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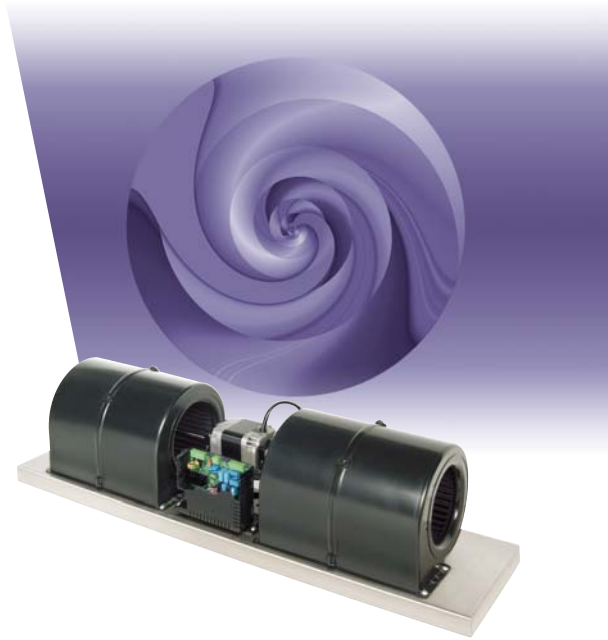
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The user is responsible for the correct installation of components listed in the catalogue
in compliance with existing regulations of each Country and the restrictions imposed.
Performances in this catalogue are for reference only.
IP rating granted with supplying cable facing down.

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MMXVIII • Form VENTILATION SYSTEMS
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VENTILATION SYSTEMS





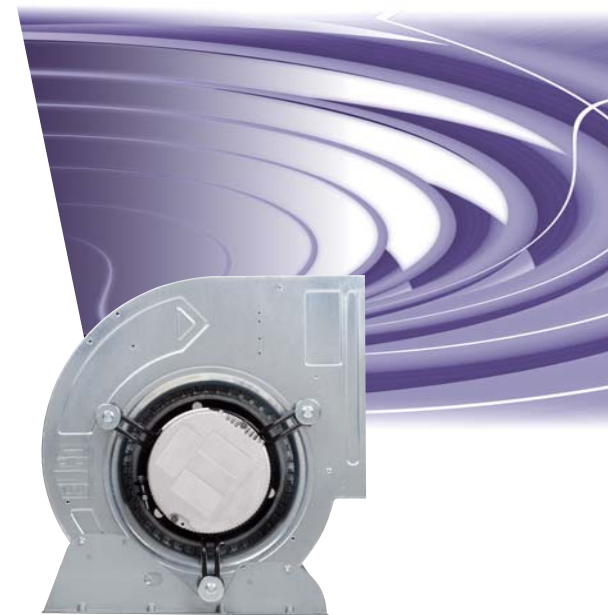
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High Efficiency

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DD
Centrifugal
Blowers

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LA SOCIETÀ

CREATING A BETTER TOMORROW™

Regal Beloit Corporation (NYSE: RBC) è uno dei produttori di motori elettrici, driver per motori e motoriduttori per trasmissione di potenza leader di settore. L'azienda serve mercati in tutto il mondo. La struttura è organizzata in tre segmenti di business: Commercial and Industrial (C&I), Climate Solutions e Power Transmission Solutions. La sede è a Beloit, Wisconsin USA, e uffici commerciali, fabbriche e centri di sviluppo in USA, Canada, America Latina, Europa e Asia.

Il Gruppo ELCO® è uno dei pochi produttori a livello mondiale che possa vantare un'esperienza di oltre 50 anni nella produzione di gruppi ventilanti nel campo del riscaldamento, ventilazione e condizionamento (HVAC). Questa posizione di riconosciuta leadership è il risultato di uno specifico know-how nella progettazione e produzione di motori elettrici frazionari, unito all'ottima competenza sull'aeraulica, nonché di un range di prodotti in grado di soddisfare tutte le richieste del mercato.

Il recente sviluppo internazionale del Gruppo, con unità produttive dislocate su tre continenti, è la migliore premessa per offrire le "soluzioni ELCO®" ad un mercato "globale", sia per chi ricerca soluzioni articolate (gruppi ventilanti), sia per chi si orienta sui singoli componenti elementari.

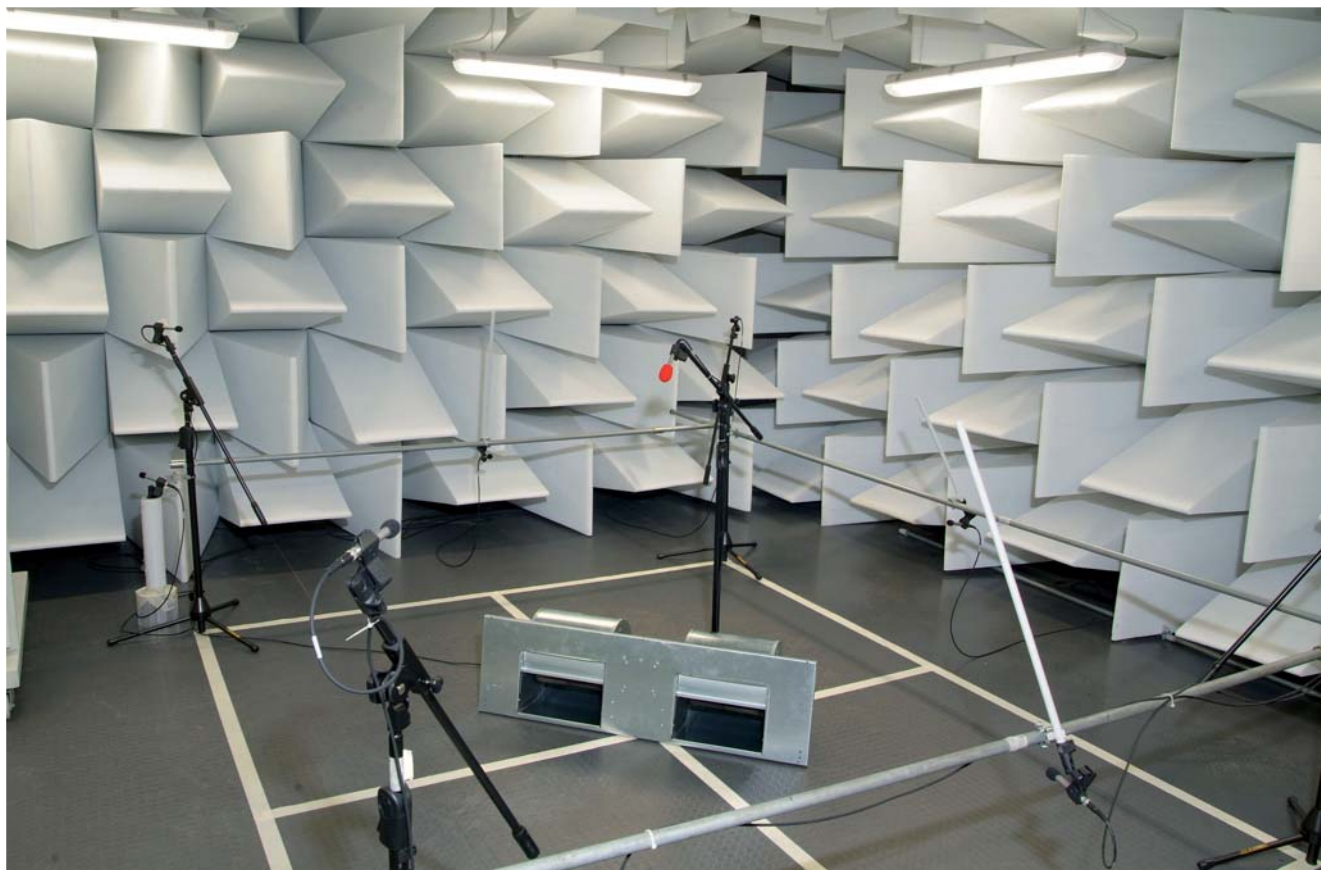
THE COMPANY

CREATING A BETTER TOMORROW™

Regal Beloit Corporation (NYSE: RBC) is a leading manufacturer of electric motors, electrical motion controls, power generation and power transmission products serving markets throughout the world. The company is comprised of three business segments: Commercial and Industrial Systems, Climate Solutions and Power Transmission Solutions. Regal is headquartered in Beloit, Wisconsin, and has manufacturing, sales and service facilities throughout the United States, Canada, Latin America, Europe and Asia.

ELCO® is one of the few world-wide manufacturers with more than 50 years of experience in the production of fan deck units used in the heating, ventilation and air conditioning field (HVAC). Its acknowledged leadership is the result of a specific know-how both in the design and in the manufacturing of fractional horsepower motors along with an excellent mastery of aerodynamic techniques, as well as a range of products that satisfy all market requirements.

The recent international development of the ELCO® Group, with its manufacturing plants located worldwide, represents the best preliminary condition to offer "ELCO® solutions" to a "global" market both in the research of integrated solutions (e.g. fan-decks) and single basic components.

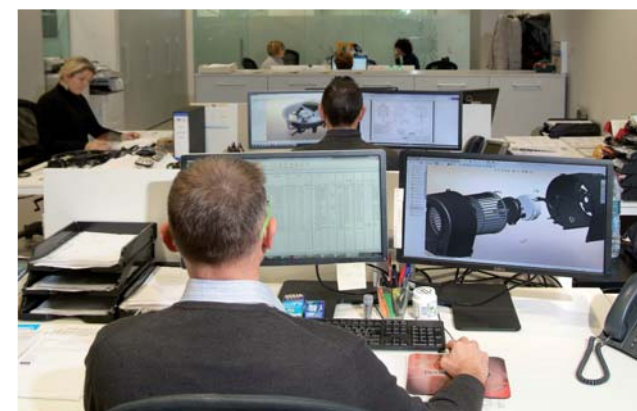


LA PROGETTAZIONE

La pluridecennale esperienza di progettazione per questi particolari ventilatori è raccolta oggi in una completa banca dati che permette di proporre ai clienti un ampio ventaglio di soluzioni tecniche per ottimizzare la scelta del ventilatore più idoneo per ogni singola applicazione.

Il team tecnico si avvale di sistemi CAD, di un moderno laboratorio per prove elettriche ed aeruliche in accordo alle norme AMCA 210-99, di una camera semi anecoica per le prove di potenza sonora a norme UNI EN ISO 3744:2010, di camere climatiche "fredda" e "tropicale," adatte a simulare le condizioni ambientali reali in cui si trovano ad operare i ventilatori.

La speciale sezione "Ricerca e Sviluppo" è inoltre alla costante ricerca di soluzioni innovative che spesso anticipano le richieste del mercato, come per esempio nelle problematiche di regolazione, nell'ottimizzazione dell'efficienza energetica, nella riduzione dei livelli sonori, etc.



THE DESIGN

The multi-decade experience in the design of these particular fans is stored in a complete database from where customers can choose, among a wide range of technical solutions, the most suitable for any single application.

The technical team is provided with 3D CAD, an advanced lab for electric and aerulic tests in compliance with AMCA 210-99 rules, a hemi-anechoic chamber for sound power tests according to UNI EN ISO 3744:2010, "cold" and "tropical" chambers suitable for the simulation of the real working environmental conditions of the fans.

The "Research and Development" department is engaged in a never ending quest for innovative solutions, often ahead of market requirements, such as air volume regulation, energy efficiency improvement, noise level reduction and so on.





LA PRODUZIONE

La crescente domanda di soluzioni ELCO® ha ispirato la completa riorganizzazione dei sistemi di produzione, che si avvalgono di diverse linee di assemblaggio automatiche che, esaltando un'elevata flessibilità, permettono di supportare la crescita del parco clienti.

Queste linee, armonizzate per ottenere una maggiore efficienza produttiva, sono dotate di sofisticate attrezzature e strumenti atti a garantire un prodotto finale altamente qualificabile nel rispetto delle richieste di mercato. Inoltre l'organizzazione dei processi produttivi viene svolta secondo le moderne metodologie "LEAN PRODUCTION" e "SIX SIGMA".

La disponibilità di sofisticata strumentazione per la rilevazione delle vibrazioni e squilibri dinamici, grazie alla quale è possibile controllare i parametri caratteristici, permettono di correggere eventuali squilibri nel 100% dei ventilatori consegnati ai clienti.

Apparati informatici implementati sulla linea produttiva permettono di visualizzare in tempo reale il processo produttivo e velocizzare le procedure, liberando risorse per ottenere valore aggiunto sulle attività in essere.

THE PRODUCTION

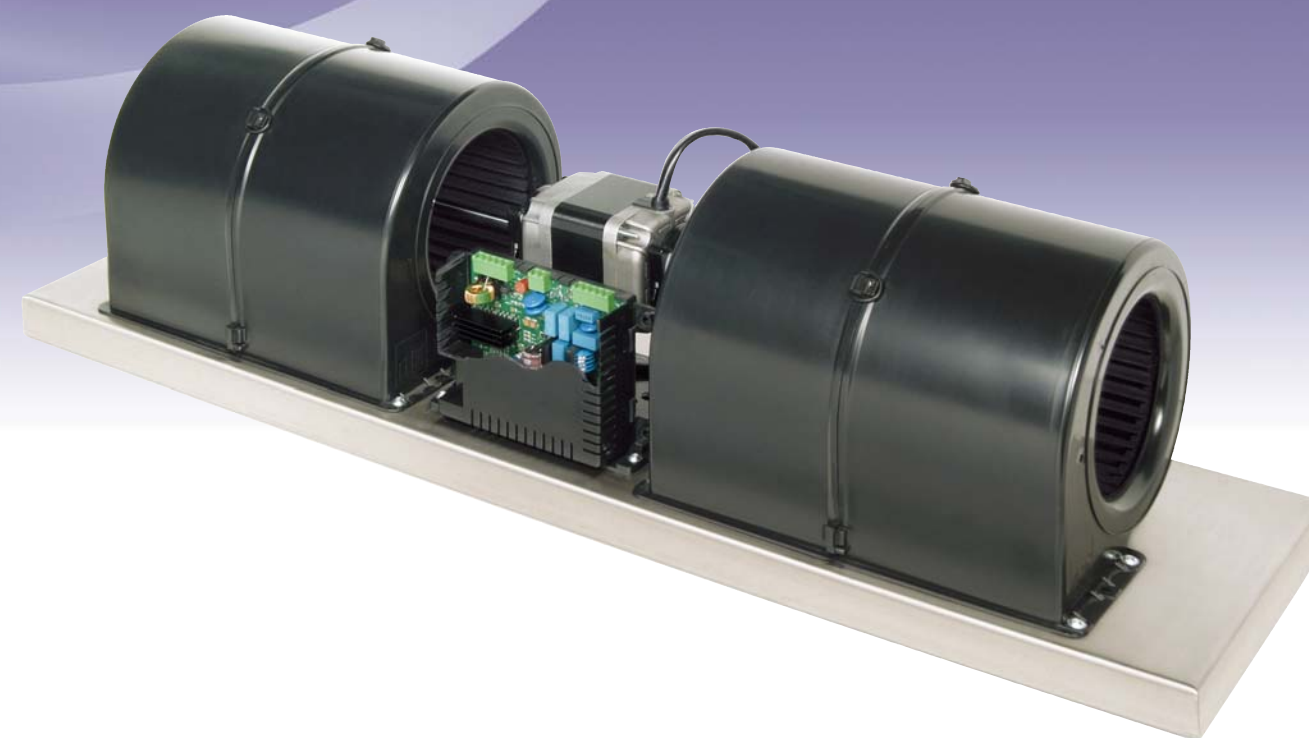
The increasing request of ELCO® solutions led to a complete reorganization of production systems, by adopting high duty semi-automatic lines able to meet the constant growth of the customers.

These production lines are equipped with sophisticated instruments apt for granting selected products, computerized devices allow to display in real time the productive process and speed up the operating procedure; furthermore, the productive process is developed according to "LEAN PRODUCTION" and "SIX SIGMA" methodologies.

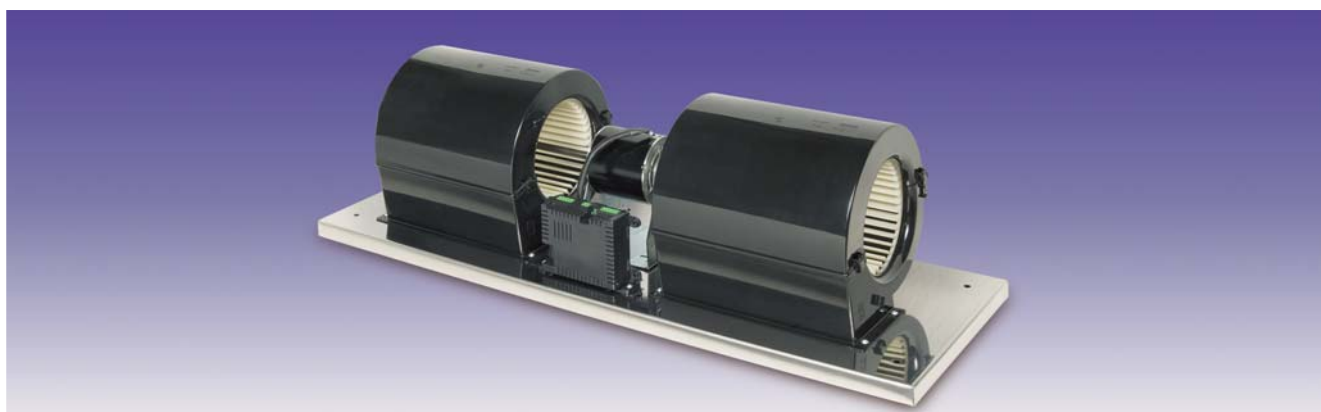
Sophisticated instruments that are able to detect vibrations and imbalances to be corrected in 100% of the products that are delivered to Customers.

IT tools in the assembly line show the production process in real time, increasing the efficiency of the process itself.





ECM-CO
Fan Decks High Efficiency



IL PRODOTTO

ECM-CO FAN DECKS HIGH EFFICIENCY

La gamma dei Gruppi Ventilanti per fan-coil è denominata ECM-CO ed è realizzata utilizzando una vasta scelta di motori a commutazione elettronica accoppiati a sub-assiemi coclea-ventola scelti in funzione sia delle portate d'aria richieste, sia degli ingombri.

I gruppi coclea-ventola sono a loro volta realizzati utilizzando dimensioni modulari (si faccia riferimento alla tabella riportata in seguito) e possono essere quindi fissati, unitamente al motore, secondo uno schema da 1 a 3 coclee, su piastre di supporto, o bacinelle raccolta condensa (si faccia riferimento alla tabella riportata in seguito), progettate su richiesta del cliente.

Nelle pagine seguenti sono evidenziate le caratteristiche elettriche/dimensionali di alcuni modelli esemplificativi della gamma di prodotto che coprono una fascia di portate da 100 m³/h a 6.000 m³/h.

Tutti i modelli evidenziati sono rispondenti alla Regolamentazione Europea n° 327/2011 del 30 Marzo 2011 "Introduzione alla Direttiva 2009/125/EC del Parlamento Europeo e del Consiglio" con riguardo alla richiesta di eco design per ventilatori accoppiati a motori con potenza elettrica assorbita compresa tra 125W e 500 kW.

Le coclee sono realizzate in materiale termoplastico, che unisce ad un'elevata stabilità nel tempo e resistenza ad agenti aggressivi, anche una migliore risposta al contenimento della rumorosità generata dai flussi d'aria, oppure in lamiera zincata.

Le ventole, a doppia aspirazione, sono in materiale termoplastico, in alluminio o in lamiera zincata e sono tutte bilanciate, sia staticamente che dinamicamente, dopo il montaggio.

I motori utilizzati sono del tipo a commutazione elettronica a magneti permanenti dotati di una scheda di controllo esterna inserita in un box plastico con la quale pilotare il motore.

La scheda è dotata di un ingresso 0-10 Vdc per la regolazione continua della velocità, oltre ad un'uscita 10 Vdc con la possibilità di connettere un potenziometro per la regolazione della velocità.

THE PRODUCT

ECM-CO FAN DECKS HIGH EFFICIENCY

The fan-deck range for fan-coil units, called ECM-CO, is realized using a wide selection of electronic commutated motors coupled with sub-assembled housings/impellers that are chosen in line with required air-flows and dimensions.

The housing/impeller assemblies are designed in accordance with customers' requests and designed in modular sizes (see table below) and can be fixed to the motor, according to a 1 to 3 modular scheme, on plates or drain pans (see table below).

The following pages highlight the electrical/dimensional features of some sample models belonging to those products with air flows ranging from 100 m³/h to 6.000 m³/h.

All models comply with the 30th March 2011 European Regulation n. 327/2011 "Introduction to the rule 2009/125/EC of the European Parliament and of the Council" relevant to the request of eco-design fans coupled with motors with electric absorbed powers between 125W and 500 kW.

Housings are made of thermoplastic material that combines a high durability and resistance to chemical agents with noise reduction generated by the air flow or by the galvanized sheet.

Double inlet impellers are made of thermoplastic materials, aluminium or galvanized sheet iron and are subject to static and dynamic balancing after the assembling.

Motors employed are permanent magnet electronically commutated type, equipped with an external card for the control of the motor, placed inside a plastic box. The card has an input 0-10 Vdc for direct speed regulation and an output 10 Vdc with the possibility to connect a potentiometer for speed regulation.



IL PRODOTTO

Inoltre nel control box è disponibile un "speed range control", un sistema di dip-switch in grado di programmare la massima velocità del gruppo ventilante.

Il control box è provvisto di tutta una serie di protezioni in grado di salvaguardare la sicurezza e la funzionalità del motore.

Il box è fornito montato sulla bacinella solo sui gruppi ventilanti doppi e tripli, mentre è fornito a parte sui gruppi monococlea.

Il cavo di alimentazione deve essere del tipo tripolare con connettore tipo Tyco 796634-2, con cavo di terra separato, mentre il cavo di segnale, se più lungo di 3 m, dovrà essere del tipo schermato con entrambi i lati connessi a terra ed il connettore a 5 vie tipo Tyco 796634-5.

Entrambi i cavi non vengono forniti da ELCO®.

Tutti i motori ELCO® sono progettati e costruiti in ottemperanza alle Direttive di Bassa Tensione 2006/95/EC e di Compatibilità Elettromagnetica 2004/108/EC con riferimento alla EN 55014-1, EN 61000-3-2, EN 61000-3-3, così come alla Direttiva Macchine 2006/42/EC, ed in accordo con le Norme Standard CENELEC EN 60335-1, EN 60529, EN 60034-1.

Salvo diverse indicazioni i motori hanno la classe di isolamento B, grado di protezione IP 40 e sono idonei al funzionamento in ambienti a temperature comprese fra -20°C e +50°C.

Nei motori si utilizzano supporti a bronzina pre-lubrificata.

THE PRODUCT

Furthermore, other features include "speed range control" along with a dip-switch system for the programming of fan-deck speed. In addition, the control box is equipped with motor operation safety devices.

The box is mounted on the fan decks for double and triple housing solutions, while it is supplied loose for single housing fans.

The supply line cable must be a three-core type with Tyco connector type 796634-2 with separate ground cable, while the signal cable, if longer than 3 m, must be shielded type with both sides ground connected and the five-way connector type Tyco 796634-5. Both cables are not supplied by ELCO®.

All motors are designed and manufactured in compliance with the Low Voltage 2006/95/EC and Electromagnetic Compatibility 2004/108/EC Directives with reference to EN 55014-1, EN 61000-3-2, EN 61000-3-3, as well as the Machinery Directive 2006/42/EC and in accordance with the Standards CENELEC EN 60335-1, EN 60529, EN 60034-1.

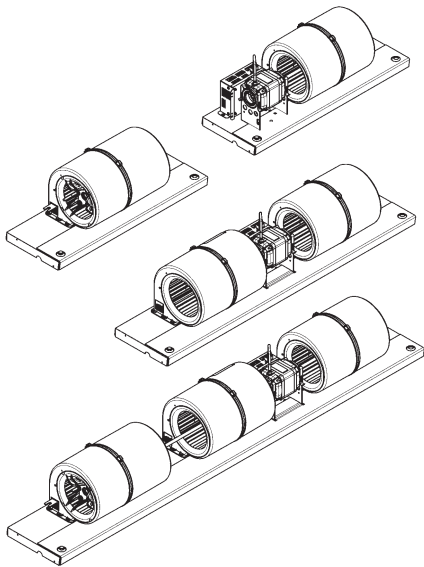
Unless otherwise stated, motors are rated with insulation class B, protection degree IP 40 and are therefore suitable to operate in an indoor dust free environment and at -20°C to +50°C temperature range.

Motors are supplied with pre-lubricated maintenance-free sleeve bearings.



PLASTIC STANDARD
FAN DECK ECM MOTOR

Ø 146 x 146
Ø 146 x 186
Ø 146 x 226
Ø 146 x 260



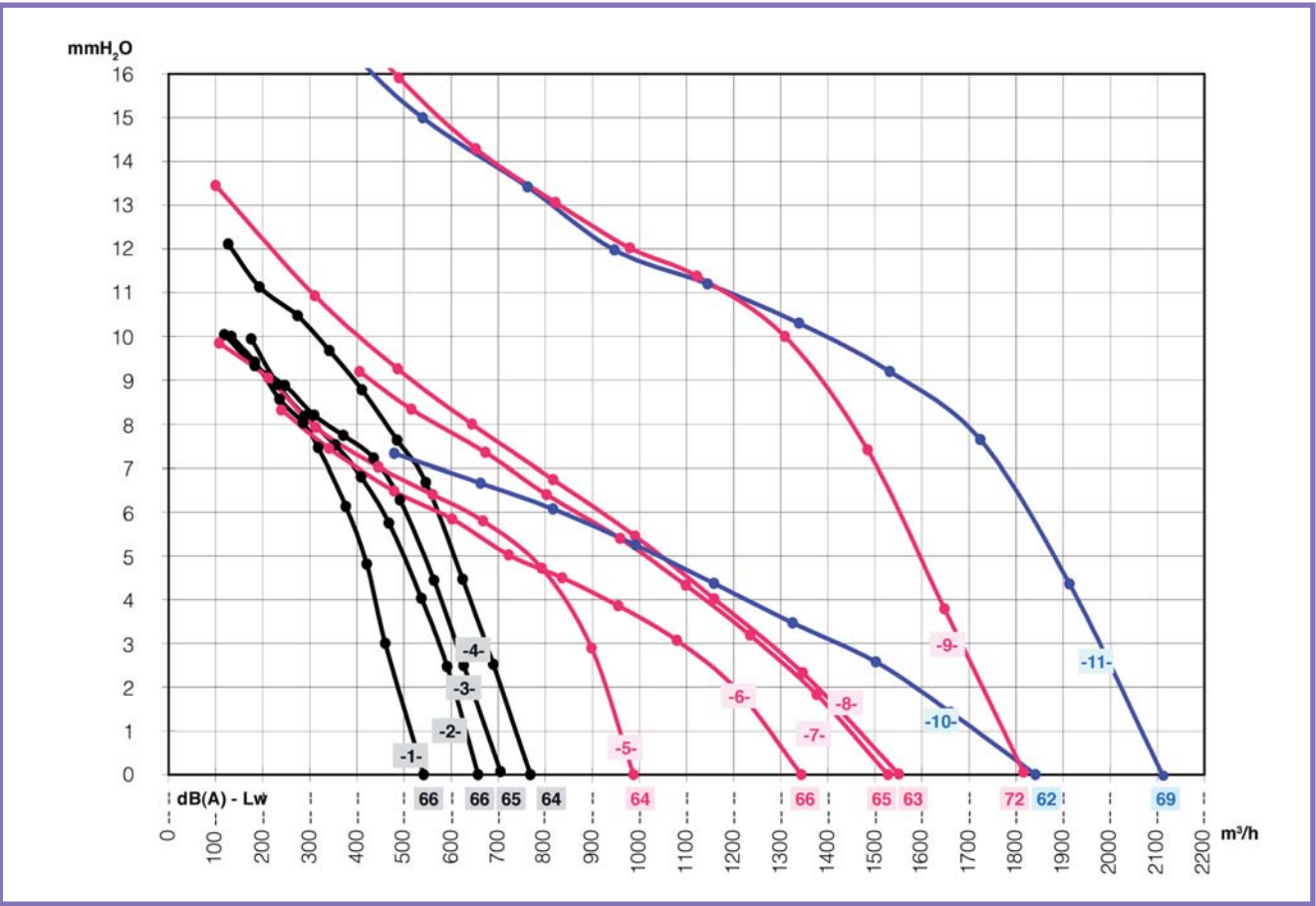
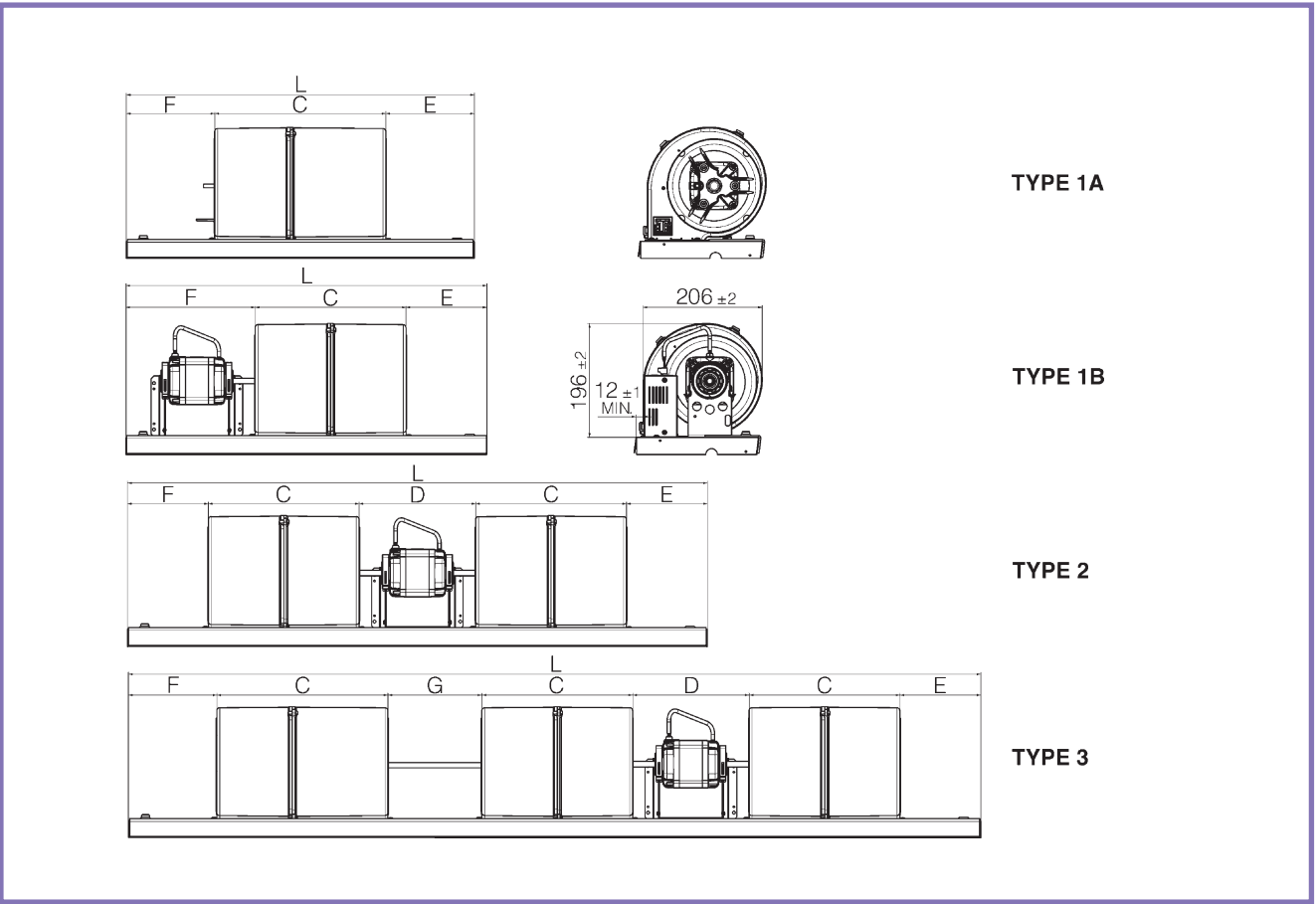
Fan dimensions

Type	Ø 146 x 146				Ø 146 x 186				Ø 146 x 226				Ø 146 x 260			
	1A	1B	2	3	1A	1B	2	3	1A	1B	2	3	1A	1B	2	3
L	346	446	713	1120	383	483	807	1230	420	520	881	1342	455	555	951	1447
C	186	186	186	186	223	223	223	223	260	260	260	260	295	295	295	295
D	-	-	181	261	-	-	201	261	-	-	201	261	-	-	201	261
E	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80
F	80	180	80	80	80	180	80	80	80	180	80	80	80	180	80	80
G	-	-	-	141	-	-	-	141	-	-	-	141	-	-	-	141



Performance table plastic fan deck Ø 146 mm with ECM Motors (Electronic Commutated Motor)

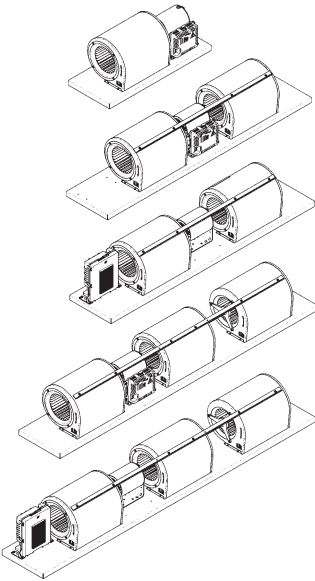
ID	Air Flow m³/h max - min	Blower				Pressure Pa max	Wnom W	dB(A)	Test PFDe	Web n°	ErP	Type
		n.	Ø mm	L mm	Type							
1	550 - 100	1	146	146	ABS	150	40	66	245	493	Free	1A
2	650 - 150	1	146	186	ABS	150	40	66	246	494	Free	1A
3	700 - 200	1	146	226	ABS	110	40	65	209	495	Free	1A
4	750 - 200	1	146	260	ABS	130	40	64	208	230	Free	1A
5	1000 - 250	2	146	146	ABS	110	80	64	223	496	Free	2
6	1350 - 300	2	146	186	ABS	110	80	66	216	497	Free	2
7	1550 - 400	2	146	226	ABS	140	80	65	212	498	Free	2
8	1550 - 400	2	146	260	ABS	120	80	63	221	499	Free	2
9	1800 - 500	2	146	260	ABS	230	120	72	458	481	Free	2
10	1850 - 500	3	146	226	ABS	100	80	63	240	500	Free	3
11	2100 - 500	3	146	226	ABS	210	120	69	446	501	Free	3





PLASTIC STANDARD
FAN DECK ECM MOTOR

Ø 157 x 240



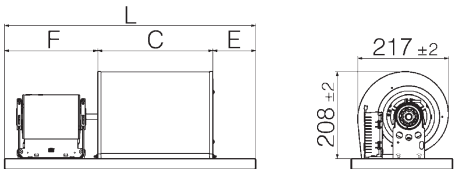
Fan dimensions

Type	Ø 157 x 240				
	1	2A	2B	3A	3B
L	595	990	1110	1445	1565
C	275	275	275	275	275
D	-	240	240	280	280
E	100	100	220	100	220
F	220	100	100	100	100
G	-	-	-	140	140

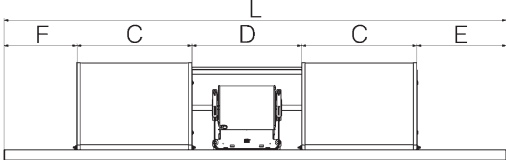


Performance table plastic fan deck Ø 157 mm with ECM Motors (Electronic Commutated Motor)

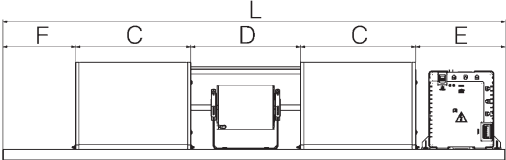
ID	Air Flow m³/h max - min	Blower				Pressure Pa max	Motor Type	Software	Wnom W	dB(A)	Test PFDe	Web n°	ErP	Type
		n.	Ø mm	L mm	Type									
1	950 - 250	1	157	240	ABS	120	ECM 082	Std.	80	64	544	589	Free	1
2	1050 - 250	1	157	240	ABS	180	ECM 082	Pot. 1	80	67	545	590	Free	1
3	1000 - 250	1	157	240	ABS	300	ECM 082	Pot. 2	80	65	546	591	Free	1
4	1300 - 350	1	157	240	ABS	260	ECM 102C	SAM	120	74	474	532	Free	1
5	1650 - 530	2	157	240	ABS	100	ECM 082	Std.	80	64	596	631	Free	2A
6	1500 - 530	2	157	240	ABS	170	ECM 082	Pot. 1	80	61	598	632	Free	2A
7	1450 - 530	2	157	240	ABS	290	ECM 082	Pot. 2	80	60	599	633	Free	2A
8	1950 - 550	2	157	240	ABS	230	ECM 102C	SAM	120	71	463	514	2015	2A
9	2200 - 650	2	157	240	ABS	310	ECM 102C	SAL	170	74	517	620	2015	2A
10	2750 - 750	2	157	240	ABS	210	ECM 102C	CYP-LS	300	80	475	533	2015	2B
11	1900 - 600	3	157	240	ABS	120	ECM 082	Std.	80	64	360	227	Free	3A
12	1650 - 600	3	157	240	ABS	170	ECM 082	Pot. 1	80	60	361	228	Free	3A
13	1600 - 500	3	157	240	ABS	310	ECM 082	Pot. 2	80	58	362	229	Free	3A
14	2400 - 650	3	157	240	ABS	220	ECM 102C	SAM	120	67	520	621	2015	3A
15	2450 - 800	3	157	240	ABS	260	ECM 102C	SAL	170	71	542	586	2015	3A
16	3300 - 800	3	157	240	ABS	200	ECM 102C	CYP-LS	300	75	506	534	2015	3B



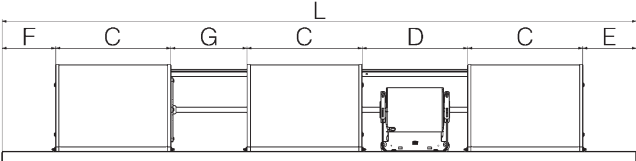
TYPE 1



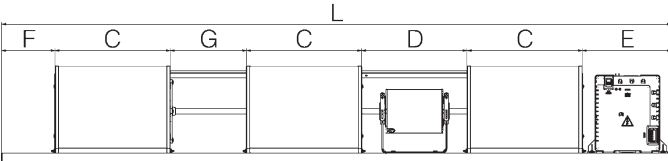
TYPE 2A



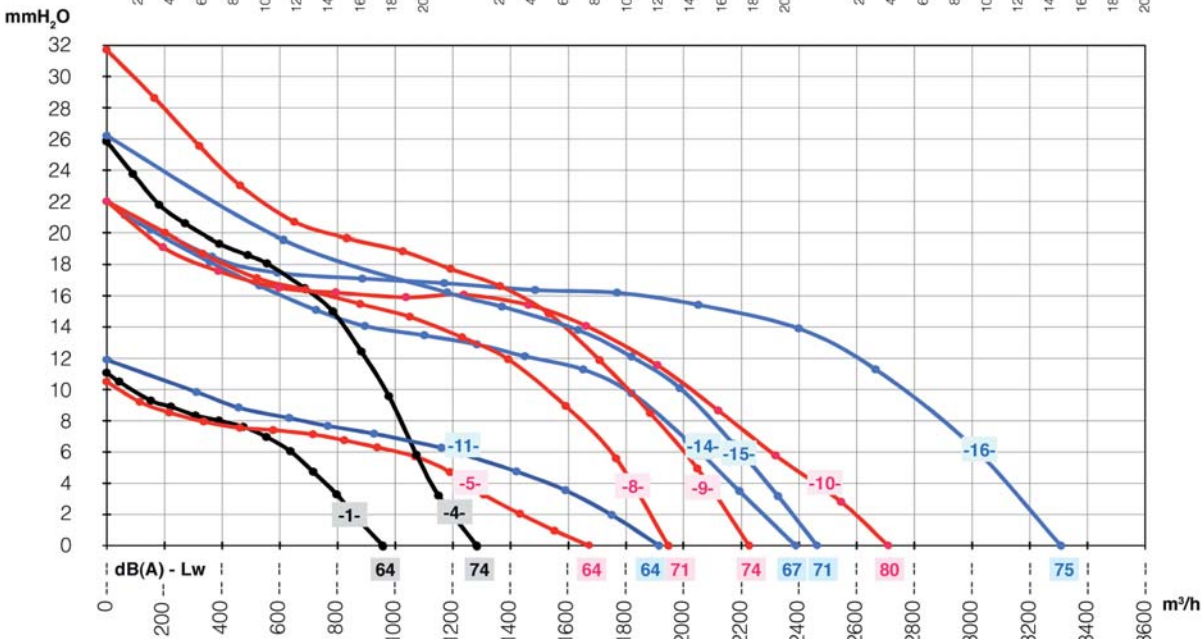
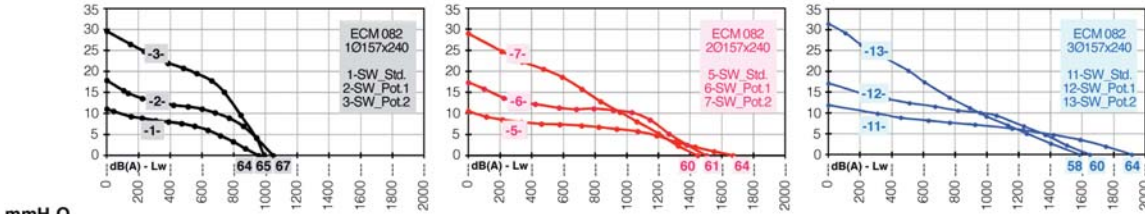
TYPE 2B



TYPE 3A



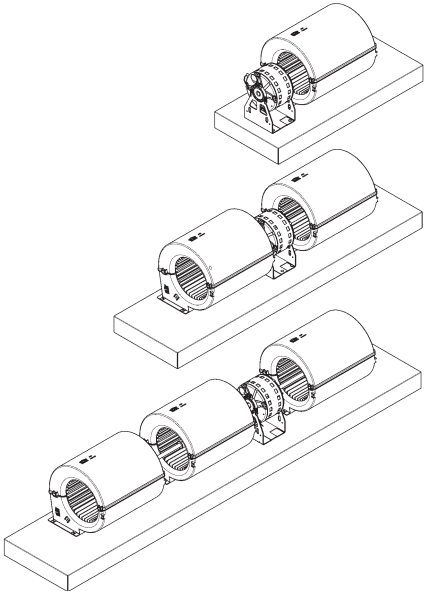
TYPE 3B





PLASTIC STANDARD
FAN DECK ECM MOTOR

Ø 180 x 240



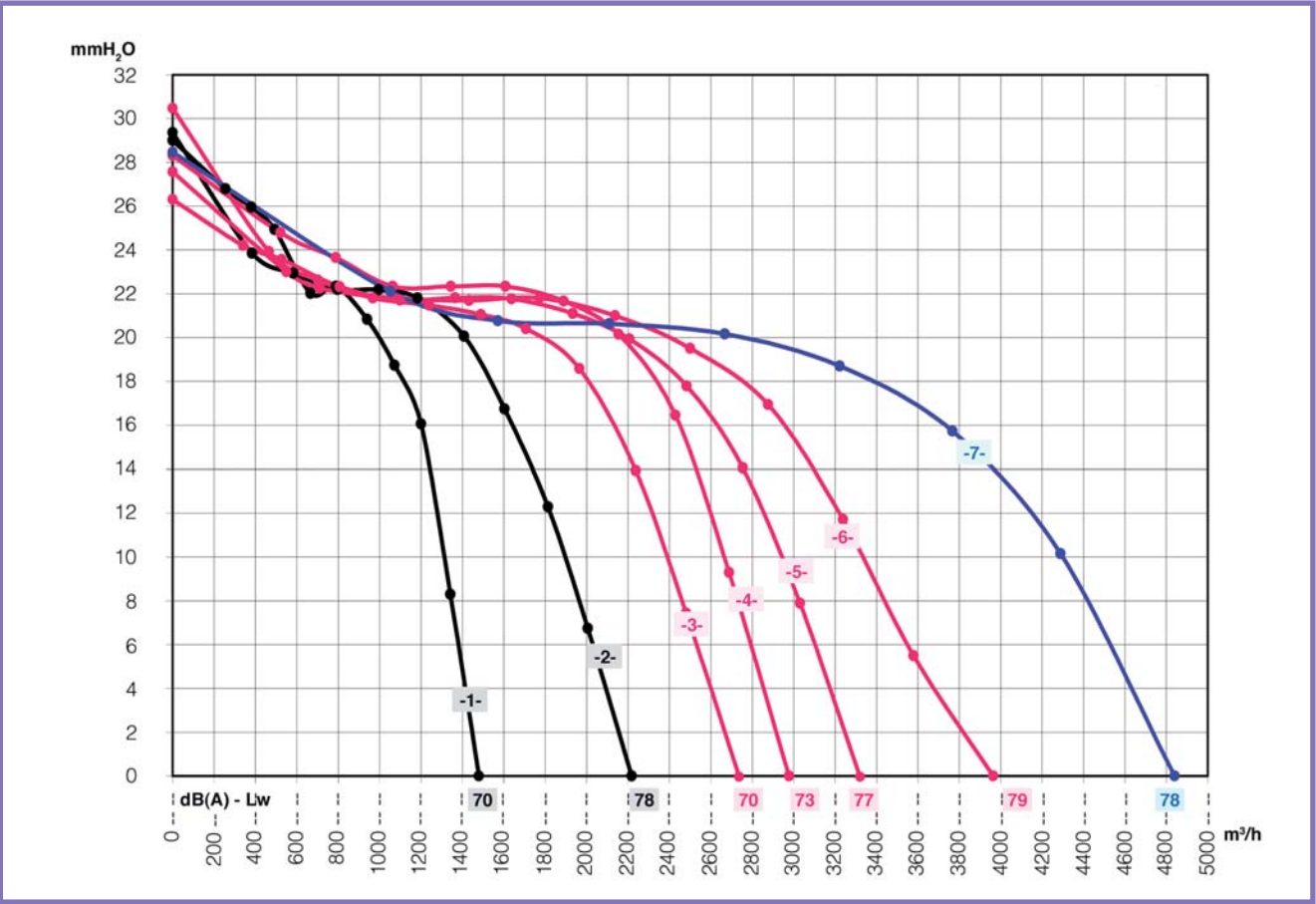
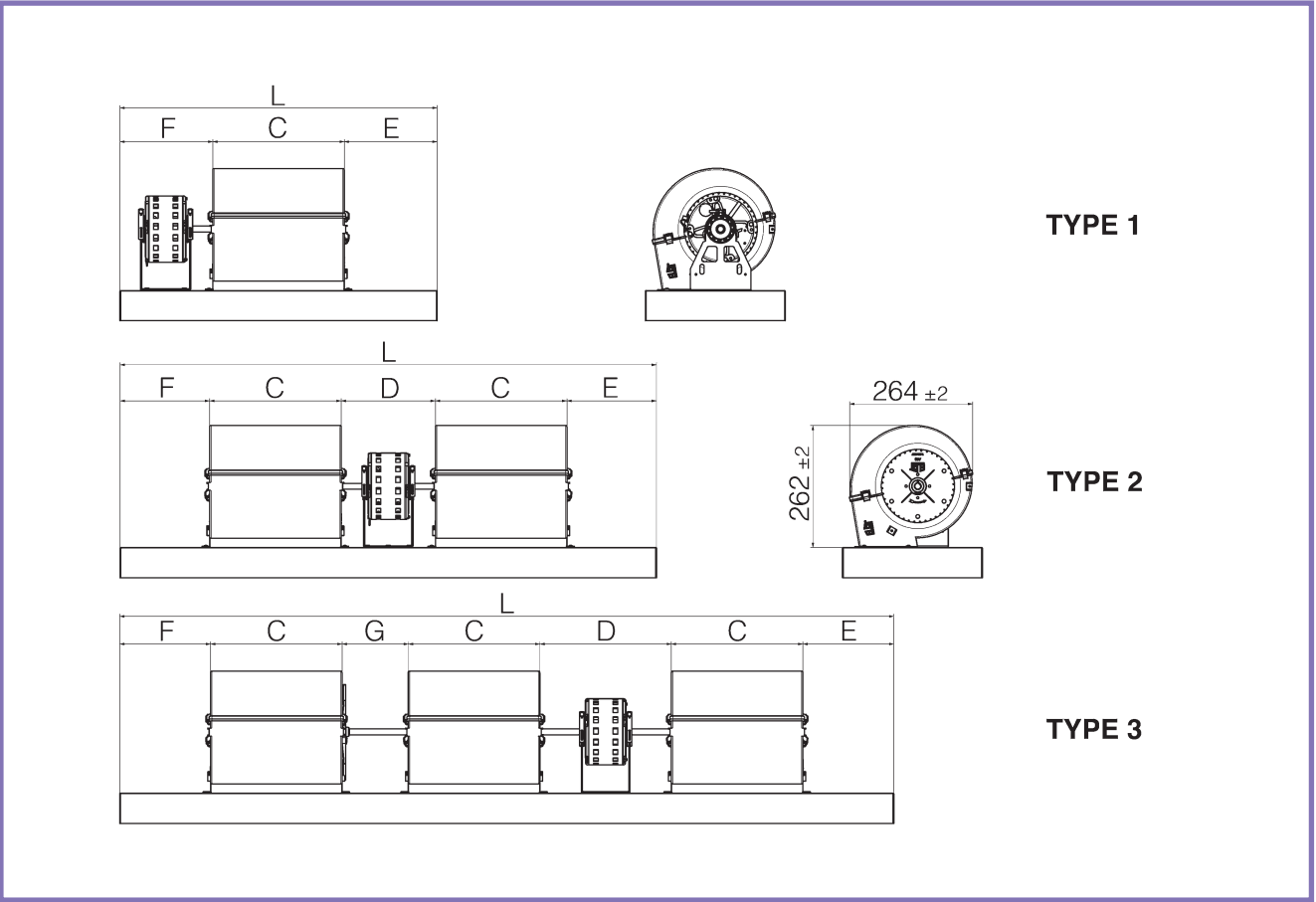
Fan dimensions

Type	Ø 180 x 240		
	1	2	3
L	582	1006	1470
C	282	282	282
D	-	242	282
E	100	100	100
F	200	100	100
G	-	-	142



Performance table plastic fan deck Ø 180 mm with ECM Motors (Electronic Commutated Motor)

ID	Air Flow m³/h max - min	Blower				Pressure Pa max	Wnom W	dB(A)	Test PFD	Web n°	ErP	Type
		n.	Ø mm	L mm	Type							
1	1500 - 400	1	180	240	ABS	290	120	70	443	502	2015	1
2	2200 - 800	1	180	240	ABS	290	245	78	1665	200	2015	1
3	2750 - 1100	2	180	240	ABS	300	150	69	2161	238	2015	2
4	3000 - 1200	2	180	240	ABS	300	175	73	2012	296	2015	2
5	3300 - 900	2	180	240	ABS	300	245	77	1963	503	2015	2
6	3800 - 1000	2	180	240	ABS	300	370	79	1759	504	2015	2
7	4800 - 1650	3	180	240	ABS	300	370	78	2011	505	2015	3

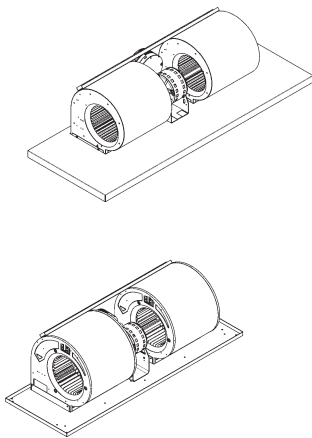




PLASTIC STANDARD
FAN DECK ECM MOTOR

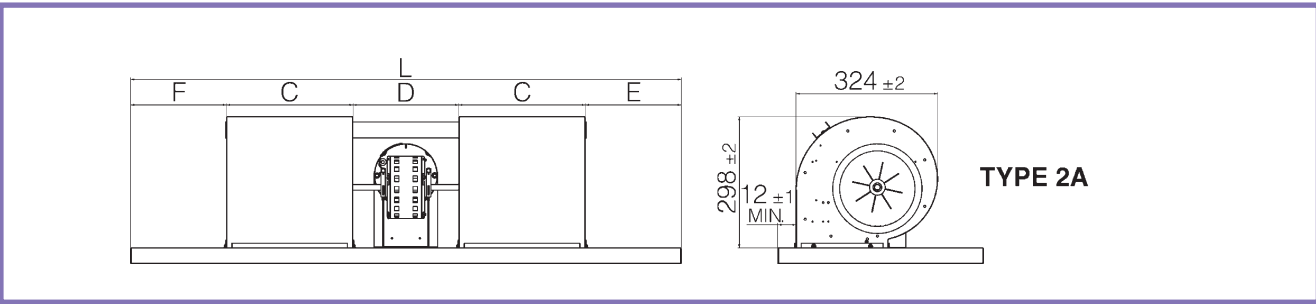
Ø 208 x 180
Ø 208 x 240

Ø 250 x 180
Ø 250 x 254



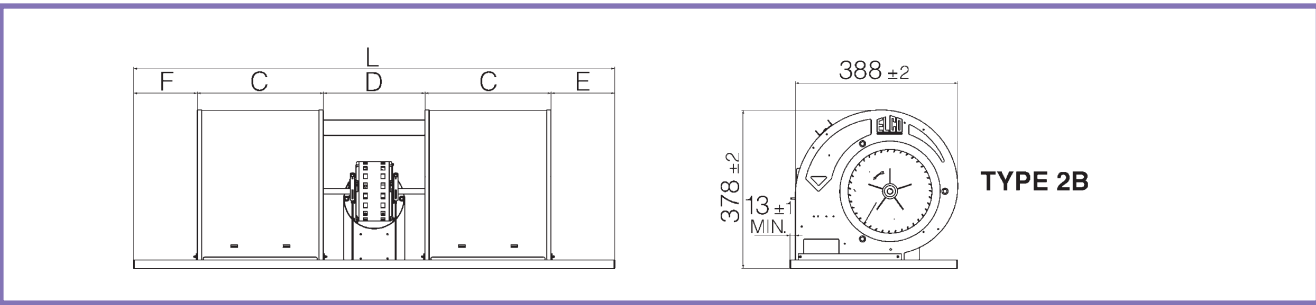
Fan dimensions Ø 208

	Ø 208 x 180	Ø 208 x 240
L	942	1060
C	230	289
D	242	242
E	120	120
F	120	120



Fan dimensions Ø 250

	Ø 250 x 180	Ø 250 x 254
L	982	1124
C	230	301
D	242	242
E	140	140
F	140	140

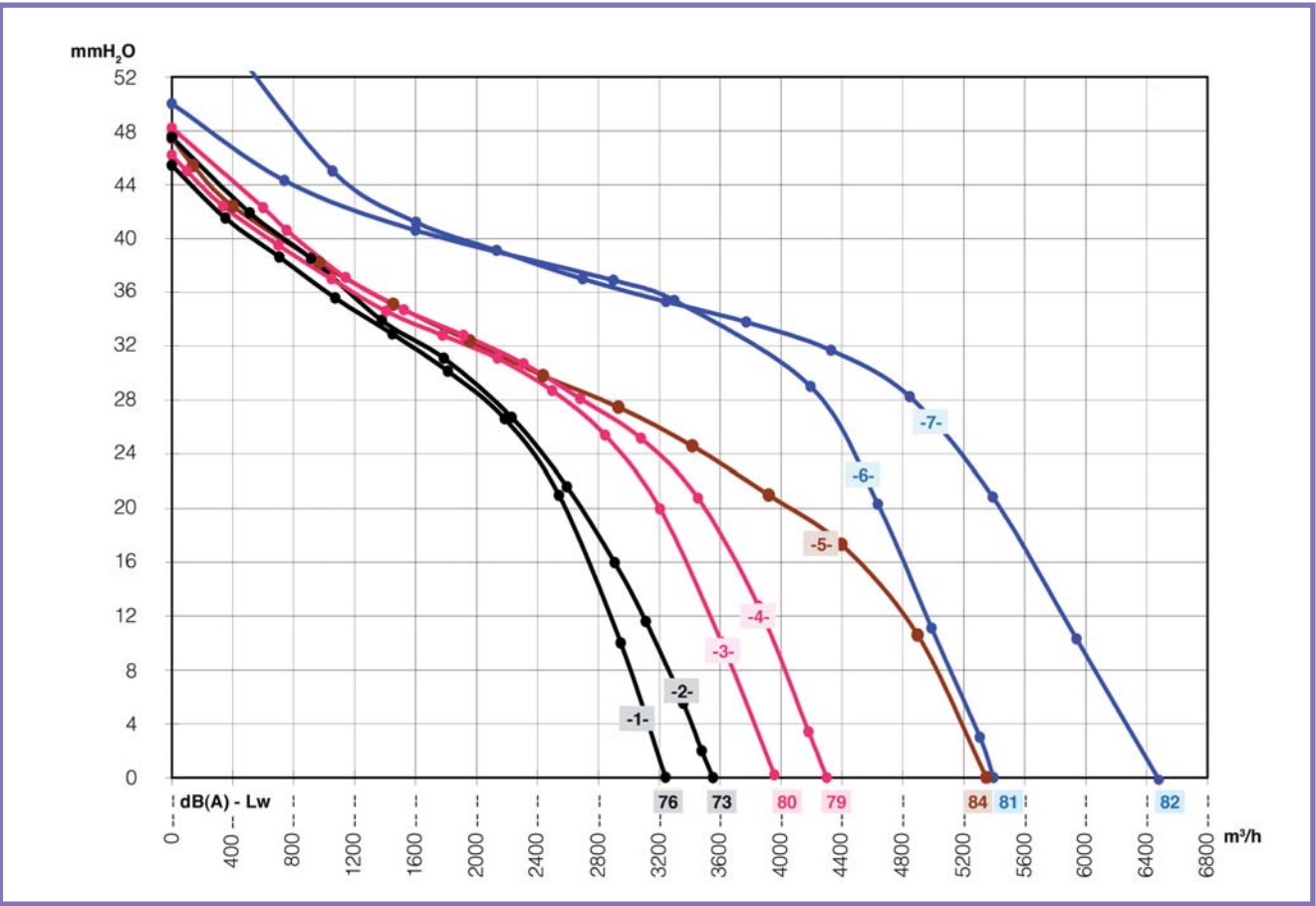


Performance table plastic fan deck Ø 208 mm with ECM Motors (Electronic Commutated Motor)

ID	Air Flow m³/h max - min	Blower				Pressure Pa max	Wnom HP	dB(A)	Test PFD	Web n°	ErP	Type
		n.	Ø mm	L mm	Type							
1	3250 - 850	2	208	180	ABS	450	1/3	76	1701	506	2015	2A
2	3500 - 1000	2	208	240	ABS	480	1/3	73	1761	508	2015	2A
3	3950 - 850	2	208	180	ABS	450	1/2	80	1712	507	2015	2A
4	4300 - 1050	2	208	240	ABS	480	1/2	79	1763	509	2015	2A
5	5400 - 1100	2	208	240	ABS	480	3/4	84	1764	510	2015	2A

Performance table plastic fan deck Ø 250 mm with ECM Motors (Electronic Commutated Motor)

ID	Air Flow m³/h max - min	Blower				Pressure Pa max	Wnom HP	dB(A)	Test PFD	Web n°	ErP	Type
		n.	Ø mm	L mm	Type							
6	5400 - 1200	2	250	254	ABS	500	3/4	81	1769	511	2015	2B
7	6450 - 2100	2	250	254	ABS	500	1	82	1856	512	2015	2B





CO
Fan Decks
ErP 2015



IL PRODOTTO

CO FAN DECKS

La gamma dei Gruppi Ventilanti per fan-coil è denominata CO ed è realizzata utilizzando una vasta scelta di motori accoppiati a sub-assiemi coclea-ventola scelti in funzione sia delle portate d'aria richieste, sia degli ingombri.

I gruppi coclea-ventola sono a loro volta realizzati utilizzando dimensioni modulari (si faccia riferimento alla tabella riportata in seguito) e possono essere quindi fissati, unitamente al motore, secondo uno schema da 1 a 3 coclee, su piastre di supporto, o bacinelle raccolta condensa (si faccia riferimento alla tabella riportata in seguito), progettate su richiesta del cliente.

Nelle pagine seguenti sono evidenziate le caratteristiche elettriche/dimensionali di alcuni modelli esemplificativi della gamma di prodotto che coprono una fascia di portate da 100 m³/h a 6.000 m³/h.

Tutti i modelli evidenziati sono rispondenti alla nuova Regolamentazione Europea n° 327/2011 del 30 Marzo 2011 "Introduzione alla Direttiva 2009/125/EC del Parlamento Europeo e del Consiglio" con riguardo alla richiesta di eco design per ventilatori accoppiati a motori con potenza elettrica assorbita compresa tra 125W e 500 kW.

Le coclee sono realizzate in materiale termoplastico, che unisce ad un'elevata stabilità nel tempo e resistenza ad agenti aggressivi, anche una migliore risposta al contenimento della rumorosità generata dai flussi d'aria, oppure in lamiera zincata.

Le ventole, a doppia aspirazione, sono in materiale termoplastico, in alluminio o in lamiera zincata e sono tutte bilanciate, sia staticamente che dinamicamente, dopo il montaggio.

I motori utilizzati sono del tipo monofase a condensatore, pluri-velocità, ottenute operando sui singoli avvolgimenti del motore o mediante impiego di autotrasformatore. Questa ultima è la soluzione che viene in genere privilegiata, in quanto permette sia di ottenere un miglior rendimento, sia di affinare la scelta delle velocità.

THE PRODUCT

CO FAN DECKS

The fan-deck range for fan-coil units, called CO, is realized using a wide selection of motors coupled with sub-assembled housings/impellers that are chosen in line with required air flows and dimensions.

The housing/impeller assemblies are designed in accordance with customers' requests and designed in modular sizes (see table below) and can be fixed to the motor, according to a 1 to 3 modular scheme, on plates or drain pans (see table below).

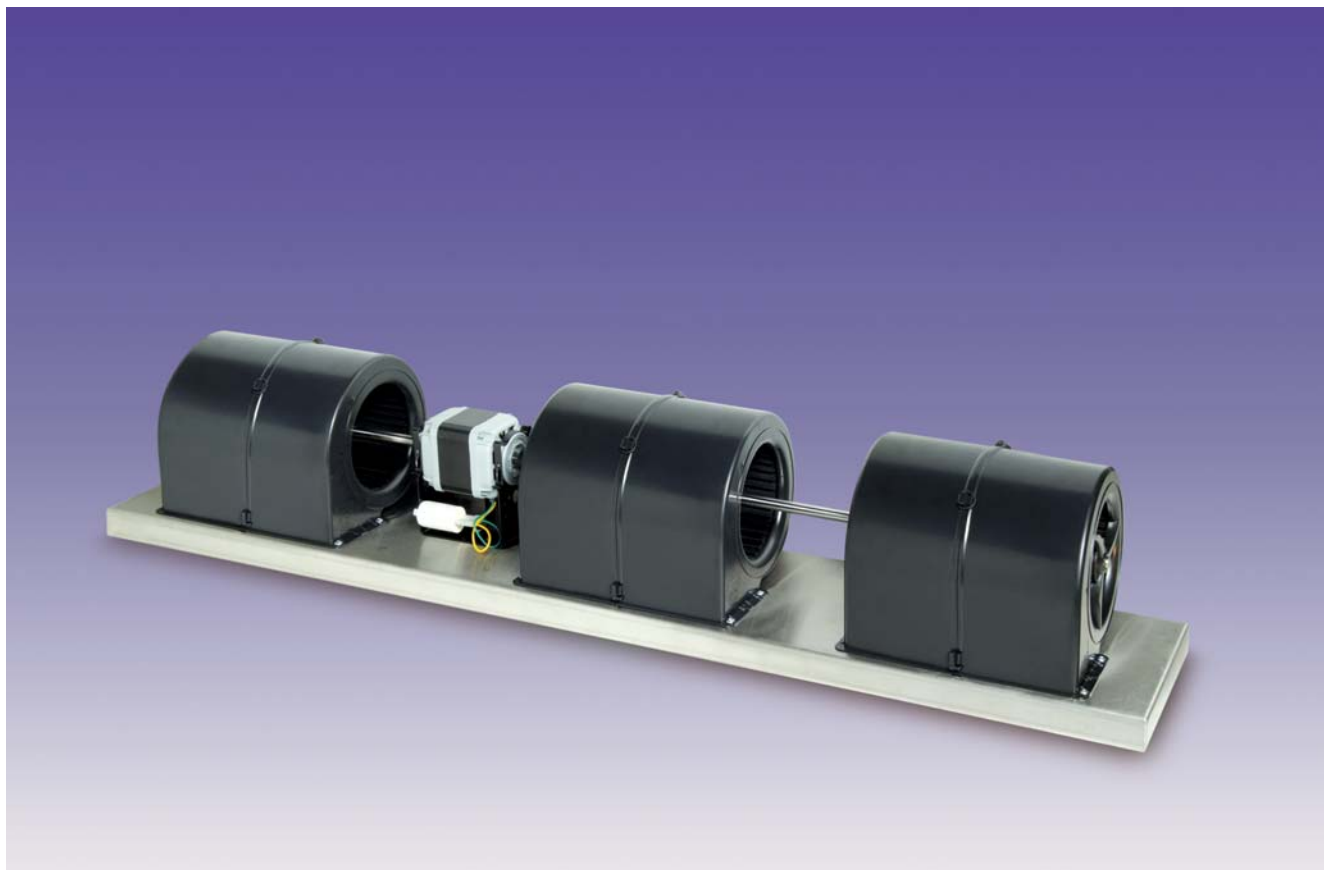
The following pages highlight the electrical/dimensional features of some sample models belonging to those products with air flows ranging from 100 m³/h to 6.000 m³/h.

All models comply with the new 30th March 2011 European Regulation n. 327/2011 "Introduction to the rule 2009/125/EC of the European Parliament and of the Council" relevant to the request of eco-design fans coupled with motors with electric absorbed powers between 125W and 500 kW.

Housings are made of thermoplastic material that combines a high durability and resistance to chemical agents with noise reduction generated by the air flow or by the galvanized sheet.

Double inlet impellers are made of thermoplastic materials, aluminium or galvanized sheet iron and are subject to static and dynamic balancing after the assembling.

Motors employed are single-phase condenser or multi-speed type obtained by operating on the single motor winding or by using an autotransformer. The latter solution is the most used since it allows a better efficiency and gives better speed options.



IL PRODOTTO

Tutti i motori ELCO® sono progettati e costruiti in ottemperanza alle Direttive di Bassa Tensione 2006/95/EC e di Compatibilità Elettromagnetica 2004/108/EC con riferimento alla EN 55014-1, EN 61000-3-2, EN 61000-3-3, così come alla Direttiva Macchine 2006/42/EC, ed in accordo con le Norme Standard CENELEC EN 60335-1, EN 60529, EN 60034-1.

Salvo diverse indicazioni i motori hanno la classe di isolamento B, grado di protezione IP 40, sono idonei al funzionamento in ambienti a temperature comprese fra -20°C e +50°C.

Nei motori si utilizzano supporti a bronzina pre-lubrificata.

THE PRODUCT

All motors are designed and manufactured in compliance with the Low Voltage 2006/95/EC and Electromagnetic Compatibility 2004/108/EC Directives with reference to EN 55014-1, EN 61000-3-2, EN 61000-3-3, as well as the Machinery Directive 2006/42/EC and in accordance with the Standards CENELEC EN 60335-1, EN 60529, EN 60034-1.

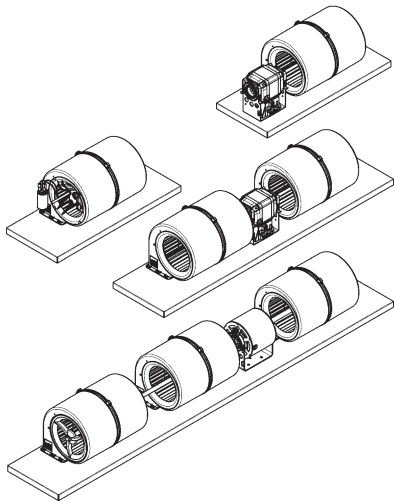
Unless otherwise stated, motors are rated with insulation class B, protection degree IP 40 and are therefore suitable to operate in an indoor dust free environment and at -20°C to +50°C temperature range.

Motors are supplied with pre-lubricated maintenance-free sleeve bearings.



PLASTIC STANDARD
FAN DECK PSC MOTOR

Ø 146 x 146
Ø 146 x 186
Ø 146 x 226
Ø 146 x 260



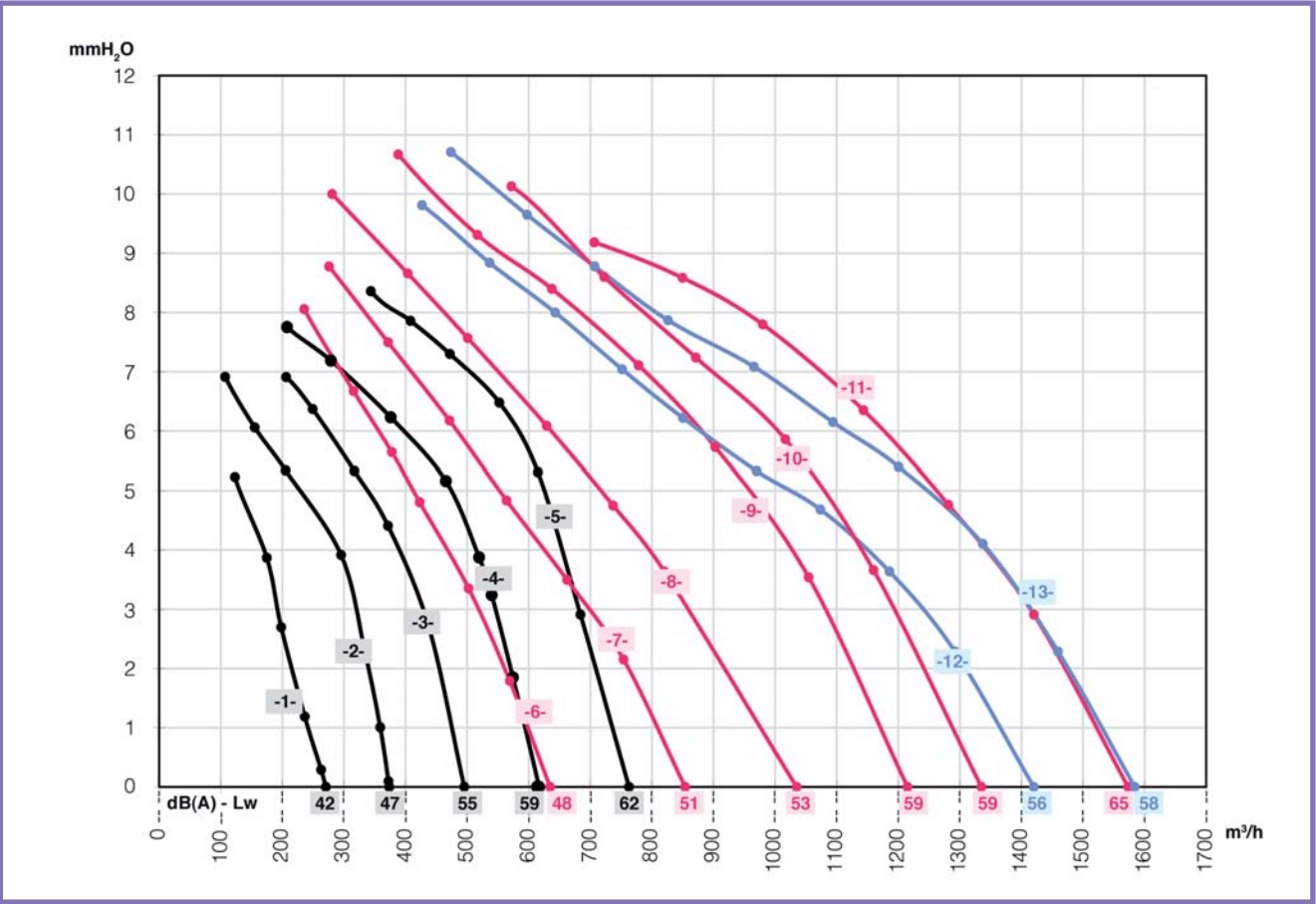
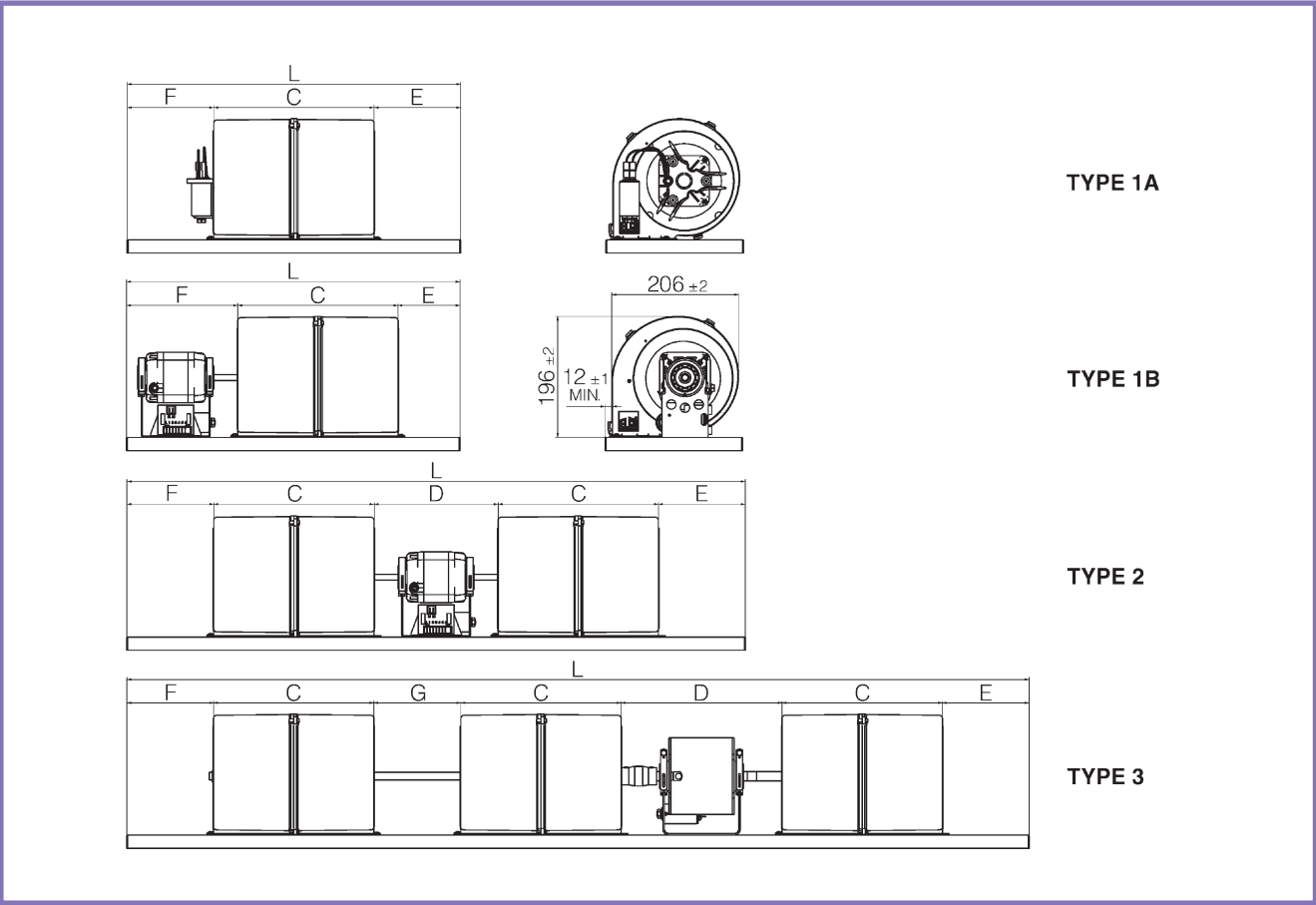
Fan dimensions

Type	Ø 146 x 146				Ø 146 x 186				Ø 146 x 226				Ø 146 x 260			
	1A	1B	2	3	1A	1B	2	3	1A	1B	2	3	1A	1B	2	3
L	346	446	713	1120	383	483	807	1230	420	520	881	1342	455	555	951	1447
C	186	186	186	186	223	223	223	223	260	260	260	260	295	295	295	295
D	-	-	181	261	-	-	201	261	-	-	201	261	-	-	201	261
E	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80
F	80	180	80	80	80	180	80	80	80	180	80	80	80	180	80	80
G	-	-	-	141	-	-	-	141	-	-	-	141	-	-	-	141



Performance table plastic fan deck Ø 146 mm with PSC Motors

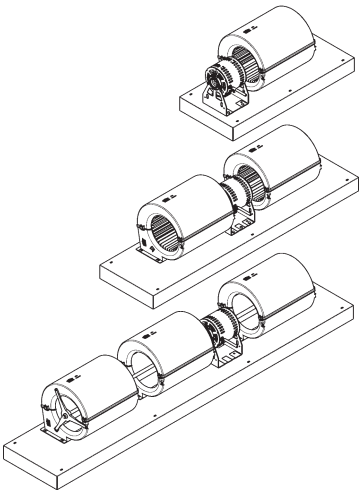
ID	Air Flow m³/h max - min	Blower				Pressure Pa	Wnom W	dB(A)	Test PFD	Web n°	ErP	Type
		n.	Ø mm	L mm	Type							
1	300 - 110	1	146	186	ABS	100	5	42	1330	425	Free	1A
2	370 - 150	1	146	226	ABS	90	10	47	1302	357	Free	1A
3	480 - 220	1	146	226	ABS	100	15	55	1265	226	Free	1A
4	600 - 250	1	146	260	ABS	100	25	59	1295	356	Free	1A
5	750 - 350	1	146	226	ABS	130	40	62	1448	169	Free	1B
6	600 - 300	2	146	146	ABS	120	20	48	1583	426	Free	2
7	850 - 400	2	146	186	ABS	120	20	51	1267	203	Free	2
8	1000 - 450	2	146	226	ABS	130	35	53	1190	427	Free	2
9	1150 - 500	2	146	226	ABS	130	45	59	1268	304	Free	2
10	1250 - 500	2	146	260	ABS	140	55	59	1269	118	Free	2
11	1600 - 700	2	146	260	ABS	140	60	65	1638	66	Free	2
12	1400 - 600	3	146	226	ABS	130	55	56	1501	82	Free	3
13	1550 - 650	3	146	226	ABS	140	65	58	1494	431	Free	3





PLASTIC STANDARD
FAN DECK PSC MOTOR

Ø 180 x 240



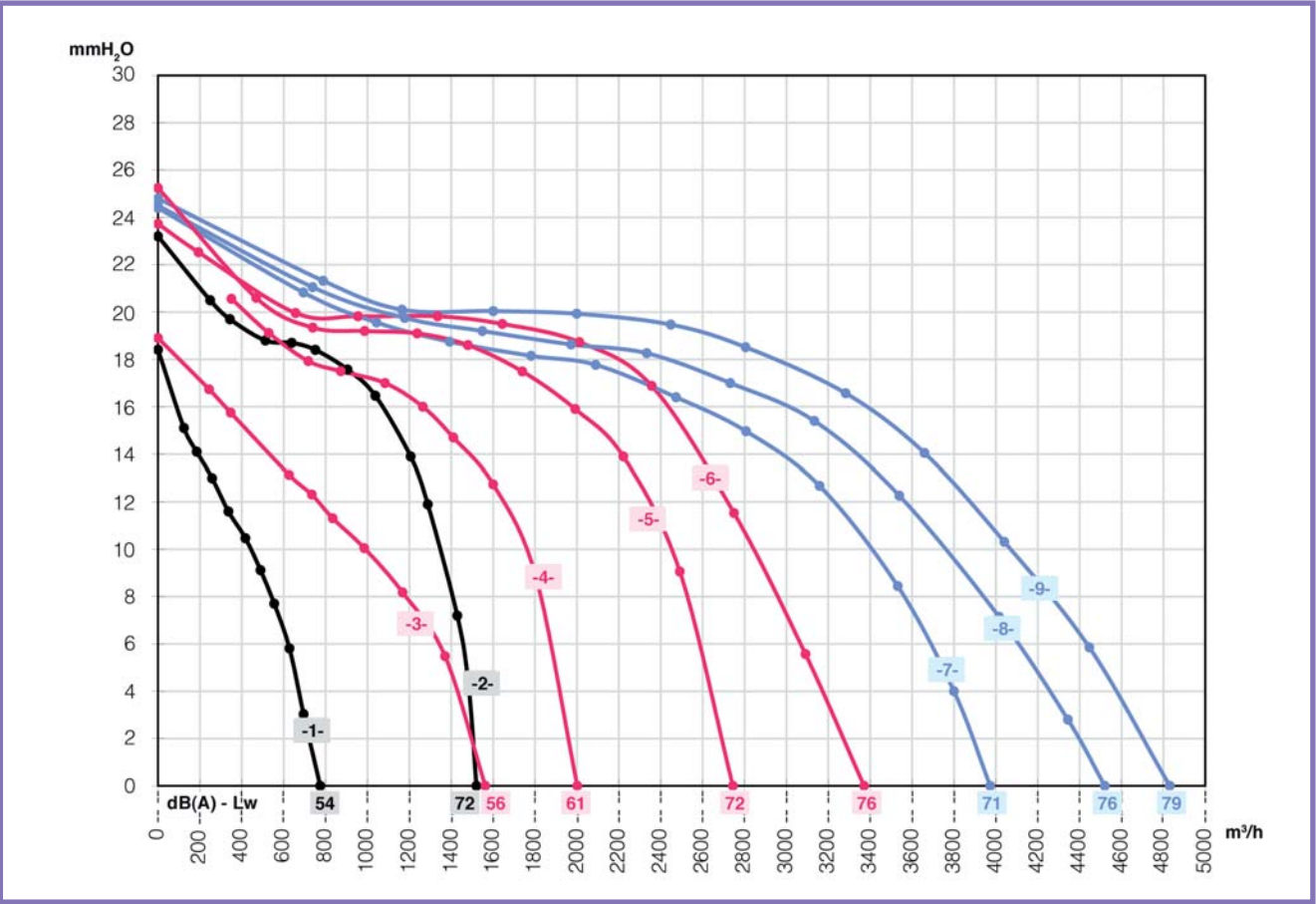
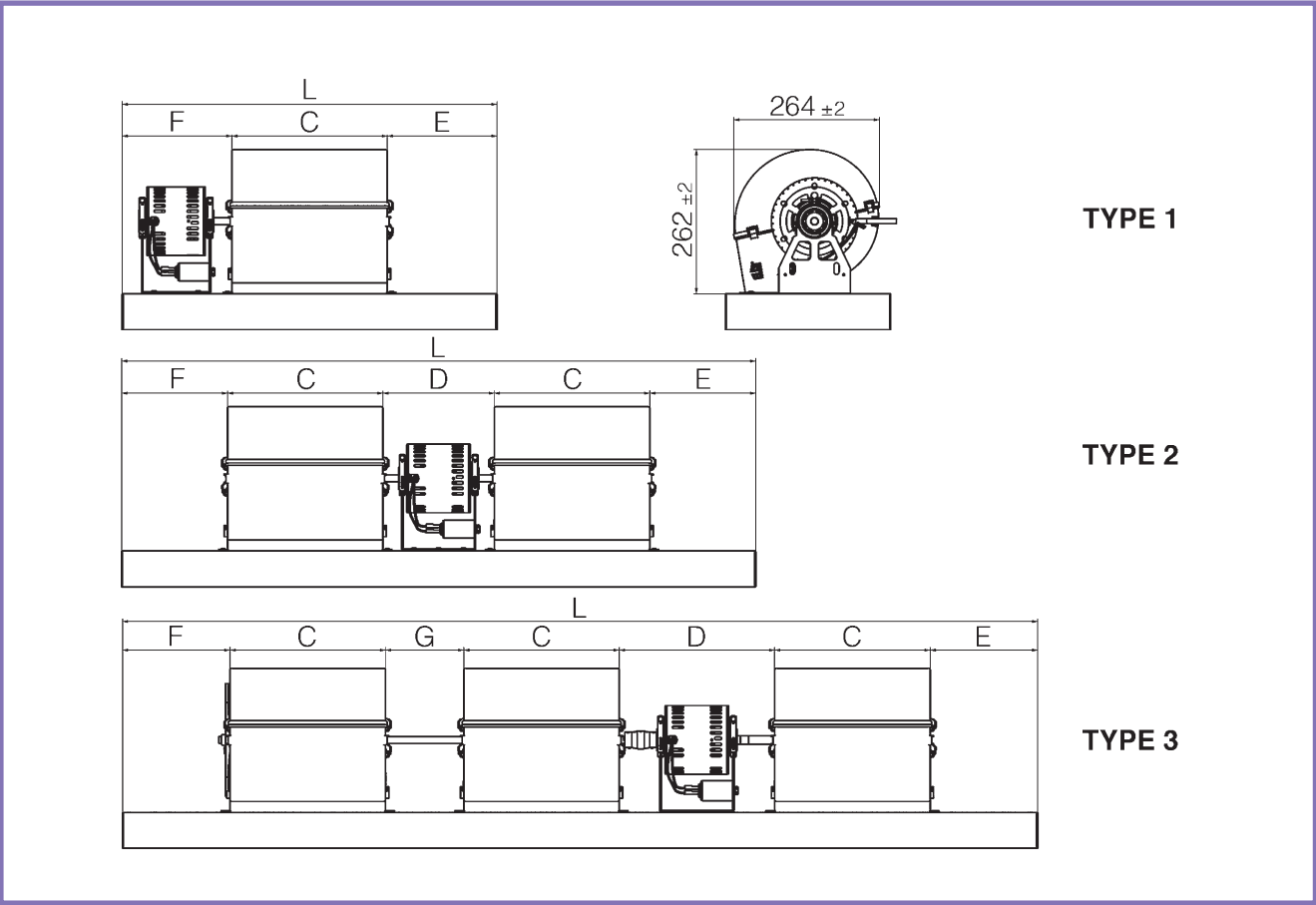
Fan dimensions

Type	Ø 180 x 240		
	1	2	3
L	582	1006	1470
C	282	282	282
D	-	242	282
E	100	100	100
F	200	100	100
G	-	-	142



Performance table plastic fan deck Ø 180 mm with PSC Motors

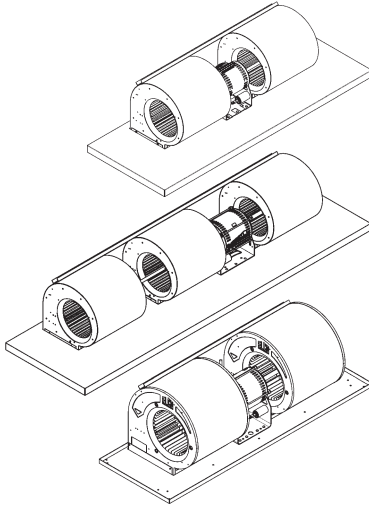
ID	Air Flow m³/h max - min	Blower				Pressure Pa	Wnom W	dB(A)	Test PFD	Web n°	ErP	Type
		n.	Ø mm	L mm	Type							
1	780 - 300	1	180	240	ABS	180	30	53.5	2223	253	Free	1
2	1520 - 750	1	180	240	ABS	230	105	71.5	2164	243	2015	1
3	1550 - 1150	2	180	240	ABS	190	50	56.0	1205	172	Free	2
4	2000 - 1000	2	180	240	ABS	240	105	61.4	2124	242	2015	2
5	2750 - 1150	2	180	240	ABS	250	200	72.1	2282	323	2015	2
6	3350 - 1000	2	180	240	ABS	240	300	75.8	2260	328	2015	2
7	3900 - 2250	3	180	240	ABS	250	270	70.6	2159	251	2015	3
8	4600 - 2300	3	180	240	ABS	250	365	76.3	2288	320	2015	3
9	4850 - 2800	3	180	240	ABS	250	430	78.6	2286	322	2015	3





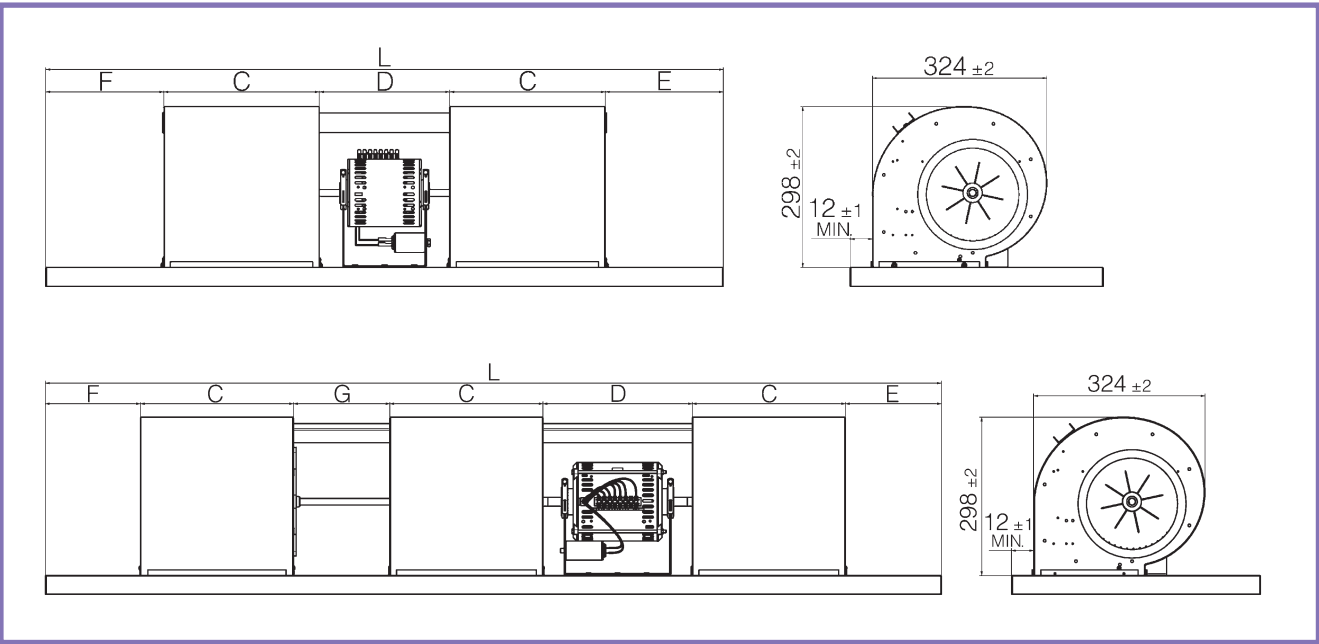
PLASTIC STANDARD
FAN DECK PSC MOTOR

Ø 208 x 180
Ø 208 x 240
Ø 250 x 180
Ø 250 x 254



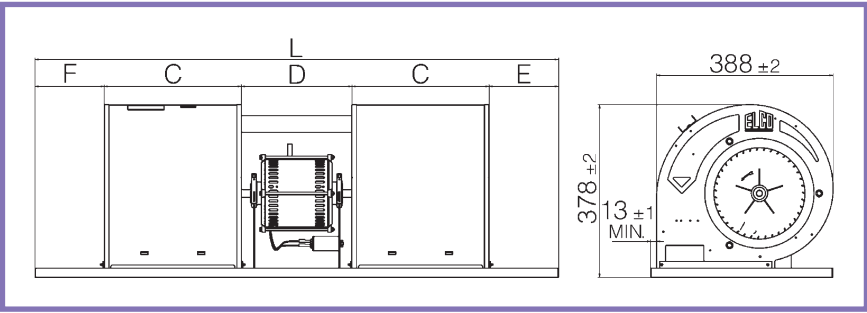
Fan dimensions Ø 208

	2 x Ø 208 x 180	2 x Ø 208 x 240	3 x Ø 208 x 240
L	942	1070	1585
C	230	295	295
D	242	240	280
E	120	120	120
F	120	120	120
G	-	-	180



Fan dimensions Ø 250

	Ø 250 x 180	Ø 250 x 254
L	982	1124
C	230	301
D	242	242
E	140	140
F	140	140

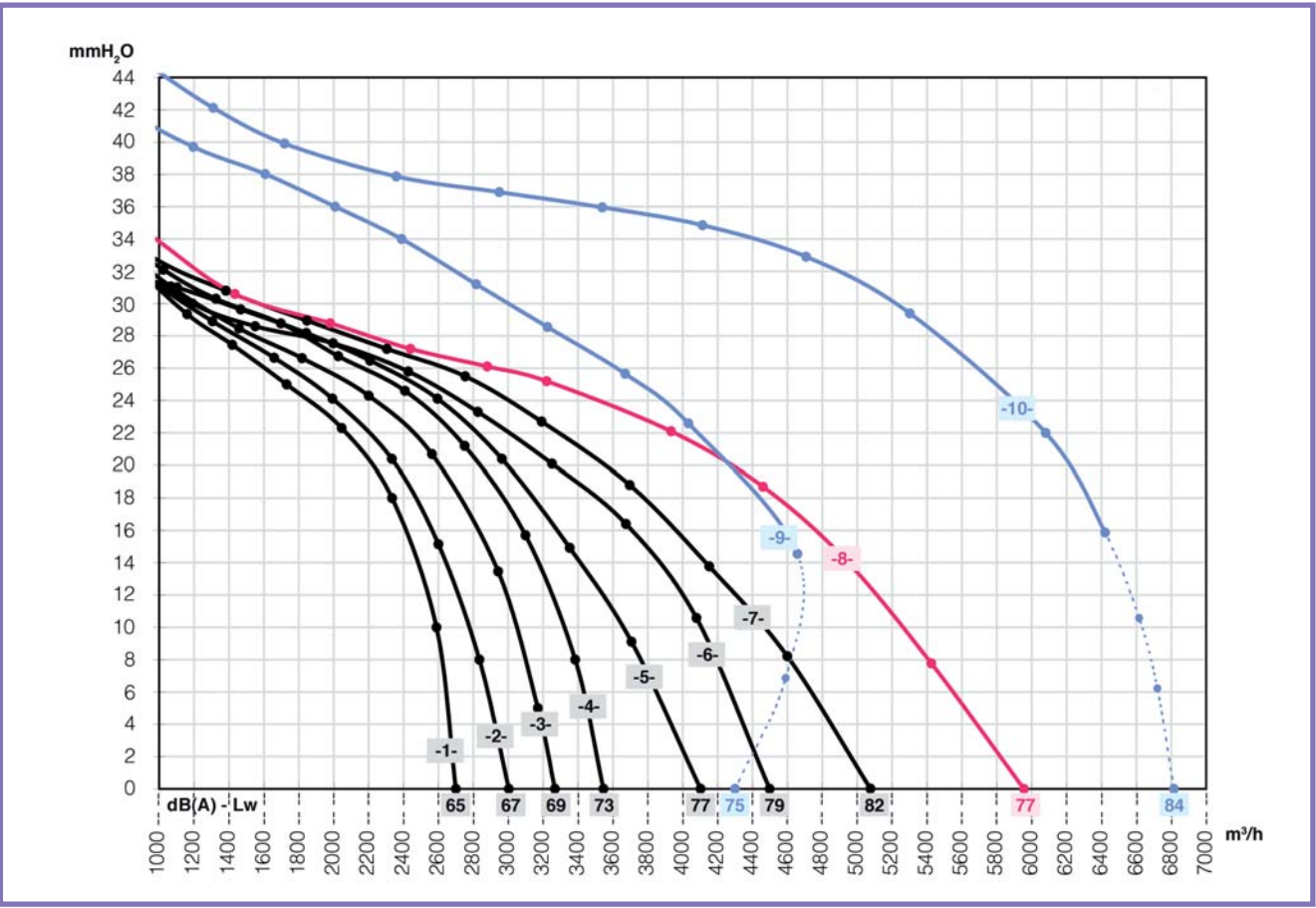


Performance table plastic fan deck Ø 208 mm with PSC Motors

ID	Air Flow m³/h max - min	Blower				Pressure Pa	Wnom W	dB(A)	Test PFD	Web n°	ErP	Type
		n.	Ø mm	L mm	Type							
1	2700 - 1800	2	208	240	ABS	420	245	65	2079	265	2015	2A
2	3000 - 1950	2	208	240	ABS	420	260	67	2076	266	2015	2A
3	3250 - 2150	2	208	240	ABS	430	280	69	2077	267	2015	2A
4	3450 - 2400	2	208	240	ABS	430	300	73	2078	268	2015	2A
5	4100 - 3000	2	208	240	ABS	360	340	78	2121	248	2015	2A
6	4500 - 2400	2	208	240	ABS	410	440	78	2114	264	2015	2A
7	5050 - 3050	2	208	240	ABS	400	510	82	2113	261	2015	2A
8	5950 - 3500	3	208	240	ABS	425	480	77	2149	254	2015	3A

Performance table plastic fan deck Ø 250 mm with PSC Motors

ID	Air Flow m³/h max - min	Blower				Pressure Pa	Wnom W	dB(A)	Test PFD	Web n°	ErP	Type
		n.	Ø mm	L mm	Type							
9	4700 - 2600	2	250	254	ABS	500	480	75	2265	315	2015	2B
10	6400 - 4700	2	250	254	ABS	530	1100	84	2197	392	2015	2B





DDe
Electronic Centrifugal Blowers
ErP 2015



IL PRODOTTO

DDe

ELECTRONIC CENTRIFUGAL BLOWERS

I ventilatori centrifughi serie DDe, con ventole pala avanti accoppiate direttamente al motore, sono la soluzione ideale per le applicazioni nel campo del riscaldamento, ventilazione e condizionamento dell'aria (HVAC).

La vasta gamma di prodotti e l'accoppiamento a motori a commutazione elettronica consentono di scegliere il ventilatore più idoneo alle vostre necessità.

La parte ventilante, composta da una coclea compatta in lamiera zincata, è stata appositamente progettata per fornire eccellenti prestazioni aerodinamiche, mentre la ventola pala avanti in lamiera o in materiale plastico è stata progettata per ottenere efficienze aerauliche elevate.

Il motore a commutazione elettronica a magneti permanenti è stato accoppiato per fornire nel loro insieme un range di prestazioni elevate con gradi di efficienza in grado di rispettare la Direttiva Europea 327/2011.

Inoltre la disponibilità di elettronica a bordo motore consente una regolazione continua della velocità del ventilatore, ottenendo quindi una vasta gamma di prestazioni con un unico tipo di gruppo ventilante.

Particolari accorgimenti nel fissaggio del motore alla coclea hanno ottenuto lo scopo di una drastica riduzione del livello di vibrazione ed un conseguente basso livello sonoro.

Il sistema di connessione, molto semplice, è composto da un cavo di potenza ed un cavo di segnale per la regolazione della velocità del tipo PWM (o 0-10 Vdc a richiesta).

Un apposito filtro opzionale consente al gruppo ventilante il rispetto della EMC (compatibilità elettromagnetica), con drastiche riduzioni delle correnti armoniche.

Questa tipologia di motori è in grado di sviluppare elevate potenze con dimensioni contenute e con prestazioni di gran lunga superiori ai motori PSC e soprattutto incontrare le richieste di mercato orientate al "risparmio energetico", oltre a contribuire in modo significativo ad una drastica riduzione di CO₂ immesso nell'atmosfera.

THE PRODUCT

DDe

ELECTRONIC CENTRIFUGAL BLOWERS

The DDe series centrifugal blowers, with forward-curved blades directly coupled with the motor, are the perfect solution for the application in the field of heating, ventilation and air conditioning (HVAC).

The wide range of products and the coupling with the electronic commutated motors allow the choice of the most suitable blower for any need.

The ventilating part, composed of a compact housing made of galvanized steel plate has been specifically designed to supply excellent aerodynamic performances, whereas the forward-curved blade made of plate or plastics has been designed to reach high aerodynamic efficiencies.

The electronic commutated motor with permanent magnet has been coupled to get, as a whole, a range of high performances with efficiency degrees able to respect the European Directive 327/2011.

Furthermore, the onboard electronic device allows a continuous control of the fan speed, getting to a wide range of performances with just only one fan deck type.

Peculiar solutions adopted for the motor fixing to the housing got the result of an effective reduction of vibration and, consequently, noise level. The connection system is very simple and is composed of a power cable and a signal cable type PWM (or 0-10 Vdc upon request) for the speed regulation.

A specific optional filter allows the fan deck to respect the EMC (electromagnetic compatibility), with severe reduction of harmonic currents.

In spite of its small dimensions, this type of motors can develop high power outputs and performances far better than PSC motors and, above all, it meets the market request concerning the "energy saving", besides contributing to a drastic CO₂ reduction of the emissions in the atmosphere.



IL PRODOTTO

Il motore, completamente chiuso in lamiera verniciata, con scheda elettronica montata a bordo, disegnato per funzionare alla tensione di rete 230/115 V e frequenze 50/60 Hz, presenta potenze che vanno da 1/3 HP a 1 HP. I motori sono accoppiati in modo opportuno ai ventilatori nel range da 9" a 12". Questo accoppiamento consente una vasta gamma di prestazioni aerauliche che coprono le richieste più esigenti.

Tutti i motori ELCO® sono progettati e costruiti in ottemperanza alle Direttive di Bassa Tensione 2006/95/EC e di Compatibilità Elettromagnetica 2004/108/EC con riferimento alla EN 55014-1, EN 61000-3-2, EN 61000-3-3, così come alla Direttiva Macchine 2006/42/EC, ed in accordo con le Norme Standard CENELEC EN 60335-1, EN 60335-2-24, EN 60335-2-89, EN 60529, EN 60034-1.

THE PRODUCT

The motor is completely closed, made of varnished steel with electronic card on board, designed to work at 230/115 V, 50/60Hz, powers from 1/3 HP to 1 HP and properly coupled with fans in the range from 9" to 12". This coupling allows a wide range of aeraulic performances in order to meet the most challenging requests.

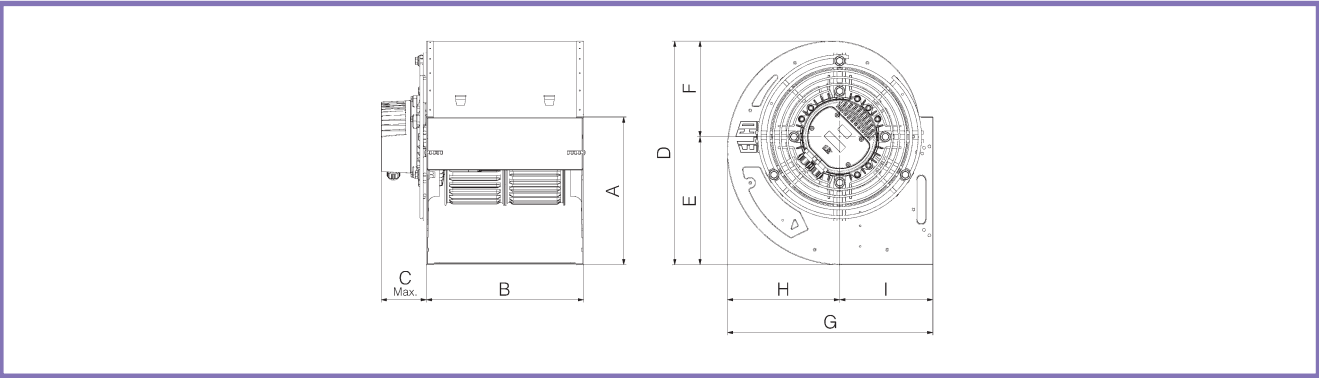
All motors are designed and manufactured in compliance with the Low Voltage 2006/95/EC and Electromagnetic Compatibility 2004/108/EC Directives with reference to EN 55014-1, EN 61000-3-2, EN 61000-3-3, as well as the Machinery Directive 2006/42/EC, and in accordance with the Standards CENELEC EN 60335-1, EN 60335-2-24, EN 60335-2-89, EN 60529, EN 60034-1.



ELECTRONIC CENTRIFUGAL BLOWERS

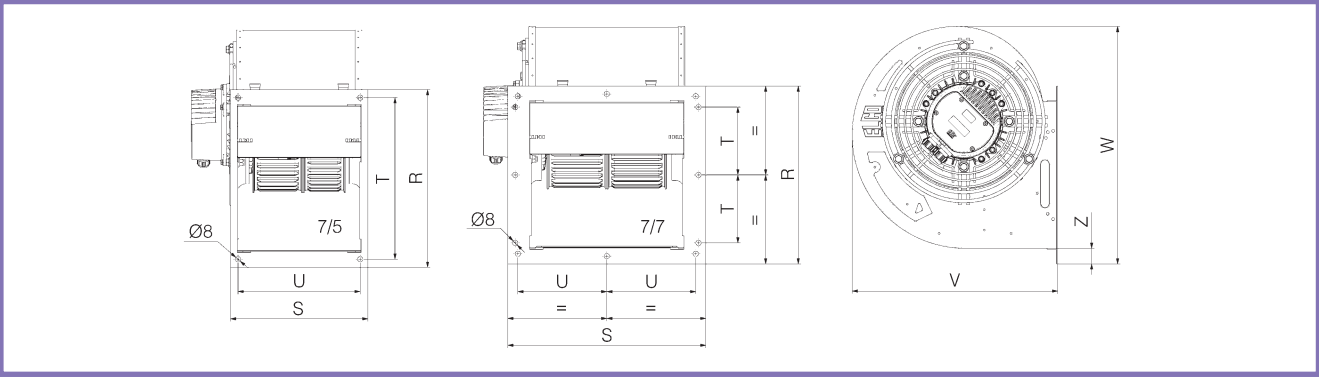
DDe

Overall dimensions without accessories



Model	A	B	C	D	E	F	G	H	I
7/5	216	185	75	327	187	140	301	164.5	136.5
7/7	216	230	75	327	187	140	301	164.5	136.5

Overall dimensions with fixing flange



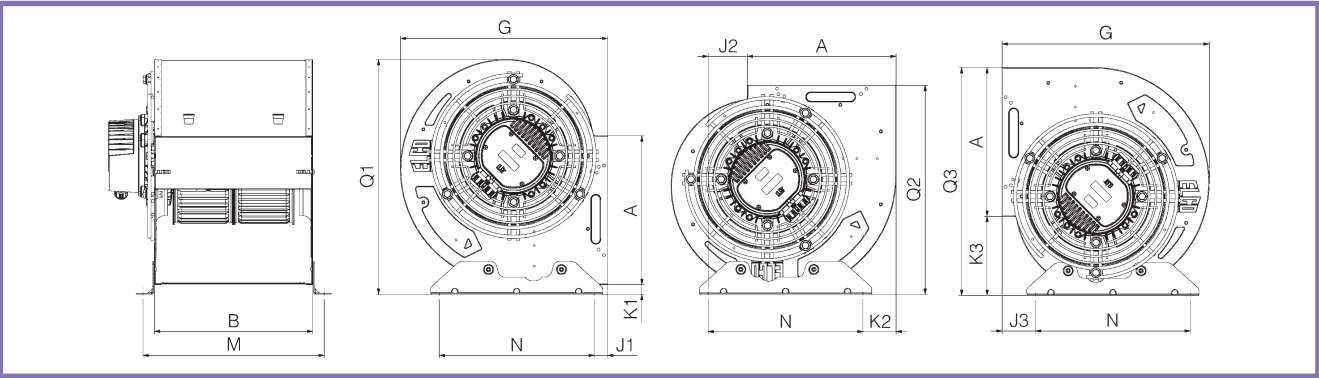
Model	R	S	T	U	V	W	Z
7/5	262	202.5	238	180	303	350	23
7/7	262	292	100/116	131/135	303	350	23



ELECTRONIC CENTRIFUGAL BLOWERS

DDe

Overall dimensions with support feet



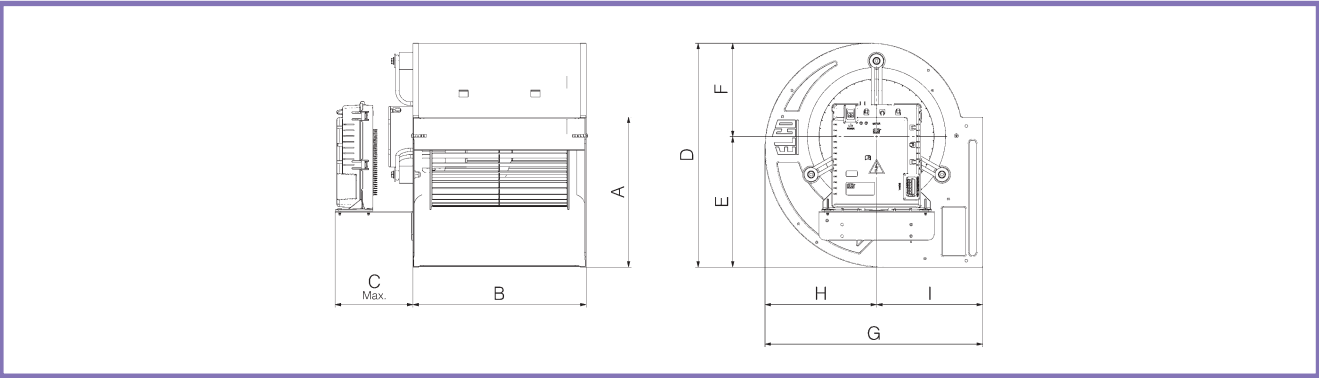
Model	A	B	G	J1	J2	J3	K1	K2	K3	M	N	Q1	Q2	Q3
7/5	216	185	301	19.5	57	48.5	14	48	115	218	225	341	303.5	331
7/7	216	230	301	19.5	57	48.5	14	48	115	263	225	341	303.5	331



ELECTRONIC CENTRIFUGAL BLOWERS

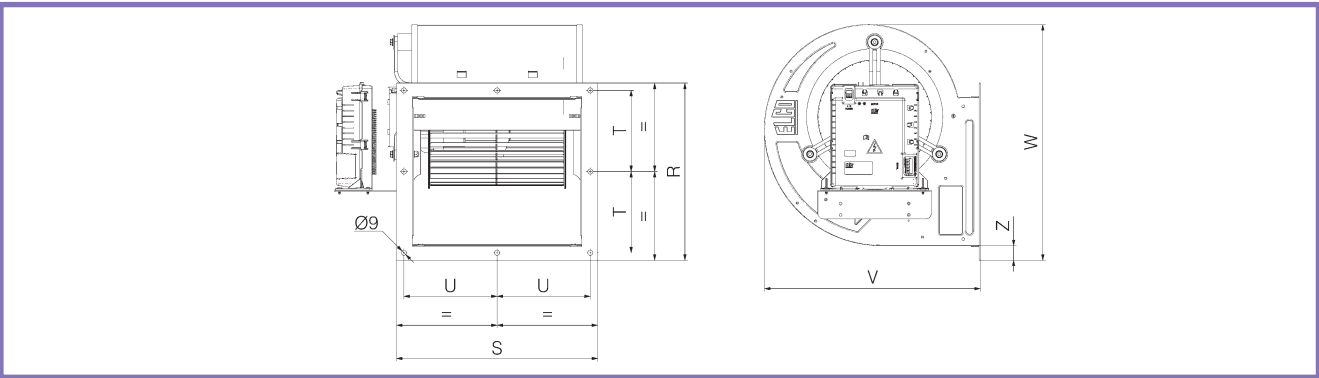
DDe

Overall dimensions without accessories



Model	A	B	C	D	E	F	G	H	I
7/9	216	285	140	327	187	140	301	164.5	136.5
9/7	260	233	140	388	226	162	378	194	184
9/9	260	301	140	388	226	162	378	194	184

Overall dimensions with fixing flange



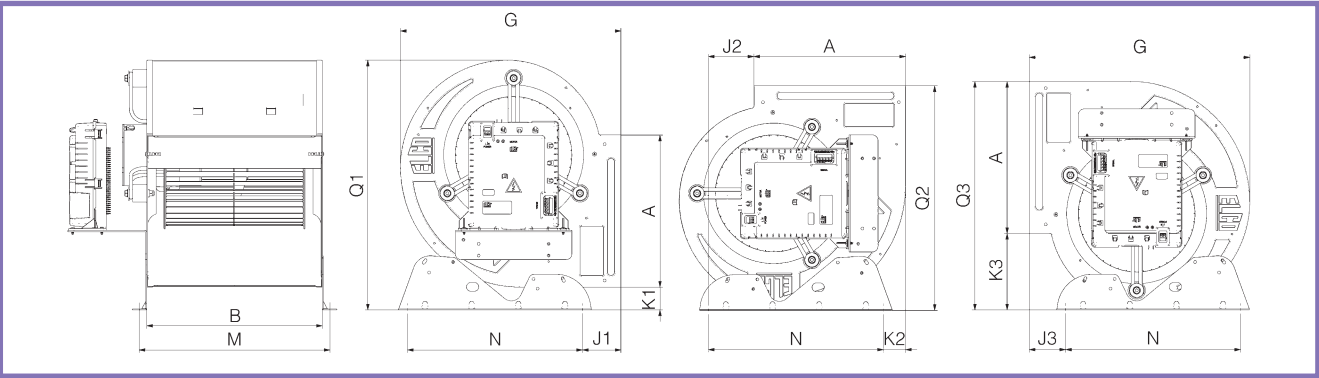
Model	R	S	T	U	V	W	Z
7/9	262	347	100	162.5	303	350	23
9/7	311	288	142.5	131	380	413.5	25.5
9/9	311	354	142.5	164	380	413.5	25.5



ELECTRONIC CENTRIFUGAL BLOWERS

DDe

Overall dimensions with support feet



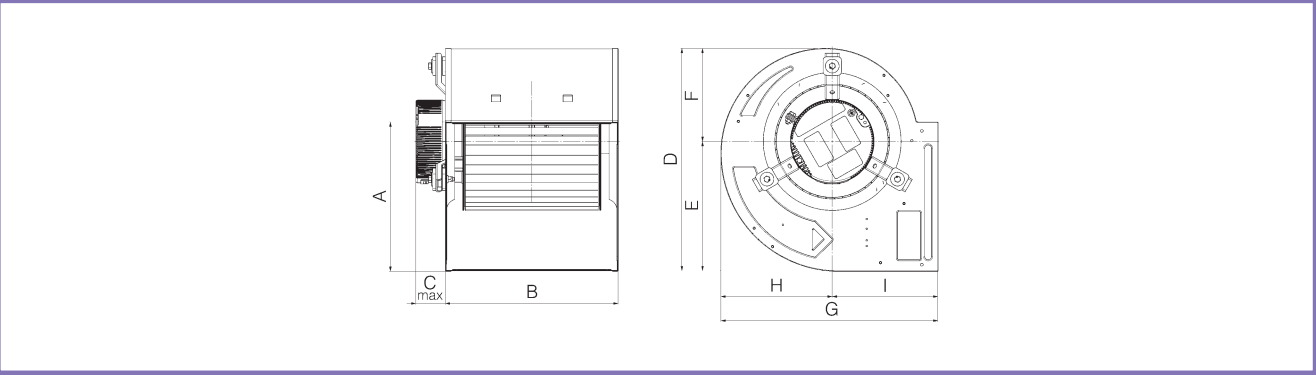
Model	A	B	G	J1	J2	J3	K1	K2	K3	M	N	Q1	Q2	Q3
7/9	216	285	301	19.5	57	48.5	14	48	115	318	225	341	303.5	331
9/7	260	233	378	66	78	62	39	38	131	259	330	427	386	391
9/9	260	301	378	66	78	62	39	38	131	327	330	427	386	391



ELECTRONIC CENTRIFUGAL BLOWERS

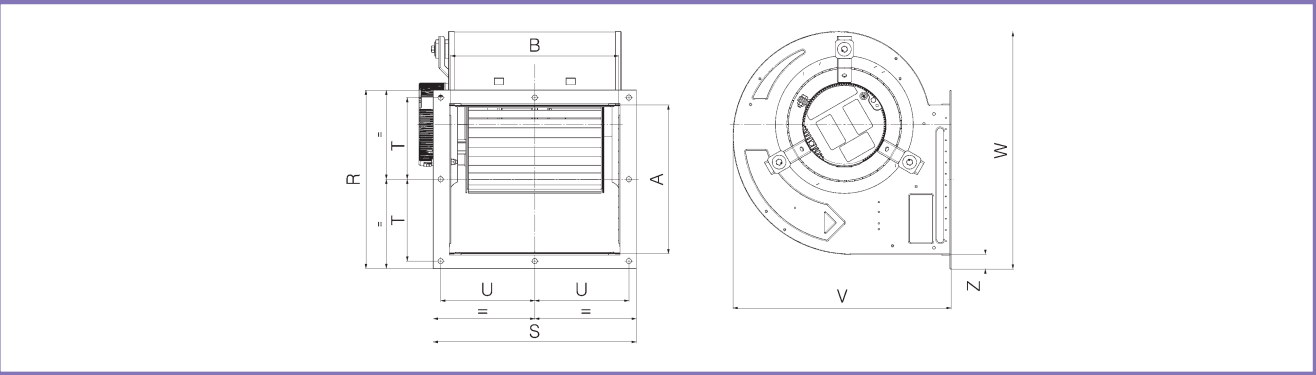
DDe

Overall dimensions without accessories



Model	A	B	C	D	E	F	G	H	I
10/8	289.6	265	60	443	249.5	193.5	424.5	221.5	203
10/10	289.6	331	60	443	249.5	193.5	424.5	221.5	203
12/9	342	309	60	521	294.5	226.5	490.5	260.5	230
12/12	342	395	60	521	294.5	226.5	490.5	260.5	230

Overall dimensions with fixing flange



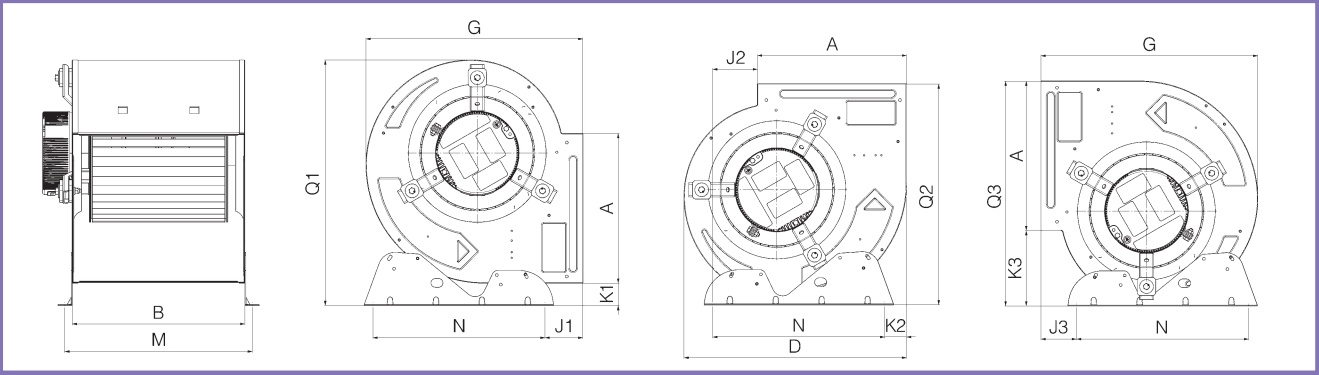
Model	R	S	T	U	V	W	Z
10/8	340	321	157	147.5	427.5	427.5	25.5
10/10	340	387	157	180.5	427.5	427.5	25.5
12/9	390	365	182	169.5	493.5	545.5	24.5
12/12	390	451	182	212.5	493.5	545.5	24.5



ELECTRONIC CENTRIFUGAL BLOWERS

DDe

Overall dimensions with support feet



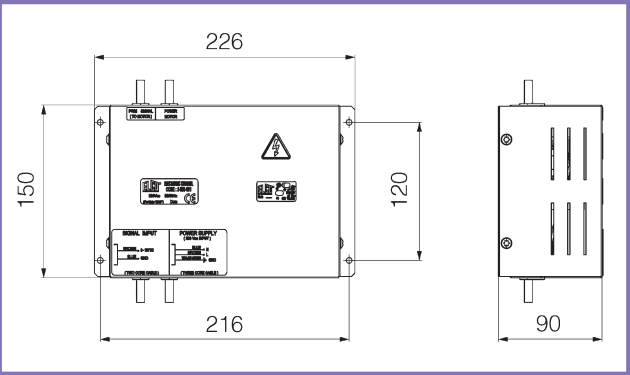
Model	A	B	G	J1	J2	J3	K1	K2	K3	M	N	Q1	Q2	Q3
10/8	289.6	265	424.5	67	92	68	38	42	158	291	340	481	430	448
10/10	289.6	331	424.5	67	92	68	38	42	158	357	340	481	430	448
12/9	342	309	490.5	69	106	69	38	40	185	335	408	559	496	527
12/12	342	395	490.5	69	106	69	38	40	185	421	408	559	496	527

PFC+EMI Filters Box PWM - 0/10V Converter



Il filtro PFC+EMI permette di garantire la compatibilità dei motori da 1/2 HP fino a 1 HP alla normativa CE oltre che consentire di controllare il motore con un segnale 0/10V.

I filtri sono conseguenza della potenza motore da controllare e si prega di riferirsi alle tabelle nelle pagine che seguono per precisi dettagli.



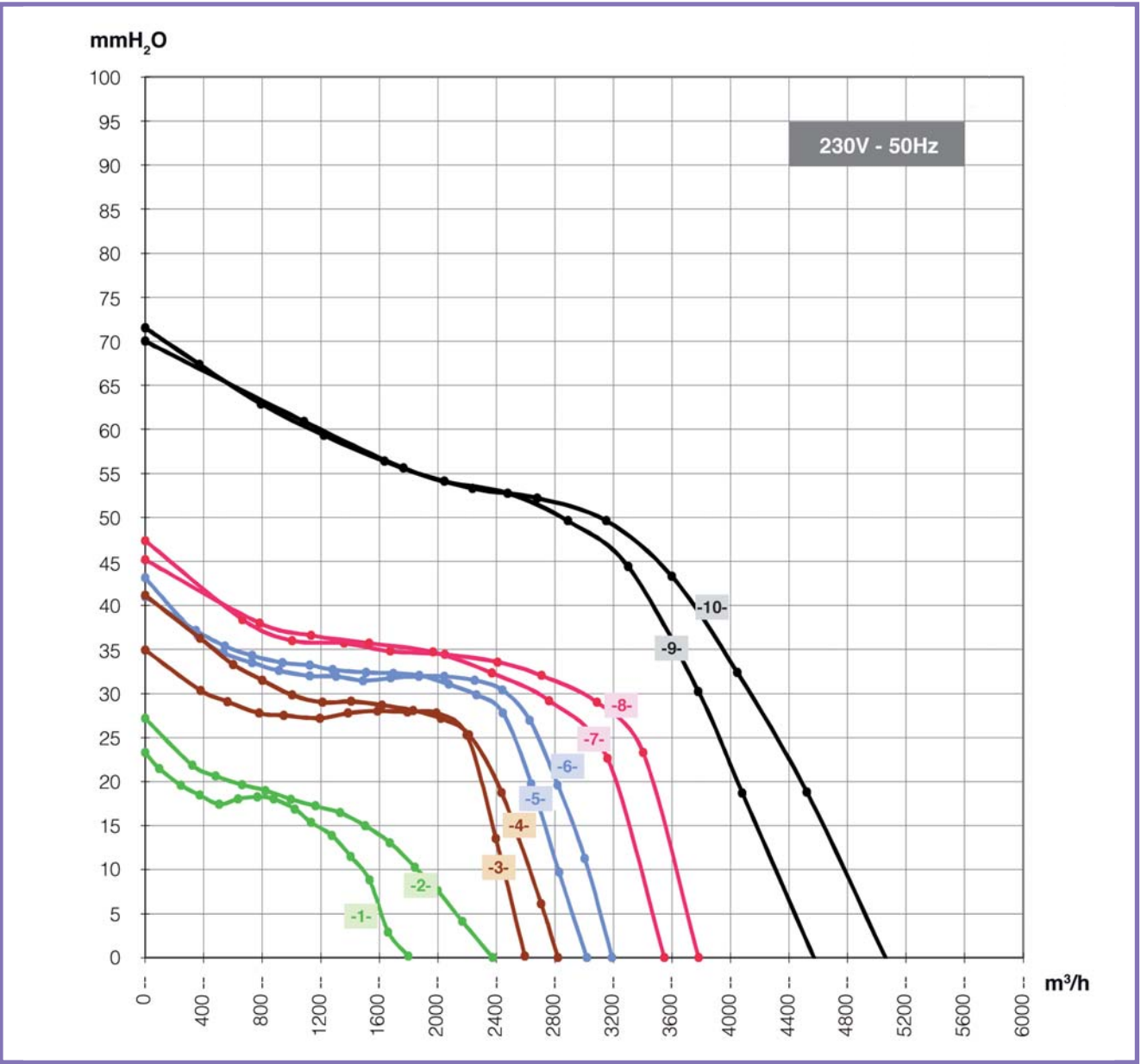
The PFC+EMI filter allows to grant the CE compatibility for all motors from 1/2 HP up to 1 HP and allow to introduce a 0/10V control for the motors.

Filters are a consequence of the motor power, please refer to the following pages for further details.



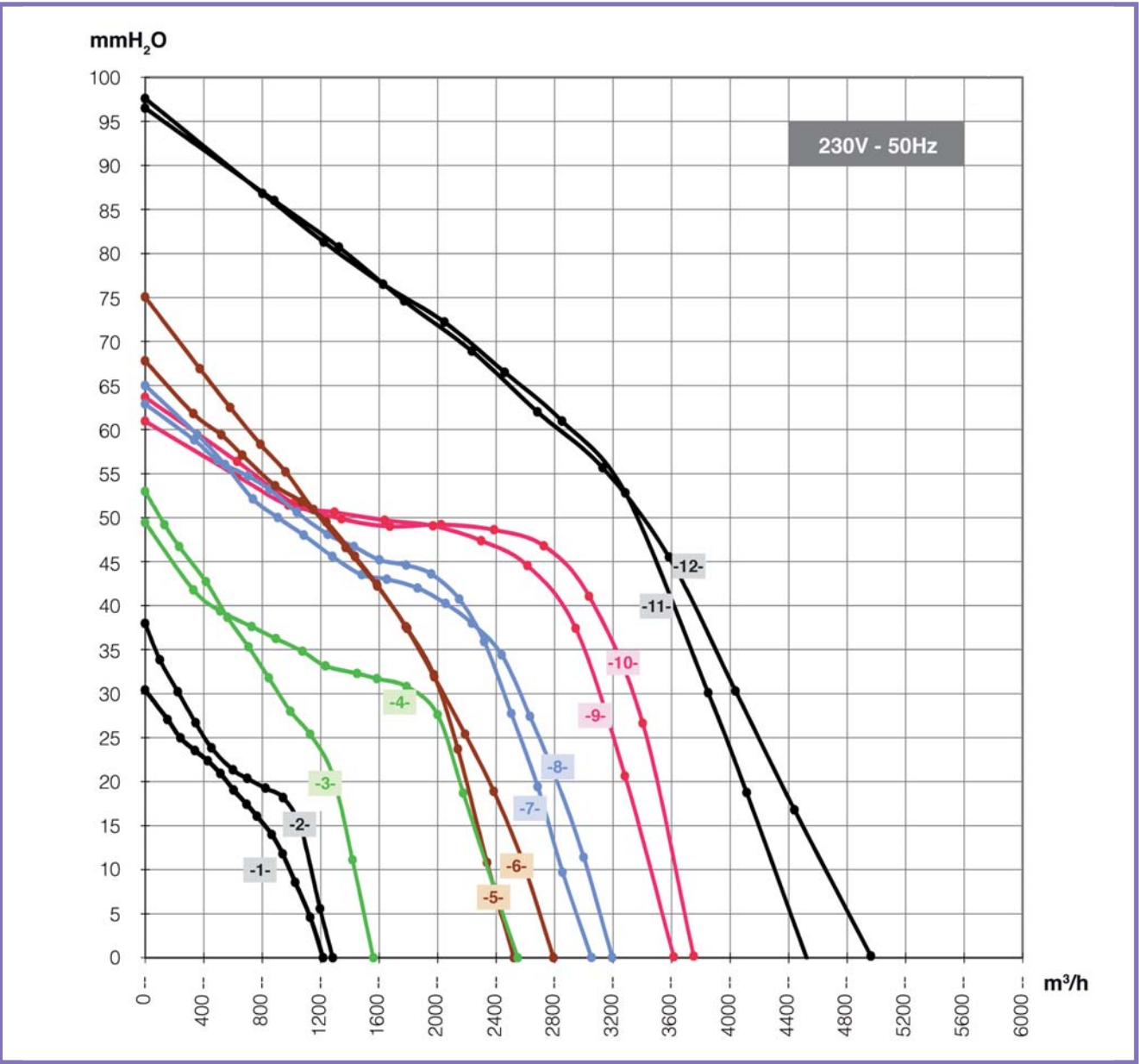
GUIDE CHARTS BLOWER'S SELECTION
LOW SPEED

N.	Model	W_nom	PFC + EMI Filters	Air Flow m³/h Max - Min (10 Vdc) (1 Vdc)	Pressure mmH₂O Max (1 Vdc)	Test	ErP
1	DDe 7/7	340 W	-	1800 - 600	24	PDDe_0066	Free
2	DDe 7/9	340 W	-	2400 - 650	27	PDDe_0060	Free
3	DDe 9/7	340 W	-	2600 - 650	35	PDDe_0073	2015
4	DDe 9/9	340 W	-	2800 - 700	42	PDDe_0064	2015
5	DDe 10/8	1/2 HP	3-550-908	3000 - 950	41	PDDe_0013	2015
6	DDe 10/10	1/2 HP	3-550-908	3200 - 1000	44	PDDe_0012	2015
7	DDe 10/8	3/4 HP	3-550-909	3550 - 1200	45	PDDe_0019	2015
8	DDe 10/10	3/4 HP	3-550-909	4000 - 1250	48	PDDe_0022	2015
9	DDe 12/9	1 HP	3-550-909	4550 - 1500	70	PDDe_0018	2015
10	DDe 12/12	1 HP	3-550-909	5050 - 1600	72	PDDe_0015	2015



GUIDE CHARTS BLOWER'S SELECTION
HIGH SPEED

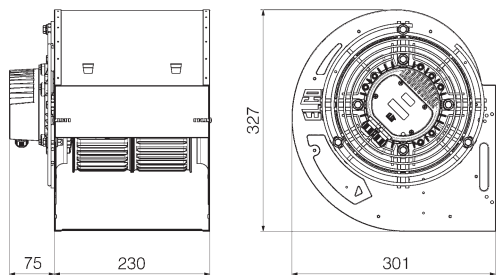
N.	Model	W_nom	PFC + EMI Filters	Air Flow m³/h Max - Min (10 Vdc) (1 Vdc)	Pressure mmH₂O Max (1 Vdc)	Test	ErP
1	DDe 7/5	120 W	-	1200 - 450	31	PDDe_0093	Free
2	DDe 7/7	120 W	-	1300 - 500	38	PDDe_0083	Free
3	DDe 7/7	170 W	-	1550 - 550	53	PDDe_0042	2015
4	DDe 7/9	400 W	-	2550 - 650	50	PDDe_0085	2015
5	DDe 9/7	400 W	-	2550 - 650	68	PDDe_0086	2015
6	DDe 9/9	400 W	-	2800 - 650	76	PDDe_0087	2015
7	DDe 10/8	1/2 HP	3-550-908	3000 - 950	61	PDDe_0014	2015
8	DDe 10/10	1/2 HP	3-550-908	3200 - 1000	63	PDDe_0011	2015
9	DDe 10/8	3/4 HP	3-550-909	3600 - 1150	64	PDDe_0020	2015
10	DDe 10/10	3/4 HP	3-550-909	3750 - 1300	65	PDDe_0021	2015
11	DDe 12/9	1 HP	3-550-909	4500 - 1450	97	PDDe_0017	2015
12	DDe 12/12	1 HP	3-550-909	5000 - 1650	98	PDDe_0016	2015





PERFORMANCE CURVES
DDe 7/7 - 340 W
LOW SPEED

ErP Free



Ventilator Type:	DDe 7/7
Blowers Material:	Metal
Housing Material:	Metal
Motor Support Material:	Metal
Motor Type:	ECM 102C
Nominal Voltage:	230V
Frequency:	50-60 Hz
Nominal Watts:	340 W
Range Voltage:	200-264 V
Range Frequency:	50-60 Hz
Input Signal:	0-10 Vdc
Electrical Insulation Class:	Cl.B (130°C)
Protection Degree:	Electronically & Thermal
Mechanical Protection:	IP40
Motor Bearing:	Sleeve Bearing



Test: PDDe-0066 Web: 622

Operating limits

Win:	Min 15 - Max 265 (W)
Ampere:	Min 0.1 - Max 1.2 (A)
Static Pressure:	Min 0 - Max 24 (mmH ₂ O)

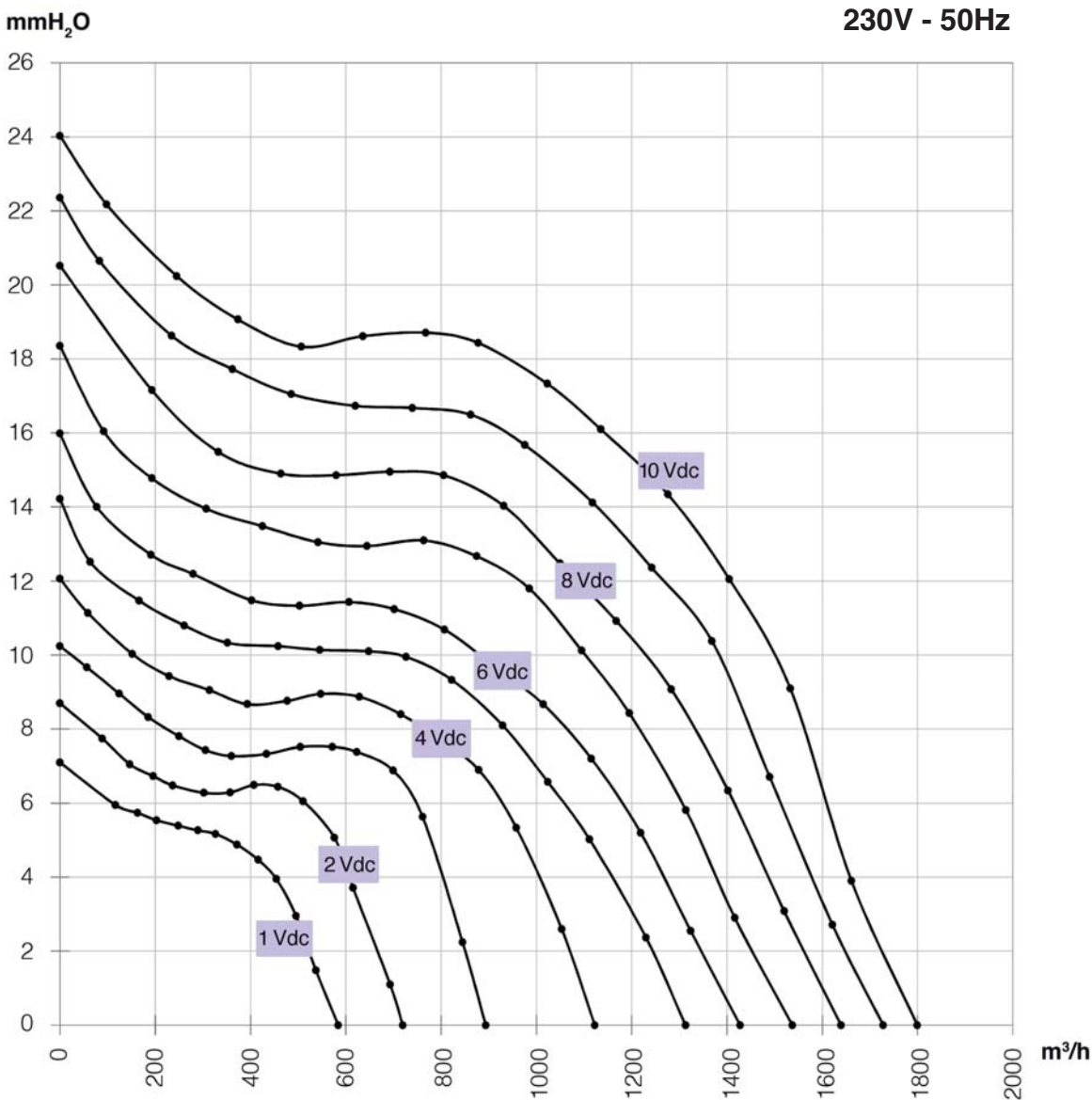
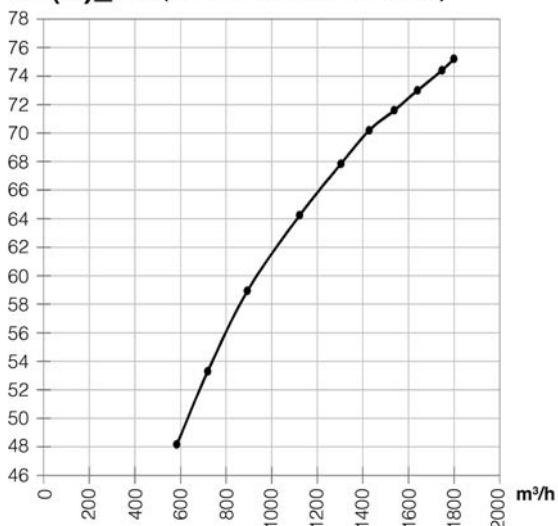
Measurement Category - A -

Free Inlet - Free Outlet

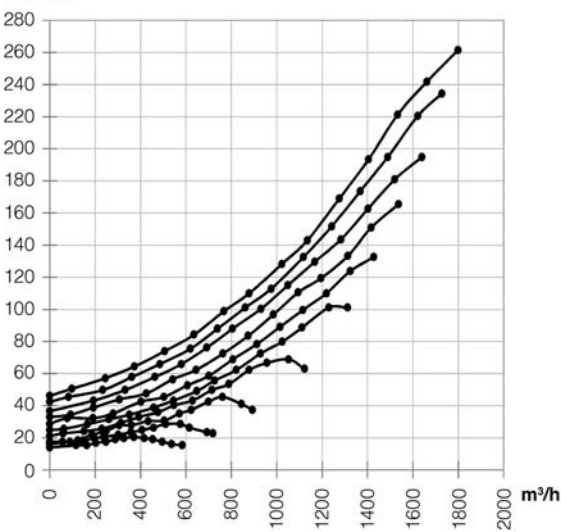
Value @ max. efficiency

Air Flow:	878 (m ³ /h)
Static Pressure:	18.4 (mmH ₂ O)
Rpm:	1201 (min-1)
Power Input:	110 (W)
Overall efficiency (η):	46.3
Grade efficiency (N):	58.7

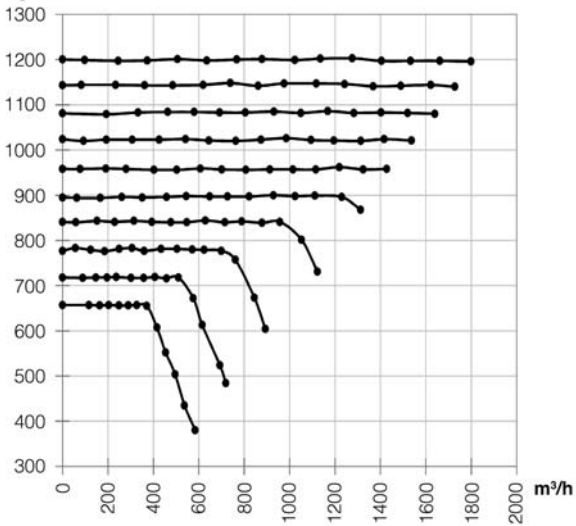
dB(A)_Lw (Sound Level Power @ Free Air)



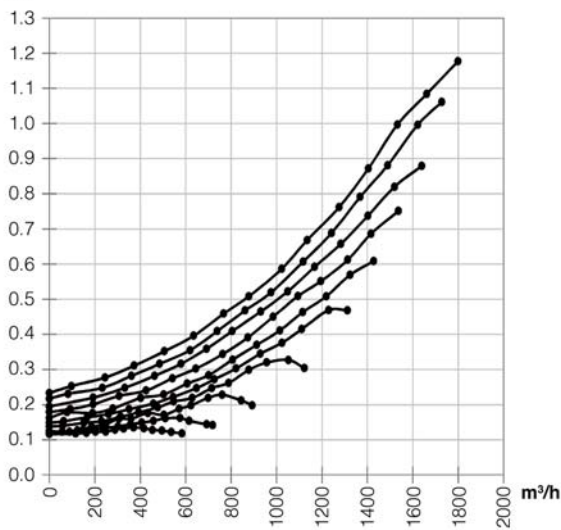
W in



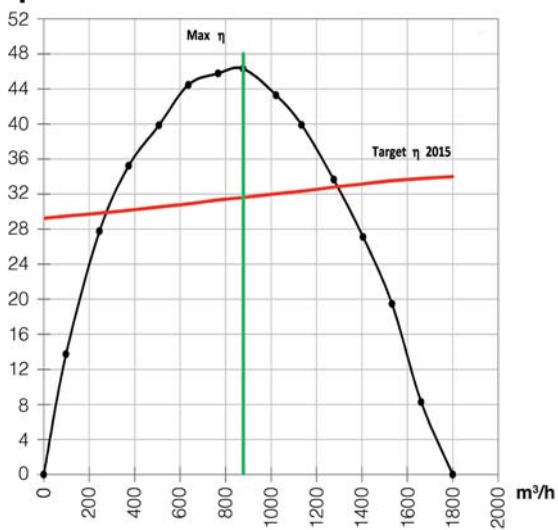
rpm



A



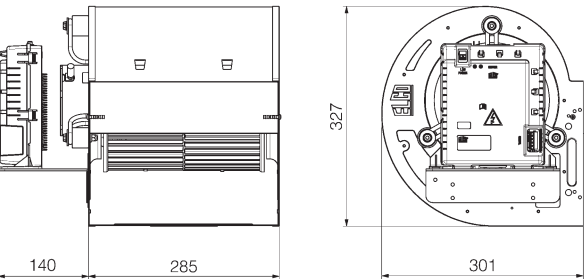
η static





PERFORMANCE CURVES
DDe 7/9 - 340 W
LOW SPEED

ErP Free



Ventilator Type:	DDe 7/9
Blowers Material:	Metal
Housing Material:	Metal
Motor Support Material:	Metal
Motor Type:	ECM 102C
Nominal Voltage:	230V
Frequency:	50-60 Hz
Nominal Watts:	340 W
Range Voltage:	200-264 V
Range Frequency:	50-60 Hz
Input Signal:	0-10 Vdc
Electrical Insulation Class:	Cl.B (130°C)
Protection Degree:	Electronically & Thermal
Mechanical Protection:	IP40
Motor Bearing:	Sleeve Bearing



Test: PDDe-0060 Web: 623

Operating limits

Win:	Min 15 - Max 400 (W)
Ampere:	Min 0.1 - Max 1.8 (A)
Static Pressure:	Min 0 - Max 27 (mmH ₂ O)

Measurement Category - A -

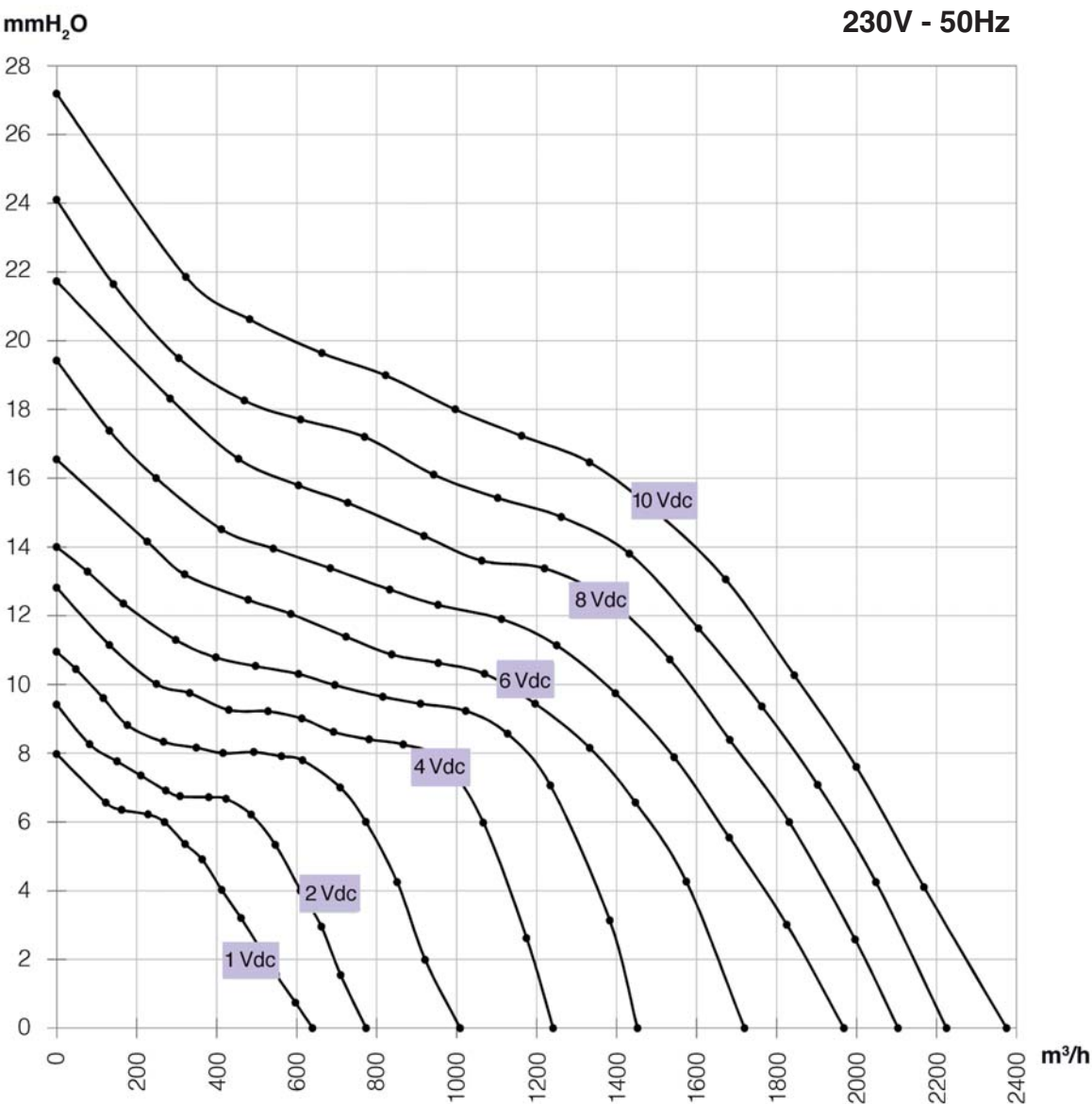
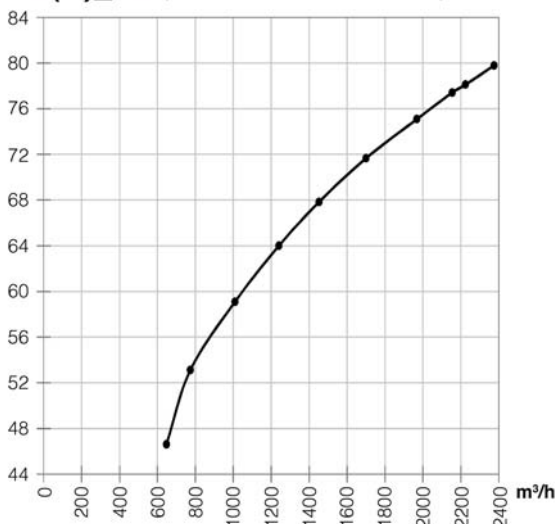
Free Inlet - Free Outlet

Value @ max. efficiency

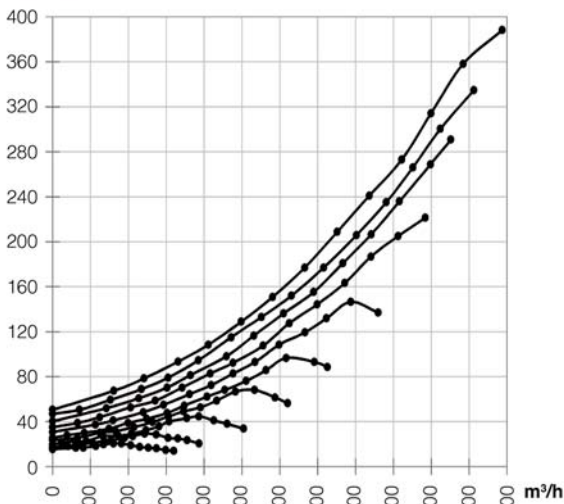
Air Flow:	823 (m ³ /h)
Static Pressure:	19.0 (mmH ₂ O)
Rpm:	1199 (min-1)
Power Input:	108 (W)

Overall efficiency (η):	45.3
Grade efficiency (N):	55.7

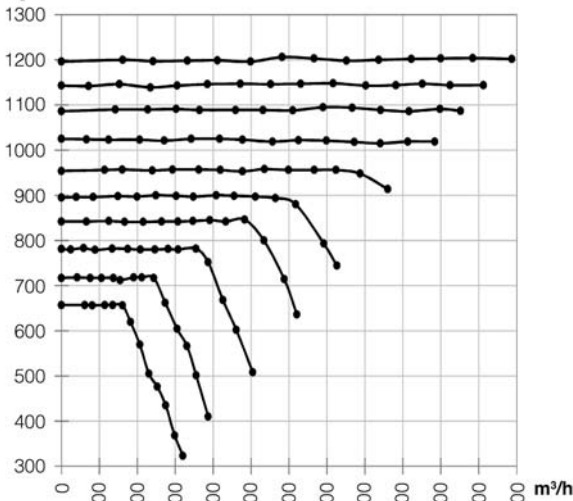
dB(A)_Lw (Sound Level Power @ Free Air)



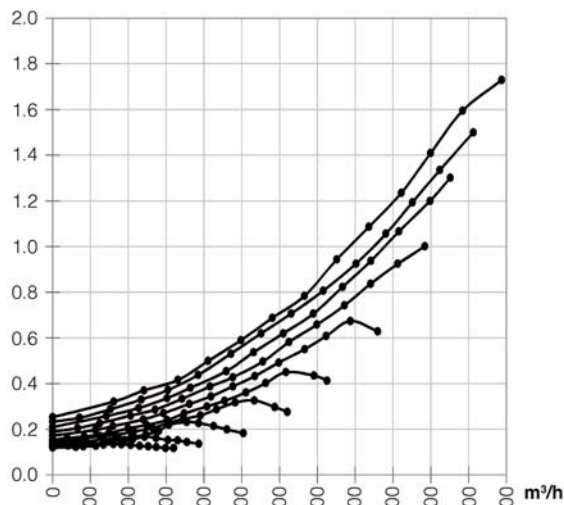
W in



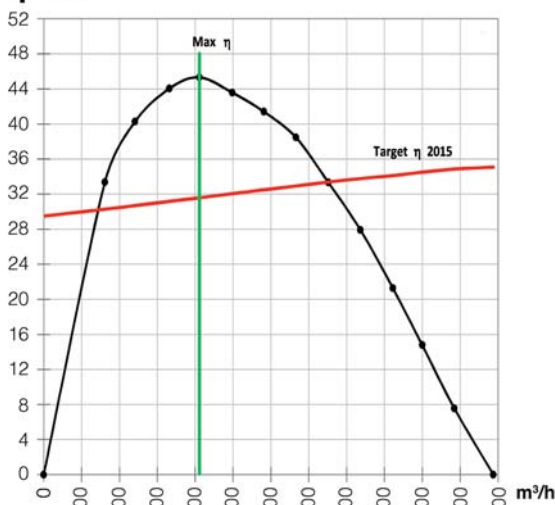
rpm



A

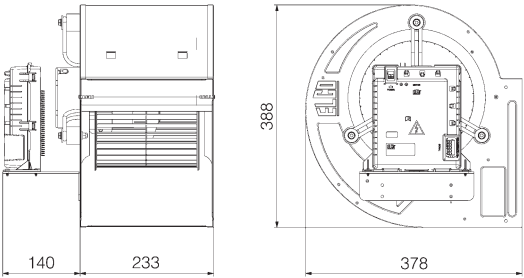


η static



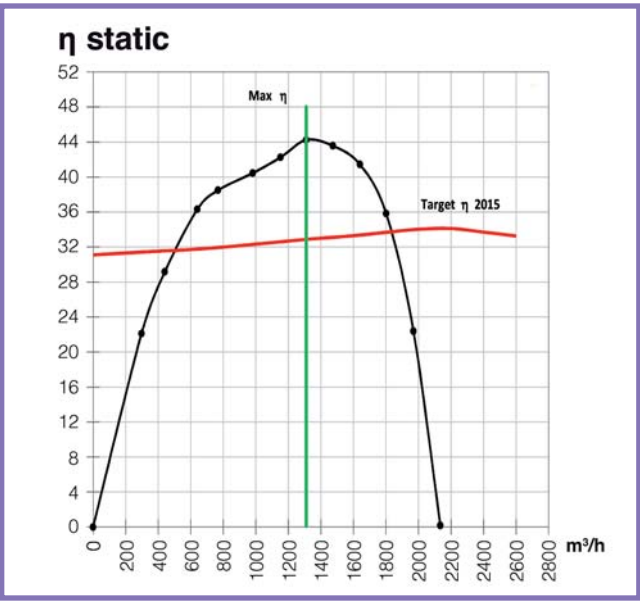
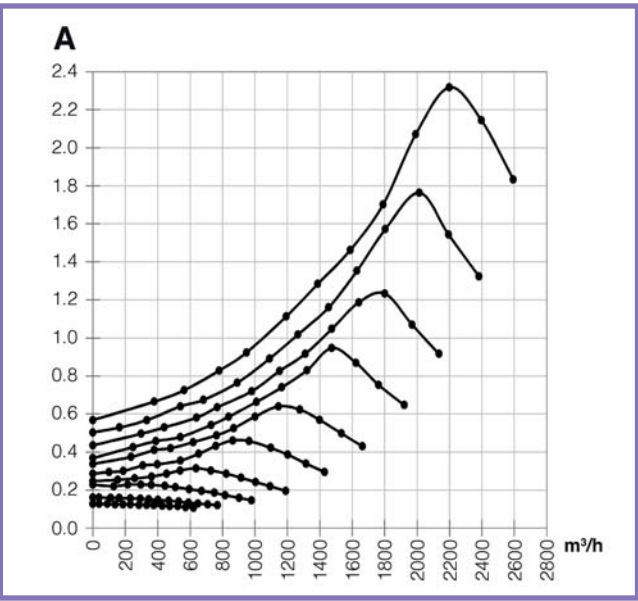
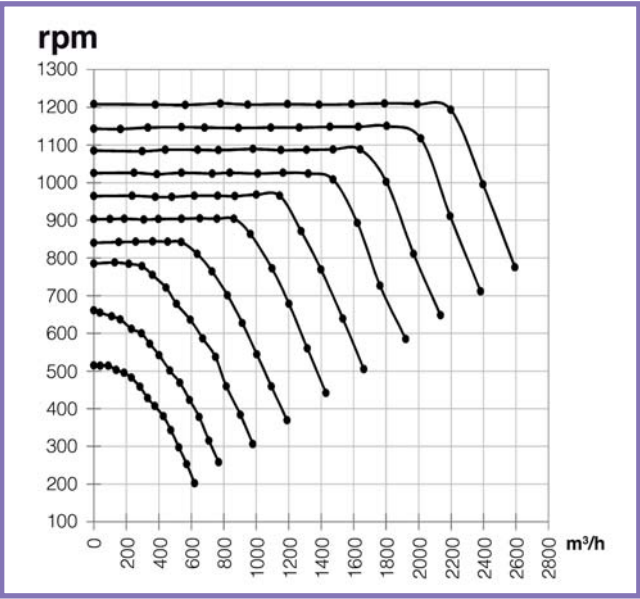
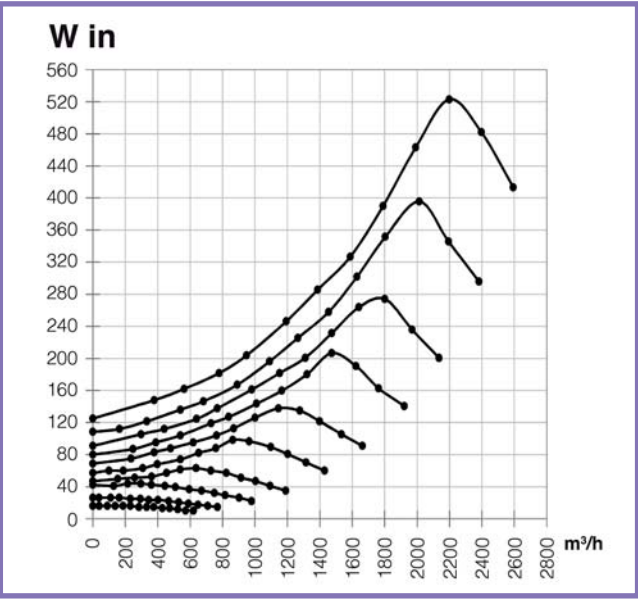
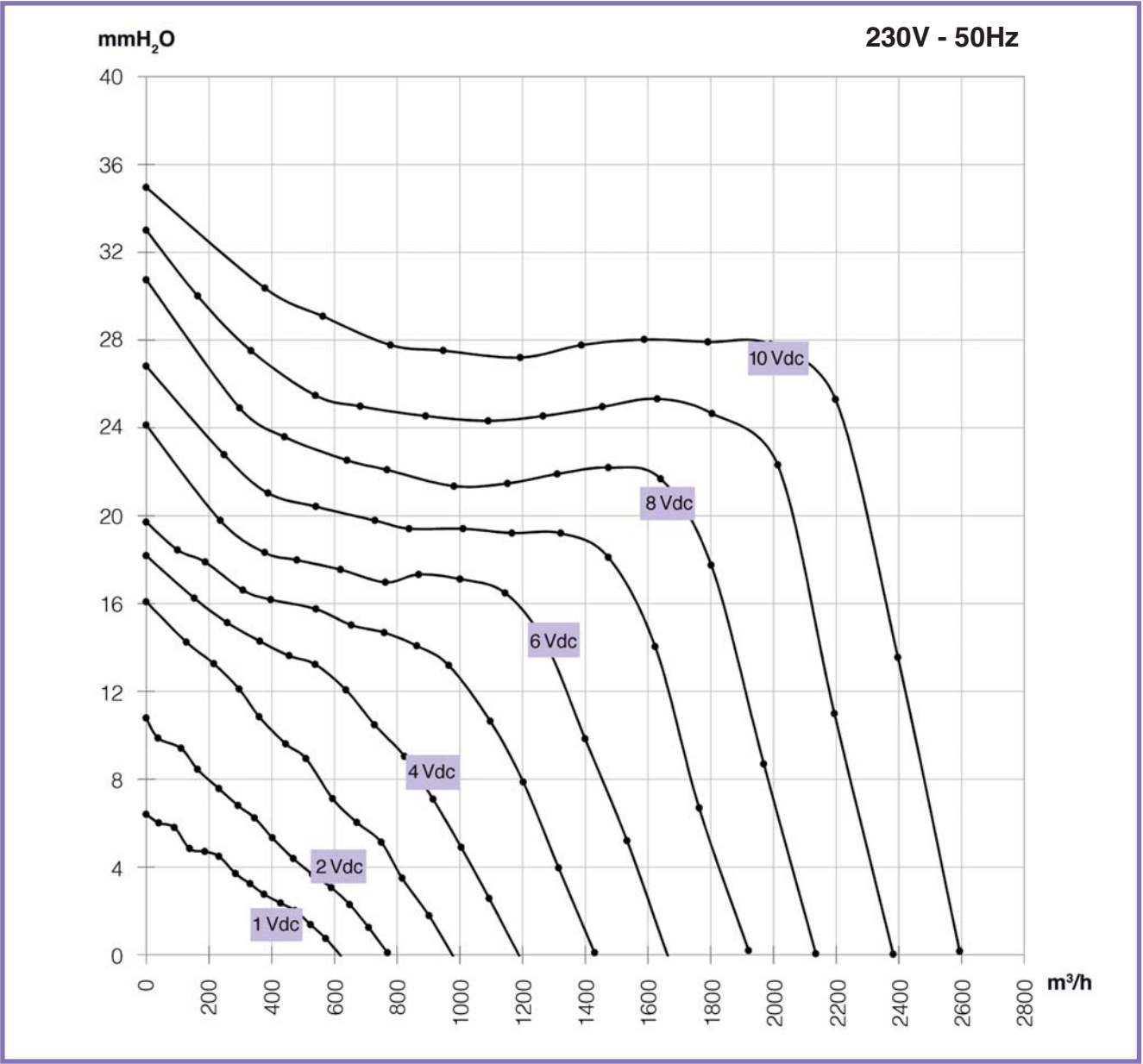
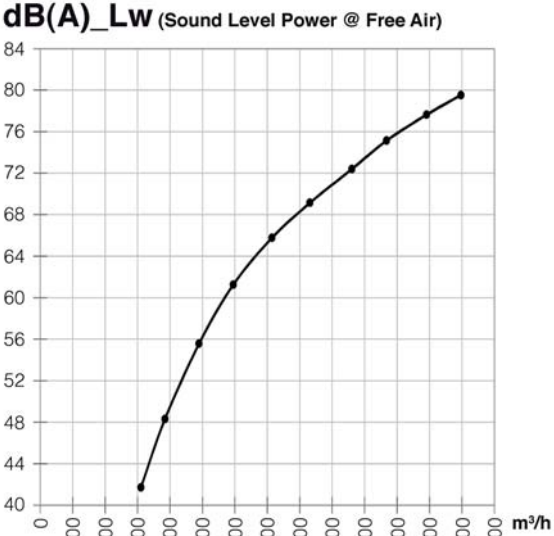
PERFORMANCE CURVES
DDe 9/7 - 340 W
LOW SPEED

ErP 2015



Ventilator Type:	DDe 9/7
Blowers Material:	Metal
Housing Material:	Metal
Motor Support Material:	Metal
Motor Type:	ECM 102C
Nominal Voltage:	230V
Frequency:	50-60 Hz
Nominal Watts:	340 W
Range Voltage:	200-264 V
Range Frequency:	50-60 Hz
Input Signal:	0-10 Vdc
Electrical Insulation Class:	Cl.B (130°C)
Protection Degree:	Electronically & Thermal
Mechanical Protection:	IP40
Motor Bearing:	Sleeve Bearing

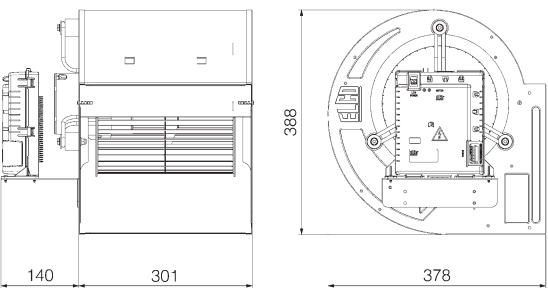
Test:	PDDe-0073	Web:	608
Operating limits			
Win:	Min 10 - Max 530 (W)		
Ampere:	Min 0.1 - Max 2.4 (A)		
Static Pressure:	Min 0 - Max 35 (mmH ₂ O)		
Measurement Category - A -	Free Inlet - Free Outlet		
Value @ max. efficiency			
Air Flow:	1310 (m ³ /h)		
Static Pressure:	21.9 (mmH ₂ O)		
Rpm:	1087 (min-1)		
Power Input:	201 (W)		
Overall efficiency (η):	44.2		
Grade efficiency (N):	55.0		





PERFORMANCE CURVES
DDe 9/9 - 340 W
LOW SPEED

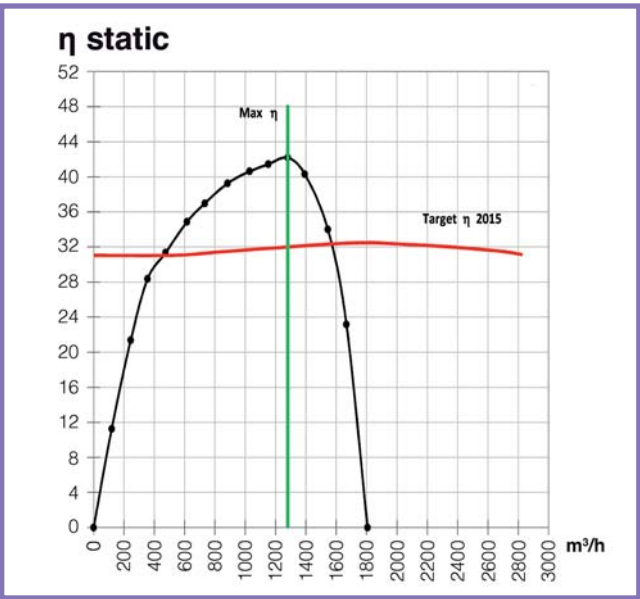
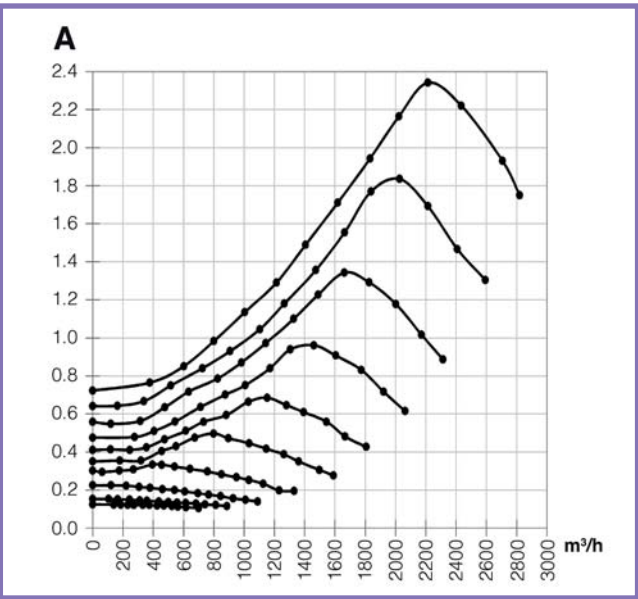
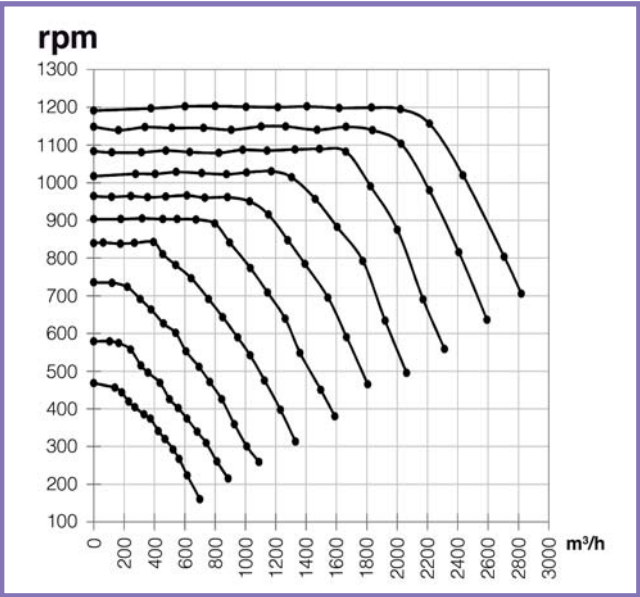
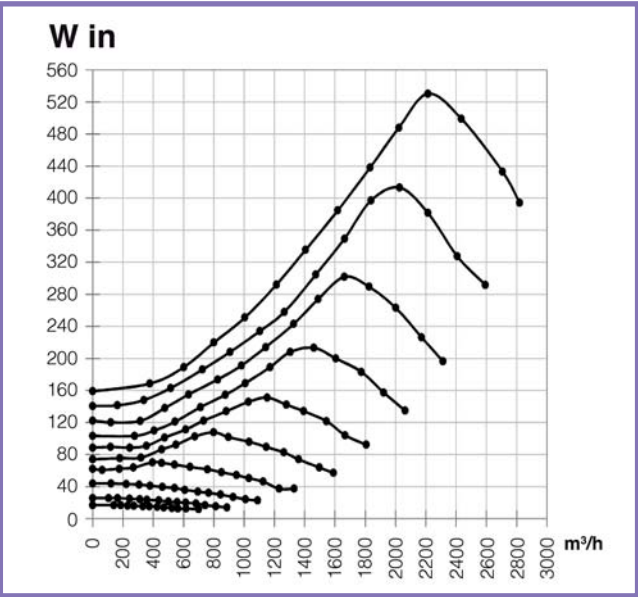
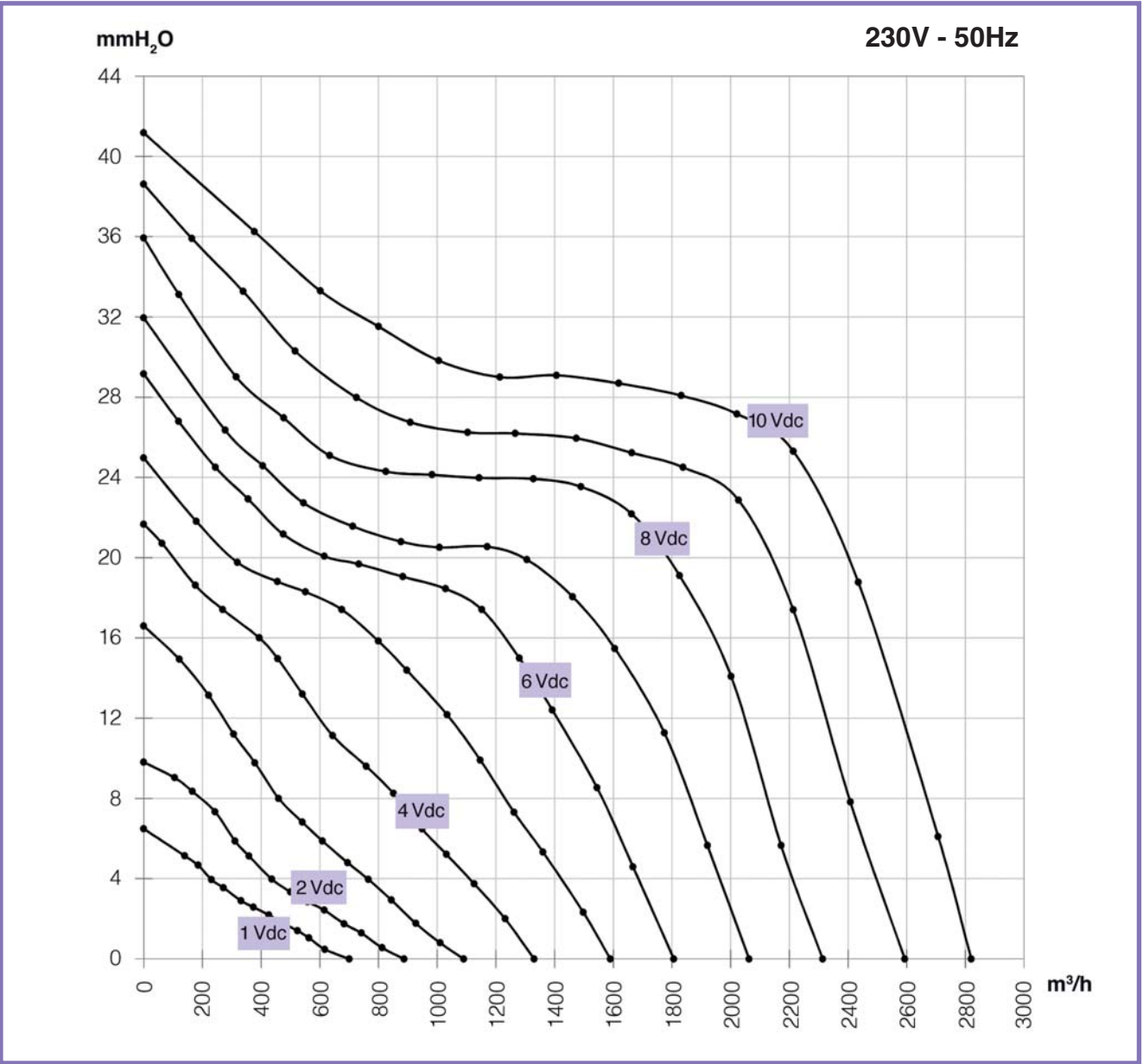
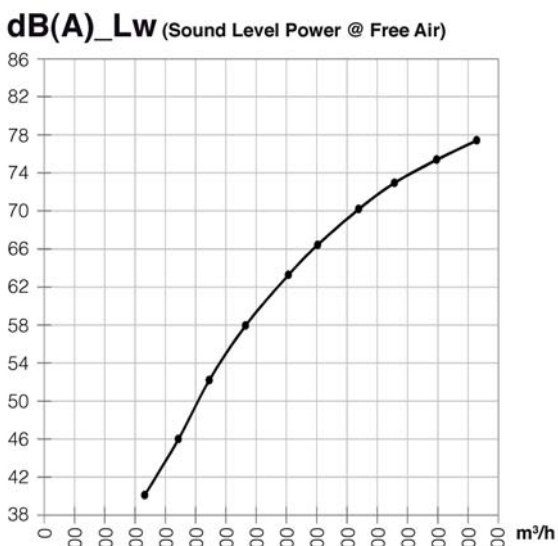
ErP 2015



Ventilator Type:	DDe 9/9
Blowers Material:	Metal
Housing Material:	Metal
Motor Support Material:	Metal
Motor Type:	ECM 102C
Nominal Voltage:	230V
Frequency:	50-60 Hz
Nominal Watts:	340 W
Range Voltage:	200-264 V
Range Frequency:	50-60 Hz
Input Signal:	0-10 Vdc
Electrical Insulation Class:	Cl.B (130°C)
Protection Degree:	Electronically & Thermal
Mechanical Protection:	IP40
Motor Bearing:	Sleeve Bearing

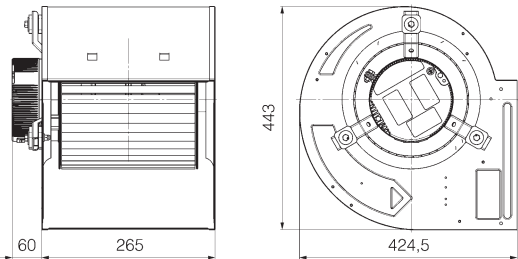


Test:	PDDe-0064	Web:	624
Operating limits			
Win:	Min 10 - Max 530 (W)		
Ampere:	Min 0.1 - Max 2.4 (A)		
Static Pressure:	Min 0 - Max 42 (mmH ₂ O)		
Measurement Category - A -	Free Inlet - Free Outlet		
Value @ max. efficiency			
Air Flow:	1280 (m ³ /h)		
Static Pressure:	15.0 (mmH ₂ O)		
Rpm:	847 (min-1)		
Power Input:	142 (W)		
Overall efficiency (η):	42.2		
Grade efficiency (N):	53.9		



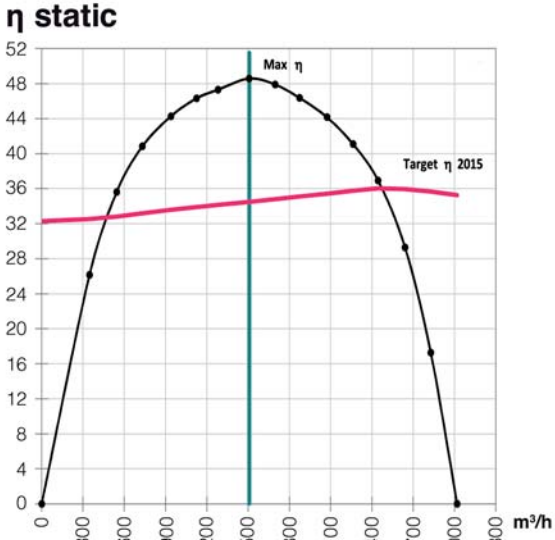
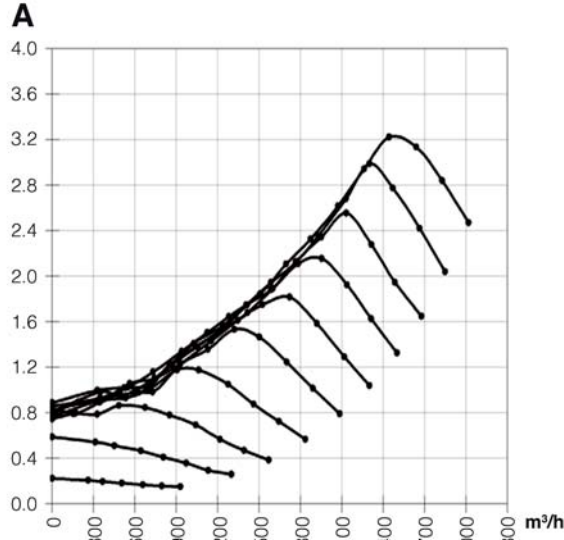
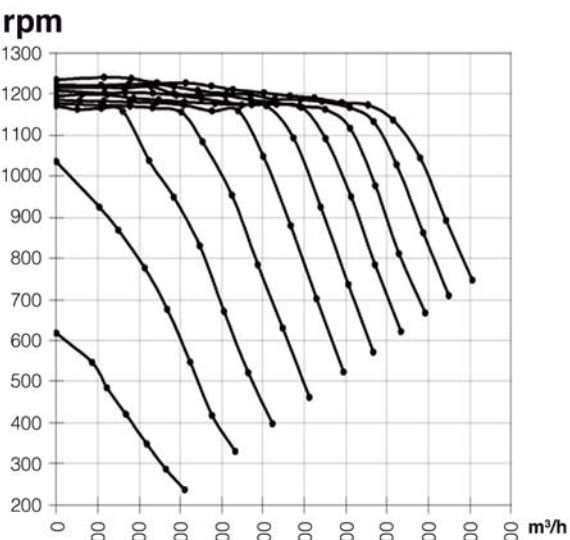
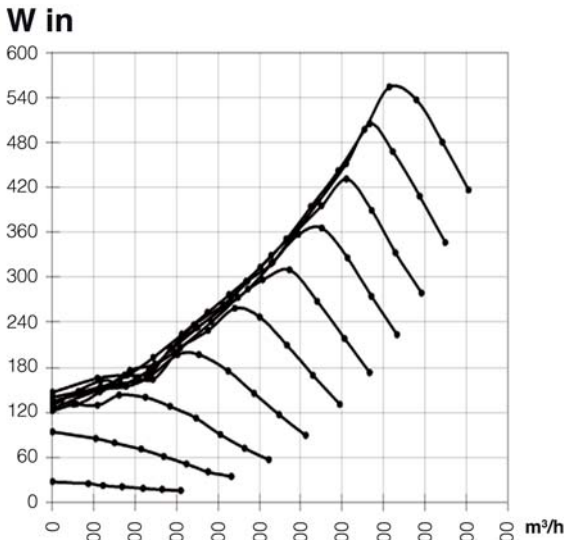
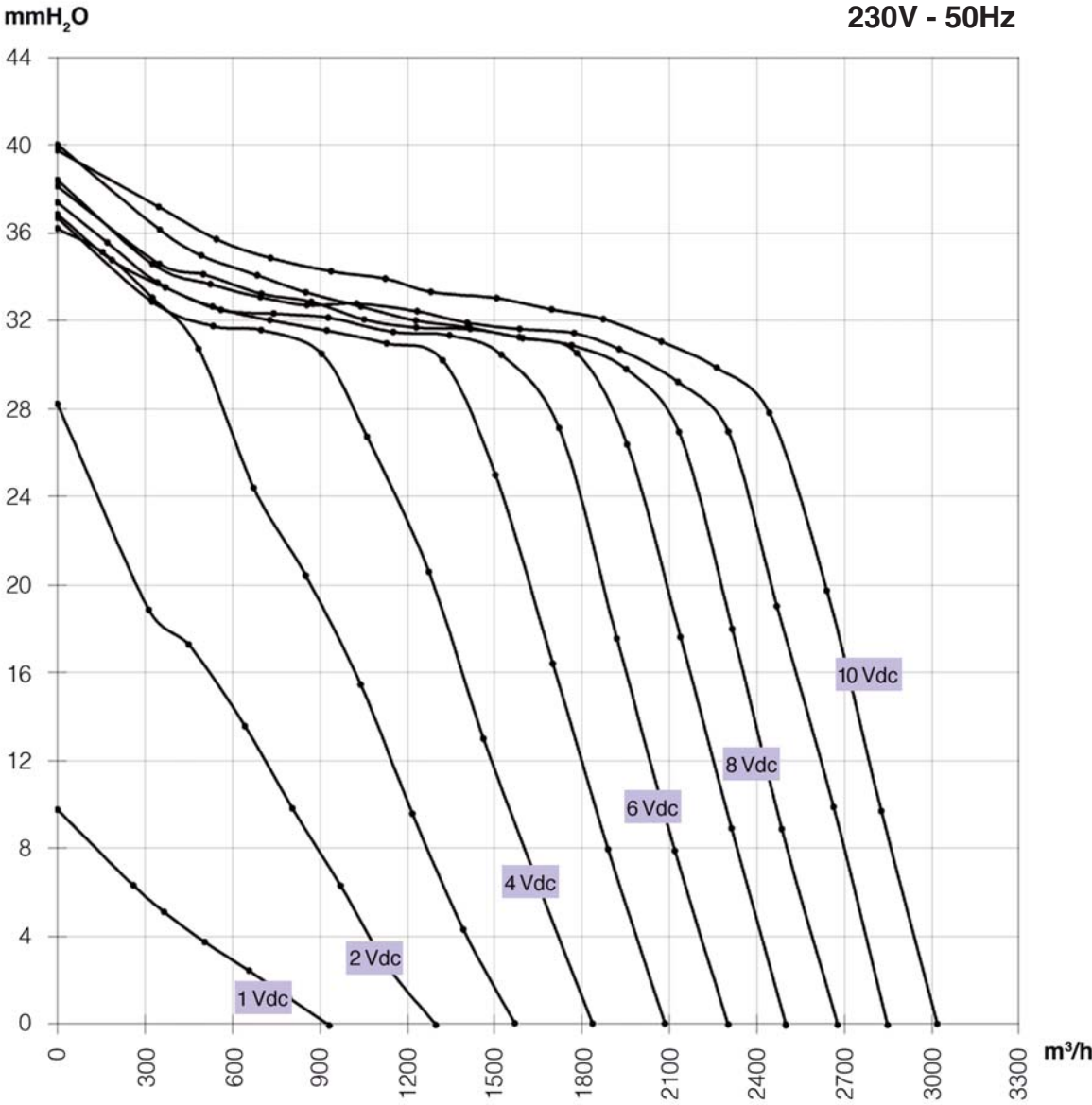
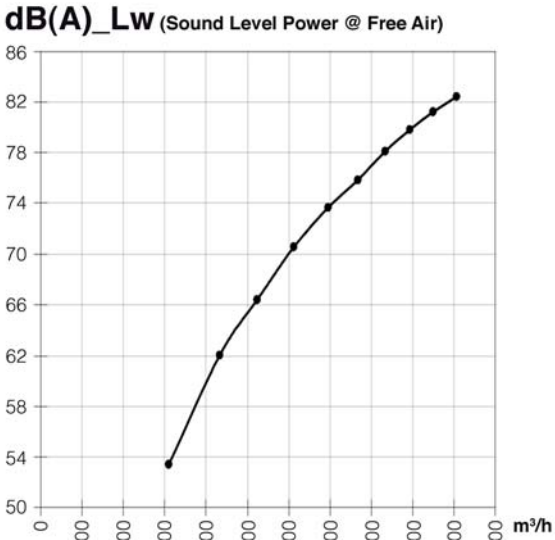
PERFORMANCE CURVES
DDe 10/8 - 1/2 HP
LOW SPEED

ErP 2015



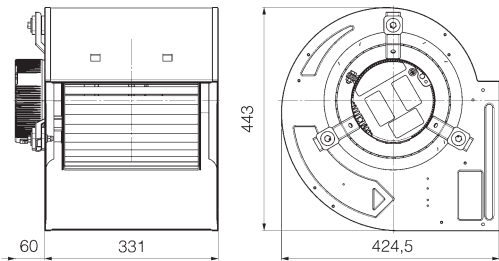
Ventilator Type:	DDe 10/8
Blowers Material:	Metal
Housing Material:	Metal
Motor Support Material:	Metal
Motor Type:	ECM 3.0
Nominal Voltage:	230V
Frequency:	50-60 Hz
Nominal Watts:	1/2 HP
Range Voltage:	200-254 V
Range Frequency:	50-60 Hz
Input Signal:	0-10 Vdc
Electrical Insulation Class:	Cl.B (130°C)
Protection Degree:	Electronically Prot.
Mechanical Protection:	IP20
Motor Bearing:	Ball Bearing

Test:	PDDe-0013
Operating limits	
Win:	Min 15 - Max 580 (W)
Ampere:	Min 0.15 - Max 3.5 (A)
Static Pressure:	Min 0 - Max 40 (mmH ₂ O)
Measurement Category - A -	
Free Inlet - Free Outlet	
Value @ max. efficiency	
Air Flow:	1508 (m ³ /h)
Static Pressure:	33.0 (mmH ₂ O)
Rpm:	1202 (min-1)
Power Input:	313 (W)
Overall efficiency (η):	48.6
Grade efficiency (N):	58.1



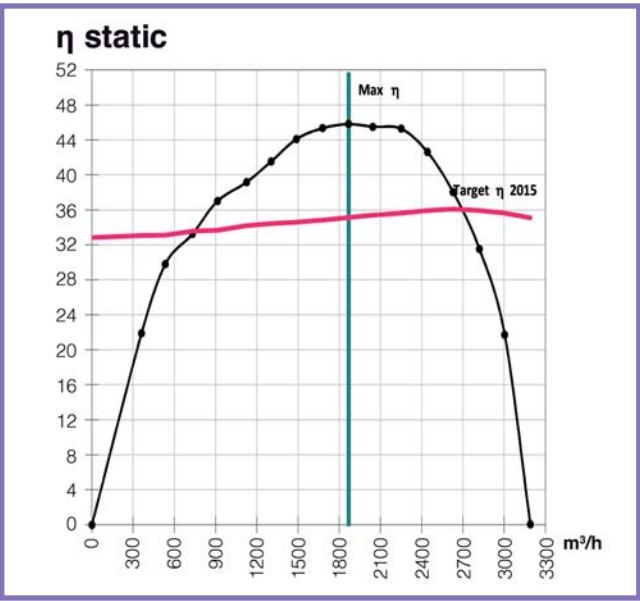
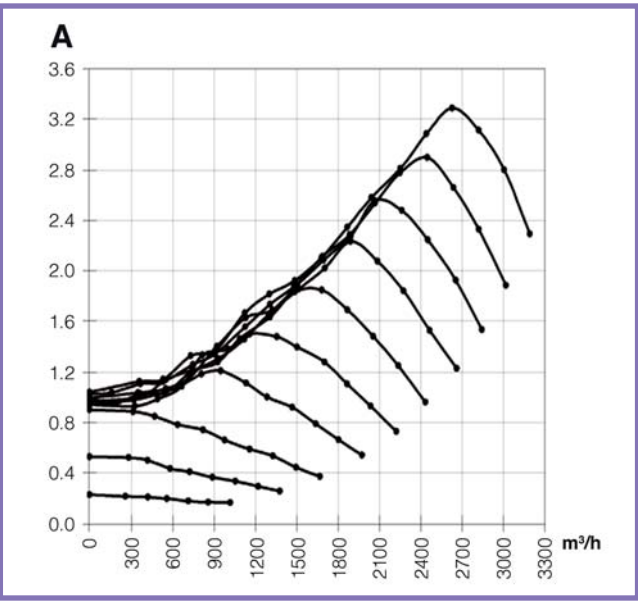
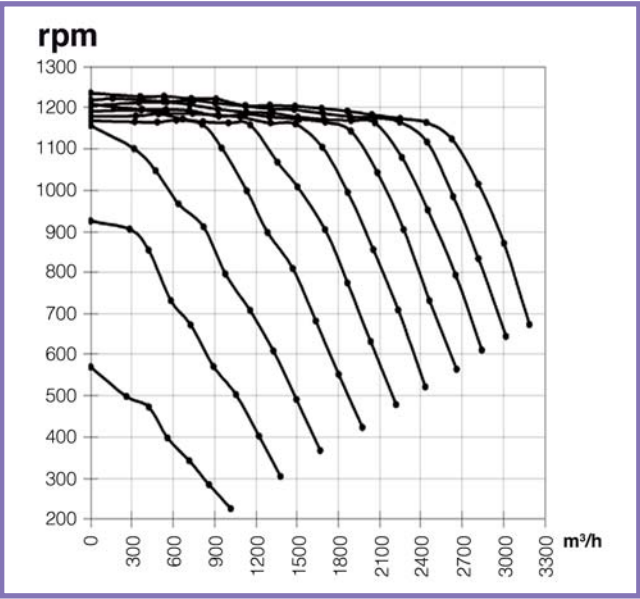
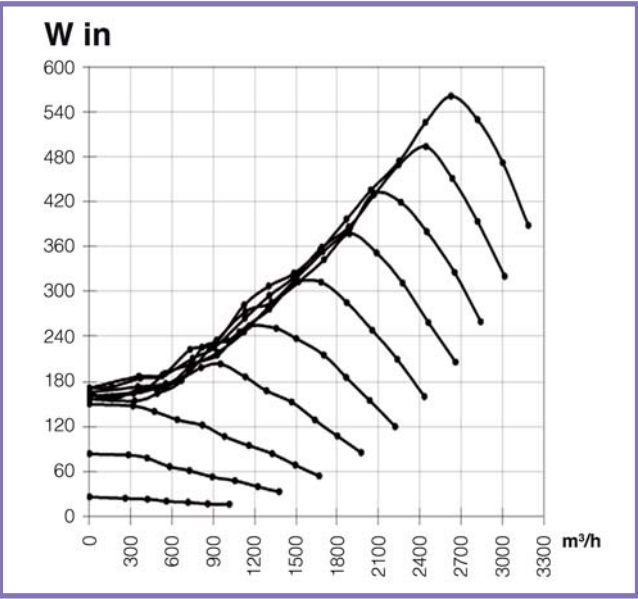
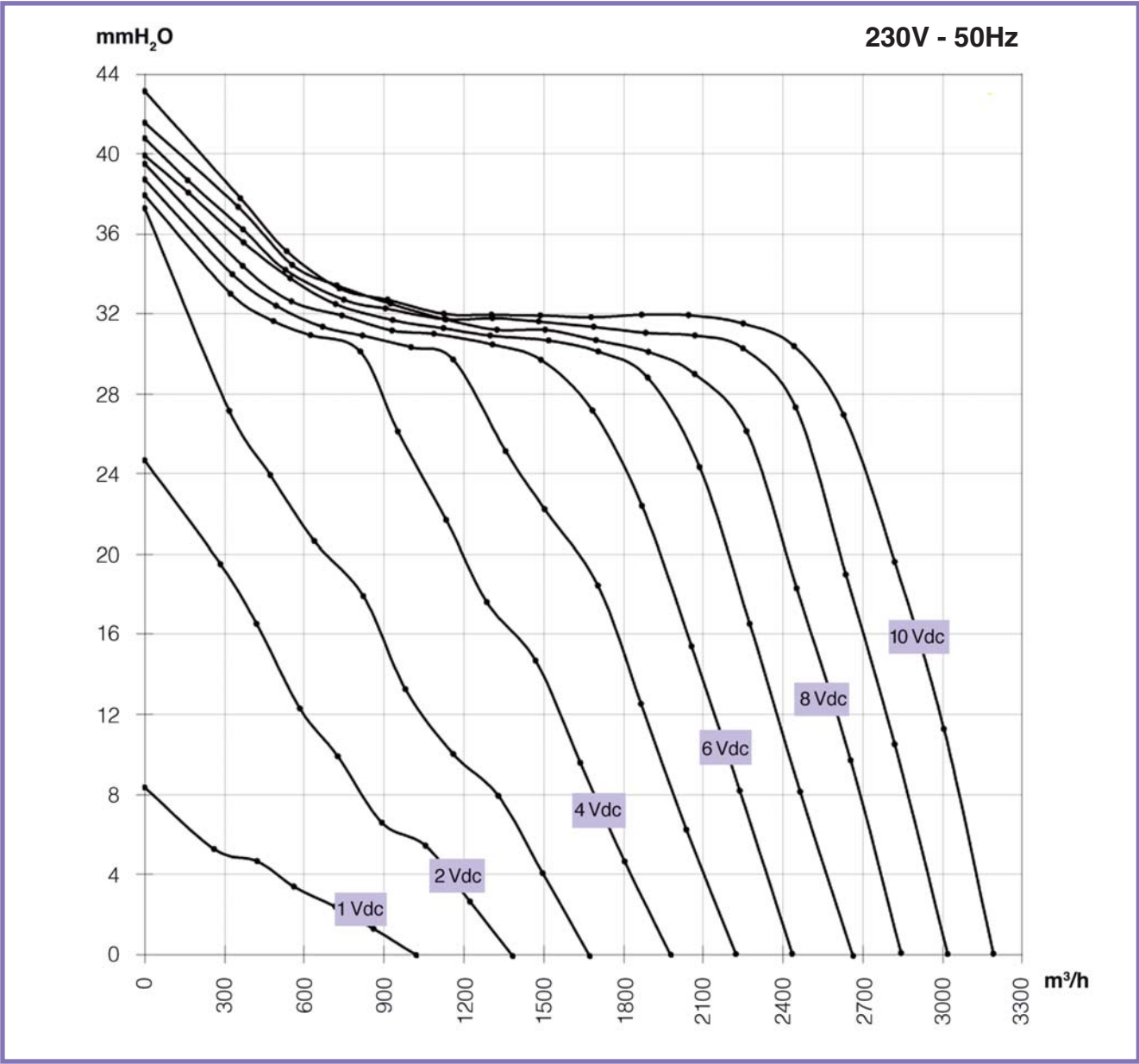
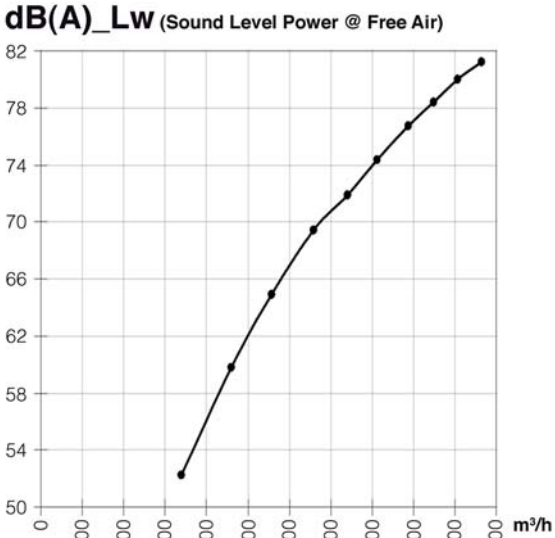
PERFORMANCE CURVES
DDe 10/10 - 1/2 HP
LOW SPEED

ErP 2015



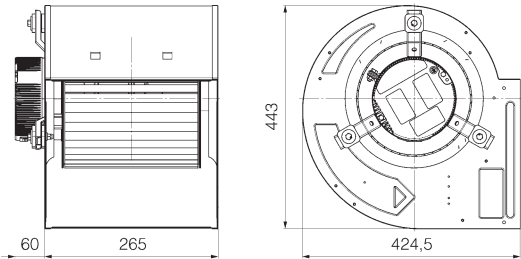
Ventilator Type:	DDe 10/10
Blowers Material:	Metal
Housing Material:	Metal
Motor Support Material:	Metal
Motor Type:	ECM 3.0
Nominal Voltage:	230V
Frequency:	50-60 Hz
Nominal Watts:	1/2 HP
Range Voltage:	200-254 V
Range Frequency:	50-60 Hz
Input Signal:	0-10 Vdc
Electrical Insulation Class:	Cl.B (130°C)
Protection Degree:	Electronically Prot.
Mechanical Protection:	IP20
Motor Bearing:	Ball Bearing

Test: PDDe-0012	
Operating limits	
Win:	Min 15 - Max 580 (W)
Ampere:	Min 0.15 - Max 3.5 (A)
Static Pressure:	Min 0 - Max 44 (mmH ₂ O)
Measurement Category - A -	
Free Inlet - Free Outlet	
Value @ max. efficiency	
Air Flow:	1869 (m ³ /h)
Static Pressure:	32.0 (mmH ₂ O)
Rpm:	1191 (min-1)
Power Input:	396 (W)
Overall efficiency (η):	45.8
Grade efficiency (N):	54.7



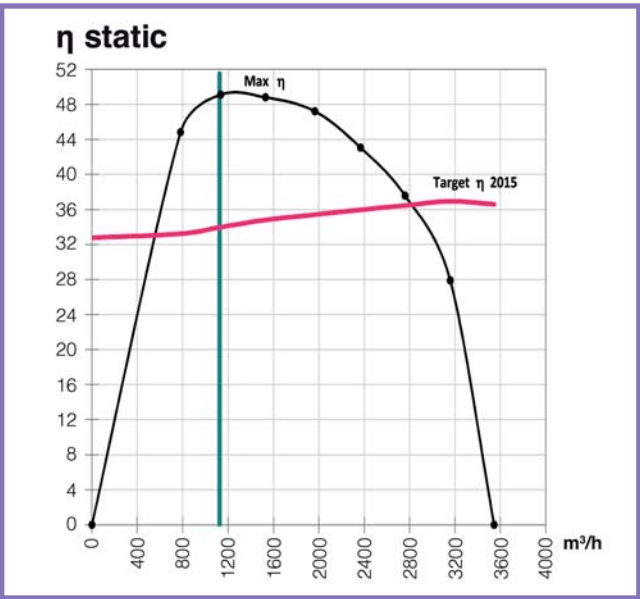
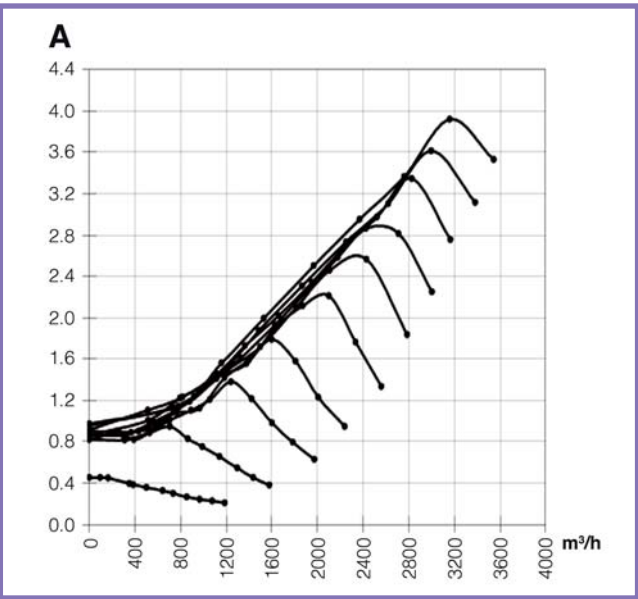
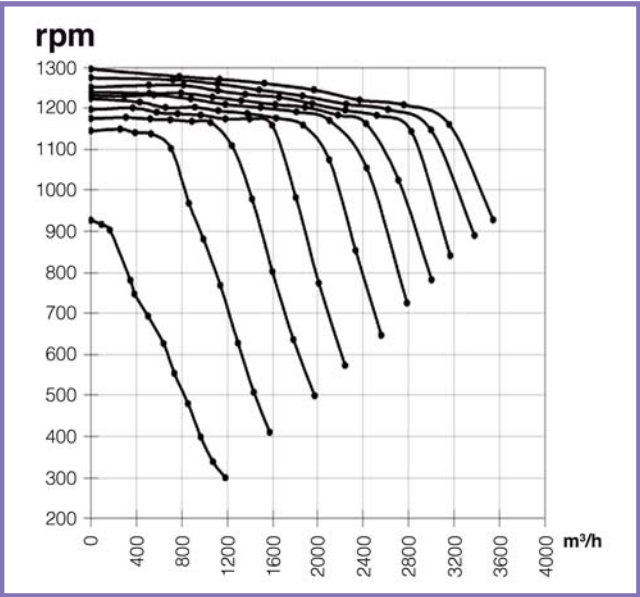
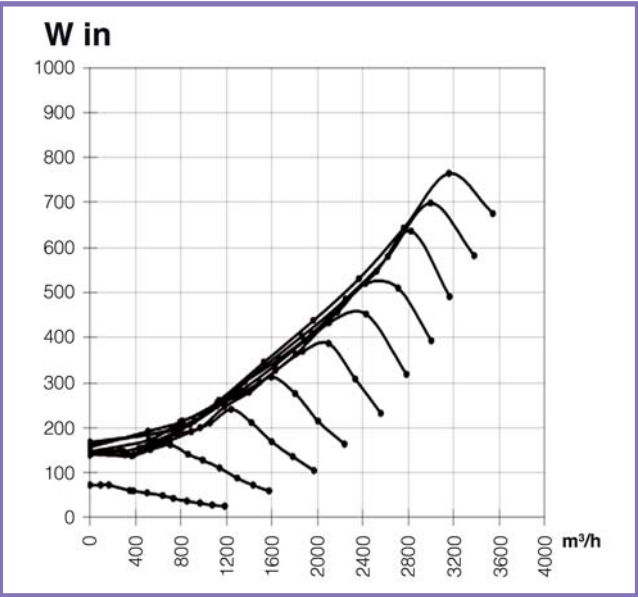
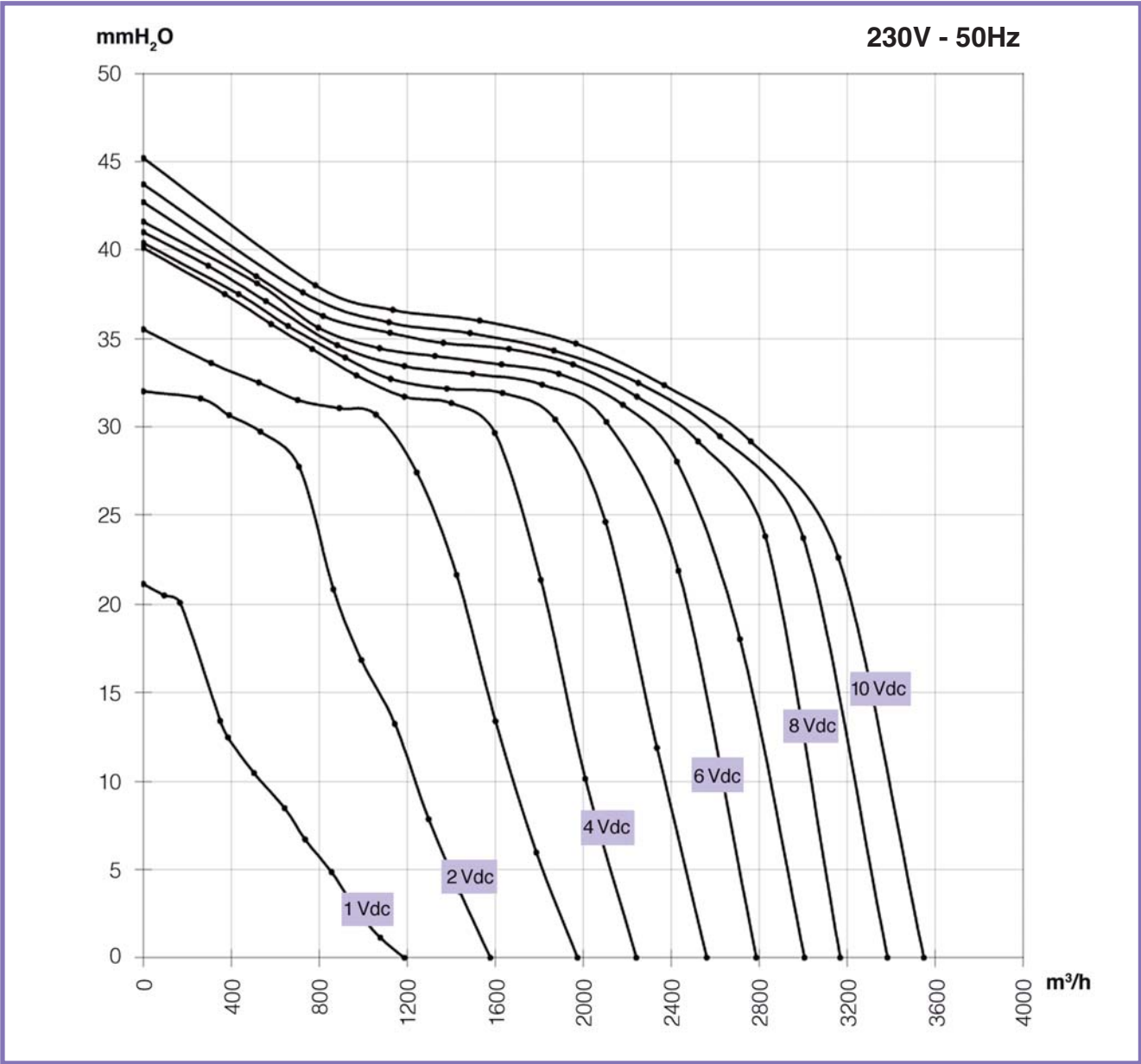
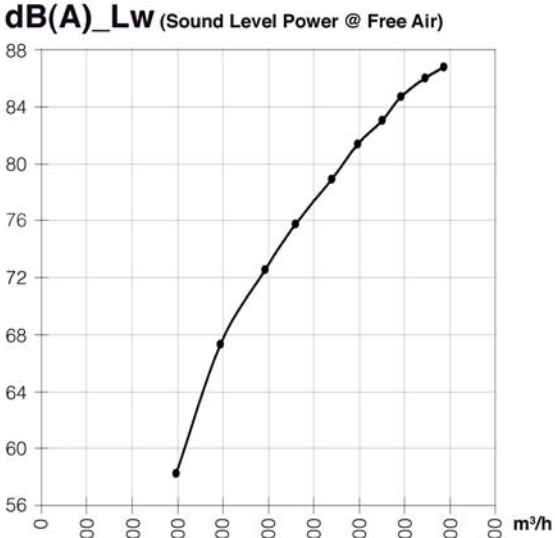
PERFORMANCE CURVES
DDe 10/8 - 3/4 HP
LOW SPEED

ErP 2015



Ventilator Type:	DDe 10/8
Blowers Material:	Metal
Housing Material:	Metal
Motor Support Material:	Metal
Motor Type:	ECM 3.0
Nominal Voltage:	230V
Frequency:	50-60 Hz
Nominal Watts:	3/4 HP
Range Voltage:	200-254 V
Range Frequency:	50-60 Hz
Input Signal:	0-10 Vdc
Electrical Insulation Class:	Cl.B (130°C)
Protection Degree:	Electronically Prot.
Mechanical Protection:	IP20
Motor Bearing:	Ball Bearing

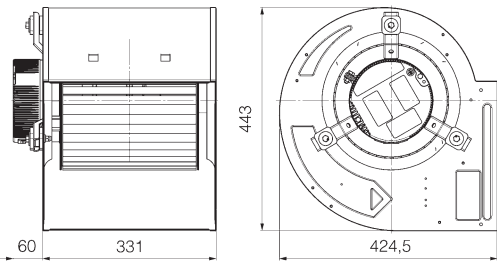
Test:	PDDe-0019
Operating limits	
Win:	Min 25 - Max 800 (W)
Ampere:	Min 0.15 - Max 4.0 (A)
Static Pressure:	Min 0 - Max 45 (mmH ₂ O)
Measurement Category - A -	
Free Inlet - Free Outlet	
Value @ max. efficiency	
Air Flow:	1135 (m ³ /h)
Static Pressure:	36.6 (mmH ₂ O)
Rpm:	1270 (min-1)
Power Input:	260 (W)
Overall efficiency (η):	49.1
Grade efficiency (N):	59.1





PERFORMANCE CURVES
DDe 10/10 - 3/4 HP
LOW SPEED

ErP 2015



Ventilator Type:	DDe 10/10
Blowers Material:	Metal
Housing Material:	Metal
Motor Support Material:	Metal
Motor Type:	ECM 3.0
Nominal Voltage:	230V
Frequency:	50-60 Hz
Nominal Watts:	3/4 HP
Range Voltage:	200-254 V
Range Frequency:	50-60 Hz
Input Signal:	0-10 Vdc
Electrical Insulation Class:	Cl.B (130°C)
Protection Degree:	Electronically Prot.
Mechanical Protection:	IP20
Motor Bearing:	Ball Bearing



Test: PDDe-0022

Operating limits

Win:	Min 25 - Max 800 (W)
Ampere:	Min 0.15 - Max 4.2 (A)
Static Pressure:	Min 0 - Max 48 (mmH ₂ O)

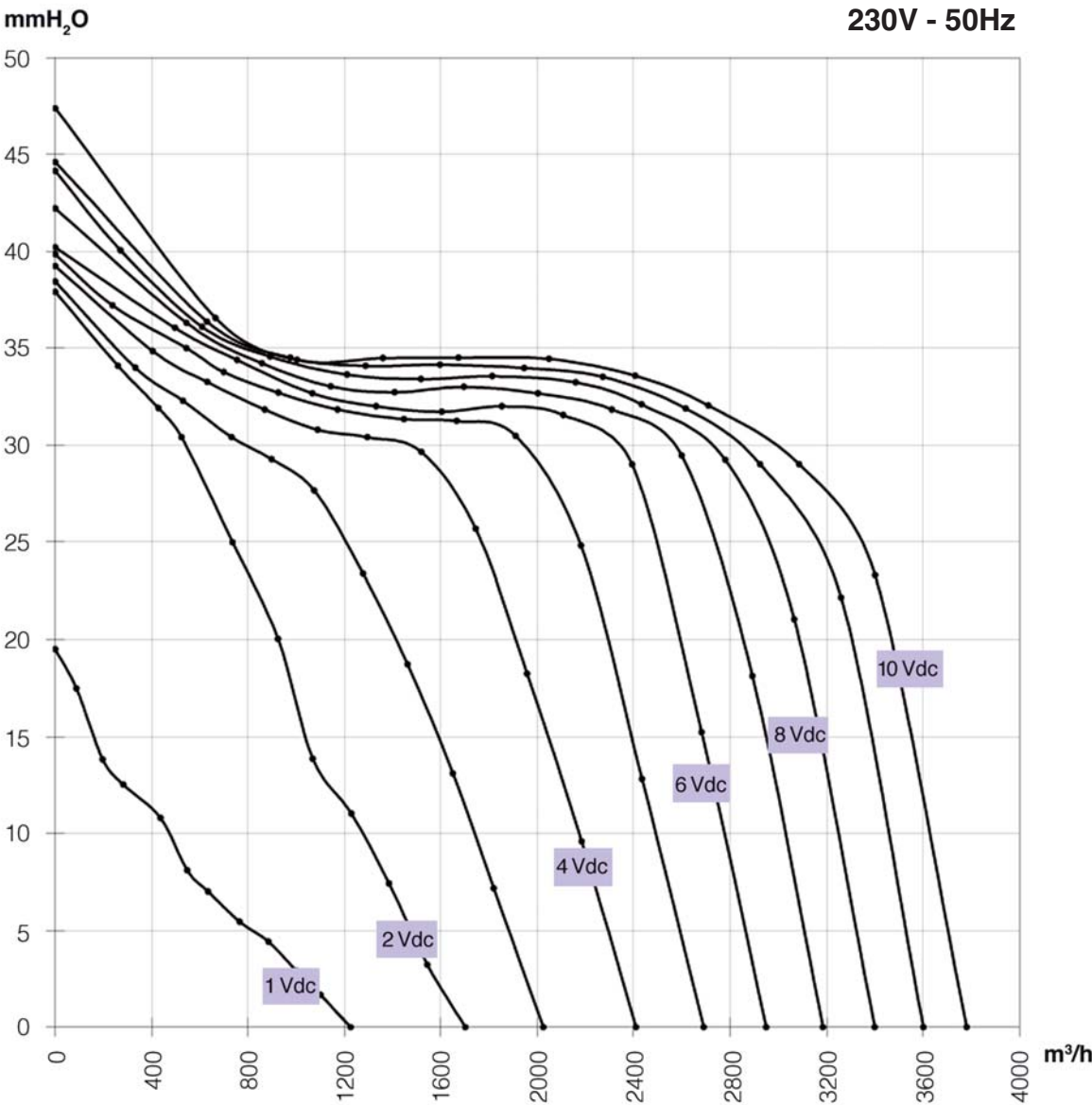
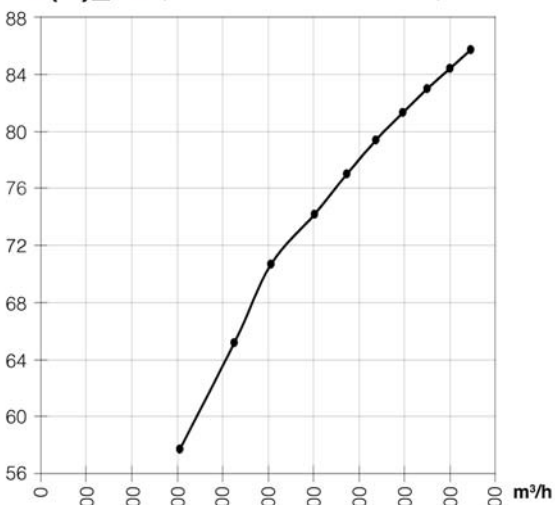
Measurement Category - A -

Free Inlet - Free Outlet

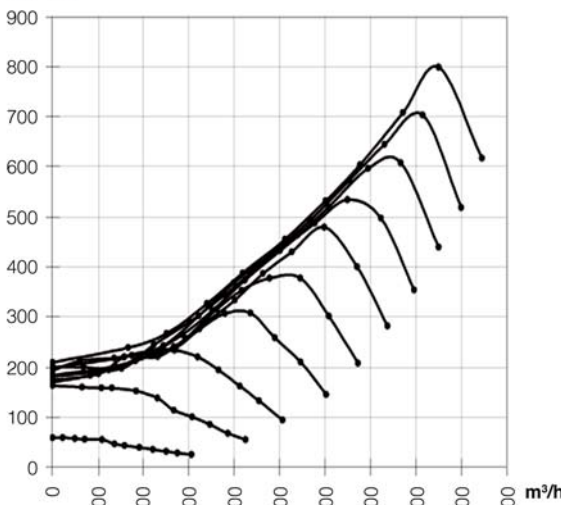
Value @ max. efficiency

Air Flow:	2049 (m ³ /h)
Static Pressure:	34.4 (mmH ₂ O)
Rpm:	1233 (min-1)
Power Input:	455 (W)
Overall efficiency (η):	47.0
Grade efficiency (N):	55.4

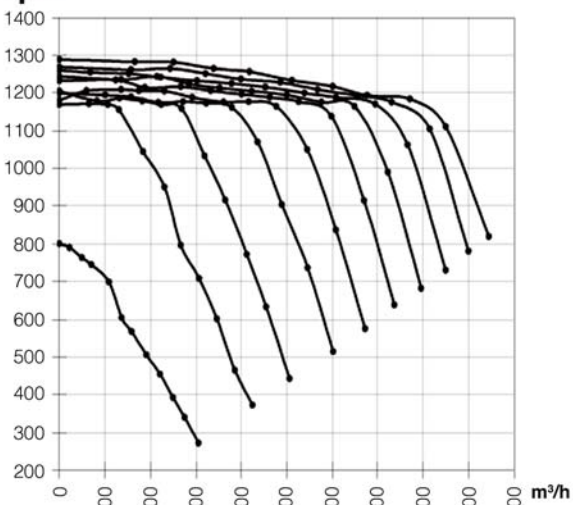
dB(A)_LW (Sound Level Power @ Free Air)



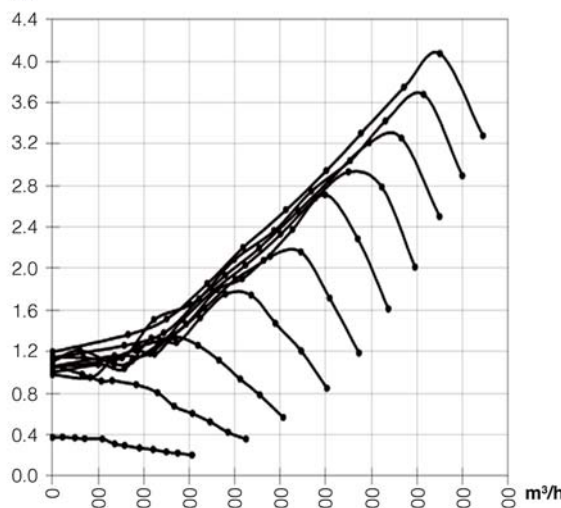
W in



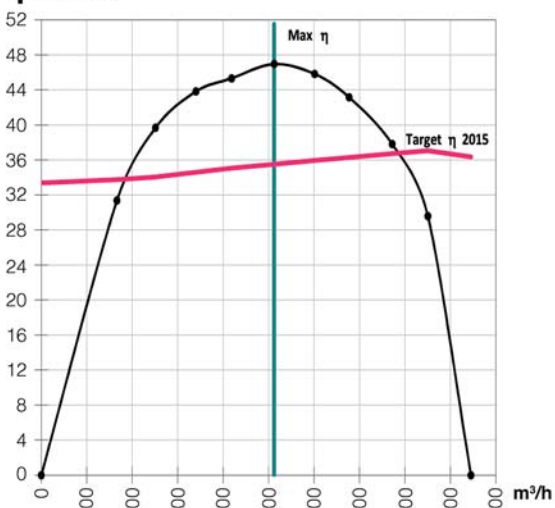
rpm



A



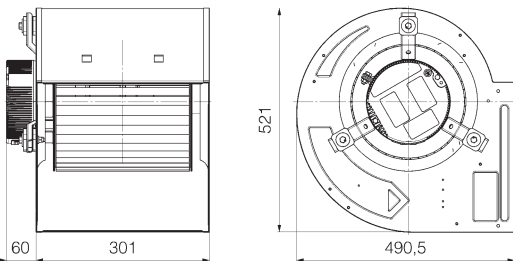
η static





PERFORMANCE CURVES
DDe 12/9 - 1 HP
LOW SPEED

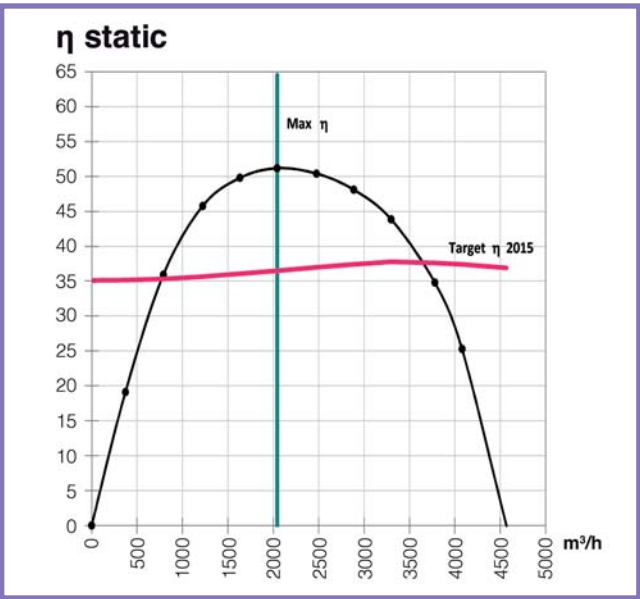
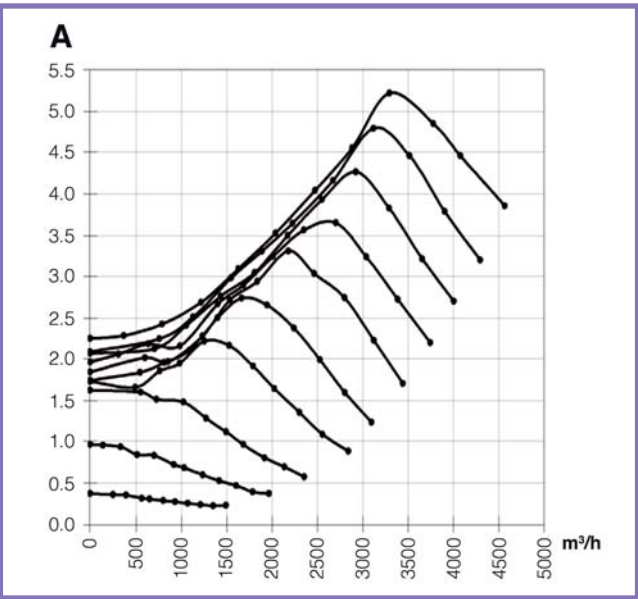
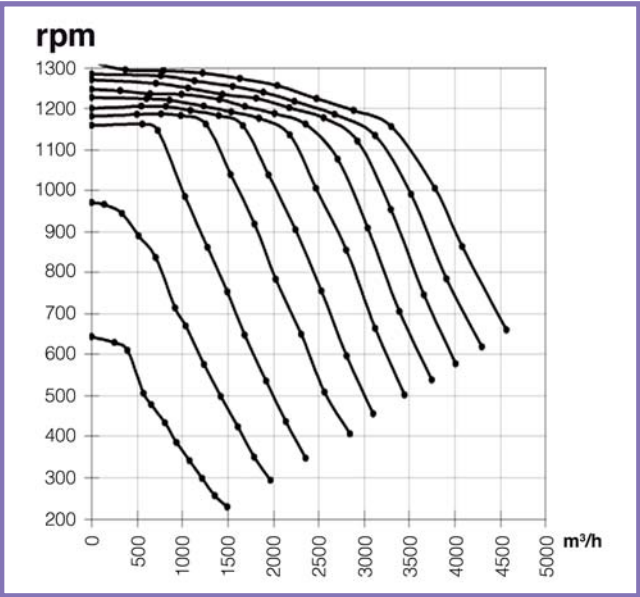
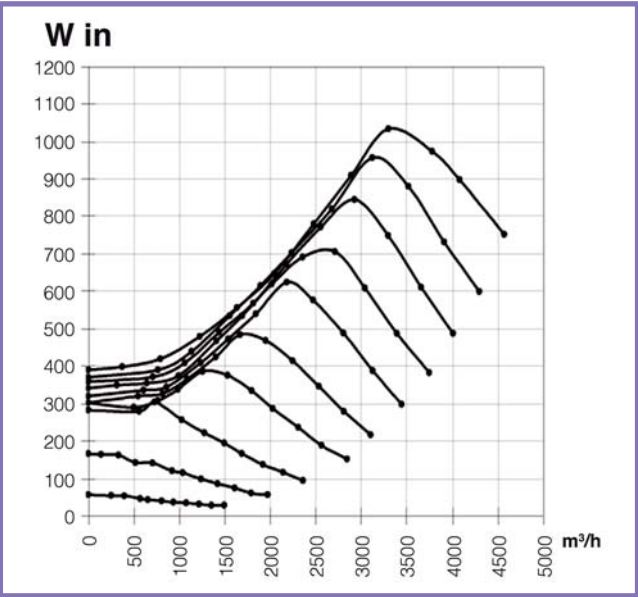
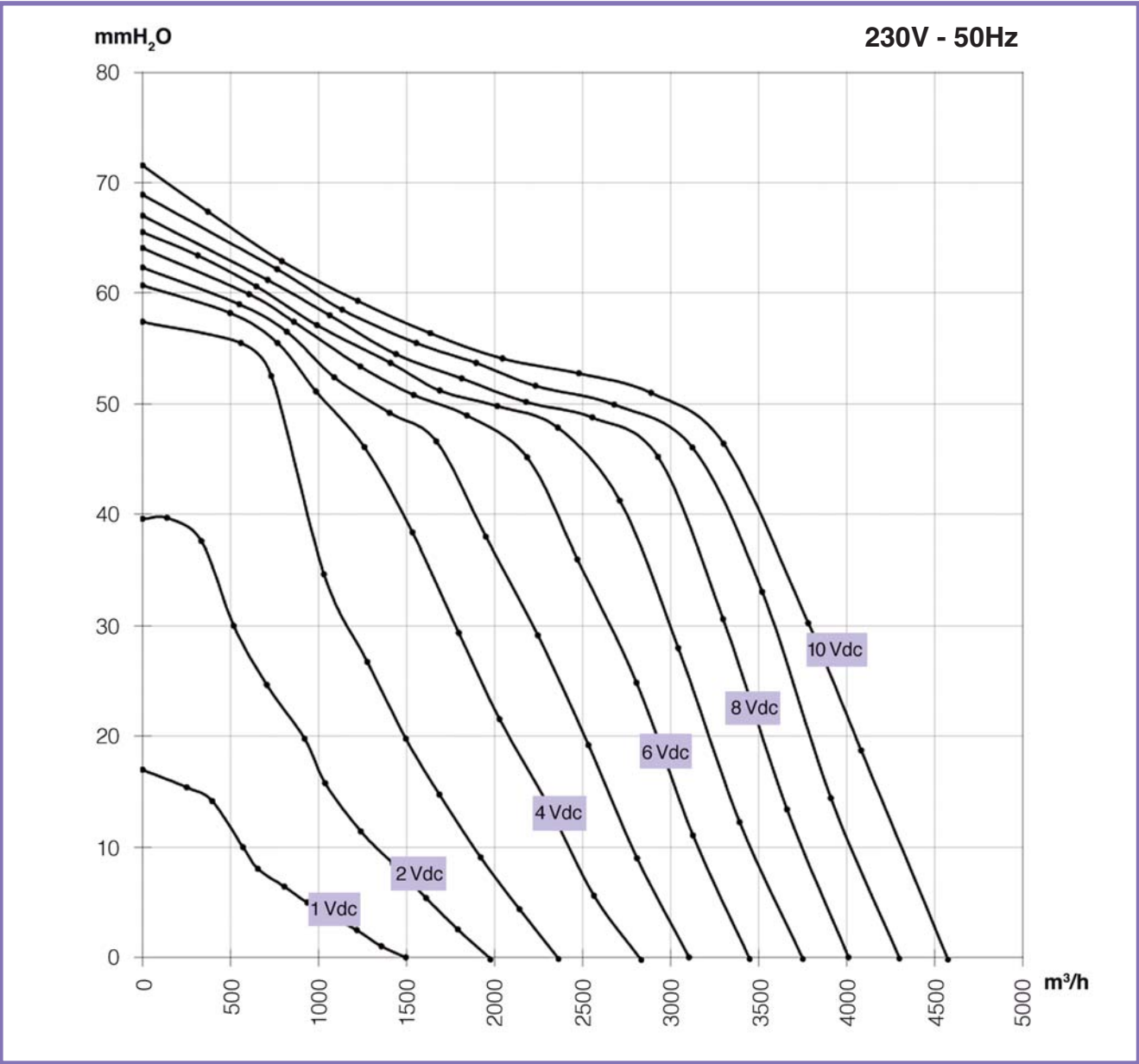
ErP 2015



Ventilator Type:	DDe 12/9
Blowers Material:	Metal
Housing Material:	Metal
Motor Support Material:	Metal
Motor Type:	ECM 3.0
Nominal Voltage:	230V
Frequency:	50-60 Hz
Nominal Watts:	1 HP
Range Voltage:	200-254 V
Range Frequency:	50-60 Hz
Input Signal:	0-10 Vdc
Electrical Insulation Class:	Cl.B (130°C)
Protection Degree:	Electronically Prot.
Mechanical Protection:	IP20
Motor Bearing:	Ball Bearing



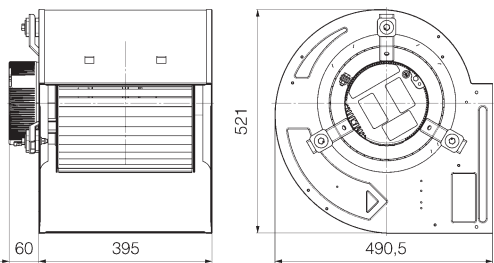
Test: PDDe-0018	
Operating limits	
Win:	Min 25 - Max 1100 (W)
Ampere:	Min 0.2 - Max 5.5 (A)
Static Pressure:	Min 0 - Max 71 (mmH ₂ O)
Measurement Category - A -	
Free Inlet - Free Outlet	
Value @ max. efficiency	
Air Flow:	2044 (m ³ /h)
Static Pressure:	54.1 (mmH ₂ O)
Rpm:	1245 (min-1)
Power Input:	648 (W)
Overall efficiency (η):	51.2
Grade efficiency (N):	58.7





PERFORMANCE CURVES
DDe 12/12 - 1 HP
LOW SPEED

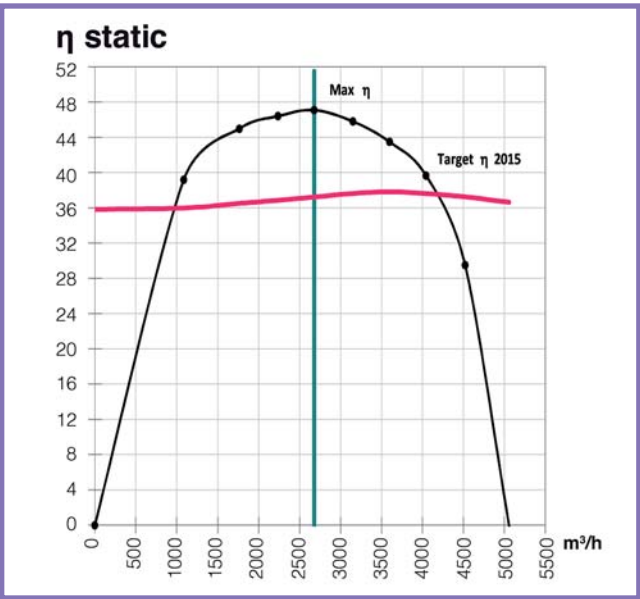
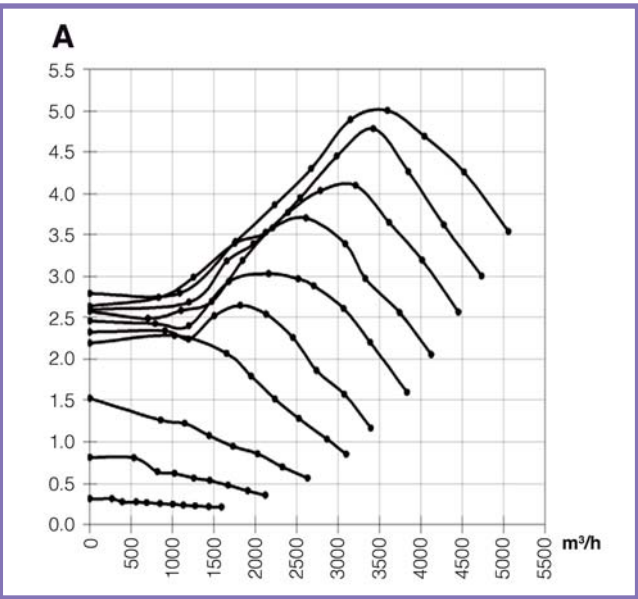
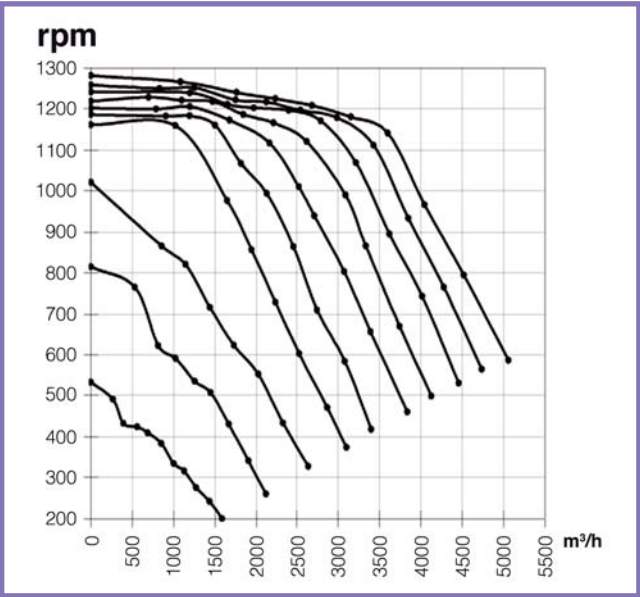
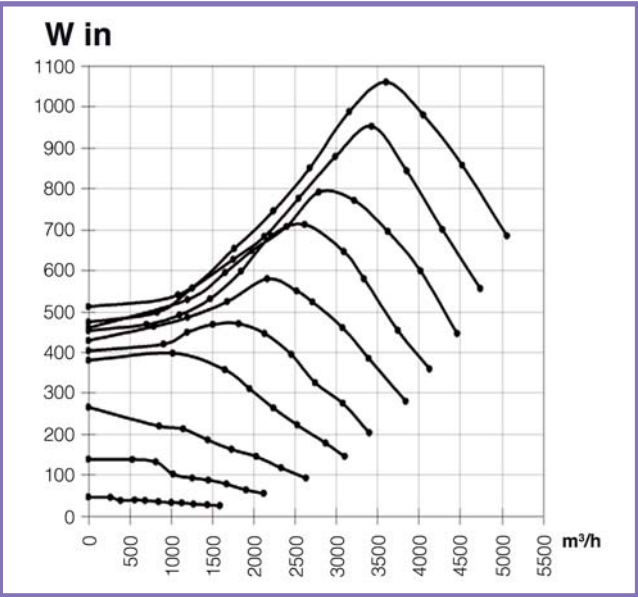
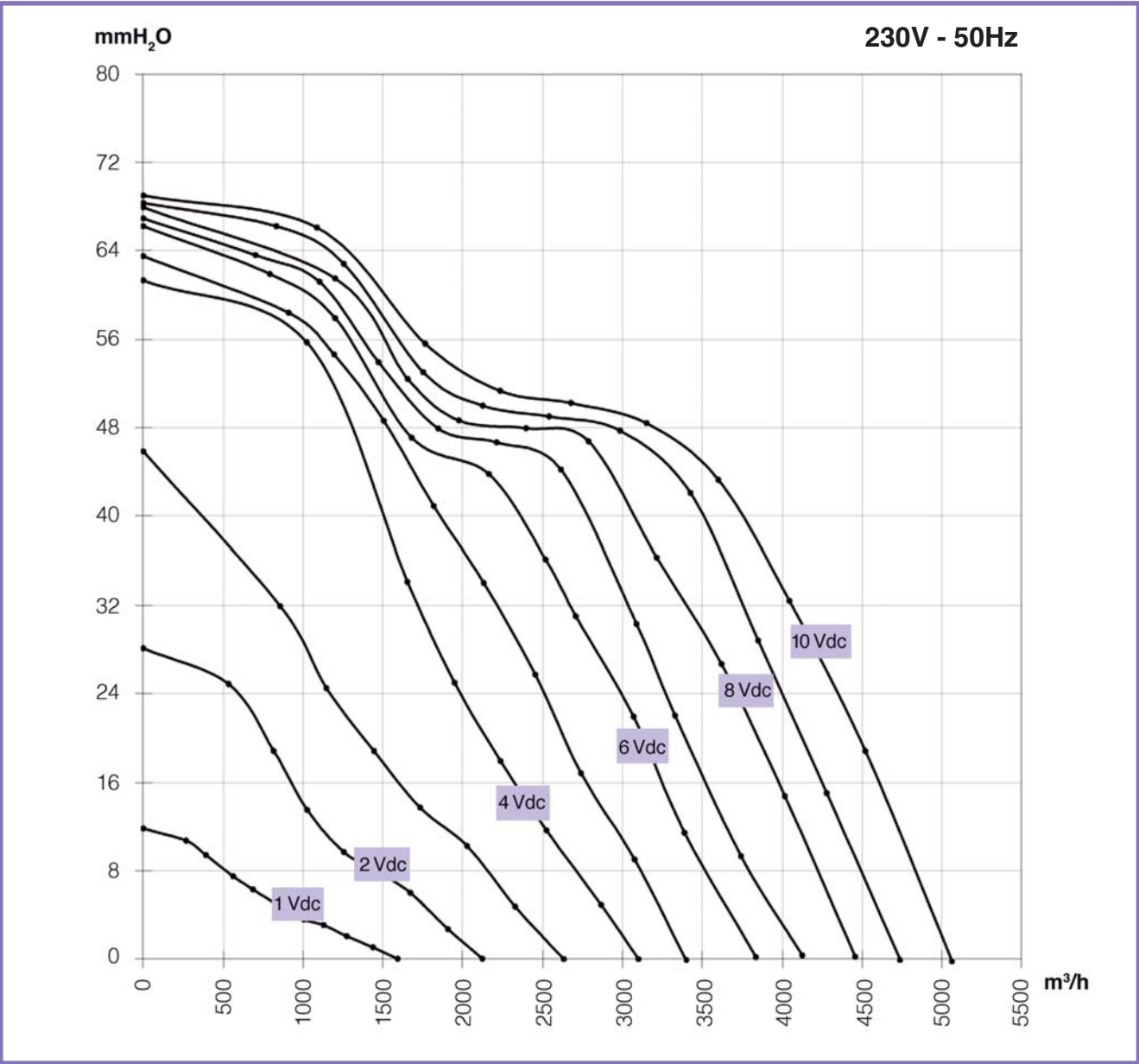
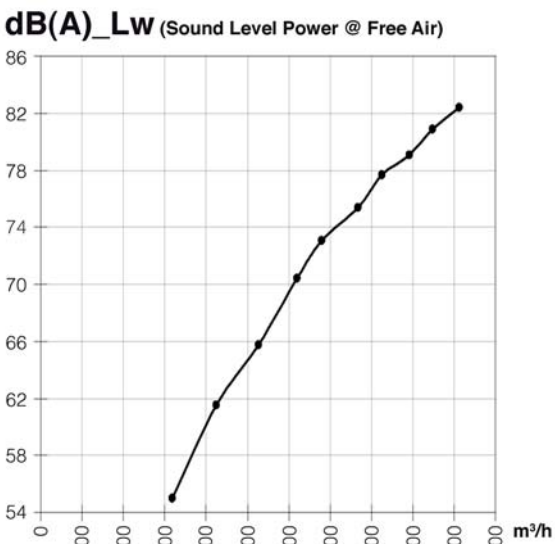
ErP 2015



Ventilator Type:	DDe 12/12
Blowers Material:	Metal
Housing Material:	Metal
Motor Support Material:	Metal
Motor Type:	ECM 3.0
Nominal Voltage:	230V
Frequency:	50-60 Hz
Nominal Watts:	1 HP
Range Voltage:	200-254 V
Range Frequency:	50-60 Hz
Input Signal:	0-10 Vdc
Electrical Insulation Class:	Cl.B (130°C)
Protection Degree:	Electronically Prot.
Mechanical Protection:	IP20
Motor Bearing:	Ball Bearing



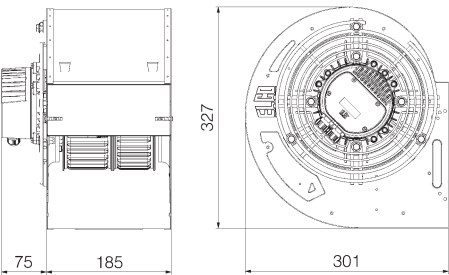
Test: PDDe-0015	
Operating limits	
Win:	Min 25 - Max 1100 (W)
Ampere:	Min 0.2 - Max 5.5 (A)
Static Pressure:	Min 0 - Max 71 (mmH ₂ O)
Measurement Category - A -	
Free Inlet - Free Outlet	
Value @ max. efficiency	
Air Flow:	2519 (m ³ /h)
Static Pressure:	36.1 (mmH ₂ O)
Rpm:	1010 (min-1)
Power Input:	550 (W)
Overall efficiency (η):	49.8
Grade efficiency (N):	57.8





PERFORMANCE CURVES
DDe 7/5 - 120 W
HIGH SPEED

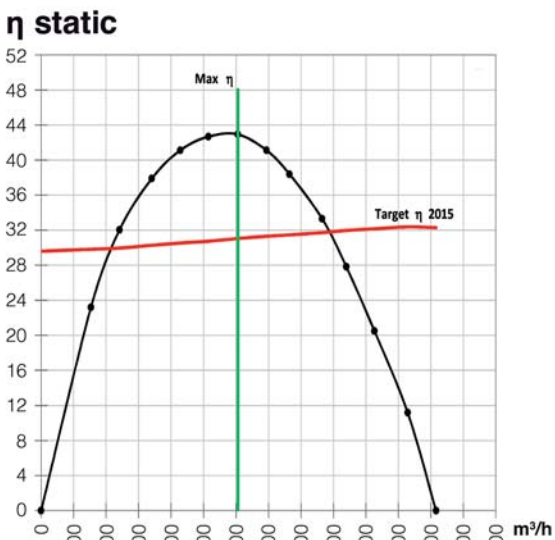
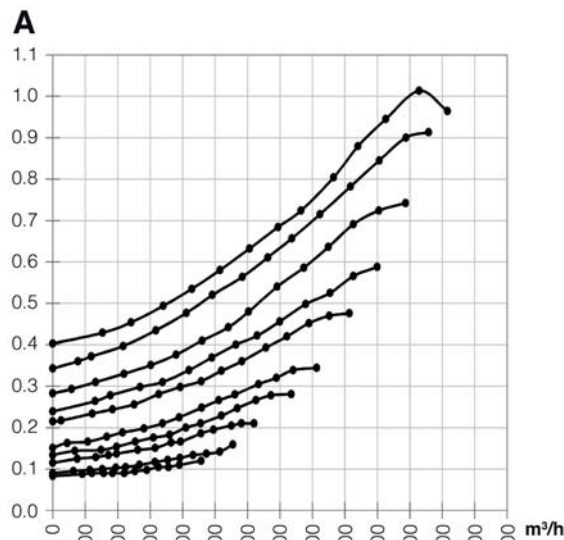
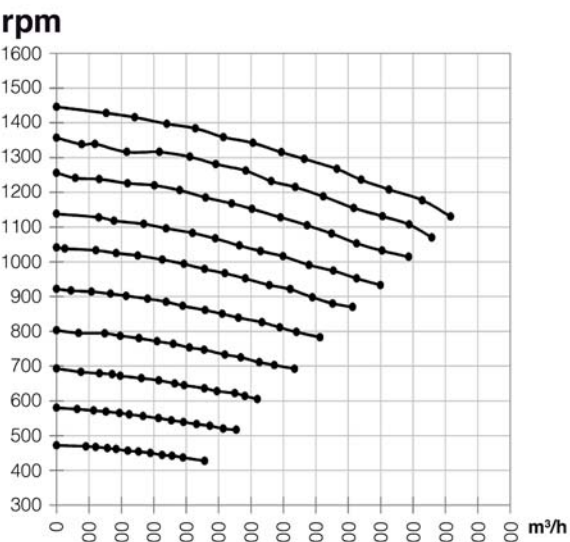
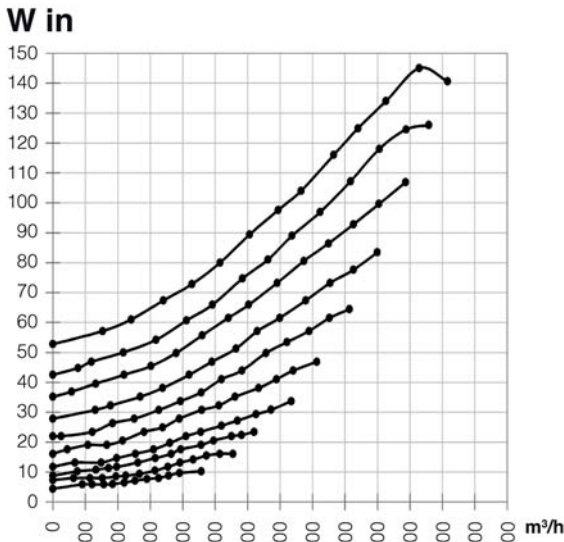
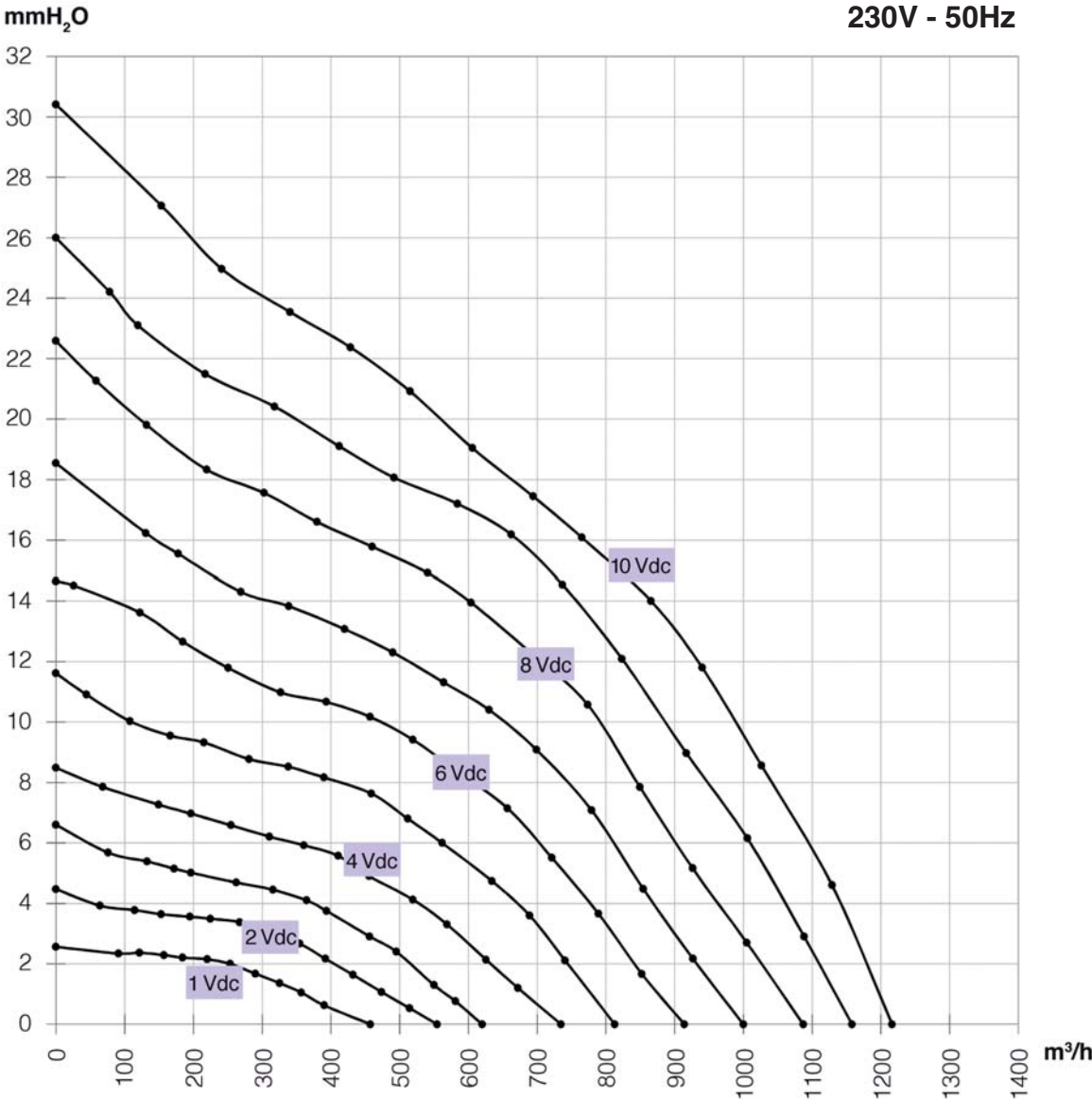
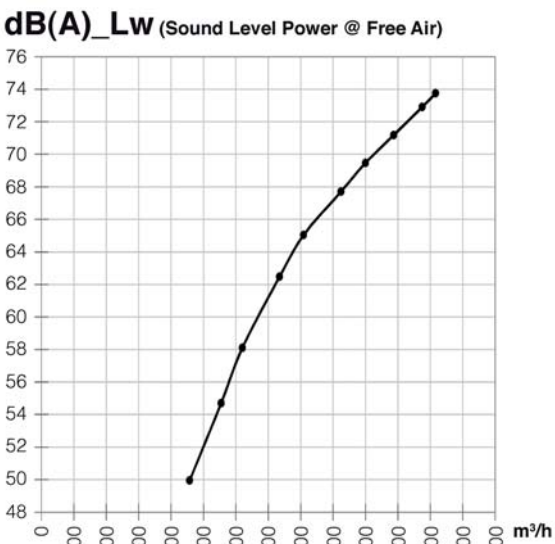
ErP Free



Ventilator Type:	DDe 7/5
Blowers Material:	Metal
Housing Material:	Metal
Motor Support Material:	Metal
Motor Type:	ECM 102A
Nominal Voltage:	230V
Frequency:	50-60 Hz
Nominal Watts:	120 W
Range Voltage:	200-264 V
Range Frequency:	50-60 Hz
Input Signal:	0-10 Vdc
Electrical Insulation Class:	Cl.B (130°C)
Protection Degree:	Electronically & Thermal
Mechanical Protection:	IP40
Motor Bearing:	Ball Bearing



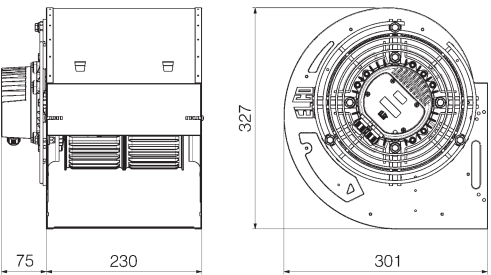
Test:	PDDe-0093	Web:	625
Operating limits			
Win:	Min 4 - Max 150 (W)		
Ampere:	Min 0.1 - Max 1.1 (A)		
Static Pressure:	Min 0 - Max 31 (mmH ₂ O)		
Measurement Category - A -	Free Inlet - Free Outlet		
Value @ max. efficiency			
Air Flow:	606 (m ³ /h)		
Static Pressure:	20.0 (mmH ₂ O)		
Rpm:	1342 (min-1)		
Power Input:	89 (W)		
Overall efficiency (η):	42.9		
Grade efficiency (N):	55.9		





PERFORMANCE CURVES
DDe 7/7 - 120 W
HIGH SPEED

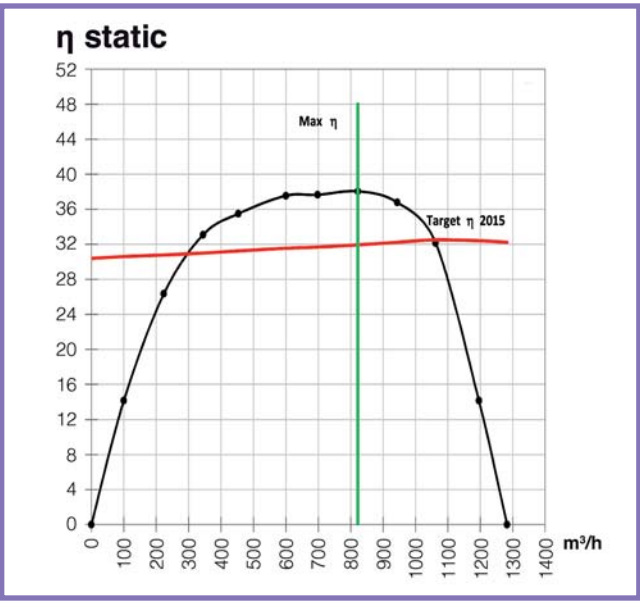
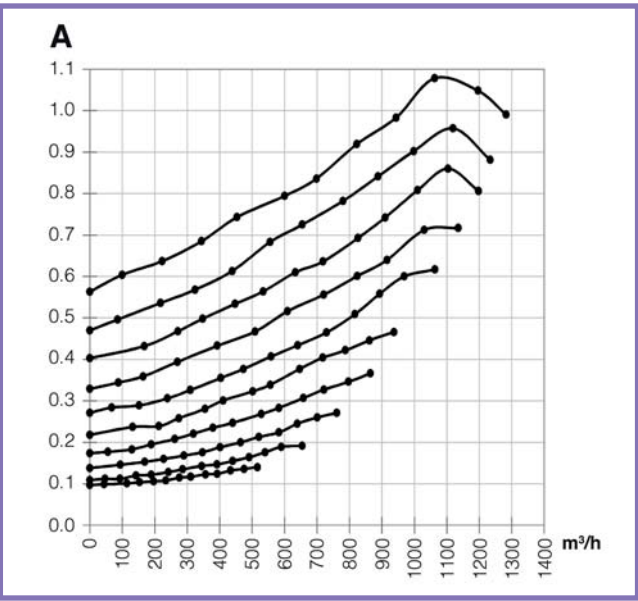
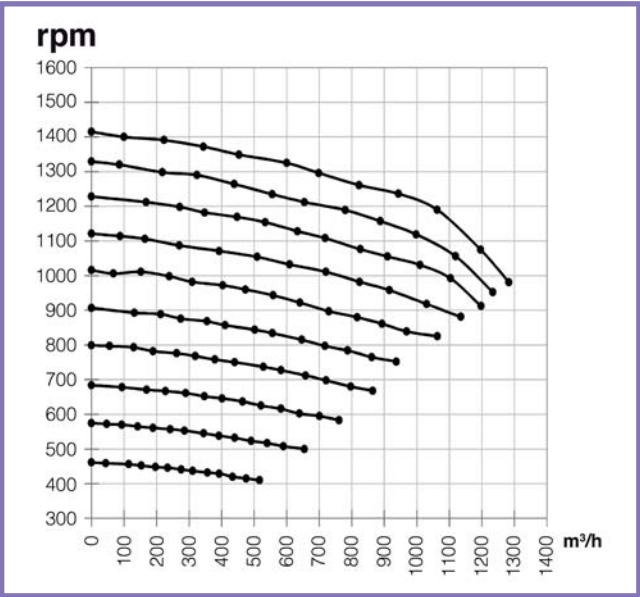
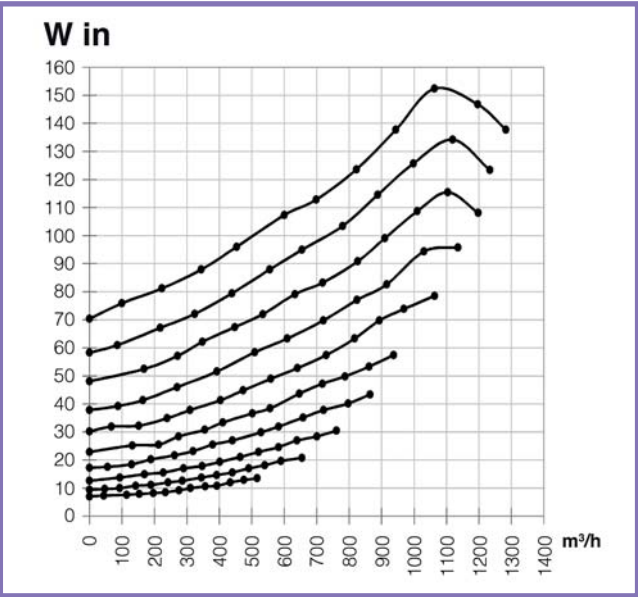
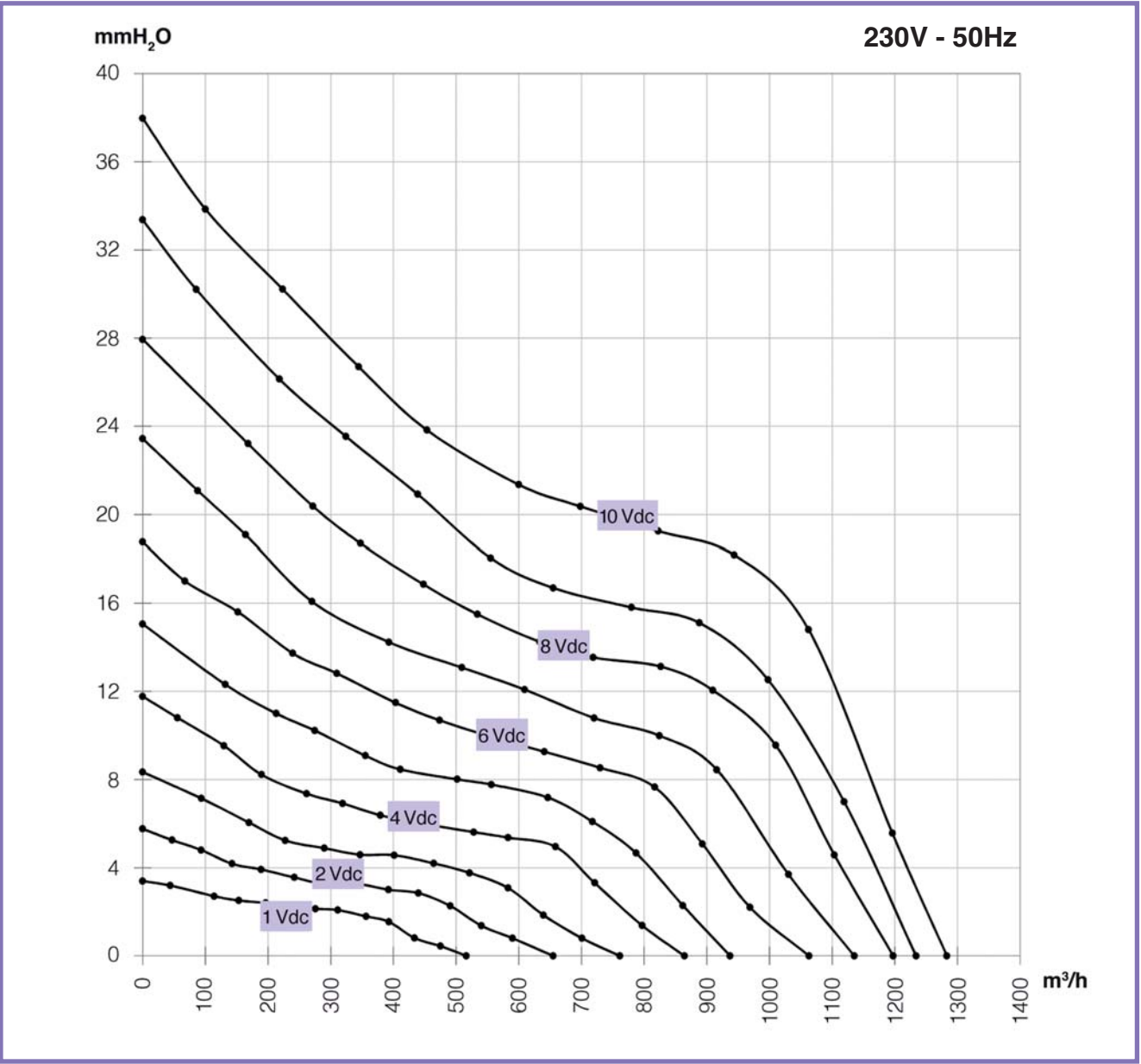
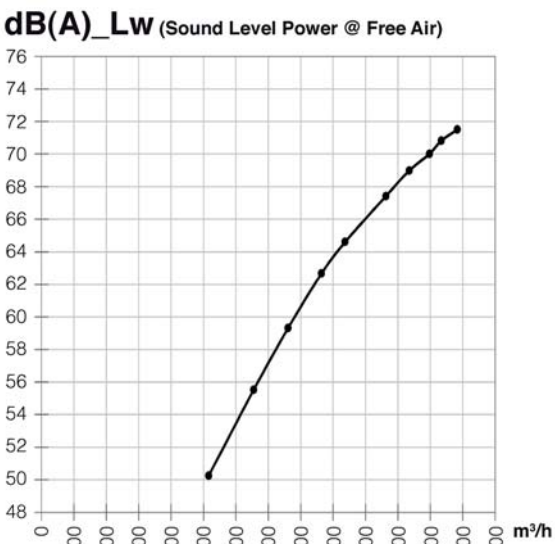
ErP Free



Ventilator Type:	DDe 7/7
Blowers Material:	Metal
Housing Material:	Metal
Motor Support Material:	Metal
Motor Type:	ECM 102A
Nominal Voltage:	230V
Frequency:	50-60 Hz
Nominal Watts:	120 W
Range Voltage:	200-264 V
Range Frequency:	50-60 Hz
Input Signal:	0-10 Vdc
Electrical Insulation Class:	Cl.B (130°C)
Protection Degree:	Electronically & Thermal
Mechanical Protection:	IP40
Motor Bearing:	Ball Bearing

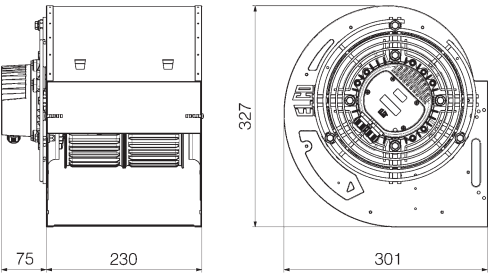


Test:	PDDe-0083	Web:	626
Operating limits			
Win:	Min 5 - Max 155 (W)		
Ampere:	Min 0.1 - Max 1.1 (A)		
Static Pressure:	Min 0 - Max 38 (mmH ₂ O)		
Measurement Category - A -	Free Inlet - Free Outlet		
Value @ max. efficiency			
Air Flow:	822 (m ³ /h)		
Static Pressure:	18.3 (mmH ₂ O)		
Rpm:	1261 (min-1)		
Power Input:	124 (W)		
Overall efficiency (η):	38.1		
Grade efficiency (N):	50.1		



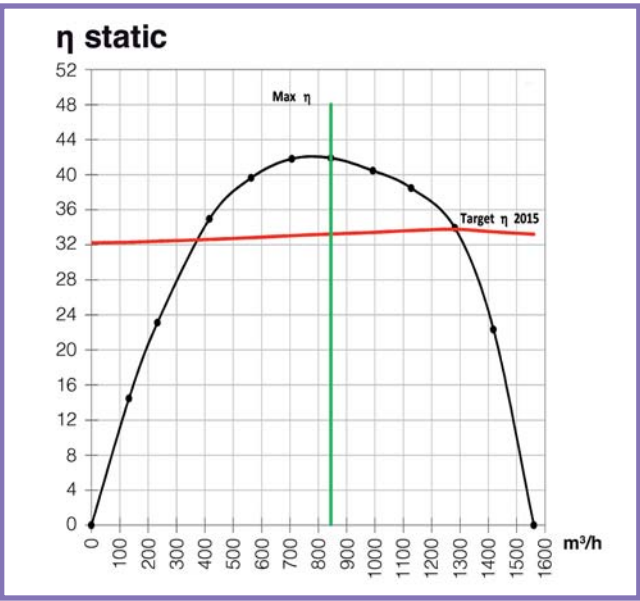
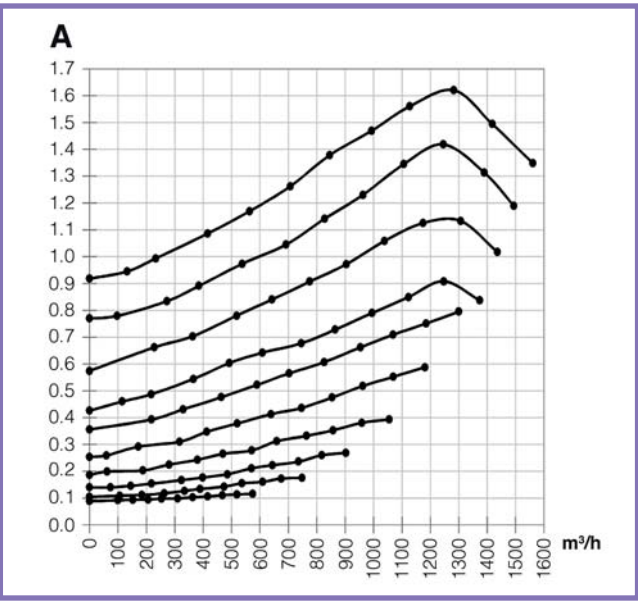
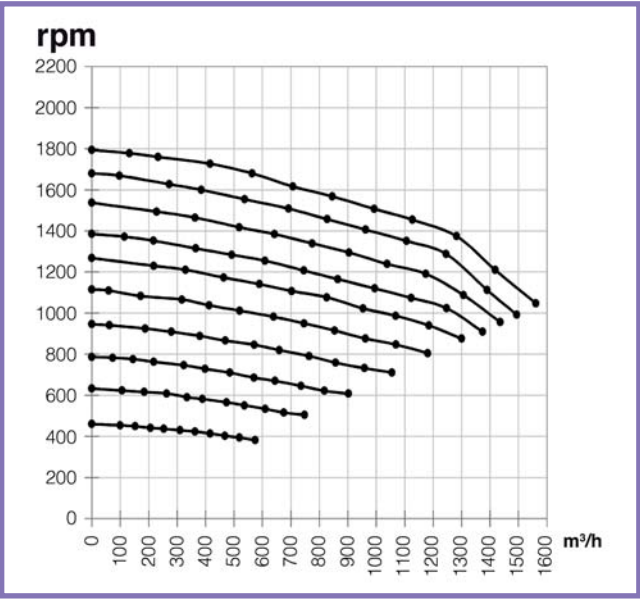
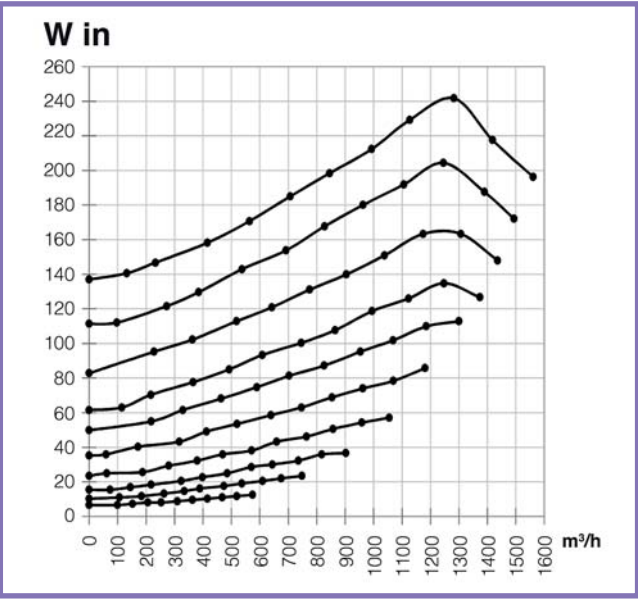
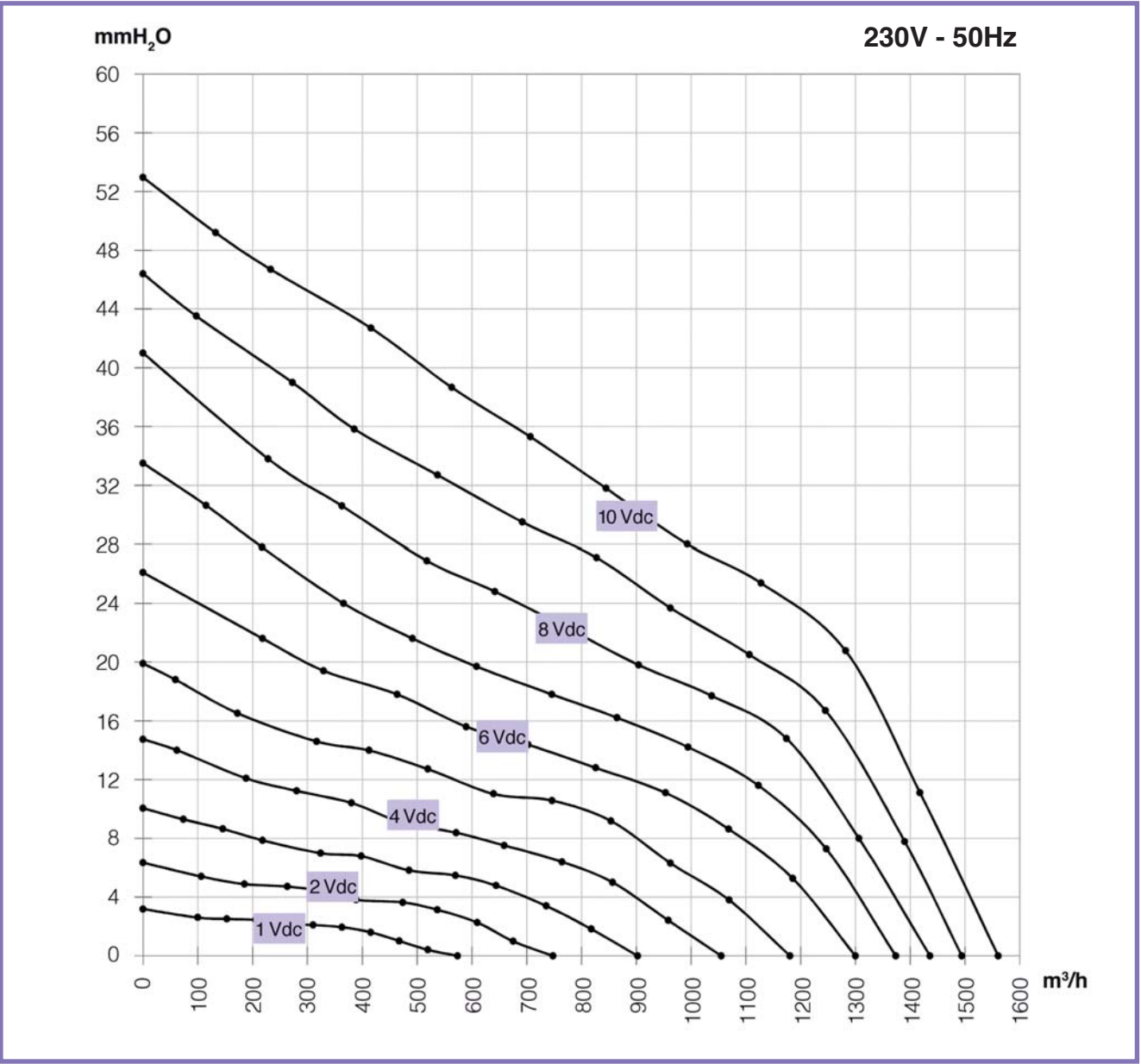
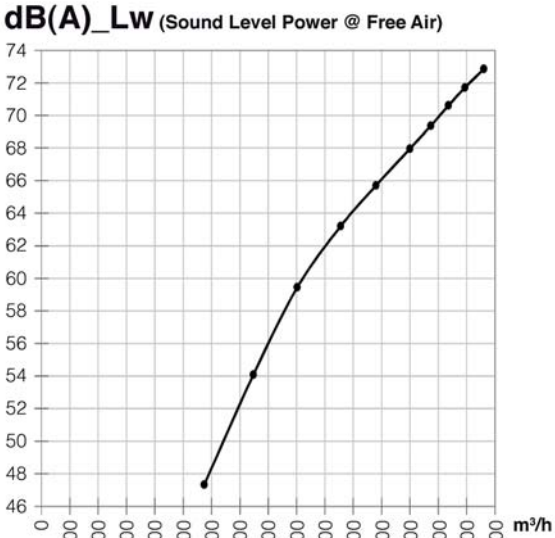
PERFORMANCE CURVES
DDe 7/7 - 170 W
HIGH SPEED

ErP 2015



Ventilator Type:	DDe 7/7
Blowers Material:	Metal
Housing Material:	Metal
Motor Support Material:	Metal
Motor Type:	ECM 102C
Nominal Voltage:	230V
Frequency:	50-60 Hz
Nominal Watts:	170 W
Range Voltage:	200-264 V
Range Frequency:	50-60 Hz
Input Signal:	0-10 Vdc
Electrical Insulation Class:	Cl.B (130°C)
Protection Degree:	Electronically & Thermal
Mechanical Protection:	IP40
Motor Bearing:	Sleeve Bearing

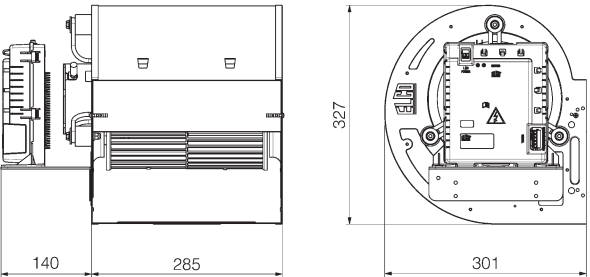
Test:	PDDe-0042	Web:	627
Operating limits			
Win:	Min 10 - Max 245 (W)		
Ampere:	Min 0.1 - Max 1.65 (A)		
Static Pressure:	Min 0 - Max 53 (mmH ₂ O)		
Measurement Category - A -			
Free Inlet - Free Outlet			
Value @ max. efficiency			
Air Flow:	845 (m ³ /h)		
Static Pressure:	31.8 (mmH ₂ O)		
Rpm:	1568 (min-1)		
Power Input:	198 (W)		
Overall efficiency (η):	41.9		
Grade efficiency (N):	52.7		





PERFORMANCE CURVES
DDe 7/9 - 400 W
HIGH SPEED

ErP 2015



Ventilator Type:	DDe 7/9
Blowers Material:	Metal
Housing Material:	Metal
Motor Support Material:	Metal
Motor Type:	ECM 102C
Nominal Voltage:	230V
Frequency:	50-60 Hz
Nominal Watts:	400 W
Range Voltage:	200-264 V
Range Frequency:	50-60 Hz
Input Signal:	0-10 Vdc
Electrical Insulation Class:	Cl.B (130°C)
Protection Degree:	Electronically & Thermal
Mechanical Protection:	IP40
Motor Bearing	Sleeve Bearing



Test: PDDe-0085 Web: 628

Operating limits

Win:	Min 14 - Max 550 (W)
Ampere:	Min 0.1 - Max 2.3 (A)
Static Pressure:	Min 0 - Max 50 (mmH ₂ O)

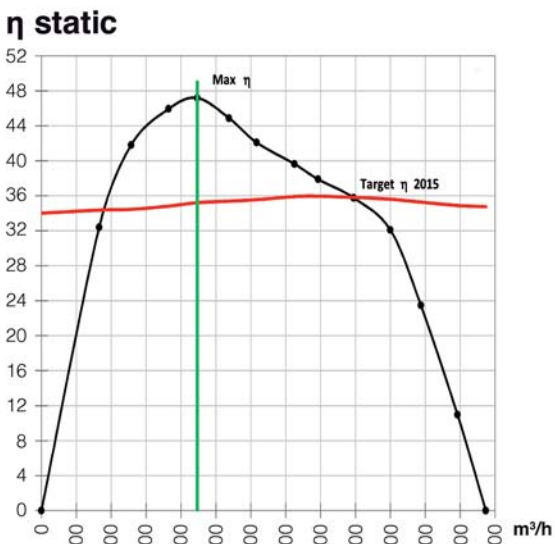
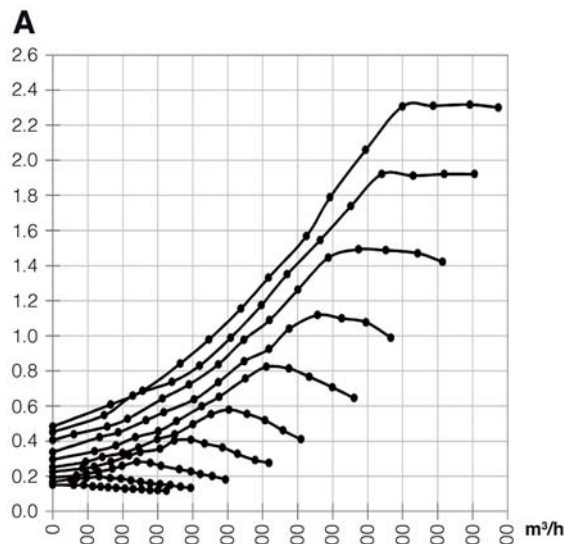
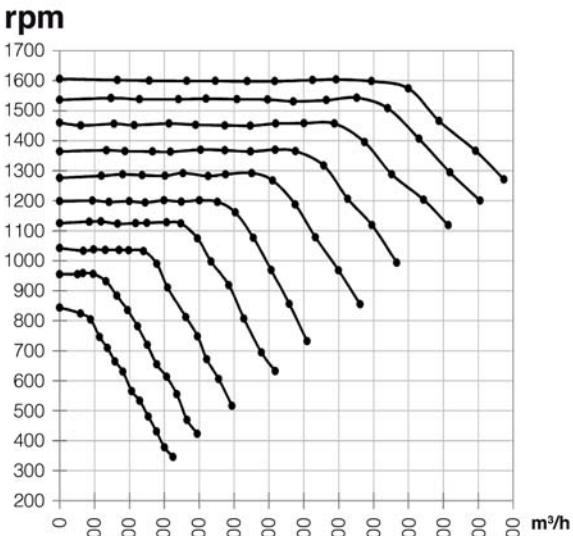
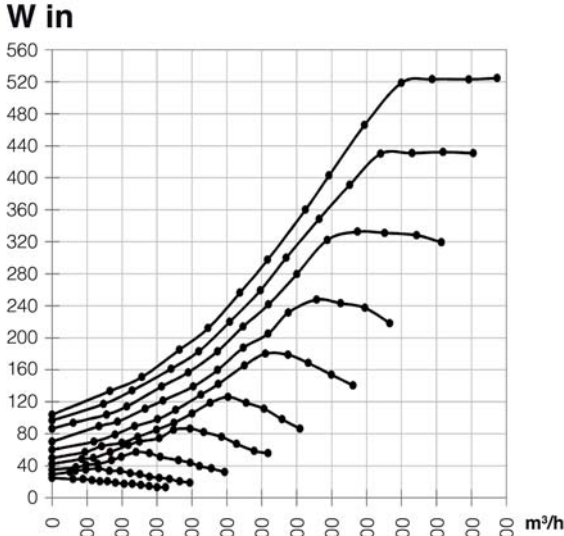
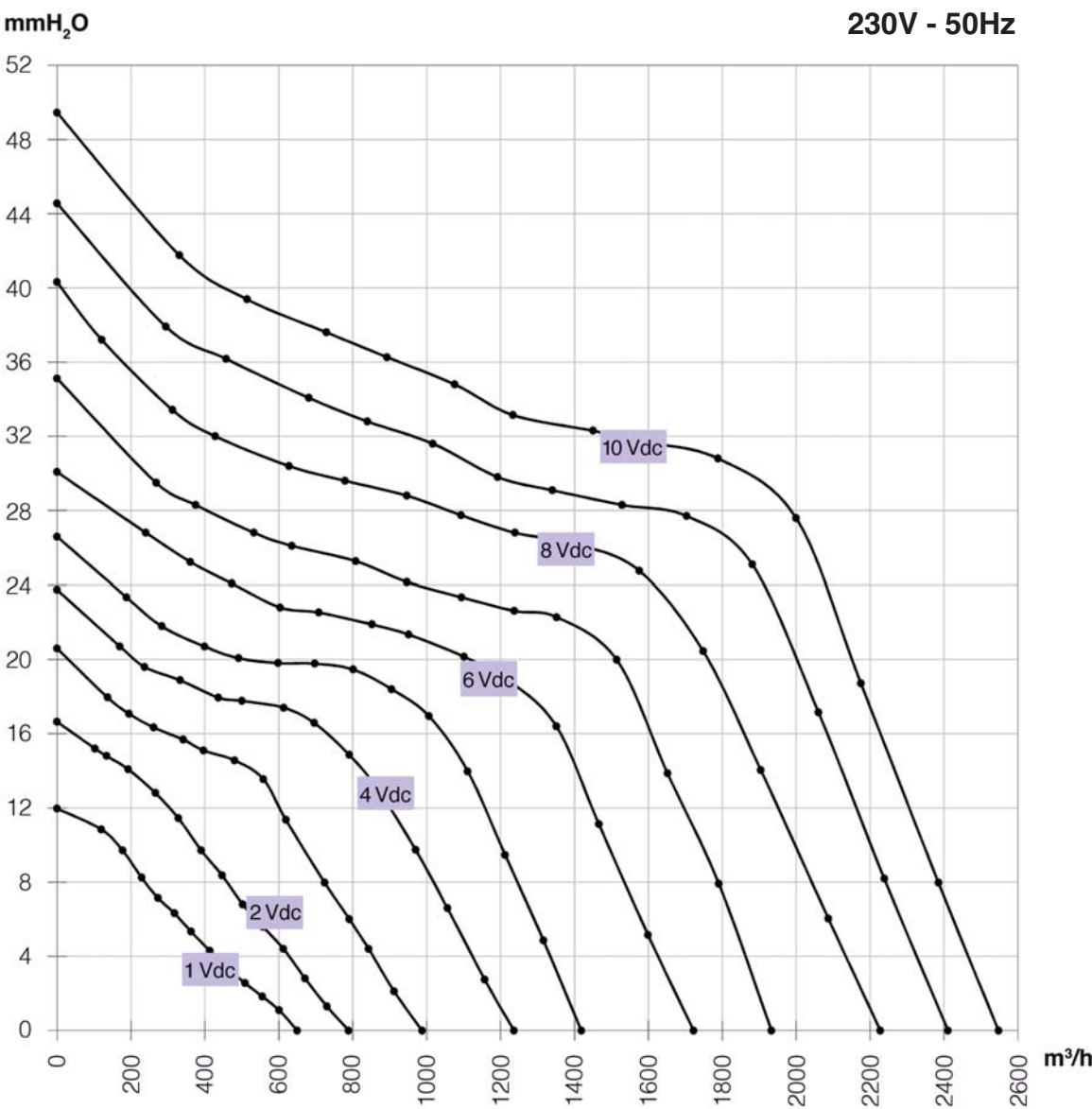
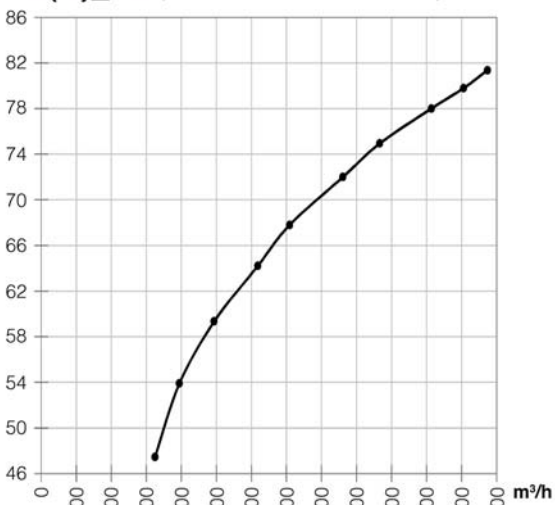
Measurement Category - A -

Free Inlet - Free Outlet

Value @ max. efficiency

Air Flow:	893 (m ³ /h)
Static Pressure:	36.3 (mmH ₂ O)
Rpm:	1599 (min-1)
Power Input:	212 (W)
Overall efficiency (η):	47.2
Grade efficiency (N):	57.8

dB(A)_LW (Sound Level Power @ Free Air)

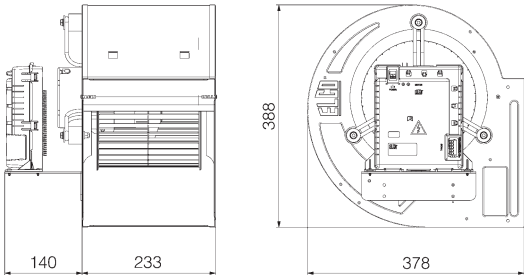


PERFORMANCE CURVES

DDe 9/7 - 400 W

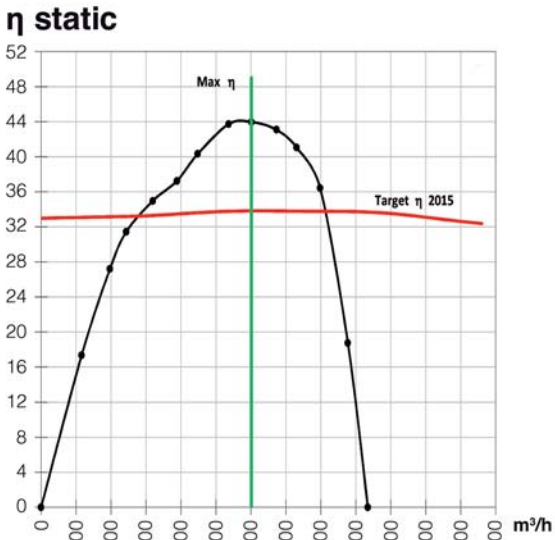
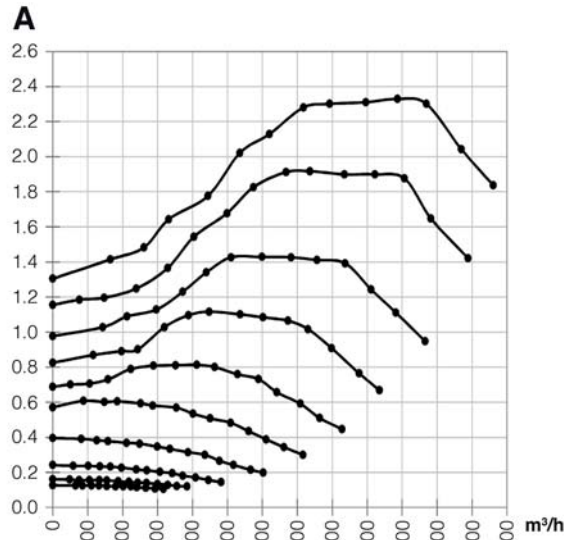
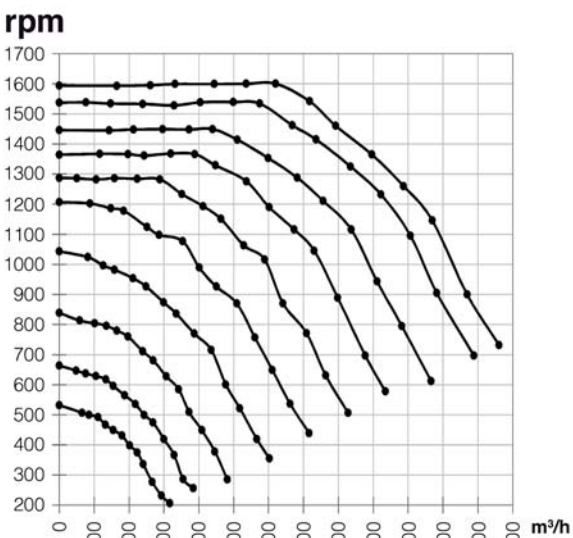
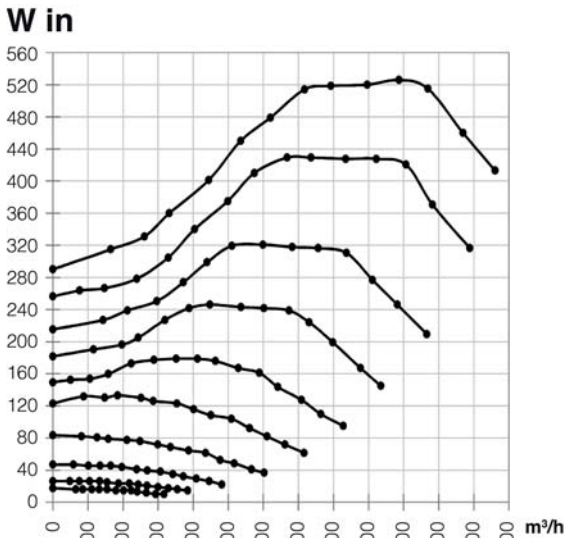
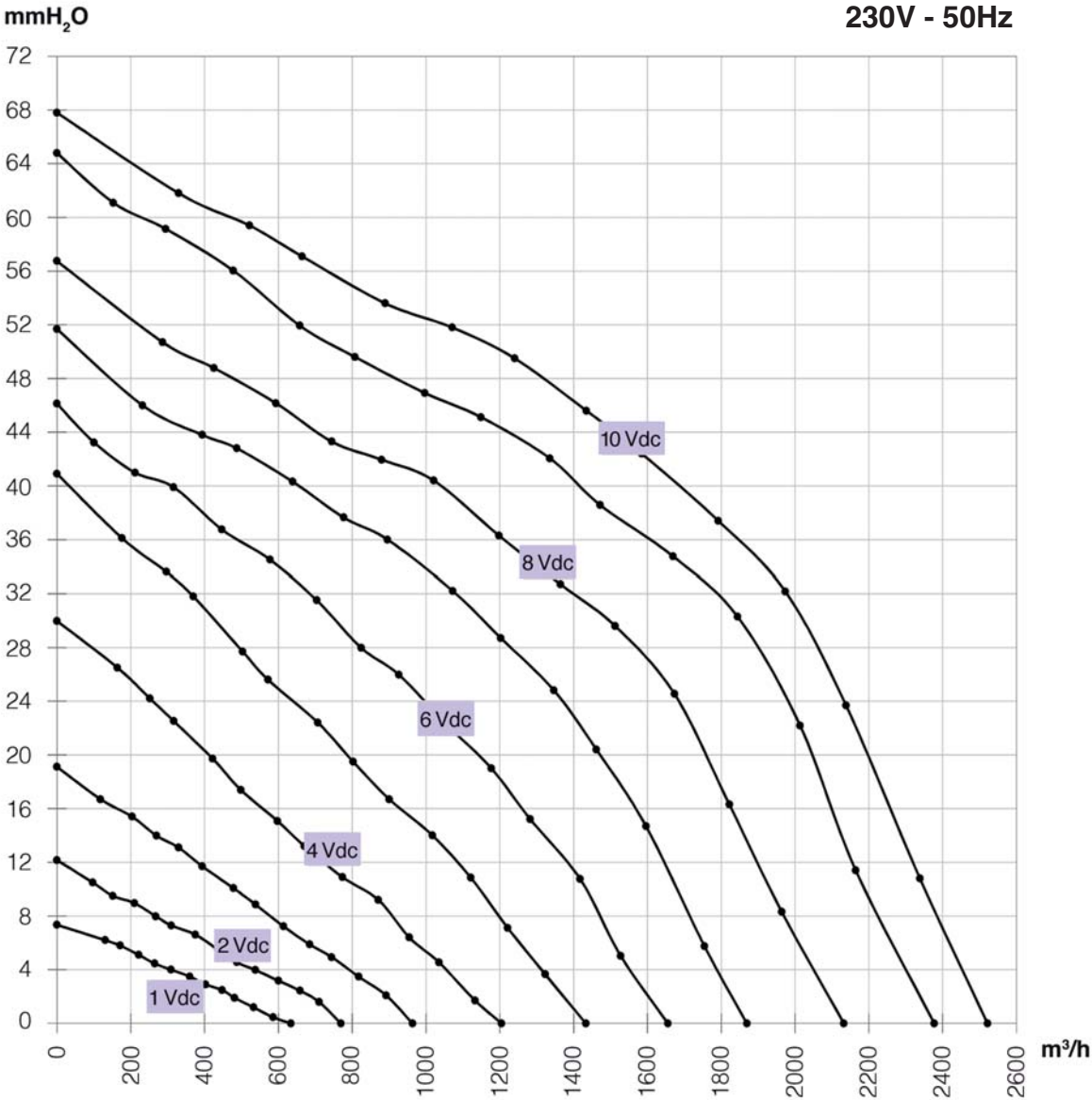
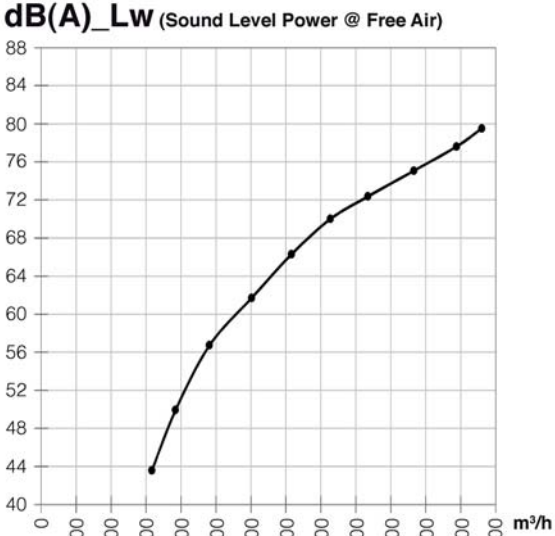
HIGH SPEED

ErP 2015



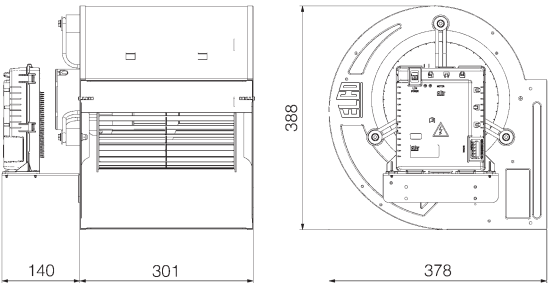
Ventilator Type:	DDe 9/7
Blowers Material:	Metal
Housing Material:	Metal
Motor Support Material:	Metal
Motor Type:	ECM 102C
Nominal Voltage:	230V
Frequency:	50-60 Hz
Nominal Watts:	400 W
Range Voltage:	200-264 V
Range Frequency:	50-60 Hz
Input Signal:	0-10 Vdc
Electrical Insulation Class:	Cl.B (130°C)
Protection Degree:	Electronically & Thermal
Mechanical Protection:	IP40
Motor Bearing:	Sleeve Bearing

Test:	PDDe-0086	Web:	629
Operating limits			
Win:	Min 10 - Max 550 (W)		
Ampere:	Min 0.1 - Max 2.4 (A)		
Static Pressure:	Min 0 - Max 68 (mmH ₂ O)		
Measurement Category - A -			
Free Inlet - Free Outlet			
Value @ max. efficiency			
Air Flow:	1203 (m ³ /h)		
Static Pressure:	28.7 (mmH ₂ O)		
Rpm:	1190 (min-1)		
Power Input:	242 (W)		
Overall efficiency (η):	44.0		
Grade efficiency (N):	54.2		



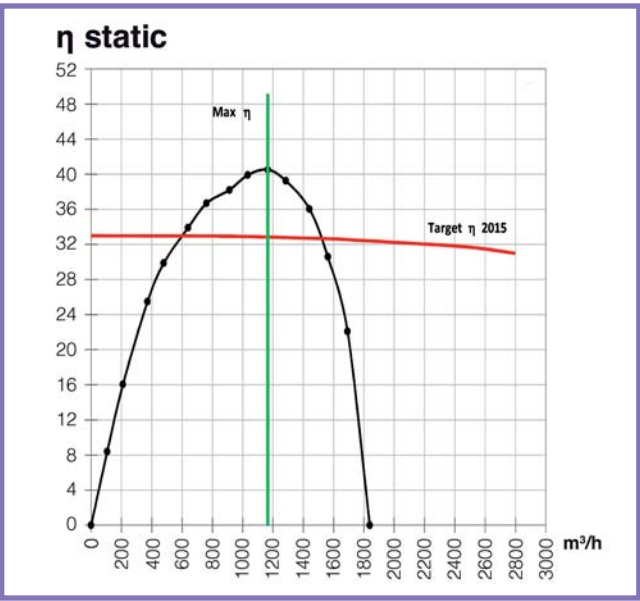
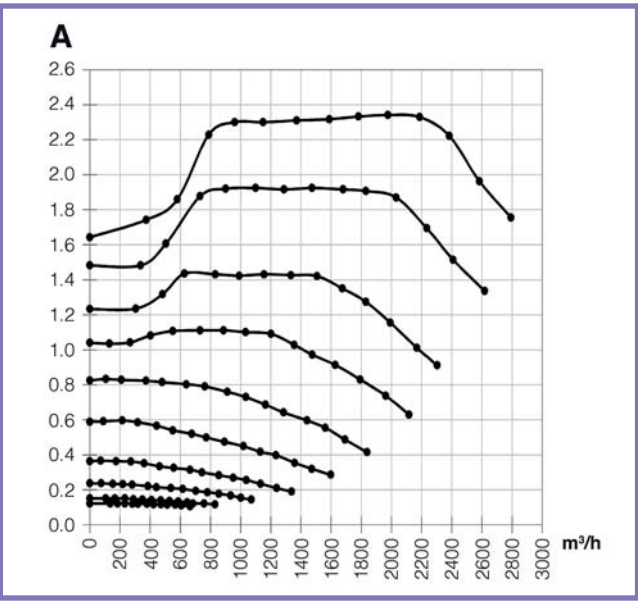
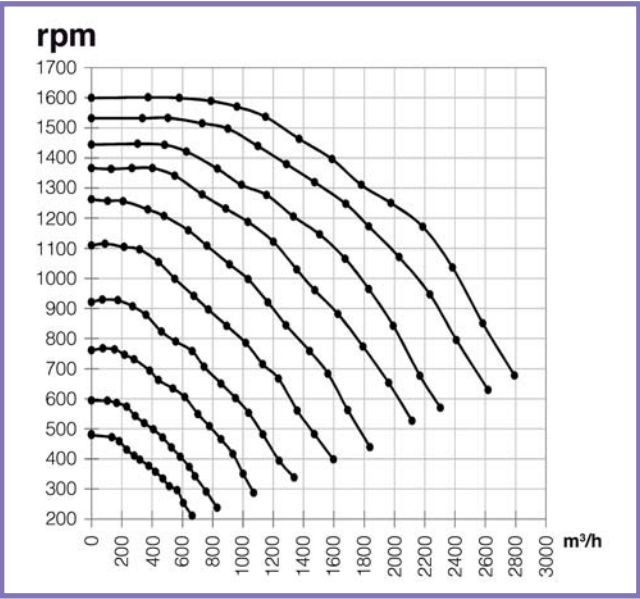
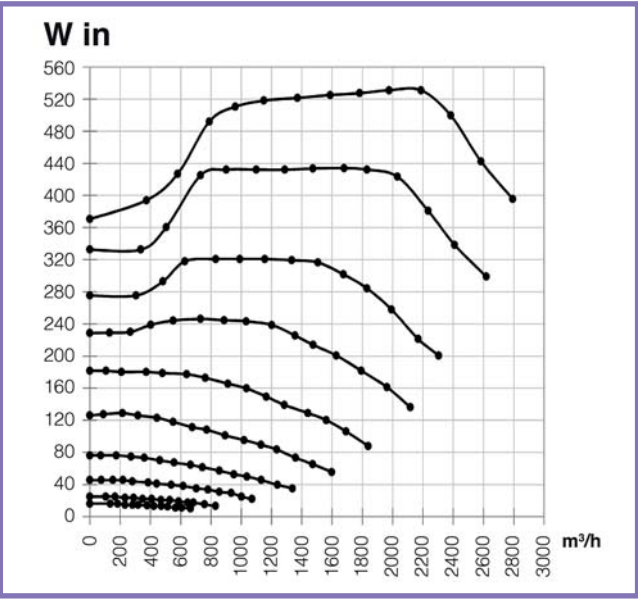
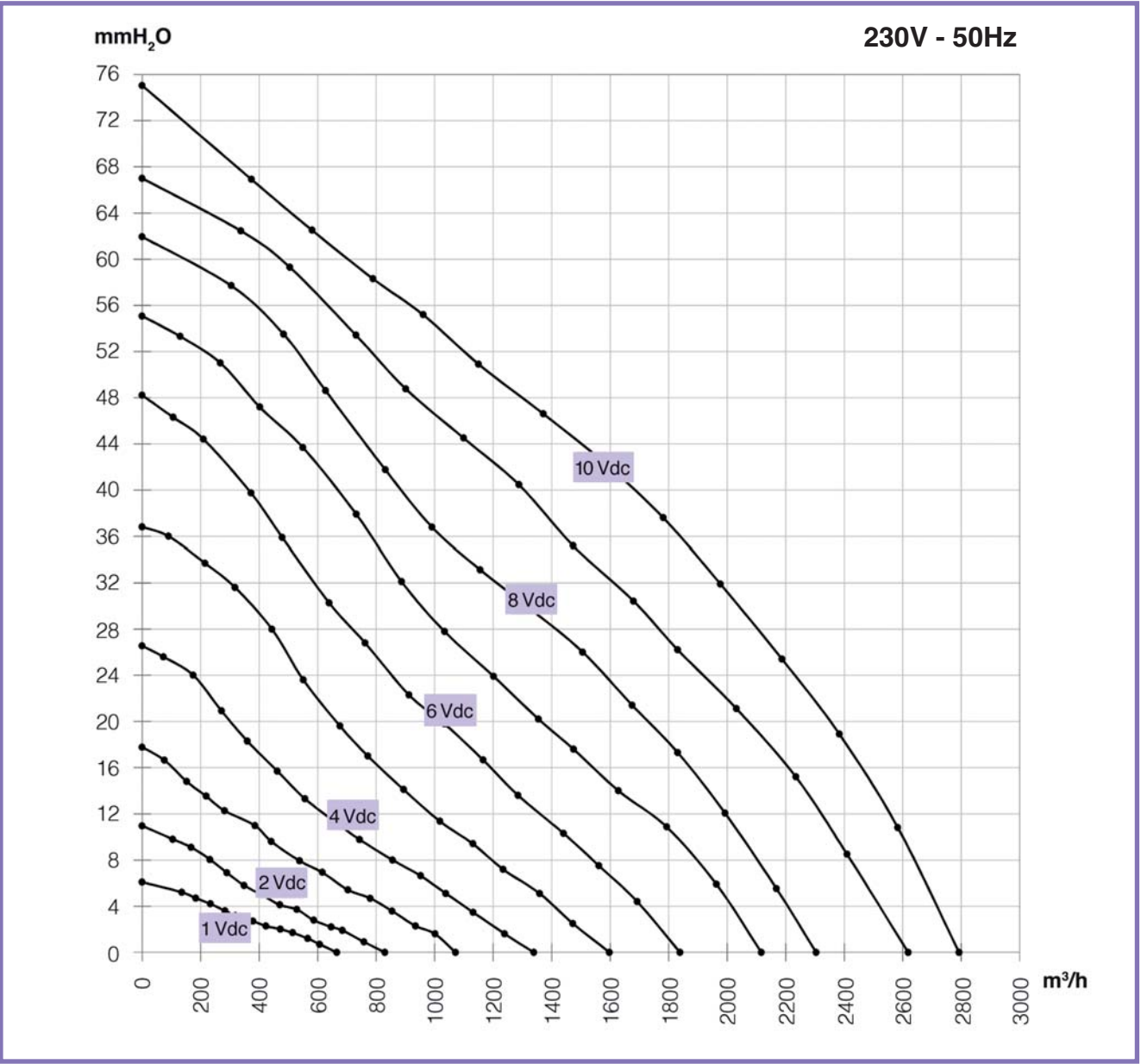
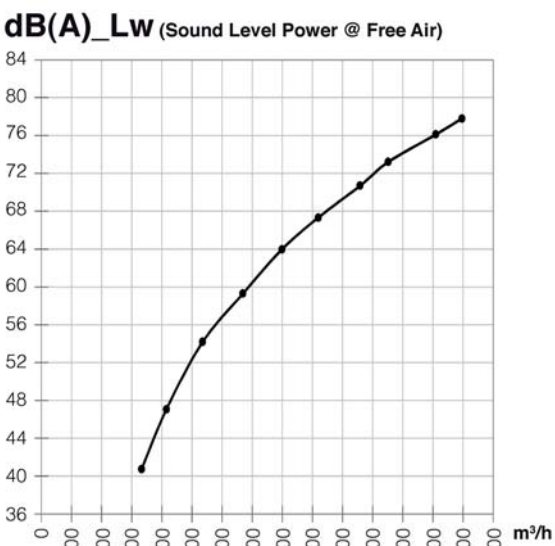
PERFORMANCE CURVES
DDe 9/9 - 400 W
HIGH SPEED

ErP 2015



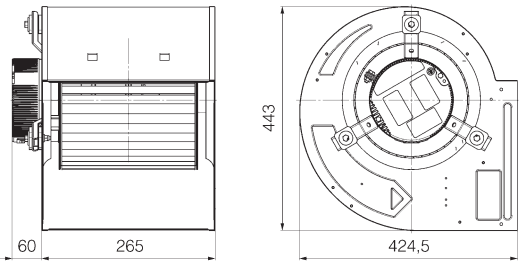
Ventilator Type:	DDe 9/9
Blowers Material:	Metal
Housing Material:	Metal
Motor Support Material:	Metal
Motor Type:	ECM 102C
Nominal Voltage:	230V
Frequency:	50-60 Hz
Nominal Watts:	400 W
Range Voltage:	200-264 V
Range Frequency:	50-60 Hz
Input Signal:	0-10 Vdc
Electrical Insulation Class:	Cl.B (130°C)
Protection Degree:	Electronically & Thermal
Mechanical Protection:	IP40
Motor Bearing:	Sleeve Bearing

Test:	PDDe-0087	Web:	630
Operating limits			
Win:	Min 11 - Max 550 (W)		
Ampere:	Min 0.1 - Max 2.4 (A)		
Static Pressure:	Min 0 - Max 76 (mmH ₂ O)		
Measurement Category - A -			
Free Inlet - Free Outlet			
Value @ max. efficiency			
Air Flow:	1166 (m ³ /h)		
Static Pressure:	16.7 (mmH ₂ O)		
Rpm:	920 (min-1)		
Power Input:	149 (W)		
Overall efficiency (η):	40.5		
Grade efficiency (N):	52.1		



PERFORMANCE CURVES
DDe 10/8 - 1/2 HP
HIGH SPEED

ErP 2015



Ventilator Type:	DDe 10/8
Blowers Material:	Metal
Housing Material:	Metal
Motor Support Material:	Metal
Motor Type:	ECM 3.0
Nominal Voltage:	230V
Frequency:	50-60 Hz
Nominal Watts:	1/2 HP
Range Voltage:	200-254V
Range Frequency:	50-60 Hz
Input Signal:	0-10 Vdc
Electrical Insulation Class:	Cl.B (130°C)
Protection Degree:	Electronically Prot.
Mechanical Protection:	IP20
Motor Bearing:	Ball Bearing

Test: PDDe-0014

Operating limits

Win:	Min 15 - Max 600 (W)
Ampere:	Min 0.15 - Max 3.5 (A)
Static Pressure:	Min 0 - Max 65 (mmH ₂ O)

Measurement Category - A -

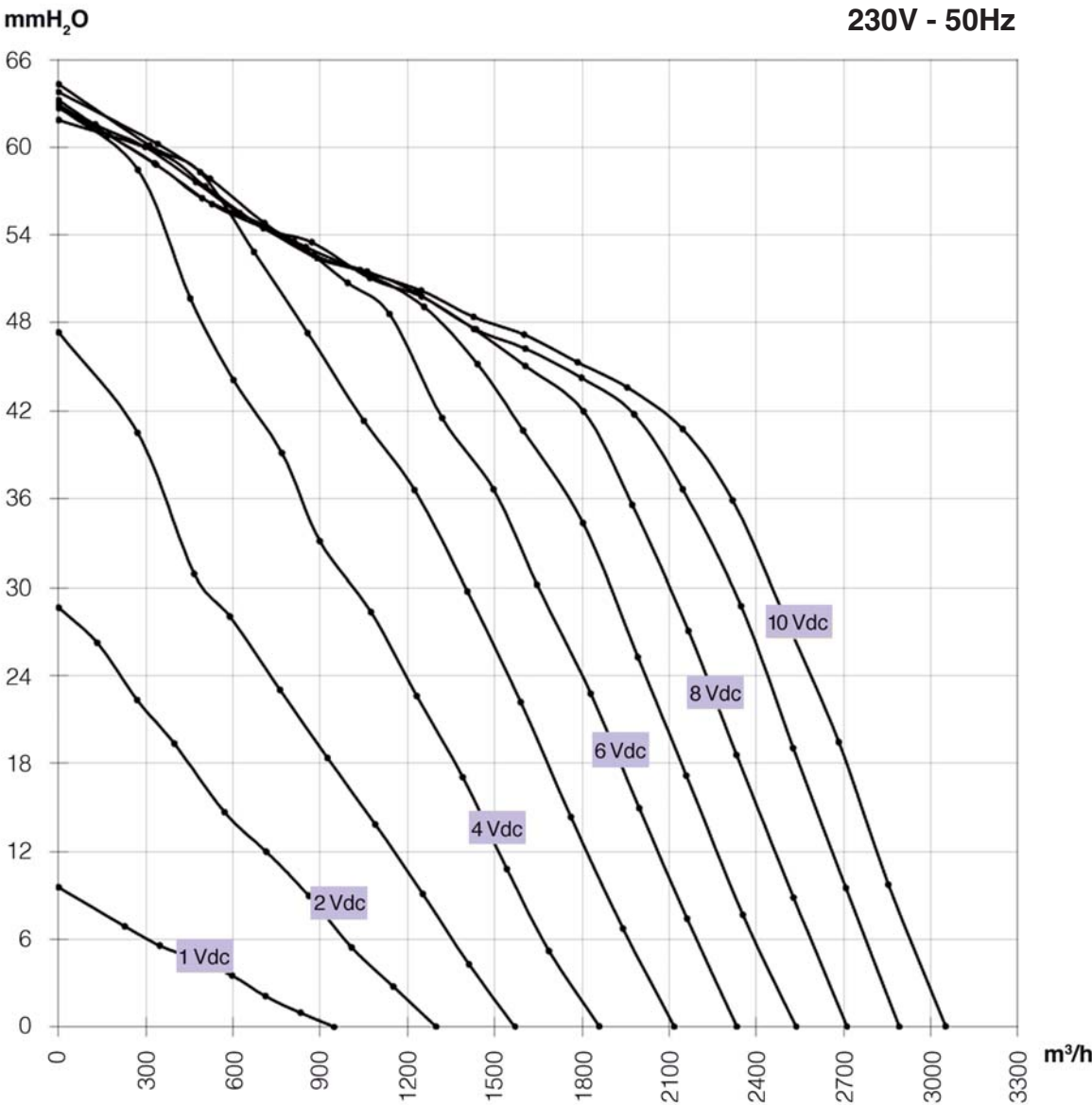
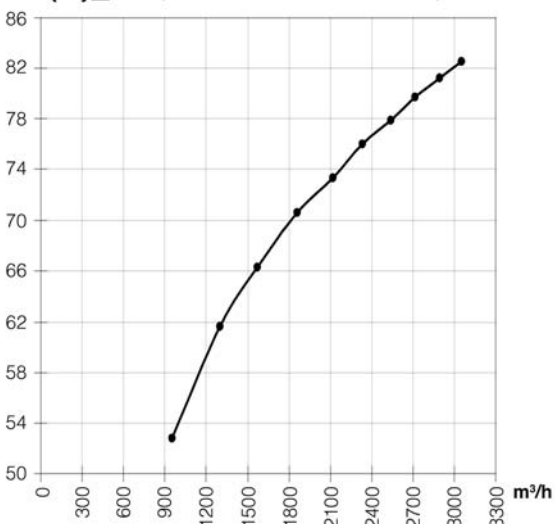
Free Inlet - Free Outlet

Value @ max. efficiency

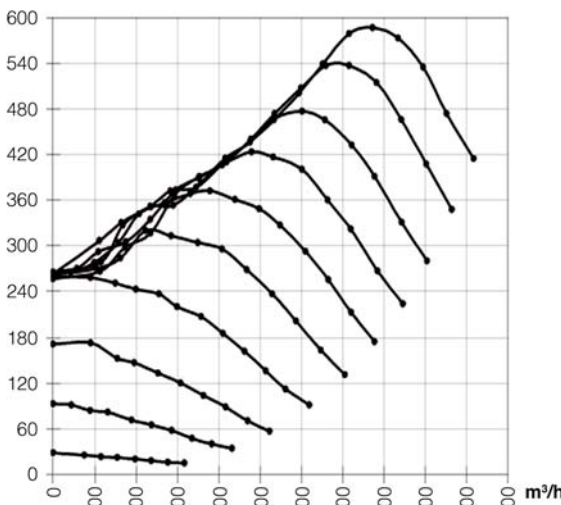
Air Flow:	1602 (m ³ /h)
Static Pressure:	47.2 (mmH ₂ O)
Rpm:	1404 (min-1)
Power Input:	465 (W)

Overall efficiency (η):	49.2
Grade efficiency (N):	57.6

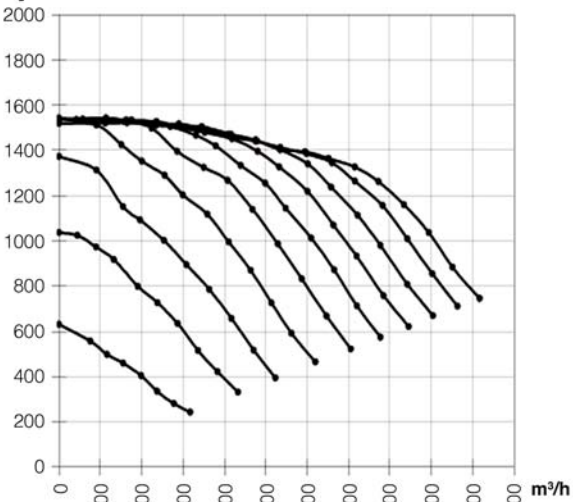
dB(A)_LW (Sound Level Power @ Free Air)



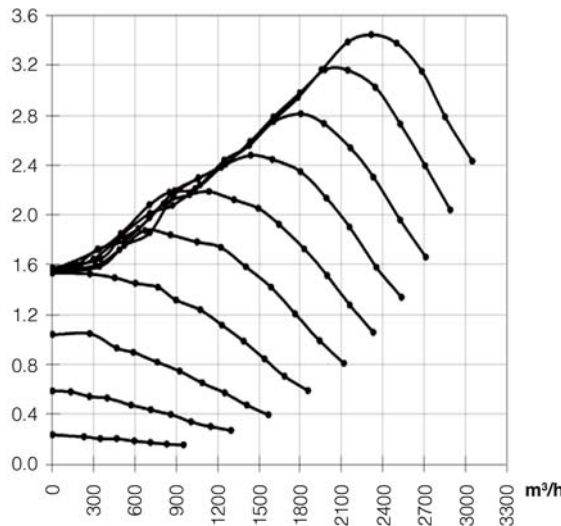
W in



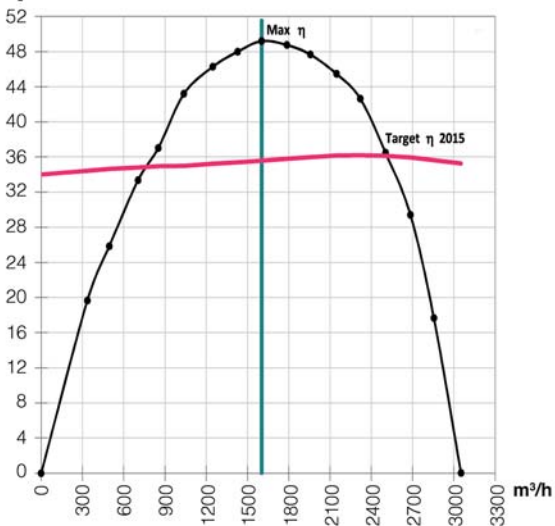
rpm



A



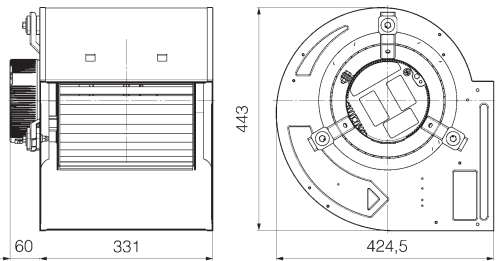
η static





PERFORMANCE CURVES
DDe 10/10 - 1/2 HP
HIGH SPEED

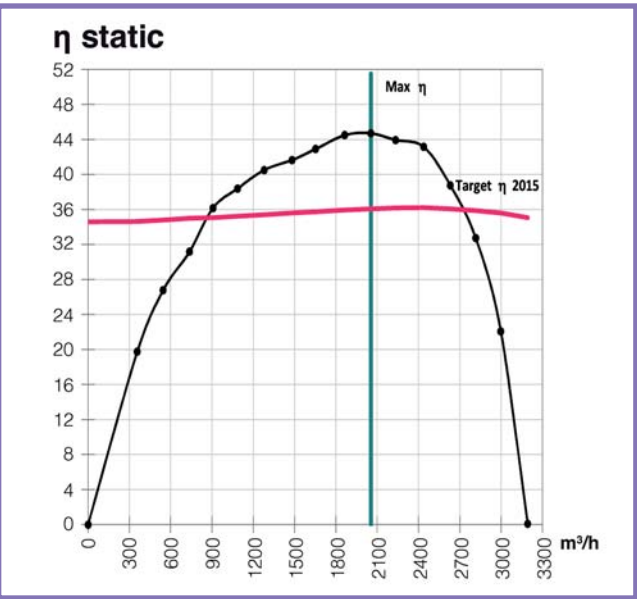
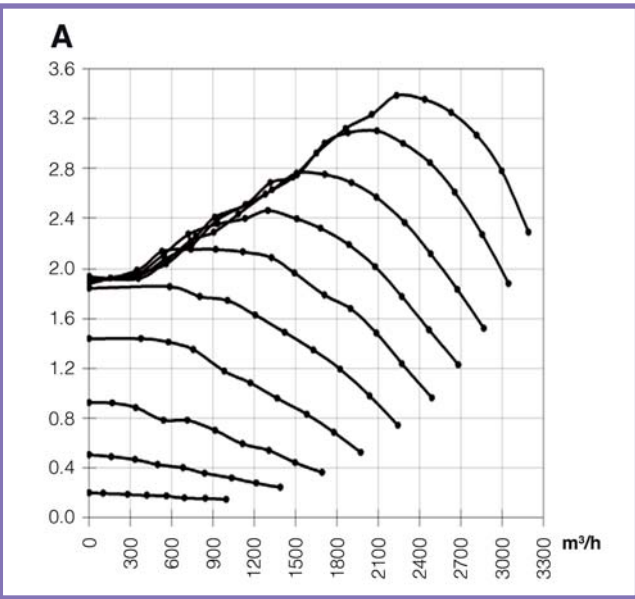
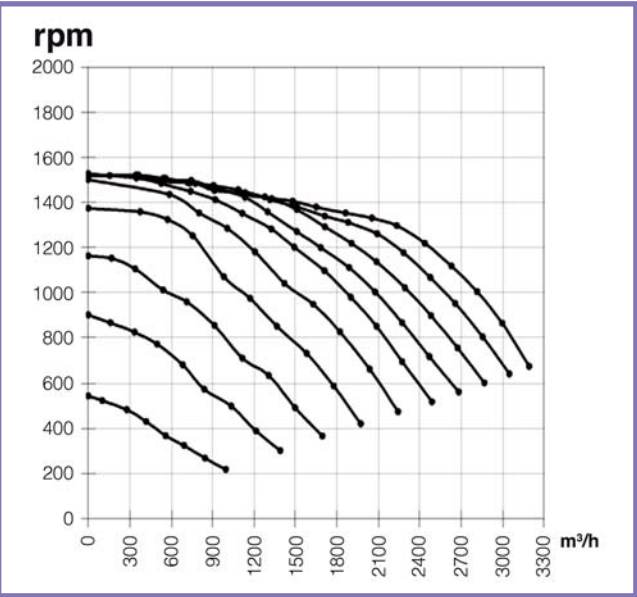
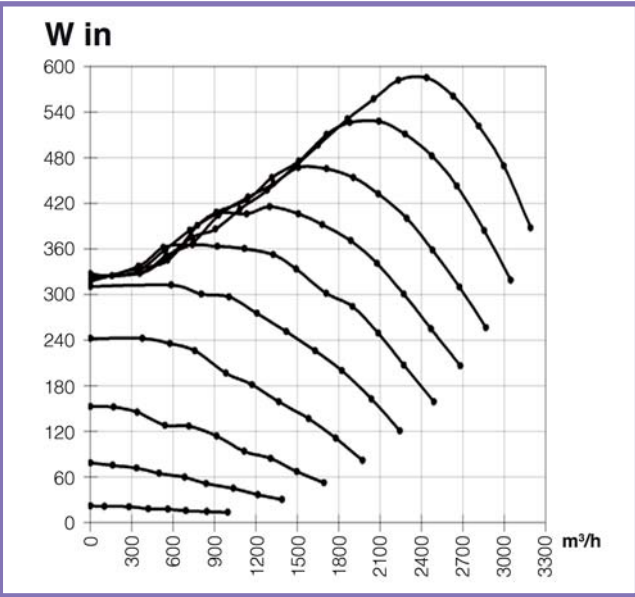
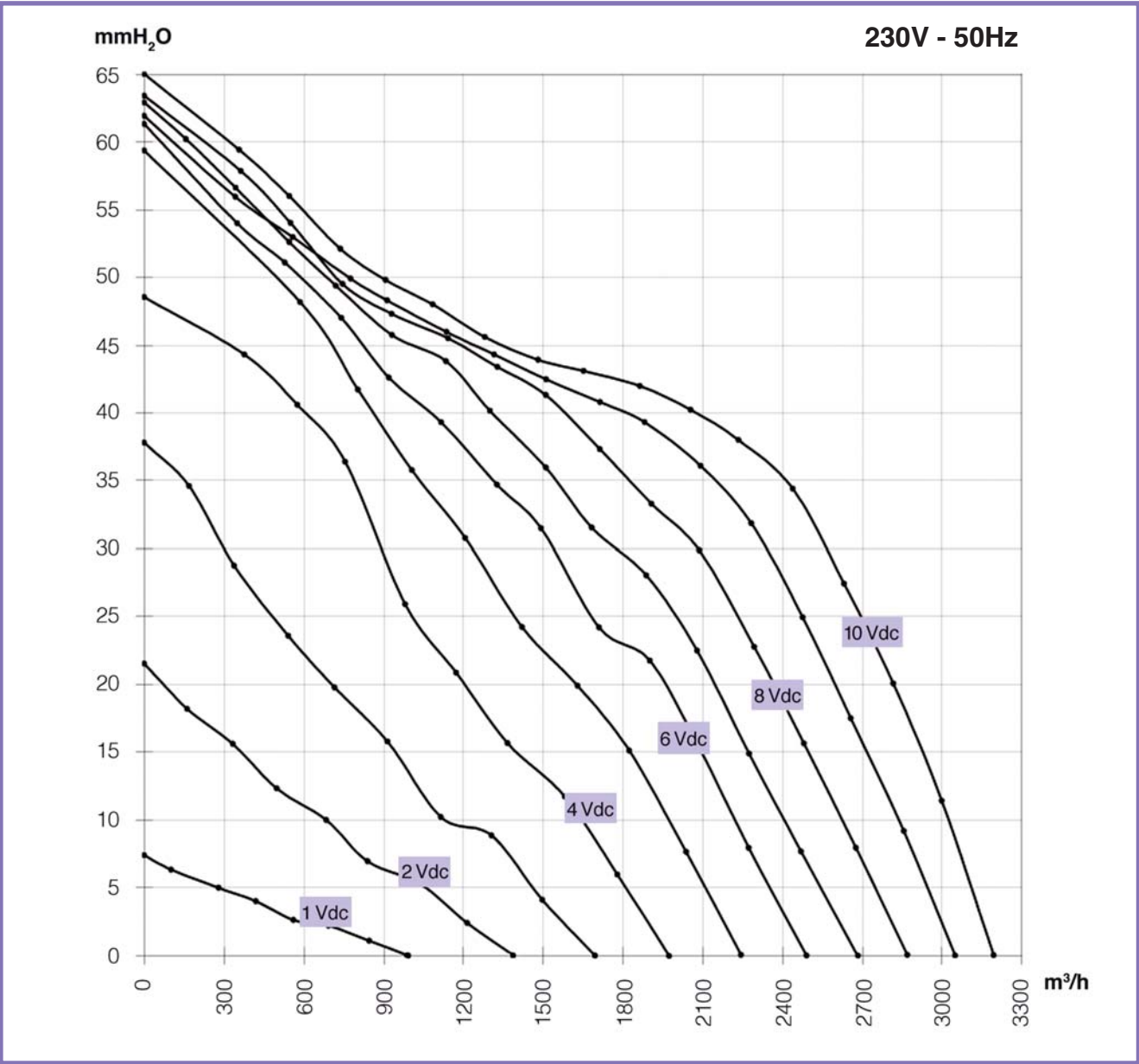
ErP 2015



Ventilator Type:	DDe 10/10
Blowers Material:	Metal
Housing Material:	Metal
Motor Support Material:	Metal
Motor Type:	ECM 3.0
Nominal Voltage:	230V
Frequency:	50-60 Hz
Nominal Watts:	1/2 HP
Range Voltage:	200-254V
Range Frequency:	50-60 Hz
Input Signal:	0-10 Vdc
Electrical Insulation Class:	Cl.B (130°C)
Protection Degree:	Electronically Prot.
Mechanical Protection:	IP20
Motor Bearing:	Ball Bearing

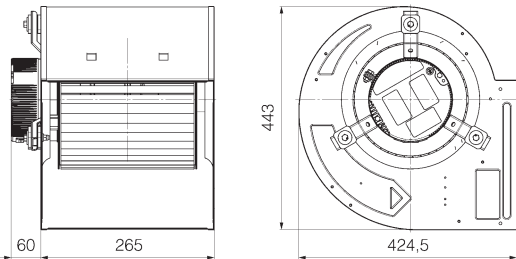


Test: PDDe-0011	
Operating limits	
Win:	Min 15 - Max 600 (W)
Ampere:	Min 0.15 - Max 3.5 (A)
Static Pressure:	Min 0 - Max 65 (mmH ₂ O)
Measurement Category - A -	
Free Inlet - Free Outlet	
Value @ max. efficiency	
Air Flow:	2055 (m ³ /h)
Static Pressure:	40.2 (mmH ₂ O)
Rpm:	1321 (min-1)
Power Input:	557 (W)
Overall efficiency (η):	44.7
Grade efficiency (N):	52.6



PERFORMANCE CURVES
DDe 10/8 - 3/4 HP
HIGH SPEED

ErP 2015



Ventilator Type:	DDe 10/8
Blowers Material:	Metal
Housing Material:	Metal
Motor Support Material:	Metal
Motor Type:	ECM 3.0
Nominal Voltage:	230V
Frequency:	50-60 Hz
Nominal Watts:	3/4 HP
Range Voltage:	200-254V
Range Frequency:	50-60 Hz
Input Signal:	0-10 Vdc
Electrical Insulation Class:	Cl.B (130°C)
Protection Degree:	Electronically Prot.
Mechanical Protection:	IP20
Motor Bearing:	Ball Bearing

Test: PDDe-0020

Operating limits

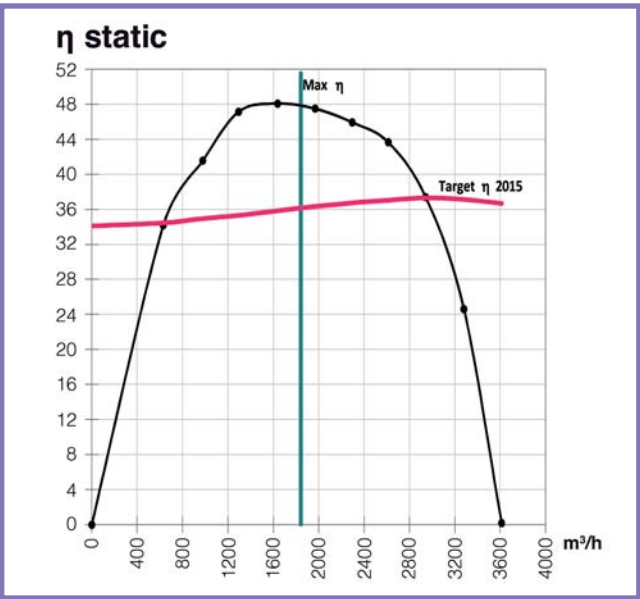
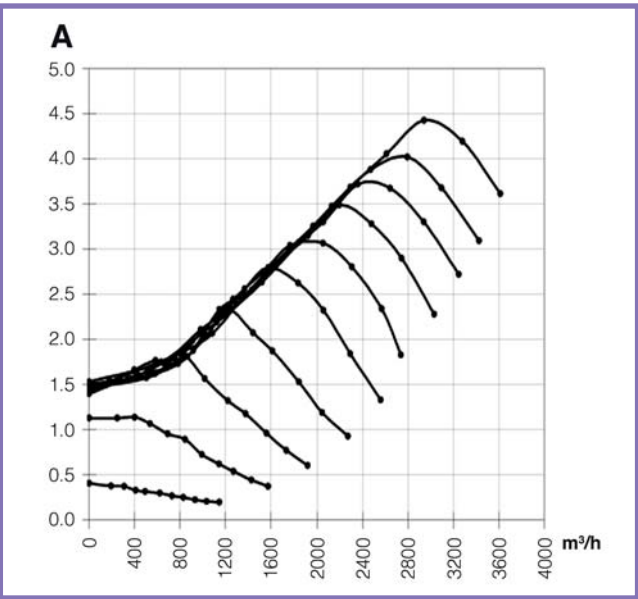
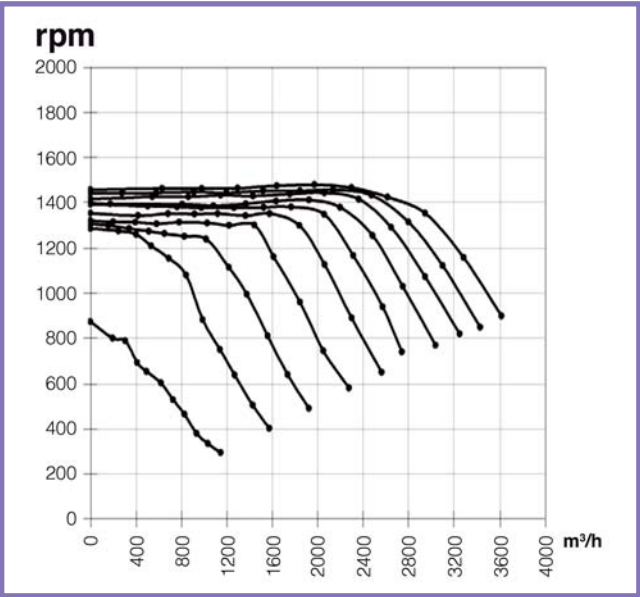
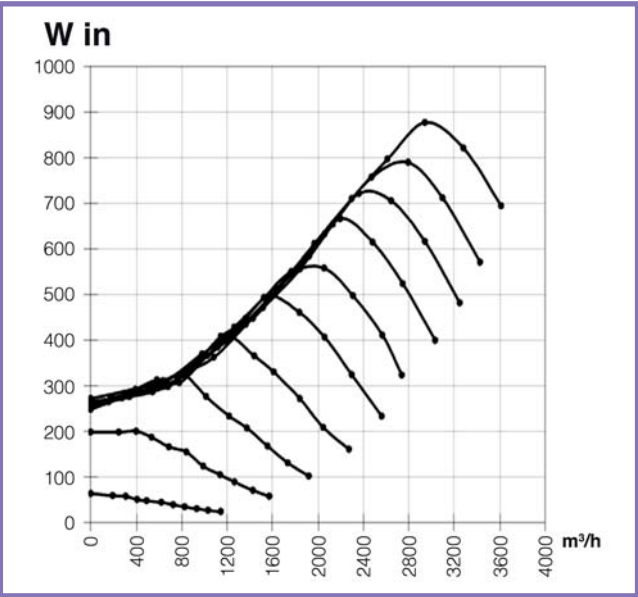
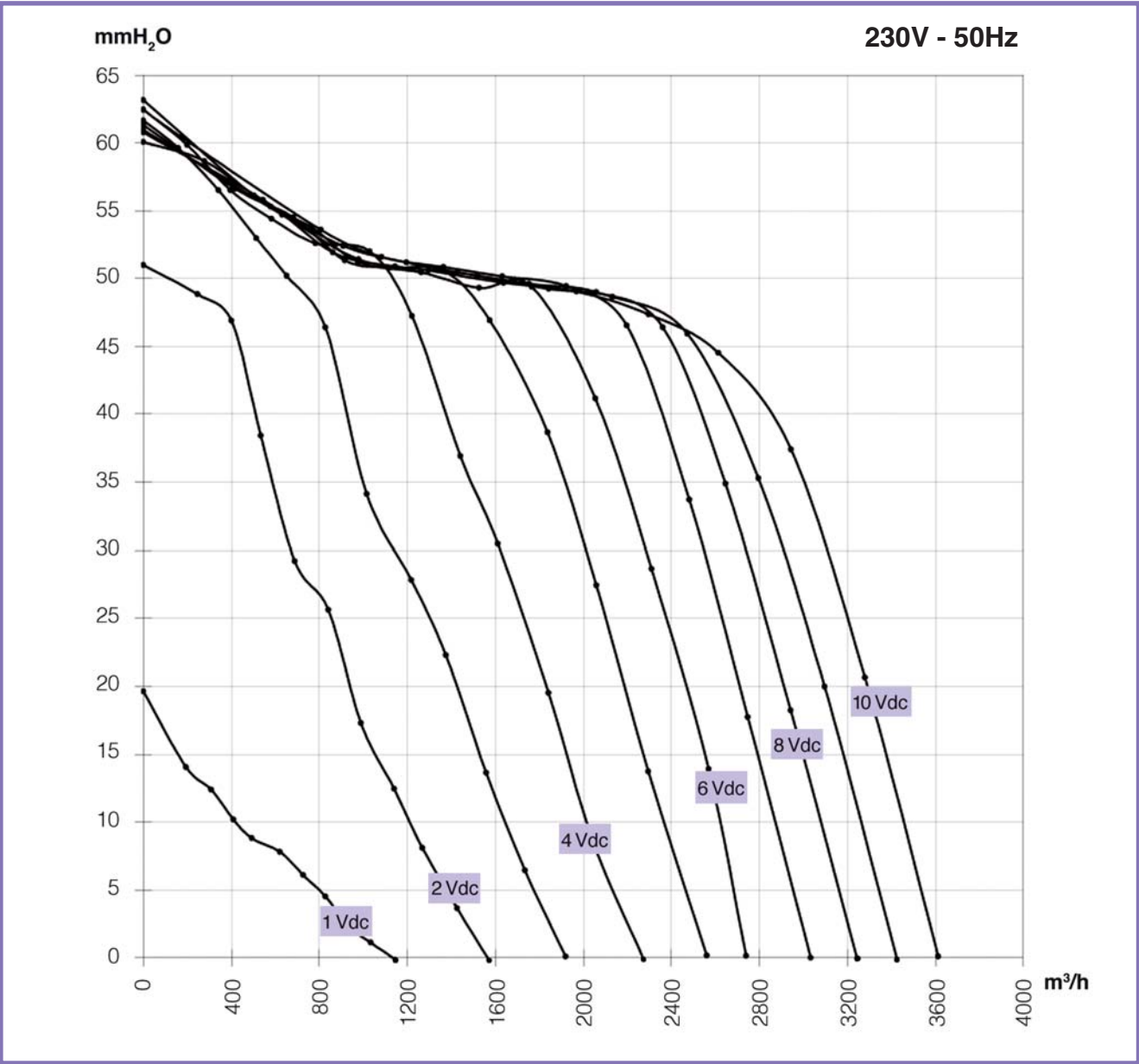
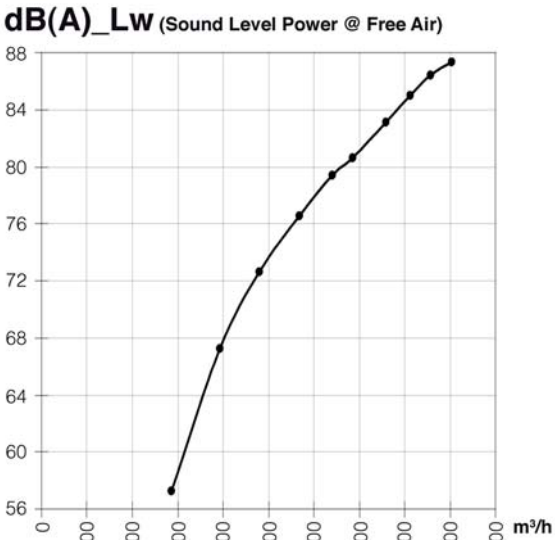
Win:	Min 20 - Max 900 (W)
Ampere:	Min 0.15 - Max 4.5 (A)
Static Pressure:	Min 0 - Max 65 (mmH ₂ O)

Measurement Category - A -

Free Inlet - Free Outlet

Value @ max. efficiency

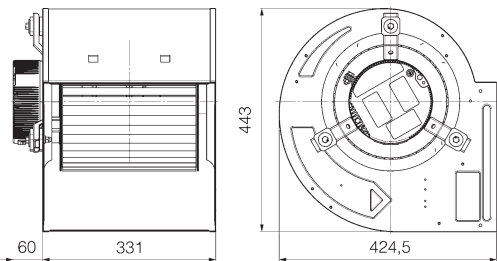
Air Flow:	1843 (m ³ /h)
Static Pressure:	49.2 (mmH ₂ O)
Rpm:	1452 (min-1)
Power Input:	555 (W)
Overall efficiency (η):	49.2
Grade efficiency (N):	57.2





PERFORMANCE CURVES
DDe 10/10 - 3/4 HP
HIGH SPEED

ErP 2015



Ventilator Type:	DDe 10/10
Blowers Material:	Metal
Housing Material:	Metal
Motor Support Material:	Metal
Motor Type:	ECM 3.0
Nominal Voltage:	230V
Frequency:	50-60 Hz
Nominal Watts:	3/4 HP
Range Voltage:	200-254V
Range Frequency:	50-60 Hz
Input Signal:	0-10 Vdc
Electrical Insulation Class:	Cl.B (130°C)
Protection Degree:	Electronically Prot.
Mechanical Protection:	IP20
Motor Bearing:	Ball Bearing



Test: PDDe-0021

Operating limits

Win:	Min 20 - Max 900 (W)
Ampere:	Min 0.15 - Max 4.5 (A)
Static Pressure:	Min 0 - Max 65 (mmH ₂ O)

Measurement Category - A -

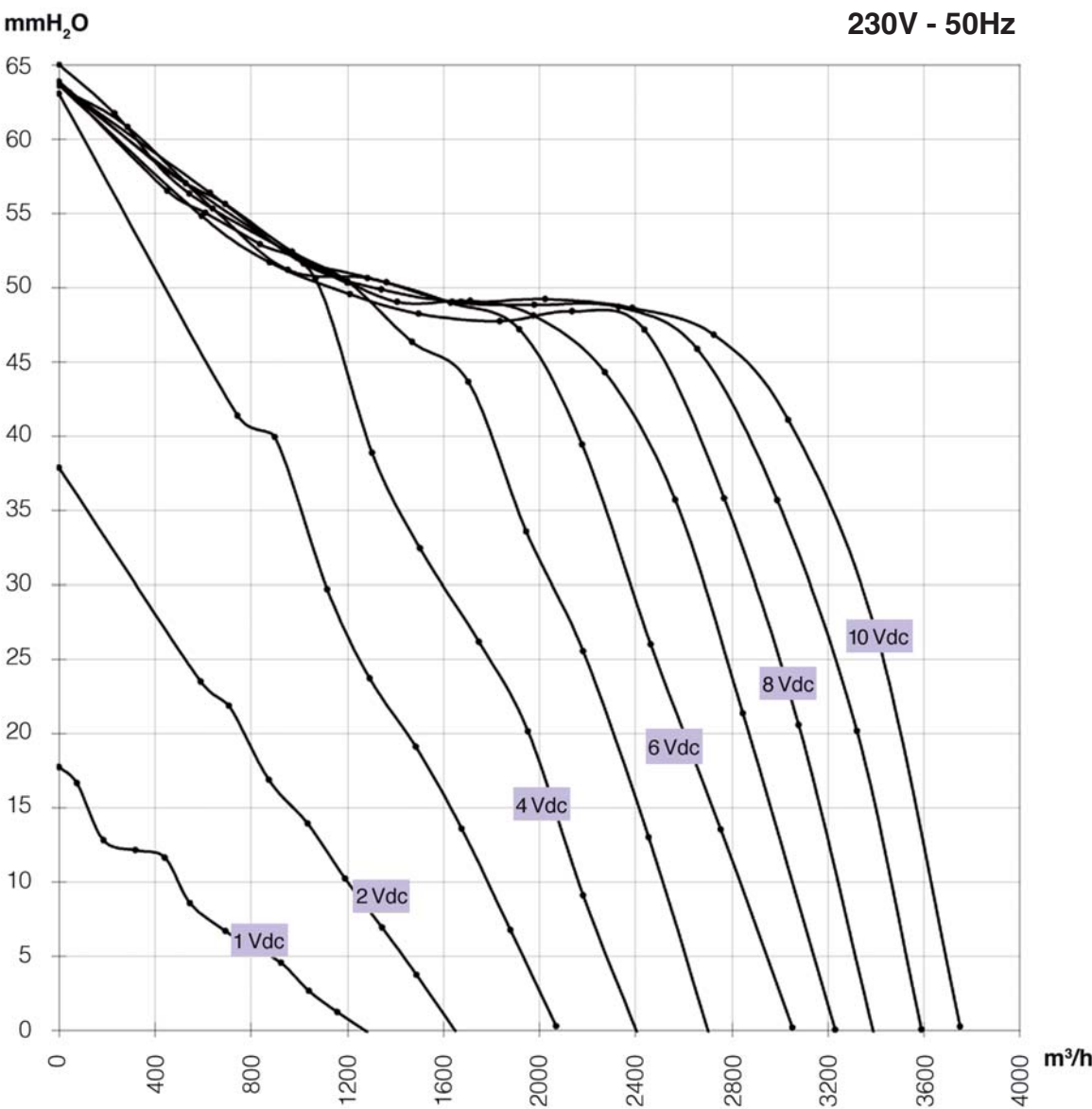
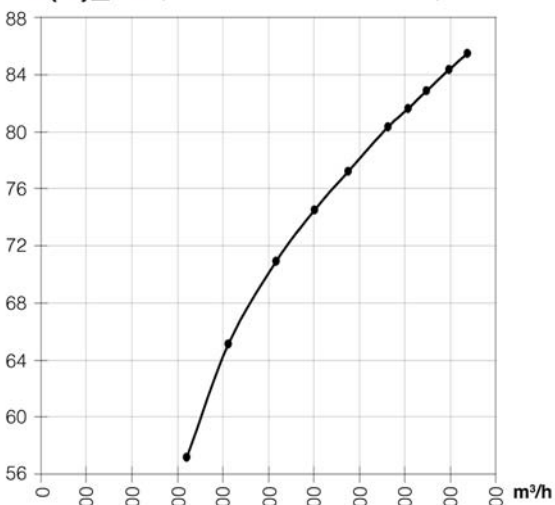
Free Inlet - Free Outlet

Value @ max. efficiency

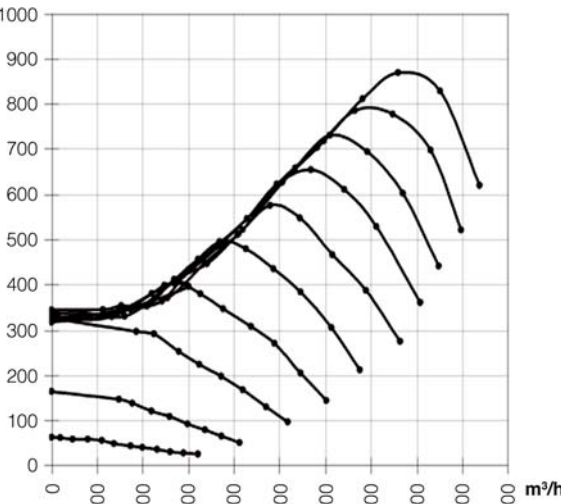
Air Flow:	2386 (m ³ /h)
Static Pressure:	48.6 (mmH ₂ O)
Rpm:	1452 (min-1)
Power Input:	719 (W)

Overall efficiency (η):	48.2
Grade efficiency (N):	55.4

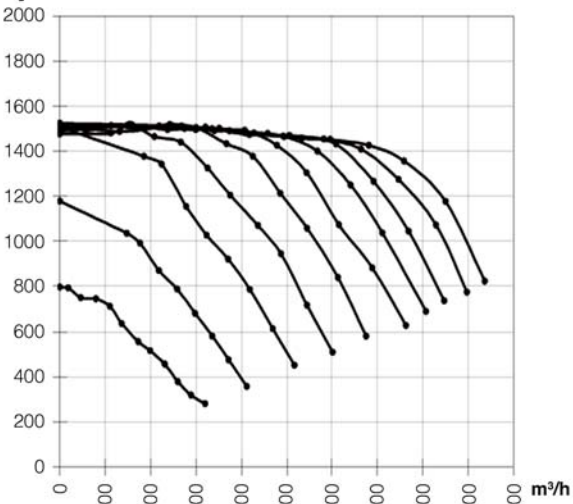
dB(A)_LW (Sound Level Power @ Free Air)



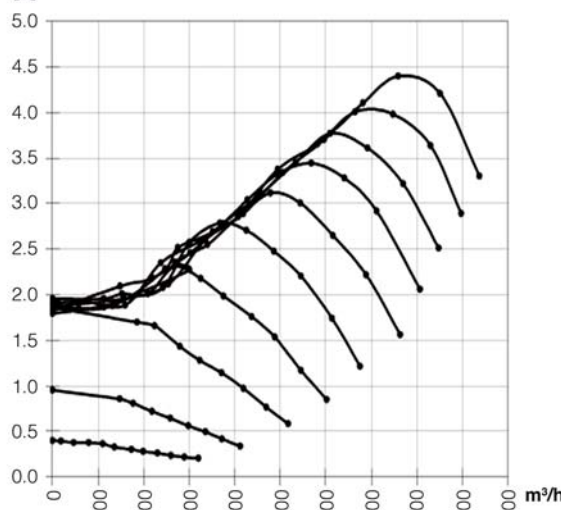
W in



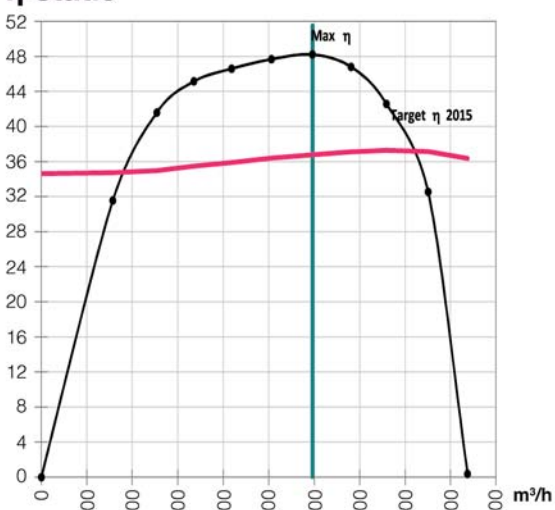
rpm



A

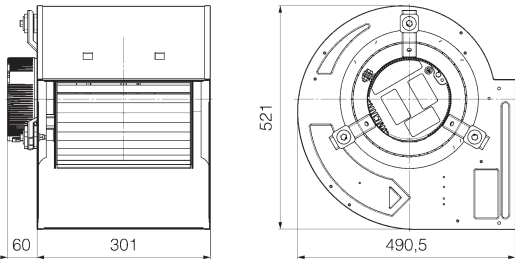


η static



PERFORMANCE CURVES
DDe 12/9 - 1 HP
HIGH SPEED

ErP 2015



Ventilator Type:	DDe 12/9
Blowers Material:	Metal
Housing Material:	Metal
Motor Support Material:	Metal
Motor Type:	ECM 3.0
Nominal Voltage:	230V
Frequency:	50-60 Hz
Nominal Watts:	1 HP
Range Voltage:	200-254V
Range Frequency:	50-60 Hz
Input Signal:	0-10 Vdc
Electrical Insulation Class:	Cl.B (130°C)
Protection Degree:	Electronically Prot.
Mechanical Protection:	IP20
Motor Bearing:	Ball Bearing

Test: PDDe-0017

Operating limits

Win:	Min 25 - Max 1200 (W)
Ampere:	Min 0.2 - Max 6.0 (A)
Static Pressure:	Min 0 - Max 98 (mmH ₂ O)

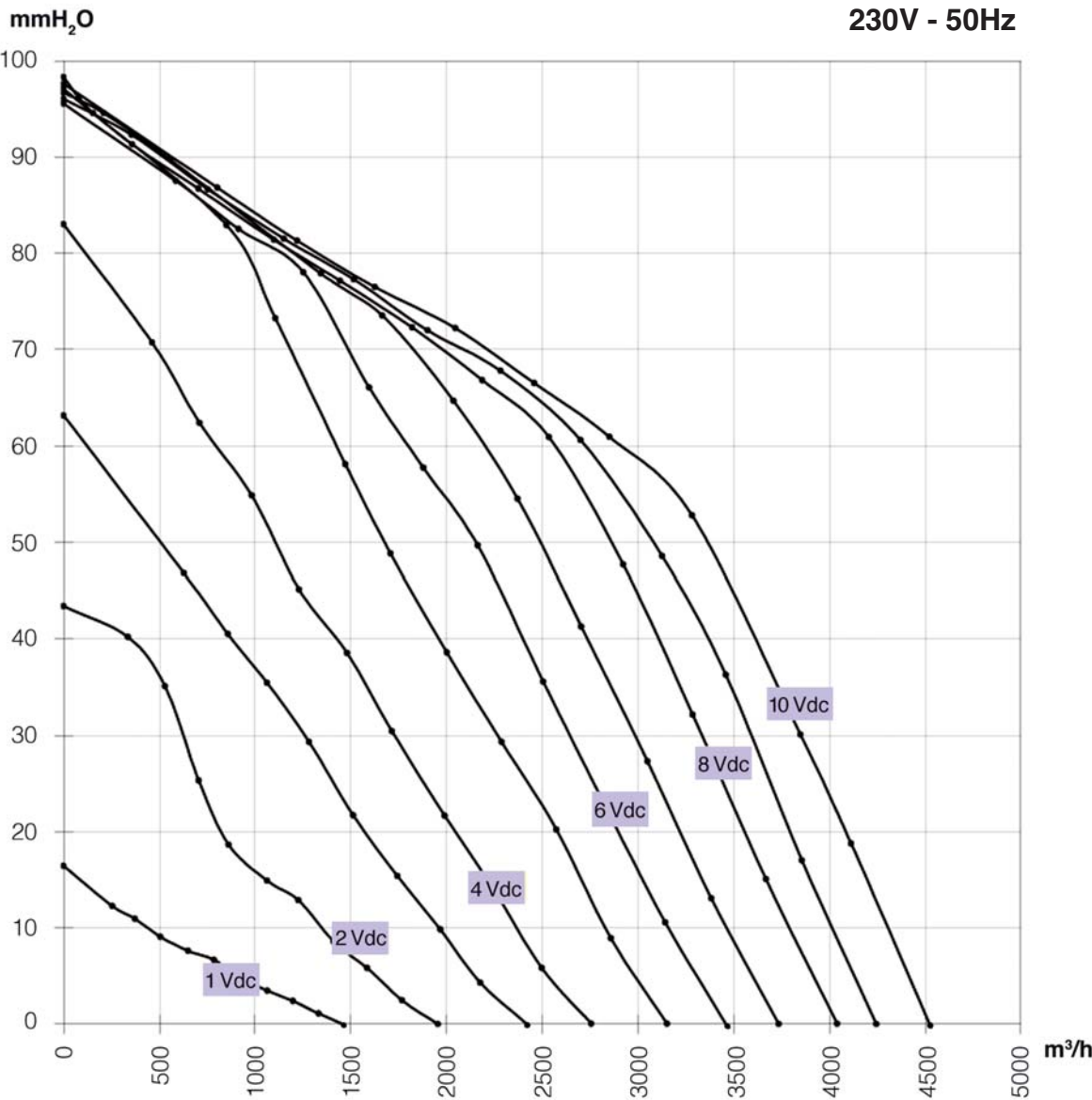
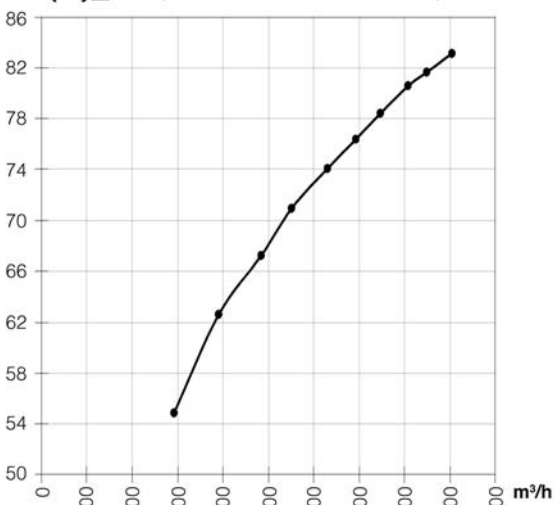
Measurement Category - A -

Free Inlet - Free Outlet

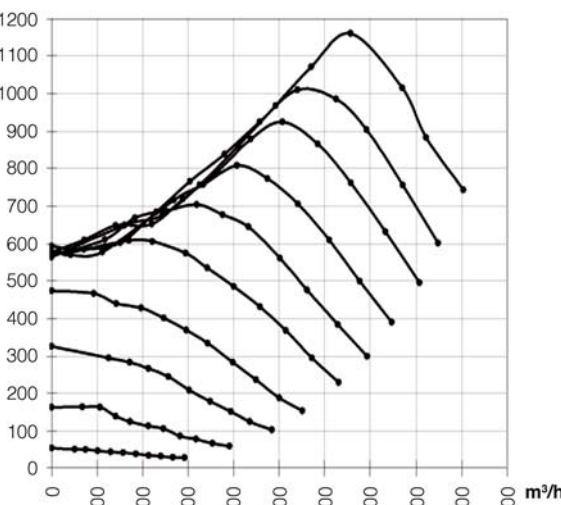
Value @ max. efficiency

Air Flow:	2046 (m ³ /h)
Static Pressure:	72.2 (mmH ₂ O)
Rpm:	1394 (min-1)
Power Input:	860 (W)
Overall efficiency (η):	51.1
Grade efficiency (N):	57.9

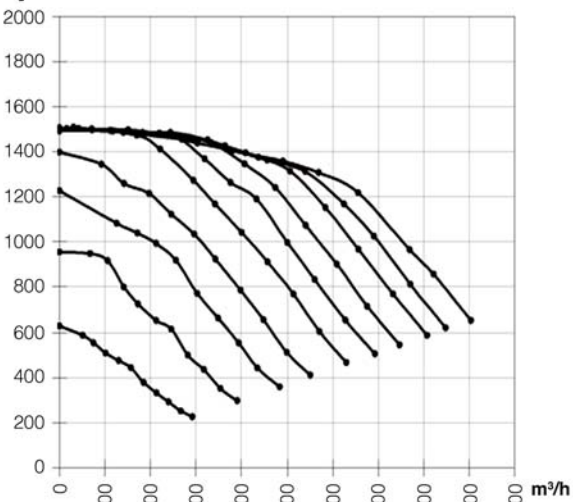
dB(A)_LW (Sound Level Power @ Free Air)



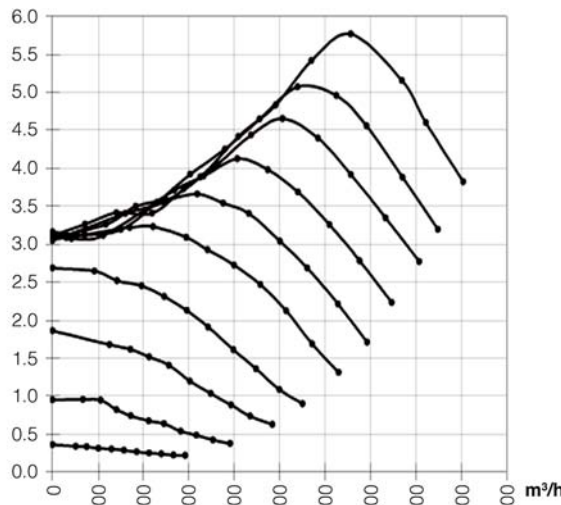
W in



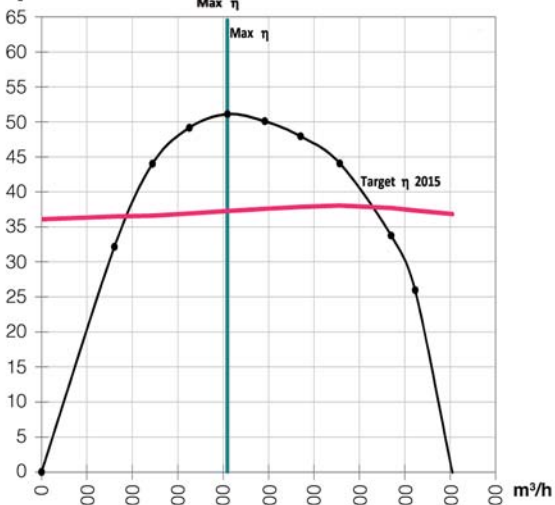
rpm



A

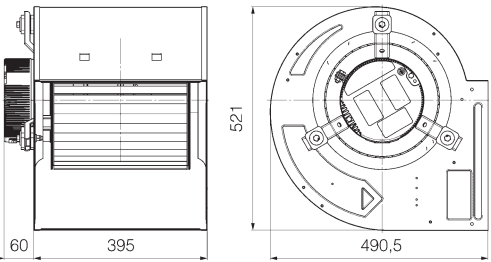


η static



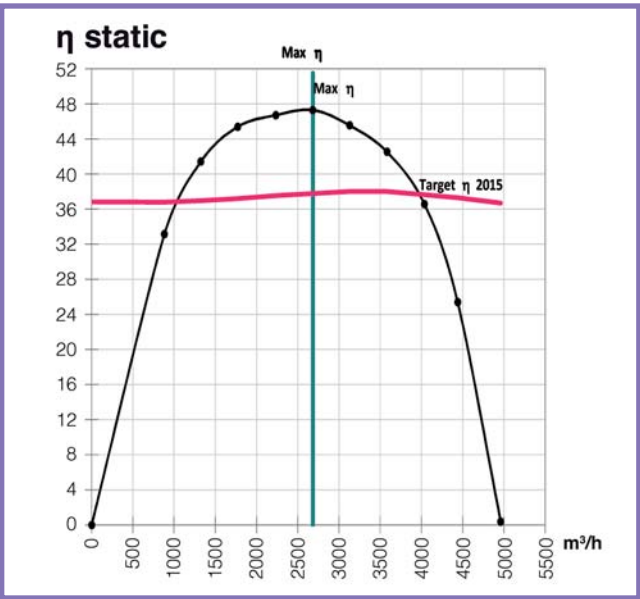
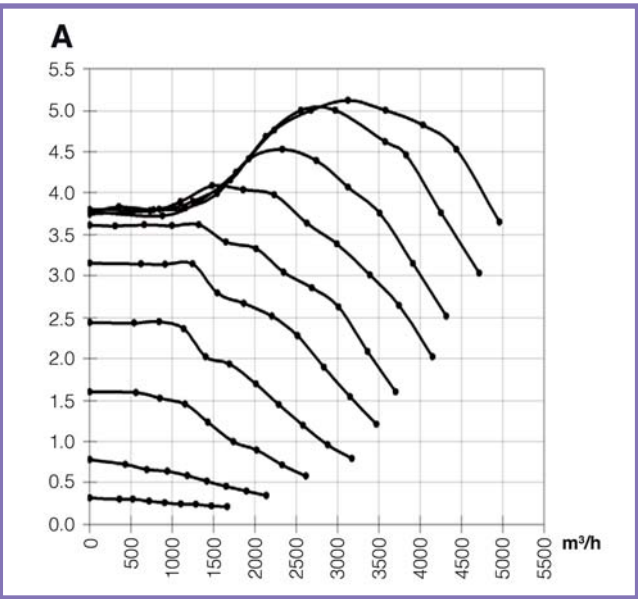
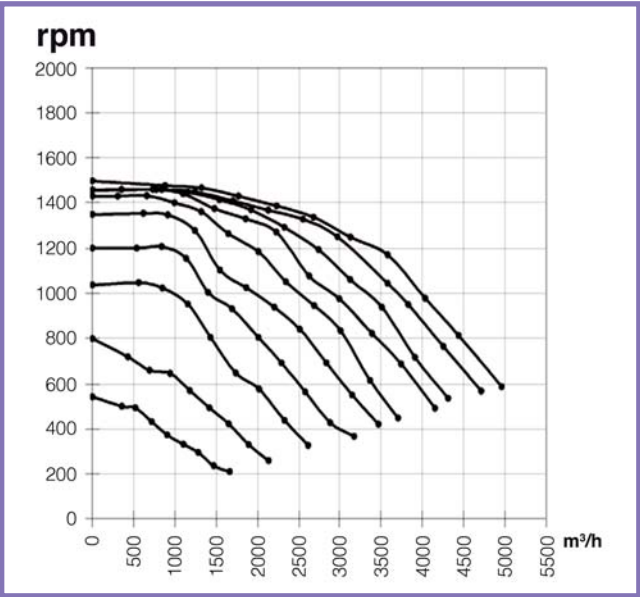
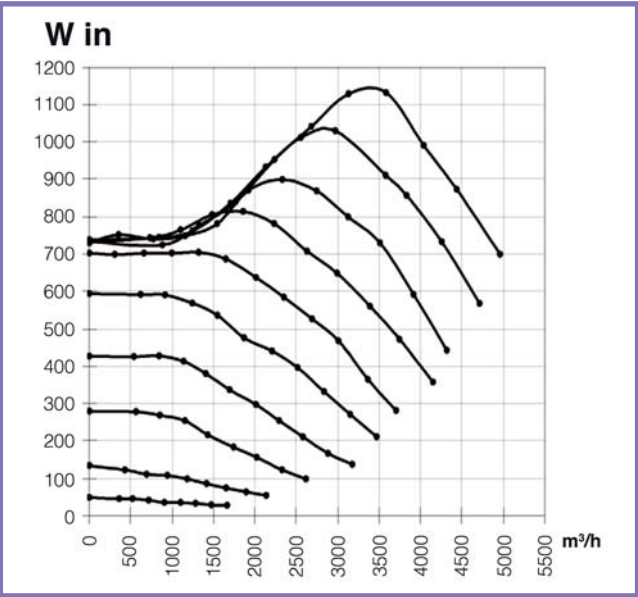
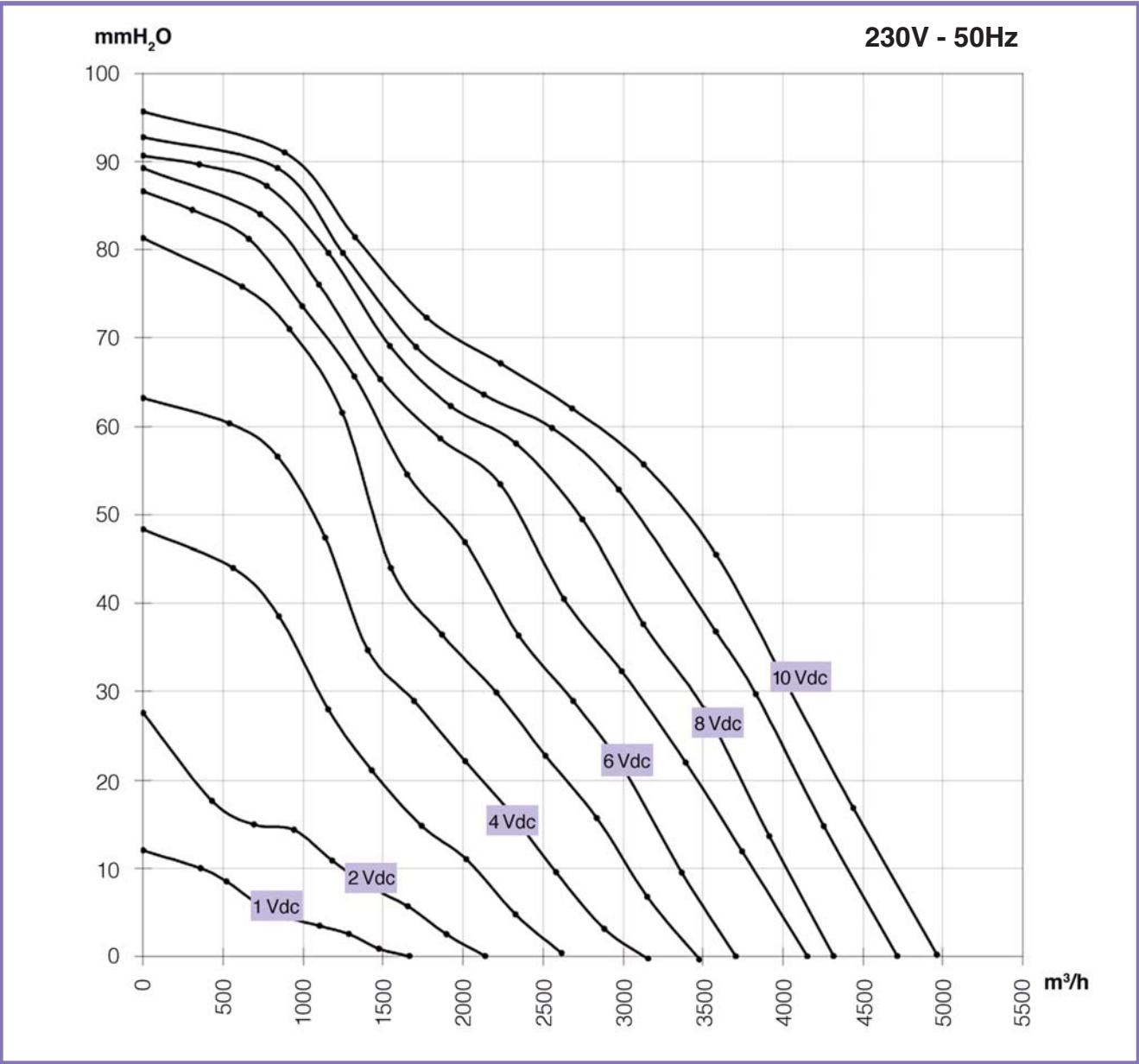
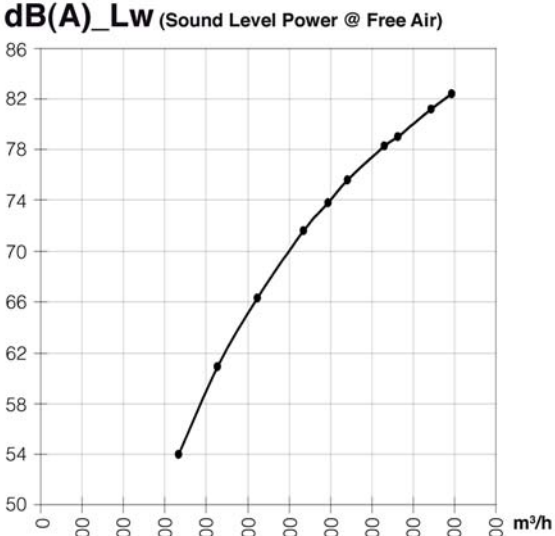
PERFORMANCE CURVES
DDe 12/12 - 1 HP
HIGH SPEED

ErP 2015



Ventilator Type:	DDe 12/12
Blowers Material:	Metal
Housing Material:	Metal
Motor Support Material:	Metal
Motor Type:	ECM 3.0
Nominal Voltage:	230V
Frequency:	50-60 Hz
Nominal Watts:	1 HP
Range Voltage:	200-254V
Range Frequency:	50-60 Hz
Input Signal:	0-10 Vdc
Electrical Insulation Class:	Cl.B (130°C)
Protection Degree:	Electronically Prot.
Mechanical Protection:	IP20
Motor Bearing:	Ball Bearing

Test:	PDDe-0016
Operating limits	
Win:	Min 25 - Max 1200 (W)
Ampere:	Min 0.2 - Max 6.0 (A)
Static Pressure:	Min 0 - Max 96 (mmH ₂ O)
Measurement Category - A -	
Free Inlet - Free Outlet	
Value @ max. efficiency	
Air Flow:	2683 (m ³ /h)
Static Pressure:	62.0 (mmH ₂ O)
Rpm:	1337 (min-1)
Power Input:	1041 (W)
Overall efficiency (η):	47.3
Grade efficiency (N):	53.5





DD
Centrifugal Blowers
ErP 2015



IL PRODOTTO

DD

CENTRIFUGAL BLOWERS

I ventilatori centrifughi serie DD, con ventole pala avanti accoppiate direttamente al motore, sono la soluzione ideale per le applicazioni nel campo del riscaldamento, ventilazione e condizionamento dell'aria (HVAC).

La vasta gamma di prodotti e l'accoppiamento a motori tipo PSC consentono di scegliere il ventilatore più idoneo alle vostre necessità.

La parte ventilante, composta da una coclea compatta in lamiera zincata, è stata appositamente progettata per fornire eccellenti prestazioni aerodinamiche, mentre la ventola pala avanti in lamiera o in materiale plastico è stata progettata per ottenere efficienze aerauliche elevate.

Il motore PSC migliorato nella sua efficienza è stato accoppiato per fornire nel complesso un range di prestazioni elevate in grado di rispettare la Direttiva Europea 327/2011.

Particolari accorgimenti nel fissaggio del motore alla coclea hanno ottenuto lo scopo di una drastica riduzione del livello di vibrazione ed un conseguente basso livello sonoro.

Questa tipologia di motori è in grado di sviluppare elevate potenze con dimensioni contenute e soprattutto incontrare le richieste di mercato orientate al "risparmio energetico", oltre a contribuire in modo significativo ad una drastica riduzione di CO₂ immesso nell'atmosfera.

Il motore, fornito aperto o completamente chiuso in lamiera verniciata con 1 o 3 velocità, progettato per funzionare alla tensione di rete 230 V e frequenze 50/60 Hz; presenta potenze che vanno da 1/6 HP a 1 HP. I motori sono accoppiati in modo opportuno ai ventilatori nel range da 7" a 12".

Questo accoppiamento consente una vasta gamma di prestazioni aerauliche che coprono le richieste più esigenti.

THE PRODUCT

DD

CENTRIFUGAL BLOWERS

The DD series centrifugal blowers, with forward-curved blades directly coupled to the motor, are the perfect solution for the application in the field of heating, ventilation and air conditioning (HVAC).

The wide range of products and the coupling with PSC type motors allow the choice of the most suitable fan blower for any need.

The ventilating part, composed of a compact housing made of galvanized steel plate has been specifically designed to supply excellent aerodynamic performances, whereas the forward-curved blade made of plate or plastics has been designed to reach high aeraulic efficiencies.

The PSC motor, enhanced in its efficiency, has been coupled to reach, as a whole, a range of high performances able to respect the European Directive 327/2011.

Peculiar solutions adopted for the motor fixing to the housing got the result of an effective reduction of vibration and, consequently, of noise level. In spite of its small dimensions this type of motors can develop high power outputs and, above all, it meets the market request concerning the "energy saving", besides contributing to a drastic CO₂ reduction of the emissions in the atmosphere.

The motor, supplied open or completely closed in varnished steel with 1 or 3 speeds, designed to work at supply voltage of 230 V, 50/60Hz, powers from 1/6 HP to 1 HP, is properly coupled with fans in the range from 7" to 12".

This coupling allows a wide range of aeraulic performances in order to meet the most challenging request.



IL PRODOTTO

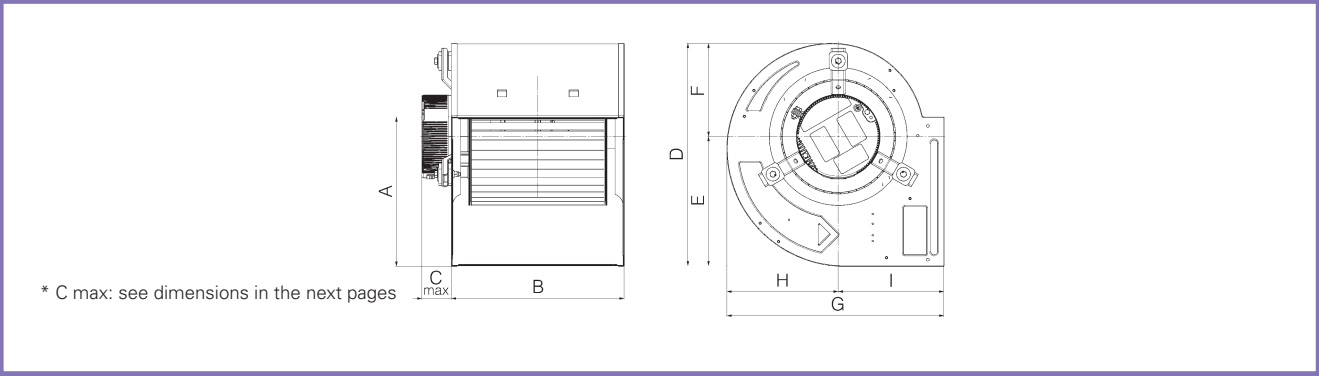
Tutti i motori ELCO® sono progettati e costruiti in ottemperanza alle
 Direttive di Bassa Tensione 2006/95/EC
 e di Compatibilità Elettromagnetica 2004/108/EC
 con riferimento alla
 EN 55014-1,
 EN 61000-3-2,
 EN 61000-3-3,
 così come alla Direttiva Macchine 2006/42/EC,
 ed in accordo con le Norme Standard CENELEC
 EN 60335-1,
 EN 60335-2-24,
 EN 60335-2-89,
 EN 60529,
 EN 60034-1.

THE PRODUCT

All motors are designed and manufactured in compliance with the Low Voltage 2006/95/EC and Electromagnetic Compatibility 2004/108/EC Directives with reference to
 EN 55014-1,
 EN 61000-3-2,
 EN 61000-3-3,
 as well as the Machinery Directive 2006/42/EC, and in accordance with the Standards CENELEC
 EN 60335-1,
 EN 60335-2-24,
 EN 60335-2-89,
 EN 60529,
 EN 60034-1.

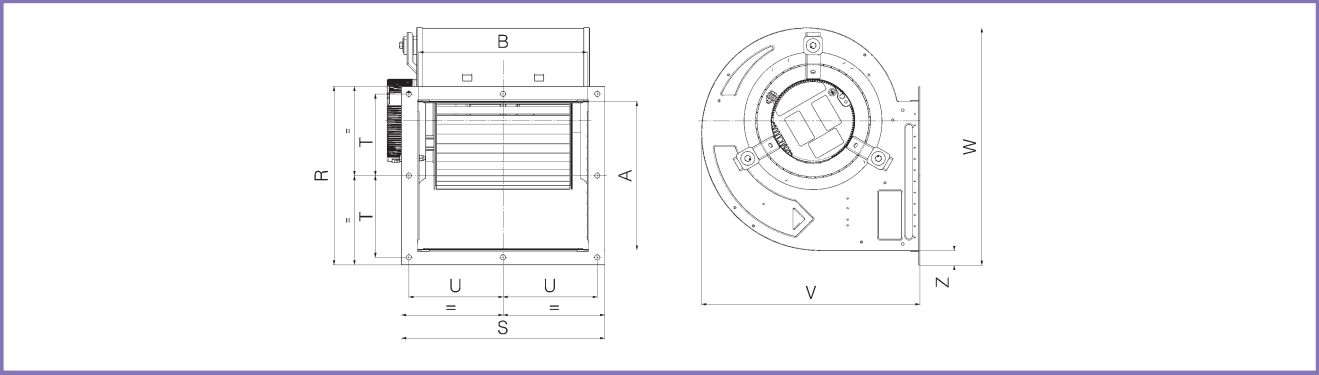
CENTRIFUGAL BLOWERS DD

Overall dimensions without accessories



Model	A	B	C	D	E	F	G	H	I
7/7	216	230	*	327	187	140	301	164.5	136.5
7/9	216	285	*	327	187	140	301	164.5	136.5
9/7	260	233	*	388	226	162	378	194	184
9/9	260	301	*	388	226	162	378	194	184
10/8	289.6	265	*	443	249.5	193.5	424.5	221.5	203
10/10	289.6	331	*	443	249.5	193.5	424.5	221.5	203
12/9	342	309	*	521	294.5	226.5	490.5	260.5	230
12/12	342	395	*	521	294.5	226.5	490.5	260.5	230

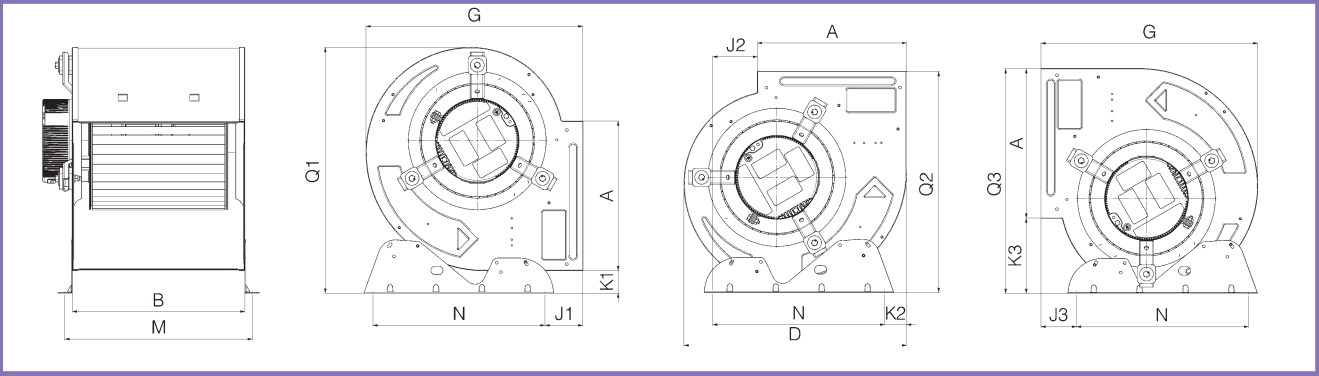
Overall dimensions with fixing flange



Model	R	S	T	U	V	W	Z
7/7	262	292	100/116	135/131	303	350	23
7/9	262	347	100	162.5	303	350	23
9/7	311	288	142.5	131	380	413.5	25.5
9/9	311	354	142.5	164	380	413.5	25.5
10/8	340	321	157	147.5	427.5	427.5	25.5
10/10	340	387	157	180.5	427.5	427.5	25.5
12/9	390	365	182	169.5	493.5	545.5	24.5
12/12	390	451	182	212.5	493.5	545.5	24.5

CENTRIFUGAL BLOWERS DD

Overall dimensions with support feet



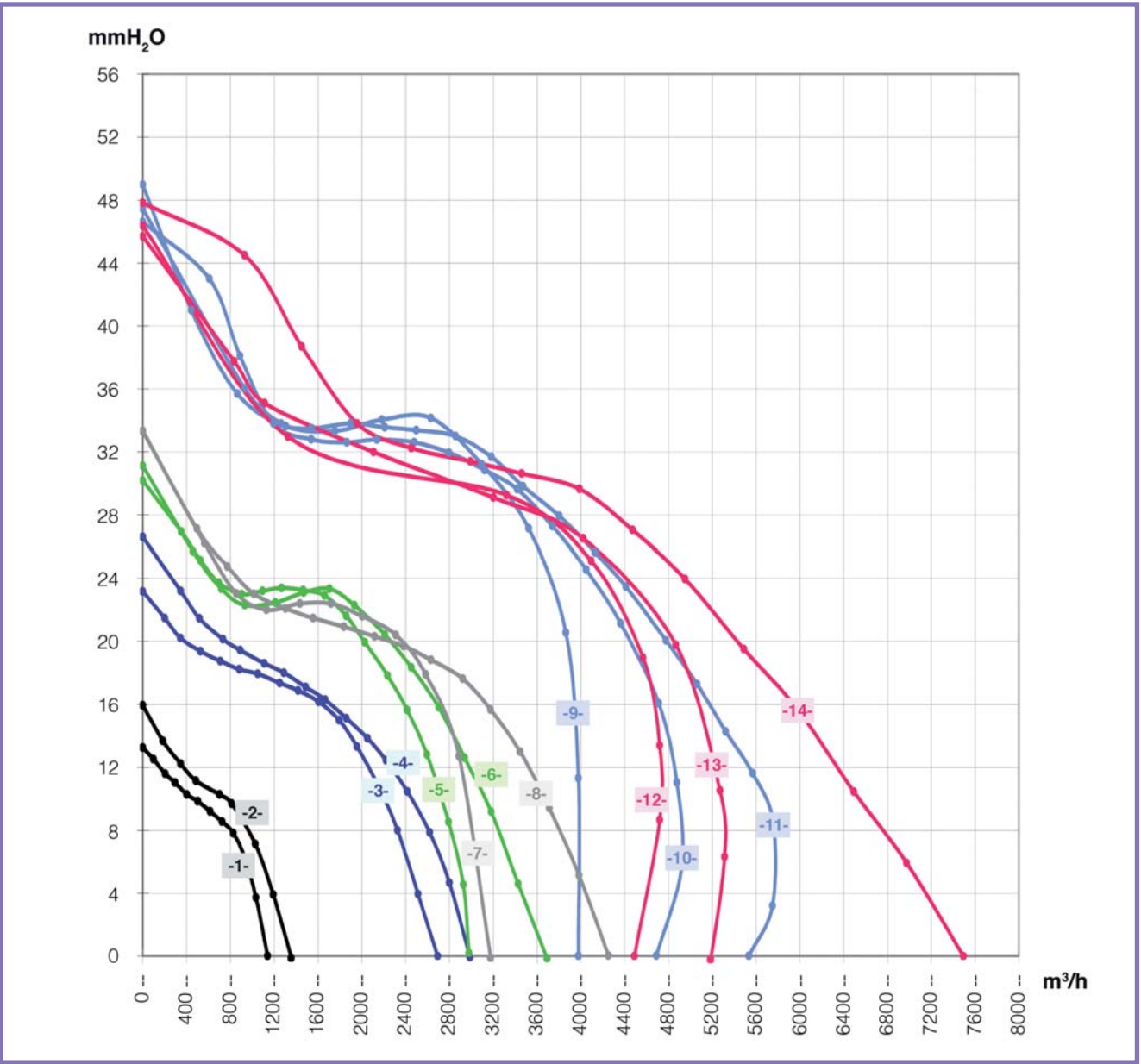
Model	A	B	G	J1	J2	J3	K1	K2	K3	M	N	Q1	Q2	Q3
7/7	216	230	301	19.5	57	48.5	14	48	115	263	225	341	303.5	331
7/9	216	285	301	19.5	57	48.5	14	48	115	318	225	341	303.5	331
9/7	260	233	378	66	78	62	39	38	131	259	300	427	386	391
9/9	260	301	378	66	78	62	39	38	131	327	300	427	386	391
10/8	289.6	265	424.5	67	92	68	38	42	158	291	340	481	430	448
10/10	289.6	331	424.5	67	92	68	38	42	158	357	340	481	430	448
12/9	342	309	490.5	69	106	69	38	40	185	335	408	559	496	527
12/12	342	395	490.5	69	106	69	38	40	185	421	408	559	496	527



GUIDE CHARTS BLOWER'S SELECTION

6 POLES

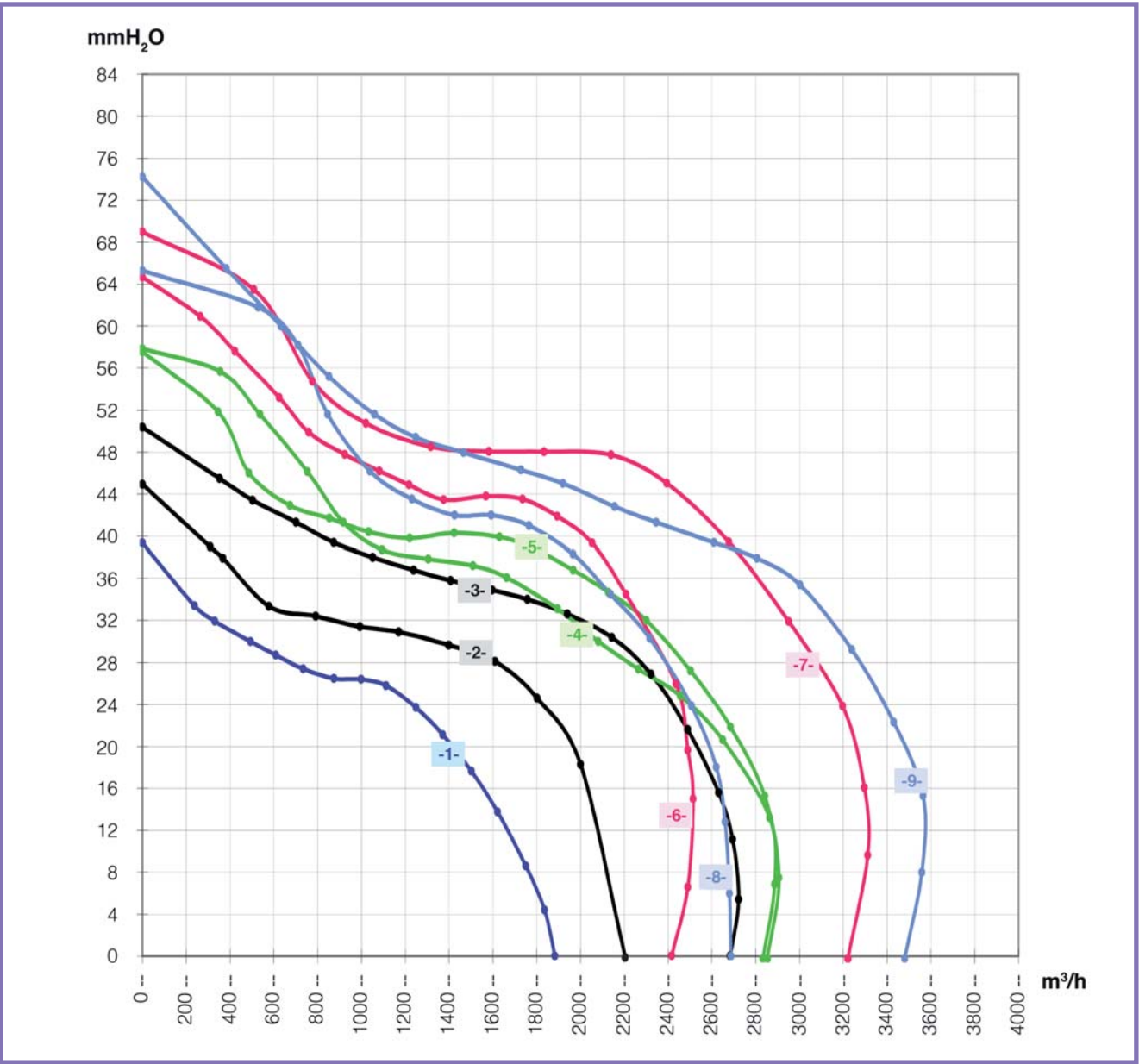
N.	Model	W	Poles	Speed	Power Supply	Air Flow m³/h Max - Min	Pressure mmH₂O Max	Test	Web	ErP	Grade Eff. (N)
1	DD 7/7	60	6	1	1 ~	1150 - 1150	13	PDD_5132	387	Free	-
2	DD 7/7	145	6	3	1 ~	1350 - 1000	16	PDD_903	56	Free	-
3	DD 9/7	245	6	3	1 ~	2700 - 1700	23	PDD_5051	487	2015	44.1
4	DD 9/9	245	6	3	1 ~	3000 - 1700	27	PDD_5049	382	2015	44.0
5	DD 10/8	245	6	3	1 ~	3000 - 1800	30	PDD_5062	488	2015	44.7
6	DD 10/8	550	6	3	1 ~	3700 - 2850	31	PDD_5082	341	2015	49.5
7	DD 10/10	245	6	3	1 ~	3200 - 1950	33	PDD_5058	383	2015	44.1
8	DD 10/10	550	6	3	1 ~	4250 - 2600	33	PDD_5067	388	2015	44.2
9	DD 12/9	550	6	3	1 ~	4000 - 2350	49	PDD_5072	489	2015	49.7
10	DD 12/9	735	6	3	1 ~	4700 - 2950	47	PDD_5015	490	2015	48.9
11	DD 12/9	1100	6	1	3 ~	5500 - 5500	48	PDD_5013	491	2015	46.7
12	DD 12/12	550	6	3	1 ~	4500 - 2700	47	PDD_5071	480	2015	44.5
13	DD 12/12	735	6	3	1 ~	5200 - 3200	46	PDD_5006	386	2015	48.4
14	DD 12/12	1100	6	1	3 ~	7500 - 7500	48	PDD_5004	385	2015	45.4



GUIDE CHARTS BLOWER'S SELECTION

4 POLES

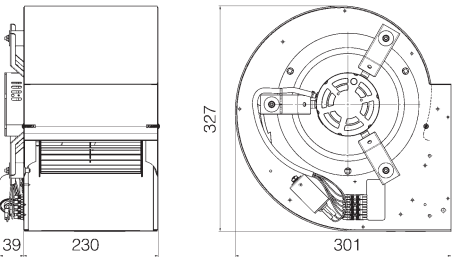
N.	Model	W	Poles	Speed	Power Supply	Air Flow m³/h Max - Min	Pressure mmH₂O Max	Test	Web	ErP	Grade Eff. (N)
1	DD 7/7	145	4	3	1 ~	1900 - 1100	40	PDD_5044	346	2015	44.1
2	DD 9/9T	300	4	3	1 ~	2200 - 1350	45	PDD_5031	347	2015	44.0
3	DD 9/7	370	4	3	1 ~	2700 - 1400	50	PDD_5056	354	2015	44.1
4	DD 9/9	370	4	3	1 ~	2800 - 1500	58	PDD_5030	348	2015	44.4
5	DD 9/9	550	4	3	1 ~	2850 - 1600	58	PDD_5046	349	2015	44.0
6	DD 10/8	370	4	3	1 ~	2400 - 1350	65	PDD_5032	350	2015	48.0
7	DD 10/8	550	4	3	1 ~	3200 - 2050	69	PDD_5037	359	2015	50.7
8	DD 10/10	370	4	3	1 ~	2700 - 1500	65	PDD_5033	380	2015	44.0
9	DD 10/10	550	4	3	1 ~	3500 - 2200	74	PDD_5041	326	2015	44.1





PERFORMANCE CURVES
DD 7/7 - 60-6P-1V
6 POLES

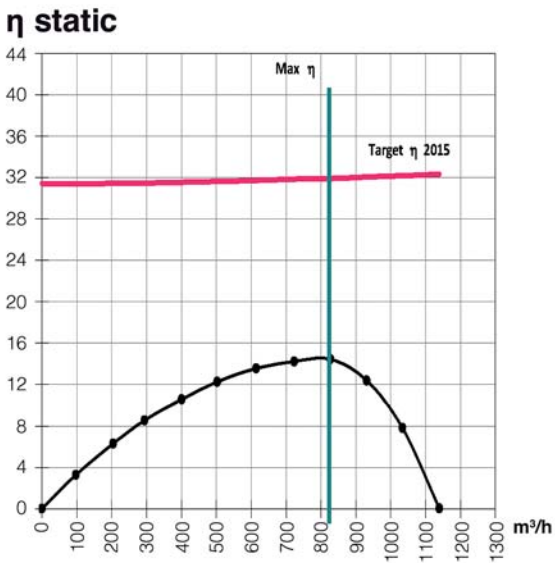
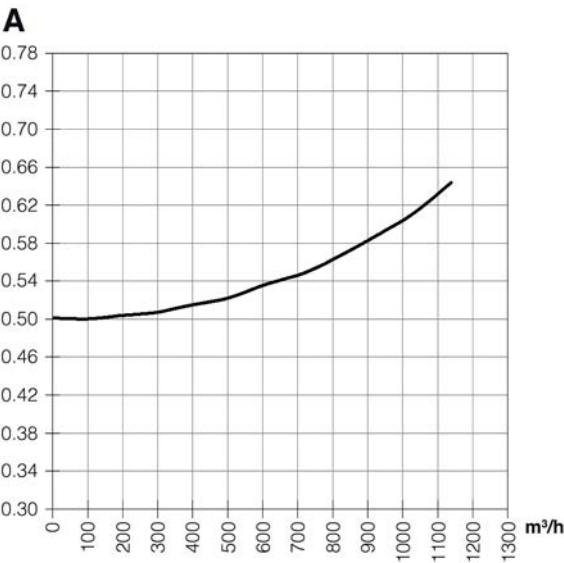
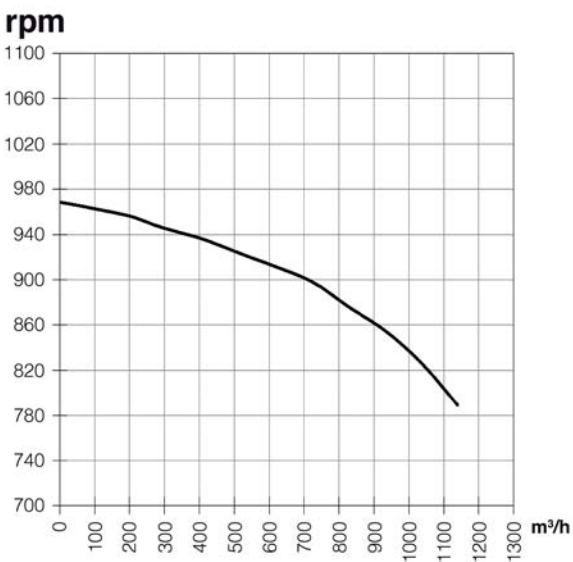
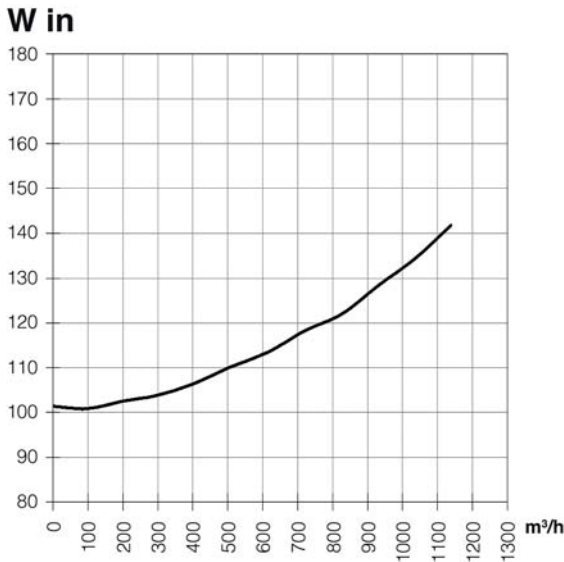
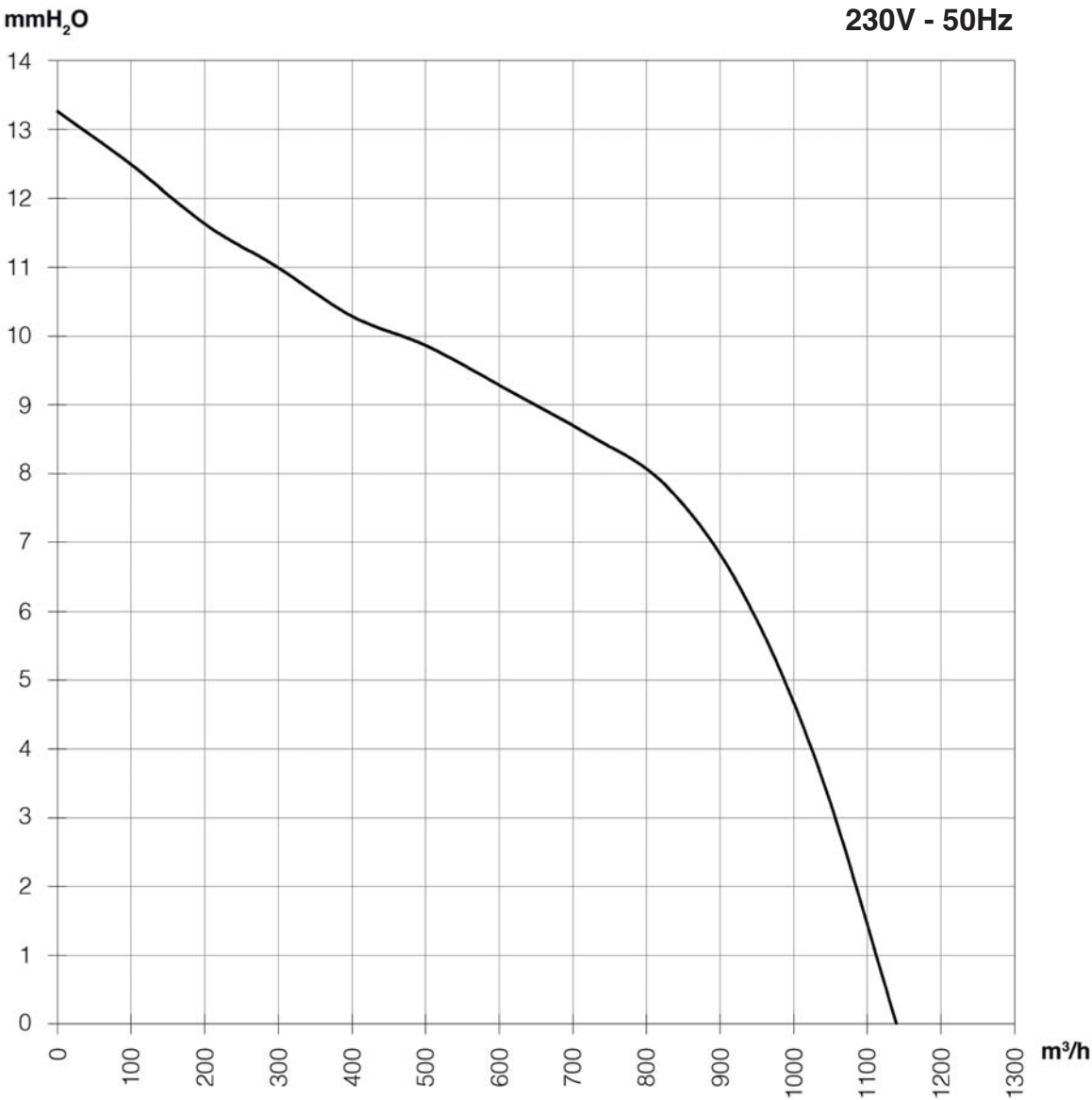
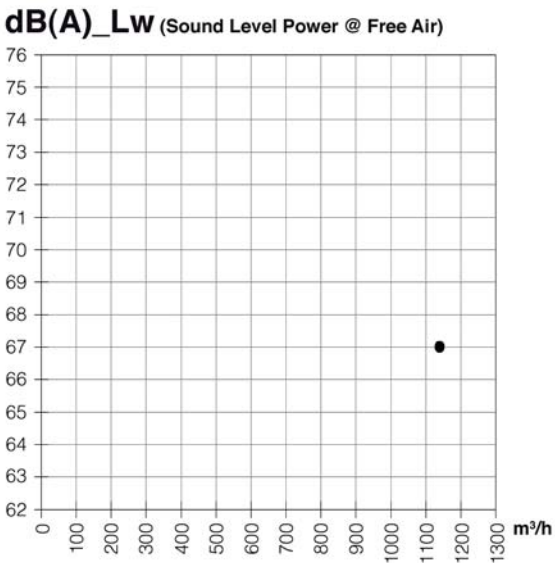
ErP Free



Ventilator Type:	DD 7/7
Blowers Material:	Metal
Housing Material:	Metal
Motor Support Material:	Metal
Motor Type:	3 RGM
Power Supply:	1 ~
Nominal Voltage:	230V
Frequency:	50-60 Hz
Nominal Watts:	60
Range Power:	200-254V
Capacitor:	3.15 µF
Electrical Insulation Class:	Cl.F (155°C)
Protection:	Thermally Prot.

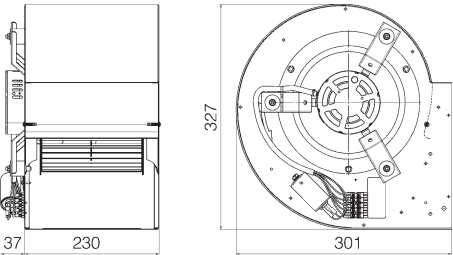


Test:	PDD-5132 Web: 387
Operating limits Max Speed 50 Hz (Rating Values)	
Win:	Max 145 (W)
Ampere:	Max 0.65 (A)
Static Pressure:	Min 0 - Max 12 (mmH ₂ O)
Measurement Category - A -	
Free Inlet - Free Outlet	
Value @ max. efficiency (50 Hz)	
Air Flow:	827 (m ³ /h)
Static Pressure:	7.8 (mmH ₂ O)
Rpm:	876 (min-1)
Power Input:	122 (W)
Overall efficiency (η):	14.4
Grade efficiency (N):	26.5



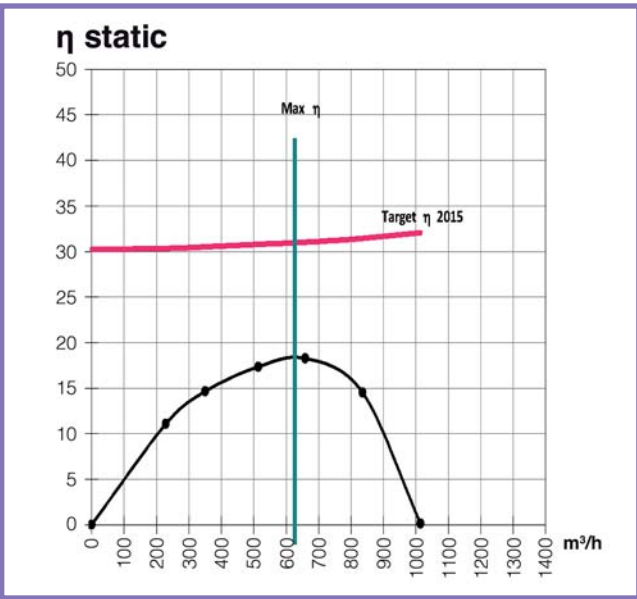
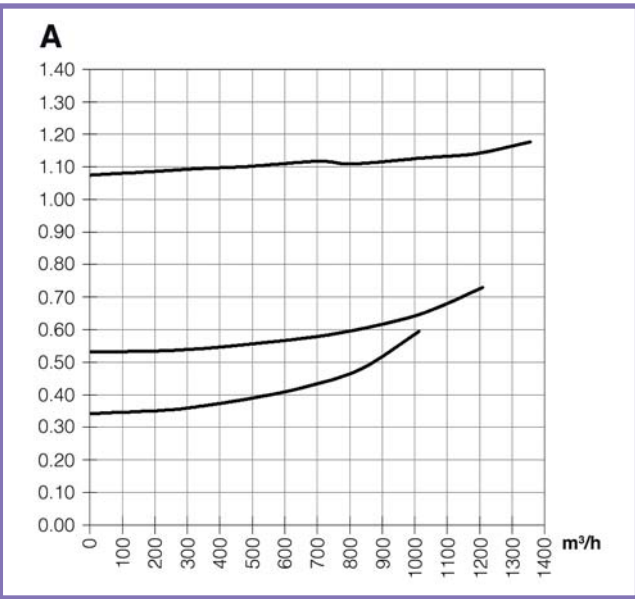
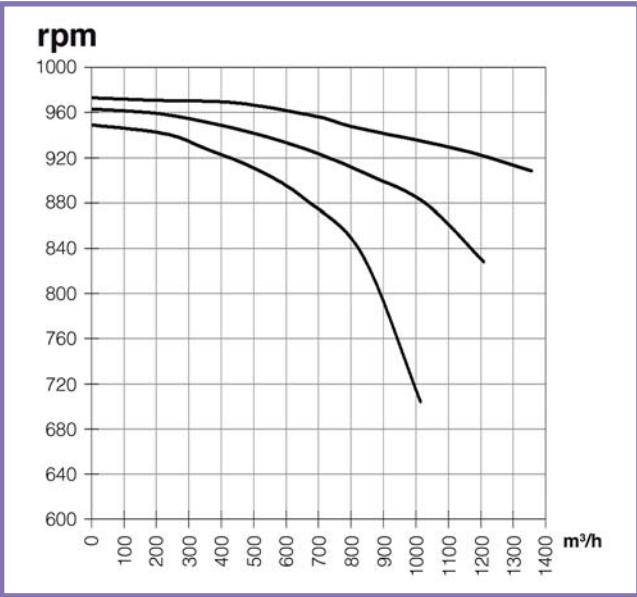
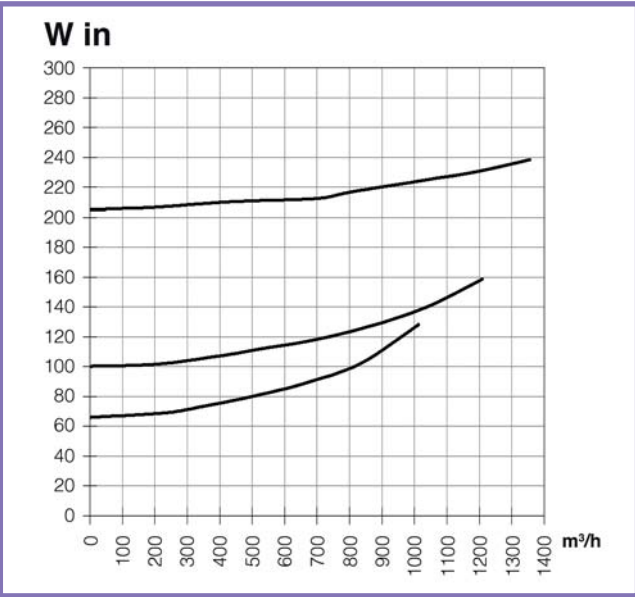
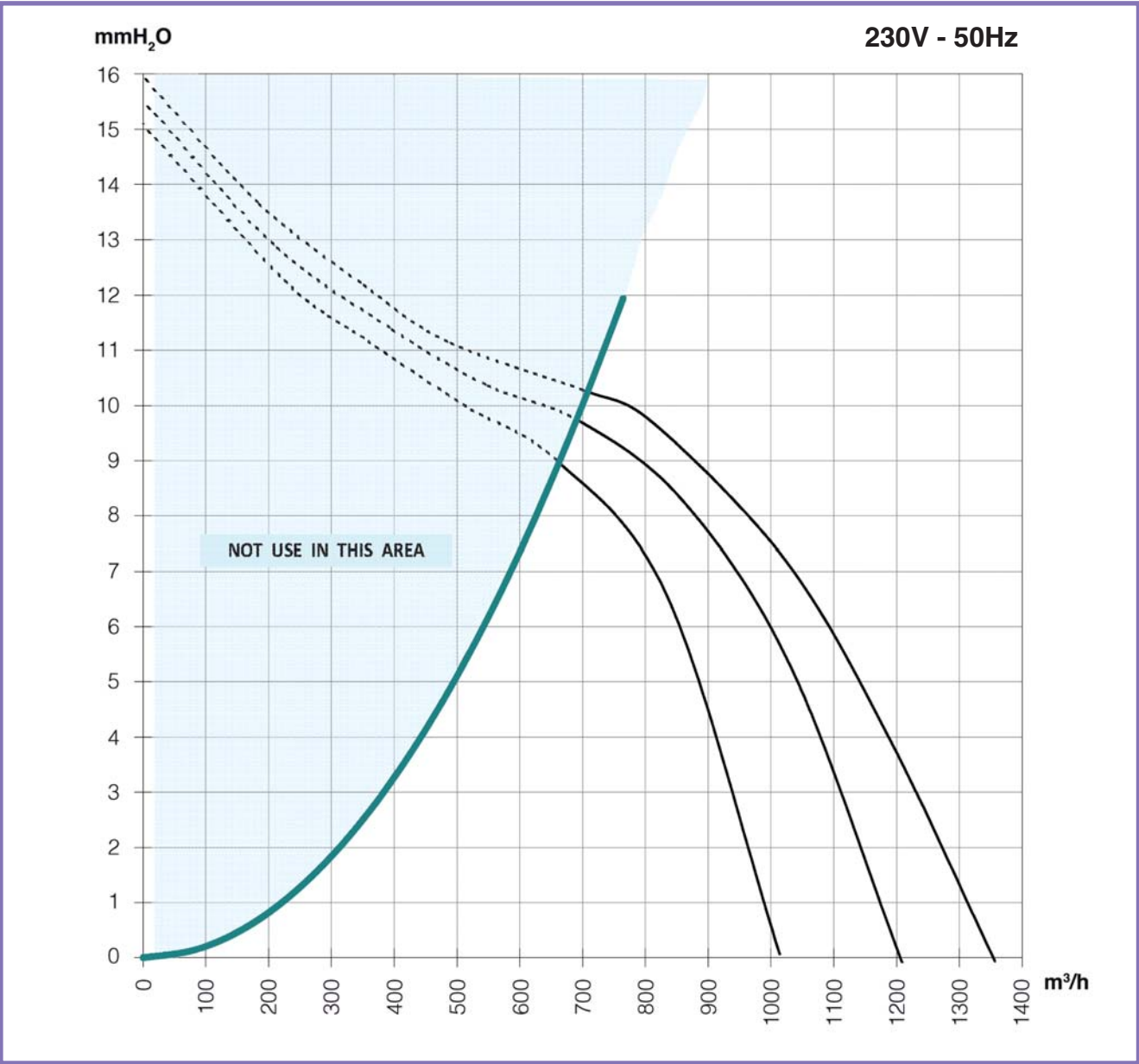
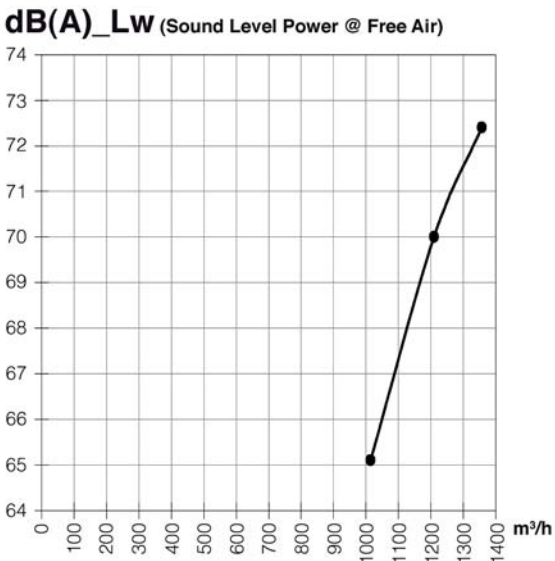
PERFORMANCE CURVES
DD 7/7 - 145-6P-3V
6 POLES

ErP Free



Ventilator Type:	DD 7/7
Blowers Material:	Metal
Housing Material:	Metal
Motor Support Material:	Metal
Motor Type:	3 FGM
Power Supply:	1 ~
Nominal Voltage:	230V
Frequency:	50-60 Hz
Nominal Watts:	145
Range Power:	200-254V
Capacitor:	6.3 µF
Electrical Insulation Class:	Cl.F (155°C)
Protection:	Thermally Prot.

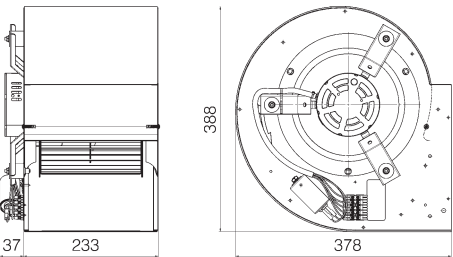
Test:	PDD-903 Web: 56
Operating limits Max Speed 50 Hz (Rating Values)	
Win:	Max 240 (W)
Ampere:	Max 1.2 (A)
Static Pressure:	Min 0 - Max 10 (mmH ₂ O)
Measurement Category - A -	
Free Inlet - Free Outlet	
Value @ max. efficiency (Min Speed 50 Hz)	
Air Flow:	658 (m ³ /h)
Static Pressure:	9.0 (mmH ₂ O)
Rpm:	883 (min-1)
Power Input:	88 (W)
Overall efficiency (η):	18.3
Grade efficiency (N):	31.2





PERFORMANCE CURVES
DD 9/7 - 245-6P-3V
6 POLES

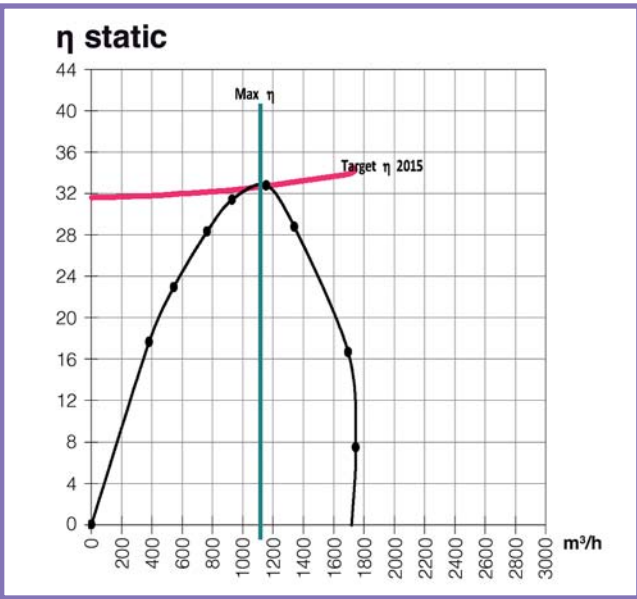
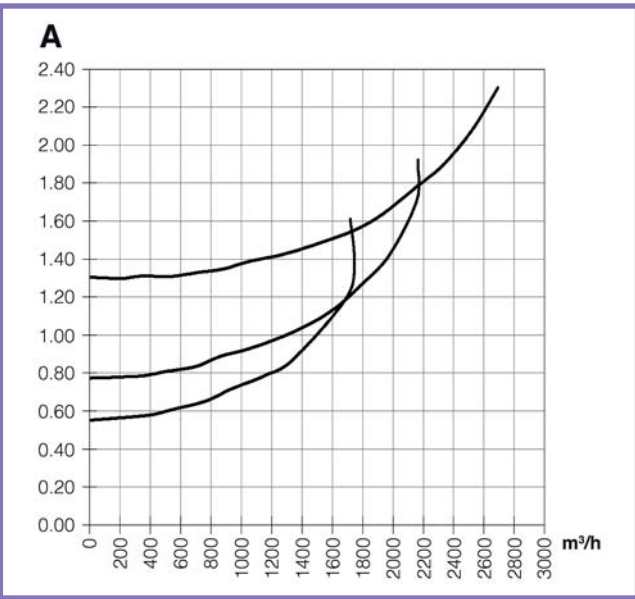
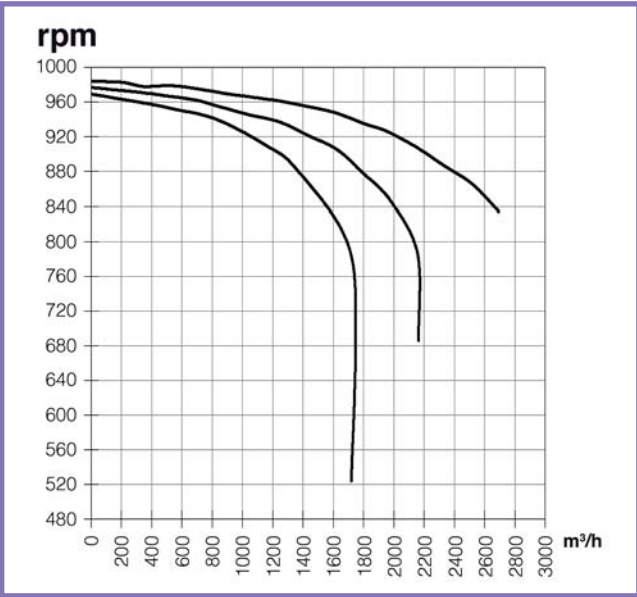
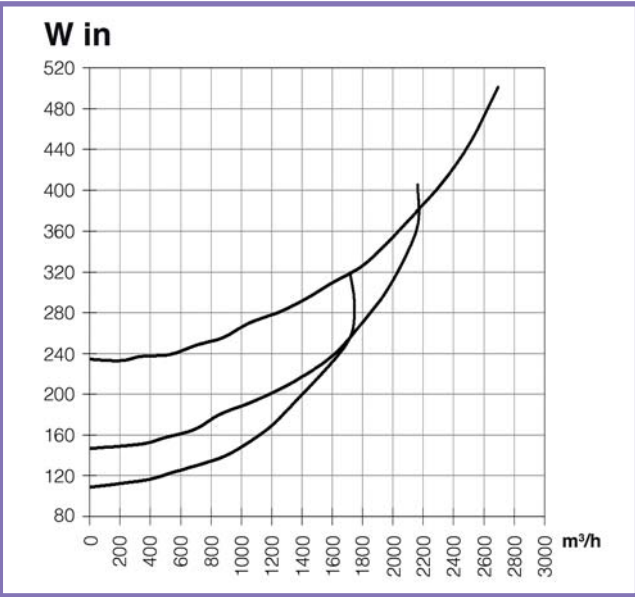
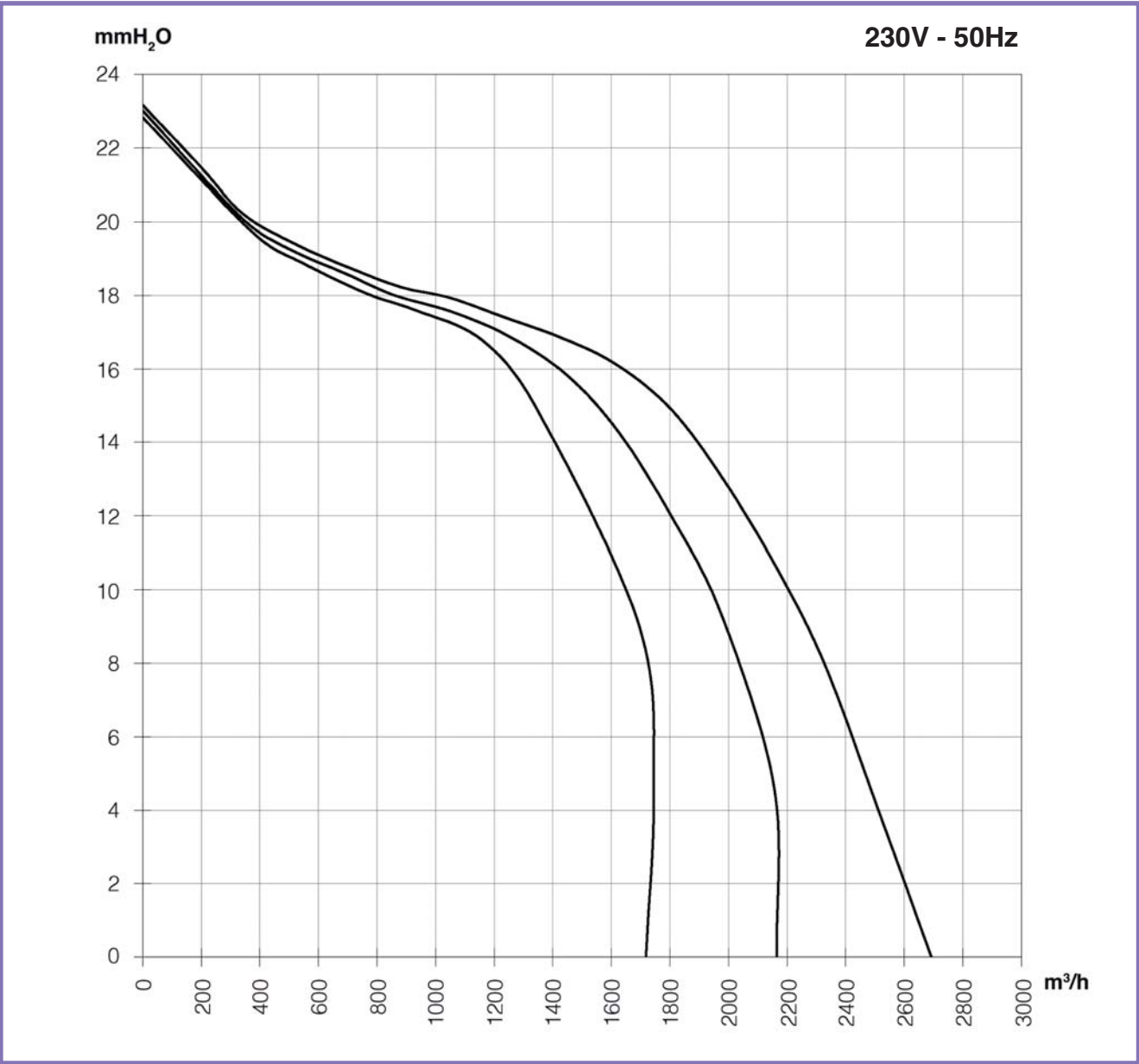
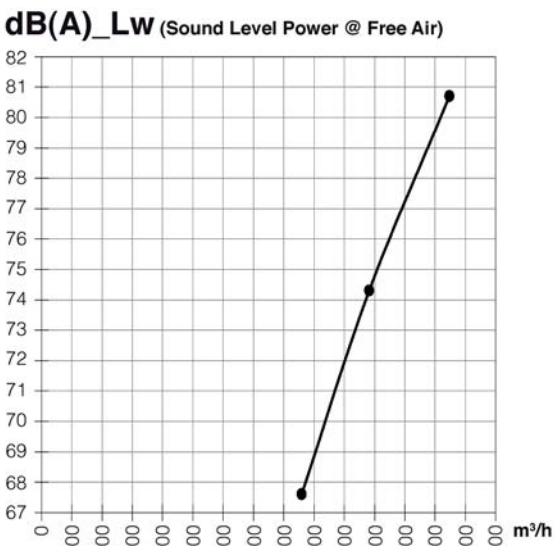
ErP 2015



Ventilator Type:	DD 9/7
Blowers Material:	Metal
Housing Material:	Metal
Motor Support Material:	Metal
Motor Type:	3 FGM
Power Supply:	1 ~
Nominal Voltage:	230V
Frequency:	50-60 Hz
Nominal Watts:	245
Range Power:	200-254V
Capacitor:	10 µF
Electrical Insulation Class:	Cl.F (155°C)
Protection:	Thermally Prot.

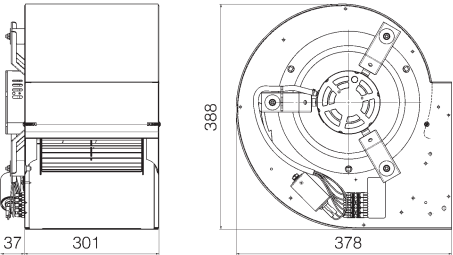


Test:	PDD-5051 Web: 487
Operating limits Max Speed 50 Hz (Rating Values)	
Win:	Max 510 (W)
Ampere:	Max 2.3 (A)
Static Pressure:	Min 0 - Max 20 (mmH ₂ O)
Measurement Category - A -	
Free Inlet - Free Outlet	
Value @ max. efficiency (Min Speed 50 Hz)	
Air Flow:	1155 (m ³ /h)
Static Pressure:	17.0 (mmH ₂ O)
Rpm:	910 (min-1)
Power Input:	164 (W)
Overall efficiency (η):	32.8
Grade efficiency (N):	44.1



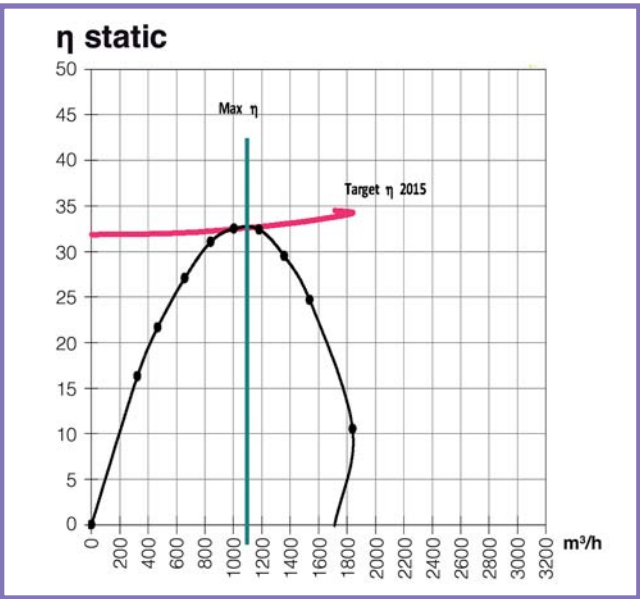
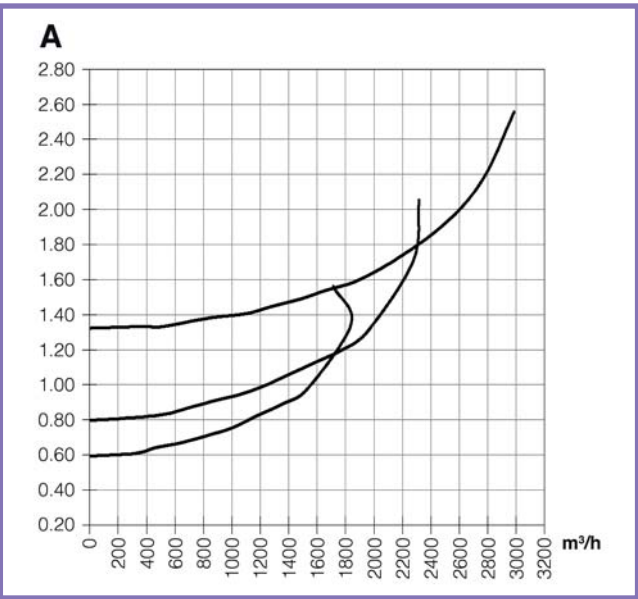
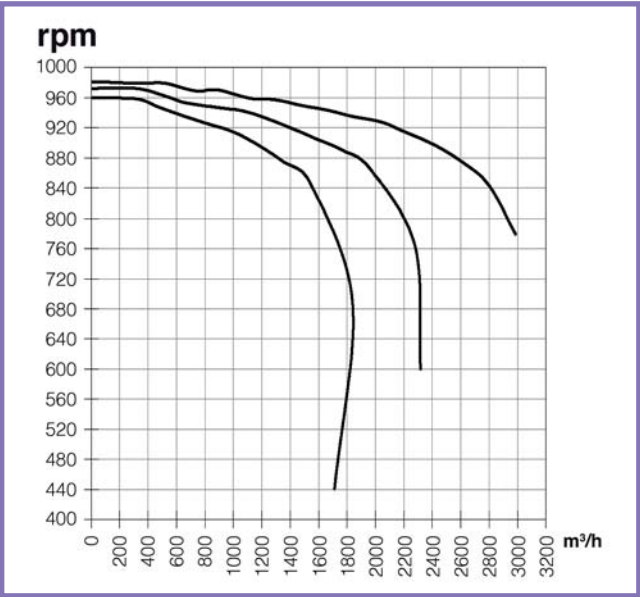
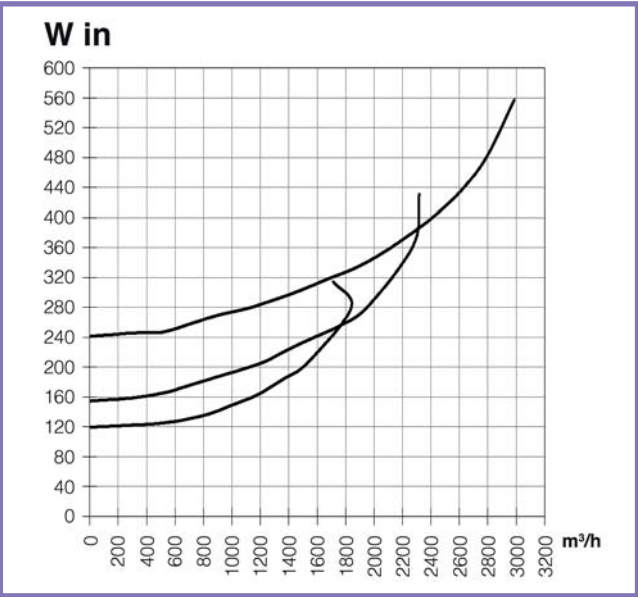
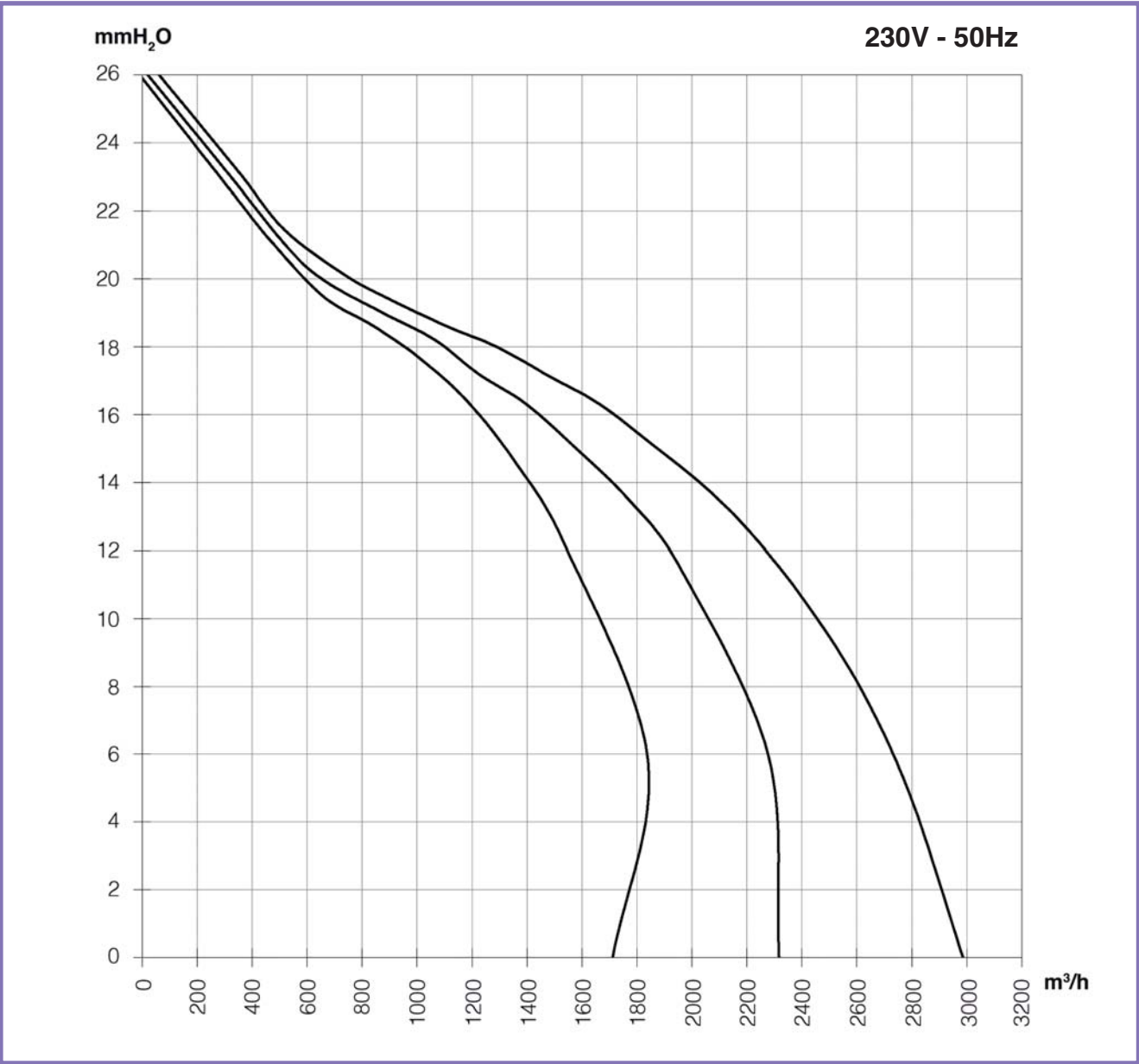
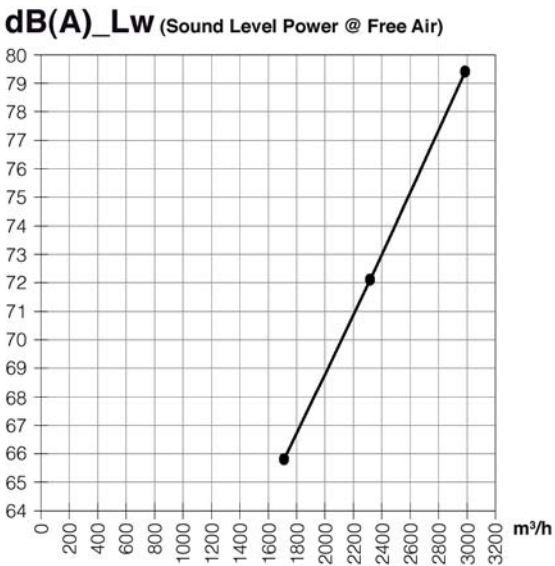
PERFORMANCE CURVES
DD 9/9 - 245-6P-3V
6 POLES

ErP 2015



Ventilator Type:	DD 9/9
Blowers Material:	Metal
Housing Material:	Metal
Motor Support Material:	Metal
Motor Type:	3 FGM
Power Supply:	1 ~
Nominal Voltage:	230V
Frequency:	50-60 Hz
Nominal Watts:	245
Range Power:	200-254V
Capacitor:	10 µF
Electrical Insulation Class:	Cl.F (155°C)
Protection:	Thermally Prot.

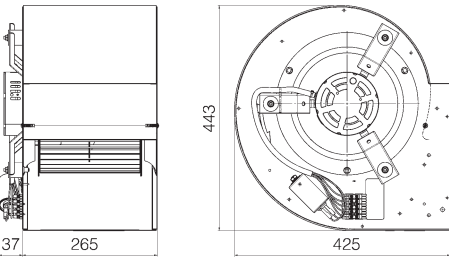
Test:	PDD-5049 Web: 382
Operating limits Max Speed 50 Hz (Rating Values)	
Win:	Max 560 (W)
Ampere:	Max 2.6 (A)
Static Pressure:	Min 0 - Max 24 (mmH ₂ O)
Measurement Category - A -	
Free Inlet - Free Outlet	
Value @ max. efficiency (Min Speed 50 Hz)	
Air Flow:	1004 (m ³ /h)
Static Pressure:	17.7 (mmH ₂ O)
Rpm:	914 (min-1)
Power Input:	149 (W)
Overall efficiency (η):	32.5
Grade efficiency (N):	44.0





PERFORMANCE CURVES
DD 10/8 - 245-6P-3V
6 POLES

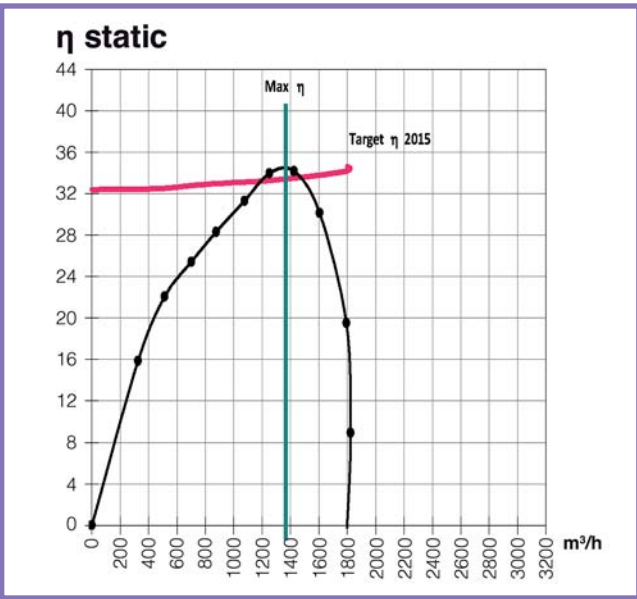
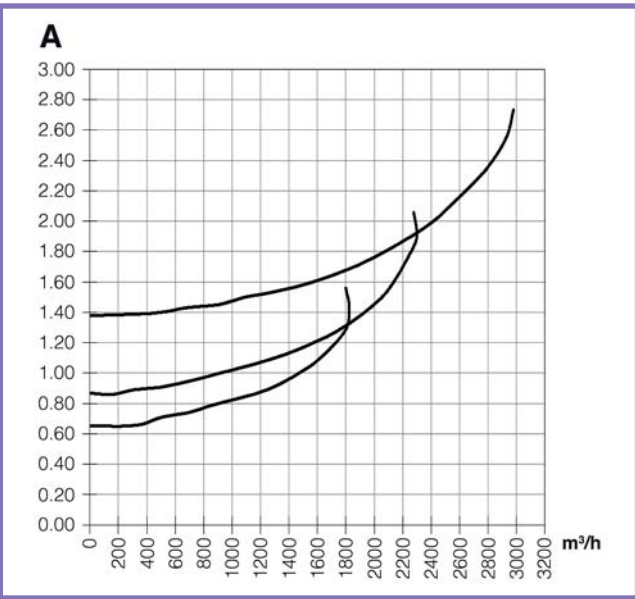
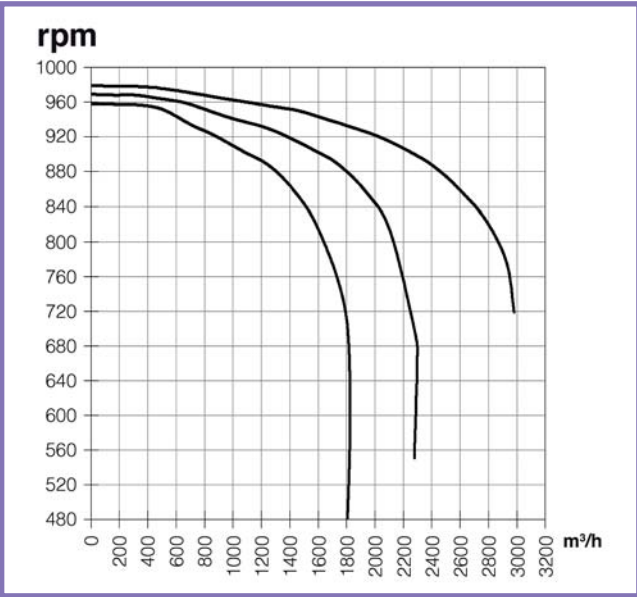
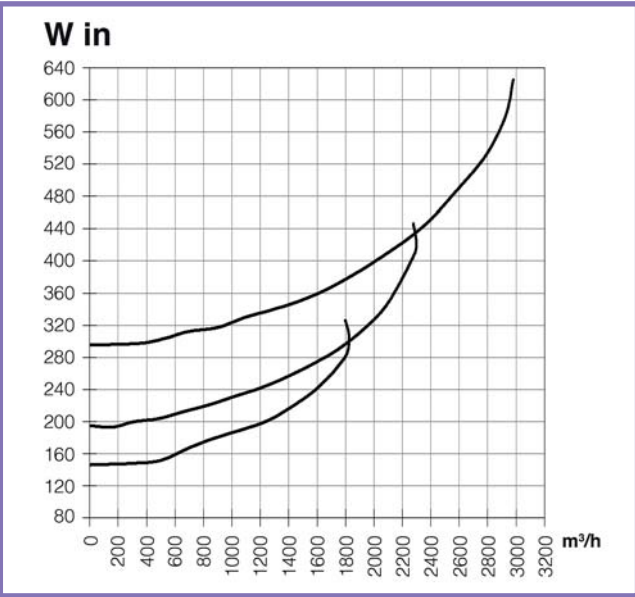
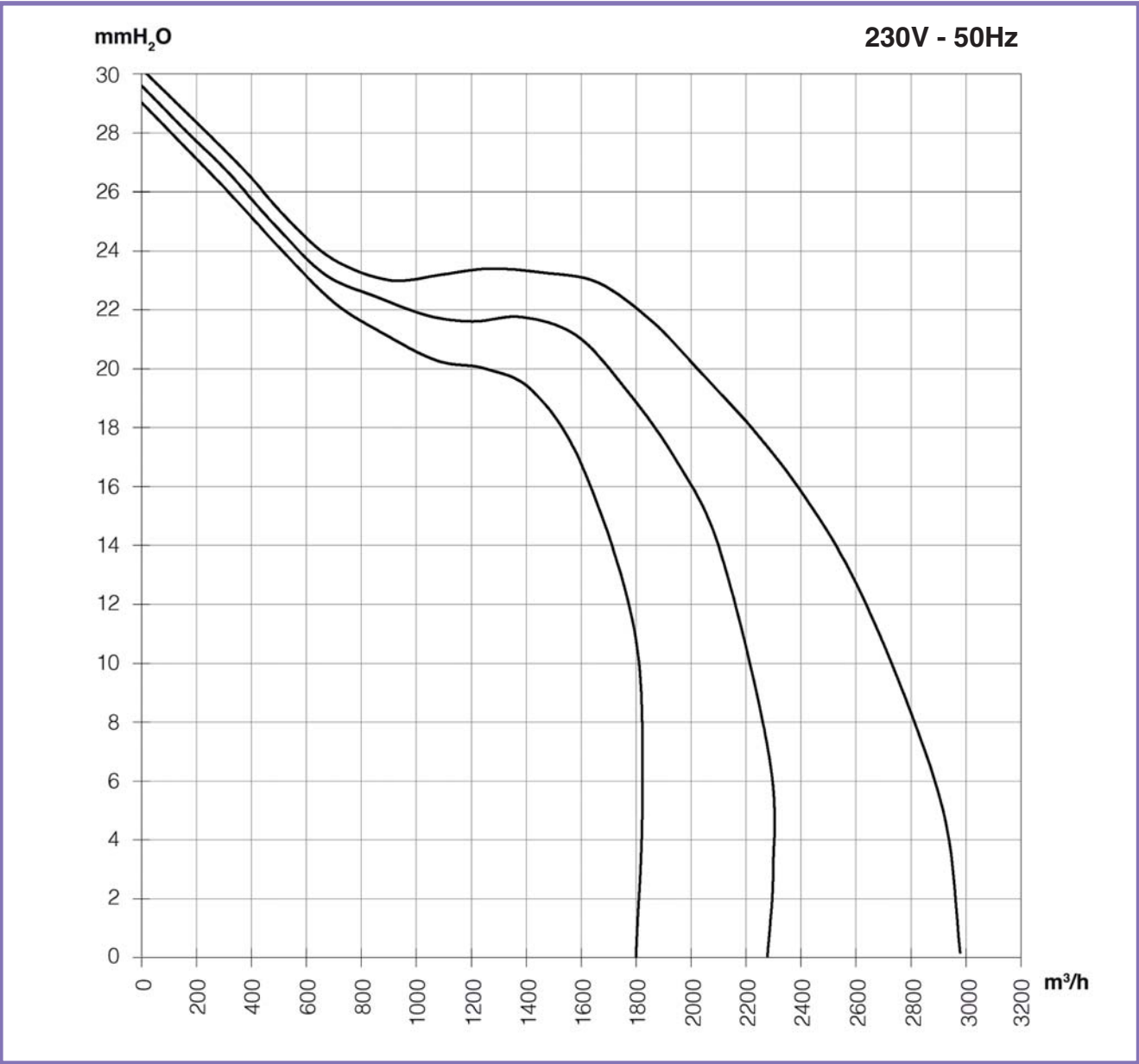
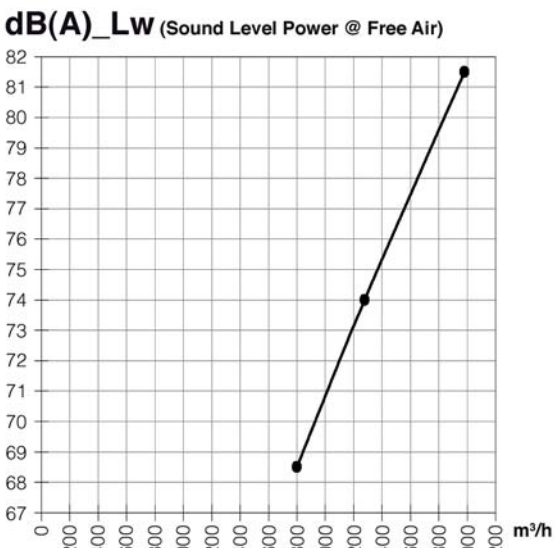
ErP 2015



Ventilator Type:	DD 10/8
Blowers Material:	Metal
Housing Material:	Metal
Motor Support Material:	Metal
Motor Type:	3 FGM
Power Supply:	1 ~
Nominal Voltage:	230V
Frequency:	50-60 Hz
Nominal Watts:	245
Range Power:	200-254V
Capacitor:	12.5 µF
Electrical Insulation Class:	CI.F (155°C)
Protection:	Thermally Prot.



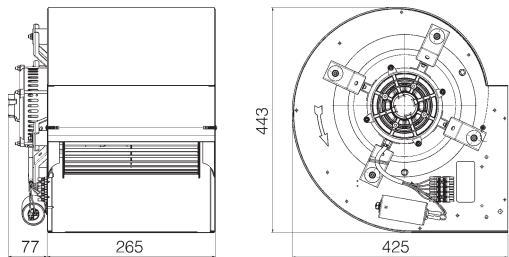
Test:	PDD-5062	Web:	488
Operating limits Max Speed 50 Hz (Rating Values)			
Win:	Max 640 (W)		
Ampere:	Max 2.8 (A)		
Static Pressure:	Min 0 - Max 24 (mmH ₂ O)		
Measurement Category - A -			
Free Inlet - Free Outlet			
Value @ max. efficiency (Min Speed 50 Hz)			
Air Flow:	1424 (m ³ /h)		
Static Pressure:	19.2 (mmH ₂ O)		
Rpm:	859 (min-1)		
Power Input:	218 (W)		
Overall efficiency (η):	34.2		
Grade efficiency (N):	44.7		





PERFORMANCE CURVES
DD 10/8 - 550-6P-3V
6 POLES

ErP 2015



Ventilator Type: DD 10/8
Blowers Material: Metal
Housing Material: Metal
Motor Support Material: Metal

Motor Type: 3 HOM
Power Supply: 1 ~
Nominal Voltage: 230V
Frequency: 50-60 Hz
Nominal Watts: 550
Range Power: 200-254V
Capacitor: 18 µF

Electrical Insulation Class: Cl.F (155°C)
Protection: Thermally Prot.

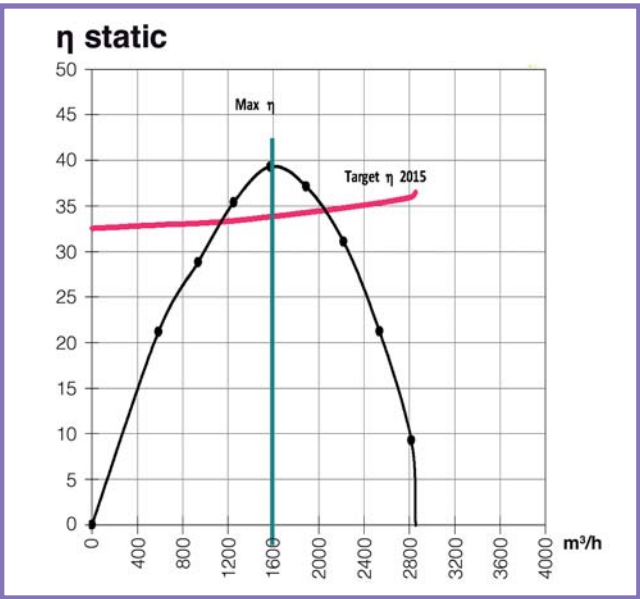
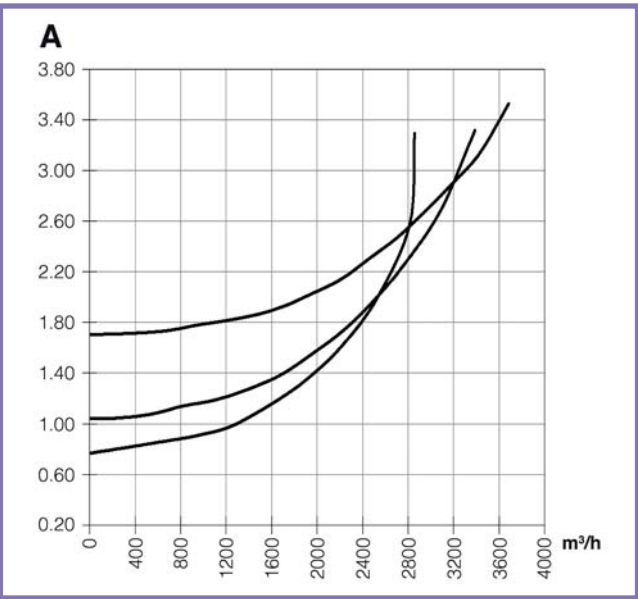
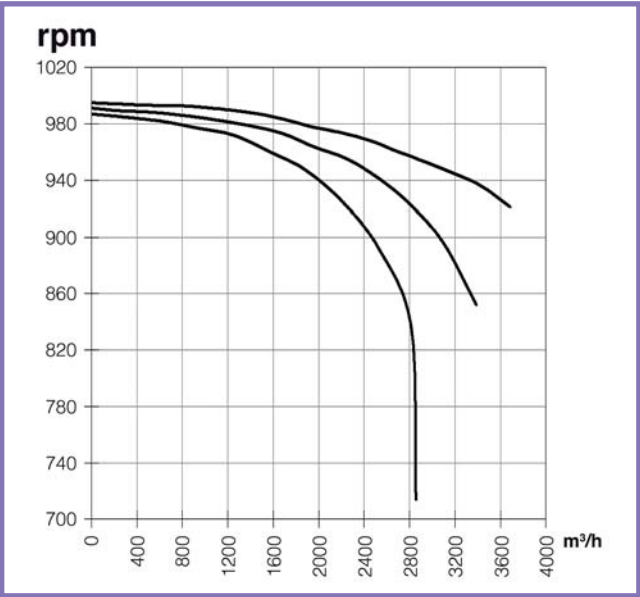
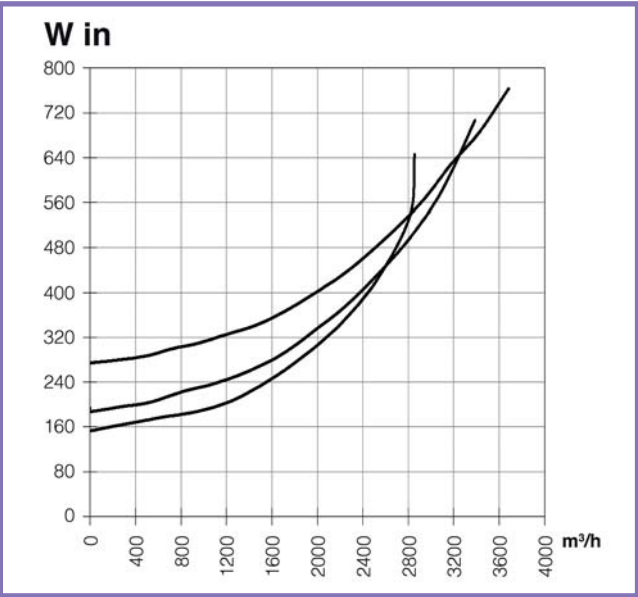
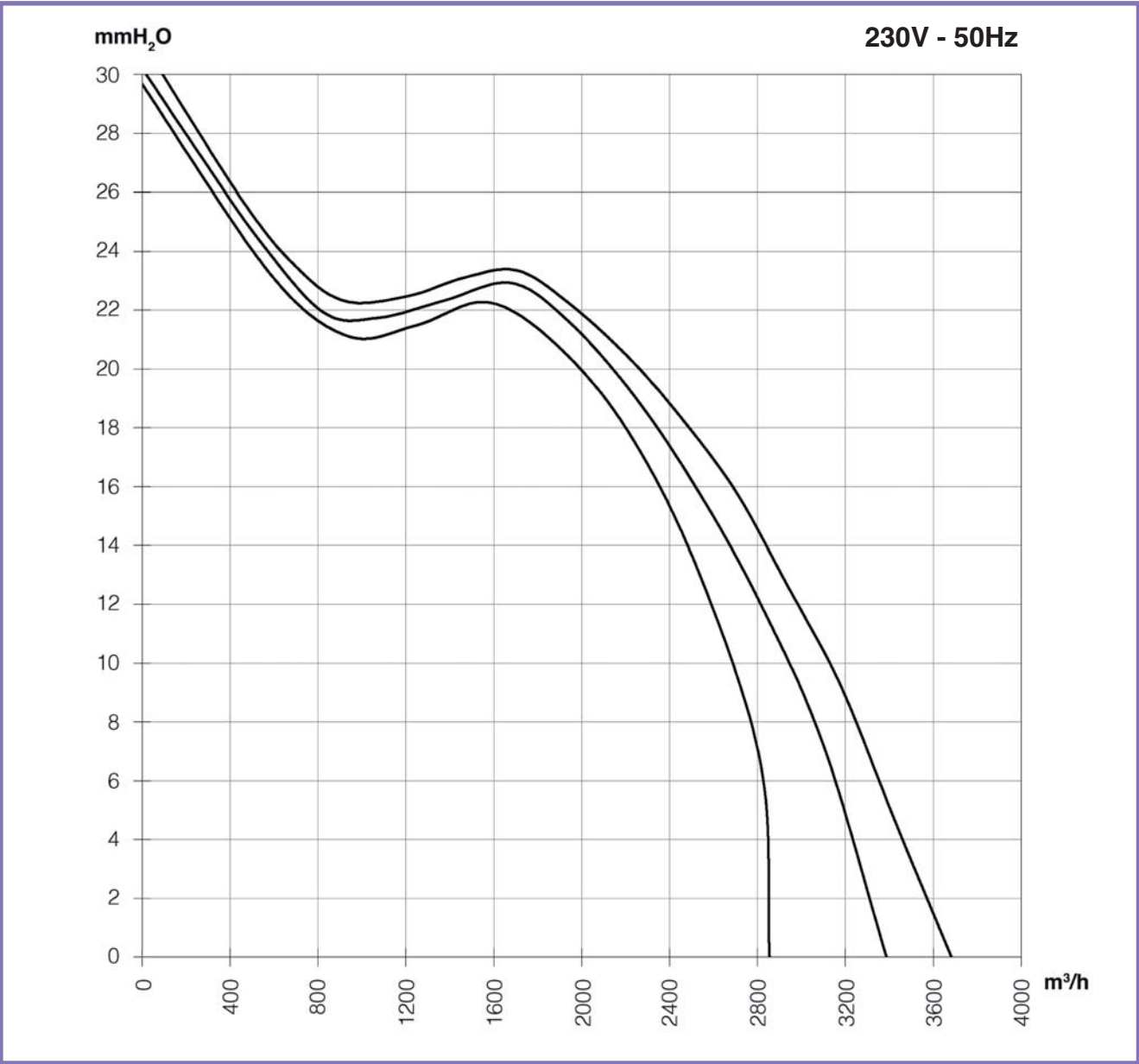
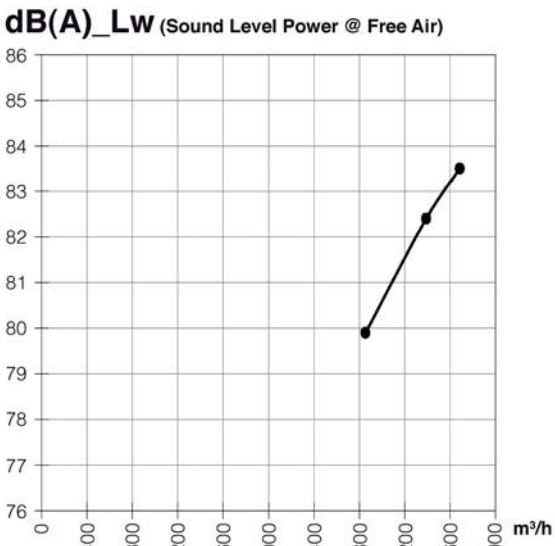


Test: PDD-5082 Web: 341

Operating limits Max Speed 50 Hz (Rating Values)
Win: Max 750 (W)
Ampere: Max 3.1 (A)
Static Pressure: Min 0 - Max 24 (mmH₂O)

Measurement Category - A -
Free Inlet - Free Outlet

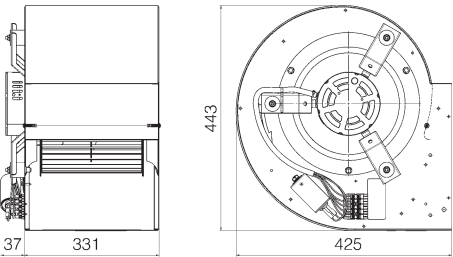
Value @ max. efficiency (Min Speed 50 Hz)
Air Flow: 1572 (m³/h)
Static Pressure: 22.3 (mmH₂O)
Rpm: 960 (min-1)
Power Input: 242 (W)
Overall efficiency (η): 39.3
Grade efficiency (N): 49.5





PERFORMANCE CURVES
DD 10/10 - 245-6P-3V
6 POLES

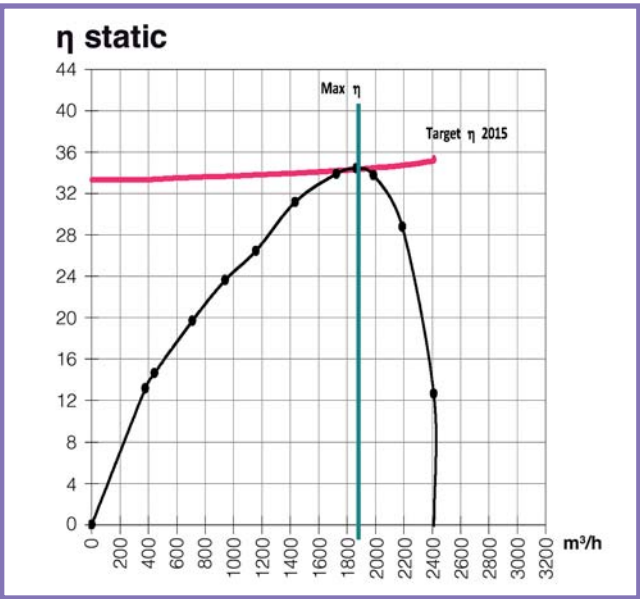
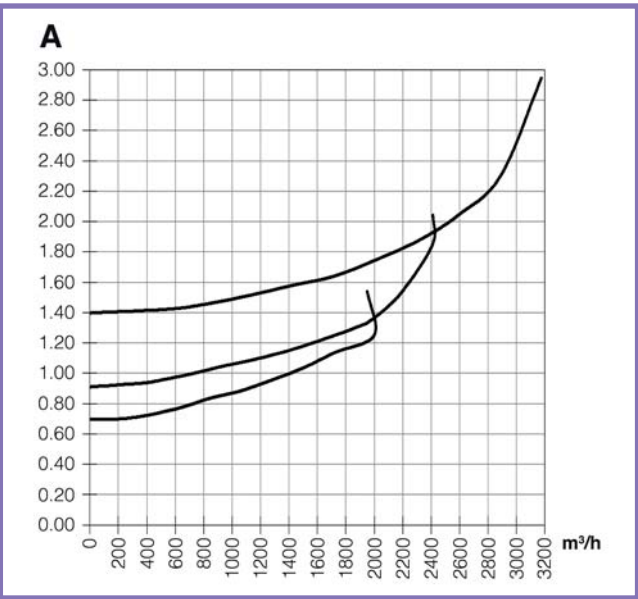
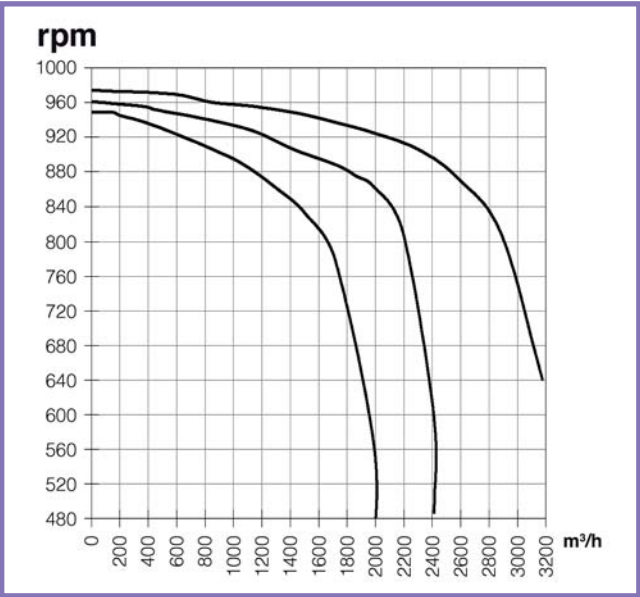
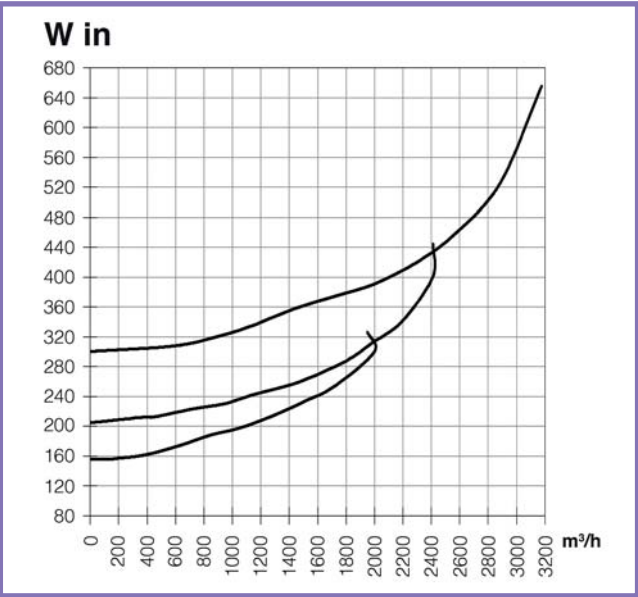
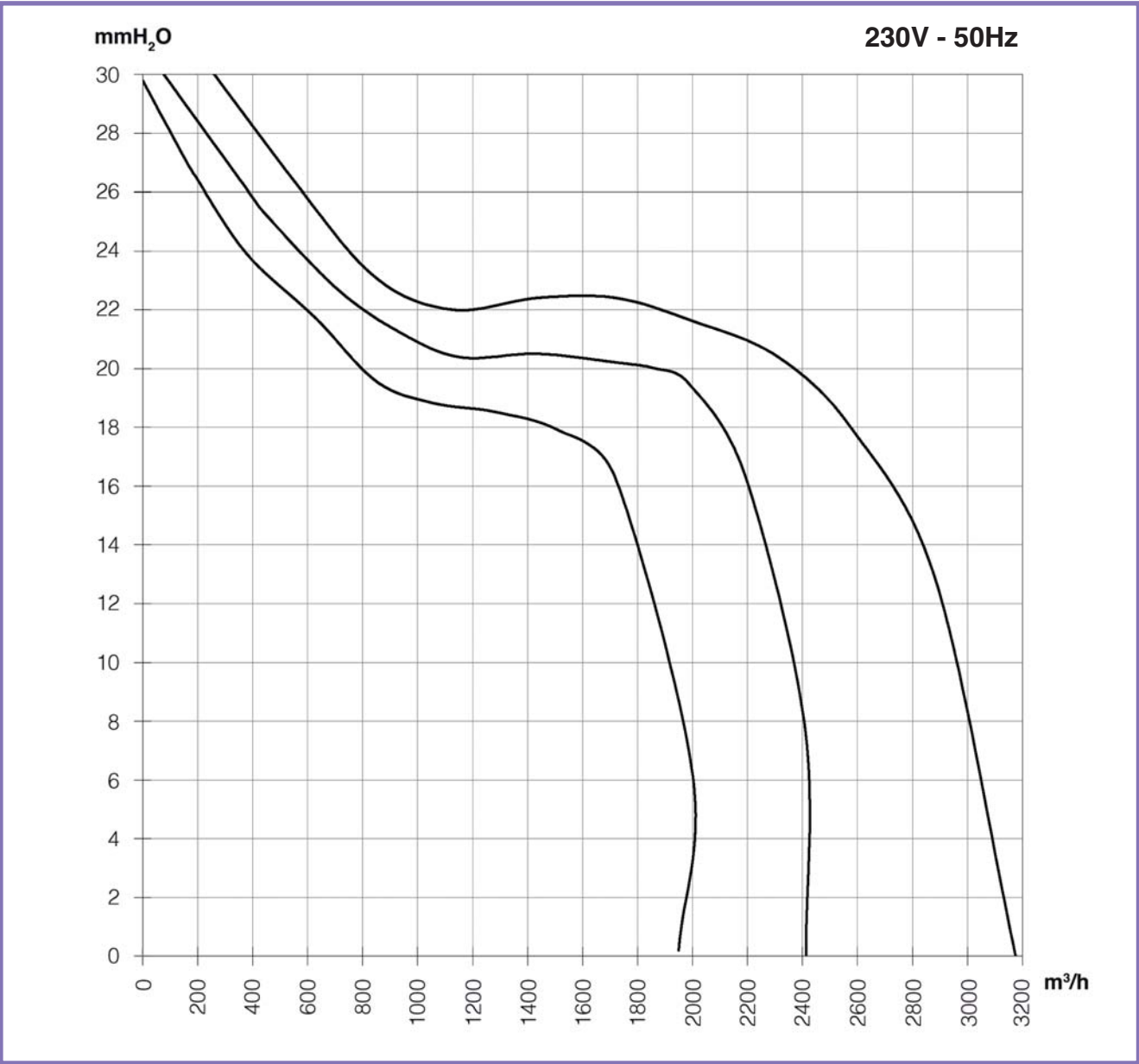
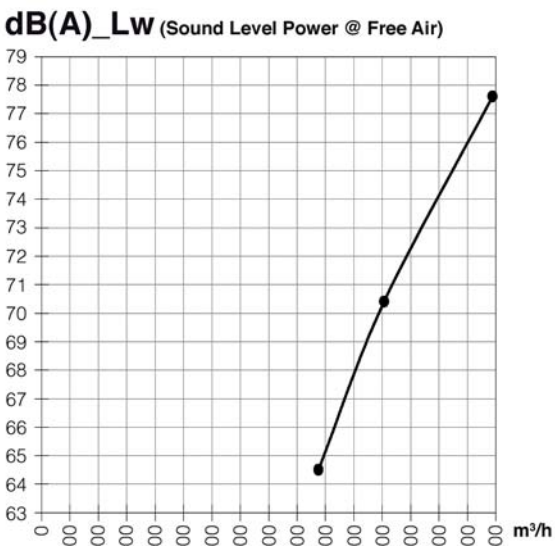
ErP 2015



Ventilator Type:	DD 10/10
Blowers Material:	Metal
Housing Material:	Metal
Motor Support Material:	Metal
Motor Type:	3 FGM
Power Supply:	1 ~
Nominal Voltage:	230V
Frequency:	50-60 Hz
Nominal Watts:	245
Range Power:	200-254V
Capacitor:	12.5 µF
Electrical Insulation Class:	Cl.F (155°C)
Protection:	Thermally Prot.



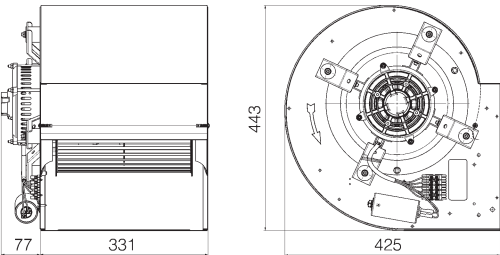
Test:	PDD-5058 Web: 383
Operating limits Max Speed 50 Hz (Rating Values)	
Win:	Max 660 (W)
Ampere:	Max 3.0 (A)
Static Pressure:	Min 0 - Max 26 (mmH ₂ O)
Measurement Category - A -	Free Inlet - Free Outlet
Value @ max. efficiency (Med Speed 50 Hz)	
Air Flow:	1865 (m ³ /h)
Static Pressure:	20.0 (mmH ₂ O)
Rpm:	875 (min-1)
Power Input:	295 (W)
Overall efficiency (η):	34.4
Grade efficiency (N):	44.1





PERFORMANCE CURVES
DD 10/10 - 550-6P-3V
6 POLES

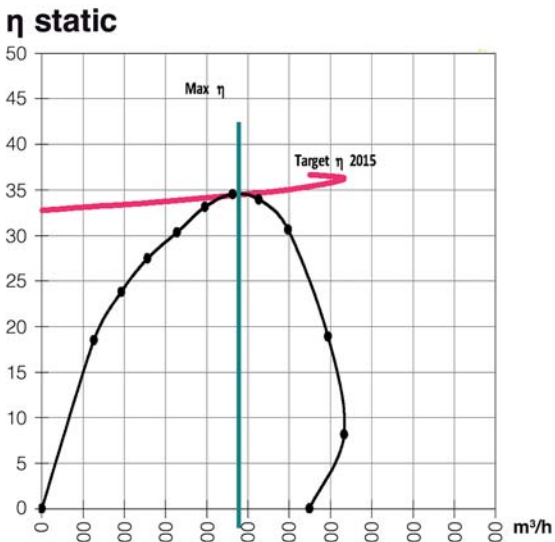
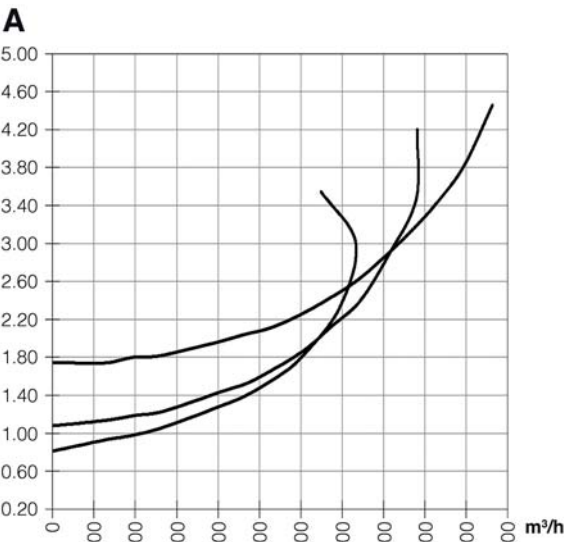
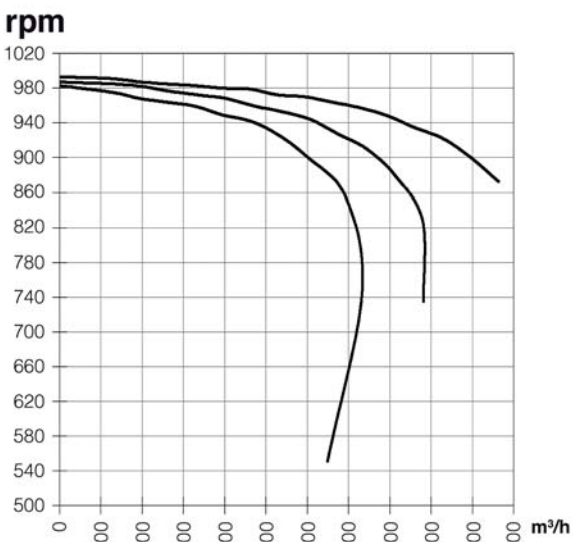
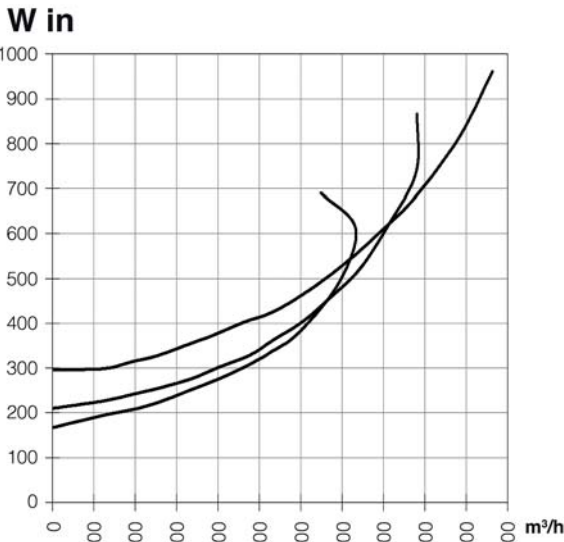
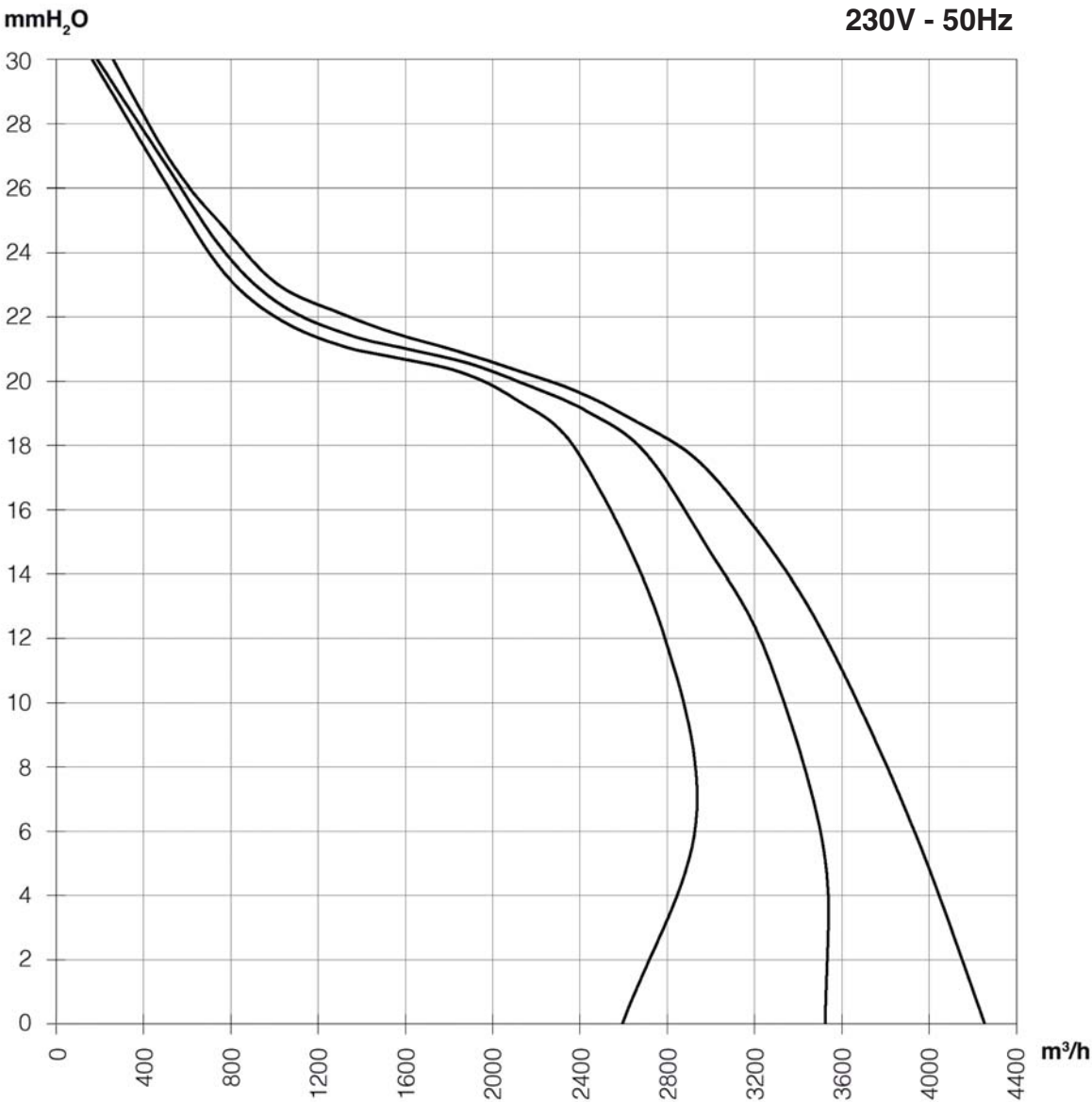
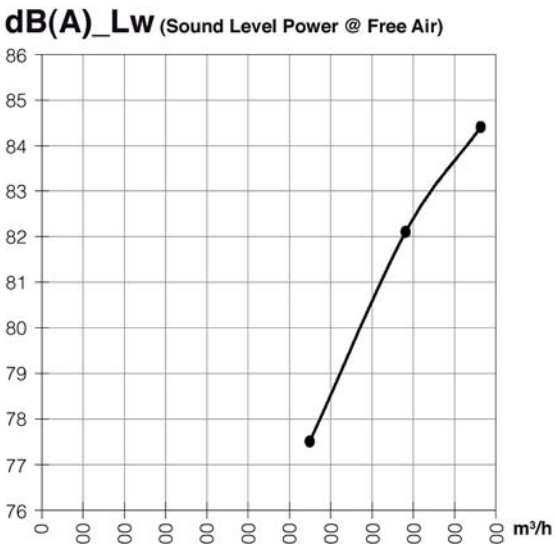
ErP 2015



Ventilator Type:	DD 10/10
Blowers Material:	Metal
Housing Material:	Metal
Motor Support Material:	Metal
Motor Type:	3 HOM
Power Supply:	1 ~
Nominal Voltage:	230V
Frequency:	50-60 Hz
Nominal Watts:	550
Range Power:	200-254V
Capacitor:	18 µF
Electrical Insulation Class:	Cl.F (155°C)
Protection:	Thermally Prot.



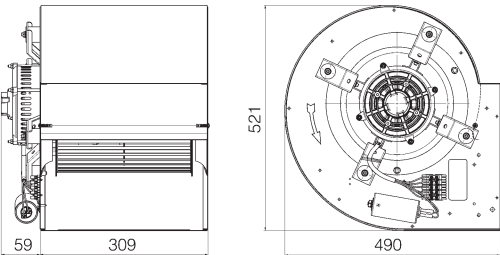
Test:	PDD-5067 Web: 388
Operating limits Max Speed 50 Hz (Rating Values)	
Win:	Max 950 (W)
Ampere:	Max 4.5 (A)
Static Pressure:	Min 0 - Max 25 (mmH ₂ O)
Measurement Category - A -	Free Inlet - Free Outlet
Value @ max. efficiency (Min Speed 50 Hz)	
Air Flow:	1851 (m ³ /h)
Static Pressure:	20.6 (mmH ₂ O)
Rpm:	942 (min-1)
Power Input:	301 (W)
Overall efficiency (η):	34.5
Grade efficiency (N):	44.2





PERFORMANCE CURVES
DD 12/9 - 550-6P-3V
6 POLES

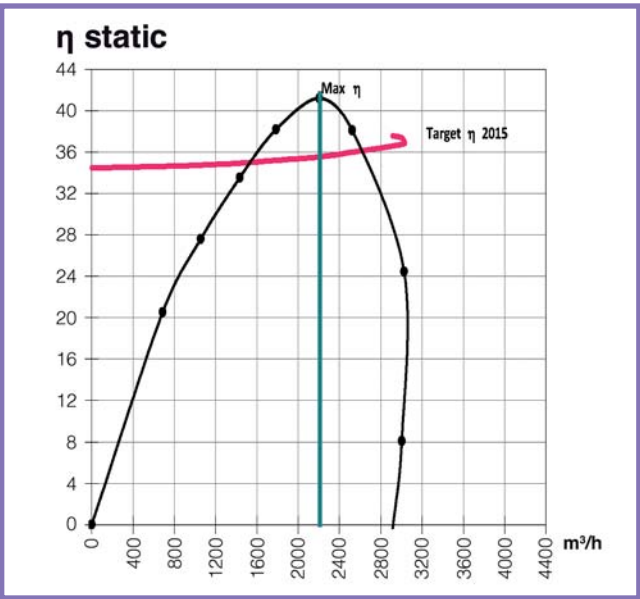
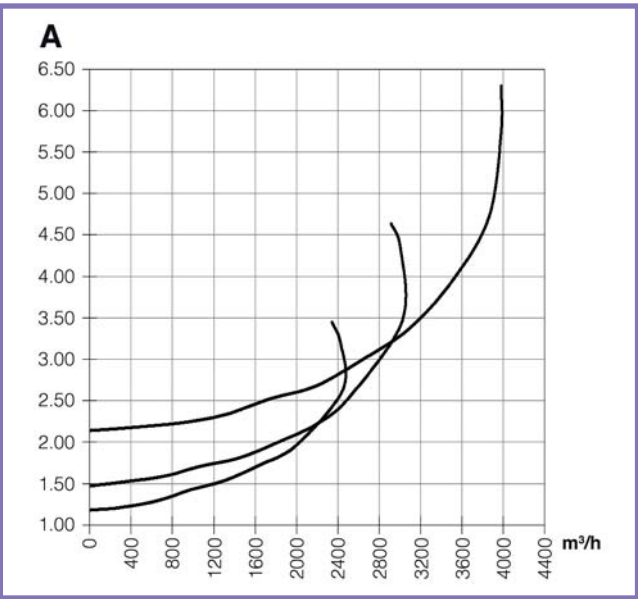
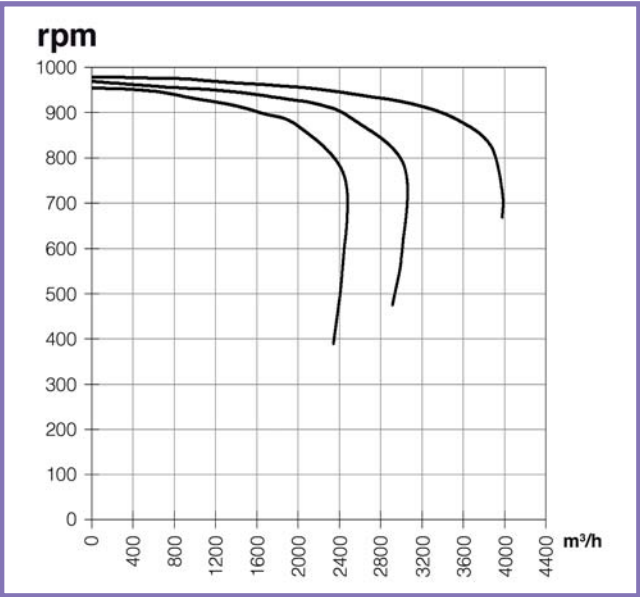
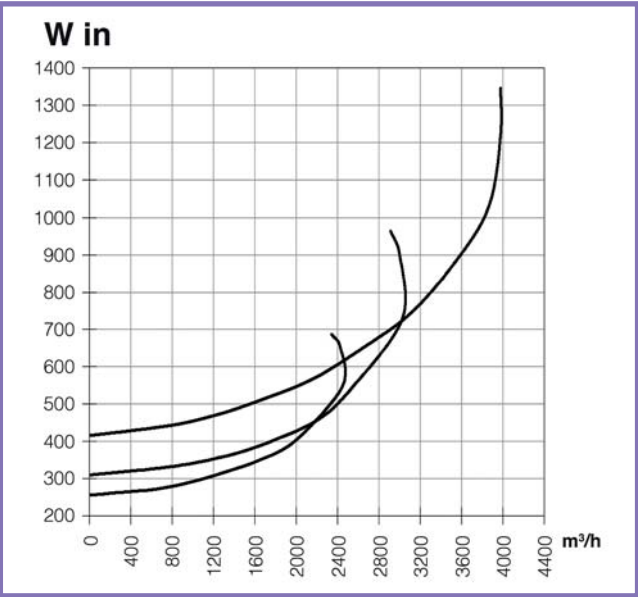
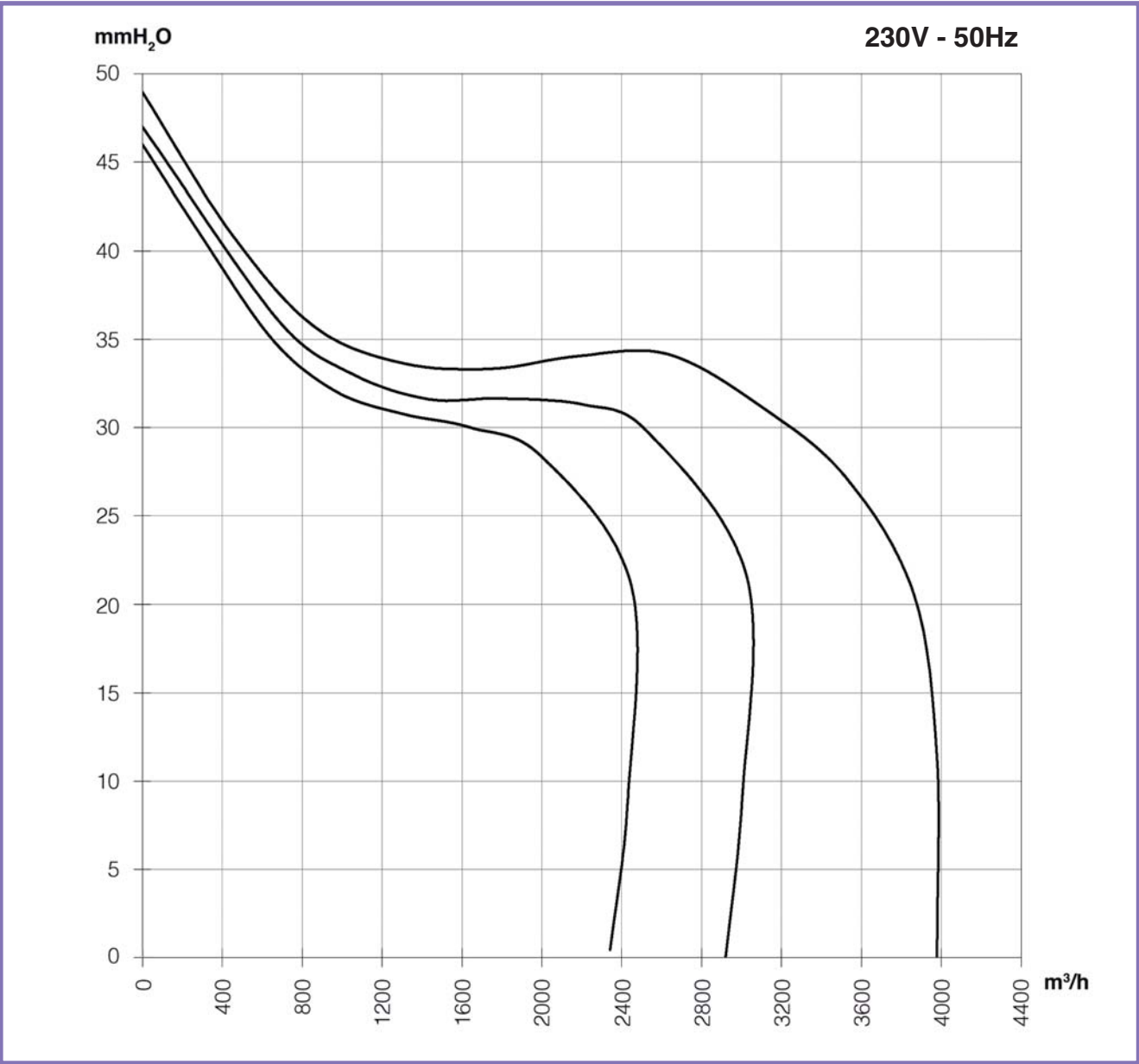
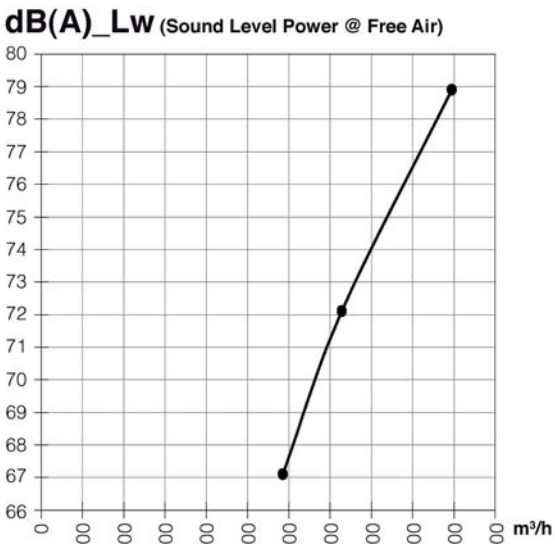
ErP 2015



Ventilator Type:	DD 12/9
Blowers Material:	Metal
Housing Material:	Metal
Motor Support Material:	Metal
Motor Type:	3 HOM
Power Supply:	1 ~
Nominal Voltage:	230V
Frequency:	50-60 Hz
Nominal Watts:	550
Range Power:	200-254V
Capacitor:	20 µF
Electrical Insulation Class:	Cl.F (155°C)
Protection:	Thermally Prot.



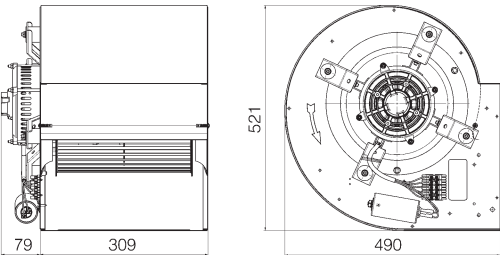
Test:	PDD-5072 Web: 489
Operating limits Max Speed 50 Hz (Rating Values)	
Win:	Max 1360 (W)
Ampere:	Max 6.2 (A)
Static Pressure:	Min 0 - Max 35 (mmH ₂ O)
Measurement Category - A -	
Free Inlet - Free Outlet	
Value @ max. efficiency (Med Speed 50 Hz)	
Air Flow:	2204 (m ³ /h)
Static Pressure:	31.3 (mmH ₂ O)
Rpm:	918 (min-1)
Power Input:	456 (W)
Overall efficiency (η):	41.2
Grade efficiency (N):	49.7





PERFORMANCE CURVES
DD 12/9 - 735-6P-3V
6 POLES

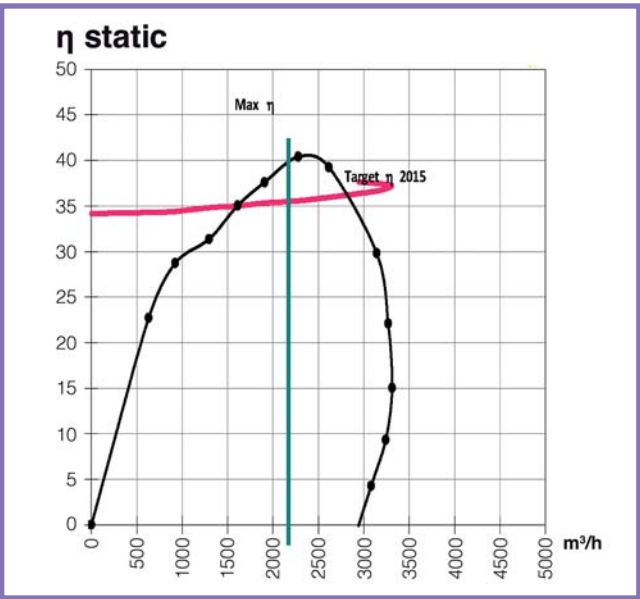
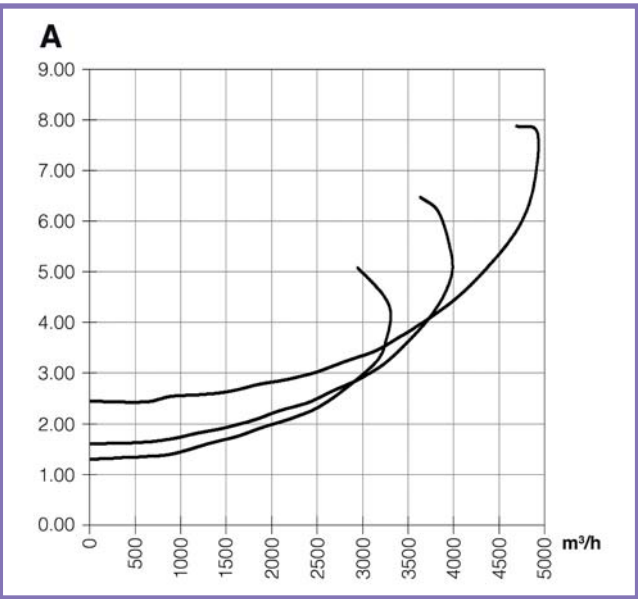
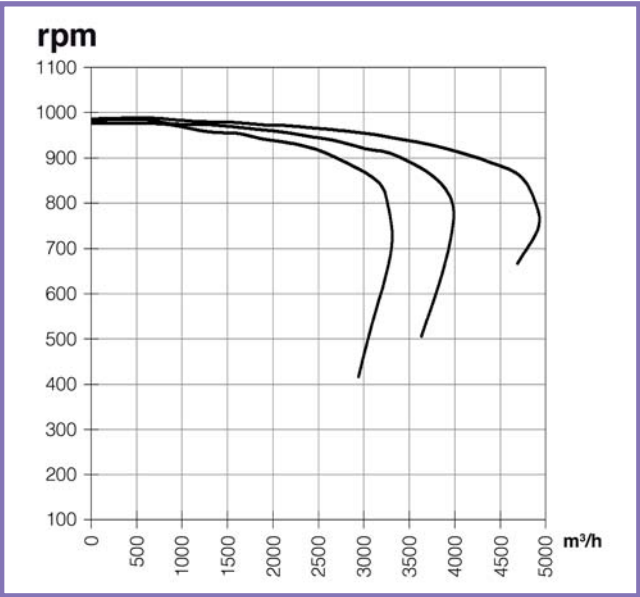
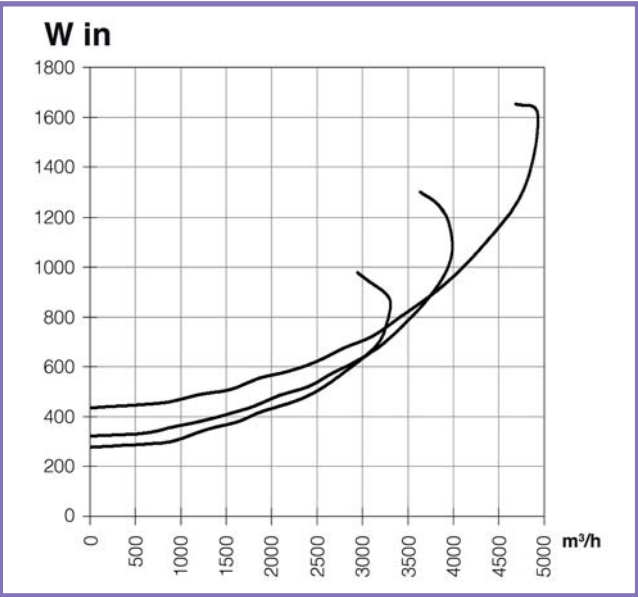
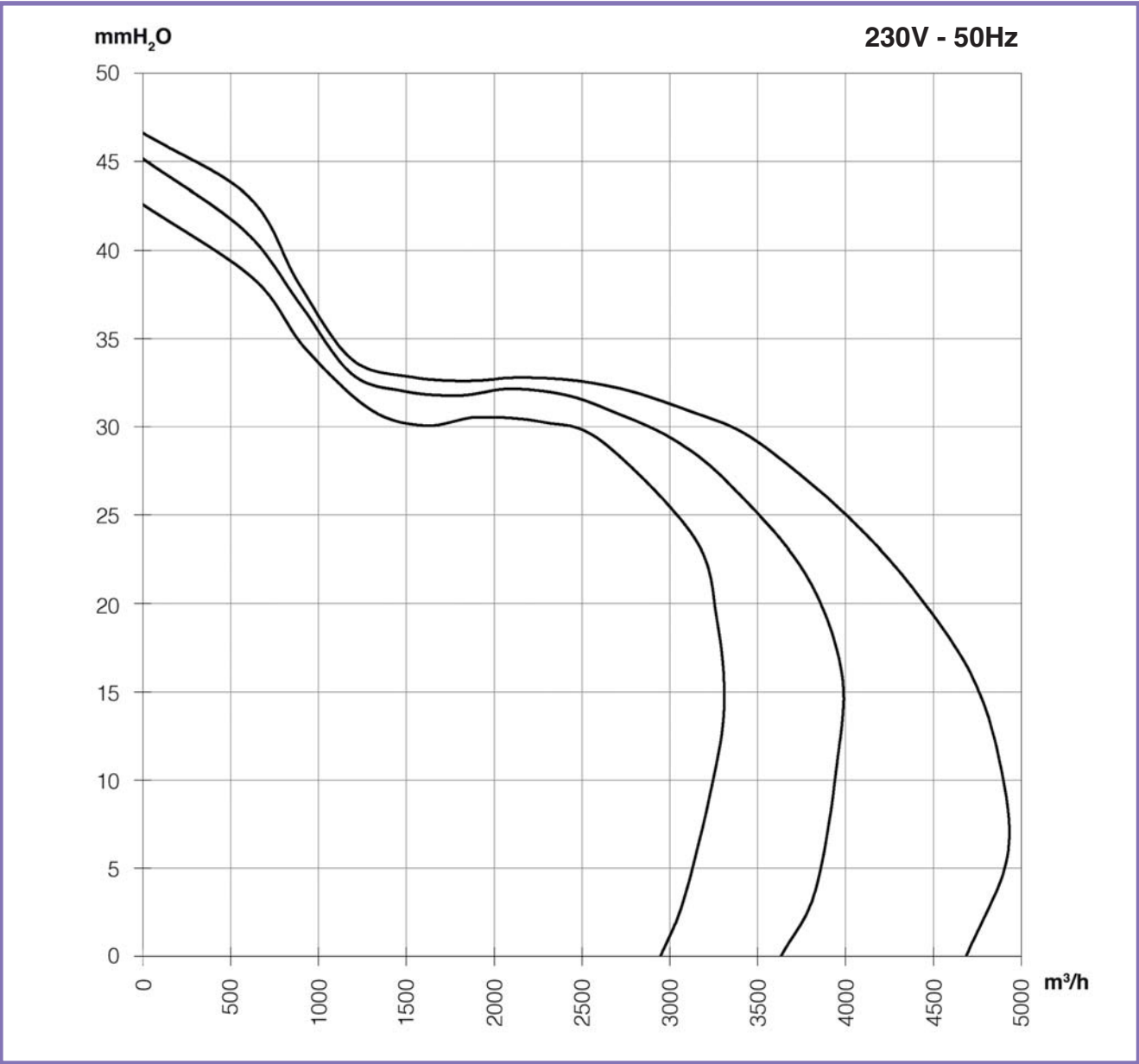
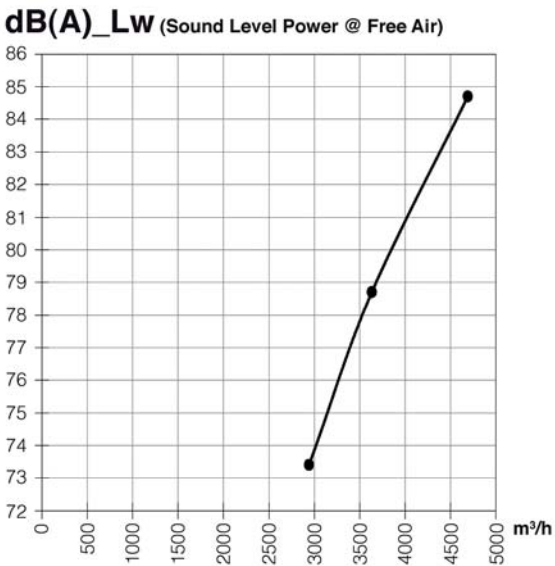
ErP 2015



Ventilator Type:	DD 12/9
Blowers Material:	Metal
Housing Material:	Metal
Motor Support Material:	Metal
Motor Type:	3 HOM
Power Supply:	1 ~
Nominal Voltage:	230V
Frequency:	50-60 Hz
Nominal Watts:	735
Range Power:	200-254V
Capacitor:	20 µF
Electrical Insulation Class:	Cl.F (155°C)
Protection:	Thermally Prot.



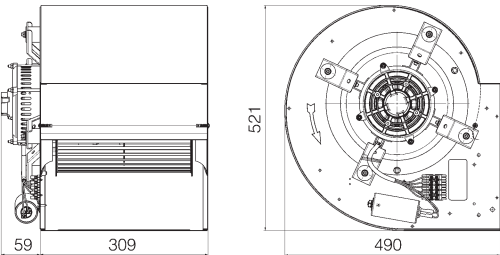
Test:	PDD-5015 Web: 490
Operating limits Max Speed 50 Hz (Rating Values)	
Win:	Max 1600 (W)
Ampere:	Max 7.8 (A)
Static Pressure:	Min 5 - Max 40 (mmH ₂ O)
Measurement Category - A -	Free Inlet - Free Outlet
Value @ max. efficiency (Min Speed 50 Hz)	
Air Flow:	2278 (m ³ /h)
Static Pressure:	30.3 (mmH ₂ O)
Rpm:	929 (min-1)
Power Input:	464 (W)
Overall efficiency (η):	40.4
Grade efficiency (N):	48.9





PERFORMANCE CURVES
DD 12/9 - 1100-6P-1V-T
6 POLES

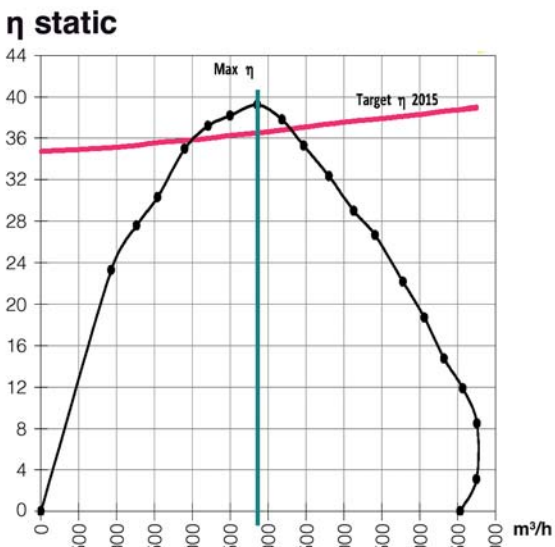
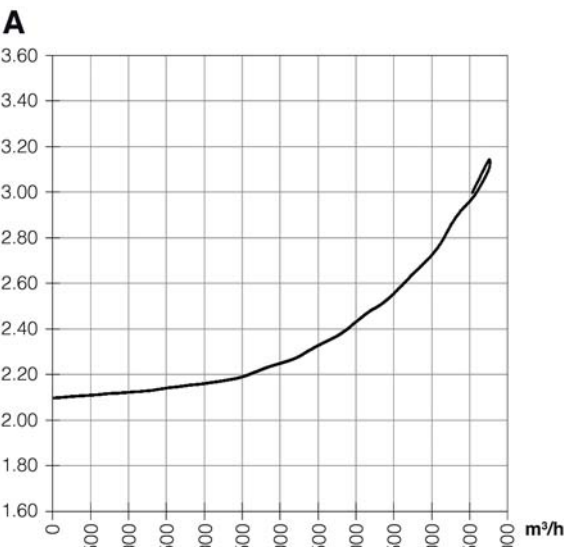
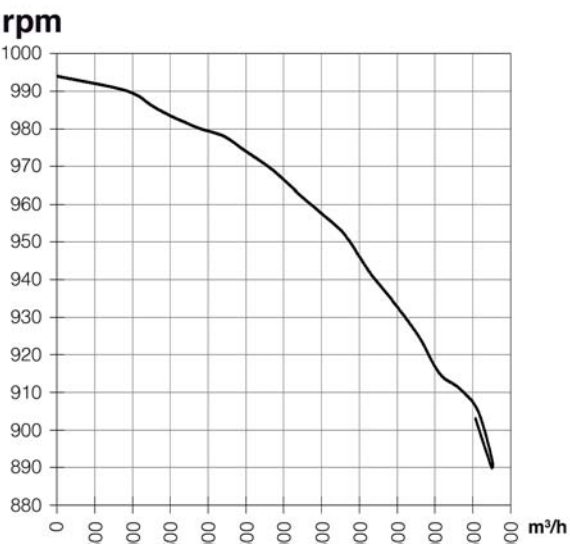
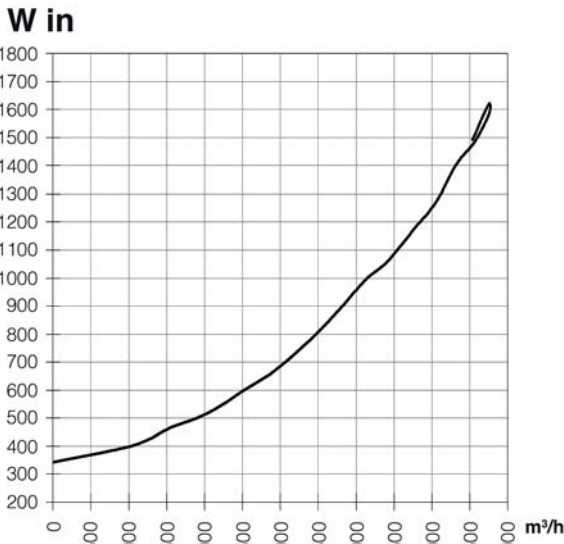
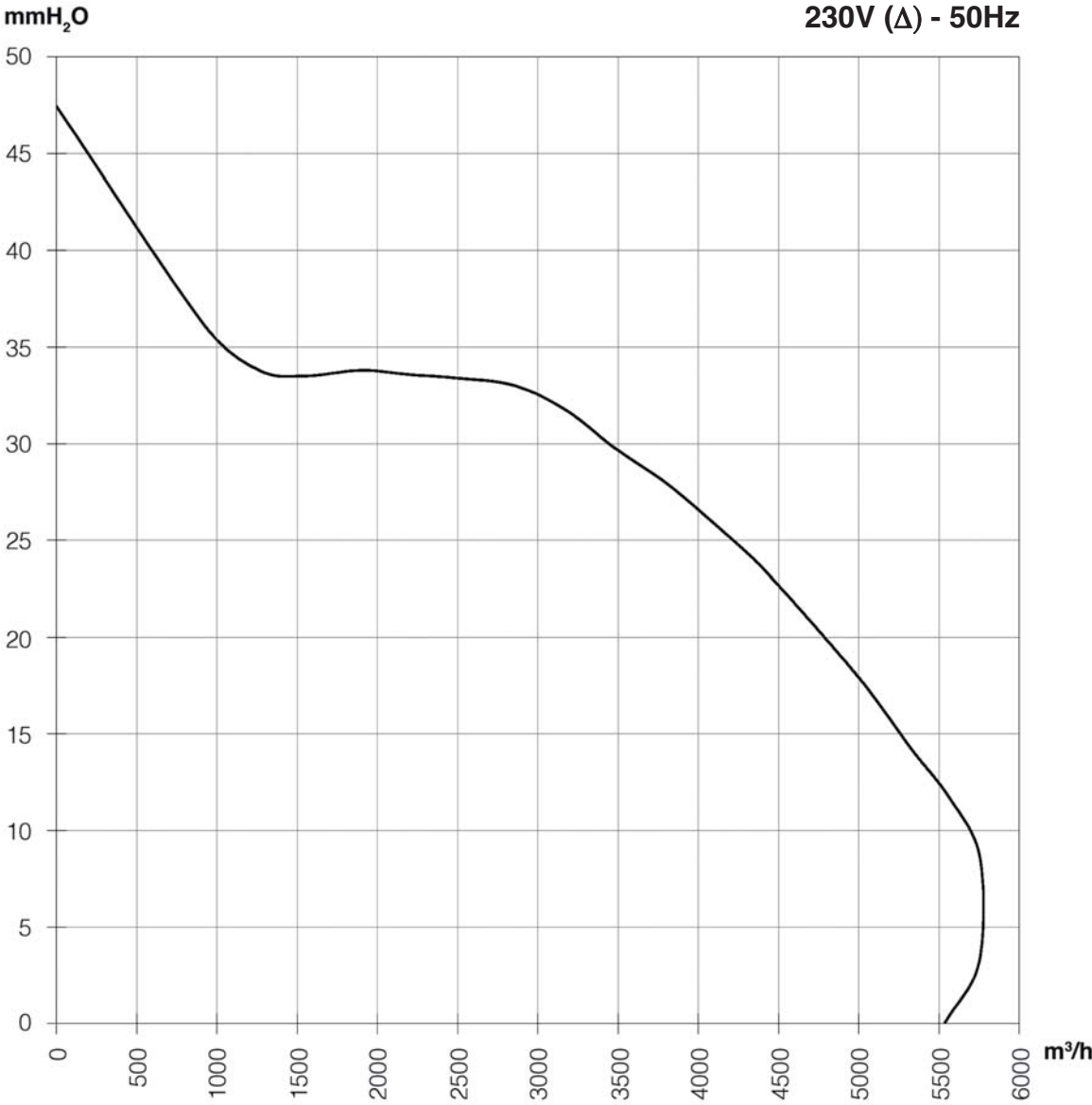
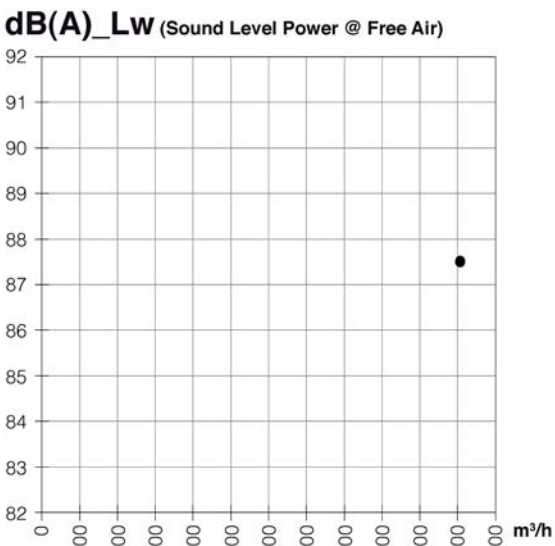
ErP 2015



Ventilator Type:	DD 12/9
Blowers Material:	Metal
Housing Material:	Metal
Motor Support Material:	Metal
Motor Type:	3 HOM
Power Supply:	3 ~
Nominal Voltage:	230V (Δ) - 400V (Y)
Frequency:	50-60 Hz
Nominal Watts:	1100
Range Power:	200-254 V (Δ) 360-440 V (Y)
Electrical Insulation Class:	Cl.F (155°C)
Protection:	Thermally Prot.



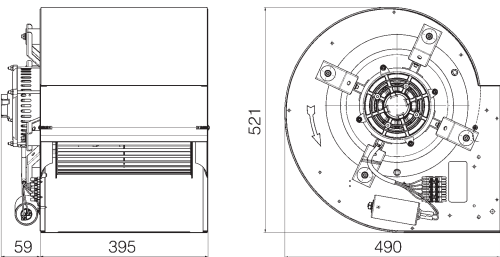
Test:	PDD-5013	Web:	491
Operating limits Max Speed 50 Hz (Rating Values)			
Win:	Max 1600 (W)		
Ampere:	Max 3.1 A (Δ) - 5.4 A (Y)		
Static Pressure:	Min 0 - Max 40 (mmH ₂ O)		
Measurement Category - A -			
Free Inlet - Free Outlet			
Value @ max. efficiency (50 Hz)			
Air Flow:	2857 (m ³ /h)		
Static Pressure:	33.0 (mmH ₂ O)		
Rpm:	969 (min-1)		
Power Input:	655 (W)		
Overall efficiency (η):	39.2		
Grade efficiency (N):	46.7		





PERFORMANCE CURVES
DD 12/12 - 550-6P-3V
6 POLES

ErP 2015



Ventilator Type: DD 12/12
Blowers Material: Metal
Housing Material: Metal
Motor Support Material: Metal

Motor Type: 3 HOM
Power Supply: 1 ~
Nominal Voltage: 230V
Frequency: 50-60 Hz
Nominal Watts: 550
Range Power: 200-254 V
Capacitor: 20 µF

Electrical Insulation Class: Cl.F (155°C)
Protection: Thermally Prot.



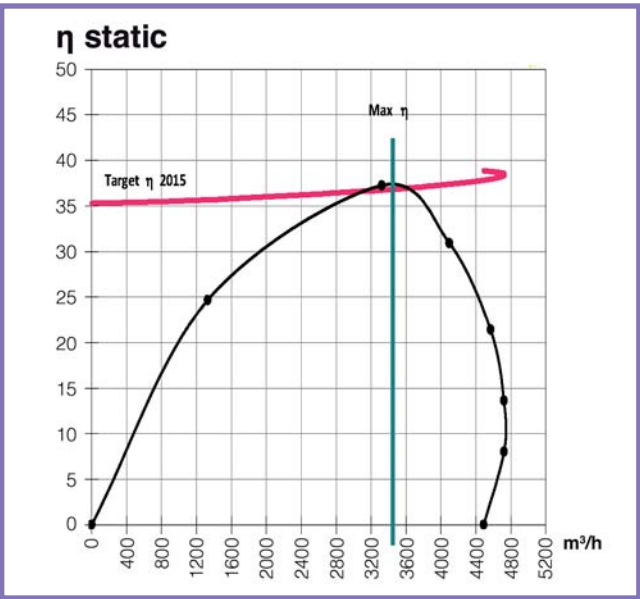
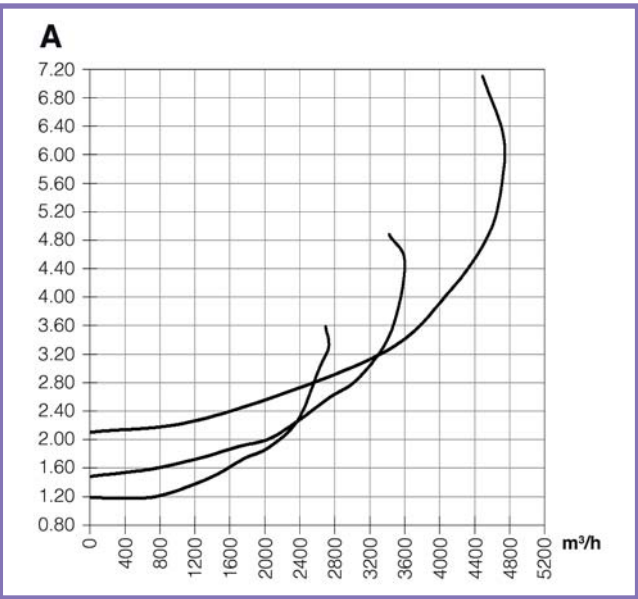
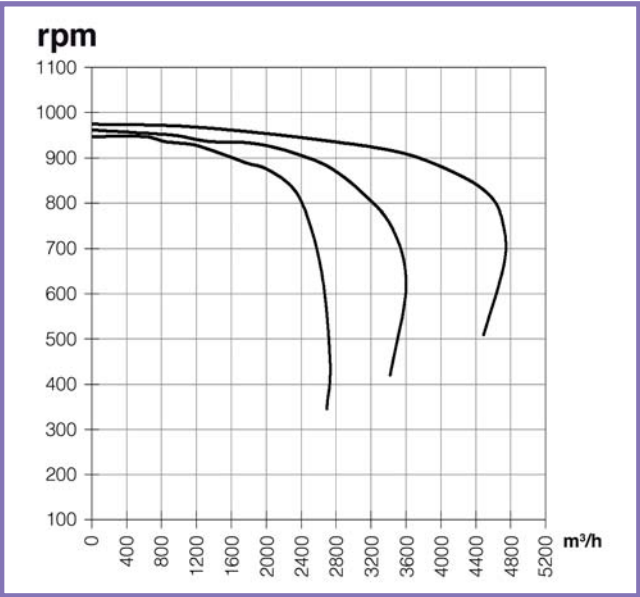
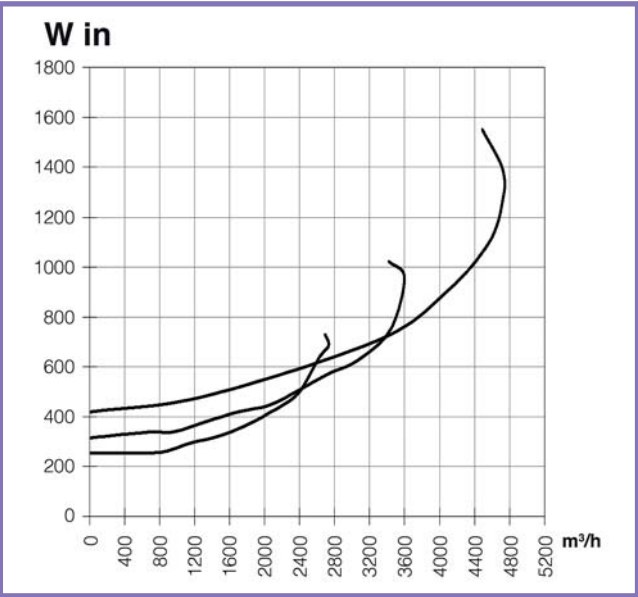
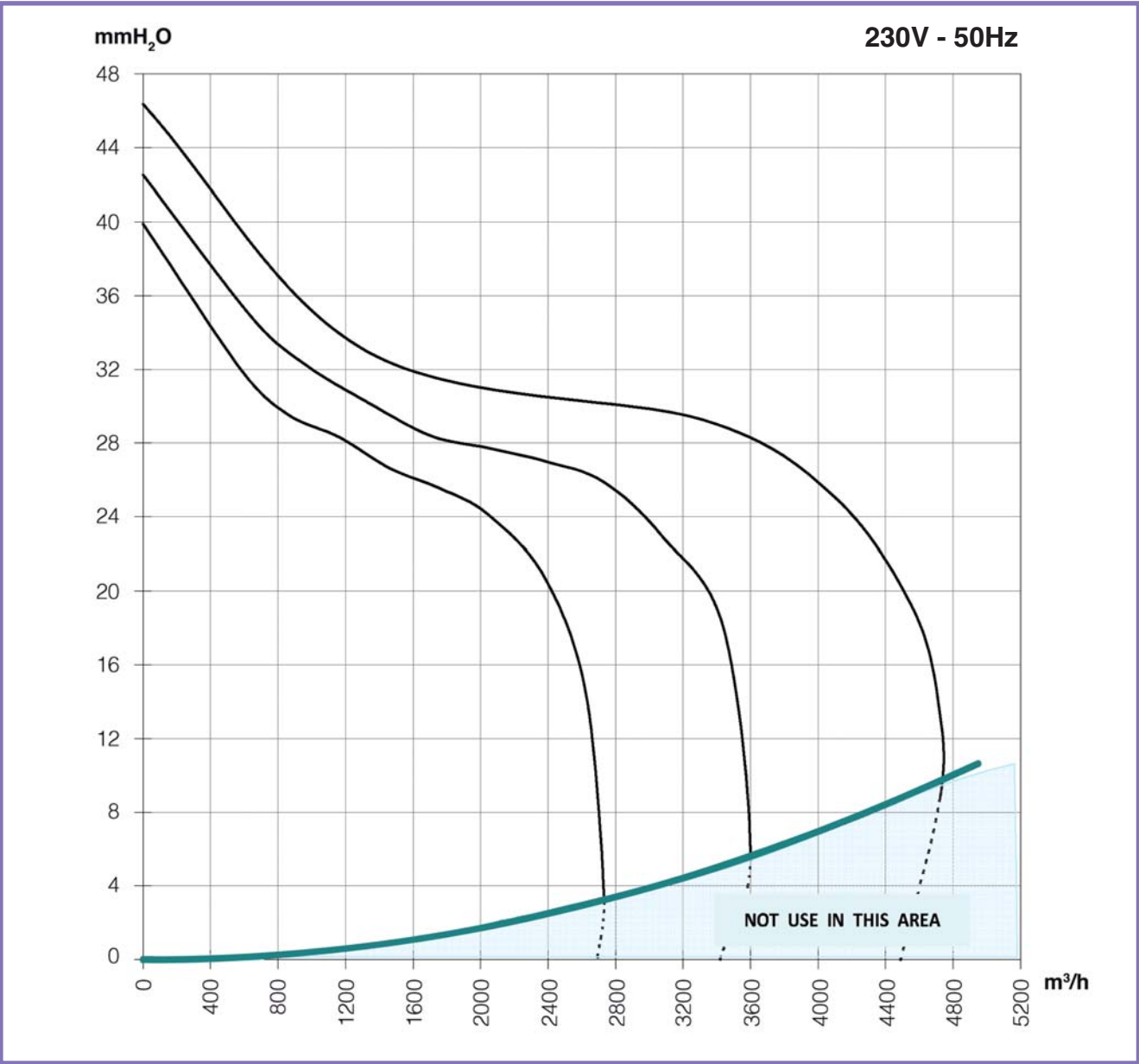
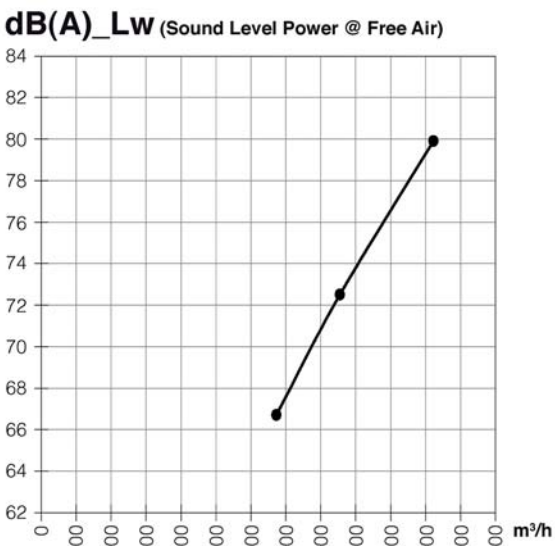
Test: PDD-5071 **Web:** 480

Operating limits Max Speed 50 Hz (Rating Values)
Win: Max 1250 (W)
Ampere: Max 5.5 (A)
Static Pressure: Min 10 - Max 35 (mmH₂O)

Measurement Category - A -
Free Inlet - Free Outlet

Value @ max. efficiency (Max Speed 50 Hz)
Air Flow: 3323 (m³/h)
Static Pressure: 29.3 (mmH₂O)
Rpm: 920 (min-1)
Power Input: 710 (W)

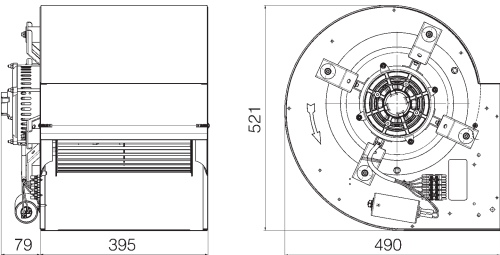
Overall efficiency (η): 37.3
Grade efficiency (N): 44.5





PERFORMANCE CURVES
DD 12/12 - 735-6P-3V
6 POLES

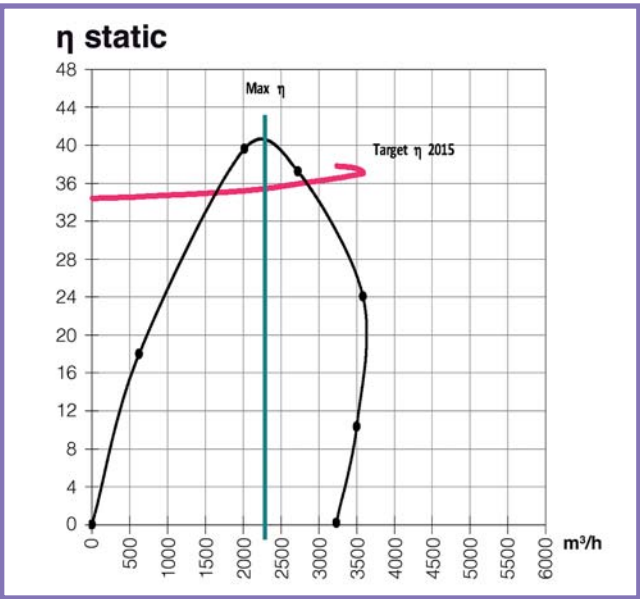
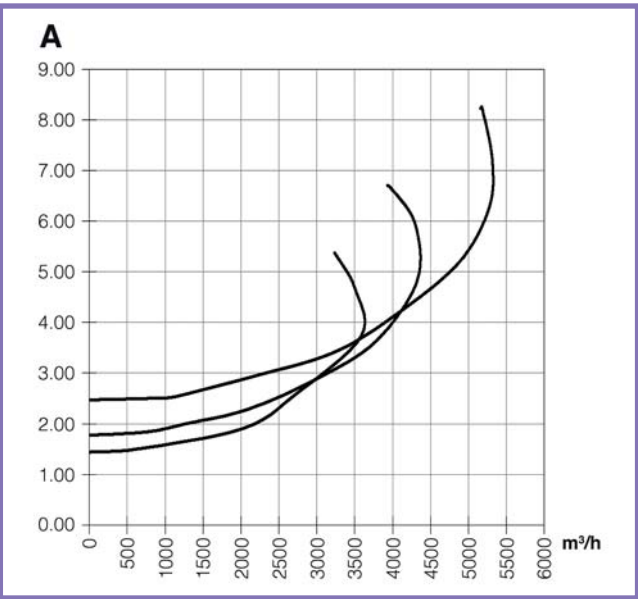
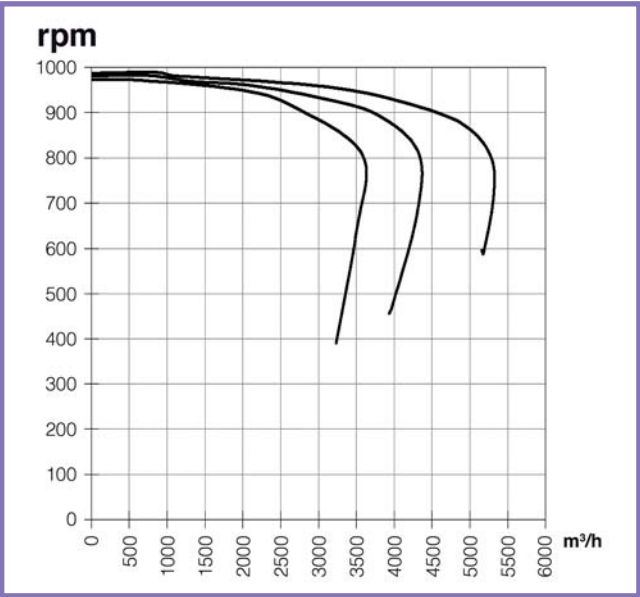
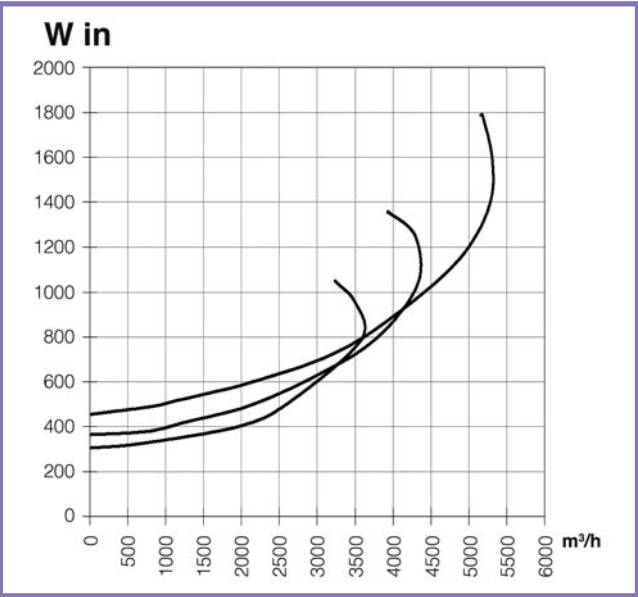
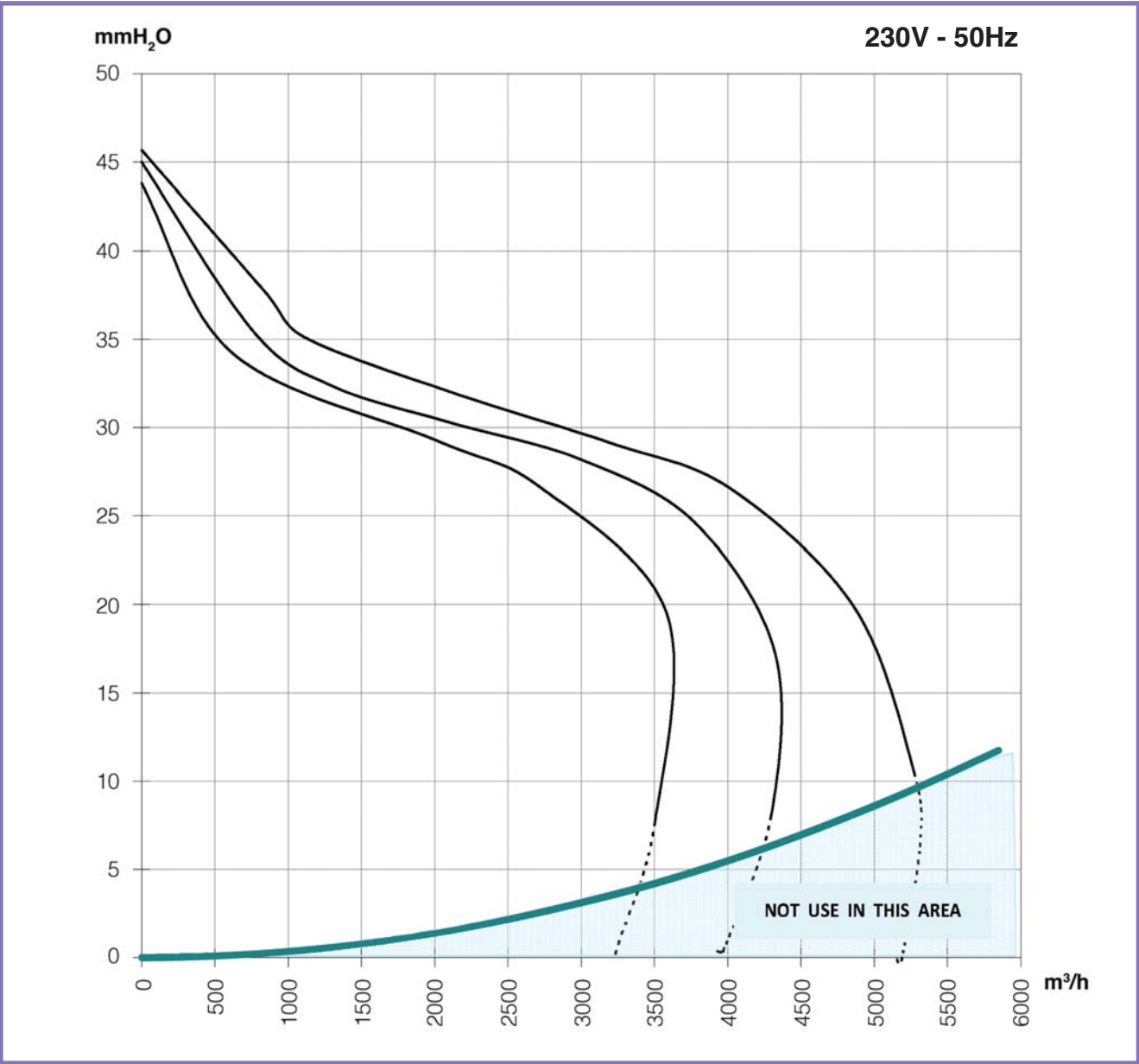
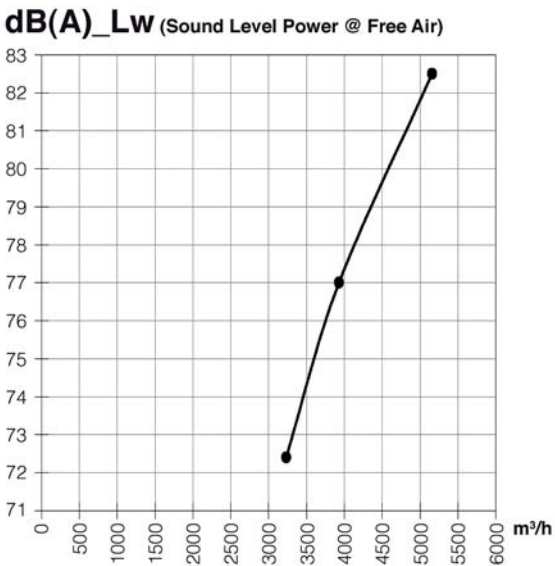
ErP 2015



Ventilator Type:	DD 12/12
Blowers Material:	Metal
Housing Material:	Metal
Motor Support Material:	Metal
Motor Type:	3 HOM
Power Supply:	1 ~
Nominal Voltage:	230V
Frequency:	50-60 Hz
Nominal Watts:	735
Range Power:	200-254 V
Capacitor:	20 µF
Electrical Insulation Class:	Cl.F (155°C)
Protection:	Thermally Prot.



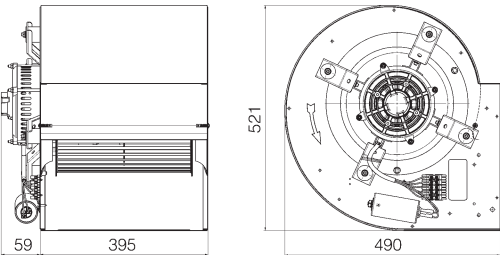
Test:	PDD-5006 Web: 386
Operating limits Max Speed 50 Hz (Rating Values)	
Win:	Max 1400 (W)
Ampere:	Max 6.0 (A)
Static Pressure:	Min 10 - Max 40 (mmH ₂ O)
Measurement Category - A -	
Free Inlet - Free Outlet	
Value @ max. efficiency (Min Speed 50 Hz)	
Air Flow:	2018 (m ³ /h)
Static Pressure:	29.3 (mmH ₂ O)
Rpm:	949 (min-1)
Power Input:	406 (W)
Overall efficiency (η):	39.6
Grade efficiency (N):	48.4





PERFORMANCE CURVES
DD 12/12 - 1100-6P-1V-T
6 POLES

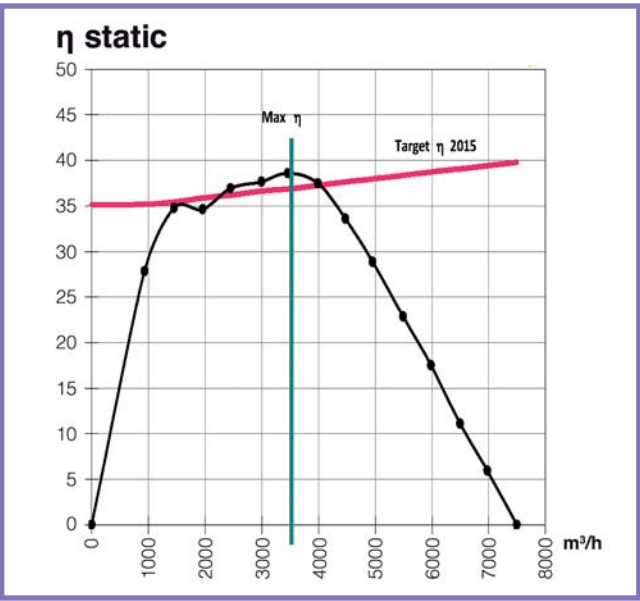
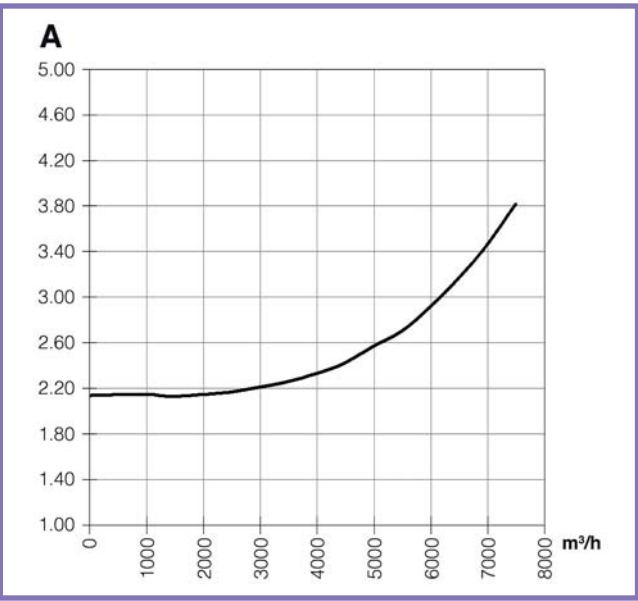
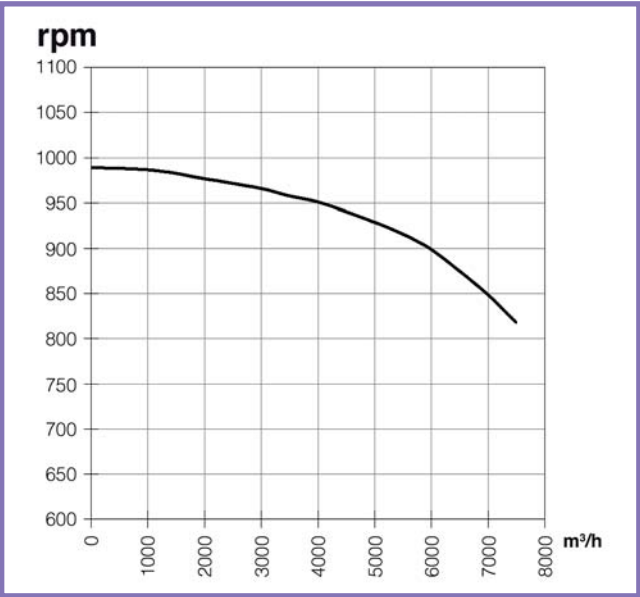
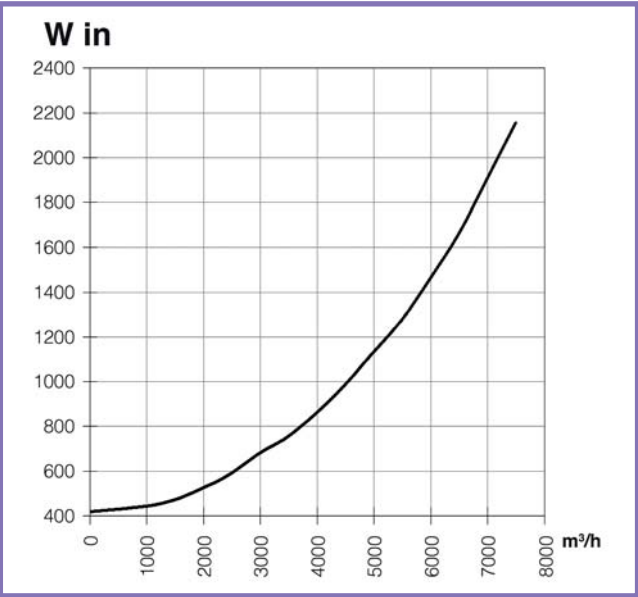
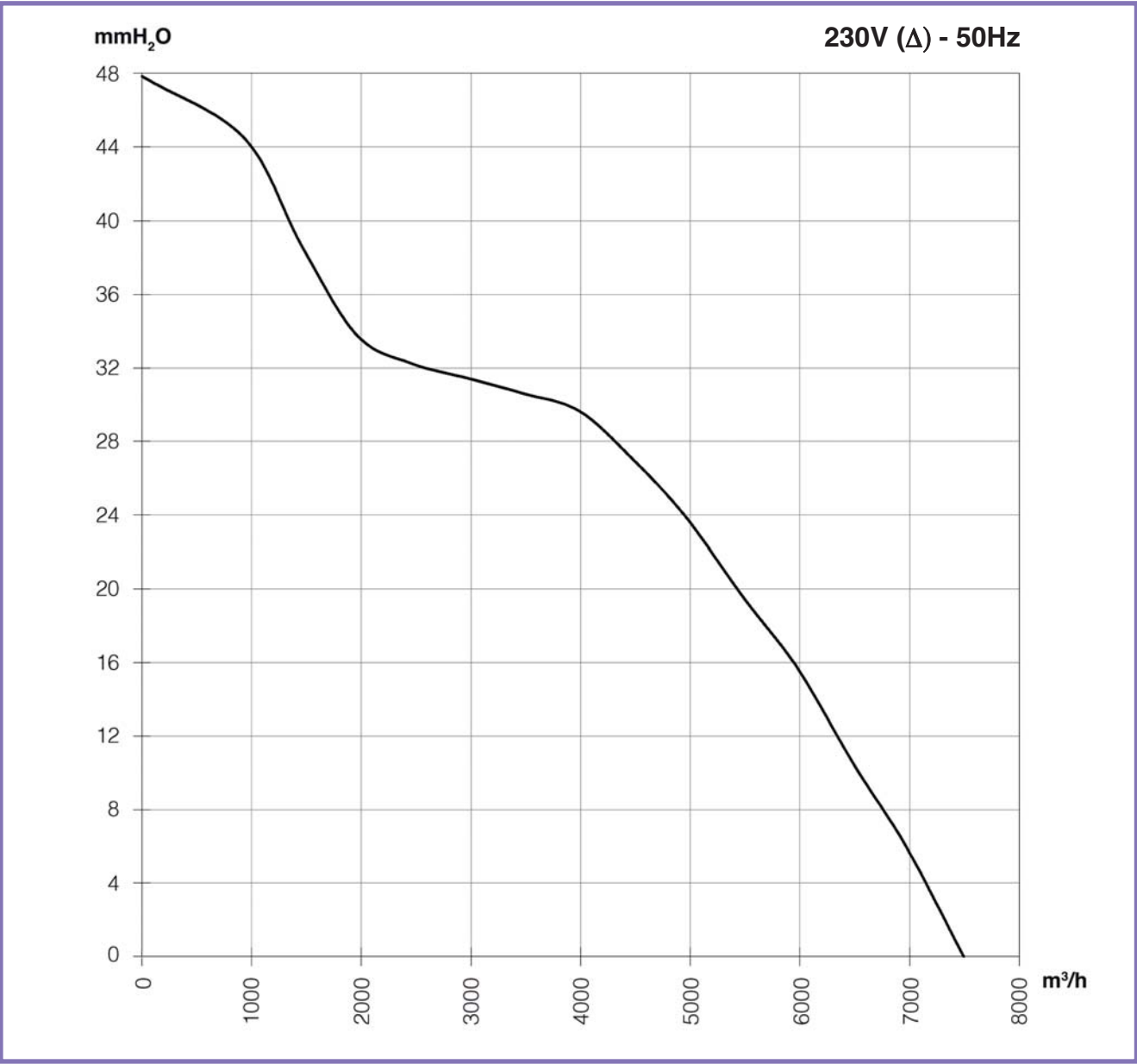
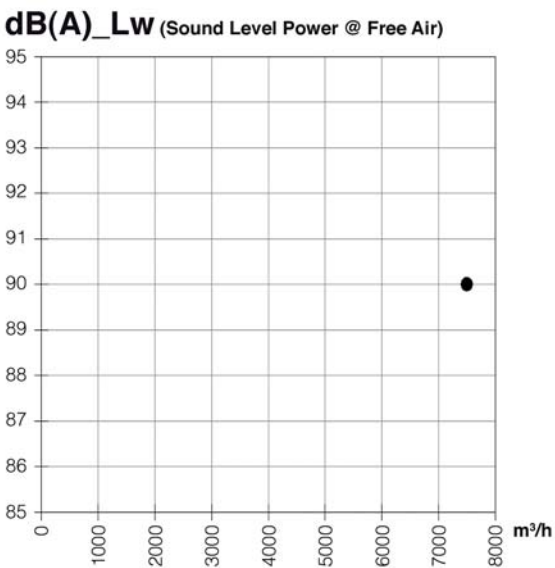
ErP 2015



Ventilator Type:	DD 12/12
Blowers Material:	Metal
Housing Material:	Metal
Motor Support Material:	Metal
Motor Type:	3 HOM
Power Supply:	3 ~
Nominal Voltage:	230V (Δ) - 400V (Y)
Frequency:	50-60 Hz
Nominal Watts:	1100
Range Power:	200-254 V (Δ) 360-440 V (Y)
Electrical Insulation Class:	Cl.F (155°C)
Protection:	Thermally Prot.



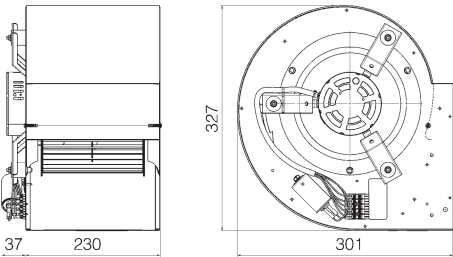
Test:	PDD-5004 Web: 385
Operating limits Max Speed 50 Hz (Rating Values)	
Win:	Max 2100 (W)
Ampere:	Max 3.5 A (Δ) - 6.0 A (Y)
Static Pressure:	Min 0 - Max 44 (mmH ₂ O)
Measurement Category - A -	
Free Inlet - Free Outlet	
Value @ max. efficiency (50 Hz)	
Air Flow:	3461 (m ³ /h)
Static Pressure:	30.6 (mmH ₂ O)
Rpm:	958 (min-1)
Power Input:	748 (W)
Overall efficiency (η):	38.6
Grade efficiency (N):	45.7





PERFORMANCE CURVES
DD 7/7 - 145-4P-3V
4 POLES

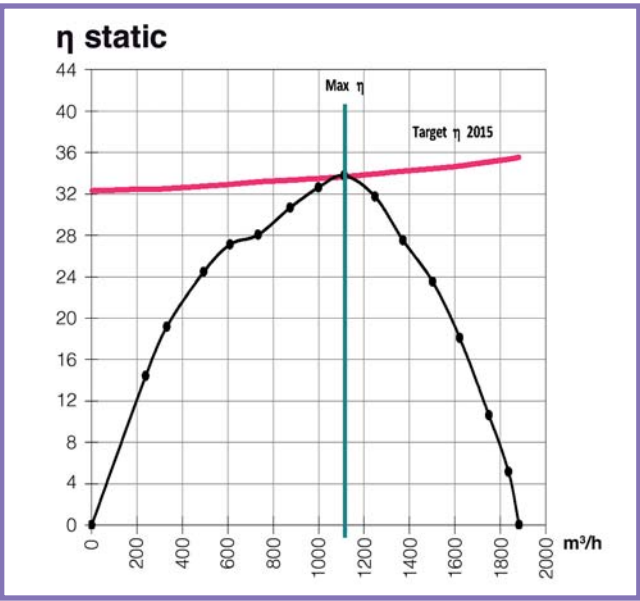
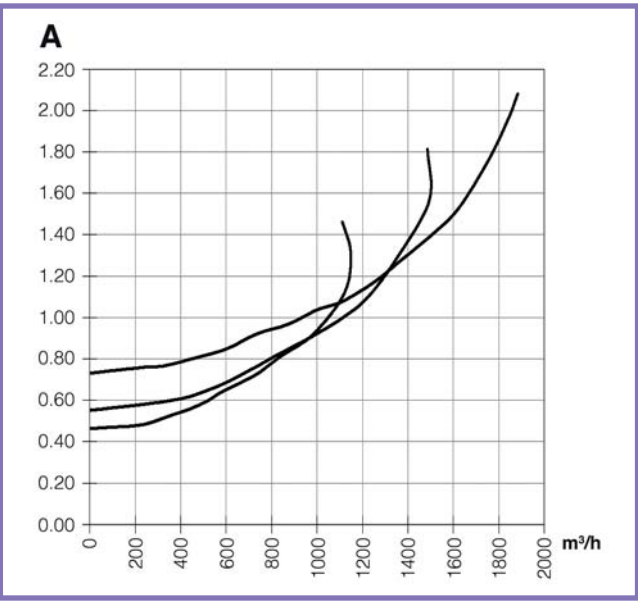
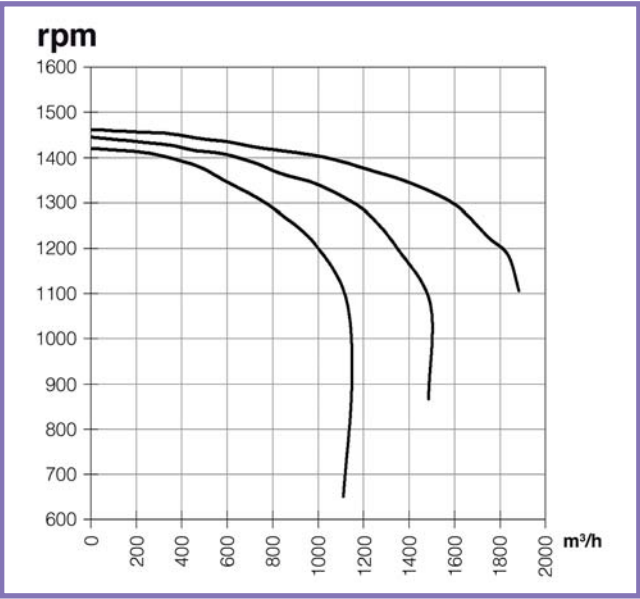
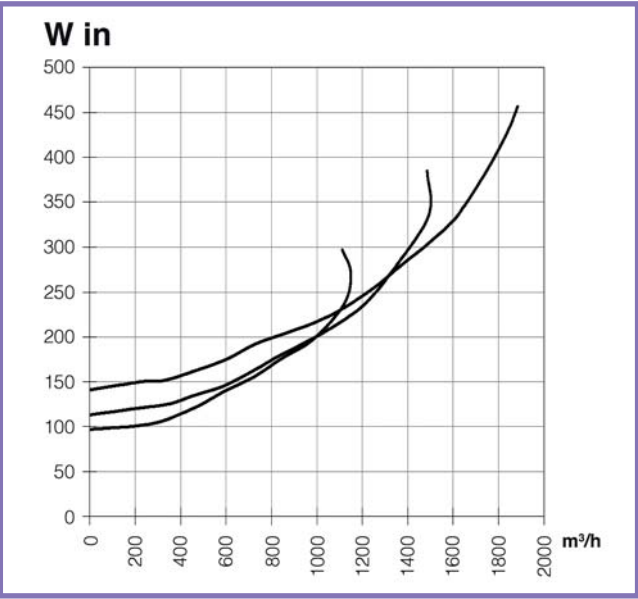
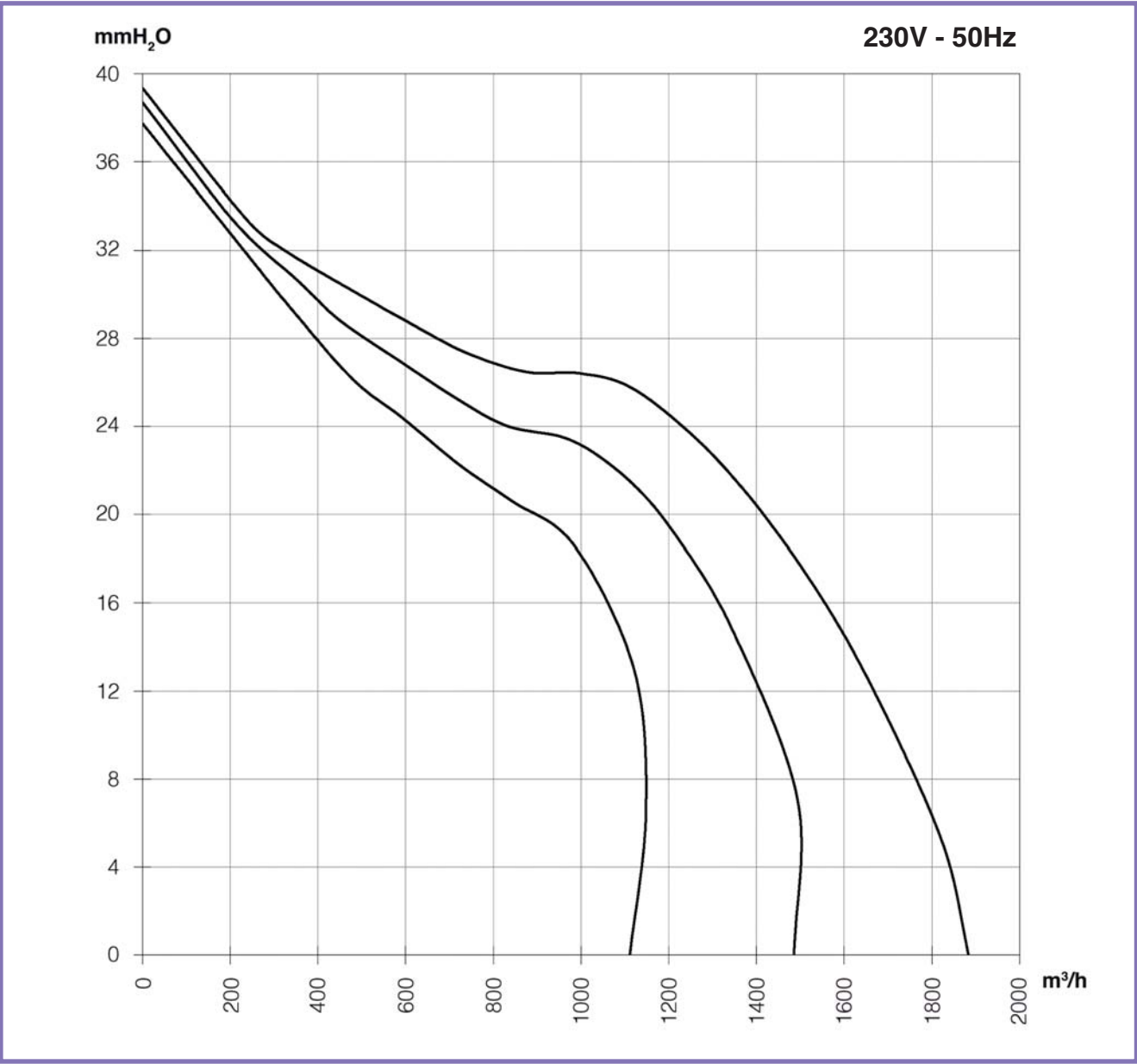
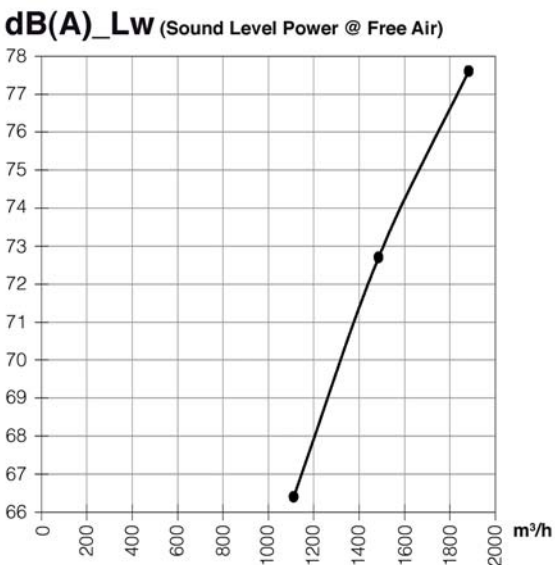
ErP 2015



Ventilator Type:	DD 7/7
Blowers Material:	Metal
Housing Material:	Metal
Motor Support Material:	Metal
Motor Type:	3 FGM
Power Supply:	1 ~
Nominal Voltage:	230V
Frequency:	50-60 Hz
Nominal Watts:	145
Range Power:	200-254 V
Capacitor:	5 µF
Electrical Insulation Class:	Cl.F (155°C)
Protection:	Thermally Prot.



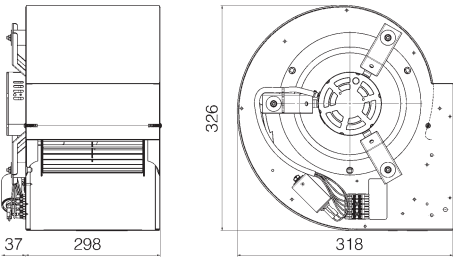
Test:	PDD-5044 Web: 346
Operating limits Max Speed 50 Hz (Rating Values)	
Win:	Max 450 (W)
Ampere:	Max 2.1 (A)
Static Pressure:	Min 0 - Max 35 (mmH ₂ O)
Measurement Category - A -	
Free Inlet - Free Outlet	
Value @ max. efficiency (Max Speed 50 Hz)	
Air Flow:	1112 (m ³ /h)
Static Pressure:	25.8 (mmH ₂ O)
Rpm:	1390 (min-1)
Power Input:	231 (W)
Overall efficiency (η):	33.8
Grade efficiency (N):	44.1





PERFORMANCE CURVES
DD 9/9 T - 300-4P-3V
4 POLES

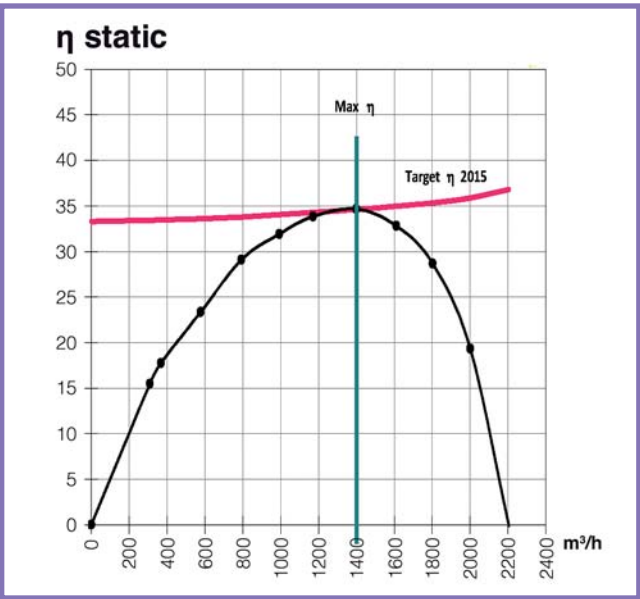
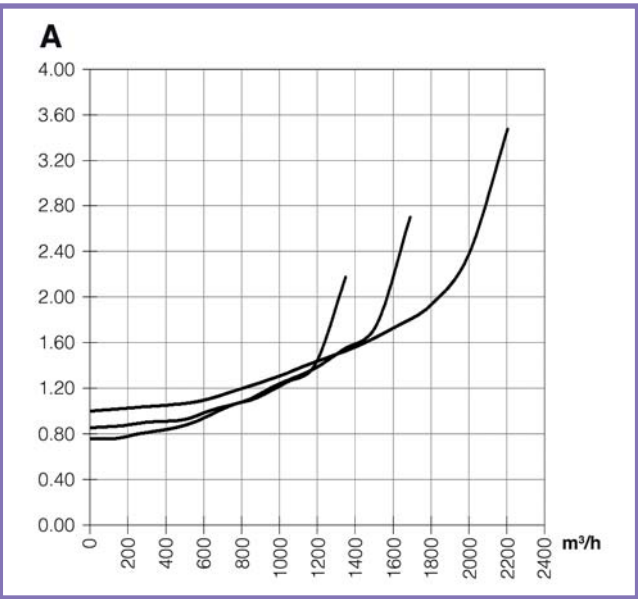
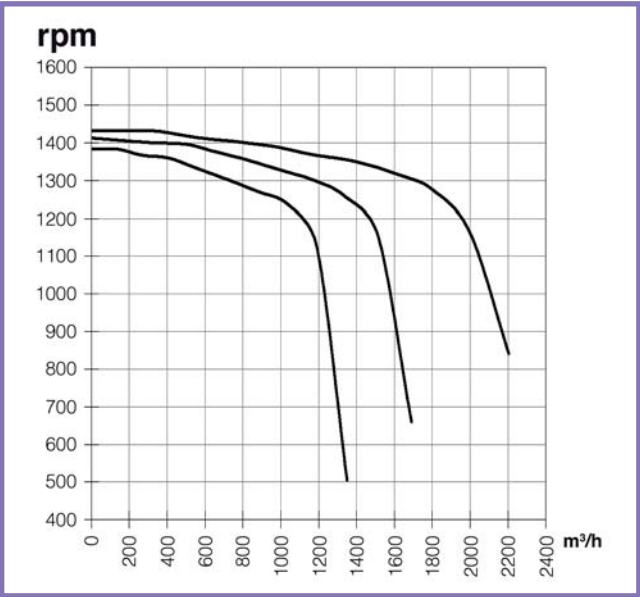
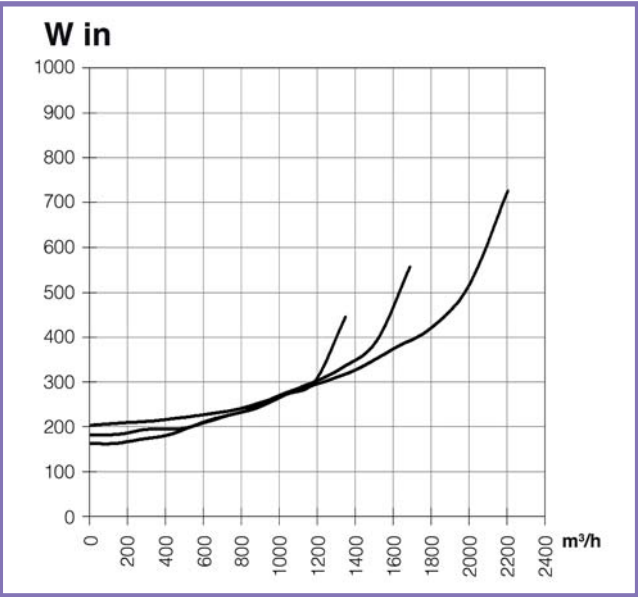
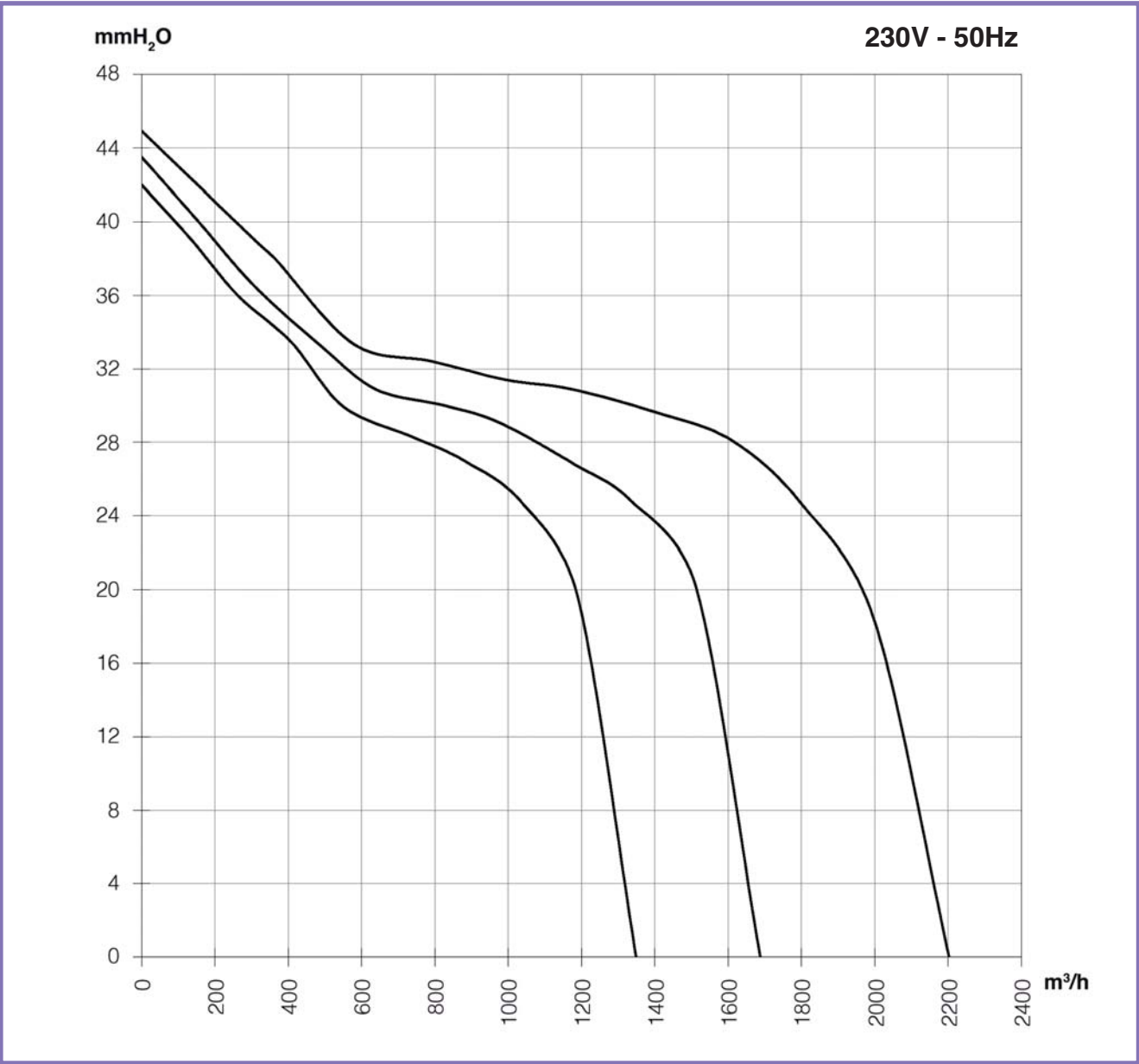
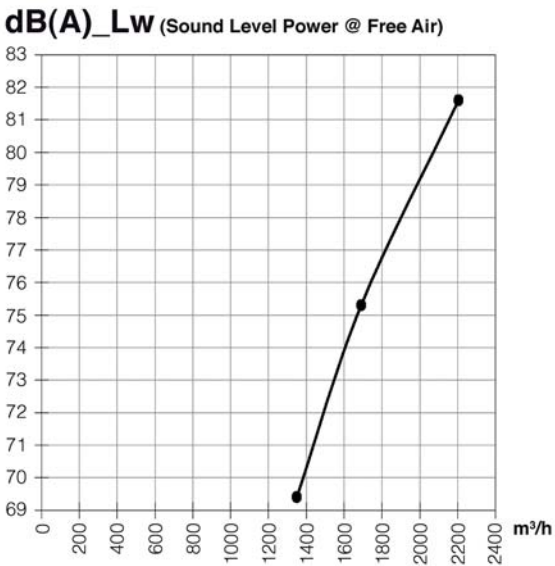
ErP 2015



Ventilator Type:	DD 9/9T
Blowers Material:	Metal
Housing Material:	Metal
Motor Support Material:	Metal
Motor Type:	3 FGM
Power Supply:	1 ~
Nominal Voltage:	230V
Frequency:	50-60 Hz
Nominal Watts:	300
Range Power:	200-254 V
Capacitor:	6.3 μ F
Electrical Insulation Class:	Cl.F (155°C)
Protection:	Thermally Prot.



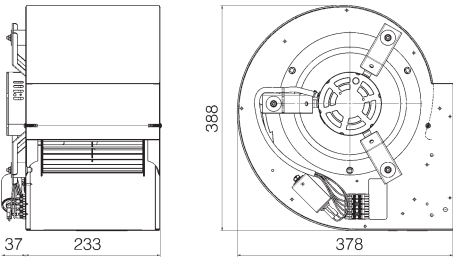
Test:	PDD-5056 Web: 354
Operating limits Max Speed 50 Hz (Rating Values)	
Win:	Max 720 (W)
Ampere:	Max 3.5 (A)
Static Pressure:	Min 0 - Max 40 (mmH ₂ O)
Measurement Category - A -	
Free Inlet - Free Outlet	
Value @ max. efficiency (Max Speed 50 Hz)	
Air Flow:	1399 (m ³ /h)
Static Pressure:	29.7 (mmH ₂ O)
Rpm:	1349 (min ⁻¹)
Power Input:	326 (W)
Overall efficiency (η):	34.6
Grade efficiency (N):	44.0





PERFORMANCE CURVES
DD 9/7 - 370-4P-3V
4 POLES

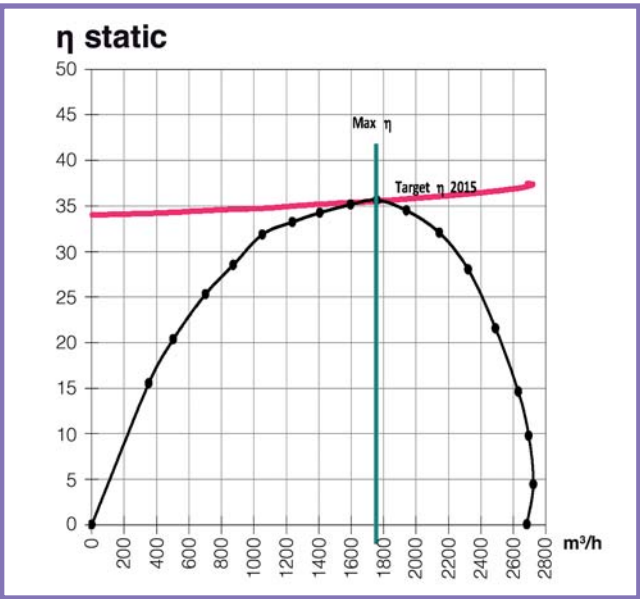
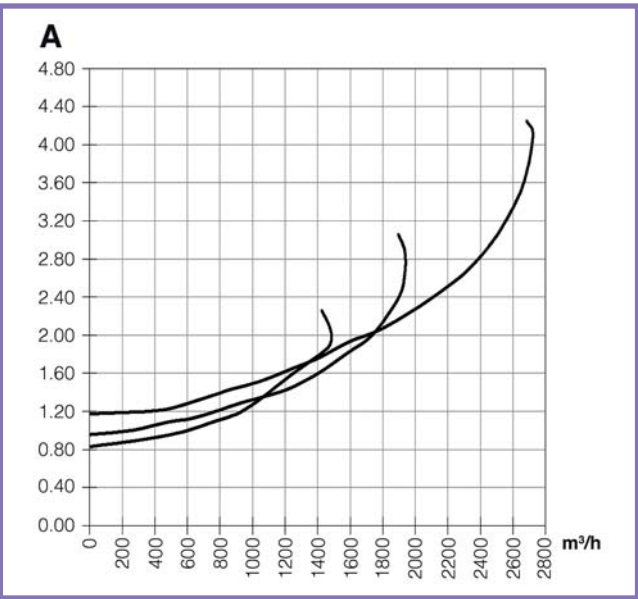
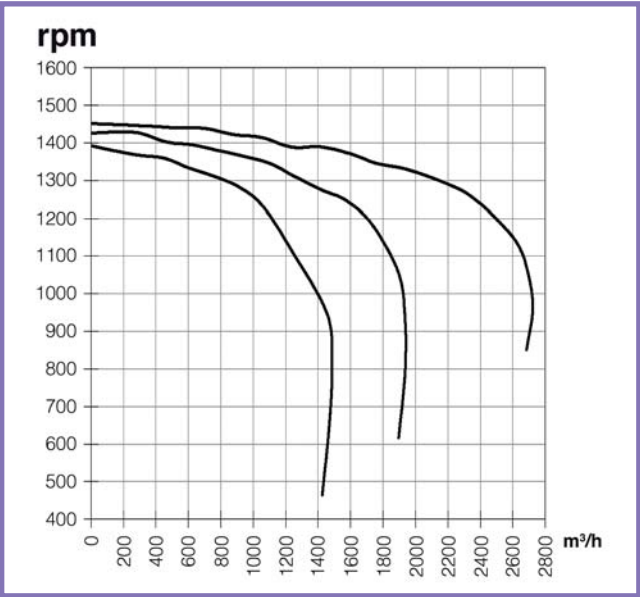
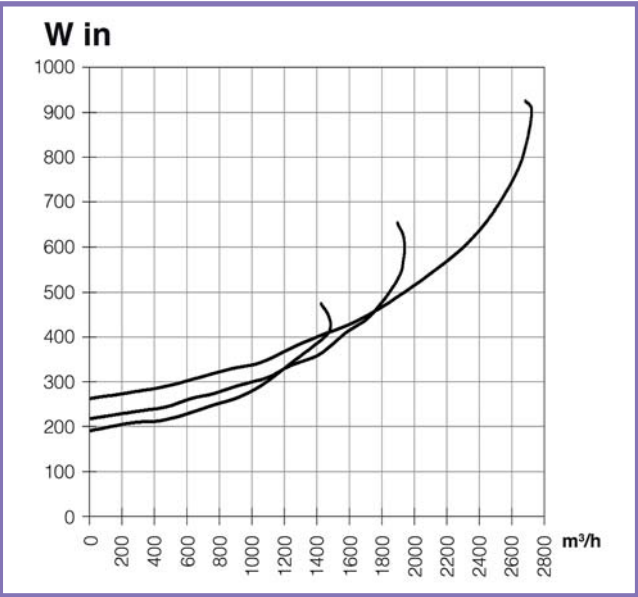
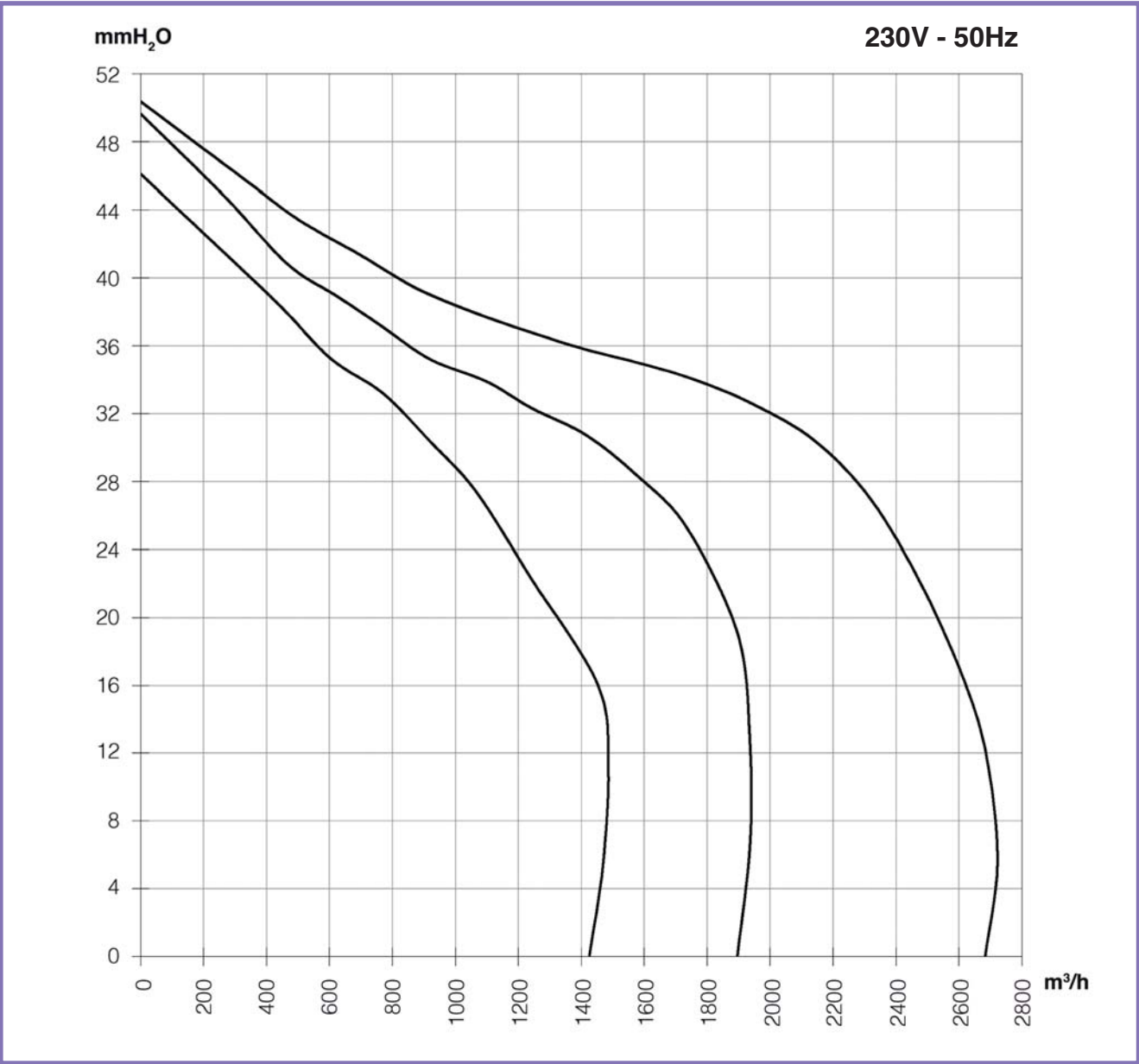
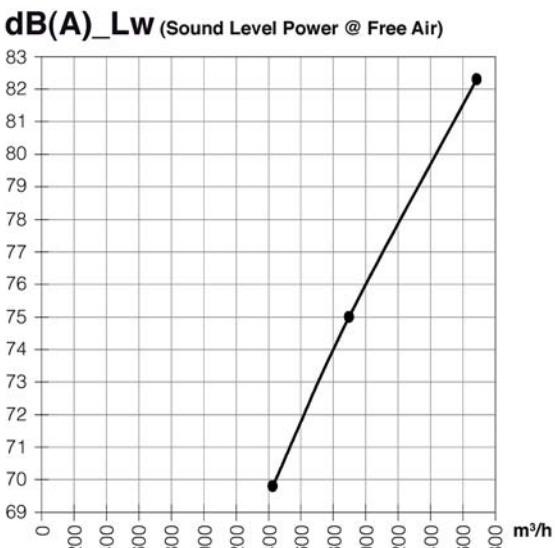
ErP 2015



Ventilator Type:	DD 9/7
Blowers Material:	Metal
Housing Material:	Metal
Motor Support Material:	Metal
Motor Type:	3 FGM
Power Supply:	1 ~
Nominal Voltage:	230V
Frequency:	50-60 Hz
Nominal Watts:	370
Range Power:	200-254 V
Capacitor:	12.5 µF
Electrical Insulation Class:	Cl.F (155°C)
Protection:	Thermally Prot.



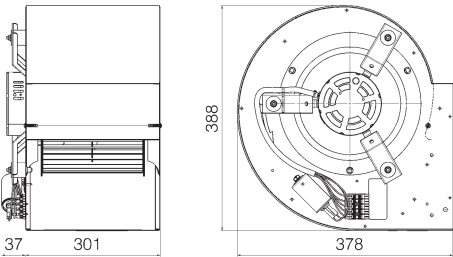
Test:	PDD-5031	Web:	347
Operating limits Max Speed 50 Hz (Rating Values)			
Win:	Max 920 (W)		
Ampere:	Max 4.2 (A)		
Static Pressure:	Min 0 - Max 40 (mmH ₂ O)		
Measurement Category - A -			
Free Inlet - Free Outlet			
Value @ max. efficiency (Max Speed 50 Hz)			
Air Flow:	1758 (m ³ /h)		
Static Pressure:	34.0 (mmH ₂ O)		
Rpm:	1345 (min-1)		
Power Input:	457 (W)		
Overall efficiency (η):	35.6		
Grade efficiency (N):	44.1		





PERFORMANCE CURVES
DD 9/9 - 370-4P-3V
4 POLES

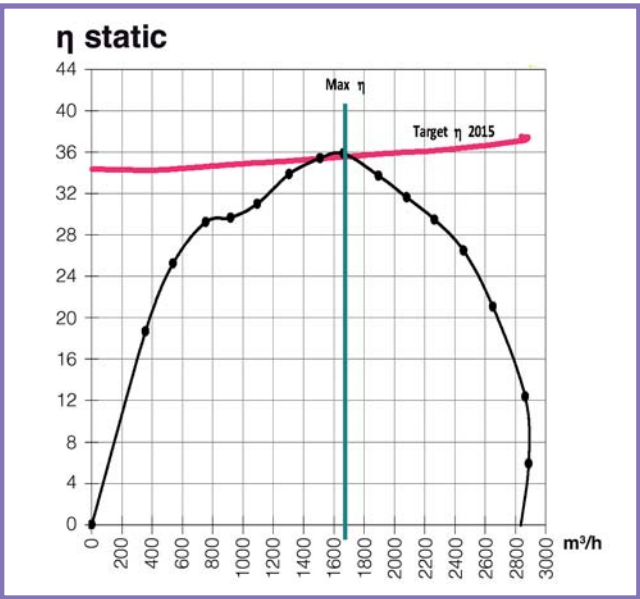
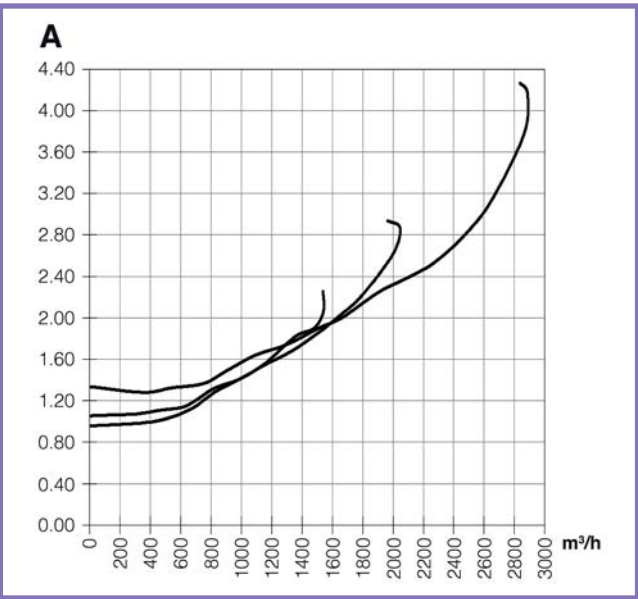
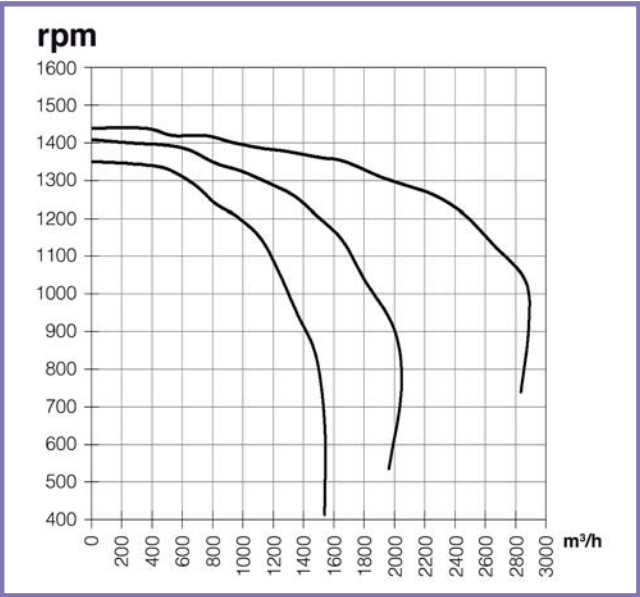
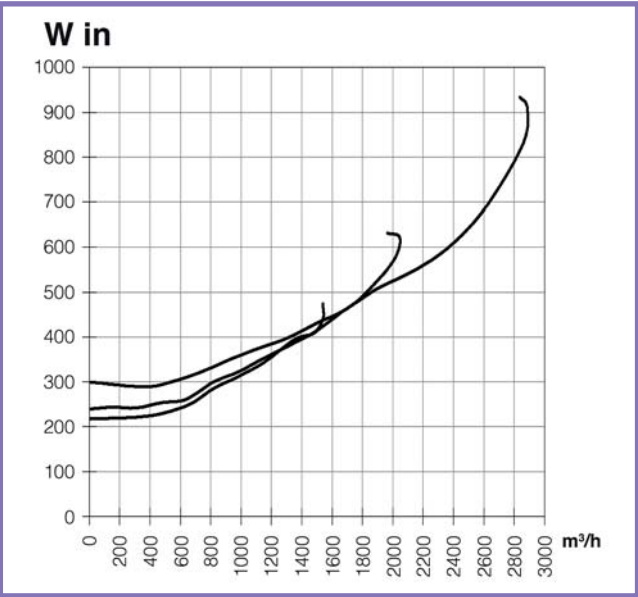
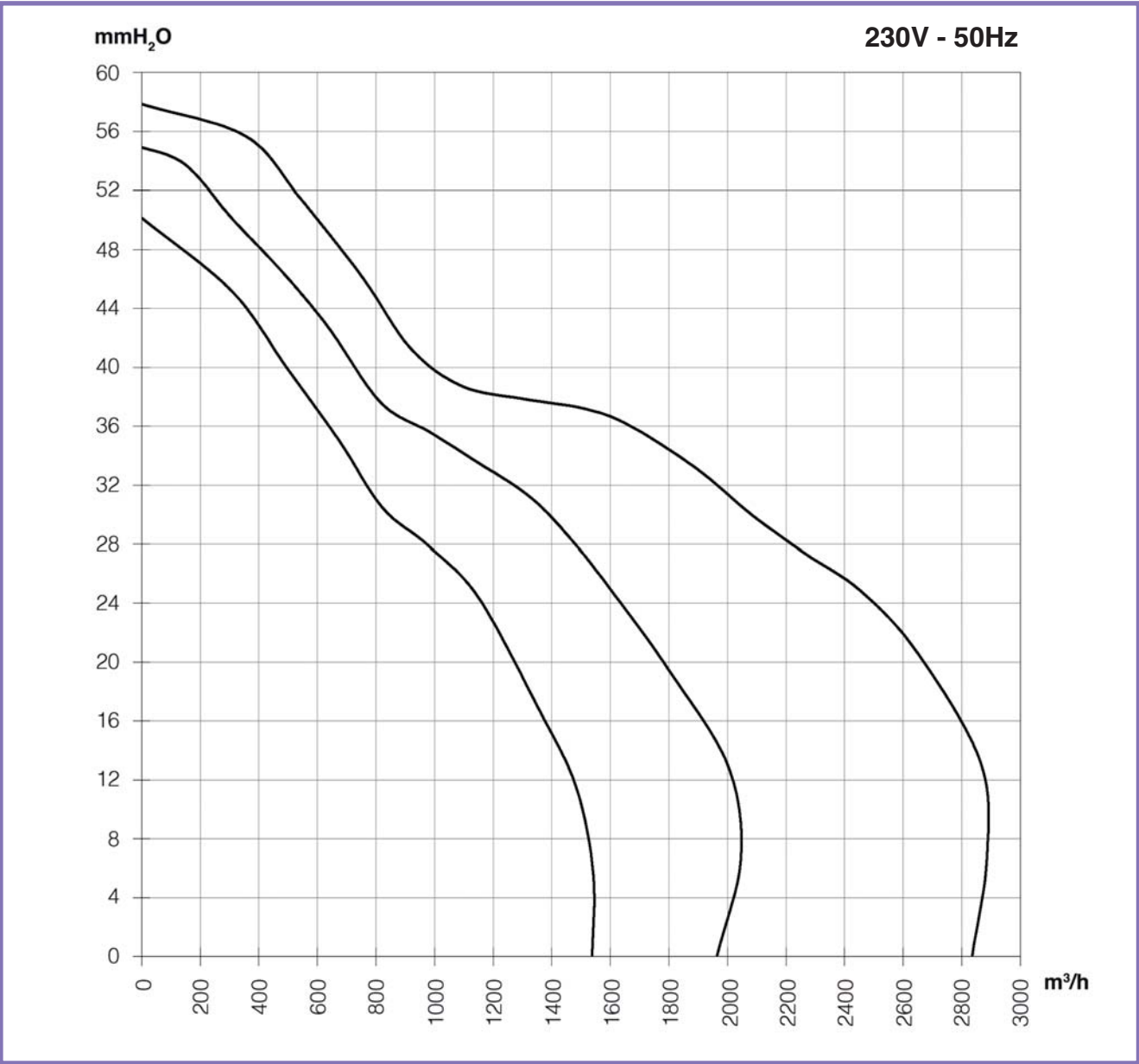
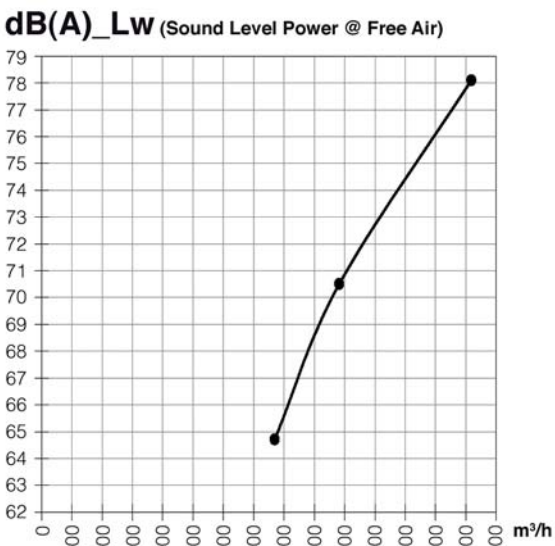
ErP 2015



Ventilator Type:	DD 9/9
Blowers Material:	Metal
Housing Material:	Metal
Motor Support Material:	Metal
Motor Type:	3 FGM
Power Supply:	1 ~
Nominal Voltage:	230V
Frequency:	50-60 Hz
Nominal Watts:	370
Range Power:	200-254 V
Capacitor:	12.5 µF
Electrical Insulation Class:	Cl.F (155°C)
Protection:	Thermally Prot.



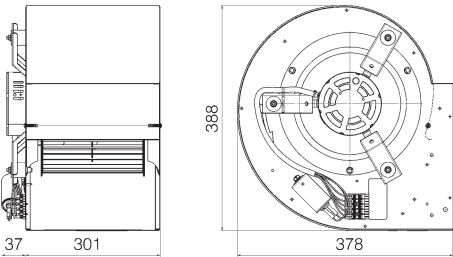
Test:	PDD-5030 Web: 348
Operating limits Max Speed 50 Hz (Rating Values)	
Win:	Max 920 (W)
Ampere:	Max 4.2 (A)
Static Pressure:	Min 0 - Max 50 (mmH ₂ O)
Measurement Category - A -	
Free Inlet - Free Outlet	
Value @ max. efficiency (Max Speed 50 Hz)	
Air Flow:	1664 (m ³ /h)
Static Pressure:	36.1 (mmH ₂ O)
Rpm:	1351 (min ⁻¹)
Power Input:	456 (W)
Overall efficiency (η):	35.9
Grade efficiency (N):	44.4





PERFORMANCE CURVES
DD 9/9 - 550-4P-3V
4 POLES

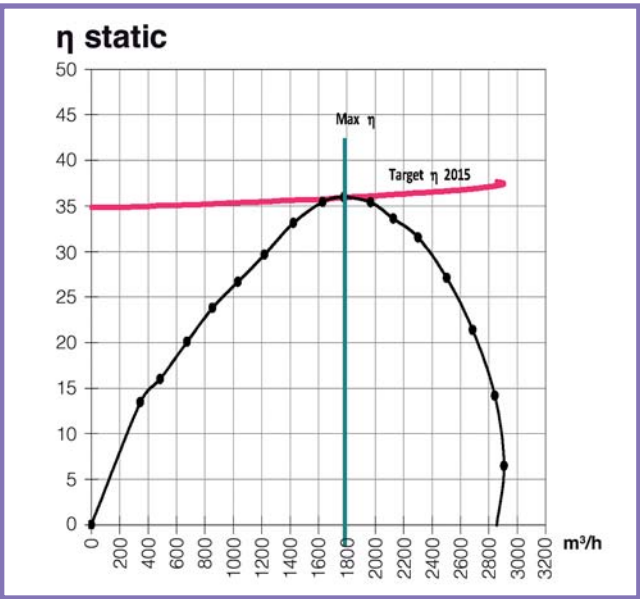
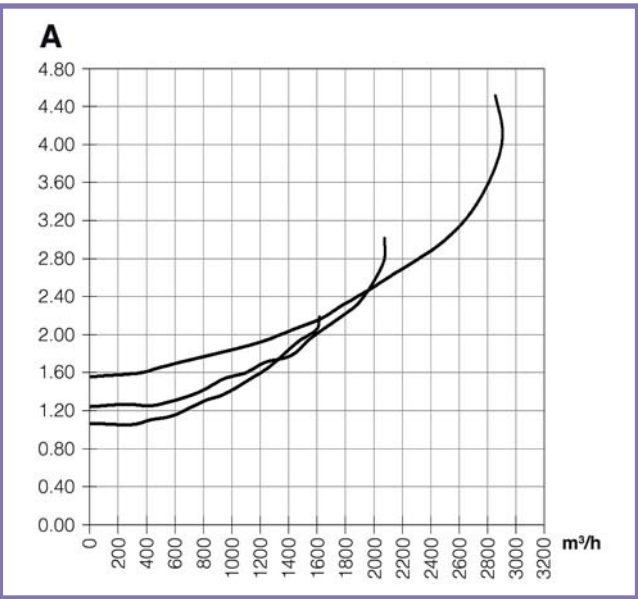
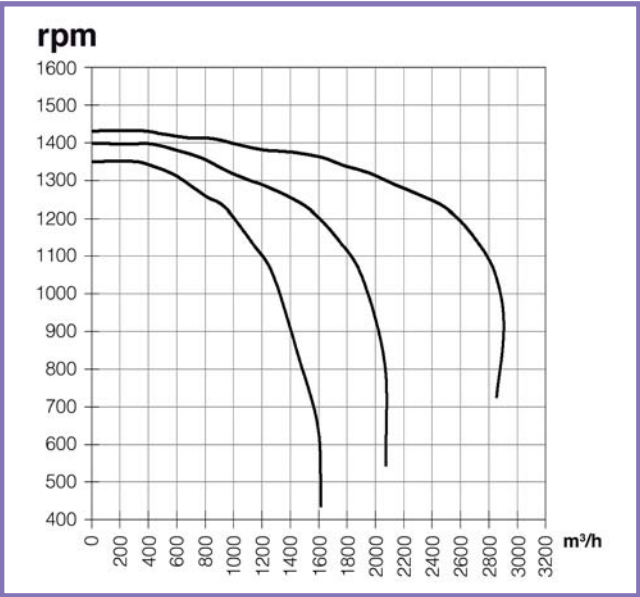
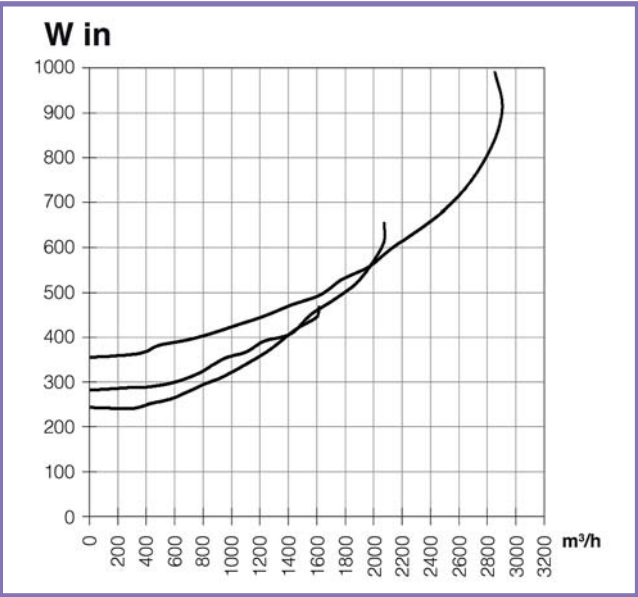
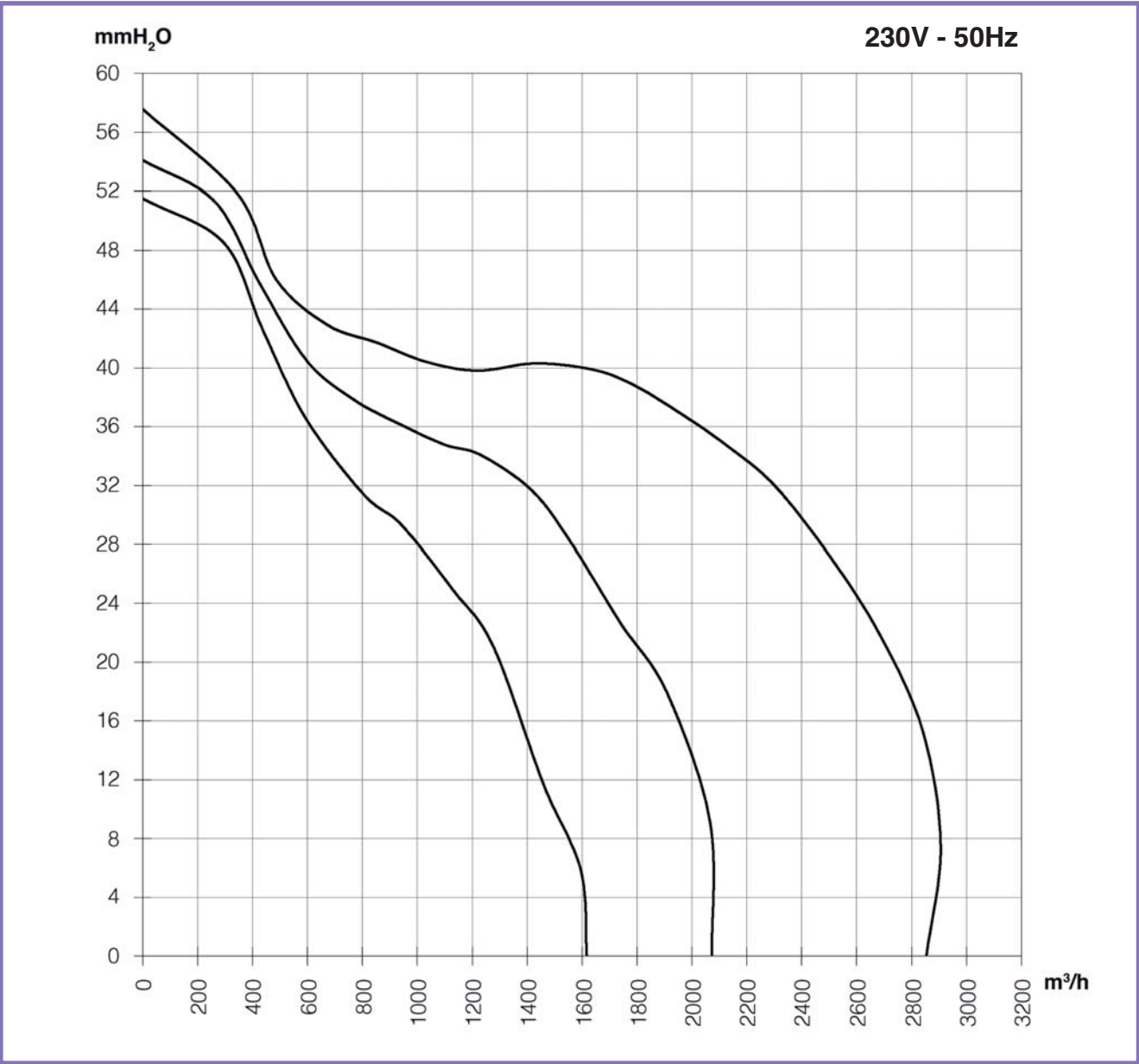
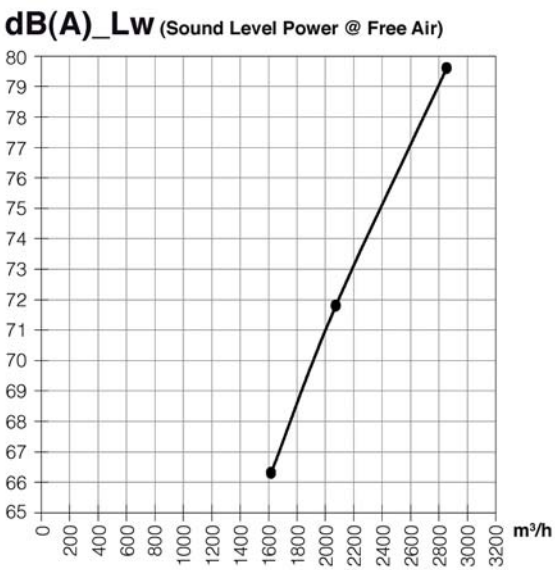
ErP 2015



Ventilator Type:	DD 9/9
Blowers Material:	Metal
Housing Material:	Metal
Motor Support Material:	Metal
Motor Type:	3 FGM
Power Supply:	1 ~
Nominal Voltage:	230V
Frequency:	50-60 Hz
Nominal Watts:	550
Range Power:	200-254 V
Capacitor:	12.5 µF
Electrical Insulation Class:	Cl.F (155°C)
Protection:	Thermally Prot.



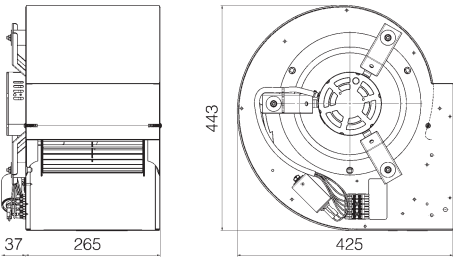
Test:	PDD-5046	Web:	349
Operating limits Max Speed 50 Hz (Rating Values)			
Win:	Max 1100 (W)		
Ampere:	Max 4.5 (A)		
Static Pressure:	Min 0 - Max 48 (mmH ₂ O)		
Measurement Category - A -			
Free Inlet - Free Outlet			
Value @ max. efficiency (Max Speed 50 Hz)			
Air Flow:	1781 (m ³ /h)		
Static Pressure:	39.2 (mmH ₂ O)		
Rpm:	1339 (min-1)		
Power Input:	529 (W)		
Overall efficiency (η):	35.9		
Grade efficiency (N):	44.0		





PERFORMANCE CURVES
DD 10/8 - 370-4P-3V
4 POLES

ErP 2015



Ventilator Type: DD 10/8
Blowers Material: Metal
Housing Material: Metal
Motor Support Material: Metal

Motor Type: 3 FGM
Power Supply: 1 ~
Nominal Voltage: 230V
Frequency: 50-60 Hz
Nominal Watts: 370
Range Power: 200-254 V
Capacitor: 12.5 μ F

Electrical Insulation Class: Cl.F (155°C)
Protection: Thermally Prot.



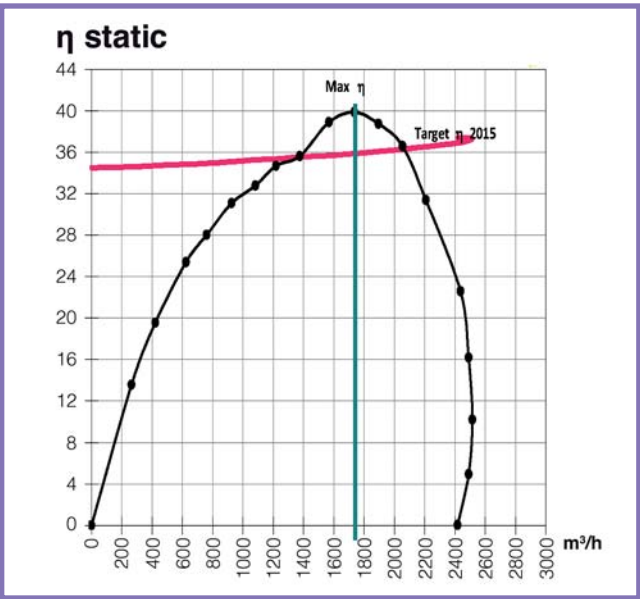
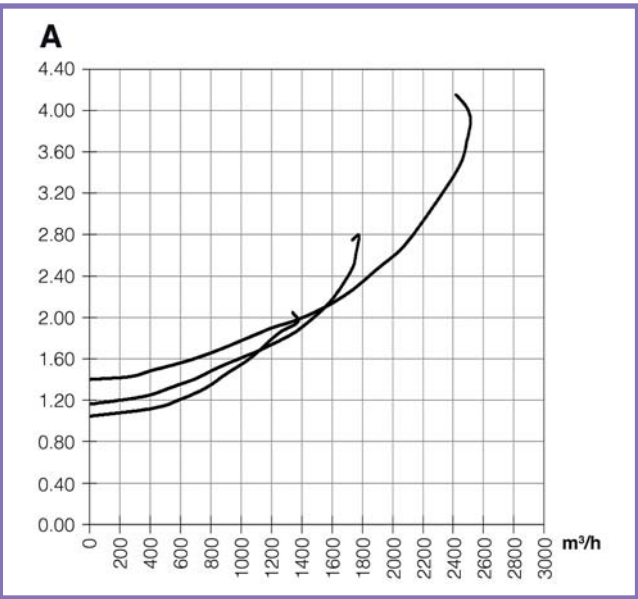
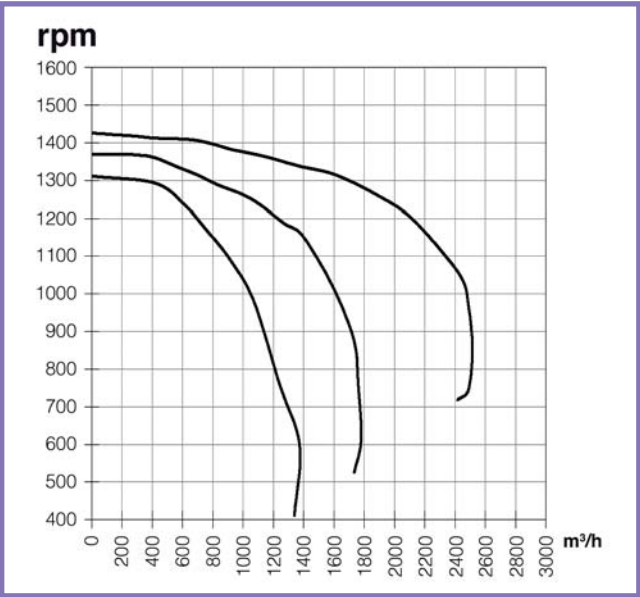
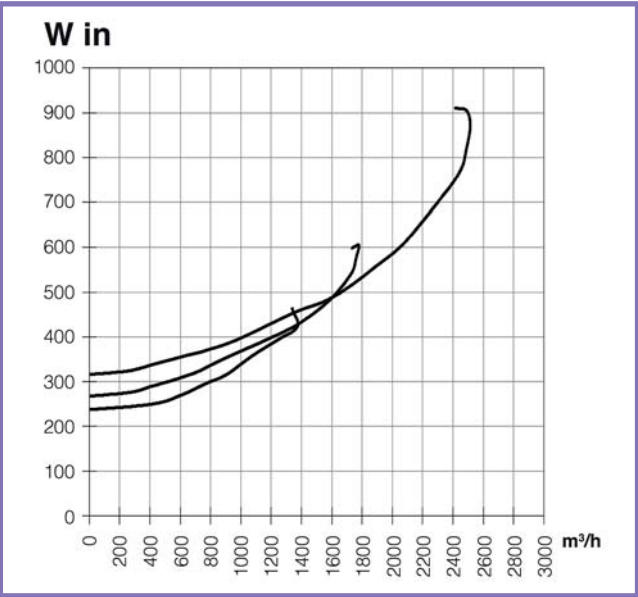
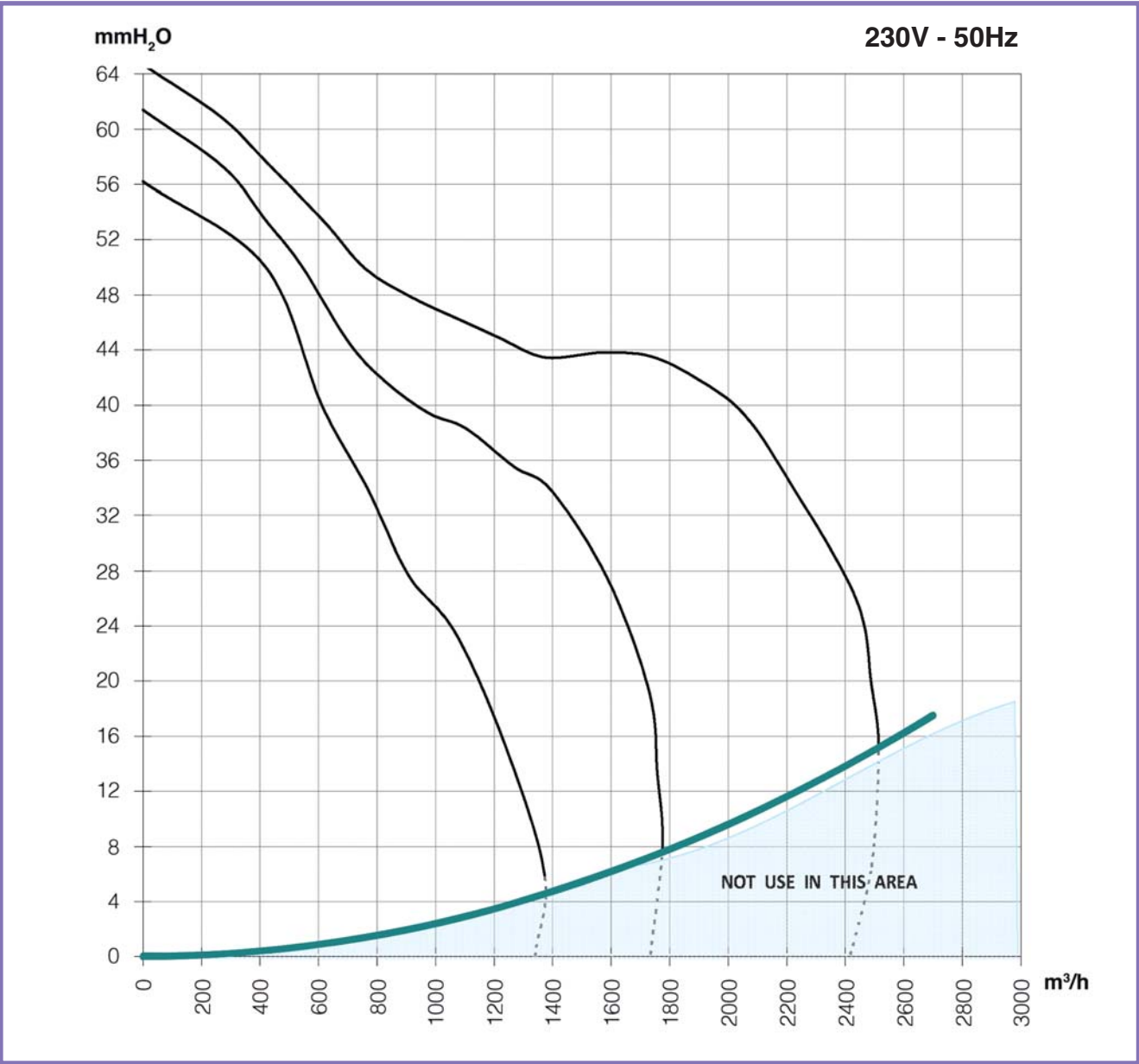
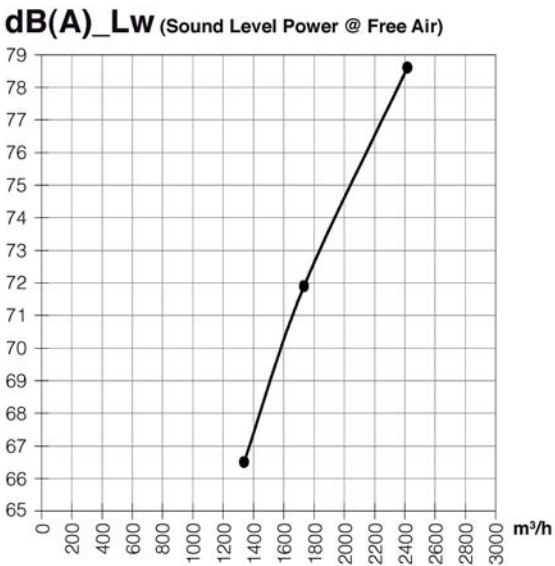
Test: PDD-5032 Web: 350

Operating limits Max Speed 50 Hz (Rating Values)
Win: Max 900 (W)
Ampere: Max 4.2 (A)
Static Pressure: Min 15 - Max 55 (mmH₂O)

Measurement Category - A -
Free Inlet - Free Outlet

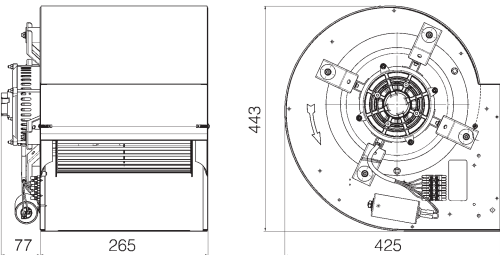
Value @ max. efficiency (Max Speed 50 Hz)
Air Flow: 1736 (m³/h)
Static Pressure: 43.5 (mmH₂O)
Rpm: 1293 (min⁻¹)
Power Input: 516 (W)

Overall efficiency (η): 39.9
Grade efficiency (N): 48.0



PERFORMANCE CURVES
DD 10/8 - 550-4P-3V
4 POLES

ErP 2015



Ventilator Type: DD 10/8
Blowers Material: Metal
Housing Material: Metal
Motor Support Material: Metal

Motor Type: 3 HOM
Power Supply: 1 ~
Nominal Voltage: 230V
Frequency: 50-60 Hz
Nominal Watts: 550
Range Power: 200-254 V
Capacitor: 12.5 µF

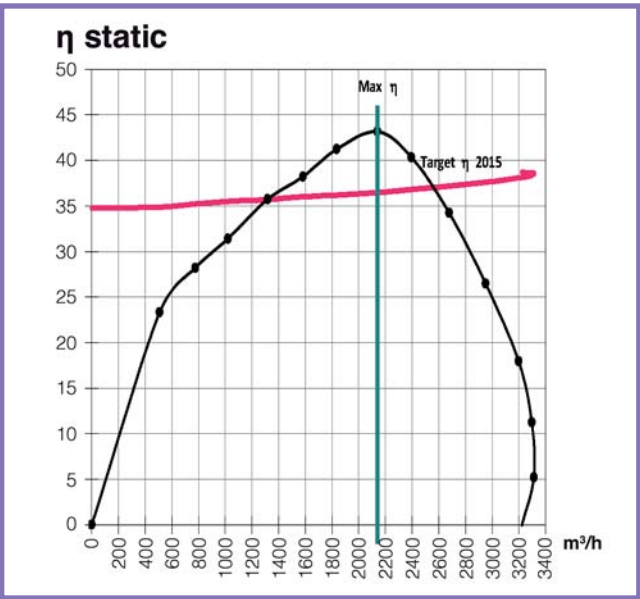
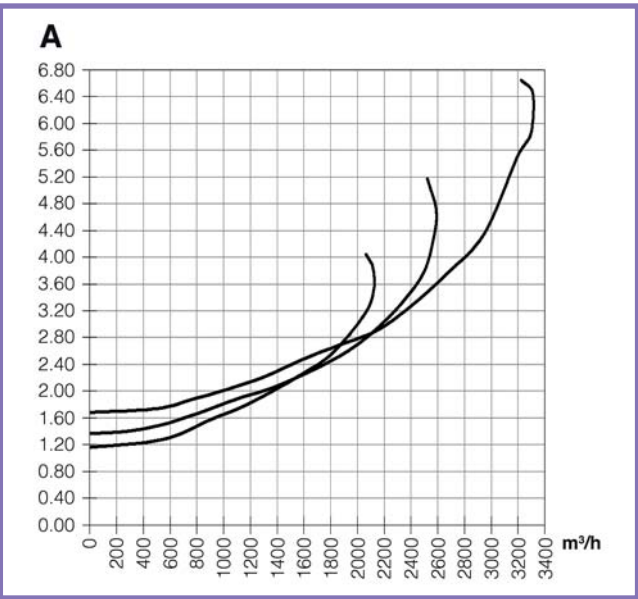
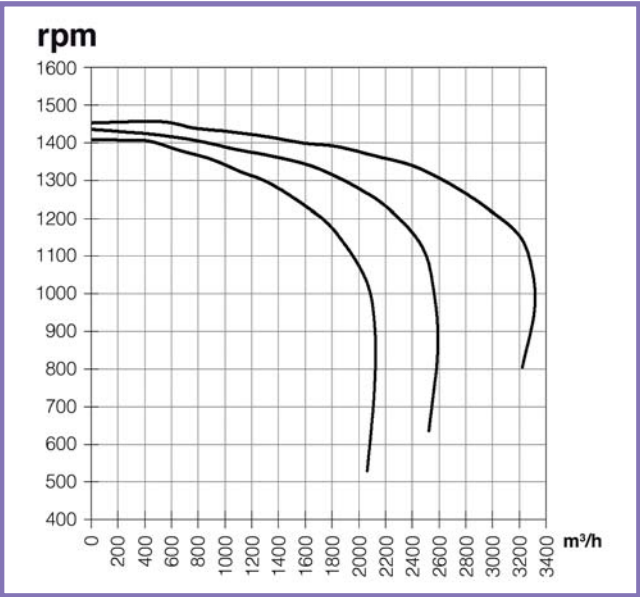
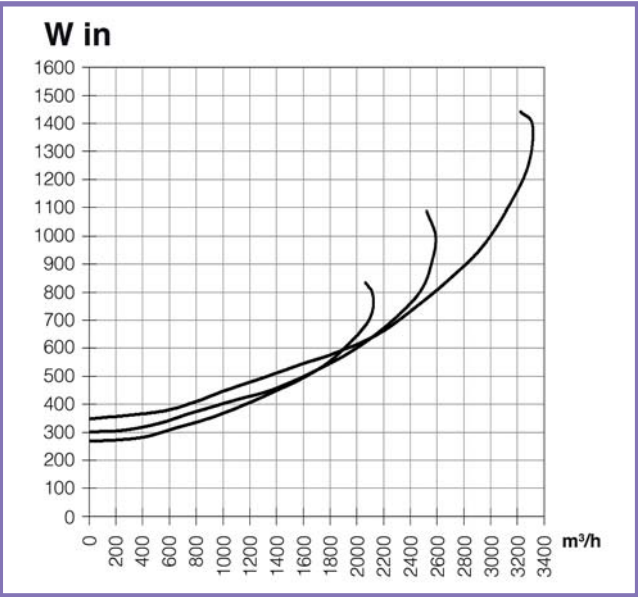
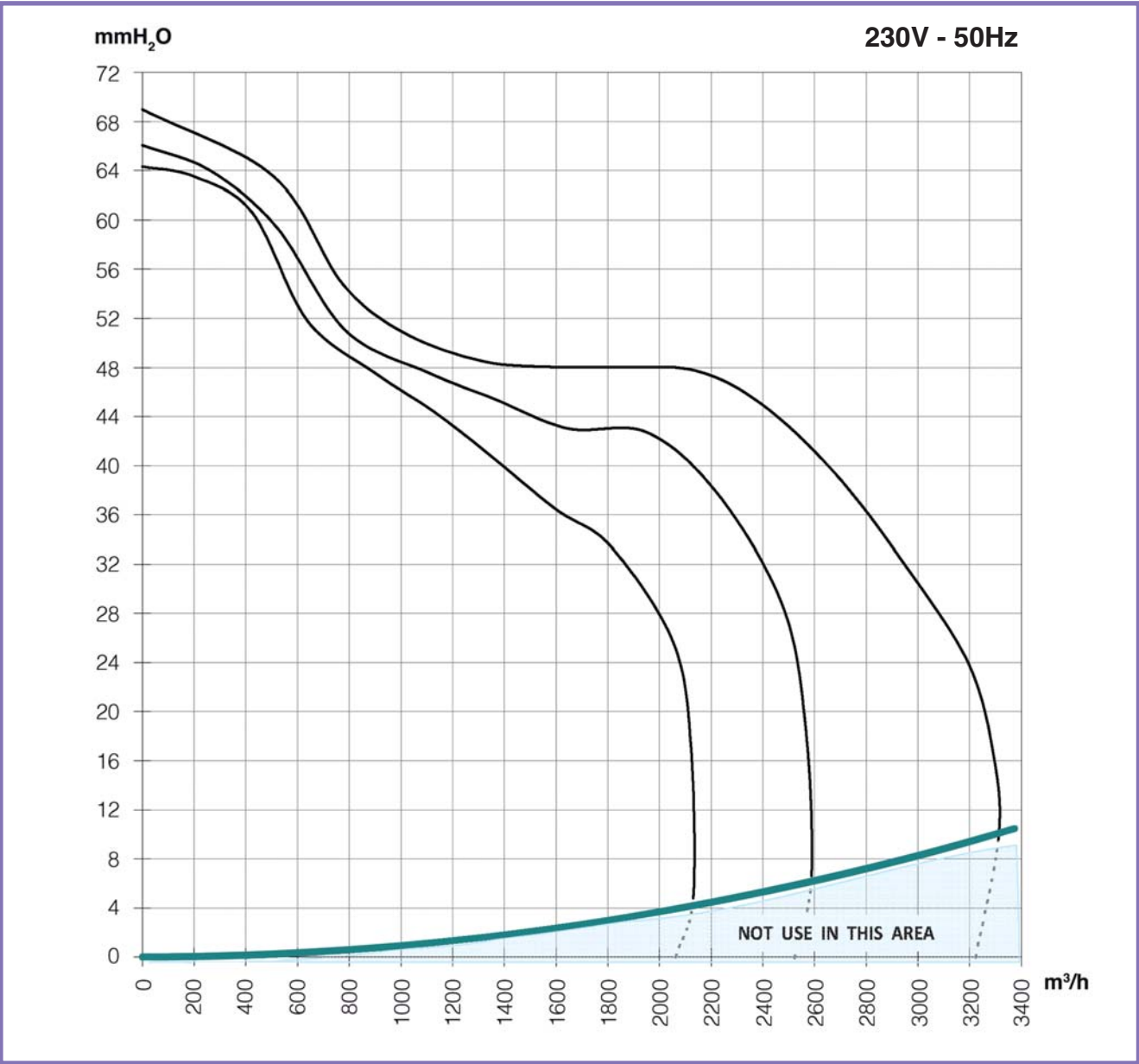
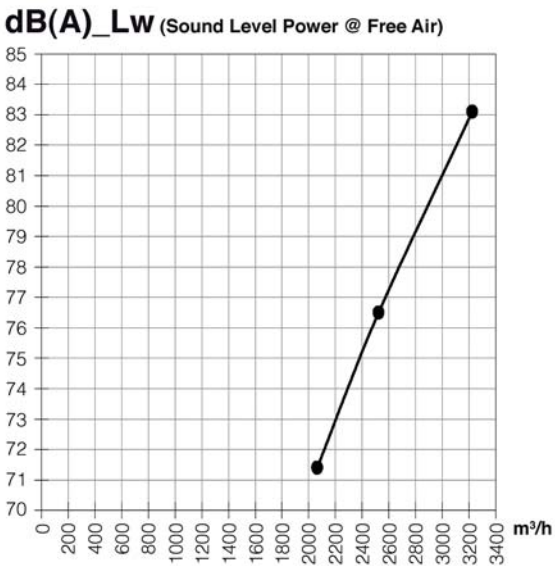
Electrical Insulation Class: Cl.F (155°C)
Protection: Thermally Prot.

Test: PDD-5037 Web: 359

Operating limits Max Speed 50 Hz (Rating Values)
Win: Max 1500 (W)
Ampere: Max 6.5 (A)
Static Pressure: Min 10 - Max 56 (mmH₂O)

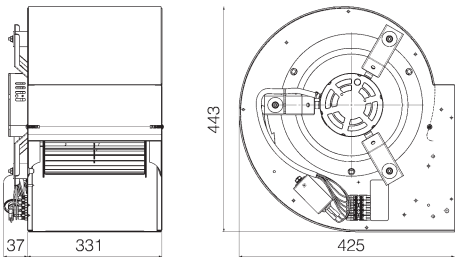
Measurement Category - A -
Free Inlet - Free Outlet

Value @ max. efficiency (Max Speed 50 Hz)
Air Flow: 2140 (m³/h)
Static Pressure: 47.7 (mmH₂O)
Rpm: 1363 (min-1)
Power Input: 645 (W)
Overall efficiency (η): 43.2
Grade efficiency (N): 50.7



PERFORMANCE CURVES
DD 10/10 - 370-4P-3V
4 POLES

ErP 2015



Ventilator Type: DD 10/10
Blowers Material: Metal
Housing Material: Metal
Motor Support Material: Metal

Motor Type: 3 FGM
Power Supply: 1 ~
Nominal Voltage: 230V
Frequency: 50-60 Hz
Nominal Watts: 370
Range Power: 200-254 V
Capacitor: 12.5 µF

Electrical Insulation Class: Cl.F (155°C)
Protection: Thermally Prot.

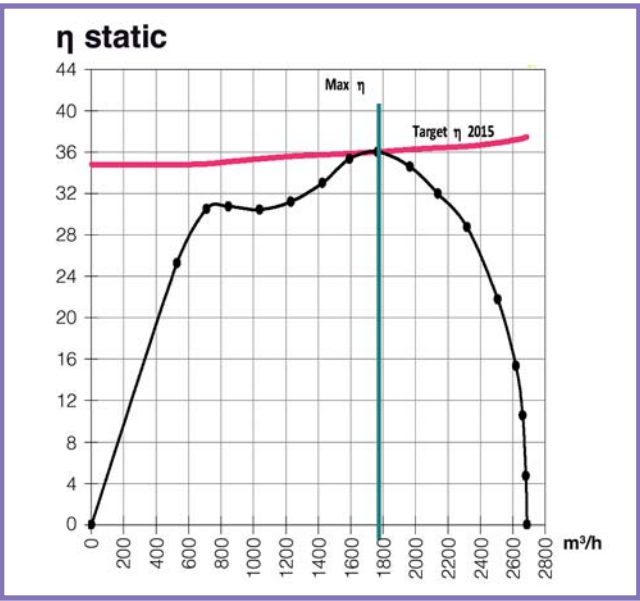
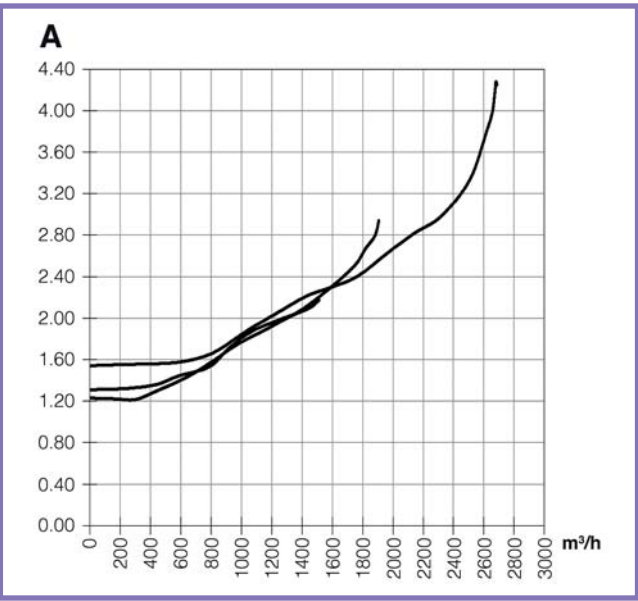
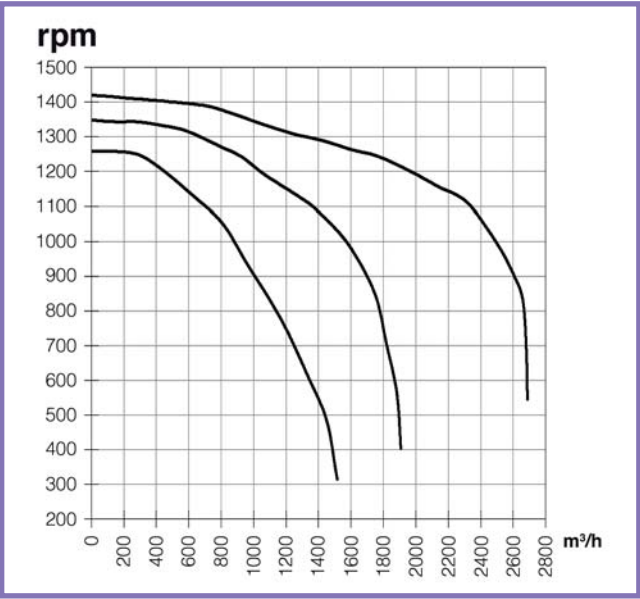
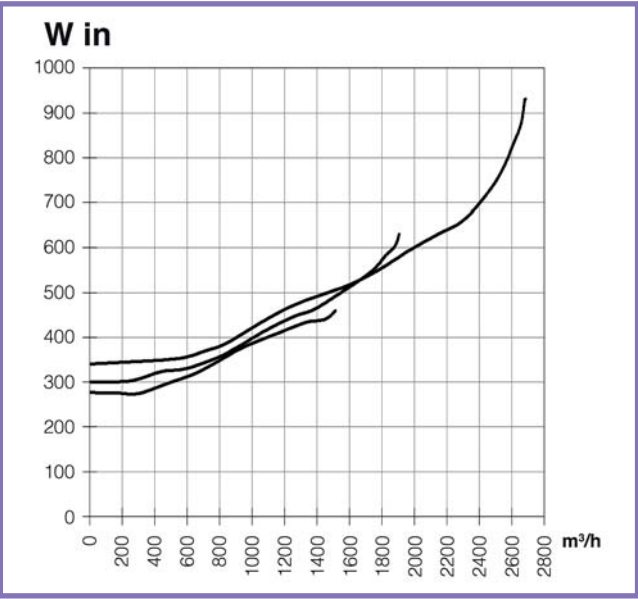
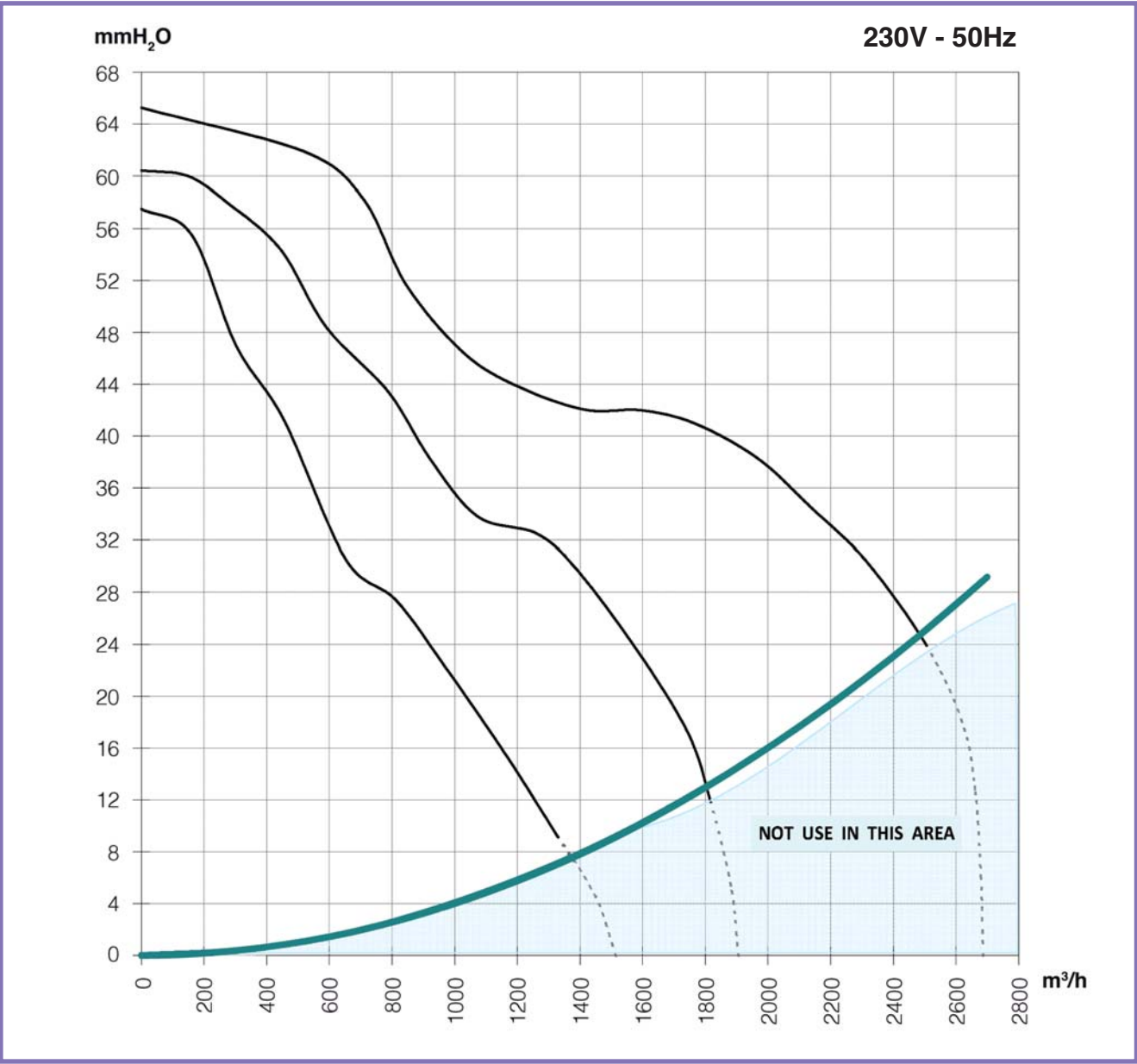
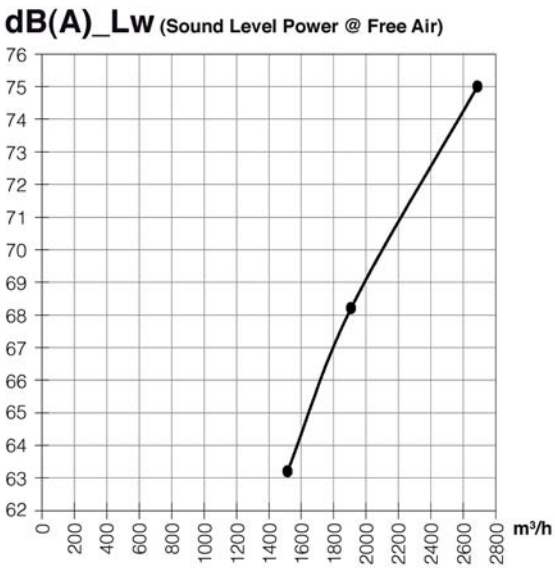
Test: PDD-5033 **Web:** 380

Operating limits Max Speed 50 Hz (Rating Values)
Win: Max 950 (W)
Ampere: Max 4.3 (A)
Static Pressure: Min 25 - Max 55 (mmH₂O)

Measurement Category - A -
Free Inlet - Free Outlet

Value @ max. efficiency (Max Speed 50 Hz)
Air Flow: 1766 (m³/h)
Static Pressure: 41.0 (mmH₂O)
Rpm: 1243 (min⁻¹)
Power Input: 547 (W)

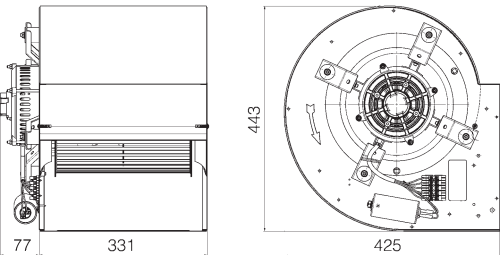
Overall efficiency (η): 36.0
Grade efficiency (N): 44.0





PERFORMANCE CURVES
DD 10/10 - 550-4P-3V
4 POLES

ErP 2015



Ventilator Type: DD 10/10
Blowers Material: Metal
Housing Material: Metal
Motor Support Material: Metal

Motor Type: 3 HOM
Power Supply: 1 ~
Nominal Voltage: 230V
Frequency: 50-60 Hz
Nominal Watts: 550
Range Power: 200-254 V
Capacitor: 12.5 µF

Electrical Insulation Class: Cl.F (155°C)
Protection: Thermally Prot.



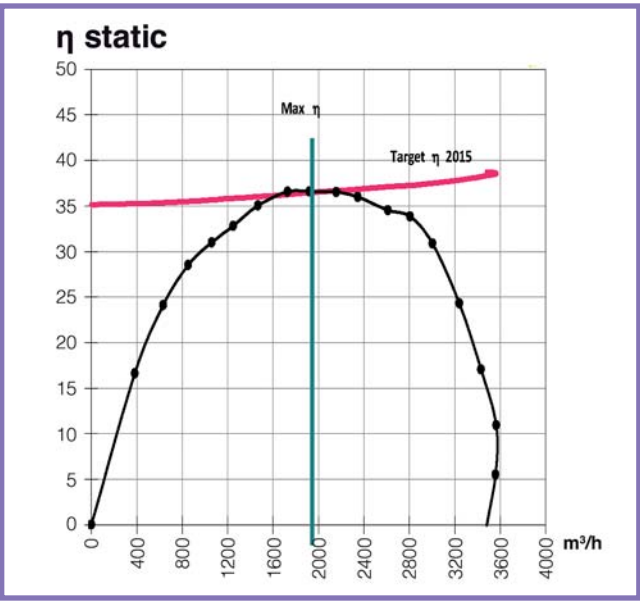
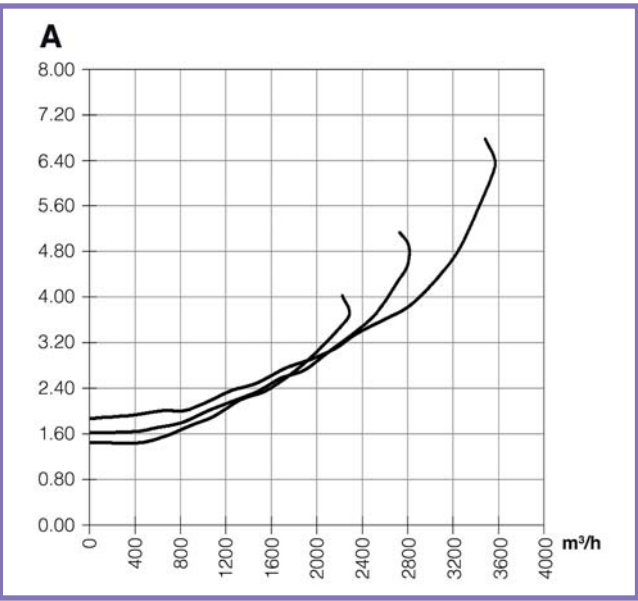
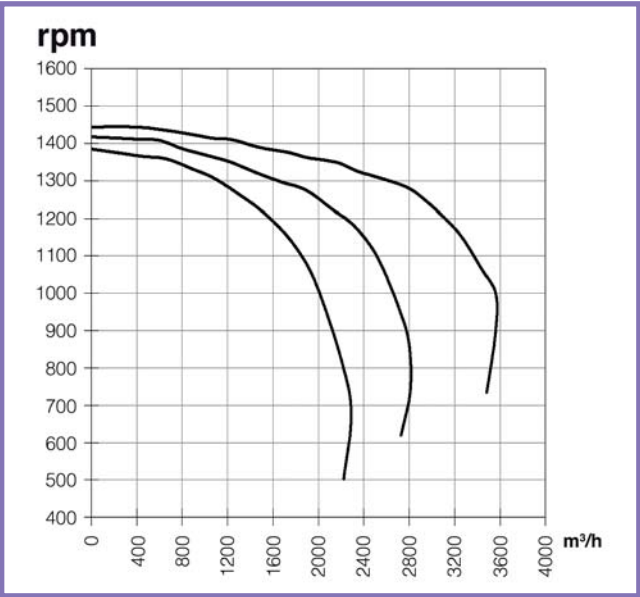
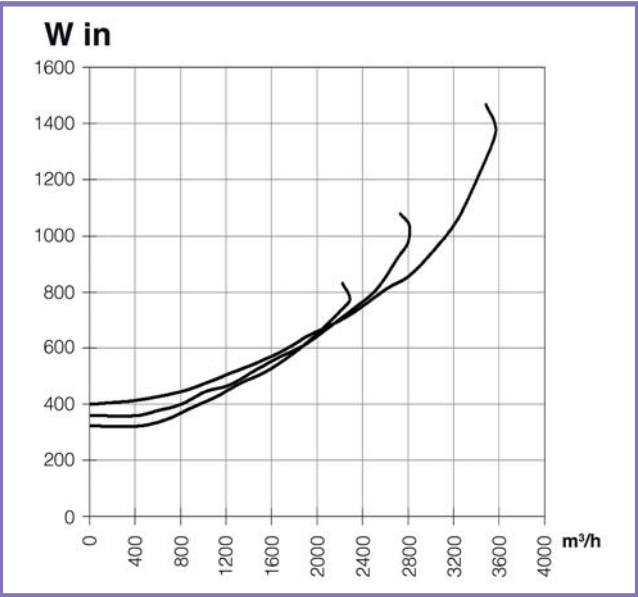
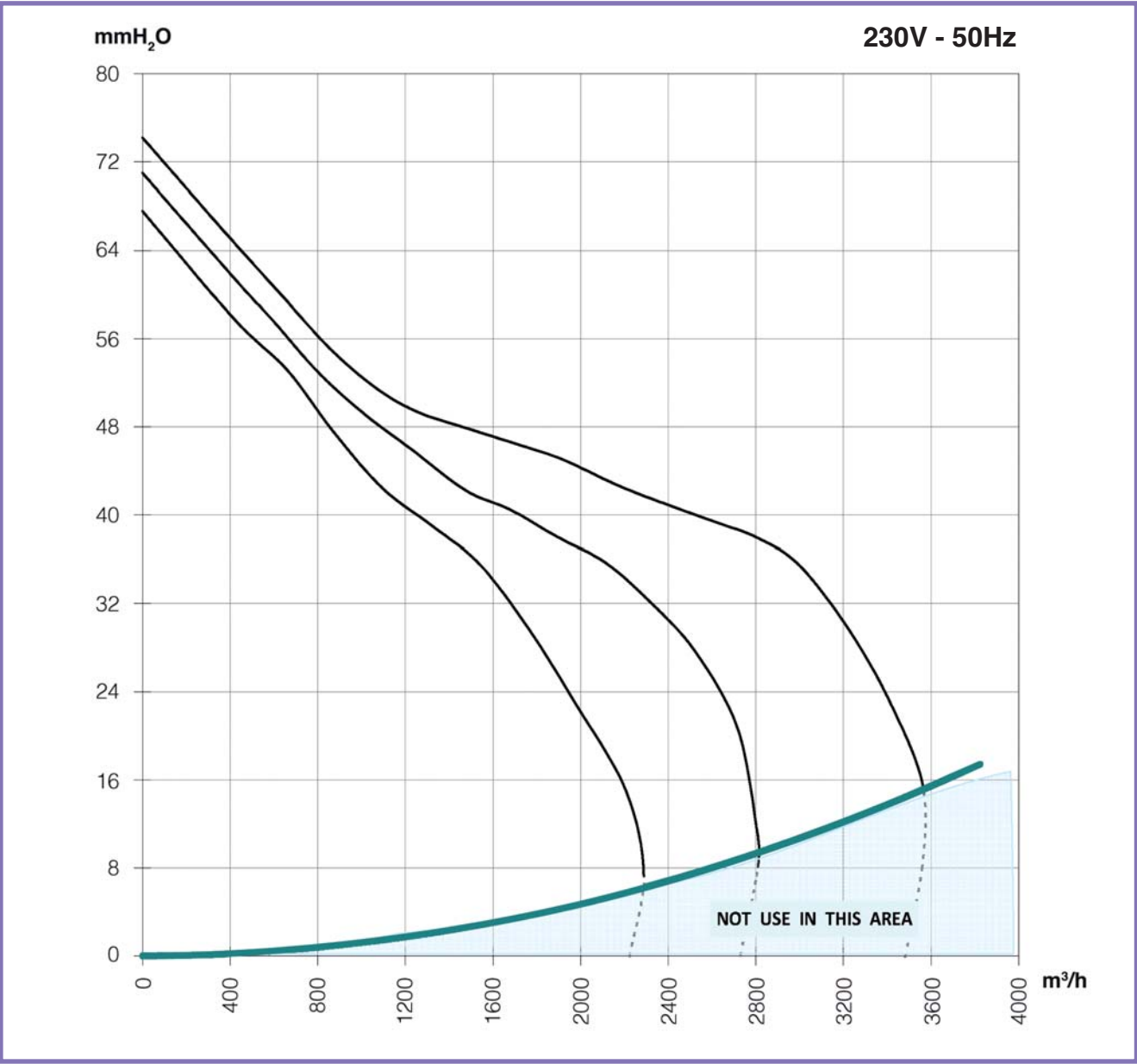
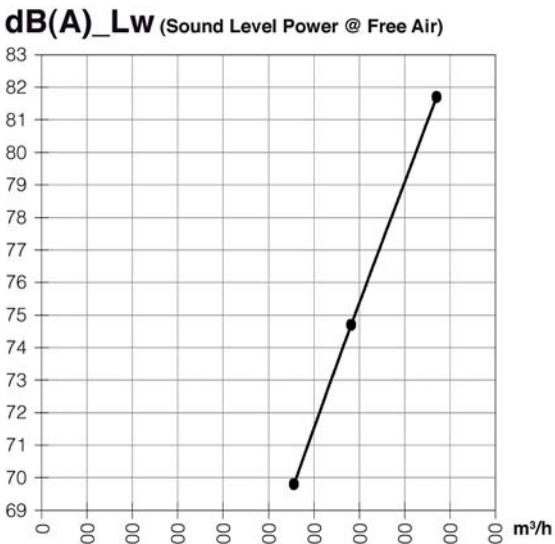
Test: PDD-5041 **Web:** 326

Operating limits Max Speed 50 Hz (Rating Values)
Win: Max 1400 (W)
Ampere: Max 6.4 (A)
Static Pressure: Min 15 - Max 60 (mmH₂O)

Measurement Category - A -
Free Inlet - Free Outlet

Value @ max. efficiency (Max Speed 50 Hz)
Air Flow: 1920 (m³/h)
Static Pressure: 45.0 (mmH₂O)
Rpm: 1361 (min-1)
Power Input: 643 (W)

Overall efficiency (η): 36.6
Grade efficiency (N): 44.1





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Blowers n°

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Housing type

Test type

Test n°

Speed

Whom

M3/h FreeLoad

mmH2O MaxLoad

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Attention: you must select one filter to perform the search													