

Extractor Pump and Bridge Rectifier: Safety Guide

What to do when the vacuum motor runs but switching on the pump trips the circuit breaker.

Immediate actions

- Stop trying to switch the pump on repeatedly.
- Disconnect the extractor and heater from the mains.
- Do not install a higher-rated circuit breaker.
- Have the circuit diagnosed by a qualified technician.

What the technician checks

- Cable, plug, switch, and connections.
- Bridge rectifier, pump motor, and insulation resistance.
- Operating current, connection temperature, and signs of moisture.

Correct connection

- Power the extractor and high-power heater from independent circuits rated for their loads.
- Different sockets do not necessarily mean different circuits.
- Do not use damaged adapters or coiled extension leads for high loads.

After the repair

- Correct the root cause instead of replacing only the rectifier.
- Test the pump under its normal operating load.
- Confirm that there is no leakage or overheating.

Symptom	Possible cause	Action
Circuit breaker trips	Short circuit in rectifier, motor, or wiring	Diagnose the isolated circuit
Pump does not start	Open circuit, brushes, or switch	Check supply and continuity
Connector becomes hot	Poor contact or overload	Repair connection and measure current
RCD trips	Leakage, moisture, or insulation fault	Do not use until corrected

Important: confirm current specifications and compatibility before ordering. Electrical work on 220 V equipment must be performed by a qualified technician.