPECIFICATION

Installation

The typical plumbing diagram illustrates the standard plumbing layout with a single heat pump unit. Following the diagram from left to right, the plumbing sequence is as follows:

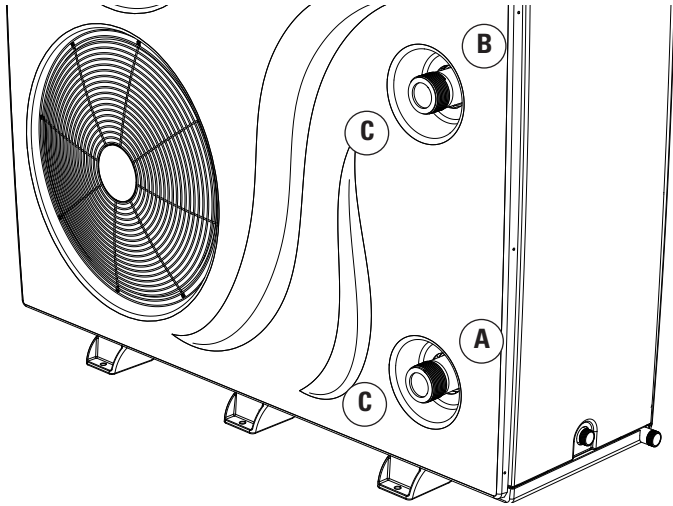
Pool→ Pool Pump → Filter → Heat Pump → Check Valve → Chemical Loop → Chlorinator → Pool

A detachable connection (union) must be utilized immediately adjacent to heater to facilitate servicing and winterizing of the unit.



A: Chlorinator
B: Chemical Loop or Optional Chlorine Generation System
C: Check Valve
D: Pool Heater

E: E: 3 Manual Bypass Valve
(Recommended installation)
F: Filter
G: Pool Pump



A: WATER INLET
B: WATER OUTLET
C: DETACHABLE CONNECTION (union) included

Factory connections are for a 1 1/2" union nut.

Join the Pool Heat Pump inlet and outlet with rigid PVC (schedule 40). All joints must be glued with PVC glue. If rigid pipe is not available, you can use soft or flexible piping with stainless steel clamps.

When the piping installation is completed, start the pool pump and check the system for leaks.

Check valve & Chemical trap loop

Ensure that the check valve and chemical trap loop are installed as shown above. The loop should be at least 200 mm above the top of the chlorinator/feeder to prevent chlorine backup into the heater when the water pump is off. Install a check-valve on the heater side of the loop to prevent chlorine damage.

Flow rate

The **DPL** Pool Heat Pump is designed to handle the full flow from the pool pump. No bypass is required if the flow is in the 6 m³/h to 15 m³/h range.

! Warning:
Flow rates exceeding 15 m³/h may damage the unit and compromise its efficiency.

External Bypass

Good practice also suggests considering the use of an external bypass on the inlet and outlet to enable the pool owner to bypass the pool heater if service or maintenance is required.

MAINTENANCE

To ensure optimum performance of the heat pump, follow these recommendations:

- > Backwash the pool filter on a regular basis in order to ensure proper flow rate through the pool heater.
- > Keep the surfaces of the coil (evaporator) clean and free of any obstruction such as papers, leaves or other debris. The aluminium fins can be easily and safely cleaned using a low pressure water spray.
- > Carefully clean the unit using a soft, non-abrasive and bleach-free cleaner, and rinse using a garden hose without the nozzle.



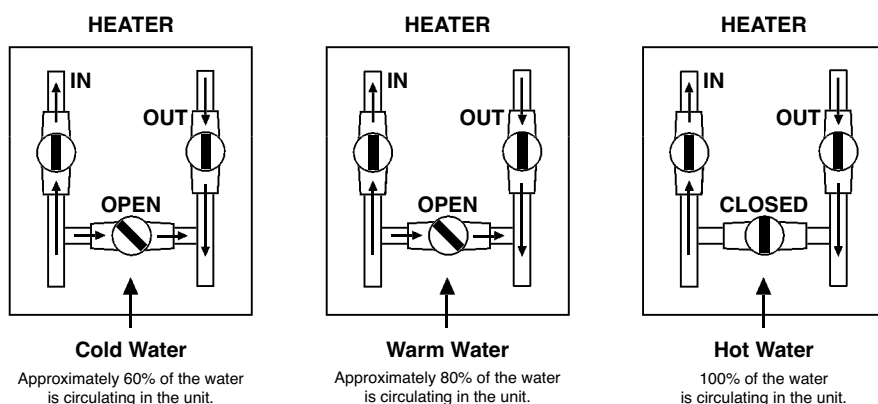
Warning:

Before performing any maintenance on the heat pump you must turn off the electricity at the breaker of the electrical supply line.

RECOMMENDED BYPASS ADJUSTMENT

Adjustment of the bypass valves

The adjustment may vary according to the pool pump size and the climatic conditions.

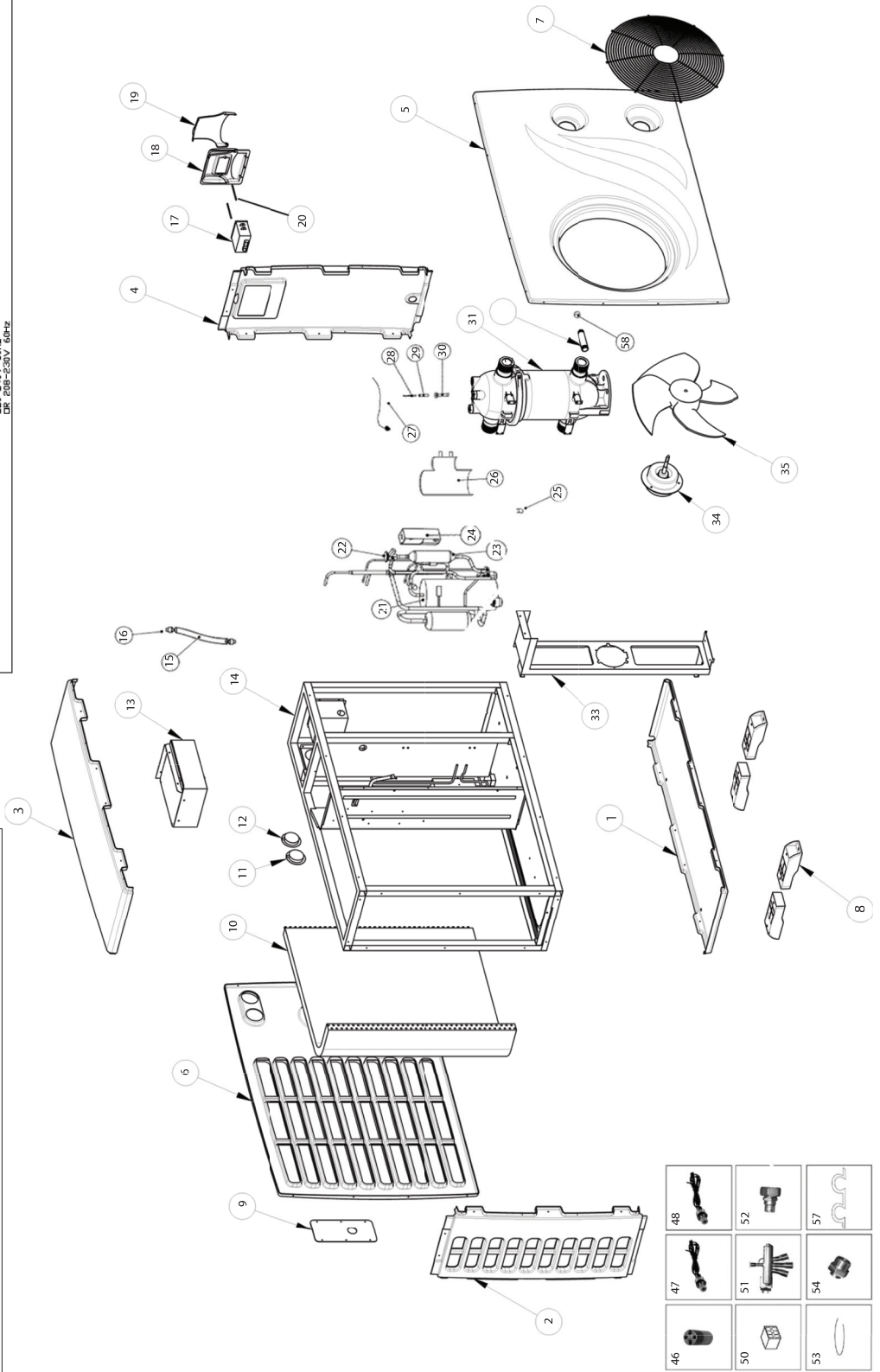
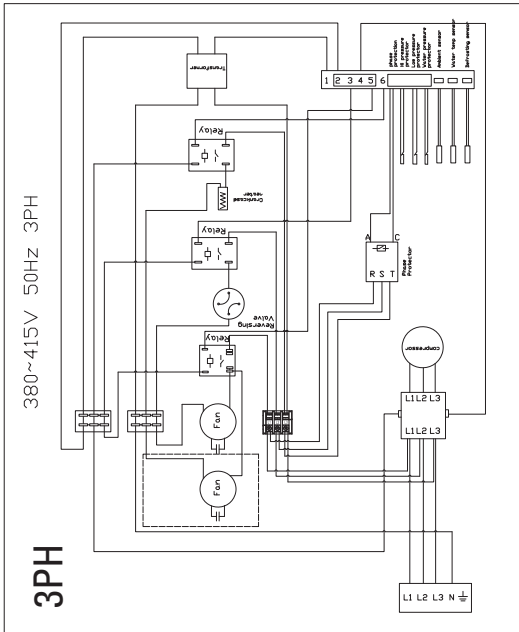
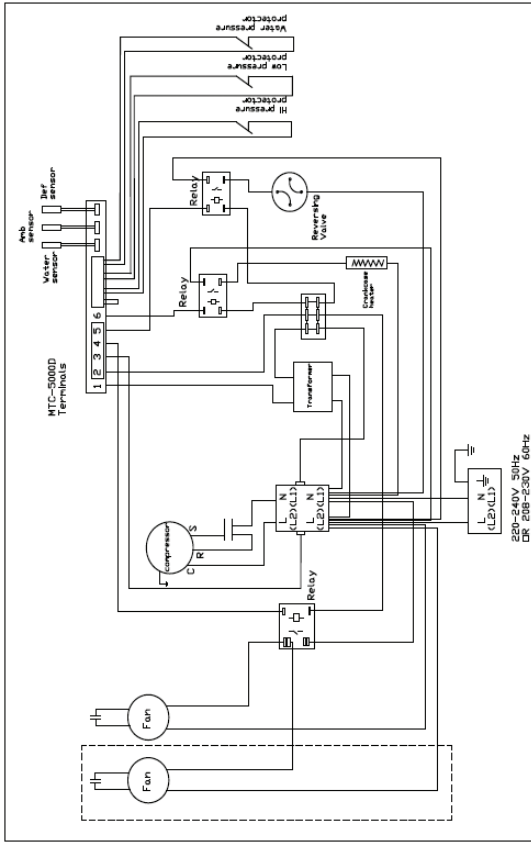


REPLACEMENT PARTS GUIDE

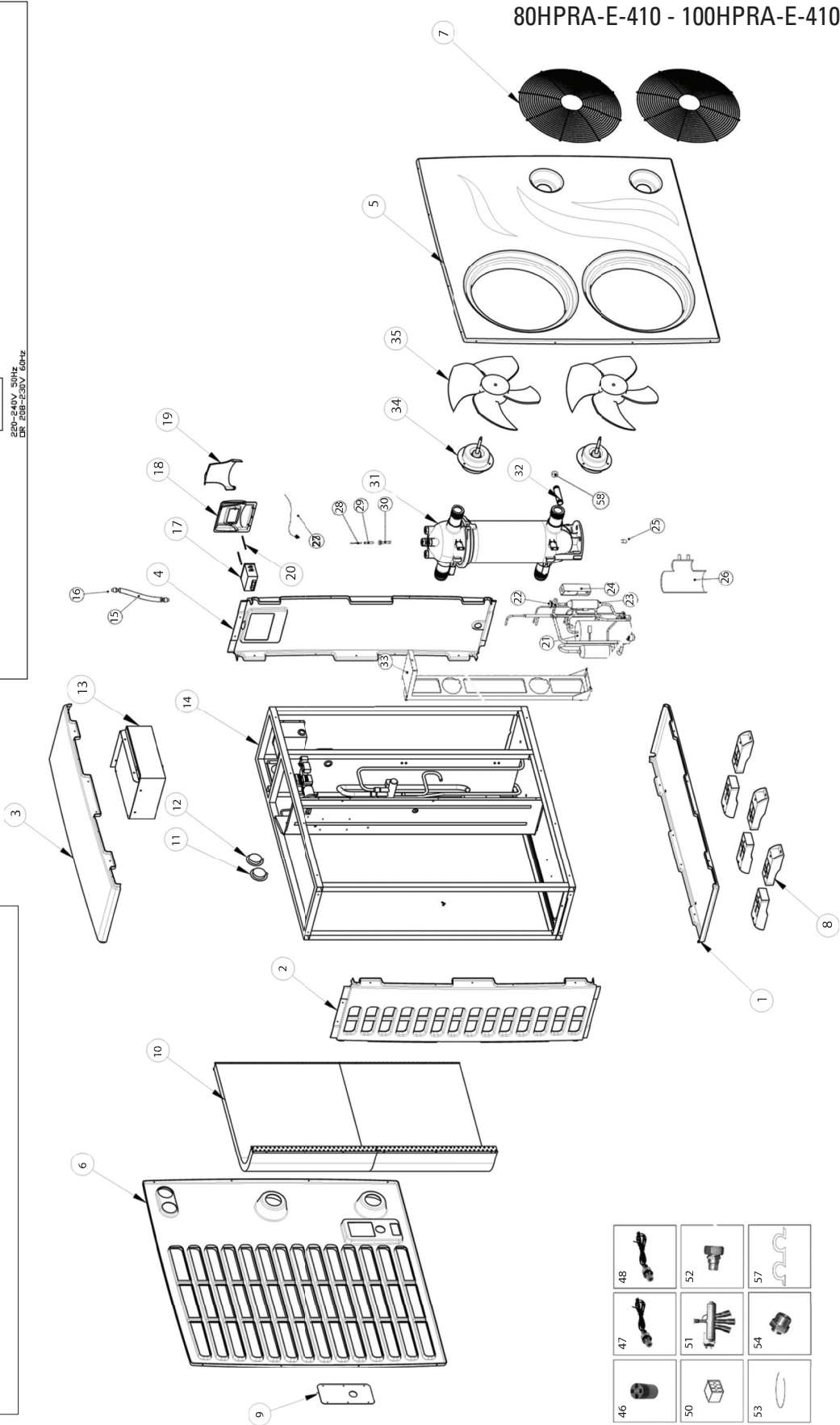
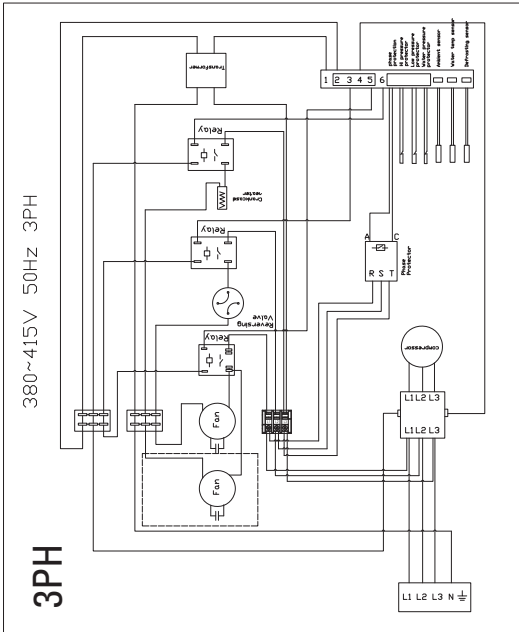
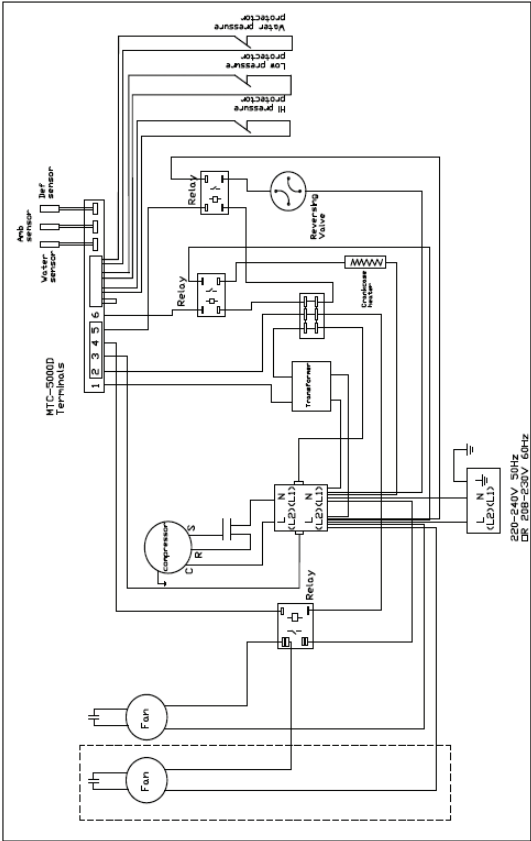
Part No.	Description	Qty				(3PH)	(3PH)	(3PH)
			50HPRA-R410	80HPRA-R410	100HPRA-R410	50HPRA-R410	80HPRA-R410	100HPRA-R410
1	Bottom panel	1	P20001	P20001	P20001	P20001	P20001	P20001
2	Left panel	1	P20003	P20016	P20016	P20003	P20016	P20016
3	Top panel	1	P20004	P20004	P20004	P20004	P20004	P20004
4	Right panel	1	P20002	P20017	P20017	P20002	P20017	P20017
5	Front panel	1	P20006	P20018	P20018	P20006	P20018	P20018
6	Back panel	1	P20005	P20019	P20019	P20005	P20019	P20019
7	Grid	1 or 2	P20007	P20007	P20007	P20007	P20007	P20007
8	Foot	4 or 6	P20008	P20008	P20008	P20008	P20008	P20008
9	Power cover	1	P20020	P20020	P20020	P20020	P20020	P20020
10	Evaporator	1	P30045	P30046	P30046	P30045	P30046	P30046
11	Low pressure gauge	1	P30019	P30019	P30019	P30019	P30019	P30019
12	High pressure gauge	1	P30018	P30018	P30018	P30018	P30018	P30018
13	Electrical compartment	1	P30020	P30020	P30020	P30020	P30020	P30020
14	Aluminum frame	1	P30021	P30022	P30022	P30061	P30022	P30022
15	Liquid tight connector	2	P30081	P30081	P30081	P30081	P30081	P30081
16	Flexible cable duct	1	P30082	P30083	P30083	P30082	P30083	P30083
17	Digital thermostat with defrost option	1	P30142	P30142	P30142	P30142	P30142	P30142
18	Side panel (digital thermostat)	1	P10118	P10118	P10118	P10118	P10118	P10118
19	Door (Digital thermostat)	1	P10117	P10117	P10117	P10117	P10117	P10117
20	Screws (Digital thermostat)	2	P30047	P30047	P30047	P30047	P30047	P30047
21	Compressor	1	P30031	P30032	P30033	P30062	P30063	P30064
22	Thermostatic expansion valve	1	P30036	P30037	P30037	P30036	P30037	P30037
23	Filter - dry bi-flow	1	P30149	P30149	P30149	P30149	P30149	P30149
24	Electric connection box	1	P30076	P30076	P30076	P30076	P30076	P30076
25	Electric connector	1	P30050	P30050	P30050	P30050	P30050	P30050
26	Insulation	1	P30034	P30035	P30035	P30034	P30035	P30035
27	Coil temperature sensor	1	P30103	P30103	P30103	P30103	P30103	P30103
28	Water temperature sensor	1	P30099	P30026	P30026	P30099	P30026	P30026
29	Copper pipe (Sensor)	1	P30025	P30025	P30025	P30025	P30025	P30025
30	Titanium well	1	P30024	P30024	P30024	P30024	P30024	P30024
31	Heat exchanger	1	P30008	P30008	P30008	P30008	P30008	P30008
32	Heat pump heat exchanger drain	1	P30012	P30012	P30012	P30012	P30012	P30012
33	Motor(s) bracket	1	P30009	P30010	P30010	P30009	P30010	P30010
34	Motor (s)	1 or 2	P30028	P30028	P30028	P30028	P30028	P30028
35	Fan(s)	1 or 2	P30027	P30027	P30027	P30027	P30027	P30027
36	Capacitor (Fan motor)	1 or 2	P30065	P30065	P30065	P30065	P30065	P30065
37	Contactor	1	P30049	P30049	P30049	P30066	P30066	P30066
38	Four way valve and Cran casing heating relay	2	P30061	P30061	P30061	P30061	P30061	P30061
39	Running capacitor	1	P30056	P30057	P30057			
40	Capacitor clip	1	P30065	P30065	P30065			
41	Transformer 208-230V / 24V	1	P30054	P30054	P30054	P30054	P30054	P30054
42	Fan motor relay	1	P30065	P30065	P30065	P30065	P30065	P30065
43	Electric box	1	P30058	P30058	P30058	P30058	P30058	P30058
44	Terminal block	1	P30052	P30052	P30052	P30052	P30052	P30052
45	Water pressure switch	1	P30051	P30051	P30051	P30051	P30051	P30051
46	Distributor	1	P30039	P30040	P30041	P30039	P30040	P30041
47	Low pressure switch	1	P30043	P30043	P30043	P30043	P30043	P30043
48	High pressure switch	1	P30044	P30044	P30044	P30044	P30044	P30044
49								
50	Terminal block (Main)	1	P30075	P30075	P30075	P30067	P30067	P30067
51	Reversing valve	1	P30149	P30148	P30148	P30149	P30148	P30148
52	Rotalock connector (part #1 copper)	1	P30131	P30131	P30131	P30131	P30131	P30131
53	Rotalock connector (part #2 teflon ring)	1	P30132	P30132	P30132	P30132	P30132	P30132
54	Rotalock connector (part #3 titanium)	1	P30133	P30133	P30133	P30133	P30133	P30133
55	Condensing drain bracket	1	P30073	P30073	P30073	P30073	P30073	P30073
56	Heat exchanger drain bracket	1	P30073	P30073	P30073	P30073	P30073	P30073
57	Refrigerant access valve bracket	1	P30078	P30078	P30078	P30078	P30078	P30078
58	Drain pipe cap	1	P30023	P30023	P30023	P30023	P30023	P30023
59								
60								

POOL HEAT PUMP DISASSEMBLY DIAGRAM

50HPRA-E-410



POOL HEAT PUMP DISASSEMBLY DIAGRAM



TROUBLESHOOTING

The digital display thermometer will not provide a reading:

The electrical breaker has tripped. Turn the electrical breaker back on.
The water flow rate is insufficient or the filter pump is not working. **DPL** heat pumps are designed to operate with a minimum water flow rate of 5.1 m³/h. Start the water pump.

If you are unable to activate the digital display thermostat, contact our Service Centre at +1.450.818.4758.

The digital display thermostat is active but the compressor and the ventilator(s) will not function:

- > The unit is in 5-minute time delay mode to ensure that system pressures are stable. The “HEAT” pilot light will blink during this 5-minute time delay.
- > The temperature control is set at too low a numerical value. Raise the desired temperature level.
- > The desired water temperature has been achieved and the unit will restart automatically when the water temperature falls below the thermostat setting.

The digital display thermostat shows the codes E1, E2, HHH or LLL:

- > The temperature sensor is not functioning normally.
- > Contact our Service Centre at +1.450.818.4758.

The digital display thermostat shows the code E3:

- > The fault of the defrosting sensor is not functioning normally.

The digital display thermostat lights up, dims out, lights up, dims out at irregular intervals:

- > There is probably some kind of pump operation defect which can occur for many reasons:

> Excessively high refrigerant pressure		
> Excessively high water temperature		
> Loss of refrigerant		
> Fan motor failure		
> Evaporator freeze-up		
> Low ambient temperature		
> Coil obstruction (evaporator)		
	Troubleshooting	Display
	Water temperature sensor with problem	E1
	Ambient temperature sensor with problem	E4
	Defrost temperature sensor with problem	E3
	Low refrigerant system pressure	LP
	High refrigerant system pressure	HP
	Low water pressure	P
	Low ambient temperature	L0
	Water temperature higher than 60°C	HHH
	Water temperature lower than -10°C	LLL

DPL heat pumps are equipped with safeguards that will stop operation to protect your unit in certain situations:

High pressure switch

The high pressure circuit breaker protects the compressor in the event of any over-pressure in the refrigerant system. High pressure conditions are usually the result of insufficient water flow in the heat exchanger. To remedy the situation, simply check that there are no obstruction in the water supply circuit and/or clean out the filter system.

Low pressure switch

The low pressure circuit breaker protects the compressor in the event of frequent restarts that are due to a lack of refrigerant or to an excessively low ambient temperature. It prevents the heat pump from starting when the system is in a low pressure situation, i.e. below 2.5 BARS. Such a low pressure situation is usually the result of a refrigerant leak or of an ambient temperature below 10 °C. The presence of frost on the evaporator can signal a low pressure situation.

Water pressure switch

The water pressure switch contacts close when pressure is applied as pool water flows through the heat exchanger. Either no flow or low flow rates will cause the contacts to open and the unit will shut down.

Time delay

All models use a 5-minute time delay to prevent repeated tripping of the compressor thermal overload, which is caused by an attempted startup before system pressures have equalized. Any interruptions, outside of power loss, will result in a 5-minute time delay.

> If you cannot activate your heat pump, contact our Service Centre at +1.450.818.4758.



DPL POOL EQUIPMENT, INC.

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TEMPERATURE CONTROLLER PROGRAMMING



Warning: Please do not modify the parameters in the temperature controller programming without a valid reason.

To access the temperature controller programming mode, you must simultaneously press and hold the **SET** and  buttons for five (5) seconds. The **SET**  indicator will then light up and the "F0~F8" code will be displayed.

To select a function (F0~F8), you must press on the  or  buttons.

Once the function is selected, you must press the **SET** button to modify the default value.

To modify the default value, press the  or  buttons.

Once the default value is modified, press the **SET** button to return to the previous step in order to select another function (F0~F8).

To exit the temperature programming mode, press and hold the **SET** button for a few seconds.

See the chart below for a description of all functions.

FUNCTION	SETTING RANGE	CODE	DEFAULT VALUE
Return difference	1~15°C (34~59°F)	F0	1°C (34°F)
Compressor delay time	0~9 minutes	F1	5 minutes
Minimum adjustment of the water temperature	-10°C -Setting temperature	F2	16°C (61°F)
Maximum adjustment of the water temperature	Setting temperature -60 °C	F3	35°C (95°F)
Mode	1: Refrigeration 2: Heating 3: Alarm	F4	2
Sensor calibration	-5~5°C (23~41°F)	F5	0
Start defrost setting value	-10~0°C (14~32°F)	F6	-3°C (27°F)
End defrost setting value	0~10°C (32~50°F)	F7	6°C (43°F)
Minimun working temperature	-10-5°C	F8	-5°C



Warning :

The modification of the default values can affect the proper functioning of the heat pump. The default values must never be modified without authorization from your dealer.

All DPL heat pumps have the following warranty on all models:
Titanium Heat Exchanger - Lifetime (regardless of water chemical balance).
Compressor - 3 Years
Electrical Components - 3 Years
Labour - 1 Year

DPL is not responsible for:

- > Normal maintenance.
- > Damage or repairs required as a consequence of faulty installation or application by others.
- > Failure to start due to voltage conditions, blown fuses, open circuit breakers, or other damage due to the inadequacy or interruption of electrical service.
- > Damage or repairs needed as a consequence of any misapplication, abuse, improper servicing, unauthorized alteration, or improper operation.
- > Damage as a result of flooding, wind, fire, lightning, accidents, corrosive atmospheres, or other conditions beyond the control of **DPL**.
- > Parts not supplied or approved by **DPL**.
- > Any damages to persons or property of whatever kind, direct or indirect, special or consequential, whether resulting from use or loss of use of the product.

LIMITATION OF WARRANTIES

This warranty is exclusive and in lieu of any implied warranties of merchantability and fitness for a particular purpose and all other warranties express or implied. The remedies provided for in this warranty are exclusive and shall constitute the only liabilities on the part of DPL including any statements made by any individual, which shall be of no effect.

HOW TO OBTAIN SERVICE

Prior to requesting assistance or servicing, read the **TROUBLESHOOTING** section. This might save you the cost of a service call.

For any service required, please contact **your authorized dealer**.