

Description

Introduction

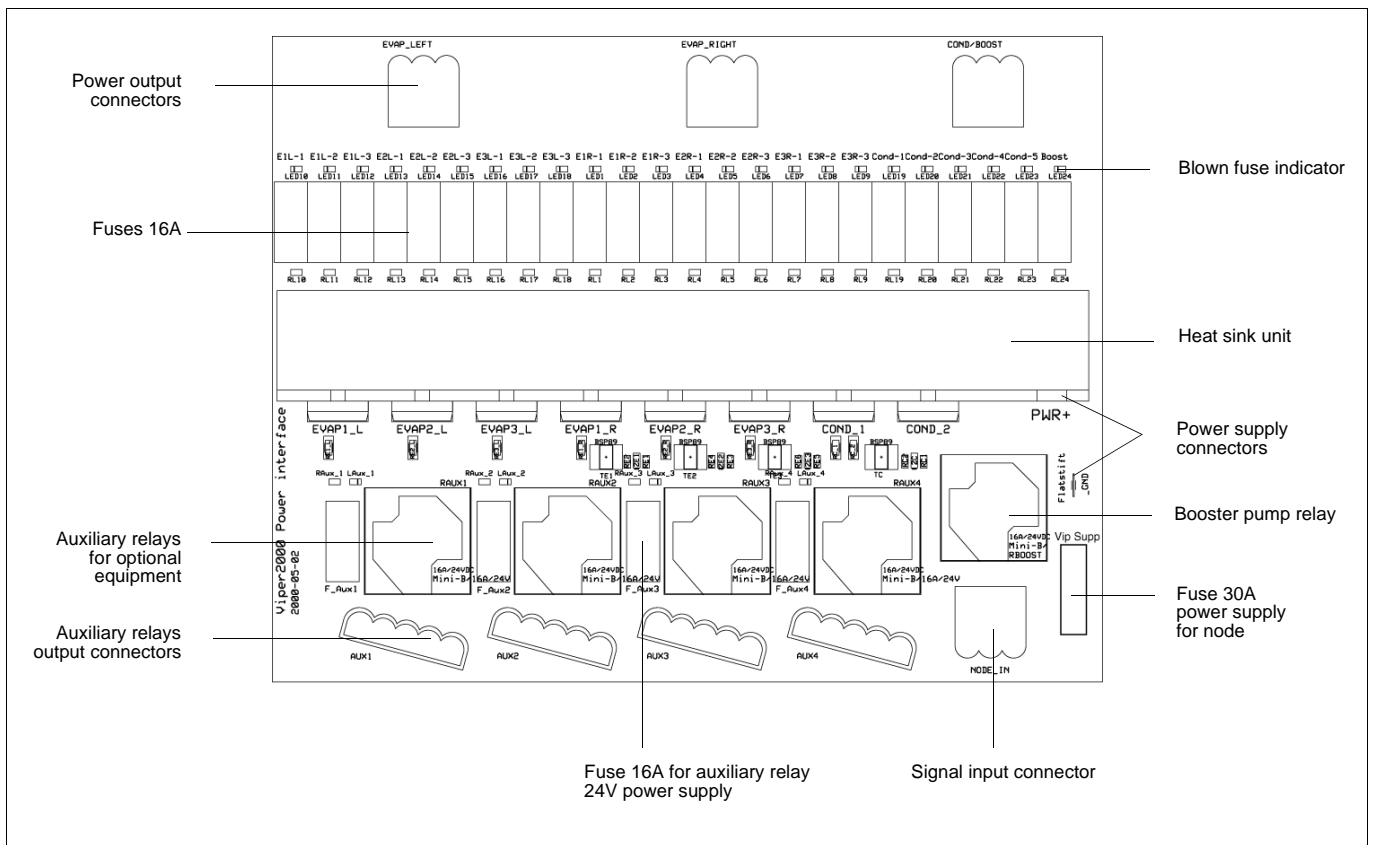
UWE Power card is primarily designed to convert the output signals from the control unit Viper 2000 into power output to current consumers. However it can be used together with any other control unit that supplies a 24V active high control signal, like Viper standard.

The great advantage with the card is the compact size and the saving of relays and wiring. Each power supply output is individually fused, and has also an indicator that will light up in the event of a blown fuse.



Figure: Power card

Major component parts



Power supply connector

Power supply 24VDC is connected directly to the heat sink unit and the GND to a 6 mm flat pin connector, see figure.



The power supply must be provided with a suitable fuse, depending on the total number of current consumers and their current consumption.

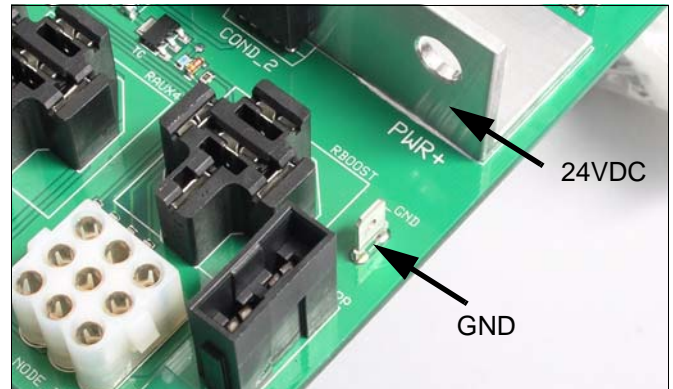


Figure: Position of power supply

Signal input connector

Connect according to this table:

Pin, power card	Function	Pin Viper 2000
Node_IN:1	Booster pump	CO3:10
Node_IN:2	Evaporator speed 1	CO2:4
Node_IN:3	Evaporator speed 2	CO2:1
Node_IN:4	Power input standby* (protected by fuse Vip Supp)	CO3:12
Node_IN:5	Power input 10A (protected by fuse Vip Supp)	CO3:9
Node_IN:6	Power input 10A (protected by fuse Vip Supp)	CO3:6
Node_IN:7	Power Ground	CO3:1
Node_IN:8	Condenser fan	CO2:7
Node_IN:9	Evaporator speed 3	CO2:2

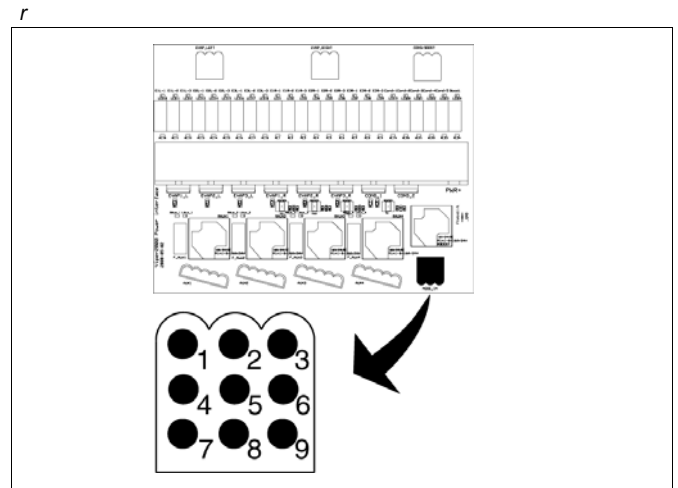


Figure: Signal input connecto

* This separate standby supply makes it possible to have the logic part of the unit continuously powered without supply power to the actuator outputs. If you like to have the supply via a main switch, connect the CO3:12 directly to the to the battery.

Power output connectors

These connections are used to supply 24V power to evaporator fans, condenser fans and booster pumps.

EVAP RIGHT connector

Connect according to this table:

Pin, power card	Function
EVAP_RIGHT:1	Right evaporator fan 1, speed 1
EVAP_RIGHT:2	Right evaporator fan 1, speed 2
EVAP_RIGHT:3	Right evaporator fan 1, speed 3
EVAP_RIGHT:4	Right evaporator fan 2, speed 1
EVAP_RIGHT:5	Right evaporator fan 2, speed 2
EVAP_RIGHT:6	Right evaporator fan 2, speed 3
EVAP_RIGHT:7	Right evaporator fan 3, speed 1
EVAP_RIGHT:8	Right evaporator fan 3, speed 2
EVAP_RIGHT:9	Right evaporator fan 3, speed 3

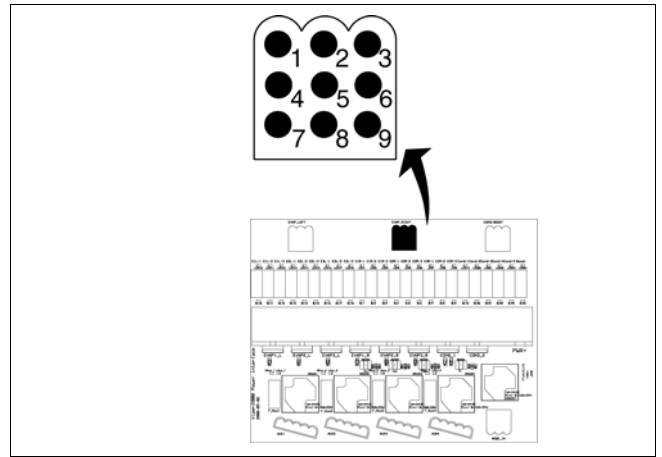


Figure: Power output connector: EVAP RIGHT connector

EVAP LEFT connector

Connect according to this table:

Pin, power card	Function
EVAP_LEFT:1	Left evaporator fan 1, speed 1
EVAP_LEFT:2	Left evaporator fan 1, speed 2
EVAP_LEFT:3	Left evaporator fan 1, speed 3
EVAP_LEFT:4	Left evaporator fan 2, speed 1
EVAP_LEFT:5	Left evaporator fan 2, speed 2
EVAP_LEFT:6	Left evaporator fan 2, speed 3
EVAP_LEFT:7	Left evaporator fan 3, speed 1
EVAP_LEFT:8	Left evaporator fan 3, speed 2
EVAP_LEFT:9	Left evaporator fan 3, speed 3

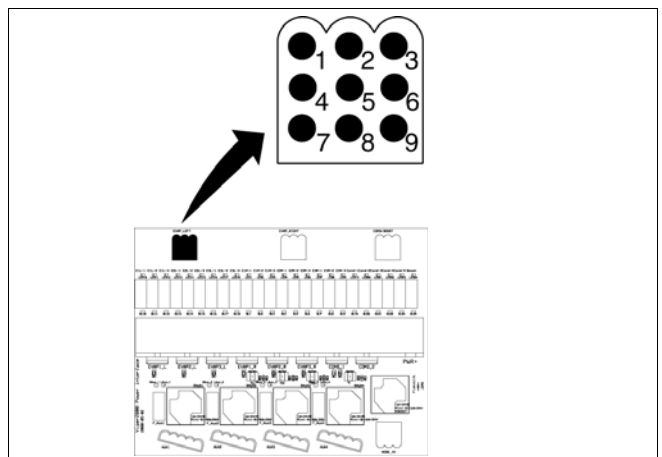


Figure: Power output connector: EVAP LEFT connector

COND/BOOST connector

Connect according to this table:

Pin, power card	Function
COND/BOOST:1	Condenser Fan 1
COND/BOOST:2	Not used
COND/BOOST:3	Not used
COND/BOOST:4	Condenser Fan 2
COND/BOOST:5	Not used
COND/BOOST:6	Booster pump
COND/BOOST:7	Condenser Fan 5
COND/BOOST:8	Condenser Fan 4
COND/BOOST:9	Condenser Fan 3

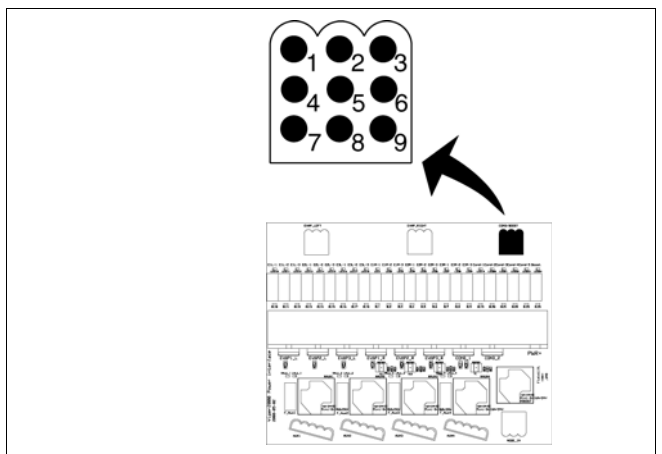
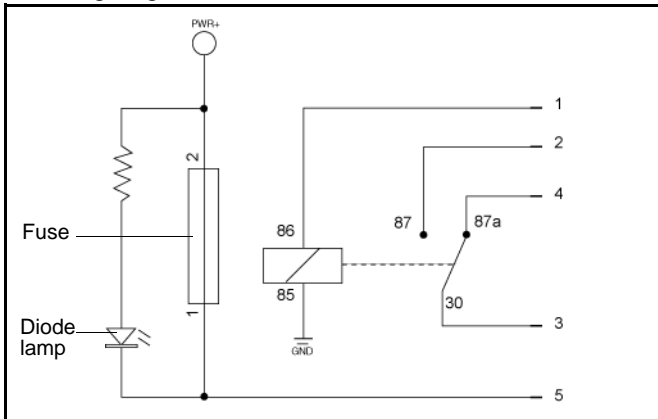


Figure: Power output connector: COND/BOOST connector

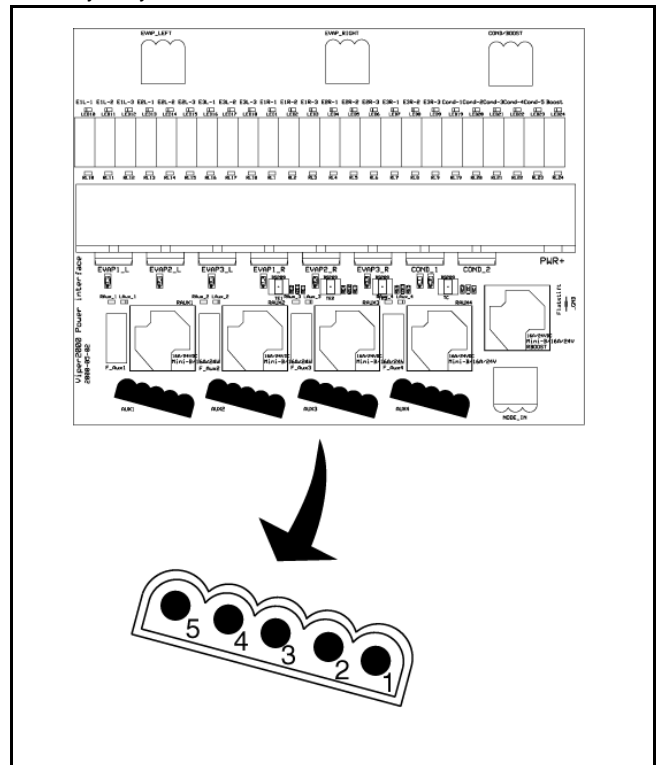
Auxiliary relays connectors

There are four separate relays on the power card, which can be used for optional equipment, like fans. Connect according to the following diagram and table:



Pin, power card	Function
RAUX:1	Coil 24V signal (+)
RAUX:2	Terminal NO
RAUX:3	24 VDC supply
RAUX:4	Terminal NC
RAUX:5	+24VDC, internally fused. Can be connected to RAUX:3.

Auxiliary relay connectors:



List of fuses

In the event of current overload the corresponding fuse will blow and the blown fuse indicator will light up.

Fuse	Related component
E1L-1	Left evaporator fan 1, speed 1
E1L-2	Left evaporator fan 1, speed 2
E1L-3	Left evaporator fan 1, speed 3
E2L-1	Left evaporator fan 2, speed 1
E2L-2	Left evaporator fan 2, speed 2
E2L-3	Left evaporator fan 2, speed 3
E3L-1	Left evaporator fan 3, speed 1
E3L-2	Left evaporator fan 3, speed 2
E3L-3	Left evaporator fan 3, speed 3
E1R-1	Right evaporator fan 1, speed 1
E1R-2	Right evaporator fan 1, speed 2
E1R-3	Right evaporator fan 1, speed 3
E2R-1	Right evaporator fan 2, speed 1

Fuse	Related component
E2R-2	Right evaporator fan 2, speed 2
E2R-3	Right evaporator fan 2, speed 3
E3R-1	Right evaporator fan 3, speed 1
E3R-2	Right evaporator fan 3, speed 2
E3R-3	Right evaporator fan 3, speed 3
Cond-1	Condenser fan 1
Cond-2	Condenser fan 2
Cond-3	Condenser fan 3
Cond-4	Condenser fan 4
Cond-5	Condenser fan 5
Boost	Booster pump
Vip Supp	Power supply for node box

Technical data

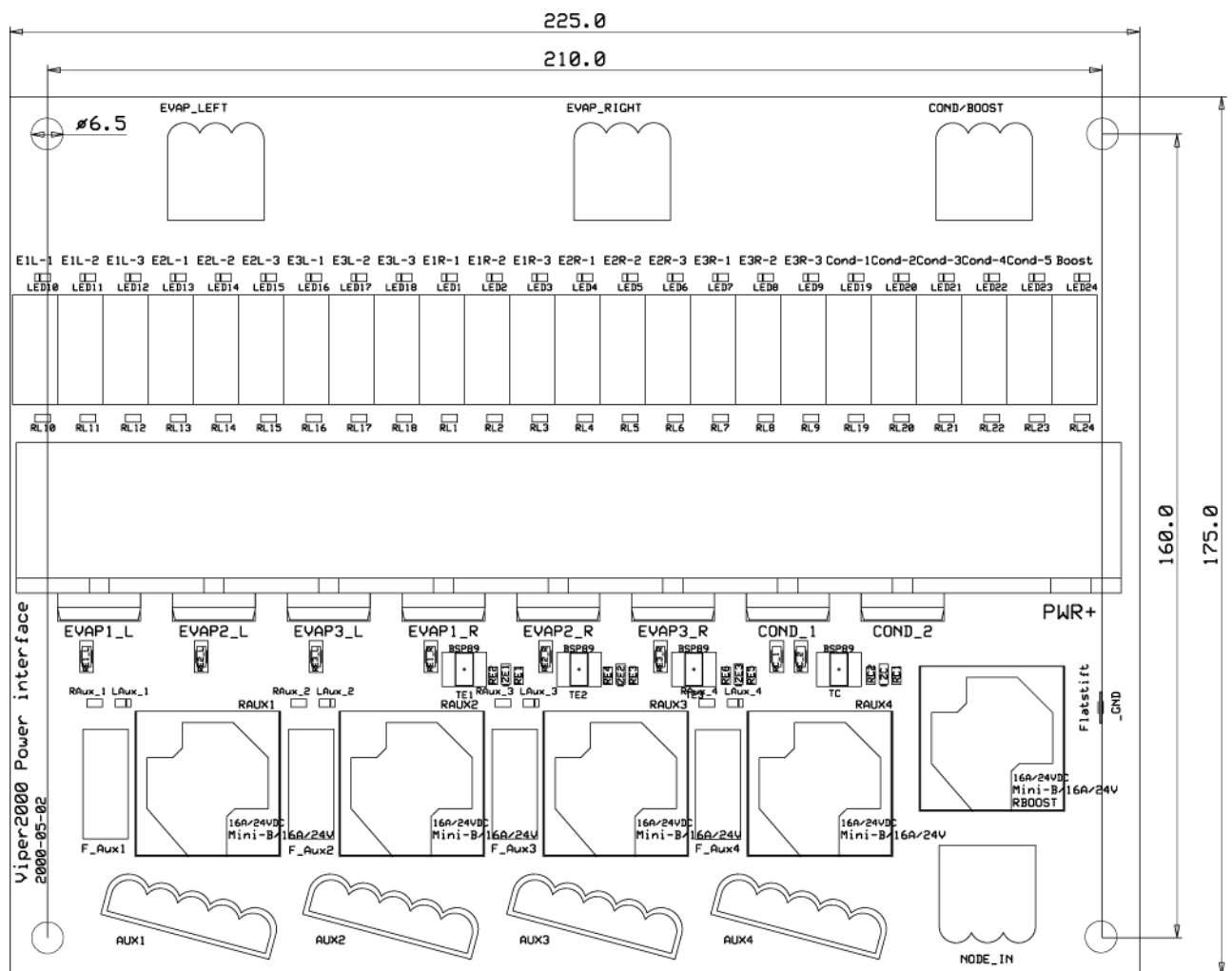
General

Voltage	24VDC
Maximum load, power output connectors	Evaporation fan driver: 40 A Condenser fan driver: 80A Per pin: 16A
Dimensions	see drawing below
Fuse type	Of car-type, 16A (30 A for node supply)
Weight (kg)	0,6 (fuses and relays excluded)

Connectors

Connector	Type	Mating conn
Signal input	Mate-n-lock 9-pole female	1-480-673-0
Power output	Mate-n-lock 9-pole female	1-480-673-0
Aux relay output	Mate-n-lock 5-pole	1-480-763-0

Dimensions (mm)



Product range

When buying from UWE Verken, please use the following part numbers:

Product	Part Number
Power card	14557