

## HV Belt Drive Fan

Installation and Maintenance Instructions.

**THESE INSTRUCTIONS MUST BE READ FULLY BEFORE COMMENCING INSTALLATION.**

**Owner / installer:** The life of this apparatus and its efficiency will be increased if its use and maintenance is carried out in accordance with these instructions and current statutory requirements. The installation and initial adjustments should be carried out by a qualified and competent technician. Hydor Limited should be consulted before substituting or fitting parts from another manufacturer. It is the responsibility of the installer to verify that the installation is in accordance with the following standards and the owner is given the current User's Manual.

**Any modifications to the fan or its installation, even the smallest modification, change or elimination of security components or pieces that influence the efficiency or loss of ventilation, will result in the CE Certification and Hydor's warranty being cancelled.**

Single Phase

Model	Speed r/min	Supply V-Ph-Hz	Power kw	FLC Amps	Start Amps	Blade Mttl.	Weight kg	Weight kg incl. Louvre
HV800	530	230-1-50	0.750	4.5	14.3	st.st	31	44
HV1000	600	230-1-50	0.750	5.4	14.9	st.st	40	50
HV1250	410	230-1-50	1.100	7.2	25.7	st.st	50	70
HV1250A	425	230-1-50	1.100	7.5	25.7	ali.	50	70
HV1250	425	230-1-50	1.500	8.4	29.5	st.st	52	72
HV1500	360	230-1-50	1.500	9.4	33.0	st.st	55	85
HV2000	375	230-1-50	1.500	10.0	35.0	st.st	75	100

## Three Phase

Model	Speed r/min	Supply V-Ph-Hz	Power Watts	FLC Amps	Start Amps	Blade Mttl.	Weight Kg	Weight Kg incl. Louvre
HV800	530	400-3-50	0.750	2.0	5.9	st.st	32	44
HV1000	600	400-3-50	0.750	2.6	7.8	st.st	40	50
HV1250	410	400-3-50	1.100	2.89	8.7	st.st	50	70
HV1250A	425	400-3-50	1.100	2.89	8.7	ali.	50	70
HV1250	425	400-3-50	1.500	3.2	9.6	st.st	52	72
HV1500	360	400-3-50	1.500	3.6	10.8	st.st	55	85
HV2000	375	400-3-50	1.500	3.8	12.5	st.st	75	100

### 1. Description

- 1.1 It is important these Installation and Maintenance Instructions are fully adhered to.
- 1.2 Full details of the unit supplied are shown on the product nameplate. If in doubt about any detail contact Hydor or its agents for clarification.
- 1.3 All electrical installations must be carried out by suitably qualified and competent personnel in accordance with all current statutory requirements.
- 1.4 These instructions cover only the Hydor product and do not include the supply or installation of any safety equipment that may be required e.g. proper electrical isolation.
- 1.5 Any declarations made by Hydor about product installation and safety, are dependent on the fan unit being used within installations which themselves meet the requirements of the relevant Standards and Directives of your region.
- 1.6 The fan unit is designed for use in an ambient temperature of up to 50°C and 95% relative humidity. The fan unit is not suitable for corrosive or explosive atmospheres.
- 1.7 The installer should provide easy access to the fan to facilitate future maintenance.
- 1.8 The installer should ensure the fan unit is mounted slightly tilted forward at the top towards the outside of the building and adequately supported. Holes are provided in the base of the casing to assist drainage.
- 1.9 This product is not intended for the use of young children or infirm persons unless they have been adequately supervised by a responsible person to ensure that they can use the product safely. Young children should be supervised to ensure that they do not play with the appliance.

**WARNING** The fan unit must be isolated from the power supply during installation and maintenance. The fan must be earthed in accordance with the local regulations.

## **2. Installation**

- 2.1 Upon receipt, the fan unit should be visually inspected to check for any damage. Ensure that the impeller is free to rotate.
- 2.2 If there are any queries concerning the fan unit, HYDOR should be contacted prior to installation. Air space, in front and behind the fan. A minimum of 2 metres is required.
- 2.3 If the unit is to be suspended, attach a chain to each eyebolt using separate D shackles for each chain. Form a "V" using two chains [one pair in front and one pair rear] and two small D shackles attached to one large D shackle each. In some instances it will be beneficial to suspend the fan leaning forward by adjusting the chains to direct the air downwards.

**NOTE** Chain and D-shackles are not provided. Ensure that chain used will support weight of unit. Additionally, in some instances using long chains may cause a pendulum effect to develop; an additional check chain or rope will prevent this.

- 2.4 Where a fan is installed in a wall of the building, ensure that the access to the terminal plate and panel is available. Secure the fan unit using angled steel to fix to a surrounding wall.

**NOTE** Ensure the unit is installed square; failure to do so may result in poor operation of the back-draught shutter blades.

- 2.5 Check the details on the motor rating plate to ensure that the correct power supply (voltage, frequency).
- 2.6 Eyebolts are provided as extras; for units which are to be suspended.
- 2.7 Refer to the appropriate wiring diagram. Means for electrical disconnection must be incorporated in the wiring installation in accordance with the relevant wiring and electrical regulations. Ensure that all earth connections are made and secure. Fuses/circuit breakers are used to provide short circuit protection only. A starter panel with overload protection must be fitted to protect the motor.
- 2.8 If the fan is being used through a speed control device, either electrically or electronically, refer to the relevant control device instructions before commencing installation.

### **3. Operation**

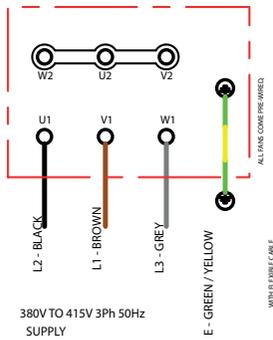
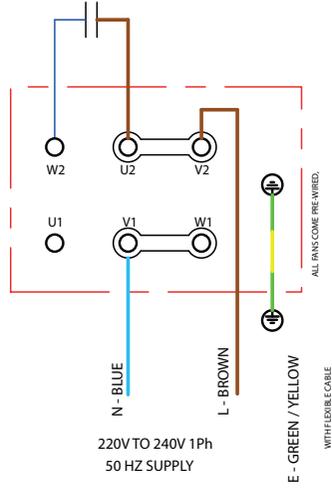
- 3.1 Before power is supplied to the unit, check that the wiring is correct as per the fan connection diagram and control instructions [If fitted].
- 3.2 At initial start-up, check that the impeller rotation and airflow direction is correct.
- 3.3 Check that the motor amperage does not exceed the nameplate rating at full speed and the electrical switch-gear is correctly sized using Hydor technical information.

### **4. Fan Maintenance**

- 4.1 Inspection of the fan unit at least every 6 months is recommended to ensure that the motor, fan blades and supporting guards, are clean. Any build-up of dust deposits should be removed using a non-abrasive cleaner.
- 4.2 All fastenings should be checked for tightness. In addition, all rotating items should be checked.
- 4.3 Bearings are of the "sealed for life" variety and will not need a detail inspection.
- 4.4 Belt tension should be checked after 2-3 days use (48-72 hours usage). Allow 15-20mm deflection for the correct tension. Please note over tensioning will dramatically affect the longevity of the unit.

**WARNING** Only a suitably qualified and competent person may carry out maintenance after the electrical supply has been isolated. Particular care must be taken when automatic switching controls are used.

# 5. Wiring Diagrams







## **Guarantee**

Hydor or its agents will, within a period of one year from the date of dispatch from their works, at its option, replace any goods, which are proven to have defects as a result of defective materials or workmanship. The goods must be inspected by a Hydor official and if necessary returned, with a Returns Note Number, carriage paid, for further examination.

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