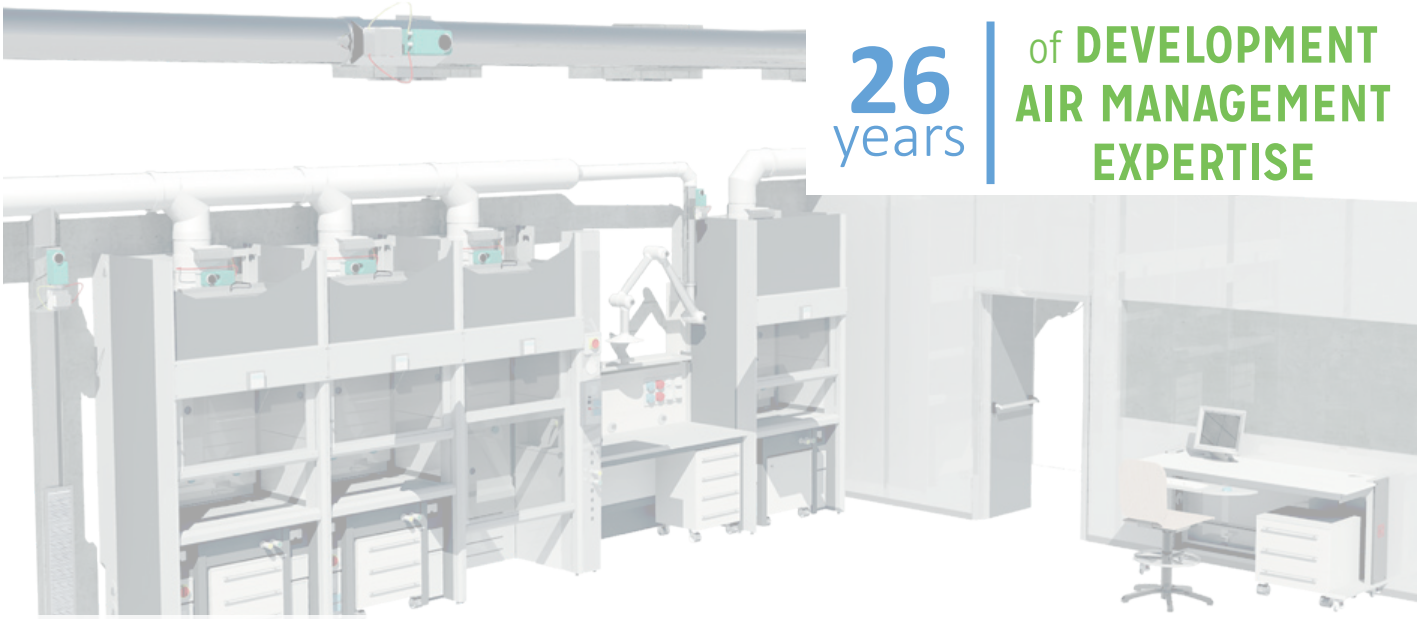
COMELEC

2022

ECRO BY COMELEC SINCE 1995

www.ecro-solutions.com



26 years | of **DEVELOPMENT AIR MANAGEMENT EXPERTISE**

CONTROL, REGULATION AND TREATMENT OF THE AIR TO PROVIDE YOU WITH A QUALITY ENVIRONMENT

Specialised in climate engineering and aeraulics in laboratories, Comelec has been developing for more than 26 years several measuring instruments under the ECRO brand.

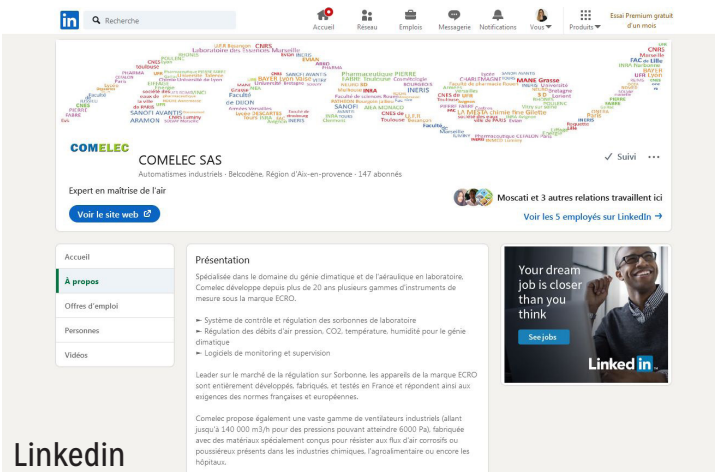
- Control and regulation devices for laboratories fume hoods
- Air flow and pressure, CO2, temperature and humidity regulation for climate engineering
- Monitoring and supervision software

Market leader in the field of fume hood regulation, the ECRO devices are fully designed, manufactured and tested in France. Thus, they comply to French and European standards.

Comelec also proposes a wide range of industrial fans (up to 140 000 m3/h for a pressure that can reach 6000 Pa) made of material able to resist corrosive or dusty air flow present in chemical industries, food industry or hospitals.

In its own plasturgy department, the company manufactures purposes-built plastic accessories such as PVC hoods, sinks, charcoal filters, gas washing tower, duct silencers and many other accessories for fume hoods.

Our R&D Department and our constant investment in this area permit us to ameliorate and develop solutions in order to satisfy our customers.



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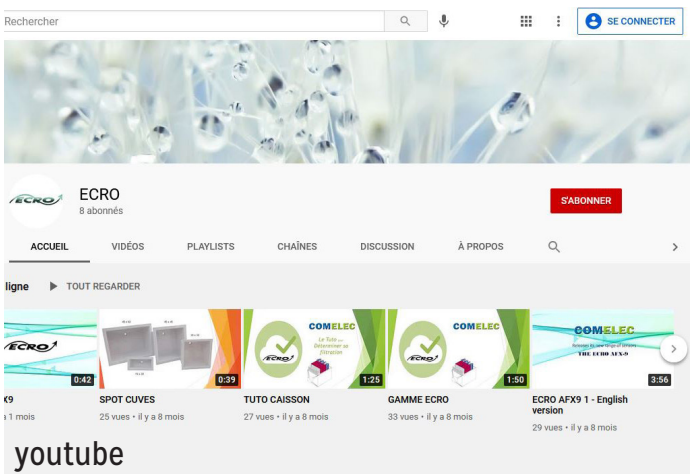


youtube

LABORATORY ELECTRONICS

AIR TREATMENT SCRUBBERS AND CAPTURE ARMS

AIR EXTRACTION

VENTILATION ACCESSORIES AND DUCTING

The photos are not contractual
Catalog / Fr / Last update 2022 - 02


PRESSION (Pa)
0
HYGROMETRIE (%)
47
TEMPERATURE (C)
21.5
AFX 9 SENSOR
ECRO

Laboratory control and measuring solutions

Fume hood controllers and regulators

MODEL	ECRO SPEED		ECRO FLOW	
	P	E	P	E
Languages				
Display	LCD		LCD	
Power supply	230V		230V	
Dual operating order	✔	✔	✔	✔
Light	✔	✔	✔	✔
Alarm	✔	✔	✔	✔
Solenoid valve				
Socket				
UV tube				
Permanent 0 - 10V	✔	✔	✔	✔
PID 0 - 10V signal	✔	✔	✔	✔
Presence sensor control	✔	✔	✔	✔
Up/Down	✔	✔	✔	✔
Eco mode				
Speed sensor default				
Pressure sensor default	✔	✔		
Pressure captor default			✔	✔
Temperature alarm				
Low speed alarm	✔	✔		
Low flow alarm			✔	✔
Sash threshold overrun alarm	✔	✔	✔	✔
Filter maintenance				
Fume hood maintenance				
Flow measuring cross		optionnal	✔	✔
Hot wire speed probe	✔	✔		
Temperature sensor				
0-10V analog output				
0-10V analog input				
Additional contact				✔
Communicating version (BusCan)		✔		✔
Automatic sash control pack	✔	✔	✔	✔

Fume hoods controllers **ECRO speed**

Speed measuring-hot wire- digital applications: laboratory

Ecro speed range presents all our models equipped with a hot wire sensor. This sensor controls and measures the air speed with a precision of 0.01m/s. So far , this type of sensor is the most appropriate to guarantee the operators safety.

230Vac 230V power supply

LCD LCD display

BusCAN Communicating network (E-RV.E version)

IN OUT 1 PID output, 4 digital inputs, 6 output relays

Panel configuration

Compatible with the Auto sash controller pack

ECRO speed models

Reference	Model	Technical description
E-RV.P	Progressive	Controller with hot wire sensor with auto sash pack controller and eco mode.
E-RV.E	Exclusive	Controller with hot wire sensor with auto sash pack controller, eco mode and communicating version

Pack E-RV.P includes:

- power supply
- digital display
- RJ45 cable 5m lenght
- 1 hot wire sensor with RJ12/DIn cable

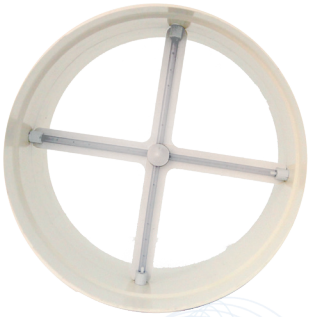
options:

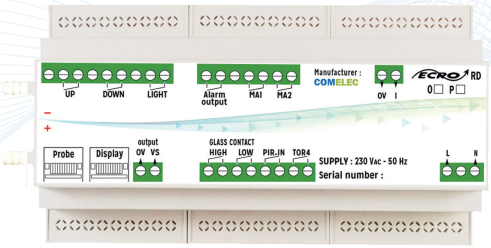
Reference	Technical description
EA-IHM.RVRD	Aditionnal IHM for ECRO speed
EA-PA.RV	Adapting faceplate for ECRO speed
EA-REH.RVRD	20 mm side extension for Ecro speed

Fume hood *controllers* ECRO flow

Flow measurement - measuring cross - digital fields of applications: Laboratory

The Ecro-RD range offers a comfortable airflow regulation for fume hoods. Using a measuring cross associated to a pressure sensor, this method of control and regulation is perfectly compliant to all laboratories standards. In addition to safety, another benefit of designed laboratory controls is energy savings. Fume Hood Controls are designed to safely reduce the fume hood exhausted air volumes.





230Vac 230V power supply

LCD LCD display

BusCAN Communicating network (E-RD.E version)

IN OUT 1 PID output, 4 digital inputs, 6 output relays

Panel configuration

Compatible with the Auto sash controller pack

Position sensor (E- RD.P version)

Ecro RD models

Reference	Technical description	Technical description
E-RD.P	Progressive	Air flow controller by potentiometer and ECO mode
E-RD.E	Exclusive	Air flwo controller by potentiometer

E-RD.P pack includes:

- power supply • 1 digital display • 1 measuring cross
- 1 potentiometer (EA-POT.CA)

Measuring cross PVC M1

Reference	description
EA-CROIXM.P160	Ø160
EA-CROIXM.P200*	Ø200
EA-CROIXM.P250*	Ø250
EA-CROIXM.P315	Ø 315
EA-CROIXM.P355	Ø355
EA-CROIXM.P400	Ø400
EA-CROIXM.P500	Ø500

Options

Reference	description
EA-IHM.RVRD	IHM for ECRO RD
EA-REH.RVRD	**Raise** ECRO RD

BUS-Can communicating touch screen controller

New

Compatible with all fume hoods

Our new brand versions ECRO RV.ET and ECRO Rd.ET allow to replace your LCd display with a touche screen display 3.5 or 4.3. In adition to the Rv.E and Rd.E functions, the touch screen version are IP 55 and presents aditionnal functions:

- Intuitive touch screen display and customizable home page
- visual and audible alarm for the fume hood maintenance
- visual and audible alarm for the filters replacement
- time-stamping incidents
- 3 aditionnal order relays (sockets, UV lamp, solenoid valve)

Dimensions: ***3,5" and 4,3"***

IP 55

The best security device on the market for operators

Setting and customisation from the screen display

Auto standby mode configurable Easy setup and intuitive use On/Off remote control

Surface mounting or insert version

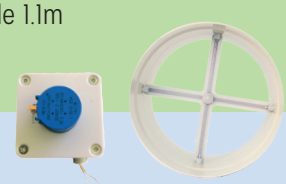
Pack E-RV.ET3 or E-RV.ET4 includes:

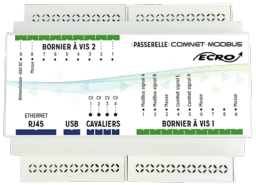
- Power supply
- Colour Touch screen 4.3 or 3.5
- RJ45 cable, 5m lenght
-Temperature sensor
-Hot wire speed sensor
- 2 Cristal tubes
- RJ12/DIN cable

Available options:
EA-RV.C measuring cross 200 or 250 mm

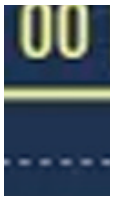
Contents of the E-RD.ET3 or E-RD.ET4 pack

l Power supply and connection box
l 4.3"or 3.5 'color touch screen display
l RJ45 cable length 5m
l temperature probe
l measuring cross diameter 200 or 250 mm
2 Crystal tubes (2ml)
l potentiometer with cable 1.1m





Compatible with the Can/Modbus (RTU or IP)) Gateway to retrieve and archive data onto the GTC Ref.: **(E-PASS.CM)**



TOUCHSCREEN COMMUNICATING CONTROLLERS

	ECRO TOUCH SCREEN	Ecro speed	Ecro flow
	4.3" Touch screen	**E-RV.ET4**	**E-RD.ET4**
	3.5" Touch screen	**E-RV.ET3**	**E-RD.ET3**
	Languages display		
	Power supply	24V DC	24V DC
ORDERS	Dual operating order	✔	✔
ORDERS	Light	✔	✔
ORDERS	Alarm	✔	✔
ORDERS	Solenoid valve	✔	✔
ORDERS	Socket	✔	✔
ORDERS	UV tube	✔	✔
ORDERS	Climb	✔	✔
ORDERS	Descent	✔	✔
	Eco mode	✔	
ALARMS DISPLAY	Emergency button	✔	✔
ALARMS DISPLAY	Speed sensor fault	✔	
ALARMS DISPLAY	Pressure sensor fault		✔
ALARMS DISPLAY	Temperature alarm	✔	✔
ALARMS DISPLAY	Insufficient speed alarm	✔	✔
ALARMS DISPLAY	Insufficient flow alarm		✔
ALARMS DISPLAY	Window overflow alarm	✔	✔
	Filter maintenance	✔	✔
	Fume cupboard maintenance	✔	✔
SENSOR	Flow measuring cross	optionnal (EA-RV.C)	✔
SENSOR	Hot wire speed probe	✔	
SENSOR	Temperature sensor	✔	✔
	0-10V analog output	4	4
	0-10V analog input	4	4
	Additional contact		✔

ECRO MASTER

Available options: (EA-RV.C)

Fume hoods centralised control - Fume hoods monitoring and balancing analog controlling - PASS. CM gateway

Each fume hood is equipped with a ECRO flow touch screen

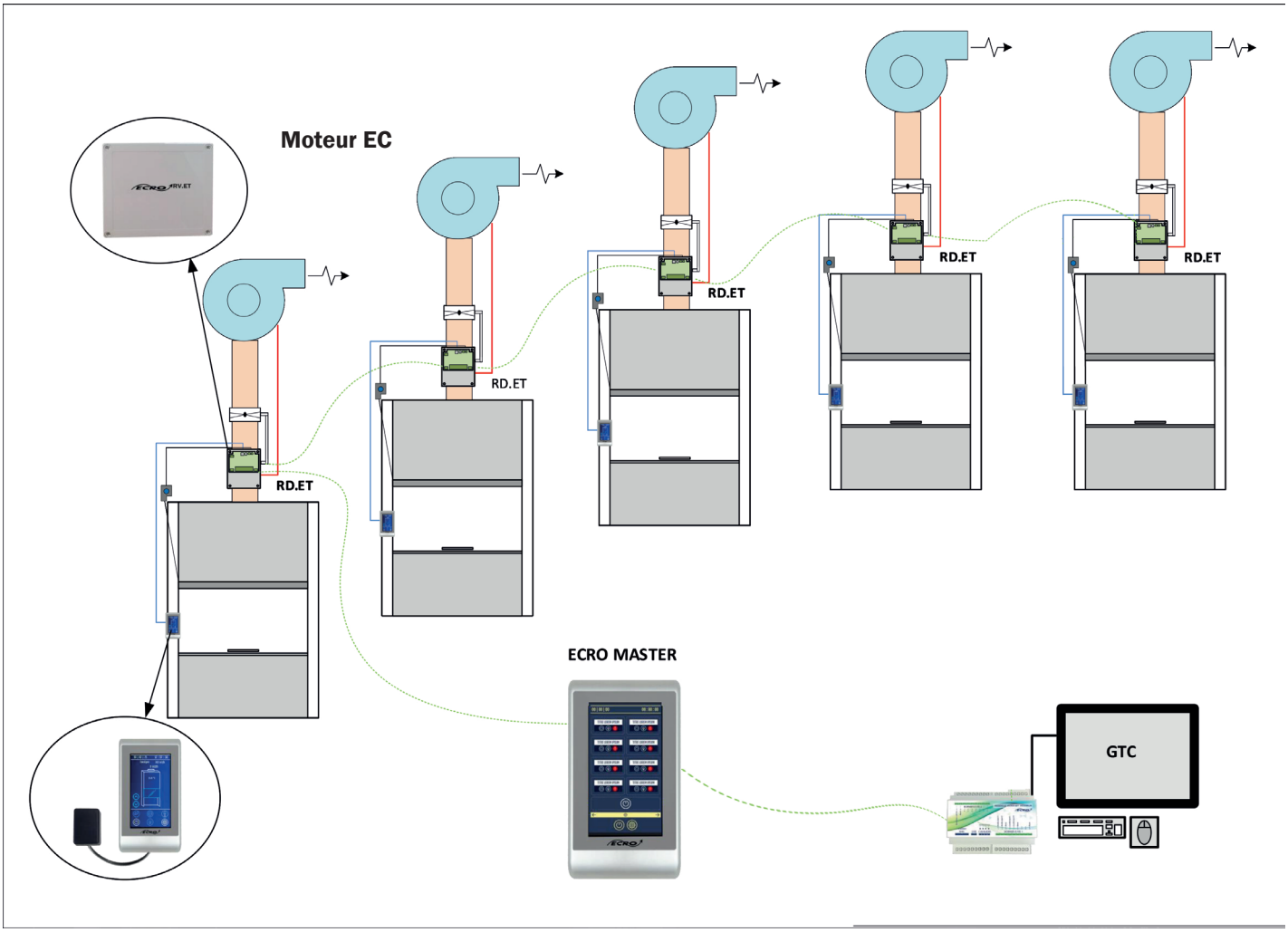
communicating controller. A position sensor gives the instruction of

flow regulation of the fume hood and reading of the flow rate is carried out by a measuring cross.

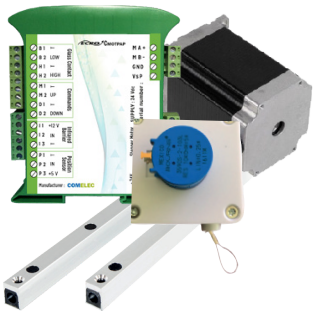
ECRO MASTER allows to:

- ON/OFF all the fume hoods
- display of alarms, air flows and instructions
- controlling the laboratory air balanced

The touch screen display is perfect for the display and control of the 8 fume hoods simultaneously.
- Fume hood On/OFF state
- Fume hood light state
- Alarms state
- Air flow instructions
- Measured air flow



Fume hood **AUTO SASH CONTROLLER PACK**



The fume hood automatic sash controller pack developed by COMELEC has 2 main advantages, increase the user safety and contribute to fume hood energy savings.
The principle of functioning is based on the is based on the assistance to the sash rise up and down.

Compatible with all fume hoods equipped with equipped with sash with counterweight
- Automated descent with software-configurable interlocking time
- Sash Motorization by contact entry and / or by detection of manual movement of the sash
- Ergonomic configuration software
- Software-configurable descent speed

Operating modes

OPERATING BY « EXTERNAL ORDER »

The user manages the position of the glass with simple push buttons (up or down).

Compatible models in keyboard version RV-P, RV-E, or RD-P, RD-E.
RV-ET or RD-ET touch version

OPERATING BY "ASSISTED MOVEMENT»

The user controls the up and down positions of the sash by exerting manual pressure up or down on the glass to activate the up and down movement of the glass (the sash continues its movement up and down to its up and down thresholds).

OPERATING BY «AUTOMATIC RISE DOWN»

If no user is detected while a defined period of time during the set up procedure, the system order the down position until the minimum position.

AUTO SASH CONTROLLER PACK

STANDARD FUME HOOD UNTIL 1800 MM

E-PMOT fume hood pack includes:

- Smart control card: **E-CMOTPAP**
- A linear displacement sensor: **EA-POT.CA**
- 230VAC/24Vdc 30W power supply: **EL-ALIM23024DC30**
- Infrared barrier: **EA-BAR.IR**
- A set of cable and notched pulley: **EA-SETMOT**
- Metal motor support and elastic coupling (optional)
- Configuration software (optional)
- End of race (optional)

WALK IN FUME HOOD or MORE THAN 1800mm

E-PMOT-2 fume hood pack includes

- Smart control card: **E-CMOTPAP**
- 230VAC/24Vdc 30W power supply: **EL-ALIM23024DC30**
- NEMA23 step-by-step motor 1.1m: **E-MOTPAP2**
- Infrared barrier: **EA-BAR.IR**
- A linear displacement sensor 1.1m: **EA-POT.CA**
- Metal motor support and elastic coupling (optional)
- Configuration software (optional)
- A set of cable and notched pulley: **EA-SETMOT**
- End of race (optional)

AFX-9 Multi parameters **displayers**

Applications: Laboratory- Food processing industry- Clean rooms- tertiary sector

The AFX-9 belongs to the new generation of displays for laboratories developped by COMELEC, perfectly adapted for clean rooms, operating rooms, laboratories.Its new design front panel in anodised aluminium or stainless steel meet all the laboratory requirements.

AFX-9 range

AFX-9 SENSOR	AFX-9 SENSOR+	AFX-9 PID	AFX-9 PID+	AFX-9 UNIT	AFX-9 UNIT+

- 24Vcc power supply
- 3 inputs 0-10 V
- 3 inputs 4-20 mA
- Aluminium anodised front panel
- Modbus communication interface
- Remote readability (up to 8m)

Temperature sensor/ deported Hygrometry included in the **SENSOR+** / **PID+** / **UNIT+** + versions

VISIO AFX-9

This ergonomic and easy to install software allows to monitor your's AFX-9

It is possible to monitor simoultaneously as much as devices as needed

«LOG» function allows to record in real time the data of your choice (Works under Windows)

Technical Specifications	AFX9 SENSOR	AFX9 SENSOR+	AFX9 PID	AFX9 PID+	AFX9 UNIT	AFX9 UNIT+
Onboard differential pressure sensor - Operating range : -125 Pa to +125 + 125 Pa	YES	YES	YES	YES	YES	YES
Removed temperature and hygrometry sensor* (50cm cable) - Temperature operating range :-45°C to +130°C - Hygrometry operating range : 0 to 100%	-	YES	-	YES	-	YES
*It is compulsory to put the sensor below or next to the AFX9						
External sensors (voltage input)	-	3	3	3	3	3
External sensors (current input)	3	3	3	3	3	3
Dry contact inputs	2	2	2	2	2	2
Display of measurements in real time	1 to 9	1 to 9	1 to 9	1 to 9	1 to 9	1 to 9
0-10v isolated analog outputs	3	3	3	3	2*	2*
*The 0-10v analog exit nb3 is no longer available because it is dedicated to the block temperature						
0-10v isolated analog outputs dedicated to operating room	-	-	-	-	1	1
Configurable dry contact outputs	3	3	3	3	2	2
Dry contact output dedicated to operating rooms	-	-	-	-	1	1
Configurable visual alarms / Configurable audible alarms	YES	YES	YES	YES	YES	YES
PID multi sensor regulation	-	-	0 to 3	0 to 3	0 to 2	0 to 2
Remote readability (up to 8m)	YES	YES	YES	YES	YES	YES
Modbus communication interface / Impervious front panel	YES	YES	YES	YES	YES	YES

CAPTORS REGULATORS FOR OPERATING ROOM

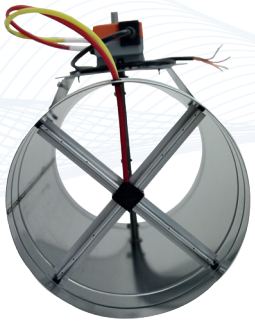
AIR FLOW *ROOM REGULATORS*

Applications: CVC- Tertiary- Laboratory

This range of air flow regulators are for the cleanroom laboratory and HVAC engineering sector. Composed of a modulating register associated with a measuring cross and a motor (standard or communicating), they are used to regulate a flow of extraction or introduction of air into a room.

The BDV allows to maintain a flow by external information while ensuring a minimum and maximum throughput. Depending on its use and needs, the mechanical part can be available in both galvanized steel and PVC.

BDV



Power supply 24 V

Regulated analog output

Communication BusCan

Control input


Software configuration

Steel version	Communicating steel version	
Reference	**Reference**	Ø
E-BDV.A100	E-BDV.A100C	Ø100
E-BDV.A125	E-BDV.A125C	Ø125
E-BDV.A160	E-BDV.A160C	Ø160
E-BDV.A200	E-BDV.A200C	Ø200
E-BDV.A250	E-BDV.A250C	Ø250
E-BDV.A315	E-BDV.A315C	Ø315
E-BDV.A355	E-BDV.A355C	Ø355
E-BDV.A400	E-BDV.A400C	Ø400
E-BDV.A450	E-BDV.A450C	Ø450
E-BDV.A500	E-BDV.A500C	Ø500

* The motor is included.

PVC Version	PVC communicating version	
Reference	**Reference**	Ø
E-BDV.P100	E-BDV.P100C	Ø100
E-BDV.P125	E-BDV.P125C	Ø125
E-BDV.P160	E-BDV.P160C	Ø160
E-BDV.P200	E-BDV.P200C	Ø200
E-BDV.P250	E-BDV.P250C	Ø250
E-BDV.P315	E-BDV.P315C	Ø315
E-BDV.P355	E-BDV.P355C	Ø355
E-BDV.P400	E-BDV.P400C	Ø400
E-BDV.P450	E-BDV.P450C	Ø450
E-BDV.P500	E-BDV.P500C	Ø500

* The motor is included.

Motor for BDV

Standard motor EA-MOT.LMVD3-MP
Communicating motor * EA-MOT.LMVD3-MOD

Technical Technical description

Compact VAV rotary servo motor -5 Nm AC/DC 24 V, Modulating, communicating,
IP54 hybrid, Manual control with push button, lockable
Communication BACnet MS/TP, Modbus RTU, MP-Bus*
Connection Cable 1 m PVC
Mechanical interface valve drive: Universal drive nuts 6...20mm

BELIMO®

Frequency *inverters*

Applications: Agro-industry-Laboratory- Tertiary

Our range of frequency inverters will meet the needs of your request. From fan control, to air handling unit control, we have all solutions to carry out your project.

NEW RANGE

Specifications

Single phase 230V

Reference	Box size	Output power	Input voltage	Output voltage
EL-VAR-S0.4KWMT	1	0.4kW	6.5A	2.5A
EL-VAR-S0.75KWMT	1	0.75kW	9.3A	4.2A
EL-VAR-S1.5KWMT	2	1.5kW	15.7A	7.5A
EL-VAR-S2.2KWMT	2	2.2kW	24.0A	10.0A

Three phase 230V

Reference	Box size	Output power	Input voltage	Output voltage
EL-VAR-S0.4KWTT23	2	0.4kW	3.7A	2.5A
EL-VAR-S1.5KWTT23	2	0.75kW	5.0A	4.2A
EL-VAR-S1.5KWTT23	3	1.5kW	7.7A	7.5A
EL-VAR-S2.2KWTT23	3	2.2kW	11.0A	10.0A
EL-VAR-S4.0KWTT23	3	4.0kW	17.0A	16.0A
EL-VAR-S5.5KWTT23	4	5.5kW	21.0A	20.0A
EL-VAR-S7.5KWTT23	4	7.5kW	31.0A	30.0A

Three phase 380V

Reference	Box size	Output power	Input voltage	Output voltage
EL-VAR-S0.75KWTT	2	0.75kW	3.4A	2.5A
EL-VAR-S1.5KWTT	2	1.5kW	5.0A	4.2A
EL-VAR-S2.2KWTT	2	2.2kW	5.8A	5.5A
EL-VAR-S4.0KWTT	3	4.0kW	13.5A	9.5A
EL-VAR-S5.5KWTT	3	5.5kW	19.5A	14.0A
EL-VAR-S7.5KWTT	4	7.5kW	25.0A	18.5A
EL-VAR-S11KWTT	4	11.0kW	32.0A	25.0A
EL-VAR-S15KWTT	4	15.0kW	40.0A	32.0A
EL-VAR-S18KWTT	5	18.5kW	47.0A	38.0A
EL-VAR-S22KWTT	5	22.0kW	51.0A	45.0A
EL-VAR-S30KWTT	6	30.0kW	70.0A	60.0A
EL-VAR-S37KWTT	6	37.0kW	80.0A	75.0A
EL-VAR-S45KWTT	7	45.0kW	98.0A	92.0A
EL-VAR-S55KWTT	7	55.0kW	128.0A	115.0A
EL-VAR-S75KWTT	7	75.0kW	139.0A	150.0A
EL-VAR-S90KWTT	8	90.0kW	168.0A	180.0A
EL-VAR-S110KWTT	8	110.0kW	201.0A	215.0A

Dimensions

Box size	High	Width	Depth
1	160mm	80mm	23.5mm
2	185mm	80mm	140.5mm

Box size	High	Width	Depth
3	256mm	146mm	167mm
4	320mm	170mm	196.3mm

Box size	High	Width	Depth
5	340.6mm	200mm	184.3mm
6	400mm	250mm	202mm

Box size	High	Width	Depth
7	560mm	282mm	238mm
8	554mm	338mm	329.2mm

Notice: tolerance of imperial measures.

Plug&play *inverters boxes*

Single phase

Reference	Technical description
E-VAR.M04	230 MONO/230 THREE 0.4Kw
E-VAR.PM04	230 MONO/230 THREE 0.4Kw + Potentiometer
E-VAR.M075	230 MONO/230 THREE 0.75Kw
E-VAR.PM075	230 MONO/230 THREE 0.75Kw + Potentiometer
E-VAR.M15	230 MONO/230 THREE 1.5Kw
E-VAR.PM15	230 MONO/230 THREE 1.5Kw + Potentiometer
E-VAR.M22	230 MONO/230 THREE 2.2Kw
E-VAR.PM22	230 MONO/230 THREE 2.2Kw + Potentiometer

Three phase

Reference	Technical description
E-VAR.T04	380 THREE /380 THREE 0.4Kw
E-VAR.PT04	380 THREE /380 THREE 0.4Kw + Potentiometer
E-VAR.T075	380 THREE /380 THREE 0.75Kw
E-VAR.PT075	380 THREE /380 THREE 0.75Kw + Potentiometer
E-VAR.T15	380 THREE /380 THREE 1.5Kw
E-VAR.PT15	380 THREE /380 THREE 1.5Kw + Potentiometer
E-VAR.T22	380 THREE /380 THREE 2.2Kw
E-VAR.PT22	380 THREE /380 THREE 2.2Kw + Potentiometer

Reference	Technical description
EA-COF.IM0	ABS box for inverter 0.4et 0.75 Kw with staffing box and steel plate (sold without inverter)
EA-POT10KL+I	potentiometer with cutter for box wiring

Frequency *inverters, IP66 rating*

Single phase

Reference	Technical description
EL-VAR-E-0.4KWMT	230 MONO/230 THREE 0.2 0à 0.4 KW IP66
EL-VAR-E-0.7KWMT	230 MONO/230 THREE 0.75 KW IP66
EL-VAR-E-1.5KWMT	230 MONO/230 THREE 1.5 KW IP66
EL-VAR-E-2.2KWMT	230 MONO/230 THREE 2.2 KW IP66

Three phase

Reference	Technical description
EL-VAR-E-0.7KWTT	380 THREE / 380 THREE 0.75 Kw IP66
EL-VAR-E-1.5KWTT	400 THREE / 400THREE 1.5 KW IP66
EL-VAR-E-2.2KWTT	400 THREE / 400THREE 2.2 KW IP66
EL-VAR-E-4KWTT	400 THREE / 400 THREE 4 KW IP66
EL-VAR-E-11KWTT	400 THREE / 400 THREE 11 KW IP55
EL-VAR-E-15KWTT	400 THREE / 400 THREE 15 KW IP66
EL-VAR-E-22KWTT	400 THREE / 400 THREE 22 KW IP65

Offset Potentiometers *and remotes switch*

E-INT3P

E-INT2P

E-POT or E-POT.MA

Reference	Technical description
E-INT2P	Remote switch 2 positions OFF/ON
E-INT3P	Remote switch 3 positions PV/OFF/GV
E-POT	Deported potentiometer 0/10V
E-POT.MA	Deported potentiometer ON/OFF

Communicating laboratory *regulators 24V ac/dc*

LFR Laboratory compensation regulator
Sum of extraction rates (VFR + HFR + SDC + Sorbonne)
Management of the mixing rate Controllable by bus and/or 0-10V
Clean mode available by bus or contact Configurable by Modbus (min. and max. flow rates, diameter, offset flow, etc ...

VFR Variable flow regulator
Vfr is used to manage the minimum air mixing rate of a room.
Minimum and maximum flow management
Controllable by bus
Clean mode available by bus or contact Configurable by Modbus

HFR Regulator for hoods
Minimum and maximum flow management
Flow regulation by potentiometer or contacts
Clean mode available by bus or contact
Configurable by Modbus

E-SDC Air **flow sensor**
Extracted air flow measurement
Configurable by Modbus

LFR *Centralized communicating regulators*

Steel recovery	
Reference	**ø**
E-LFR.RA160	160
E-LFR.RA200	200
E-LFR.RA250	250
E-LFR.RA315	315
E-LFR.RA355	355
E-LFR.RA400	400
E-LFR.RA500	500

Steel blowing	
Reference	**ø**
E-LFR.SA160	160
E-LFR.SA200	200
E-LFR.SA250	250
E-LFR.SA315	315
E-LFR.SA355	355
E-LFR.SA400	400
E-LFR.SA500	500

Pvc recovery	
Reference	**ø**
E-LFR.RP160	160
E-LFR.RP200	200
E-LFR.RP250	250
E-LFR.RP315	315
E-LFR.RP355	355
E-LFR.RP400	400

PVC blowing	
Reference	**ø**
E-LFR.SP160	160
E-LFR.SP200	200
E-LFR.SP250	250
E-LFR.SP315	315
E-LFR.SP355	355
E-LFR.SP400	400

VFR *Air intake regulators*

Steel recovery	
Reference	**ø**
E-VFR.RA100	100
E-VFR.RA125	125
E-VFR.RA160	160
E-VFR.RA200	200
E-VFR.RA250	250
E-VFR.RA315	315
E-VFR.RA355	355
E-VFR.RA400	400

Steel blowing	
Reference	**ø**
E-VFR.SA100	100
E-VFR.SA125	125
E-VFR.SA160	160
E-VFR.SA200	200
E-VFR.SA250	250
E-VFR.SA315	315
E-VFR.SA355	355
E-VFR.SA400	400

Pvc recovery	
Reference	**ø**
E-VFR.RP100	100
E-VFR.RP125	125
E-VFR.RP160	160
E-VFR.RP200	200
E-VFR.RP250	250
E-VFR.RP315	315
E-VFR.RP355	355
E-VFR.RP400	400

PVC blowing	
Reference	**ø**
E-VFR.SP100	100
E-VFR.SP125	125
E-VFR.SP160	160
E-VFR.SP200	200
E-VFR.SP250	250
E-VFR.SP315	315
E-VFR.SP355	355
E-VFR.SP400	400

HFR *communicating regulators for extraction systems (arms, fume hoods...)*

Steel recovery	
Reference	**Ø**
E-HFR.A100	100
E-HFR.A125	125
E-HFR.A160	160
E-HFR.A200	200
E-HFR.A250	250
E-HFR.A315	315
E-HFR.A355	355
E-HFR.A400	400

Pvc recovery	
Reference	**Ø**
E-HFR.P100	100
E-HFR.P125	125
E-HFR.P160	160
E-HFR.P200	200
E-HFR.P250	250
E-HFR.P315	315
E-HFR.P355	355
E-HFR.P400	400

SDC *Communicating flow sensor*

Steel recovery	
Reference	**Ø**
E-SDC.RA100	100
E-SDC.RA125	125
E-SDC.RA160	160
E-SDC.RA200	200
E-SDC.RA250	250
E-SDC.RA315	315
E-SDC.RA355	355
E-SDC.RA400	400

Includes a measuring cross

Steel blowing	
Reference	**Ø**
E-SDC.SA100	100
E-SDC.SA125	125
E-SDC.SA160	160
E-SDC.SA200	200
E-SDC.SA250	250
E-SDC.SA315	315
E-SDC.SA355	355
E-SDC.SA400	400

Includes a measuring cross

Pvc recovery	
Reference	**Ø**
E-SDC.RP100	100
E-SDC.RP125	125
E-SDC.RP160	160
E-SDC.RP200	200
E-SDC.RP250	250
E-SDC.RP315	315
E-SDC.RP355	355
E-SDC.RP400	400

Includes a measuring cross

PVC blowing	
Reference	**Ø**
E-SDC.SP100	100
E-SDC.SP125	125
E-SDC.SP160	160
E-SDC.SP200	200
E-SDC.SP250	250
E-SDC.SP315	315
E-SDC.SP355	355
E-SDC.SP400	400

Includes a measuring cross

Communication systems for laboratories

AFM operating principle

The GDA (Airflow Management) is an electronic system for managing various airflows present in a laboratory or, more generally, in a room. The ultimate goal is to maintain a balanced airflow for optimal operation of the various laboratory furniture and equipment

FRC Mechanical flow-rate controller

Ref.: (VA-RMEC)

- Constant flow rate
- PVC or galvanised steel

VFR Air intake regulator

Ref. : (E-VFR)

- Variable flow rate
- Management of the air circulation rate
- Communicating
- PVC or galvanised steel

HFR Hood and arm flow regulator

Ref.: (E-HFR)

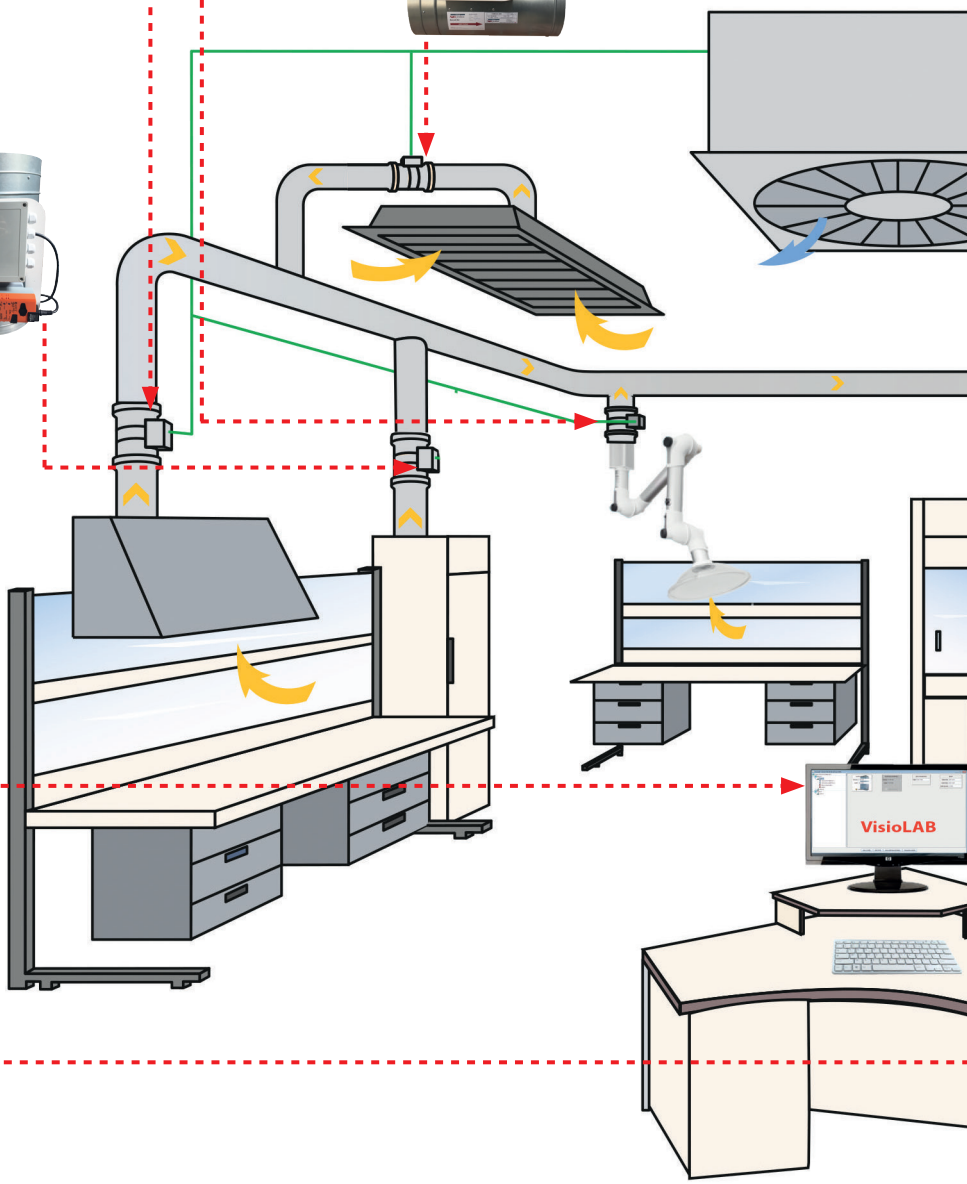
- From 1 to 3 flows
- Communicating
- PVC or galvanised steel

VISIOLAB Interactive supervision software

Ref. : (EA-LOG.VISIOLAB)

- Real-time display of laboratory information
- Monitoring and control of uscapable devices

Modbus



Can / Modbus gateway (RTU or IP)

Ref. : (E-PASS.CM)

- Enables data to be uploaded and archived to the BMS Modbus

Laboratory management:

All the information from the various systems, **ECRO RV-E, VFR** and **HFR** and **LFR** are sent via the BUS and collected by the gateway that can transmit them to the BMS.
The supply LFR associated with the exhaust VFR manages the compensation as well as the minimum air renewal rate.
If all extractions are stopped, the minimum air circulation rate is achieved with the extraction VFR and compensated by the supply LFR. As soon as an extraction is activated, first the extraction VFR closes proportionally and then the supply VFR takes over. Both overpressure and underpressure can be regulated.

LFR Laboratory Flow Regulator

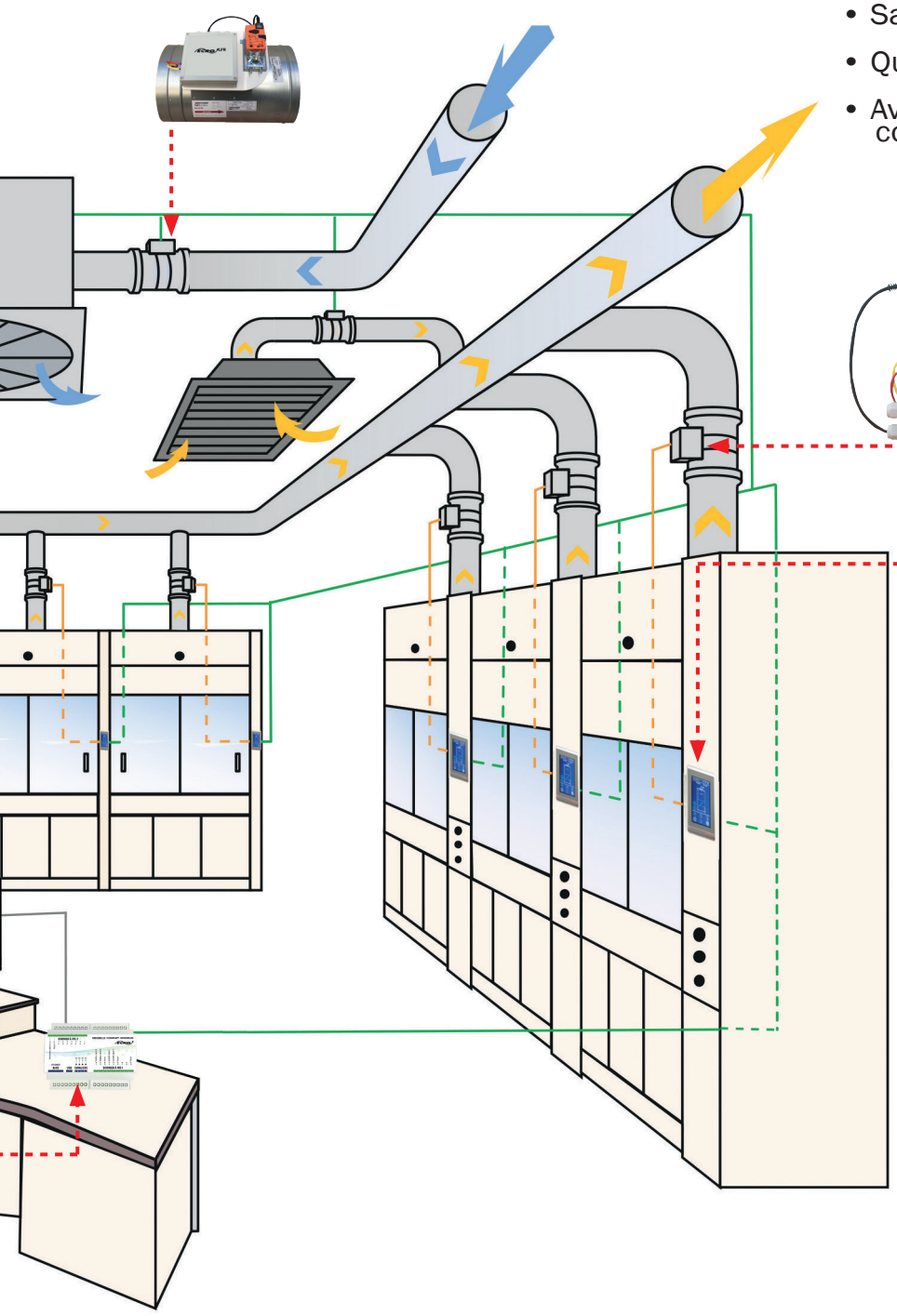
Ref. : (E-LFR)

- Air compensation management
- Temperature management
- Communicating
- PVC or galvanised steel

Fume hood controller

Ref. : (E-RV) - (E-RD)

- Speed / flow control
- Compliant with the following standards: EN 14175 & XP 15206
- Communicating
- Motorisation of windows
- Safety system
- Quick register
- Available with standard or touchscreen control



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ECRO MASTER

centralise the monitoring and control of your touch-control fume hoods

Ref.: (E-MASTER4)

- Monitoring of fume hoods

- Remote control and supervision of your fume hoods (compatible with the E-RV.ET RD.ET versions)

Fume hood management:

Each fume hood is controlled by ECRO RV-E or RD-E electronics. This product range is based on a hot wire anemometer and a measuring cross. Compliant with standards XPX 15-203 and 14-175 , it offers all the advantages of a digital measuring device. A touchscreen version of the HMI is available. Delivered calibrated, once it is switched on, this range allows you to control and regulate air speeds with precision and efficiency as well as flow rates. Each system will communicate all the information about the fume hood via its bus.

MOULDED POLYPROPYLENE SINKS

3 colors

RAL 9016

RAL 7032

RAL 9005

White

EQ-CPP1530B
Dimensions 150 x 300 mm
Grill included

EQ-CPP3030B
Dimensions 300 x 300 mm
Grill included

EQ-CPP4545B
Dimensions 450 x 450 mm
Grill, plug and overflow
included

EQ-CPP4560B
Dimensions 450 x 600 mm
Grill, plug and overflow
included

Grey silex

EQ-CPP1530G
Dimensions 150 x 300 mm
Grill included

EQ-CPP3030G
Dimensions 300 x 300 mm
Grill included

EQ-CPP4545G
Dimensions 450 x 450 mm
Grill, plug and overflow
included

EQ-CPP4560G
Dimensions 450 x 600 mm
Grill, plug and overflow
included

Black

EQ-CPP1530N
Dimensions 150 x 300 mm
Grill included

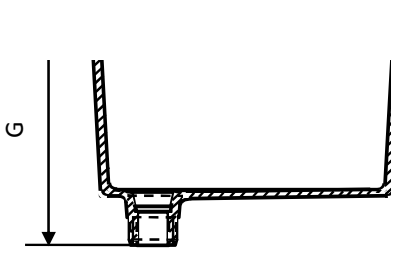
EQ-CPP3030N
Dimensions 300 x 300 mm
Grill included

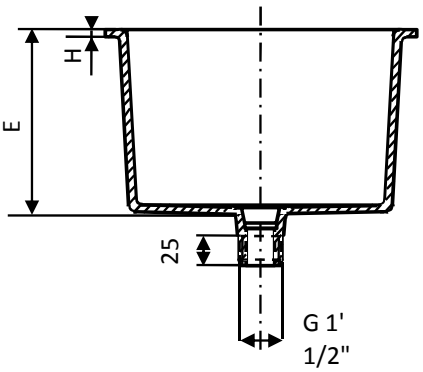
EQ-CPP4545N
Dimensions 450 x 450 mm
Grill, plug and overflow
included

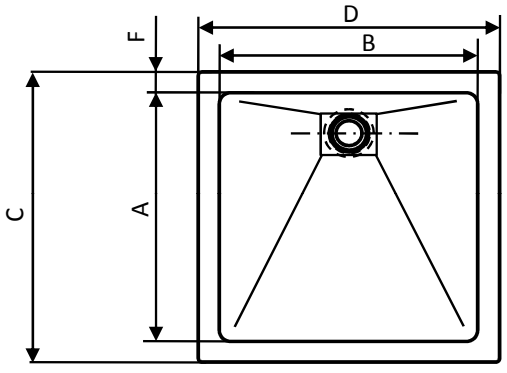
EQ-CPP4560N
Dimensions 450 x 600 mm
Grill, plug and overflow
included

NEW : Want a unique colour ? Yes, we can do, please send us your request !

Siphon in black
PP optionnaly







SINKS / DIMENSIONS (mm)	A	B	C	D	E	F	G	H
15 X 30	114	264	150	300	110	18	156	8
30 X30	298	298	350	350	206	26	251	8
45 X 45	380	380	456	456	220	38	265	10
45 X 60	378	538	456	610	313	38	359	10

AIR TREATMENT SCRUBBERS AND CAPTURE ARMS

capture arms

Gas scrubbing tower

3 *JOINT ALUMINIUM* EXTRACTION ARM
Ceiling & Wall mount 75 Ømm

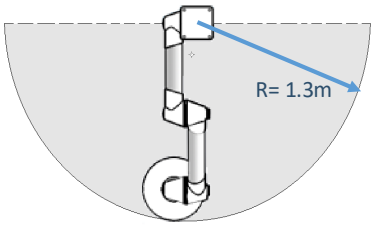
Product description

This extraction equipment is ideal for the capture of dust, fumes, vapours and gases on workstations. It is suitable for a working environment in contact with various corrosive volatile substances. It can extract toxic gas, smoke, dust and purify air quality. Avoid contact between toxic susbstaces and the human body, and protect the health of users. This exhaust arm must be combined with a fan or ventilation system.

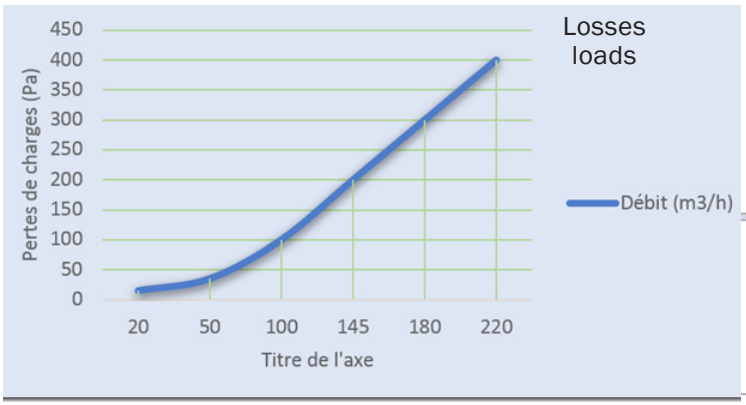
Reference	Technical description	Bras	Articulation
B-3AALUFP75	Arm - Ceiling mount	Aluminium	PP
EB-3AALUFM75	Arm - Wall mounting	Aluminium	PP

Technical description:

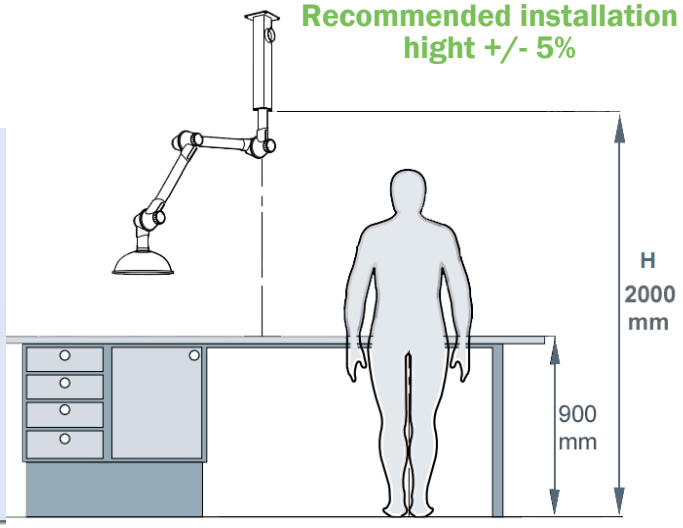
Pipe diameter	Φ 75 mm
Gas hood diameter	Φ 365 mm
Nominal exhaust capacity	200 m3/h
Angle de tension max du corps principal	135°
Effective radius coverage of dome hood	R1240 mm
Outlet diameter	Φ 100 male
Total length of fixed bracket	925 mm
The distance from the ceiling to the countertop	+/- 2300 mm

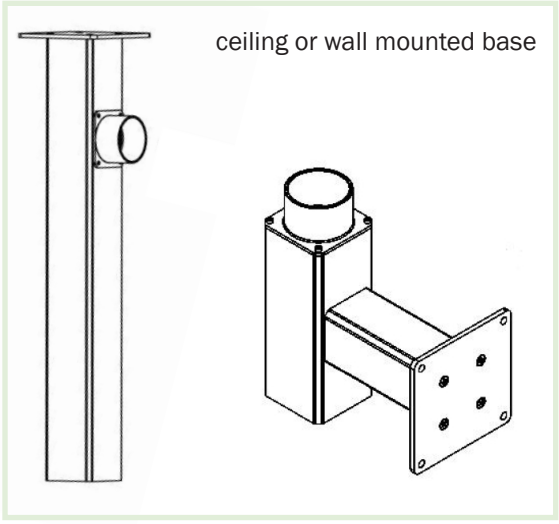


2.5m working field



Recommended installation hight +/- 5%





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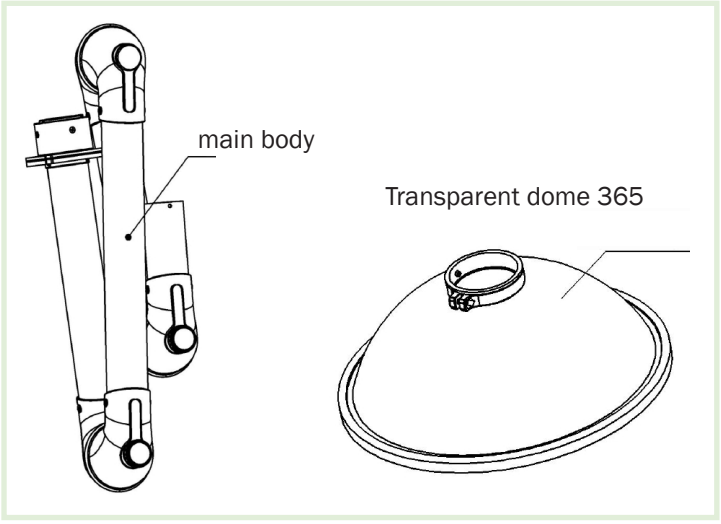
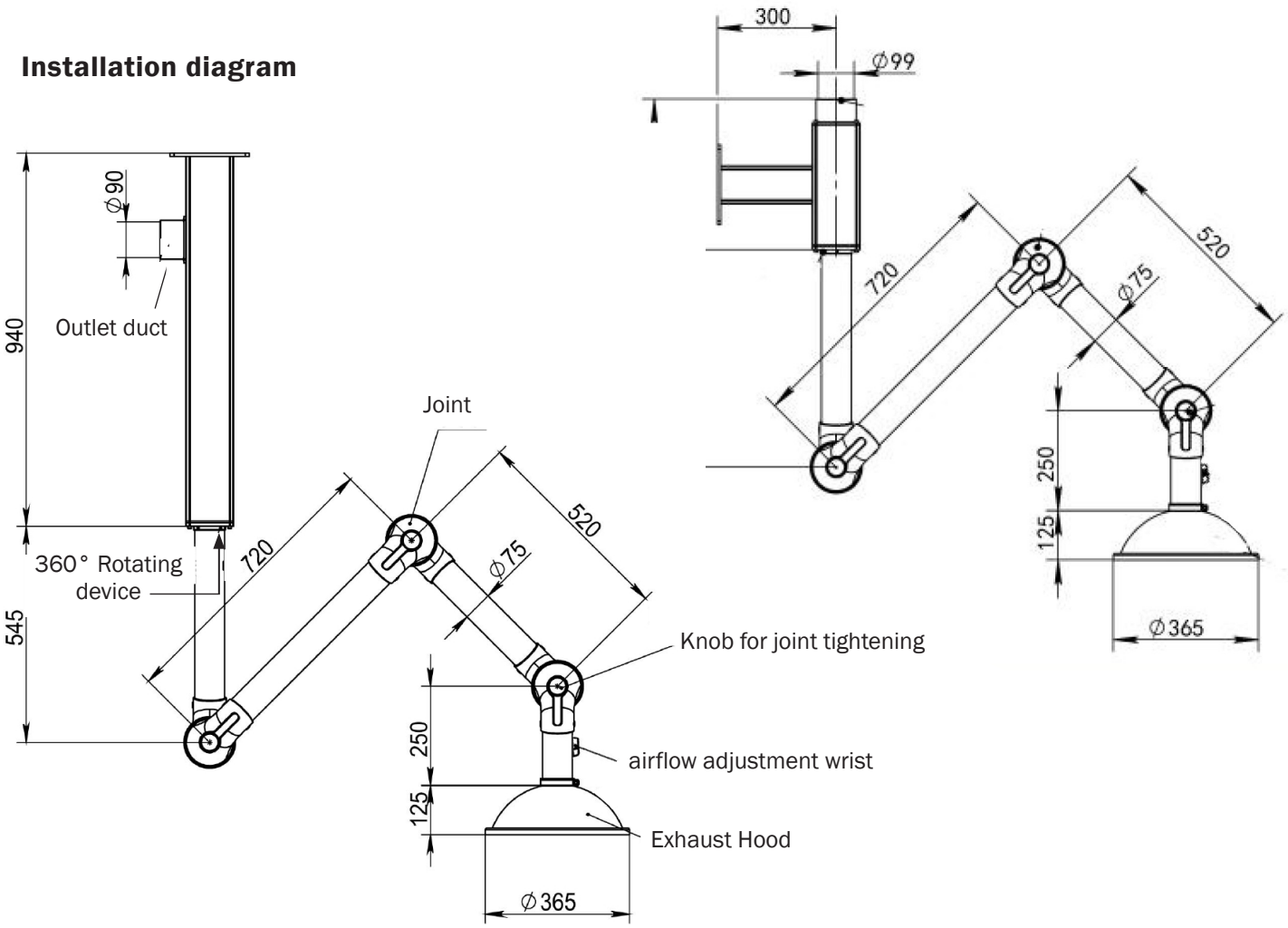


Installation diagram



Packing including:
- 1 main smoke exhaust body
- 1 transparent dome, diameter 365mm
- 1 mounting bracket

Screws included:
- 1 allen key 5mm (wall version only)
- 1 allen key 6mm
- 4 socket head screws M6 x 35
- 4 socket head screws M8 x 30 (wall version only)
- 4 cruciform screws

GAS SCRUBBING TOWER

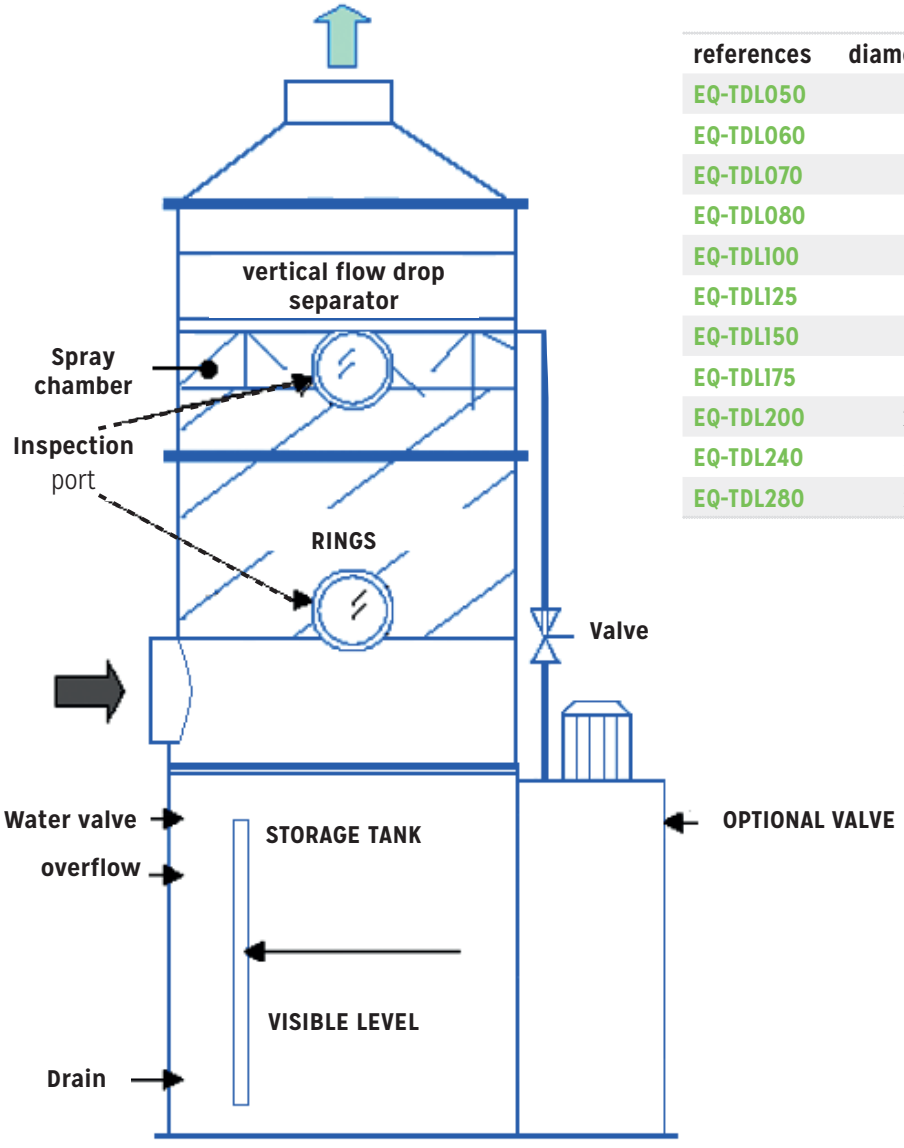
(Wet process treatment for air or gas)

The scrubbing tower (gas scrubber) removes the pollutants contained in the air or in a gas.
It is ideal for processing waste air in water treatment plants, waste management plants, and for pollution control of stack exhaust emissions in the chemical, biochemical, pharmaceutical or metallurgical industry. Scrubbing towers are also used in the surface treatment and processing industry.

Custom manufactured to your project's specifications

- Flow rate from 1000 to 34,000 m3/h
- Material PP, PP/V, PVDF or PVC Indoor or outdoor installation
- Available for ATEX zones

Operating principle



MODELS

references	diameter (mm)	Height (mm)	Flow rate range
EQ-TDL050	500	3300	200 - 500
EQ-TDL060	600	3450	1000 - 1500
EQ-TDL070	700	3500	1600 - 2000
EQ-TDL080	800	3500	2200 - 2800
EQ-TDL100	1000	4000	3000 - 4500
EQ-TDL125	1250	4200	4750 - 6500
EQ-TDL150	1500	4220	7000 - 9000
EQ-TDL175	1750	4220	9500 - 12000
EQ-TDL200	2000	4400	14000 - 18000
EQ-TDL240	2400	5100	20000 - 240000
EQ-TDL280	2800	6100	26000 - 340000

AIR EXTRACTION

Exhaust plastic fans

P *serie* EC *high efficiency fans*

The reduced power consumption of the high efficiency EC motor directly translates to savings. Choose from our diverse selection of Centrifugal EC fans.

The aeraulic characteristics of the fans remain the same as the standard fans. The footprints are almost the same as the standard versions. Single-phase 230V power supply Variation range from 300 to 3600 rpm

Available in Atex version cat. 3G
EC motors available in other fan series

Variable speed per potentiometer or 0-10V control signal

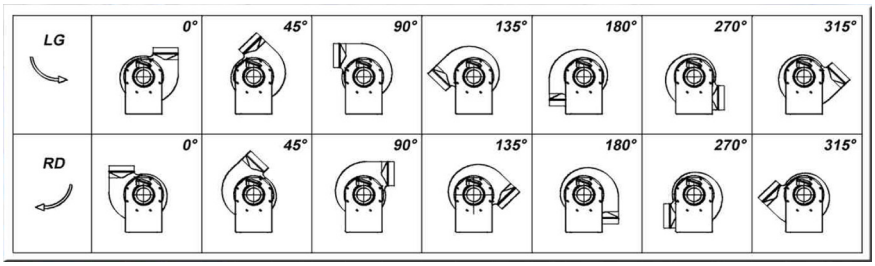
Venplast

High efficiency plastic exhaust fans

230 v single phase

300 à 3600 Tr/min

ATEX CAT. 3G



Handings table

Table of dimensions of EC motors

References	Power motor	Voltage max (A)	RPM min	RPM max
V-P20IM	0,45	3,20	300	3600
V-P22IM			300	3600
V-P25IM			300	3600
V-P28IM			300	2500
V-P28IM	0,90	5,16	300	3200
V-P31IM			300	2500
V-P31IM	1,2	6,00	300	2800
V-P35IM			300	2150
V-P40IM			300	1750
V-P45IM			300	1500

Table of dimensions of EC motors

References	Power motor	Voltage max (A)	RPM min	RPM max
V-PC20IM	0,45	3,20	300	3600
V-PC25IM			300	3000
V-PC28IM			300	2300
V-PC25IM	0,90	5,16	300	3600
V-PC28IM			300	3100
V-PC31IM	1,2	6,00	300	2500
V-PC40IM			300	1750

Available options: ● Volute in PP - PP el - PE es - PE el - PVC ●Turbine in PP el - PVC Engine support in PE

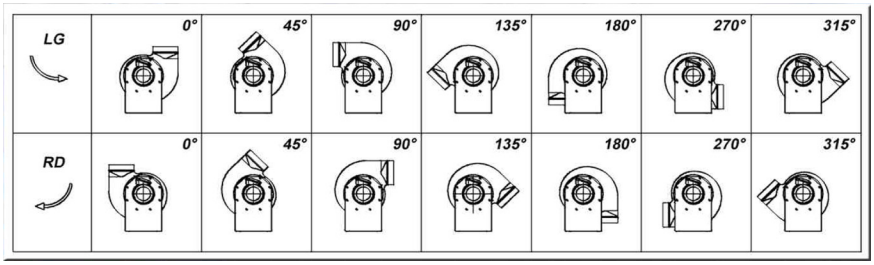
P/ P-CO *Centrifugal fans serie*

Applications: ventilation of laboratory chemical and corrosive products

Complete range of PP exhaust fans mounted on metal support or in roof version, equiped with a high efficiency backward curved impeller. All the models are perfectly adapted for the ventilation of laboratory fume hoods, stocking zones or chemical products stocking bacs.

Venplast

- m^3/h AIRFLOW from 150 to 7000 CMH
- Housing 100% PE constrcution
- Backward curved PP impeller
- Metal stand in steel epoxy painted
- Ex ATEX Available in ATEX version



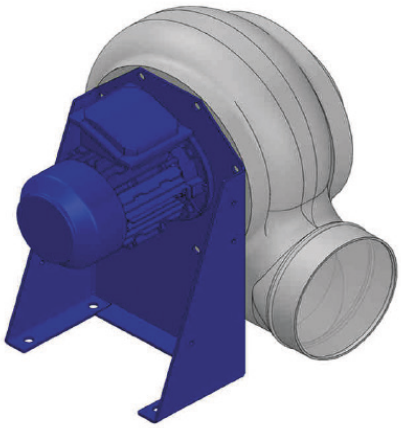
Handings table

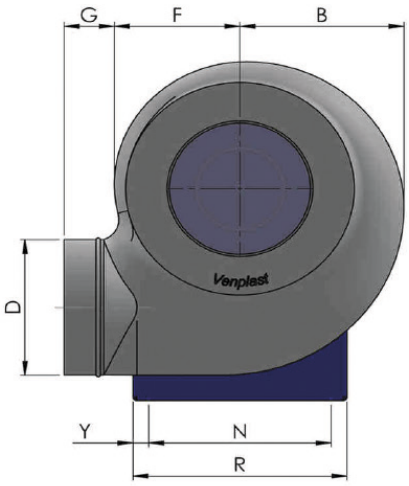
Ps. Pa	Diagram of P - PT - PCO series													
2.500														
2.000														
1.750														
1.500														
1.250														
1.000														
750														
500														
250														
100														
50														
m³/h	200	300	500	700	1.000	1.500	2.000	2.500	3.000	3.500	4.000	4.500	6.000	8.000

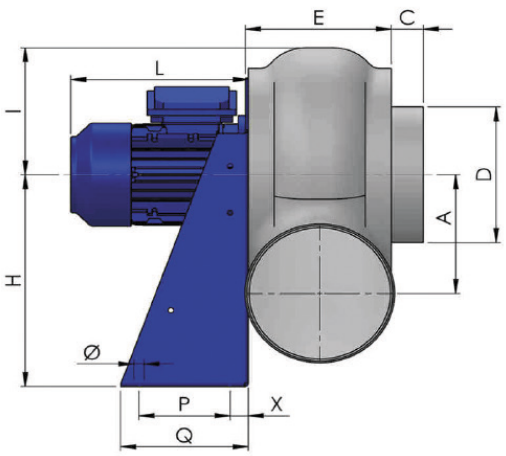
Available options: ● Housing moulded in PP-PP el-PE es-PVC ● Impeller in PP el-PVC ● Motor support in PE-Stainless steel
Available in Transmission version (PT serie) and in Roof version (PCO serie)

Series **P** 20 - 22- 25 - 28 - 31 - 35 - 40 - 45

Serie P Dimensional



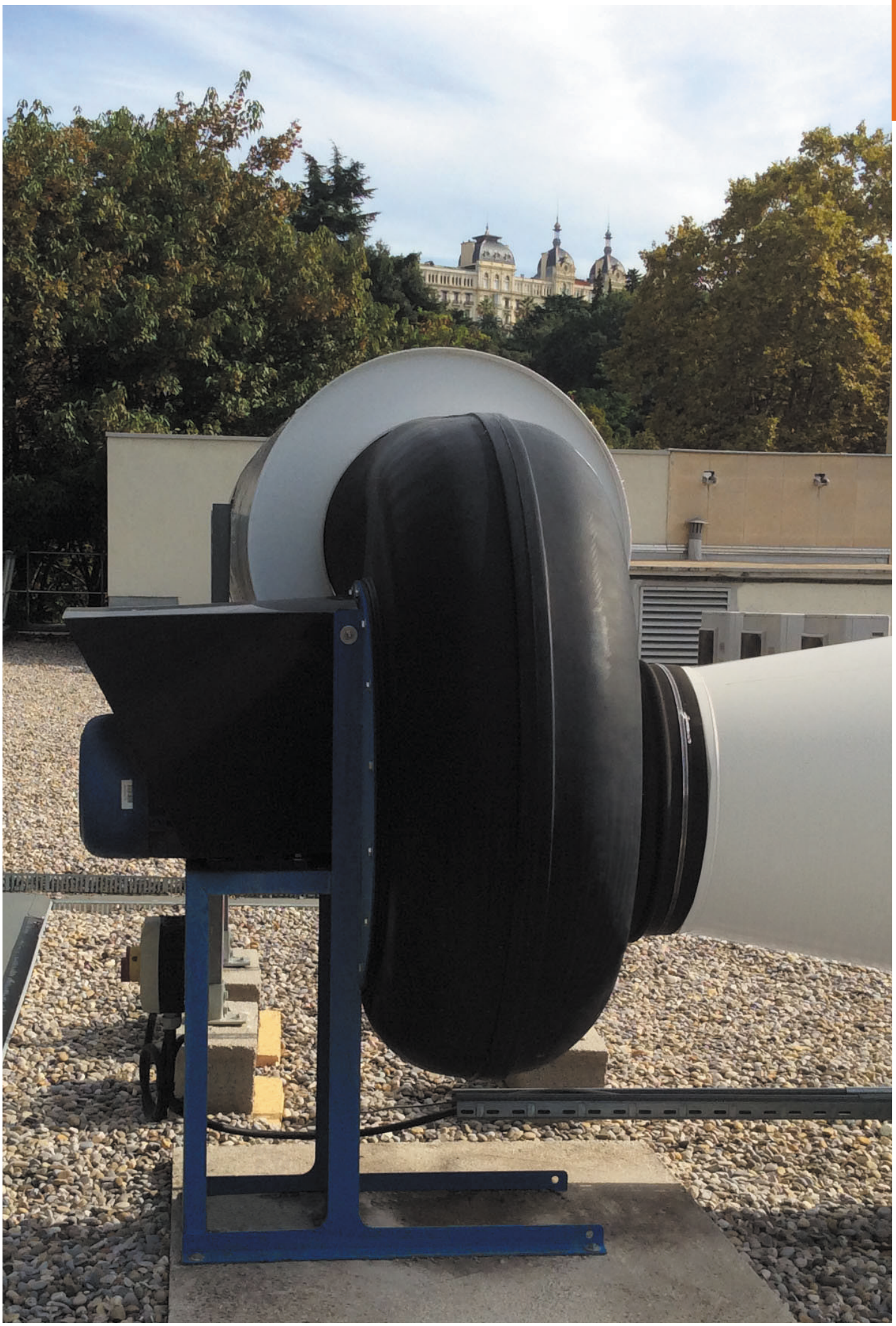




P Series Dimension Chart

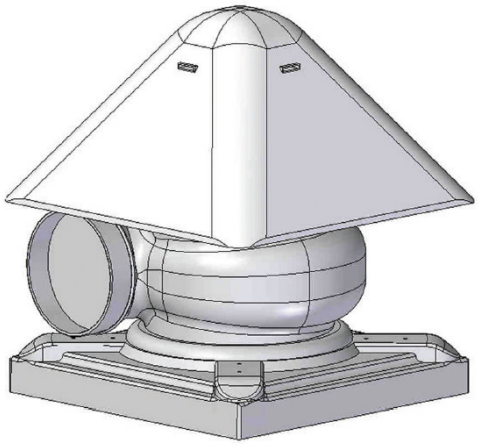
Type	Mot. Gr. Size	Mot Kw	T/mn Rpm	A	B	C	D	E	F	G	H	I	L	N	P	Q	R	Y	X	Ø	Kg *	Kg **
P 204	63	0,12	1370	140	180	35	160	160	138	55	250	150	190	200	100	140	235	17,5	20	11	9	12
P 202	63	0,18	2750	140	180	35	160	160	138	55	250	150	195	200	100	140	235	17,5	20	11	9	12
P 224	63	0,12	1370	173	228	35	200	185	170	55	310	190	190	255	100	140	290	17,5	20	11	10	14
P 222	63	0,25	2800	173	228	35	200	185	170	55	310	190	210	225	100	140	290	17,5	20	11	13	16
P 254	63	0,12	1370	173	228	35	200	185	170	55	310	190	190	255	100	140	290	17,5	20	11	10	14
P 252	71	0,37	2800	173	228	35	200	185	170	55	310	190	220	255	100	140	290	17,5	20	11	13	15
P 284	63	0,18	1370	208	255	40	225	195	190	70	350	210	190	280	120	190	316	18	35	11	14	17
P 282	80	0,75	2850	208	255	40	225	195	190	70	350	210	240	280	120	190	316	18	35	11	19	21
P 316	71	0,18	930	240	280	40	250	200	210	70	410	230	210	320	150	230	355	17,5	40	11	19	22
P 314	71	0,25	1400	240	280	40	250	200	210	70	410	230	220	320	150	230	355	17,5	40	11	19	22
P 312	90	1,5	2850	240	280	40	250	200	210	70	410	230	290	320	150	230	355	17,5	40	11	26	30
P 356	71	0,18	930	260	312	40	280	237	230	55	445	270	210	355	150	230	390	17,5	40	11	23	25
P 354	71	0,37	1400	260	312	40	280	237	230	55	445	270	220	355	150	230	390	17,5	40	11	23	25
P 352	90	2,2	2870	260	312	40	280	237	230	55	445	270	290	355	150	230	390	17,5	40	11	32	36
P 406	71	0,25	920	290	356	40	315	252	264	55	495	295	220	325	170	250	365	20	40	11	30	32
P 404	80	0,55	1410	290	356	40	315	252	264	55	495	295	240	325	170	250	365	20	40	11	33	35
P 402	112	4	2850	290	356	40	315	252	264	55	495	340	330	325	240	315	365	20	40	11	57	70
P 452	132	5,5	2850	324	400	40	355	287	295	55	550	330	415	370	270	340	410	20	40	11	75	105
P 456	80	0,37	920	324	400	40	355	287	295	55	550	330	240	370	170	250	410	20	40	11	37	39
P 454	90	1,1	1410	324	400	40	355	287	295	55	550	330	290	370	170	250	410	20	40	11	40	44

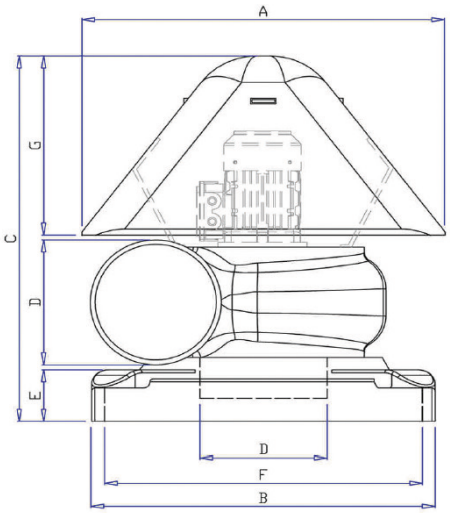
* IP55 motor weight included ** Atex motor weight included



PCO *Serie 20 - 22- 25 - 28 - 31 - 35 - 40 - 45*
P *series fans in roof version with horizontal discharge*

DRAWING

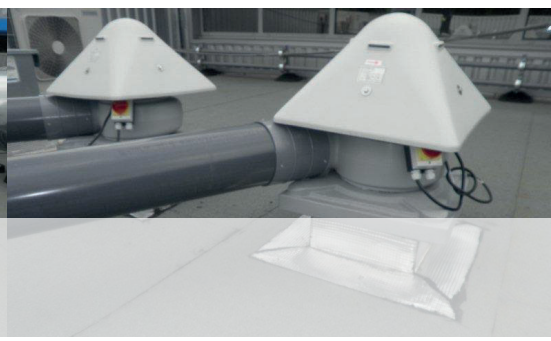




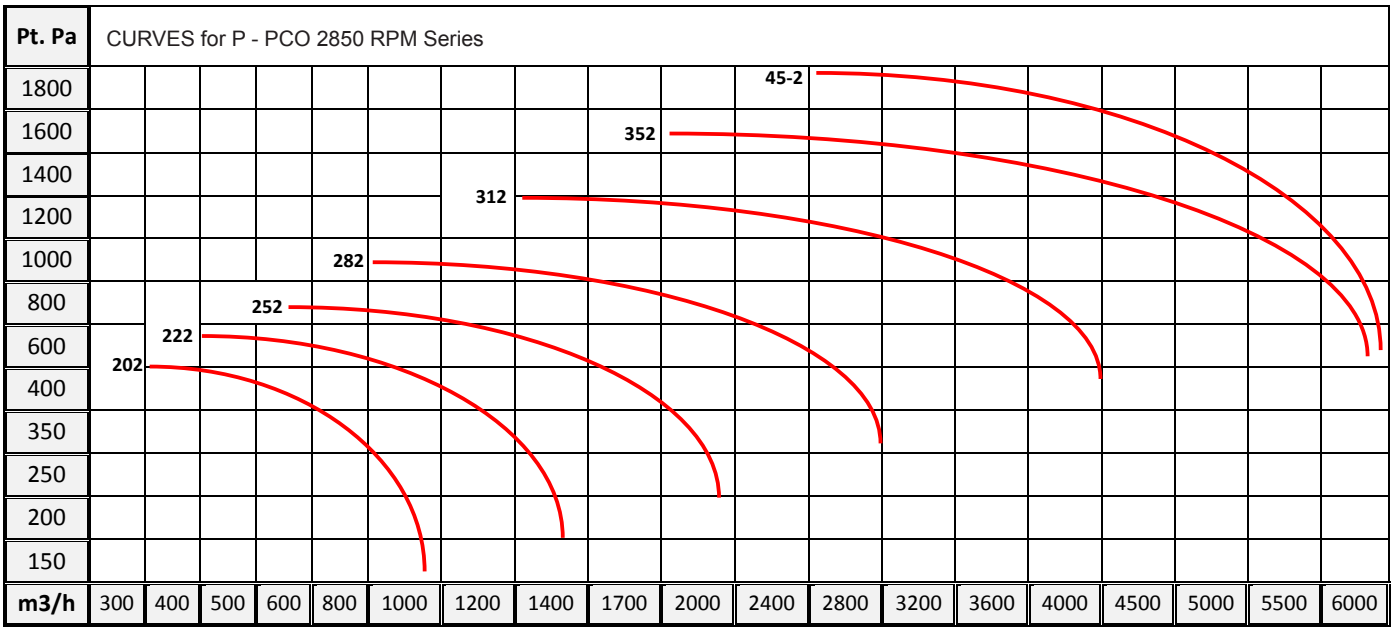
Dimensions

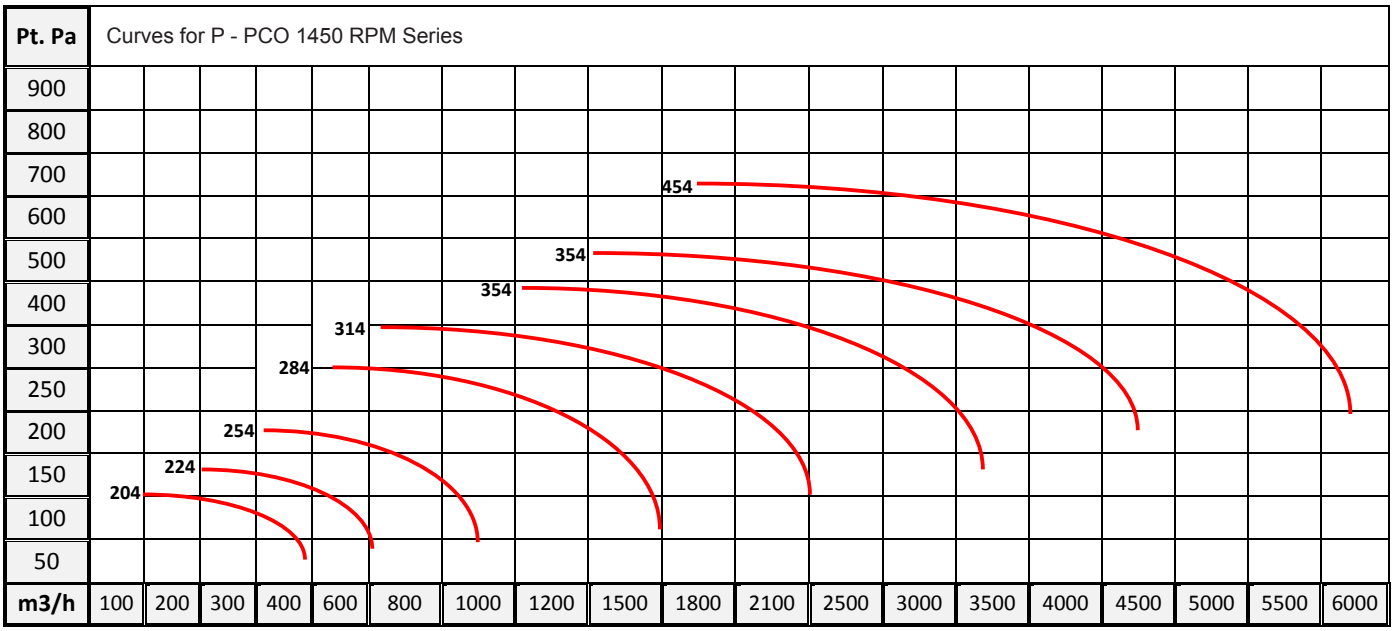
Type	Mot.Gr. Size	Mot. Kw	T/mn Rpm	A	B	C	D	E	F	G	Kg *	Kg **
PCO 202	63	0,18	2750	570	540	550	160	85	500	320	15	23
PCO 204	63	0,12	1450	570	540	550	160	85	500	320	15	23
PCO 222	63	0,25	2800	570	540	580	200	85	500	320	19	26
PCO 224	63	0,12	1370	570	540	580	200	85	500	320	16	24
PCO 252	71	0,37	2800	570	540	580	200	85	500	320	19	26
PCO 254	63	0,12	1370	570	540	580	200	85	500	320	16	24
PCO282	80	0,75	2850	570	540	600	225	85	500	320	25	39
PCO 284	63	0,18	1370	570	540	600	225	85	500	320	20	29
PCO 312	90	1,50	2850	660	540	610	250	85	500	360	32	51
PCO 314	71	0,25	1400	660	540	610	250	85	500	360	25	36
PCO 316	71	0,18	930	660	540	610	250	85	500	360	25	36
PCO 352	90	2,20	2870	660	750	640	280	85	700	360	38	57
PCO 354	71	0,37	1400	660	750	640	280	85	700	360	29	40
PCO 356	71	0,18	930	660	750	640	280	85	700	360	29	40
PCO 404	80	0,55	1410	660	750	685	315	145	700	360	42	56
PCO 406	71	0,25	920	660	750	685	315	145	700	360	39	50
PCO 454	90	1,10	1410	660	750	710	355	145	700	360	49	70
PCO 456	80	0,37	920	660	750	710	355	145	700	360	46	60

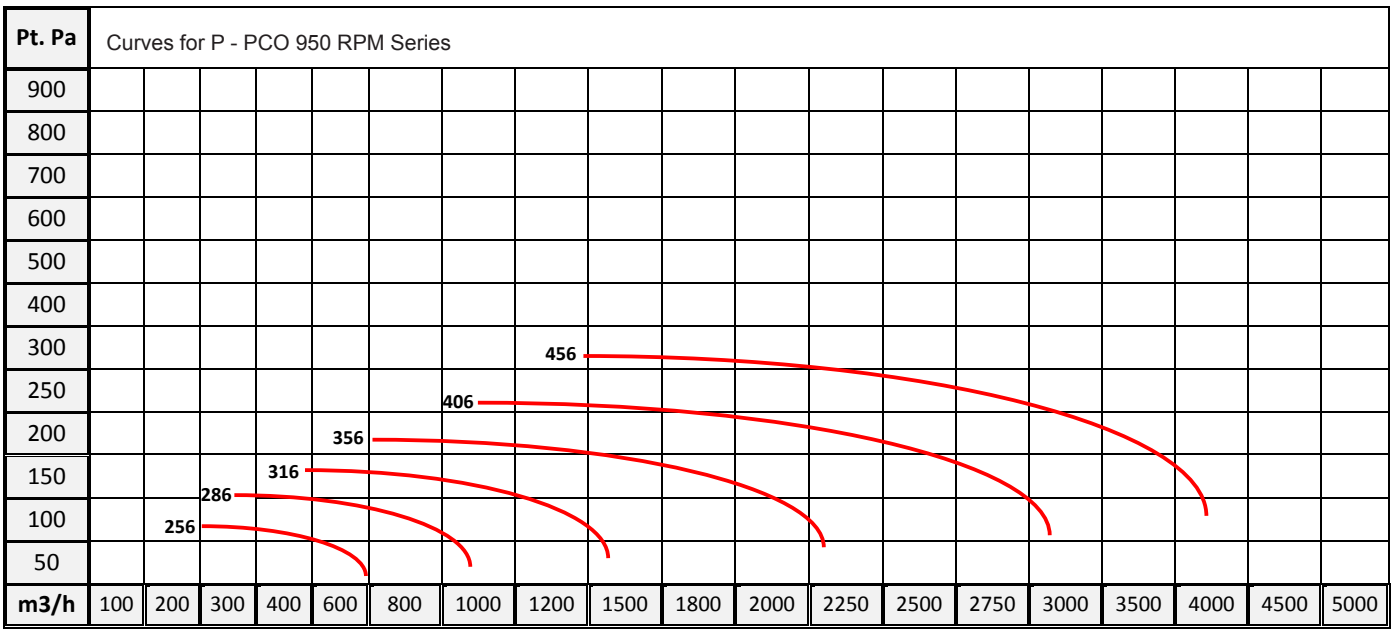
*IP55 standard motor weight included **ATEX motor weight included



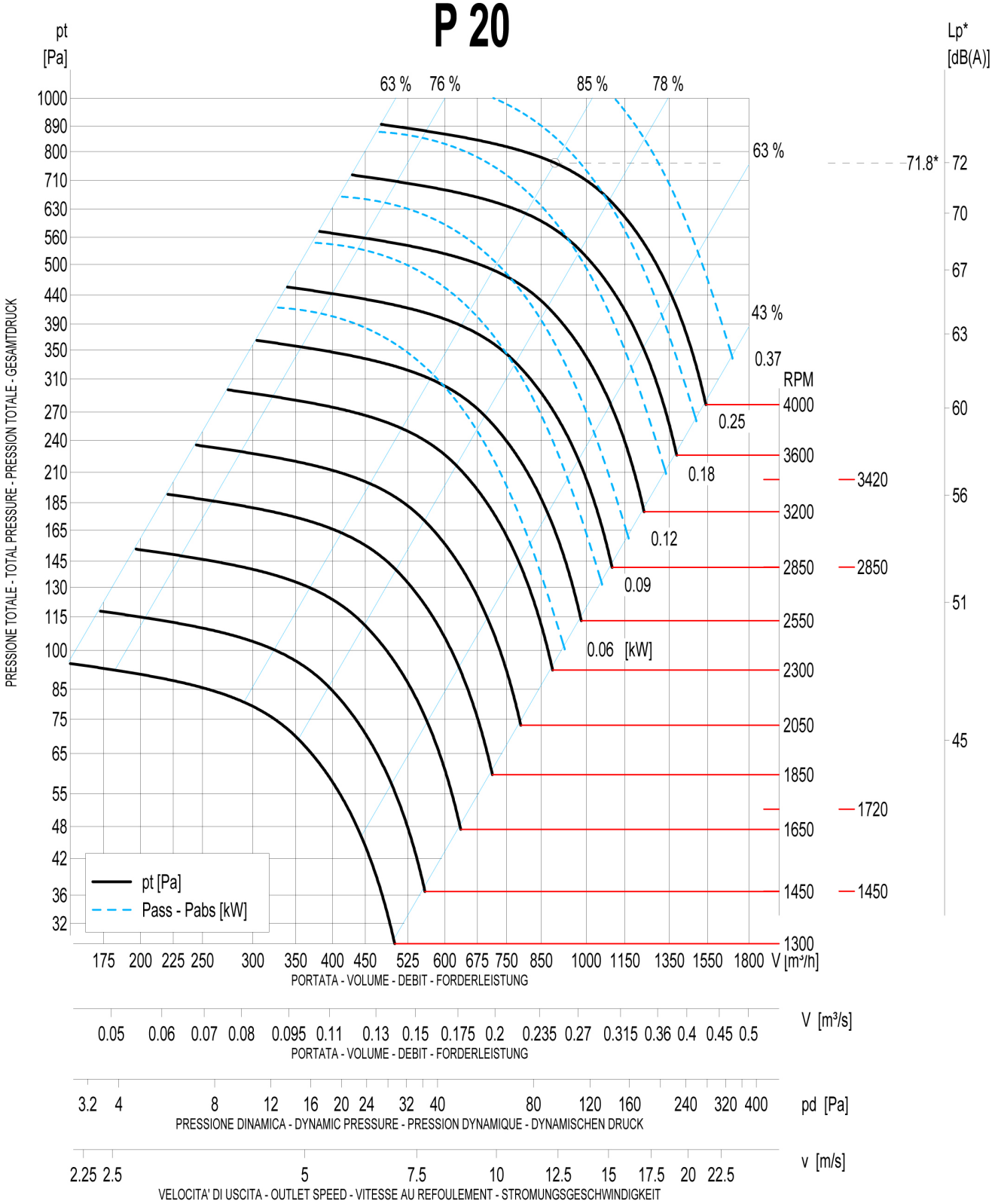
Curves series **P - PCO**







P 20



Livello potenza sonora totale - Total sound power level - Gesamt schalleistungspegel - Niveau totale de puissance sonore - [dB] *									
RPM	Banda d'ottava - Octave band - Oktav-Band - Bande d'octave [Hz]								Lp*
	63	125	250	500	1000	2000	4000	8000	dB(A)
1450	62.3	64.3	65.3	60.3	59.3	54.3	46.3	38.3	49
1720	66.1	68.1	69.1	64.1	63.1	58.1	50.1	42.1	53
2000	69.5	71.5	72.5	67.5	66.5	61.5	53.5	45.5	56
2850	77.3	79.3	77.3	78.3	74.3	69.3	61.3	53.3	64.7
3420	81.3	83.3	81.3	82.3	78.3	73.3	65.3	57.3	68.7

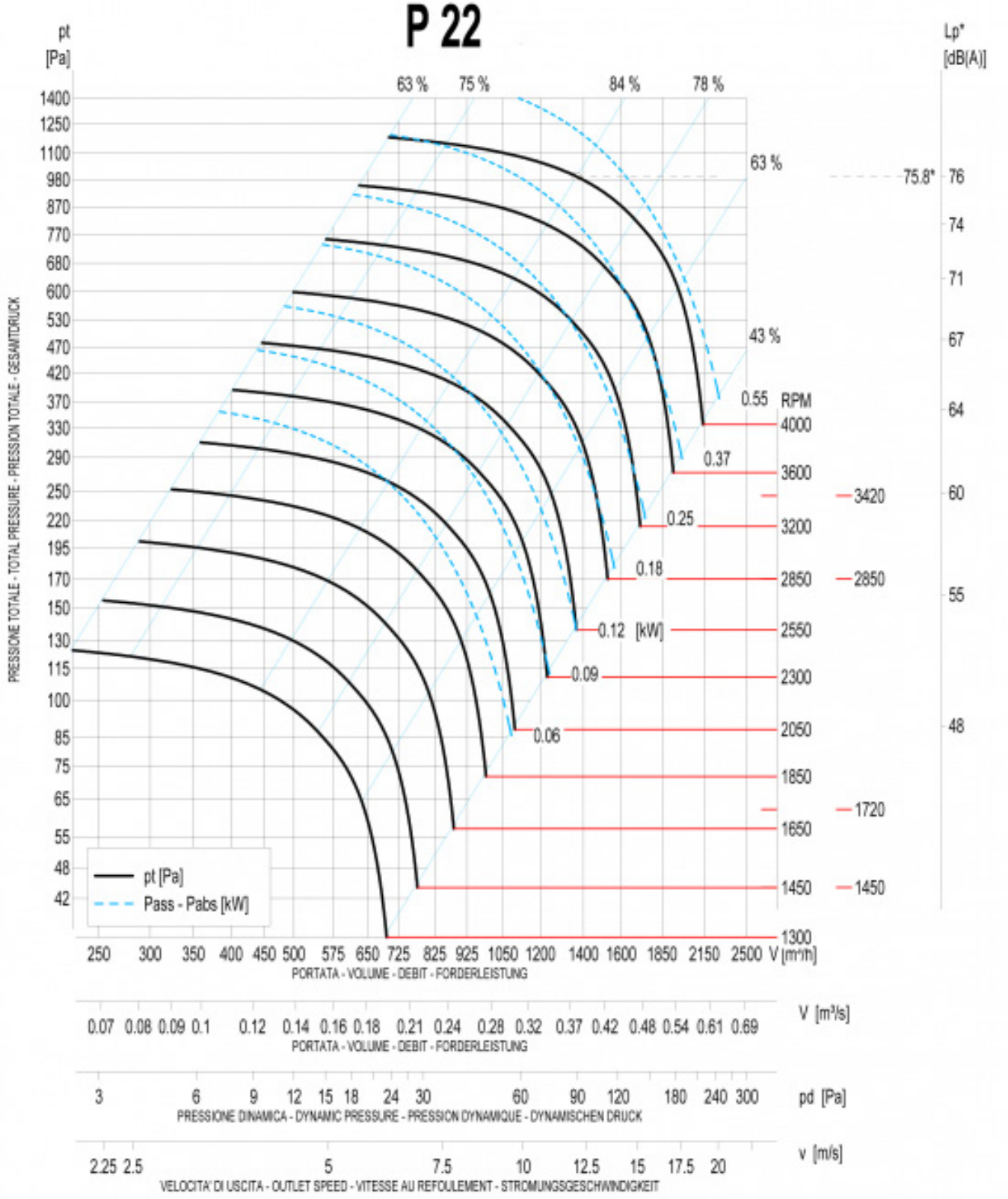
(*) Al massimo rendimento - At max. efficiency - (Distanza-distance-abstand-distance : 1.5 [m])

Temperatura - Temperature - Temperatur - Température : 15 [°] - Densità - Density - Bezugsdichte - Densité : 1.225 [kg/m³]

Tolleranza sulla portata ±5% - Capacity tolerance ±5% - Tolérance sur le débit ±5% - Fördertoleranz ±5%
I valori relativi alla rumorosità sono riferiti ad una misurazione in campo libero,con una tolleranza di +3 dB(A)
Noise values refer to a free field measurement with a tolerance of +3 dB(A)

PD² - WD² - GD² - PD² : 0.003 kgm²

P 22



Livello potenza sonora totale - Total sound power level - Gesamt schalleistungspegel - Niveau totale de puissance sonore - [dB] *									
RPM	Banda d'ottava - Octave band - Oktav-Band - Bande d'octave [Hz]								Lp*
	63	125	250	500	1000	2000	4000	8000	dB(A)
1450	66	68	69	64	63	58	50	42	52.1
1720	69.8	71.8	72.8	67.8	66.8	61.8	53.8	45.8	56.1
2000	73.1	75.1	76.1	71.1	70.1	65.1	57.1	49.1	60
2850	81	83	81	82	78	73	65	57	67.8
3420	85	87	85	86	82	77	69	61	71.8

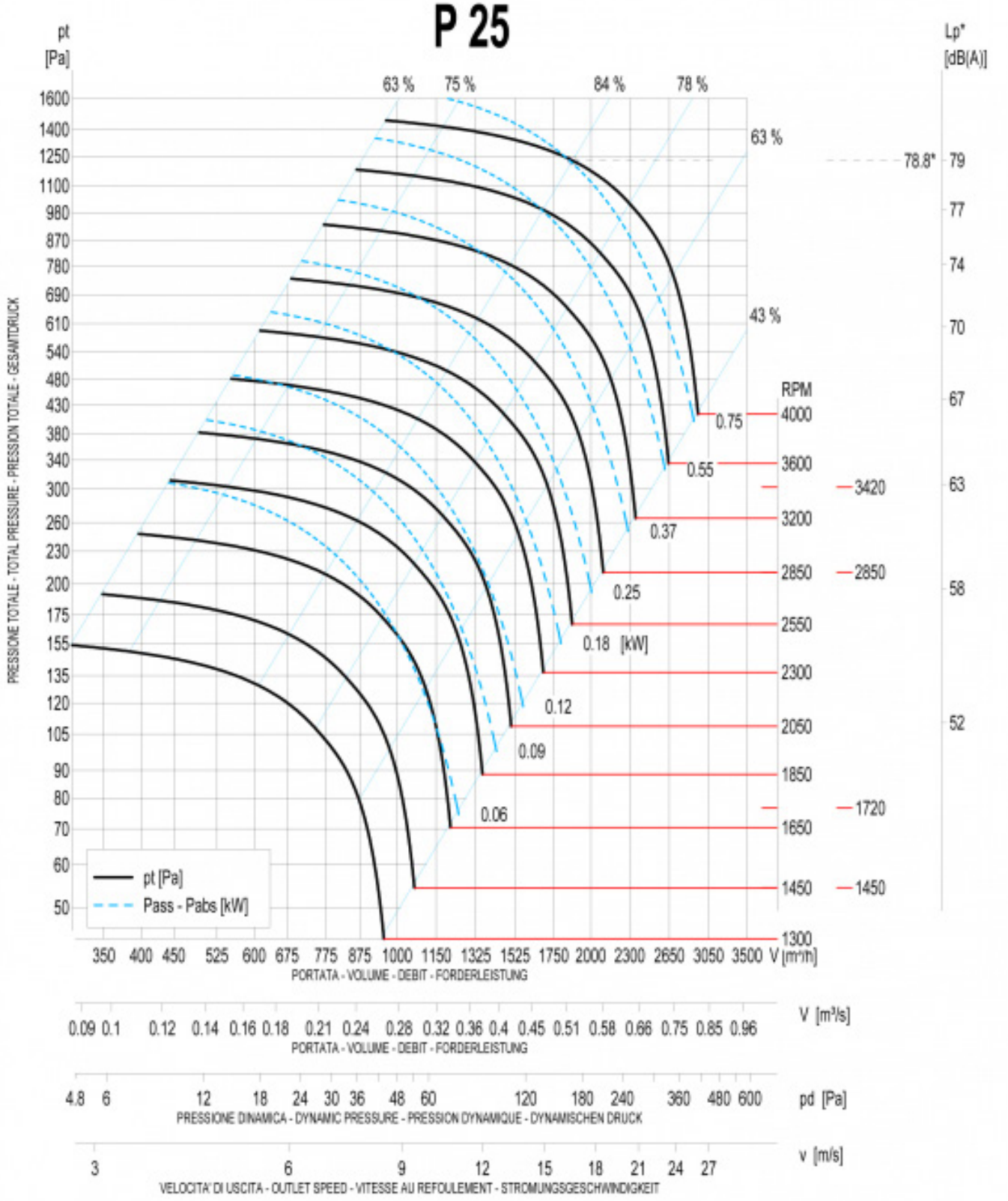
(*) Al massimo rendimento - At max. efficiency - (Distanza-distance-abstand-distance : 1.5 [m])

Temperatura - Temperature - Temperatur - Température : 15 [°] - Densità - Density - Bezugsdichte - Densité : 1.225 [kg/m³]

Tolleranza sulla portata ±5% - Capacity tolerance ±5% - Tolérance sur le débit ±5% - Fördertoleranz ±5%
I valori relativi alla rumorosità sono riferiti ad una misurazione in campo libero,con una tolleranza di +3 dB(A)
Noise values refer to a free field measurement with a tolerance of +3 dB(A)

PD² - WD² - GD² - PD² : 0.008 kgm²

P 25



RPM	Livello potenza sonora totale - Total sound power level - Gesamt schalleistungspegel - Niveau totale de puissance sonore - [dB] * Banda d'ottava - Octave band - Oktav-Band - Bande d'octave [Hz]								Lp*
	63	125	250	500	1000	2000	4000	8000	dB(A)
1450	69.3	71.3	72.3	67.3	66.3	61.3	53.3	45.3	56
1720	73	75	76	71	70	65	57	49	59.1
2000	76.4	78.4	79.4	74.4	73.4	68.4	60.4	52.4	63
2850	84.2	86.2	84.2	85.2	81.2	76.2	68.2	60.2	71.7
3420	88.3	90.3	88.3	89.3	85.3	80.3	72.3	64.3	75.7

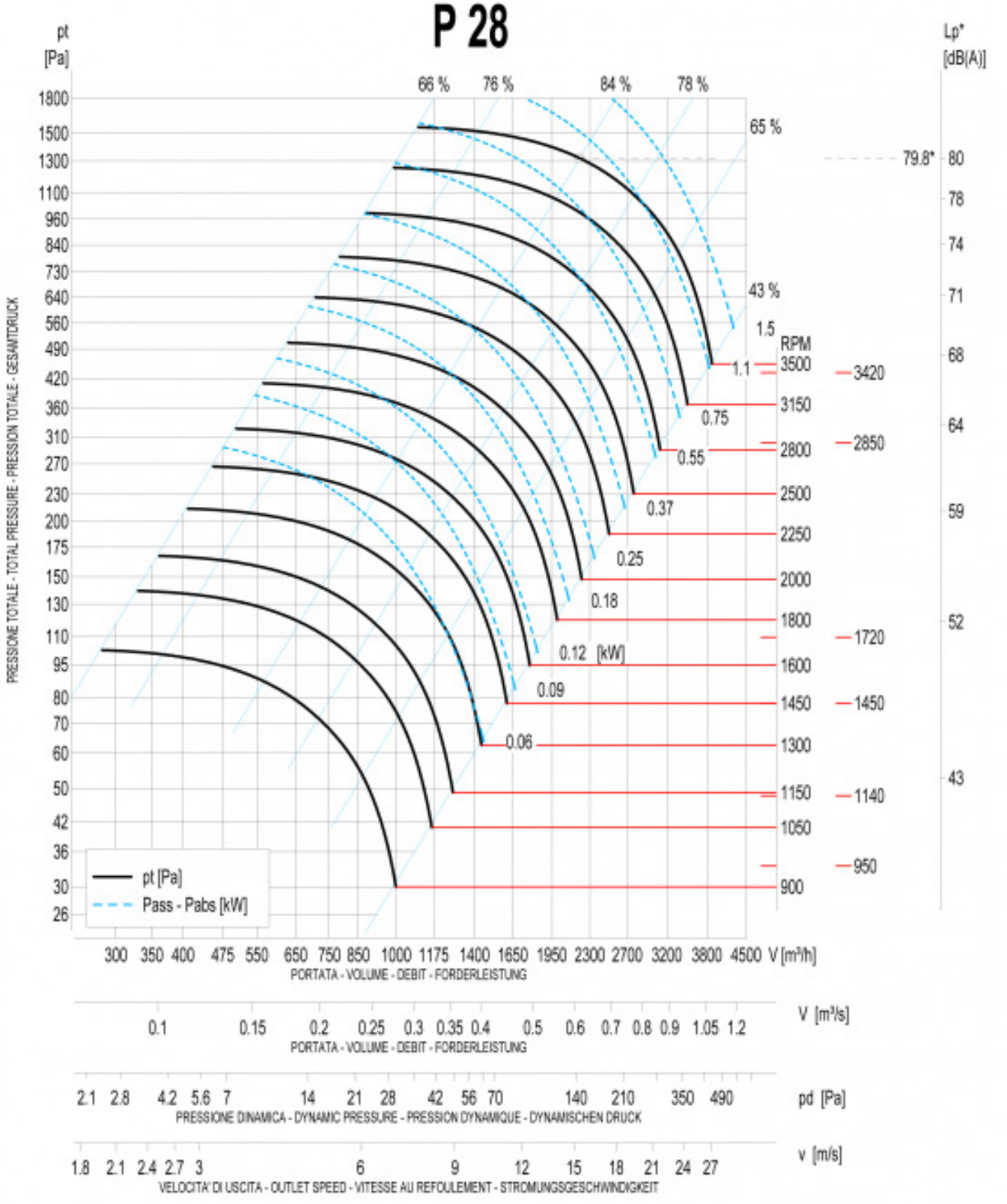
(*) Al massimo rendimento - At max. efficiency - (Distanza-distance-abstand-distance : 1.5 [m])

Temperatura - Temperature - Temperatur - Température : 15 [°] - Densità - Density - Bezugsdichte - Densité : 1.225 [kg/m³]

Tolleranza sulla portata ±5% - Capacity tolerance ±5% - Tolérance sur le débit ±5% - Fördertoleranz ±5%
I valori relativi alla rumorosità sono riferiti ad una misurazione in campo libero,con una tolleranza di +3 dB(A)
Noise values refer to a free field measurement with a tolerance of +3 dB(A)

PD² - WD² - GD² - PD² : 0.008 kgm²

P 28



Livello potenza sonora totale - Total sound power level - Gesamt schalleistungspegel - Niveau totale de puissance sonore - [dB] *

RPM	Banda d'ottava - Octave band - Oktav-Band - Bande d'octave [Hz]								Lp*
	63	125	250	500	1000	2000	4000	8000	dB(A)
900	62.5	67.5	62.5	60.5	59.5	54.5	46.5	38.5	48.8
1140	67.7	72.7	67.7	65.7	64.7	59.7	51.7	43.7	53.9
1450	73	75	76	71	70	65	57	49	59.1
1720	76.8	78.8	79.8	74.8	73.8	68.8	60.8	52.8	63.1
2850	88	90	88	89	85	80	72	64	74.8

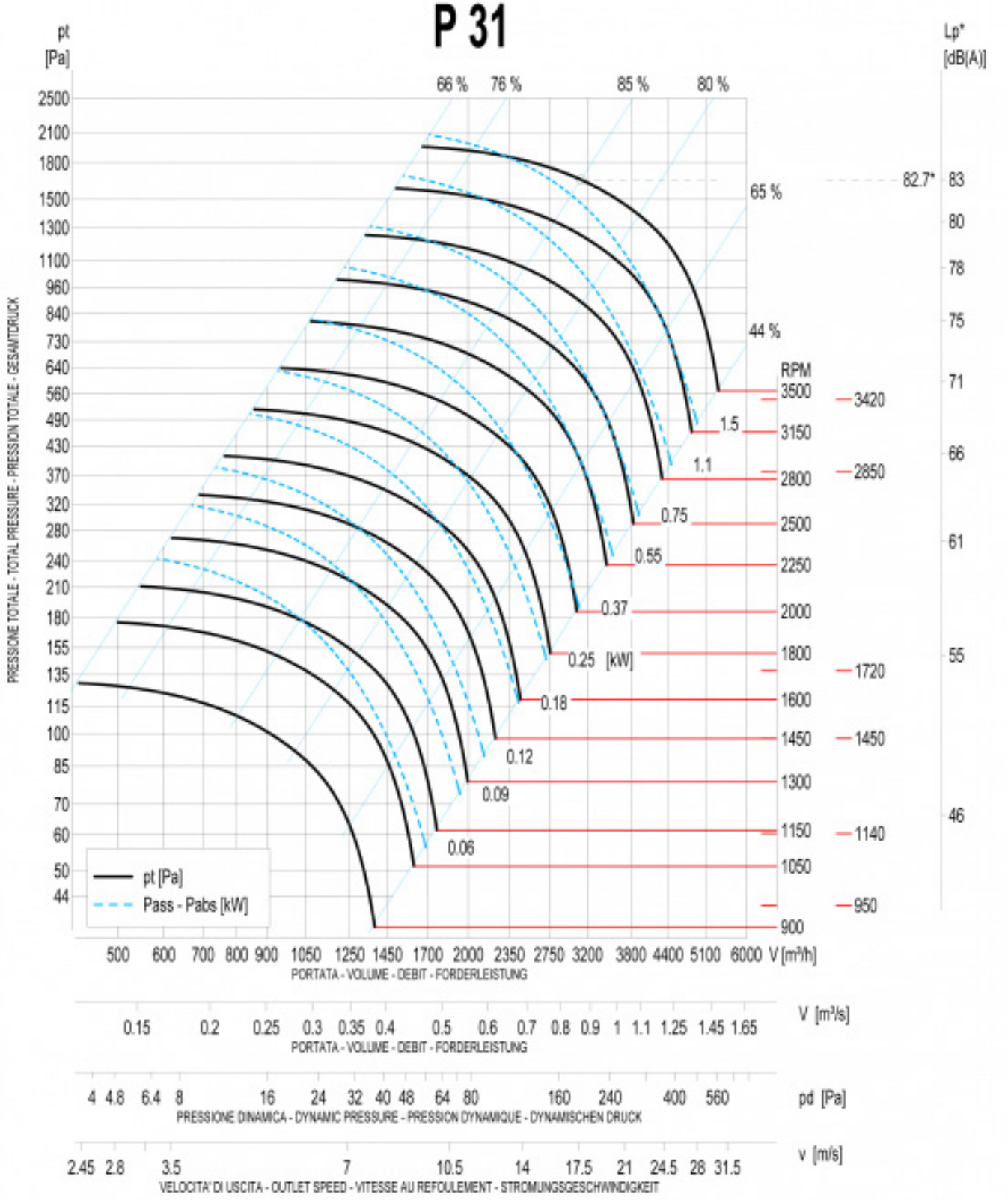
(*) Al massimo rendimento - At max. efficiency - (Distanza-distance-abstand-distance : 1.5 [m])

Temperatura - Temperature - Temperatur - Température : 15 [°] - Densità - Density - Bezugsdichte - Densité : 1.225 [kg/m³]

Tolleranza sulla portata ±5% - Capacity tolerance ±5% - Tolérance sur le débit ±5% - Fördertoleranz ±5%
I valori relativi alla rumorosità sono riferiti ad una misurazione in campo libero,con una tolleranza di +3 dB(A)
Noise values refer to a free field measurement with a tolerance of +3 dB(A)

PD² - WD² - GD² - PD² : 0.017 kgm²

P 31



Livello potenza sonora totale - Total sound power level - Gesamt schalleistungspegel - Niveau totale de puissance sonore - [dB] *									
RPM	Banda d'ottava - Octave band - Oktav-Band - Bande d'octave [Hz]								Lp* dB(A)
	63	125	250	500	1000	2000	4000	8000	
900	65.2	70.2	65.2	63.2	62.2	57.2	49.2	41.2	51.8
1140	70.4	72.4	73.4	68.4	67.4	62.4	54.4	46.4	57
1450	75.7	77.7	78.7	73.7	72.7	67.7	59.7	51.7	62.1
2850	90.7	92.7	90.7	91.7	87.7	82.7	74.7	66.7	77.8
3420	94.7	96.7	94.7	95.7	91.7	86.7	78.7	70.7	81.8

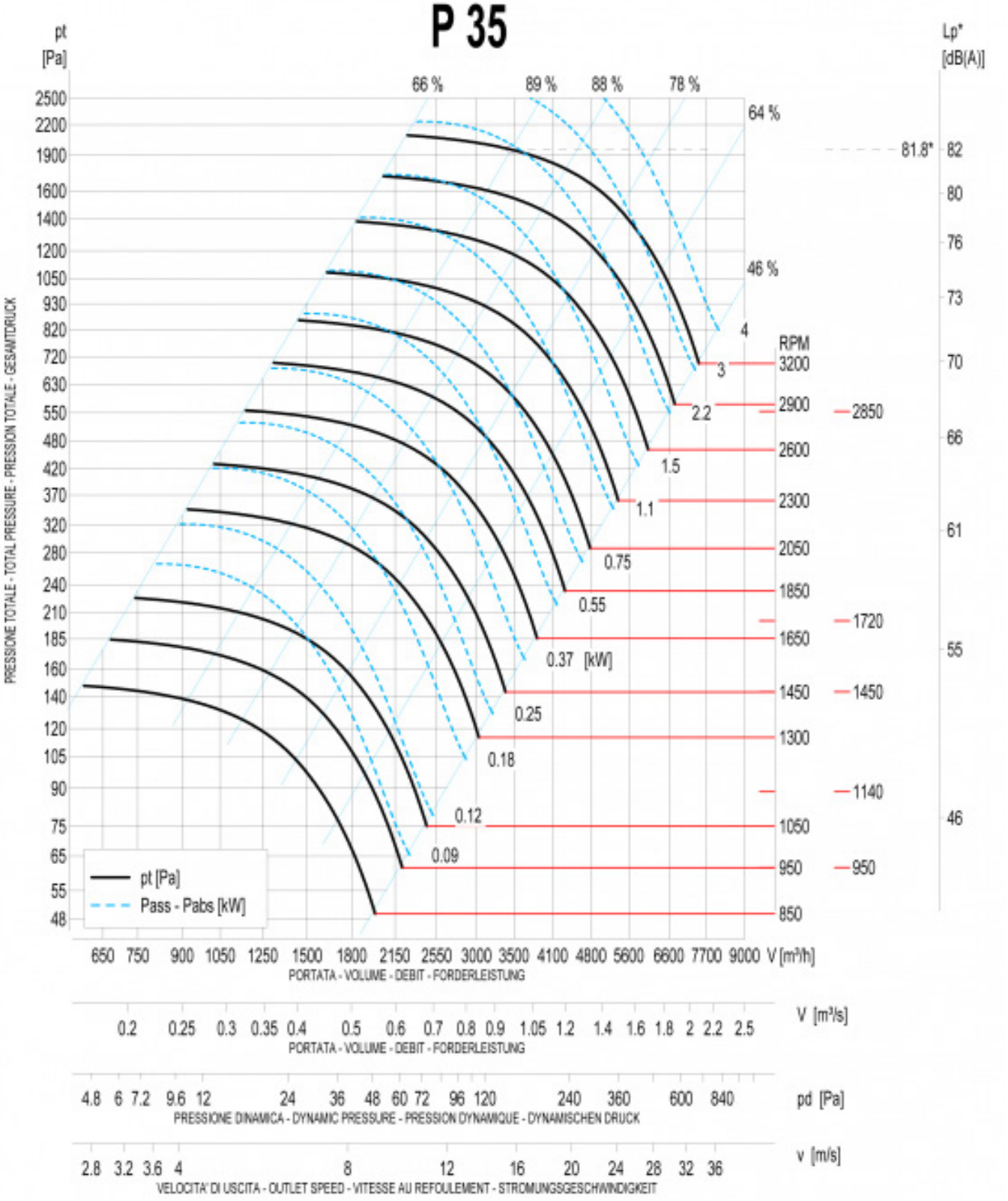
(*) Al massimo rendimento - At max. efficiency - (Distanza-distance-abstand-distance : 1.5 [m])

Temperatura - Temperature - Temperatur - Température : 15 [°] - Densità - Density - Bezugsdichte - Densité : 1.225 [kg/m³]

Tolleranza sulla portata ±5% - Capacity tolerance ±5% - Tolérance sur le débit ±5% - Fördertoleranz ±5%
I valori relativi alla rumorosità sono riferiti ad una misurazione in campo libero,con una tolleranza di +3 dB(A)
Noise values refer to a free field measurement with a tolerance of +3 dB(A)

PD² - WD² - GD² - PD² : 0.026 kgm²

P 35



Livello potenza sonora totale - Total sound power level - Gesamt schalleistungspegel - Niveau totale de puissance sonore - [dB] *

RPM	Banda d'ottava - Octave band - Oktav-Band - Bande d'octave [Hz]								Lp*
	63	125	250	500	1000	2000	4000	8000	dB(A)
900	66.7	71.7	66.7	64.7	63.7	58.7	50.7	42.7	52.9
1140	71.9	76.9	71.9	69.9	68.9	63.9	55.9	47.9	57.9
1450	77.2	79.2	80.2	75.2	74.2	69.2	61.2	53.2	64
2850	92.2	94.2	92.2	93.2	89.2	84.2	76.2	68.2	79.7
3420	96.2	98.2	96.2	97.2	93.2	88.2	80.2	72.2	83.7

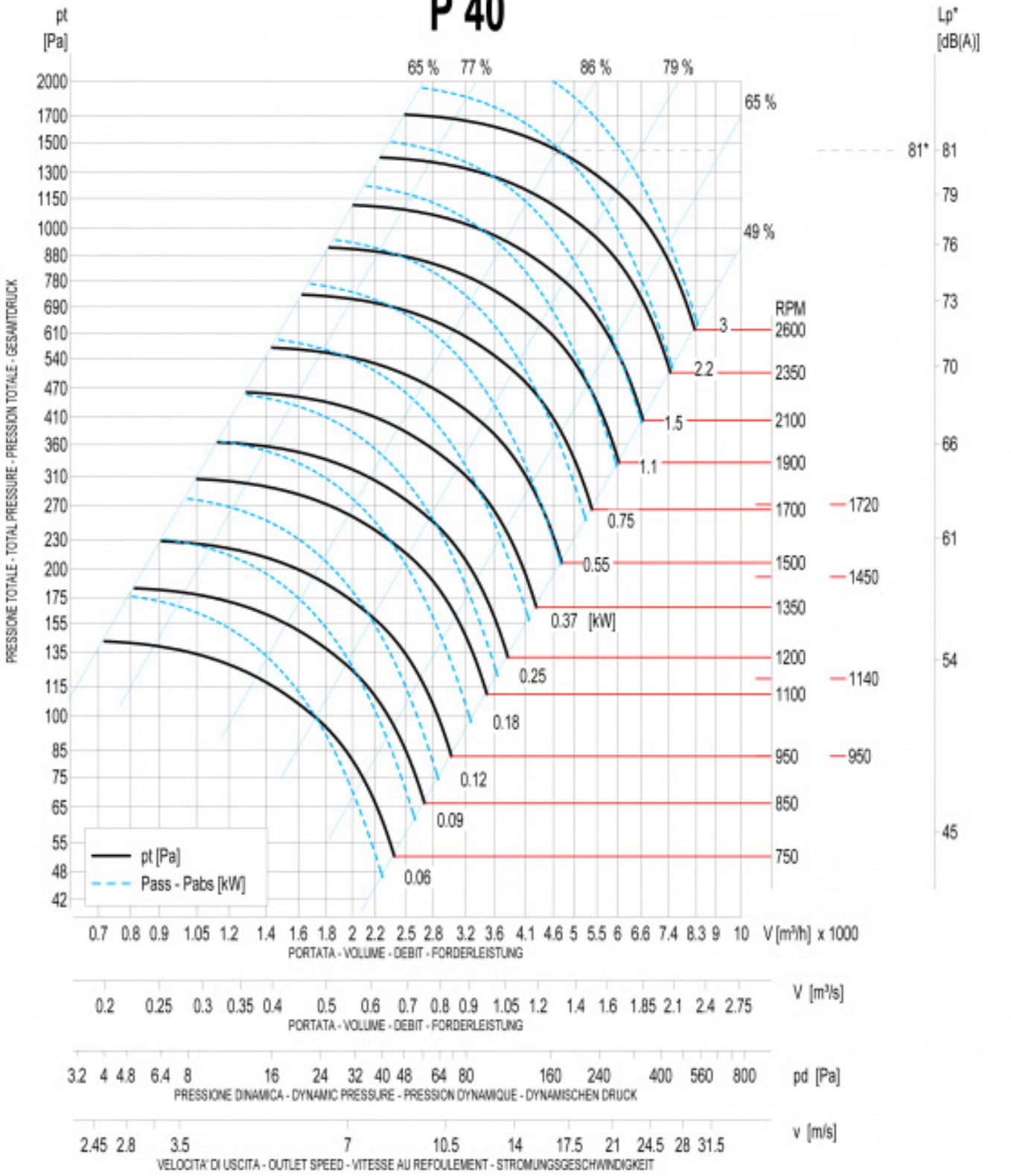
(*) Al massimo rendimento - At max. efficiency - (Distanza-distance-abstand-distance : 1.5 [m])

Temperatura - Temperature - Temperatur - Température : 15 [°] - Densità - Density - Bezugsdichte - Densité : 1.225 [kg/m³]

Tolleranza sulla portata ±5% - Capacity tolerance ±5% - Tolérance sur le débit ±5% - Fördertoleranz ±5%
I valori relativi alla rumorosità sono riferiti ad una misurazione in campo libero,con una tolleranza di +3 dB(A)
Noise values refer to a free field measurement with a tolerance of +3 dB(A)

PD² - WD² - GD² - PD² : 0.045 kgm²

P 40



Livello potenza sonora totale - Total sound power level - Gesamt schalleistungspegel - Niveau totale de puissance sonore - [dB] *									
RPM	Banda d'ottava - Octave band - Oktav-Band - Bande d'octave [Hz]								Lp*
	63	125	250	500	1000	2000	4000	8000	dB(A)
750	66.9	71.9	66.9	64.9	63.9	58.9	50.9	42.9	52.9
950	72.1	77.1	72.1	70.1	69.1	64.1	56.1	48.1	58.8
1450	81.5	83.5	84.5	79.5	78.5	73.5	65.5	57.5	68
1720	85.3	87.3	88.3	83.3	82.3	77.3	69.3	61.3	72
2100	89.7	91.7	92.7	87.7	86.7	81.7	73.7	65.7	76.1

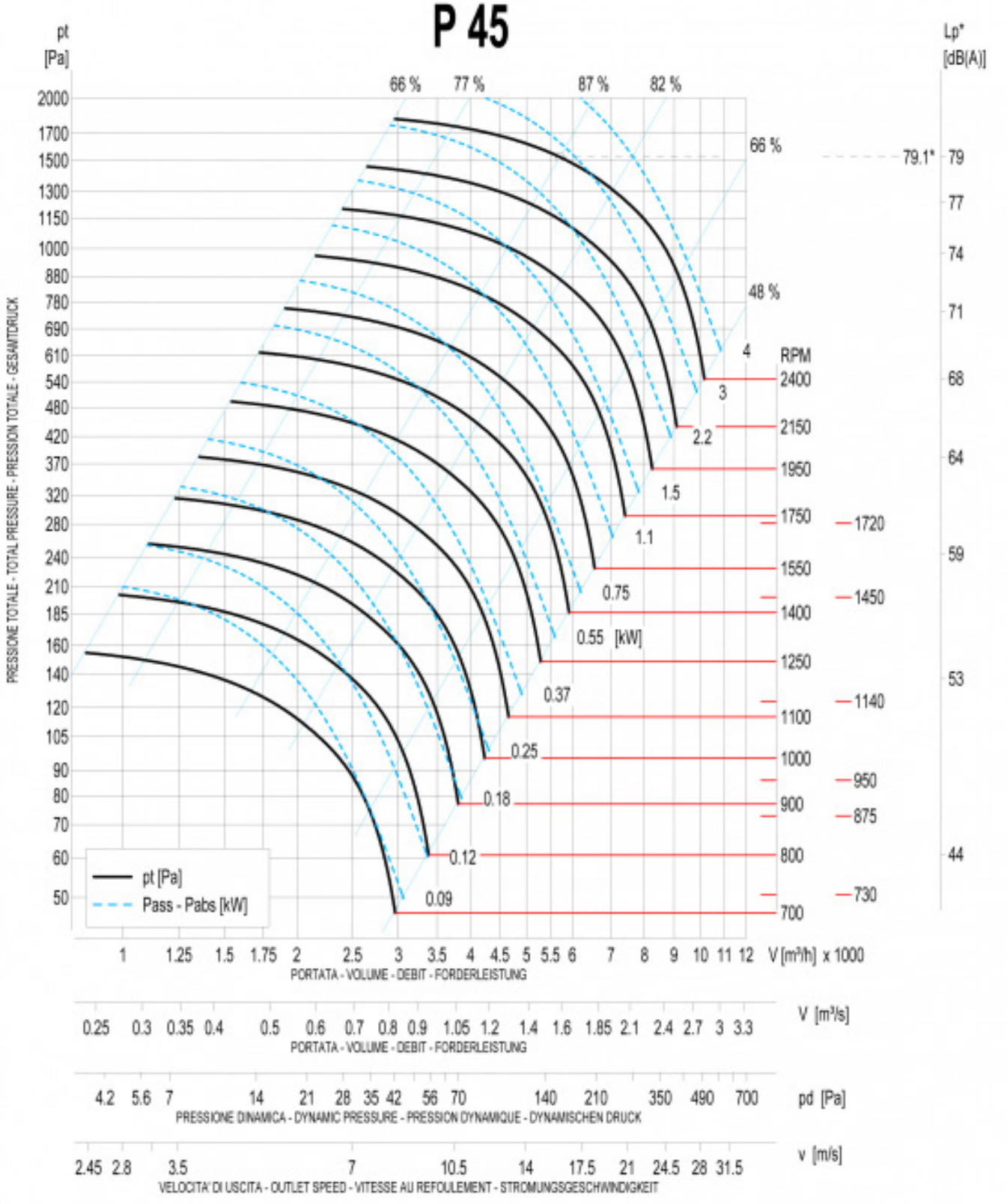
(*) Al massimo rendimento - At max. efficiency - (Distanza-distance-abstand-distance : 1.5 [m])

Temperatura - Temperature - Temperatur - Température : 15 [°] - Densità - Density - Bezugsdichte - Densité : 1.225 [kg/m³]

Tolleranza sulla portata ±5% - Capacity tolerance ±5% - Tolérance sur le débit ±5% - Fördertoleranz ±5%
I valori relativi alla rumorosità sono riferiti ad una misurazione in campo libero,con una tolleranza di +3 dB(A)
Noise values refer to a free field measurement with a tolerance of +3 dB(A)

PD² - WD² - GD² - PD² : 0.077 kgm²

P 45



Livello potenza sonora totale - Total sound power level - Gesamt schalleistungspegel - Niveau totale de puissance sonore - [dB] *									
RPM	Banda d'ottava - Octave band - Oktav-Band - Bande d'octave [Hz]								Lp*
	63	125	250	500	1000	2000	4000	8000	dB(A)
750	67	72	67	65	64	59	51	43	52.9
950	72.3	77.3	72.3	70.3	69.3	64.3	56.3	48.3	58.8
1450	81.6	83.6	84.6	79.6	78.6	73.6	65.6	57.6	68.1
1720	85.4	87.4	88.4	83.4	82.4	77.4	69.4	61.4	72
2000	88.8	90.8	91.8	86.8	85.8	80.8	72.8	64.8	75.1

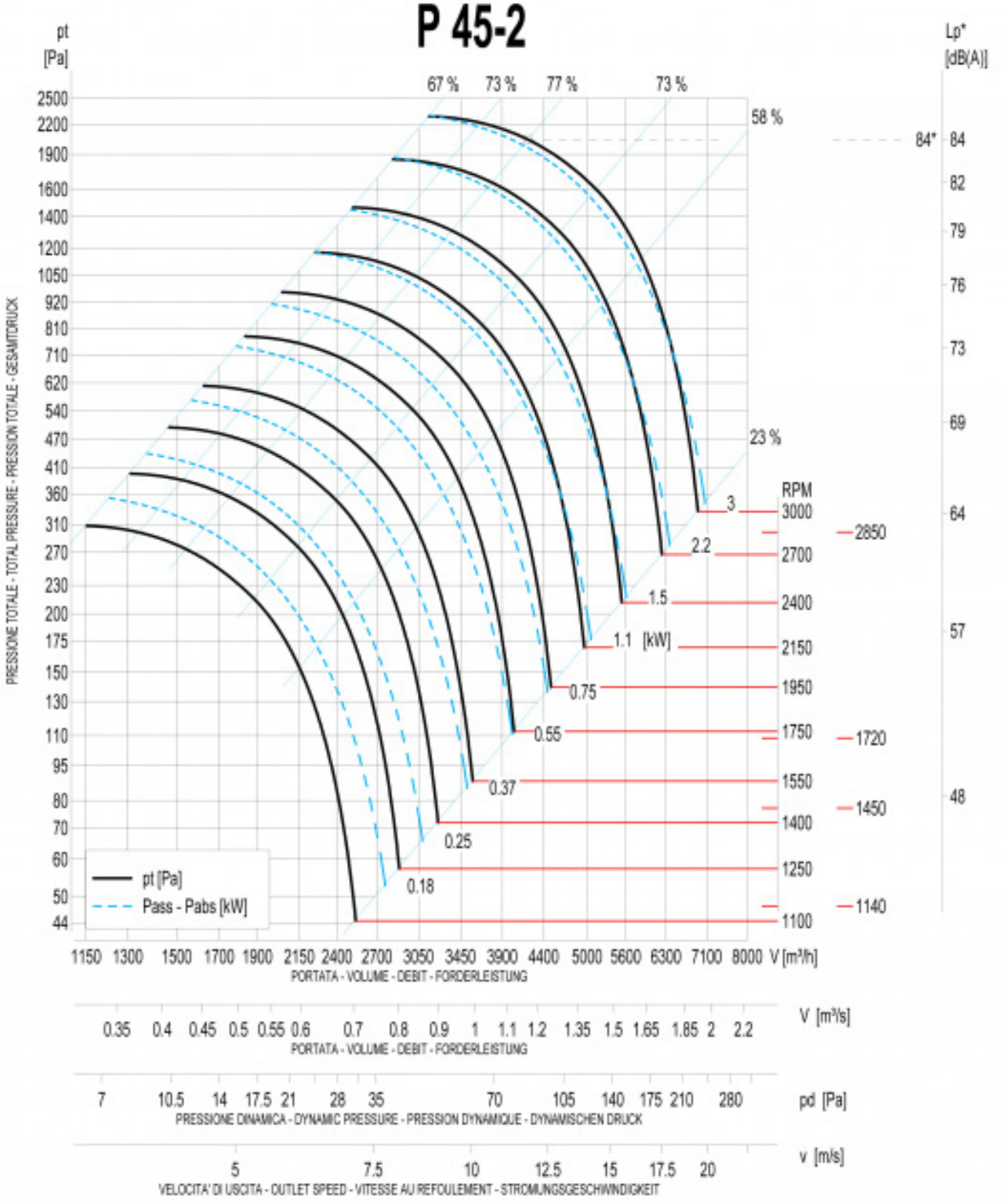
(*) Al massimo rendimento - At max. efficiency - (Distanza-distance-abstand-distance : 1.5 [m])

Temperatura - Temperature - Temperatur - Température : 15 [°] - Densità - Density - Bezugsdichte - Densité : 1.225 [kg/m³]

Tolleranza sulla portata ±5% - Capacity tolerance ±5% - Tolérance sur le débit ±5% - Fördertoleranz ±5%
I valori relativi alla rumorosità sono riferiti ad una misurazione in campo libero,con una tolleranza di +3 dB(A)
Noise values refer to a free field measurement with a tolerance of +3 dB(A)

PD² - WD² - GD² - PD² : 0.128 kgm²

P 45-2



Livello potenza sonora totale - Total sound power level - Gesamt schallleistungspegel - Niveau totale de puissance sonore - [dB] *									
RPM	Bande d'ottava - Octave band - Oktav-Band - Bande d'octave [Hz]								Lp*
	63	125	250	500	1000	2000	4000	8000	dB(A)
1100	75.3	80.3	75.3	73.3	72.3	67.3	59.3	51.3	61.8
1550	82.9	87.9	82.9	80.9	79.9	74.9	66.9	58.9	68.9
2150	90.1	92.1	93.1	88.1	87.1	82.1	74.1	66.1	77
2500	93.5	95.5	96.5	91.5	90.5	85.5	77.5	69.5	80
3000	97.5	99.5	100.5	95.5	94.5	89.5	81.5	73.5	84

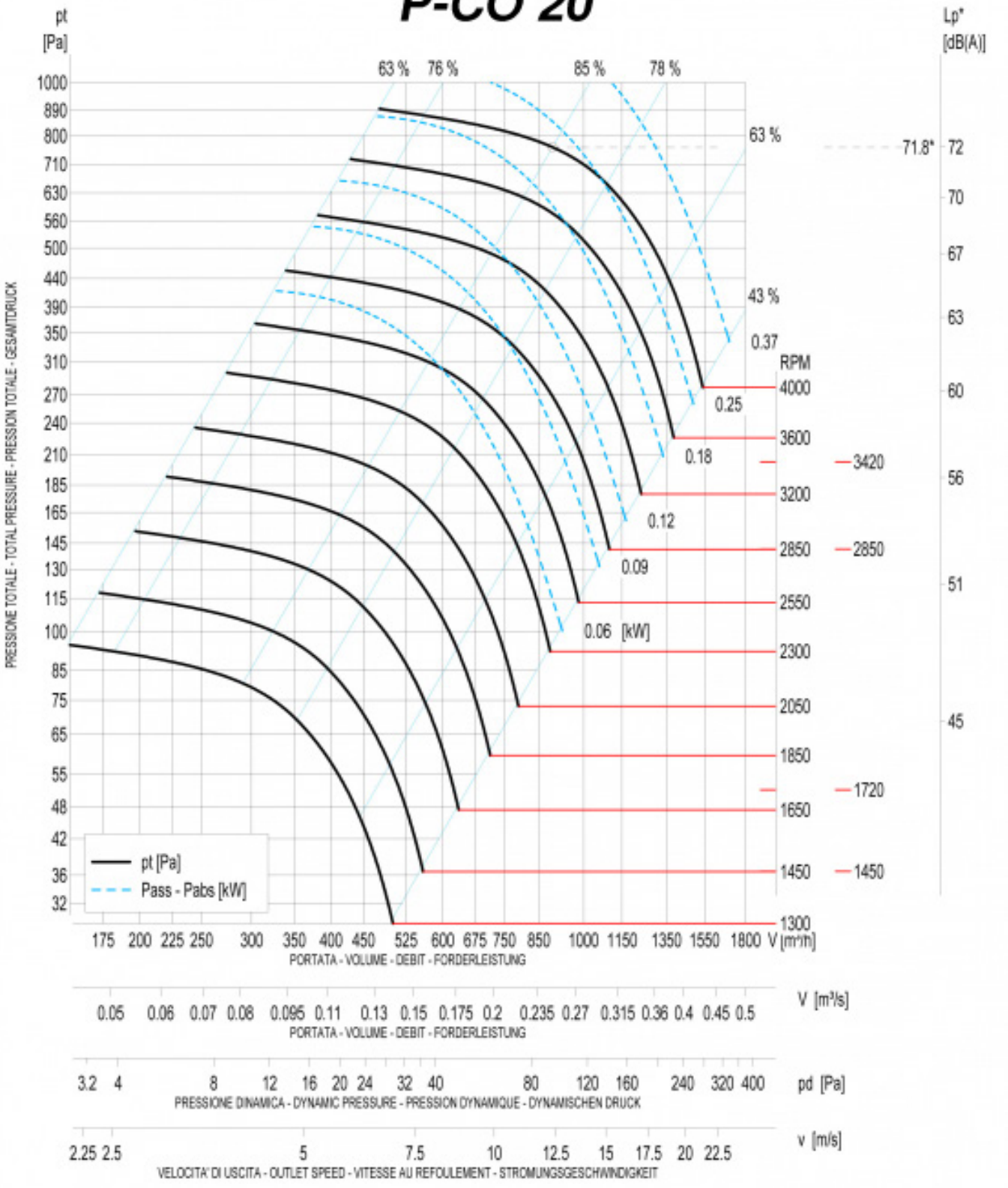
(*) Al massimo rendimento - At max. efficiency - (Distanza-distance-abstand-distance : 1.5 [m])

Temperatura - Temperature - Temperatur - Température : 15 [°] - Densità - Density - Bezugsdichte - Densité : 1.225 [kg/m³]

Tolleranza sulla portata ±5% - Capacity tolerance ±5% - Tolérance sur le débit ±5% - Fördertoleranz ±5%
I valori relativi alla rumorosità sono riferiti ad una misurazione in campo libero,con una tolleranza di +3 dB(A)
Noise values refer to a free field measurement with a tolerance of +3 dB(A)

PD² - WD² - GD² - PD² : 0.128 kgm²

P-CO 20



RPM	Livello potenza sonora totale - Total sound power level - Gesamt schalleistungspegel - Niveau totale de puissance sonore - [dB] * Banda d'ottava - Octave band - Oktav-Band - Bande d'octave [Hz]								Lp*
	63	125	250	500	1000	2000	4000	8000	dB(A)
1450	62.3	64.3	65.3	60.3	59.3	54.3	46.3	38.3	49
1720	66.1	68.1	69.1	64.1	63.1	58.1	50.1	42.1	53
2000	69.5	71.5	72.5	67.5	66.5	61.5	53.5	45.5	56
2850	77.3	79.3	77.3	78.3	74.3	69.3	61.3	53.3	64.7
3420	81.3	83.3	81.3	82.3	78.3	73.3	65.3	57.3	68.7

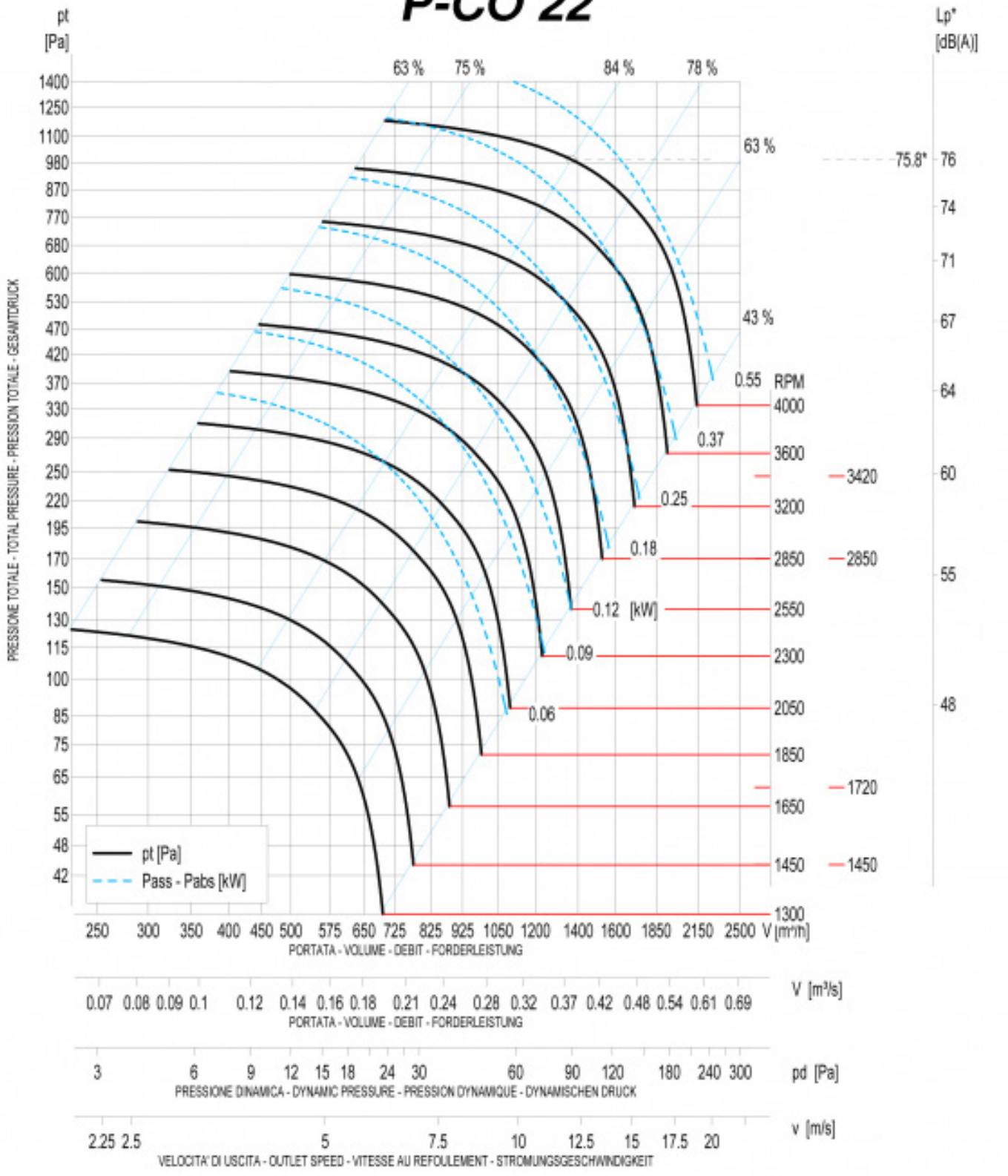
(*) Al massimo rendimento - At max. efficiency - (Distanza-distance-abstand-distance : 1.5 [m])

Temperatura - Temperature - Temperatur - Température : 15 [°] - Densità - Density - Bezugsdichte - Densité : 1.225 [kg/m³]

Tolleranza sulla portata ±5% - Capacity tolerance ±5% - Tolérance sur le débit ±5% - Fördertoleranz ±5%
I valori relativi alla rumorosità sono riferiti ad una misurazione in campo libero,con una tolleranza di +3 dB(A)
Noise values refer to a free field measurement with a tolerance of +3 dB(A)

PD² - WD² - GD² - PD² : 0.003 kgm²

P-CO 22



Livello potenza sonora totale - Total sound power level - Gesamt schalleistungspegel - Niveau totale de puissance sonore - [dB] *									
RPM	Banda d'ottava - Octave band - Oktav-Band - Bande d'octave [Hz]								Lp*
	63	125	250	500	1000	2000	4000	8000	dB(A)
1450	66	68	69	64	63	58	50	42	52.1
1720	69.8	71.8	72.8	67.8	66.8	61.8	53.8	45.8	56.1
2000	73.1	75.1	76.1	71.1	70.1	65.1	57.1	49.1	60
2850	81	83	81	82	78	73	65	57	67.8
3420	85	87	85	86	82	77	69	61	71.8

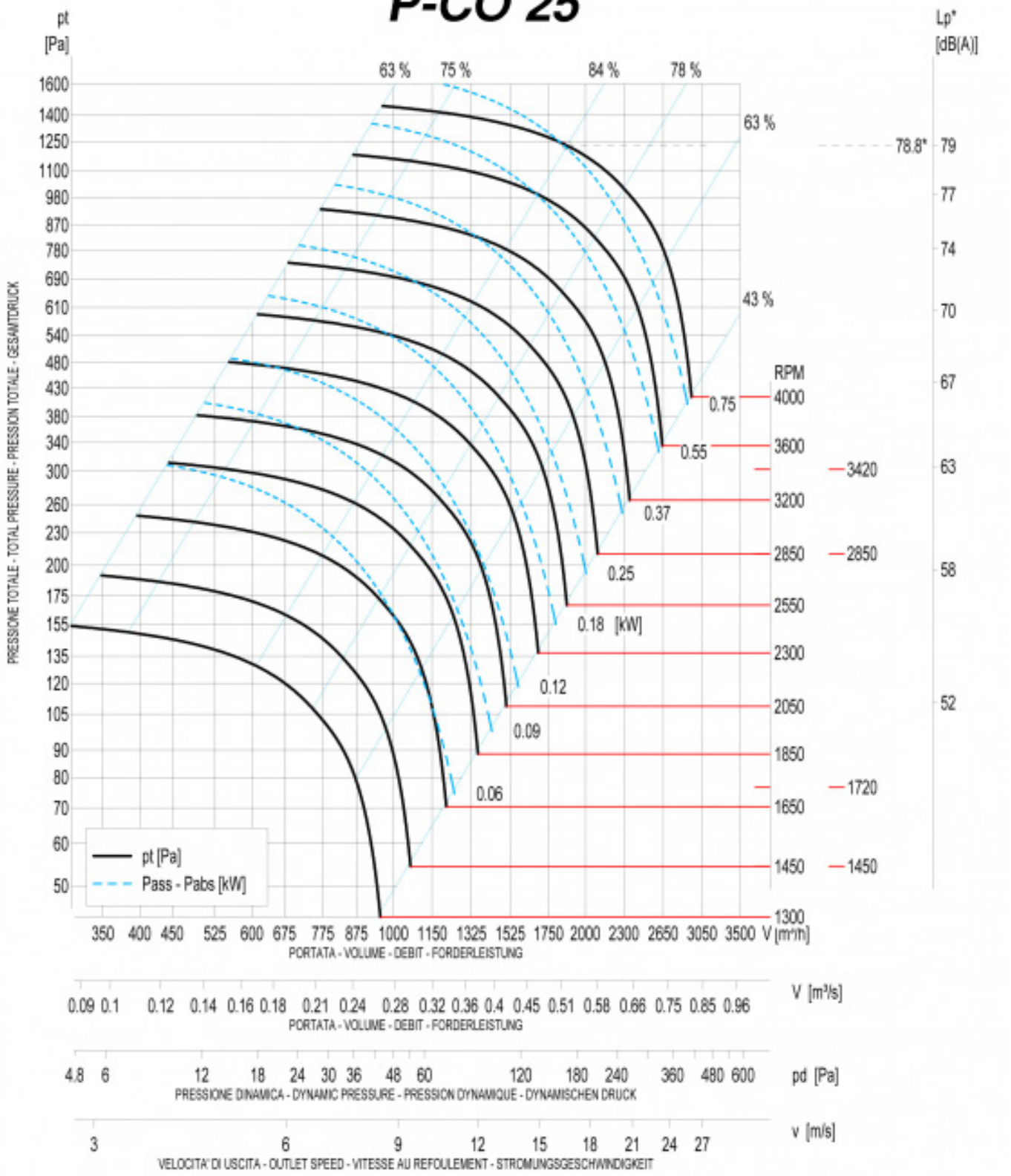
(*) Al massimo rendimento - At max. efficiency - (Distanza-distance-abstand-distance : 1.5 [m])

Temperatura - Temperature - Temperatur - Température : 15 [°] - Densità - Density - Bezugsdichte - Densité : 1.225 [kg/m³]

Tolleranza sulla portata ±5% - Capacity tolerance ±5% - Tolérance sur le débit ±5% - Fördertoleranz ±5%
I valori relativi alla rumorosità sono riferiti ad una misurazione in campo libero,con una tolleranza di +3 dB(A)
Noise values refer to a free field measurement with a tolerance of +3 dB(A)

PD² - WD² - GD² - PD² : 0.008 kgm²

P-CO 25



Livello potenza sonora totale - Total sound power level - Gesamt schalleistungspegel - Niveau totale de puissance sonore - [dB] *									
RPM	Banda d'ottava - Octave band - Oktav-Band - Bande d'octave [Hz]								Lp* dB(A)
	63	125	250	500	1000	2000	4000	8000	
1450	69.3	71.3	72.3	67.3	66.3	61.3	53.3	45.3	56
1720	73	75	76	71	70	65	57	49	59.1
2000	76.4	78.4	79.4	74.4	73.4	68.4	60.4	52.4	63
2850	84.2	86.2	84.2	85.2	81.2	76.2	68.2	60.2	71.7
3420	88.3	90.3	88.3	89.3	85.3	80.3	72.3	64.3	75.7

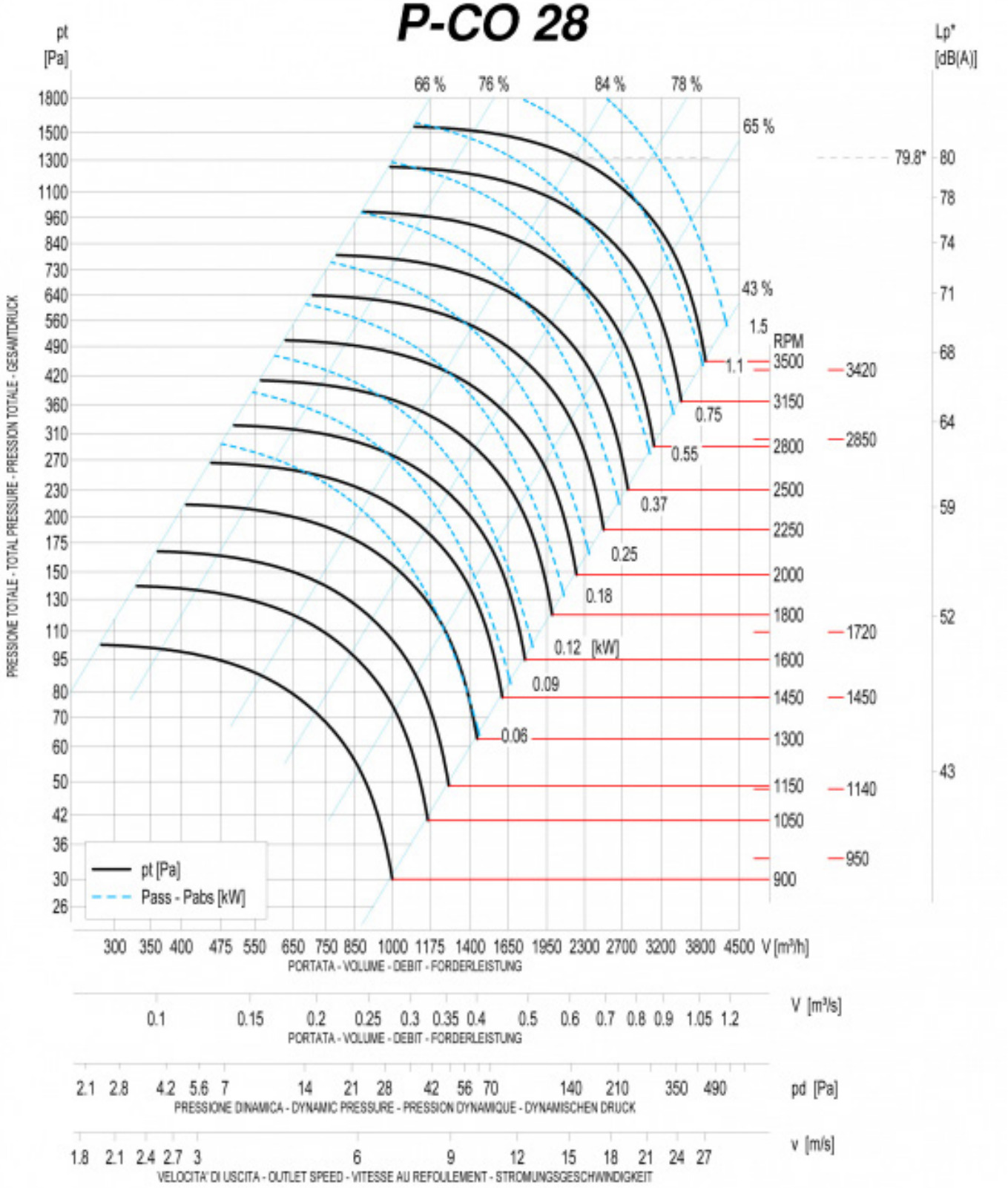
(*) Al massimo rendimento - At max. efficiency - (Distanza-distance-abstand-distance : 1.5 [m])

Temperatura - Temperature - Temperatur - Température : 15 [°] - Densità - Density - Bezugsdichte - Densité : 1.225 [kg/m³]

Tolleranza sulla portata ±5% - Capacity tolerance ±5% - Tolérance sur le débit ±5% - Fördertoleranz ±5%
I valori relativi alla rumorosità sono riferiti ad una misurazione in campo libero,con una tolleranza di +3 dB(A)
Noise values refer to a free field measurement with a tolerance of +3 dB(A)

PD² - WD² - GD² - PD² : 0.008 kgm²

P-CO 28



Livello potenza sonora totale - Total sound power level - Gesamt schalleistungspegel - Niveau totale de puissance sonore - [dB] *									
RPM	Banda d'ottava - Octave band - Oktav-Band - Bande d'octave [Hz]								Lp*
	63	125	250	500	1000	2000	4000	8000	dB(A)
900	62.5	67.5	62.5	60.5	59.5	54.5	46.5	38.5	48.8
1140	67.7	72.7	67.7	65.7	64.7	59.7	51.7	43.7	53.9
1450	73	75	76	71	70	65	57	49	59.1
1720	76.8	78.8	79.8	74.8	73.8	68.8	60.8	52.8	63.1
2850	88	90	88	89	85	80	72	64	74.8

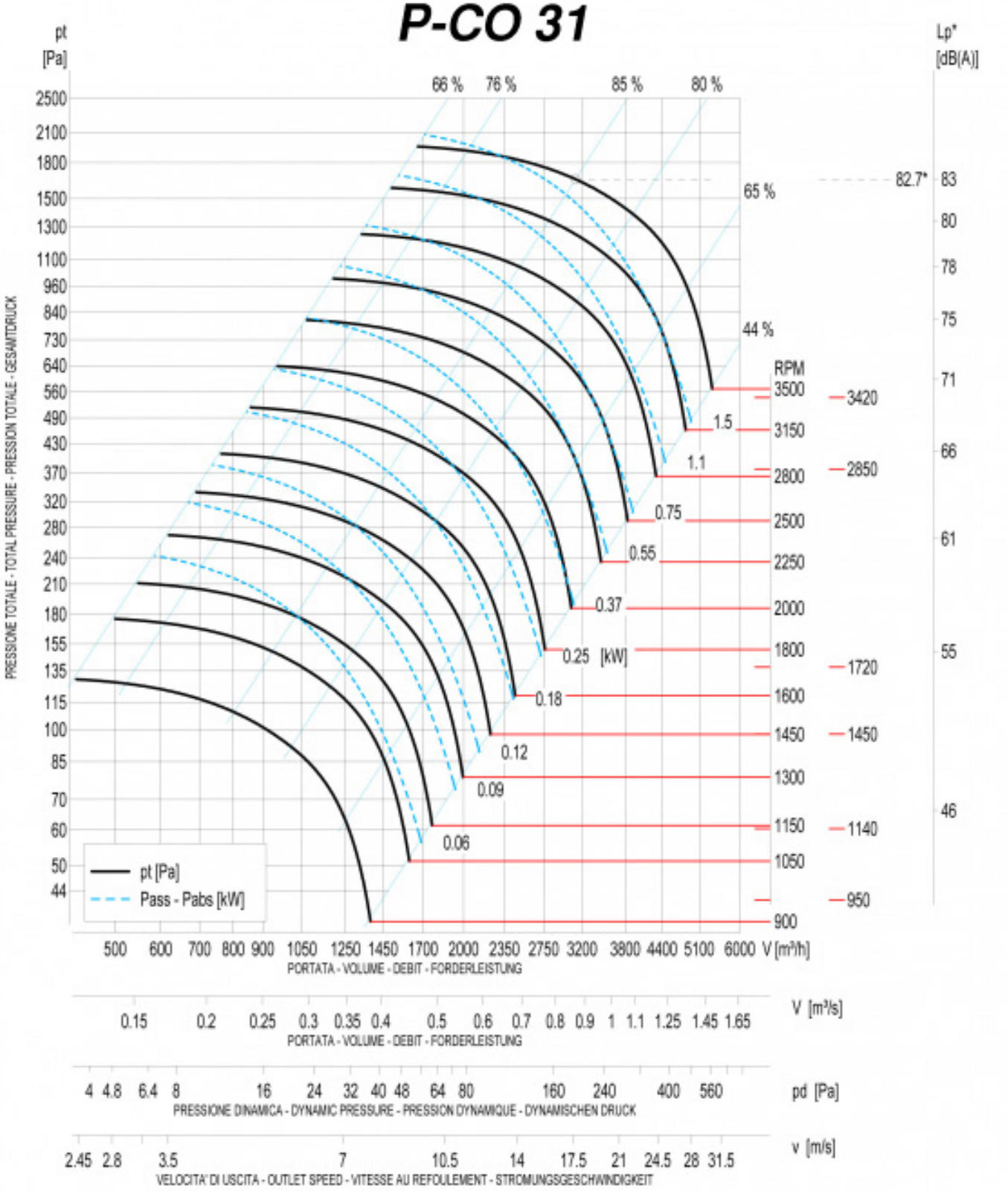
(*) Al massimo rendimento - At max. efficiency - (Distanza-distance-abstand-distance : 1.5 [m])

Temperatura - Temperature - Temperatur - Température : 15 [°] - Densità - Density - Bezugsdichte - Densité : 1.225 [kg/m³]

Tolleranza sulla portata ±5% - Capacity tolerance ±5% - Tolérance sur le débit ±5% - Fördertoleranz ±5%
I valori relativi alla rumorosità sono riferiti ad una misurazione in campo libero,con una tolleranza di +3 dB(A)
Noise values refer to a free field measurement with a tolerance of +3 dB(A)

PD² - WD² - GD² - PD² : 0.017 kgm²

P-CO 31



Livello potenza sonora totale - Total sound power level - Gesamt schalleistungspegel - Niveau totale de puissance sonore - [dB] *									
RPM	Banda d'ottava - Octave band - Oktav-Band - Bande d'octave [Hz]								Lp*
	63	125	250	500	1000	2000	4000	8000	dB(A)
900	65.2	70.2	65.2	63.2	62.2	57.2	49.2	41.2	51.8
1140	70.4	72.4	73.4	68.4	67.4	62.4	54.4	46.4	57
1450	75.7	77.7	78.7	73.7	72.7	67.7	59.7	51.7	62.1
2850	90.7	92.7	90.7	91.7	87.7	82.7	74.7	66.7	77.8
3420	94.7	96.7	94.7	95.7	91.7	86.7	78.7	70.7	81.8

(*) Al massimo rendimento - At max. efficiency - (Distanza-distance-abstand-distance : 1.5 [m])

Temperatura - Temperature - Temperatur - Température : 15 [°] - Densità - Density - Bezugsdichte - Densité : 1.225 [kg/m³]

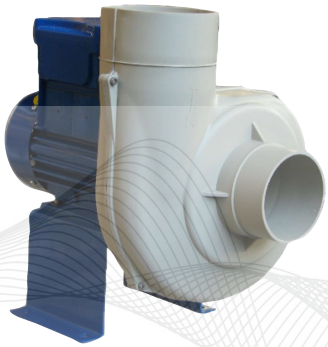
Tolleranza sulla portata ±5% - Capacity tolerance ±5% - Tolérance sur le débit ±5% - Fördertoleranz ±5%
I valori relativi alla rumorosità sono riferiti ad una misurazione in campo libero,con una tolleranza di +3 dB(A)
Noise values refer to a free field measurement with a tolerance of +3 dB(A)

PD² - WD² - GD² - PD² : 0.026 kgm²

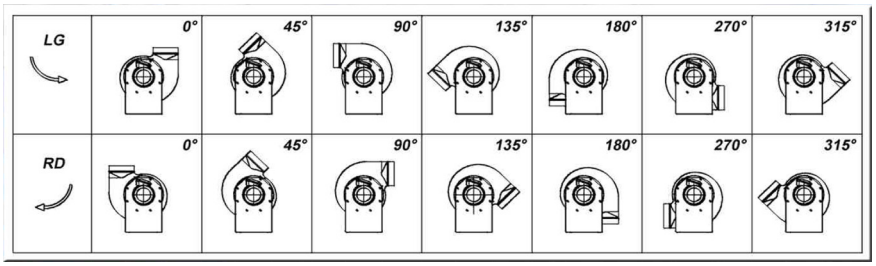
PCM *Series* CENTRIFUGAL FANS

Applications: safety storage cabinets, fume capture arms

Complete range of PP exhaust fans mounted on metal support. All the models are in small dimensions and perfectly adapted for the ventilation of laboratory fume capture arms or safety storage cabinets.



- m^3/h AIRFLOW from 20 to 550 CMH
- Housing 100% PE construction
- Forward curved PP impeller
- Metal stand in steel epoxy painted
- Ex ATEX Available in ATEX version

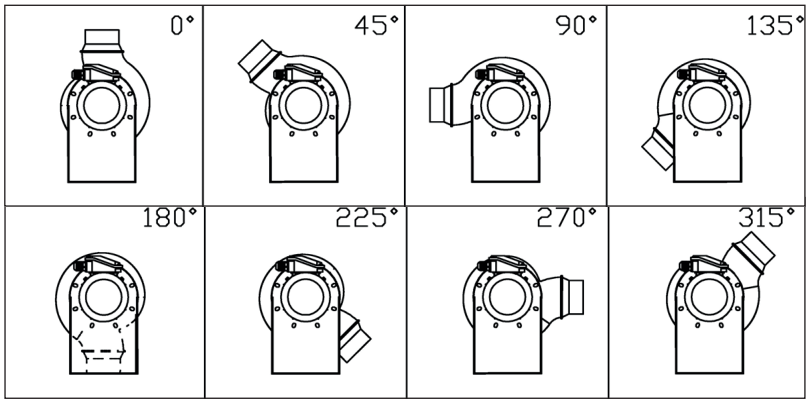


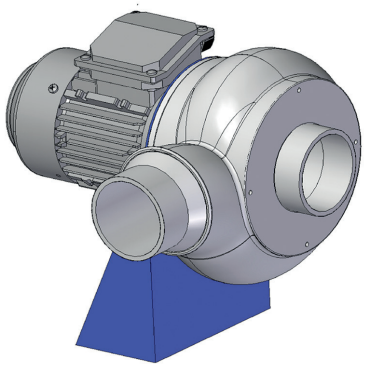
Handings table

Ps. Pa	PCM series diagram										
600											
500											
400											
300											
250											
200											
150											
100											
60											
40											
20											
m^3/h	20	40	60	100	150	200	250	300	400	500	600

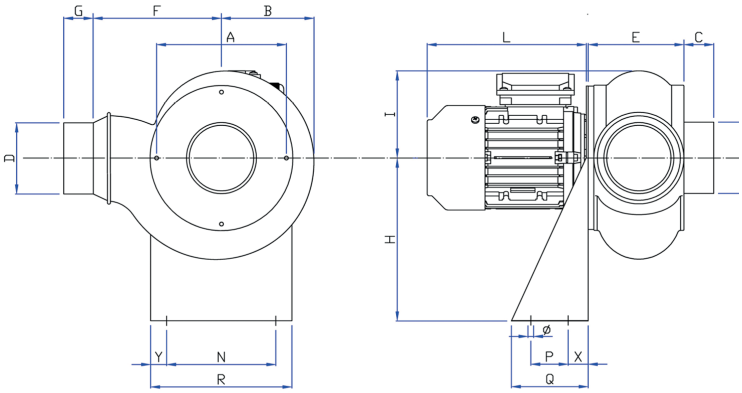
*IP55 motor weight included **ATEX motor weight included ● Housing moulded in PE el-PE es ● Motor support in Stainless steel ● Available without motor stand for direct mounting on a storage cabinet

Handings table





PCM series
drawings



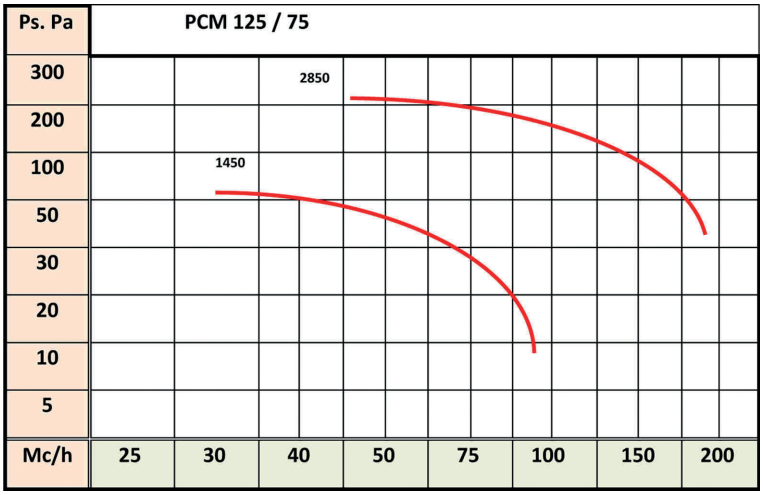
PCM series dimensions

Type	Mot.Gr. Size	Mot. Kw	Rpm	A	B	C	D	E	F	G	H	I	L	N	P	Q	R	Y	X	Ø	KG.*	KG.**
PCM 125/75	56	0.09	1400	139	100	30	75	105	122	30	172	98	170	117	40	82	155	19	22	10	5	6
	56	0.12	2800	139	100	30	75	105	122	30	172	98	170	117	40	82	155	19	22	10	5	6
PCM 150/90	56	0.09	1400	170	120	30	90	126	190	30	190	112	170	151	40	82	189	19	22	10	6	7
	56	0.12	2800	170	120	30	90	126	190	30	190	112	170	151	40	82	189	19	22	10	6	7
PCM 150/110	56	0.09	1400	170	120	30	110	126	150	30	190	112	170	151	40	82	189	19	22	10	6.5	8
	56	0.12	2800	170	120	30	110	126	150	30	190	112	170	151	40	82	189	19	22	10	6.5	8

* *standard motor execution*

** *ATEX execution*

PCM 125 / 75		
Giri/Rpm	1450	2850
Kw inst.	0.09	0.12
Amp.volt 400/3	0.3	0.38
Amp.volt 230/1	1.1	1.2
dbA	44	55



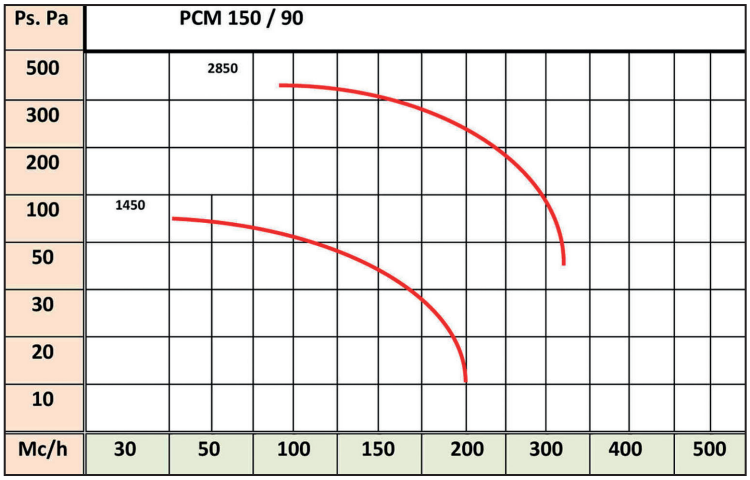
PCM series dimensions

Type	Mot.Gr. Size	Mot. Kw	Rpm	A	B	C	D	E	F	G	H	I	L	N	P	Q	R	Y	X	Ø	KG.*	KG.**
PCM 125/75	56	0.09	1400	139	100	30	75	105	122	30	172	98	170	117	40	82	155	19	22	10	5	6
	56	0.12	2800	139	100	30	75	105	122	30	172	98	170	117	40	82	155	19	22	10	5	6
PCM 150/90	56	0.09	1400	170	120	30	90	126	190	30	190	112	170	151	40	82	189	19	22	10	6	7
	56	0.12	2800	170	120	30	90	126	190	30	190	112	170	151	40	82	189	19	22	10	6	7
PCM 150/110	56	0.09	1400	170	120	30	110	126	150	30	190	112	170	151	40	82	189	19	22	10	6.5	8
	56	0.12	2800	170	120	30	110	126	150	30	190	112	170	151	40	82	189	19	22	10	6.5	8

* *standard motor execution*

** *ATEX execution*

PCM 150 / 90		
Giri/Rpm	1450	2850
Kw inst.	0.09	0.12
Amp.volt 400/3	0.3	0.38
Amp.volt 230/1	1.1	1.2
dbA	47	58



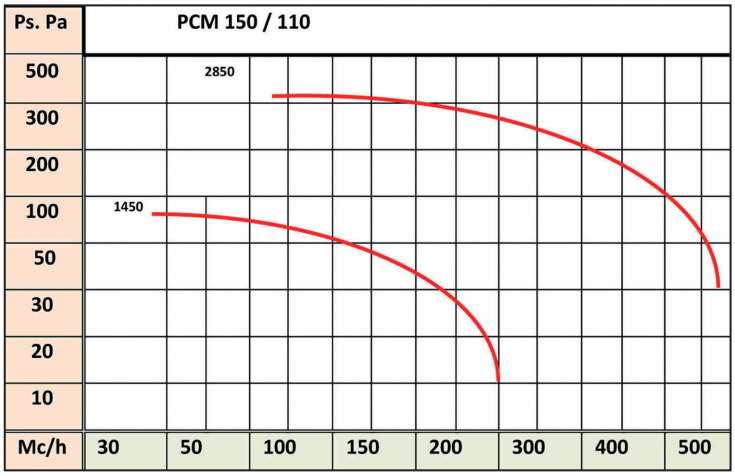
PCM series dimensions

Type	Mot.Gr. Size	Mot. Kw	Rpm	A	B	C	D	E	F	G	H	I	L	N	P	Q	R	Y	X	Ø	KG.*	KG.**
PCM 125/75	56	0.09	1400	139	100	30	75	105	122	30	172	98	170	117	40	82	155	19	22	10	5	6
	56	0.12	2800	139	100	30	75	105	122	30	172	98	170	117	40	82	155	19	22	10	5	6
PCM 150/90	56	0.09	1400	170	120	30	90	126	190	30	190	112	170	151	40	82	189	19	22	10	6	7
	56	0.12	2800	170	120	30	90	126	190	30	190	112	170	151	40	82	189	19	22	10	6	7
PCM 150/110	56	0.09	1400	170	120	30	110	126	150	30	190	112	170	151	40	82	189	19	22	10	6.5	8
	56	0.12	2800	170	120	30	110	126	150	30	190	112	170	151	40	82	189	19	22	10	6.5	8

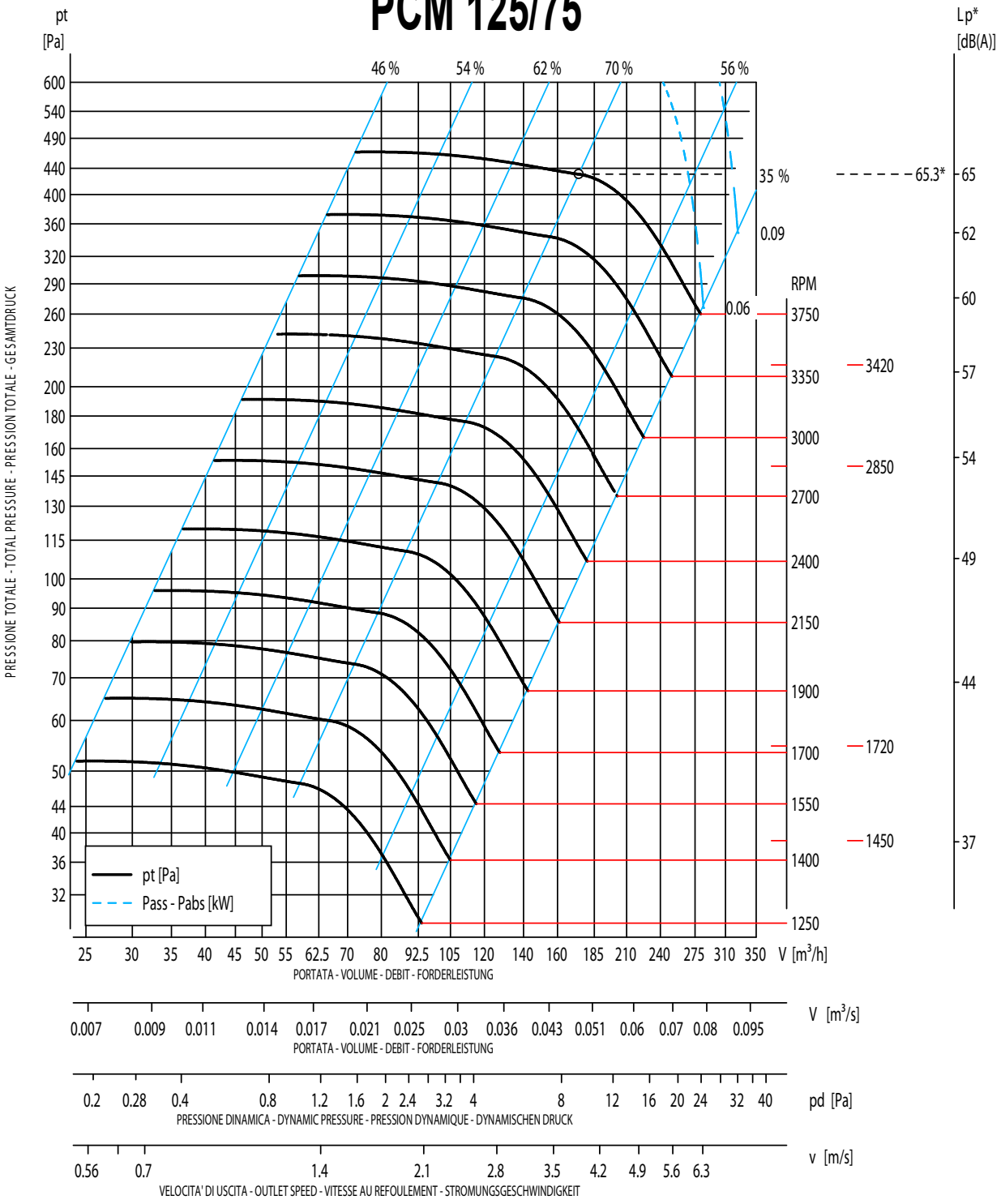
* *standard motor execution*

** *ATEX execution*

PCM 150 / 110		
Giri/Rpm	1450	2850
Kw inst.	0.09	0.12
Amp.volt 400/3	0.3	0.38
Amp.volt 230/1	1.1	1.2
dbA	48	59



PCM 125/75



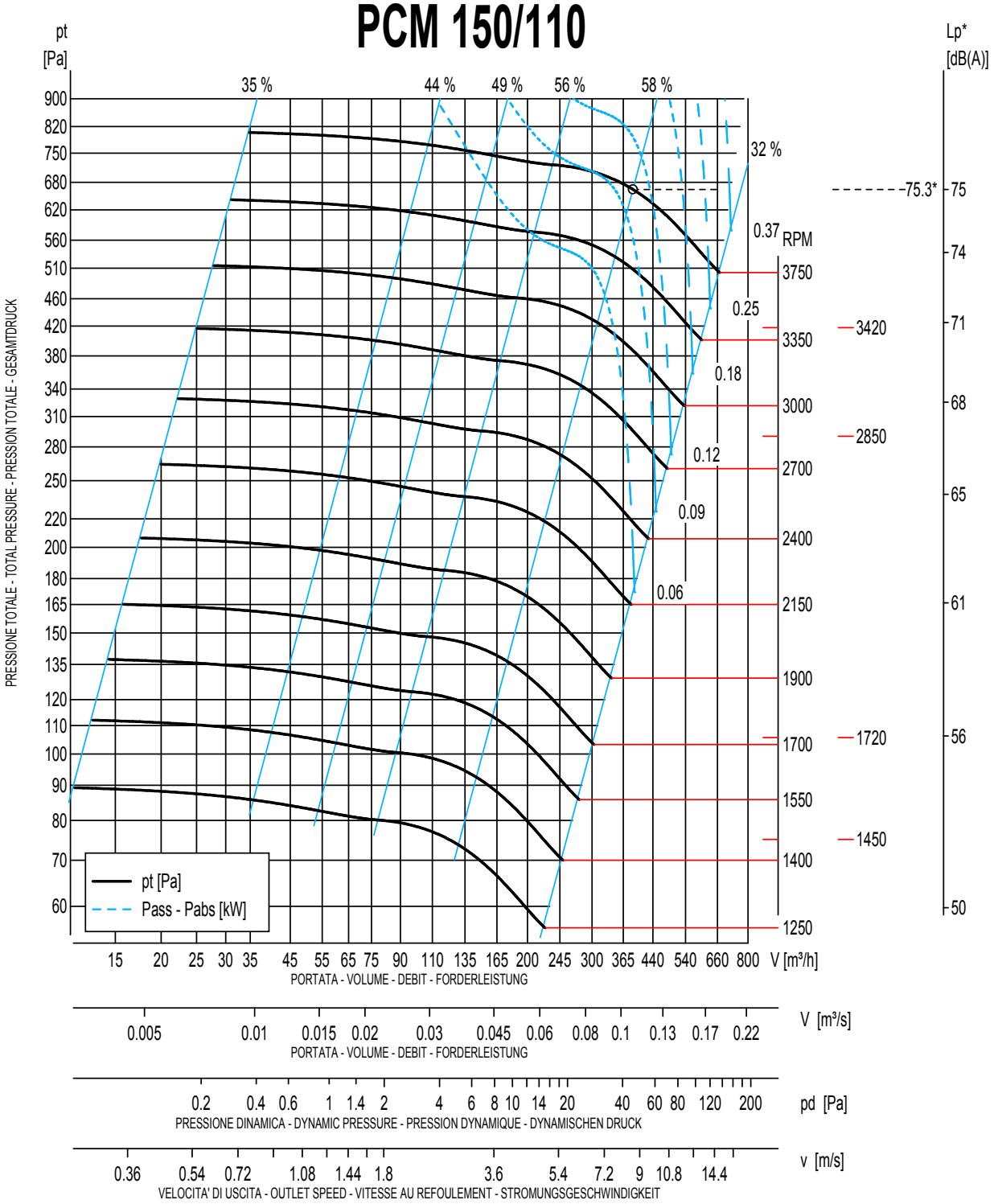
Livello potenza sonora totale - Total sound power level - Gesamt schalleistungspegel - Niveau totale de puissance sonore - [dB] *									
RPM	Banda d'ottava - Octave band - Oktav-Band - Bande d'octave [Hz]								Lp*
	63	125	250	500	1000	2000	4000	8000	dB(A)
2225	65.8	67.8	65.8	66.8	62.8	57.8	49.8	41.8	52.8
2575	69	71	69	70	66	61	53	45	55.8
2925	71.9	73.9	71.9	72.9	68.9	63.9	55.9	47.9	58.8
3275	74.4	76.4	74.4	75.4	71.4	66.4	58.4	50.4	61.8
3750	77.4	79.4	77.4	75.4	77.4	69.4	61.4	53.4	65.3

(*) Al massimo rendimento - At max. efficiency - (Distanza-distance-abstand-distance : 1.5 [m])

Temperatura - Temperature - Temperatur - Température : 15 [°] - Densità - Density - Bezugsdichte - Densité : 1.225 [kg/m³]

Tolleranza sulla portata ±5% - Capacity tolerance ±5% - Tolérance sur le débit ±5% - Fördertoleranz ±5%
I valori relativi alla rumorosità sono riferiti ad una misurazione in campo libero,con una tolleranza di +3 dB(A)
Noise values refer to a free field measurement with a tolerance of +3 dB(A)

PCM 150/110



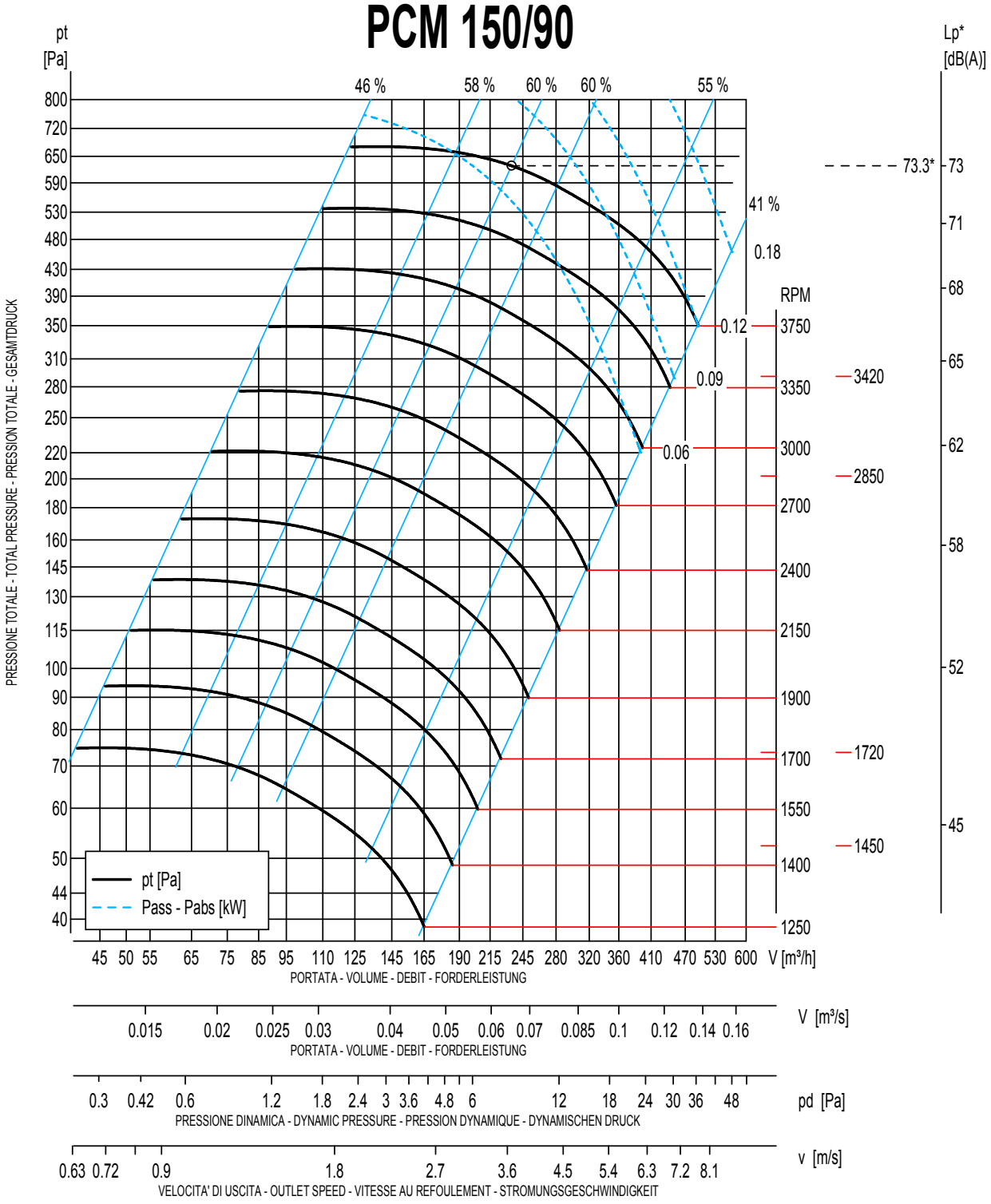
Livello potenza sonora totale - Total sound power level - Gesamt schalleistungspegel - Niveau totale de puissance sonore - [dB] *									
RPM	Banda d'ottava - Octave band - Oktav-Band - Bande d'octave [Hz]								Lp*
	63	125	250	500	1000	2000	4000	8000	dB(A)
2225	77.3	79.3	77.3	75.3	77.3	69.3	61.3	53.3	65.2
2575	80.5	82.5	80.5	78.5	80.5	72.5	64.5	56.5	68.3
2925	83.4	85.4	83.4	81.4	83.4	75.4	67.4	59.4	71.3
3275	85.9	87.9	85.9	83.9	85.9	77.9	69.9	61.9	73.3
3750	88.9	90.9	88.9	86.9	85.9	83.9	72.9	64.9	75.3

(*) Al massimo rendimento - At max. efficiency - (Distanza-distance-abstand-distance : 1.5 [m])

Temperatura - Temperature - Temperatur - Température : 15 [°] - Densità - Density - Bezugsdichte - Densité : 1.225 [kg/m³]

Tolleranza sulla portata ±5% - Capacity tolerance ±5% - Tolérance sur le débit ±5% - Fördertoleranz ±5%
I valori relativi alla rumorosità sono riferiti ad una misurazione in campo libero,con una tolleranza di +3 dB(A)
Noise values refer to a free field measurement with a tolerance of +3 dB(A)

PCM 150/90



Livello potenza sonora totale - Total sound power level - Gesamt schalleistungspegel - Niveau totale de puissance sonore - [dB] *									
RPM	Banda d'ottava - Octave band - Oktav-Band - Bande d'octave [Hz]								Lp* dB(A)
	63	125	250	500	1000	2000	4000	8000	
2225	74	76	74	75	71	66	58	50	60.8
2575	77.3	79.3	77.3	78.3	74.3	69.3	61.3	53.3	64.7
2925	80.1	82.1	80.1	81.1	77.1	72.1	64.1	56.1	67.7
3275	82.6	84.6	82.6	83.6	79.6	74.6	66.6	58.6	69.8
3750	85.6	87.6	85.6	83.6	85.6	77.6	69.6	61.6	73.3

(*) Al massimo rendimento - At max. efficiency - (Distanza-distance-abstand-distance : 1.5 [m])

Temperatura - Temperature - Temperatur - Température : 15 [°] - Densità - Density - Bezugsdichte - Densité : 1.225 [kg/m³]

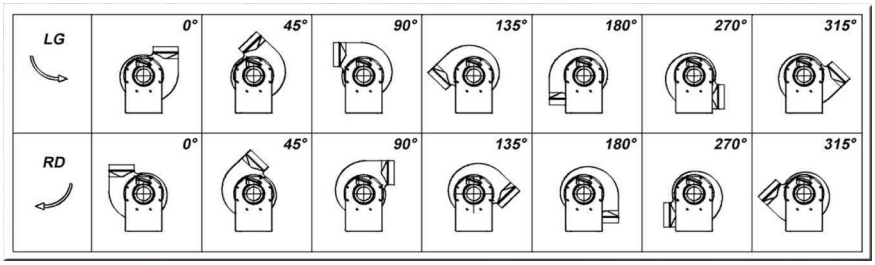
Tolleranza sulla portata ±5% - Capacity tolerance ±5% - Tolérance sur le débit ±5% - Fördertoleranz ±5%
I valori relativi alla rumorosità sono riferiti ad una misurazione in campo libero,con una tolleranza di +3 dB(A)
Noise values refer to a free field measurement with a tolerance of +3 dB(A)

PC *Series*

Applications: Laboratory capture arms-filtration

Complete range of PP exhaust fans mounted on metal support, equipped with radial curved impeller. High pressure fans perfectly adapted for the ventilation of laboratory fume capture arms, welding and filtration.

- m^3/h AIR FLOW from 50 to 24000 CMH
- Housing 100% PE construction
- Radial PP impeller
- Metal stand in steel epoxy painted
- Available in ATEX version

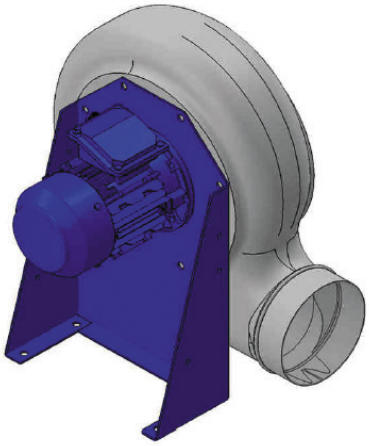


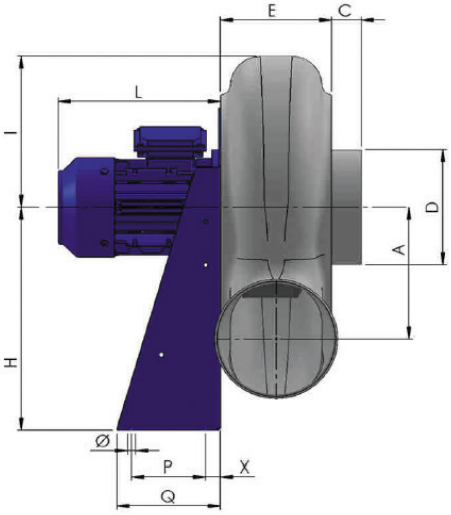
Handings table

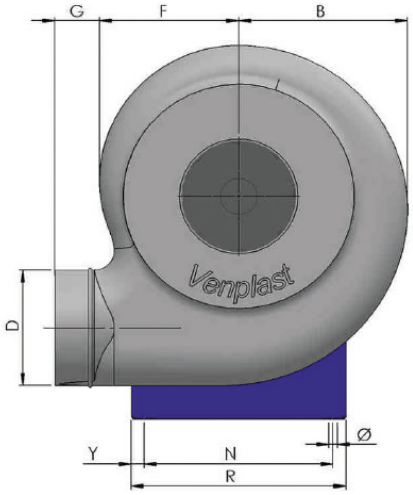
Ps. Pa	PC SERIES diagram													
2.500														
2.000														
1.750														
1.500														
1.250														
1.000														
750														
500														
250														
100														
50														
m³/h	50	200	500	1.000	1.500	2.000	3.000	4.000	6.000	8.000	10.000	14.000	18.000	24.000

Available options: ● Housing PP- PP el -PE es - PE el-PVC ● Impeller PP el Motor stand in Stainless steel

PC Series drawings





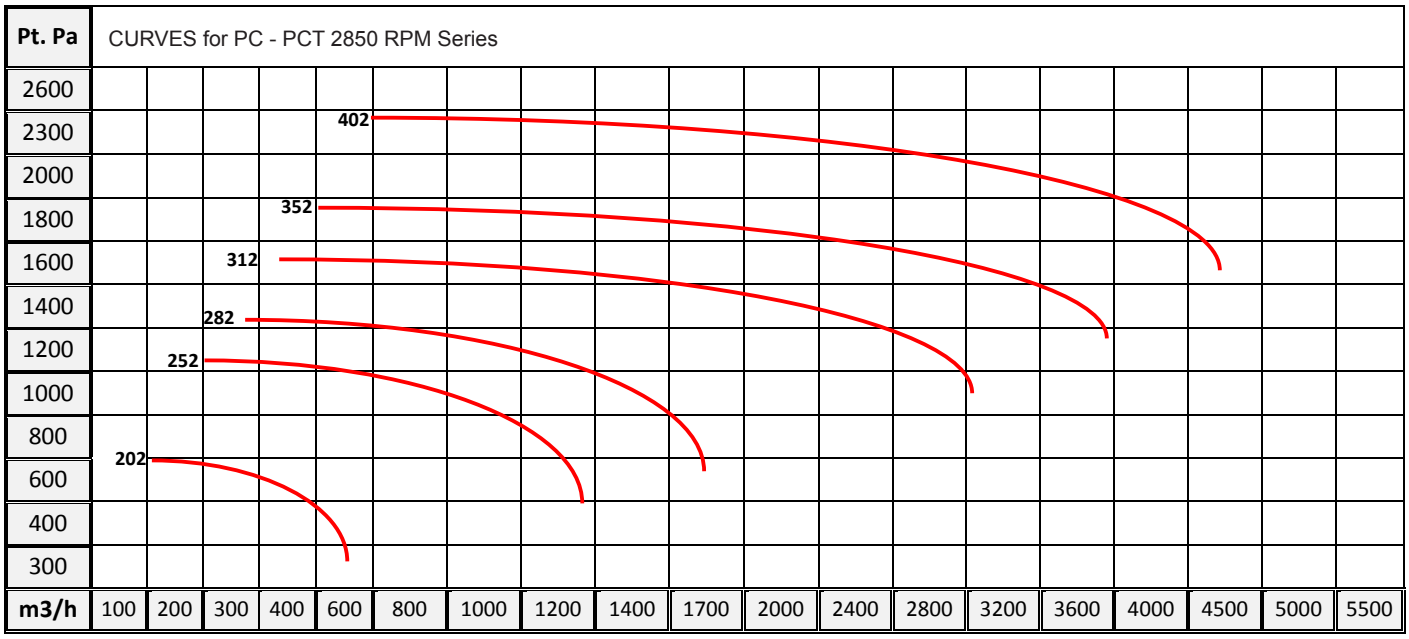


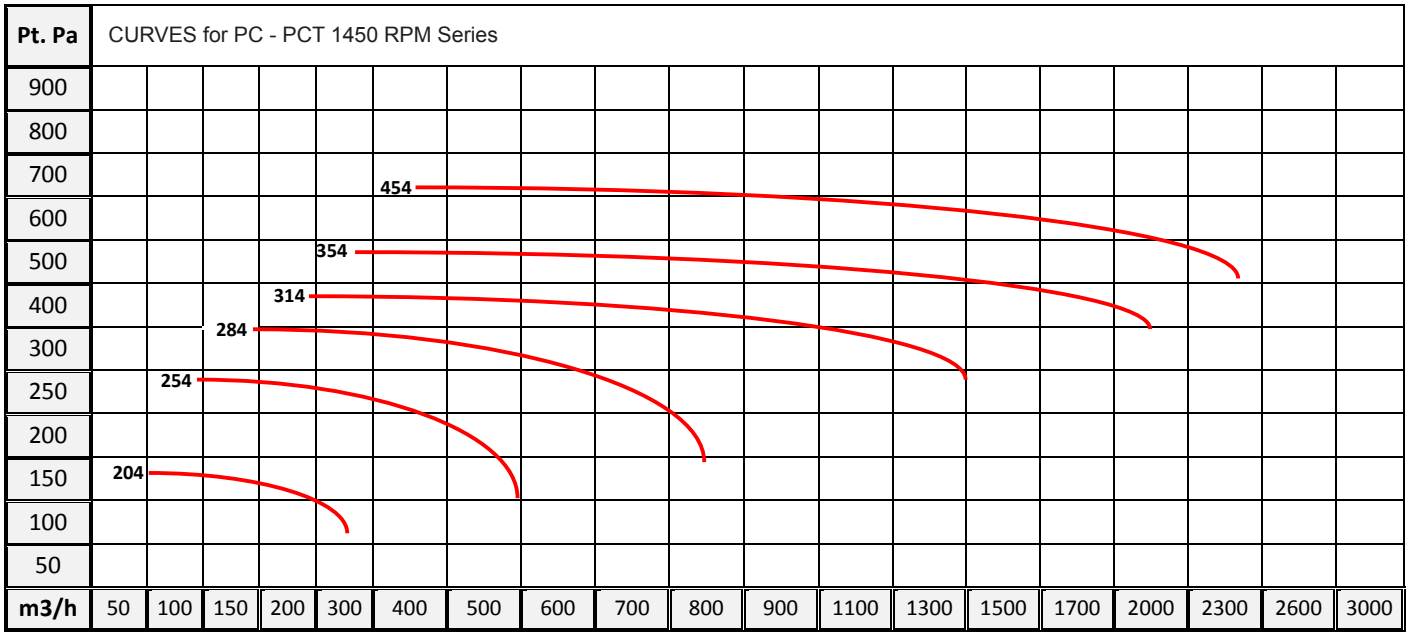
PC Series dimmensional data

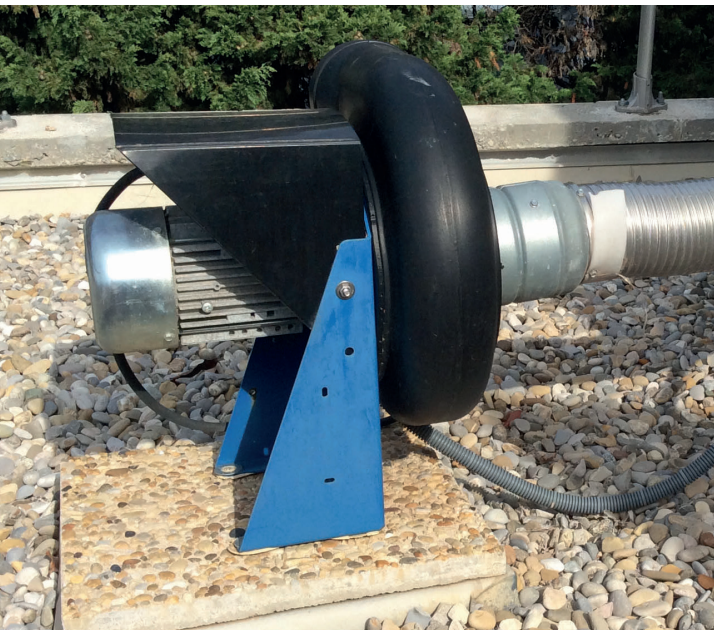
Type	Mot.Gr. Size	Mot. Kw	T/mn Rpm	A	B	C	D	E	F	G
PC 202	63	0,25	2850	142	187	40	125	120	150	60
PC 204	63	0,12	1370	142	187	40	125	120	150	60
PC 252	80	0,75	2850	183	228	40	160	153	188	60
PC 254	63	0,18	1370	183	228	40	160	153	188	60
PC 282	80	1,1	2850	208	274	40	180	160	204	60
PC 284	63	0,18	1370	208	274	40	180	160	204	60
PC 312	80	1,5	2850	230	310	40	200	170	220	60
PC 314	71	0,25	1400	230	310	40	200	170	220	60
PC 316	63	0,12	930	230	310	40	200	170	220	60
PC 402	112	4	2850	290	380	40	250	194	265	80
PC 402	112	5,5	2820	290	380	40	250	194	265	80
PC404	80	0,75	1410	290	380	40	250	194	265	80
PC 406	71	0,25	920	290	380	40	250	194	265	80

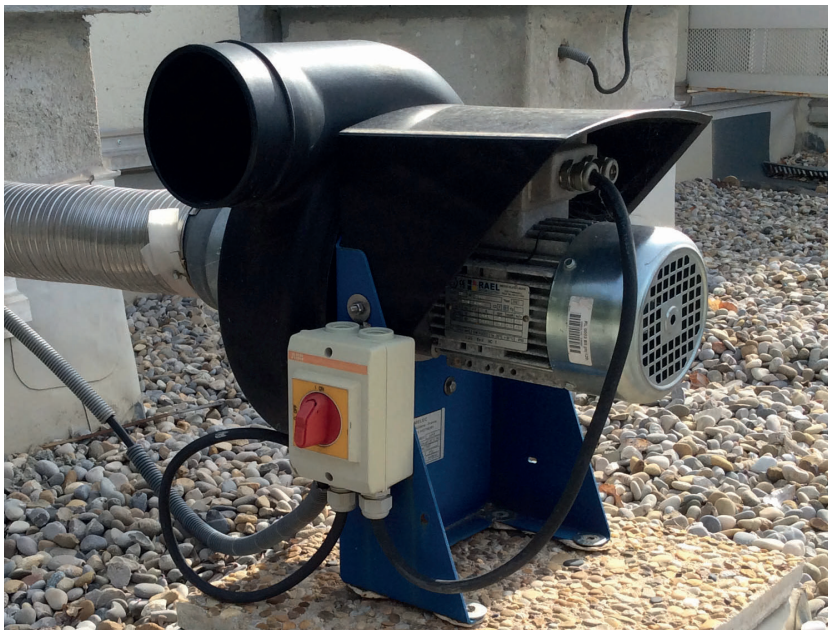
* IP 55 motor weight included ** ATEX motor weight included

Courbes series **PC - PCT**

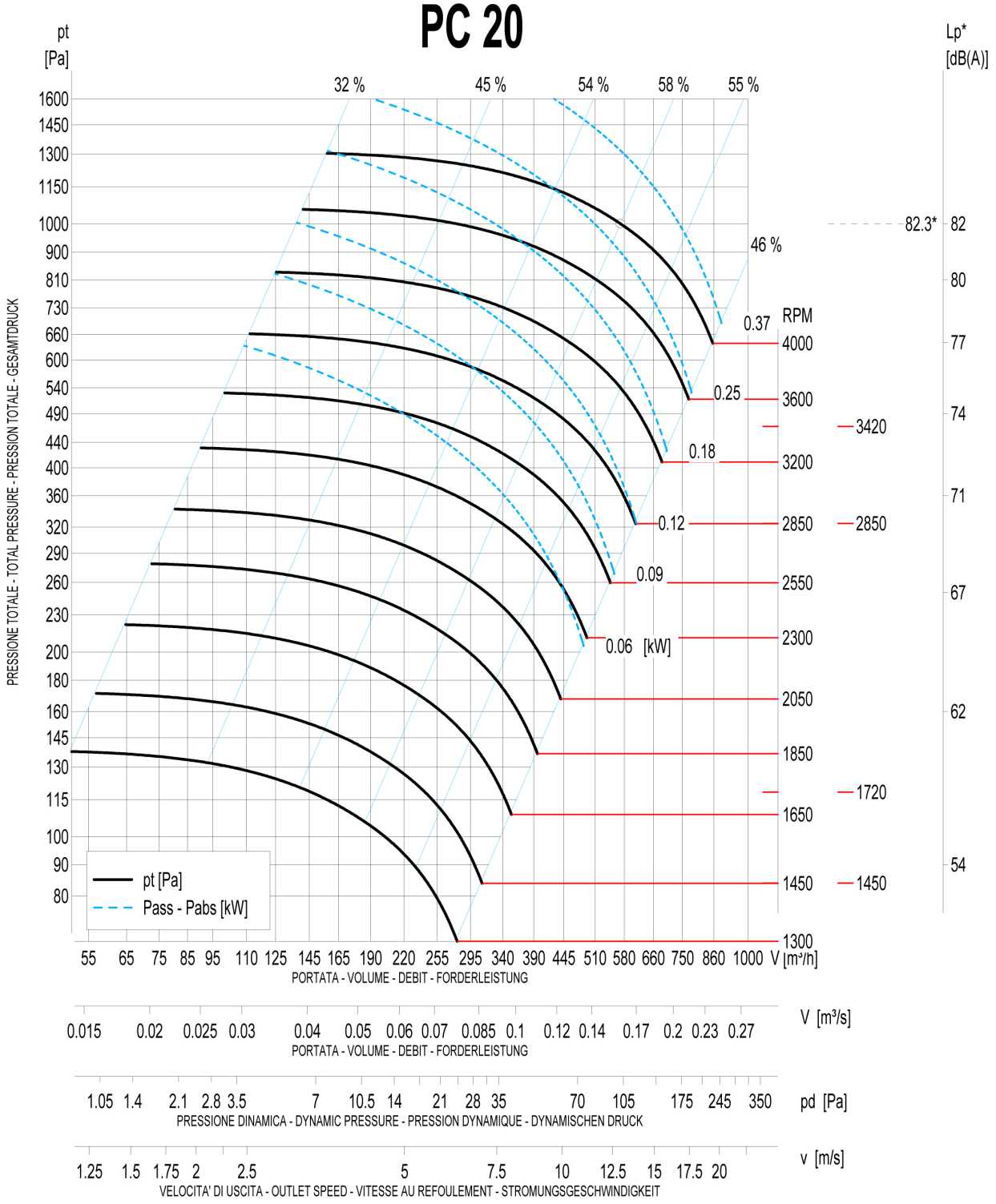








PC 20



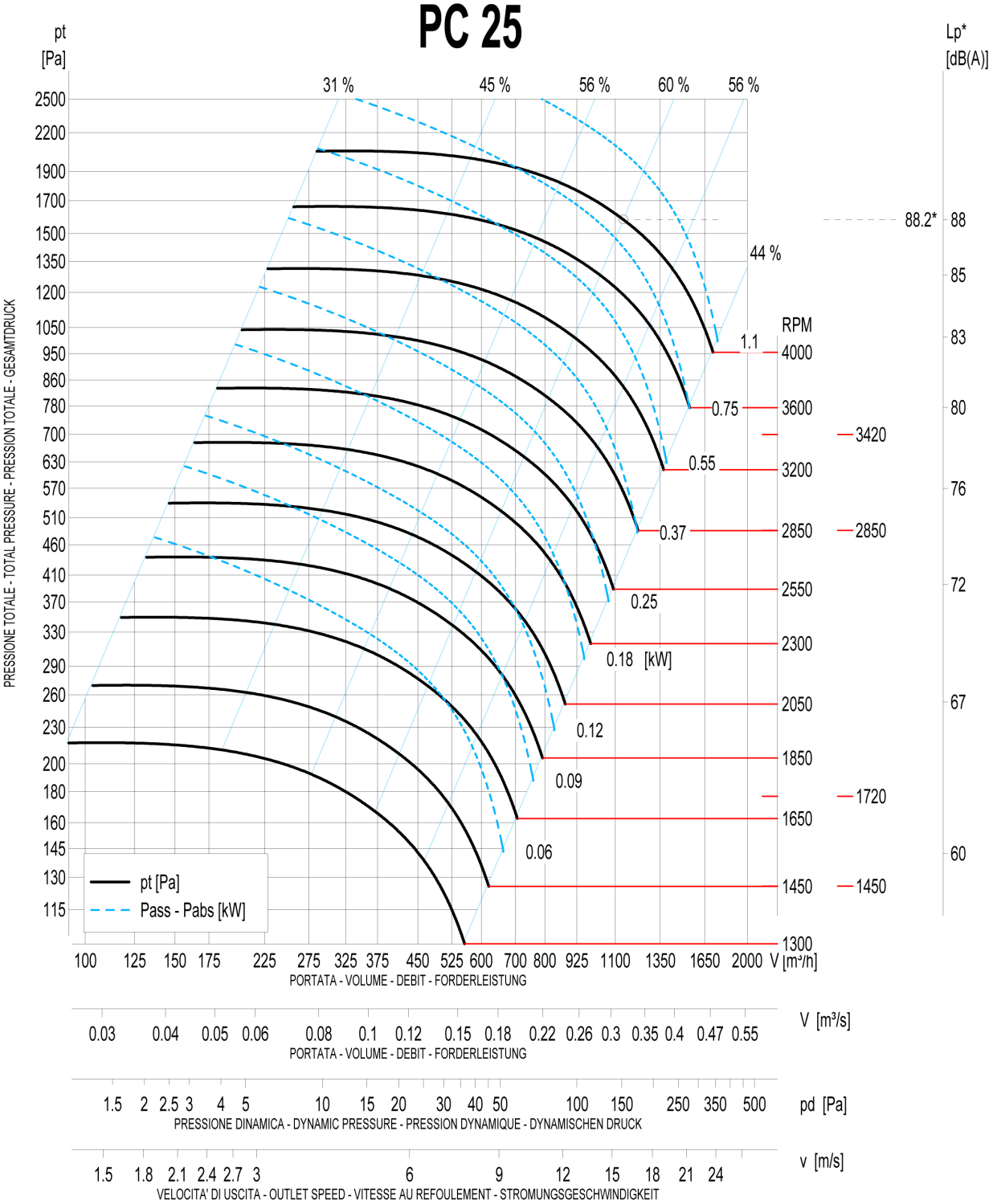
Livello potenza sonora totale - Total sound power level - Gesamt schalleistungspegel - Niveau totale de puissance sonore - [dB] *									
RPM	Banda d'ottava - Octave band - Oktav-Band - Bande d'octave [Hz]								Lp*
	63	125	250	500	1000	2000	4000	8000	dB(A)
1450	72.1	74.1	72.1	73.1	69.1	64.1	56.1	48.1	59.7
1720	75.9	77.9	75.9	76.9	72.9	67.9	59.9	51.9	62.8
2850	87.1	89.1	87.1	85.1	87.1	79.1	71.1	63.1	75.2
3420	91.1	93.1	91.1	89.1	91.1	83.1	75.1	67.1	79.2
4000	94.6	96.6	94.6	92.6	94.6	86.6	78.6	70.6	82.3

(*) Al massimo rendimento - At max. efficiency - (Distanza-distance-abstand-distance : 1.5 [m])

Temperatura - Temperature - Temperatur - Température : 15 [°] - Densità - Density - Bezugsdichte - Densité : 1.225 [kg/m³]

Tolleranza sulla portata ±5% - Capacity tolerance ±5% - Tolérance sur le débit ±5% - Fördertoleranz ±5%
I valori relativi alla rumorosità sono riferiti ad una misurazione in campo libero,con una tolleranza di +3 dB(A)
Noise values refer to a free field measurement with a tolerance of +3 dB(A)

PC 25



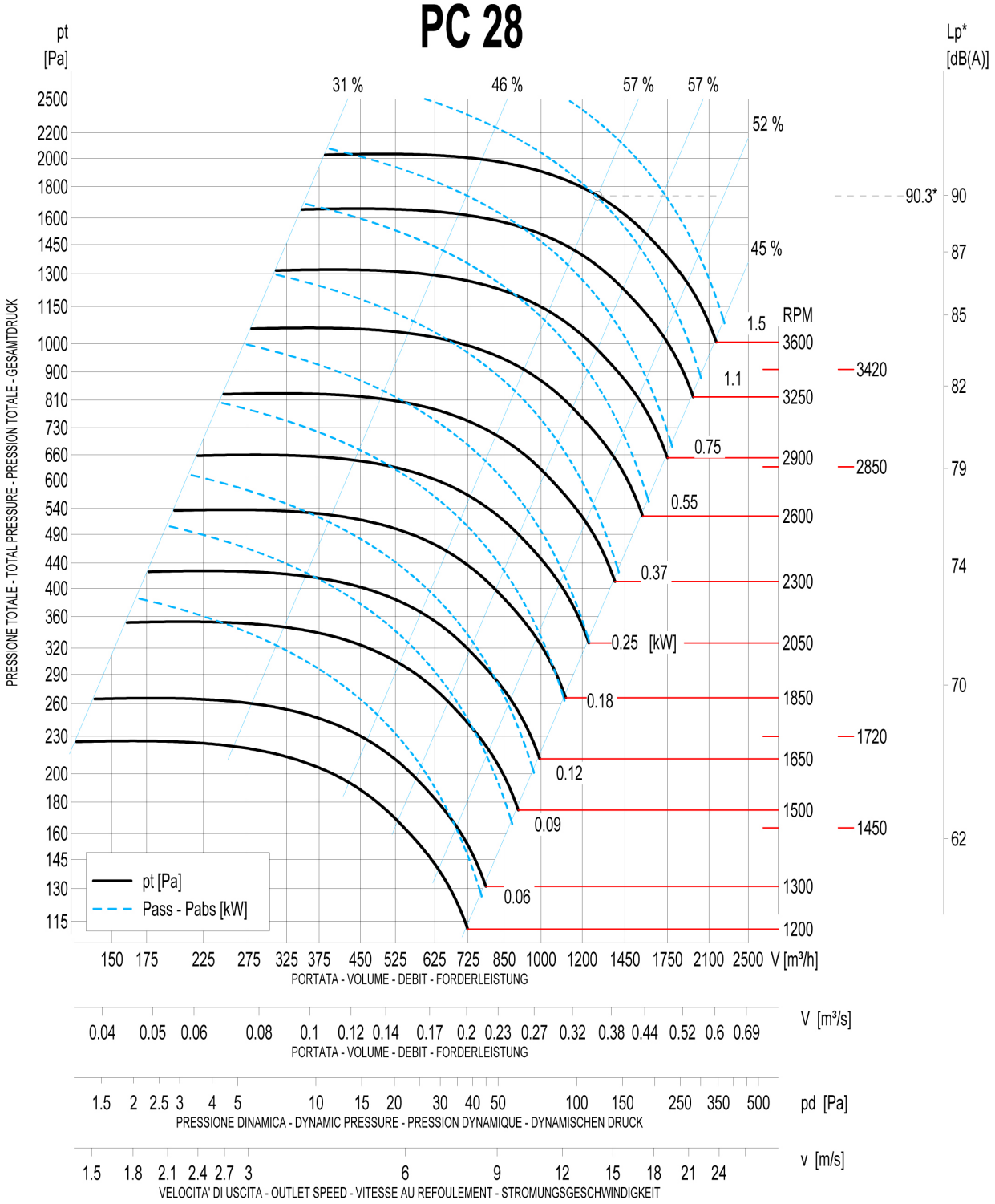
Livello potenza sonora totale - Total sound power level - Gesamt schalleistungspegel - Niveau totale de puissance sonore - [dB] *									
RPM	Banda d'ottava - Octave band - Oktav-Band - Bande d'octave [Hz]								Lp*
	63	125	250	500	1000	2000	4000	8000	dB(A)
1450	77.7	79.7	77.7	78.7	74.7	69.7	61.7	53.7	64.8
1720	81.5	83.5	81.5	82.5	78.5	73.5	65.5	57.5	68.8
2850	92.6	94.6	92.6	90.6	92.6	84.6	76.6	68.6	80.3
3420	96.7	98.7	96.7	94.7	96.7	88.7	80.7	72.7	84.3
4000	100.1	102.1	100.1	98.1	100.1	92.1	84.1	76.1	88.2

(*) Al massimo rendimento - At max. efficiency - (Distanza-distance-abstand-distance : 1.5 [m])

Temperatura - Temperature - Temperatur - Température : 15 [°] - Densità - Density - Bezugsdichte - Densité : 1.225 [kg/m³]

Tolleranza sulla portata ±5% - Capacity tolerance ±5% - Tolérance sur le débit ±5% - Fördertoleranz ±5%
I valori relativi alla rumorosità sono riferiti ad una misurazione in campo libero,con una tolleranza di +3 dB(A)
Noise values refer to a free field measurement with a tolerance of +3 dB(A)

PC 28



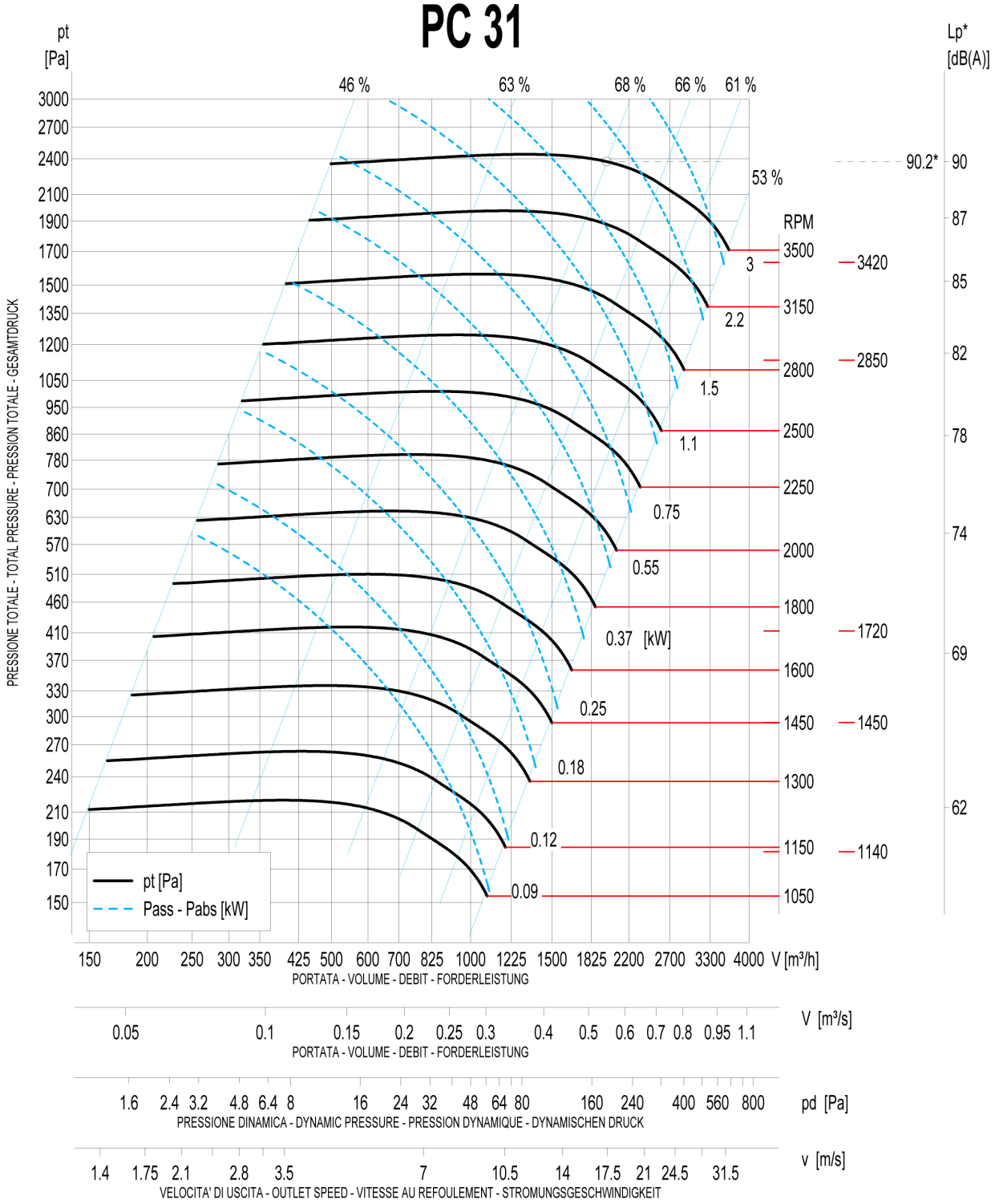
Livello potenza sonora totale - Total sound power level - Gesamt schalleistungspegel - Niveau totale de puissance sonore - [dB] *									
RPM	Banda d'ottava - Octave band - Oktav-Band - Bande d'octave [Hz]								Lp*
	63	125	250	500	1000	2000	4000	8000	dB(A)
1450	82.2	84.2	82.2	83.2	79.2	74.2	66.2	58.2	69.7
1720	86	88	86	87	83	78	70	62	72.8
2850	97.2	99.2	97.2	95.2	97.2	89.2	81.2	73.2	85.2
3420	101.2	103.2	101.2	99.2	101.2	93.2	85.2	77.2	89.2
3600	102.4	104.4	102.4	100.4	102.4	94.4	86.4	78.4	90.3

(*) Al massimo rendimento - At max. efficiency - (Distanza-distance-abstand-distance : 1.5 [m])

Temperatura - Temperature - Temperatur - Température : 15 [°] - Densità - Density - Bezugsdichte - Densité : 1.225 [kg/m³]

Tolleranza sulla portata ±5% - Capacity tolerance ±5% - Tolérance sur le débit ±5% - Fördertoleranz ±5%
I valori relativi alla rumorosità sono riferiti ad una misurazione in campo libero,con una tolleranza di +3 dB(A)
Noise values refer to a free field measurement with a tolerance of +3 dB(A)

PC 31



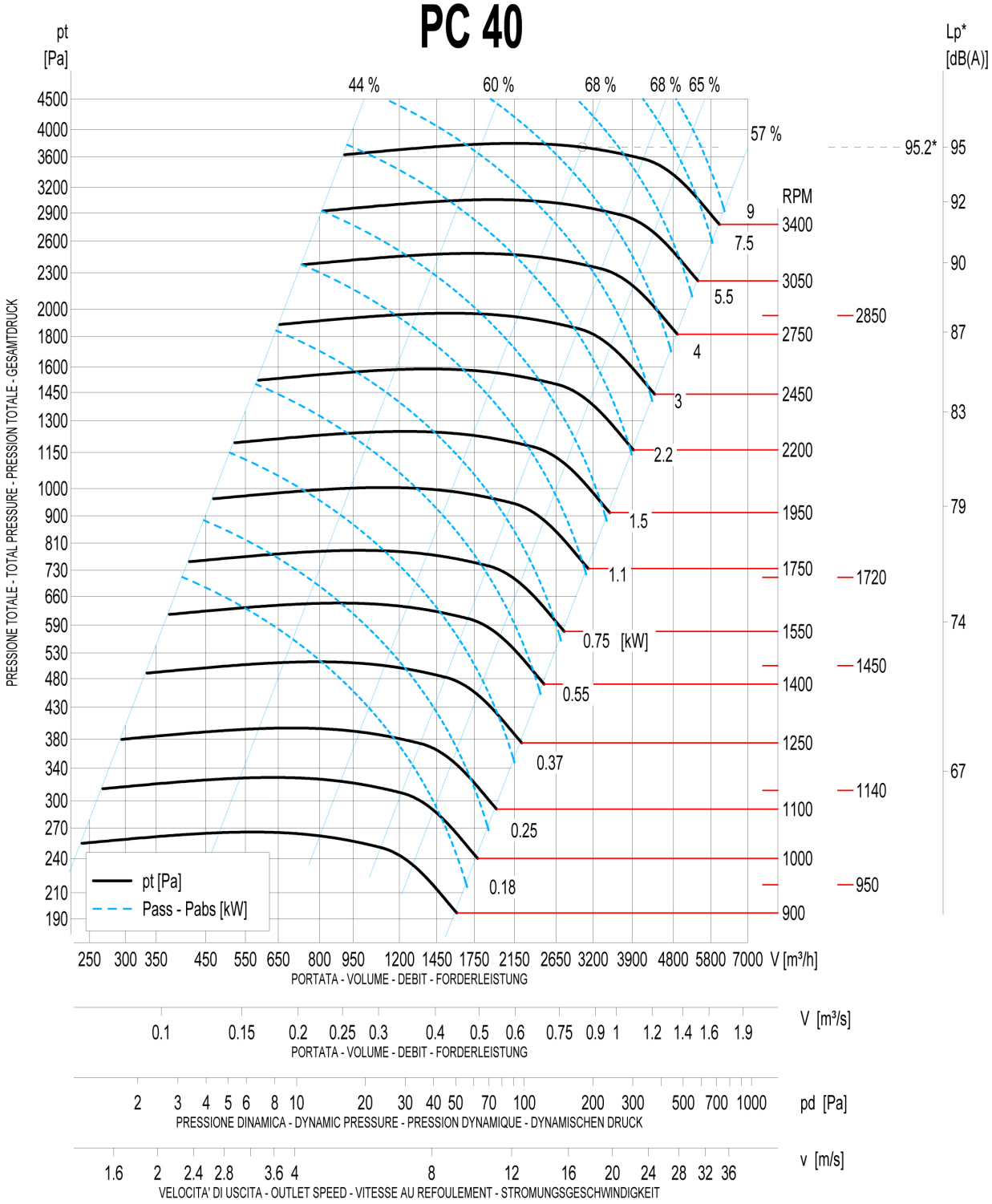
Livello potenza sonora totale - Total sound power level - Gesamt schalleistungspegel - Niveau totale de puissance sonore - [dB] *									
RPM	Banda d'ottava - Octave band - Oktav-Band - Bande d'octave [Hz]								Lp*
	63	125	250	500	1000	2000	4000	8000	dB(A)
1450	82.8	84.8	82.8	83.8	79.8	74.8	66.8	58.8	69.8
1720	86.6	88.6	86.6	87.6	83.6	78.6	70.6	62.6	73.8
2850	97.8	99.8	97.8	95.8	97.8	89.8	81.8	73.8	85.3
3420	101.8	103.8	101.8	99.8	101.8	93.8	85.8	77.8	89.3
3600	102.9	104.9	102.9	100.9	102.9	94.9	86.9	78.9	90.3

(*) Al massimo rendimento - At max. efficiency - (Distanza-distance-abstand-distance : 1.5 [m])

Temperatura - Temperature - Temperatur - Température : 15 [°] - Densità - Density - Bezugsdichte - Densité : 1.225 [kg/m³]

Tolleranza sulla portata ±5% - Capacity tolerance ±5% - Tolérance sur le débit ±5% - Fördertoleranz ±5%
I valori relativi alla rumorosità sono riferiti ad una misurazione in campo libero,con una tolleranza di +3 dB(A)
Noise values refer to a free field measurement with a tolerance of +3 dB(A)

PC 40



Livello potenza sonora totale - Total sound power level - Gesamt schalleistungspegel - Niveau totale de puissance sonore - [dB] *									
RPM	Banda d'ottava - Octave band - Oktav-Band - Bande d'octave [Hz]								Lp*
	63	125	250	500	1000	2000	4000	8000	dB(A)
900	77.8	79.8	80.8	75.8	74.8	69.8	61.8	53.8	64.1
1140	83	85	83	84	80	75	67	59	69.8
1450	88.3	90.3	88.3	89.3	85.3	80.3	72.3	64.3	75.7
1720	92.1	94.1	92.1	93.1	89.1	84.1	76.1	68.1	79.7
2850	103.3	105.3	103.3	101.3	103.3	95.3	87.3	79.3	91.2

(*) Al massimo rendimento - At max. efficiency - (Distanza-distance-abstand-distance : 1.5 [m])

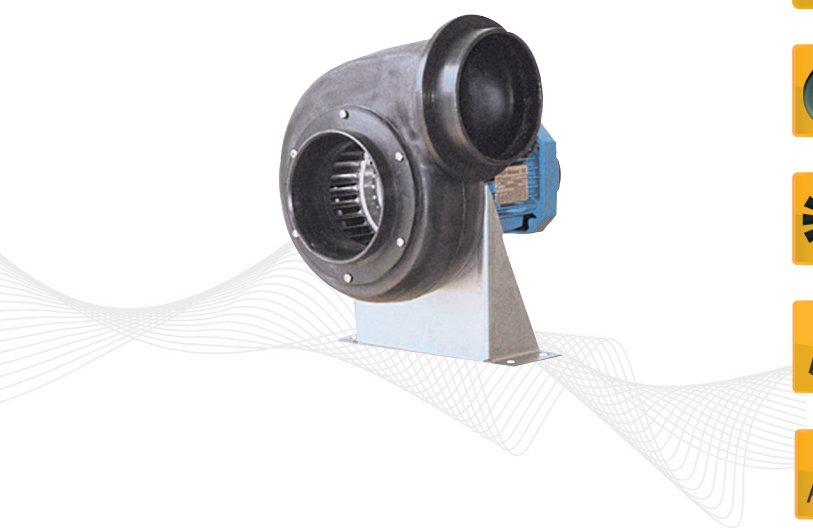
Temperatura - Temperature - Temperatur - Température : 15 [°] - Densità - Density - Bezugsdichte - Densité : 1.225 [kg/m³]

Tolleranza sulla portata ±5% - Capacity tolerance ±5% - Tolérance sur le débit ±5% - Fördertoleranz ±5%
I valori relativi alla rumorosità sono riferiti ad una misurazione in campo libero,con una tolleranza di +3 dB(A)
Noise values refer to a free field measurement with a tolerance of +3 dB(A)

PA *Series centrifugal fans*

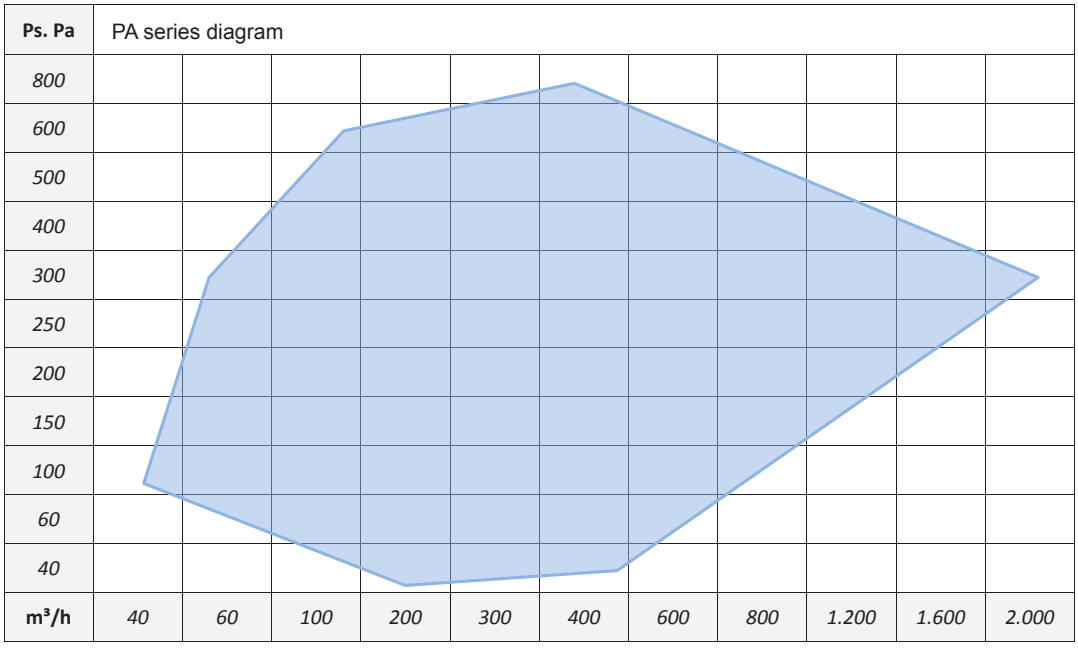
Applications: Storage cabinets-industy

Direct driven centrifugal fan with a PP housing and a forward Stainless steel impeller. Perfectly adapted for Storage cabinets, fume hoods, chemical products stocking bacs.



- m^3/h AIR FLOW from 40 to 2000 CMH
- Housing 100% PE construction
- Forward curved Stainless steel impeller
- Metal stand in steel epoxy painted
- Ex ATEX Available in ATEX version

Available options: ●Housing in PP-PPs-Pe el ● Metal stand in Stainless steel

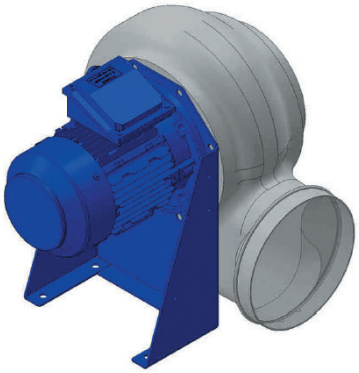


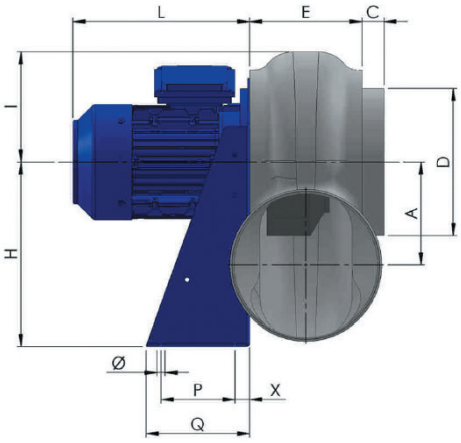
PA Series dimension table

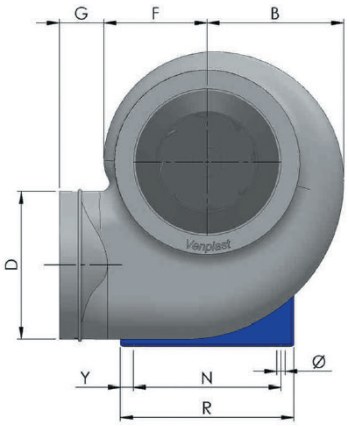
Type	Mot.Gr. Size	Mot. Kw	T/mn Rpm	A	B	C	D	d	E	F	G
PA132	63	0,18	2800	90	125	25	125	125	110	94	55
PA134	63	0,12	1400	90	125	25	125	125	110	94	55
PA162	71	0,37	2800	110	140	30	140	140	125	123	55
PA164	63	0,12	1400	110	14	30	140	140	125	123	55
PA202	80	1,10	2800	140	185	30	200	160	155	140	60
PA204	71	0,25	1400	140	185	30	200	160	155	140	60

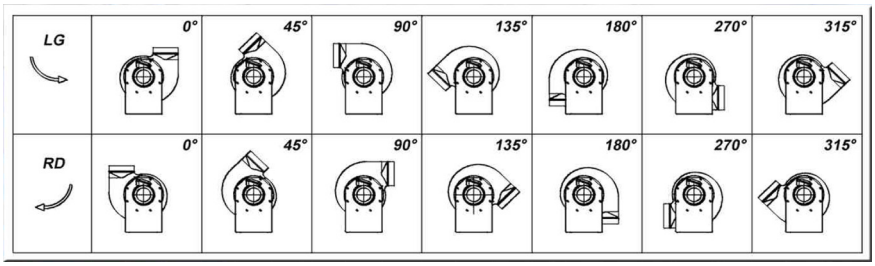
*IP55 standard motor weight included **ATEX motor weight included

Dimension drawing

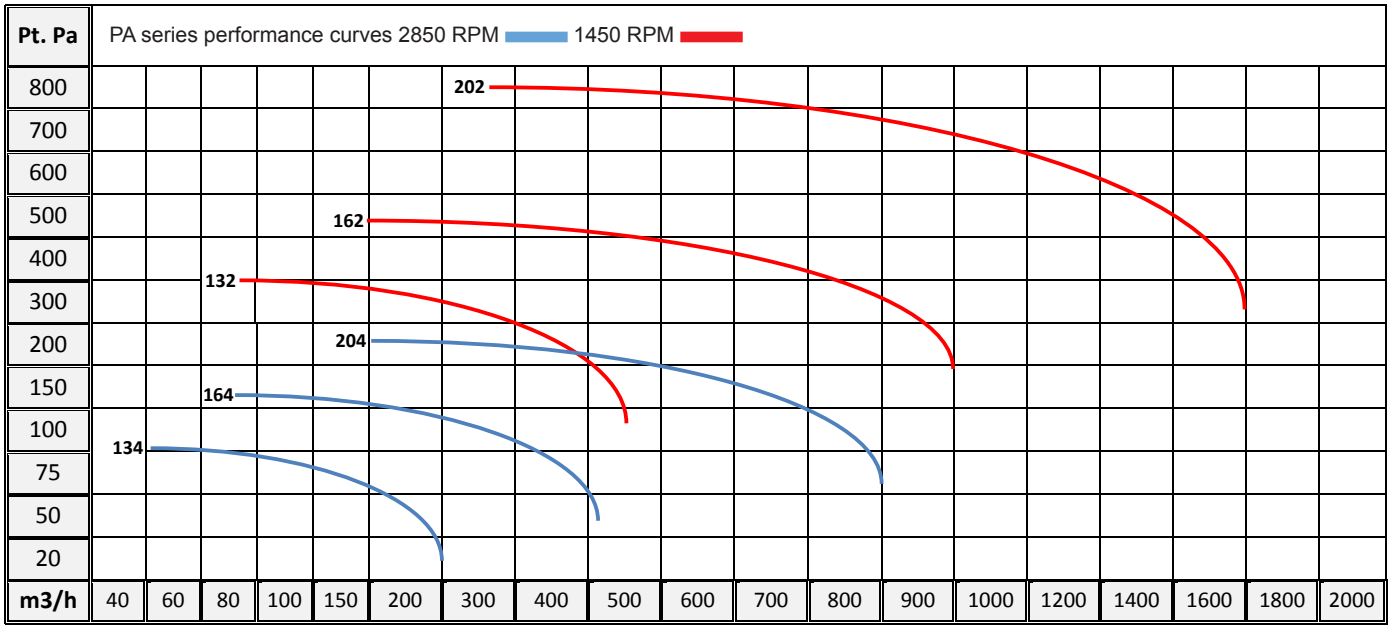








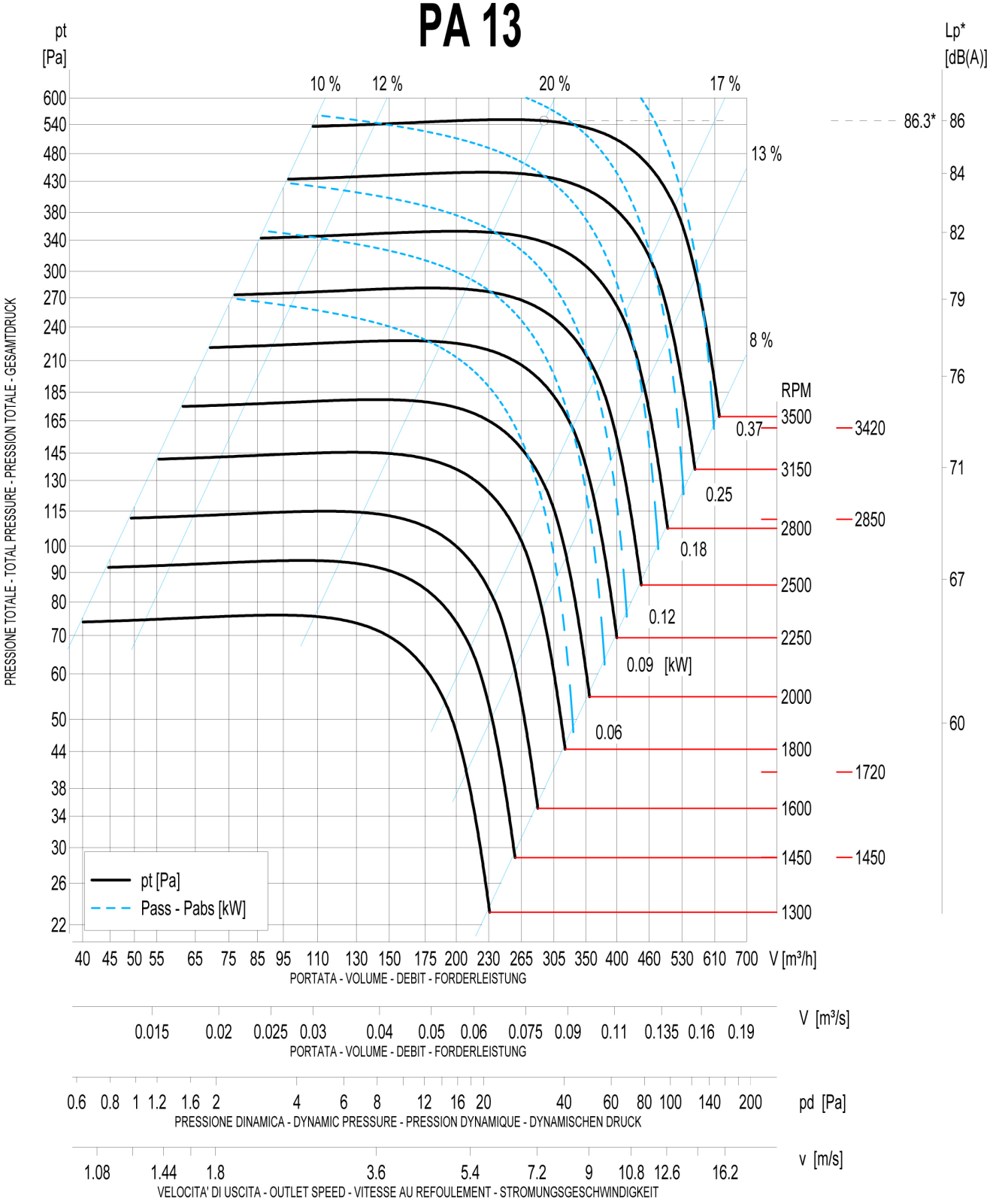
Handings table



Available options: ● housing in PP - PP el - PE es - PE el - PVC ● Impeller in - PP el Stainless steel motor support

H	I	L	N	P	Q	R	Y	X	Ø	Kg *	Kg **
170	110	190	210	50	85	235	12,5	17,5	11	5,5	10
170	110	190	210	50	85	235	12,5	17,5	11	5	9,5
205	130	220	240	80	120	270	15	20	11	8,5	11
205	130	190	240	80	120	270	15	20	11	8	11
250	150	260	200	100	140	235	17,5	20	11	18	20
250	150	210	200	100	140	235	17,5	20	11	10	12

PA 13



Livello potenza sonora totale - Total sound power level - Gesamt schalleistungspegel - Niveau totale de puissance sonore - [dB] *									
RPM	Banda d'ottava - Octave band - Oktav-Band - Bande d'octave [Hz]								Lp*
	63	125	250	500	1000	2000	4000	8000	dB(A)
1300	77.5	79.5	77.5	78.5	74.5	69.5	61.5	53.5	64.8
1450	79.9	81.9	79.9	80.9	76.9	71.9	63.9	55.9	66.8
1720	83.7	85.7	83.7	81.7	83.7	75.7	67.7	59.7	71.3
2850	94.8	96.8	94.8	92.8	94.8	86.8	78.8	70.8	82.3
3420	98.9	100.9	98.9	96.9	95.9	93.9	82.9	74.9	85.3

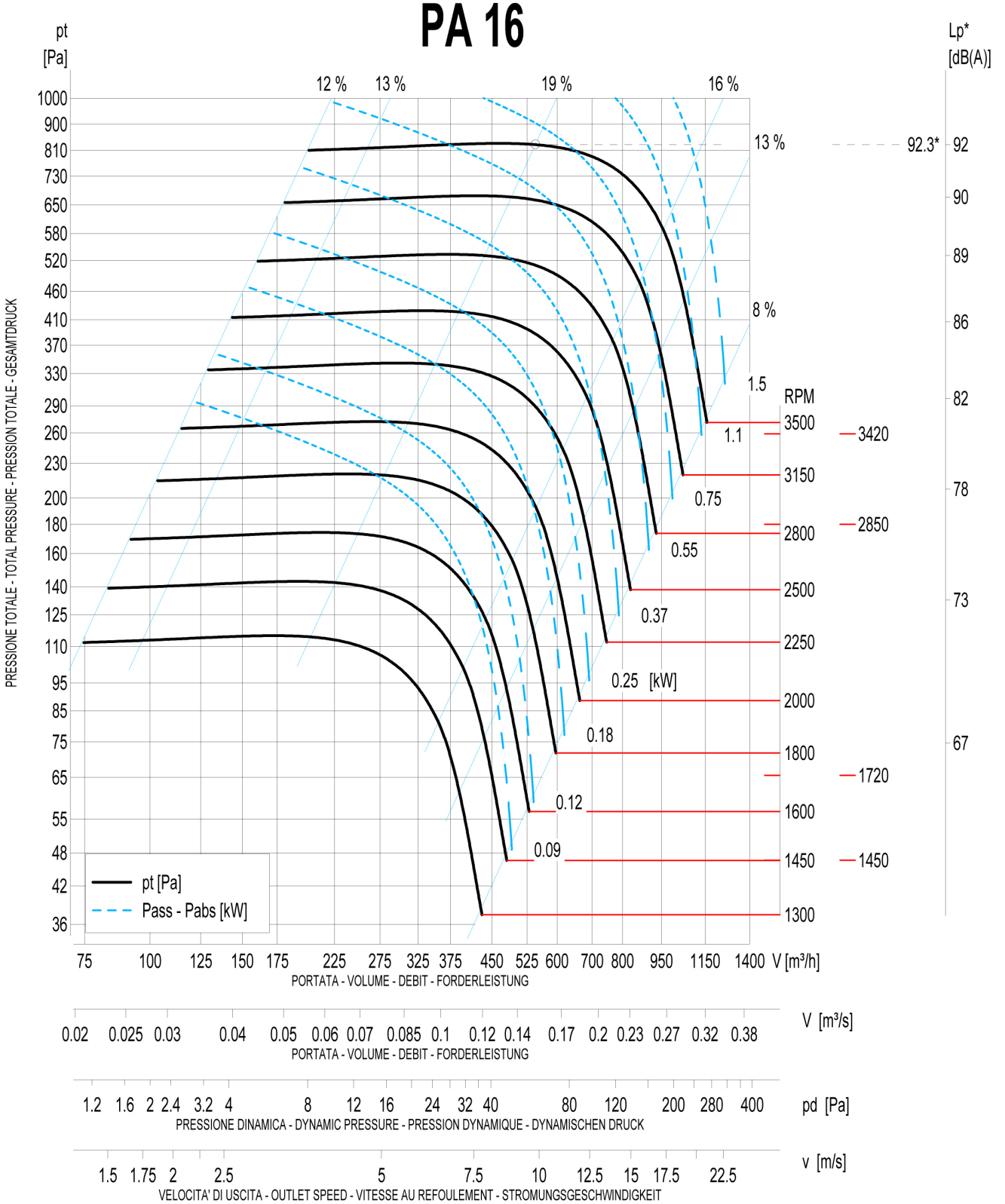
(*) Al massimo rendimento - At max. efficiency - (Distanza-distance-abstand-distance : 1.5 [m])

Temperatura - Temperature - Temperatur - Température : 15 [°] - Densità - Density - Bezugsdichte - Densité : 1.225 [kg/m³]

Tolleranza sulla portata ±5% - Capacity tolerance ±5% - Tolérance sur le débit ±5% - Fördertoleranz ±5%
I valori relativi alla rumorosità sono riferiti ad una misurazione in campo libero,con una tolleranza di +3 dB(A)
Noise values refer to a free field measurement with a tolerance of +3 dB(A)

PD² - WD² - GD² - PD² : 0.001 kgm²

PA 16



Livello potenza sonora totale - Total sound power level - Gesamt schalleistungspegel - Niveau totale de puissance sonore - [dB] *									
RPM	Banda d'ottava - Octave band - Oktav-Band - Bande d'octave [Hz]								Lp*
	63	125	250	500	1000	2000	4000	8000	dB(A)
1300	84.1	86.1	84.1	85.1	81.1	76.1	68.1	60.1	71.7
1450	86.5	88.5	86.5	87.5	83.5	78.5	70.5	62.5	73.8
1720	90.3	92.3	90.3	88.3	90.3	82.3	74.3	66.3	78.2
2850	101.4	103.4	101.4	99.4	101.4	93.4	85.4	77.4	89.3
3420	105.5	107.5	105.5	103.5	102.5	100.5	89.5	81.5	92.3

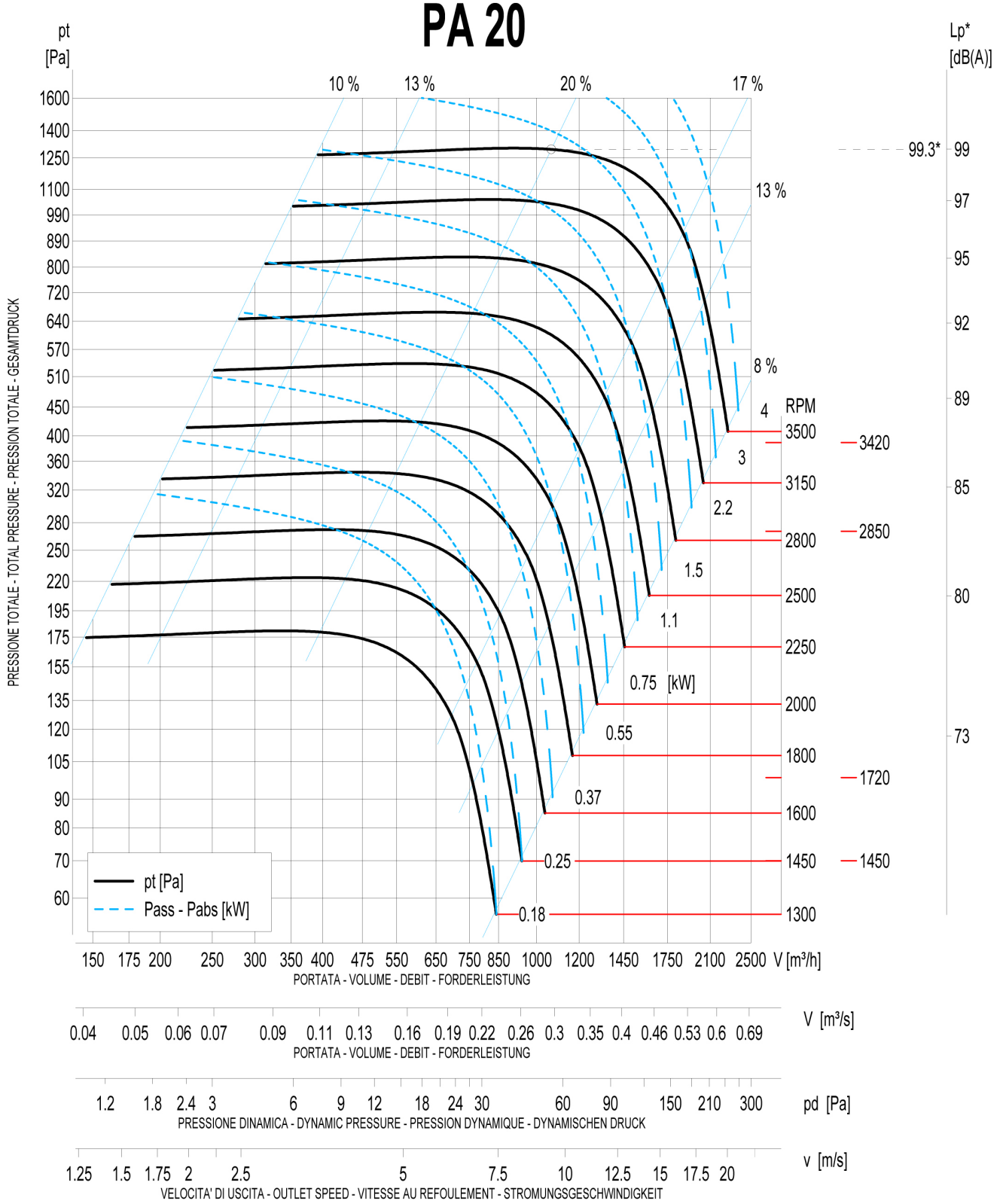
(*) Al massimo rendimento - At max. efficiency - (Distanza-distance-abstand-distance : 1.5 [m])

Temperatura - Temperature - Temperatur - Température : 15 [°] - Densità - Density - Bezugsdichte - Densité : 1.225 [kg/m³]

Tolleranza sulla portata ±5% - Capacity tolerance ±5% - Tolérance sur le débit ±5% - Fördertoleranz ±5%
I valori relativi alla rumorosità sono riferiti ad una misurazione in campo libero,con una tolleranza di +3 dB(A)
Noise values refer to a free field measurement with a tolerance of +3 dB(A)

PD² - WD² - GD² - PD² : 0.002 kgm²

PA 20



Livello potenza sonora totale - Total sound power level - Gesamt schalleistungspegel - Niveau totale de puissance sonore - [dB] *									
RPM	Banda d'ottava - Octave band - Oktav-Band - Bande d'octave [Hz]								Lp*
	63	125	250	500	1000	2000	4000	8000	dB(A)
1300	90.7	92.7	90.7	91.7	87.7	82.7	74.7	66.7	77.8
1450	93.2	95.2	93.2	94.2	90.2	85.2	77.2	69.2	80.7
1720	96.9	98.9	96.9	94.9	96.9	88.9	80.9	72.9	84.3
2850	108.1	110.1	108.1	106.1	108.1	100.1	92.1	84.1	96.2
3420	112.2	114.2	112.2	110.2	109.2	107.2	96.2	88.2	99.2

(*) Al massimo rendimento - At max. efficiency - (Distanza-distance-abstand-distance : 1.5 [m])

Temperatura - Temperature - Temperatur - Température : 15 [°] - Densità - Density - Bezugsdichte - Densité : 1.225 [kg/m³]

Tolleranza sulla portata ±5% - Capacity tolerance ±5% - Tolérance sur le débit ±5% - Fördertoleranz ±5%
I valori relativi alla rumorosità sono riferiti ad una misurazione in campo libero,con una tolleranza di +3 dB(A)
Noise values refer to a free field measurement with a tolerance of +3 dB(A)

PD² - WD² - GD² - PD² : 0.003 kgm²

TCV *SERIES, roof mounted plastic fan with vertical discharge*

Application: **Ventilation of chemical or corrosive products in laboratories - Faculties - industries**

Anti corrosion plastic construction – PE metal stand - backward curved blades, electronically and dynamically balanced PP impeller – high efficiency backward curved impeller (more than 72%) – Roof curb mounted fan with vertical – air flow from 250 to 5000 cmh – perfectly adapted for corrosive vapors extraction for fume hoods or stocking areas - Delivered complete with three phase or single phase motor , outside the airstream

m³/h Flow from 200 to 22 000 m3/h

Volute injected in PE or sheet metal in PP

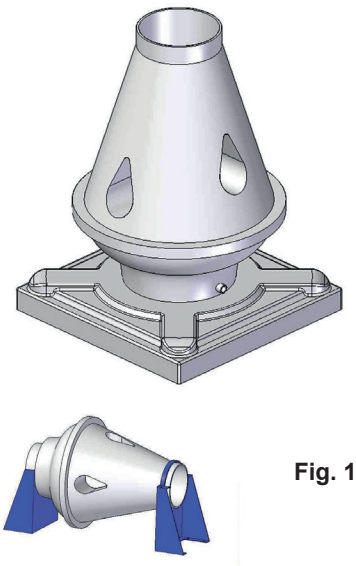
PP reaction turbine

Ex ATEX ATEX Versions

Ps. Pa	TCV series diagram													
2.500														
2.000														
1.500														
1.250														
1.000														
800														
600														
400														
200														
100														
50														
m³/h	200	400	800	1.200	1.600	2.000	3.000	4.000	6.000	8.000	10.000	15.000	20.000	25.000

● Single piece high density PE housing with no welded joint ● Made in PE – PP – PPs – PPel – PEes - PEel ● PP backward impeller ● Three phase, single phase, ATEX or 2 speeds, motor outside the airstream ● Wheather cover in PFRL (fiberglass) ● Mounting hardware in stainless steel

TCV Series **dimensional data and weight**



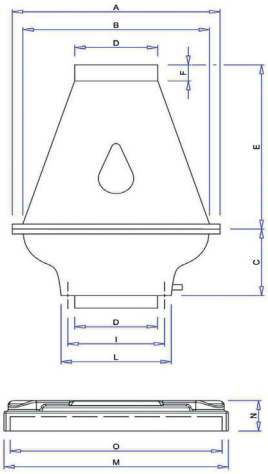
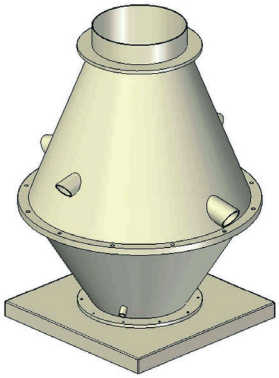


Fig. 1

TCV *Series 20 at 45 et 50 at 80*



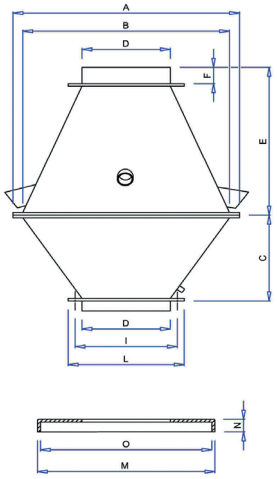
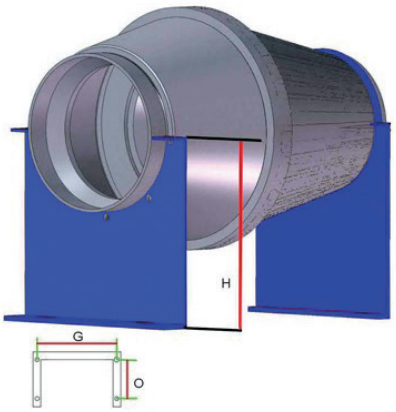


Fig. 2



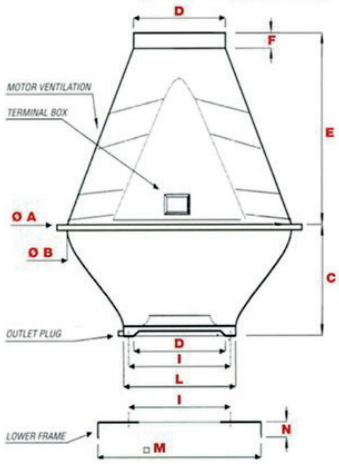


Fig.3

TCV Series dimensional data and weight 20 to 45 drawing 1 INJECTED volute

Type	Mot. Gr. Size	Mot. Kw	RPM	A	B	C	D	E	F	I	N°	L	M	N	O	Kg *	Kg **
TCV 202	63	0,18	2850	400	350	145	160	420	40	200	6 M6	240	540	80	490	12	14
TCV 204	63	0,12	1450	400	350	145	160	420	40	200	6 M6	240	540	80	490	12	13
TCV 222	63	0,25	2850	400	350	145	160	420	40	200	6 M6	240	540	80	490	14	16
TCV 224	63	0,12	1450	400	350	145	160	420	40	200	6 M6	240	540	80	490	13	13,5
TCV 252	71	0,37	2820	500	450	185	200	460	50	230	8 M6	265	540	80	490	15	29
TCV 254	63	0,12	1450	500	450	185	200	460	50	230	8 M6	265	540	80	490	14	15
TCV 312	90	1,5	2850	600	560	240	280	600	50	325	8 M6	365	540	80	490	29	34
TCV 314	71	0,25	1450	600	560	240	280	600	50	325	8 M6	365	540	80	490	26	28
TCV 352	90	2,2	2850	600	560	240	280	600	50	325	8 M8	365	540	80	490	34	38
TCV 354	71	0,37	1450	600	560	240	280	600	50	325	8 M8	365	540	80	490	29	32
TCV 356	71	0,18	930	600	560	240	280	600	50	325	8 M8	365	540	80	490	28	31
TCV 452	100	4	2850	800	730	280	355	700	50	405	8 M8	450	750	145	700	65	72
TCV 454	90	1,1	1450	800	730	280	355	700	50	405	8 M8	450	750	145	700	45	50
TCV 456	80	0,37	930	800	730	280	355	700	50	405	8 M8	450	750	145	700	38	42

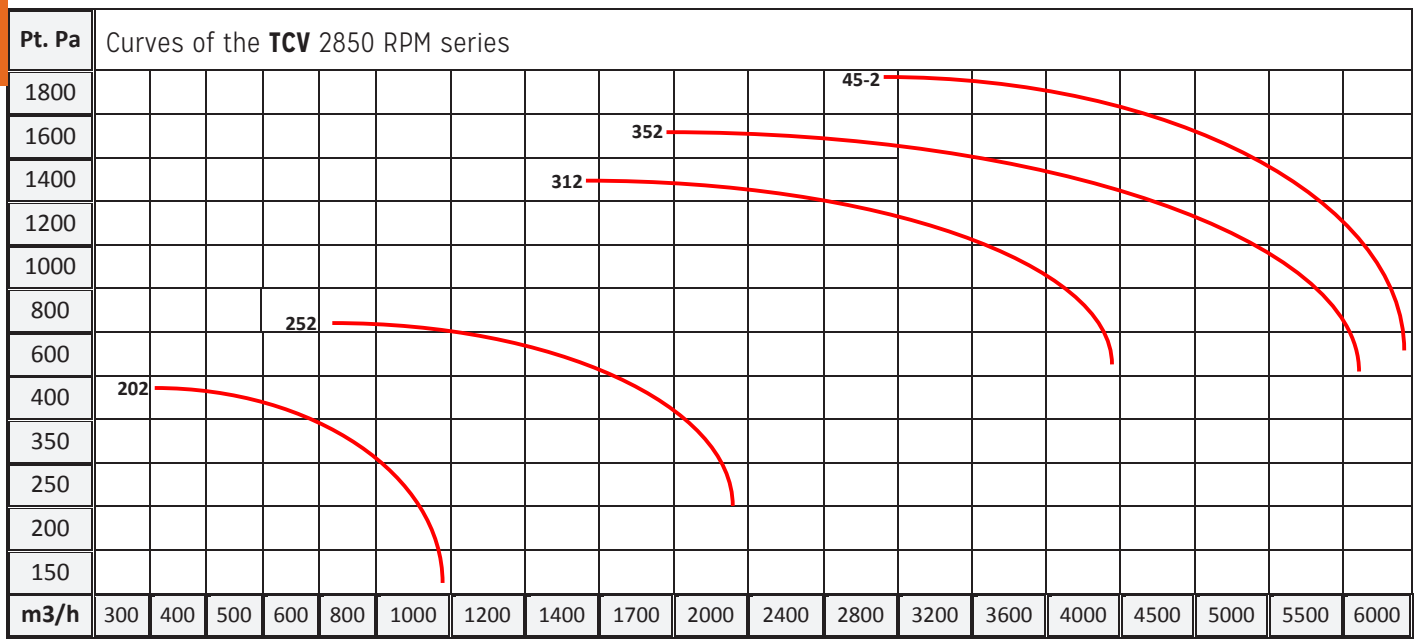
* IP55 motor weight included ** Atex motor weight included

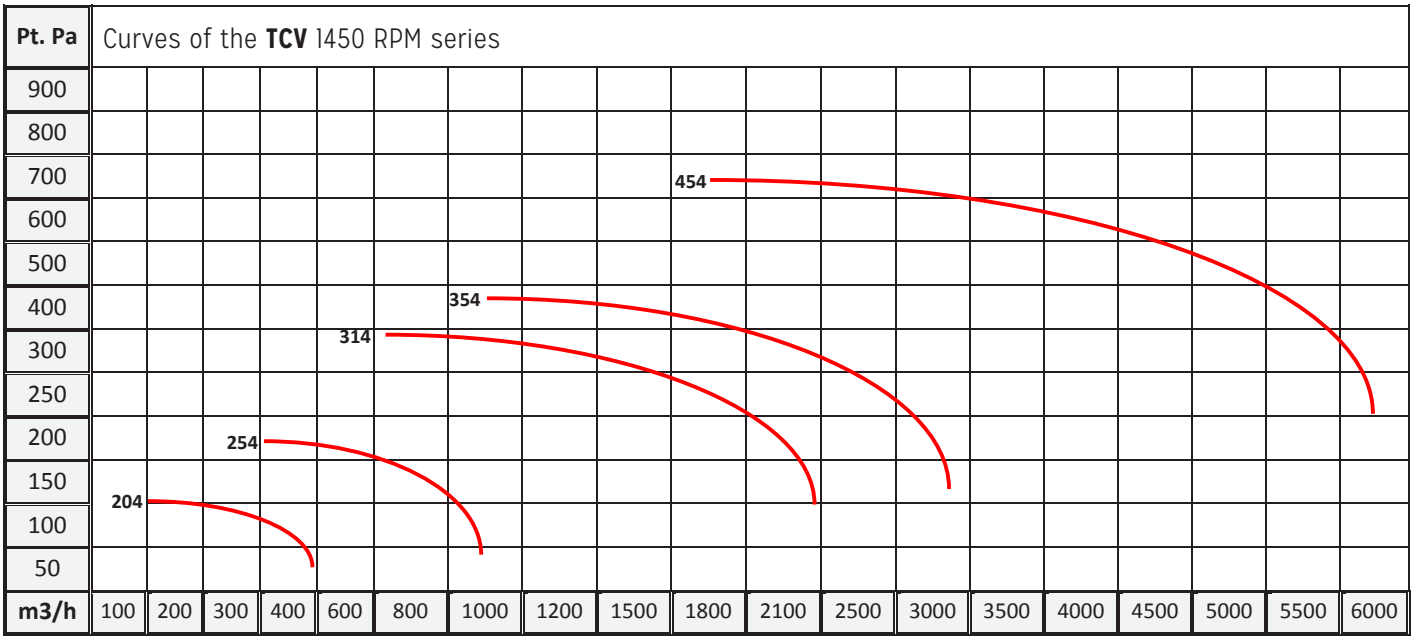
TCV Series dimensional data and weight 50 to 80 drawing 1 CHAUDRONNEE volute

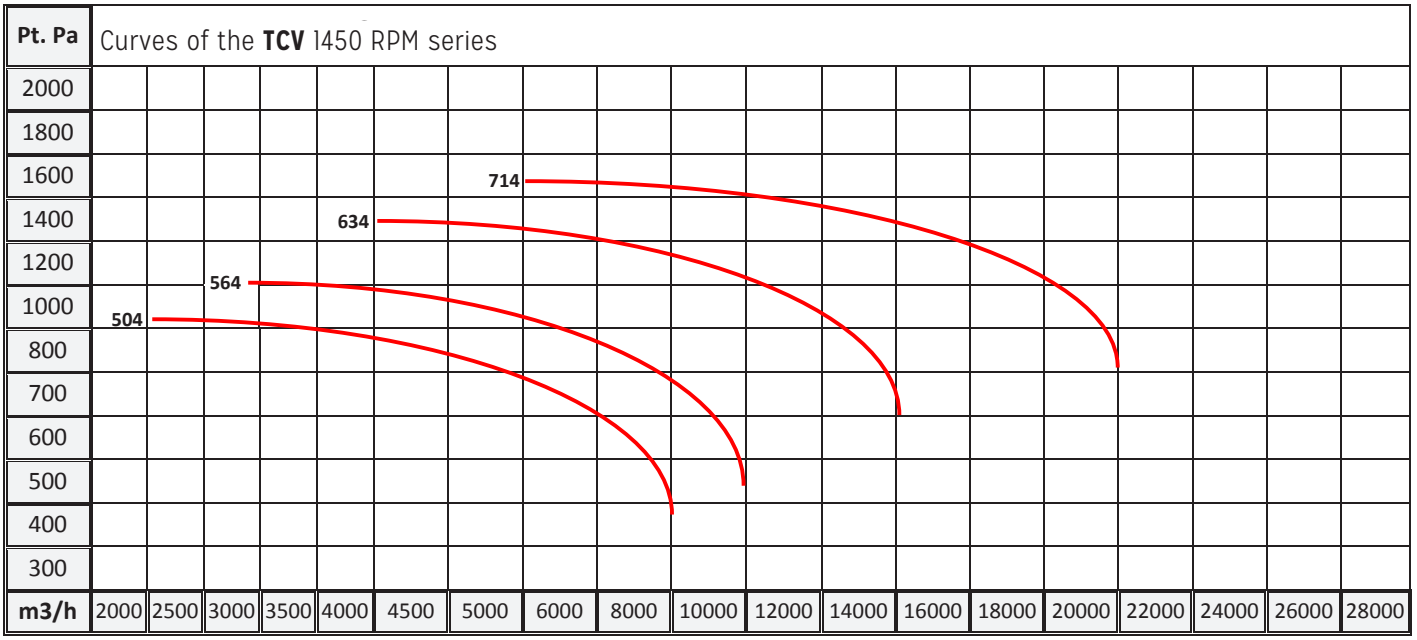
Type	Mot. Gr. Size	Mot. Kw	RPM	A	B	C	D	E	F	I	N°	L	M	N	O	Kg *	Kg **
TCV 504	100	2,2	1450	1000	900	400	400	700	80	510	10	550	800	70	770	95	98
TCV 506	80	0,55	930	1000	900	400	400	700	80	510	10	550	800	70	770	90	93
TCV 564	112	4	1450	1150	1050	430	450	800	80	560	10	600	900	70	870	130	140
TCV 566	90	1,1	930	1150	1050	430	450	800	80	560	10	600	900	70	870	125	135
TCV 634	132	5,5	1450	1300	1200	450	500	900	80	610	10	650	1000	70	970	155	165
TCV 636	112	2,2	930	1300	1200	450	500	900	80	610	10	650	1000	70	970	150	160
TCV 714	160	11	1450	1350	1270	500	600	1000	80	710	10	750	1100	70	1060	175	120
TCV 716	132	4	930	1350	1270	500	600	1000	80	710	10	750	1100	70	1060	170	185
TCV 806	160	7,5	930	1600	1500	520	700	1300	80	810	10	850	1200	70	1160	200	230

* IP55 motor weight included ** Atex motor weight included

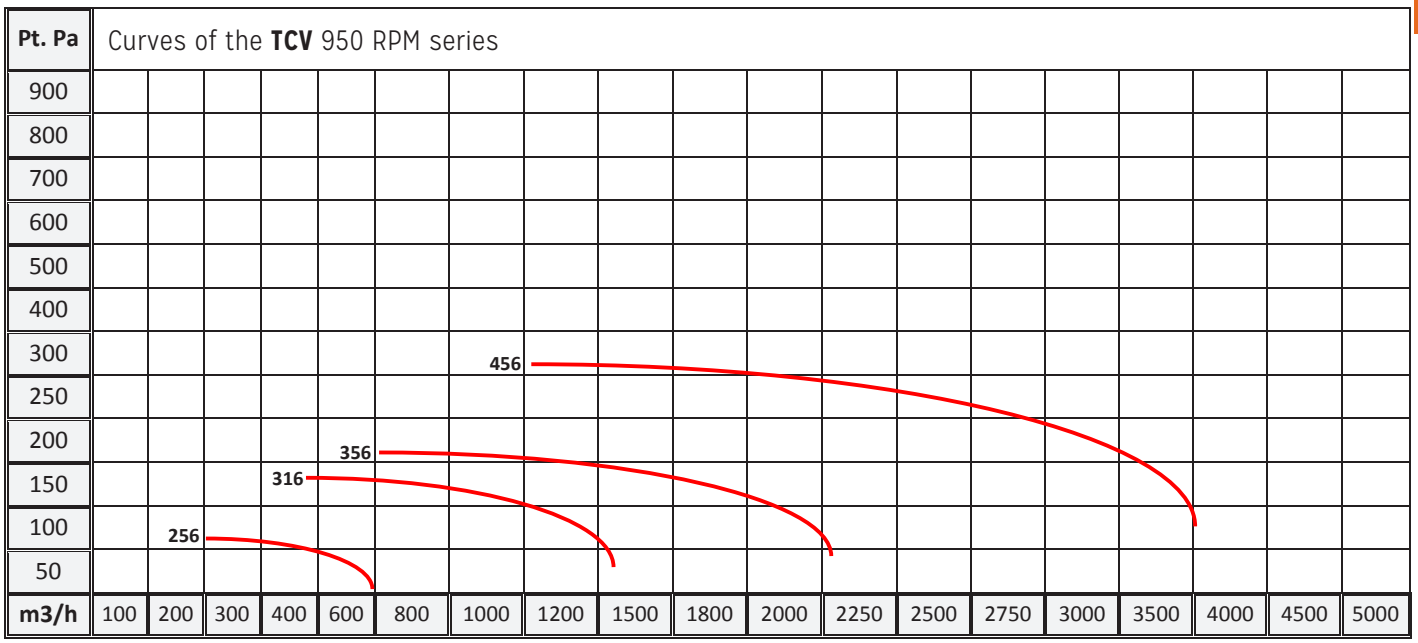
TCV *series curves*

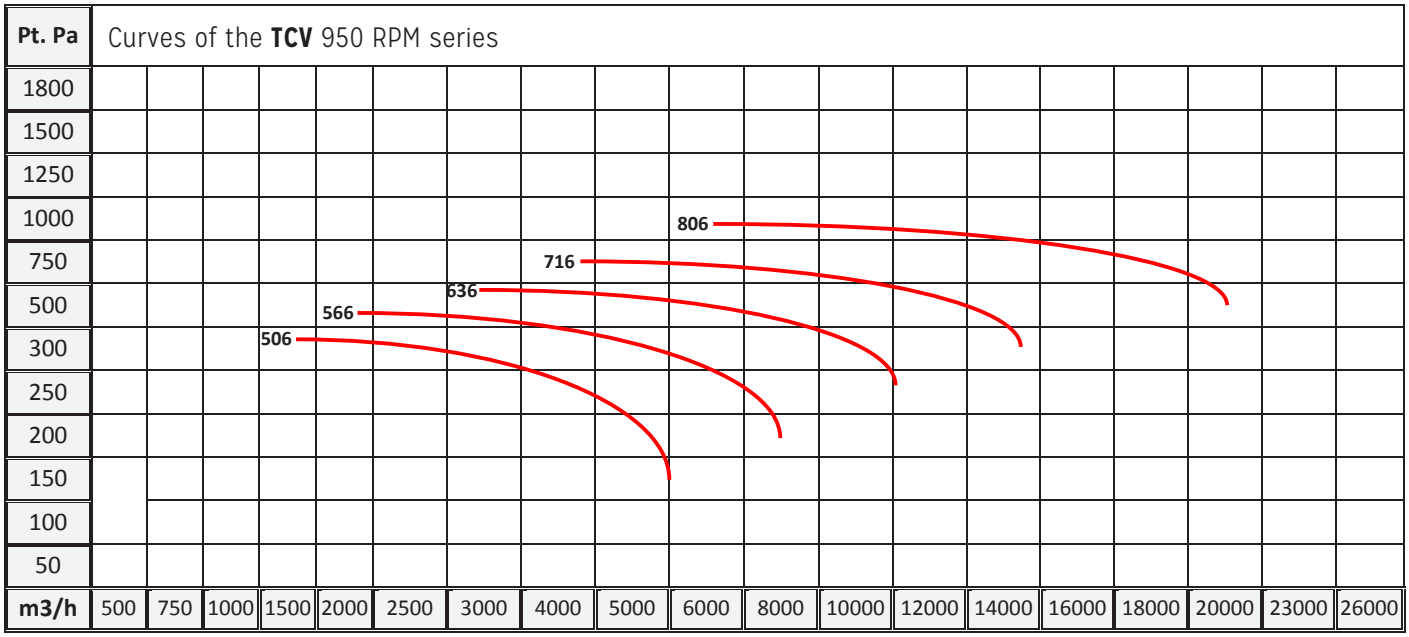




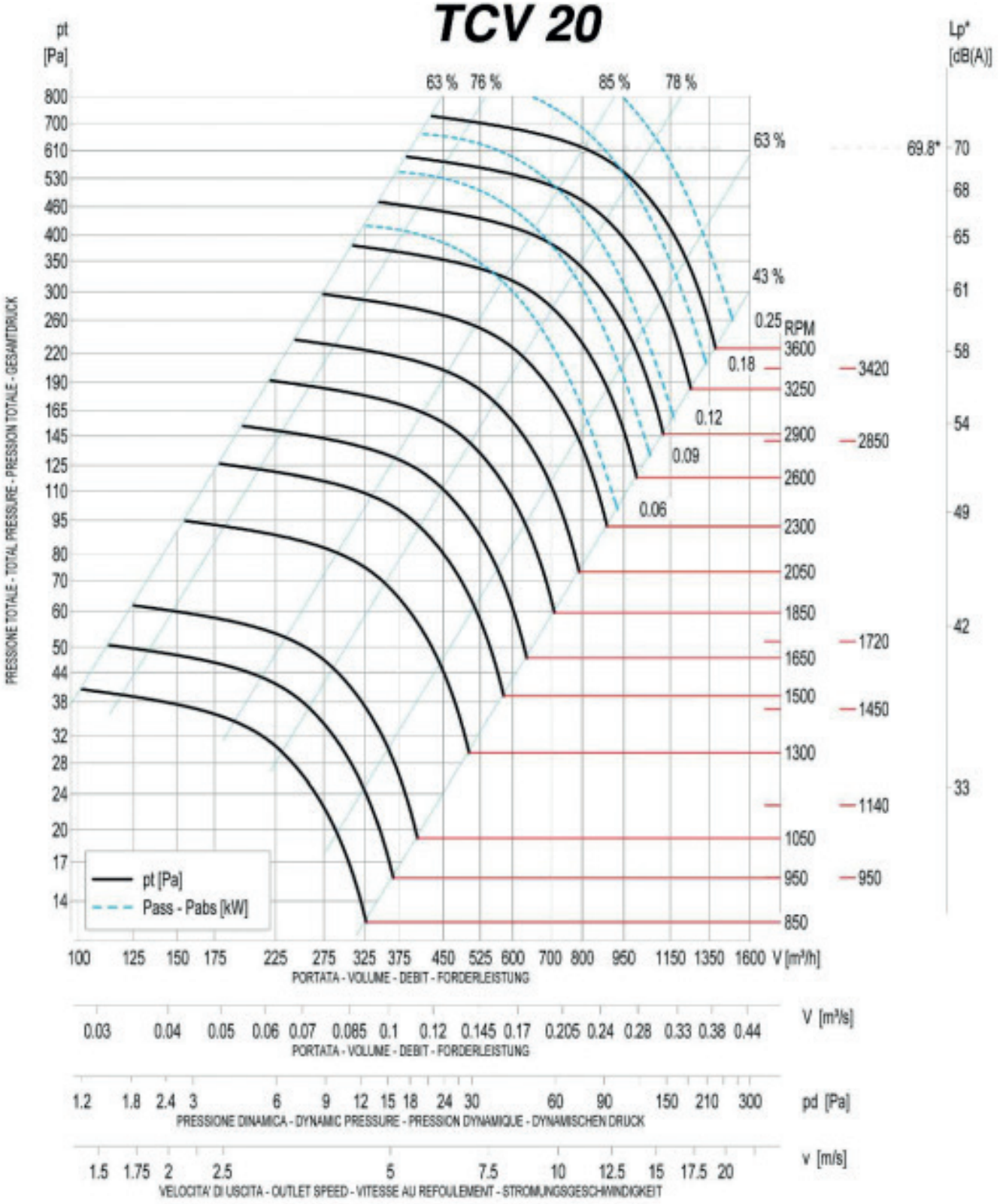


TCV *series curves*





TCV 20



Livello potenza sonora totale - Total sound power level - Gesamt schalleistungspegel - Niveau totale de puissance sonore - [dB] *									
RPM	Banda d'ottava - Octave band - Oktav-Band - Bande d'octave [Hz]								Lp*
	63	125	250	500	1000	2000	4000	8000	dB(A)
955	53.1	58.1	53.1	51.1	50.1	45.1	37.1	29.1	39.8
1200	58.1	63.1	58.1	56.1	55.1	50.1	42.1	34.1	44.8
1850	67.7	69.7	70.7	65.7	64.7	59.7	51.7	43.7	54.1
2600	75.3	77.3	78.3	73.3	72.3	67.3	59.3	51.3	62
3600	82.5	84.5	82.5	83.5	79.5	74.5	66.5	58.5	69.8

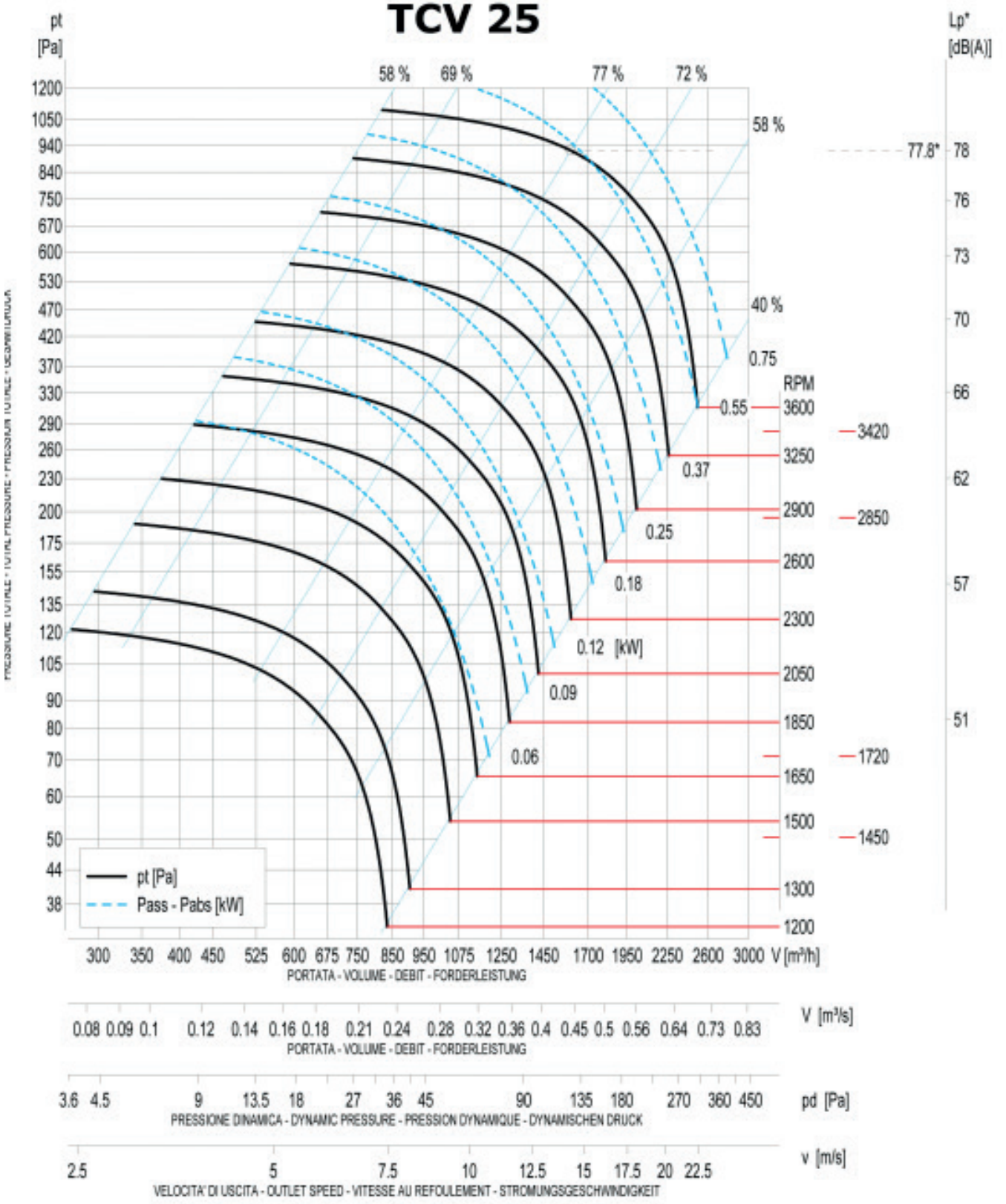
(*) Al massimo rendimento - At max. efficiency - (Distanza-distance-abstand-distance : 1.5 [m])

Temperatura - Temperature - Temperatur - Température : 15 [°] - Densità - Density - Bezugsdichte - Densité : 1.225 [kg/m³]

Tolleranza sulla portata ±5% - Capacity tolerance ±5% - Tolérance sur le débit ±5% - Fördertoleranz ±5%
I valori relativi alla rumorosità sono riferiti ad una misurazione in campo libero,con una tolleranza di +3 dB(A)
Noise values refer to a free field measurement with a tolerance of +3 dB(A)
Les valeurs relatives à la bruyance se réfèrent à un mesurage en champ libre,avec une tolérance de +3 dB(A)
Die die Geräuschentwicklung betreffenden Werte beziehen sich auf eine Freifeld-Messung bei einer Tolleranz von +3 dB(A)

PD² - WD² - GD² - PD² : 0.003 kgm²

TCV 25



Livello potenza sonora totale - Total sound power level - Gesamt schalleistungspegel - Niveau totale de puissance sonore - [dB] *									
RPM	Banda d'ottava - Octave band - Oktav-Band - Bande d'octave [Hz]								Lp*
	63	125	250	500	1000	2000	4000	8000	dB(A)
950	61.5	66.5	61.5	59.5	58.5	53.5	45.5	37.5	47.8
1450	70.9	72.9	73.9	68.9	67.9	62.9	54.9	46.9	57.1
1720	74.6	76.6	77.6	72.6	71.6	66.6	58.6	50.6	61.1
2850	85.8	87.8	85.8	86.8	82.8	77.8	69.8	61.8	72.8
3420	89.9	91.9	89.9	90.9	86.9	81.9	73.9	65.9	76.8

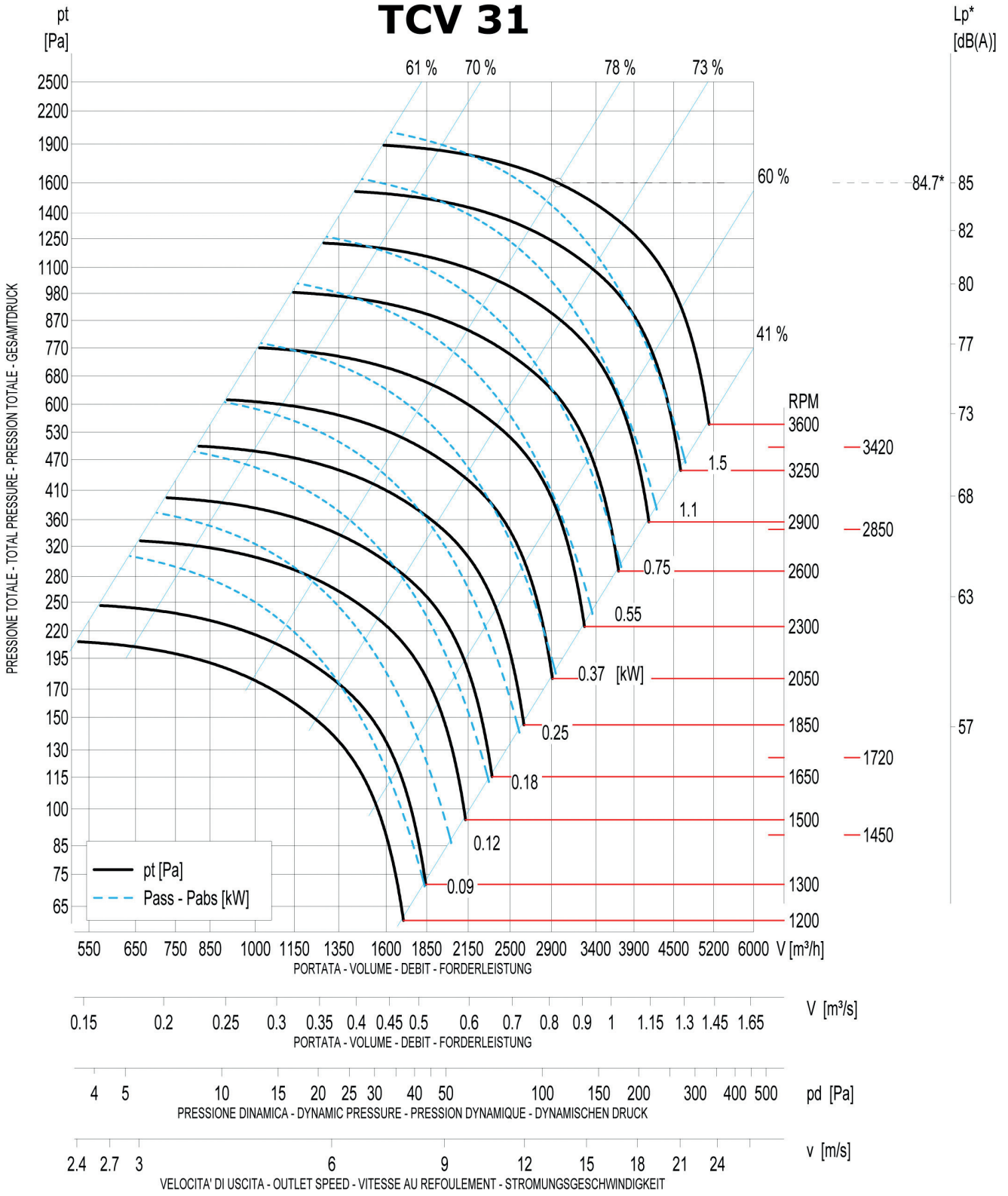
(*) Al massimo rendimento - At max. efficiency - (Distanza-distance-abstand-distance : 1.5 [m])

Temperatura - Temperature - Temperatur - Température : 15 [°] - Densità - Density - Bezugsdichte - Densité : 1.225 [kg/m³]

Tolleranza sulla portata ±5% - Capacity tolerance ±5% - Tolérance sur le débit ±5% - Fördertoleranz ±5%
I valori relativi alla rumorosità sono riferiti ad una misurazione in campo libero,con una tolleranza di +3 dB(A)
Noise values refer to a free field measurement with a tolerance of +3 dB(A)
Les valeurs relatives à la bruyance se réfèrent à un mesurage en champ libre,avec une tolérance de +3 dB(A)

PD² - WD² - GD² - PD² : 0.008 kgm²

TCV 31



Livello potenza sonora totale - Total sound power level - Gesamt schalleistungspegel - Niveau totale de puissance sonore - [dB] *									
RPM	Banda d'ottava - Octave band - Oktav-Band - Bande d'octave [Hz]								Lp*
	63	125	250	500	1000	2000	4000	8000	dB(A)
950	67.7	69.7	70.7	65.7	64.7	59.7	51.7	43.7	54.1
1450	77.1	79.1	80.1	75.1	74.1	69.1	61.1	53.1	64
1720	80.9	82.9	83.9	78.9	77.9	72.9	64.9	56.9	67.1
2850	92.1	94.1	92.1	93.1	89.1	84.1	76.1	68.1	79.7
3420	96.1	98.1	96.1	97.1	93.1	88.1	80.1	72.1	83.7

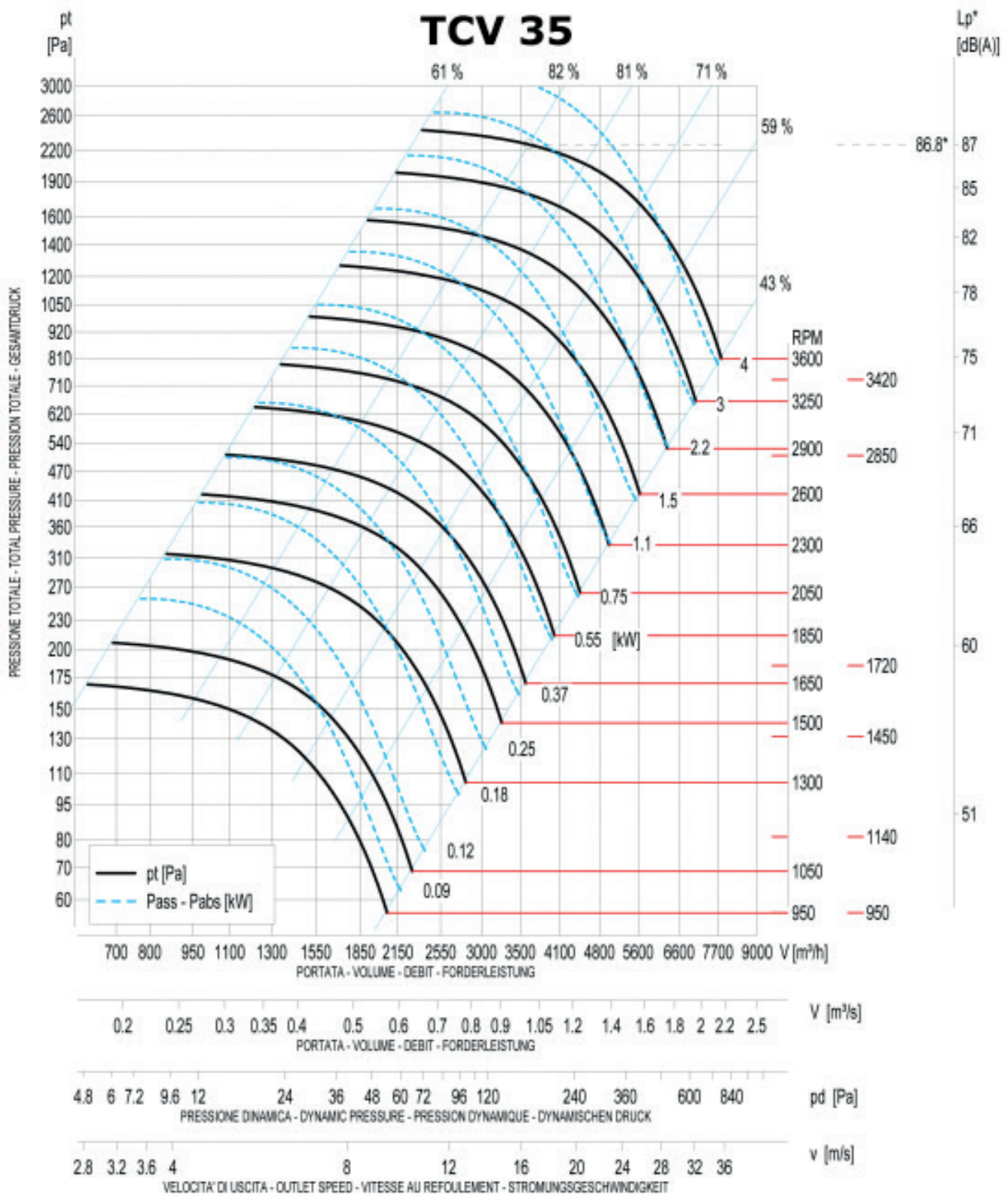
(*) Al massimo rendimento - At max. efficiency - (Distanza-distance-abstand-distance : 1.5 [m])

Temperatura - Temperature - Temperatur - Température : 15 [°] - Densità - Density - Bezugsdichte - Densité : 1.225 [kg/m³]

Tolleranza sulla portata ±5% - Capacity tolerance ±5% - Tolérance sur le débit ±5% - Fördertoleranz ±5%
I valori relativi alla rumorosità sono riferiti ad una misurazione in campo libero,con una tolleranza di +3 dB(A)
Noise values refer to a free field measurement with a tolerance of +3 dB(A)
Les valeurs relatives à la bruyance se réfèrent à un mesurage en champ libre,avec une tolérance de +3 dB(A)
Die die Geräuschentwicklung betreffenden Werte beziehen sich auf eine Freifeld-Messung bei einer Tolleranz von +3 dB(A)

PD^2 - WD^2 - GD^2 - PD^2 : 0.026 kgm²

TCV 35



Livello potenza sonora totale - Total sound power level - Gesamt schalleistungspegel - Niveau totale de puissance sonore - [dB] *									
RPM	Banda d'ottava - Octave band - Oktav-Band - Bande d'octave [Hz]								Lp*
	63	125	250	500	1000	2000	4000	8000	dB(A)
950	70.4	75.4	70.4	68.4	67.4	62.4	54.4	46.4	56.8
1450	79.8	81.8	82.8	77.8	76.8	71.8	63.8	55.8	66.1
1720	83.6	85.6	86.6	81.6	80.6	75.6	67.6	59.6	70.1
2850	94.7	96.7	94.7	95.7	91.7	86.7	78.7	70.7	81.8
3420	98.8	100.8	98.8	99.8	95.8	90.8	82.8	74.8	85.8

(*) Al massimo rendimento - At max. efficiency - (Distanza-distance-abstand-distance : 1.5 [m])

Temperatura - Temperature - Temperatur - Température : 15 [°] - Densità - Density - Bezugsdichte - Densité : 1.225 [kg/m³]

Tolleranza sulla portata ±5% - Capacity tolerance ±5% - Tolérance sur le débit ±5% - Fördertoleranz ±5%
I valori relativi alla rumorosità sono riferiti ad una misurazione in campo libero,con una tolleranza di +3 dB(A)
Noise values refer to a free field measurement with a tolerance of +3 dB(A)
Les valeurs relatives à la bruyance se réfèrent à un mesurage en champ libre,avec une tolérance de +3 dB(A)
Die die Geräuschentwicklung betreffenden Werte beziehen sich auf eine Freifeld-Messung bei einer Tolleranz von +3 dB(A)

PD² - WD² - GD² - PD² : 0.045 kgm²

RATED DATA - THREE PHASE MOTORS

4 Poles

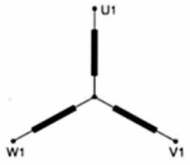
Tipo *Type* *Type*	Potenza *Output* *Puissance* KW	Giri *r.p.m.* *t/mn*	Corrente *Current* *Intensité* V. 400 A.	Rendim. *Efficiency* *Rendem.* η%	Fatt. Pot. *Power fact.* *Fact. Puis.* Cos. φ	Ia/In *Ia/In* *Id/In*	Ca/Cn *Ma/Mn* *Cd/Cn*	Cm/Cn *Mk/Mn* *Cm/Cn*	Mom. In. *Mom. of in.* *Mom. d'In* J Kg m²	Massa *Mass* *Masse* Kg.	Rumorosità *Noise* *Level* dB(A)
56 A	0,06	1314	0,27	47	0,65	2,4	2	2,1	0,000504	3,2	65
56 B	0,09	1255	0,35	47	0,75	2,1	2,1	1,8	0,000548	3,4	68
63 A	0,12	1310	0,48	45	0,78	2,6	1,7	1,8	0,000919	4,0	61
63 B	0,18	1321	0,68	52	0,72	2,7	1,8	1,8	0,001068	4,5	67
71 A	0,25	1402	0,87	58	0,70	3,6	1,7	2,3	0,003316	6,1	65
71 B	0,37	1371	1,17	60	0,75	3,3	1,7	2,1	0,003672	6,7	67
80 A	0,55	1379	1,57	67	0,74	3,8	1,8	2,3	0,008995	8,9	61
80 B	0,75	1337	2,1	66	0,76	3,4	2	2,3	0,009915	9,6	67
90 S	1,1	1387	2,7	74	0,78	4,8	2	2,4	0,021669	12,5	63
90 L	1,5	1384	3,79	75	0,75	4,6	2,1	2,5	0,025766	15	70
100 LA	2,2	1416	4,79	80	0,82	6	2,5	2,9	0,0307641	19	69
100 LB	3	1405	6,6	81	0,80	5,8	2,8	3,1	0,036917	22,5	67
112 M	4	1435	8,44	83	0,82	5,9	2	2,8	0,051012	27	72
132 SB	5,5	1448	11,3	83	0,84	6,3	2	2,9	0,089271	45	75
132 MB	7,5	1441	14,7	86	0,85	6,8	2,2	3,1	0,107910	54	75
132 MC	9	1450	17,6	85	0,85	7,1	2,4	3,3	0,177321	68	77
160 M	11	1436	22,5	87	0,84	6,1	2,2	2,7	0,0455	103	70
160 L	15	1451	30,5	88	0,84	6,7	2,5	2,7	0,0600	120	66
180 M	18,5	1463	38,2	88	0,83	6,3	1,8	2,2	0,100	137	75
180 L	22	1464	43,7	90	0,84	6,3	1,8	2,4	0,125	156	73
200 L	30	1463	58,7	90	0,86	6,2	1,8	2,2	0,215	216	74
225 S	37	1463	68,5	90	0,91	7,9	2,4	2,7	0,335	250	73
225 M	45	1467	82	90	0,92	7,8	2,1	2,1	0,400	280	75
250 M	55	1455	97	92	0,88	7	2,1	2,5	0,66	415	80
280 S	75	1478	135	93	0,86	8,3	2,6	2,7	1,12	532	85
280 M	90	1479	158	93	0,88	8,2	2,3	2,4	1,46	611	86
315 S	110	1477	188	93	0,90	8,2	2,3	3,9	3,11	665	91
315 MA	132	1475	223	93	0,91	7,8	2,2	2,2	3,62	860	91
315 MB	160	1478	287	94	0,85	5,7	2	2,1	4,13	1200	91
315 LB	200	1478	348	94	0,88	5,6	2,3	2,4	5,16	1450	92
355 MB	250	1489	460	95	0,87	6,8	1,4	2,2	9,37	1800	98
355 LB	315	1488	576	95	0,87	6,9	1,4	2,2	10,0	1890	98

RATED DATA - THREE PHASE MOTORS
2 Poles

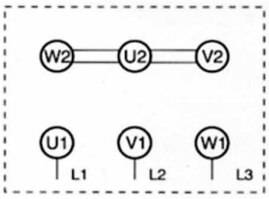
Tipo *Type* *Type*	Potenza *Output* *Puissance* KW	Giri *r.p.m.* *t/mn*	Corrente *Current* *Intensité* V. 400 A.	Rendim. *Efficiency* *Rendem.* η%	Fatt. Pot. *Power fact.* *Fact. Puis.* Cos. φ	Ia/In *Ia/In* *Id/In*	Ca/Cn *Ma/Mn* *Cd/Cn*	Cm/Cn *Mk/Mn* *Cm/Cn*	Mom. In. *Mom. of in.* *Mom. d'In* J Kg m²	Massa *Mass* *Masse* Kg.	Rumorosità *Noise* *Level* dB(A)
56 A	0,09	2718	0,38	49	0,70	3,2	2,6	2	0,000413	3,2	68
56 B	0,12	2725	0,49	51	0,69	3,4	3,0	2,7	0,000444	3,4	68
63 A	0,18	2752	0,58	60	0,74	4,0	3,3	2,7	0,000783	3,9	76
63 B	0,25	2755	0,86	57	0,72	3,6	2,3	2,5	0,000890	4,4	73
71 A	0,37	2749	1,11	60	0,83	4,3	2,4	2,6	0,002730	6,2	74
71 B	0,55	2755	1,59	63	0,83	3,8	1,9	2,0	0,003134	6,3	70
80 A	0,75	2767	1,92	69	0,84	4,6	2,3	2,5	0,007189	8,3	74
80 B	1,1	2743	2,7	70	0,87	4,5	2,0	2,3	0,007773	9,0	75
90 S	1,5	2799	3,37	76	0,88	5,7	2,2	2,6	0,019324	12,5	73
90 L	2,2	2872	4,96	78	0,85	6,3	2,4	2,8	0,022093	14,7	75
100 LA	3,0	2867	5,89	81	0,90	7,2	2,7	3,2	0,0261495	21	83
112 M	4,0	2850	8,57	79	0,89	6,7	2,0	2,9	0,031392	26	82
132 SA	5,5	2906	11,64	81	0,88	6,1	2,8	3,2	0,054936	45	85
132 SB	7,5	2893	15,47	83	0,88	6,4	3,6	3,6	0,074556	45	87
132 M	9	2908	16,7	85	0,90	7,7	2,2	2,8	0,081413	54	87
160 MA	11	2909	22,4	85	0,87	6,6	2,1	2,4	0,0320	100	82
160 MB	15	2921	29,8	87	0,87	7,3	2,2	2,8	0,0400	114	79
160 L	18,5	2906	36,1	87	0,88	7,1	2,5	2,9	0,0455	126	83
180 M	22	2917	40,7	88	0,93	7,4	2,1	3,5	0,0900	156	88
200 LA	30	2934	57	82	0,90	6,8	2,2	2,5	0,207	206	87
200 LB	37	2940	69,9	90	0,89	6,8	2	2,3	0,216	230	87
225 M	45	2955	83,7	91	0,89	8	2,5	2,7	0,267	275	89
250 M	55	2943	98	89	0,90	7,9	2,1	2,1	0,312	430	89
280 S	75	2942	131	91	0,90	6,9	2,3	2,5	0,597	521	97
280 M	90	2945	156,8	92	0,89	7,1	2,7	3,3	0,675	600	99
315 S	110	2964	187	93	0,91	7,6	2,4	2,3	1,18	718	100
315 MA	132	2969	218	94	0,93	8,1	2,1	2,1	1,82	798	100
315 MB	160	2970	267	93	0,92	7,5	2,5	3,6	2,08	1130	100
315 L	200	2975	342	94	0,89	8,6	2,4	2,5	2,57	1250	100
355 MB	250	2981	444	95	0,90	6,8	1,2	2,2	4,00	1770	102
355 LB	315	2981	557	95	0,90	6,8	1,2	2,2	4,85	1900	102

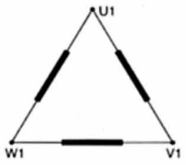
THREE-PHASES MOTOR CONNECTION DIAGRAM

①

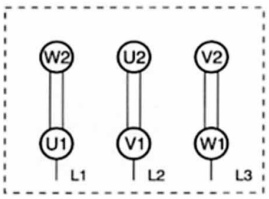


Collegamento Y
Connection Y
Connection Y



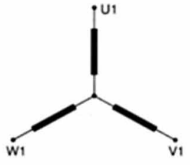


Collegamento Δ
Connection Δ
Connection Δ

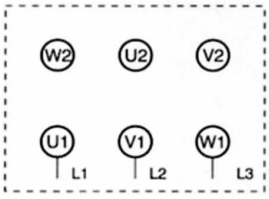


SINGOLA VELOCITÀ - *SINGLE SPEED - MONO-VITESSE*

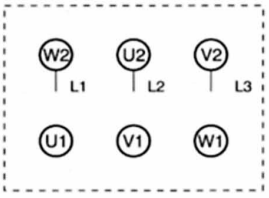
②



Bassa velocità
Low speed
Pétite vitesse

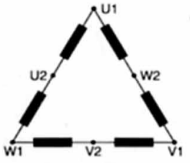


Alta velocità
High speed
Gran vitesse

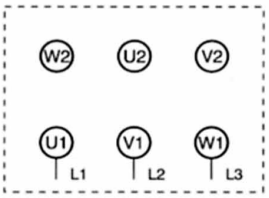


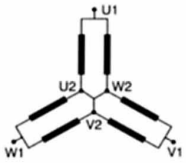
DOPPIA VELOCITÀ (2 avvolg.) - *TWO SPEED MOTORS (2 windings) - BI-VITESSES (double bobinage)*

③

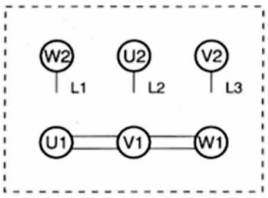


Bassa velocità
Low speed
Pétite vitesse



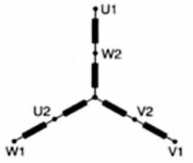


Alta velocità
High speed
Gran vitesse

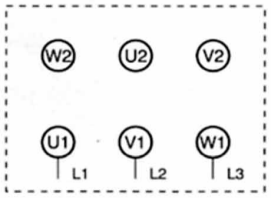


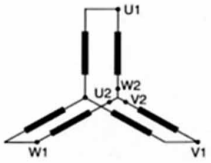
DOPPIA VELOCITÀ, DAHLANDER, COPPIA COSTANTE
TWO SPEED, DAHLANDER, COSTANT TORQUE - BI-VITESSES, DAHLANDER, COUPLE CONSTANT

④

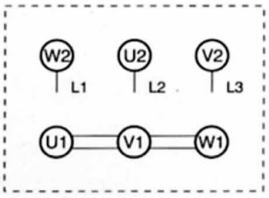


Bassa velocità
Low speed
Pétite vitesse





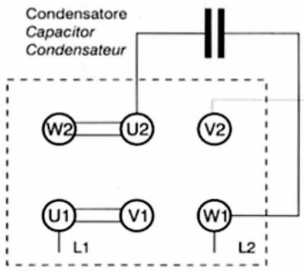
Alta velocità
High speed
Gran vitesse



DOPPIA VELOCITÀ, DAHLANDER, COPPIA QUADRATICA
TWO SPEED, DAHLANDER, QUADRATIC TORQUE - BI-VITESSES, DAHLANDER, COUPLE QUADRATIQUE

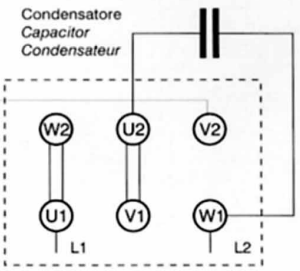
SCHEMI DI COLLEGAMENTO PER MOTORE MONOFASE
SINGLE-PHASE MOTOR CONNECTION DIAGRAM
SCHEMAS DE BRANCHEMENT MOTEUR MONOPHASE

⑤

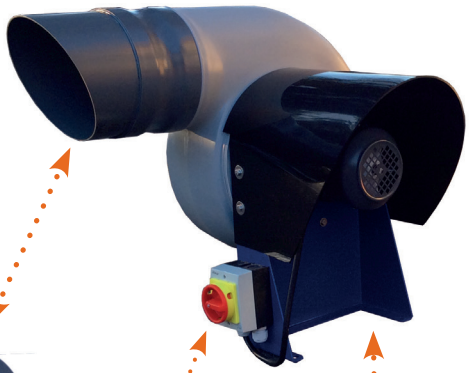


COLLEGAMENTO PER ROTAZIONE "A"
CONNECTION FOR ROTATION "A"
CONNEXION POUR ROTATION "A"

Morsetto non utilizzato
Unused terminal
Borne non utilisé



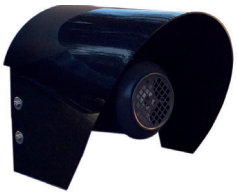
COLLEGAMENTO PER ROTAZIONE "B"
CONNECTION FOR ROTATION "B"
CONNEXION POUR ROTATION "B"



Gilage whistle output

IP55 switch

motor cover



ATEX switch

flexible sleeve

pvc Concentric reduction

Volute purge


LF230
BELIMO
Made in Switzerland

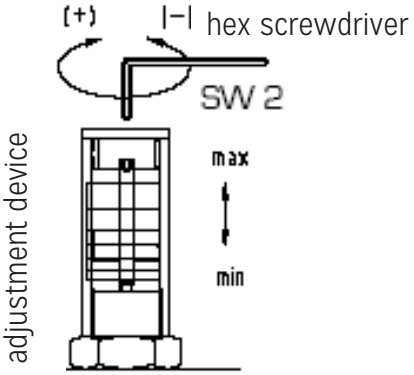
Ventilation accessories and ducting

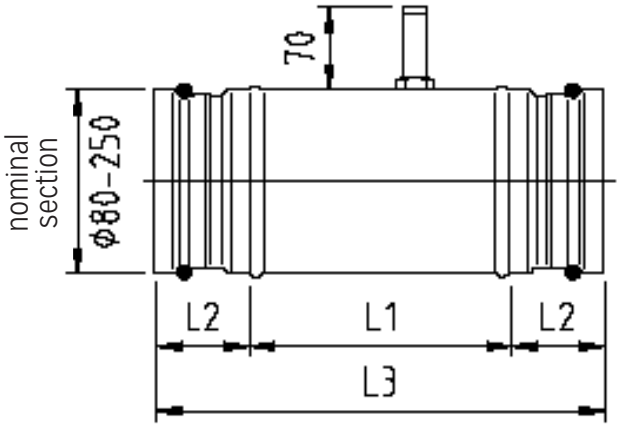
Constant flow *metal regulators*

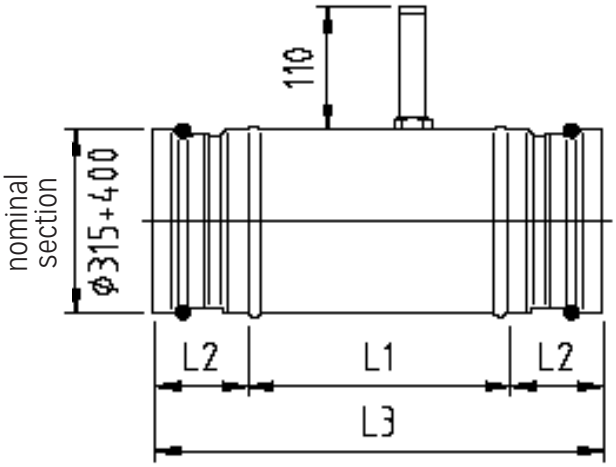
Application: laboratories and industries

Autonomous mechanical action regulators are an economical solution for constant flow control in blowing and extraction. They work without external power supply, the setting of the flow set is carried out at the factory but can be modified by the customer if necessary.

The regulator is composed of an adjustment valve held by bearings. The aerodynamic forces of the flow cause the valve to close. A mechanical unit consisting of a spring and an adjustment plate acts against the closing torque, keeping the flow rate constant regardless of pressure changes.







Dimensions (mm)

References	Nominal section	Flow range adjustable [m3/h]		Dimensions [mm]						
	(mm)	min.	max.	L1	L2	L3	A1	B1	A2	B2
VA-RMEC.M80	80	40	125	120	40	200	155	105	225	100
VA-RMEC.M100	100	70	220	170	40	250	155	105	225	100
VA-RMEC.M125	125	100	280	170	40	250	155	105	225	100
VA-RMEC.M140	140	150	400	170	40	250	155	105	225	100
VA-RMEC.M160	160	180	500	240	40	320	155	105	225	100
VA-RMEC.M200	200	250	900	240	40	320	155	105	225	100
VA-RMEC.M250	250	500	1500	240	40	320	155	105	225	100
VA-RMEC.M315	315	800	2800	220	60	340	155	105	300	150
VA-RMEC.M400	400	1000	4000	295	60	415	230	160	300	150

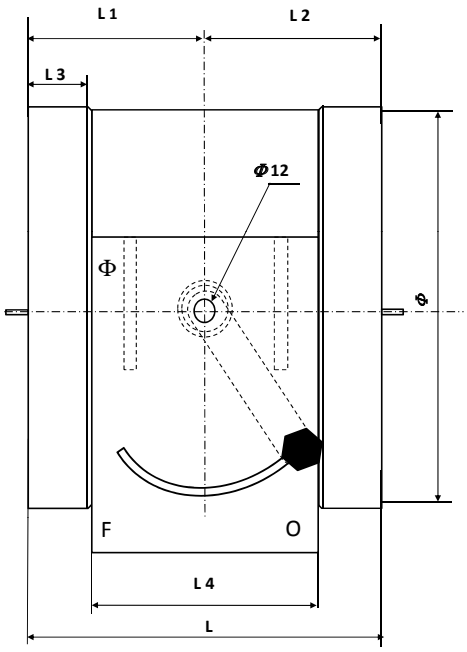
Other diameters on request

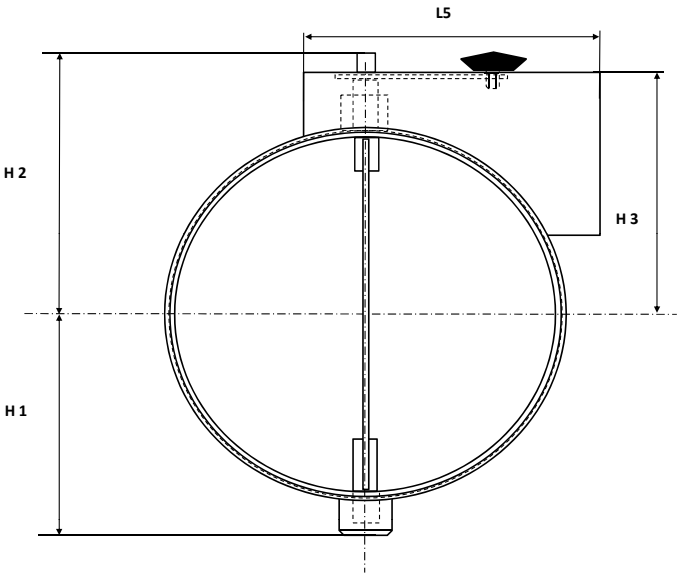
Manual *PVC registers*

Application: adjustment and balancing of ventilation networks

Manual PVC registers, with female sockets, injected or boilers according to dimensions, allow the manual balancing of chemical or corrosive ventilation networks in laboratories or industries.

Dimensioned Drawings





Dimensions (mm)

References	F	L	L1	L2	L3	L4	L5	H1	H2	H3
VA-RMA.P125	125	200	100	100	30	135	190	95	115	100
VA-RMA.P160	160	200	100	100	30	135	190	110	135	120
VA-RMA.P200	200	200	100	100	40	135	190	130	155	140
VA-RMA.P250	250	200	100	100	40	135	190	150	175	160
VA-RMA.P315	315	350	155	155	40	135	190	188	205	190

On request from 75 to 110 dimater and from 355 to 500

PVC **motorized** *registers*

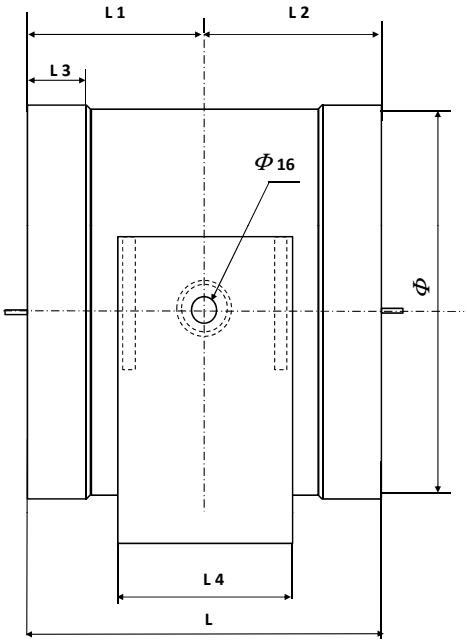
Application: laboratories and industries

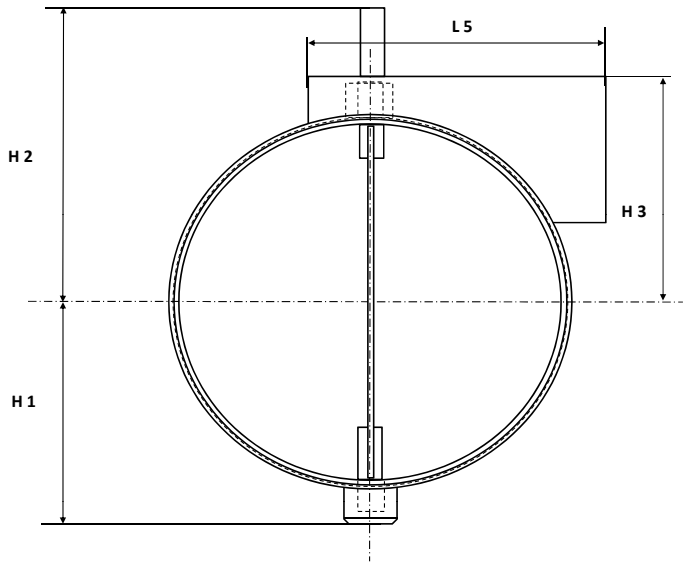
PVC motorizable registers, with female sockets, injected or boilers according to dimensions, allow the electrical balancing of chemical or corrosive ventilation networks in laboratories or industries.

Motors

References	Technical descriptions
EA-MOTR24B	Motor fast 0-10V 24V - 2.5 sec.
EA-MOTBLMC230A	Servomotor TOR 5N - 230V - 3 points
EA-MOTTORMR230S	Motor TOR - 230VAC - return spring + contact
EA-MOTBLMC24A	Servomotor TOR 5N - 24V - 3 points
EA-MOTTORRC24B	Motor TOR - 24V - return spring + contact

Dimensioned drawings





Dimensions (mm)

References	F	L	L1	L2	L3	L4	L5	H1	H2	H3
VA-RAMO.P125	125	200	100	100	30	85	190	95	150	90
VA-RAMO.P160	160	200	100	100	30	85	190	110	170	110
VA-RAMO.P200	200	200	100	100	40	85	190	130	190	130
VA-RAMO.P250	250	200	100	100	40	85	190	150	215	150
VA-RAMO.P315	315	350	155	155	40	85	190	188	238	188

On request from 100 to 110 diameter and from 355 to 500

45° F/F **Elbows**

Réf	Diam	Poids
VA-COUDE45075	Ø75	0,104 Kg
VA-COUDE45090	Ø90	0,116 Kg
VA-COUDE45110	Ø110	0,182 Kg
VA-COUDE45125	Ø125	0,220 Kg
VA-COUDE45160	Ø160	0,366 Kg
VA-COUDE45180	Ø180	0,496 Kg
VA-COUDE45200	Ø200	0,740 Kg
VA-COUDE45225	Ø225	0,824 Kg
VA-COUDE45250	Ø250	1,200 Kg
VA-COUDE45280	Ø280	1,270 Kg
VA-COUDE45315	Ø315	2,250 Kg
VA-COUDE45355	Ø355	1,400 Kg
VA-COUDE45400	Ø400	4,400 Kg

90°C F/F **Elbow**

Réf	Diam	Poids
VA-COUDE90075	Ø75	0,128 Kg
VA-COUDE90090	Ø90	0,210 Kg
VA-COUDE90110	Ø110	0,244 Kg
VA-COUDE90125	Ø125	0,431 Kg
VA-COUDE90160	Ø160	0,526 Kg
VA-COUDE90180	Ø180	0,738 Kg
VA-COUDE90200	Ø200	1,130 Kg
VA-COUDE90225	Ø225	1,250 Kg
VA-COUDE90250	Ø250	2,070 Kg
VA-COUDE90280	Ø280	2,950 Kg
VA-COUDE90315	Ø315	4,000 Kg
VA-COUDE90355	Ø355	2,150 Kg
VA-COUDE90400	Ø400	6,600 Kg

F/F 45° **Tees** *PVC, grey*

Réf	Diam	Poids
VA-TE45075	Ø75	0,206 kg
VA-TE45090	Ø90	0,300 kg
VA-TE45110	Ø110	0,362 kg
VA-TE45125	Ø125	0,300 kg
VA-TE45160	Ø160	0,700 kg
VA-TE45200	Ø200	1,000 kg
VA-TE45250	Ø250	1,900 kg
VA-TE45315	Ø315	2,700 kg
VA-TE45355	Ø355	3,000 kg
VA-TE45400	Ø400	4,200 kg

F/F **Reducers**

Réf	Diam
VA-RED.C090075	Ø 90/75
VA-RED.C11075	Ø 110/75
VA-RED.C11090	Ø 110/90
VA-RED.C125110	Ø 125/110
VA-RED.C125090	Ø 125/90
VA-RED.C140110	Ø 140/110
VA-RED.C140125	Ø 140/125
VA-RED.C160110	Ø160/110
VA-RED.C160125	Ø160/125
VA-RED.C160140	Ø 160/140
VA-RED.C180110	Ø 180/110
VA-RED.C180125	Ø 180/125
VA-RED.C180140	Ø 180/140
VA-RED.C180160	Ø 180/160
VA-RED.C200110	Ø 200/110
VA-RED.C200125	Ø 200/125
VA-RED.C200140	Ø 200/140
VA-RED.C200160	Ø 200/160
VA-RED.C200180	Ø 200/180
VA-RED.C225125	Ø 225/125
VA-RED.C225140	Ø 225/140
VA-RED.C225160	Ø 225/160
VA-RED.C225180	Ø 225/180
VA-RED.C225200	Ø 225/200
VA-RED.C250110	Ø 250/110
VA-RED.C250125	Ø 250/125

Reducers

Réf	Diam
VA-RED.C250200	Ø 250/200
VA-RED.C250225	Ø 250/225
VA-RED.C280160	Ø 280/160
VA-RED.C280180	Ø 280/180
VA-RED.C280200	Ø 280/200
VA-RED.C280225	Ø 280/225
VA-RED.C280250	Ø 280/250
VA-RED.C315160	Ø 315/160
VA-RED.C315180	Ø 315/180
VA-RED.C315200	Ø 315/200
VA-RED.C315225	Ø 315/225
VA-RED.C315250	Ø 315/250
VA-RED.C315280	Ø 315/280
VA-RED.C355200	Ø 355/200
VA-RED.C355225	Ø 355/225
VA-RED.C355250	Ø 355/250
VA-RED.C355280	Ø 355/280
VA-RED.C355315	Ø 355/315
VA-RED.C400225	Ø 400/225
VA-RED.C400250	Ø 400/250
VA-RED.C400280	Ø 400/280
VA-RED.C400315	Ø 400/315
VA-RED.C400355	Ø 400/355

F/F 90° **Tees** *PVC, grey*

Réf	Diam	Poids
VA-TE90075	Ø75	0,206 kg
VA-TE90090	Ø90	0,300 kg
VA-TE90110	Ø110	0,362 kg
VA-TE90125	Ø125	0,300 kg
VA-TE90160	Ø160	0,700 kg
VA-TE90200	Ø200	1,000 kg
VA-TE490250	Ø250	1,900 kg
VA-TE90315	Ø315	2,700 kg
VA-TE90355	Ø355	3,000 kg
VA-TE90400	Ø400	4,200 kg

F/F PVc **sleeves**

Réf	Diam	Poids
VA-MANCH.P075	Ø75	0,077 kg
VA-MANCH.P090	Ø90	0,088 kg
VA-MANCH.P110	Ø110	0,104 kg
VA-MANCH.P125	Ø125	0,118 kg
VA-MANCH.P160	Ø160	0,143 kg
VA-MANCH.P200	Ø200	0,205 kg
VA-MANCH.P250	Ø250	0,298 kg
VA-MANCH.P315	Ø315	0,565 kg
VA-MANCH.P355	Ø355	0,500 kg
VA-MANCH.P400	Ø400	0,600 kg

Accessories for ventilation and tanks

Exhaust caps

References	Diameters
VA-SRAG75	Ø75
VA-SRAG80	Ø80
VA-SRAG90	Ø90
VA-SRAG100	Ø100
VA-SRAG110	Ø110
VA-SRAG110B	Ø110
VA-SRAG125	Ø125
VA-SRAG125B	Ø125
VA-SRAG140	Ø140
VA-SRAG160	Ø160
VA-SRAG180	Ø180
VA-SRAG200	Ø200
VA-SRAG225	Ø225
VA-SRAG250	Ø250
VA-SRAG280	Ø280
VA-SRAG315	Ø315
VA-SRAG355	Ø355
VA-SRAG400	Ø400
VA-SRAG450	Ø450
VA-SRAG500	Ø500
VA-SRAG600	Ø600
VA-SRAG700	Ø700
VA-SRAG800	Ø800

Housing drain plugs

drain plug mounted on PVc housing

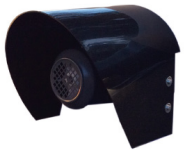
References	Technical descriptions
VA-PURGEVOL2045	15x21 for P20 to P45 exhaust fan
VA-PURGEVOL2045M	15x21 for P20 to P45 exhaust fan mounted
VA-PURGEVOL80100	20x27 for P80 to P100 exhaust fan

Switch ON/OFF

References	Technical descriptions
VA-INT3.16	Padlockable 16A
VA-INTM3.16	padlockable 16A mounted
VA-INT3.32	Padlockable 32A
VA-INTM3.32	padlockable 32A mounted
VA-INTA3.16	16A ADF ATEX
VA-INTAM3.16	16A ADF ATEX mounted

Motor covers

Polyethylene anti UV motor covers
fastening with Stainless steel screws



References	Exhaust fans compatibility
VA-CM13	P/PA 13
VA-CM20	P/PC/PA 20
VA-CM25	P22/25, PC25, PAS/PMS 25
VA-CM25.CP	P22/25 with plastic stand
VA-CM28	P/PC/PAS/PMS/PQ 28
VA-CM31	P/PC/ PAS/PMS/ PQ 31
VA-CM35	P/ PQ/PAS/PMS/PC 35
VA-CM40	PC 35-40 et P/PQ/PAS/PMS 40
VA-CM45	P/PQ/PAS/PMS/PC 45
VA-CM50	PR/PQ/PAS/PMS/PC 50
VA-CM56	PR/PQ/PMS/PAS/PC 56
VA-CM63	PR/PQ/PAS/PMS/PC 63
VA-CM80	PR80
VA-CM90	PR90

F/F non-return valves

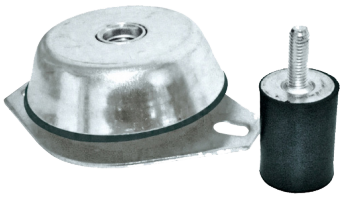
Available in standard grey PVC for all diameters. except 250 PVC diameter white

References	Diameters (mm)
VA-CLAPAR075	Ø75
VA-CLAPAR090	Ø90
VA-CLAPAR100	Ø100
VA-CLAPAR110	Ø110
VA-CLAPAR125	Ø125
VA-CLAPAR160	Ø160
VA-CLAPAR200	Ø200
VA-CLAPAR225	Ø225
VA-CLAPAR250	Ø250
VA-CLAPAR280	Ø280
VA-CLAPAR315	Ø315
VA-CLAPAR355	Ø355
VA-CLAPAR400	Ø400
VA-CLAPAR450	Ø450
VA-CLAPAR500	Ø500

Flexible sleeves

References	Diameters (mm)
VA-MANCHS75	Ø75
VA-MANCHS80	Ø80
VA-MANCHS90	Ø90
VA-MANCHS100	Ø100
VA-MANCHS110	Ø110
VA-MANCHS125	Ø125
VA-MANCHS140	Ø140
VA-MANCHS160	Ø160
VA-MANCHS180	Ø180
VA-MANCHS200	Ø200
VA-MANCHS225	Ø225
VA-MANCHS250	Ø250
VA-MANCHS280	Ø280
VA-MANCHS315	Ø315
VA-MANCHS355	Ø355
VA-MANCHS400	Ø400
VA-MANCHS450	Ø450
VA-MANCHS500	Ø500
VA-MANCHS600	Ø600
VA-MANCHS700	Ø700
VA-MANCHS800	Ø800
VA-MANCHS900	Ø900
VA-MANCHS1100	Ø 1100
VA-MANCHS1400	Ø 1400

Anti vibration isolators



References	Technical descriptions
VA-ANTIVIB2020M6	Anti-vibration mounts 20 x 20 Type A M6
VA-ANTIVIB2525M6	Anti-vibration mounts 25 x 25 Type A M6
VA-ANTIVIB5063	set of 4 anti vibration isolators for PR 50 to 63 fan
VA-ANTIVIB7190	Set of 4 anti vibration isolators for PR 71 to 90 fan

ATEX flexible sleeves

Composition: Polyester coated 2-sided PVC. Applications: Industrial ventilation, according to the ATEx standard inflammability: M2

References	Diameters (mm)
VA-MANCHSA75	Ø75
VA-MANCHSA100	Ø100
VA-MANCHSA125	Ø125
VA-MANCHSA140	Ø140
VA-MANCHSA160	Ø160
VA-MANCHSA200	Ø200
VA-MANCHSA225	Ø225
VA-MANCHSA250	Ø250
VA-MANCHSA280	Ø280
VA-MANCHSA315	Ø315
VA-MANCHSA355	Ø355
VA-MANCHSA400	Ø400
VA-MANCHSA450	Ø450
VA-MANCHSA500	Ø500

Metal stands

References	Technical descriptions
VA-CHA.P20	Compatible P20
VA-CHA.P20-I	Compatible P20 et PA 20 stainless steel
VA-CHA.P22	Compatible P22
VA-CHA.P22-I	Compatible P22 stainless steel
VA-CHA.P25	Compatible P25
VA-CHA.P25-I	Compatible P25 stainless steel
VA-CHA.P28	Compatible P28
VA-CHA.P31	Compatible P31
VA-CHA.P35	Compatible P35
VA-CHA.P40-I	Compatible P404 stainless steel
VA-CHA.P45	Compatible P45
VA-CHA.P45-I	Compatible P454 stainless steel
VA-CHA.PA13	Compatible PA13
VA-CHA.PA13-I	Compatible PA13 stainless steel
VA-CHA.PAR502-I	Compatible PAR 50 2 poles stainless steel

Galvanised jubilee clips

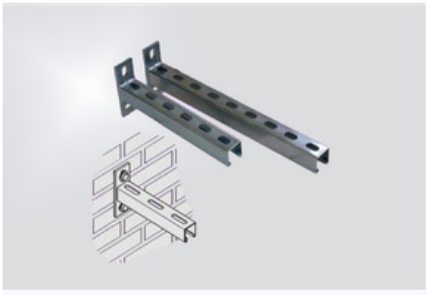
References	Diameters (mm)
VA-COLL-PVC-075	Ø75
VA-COLL-PVC-100	Ø100
VA-COLL-PVC-125	Ø125
VA-COLL-PVC-160	Ø160
VA-COLL-PVC-200	Ø200
VA-COLL-PVC-250	Ø250
VA-COLL-PVC-315	Ø315
VA-COLL-PVC-355	Ø355
VA-COLL-PVC-400	Ø400
VA-COLL-PVC-500	Ø500

Clips

Sold by 2

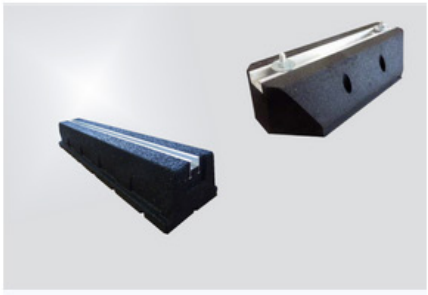
References	Diameters (mm)
VA-COLLIER1225I	Ø60-215 inox
VA-COLLIER60-270	Ø60-270 inox
VA-COLLIER60-325	Ø60-325 inox
VA-COLLIER60-380	Ø60-380 inox

fans Fittings and fixings



Wall fixings

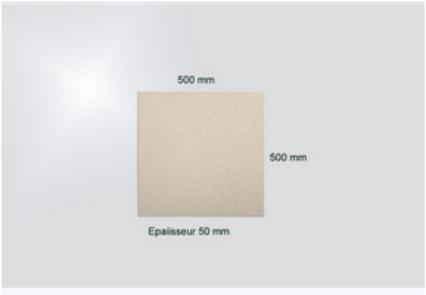
Rail-based mounting bracket including wall plate with welded profile.
lenght: 600 mm
Dimensions: 41*41*2.5 mm
Reference (1 bar included): **VA-SUPFM**



Ground fittings

Floor supports.
This pair of floor supports is ideal for support and absorption vibrations and noises of the machines. Equipped with a profile trapped due to an innovating system.
Materials: Made in recycled rubber
- Anodized aluminium profile.. Advantages: High vibration and noise absorption, stability
- Long-lasting
- fastening kit included
- lenght: 400 mm (Under request 250, 600, 1000mm)

Reference: **VA-EF400**



Ground fittings

The cement floor support is ideal for attaching your fan to the floor
28kg support is offered with or without drilling hole.The weight of the base allows. on the one hand to properly hold the fan and on the other hand installation facility.
Dimensions:500*500*500

Reference without drilling: **VA-BASE-500**
Reference with drilling: **VA-SUPDALLEP**

Our services

AFTER SALES SERVICE

Control and quotation
Our technical team receives your device, checks it and carries out a detailed diagnosis to make a quote.

Customer support
In order to provide solutions in line with your needs, our team remains at your disposal and accompanies you in the choice of relevant and effective solutions.

Concerned to satis+fy our customers, our technical service remains available during the installation and use of our equipment.

Maintenance and repair
The maintenance and repair of our products are managed by our technical service able to bring you its competence and knowledge.

Calibration
To meet the laboratories safety standards we perform a calibration of the various measurement sensors, installed on our devices; thus guaranteeing you a safe and precise use.

Ready to use electrical boxes « Plug&play »
We simplify installer's working day by offering services for assembling our electronic products in ready-to-use boxes. Each box is tested and preset according to European standards.

- Time saving
- Turnkey solution
- Ease of installation and use
- Guarantee of operation and safety in use

Product Training
As new technologies are constantly evolving, we support you in the evolution of our products through training, within our premises. Awareness on Measurement Sensors.
Commissioning / settings Troubleshooting Product behavior over time.

Aeraulic training
Aeraulic measurements

Laboratories ventilation

Aeraulic calculations

Laboratories Control & regulation

The different aeraulic solutions for air management

General conditions of sales

The general conditions of sale described below detail the rights and obligations of S.A.S. COMELEC
Domiciled at Chemin Départemental 908 13720 BELCODENE France - The company COMELEC is registered with the RCS of Marseille, numbers 399 518 083 - Capital of € 7,622.45 - SIRET 9951808300023 - Code APE - 4652Z - VAT FR48399518083
Telephone 00 33 (0) 4 42 70 63 90 - Fax 00 33 (0) 4 42 70 63 95 - Mail .: contact@comelec.fr - http://www.ecro.fr/

1. PRICE

The prices of the goods sold are those in effect on the day the order is taken. They are denominated in euros and calculated exclusive of tax. Consequently, they will be increased by the VAT rate and transport costs applicable on the day of the order. The Comelec company grants itself the right to modify its prices at any time. However, it undertakes to invoice the goods ordered at the prices indicated when the order is registered. The proposed prices include the discounts and rebates that Comelec would be required to grant given its results or the buyer's assumption of certain services. The information given in the catalogs, notices and scales or website, are only indicative, the seller reserves the right to modify them at any time and without notice due to changes in standards, technique or conditions. economic.

2. VALIDITY OF AN OFFER

Unless Technical descriptions to the contrary, an offer is valid, both with regard to its consistency, prices and deadlines, for a period of one month.

3. PROVISION AND TRANSFER OF OWNERSHIP

3.1 The provision is made either: - by direct delivery to the buyer, or by simple notice - in the event of delivery, by handing over the equipment in our factories or stores to a shipper or carrier designated by the buyer. The principle of making it available in our factories or stores cannot be waived by technical descriptions such as «delivery free at the station to the quayside at home or reimbursement of total or partial transport costs» which should not be considered as price concessions without shifting responsibility.
3.2 Pursuant to Law No. 80.335 of 12 May 1980, the transfer of ownership of the goods sold is suspended until full payment of the price. The purchaser only becomes the owner on this condition.

4. TRANSPORT - INSURANCE

4.1 All transport operations, insurance, handling, brought to the job, are the responsibility and risk of the buyer. In the event of disappearance, theft, damage or any deterioration of the goods delivered by a carrier, it is the recipient's responsibility to exercise all legal recourse against the carrier, in accordance with Articles L133-3 and L 133-4 of the Commercial Code. These reservations must be brought to the attention of Comelec in writing within 48 hours of delivery, by registered post.
Or by email to contact@comelec.fr with request for acknowledgment of receipt.
4.2 From the date of delivery, the Purchaser alone and fully assumes the risks, in particular of loss, theft, deterioration and destruction of products and materials. In the event that it is impossible to receive the materials because of the Purchaser or the recipient, the Purchaser will do his business, and under his responsibility, for a waiting destination and will bear all the costs.

5. TERMS OF PAYMENT

5.1 The law on the modernization of the economy, n ° 2008-776 of August 4, 2008 set the terms of payment applicable to all invoices. These new provisions impose a maximum period of 60 days net or 45 days end of month from the date of issue of the invoice. In the event of late payment, the amount of your invoice due will be increased by interest at the legal rate due under Article l 344-1 of the Civil Code. A lump sum compensation for recovery costs of 40 euros will be applied in accordance with articles 441-6 c. com. and D. 441-5 c. com.

5.2 RETENTION OF OWNERSHIP CLAUSE

The Comelec company retains ownership of the goods sold until full payment of the price, in principal and in accessories. As such, if the buyer is the subject of reorganization or compulsory liquidation, Comelec reserves the right to claim, within the framework of the collective proceedings, the goods sold and remained unpaid.
5.3 In the event of early payment or down payment on an order, no discount will be applied.

6. GUARANTEE

6.1 Definition and limit of the guarantee The guarantee only applies to the equipment delivered by us and only exists towards the buyer and not towards third parties to whom the equipment could be resold. The warranty is limited to the replacement of equipment or parts whose functioning is recognized to be defective following an appraisal by our services, excluding any damages or penalties. The costs of labor, transport or drop-off always remain the responsibility of the customer.
The warranty is excluded: · if the Customer is not up to date with its regulations · if the equipment has not been installed, maintained and used in accordance with its intended purpose and in the rules of the art, according to the recommendations of COMELEC SAS · if the equipment and / or its accessories have been modified without the prior written consent of COMELEC SAS, · for wearing parts · in the event of force majeure
6.2 DURATION OF GUARANTEE
Unless otherwise stipulated, the warranty only applies to defects that have arisen during a period of 12 months. However, "for rotating machines" the warranty period is limited to 6 months. In all cases, the warranty period begins on the date of delivery of the material.
6.3 BUYER'S OBLIGATIONS
To be able to invoke the benefit of these provisions, the purchaser must notify us by whatever channel they deem the fastest, with written confirmation, of the defects that they attribute to the equipment. He must provide all justifications as to the reality of these facts. The buyer must make it very easy for us to establish these defects and to remedy them, he will refrain, unless expressly agreed by us, from carrying out the repair himself or having it carried out by a third party. The buyer cannot avail himself of the warranty claim to suspend or defer payments. Our liability is strictly limited to the obligations thus defined. We are not liable for any compensation to the buyer for any damage suffered, such as: damage to property distinct from the subject of the contract or loss of profit.
6.4 WITHDRAWAL OF GUARANTEE: No withholding of guarantee is accepted, if it has not been the subject of a written agreement.

7 DEADLINES
All delivery times are indicative. Delays only give rise to damages with prior written consent. Even in this special case, our responsibility is released in the event of force majeure. Delivery delays can in no way justify the cancellation, even partial, of an order.

8 STUDIES AND PROJECTS
COMELEC operates as a reseller on the one hand and a manufacturer of electronic equipment on the other. Its competence and therefore its responsibility for the reseller part are limited to advice on the Technical Technical description of the products given by the manufacturer (s). Any other advice asked of him does not engage his responsibility. Any study and project necessary for the choice of a specific installation or equipment will be carried out through a technical design office or any other authorized professional chosen by the purchaser.

9 RETURN OF MATERIAL
Specific materials (eg custom-made manufacturing) are neither returned nor exchanged. Any other return or exchange of material can only be done after our written agreement

10. JURISDICTION
Any dispute to which we are a party is strictly within the jurisdiction of THREE BUNAL de Commerce de Marseille - 2 Rue Emile Pollak, 13006 Marseille, as an express jurisdiction, even though we appear therein as a guarantee and notwithstanding any adverse clauses. None of our customers will be able to argue from their own conditions in the event that they are in contradiction with those stated above. All operations covered by these Conditions are subject to French law.

11 COMPUTER LAW AND FREEDOM
The CUSTOMER is informed that SAS Comelec implements the processing of personal data in order to enable it to manage, invoice, monitor its customers' files and prospecting. These data are necessary for the proper management of clients and are intended for the authorized services of our company. In accordance with the Data Protection Act, individuals have the right to access data concerning them, rectification, interrogation, opposition for legitimate reasons and prospecting at the following address:

COMELEC Chemin Départemental 908 13720 Belcodene France. Or by email to contact@comelec.fr.
CGV. : Version updated on 01/02/2022
Catalog 2022, non-contractual photos.

COMELEC 2022

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www.ecro-solutions.com