

Hand Operated Motor Speed Control - Single Phase

Models rated at **1 Amp, 3 Amp, 6 Amp, and 10 Amp** are suitable for a wide range of applications using appropriately specified **single-phase induction motors**.

WARNING

This equipment operates at mains voltage. Extreme caution must be exercised when making adjustments, particularly to the pre-set potentiometer.
Only qualified personnel should perform these actions.

It is the responsibility of the user to ensure full compliance with the **Health and Safety at Work Act** and all relevant safety regulations.

GENERAL

The controllers use **phase-cutting techniques** to regulate power. By manually adjusting the **rotary control knob** located on the front of the controller, users can vary the power supplied to most **permanent split capacitor (PSC)** or **shaded pole motors**.

Optimal control is achieved when used with **propeller, axial, or centrifugal fan loads**, where the absorbed power at full load is **at least 90% of the motor's rated capacity**.

SPECIFICATION

Model Number	Run Current (Amps)	Maximum Start Current (Amps)	Fuse size (Amps/Length)
1.5 AMP	1.5 Amp	5	3.15 / 20mm
3 AMP	3 Amp	9	5 / 20mm
6 AMP	6 Amp	18	10 / 32mm
10 AMP	10 Amp	30	10 TD / 32mm

The 1, 3, 6, and 10 AMP controllers are designed for **continuous operation** at **maximum loads of 1A, 3A, 6A, and 10A**, respectively, in a **40°C ambient environment**, on a **single-phase 230V, 50/60 Hz supply**. The controllers are **compliant with applicable requirements**.

MOTOR PROTECTION

The fuses within the unit are intended to **protect the controller itself**. If the **fuse rating exceeds the current capacity of the wiring to the fans**, then **individual protection for each fan** must be provided.

If **overload protection** is required for each fan, it should be installed **in the common line only**.

INSTALLATION

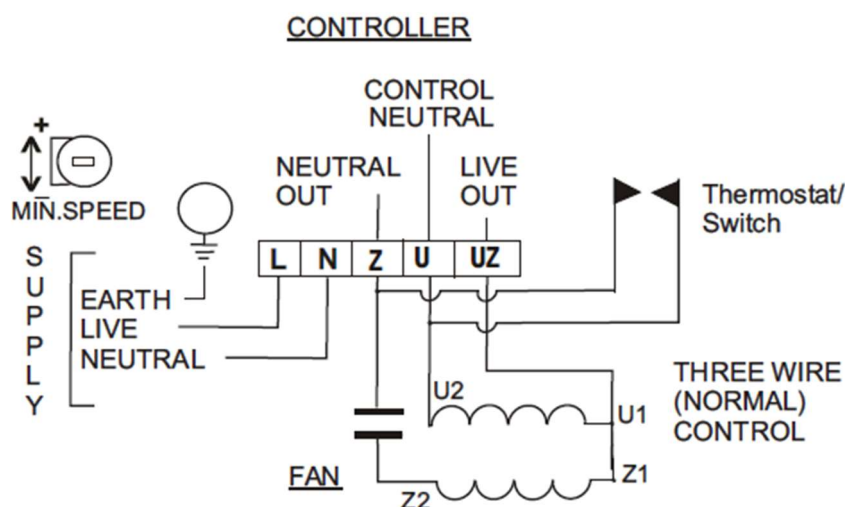
- **Install the controller in a dry, sheltered location.**
- Ensure a **minimum air clearance of 15 cm** around the controller to allow for adequate airflow and cooling.
- **Do not install** the controller near other **heat sources**.
- The **ambient temperature must not exceed 40°C**.

Access & Wiring:

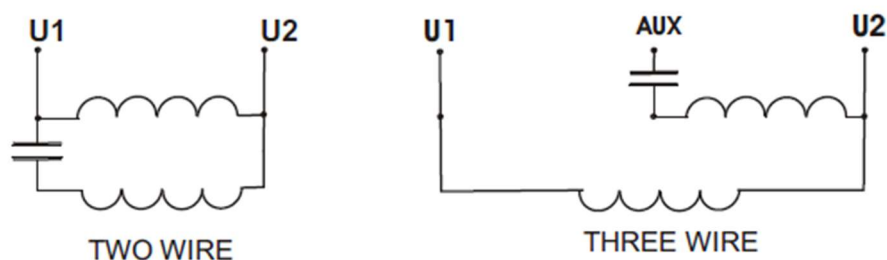
- To access the **mounting holes and terminal connections**, remove the **front cover fixing screws**.
- If additional fans need to be connected, use a **junction box** to wire the fans **in parallel**.

External Control Option:

- An **external thermostat or switch** may be connected to allow the fan to operate at a **preset speed**, controlled by the controller.
- The **maximum fan speed** can then be regulated based on the **thermostat's temperature** or the **operation of the switch**.
- Connect the external thermostat or switch to **terminals U and Z** on the controller, as shown in the circuit diagram.



CONNECTIONS



	VENT DIRECT Controller Terminal	Systemair	S & P	Woods	Elta SCP SCD	Elta SLC SMB SMC	Hydor	EBM- Ziehl	Vent Axia
	EARTH	E	SEE PAGE'S 5,6 and7	E	E	E	E	E	E
	LIVE	L		L	L	L	L	L	L
	NEUTRAL	N		N	N	N	N	N	N
	Z			P *	4	Z2		CAP	U
	U	U2		U	5	U1	N	U2	V
	UZ	U1		UZ	6	U2	L	U1/Z1	W

* Remove link between P and U (if fitted)

Thermal Protection Wiring:

Some fans are equipped with **built-in thermal protection**, typically labelled **K.K** or **TK.TK**. If this feature is to be used, connect the **controller's U and Z terminals** to **one side** of the thermal protection contact.

Connect the **other side** of the thermal protection contact to the **appropriate motor terminal**, as specified by the fan or motor manufacturer.

CONTROLS

Fan Speed Control Operation:

The controllers are equipped with **separate ON/OFF switches**.

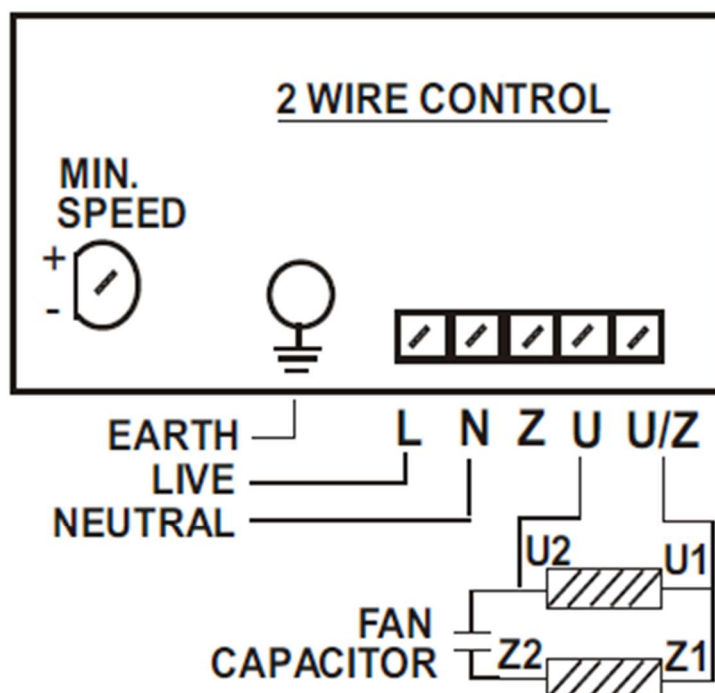
Rotating the **control knob clockwise** increases the speed of the fan(s) from a **preset minimum** to **full speed**, with **infinitely variable control**.

A **preset internal potentiometer** determines the **minimum fan speed**.

To adjust this setting:

1. Turn the **main control knob fully anti-clockwise**.
2. Adjust the **preset potentiometer** to the desired minimum speed.

⚠ Note: Do not set the minimum speed too low, as this **increases the risk of fan stalling**.



CONTROLLER WIRING DIAGRAM (for TK controllers Only)

