



Research  
Design and  
High Technology

# Soler & Palau

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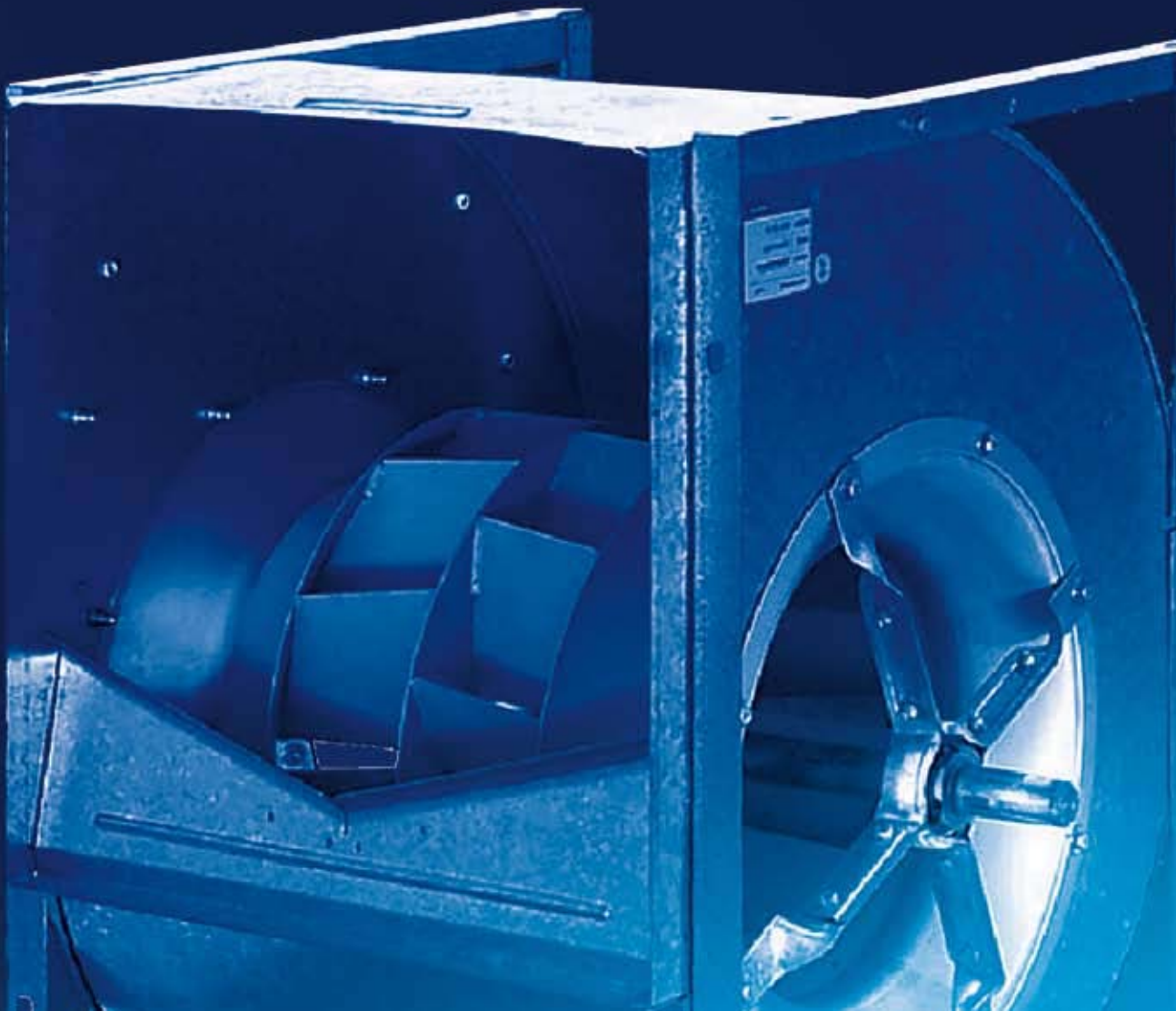
Web: <http://www.solerpalau.com>





# BDB

Double Inlet  
Centrifugal Fan  
with Backward Wheels

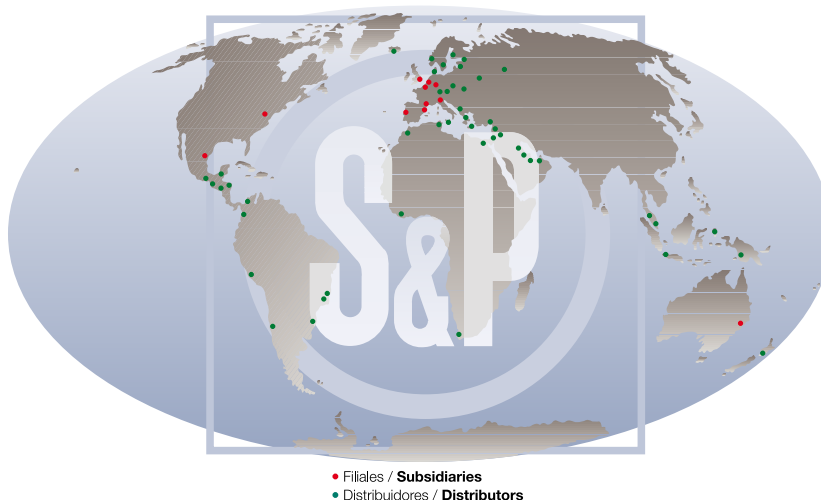


# Introducción Introduction

## S&P - LA EMPRESA

Desde su fundación en el año 1951, en la localidad de Ripoll (España), Soler & Palau, S.A. se ha convertido, desde hace ya bastantes años, en uno de los líderes mundiales en la fabricación y venta de todo tipo de equipos de ventilación y de extracción de aire.

Ocho plantas productivas y once empresas filiales propias de comercialización, ubicadas en diversos países y continentes constituyen el actual Grupo S&P que, con un cualificado equipo de más de 1300 personas, ejerce su actividad en todos los países del mundo.



## S&P - LA ESTRATEGIA

Investigación y Desarrollo de productos y tecnología propios; Calidad de producción por encima de la media de su campo de actividad y Vocación de Expansión sostenible son, y han sido entre otros, tres de los pilares fundamentales sobre los que descansa la trayectoria de Soler & Palau, S.A. Contar hoy con más de 60 Ingenieros titulados en las áreas de Investigación, Desarrollo, Innovación y Producción; Certificaciones ISO 9001:2000 y 14001:1996 acreditadas por AENOR (Soler & Palau fue la primera empresa registrada en España). Laboratorios propios de ensayo con certificación oficial EN-45001-89 y crecimientos anuales, sostenidos en las últimas décadas, muy superiores a los de su mercado son algunos de los logros de la correcta aplicación de la mencionada estrategia de empresa.

Nuevos y apasionantes proyectos que verán la luz muy en breve, están hoy en marcha en el Grupo S&P.



## S&P - THE COMPANY

Soler & Palau was founded in 1951 in Ripoll (Spain) and since this date has become one of the world's leading companies engaged in the manufacture, sales and distribution of all types of ventilating and air moving products. Today Soler & Palau has eight production plants and eleven wholly owned commercial subsidiary companies located across the globe. Supporting the design, development production and commercial facilities are a professional team of more than 1300 employees who ensure that Soler & Palau continue to have an active presence in all global market sectors.

## S&P - THE STRATEGY

At the heart of Soler & Palau's company strategy is the continued substantial investment in product and manufacturing research, development and quality control. Since 1951 the sustained investment in these critical areas has enabled Soler & Palau to offer to its customers products with unparalleled quality and reliability. These critical elements of success today form the fundamental cornerstones of the company's strategy for growth within increasingly competitive global markets.

Today Soler & Palau has more than 60 highly qualified engineers working in areas such as product and manufacturing technology research, development, innovation and production. The engineers work closely with international safety standards agencies to ensure that all of Soler & Palau's products are manufactured and supplied in accordance with only the very latest mechanical and electrical safety standards. All products are extensively tested with the company's comprehensive in-house airflow, acoustic and environmental test laboratories which have been officially certified by AENOR to EN-45001- 89 standards. Currently Soler & Palau hold both ISO 9001:2000 and ISO 14001:1996 certifications and were also the first company in Spain to be registered to the original ISO 9000 standards.

Through operating a continual rigorous program of new and existing product development and improvement means that Soler & Palau's customers are assured that they will continue to receive products of only the very highest quality and reliability both now and in the future.

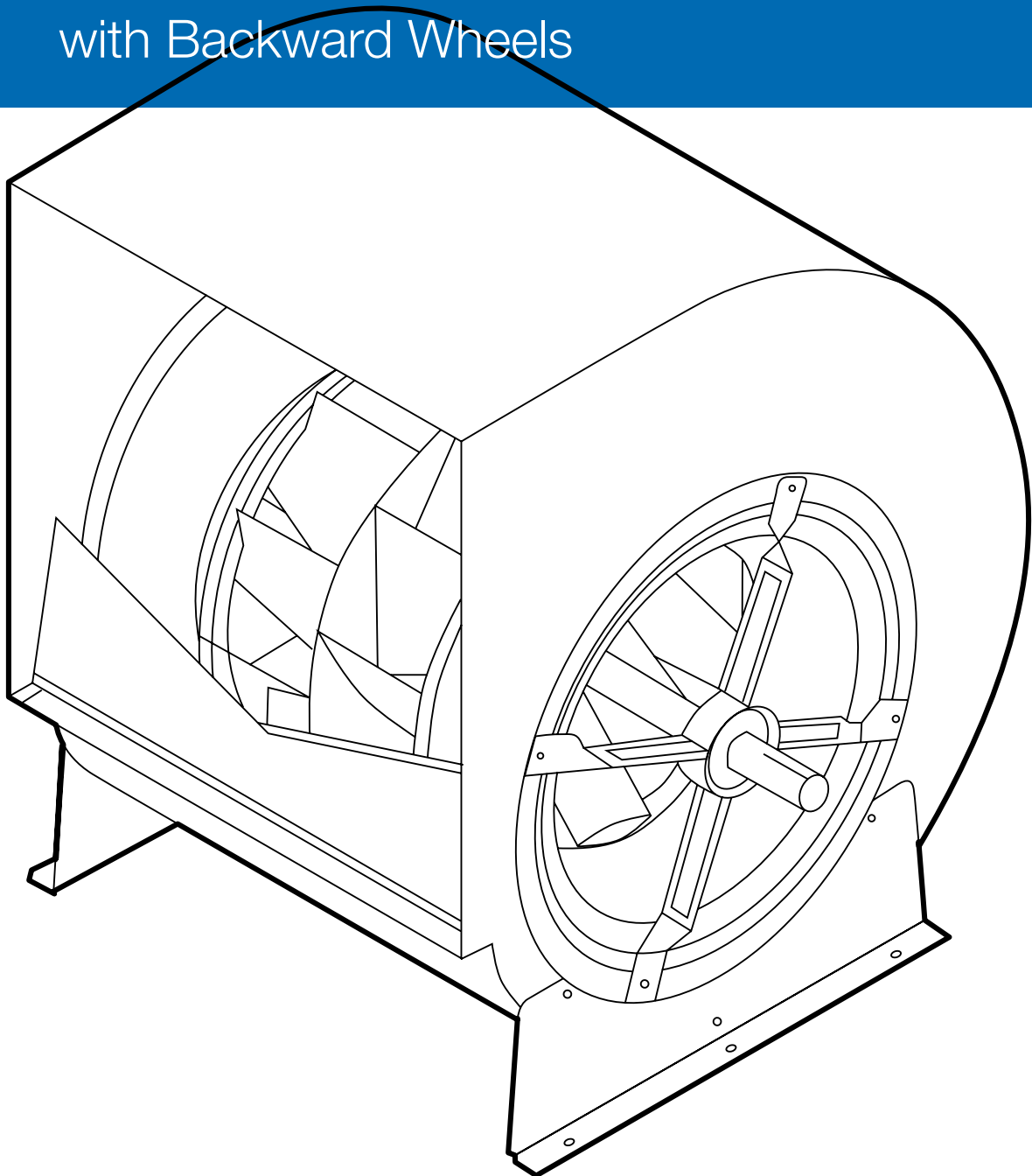


Soler & Palau certifies that the **BDB series** shown herein is licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA publication 211 and AMCA publication 311 and comply with the requirements of the AMCA Certified Ratings Program.



# BDB Series

DOUBLE INLET CENTRIFUGAL FAN  
with Backward Wheels





# BDB Series

## Double Inlet Centrifugal Fans – Backward wheels

The BDB series is DIDW centrifugal fans with high efficiency non-overloading backward curved impellers.

The fans are suitable for supply or extract applications in commercial, process and industrial HVAC systems.

Sizes of this series are in accordance with AMCA standard 99-0098-76 and DIN 323 R20.

	Model 315 to 710	
Type S-C	I	Model 800 to 1.400
Type T	II	I
Type X	III	II
Type Z		III

### Type / Operating Limit

Each fan type has its maximum operating speed and power due to its mechanical design.

The operating limit of BDB series - fan type is design to meet the requirement of class I, II and III limit as defined in AMCA standard 99-2408-69.

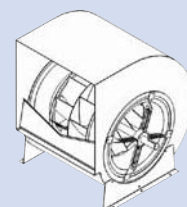
The BDB series is available in type S, C, T, X or Z.

### Type S

This type is supplied with mounting feet and can be mounted in three different orientations.

The construction is mainly for OEM application which only subject to testing and approval.

Fan size	315 to 710
Volume	1.900 to 50.000 m³/h
Total Pressure	up to 2.000 Pa

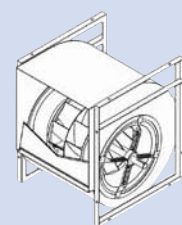


### Type C

This type has a frame fitted on both sides of the fan which gives better strength and rigidity.

It allows mounting in four different orientations.

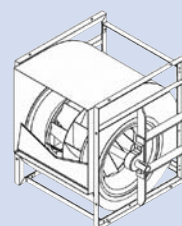
Fan size	315 to 710
Volume	1.900 to 50.000 m³/h
Total Pressure	up to 2.000 Pa



### Type T

This type has a welded frame giving increased stiffness and rigidity required for higher operating performance.

Fan size	315 to 1.400
Volume	1.900 to 190.000 m³/h
Total Pressure	up to 2.500 Pa

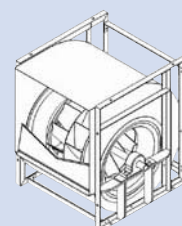


### Type X/Z

The structure is similar to type T but utilizes enhanced bearings to support higher dynamic load necessary for the increased performance.

Type Z is non-standard, for more information, please consult your nearest Soler & Palau Office for details.

Fan size	315 to 1.400
Volume	1.900 to 260.000 m³/h
Total Pressure	up to 3.200 Pa



# BDB Twin Fan

**BDB Series** are also available in twin fan version, with two double inlet fans mounted on the same shaft. To select for twin fans, use the curves of single fan with the following factors:

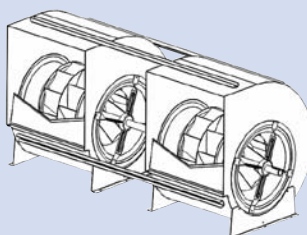
- Volume                    x 2
- Absorbed Power    x 2.15
- Speed                    x 1.05
- Noise                    + 3 dB

This series is available in Type S2, C2 or T2.

Performances of twin fan series are not AMCA licensed.

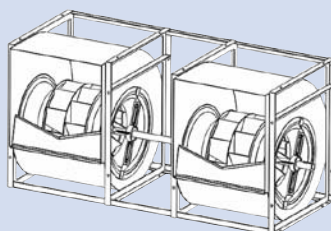
## Type S2

Fan size	315 to 500
Volume	5.000 to 50.000 m³/h



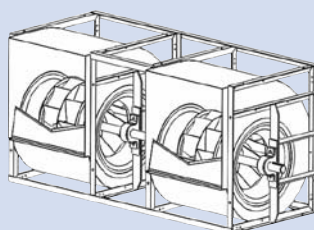
## Type C2

Fan size	315 to 500
Volume	5.000 to 50.000 m³/h



## Type T2

Fan size	355 to 630
Volume	10.000 to 80.000 m³/h



## Technical Specification

### Wheel

The wheel of BDB series is made of cold rolled sheet steel backward curved blades with polyester powder coating finish.

### Housing

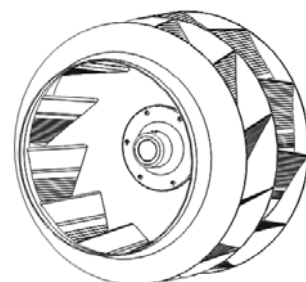
For all sizes except 1250 and above, the housing is manufactured in galvanized sheet steel with the housing fixed to the side plates in "pittsburg lock" form system.

Housings for 1250 and 1400 are manufactured in mild steel finished with polyester powder coating.

Fully welded housings are available upon request.

### Frame

The frame is manufactured with galvanized angular bars for type "C". For type "T" and "X", they are manufactured with sections of steel and finished with polyester powder coating.



### Shaft

Shafts are manufactured from C45 carbon steel using an automatic process for positioning and cutting of the keyways. All dimensional tolerances of the shaft are fully checked to ensure a precision fit and then coated with an anticorrosion varnish after assembly.

### Bearings

Bearings used are either deep groove ball bearing type with an adaptor sleeve or spherical roller bearings type sealed at both sides for different duty application classified as below:

	Mounted in a rubber housing		Mounted on cast iron supports with grease point	
Fan Type	S	C	T	X
Bearing Duty	SL Light Duty	CL Light Duty	TL Light Duty	-
	SM Medium Duty	CM Medium Duty	TM Medium Duty	XM Medium Duty
	eg. Model FDA 450 C M		TX Extra Heavy Duty	XX Extra Heavy Duty

The bearings are lubricated for life and maintenance-free. If relubrication is necessary, it is recommended to use a lithium base grease suitable for all temperatures within the operational limits.

### Balancing Quality

All wheels are statically and dynamically balanced to ISO1940 and AMCA 204 – G2.5 standards.

## Accessories

### Casing Drain

This option is available when using fans exposed to the atmosphere or operating in high humidity conditions.

### Outlet Flanges

Outlet flanges are available upon request.

### Inspection Doors

The inspection door can be supplied upon request. It can be supplied in one of the three positions (P3, P4 & P5).

### Guards

Inlet guards, discharge guards and non-drive end shaft guards are available on request.

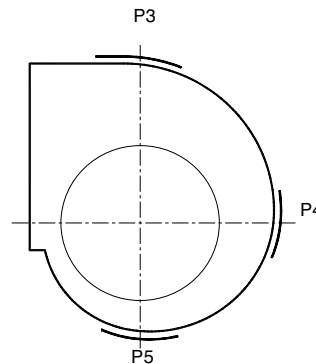
### Paintings

Special powder-paint coatings

of various thicknesses can be supplied on request.

### Air flow measurement

Fans can be equipped with an airflow measurement system.



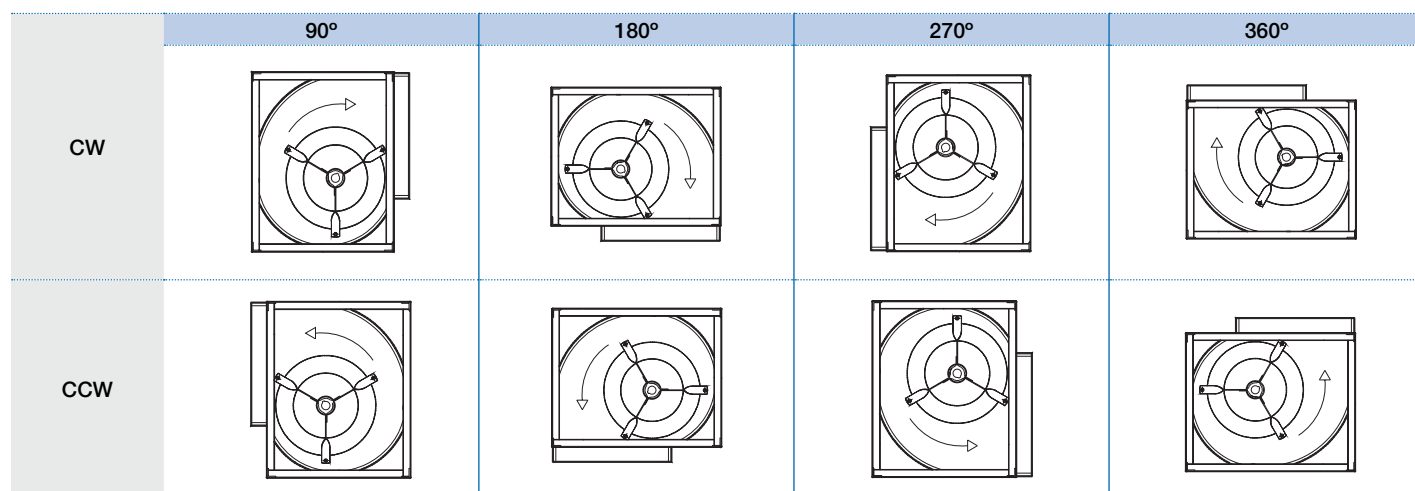
## Fan Rotation and Discharge

The rotation and discharge of the fan is in accordance with AMCA standard 99-2406-83.

The direction of rotation is determined from the drive side of the fan:

CW - clockwise rotation

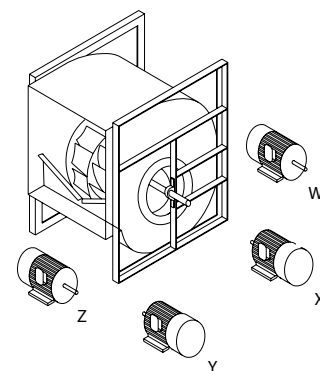
CCW - counter-clockwise rotation



## Motor Position

The position of the motor for belt drive centrifugal fan is in accordance with AMCA standard 99-2407-66.

Location of motor is determined by facing the drive side of fan and designating the positions by letters W, X, Y, or Z

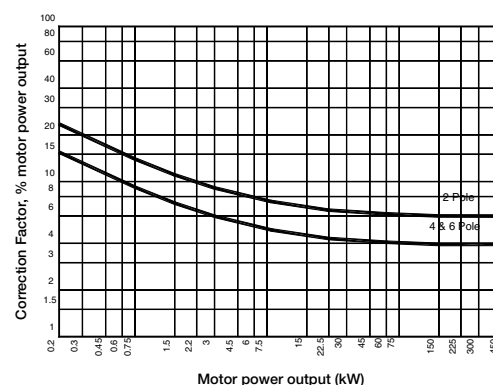


## Motor Selection

The power curve shown on each performance curve represents the absorbed power at the shaft of the fan measured in kW.

To determine the power of the motor to be installed, a correction factors should be applied to compensate for transmission losses.

For conversion to horsepower (HP), use multiplying factor 1.34.



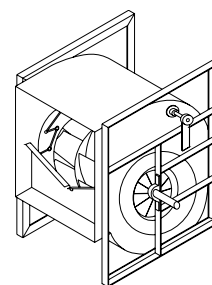
## Inlet Vane Control

The inlet vane control enable energy saving that varies according to the vane control compared to traditional methods of volume control.

Fig.1 shows the volume reduction corresponding to the vane position.

- With vane fully open (Pos 90°) the volume will be 3% less than the catalogue performance.
- With vane fully closed (Pos 0°) the volume will be reduced by 75%.

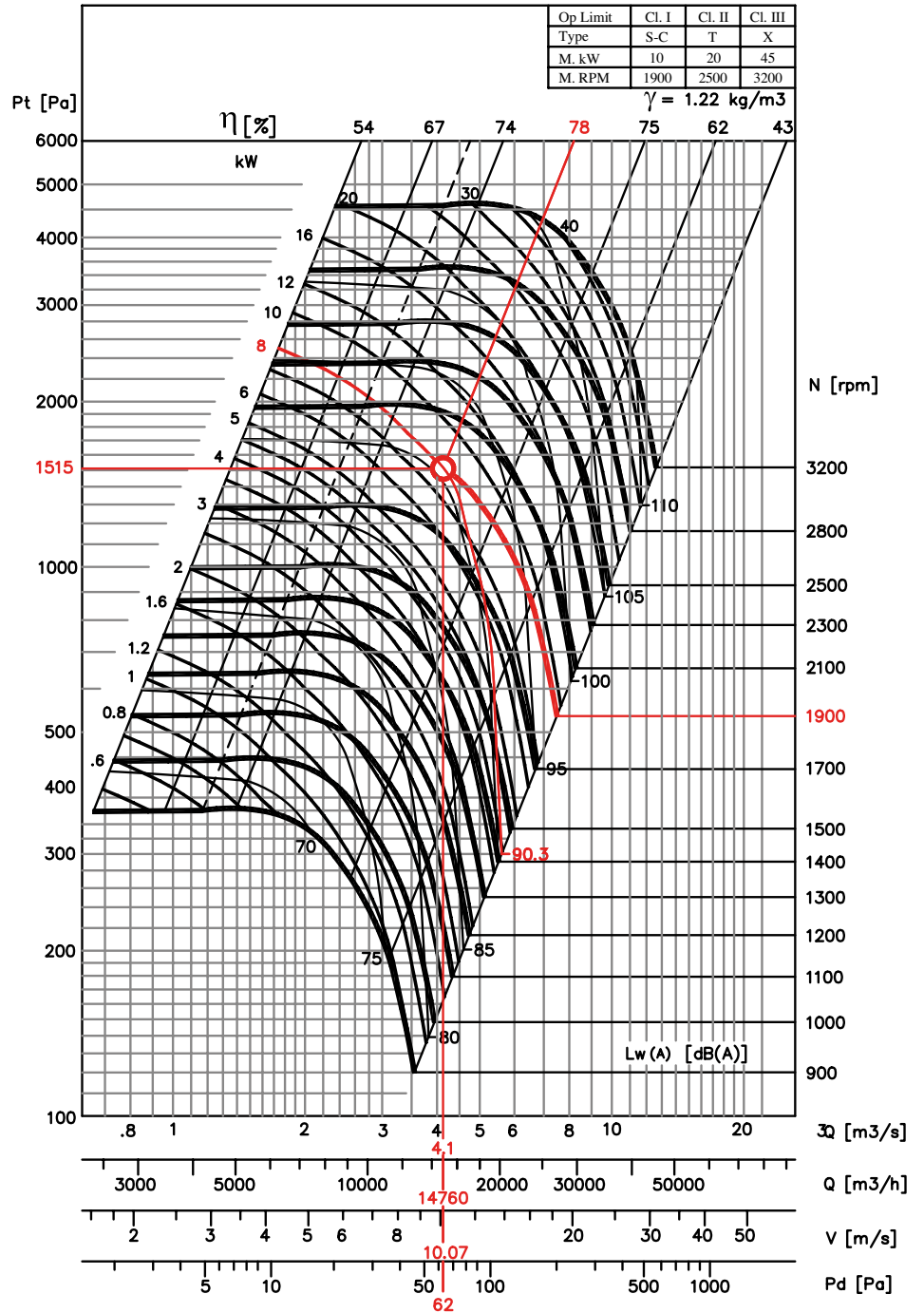
Performances of Inlet vane controls are not AMCA licensed.





# Example of Selection

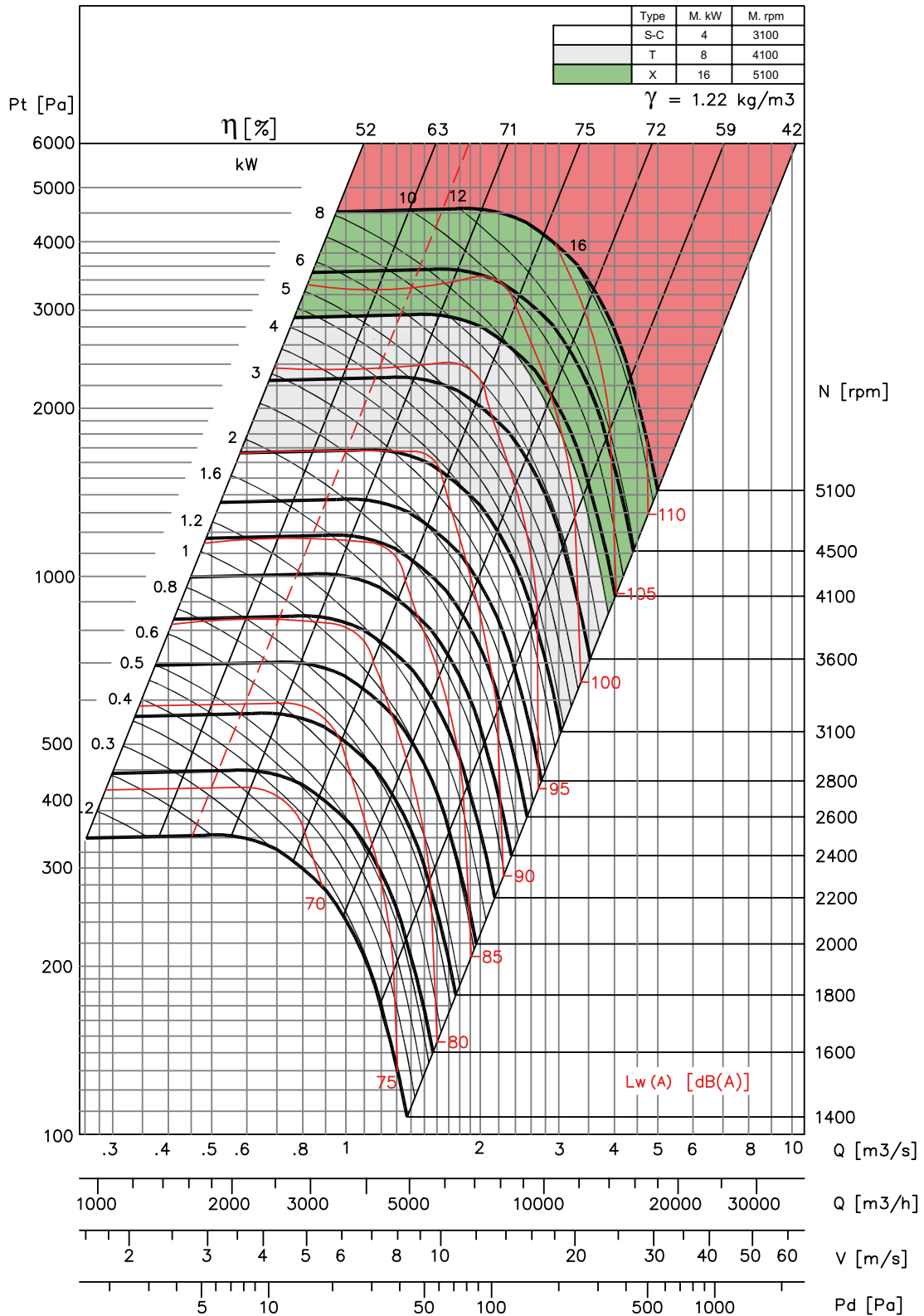
## BDB 500



- Performance shown is for Installation type B - free inlet, ducted outlet. Performance ratings do not include the effects of appurtenances in the airstream. Power rating kW does not include drive losses.

- The A-weighted sound ratings shown have been calculated per AMCA standard 301. Values shown are for inlet  $L_{wi}(A)$  sound power levels for installation type B - free inlet, ducted outlet. Ratings do not include the effect of duct end corrections.

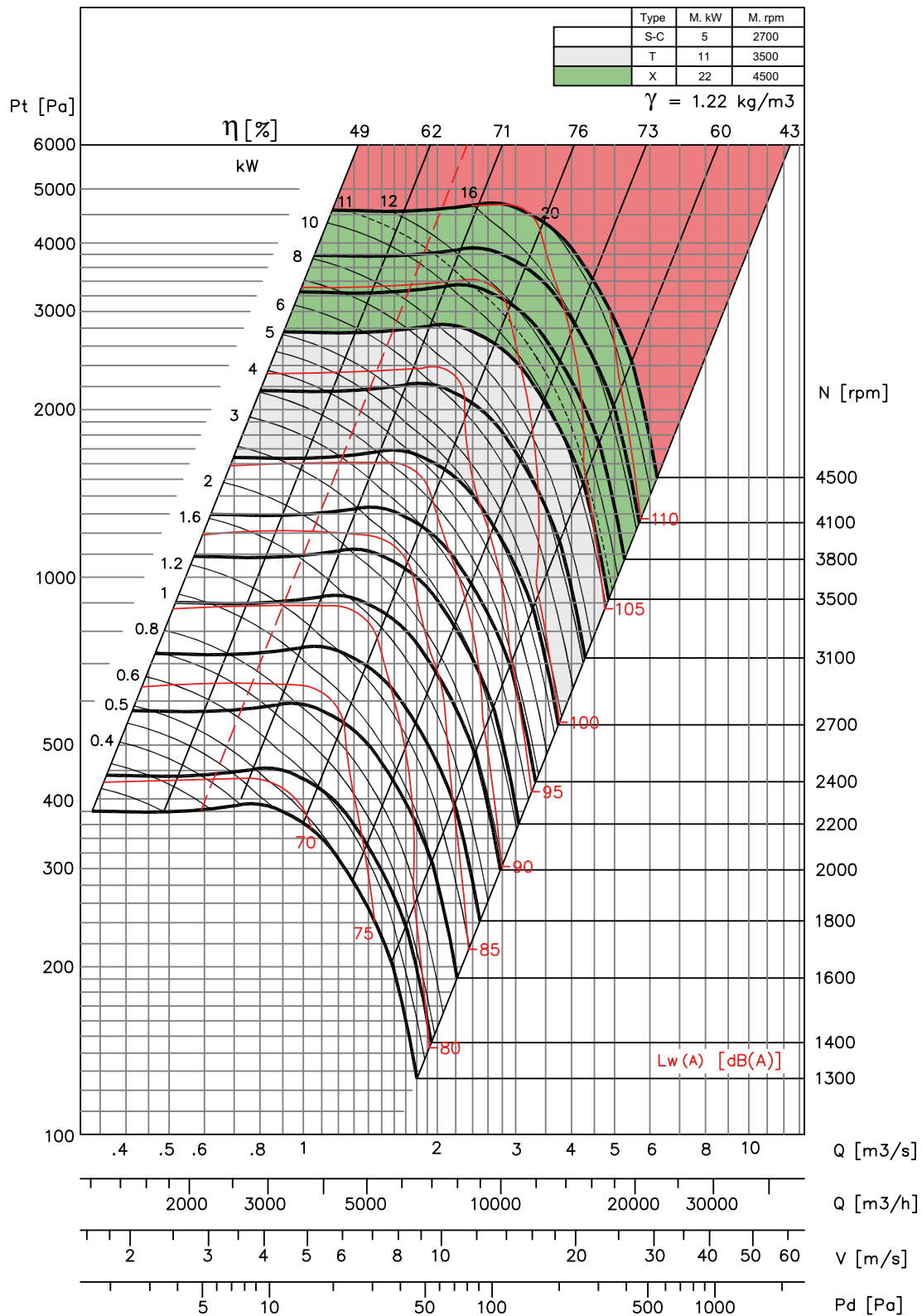
# BDB 315



- Performance shown is for Installation type B - free inlet, ducted outlet. Performance ratings do not include the effects of appurtenances in the airstream. Power rating kW does not include drive losses.

- The A-weighted sound ratings shown have been calculated per AMCA standard 301. Values shown are for inlet Lwi(A) sound power levels for installation type B - free inlet, ducted outlet. Ratings do not include the effect of duct end corrections.

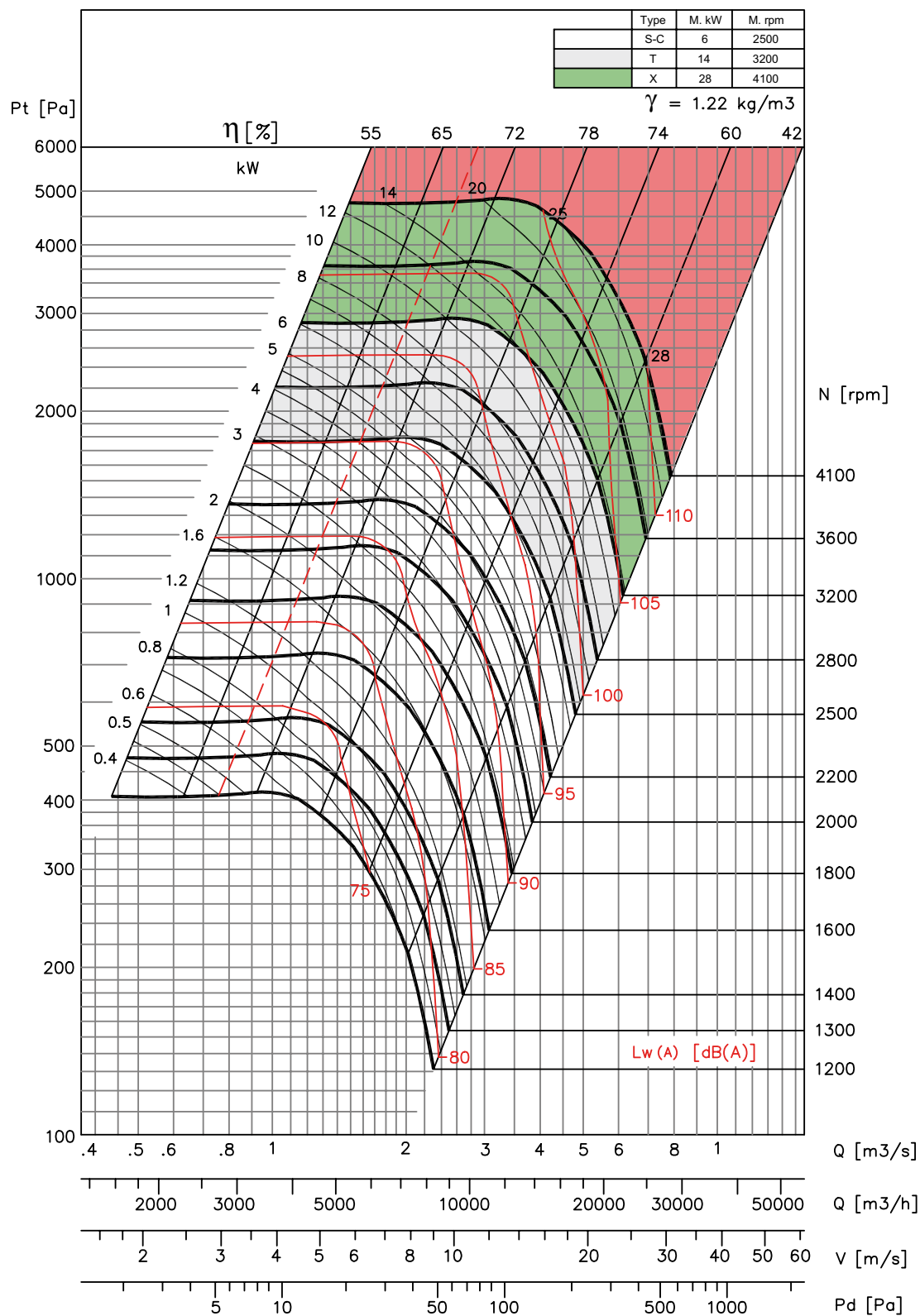
# BDB 355



- Performance shown is for Installation type B - free inlet, ducted outlet. Performance ratings do not include the effects of appurtenances in the airstream. Power rating kW does not include drive losses.

- The A-weighted sound ratings shown have been calculated per AMCA standard 301. Values shown are for inlet Lwi(A) sound power levels for installation type B - free inlet, ducted outlet. Ratings do not include the effect of duct end corrections.

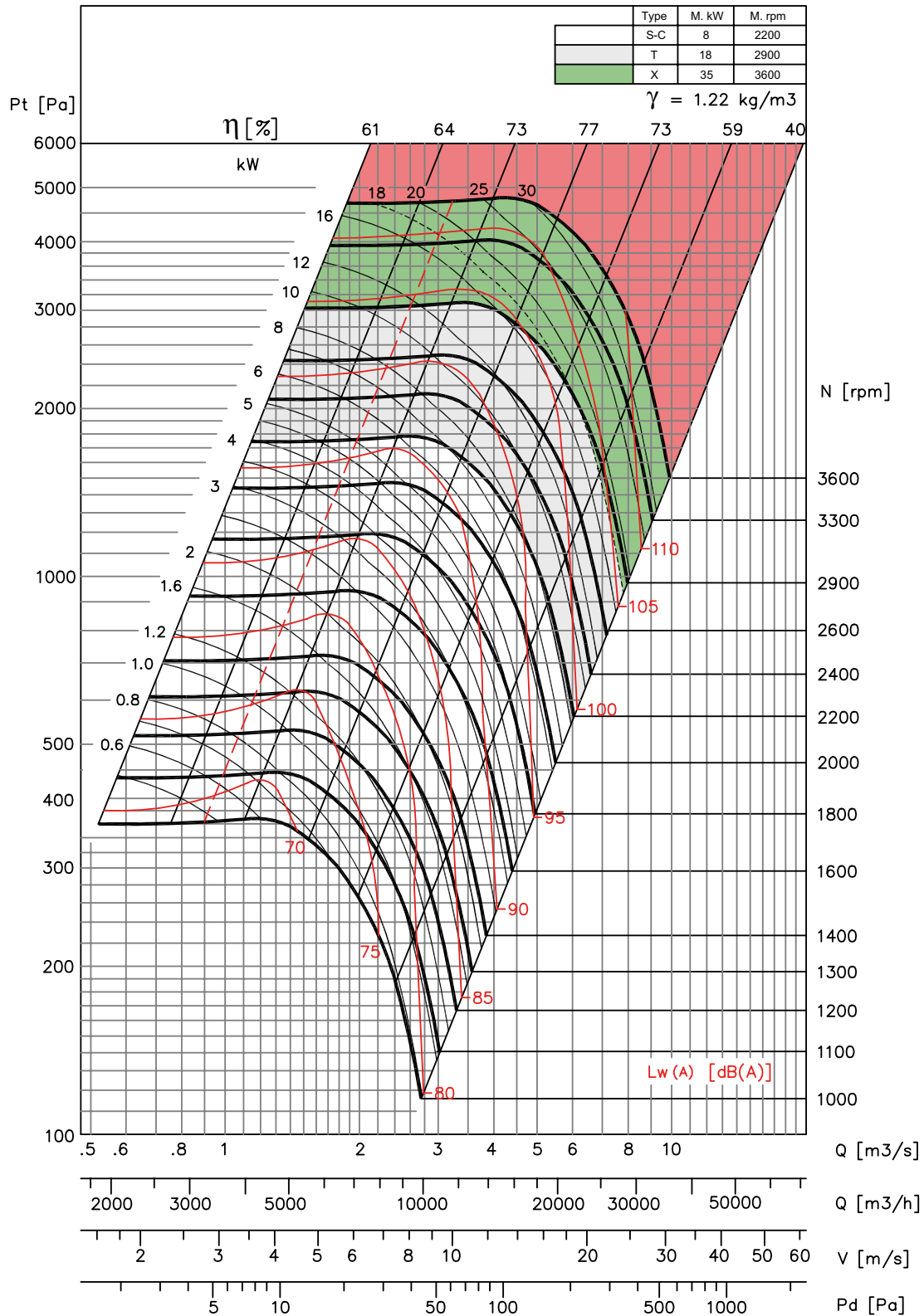
# BDB 400



- Performance shown is for Installation type B - free inlet, ducted outlet. Performance ratings do not include the effects of appurtenances in the airstream. Power rating kW does not include drive losses.

- The A-weighted sound ratings shown have been calculated per AMCA standard 301. Values shown are for inlet Lwi(A) sound power levels for installation type B - free inlet, ducted outlet. Ratings do not include the effect of duct end corrections.

# BDB 450

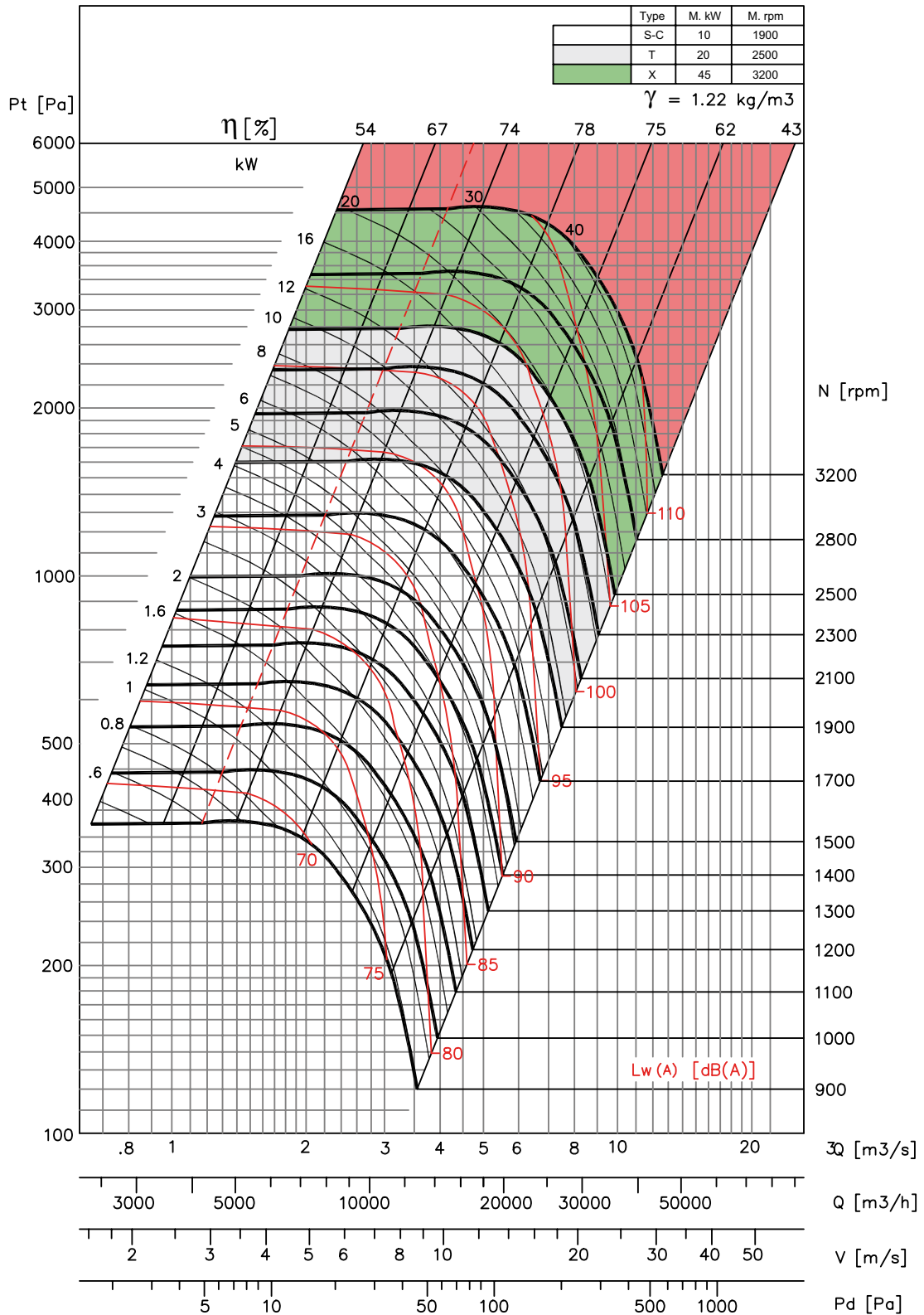


- Performance shown is for Installation type B - free inlet, ducted outlet. Performance ratings do not include the effects of appurtenances in the airstream. Power rating kW does not include drive losses.

- The A-weighted sound ratings shown have been calculated per AMCA standard 301. Values shown are for inlet Lwi(A) sound power levels for installation type B - free inlet, ducted outlet. Ratings do not include the effect of duct end corrections.



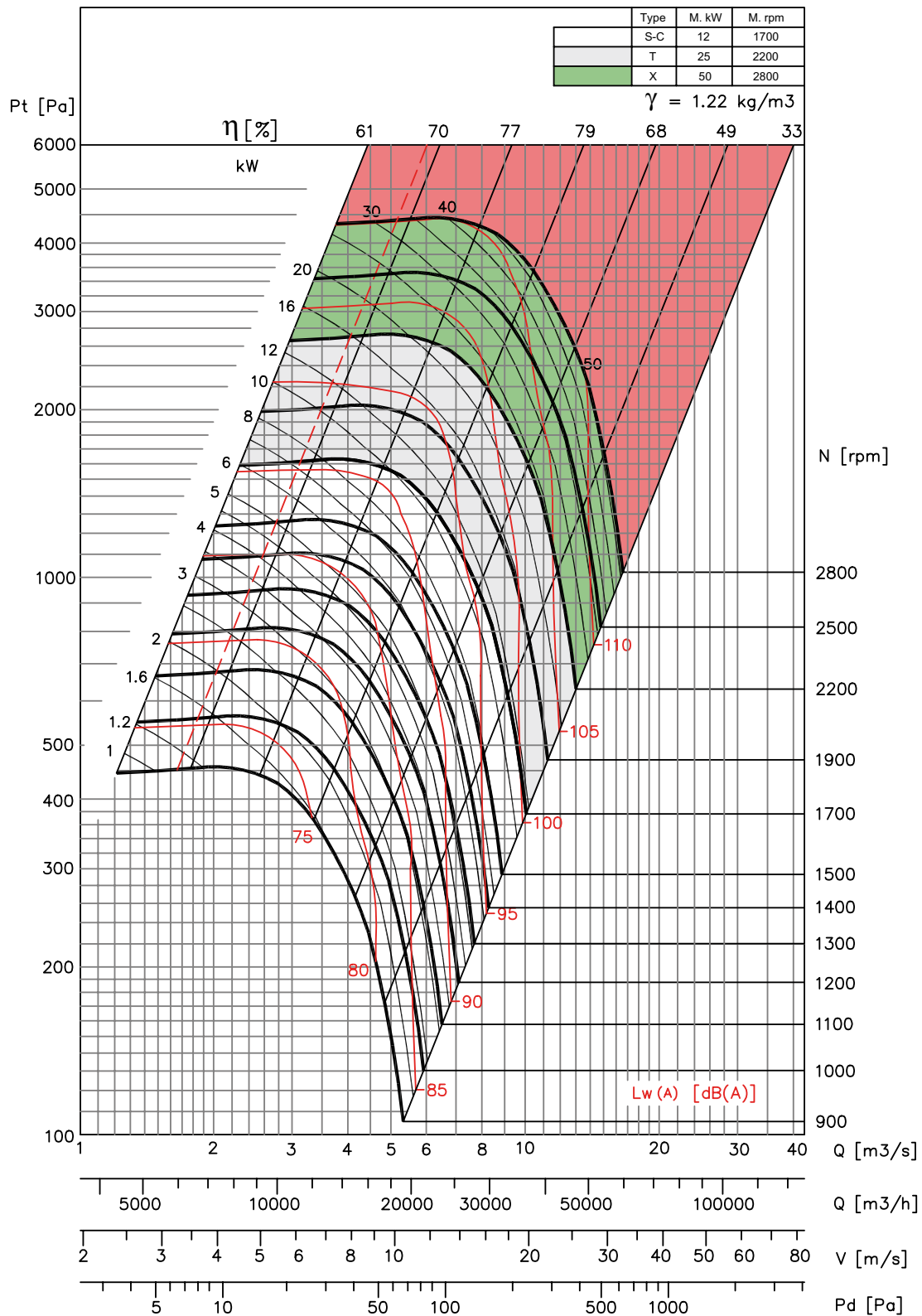
# BDB 500



- Performance shown is for Installation type B - free inlet, ducted outlet. Performance ratings do not include the effects of appurtenances in the airstream. Power rating kW does not include drive losses.

- The A-weighted sound ratings shown have been calculated per AMCA standard 301. Values shown are for inlet Lwi(A) sound power levels for installation type B - free inlet, ducted outlet. Ratings do not include the effect of duct end corrections.

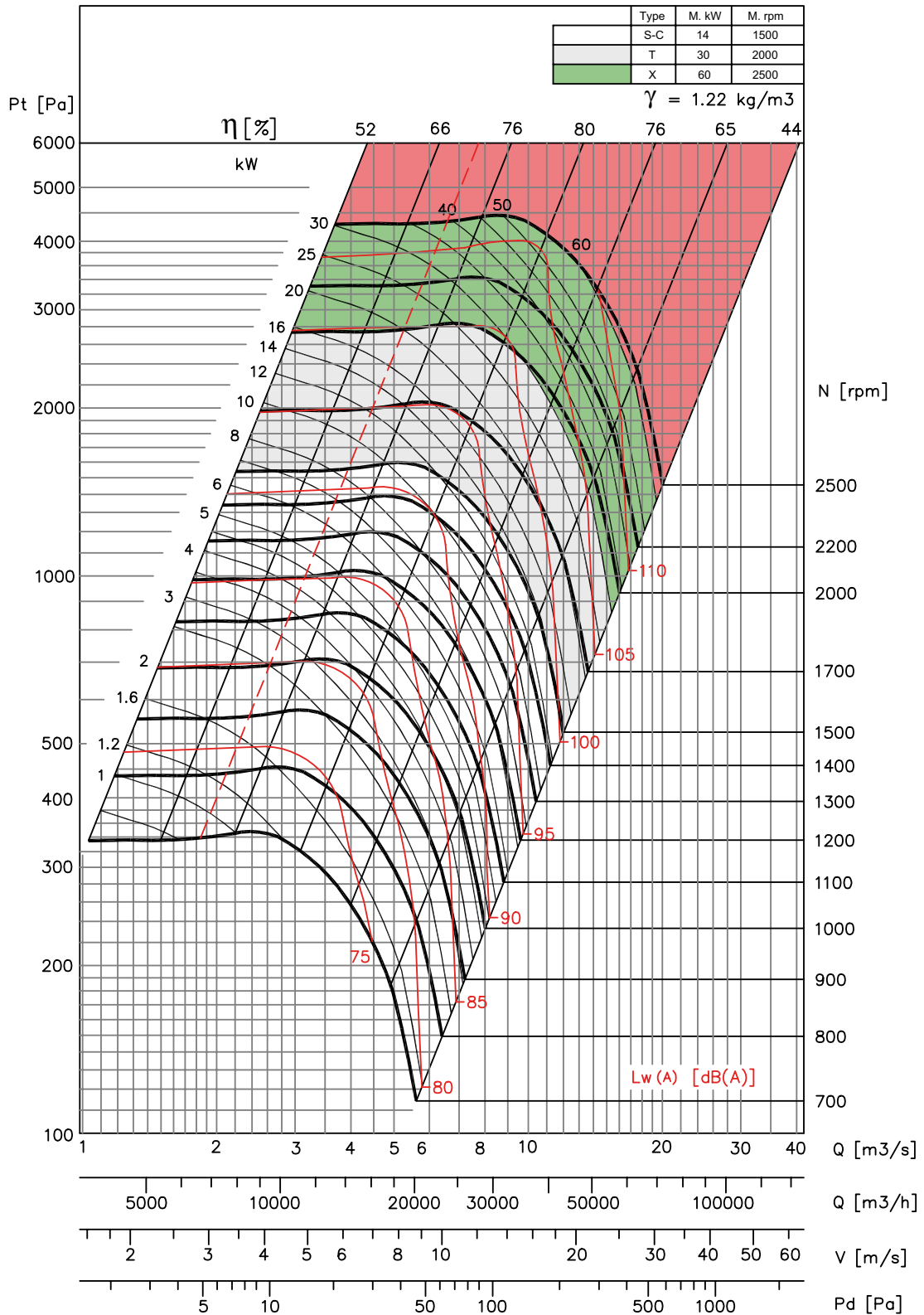
# BDB 560



- Performance shown is for Installation type B - free inlet, ducted outlet. Performance ratings do not include the effects of appurtenances in the airstream. Power rating kW does not include drive losses.

- The A-weighted sound ratings shown have been calculated per AMCA standard 301. Values shown are for inlet Lwi(A) sound power levels for installation type B - free inlet, ducted outlet. Ratings do not include the effect of duct end corrections.

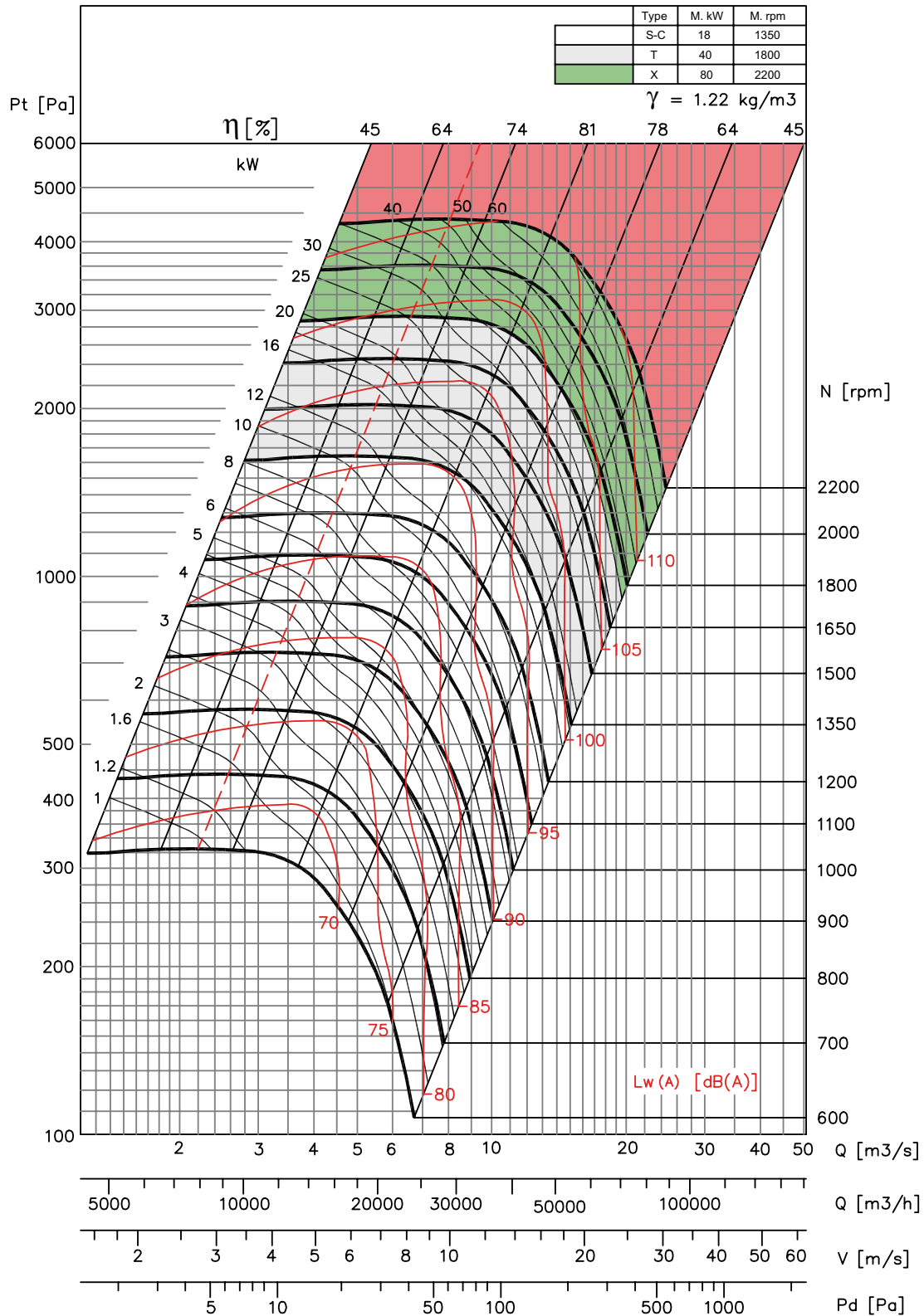
# BDB 630



- Performance shown is for Installation type B - free inlet, ducted outlet. Performance ratings do not include the effects of appurtenances in the airstream. Power rating kW does not include drive losses.

- The A-weighted sound ratings shown have been calculated per AMCA standard 301. Values shown are for inlet Lwi(A) sound power levels for installation type B - free inlet, ducted outlet. Ratings do not include the effect of duct end corrections.

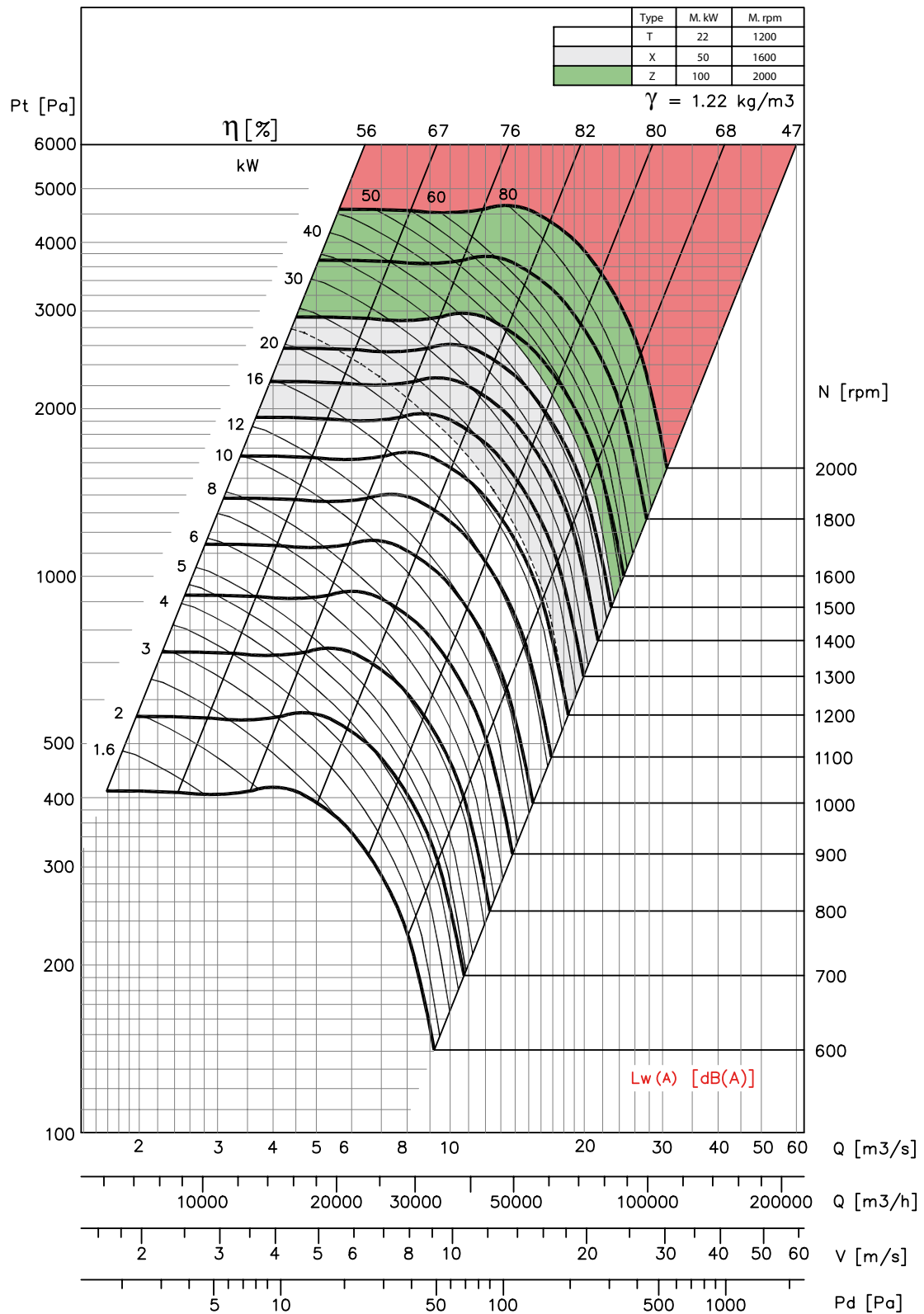
# BDB 710



- Performance shown is for Installation type B - free inlet, ducted outlet. Performance ratings do not include the effects of appurtenances in the airstream. Power rating kW does not include drive losses.

- The A-weighted sound ratings shown have been calculated per AMCA standard 301. Values shown are for inlet Lw(A) sound power levels for installation type B - free inlet, ducted outlet. Ratings do not include the effect of duct end corrections.

# BDB 800

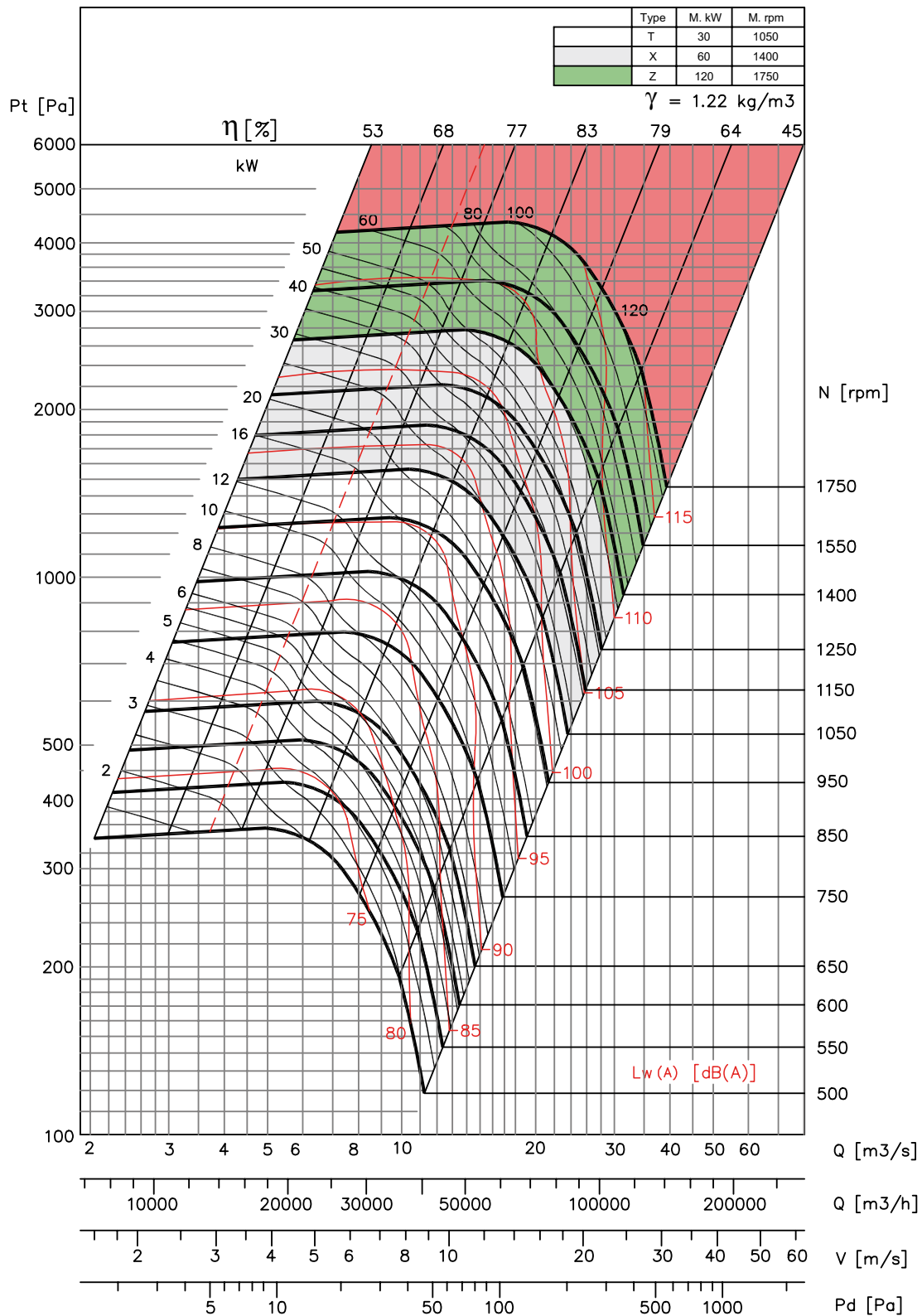


- Performance shown is for Installation type B - free inlet, ducted outlet. Performance ratings do not include the effects of appurtenances in the airstream. Power rating kW does not include drive losses.

- The A-weighted sound ratings shown have been calculated per AMCA standard 301. Values shown are for inlet Lwi(A) sound power levels for installation type B - free inlet, ducted outlet. Ratings do not include the effect of duct end corrections.



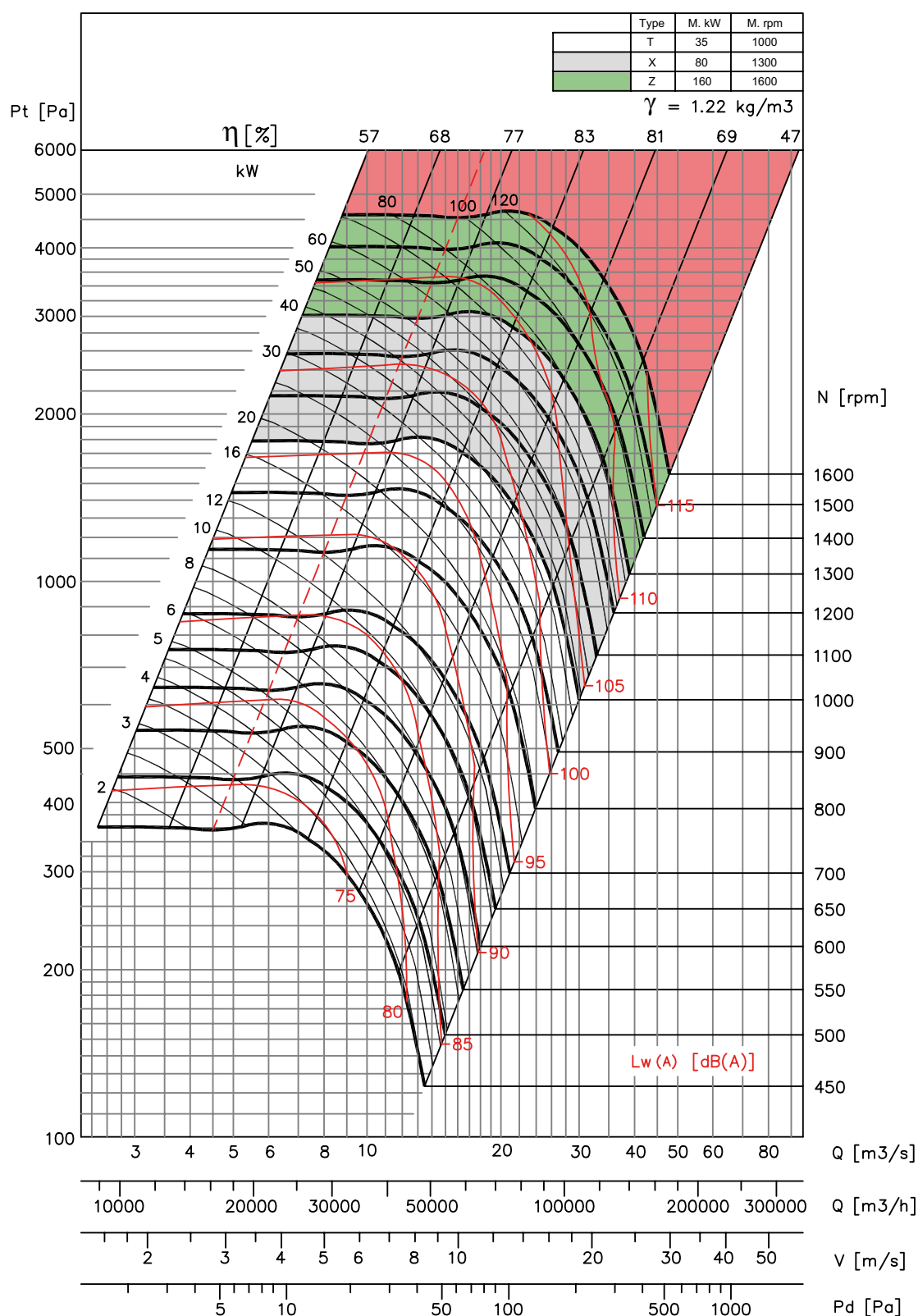
# BDB 900



- Performance shown is for Installation type B - free inlet, ducted outlet. Performance ratings do not include the effects of appurtenances in the airstream. Power rating kW does not include drive losses.

- The A-weighted sound ratings shown have been calculated per AMCA standard 301. Values shown are for inlet Lw(A) sound power levels for installation type B - free inlet, ducted outlet. Ratings do not include the effect of duct end corrections.

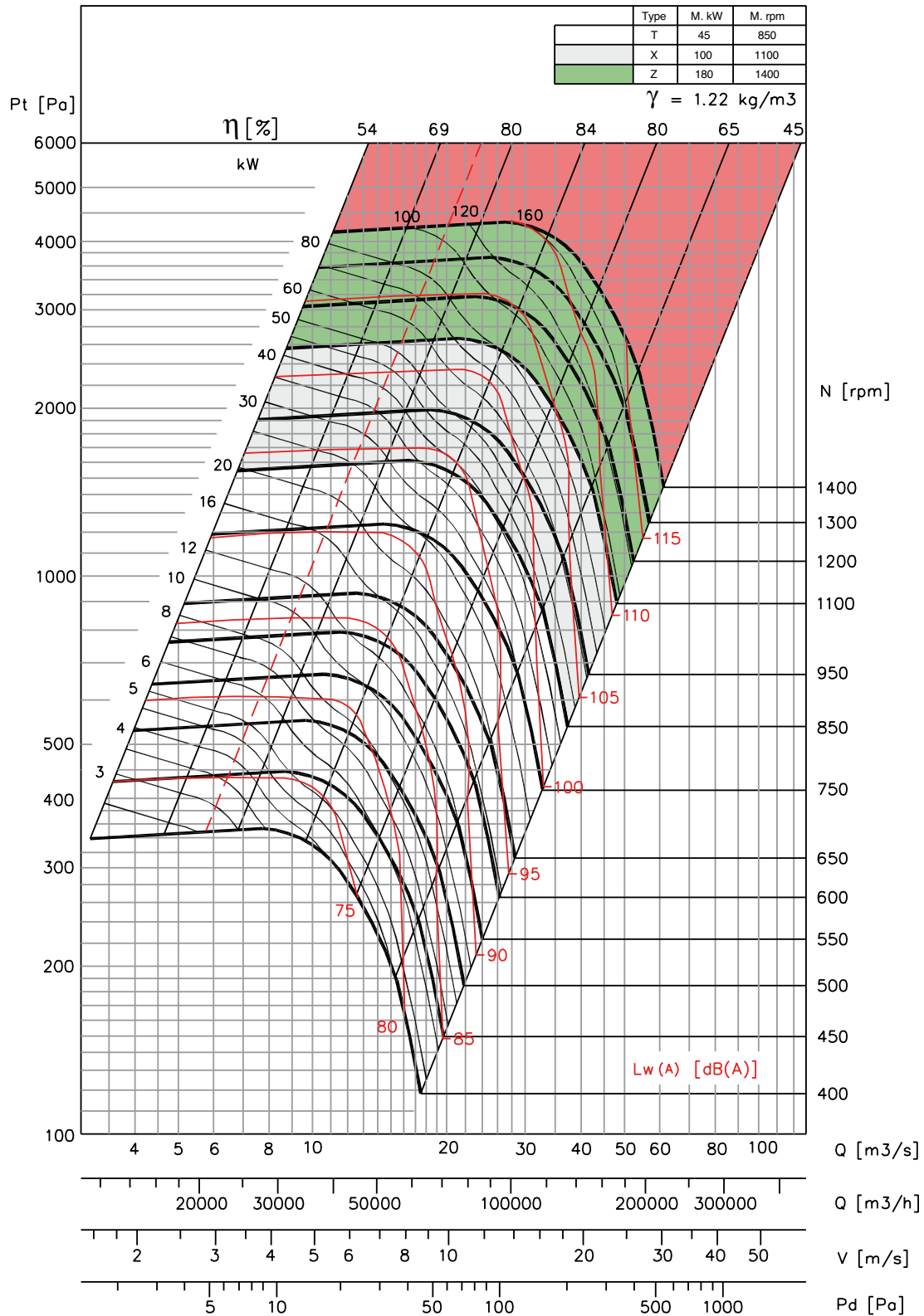
## BDB 1000



- Performance shown is for Installation type B - free inlet, ducted outlet. Performance ratings do not include the effects of appurtenances in the airstream. Power rating kW does not include drive losses.

- The A-weighted sound ratings shown have been calculated per AMCA standard 301. Values shown are for inlet  $L_{wi}(A)$  sound power levels for installation type B - free inlet, ducted outlet. Ratings do not include the effect of duct end corrections.

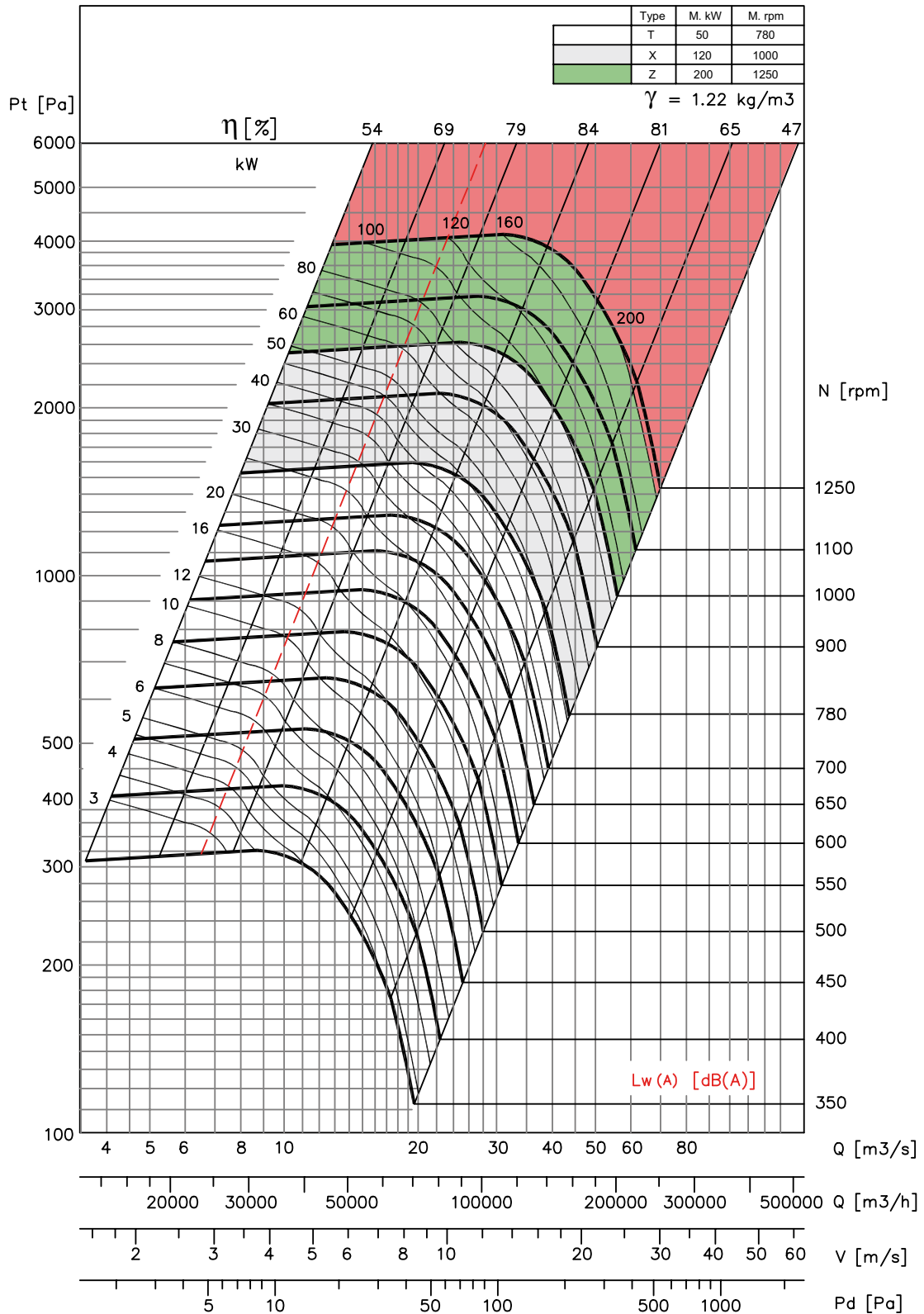
# BDB 1120



- Performance shown is for Installation type B - free inlet, ducted outlet. Performance ratings do not include the effects of appurtenances in the airstream. Power rating kW does not include drive losses.

- The A-weighted sound ratings shown have been calculated per AMCA standard 301. Values shown are for inlet Lwi(A) sound power levels for installation type B - free inlet, ducted outlet. Ratings do not include the effect of duct end corrections.

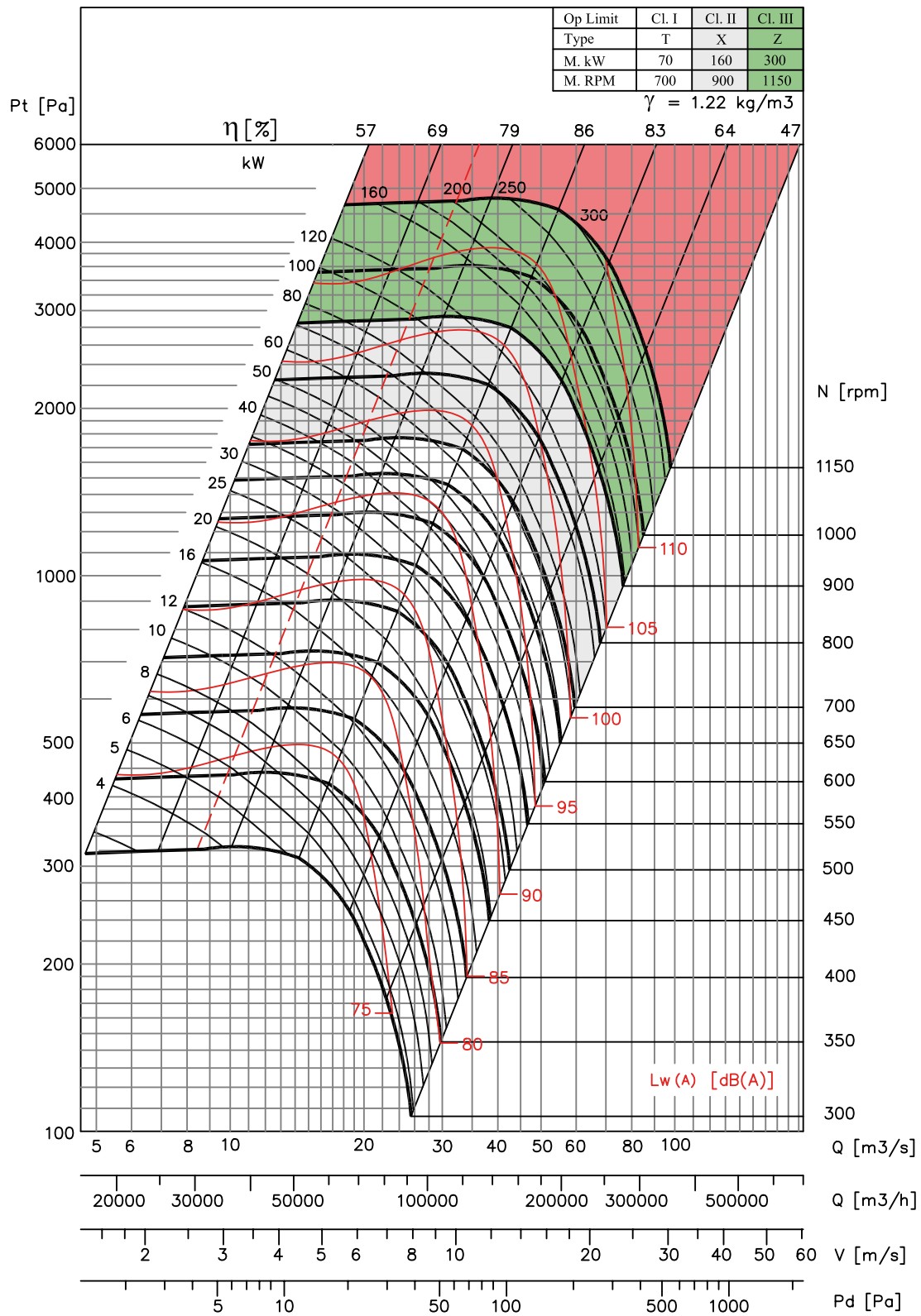
# BDB 1250



- Performance shown is for Installation type B - free inlet, ducted outlet. Performance ratings do not include the effects of appurtenances in the airstream. Power rating kW does not include drive losses.

- The A-weighted sound ratings shown have been calculated per AMCA standard 301. Values shown are for inlet Lwi(A) sound power levels for installation type B - free inlet, ducted outlet. Ratings do not include the effect of duct end corrections.

# BDB 1400



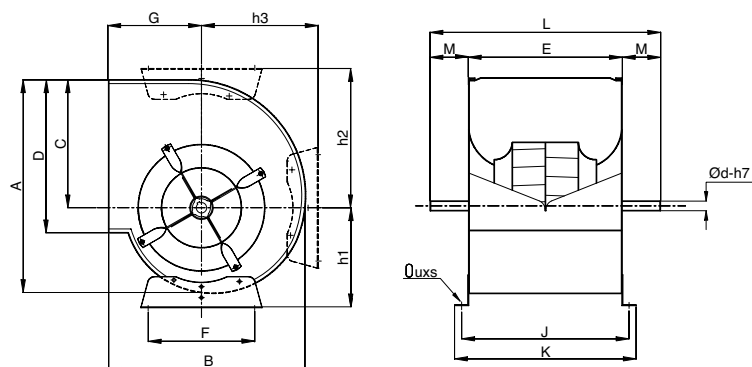
- Performance shown is for Installation type B - free inlet, ducted outlet. Performance ratings do not include the effects of appurtenances in the airstream. Power rating kW does not include drive losses.

- The A-weighted sound ratings shown have been calculated per AMCA standard 301. Values shown are for inlet Lwi(A) sound power levels for installation type B - free inlet, ducted outlet. Ratings do not include the effect of duct end corrections.



## BDB 'S'

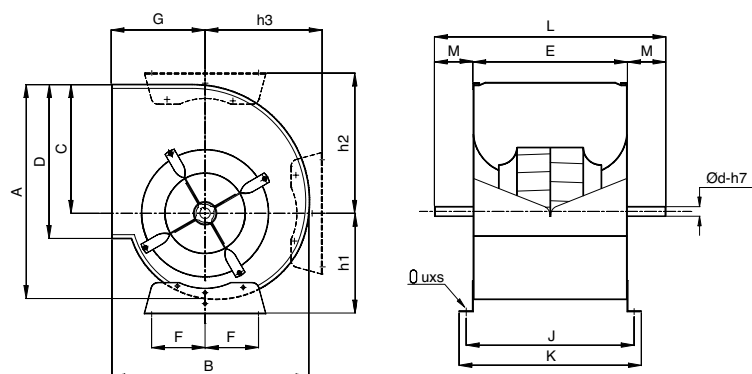
## BDB 315-400 'S'



Model	A	B	C	D	E	F	G	J	K	L	M	h1	h2	h3	ød		
															SL	SM	uxs
315	572	516	340	404	404	280	236	434	464	600	98	261	370	283	25	25	11x16
355	644	576	383	452	452	315	260	492	532	672	110	274	411	320	30	30	11x16
400	724	644	432	506	506	355	290	546	586	726	110	302	462	359	30	30	11x16

All Dimensions in mm.

## BDB 450-710 'S'

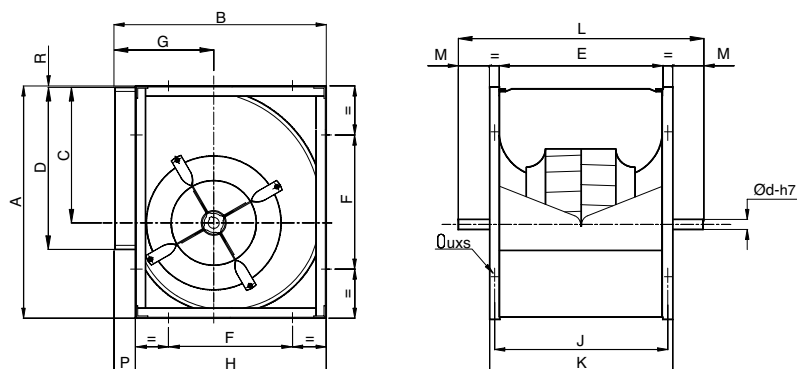


Model	A	B	C	D	E	F	G	J	K	L	M	h1	h2	h3	ød		
															SL	SM	uxs
450	816	722	486	568	568	200	322	608	648	814	123	336	518	407	35	35	13x18
500	906	794	538	638	638	225	352	678	718	924	143	375	568	448	35	35	13x18
560	1016	886	603	714	714	250	390	764	814	1000	143	416	634	502	40	40	13x18
630	1142	992	679	800	800	280	434	850	900	1092	146	468	707	571	40	45	13x18
710	1286	1114	765	898	898	315	484	948	998	1234	168	531	797	636	50	50	13x18

All Dimensions in mm.

## BDB 'C'

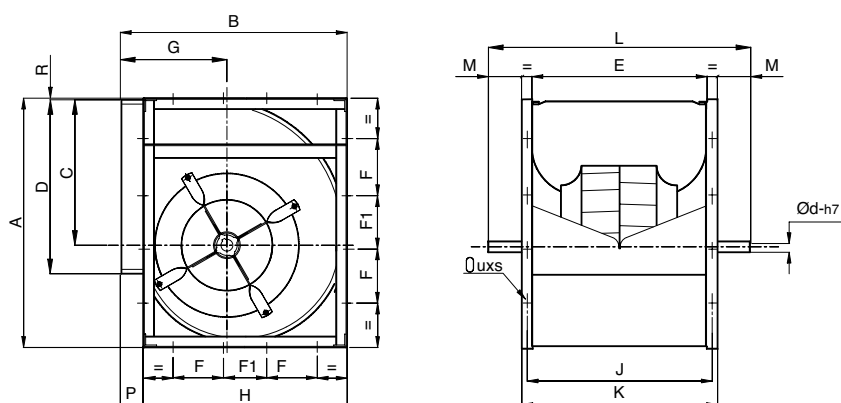
## BDB 315-400 'C'



Model	A	B	C	D	E	F	G	H	J	K	L	M	P	R	ød		uxs
															CL	CM	
315	578	518	340	404	404	330	236	480	434	464	600	68	38	3	25	25	13x18
355	654	578	383	452	452	368	260	548	492	532	672	70	30	6	30	30	13x18
400	736	650	432	506	506	402	290	612	546	586	726	70	38	5	30	30	13x18

All Dimensions in mm.

## BDB 450-710 'C'

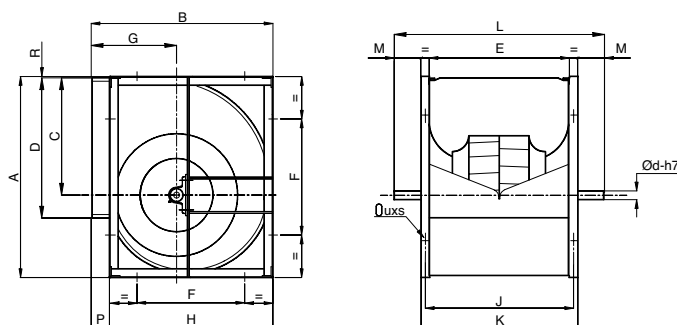


Model	A	B	C	D	E	F	F1	G	H	J	K	L	M	P	R	ød		uxs
																CL	CM	
450	827	726	486	568	568	200	111	322	681	608	648	814	83	45	5	35	35	13x18
500	918	800	538	638	638	245	120	352	750	678	718	924	103	50	5	35	35	13x18
560	1030	892	603	714	714	280	125	390	844	764	814	1000	93	48	7	40	40	13x18
630	1157	998	679	800	800	328	110	434	945	850	900	1092	96	53	6	40	45	13x18
710	1302	1120	765	898	898	360	150	484	1057	948	998	1234	118	63	7	50	50	17x22

All Dimensions in mm.

## BDB 'T'

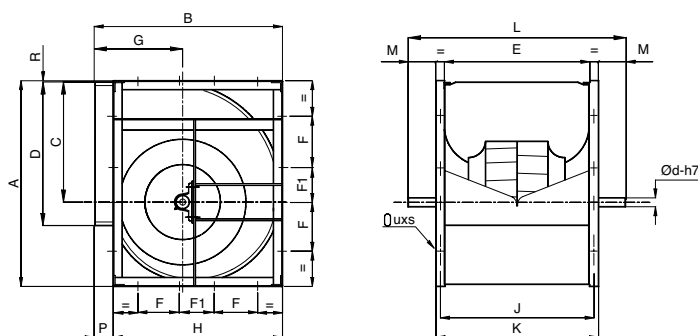
## BDB 315-400 'T'



Model	A	B	C	D	E	F	G	H	J	K	L	M	P	R	ød		uxs
															TL	TM	
315	578	518	340	404	404	330	236	480	434	464	632	84	38	3	30	30	13x18
355	654	578	383	452	452	368	260	548	492	532	718	93	30	6	35	35	13x18
400	736	650	432	506	506	402	290	612	546	586	772	93	38	5	35	35	13x18

All Dimensions in mm.

## BDB 450-1000 'T'

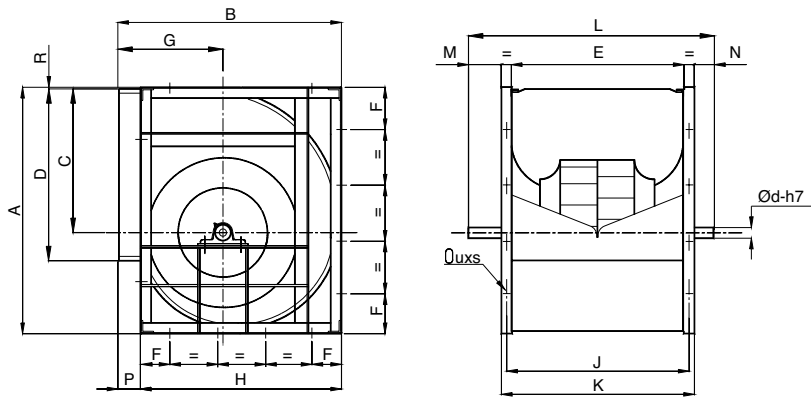


Model	A	B	C	D	E	F	F1	G	H	J	K	L	M	P	R	ød		uxs
																TL	TM	
450	827	726	486	568	568	200	111	322	681	608	648	878	115	45	5	40	40	13x18
500	918	800	538	638	638	245	120	352	750	678	718	956	119	50	5	40	45	13x18
560	1030	892	603	714	714	280	125	390	844	764	814	1080	133	48	7	45	45	13x18
630	1157	998	679	800	800	328	110	434	945	850	900	1166	133	53	6	50	50	13x18
710	1302	1120	765	898	898	360	150	484	1057	948	998	1280	141	63	7	50	55	17x22
800	1468	1254	862	1006	1006	405	171	540	1180	1056	1106	1388	141	74	7	55	55	17x22
900	1648	1408	971	1130	1130	455	189	604	1319	1180	1230	1566	168	89	7	60	60	17X22
1000	1810	1540	1066	1266	1266	500	200	656	1450	1316	1366	1724	179	90	9	60	70	17x22

All Dimensions in mm.

# BDB 'T'

## BDB 1120-1400 'T'

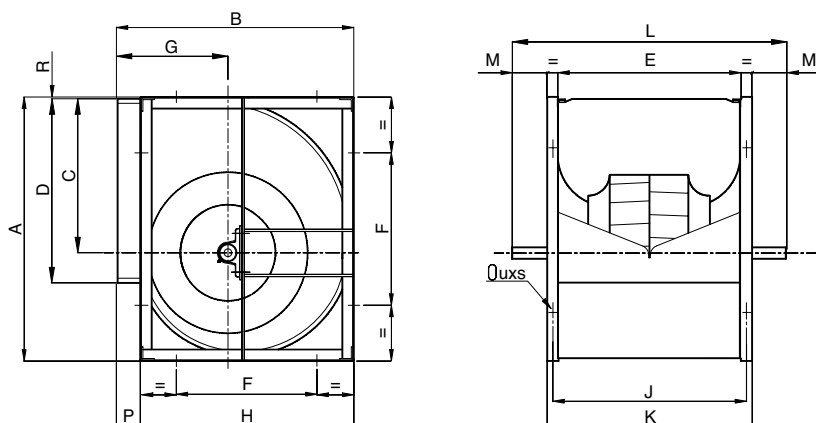


Model	A	B	C	D	E	F	G	H	J	K	L	M	N	P	R	ød		uxs
																TL	TM	
1120	2033	1725	1200	1422	1422	290	748	1630	1482	1548	1800	193	59	95	9	-	75	17x22
1250	2285	1930	1353	1524	1524	300	830	1831	1599	1674	1975	220	81	99	9	-	80	17x22
1400	2568	2170	1515	1794	1794	310	963	2057	1869	1944	2260	227	89	113	13	-	90-80	17x22

All Dimensions in mm.

## BDB 'X'

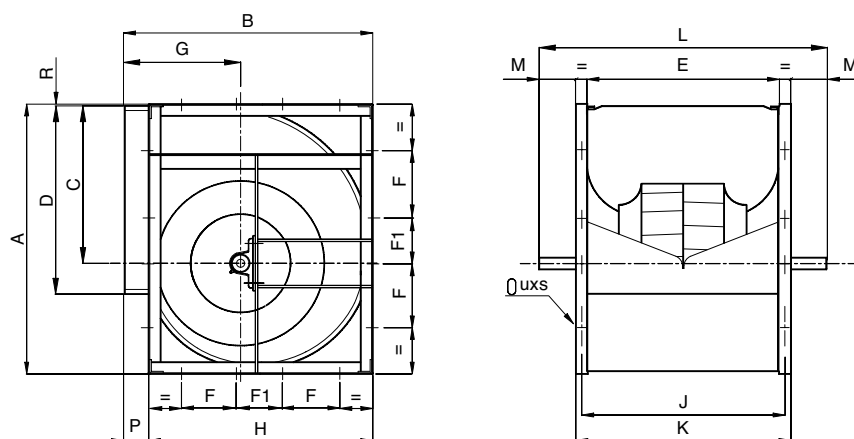
## BDB 315-400 'XM'



Model	A	B	C	D	E	F	G	H	J	K	L	M	P	R	ød	uxs
315	578	518	340	404	404	330	236	480	434	464	732	134	38	3	35	13x18
355	654	578	383	452	452	368	260	548	492	532	822	145	30	6	40	13x18
400	736	650	432	506	506	402	290	612	546	586	876	145	38	5	40	13x18

All Dimensions in mm.

## BDB 450-1000 'XM'



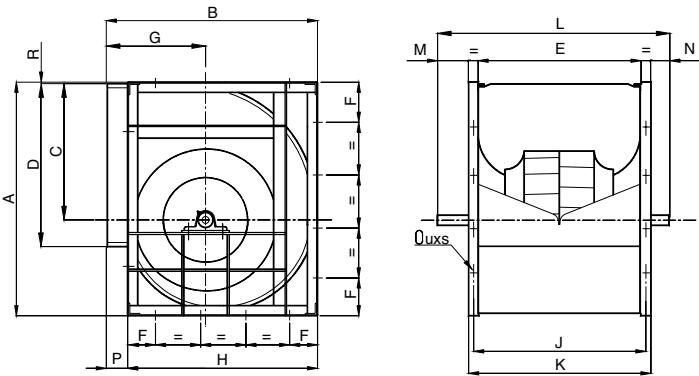
Model	A	B	C	D	E	F	F1	G	H	J	K	L	M	P	R	ød	uxs
450	827	726	486	568	568	200	111	322	681	608	648	946	149	45	5	45	13x18
500	918	800	538	638	638	245	120	352	750	678	718	1066	174	50	5	50	13x18
560	1030	892	603	714	714	280	125	390	844	764	814	1138	162	48	7	55	13x18
630	1157	998	679	800	800	328	110	434	945	850	900	1286	193	53	6	60	13x18
710	1302	1120	765	898	898	360	150	484	1057	948	998	1390	196	63	7	65	17x22
800	1468	1254	862	1006	1006	405	171	540	1180	1056	1106	1498	196	74	7	65	17x22
900	1648	1408	971	1130	1130	455	189	604	1319	1180	1230	1660	215	89	7	70	17x22
1000	1810	1540	1066	1266	1266	500	200	656	1450	1316	1366	1845	239.5	90	9	80	17x22

All Dimensions in mm.



# BDB 'X'

## BDB 1120-1400 'XX'

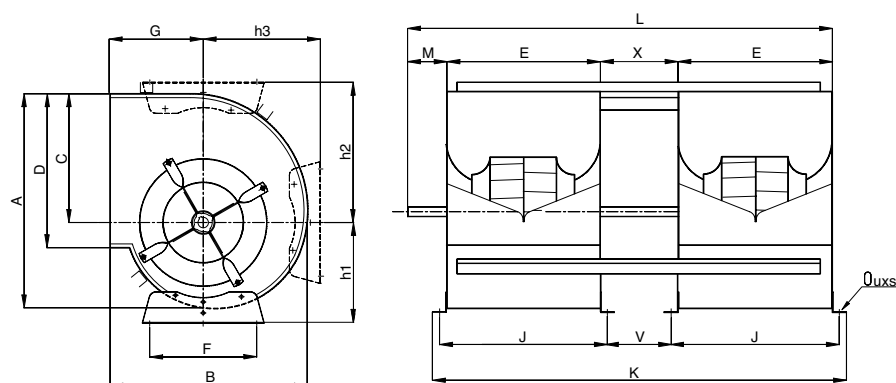


Model	A	B	C	D	E	F	G	H	J	K	L	M	N	P	R	ød	uxs
1120	2033	1725	1200	1422	1422	290	748	1630	1482	1548	1916	266	102	95	9	80	17x22
1250	2285	1930	1353	1524	1524	300	830	1831	1599	1674	2035	265	96	99	9	85	17x22
1400	2568	2170	1515	1794	1794	310	963	2057	1869	1944	2295	256	95	113	13	90	17x22

All Dimensions in mm.

## BDB 'S2'

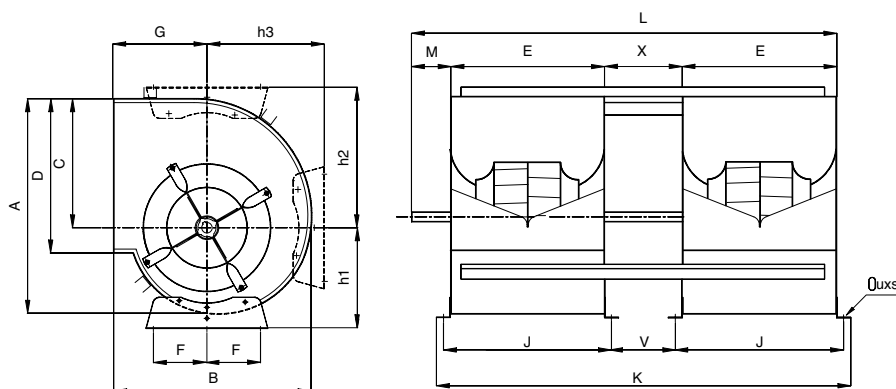
## BDB 315-400 'S2M'



Model	A	B	C	D	E	F	G	J	K	L	M	V	X	h1	h2	h3	ød	uxs
315	572	516	340	404	404	280	236	434	1183	1233	110	285	315	261	370	283	30	11x16
355	644	576	383	452	452	315	260	492	1339	1389	130	315	355	274	411	320	35	11x16
400	724	644	432	506	506	355	290	546	1492	1542	130	360	400	302	462	359	35	11x16

All Dimensions in mm.

## BDB 450-500 'S2M'

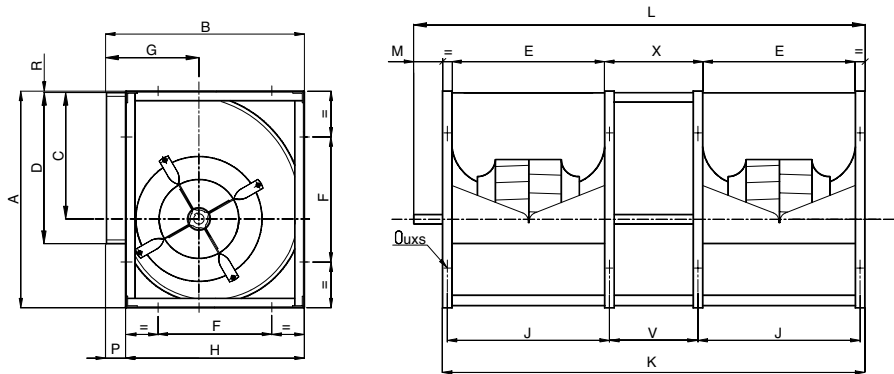


Model	A	B	C	D	E	F	G	J	K	L	M	V	X	h1	h2	h3	ød	uxs
450	816	722	486	568	568	200	322	608	1666	1726	140	410	450	336	518	407	40	13x18
500	906	794	538	638	638	225	352	678	1856	1916	140	460	500	375	568	448	40	13x18

All Dimensions in mm.

# BDB 'C2'

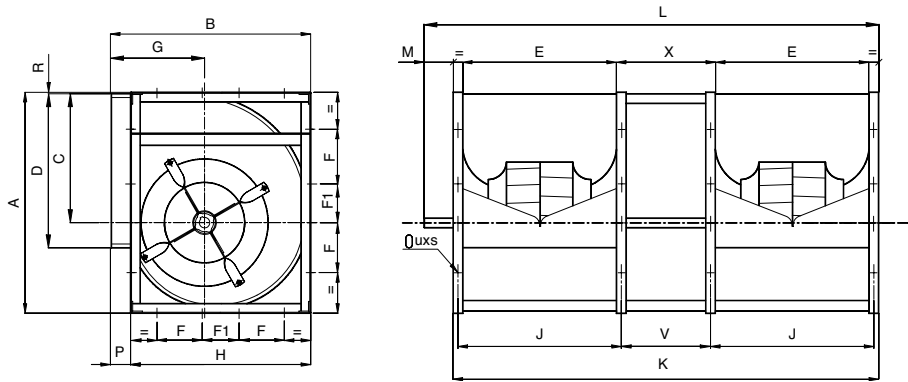
## BDB 315-400 'C2M'



Model	A	B	C	D	E	F	G	H	J	K	L	M	P	R	V	X	ød	uxs
315	578	518	340	404	404	330	236	480	434	1183	1263	80	38	3	285	315	30	13x18
355	654	578	383	452	452	368	260	548	492	1339	1429	90	30	6	315	355	35	13x18
400	736	650	432	506	506	402	290	612	546	1492	1582	90	38	5	360	400	35	13x18

All Dimensions in mm.

## BDB 450-500 'C2M'

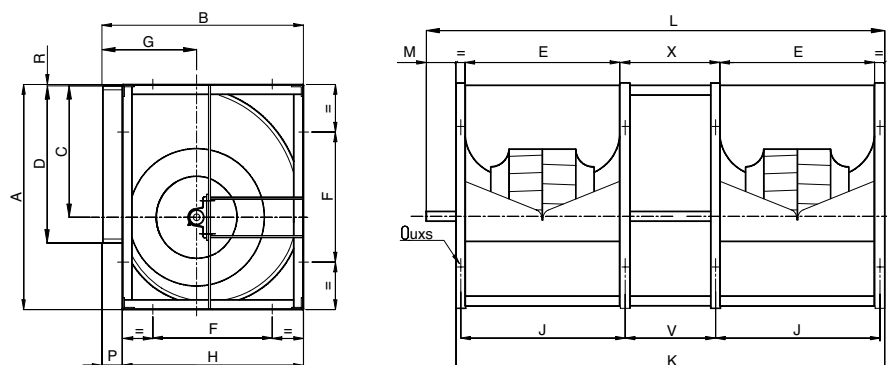


Model	A	B	C	D	E	F	F1	G	H	J	K	L	M	P	R	V	X	ød	uxs
450	827	726	486	568	568	200	111	322	681	608	1666	1766	100	45	5	410	450	40	13x18
500	918	800	538	638	638	245	120	352	750	678	1856	1956	100	50	5	460	500	40	13x18

All Dimensions in mm.

## BDB 'T2'

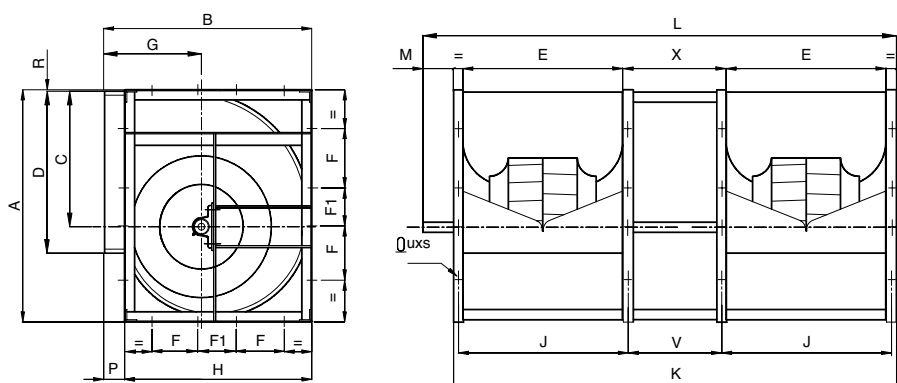
## BDB 355-400 'T2'



Model	A	B	C	D	E	F	G	H	J	K	L	M	P	R	V	X	ød	uxs
355	654	578	383	452	452	368	260	548	492	1339	1449	110	30	6	315	355	40	13x18
400	736	650	432	506	506	402	290	612	546	1492	1627	135	38	5	360	400	45	13x18

All Dimensions in mm.

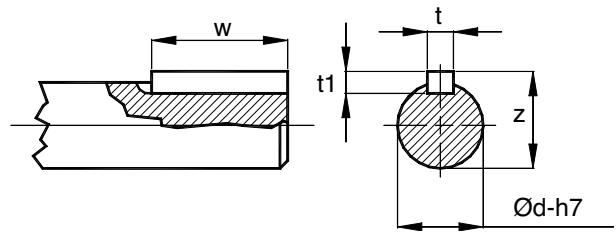
## BDB 450-630 'T2'



Model	A	B	C	D	E	F	F1	G	H	J	K	L	M	P	R	V	X	ød	uxs
450	827	726	486	568	568	200	111	322	681	608	1666	1801	135	45	5	410	450	50	13x18
500	918	800	538	638	638	245	120	352	750	678	1856	1991	135	50	5	460	500	55	13x18
560	1030	892	603	714	714	280	125	390	844	764	2088	2228	140	48	7	510	560	55	13x18
630	1157	998	679	800	800	328	110	434	945	850	2330	2470	140	53	6	580	630	60	13x18

All Dimensions in mm.

# Shaft



Ød	t	t1	w	z
25	8	7	40	28
30	8	7	40	33
35	10	8	50	38
40	12	8	70	43
45	14	9	70	48.5
50	14	9	90	53.5
55	16	10	90	59
60	18	11	90	64
70	20	12	110	74.5
75	20	12	110	79.9
80	22	14	110	85
85	22	14	110	90
90	25	14	140	95

All Dimensions in mm.

# Operational Limits - “BDB”

			315	355	400	450	500	560	630	710	800	900	1000	1120	1250	1400
Maximum Absorbed Power	<b>S-C</b>	kW	4	5	6	8	10	12	14	18						
	<b>T</b>	kW	8	11	14	18	20	25	30	40	22	30	35	45	50	70
	<b>X</b>	kW	16	22	28	35	45	50	60	80	50	60	80	100	120	160
	<b>Z</b>	kW									100	120	160	180	200	250
	<b>S2-C2</b>	kW	5	6.5	6.5	7.5	7.5									
	<b>T2</b>	kW		15	15	18	22	22	25							
Maximum Fan Speed	<b>S-C</b>	rpm	3100	2700	2500	2200	1900	1700	1500	1350						
	<b>T</b>	rpm	4100	3500	3200	2900	2500	2200	2000	1800	1200	1050	1000	850	780	680
	<b>X</b>	rpm	5100	4500	4100	3600	3200	2800	2500	2200	1600	1400	1300	1100	1000	900
	<b>Z</b>	rpm									2000	1750	1600	1400	1250	1100
	<b>S2-C2</b>	rpm	2400	2200	1800	1600	1200									
	<b>T2</b>	rpm		2800	2400	2200	2000	1550	1300							
Temperature Range Min. -20°C	<b>S-C</b>	Max.oC	85	85	85	85	85	85	85	85						
	<b>T-X</b>	Max.oC	100	100	100	100	100	100	100	100	100	100	100	100	100	100
	<b>S2-C2</b>	Max.oC	85	85	85	85	85									
	<b>T2</b>	Max.oC		100	100	100	100	100	100							
Fan weight	<b>S</b>	kg	26	37	42	58	74	95	118	174						
	<b>C</b>	kg	27	41	45	62	81	110	141	199						
	<b>T</b>	kg	40	53	67	89	118	158	197	251	299	368	474	687	967	1362
	<b>X</b>	kg	49	65	82	94	124	166	212	271	323	397	512	755	1064	1430
	<b>S2</b>	kg	46	66	76	103	129									
	<b>C2</b>	kg	53	76	91	117	148									
	<b>T2</b>	kg		106	132	147	182	235	296							

