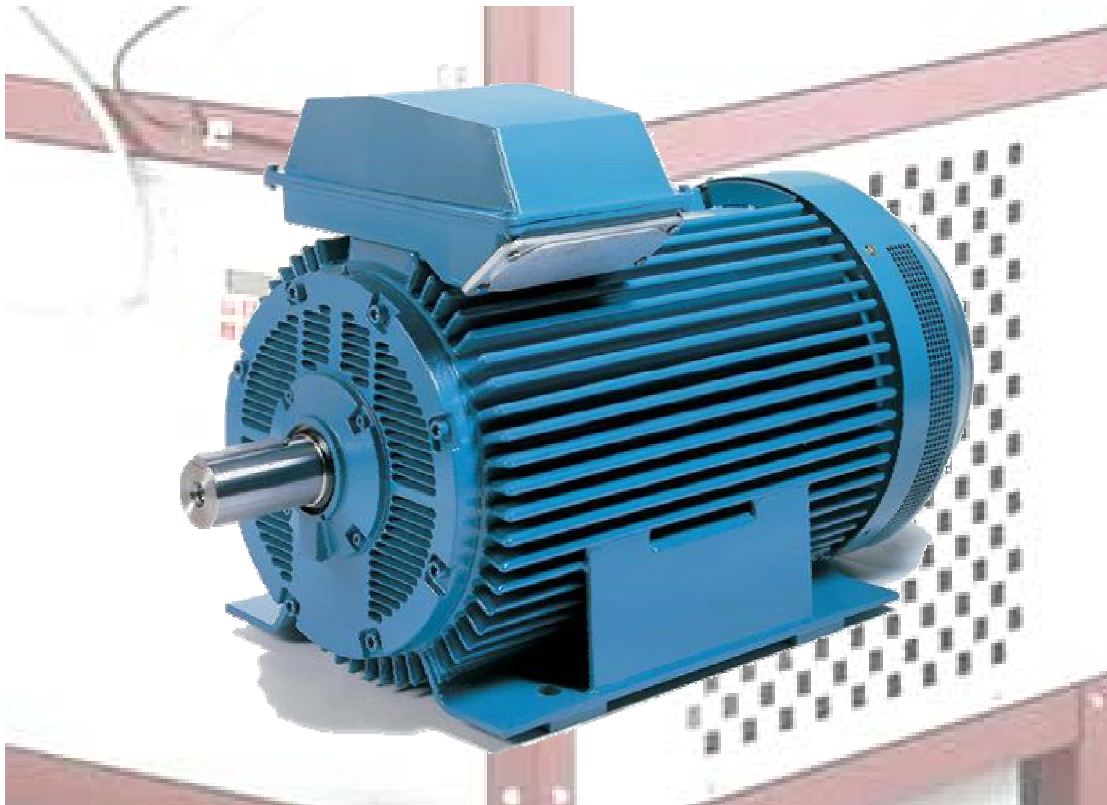


WIRING OF VCH1000/VCHE250 CABINET HEATER 5.5kW MOTOR.



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Warnings

All external wiring MUST comply with the current IEE wiring regulations.

General information.

The 5.5kW motors used during the production of the Warm Air Cabinet **VCH1000/VCHE250** have changed. The new motor has a higher dual voltage of **400V/690V** and will only function correctly when wired in a **DELTA configuration**.

The information contained on the rating plate attached to the side of the motor will determine the voltage type.

If the information displayed is **400V/690V**, then the terminal links **MUST BE WIRIED IN A DELTA CONFIGURATION** (see fig.1).

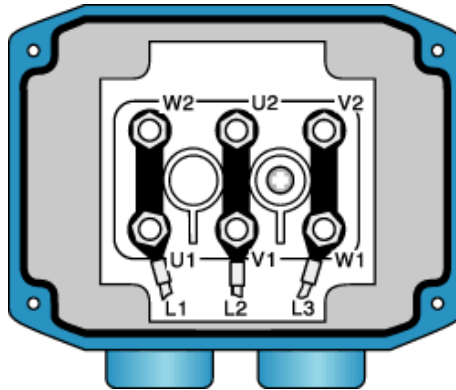


fig.1 - DELTA terminal link configuration

For original motors displaying **230V/400V**, the motor should *already* be wired in **STAR** configuration (see fig.2).

Production cabinets delivered after serial number **064500279** or **from March 2006** onwards *could* be fitted with this new motor (a full serial number listing is detailed at the foot of this page).

All production VCH1000/VCHE250 cabinets and any replacement motors from **March 2007** will have a label attached denoting which configuration to set.

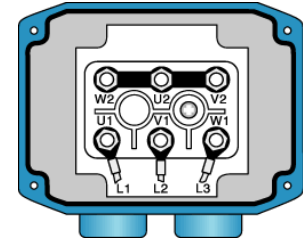


fig.2 - 230/400V STAR terminal links

Symptoms & Effects.

Although the running current remains at approximately 11.5 amps (free-standing heater), if this motor is wired in STAR by error, the actual motor speed would increase to between 1350 and 1400rpm.

As the motor is designed to be operated in delta, then operating continuously in star can cause damage to the motor. The voltage across, windings and magnetising current

torque capacity of the motors are reduced.

Operating at high loads as in cabinet heaters, will cause the slip of the motor to be increased dramatically and it may stall.

This will result in a dramatic increase in the power dissipated in the rotor. If the motor begins to stall, the starter will also suffer excess heating causing a motor failure.

Corrective actions.

When rewiring a replacement motor on this size cabinet heater, ensure the terminal links are correct to the sketch in fig.1 and adjust if necessary.

If the cabinet heater is identified as one included in the serial numbers shown below, en-

sure the terminal links are correct to the sketch in fig.1 and adjust if necessary.

If the cabinet heater displays any of the symptoms above check the terminal links are correct to the sketch in fig.1 and adjust if necessary.

References.

Cabinet heaters by serial number:
064500279/280/281 & 282
064500566/567 & 568
0645001217/18/19/20/21/22

064501250/1251/1252/1253/1254 & 1255
064501691 & 1692
064502126/2127/2128 & 2129
064501801/1802/1803 & 1804



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