

# PLATE AXIAL FANS

MULTI-PURPOSE



# METRIC PLATE FANS

## **DESCRIPTION:**

The multi-purpose **HISON** Plate Fan has been designed for use in all inducted draught cooler units. The light weight and highly efficient **HISON** Fan Impellers provide for the maximum airflow at peak efficiencies.

## **PERFORMANCE:**

All **HISON** Fans have been tested in accordance with the specification BS 848 1980 Part 1, by the Queensland University of Technology.

## **CONSTRUCTION:**

The Fan Plates are manufactured in Aluminium, powder-coated, to provide a corrosion-free plate.

**HISON** Impellers are moulded in our own factory, using glass-filled polypropylene; again corrosion-free.

Fan Motors are coated in an epitare paint to prevent corrosion; totally enclosed, fan cooled.

Wire Guards are chromed to complete a high quality **HISON** Fan.

## **IMPELLER:**

All Plate Fans incorporate the **HISON** Fan Impeller, injection moulded in polypropylene - 8 wing - non overloading - adjustable pitch - non corrosive - high efficiencies. Design features have been patented ie. Design No. 14843, Patent No. 187974.

## **FORMS OF RUNNING:**

**HISON** plate mounted fans are normally supplied Form A Running - ie. air over motor then through blade.

## **MOTORS:**

Totally enclosed fan motors specially designed to match their respective impellers are protected to IP54 standard with sealed bearings. Class E insulation to BS 2613 197. Temperature range -25° to 45°C. Motors exposed to weather or other arduous conditions require special treatment to IP55.



### SPEED REGULATION:

Electronic and auto transformer speed controllers are available for those fans which will accept regulation. All enquiries should be referred to **HISON** and no controls should be fitted without prior reference.

### WEATHERPROOFING:

Specialty treated motors can be supplied for extreme moisture laden conditions. The windings are specially impregnated and allowed with drain holes in the lowest point of front and/or back bearing housing. It is most important to specify mounting arrangements.

### HIGH TEMPERATURES:

Motors can be supplied for higher temperatures on request, if Class F or higher.

### VOLTAGES:

Standard fans are available in the following voltages:  
220/240 50Hz - 380/440 50Hz.

### SOUND LEVEL:

The sound level ratings are quoted in sound pressure levels under free field or free conditions at a distance equal to three fan diameters, from inlet or outlet. The ratings indicated are average A scale readings measured in accordance with BS5440:1980 Part 2. Sound power levels in the mid frequency band are available on request.

The decibel (dB) units have been measured on the flat response (C Scale) reading of the sound level meter.

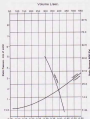
As a basic guide:

45-50 dB	-	Recommended for very low noise level requirement.
51-55 dB	-	Fairly quiet.
56-65 dB	-	Light industrial use.
66 dB & above	-	General industrial use.

### TEST METHODS:

The performance data quoted has been established by tests in accordance with BS 5440:1980 Part 1. Ratings are based on air having a density of  $1.2 \text{ kg/m}^3$  at a temperature of 20°C.

See Code 1 200 2000 - A - 1



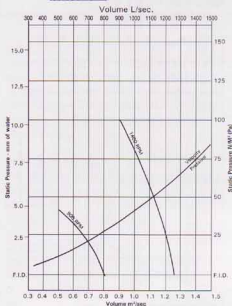
SPEED (RPM)	PHASE	CODE	VOLTS	EFF	SOUND LEVEL	CLASS
1400	1	HC 200-A-1	220	0.06	50	1

See Code HC 200 - A - 1



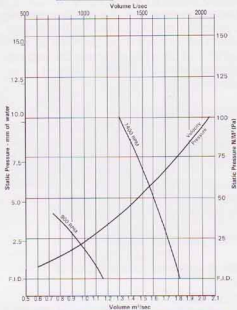
SPEED (RPM)	PHASE	CODE	VOLTS	EFF	SOUND LEVEL	CLASS
1400	1	HC 200-A-1	220	0.18	54	1

Fan Code HC 400 - 4 - 1  
HC 400 - 6 - 1



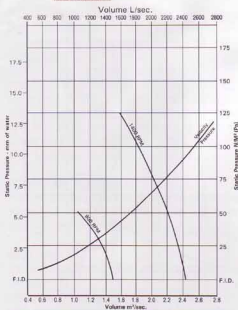
SPEED R.P.M.	PHASE	CODE	VOLTS	KW	SOUND LEVEL	CURVE
900	1	HC 400-6-1	230	0.08	52	1
1400	1	HC 400-4-1	230	0.37	66	2

Fan Code HC 450 - 4 - 1  
HC 450 - 6 - 1



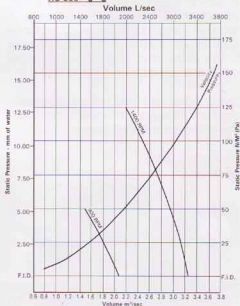
SPEED R.P.M.	PHASE	CODE	VOLTS	KW	SOUND LEVEL	CURVE
900	1	HC 450-6-1	230	0.08	55	1
1400	1	HC 450-4-1	230	0.37	69	2

Fan Code HC 500 - 4 - 1  
HC 500 - 6 - 1



SPEED R.P.M.	PHASE	CODE	VOLTS	KW	SOUND LEVEL	CURVE
900	1	HC 500-6-1	230	0.15	60	1
1400	1	HC 500-4-1	230	0.37	72	2

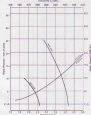
Fan Code HC 550 - 4 - 3  
HC 550 - 6 - 3



SPEED R.P.M.	PHASE	CODE	VOLTS	KW	SOUND LEVEL	CURVE
900	3	HC 550-6-3	415	0.27	6.2	1
1400	3	HC 550-4-3	415	0.55	74	2

Plan Code: H0-999-A-3  
H0-999-B-3

Volume Lines



SPRINT PLAN	PRIME	CODE	SOFTS	GR	SOUND LEVEL	BASE
800	3	H0-999-A-3	405	0.75	50	1
1400	3	H0-999-B-3	445	1.00	75	2

Plan Code: H0-999-A-3  
H0-999-B-3

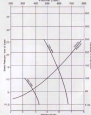
Volume Lines



SPRINT PLAN	PRIME	CODE	SOFTS	GR	SOUND LEVEL	BASE
800	3	H0-999-A-3	405	0.75	50	1
1400	3	H0-999-B-3	445	1.00	75	2

Plan Code: H0-700-A-3  
H0-700-B-3

Volume Lines



SPRINT PLAN	PRIME	CODE	SOFTS	GR	SOUND LEVEL	BASE
800	3	H0-700-A-3	475	1.75	75	1
1400	3	H0-700-B-3	475	2.0	75	2

Plan Code: H0-700-A-3  
H0-700-B-3

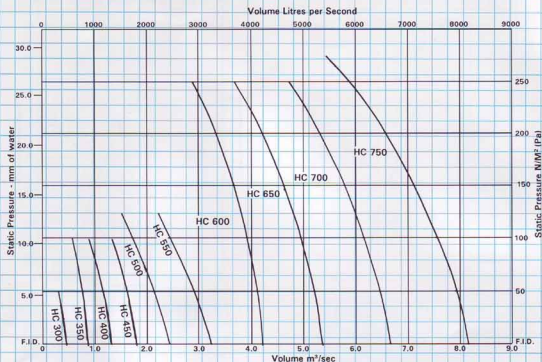
Volume Lines



SPRINT PLAN	PRIME	CODE	SOFTS	GR	SOUND LEVEL	BASE
800	3	H0-700-A-3	475	1.75	75	1
1400	3	H0-700-B-3	475	2.0	75	2

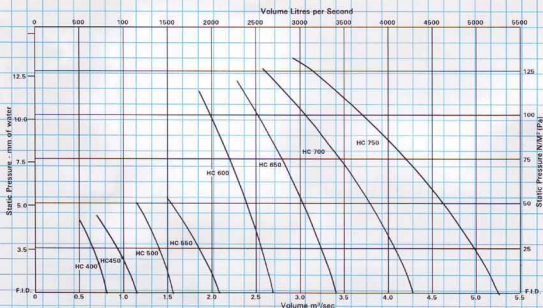
# SELECTION CURVES

1400 RPM 50HZ



# SELECTION CURVES

900 RPM 50HZ



## DIMENSIONS



CONNECTIONS



MODEL No.	SPEED RPM	VOLTS	kW	SOUND LEVEL dBA(1)	DIMENSIONS				WEIGHT	
					A	B	C	D	E	Kgs
HC 300-A-1	1400	230 V	0.08	60	480	305	75	15	25	6.5
HC 300-A-1	1400	230 V	0.18	64	500	325	75	15	25	7.0
HC 400-A-1	900	230 V	0.08	58	560	405	75	15	25	8.0
HC 400-A-1	1400	230 V	0.37	66	530	405	75	15	25	8.0
HC 400-A-1	900	230 V	0.08	58	600	485	75	15	25	8.5
HC 400-A-1	1400	230 V	0.37	68	600	485	75	15	25	8.5
HC 500-A-1	900	230 V	0.15	60	680	505	100	15	25	9.0
HC 500-A-1	1400	230 V	0.37	72	650	505	100	15	25	9.0
HC 500-A-3	900	415 V	0.27	62	780	585	100	15	25	14.0
HC 500-A-3	1400	415 V	0.88	74	750	585	100	15	25	15.0
HC 600-A-3	900	415 V	0.55	66	800	605	100	15	25	24.0
HC 600-A-3	1400	415 V	1.00	76	800	605	100	15	25	26.0
HC 600-A-3	900	415 V	0.75	68	850	685	100	15	25	30.0
HC 600-A-3	1400	415 V	2.20	78	880	685	100	15	25	32.0
HC 700-A-3	900	415 V	1.10	70	900	705	150	15	25	36.0
HC 700-A-3	1400	415 V	3.0	79	900	705	150	15	25	40.0
HC 700-A-3	900	415 V	1.50	75	950	755	200	15	25	44.0
HC 700-A-3	1400	415 V	4.0	80	980	755	200	15	25	48.0

### Forms of Running

Flow can be supplied for moving in either ducts form, or low ducts. The motor The direction of oil flow is referred to as the Form of Running. This must be specified when ordering. It is essential that the impeller be mounted on the motor spindle as shown on the right.



FORM A

Discharge ducts form motor. Rotation clockwise when looking at the impeller side of the fan. Impeller mounted as that it rotates in the direction indicated by the arrow on one of the wings.



FORM B

Discharge towards the motor. Rotation clockwise when looking at the impeller side of the fan. Impeller mounted as that it rotates in the direction indicated by the arrow on one of the wings.



FORM A1



FORM A2



FORM B1



FORM B2