

# HTP



High pressure rotor

## High pressure tubular axial fans

High pressure, extremely robust tubular axial fans, specially designed for mining installations or in applications with large load losses.

### Fan:

- Extremely thick sheet steel tubular casing.
- Motor support welded to casing.
- High aerodynamic performance directives for pressure gains.
- Optimal surface protection in high quality steel.
- High performance, cast aluminium rotor.
- Air direction from Impeller to Motor.
- Electrical connection in external terminal box.

### Motor:

- IE3 efficiency motors for powers equal to or greater than 0.75kW except single-phase, 2-speed and 8-pole.
- Class F motors with ball bearings and IP55 protection.
- Multi voltage motor, special design valid for 220/380V 60Hz, 254/440V 60Hz, 265/460V 60Hz, 277/480V 60Hz.
- Operating temperature -20 °C +70 °C.

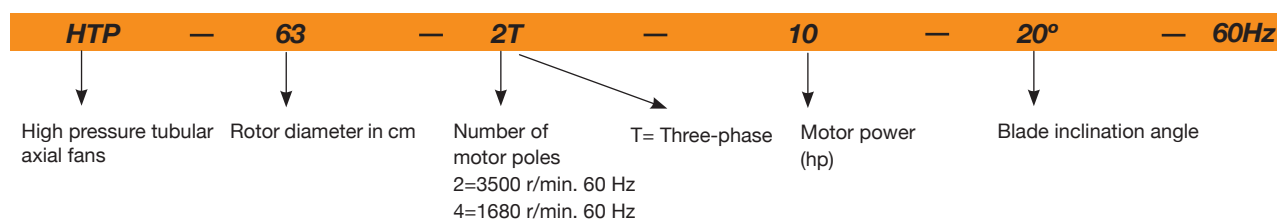
### Finish:

- High protection anticorrosive steel, special primer and high quality paint for corrosive atmospheres.

### On request:

- Standard IP55, ATEX and 2-speed motors.
- Made entirely of stainless steel.
- Made of hot dip galvanised steel.
- ATEX-certified Category 2.

## Order code



## Technical characteristics

60Hz

Model	Speed (r/min)	Maximum admissible current (A)		Installed power (kW)	Maximum flow rate (m <sup>3</sup> /h)	Approx. weight (kg)	NPS dB(A)
		220-277V	380-480V				
HTP-50-2T-4	3505	10.09	5.80	3.00	11000	49	82
HTP-50-2T-5.5	3505	13.22	7.60	4.00	13200	65	83
HTP-56-2T-5.5	3505	13.22	7.60	4.00	16600	69	88
HTP-56-2T-10	3505	-	14.00	7.50	22600	147	89
HTP-63-2T-10	3505	-	14.00	7.50	19750	132	94
HTP-63-2T-15	3540	-	19.20	11.00	24150	167	94
HTP-63-2T-20	3540	-	26.00	15.00	30800	181	97
HTP-63-2T-25	3540	-	31.50	18.50	35300	199	98
HTP-63-2T-30	3540	-	39.50	22.00	37550	208	99
HTP-63-4T-1.5	1715	4.17	2.40	1.10	10850	92	79
HTP-63-4T-2	1715	5.74	3.30	1.50	13200	93	79
HTP-63-4T-3	1740	8.00	4.60	2.20	16550	101	83
HTP-63-4T-4	1740	10.96	6.30	3.00	19700	104	84
HTP-71-2T-15	3540	-	19.20	11.00	31750	184	93
HTP-71-2T-20	3540	-	26.00	15.00	36850	198	95
HTP-71-2T-25	3540	-	31.50	18.50	39400	216	95
HTP-71-2T-30	3540	-	39.50	22.00	41950	225	95
HTP-71-2T-40	3540	-	51.60	30.00	49600	303	98
HTP-71-4T-2	1715	5.74	3.30	1.50	16550	110	83
HTP-71-4T-3	1740	8.00	4.60	2.20	19700	118	83
HTP-71-4T-4	1740	10.96	6.30	3.00	22250	121	84
HTP-71-4T-5.5	1740	15.30	8.80	4.00	26050	127	87
HTP-71-4T-7.5	1740	-	11.20	5.50	30100	141	90
HTP-80-4T-4	1740	10.96	6.30	3.00	16250	146	86

**Technical characteristics**

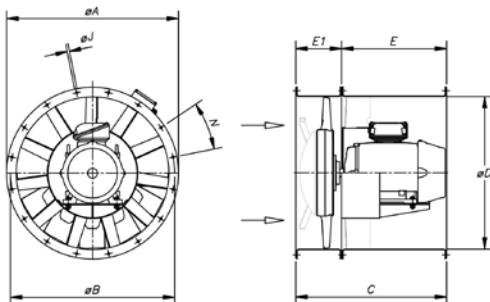
Model	Speed (r/min)	Maximum admissible current (A)		Installed power (kW)	Maximum flow rate (m³/h)	Approx. weight (kg)	NPS dB(A)
		220-277V	380-480V				
HTP-80-4T-5.5	1740	15.30	8.80	4.00	19750	152	86
HTP-80-4T-7.5	1740	-	11.20	5.50	23150	166	86
HTP-80-4T-10	1740	-	15.30	7.50	29600	177	87
HTP-80-4T-15	1740	-	20.90	11.00	35550	217	91
HTP-90-4T-7.5	1740	-	11.20	5.50	25400	196	90
HTP-90-4T-10	1740	-	15.30	7.50	29700	207	90
HTP-90-4T-15	1740	-	20.90	11.00	35900	247	90
HTP-90-4T-20	1740	-	28.50	15.00	45050	266	94
HTP-90-4T-25	1775	-	34.50	18.50	47850	294	95
HTP-90-4T-30	1775	-	40.90	22.00	53850	311	97
HTP-100-4T-15	1740	-	20.90	11.00	40950	282	93
HTP-100-4T-20	1740	-	28.50	15.00	50750	301	93
HTP-100-4T-25	1775	-	34.50	18.50	55300	329	93
HTP-100-4T-30	1775	-	40.90	22.00	59350	346	96
HTP-100-4T-40	1775	-	55.30	30.00	71900	401	98
HTP-125-4T-40	1775	-	55.30	30.00	69400	503	100
HTP-125-4T-50	1775	-	68.00	37.00	79650	525	100
HTP-125-4T-60	1775	-	81.30	45.00	89750	558	100
HTP-125-4T-75	1775	-	98.90	55.00	97200	599	100
HTP-125-4T-100	1775	-	135.00	75.00	126050	674	104
HTP-125-4T-125	1775	-	163.00	90.00	144450	703	105

**Acoustic characteristics**

The indicated values are determined by measuring the sound pressure and power levels in dB(A), obtained in a free field at a distance equivalent to twice the size of the fan plus the diameter of the rotor, with a minimum of 1.5 m.

Model Lp dB(A)	Sound power spectrum Lw(A) in dB(A) per Hz frequency band										Model Lp dB(A)										
	63	125	250	500	1000	2000	4000	8000	63	125		250	500	1000	2000	4000	8000				
HTP-50-2T-4	80	57	77	85	90	92	89	82	71	HTP-80-4T-4	86	58	75	86	95	96	96	93	86		
HTP-50-2T-5.5	81	58	78	86	91	93	90	83	72	HTP-80-4T-5.5	86	58	76	86	95	96	96	93	86		
HTP-56-2T-5.5	86	63	83	91	96	98	95	88	77	HTP-80-4T-7.5	86	58	76	86	95	96	96	93	86		
HTP-56-2T-10	87	64	84	92	97	99	96	89	78	HTP-80-4T-10	87	59	77	87	97	98	98	94	88		
HTP-63-2T-10	94	70	82	92	104	105	104	99	91	HTP-80-4T-15	91	63	81	91	101	102	102	99	92		
HTP-63-2T-15	94	70	82	92	104	105	104	99	91	HTP-90-4T-7.5	90	62	79	90	99	100	100	97	90		
HTP-63-2T-20	97	73	85	95	107	108	107	102	94	HTP-90-4T-10	90	62	80	90	99	100	100	97	90		
HTP-63-2T-25	98	74	86	96	108	109	108	103	95	HTP-90-4T-15	90	62	80	90	100	101	101	98	91		
HTP-63-2T-30	99	75	87	97	109	110	109	104	96	HTP-90-4T-20	94	66	83	94	103	104	104	101	94		
HTP-63-4T-1.5	79	55	67	77	89	90	89	84	76	HTP-90-4T-25	95	67	85	95	104	105	105	102	95		
HTP-63-4T-2	79	55	67	77	89	90	89	84	76	HTP-90-4T-30	97	69	87	97	107	108	108	104	98		
HTP-63-4T-3	83	59	71	81	93	94	93	88	80	HTP-100-4T-15	93	65	83	93	102	103	103	100	93		
HTP-63-4T-4	84	60	72	82	94	95	94	89	81	HTP-100-4T-20	93	65	82	93	102	103	103	100	93		
HTP-71-2T-15	93	65	83	93	102	104	103	100	93	HTP-100-4T-25	93	65	83	93	102	103	103	100	93		
HTP-71-2T-20	95	67	85	95	104	106	105	102	95	HTP-100-4T-30	96	67	85	96	105	106	106	103	96		
HTP-71-2T-25	95	67	85	95	104	106	105	102	95	HTP-100-4T-40	98	70	88	98	107	108	108	105	98		
HTP-71-2T-30	95	67	85	95	104	106	105	102	95	HTP-125-4T-40	100	72	89	100	109	110	110	107	100		
HTP-71-2T-40	98	70	88	98	107	109	108	105	98	HTP-125-4T-50	100	72	90	100	109	110	110	107	100		
HTP-71-4T-2	83	55	73	83	92	93	93	90	83	HTP-125-4T-60	100	72	89	100	109	110	110	107	100		
HTP-71-4T-3	83	55	72	83	92	93	93	90	83	HTP-125-4T-75	100	72	90	100	110	111	111	108	101		
HTP-71-4T-4	84	56	74	84	94	95	95	91	85	HTP-125-4T-100	104	76	93	104	113	114	114	111	104		
HTP-71-4T-5.5	87	59	77	87	97	98	98	95	88	HTP-125-4T-125	105	77	95	105	114	115	115	112	105		
HTP-71-4T-7.5	90	62	80	90	100	101	101	97	91												

**Dimensions mm**



Model	Power	ØA	ØB	ØD	E	E1	C	ØJ	N
HTP-50-2T	4/5.5	600	560	514	-	-	400	12	12x30°
HTP-56-2T	5.5/10	660	620	560	-	-	500	12	12x30°
HTP-63-2T	10/15/20/25/30	730	690	640	650	220	870	13	12x30°
HTP-63-4T	1.5/2/3/4	730	690	640	340	220	560	13	12x30°
HTP-71-2T	15/20/25/30/40	810	770	710	700	240	940	13	16x22°30'
HTP-71-4T	2/3/4/5.5/7.5	810	770	710	420	240	660	13	16x22°30'
HTP-80-4T	4 / 5.5	900	860	800	360	240	600	15	16x22°30'
HTP-80-4T	7.5 / 10 / 15	900	860	800	600	240	840	15	16x22°30'
HTP-90-4T	7.5 / 10	1015	970	900	420	250	670	15	16x22°30'
HTP-90-4T	15 / 20 / 25 / 30	1015	970	900	650	250	900	15	16x22°30'
HTP-100-4T	15 / 20	1115	1070	1000	600	270	870	15	16x22°30'
HTP-100-4T	25 / 30 / 40	1115	1070	1000	700	270	970	15	16x22°30'
HTP-125	40 / 50 / 60 / 75	1365	1320	1250	900	300	1100	15	20x18°
HTP-125	100 / 125	1365	1320	1250	950	300	1250	15	20x18°

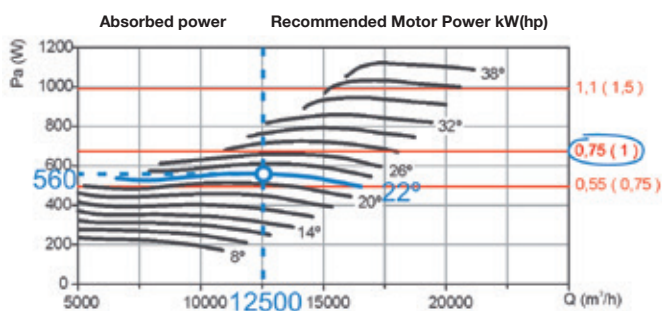
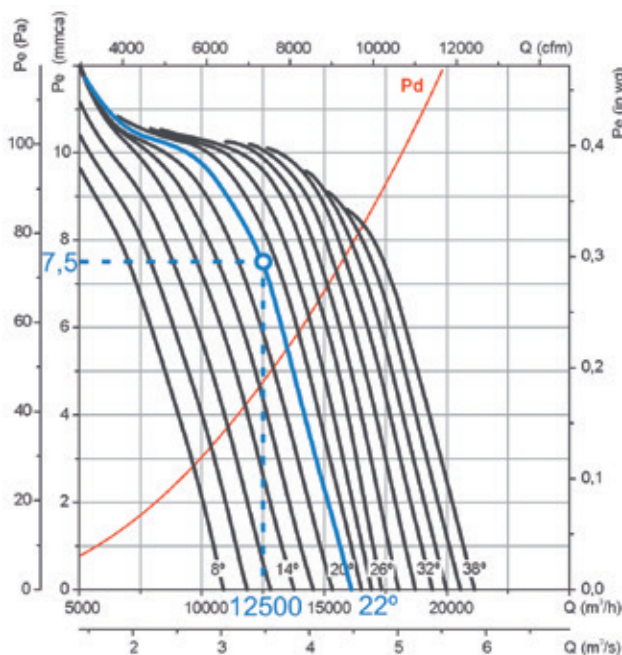
## SELECTION EXAMPLE

### Characteristic curves

Q= Flow rate in m<sup>3</sup>/h, m<sup>3</sup>/s and cfm.

Pe= Static pressure in mmH<sub>2</sub>O, Pa and inwg.

### HTP-63-4T



### Starting data

- Working point:
- Flow rate: 12,500 m<sup>3</sup>/h
- Load loss: 7.5 mm H<sub>2</sub>O

### Equipment selection steps

#### On the pressure graph:

1. Mark the working point defined by the flow rate (12,500 m<sup>3</sup>/h) and the load loss (7.5 mm H<sub>2</sub>O).
2. Select the nearest equipment curve above the working point. In this case, a blade angle curve of 22° is obtained.

#### On the power graph:

3. Mark the working point defined by the working flow rate (12,500 m<sup>3</sup>/h) and the selected blade angle curve (22°).
4. Read the absorbed power on the left power axis. Pa= 560 W at the working point.
5. Find the nearest straight red line above the working point. The installed motor power is given on the right side of the graph. In this case, 0.75 kW or 1 hp

## ORDER CODE EXAMPLE

**HTP** — **63** — **4T** — **1** — **22°**

↓  
Tubular, high pressure,  
axial extractor fans

↓  
Rotor diameter  
in cm

↓  
Number of motor poles  
4=1680 r/min. 60 Hz  
6=1080 r/min. 60 Hz  
8=900 r/min. 60 Hz

↓  
T= Three-phase  
M=Single-phase

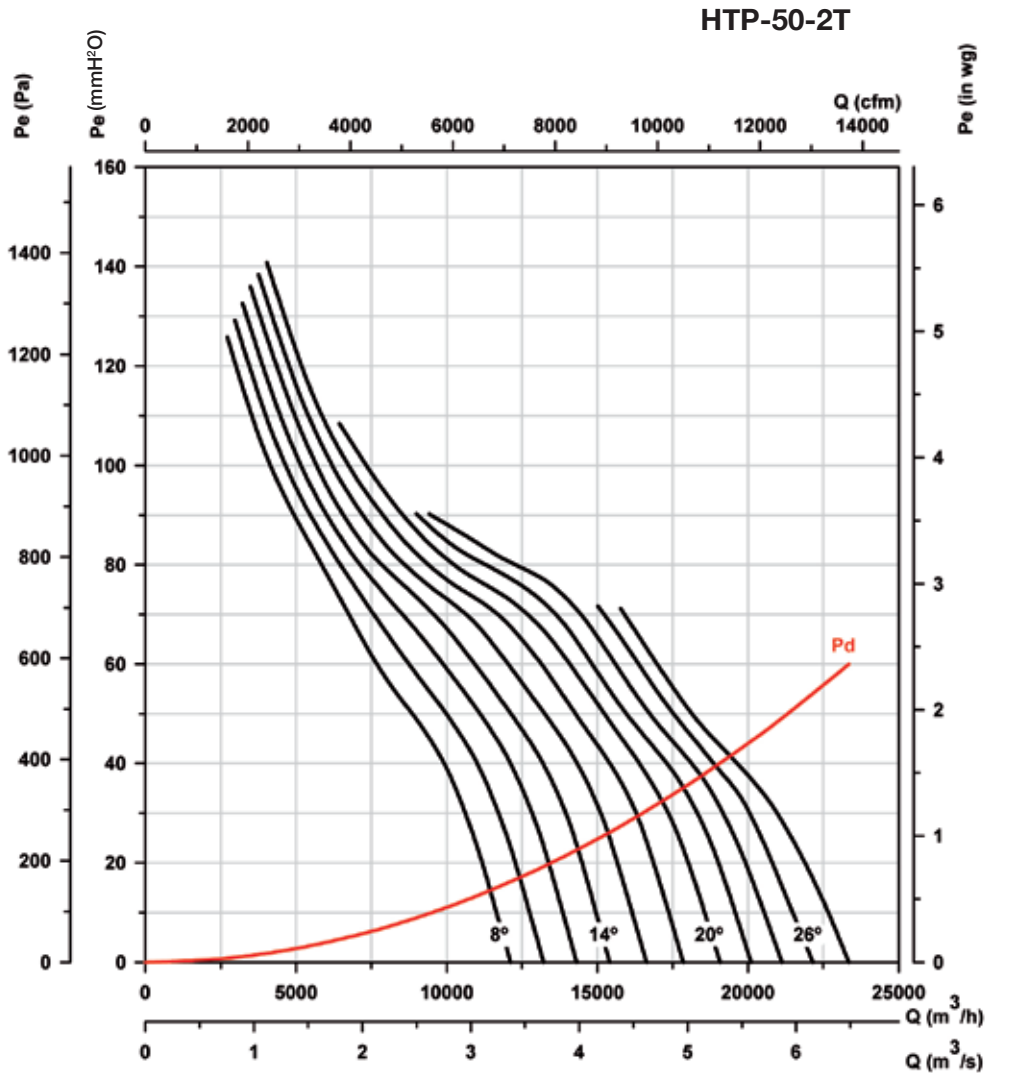
↓  
Motor power  
(hp)

↓  
Blade inclina-  
tion angle

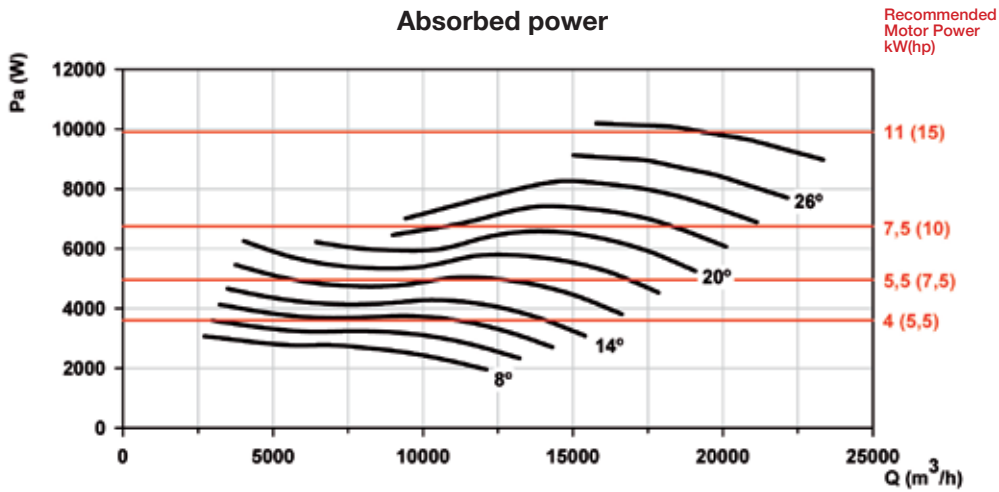
**Characteristic curves**

Q= Flow rate in m<sup>3</sup>/h, m<sup>3</sup>/s and cfm.

Pe= Static pressure in mm H<sub>2</sub>O, Pa and inwg.



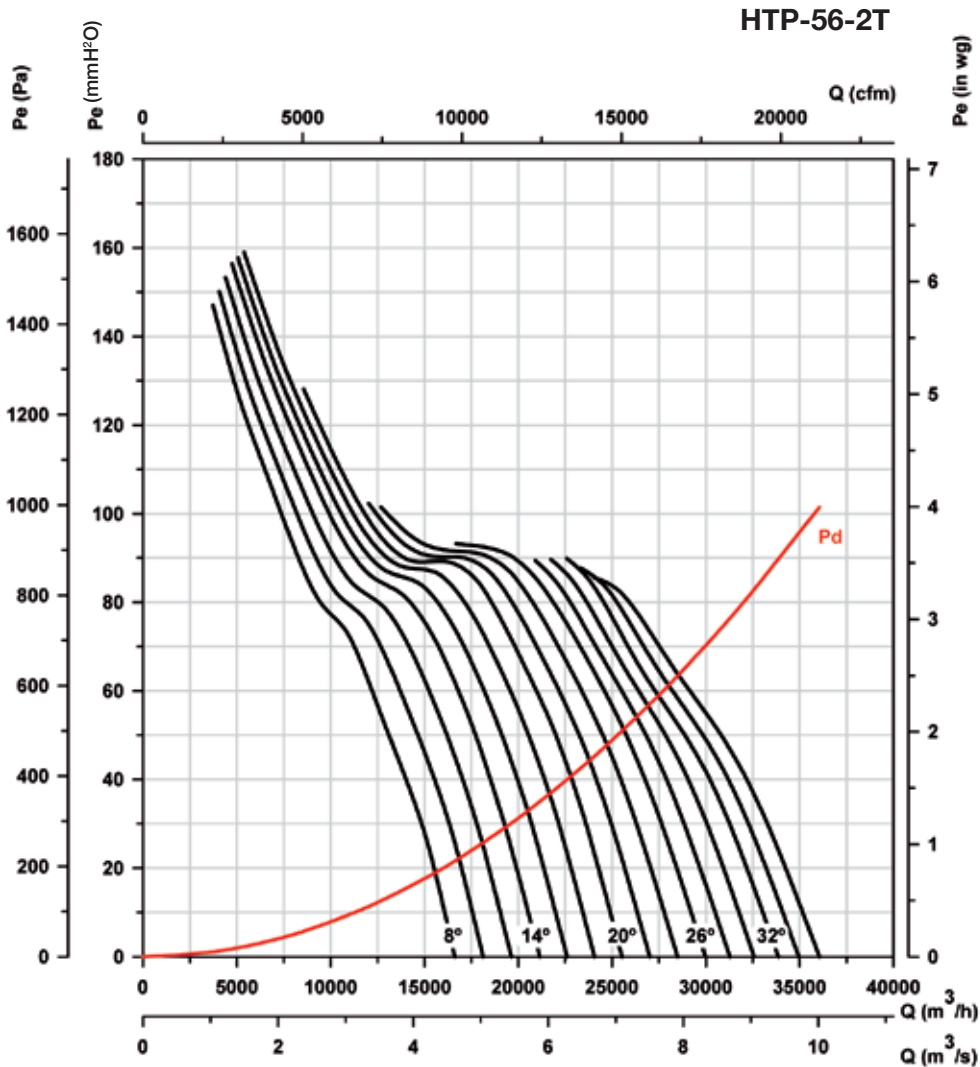
**Absorbed power**



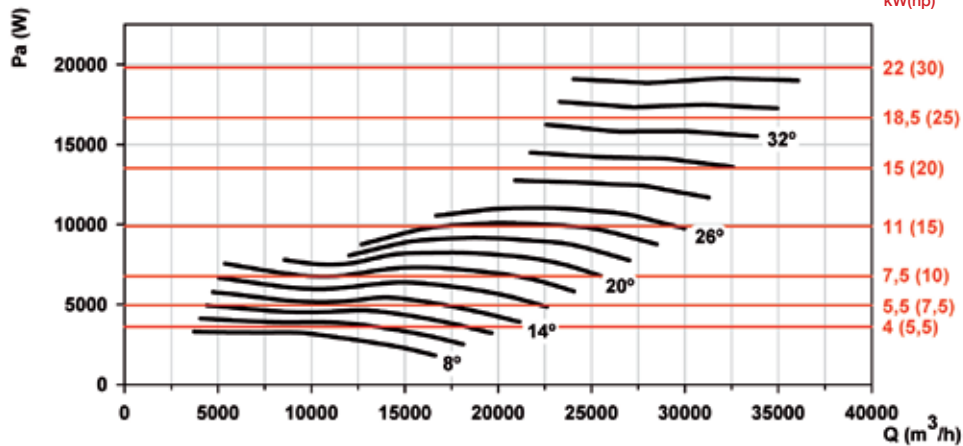
**Characteristic curves**

Q= Flow rate in m<sup>3</sup>/h, m<sup>3</sup>/s and cfm.

Pe= Static pressure in mm H<sub>2</sub>O, Pa and inwg.



Absorbed power

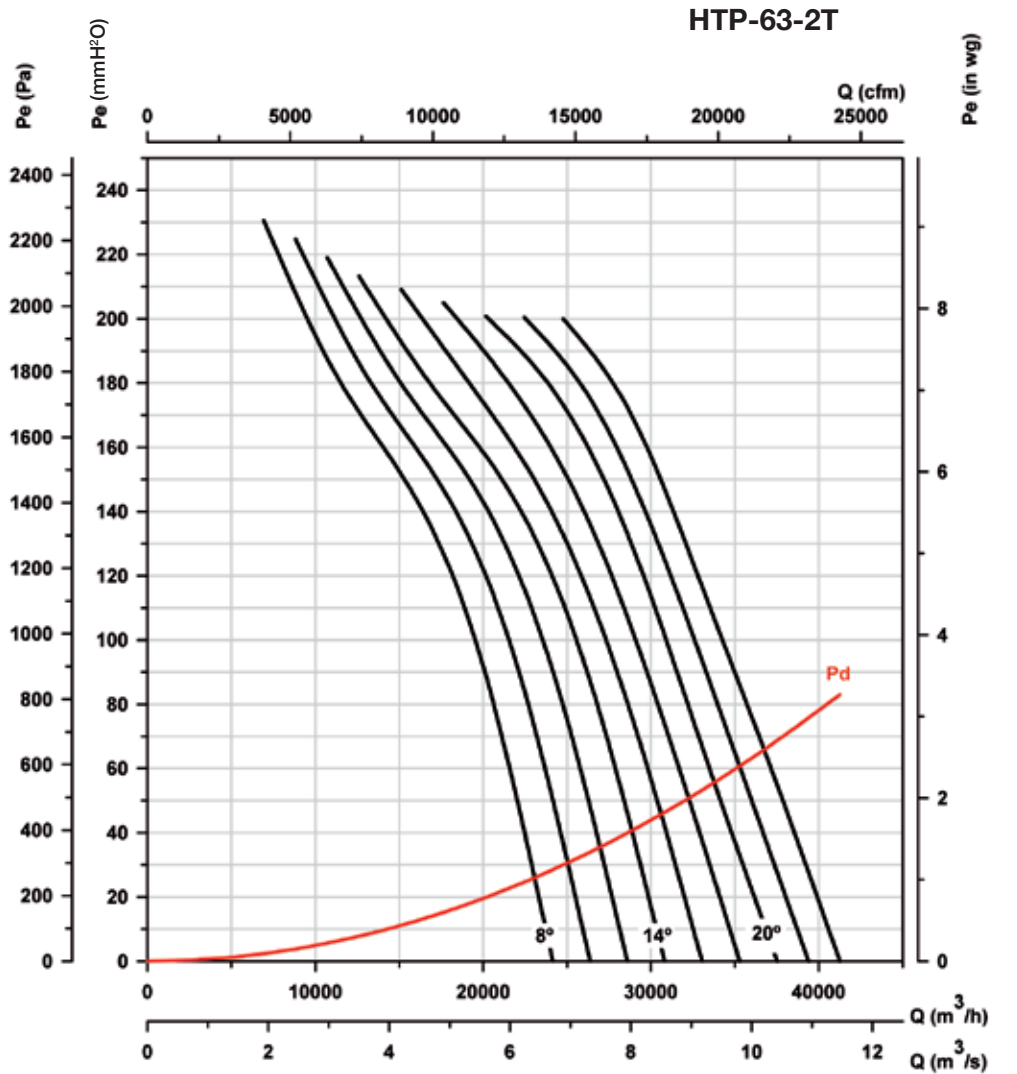


Recommended Motor Power kW(hp)

**Characteristic curves**

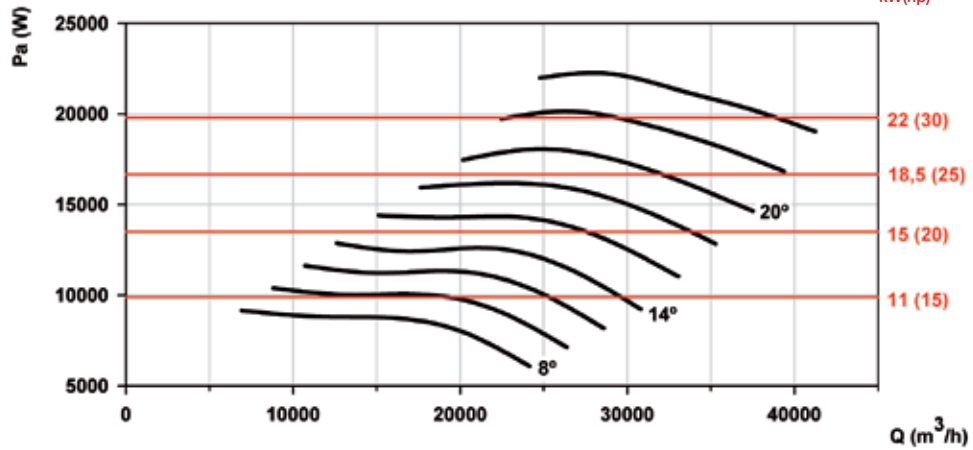
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Absorbed power

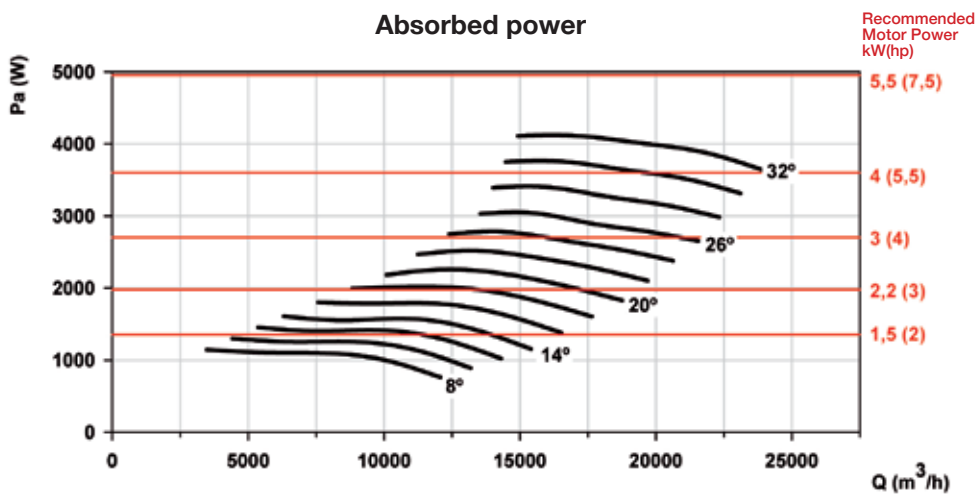
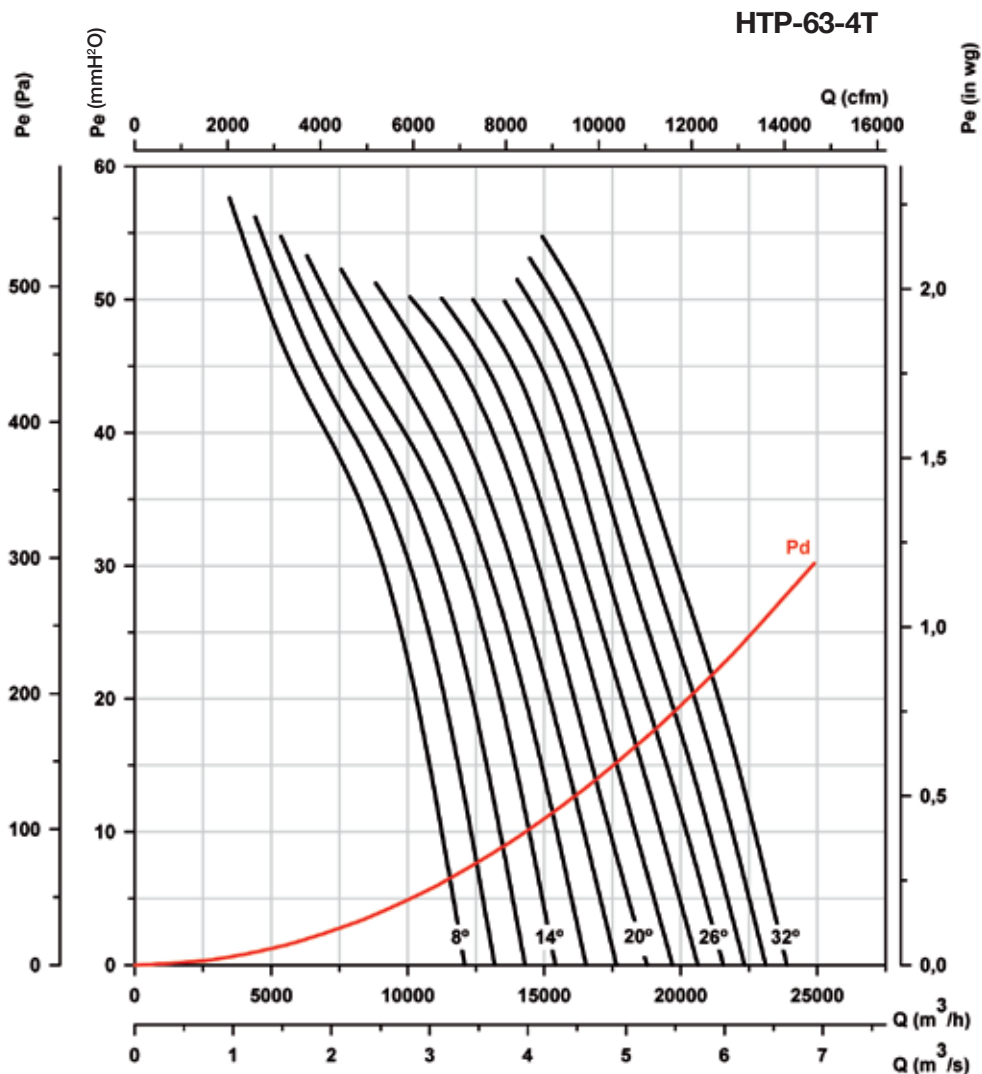
Recommended Motor Power kW(hp)



**Characteristic curves**

Q= Flow rate in m<sup>3</sup>/h, m<sup>3</sup>/s and cfm.

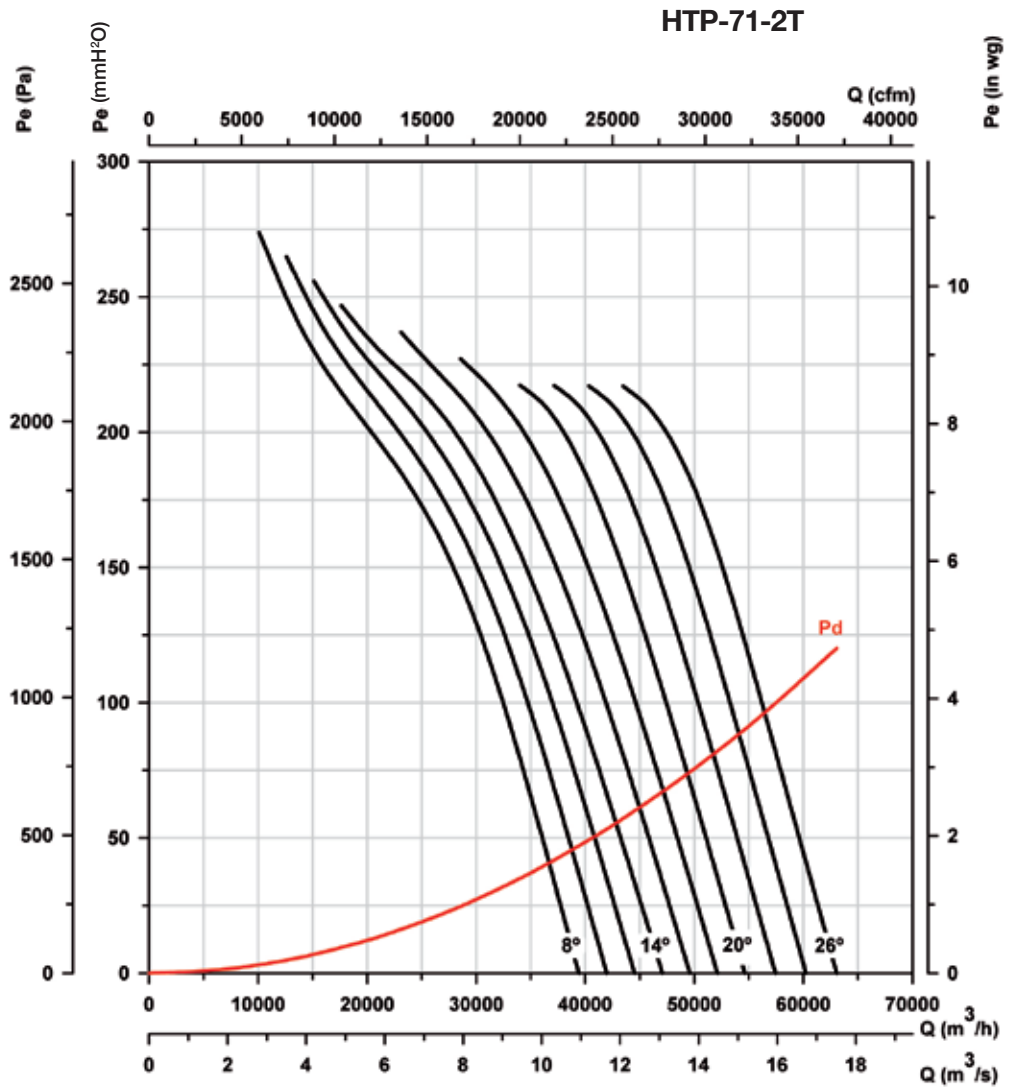
Pe= Static pressure in mm H<sub>2</sub>O, Pa and inwg.



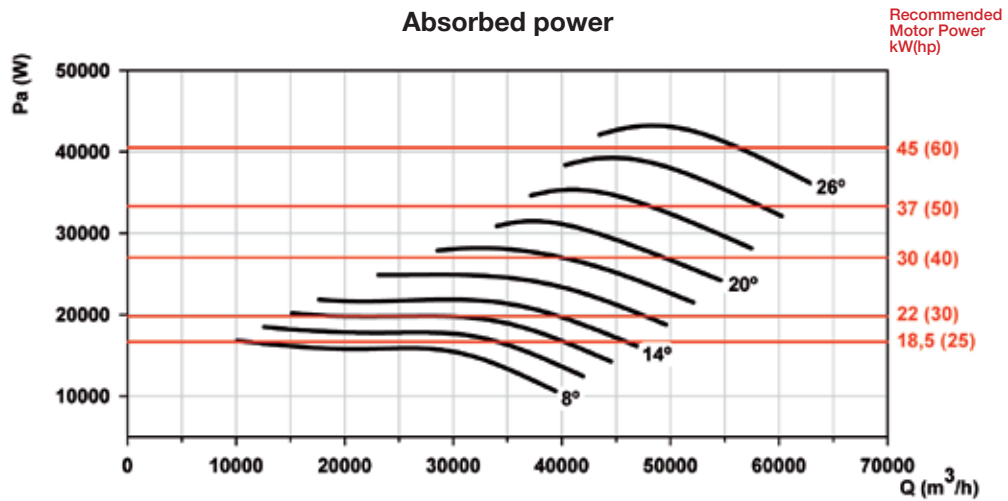
**Characteristic curves**

Q= Flow rate in m<sup>3</sup>/h, m<sup>3</sup>/s and cfm.

Pe= Static pressure in mm H<sub>2</sub>O, Pa and inwg.



**Absorbed power**

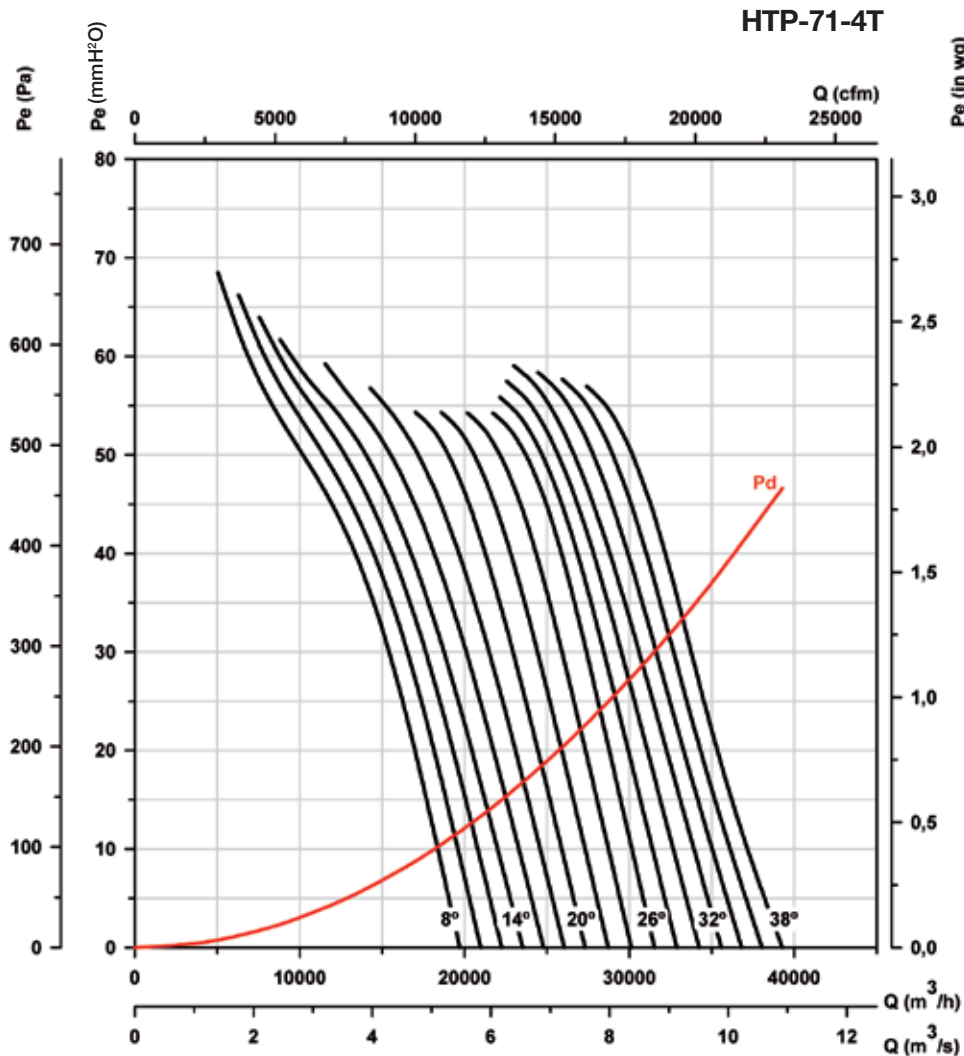




**Characteristic curves**

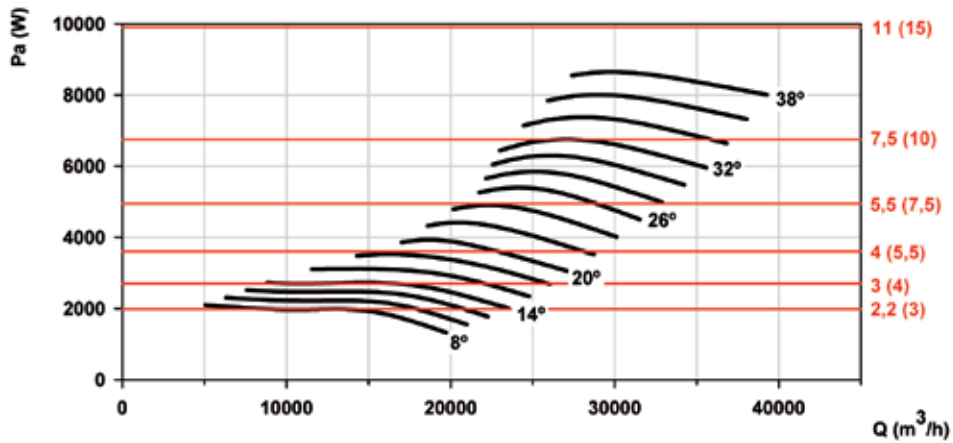
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Absorbed power

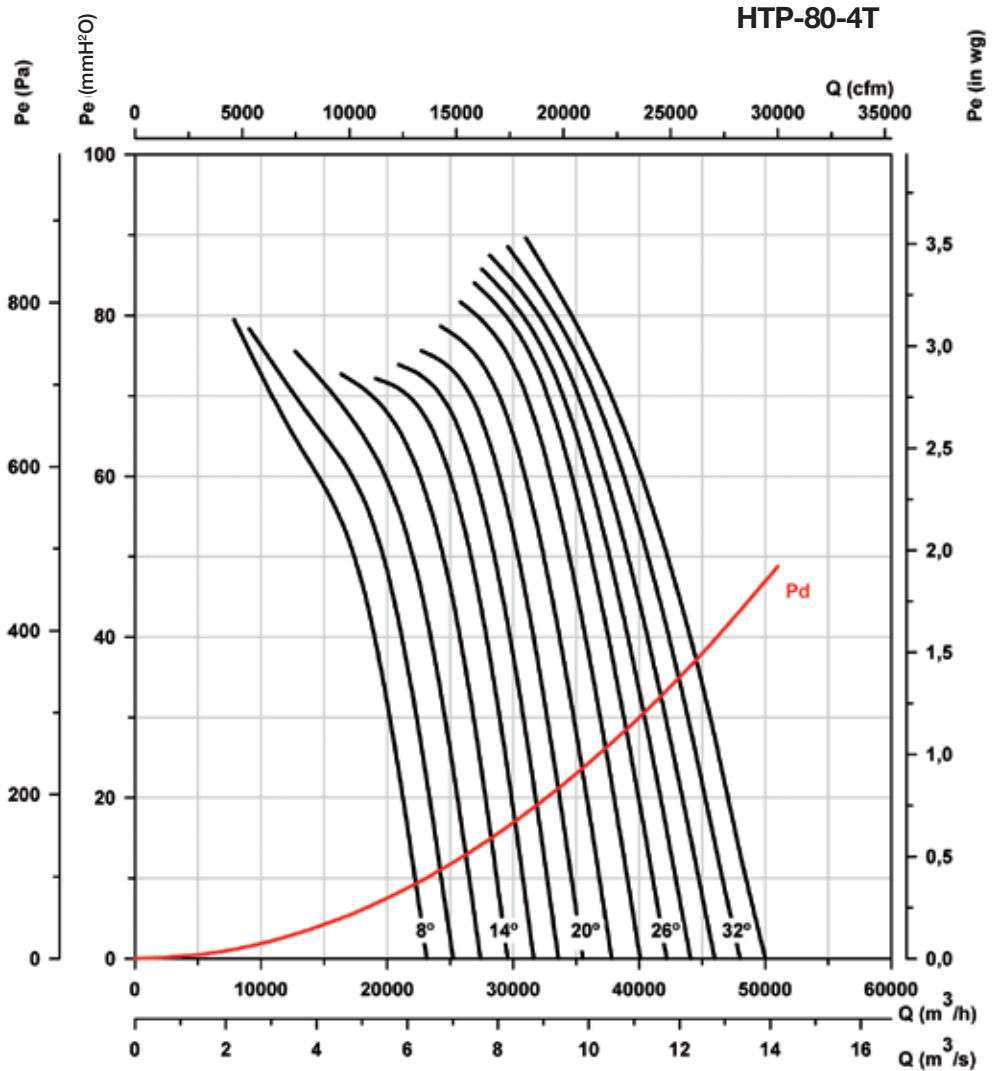
Recommended Motor Power kW(hp)



**Characteristic curves**

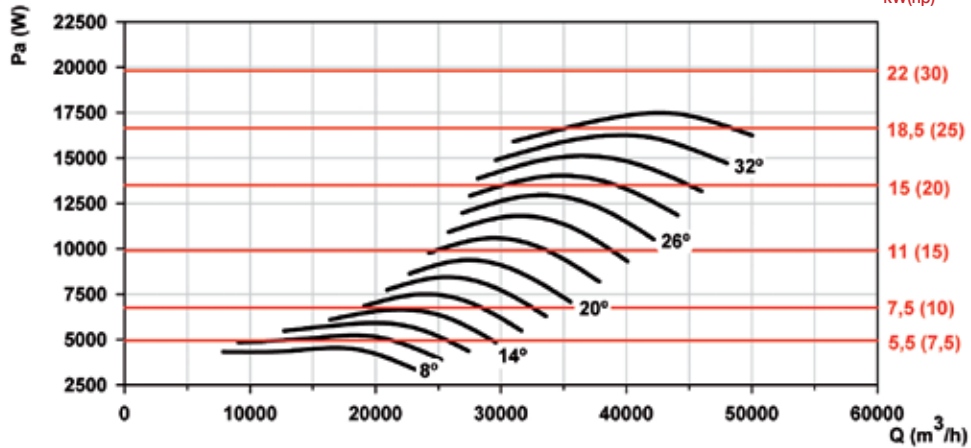
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Pe= Static pressure in mm H<sub>2</sub>O, Pa and inwg.



**Absorbed power**

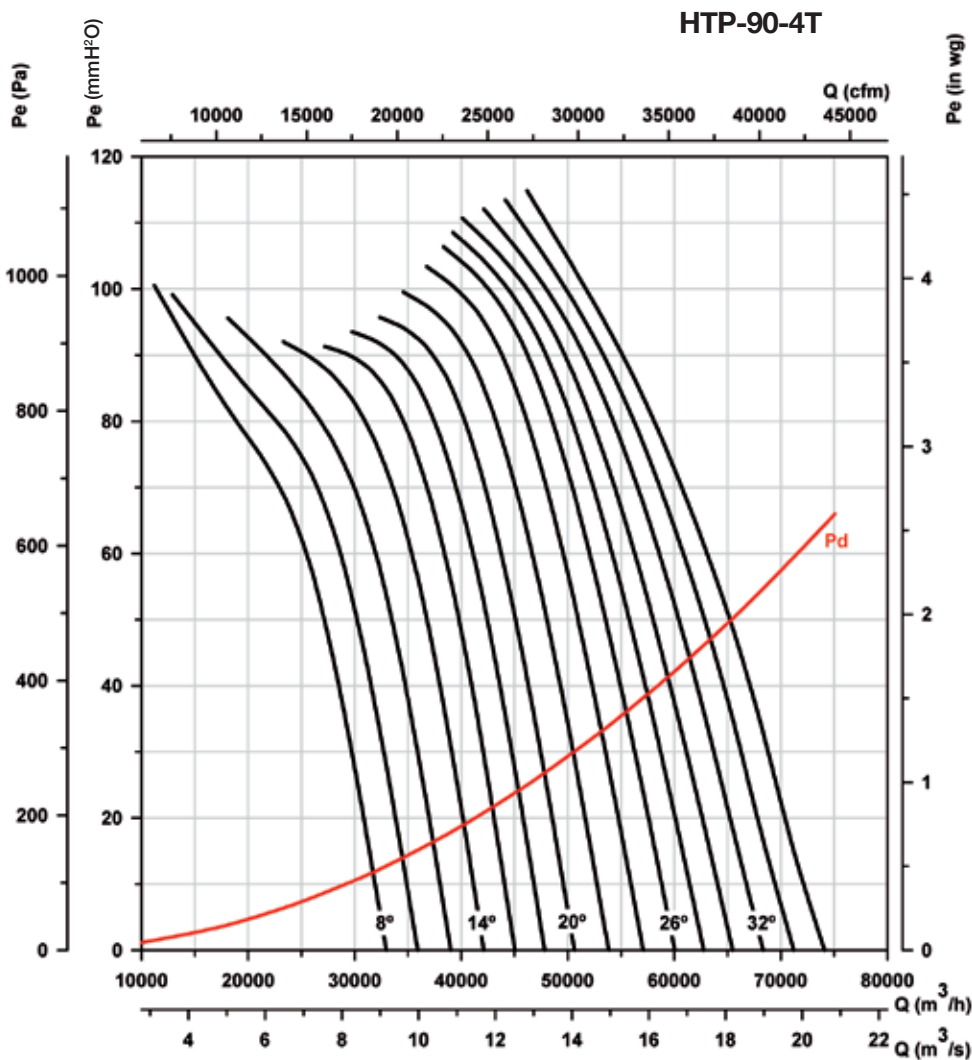
Recommended Motor Power kW(hp)



**Characteristic curves**

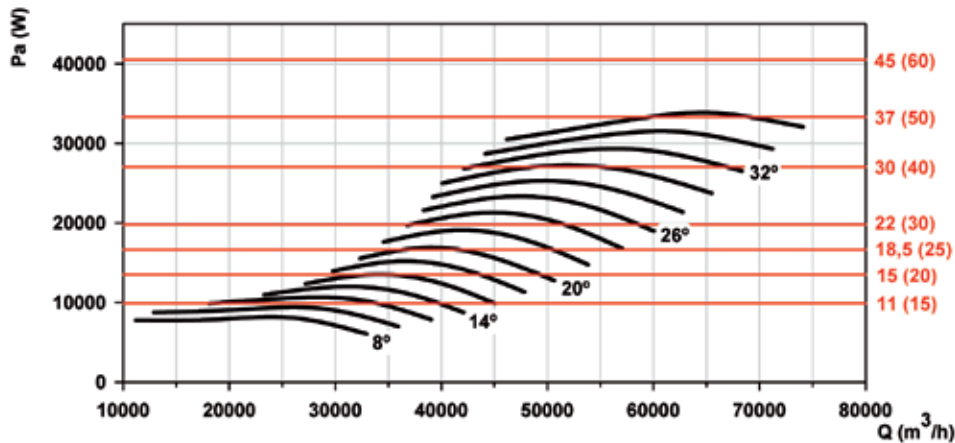
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Pe= Static pressure in mm H<sub>2</sub>O, Pa and inwg.



**Absorbed power**

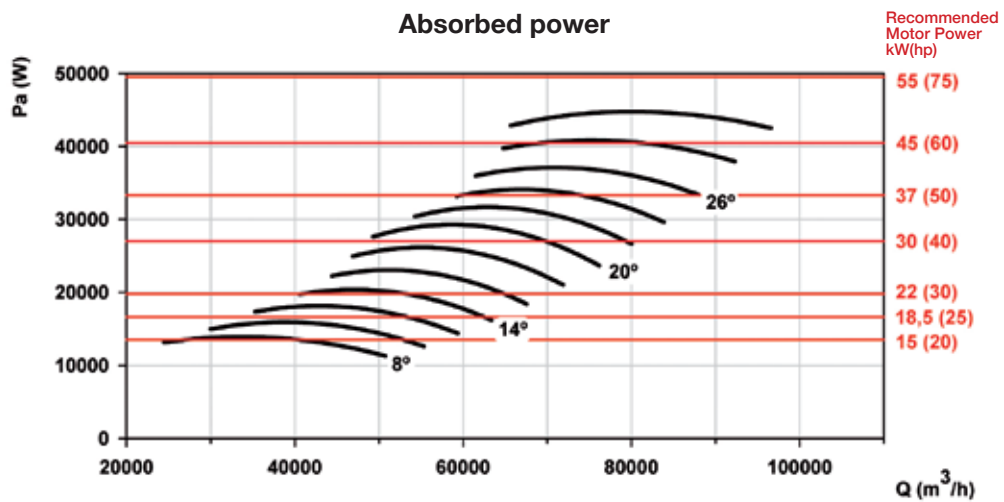
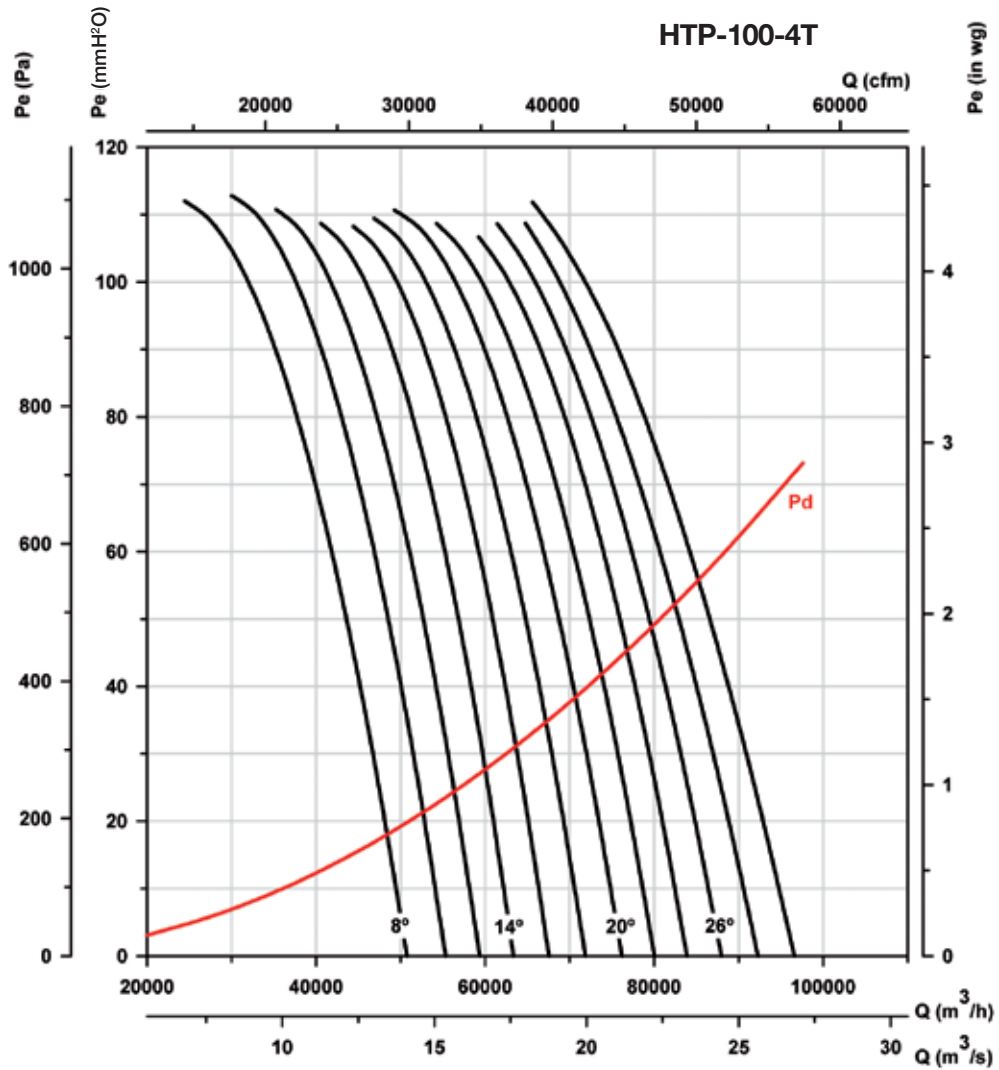
Recommended Motor Power kW(hp)



**Characteristic curves**

Q= Flow rate in m<sup>3</sup>/h, m<sup>3</sup>/s and cfm.

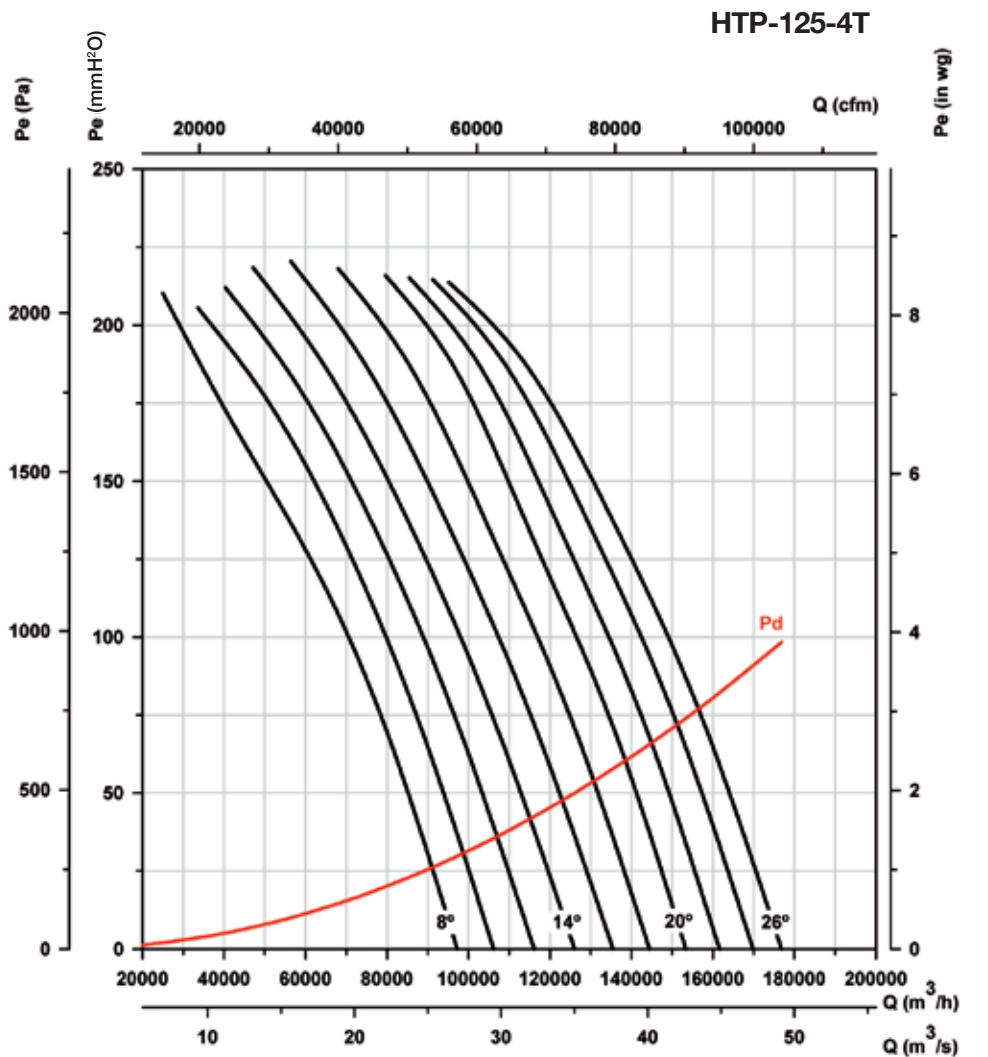
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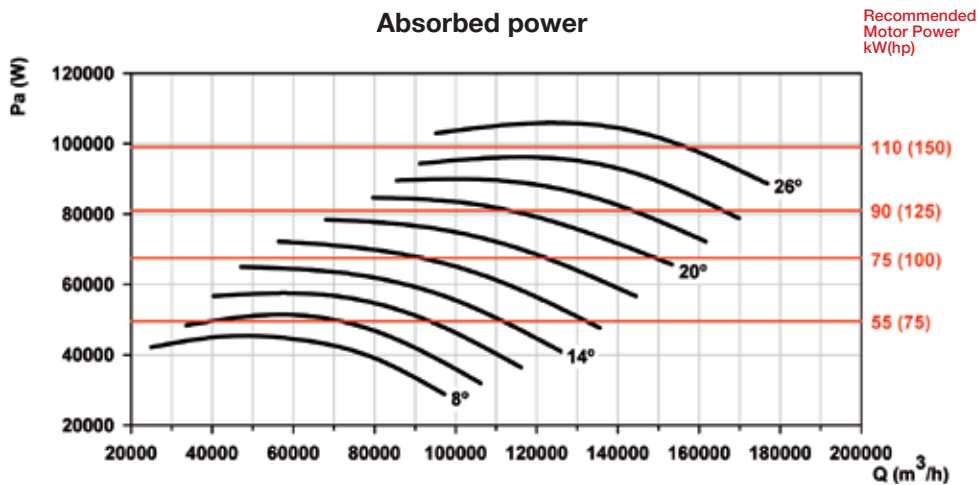
**Characteristic curves**

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Pe= Static pressure in mm H<sub>2</sub>O, Pa and inwg.

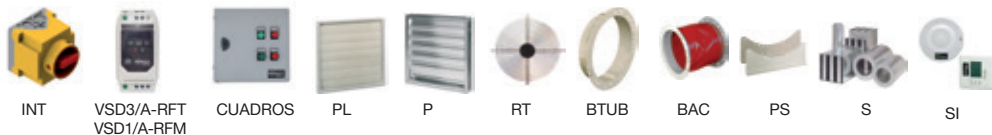


**Absorbed power**



Recommended Motor Power kW(hp)

**Accessories**



INT

VSD3/A-RFT  
VSD1/A-RFM

CUADROS

PL

P

RT

BTUB

BAC

PS

S

SI