



# SYW无蜗壳风机系列

Centrifugal Plug Fan

## 企业简介

浙江亿利达风机有限公司成立于1994年，是国内规模最大的空调风机、工程风机生产企业之一，公司总部位于浙江台州，总占地面积148000平方米，总资产3亿余元。旗下设有广东亿利达风机有限公司与宁波丰源工贸有限公司，并与德国华德公司合资成立了台州华德通风机有限公司。

1998年亿利达在行业内率先通过ISO9001质量管理体系认证;2001年成为美国AMCA协会会员,按美国AMCA标准要求建立了风机综合性能试验室；2005年通过ISO14001环境体系认证；“亿利达”连续多次被评为浙江省著名商标、浙江省名牌产品。

公司开发生产的离心风机、轴流风机、箱式风机、屋顶风机、管道风机等系列产品，经权威机构检测和广大客户使用，性能达到国内领先水平，是行业的主导产品，多项产品列为国家重点新产品、国家级火炬计划项目、通过AMCA产品认证。产品广泛应用于通风系统、制冷空调等行业。

公司以“致力风机产业发展、开发节能环保产品、树立行业精品典范、打造国际知名品牌”为企业使命，拥有完善的服务体系及良好的信誉，为顾客提供最具性价比的产品和服务，努力打造具有国际竞争力的知名品牌。

亿利达以先进的管理理念以及完善的质量保证体系为基础，不断吸收和引进具有先进水平的高新技术，积极推进产品的持续改进和技术创新，确保每一个生产环节都得到严格的控制，使亿利达始终趋于行业领先地位。

## Introduction Of Enterprise

Zhejiang Yilida Ventilator Co., Ltd. established in 1994 is one of the largest A/C ventilator and industry ventilator manufacturers in China. Its headquarter locates in Taizhou, Zhejiang, with a total 148,000 square meters and more than 3 hundred million RMB of total assets. It has two subsidiaries: GuangDong Yilida Ventilator Co., Ltd. and Ningbo FengYuan Industrial Trade Co., Ltd. Moreover, the company and WOLTER have set up a new joint venture company, Taizhou Wolter Ventilation Co., Ltd.

Zhejiang Yilida Ventilator Co., Ltd. passed ISO9001 quality system certification in 1998, and is the first company in the industry to get such a certificate; it became a member of AMCA International in 2001, and established a ventilator laboratory for comprehensive performance according to AMCA International; and it was awarded ISO14001 environment system certificate in 2005. “YILIDA” is awarded Zhejiang Province’ s famous trademark and the products are recognized as Zhejiang Province well-known brands in consecutive years.

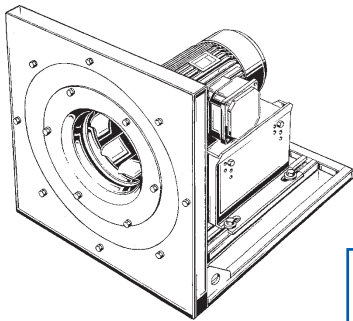
The line of products, including centrifugal fans, axial fans, cabinet fans, roof fans and duct fans etc. are tested by such authority inspection institutions and validated by most customers. Consequently, they are proved to be at the advanced level in China and stand on the outstanding position in this industry. Most of the products are enlisted into national key new products and Nation Torch project, and licensed to bear the AMCA seal. The products are widely used in Refrigeration Air Conditioning, ventilation system and other various industries.

Zhejiang Yilida Ventilator Co., Ltd’ s mission statement: “Dedicate to the development of ventilator industry; develop the energy-saving, environmental products; set up the model of industry; and create a world-known brand” . Yilida will provide customers the most reliable products with very competitive price and high efficient service to build well-known brand in international Competition.

On the basis of the advanced management idea and perfect quality system, Yilida constantly absorbs and adapts the new advanced technology; actively promote the products, precisely control the quality in each of working process, as a result, to keep it standing on the leading position in the industry.

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## 叶轮

离心式无蜗壳叶轮带后曲叶片，以铝合金制成。基于空气动力学原理设计的叶轮保证了高效率，低功耗的特点。叶轮最大圆周速度为 70m/s。

具有性能稳定和噪声低的显著特点，叶轮根据 DIN ISO 1940/1 标准做动平衡，平衡精度等级为 G2.5 级。

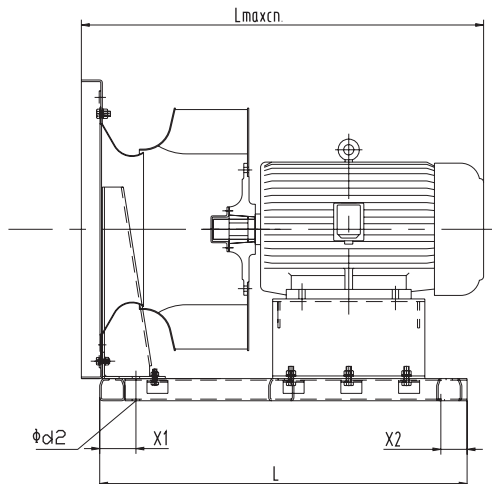
叶轮内部的 GG 轮毂由带锁锥套旋入固定。叶片由不锈钢或钢板制造。

## 集流器

集流器以薄钢板制成，是该风机的重要组成部分，能使气流稳定的进入叶轮。

## 重叠部位

叶轮与集流器间的重叠部位是为保证叶轮发挥其性能而设计的，需要注意保护。该重叠部位经由专门试验并依据离心风机空气动力学原理制造。



## Impeller

Centrifugal plug fan impellers are made of Aluminium with backward blade, according aerodynamics design the impeller have high efficiency and low power.

Maximum tip speed of the impeller is 70m/s.

Outstanding characteristic is with stable performance and low noise, and the impeller is balanced according to G 2.5 to DIN ISO 1940/1.

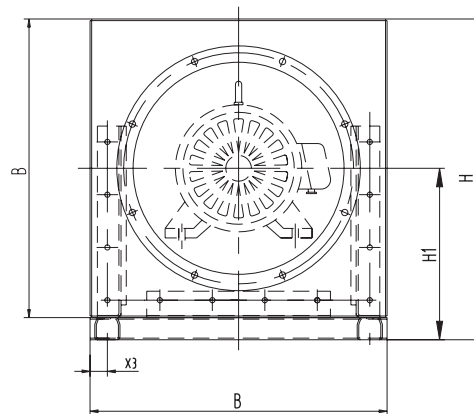
Inside of impeller the GG-hub is fixed with locked bush. The blade is made of stainless steel or steel.

## Inlet cone

the inlet cone is made of sheet steel and is a special part, it can lead air into impeller stably.

## Wrap part

Wrap part of Impeller and inlet cone is design to ensure impeller performance and take care to protect, this wrap part manufacture with aerodynamic via special testing.



规格	B	H	H1	L	Lmaxca.	X1	X2	X3	φ d2
250	376	414	226	475	610	60	40	24.5	14
280	400	438	238	475	610	60	40	24.5	14
315	430	468	253	520	660	60	40	24.5	14
355	462	500	269	533	680	60	40	25	14
400	502	540	289	586	740	60	40	25	14
450	566	608	325	700	780	69	50	33	14
500	612	654	348	760	800	80	50	31	14
560	688	744	400	870	950	100	50	38	18
630	768	824	440	920	990	100	50	39	18
710	850	935	510	1000	1090	100	50	50	18
800	940	1020	550	1100	1220	100	100	50	20
900	1044	1154	632	1200	1291	100	100	60	20
1000	1140	1250	680	1320	1486	100	100	60	20



## 安装支架

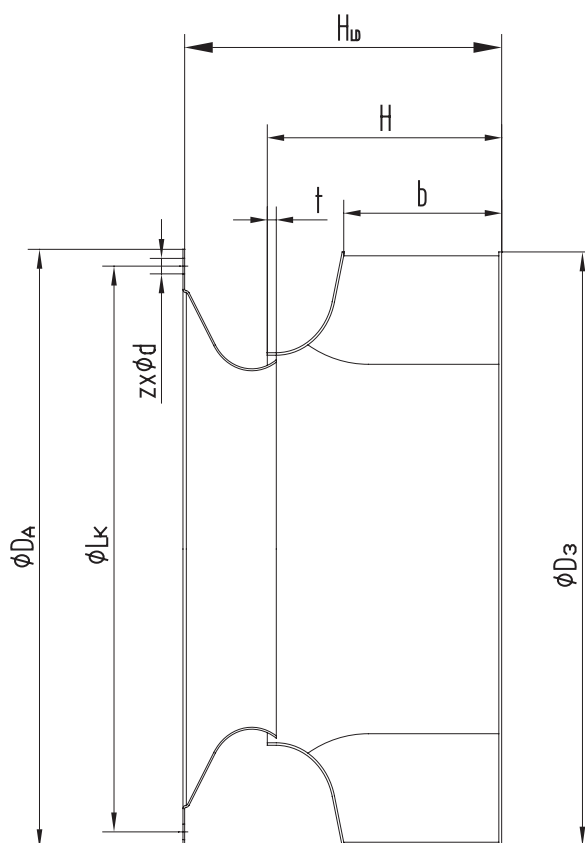
安装支架把叶轮、集流器和电机 3 个部件组合为一体。  
安装支架由镀锌钢板制造。  
可以选配多种规格的电机，有卧式电机或立式电机。  
可配置多种规格的集流器连接件。

## Mounting unit

Impeller, inlet cone and Motor are fit together with Mounting unit  
Mounting unit is made of galvanized plate.  
Many size of motor could be selected, and Horizontal or Vertical shaft.  
Many size of connection of inlet cone.

## 叶轮与进风圈尺寸统计表

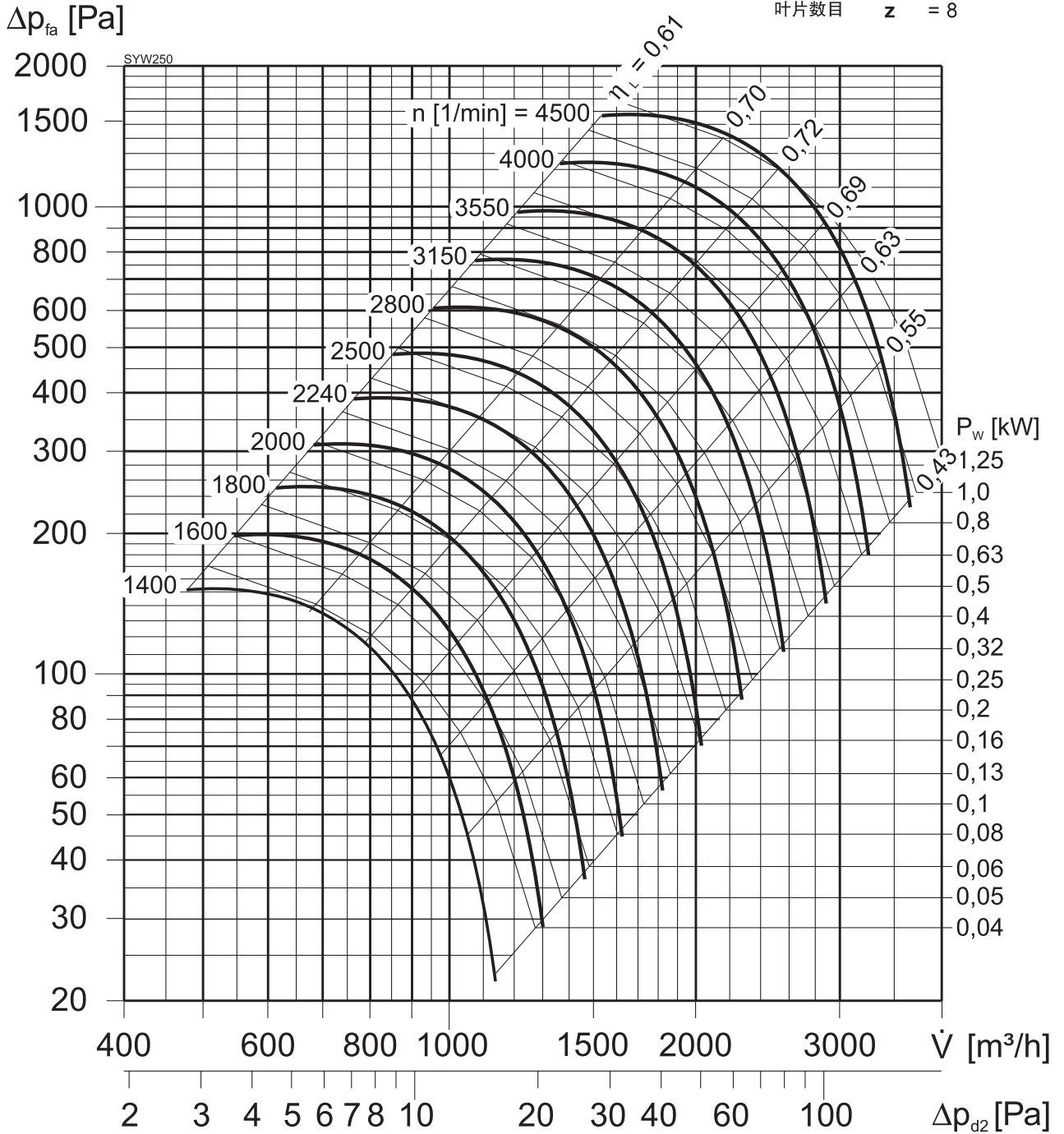
Dimension of Impeller and Inlet Cone



规格	$\phi D_3$	b	H	$\phi DA$	$\phi Lk$	Zx $\phi d$	$H_{LD}$	t	$n_{max}$
250	257	80	118	280	259	6X7	158	5	4500
280	289	89	133	307	286	6X7	179.5	5.5	4300
315	324	100	146	348	320	6X7	200.5	5	4000
355	365	112	162	382	356	6X9	223.5	6	3500
400	410	126	185	422	395	8X9	253	7	2900
450	460	142	210	464	438	8X12	282	8	2900
500	517	159	235	515	487	8X12	317	8	2500
560	578	178	262	564	541	8X12	357	9	2200
630	648	199	293	638	605	8X12	401.5	10	1900
710	728	224	328	710	674	8X14	450	12	1600
800	818	252	368	785	751	8X14	506.5	14	1400
900	917	282	413	875	837	8X14	563.5	16	1250
1000	1012	316	462	970	934	8X14	629	18	960

### SYW250

最高转速  $n_{max} = 5300 \text{ min}^{-1}$   
 叶轮直径  $D_2 = 252 \text{ mm}$   
 叶片数目  $z = 8$



温度  
Temperature  $t=20^\circ\text{C}$   
 密度  
Density  $\rho=1.2\text{kg/m}^3$

**加强型风机运行区域**  
*in this area only with strengthened version*

**轴消耗功率**  
**power consumption at shaft**

$$P_w = \frac{\dot{V}[\text{m}^3/\text{h}] \cdot p_t[\text{Pa}]}{\eta \cdot 1000 \cdot 3600}$$

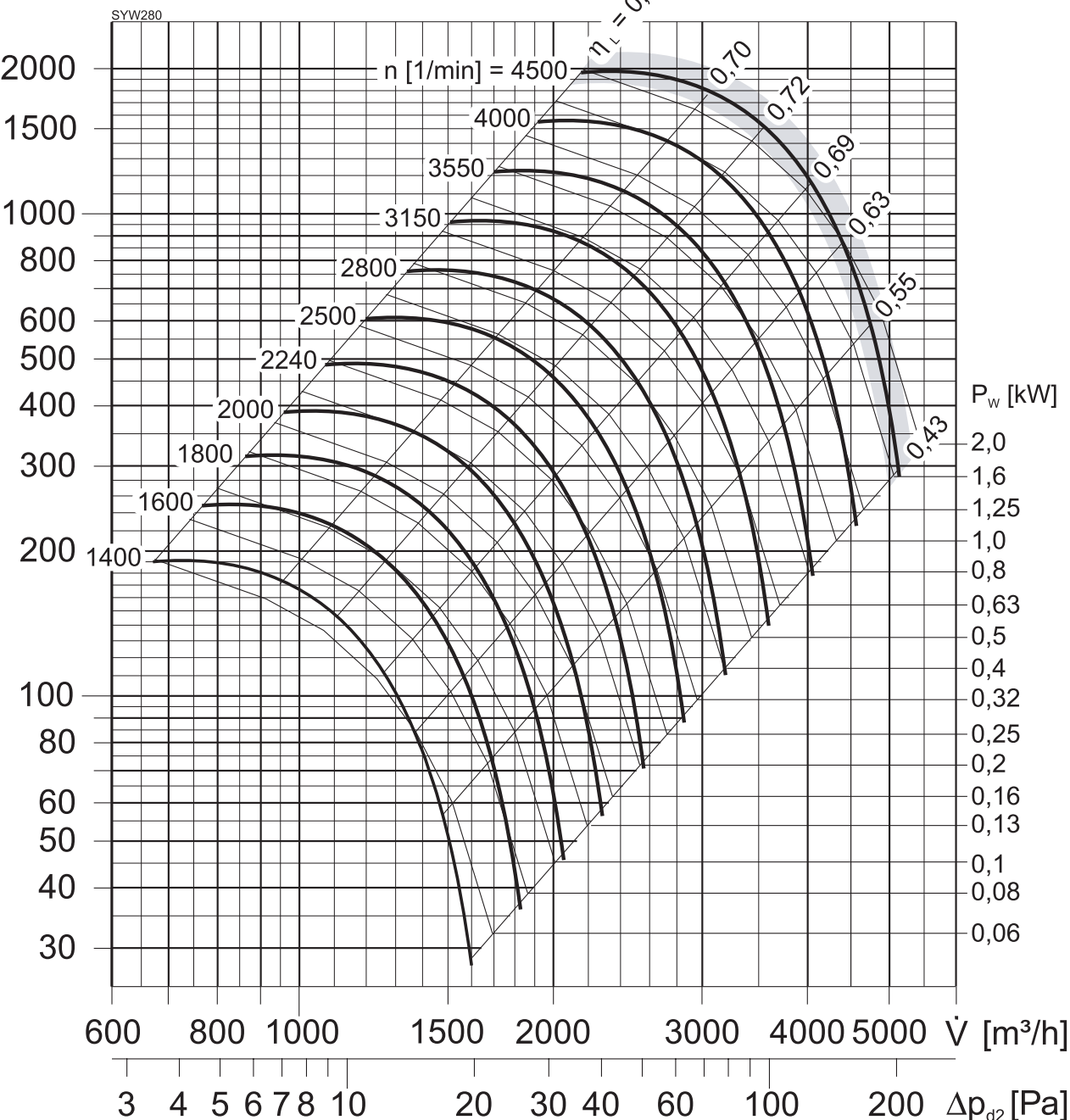
$$P_t = P_{fa} + P_{dyn}$$



### SYW280

最高转速  $n_{max} = 4400 \text{ min}^{-1}$   
 最高加强转速  $n_{mv} = 5000 \text{ min}^{-1}$   
 叶轮直径  $D_2 = 284 \text{ mm}$   
 叶片数目  $z = 8$

$\Delta p_{fa}$  [Pa]



温度  
Temperature  $t=20^\circ\text{C}$   
 密度  
Density  $\rho=1.2\text{kg}/\text{m}^3$

加强型风机运行区域  
in this area only with strengthened version

轴消耗功率  
power consumption at shaft

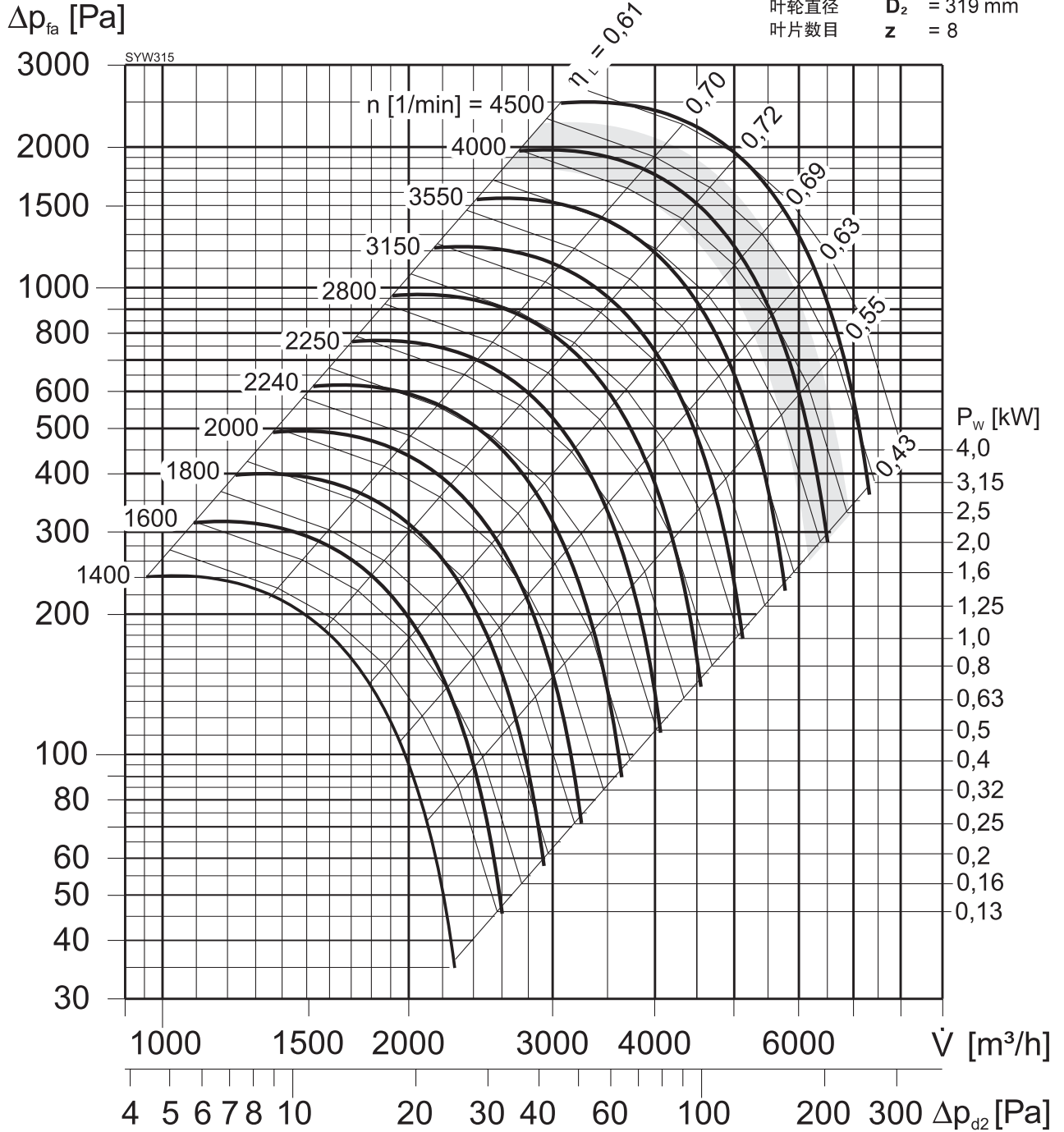
$$P_w = \frac{\dot{V}[\text{m}^3/\text{h}] * p_t[\text{Pa}]}{\eta * 1000 * 3600}$$

$$P_t = P_{fa} + P_{dyn}$$

SYW

### SYW315

最高转速  $n_{max} = 3850 \text{ min}^{-1}$   
 最高加强转速  $n_{mv} = 4250 \text{ min}^{-1}$   
 叶轮直径  $D_2 = 319 \text{ mm}$   
 叶片数目  $z = 8$



温度  
Temperature  $t=20^\circ\text{C}$   
 密度  
Density  $\rho=1.2\text{kg/m}^3$

加强型风机运行区域  
in this area only with strengthened version

轴消耗功率  
power consumption at shaft

$$P_w = \frac{\dot{V}[\text{m}^3/\text{h}] \cdot p_t [\text{Pa}]}{\eta \cdot 1000 \cdot 3600}$$

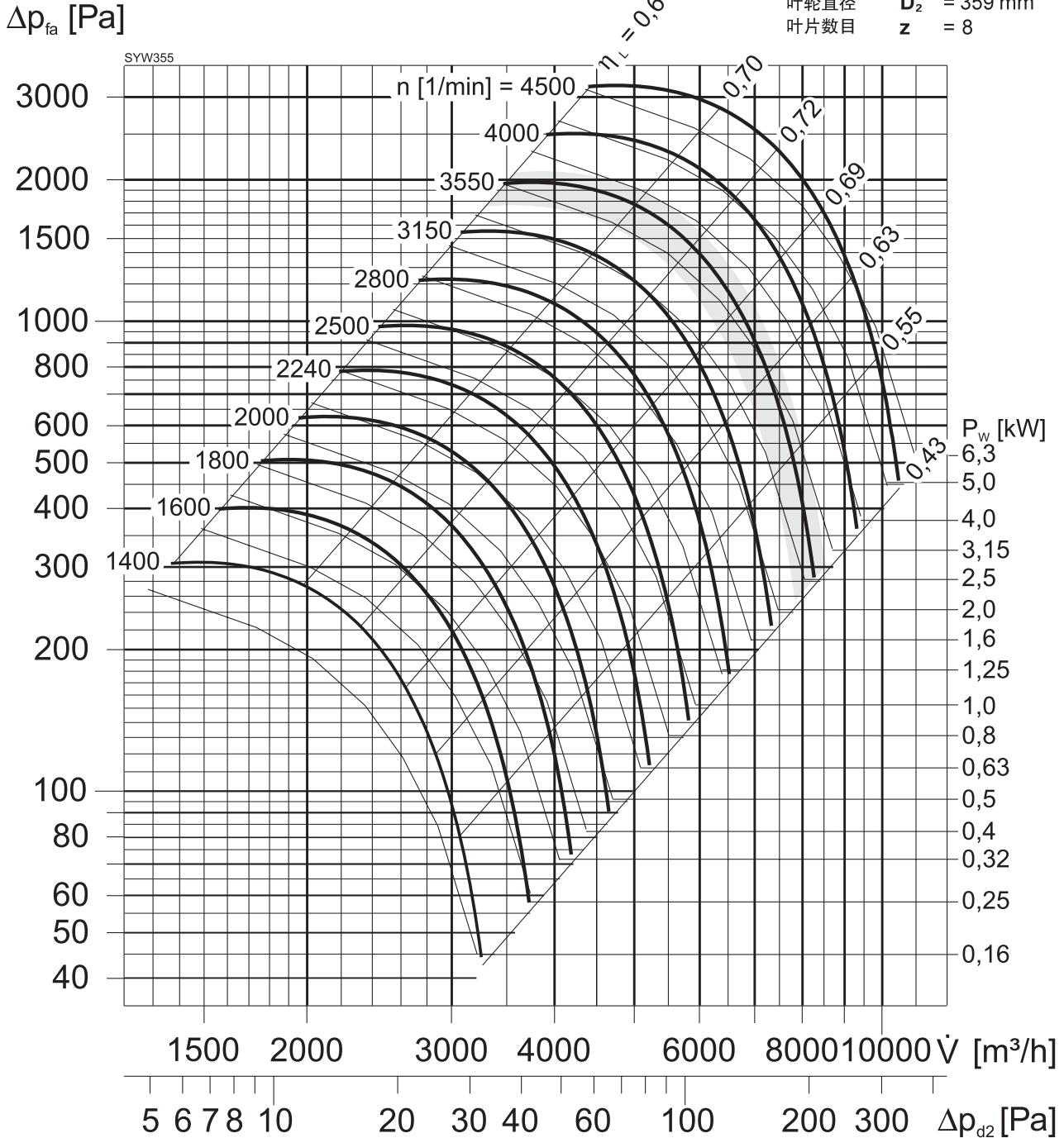
$$P_t = P_{fa} + P_{dyn}$$





### SYW355

最高转速  $n_{max} = 3360 \text{ min}^{-1}$   
 最高加强转速  $n_{mv} = 3600 \text{ min}^{-1}$   
 叶轮直径  $D_2 = 359 \text{ mm}$   
 叶片数目  $z = 8$



温度  
Temperature  $t=20^\circ\text{C}$   
 密度  
Density  $\rho=1.2\text{kg}/\text{m}^3$

加强型风机运行区域  
in this area only with strengthened version

轴消耗功率  
power consumption at shaft

$$P_w = \frac{\dot{V}[\text{m}^3/\text{h}] \cdot p_t[\text{Pa}]}{\eta \cdot 1000 \cdot 3600}$$

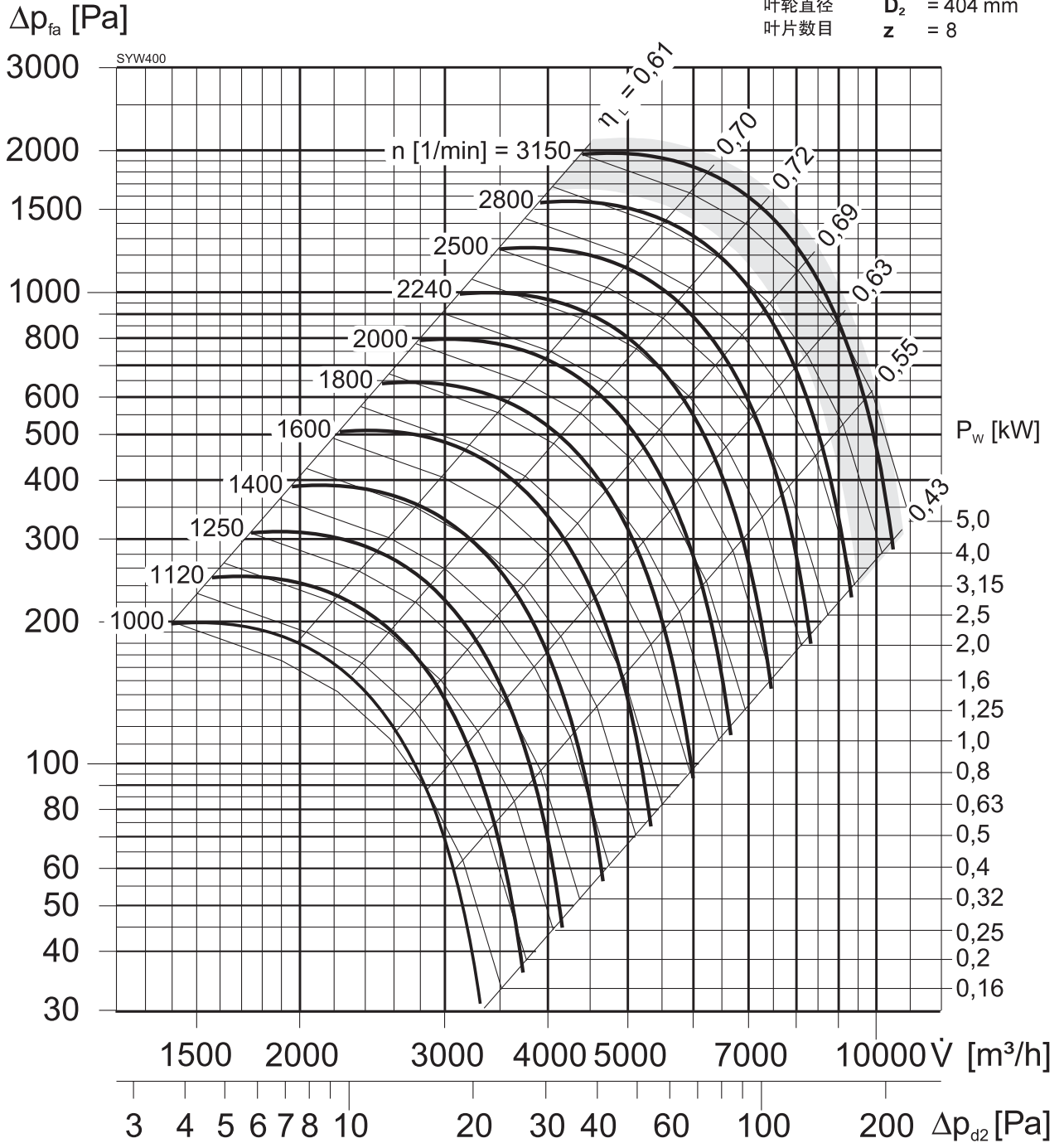
$$P_t = P_{fa} + P_{dyn}$$

S  
Y  
W

### SYW400

最高转速  $n_{max} = 2870 \text{ min}^{-1}$   
 最高加强转速  $n_{mv} = 3300 \text{ min}^{-1}$   
 叶轮直径  $D_2 = 404 \text{ mm}$   
 叶片数目  $z = 8$

S  
Y  
W



温度  
Temperature  $t=20^\circ\text{C}$   
 密度  
Density  $\rho=1.2\text{kg/m}^3$

加强型风机运行区域  
in this area only with strengthened version

轴消耗功率  
power consumption at shaft

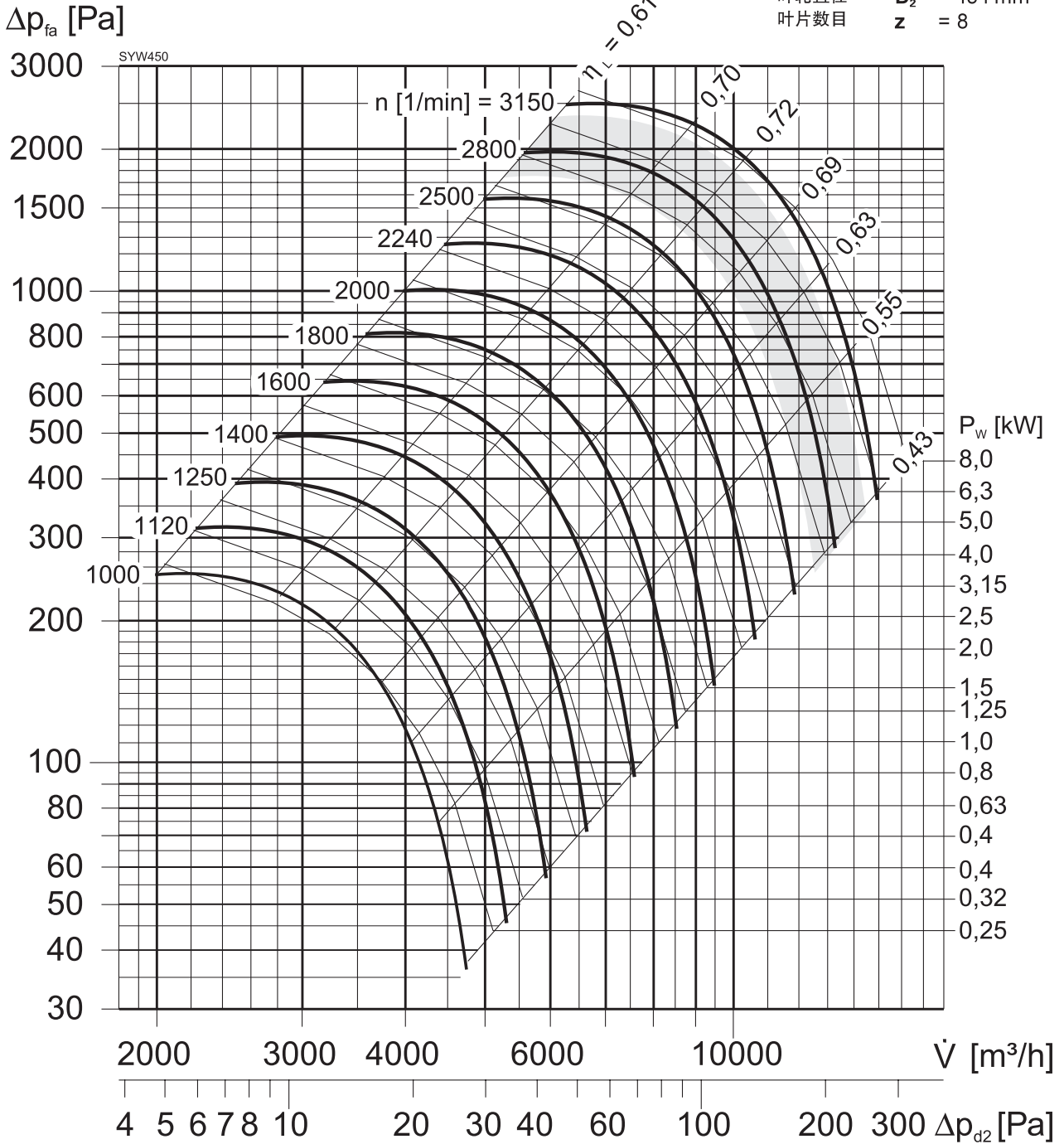
$$P_w = \frac{\dot{V}[\text{m}^3/\text{h}] \cdot p_t[\text{Pa}]}{\eta \cdot 1000 \cdot 3600}$$

$$p_t = p_{fa} + p_{dyn}$$



### SYW450

最高转速  $n_{max} = 2620 \text{ min}^{-1}$   
 最高加强转速  $n_{mv} = 3000 \text{ min}^{-1}$   
 叶轮直径  $D_2 = 454 \text{ mm}$   
 叶片数目  $z = 8$



温度  
Temperature  $t=20^\circ\text{C}$   
 密度  
Density  $\rho=1.2\text{kg/m}^3$

加强型风机运行区域  
in this area only with strengthened version

轴消耗功率  
power consumption at shaft

$$P_w = \frac{\dot{V}[\text{m}^3/\text{h}] * p_t[\text{Pa}]}{\eta * 1000 * 3600}$$

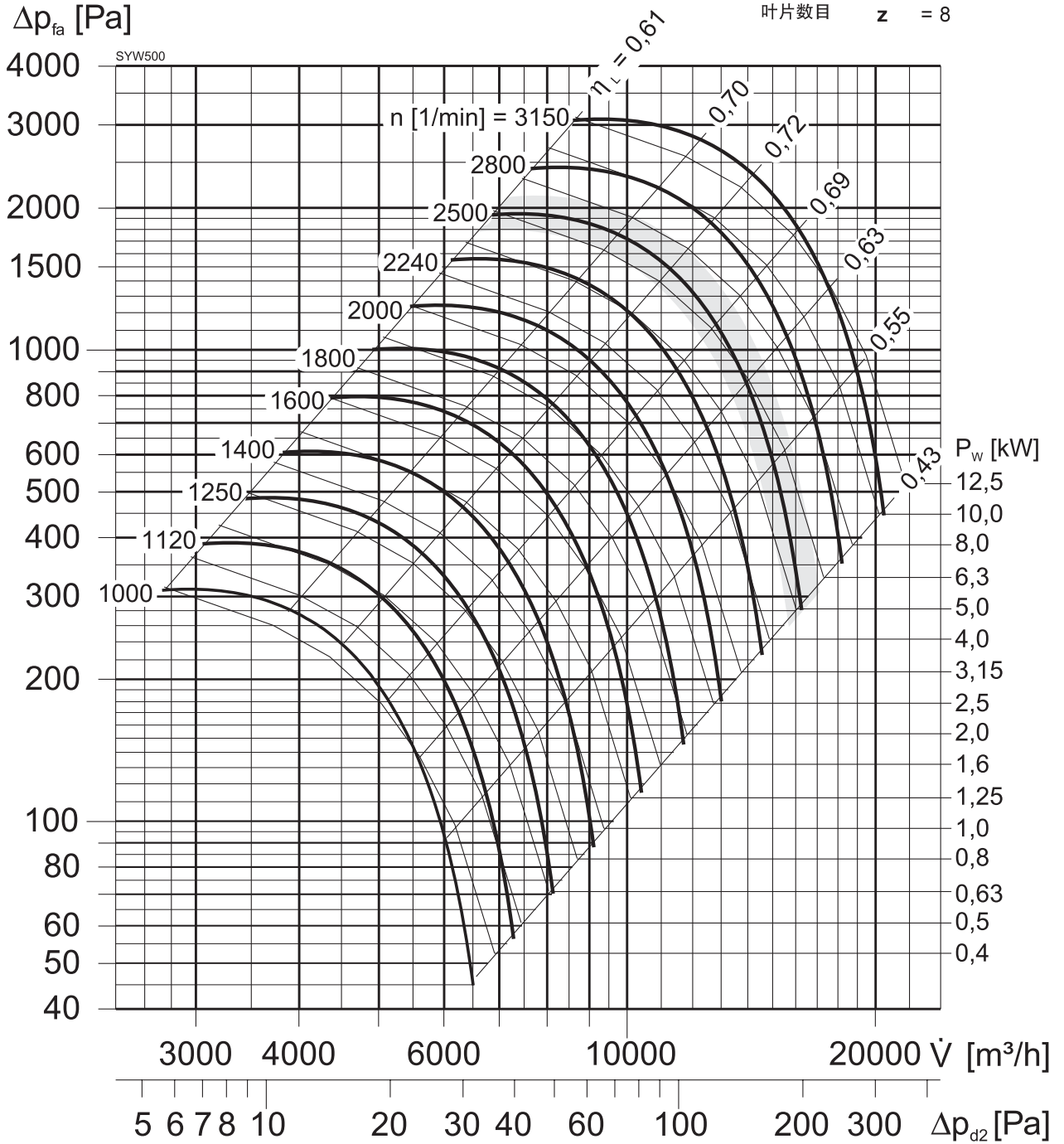
$$P_t = P_{fa} + P_{dyn}$$

S  
Y  
W

### SYW500

最高转速  $n_{max} = 2420 \text{ min}^{-1}$   
 最高加强转速  $n_{mv} = 2600 \text{ min}^{-1}$   
 叶轮直径  $D_2 = 510 \text{ mm}$   
 叶片数目  $z = 8$

SYW



温度  
Temperature  $t=20^\circ\text{C}$   
 密度  
Density  $\rho=1.2\text{kg/m}^3$

加强型风机运行区域  
in this area only with strengthened version

轴消耗功率  
power consumption at shaft

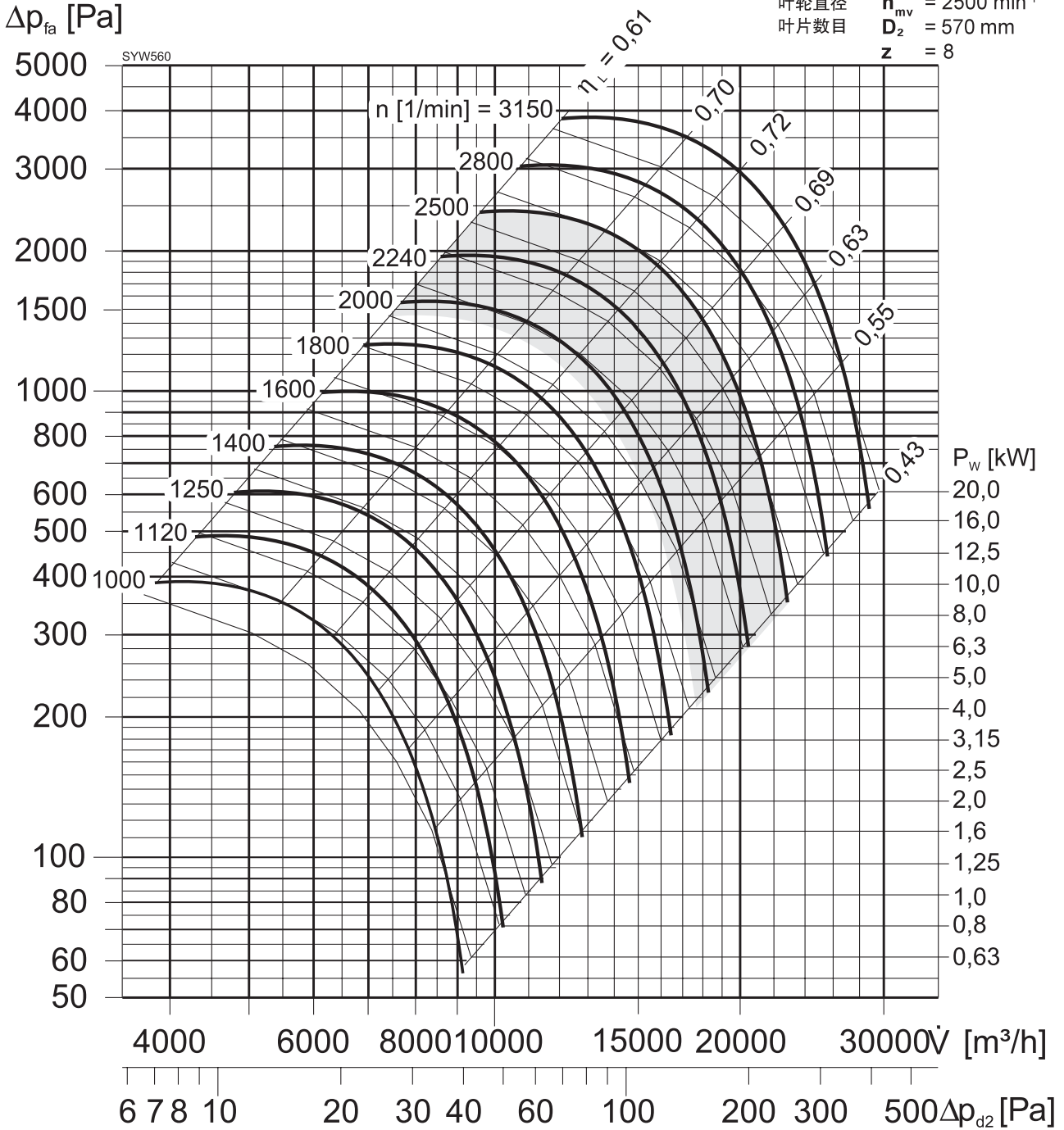
$$P_w = \frac{\dot{V}[\text{m}^3/\text{h}] \cdot p_t[\text{Pa}]}{\eta \cdot 1000 \cdot 3600}$$

$$P_t = P_{ra} + P_{dyn}$$



**SYW560**

最高转速  $n_{max} = 1950 \text{ min}^{-1}$   
 最高加强转速  $n_{mv} = 2500 \text{ min}^{-1}$   
 叶轮直径  $D_2 = 570 \text{ mm}$   
 叶片数目  $z = 8$



温度  
Temperature  $t=20^\circ\text{C}$   
 密度  
Density  $\rho=1.2\text{kg/m}^3$

加强型风机运行区域  
in this area only with strengthened version

轴消耗功率  
power consumption at shaft

$$P_w = \frac{\dot{V}[\text{m}^3/\text{h}] * \rho[\text{Pa}]}{\eta * 1000 * 3600}$$

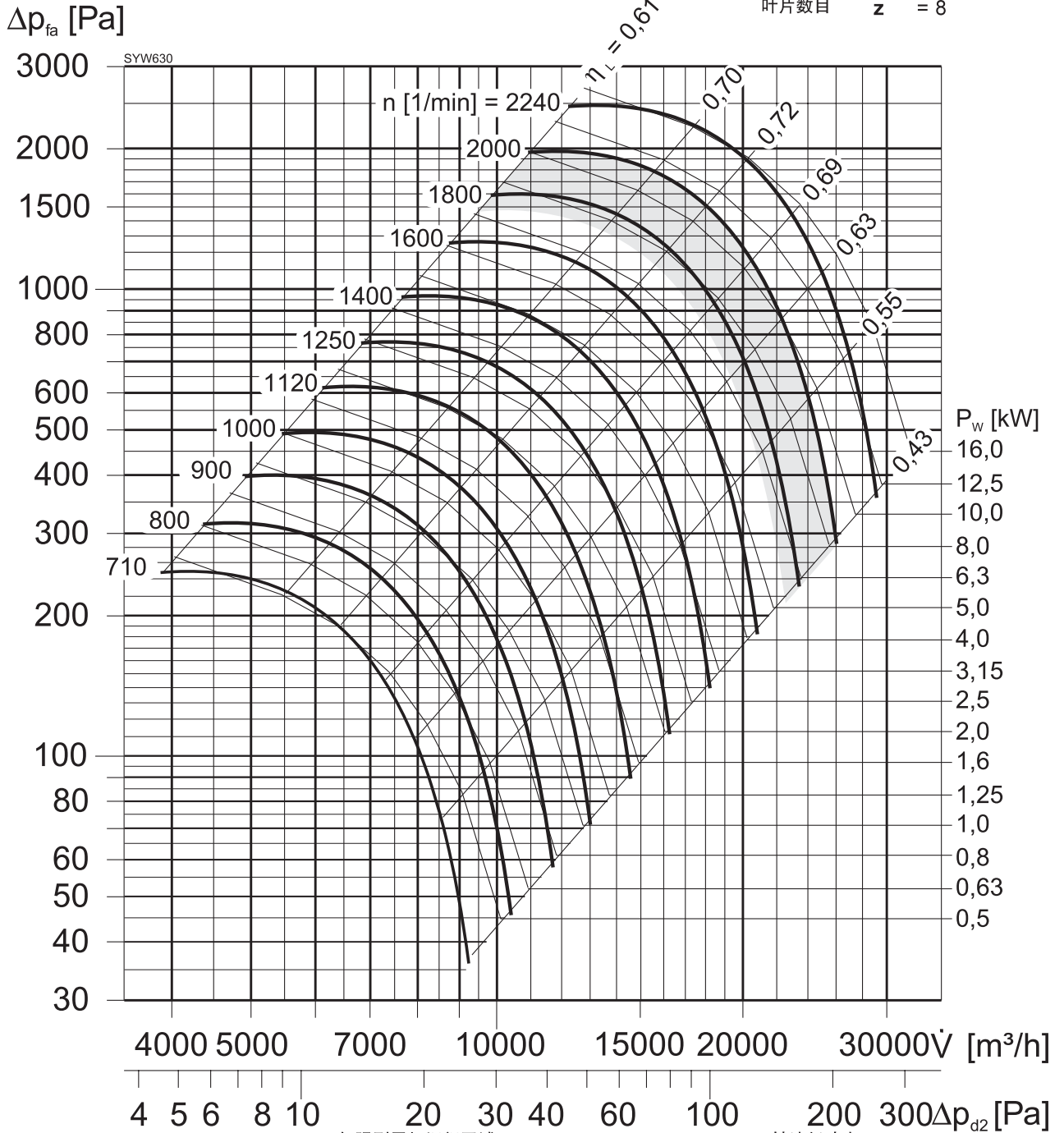
$$P_t = P_{ra} + P_{dyn}$$

S  
Y  
W

### SYW630

最高转速  $n_{max} = 1750 \text{ min}^{-1}$   
 最高加强转速  $n_{mv} = 2000 \text{ min}^{-1}$   
 叶轮直径  $D_2 = 640 \text{ mm}$   
 叶片数目  $z = 8$

SYW



温度  
Temperature  $t=20^\circ\text{C}$   
 密度  
Density  $\rho=1.2\text{kg/m}^3$

加强型风机运行区域  
in this area only with strengthened version

轴消耗功率  
power consumption at shaft

$$P_w = \frac{\dot{V}[\text{m}^3/\text{h}] * p_i[\text{Pa}]}{\eta * 1000 * 3600}$$

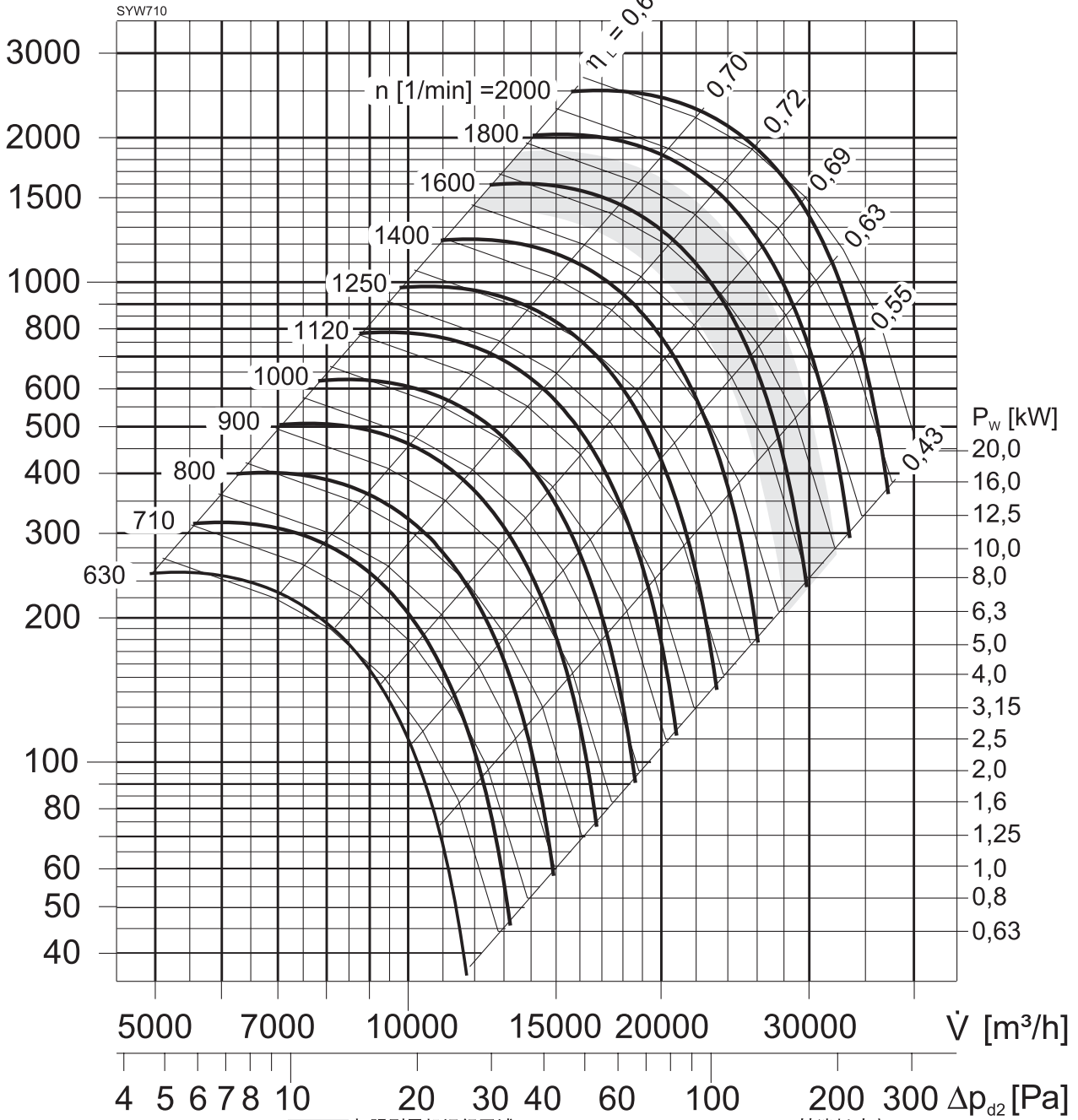
$$P_t = P_{fa} + P_{dyn}$$



### SYW710

最高转速  $n_{max} = 1500 \text{ min}^{-1}$   
 最高加强转速  $n_{mv} = 1750 \text{ min}^{-1}$   
 叶轮直径  $D_2 = 718 \text{ mm}$   
 叶片数目  $z = 8$

$\Delta p_{fa}$  [Pa]



温度  
Temperature  $t=20^\circ\text{C}$   
 密度  
Density  $\rho=1.2\text{kg}/\text{m}^3$

加强型风机运行区域  
in this area only with strengthened version

轴消耗功率  
power consumption at shaft

$$P_w = \frac{\dot{V}[\text{m}^3/\text{h}] \cdot \rho_t [\text{Pa}]}{\eta \cdot 1000 \cdot 3600}$$

$$P_t = P_{fa} + P_{dyn}$$

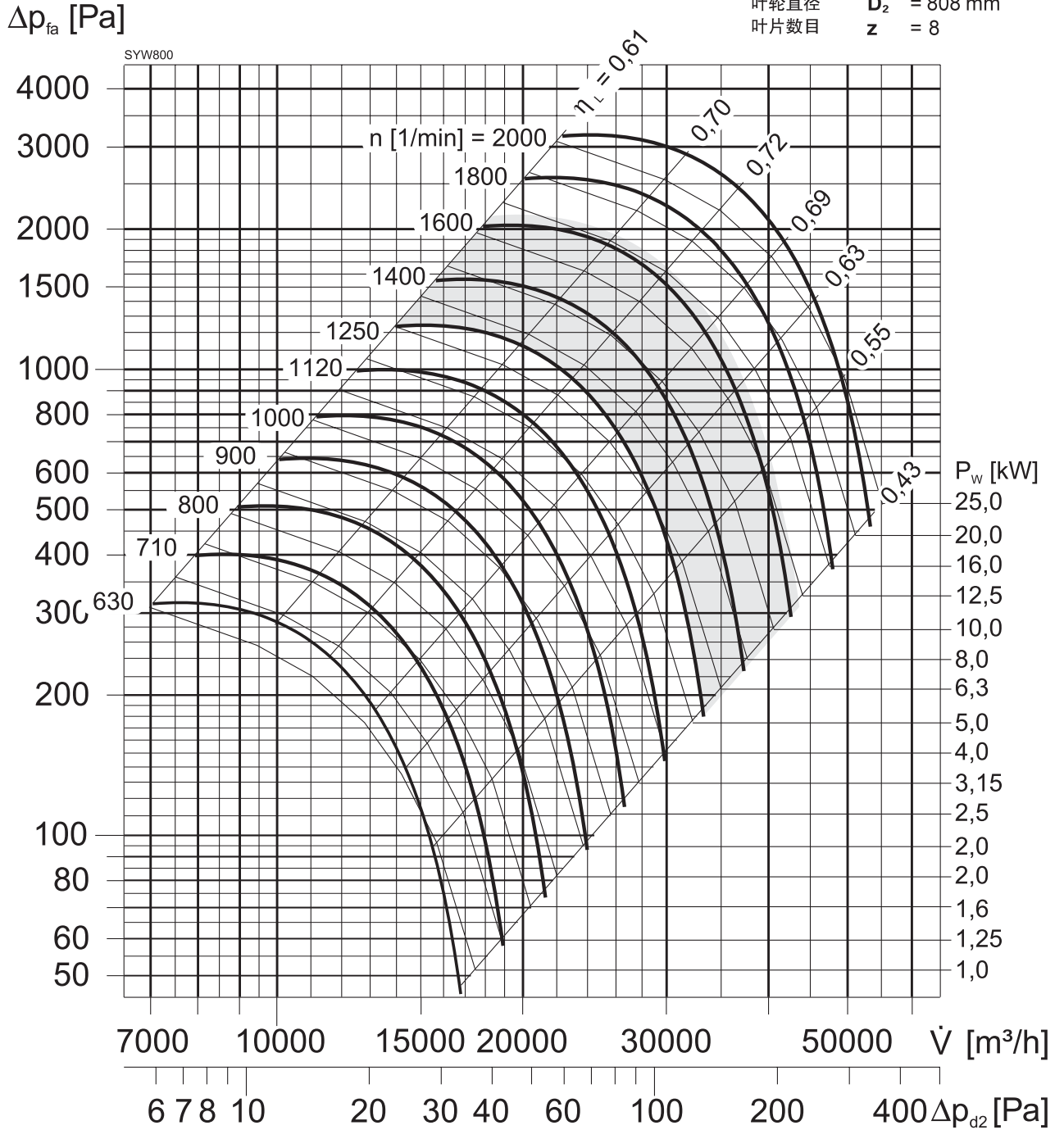
S  
Y  
W



### SYW800

最高转速  $n_{max} = 1250 \text{ min}^{-1}$   
 最高加强转速  $n_{mv} = 1650 \text{ min}^{-1}$   
 叶轮直径  $D_2 = 808 \text{ mm}$   
 叶片数目  $z = 8$

S  
Y  
W



温度  
Temperature  $t=20^\circ\text{C}$   
 密度  
Density  $\rho=1.2\text{kg/m}^3$

加强型风机运行区域  
in this area only with strengthened version

轴消耗功率  
power consumption at shaft

$$P_w = \frac{\dot{V}[\text{m}^3/\text{h}] \cdot p_i[\text{Pa}]}{\eta \cdot 1000 \cdot 3600}$$

$$P_t = P_{fa} + P_{dyn}$$

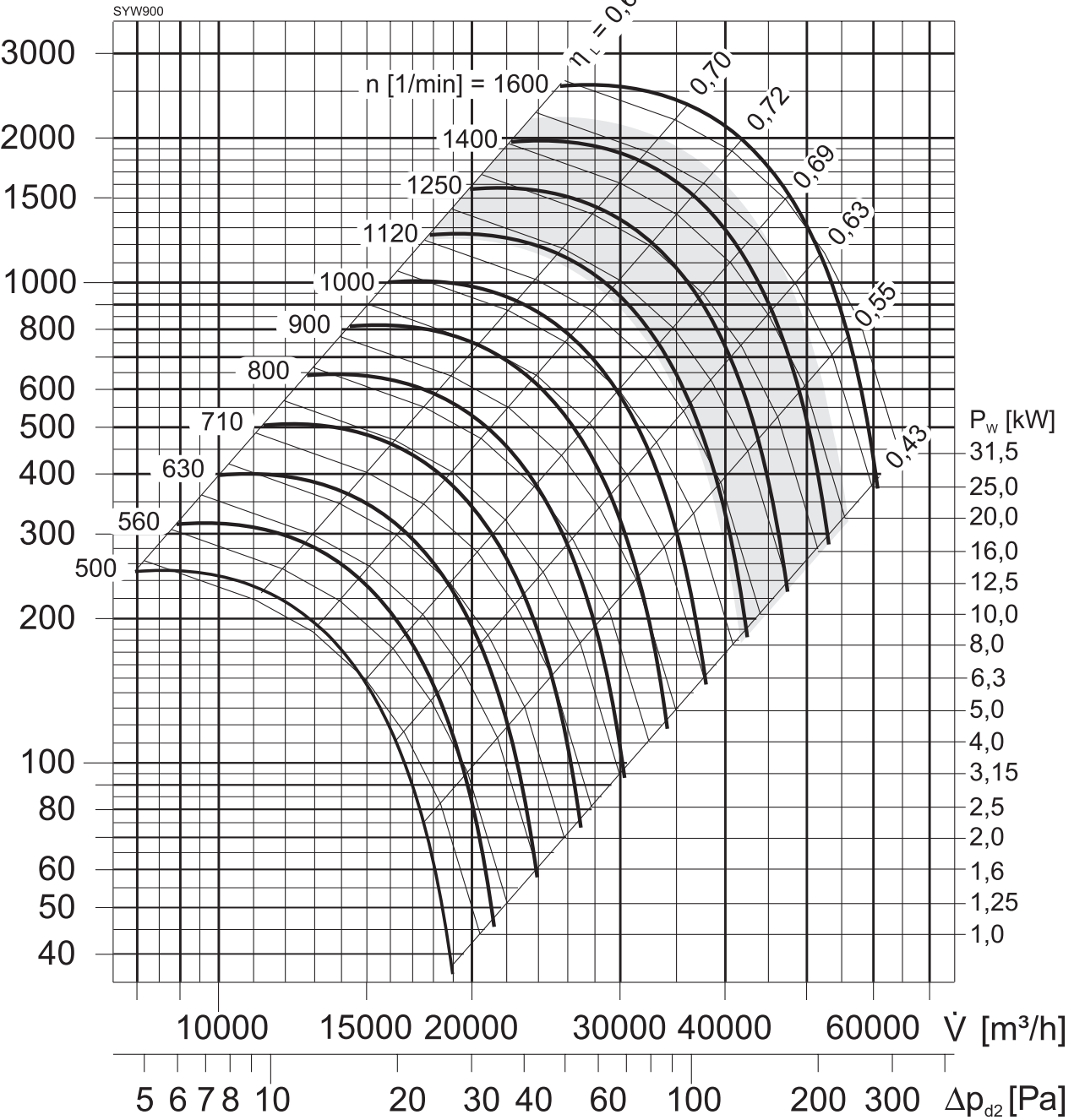




### SYW900

最高转速  $n_{max} = 1100 \text{ min}^{-1}$   
 最高加强转速  $n_{mv} = 1500 \text{ min}^{-1}$   
 叶轮直径  $D_2 = 905 \text{ mm}$   
 叶片数目  $z = 8$

$\Delta p_{fa}$  [Pa]



温度  
Temperature  $t=20^\circ\text{C}$   
 密度  
Density  $\rho=1.2\text{kg}/\text{m}^3$

**加强型风机运行区域**  
*in this area only with strengthened version*

**轴消耗功率**  
*power consumption at shaft*

$$P_w = \frac{\dot{V}[\text{m}^3/\text{h}] * p_t[\text{Pa}]}{\eta * 1000 * 3600}$$

$$P_t = P_{fa} + P_{dyn}$$

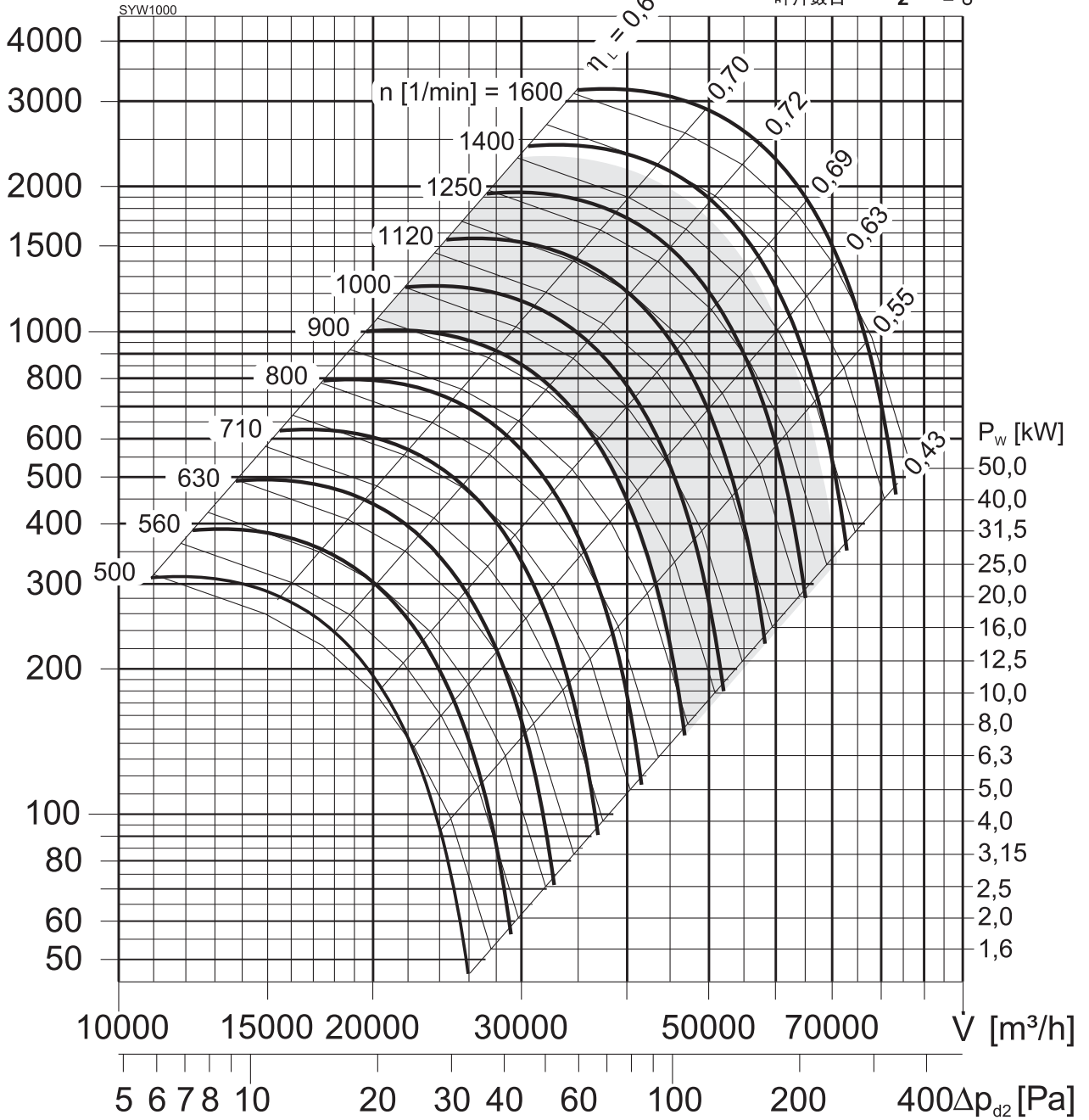
S  
Y  
W

### SYW1000

最高转速  $n_{max} = 900 \text{ min}^{-1}$   
 最高加强转速  $n_{mv} = 1350 \text{ min}^{-1}$   
 叶轮直径  $D_2 = 1000 \text{ mm}$   
 叶片数目  $z = 8$

SYW

$\Delta p_{fa}$  [Pa]



温度  
Temperature  $t=20^\circ\text{C}$   
 密度  
Density  $\rho=1.2\text{kg}/\text{m}^3$

加强型风机运行区域  
in this area only with strengthened version

轴消耗功率  
power consumption at shaft

$$P_w = \frac{\dot{V}[\text{m}^3/\text{h}] * p_t[\text{Pa}]}{\eta * 1000 * 3600}$$

$$P_t = P_{fa} + P_{dyn}$$



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