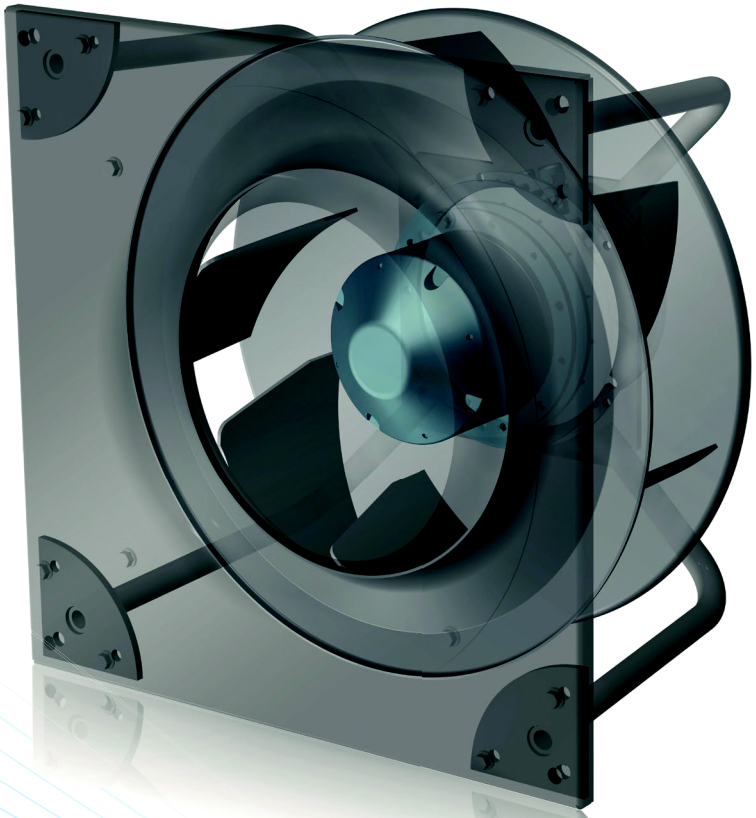
Edition 2", 2018. Rev. 4.

PFP

The compact lightweight



PFP Catalogue Package: assembled 2021-10-21

PFP 1-Phase BL130 Catalogue Ed. 2.4 - 2018-07-18(Upd.2021)
PFP 3-Phase BL130 Catalogue Ed. 1.3 - 2018-10-11(Upd.2021)
Corrigendum 2021 to PFP Catalogues - 2021-06-25
PFP 3-Phase BL178 Catalogue Ed.2.0 - 2021-10-21

NICOTRA Gebhardt

The compact lightweight

Compact and Lightweight

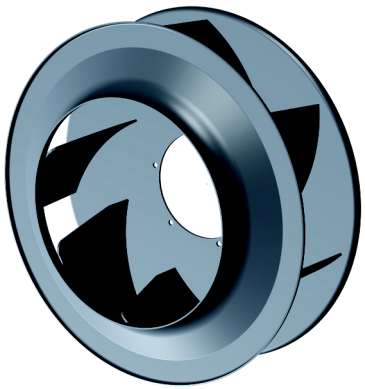
The compact plug-fan, driven by a built-in external rotor motor, has taken a leading position in the market for fans intended for integration in air conditioning and ventilation equipment.

Nicotra Gebhardt has led this market with its high-end airfoil RLE plug fan, featuring the revolutionary EVO impeller in combination with external-rotor EC motors.

Now the new PFP range has been specifically developed to perform better in typicall compact installations of HAVC&R machinery, with a more competitive positioning on the market

The PFP combines the advanced motor technology, already introduced in the drive system of the DDMP range, with a new mechanical arrangement and a new series of drivers, specifically developed for the plug-fan application.

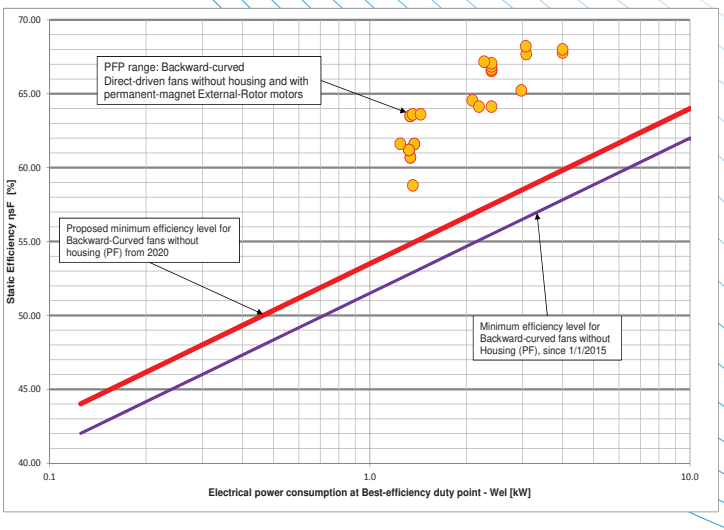
In combination with a new range of advanced impellers, the PFP drive system brings the efficiency of the new PFP to challenging levels, while, at the same time, considerably reducing the weight of the complete assembly.



ErP Compliant, now and in the Future

Most other plug fan ranges, driven by external-rotor permanent-magnet motors are, comfortably compliant with the current minimum efficiency requirements, which are mandatory for products intended for installation and use within the EU.

The PFP range, combining advanced technology for both the impeller design and the complete high-efficiency drive system, comfortably exceeds even the proposals currently set forward for the next tier of the European legislation, expected for 2020 or afterwards.



An Affordable Solution

Although incorporating advanced technical solutions, the PFP is conceived to provide, in a simple package, a competitive performance with an affordable cost for the customer.

Purchase cost:

- the PFP fan is engineered for fast-rate and cost-effective series production.
- the PFP fan already incorporates the motor and an advanced driver: no need for additional and separate supplies.

Installation cost:

- no manpower is needed to assemble fan, motor and driver.
- no need for complex inverter configurations: the one-piece functional unit does not need connection of different components or complex configuration to be operated, out-of-the-box, in its basic operation mode.
- the advanced operational modes can be configured on the same standard unit, with a simple computer program and a connection cable, providing design flexibility without having to keep in stock separate fans for each required operating mode.

Maintenance cost:

- designed for long life and stable performance, the PFP direct-driven fan can be used to replace a number of traditional belt-driven fans, effectively removing the cost of periodical belt maintenance.
- the electronic control unit, which is the most critical component for the operating life of an EC fan, is not an integral part of the motor structure, instead it has been specifically designed as a replaceable component part.
  This modular concept extends considerably the operational life of the fan without the need for extensive rework.

Energy cost:

- the PFP significantly reduces power consumption, in comparison with solutions using older technology.

Disposal cost:

- the PFP is manufactured using the maximum possible level of recyclable materials.

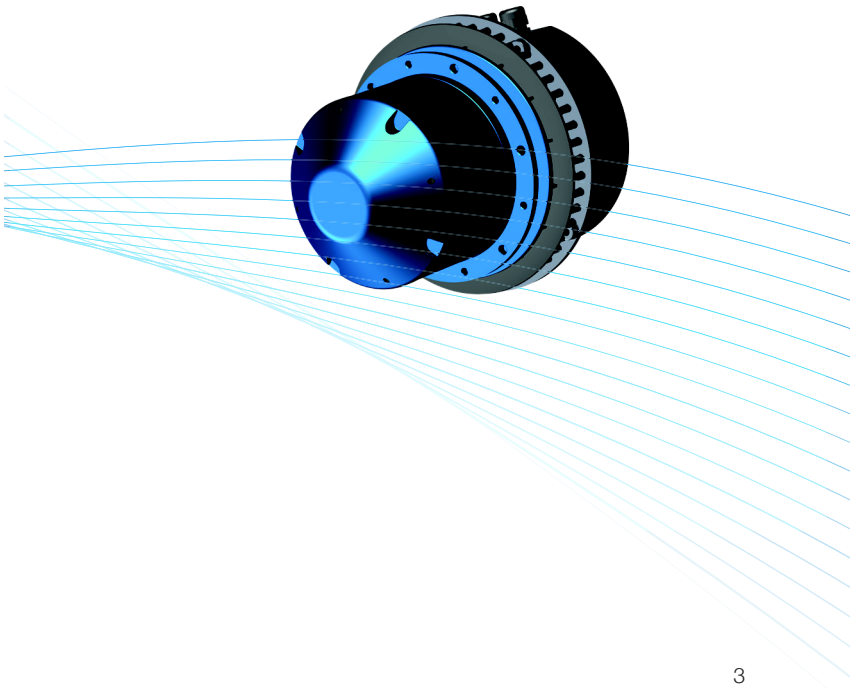
Advanced Motor Technology

The PFP drive system draws its technology from the advanced system developed for the DDMP fans. The new series of high-efficiency, external-rotor, permanent-magnet motors, specifically designed for integration within double-inlet fans, has been significantly re-engineered, to perfectly fit the application in compact plug-fans.

The compact external-rotor motors use high-intensity neodymium magnets, reducing the size of the motors while, at the same time, improving the motor efficiency above that achieved by competing designs still using conventional ferrite magnets, and significantly above that of the AC motors of the past.

Thanks to this revolutionary choice, and to a careful design,the new Nicotra–Gebhardt permanent magnet motors achieve IE5 efficiency levels.

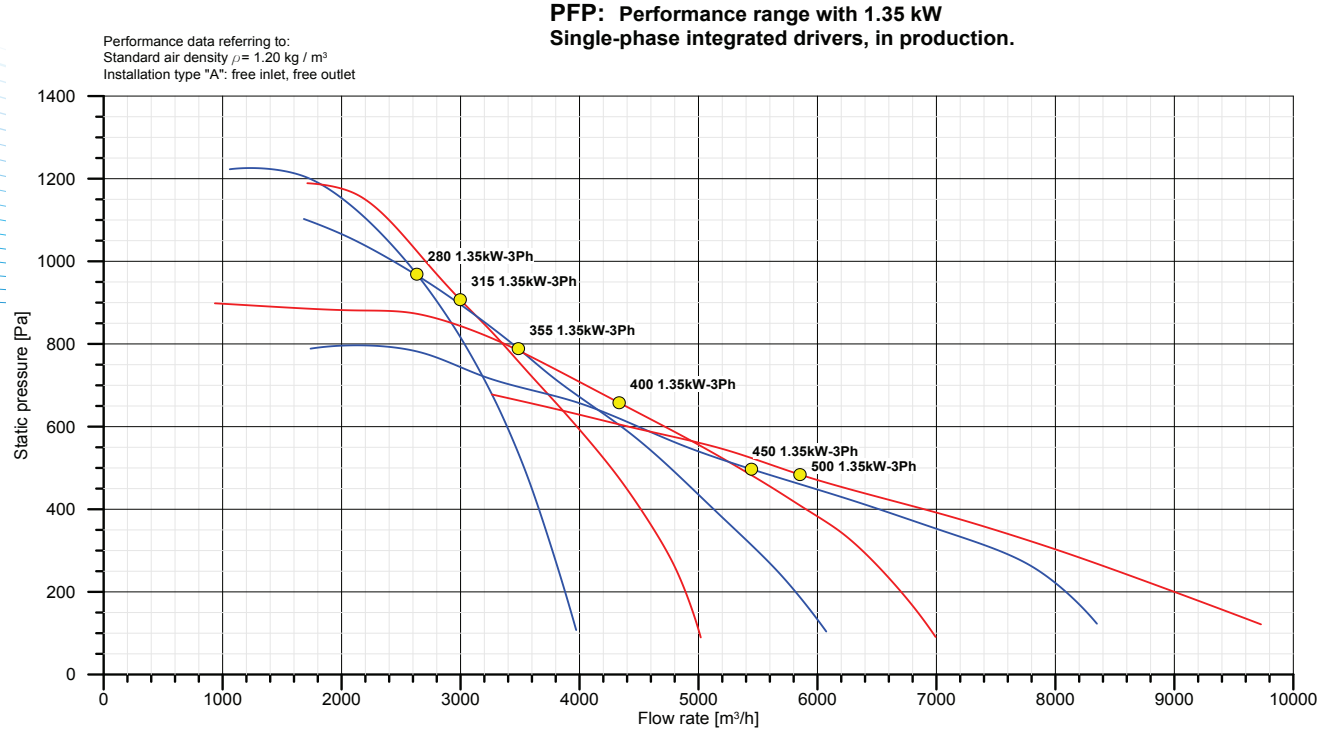
The smaller size and optimal shape of the Nicotra Gebhardt motors is important as this allows the installation of more powerful motors within the tight space provided by plug-fan impellers, achieving relatively-high speeds and pressures, without compromising the aerodynamic efficiency, whenever the requirement for maximum compactness leads to the installation of the motor fully inside the impeller.



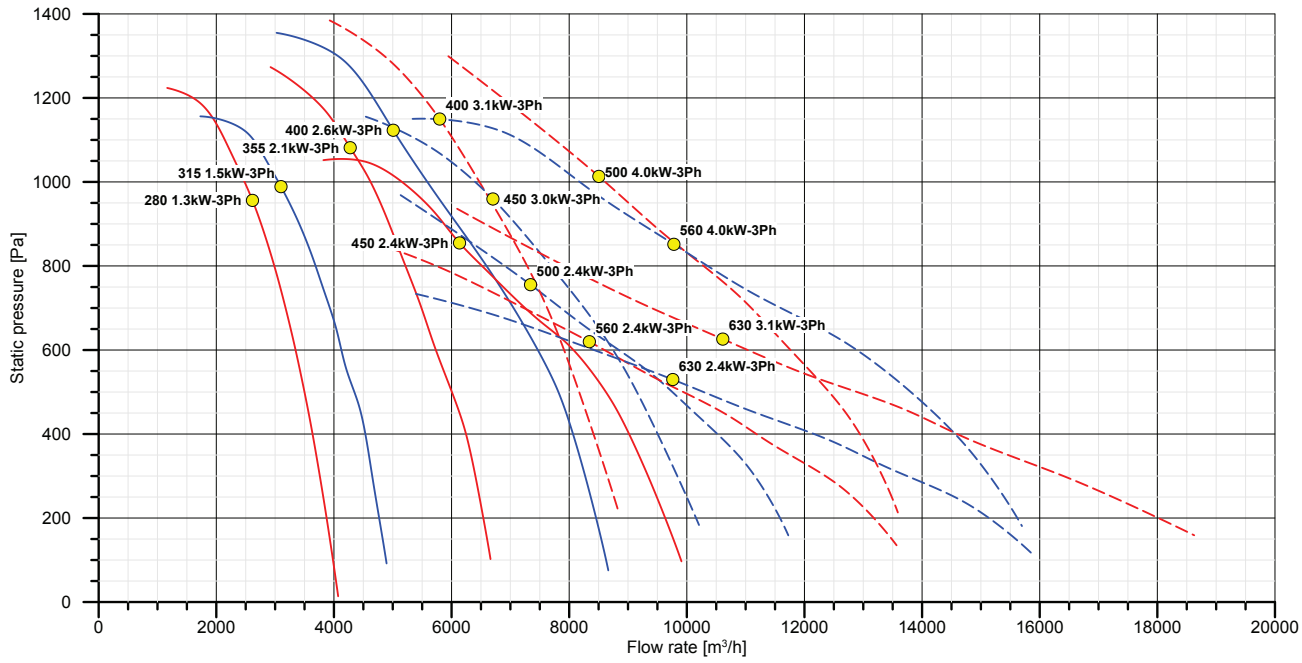
A Steadily Increasing Range

The currently available PFP range covers fan sizes from 280 mm up to 500mm, with one size of on-board single-phase driver, having nominal input power of 1.35 kW.

PFP: Performance range with 1.35 kW
Single-phase integrated drivers, in production.



PFP: Performance range with 2.6 kW
Three-phase integrated drivers, available 2018.



Fan Models

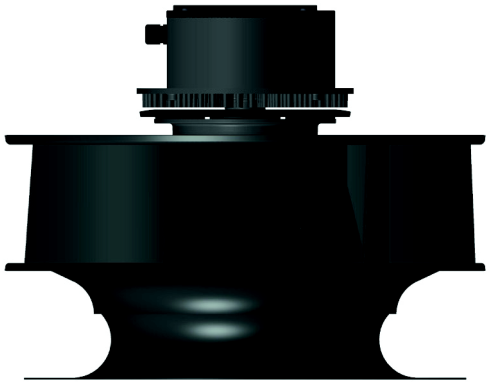
The PFP fans, whichever size or motor variant, are available in two different mechanical arrangements, identified as follow :

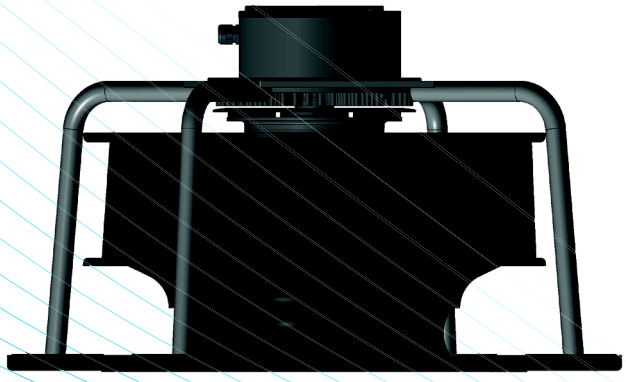
1. PFP (size)-A1 (identifiers for motor and options): Kit of motorized impeller and matching inlet nozzle, loose, for installation in the customer's supporting structure.

2. PFP (size)-A3 (identifiers for motor and options): Fully-assembled unit with the motor and impeller sustained on a supporting bracket, which holds the impeller in place, facing a square front panel and inlet nozzle.

In both cases, the assembly of motor and impeller is dynamically balanced before shipment, and the inlet nozzle is fitted with a single pressure probe, to allow the measurement of the volume flow rate.

An additional -A6 model, specifically designed for installation on four anti-vibration mounts, with horizontal axis, is currently under development.





Smart EC Motor Controllers

The motor controllers or “drivers”, fitted to the range of single-phase PFP models, have a maximum electrical input power of 1.35 kW and incorporate an advanced active input stage, providing power factor control (power factor is continuously adjusted to unity).

This design also provides harmonics filtering, to guarantee compliance with the EMC requirements applicable to domestic and equivalent environments (“first environment”), or with advanced requirements for harmonic distortion, like those which often apply to data centres.

The resulting drive systems comply with C1-class levels for power-drive systems, according to EN 61800-3, throughout the range of EMC requirements, and also with the more demanding immunity requirements for industrial environments, according to EN 61000-6-2. All these driver units have been designed with sensorless technology, to simplify their architecture and increase their operational reliability.

The PFP drivers are factory-configured to be ready for use in their simpler operation mode, i.e. with continuous speed control, having the fan speed proportional to an analogue input signal (0-10 Vdc or PWM).

The drivers incorporate advanced protection features, preventing the user from exceeding the safety limits of the driver and the motor. If the combination of the air system configuration and the speed demand from the user bring the fan to exceed one or more of the limits, which are set for input power, motor torque, or operating temperature of the electronics, then the fan speed and power requirement is automatically restricted, to bring-back the fan within safe operating conditions.

The diagrams of the different PFP fan models in this catalogue, show the fan performance under standard laboratory conditions and already account for this automatic restriction of the fan performance, according to speed, power and torque limits.

If the software protection features should not be enough, a temperature-sensitive switch is fitted inside all motors, to stop the drive-system, preventing any permanent damage from overloading and overheating.

By design, these drive systems are insensitive to the frequency of the power supply, so all the PFP single-phase fans are suitable for operation with any power network at 50 or 60 Hz frequency, in the 220-240 V nominal voltage range.

Advanced Operating Modes

The smart drivers can provide advanced functions, extending way beyond the simple speed control and safety monitoring.

Different, advanced operating modes can be activated with the use of a dedicated software for PC and an USB-RS485 interface cable: no need for any additional, plug-in hardware.

Most operating modes require an input value, e.g. a speed setting, which can normally be assigned in three different ways:

A. can be set via the analogue input

B. can be permanently stored in an Eprom register, via Modbus, or

C. can be written in a volatile register, via Modbus again.

An Eprom register holds its value when the fan is powered-off and can be overwritten many times, but not an infinite number of times, so it should be used when the fan has to be configured for a given performance level, at the time of commissioning, and then left working without further adjustment. The Modbus link is then no longer needed for operation, but may still be useful, at a later stage, for fan troubleshooting or re-configuration.

A volatile register, in the micro-processor of the driver, can be written an infinite number of times, so this is the approach of choice when the target value has to be continuously adjusted via Modbus, but its value must be re-assigned whenever the fan is started again after having been powered-off.

Alternative Speed-Control Modes

In the alternative speed control modes, the target speed value, instead of being a 0-10 Vdc or PWM signal, can be provided by Modbus, either on the appropriate permanent Eprom register, or in a corresponding volatile register, like in cases B and C listed above.

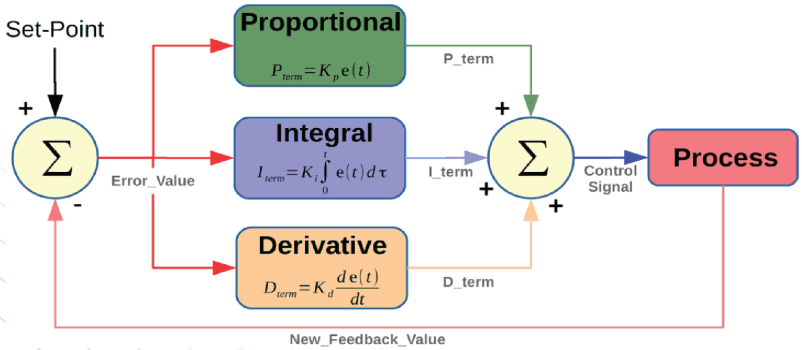
Including the analogue-input speed-control mode, which is set-up on all new fans as factory default, different speed control modes are available for all the three alternative input channels, A, B or C.

PID Modes

Another group of selectable operating modes is providing PID control, using one of the analogue input channels for the measurement of a status variable with an external sensor, e.g. a value of pressure or temperature, or a concentration of CO2 in the air, which can be kept to a desired value by adjustment of the fan speed and volume flow-rate.

The PFP drivers are provided with two separate analogue-input channels: the first can be used for the input voltage from an external transducer, and the second for an input from a potentiometer or from another external 0-10Vdc voltage source, providing the target value.

As an alternative, the target value for the PID may also be set via the Modbus interface, either permanently in an Eprom register, or in a volatile register.



Constant-Volume Operation with Pressure Transducer

A note must be provided on constant-volume operation with backward-curved fans: because of their physical properties, these fans cannot be controlled, to a pre-set volume-flow rate, just by measuring their electrical consumption.

To compensate this, all the PFP fans are delivered with a single pressure tap on the inlet nozzle throat section. Constant-volume operation can be achieved by adding a pressure measurement-sensor (e.g. Nicotra-Gebhardt p/no. K43198), connected to the probe and to the signal input of the driver, properly set in PID mode.

With this arrangement, even on backward-curved fans like PFP it's possible to compensate a change of the pressure-loss in the air system (e.g. because it was not exactly known at the time of choosing a ventilation unit, or because some filter clogging occurs during the operation of the system) and keep the operating flow rate unmodified, within the pressure and power capability of the fan.

Slave Mode

A last advanced mode is the "Slave" mode, in which the PFP fan is set to closely follow the speed of another PFP fan, the "master fan", which is running in any one of the other operating modes, by conforming the speed of the slave fan to the tachometric output signal generated by the master.

This control arrangement is not required to operate a number of PFP fans in parallel, when more fans in parallel are operating in PID mode (including closed-loop and constant-volume operation with external airspeed or pressure transducers).

Running the PFP fans in parallel in a Master & Slave control arrangement, avoids the risk that each fan may independently start "hunting," in a frustrating endless search of a stable duty.

PFP 1.35 kW 1-Phase Range

Specifications

Direct-driven plug/plenum fan, with integrated drive system and high-efficiency backward-curved impeller without scroll. The drive system includes a high-efficiency external-rotor permanent-magnet motor and a smart electronic motor driver, providing speed-control and self-protection against overloading or overheating.
The external-rotor motor, using high-intensity rare-earth magnets for better efficiency and compactness, is directly integrated in the hub of the impeller and supported, behind the impeller, on the replaceable driver case, which acts as supporting flange.

The single-phase 1.35 kW driver, fitted into the fan supporting flange, provides advanced control functions as well as both analogue and digital external interfaces, and incorporates an active power factor control device, keeping the fan power factor constantly at optimum values, as well as restricting harmonic distortion on the supply network to minimal values.
The single-phase drive system complies with the requirements of the C1-class for EMC-compatibility levels, for power-drive systems, according to EN 61800-3, throughout the range of EMC requirements, and also with the more demanding immunity requirements for industrial environments, according to EN 61000-6-2.

The driver case of pressure-cast aluminium incorporates a patented forced-cooling system, protecting, from overheating, both the driver and the driver-side bearing.
The high-efficiency lightweight backward-inclined impellers, directly bolted onto the motor, are made of welded aluminium plate, to guarantee the stiffness and strength required for high-speed operation, without generating unmanageable vibrations.

Code	Description	Size	Motor+Driver	Optimum energy efficiency point	
				Flow rate	Pressure
				[m^3/h]	[Pa]
S80512	PFP A1-0280 M6F0	280	1416F0	2632	969
S80508	PFP A3-0280 M6F0	280	1416F0	2632	969
S80513	PFP A1-0315 M6F0	315	1416F0	3010	909
S80503	PFP A3-0315 M6F0	315	1416F0	3010	909
S80509	PFP A1-0355 M6F1	355	1416F1	3486	789
S80502	PFP A3-0355 M6F1	355	1416F1	3486	789
S80510	PFP A1-0400 M6F1	400	1416F1	4333	650
S80504	PFP A3-0400 M6F1	400	1416F1	4333	650
S80511	PFP A1-0450 M6F1	450	1416F1	5231	532
S80524BQE	PFP A3-0450 M6F1	450	1416F1	5231	532
S80514	PFP A1-0500 M6F2	500	1416F2	5231	544
S80525BQE	PFP A3-0500 M6F2	500	1416F2	5231	544

Update: The 6-10 character part-numbering system, used to assign the part numbers to the products shown in this table, was superseded, in 2019, by a new, 16-character structured coding system, and some of the A3 fan models have also been replaced by new designs, with the same performance but having a larger base-plate, for ease of installation.
Please consult the Corrigendum 2021, for additional information on these changes to the standard PFP product range.

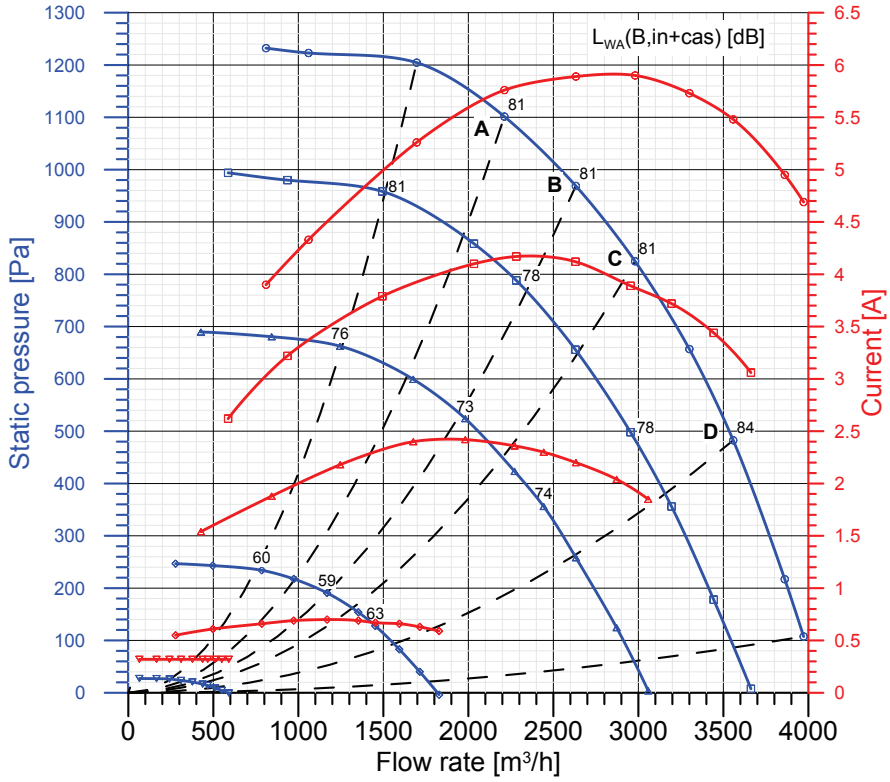
	Maximum values			IP fan grade	Tmin	Tmax	Page
	Adsorbed power	Pressure (q=0)	Flow rate (P=0)				
	[W]	[Pa]	[m^3/h]		[°C]	[°C]	
	1360	1232	3972	54	-20	+40	10
	1360	1232	3972	54	-20	+40	10
	1350	1202	5122	54	-20	+40	12
	1350	1202	5122	54	-20	+40	12
	1311	1119	6074	54	-20	+40	14
	1311	1119	6074	54	-20	+40	14
	1327	904	7192	54	-20	+40	16
	1327	904	7192	54	-20	+40	16
	1331	794	8450	54	-20	+40	18
	1331	794	8450	54	-20	+40	18
	1326	725	10188	54	-20	+40	20
	1326	725	10188	54	-20	+40	20

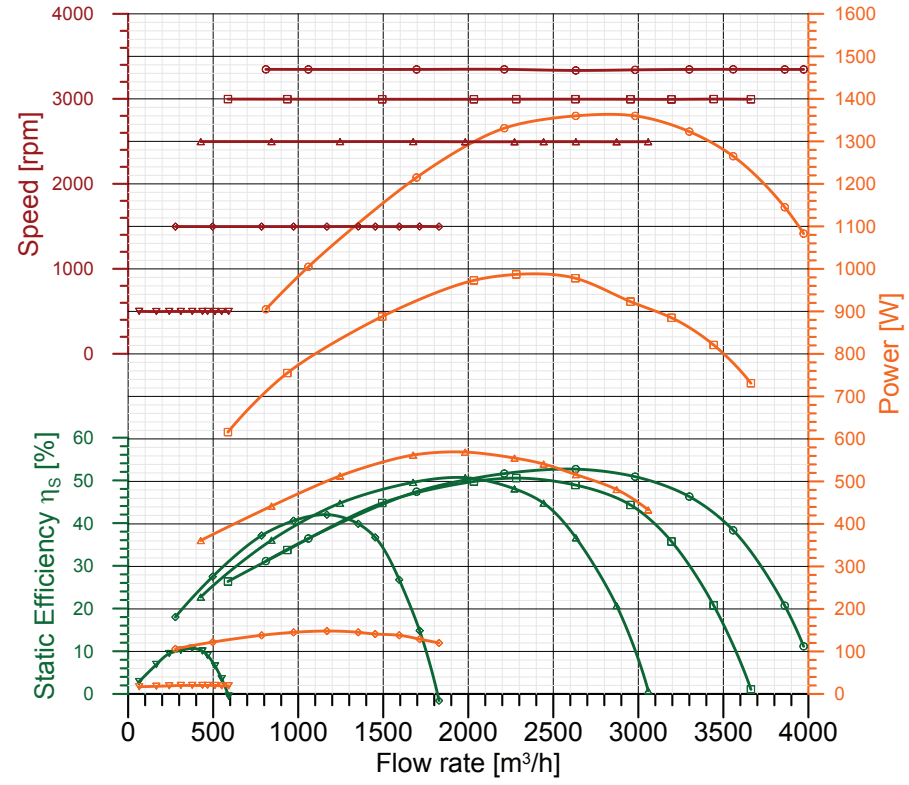
Update: Since 2020, the IP protection grade of the PFP fan models with BL 130 motors was upgraded to IP55, according to IEC 60529, both with the motor running or stationary, under condition that the cable glands and the cover lid are properly secured, and that any unused cable gland is closed with the sealing-plug provided.

NICOTRA Gebhardt

Type: PFP A3-0280 1.35kW 1Ph
Motor: 1416F0

Power:	1360 W (input, max)	Protection Cl.:	IP 55
Poles:	8	Insulation Cl.:	F
Voltage:	220-240 V	Thermal prot.:	YES-Integral
Supply:	1~	Temp. Min:	-20 °C
Frequency:	50-60 Hz	Temp. Max:	+40 °C (+50°C)
Capacitor:	n.a.	Current Max:	5.9 A





Performance data referring to:
Standard air density ρ= 1.20 kg / m³
Installation type "B": free inlet, ducted outlet

Sound Power Levels shown are
Inlet-side L_{WA}(B,in+cas), A-weighted, in dBA

Integral speed-control by On-board Integral Driver

	qv m3/h	pfs Pa	Pe W	n rpm	I A	η_S %
○ **Maximum performance curve (10 V)**						
A	2212	1101	1331	3347	5.76	51.6
B	2632	969	1360	3334	5.89	52.6
C	2981	825	1360	3341	5.90	50.9
D	3558	483	1265	3347	5.48	38.3
□ **Performance at 3000 rpm**						
A	2033	858	973	2995	4.10	49.7
B	2282	788	987	2996	4.17	50.5
C	2630	656	978	2996	4.12	48.9
D	3195	356	885	2994	3.72	35.7
△ **Performance at 2500 rpm**						
A	1676	599	562	2497	2.40	49.6
B	1982	524	569	2495	2.42	50.7
C	2272	423	555	2495	2.36	48.0
D	2633	258	516	2496	2.20	36.6
◇ **Performance at 1500 rpm**						
A	973	218	145	1497	0.69	40.6
B	1169	191	148	1497	0.70	42.0
C	1353	154	145	1498	0.69	39.8
D	1594	83	138	1497	0.66	26.7
▽ **Performance at 500 rpm**						
A	310	24	20	498	0.32	10.2
B	377	21	20	498	0.32	10.7
C	437	17	20	498	0.32	10.0
D	511	9	20	498	0.32	6.6

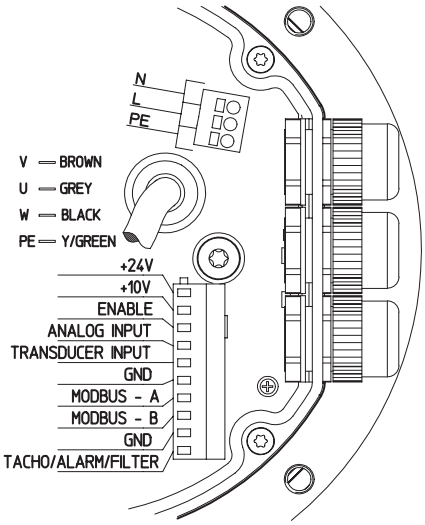
ErP Data acc. to Reg. 327/11/CE

Performance referred to the best efficiency duty point

Compl. with Reg. 327/11/EC:	Tier II (2015)
Overall Efficiency (η x Cc) [%]:	56.8
Measurement category:	A
Efficiency category:	Static
Efficiency grade N [%]:	65.9
A variable speed drive is integrated with this fan	
Manufactured since:	2017
By:	
Regal Beloit Italy S.p.A.	
Via Modena 18	
24040 Ciserano - Italy	
Power input [kW]:	1.36
Volume flow rate qv [m³/s]:	0.731
Static Pressure [Pa]:	969
Speed [rpm]:	3334
Specific ratio:	1.01
Information on:	
- Disassembly, recycling and disposal at end of life	
- Optimal installation, use and maintenance of fans	
are freely downloadable from	
www.nicotra-gebhardt.com	
Testing is carried out with the optional components of the test airway required, according to ISO 5801:2007, for the installation type detailed here on top.	

NICOTRA Gebhardt

WIRING DIAGRAM



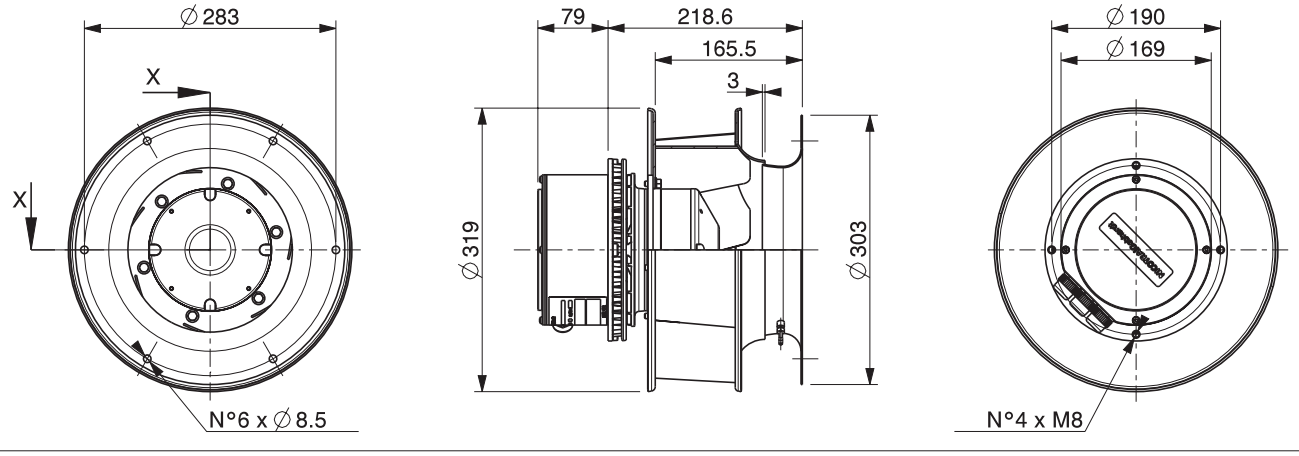
NOISE DATA

Working point		Sound power level for inlet side (Lw) in dB									
	m^3/h	63	125	250	500	1k	2k	4k	8kHz		LwA
230 V / 50 Hz	2212	86,0	84,2	84,4	79,1	73,1	72,5	69,3	63,9		81,5
F.M.W.L.	2632	84,3	82,1	80,4	79,0	73,2	72,3	69,5	64,2		80,6
	2981	83,5	82,6	80,5	80,2	74,7	72,4	69,6	64,5		81,4
	3558	83,8	83,7	84,0	82,5	78,2	74,2	71,3	65,5		83,9
230 V / 50 Hz	2033	69,2	68,4	72,9	73,0	69,7	68,6	65,5	63,8		75,8
3000 rpm	2282	69,1	67,8	72,2	73,2	69,9	68,5	65,5	63,9		75,8
	2630	70,1	68,1	72,5	74,5	71,2	69,4	65,9	64,1		76,8
	3195	72,6	70,1	76,4	78,0	74,8	72,5	68,3	65,7		80,1
230 V / 50 Hz	1676	64,4	64,2	67,2	69,1	65,7	64,2	60,4	58,5		71,4
2500 rpm	1982	64,5	64,3	68,3	70,1	66,2	64,6	60,3	58,9		72,0
	2272	63,1	65,3	68,8	70,7	67,6	65,5	61,0	59,5		72,9
	2633	63,2	66,3	69,2	73,6	70,3	67,8	63,0	61,0		75,4
230 V / 50 Hz	973	54,7	58,4	57,5	56,9	55,7	62,3	46,1	44,3		64,6
1500 rpm	1169	57,3	58,8	58,2	56,9	55,7	62,3	46,4	44,5		64,7
	1353	51,0	56,4	58,8	58,1	57,3	62,5	47,7	45,9		65,2
	1594	65,9	59,3	58,9	60,9	59,5	62,5	50,1	47,9		66,1
230 V / 50 Hz	310	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.		N.A.
500 rpm	377	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.		N.A.
	437	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.		N.A.
	511	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.		N.A.

DIMENSIONAL DRAWINGS

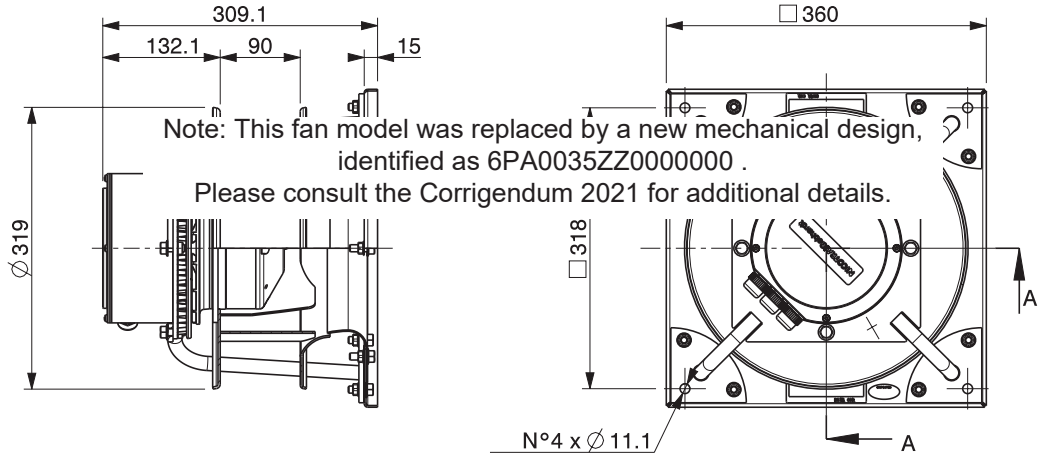
S80512 - PFP A1-0280 M6F0

Note: This fan model was re-numbered 6PA0015ZZ0000000



S80508 - PFP A3-0280 M6F0

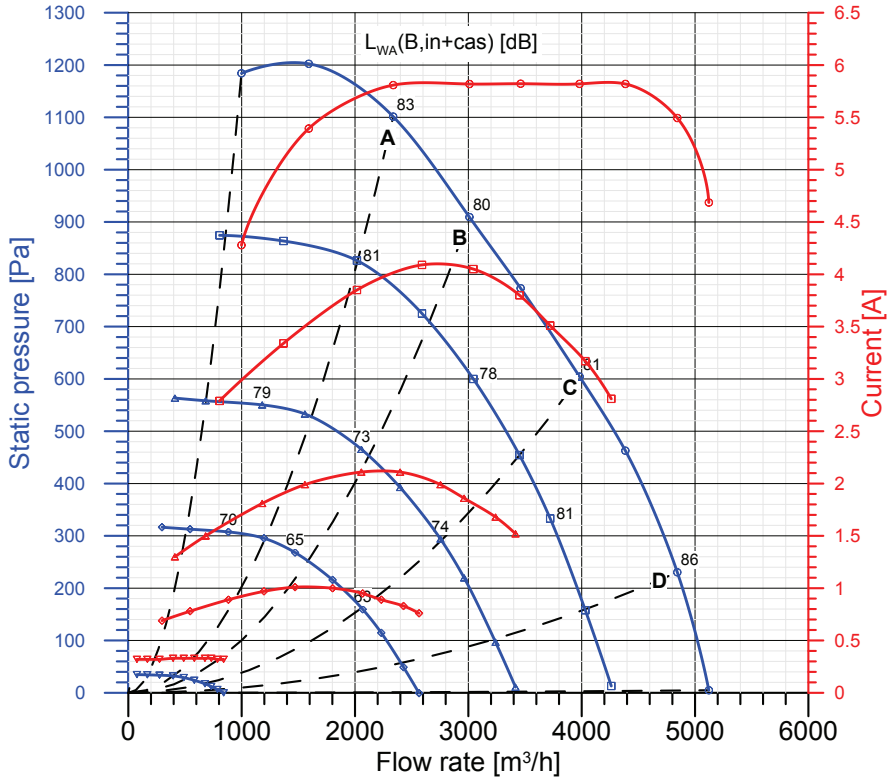
Note: This fan model was replaced by a new mechanical design, identified as 6PA0035ZZ0000000 .
Please consult the Corrigendum 2021 for additional details.

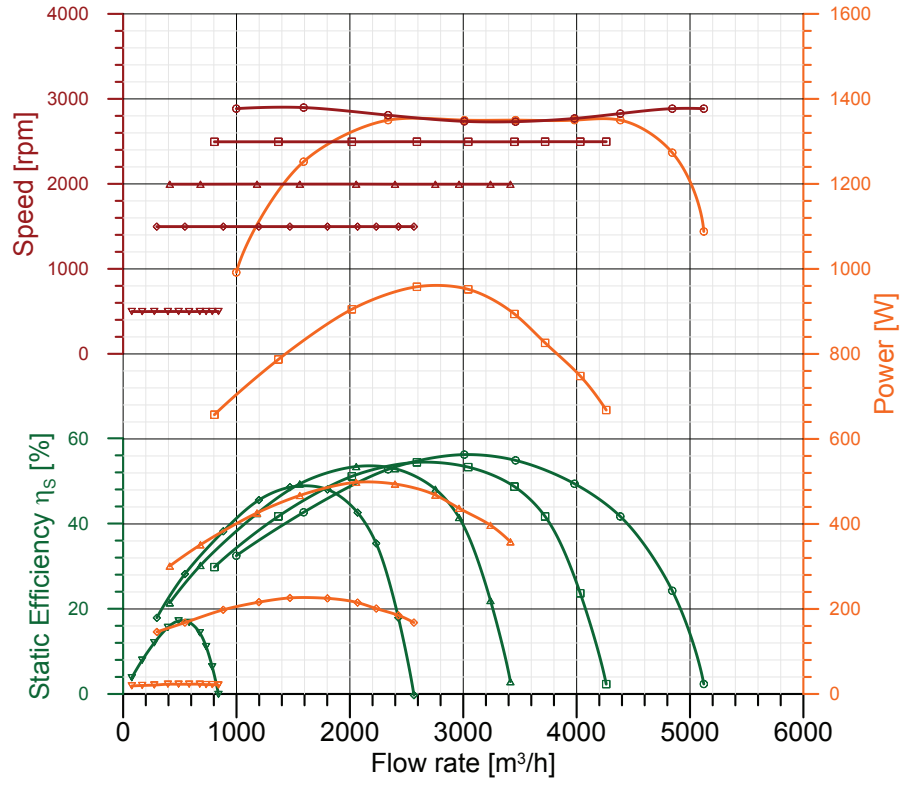


NICOTRA Gebhardt

Type: PFP A3-0315 1.35kW 1Ph
Motor: 1416F0

Power:	1350 W (input, max)	Protection Cl.:	IP 55
Poles:	8	Insulation Cl.:	F
Voltage:	220-240 V	Thermal prot.:	YES-Integral
Supply:	1~	Temp. Min:	-20 °C
Frequency:	50-60 Hz	Temp. Max:	+40 °C (50°C)
Capacitor:	n.a.	Current Max:	5.8 A





Performance data referring to:
Standard air density ρ= 1.20 kg / m³
Installation type "B": free inlet, ducted outlet

Sound Power Levels shown are
Inlet-side L_{WA}(B,in+cas), A-weighted, in dBA

Integral speed-control by On-board Integral Driver

	qv m3/h	pfs Pa	Pe W	n rpm	I A	η_S %
○ **Maximum performance curve (10 V)**						
A	2337	1101	1350	2808	5.81	52.7
B	3010	909	1350	2735	5.82	56.2
C	3981	604	1350	2769	5.82	49.3
D	4844	230	1274	2885	5.49	24.2
□ **Performance at 2500 rpm**						
A	2017	826	905	2495	3.85	51.1
B	2591	725	958	2496	4.09	54.4
C	3451	454	894	2495	3.80	48.7
D	4032	158	748	2496	3.17	23.6
△ **Performance at 2000 rpm**						
A	1558	533	467	1997	1.99	49.3
B	2056	466	498	1997	2.11	53.4
C	2754	294	468	1996	1.99	48.1
D	3240	97	397	1996	1.68	21.9
◇ **Performance at 1500 rpm**						
A	1197	295	216	1497	0.97	45.5
B	1471	268	226	1497	1.01	48.5
C	2068	160	215	1497	0.95	42.6
D	2428	49	185	1497	0.83	17.9
▽ **Performance at 500 rpm**						
A	395	32	23	498	0.33	15.6
B	489	29	23	498	0.33	17.2
C	676	17	23	498	0.33	14.4
D	786	6	22	498	0.32	6.4

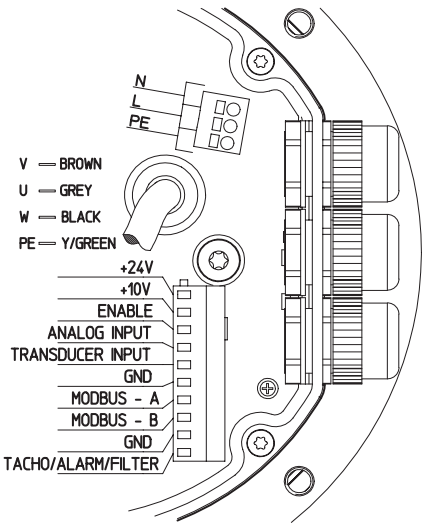
ErP Data acc. to Reg. 327/11/CE

Performance referred to the best efficiency duty point

Compl. with Reg. 327/11/EC:	Tier II (2015)
Overall Efficiency (η x Cc) [%]:	60.6
Measurement category:	A
Efficiency category:	Static
Efficiency grade N [%]:	69.7
A variable speed drive is integrated with this fan	
Manufactured since:	2017
By:	
Regal Beloit Italy S.p.A.	
Via Modena 18	
24040 Ciserano - Italy	
Power input [kW]:	1.35
Volume flow rate qv [m³/s]:	0.836
Static Pressure [Pa]:	909
Speed [rpm]:	2735
Specific ratio:	1.009
Information on:	
- Disassembly, recycling and disposal at end of life	
- Optimal installation, use and maintenance of fans	
are freely downloadable from	
www.nicotra-gebhardt.com	
Testing is carried out with the optional components of the test airway required, according to ISO 5801:2007, for the installation type detailed here on top.	

NICOTRA Gebhardt

WIRING DIAGRAM

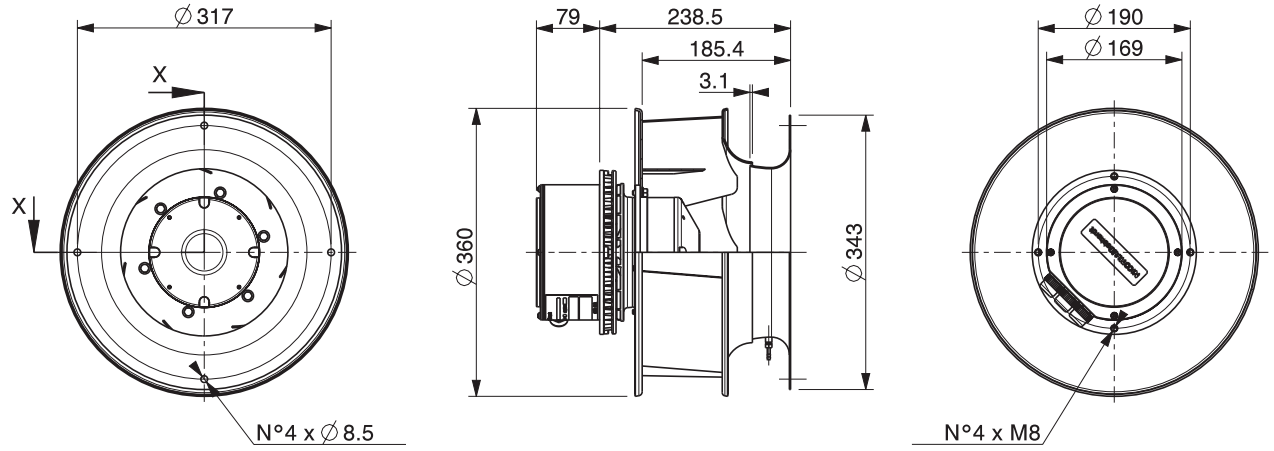


NOISE DATA

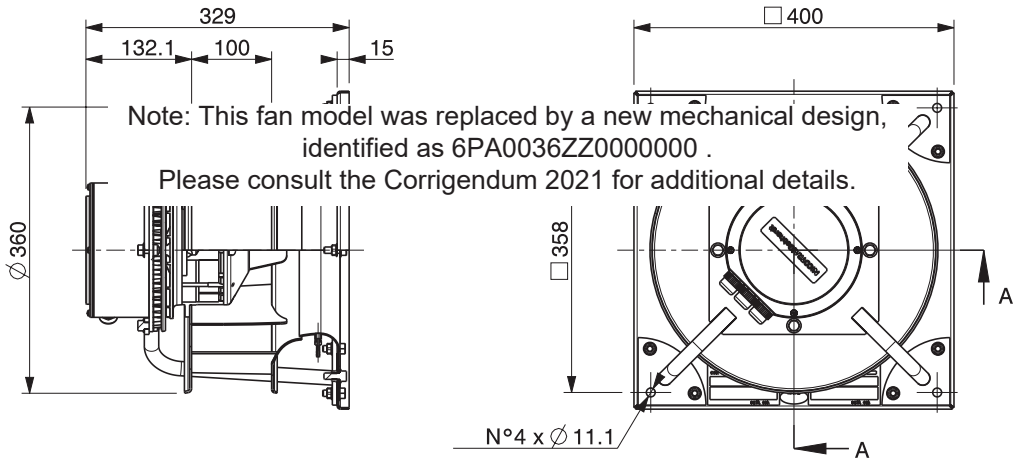
Working point		Sound power level for inlet side (Lw) in dB									
	m^3/h	63	125	250	500	1k	2k	4k	8kHz		LwA
230 V / 50 Hz	2337	84,2	81,9	90,0	77,0	73,4	71,9	67,6	61,3		83,3
F.M.W.L.	3010	80,8	78,6	83,3	75,3	73,0	71,4	67,6	61,6		79,7
	3981	81,8	80,9	83,2	77,7	74,7	71,6	67,7	62,9		80,7
	4844	86,0	84,2	87,6	84,4	80,2	74,2	70,1	63,7		85,7
230 V / 50 Hz	2017	69,9	66,4	75,9	71,4	68,9	67,5	65,3	62,7		75,2
2500 rpm	2591	69,5	64,9	71,0	71,4	68,8	67,5	65,1	62,6		74,6
	3451	67,0	65,6	69,9	73,5	70,6	70,1	65,8	63,3		76,4
	4032	71,5	67,7	76,5	77,5	74,1	72,4	68,6	65,7		77,9
230 V / 50 Hz	1558	59,9	64,7	71,7	67,2	68,2	62,5	58,6	55,9		71,7
2000 rpm	2056	41,6	62,0	66,8	65,8	68,3	62,9	58,9	56,4		71,2
	2754	55,6	61,9	67,3	68,7	68,5	64,7	59,4	58,0		72,3
	3240	69,0	65,0	70,8	72,6	70,5	67,1	62,0	60,2		73,3
230 V / 50 Hz	1197	54,4	67,1	58,0	59,8	58,5	58,6	50,6	47,0		64,0
1500 rpm	1471	38,5	59,3	55,9	59,3	59,0	58,6	50,9	47,3		63,8
	2068	58,7	58,3	58,2	61,3	61,5	61,3	52,3	48,4		66,2
	2428	68,4	64,3	63,0	65,0	62,7	63,8	54,5	51,1		67,1
230 V / 50 Hz	395	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.		N.A.
500 rpm	489	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.		N.A.
	676	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.		N.A.
	786	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.		N.A.

DIMENSIONAL DRAWINGS

S80513 - PFP A1-0315 M6F0 Note: This fan model was re-numbered 6PA0016ZZ0000000



S80503 - PFP A3-0315 M6F0

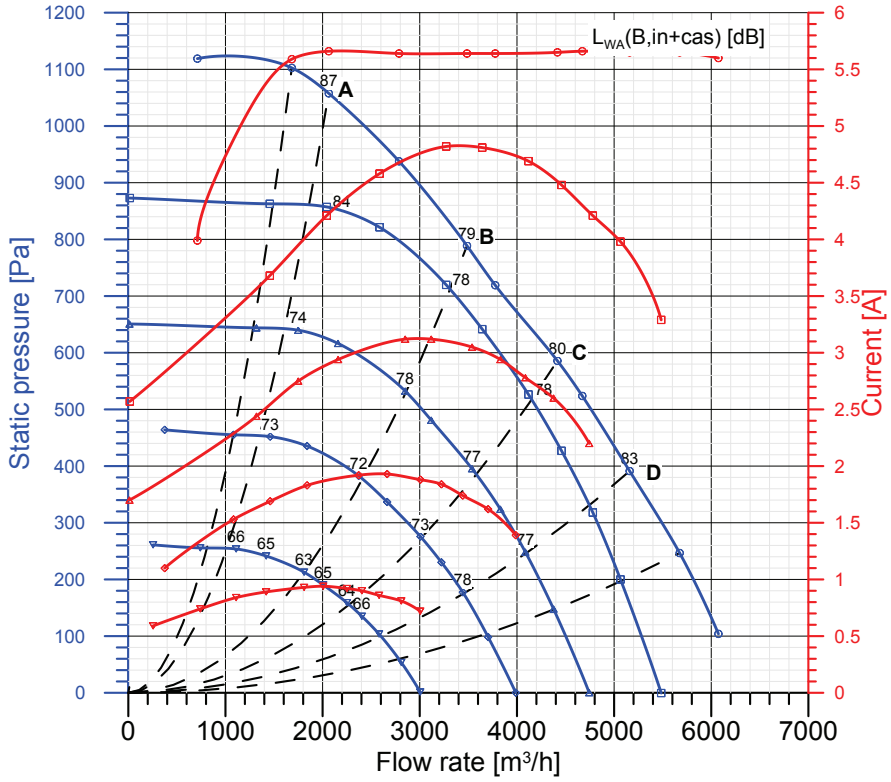


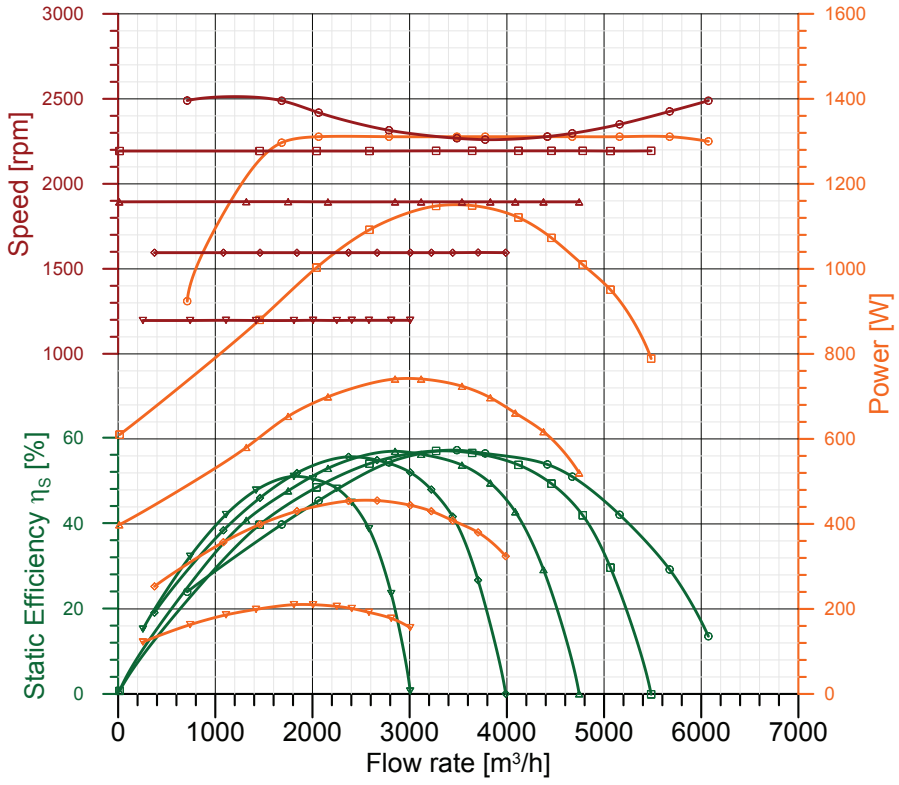
Note: This fan model was replaced by a new mechanical design, identified as 6PA0036ZZ0000000 .
Please consult the Corrigendum 2021 for additional details.

NICOTRA Gebhardt

Type: PFP A3-0355 1.35kW 1Ph
Motor: 1416F1

Power:	1311 W (input, max)	Protection Cl.:	IP 55
Poles:	8	Insulation Cl.:	F
Voltage:	220-240 V	Thermal prot.:	YES-Integral
Supply:	1~	Temp. Min:	-20 °C
Frequency:	50-60 Hz	Temp. Max:	+40 °C (50°C)
Capacitor:	n.a.	Current Max:	5.7 A





Performance data referring to:
Standard air density ρ= 1.20 kg / m³
Installation type "B": free inlet, ducted outlet

Sound Power Levels shown are
Inlet-side L_{WA}(B,in+cas), A-weighted, in dBA

Integral speed-control by On-board Integral Driver

	qv m3/h	pfs Pa	Pe W	n rpm	I A	η_s %
○ **Maximum performance curve (10 V)**						
A	2063	1058	1311	2419	5.66	45.2
B	3486	789	1311	2268	5.64	57.1
C	4417	586	1311	2278	5.65	53.7
D	5160	391	1311	2350	5.65	42.0
□ **Performance at 2200 rpm**						
A	2042	857	1003	2193	4.21	48.4
B	3272	720	1148	2194	4.82	56.9
C	4119	526	1121	2194	4.69	53.6
D	4781	318	1010	2194	4.21	41.8
△ **Performance at 1900 rpm**						
A	1749	640	653	1895	2.75	47.6
B	2850	532	741	1894	3.12	56.8
C	3538	395	724	1894	3.05	53.6
D	4087	248	661	1894	2.78	42.7
◇ **Performance at 1600 rpm**						
A	1460	452	399	1595	1.69	45.9
B	2371	383	454	1595	1.92	55.5
C	3007	276	444	1595	1.88	51.9
D	3443	177	408	1595	1.74	41.5
▽ **Performance at 1200 rpm**						
A	1110	254	186	1197	0.84	42.0
B	1809	213	210	1196	0.93	50.9
C	2250	159	206	1196	0.92	48.1
D	2581	104	192	1197	0.86	38.7

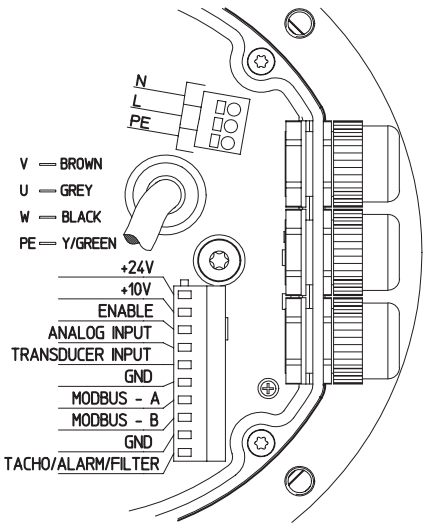
ErP Data acc. to Reg. 327/11/CE

Performance referred to the best efficiency duty point

Compl. with Reg. 327/11/EC:	Tier II (2015)
Overall Efficiency (η x Cc) [%]:	61.6
Measurement category:	A
Efficiency category:	Static
Efficiency grade N [%]:	70.9
A variable speed drive is integrated with this fan	
Manufactured since:	2017
By:	
Regal Beloit Italy S.p.A.	
Via Modena 18	
24040 Ciserano - Italy	
Power input [kW]:	1.311
Volume flow rate qv [m³/s]:	0.968
Static Pressure [Pa]:	789
Speed [rpm]:	2268
Specific ratio:	1.008
Information on:	
- Disassembly, recycling and disposal at end of life	
- Optimal installation, use and maintenance of fans	
are freely downloadable from	
www.nicotra-gebhardt.com	
Testing is carried out with the optional components of the test airway required, according to ISO 5801:2007, for the installation type detailed here on top.	

NICOTRA Gebhardt

WIRING DIAGRAM



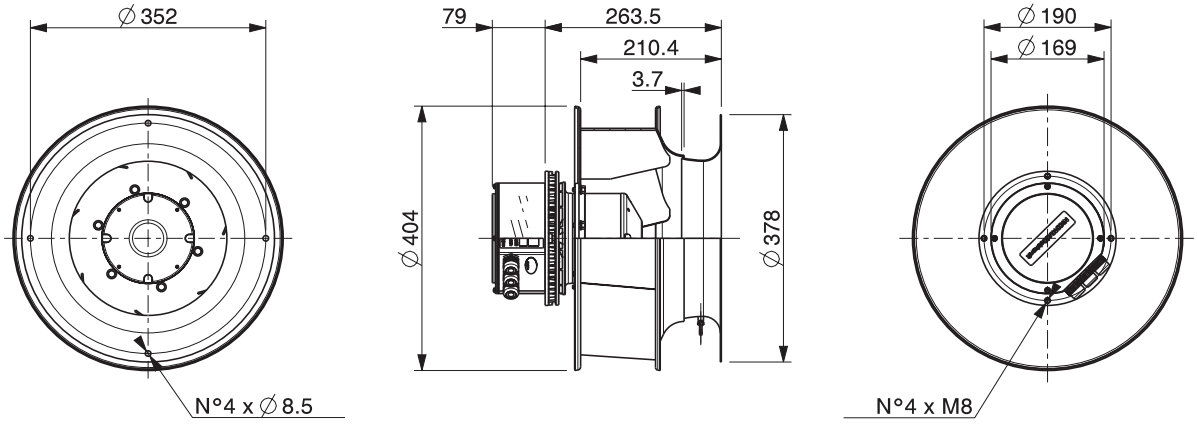
NOISE DATA

Working point		Sound power level for inlet side (Lw) in dB									
	m^3/h	63	125	250	500	1k	2k	4k	8kHz		LwA
230 V / 50 Hz	2063	97,7	94,9	93,1	82,1	74,9	69,7	65,1	58,2		87,2
F.M.W.L.	3486	84,6	81,3	83,8	75,0	70,1	67,8	63,8	57,6		78,8
	4417	84,5	82,1	83,7	76,8	72,0	68,7	65,1	58,6		79,7
	5160	85,1	84,3	86,5	80,4	75,7	70,9	67,5	60,6		82,7
230 V / 50 Hz	2042	74,8	74,4	81,0	72,7	68,8	66,2	62,5	59,5		76,4
2200 rpm	3272	66,6	68,8	74,8	71,4	67,4	65,1	62,2	59,8		73,8
	4119	68,3	69,9	81,9	73,2	68,5	65,8	62,7	60,2		76,8
	4781	71,2	70,6	83,5	77,0	71,4	68,1	65,4	61,2		79,3
230 V / 50 Hz	1749	72,0	77,4	75,7	67,9	66,1	62,4	58,7	55,3		72,4
1900 rpm	2850	64,6	65,9	66,3	66,0	63,7	61,7	58,6	55,7		69,1
	3538	64,7	67,7	68,1	67,6	64,6	62,3	58,8	55,9		70,1
	4087	68,2	70,2	71,0	72,9	67,0	64,2	60,2	57,3		73,4
230 V / 50 Hz	1460	66,8	82,9	68,0	63,9	62,9	58,5	54,0	50,6		70,4
1600 rpm	2371	61,3	64,4	66,8	63,3	61,2	57,9	54,2	50,7		66,4
	3007	61,3	64,8	66,4	64,5	61,1	58,4	54,2	50,9		66,7
	3443	68,4	67,2	68,8	68,1	62,4	59,9	55,2	52,3		69,0
230 V / 50 Hz	1110	62,5	71,5	57,7	60,1	57,8	51,7	46	41,5		62,7
1200 rpm	1809	57,9	60,8	58,1	58,4	56,9	51,5	46,3	42,1		60,8
	2250	61,2	61,3	58,1	59,1	57,2	52,5	47	42,5		61,4
	2581	68,5	63,2	60,6	60,3	57,6	55	48	43,5		62,7

DIMENSIONAL DRAWINGS

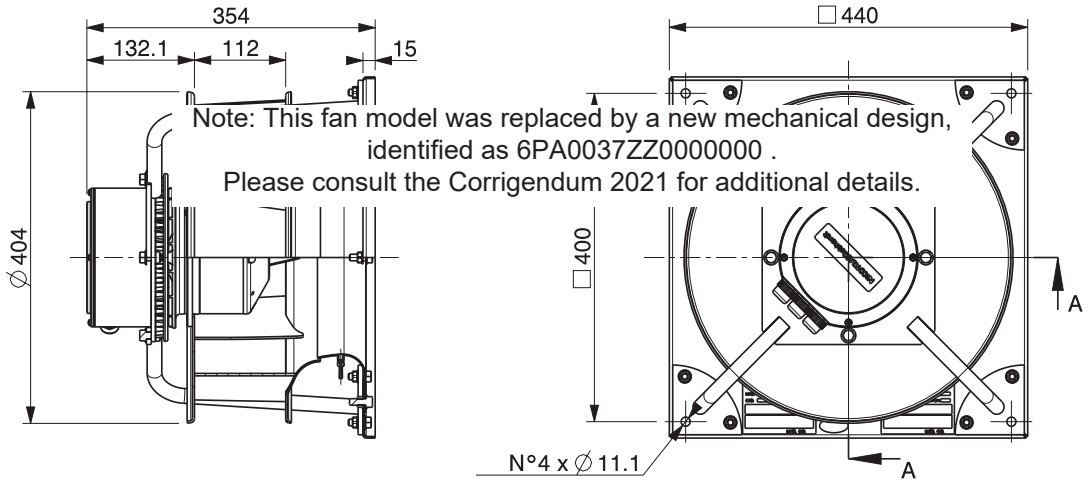
S80509 - PFP A1-0355 M6F0

Note: This fan model was re-numbered 6PA0017ZZ0000000



S80502 - PFP A3-0355 M6F1

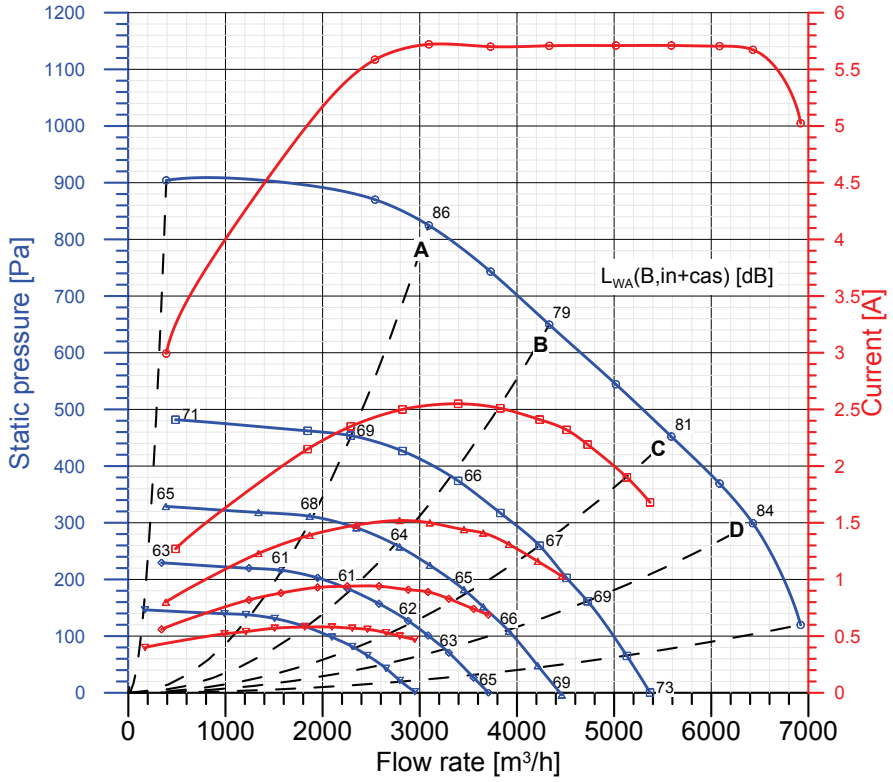
Note: This fan model was replaced by a new mechanical design, identified as 6PA0037ZZ0000000 .
Please consult the Corrigendum 2021 for additional details.

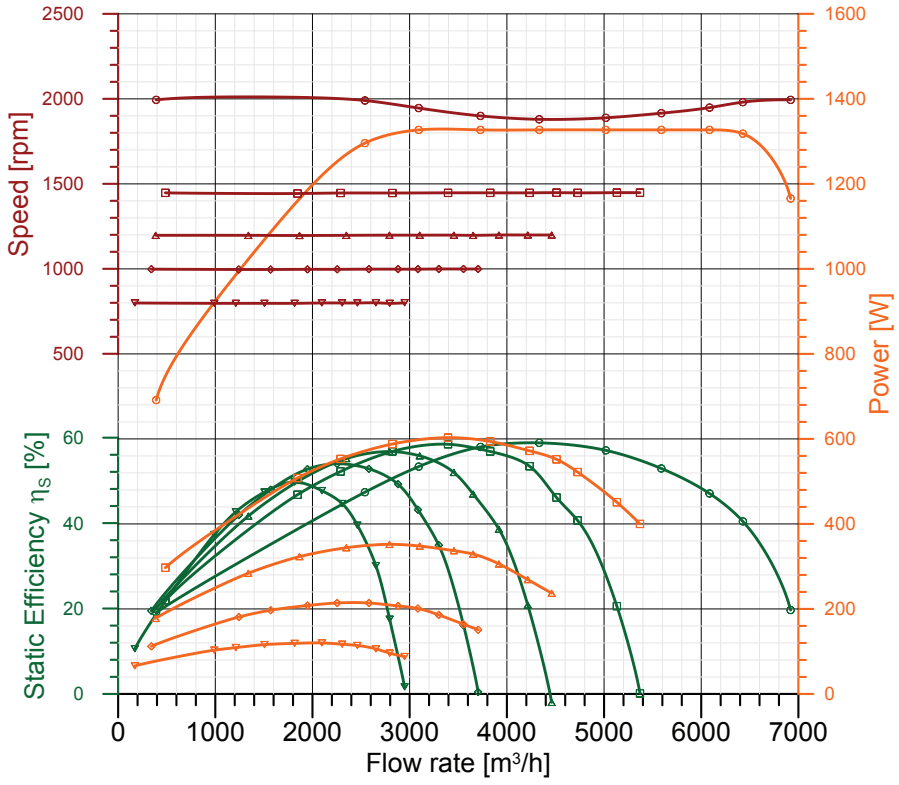


NICOTRA Gebhardt

Type: PFP A3-0400 1.35kW 1Ph
Motor: 1416F1

Power:	1330 W (input, max)	Protection Cl.:	IP 55
Poles:	8	Insulation Cl.:	F
Voltage:	220-240 V	Thermal prot.:	YES-Integral
Supply:	1~	Temp. Min:	-20 °C
Frequency:	50-60 Hz	Temp. Max:	+40 °C (+50°C)
Capacitor:	n.a.	Current Max:	5.7 A





Performance data referring to:
Standard air density ρ= 1.20 kg / m³
Installation type "B": free inlet, ducted outlet

Sound Power Levels shown are
Inlet-side L_{WA}(B,in+cas), A-weighted, in dBA

Integral speed-control by On-board Integral Driver

	qv m3/h	pfs Pa	Pe W	n rpm	I A	ηs %
○	**Maximum performance curve (10 V)**					
A	3093	825	1327	1946	5.72	53.2
B	4333	650	1327	1879	5.71	58.8
C	5590	452	1327	1916	5.71	52.8
D	6429	299	1318	1981	5.67	40.4
□	**Performance at 1450 rpm**					
A	2289	454	553	1446	2.35	52.1
B	3395	374	603	1447	2.55	58.5
C	4234	259	572	1447	2.41	53.3
D	4728	161	522	1447	2.19	40.6
△	**Performance at 1200 rpm**					
A	1866	312	323	1196	1.39	50.0
B	2792	258	352	1198	1.52	56.8
C	3455	182	337	1198	1.44	51.9
D	3918	109	306	1199	1.31	38.6
◇	**Performance at 1000 rpm**					
A	1570	216	197	996	0.88	47.8
B	2254	184	214	997	0.94	53.9
C	2881	127	207	998	0.91	49.1
D	3299	71	186	999	0.83	34.8
▽	**Performance at 800 rpm**					
A	1211	138	109	797	0.54	42.6
B	1816	117	119	797	0.58	49.6
C	2305	82	117	799	0.57	44.6
D	2652	43	106	800	0.53	30.1

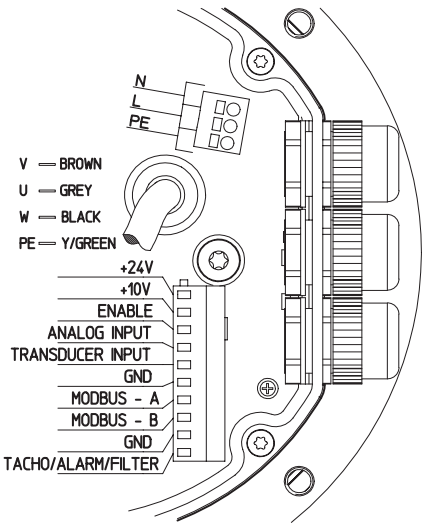
ErP Data acc. to Reg. 327/11/CE

Performance referred to the best efficiency duty point

Compl. with Reg. 327/11/EC:	Tier II (2015)
Overall Efficiency (η x Cc) [%]:	63.5
Measurement category:	A
Efficiency category:	Static
Efficiency grade N [%]:	72.7
A variable speed drive is integrated with this fan	
Manufactured since:	2017
By:	
Regal Beloit Italy S.p.A.	
Via Modena 18	
24040 Ciserano - Italy	
Power input [kW]:	1.327
Volume flow rate qv [m³/s]:	1.204
Static Pressure [Pa]:	650
Speed [rpm]:	1879
Specific ratio:	1.006
Information on:	
- Disassembly, recycling and disposal at end of life	
- Optimal installation, use and maintenance of fans	
are freely downloadable from	
www.nicotra-gebhardt.com	
Testing is carried out with the optional components of the test airway required, according to ISO 5801:2007, for the installation type detailed here on top.	

NICOTRA Gebhardt

WIRING DIAGRAM

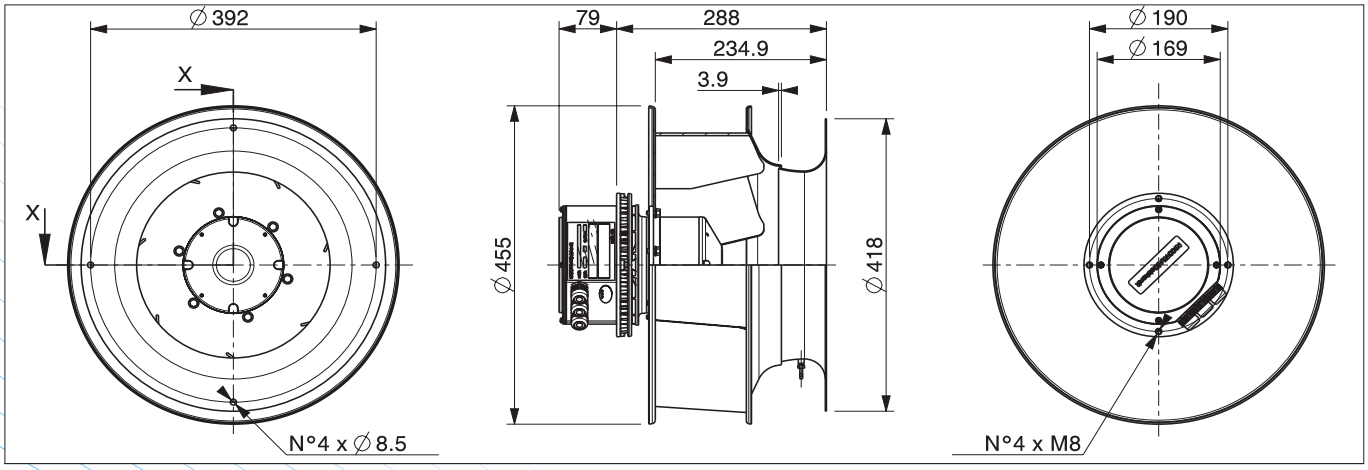


NOISE DATA

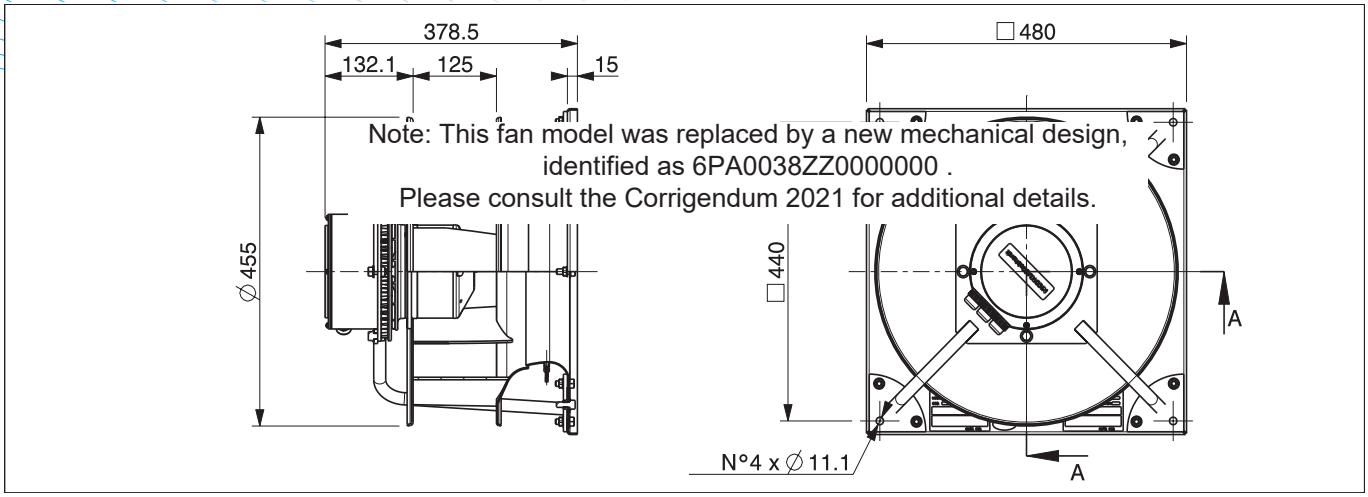
Working point		Sound power level for inlet side (Lw) in dB									
	m^3/h	63	125	250	500	1k	2k	4k	8kHz		LwA
230 V / 50 Hz	3093	86,8	86,2	94,1	75,8	70,1	66,8	61,9	56,7		86,0
F.M.W.L.	4333	83,0	80,6	85,2	74,3	69,0	66,7	61,6	56,4		78,9
	5590	85,0	82,9	86,2	77,1	71,0	68,2	63,1	58,0		80,5
	6429	86,9	86,9	88,9	80,5	74,4	70,9	65,6	59,8		83,5
230 V / 50 Hz	2289	69,5	79,8	66,4	64,2	62,7	58,1	52,9	49,9		68,8
1450 rpm	3395	66,3	64,7	65,9	62,9	61,5	57,5	53,1	50,7		66,1
	4234	66,8	70,5	67,4	65,4	61,3	58,5	54,1	51,7		67,4
	4728	69,9	71,3	69,2	67,8	62,6	61,3	55,3	52,9		69,4
230 V / 50 Hz	1866	64,1	81,6	60,8	62,6	58,6	53,2	48,0	45,2		68,0
1200 rpm	2792	53,8	64,4	58,2	64,5	57,2	53,0	48,1	46,1		63,9
	3455	63,2	65,7	61,2	65,7	56,9	53,8	49,2	46,7		64,9
	3918	66,5	68,5	63,3	66,3	58,2	56,5	50,6	47,4		66,1
230 V / 50 Hz	1570	59,3	68,1	53,3	59,9	57,6	48,3	42,9	41,0		61,4
1000 rpm	2254	57,5	67,0	57,3	59,5	57,5	48,5	43,6	44,5		61,3
	2881	63,9	70,4	57,5	61,0	57,0	49,9	45,0	44,4		62,3
	3299	69,9	69,0	58,3	61,2	57,1	51,9	46,8	44,5		62,6
230 V / 50 Hz	1211	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.		N.A.
800 rpm	1816	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.		N.A.
	2305	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.		N.A.
	2652	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.		N.A.

DIMENSIONAL DRAWINGS

S80510- PFP A1-0400 M6F1 Note: This fan model was re-numbered 6PA0018ZZ0000000



S80504 - PFP A3-0400 M6F1

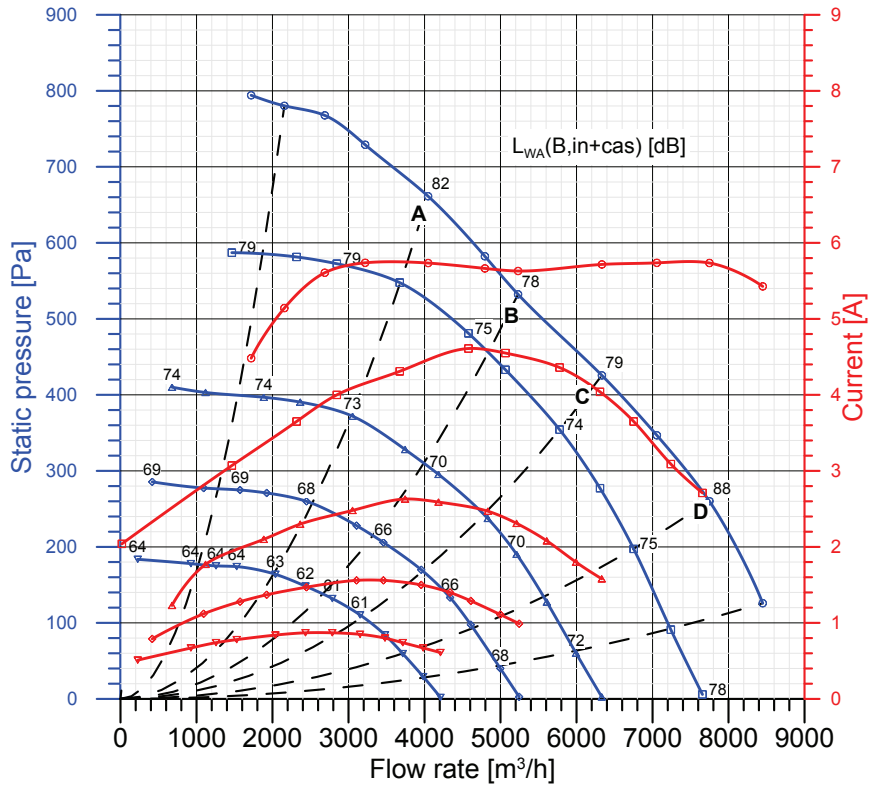


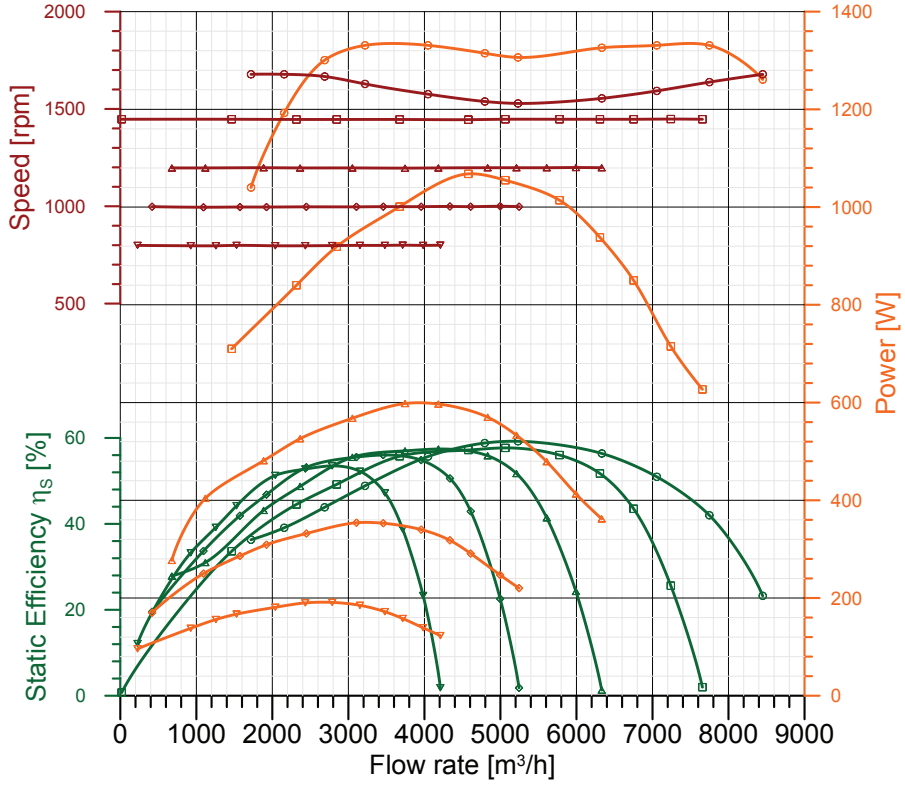
Note: This fan model was replaced by a new mechanical design, identified as 6PA0038ZZ0000000 .
Please consult the Corrigendum 2021 for additional details.

NICOTRA Gebhardt

Type: PFP A3-0450 1.35kW 1Ph
Motor: 1416F1

Power:	1330 W (input, max)	Protection Cl.:	IP 55
Poles:	8	Insulation Cl.:	F
Voltage:	220-240 V	Thermal prot.:	YES-Integral
Supply:	1~	Temp. Min:	-20 °C
Frequency:	50-60 Hz	Temp. Max:	+40 °C (+50°C)
Capacitor:	n.a.	Current Max:	5.8 A





Performance data referring to:
Standard air density ρ= 1.20 kg / m³
Installation type "B": free inlet, ducted outlet

Sound Power Levels shown are
Inlet-side L_{WA}(B,in+cas), A-weighted, in dBA

Integral speed-control by On-board Integral Driver

	qv m3/h	pfs Pa	Pe W	n rpm	I A	ηS %
○ **Maximum performance curve (10 V)**						
A	4047	661	1331	1576	5.73	55.7
B	5231	532	1306	1528	5.63	59.2
C	6333	426	1326	1554	5.72	56.4
D	7748	260	1331	1638	5.74	42.0
□ **Performance at 1450 rpm**						
A	3674	548	1001	1446	4.31	55.7
B	5065	433	1055	1447	4.55	57.7
C	5777	354	1014	1447	4.36	56.0
D	6752	197	850	1447	3.65	43.5
△ **Performance at 1200 rpm**						
A	3053	372	568	1197	2.48	55.5
B	4184	295	597	1197	2.59	57.4
C	4832	237	570	1198	2.47	55.9
D	5609	127	479	1198	2.08	41.4
◇ **Performance at 1000 rpm**						
A	2447	260	332	997	1.47	53.2
B	3459	206	353	998	1.56	56.0
C	3957	170	340	998	1.50	54.8
D	4609	98	291	998	1.29	42.9
▽ **Performance at 800 rpm**						
A	2039	164	181	797	0.84	51.3
B	2787	132	191	798	0.87	53.5
C	3152	110	185	799	0.85	52.3
D	3714	60	158	800	0.74	38.8

ErP Data acc. to Reg. 327/11/CE

Performance referred to the best efficiency duty point

Compl. with Reg. 327/11/EC: Tier II (2015)
Overall Efficiency (η x Cc) [%]: 64
Measurement category: A
Efficiency category: Static
Efficiency grade N [%]: 73.3
A variable speed drive is integrated with this fan
Manufactured since: 2017
By:
Regal Beloit Italy S.p.A.
Via Modena 18
24040 Ciserano - Italy
Power input [kW]: 1.306
Volume flow rate qv [m³/s]: 1.453
Static Pressure [Pa]: 532
Speed [rpm]: 1528
Specific ratio: 1.005
Information on:
- Disassembly, recycling and disposal at end of life
- Optimal installation, use and maintenance of fans

are freely downloadable from
www.nicotra-gebhardt.com
Testing is carried out with the optional components of the test airway required, according to ISO 5801:2007, for the installation type detailed here on top.

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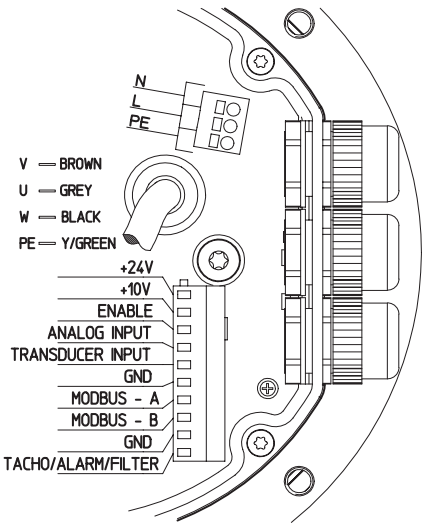
WIRING DIAGRAM

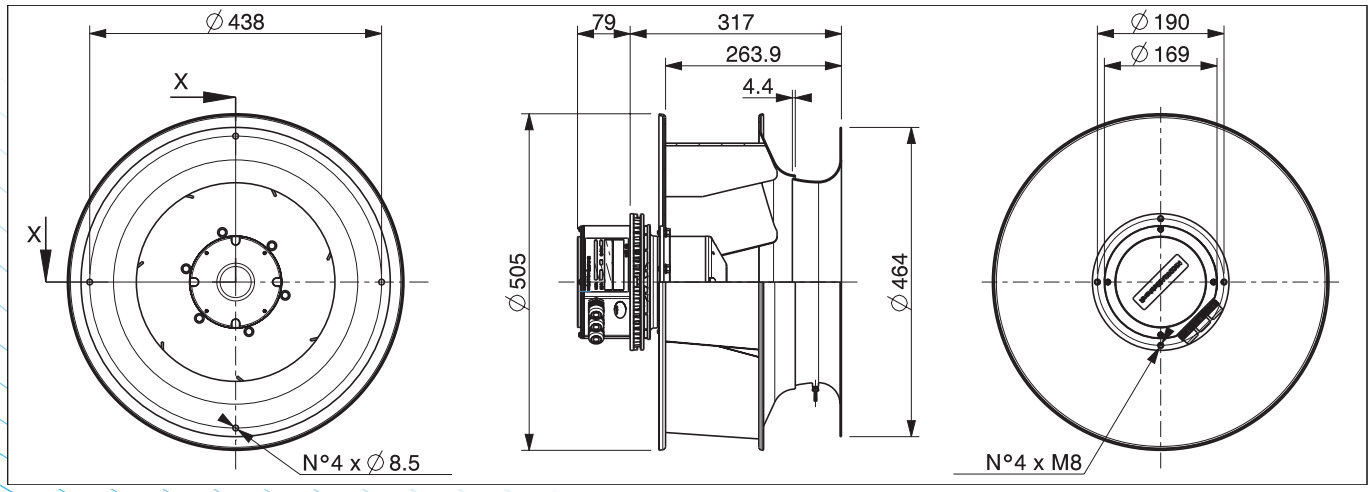


NOISE DATA

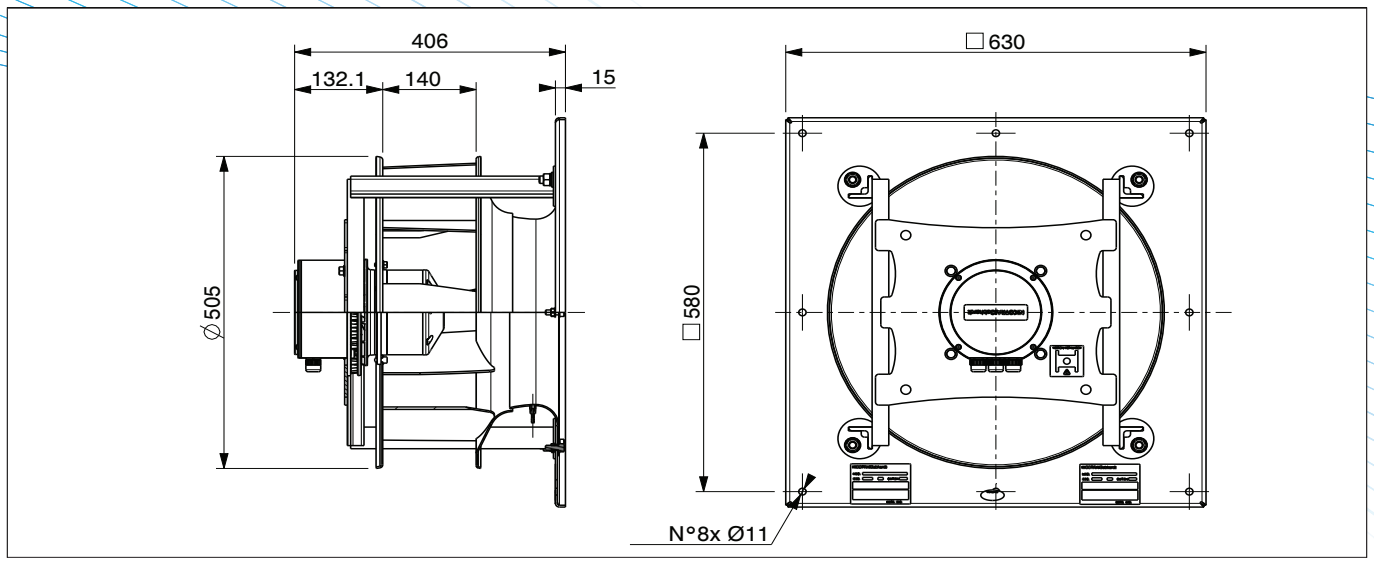
Working point		Sound power level for inlet side (Lw) in dB									
	m^3/h	63	125	250	500	1k	2k	4k	8kHz		LwA
230 V / 50 Hz	4047	84,0	96,8	81,2	75,2	68,5	65,8	58,8	53,5		82,2
F.M.W.L.	5231	82,6	86,9	81,5	75,2	69,1	66,1	59,6	53,8		78,0
	6333	84,3	87,2	83,9	76,7	32,8	67,6	61,7	55,6		79,0
	7748	87,5	90,9	88,3	79,8	86,0	71,4	66,1	60,1		87,7
230 V / 50 Hz	3674	65,7	74,6	69,4	69,2	74,8	70,5	61,8	55,9		77,2
1450 rpm	5065	68,0	71,0	69,6	68,5	71,5	69,0	60,7	55,1		74,9
	5777	70,2	70,6	70,5	69,0	70,1	67,8	60,0	54,6		74,0
	6752	84,4	75,6	73,6	71,0	68,4	68,5	60,2	55,8		74,6
230 V / 50 Hz	3053	62,6	75,8	64,8	65,6	69,9	65,7	56,3	50,2		72,6
1200 rpm	4184	64,4	67,3	63,5	64,3	66,6	64,0	55,4	49,4		70,0
	4832	74,8	72,2	64,3	64,4	65,5	64,3	54,9	49,2		69,9
	5609	77,9	72,8	67,8	66,4	63,8	62,8	55,1	50,2		69,6
230 V / 50 Hz	2447	60,4	70,4	60,7	61,7	65,4	60,7	51,3	44,4		68,0
1000 rpm	3459	61,6	66,5	59,8	60,3	63,2	58,8	49,9	43,7		66,0
	3957	65,4	68,8	60,7	60,5	61,7	57,8	49,0	43,0		65,2
	4609	75,0	69,6	63,7	62,0	60,0	59,8	49,7	44,2		65,8
230 V / 50 Hz	2039	52,3	56,8	55,6	56,3	61,6	54,6	44,9	36,8		63,3
800 rpm	2787	56,4	57,6	55,9	55,2	59,2	53,1	43,3	37,2		61,3
	3152	67,1	57,3	57,9	54,6	58,3	52,3	42,3	36,5		60,7
	3714	69,9	63,5	58,7	55,7	57,5	52,1	42,5	37,1		63,4

DIMENSIONAL DRAWINGS

S80511 - PFP A1-0450 M6F1 Note: This fan model was re-numbered 6PA0019ZZ0000000



S80524BQE - PFP A3-0450 M6F1 BQE Note: This fan model was re-numbered 6PA0039ZZ0000000



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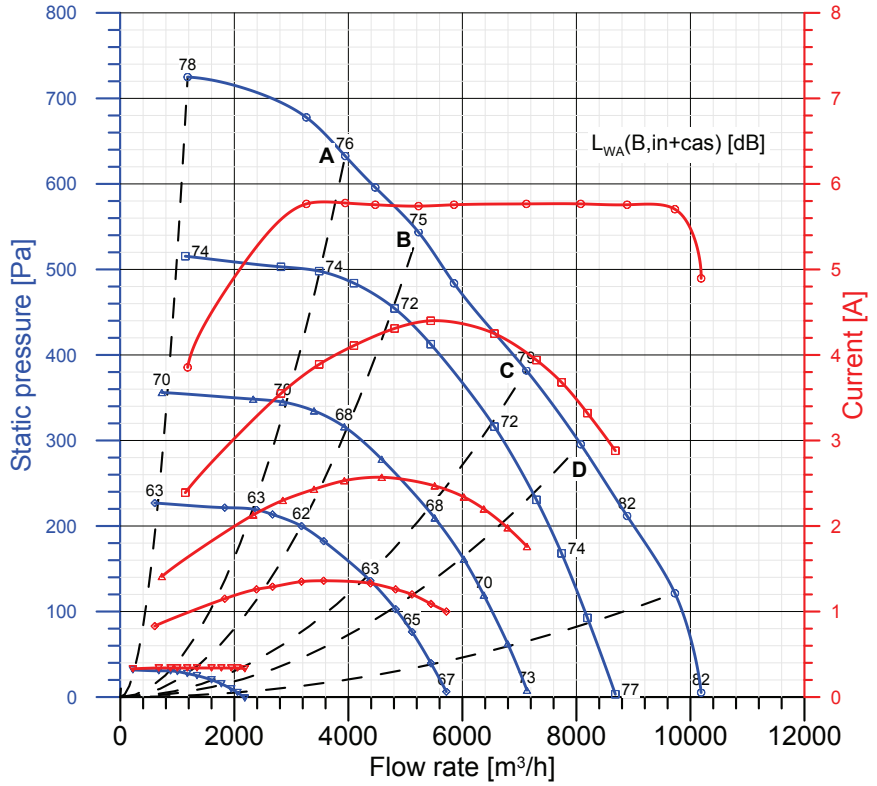
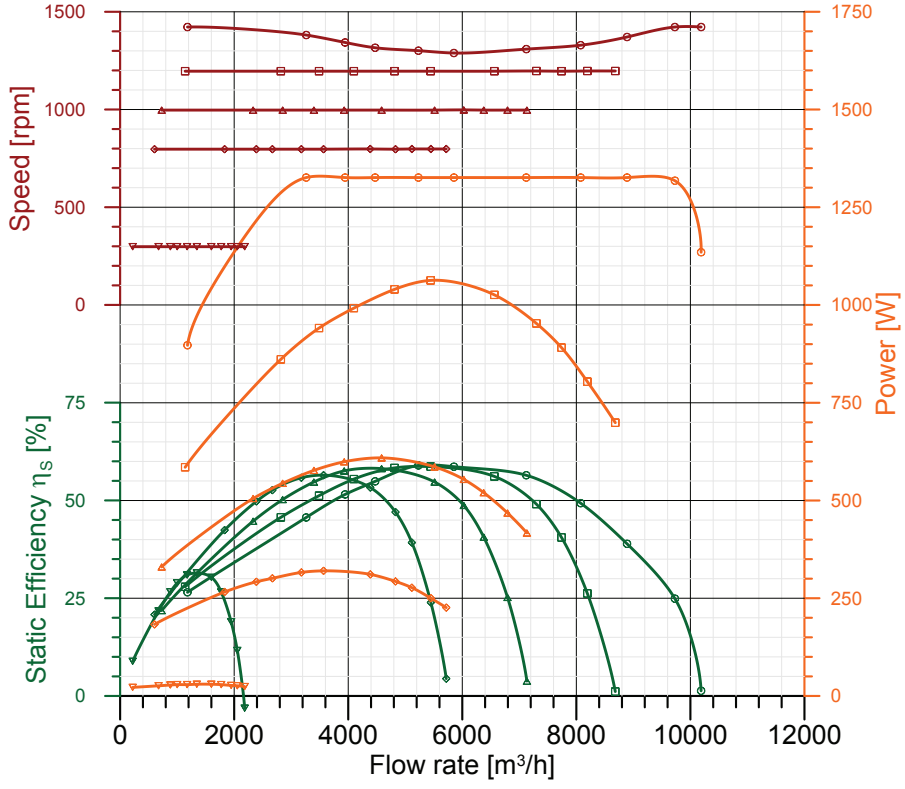
Type: PFP A3-0500 1.35kW 1Ph
Motor: 1416F2

Power:	1326 W (input, max)	Protection Cl.:	IP 55
Poles:	8	Insulation Cl.:	F
Voltage:	220-240 V	Thermal prot.:	YES-Integral
Supply:	1~	Temp. Min:	-20 °C
Frequency:	50-60 Hz	Temp. Max:	+40 °C (+50°C)
Capacitor:	n.a.	Current Max:	5.78 A





Performance data referring to:
Standard air density ρ= 1.20 kg / m³
Installation type "B": free inlet, ducted outlet

Sound Power Levels shown are
Inlet-side L_{WA}(B,in+cas), A-weighted, in dBA

Integral speed-control by On-board Integral Driver

	qv m3/h	pfs Pa	Pe W	n rpm	I A	η_S %
○ **Maximum performance curve (10 V)**						
A	3945	633	1326	1343	5.78	51.5
B	5231	544	1326	1301	5.74	58.9
C	7122	382	1326	1309	5.77	56.4
D	8076	296	1326	1329	5.77	49.3
□ **Performance at 1200 rpm**						
A	3488	498	941	1196	3.89	51.2
B	4811	454	1040	1196	4.31	58.3
C	6562	316	1026	1196	4.25	56.1
D	7299	231	953	1197	3.94	49.1
△ **Performance at 1000 rpm**						
A	2850	345	544	997	2.30	50.2
B	3929	316	599	997	2.53	57.6
C	5514	210	586	997	2.47	54.7
D	6026	161	554	998	2.34	48.7
◇ **Performance at 800 rpm**						
A	2389	219	292	797	1.26	49.8
B	3178	200	316	797	1.35	55.8
C	4387	136	311	798	1.33	53.3
D	4829	103	293	797	1.26	47.0
▽ **Performance at 300 rpm**						
A	881	31	28	298	0.34	26.6
B	1175	27	29	298	0.34	30.9
C	1600	20	30	298	0.34	30.3
D	1773	15	29	298	0.34	26.6

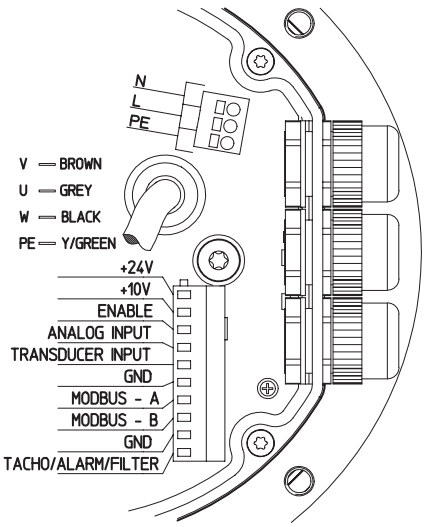
ErP Data acc. to Reg. 327/11/CE

Performance referred to the best efficiency duty point

Compl. with Reg. 327/11/EC:	Tier II (2015)
Overall Efficiency (η x Cc) [%]:	63.6
Measurement category:	A
Efficiency category:	Static
Efficiency grade N [%]:	72.8
A variable speed drive is integrated with this fan	
Manufactured since:	2017
By:	
Regal Beloit Italy S.p.A.	
Via Modena 18	
24040 Ciserano - Italy	
Power input [kW]:	1.326
Volume flow rate qv [m³/s]:	1.453
Static Pressure [Pa]:	544
Speed [rpm]:	1301
Specific ratio:	1.005
Information on:	
- Disassembly, recycling and disposal at end of life	
- Optimal installation, use and maintenance of fans	
are freely downloadable from	
www.nicotra-gebhardt.com	

Testing is carried out with the optional components of the test airway required, according to ISO 5801:2007, for the installation type detailed here on top.

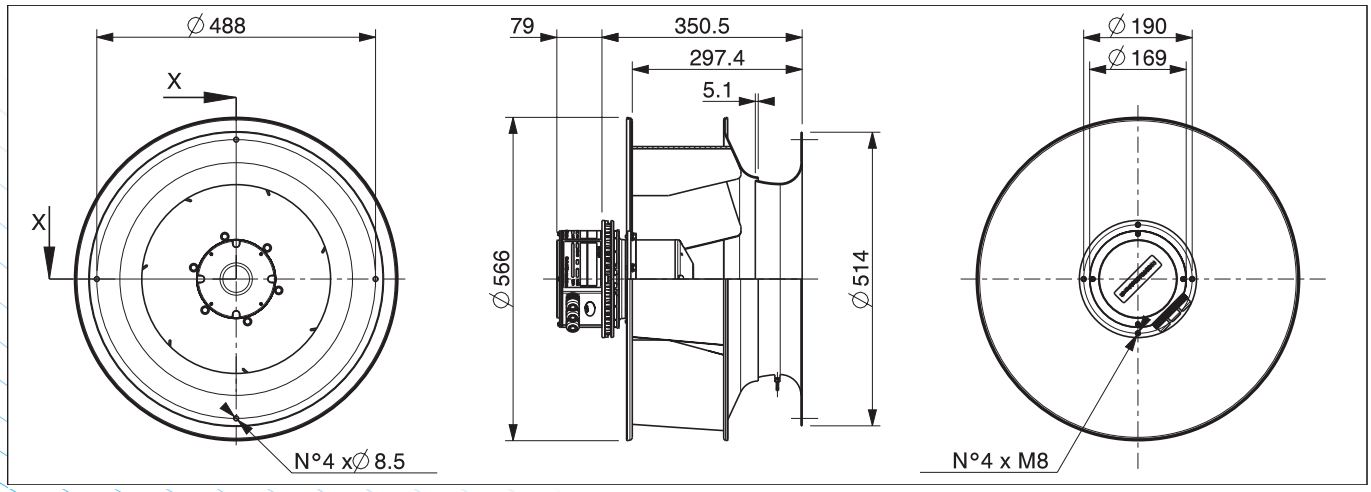
NOISE DATA



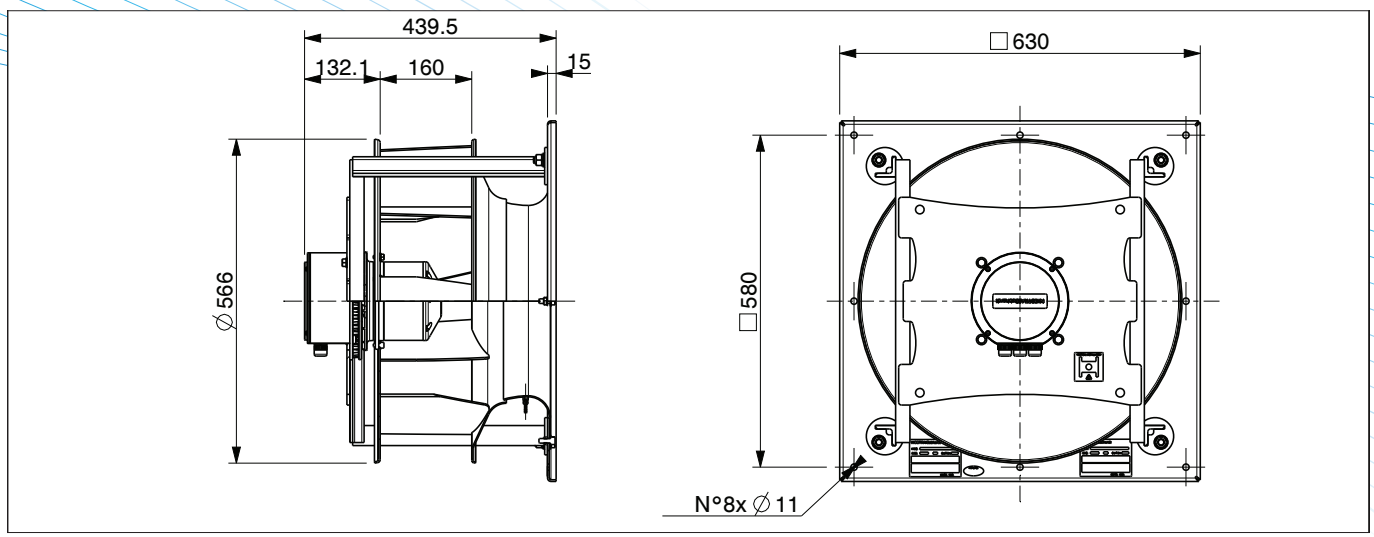
Working point		Sound power level for inlet side (Lw) in dB									
	m^3/h	63	125	250	500	1k	2k	4k	8kHz		LwA
230 V / 50 Hz	3945	70,9	79,8	76,4	73,3	69,4	65,7	62,7	56,0		75,5
F.M.W.L.	5231	67,2	79,6	74,4	71,0	70,5	65,8	59,8	56,7		74,8
	7122	63,5	79,2	83,2	78,1	70,4	67,1	59,2	56,5		79,2
	8076	65,5	78,6	82,4	85,7	70,5	69,9	60,2	57,9		83,8
230 V / 50 Hz	3488	70,8	83,5	76,5	69,3	66,1	63,0	61,6	52,9		74,1
1200 rpm	4811	63,0	75,8	75,6	66,9	65,4	63,3	57,1	53,6		71,9
	6562	64,1	72,6	73,5	67,0	66,1	64,6	56,5	53,6		71,6
	7299	64,2	75,6	73,5	68,7	66,6	66,5	57,0	54,3		72,8
230 V / 50 Hz	2850	69,2	79,0	71,1	67,1	63,1	60,2	54,4	47,3		70,2
1000 rpm	3929	61,7	73,5	70,3	64,9	61,9	59,3	51,2	49,0		68,2
	5514	63,3	68,0	69,0	64,8	63,3	59,8	51,3	48,1		68,1
	6026	67,1	67,7	71,0	65,8	63,8	60,5	51,6	48,7		69,0
230 V / 50 Hz	2389	73,0	62,3	63,0	59,8	55,8	56,3	46,7	39,7		62,7
800 rpm	3178	61,4	58,8	63,4	58,8	56,3	54,2	48,6	40,9		62,0
	4387	62,3	59,8	66,2	57,7	58,1	54,2	46,3	40,6		63,0
	4829	65,5	63,0	67,8	59,9	59,7	55,7	46,1	41,9		64,6
230 V / 50 Hz	881	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.		N.A.
300 rpm	1175	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.		N.A.
	1600	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.		N.A.
	1773	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.		N.A.

DIMENSIONAL DRAWINGS

S80514 - PFP A1-0500 M6F2 Note: This fan model was re-numbered 6PA001AZZ0000000



S80525BQE - PFP A3-0500 M6F2 BQE Note: This fan model was re-numbered 6PA003AZZ0000000



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PFP

The compact lightweight

CATALOGUE ADD-ON

3-Phase Models with BL130 motors

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The PFP range now includes 3-phase models

The PFP range is including five additional models, covering fan sizes from 280 mm up to 450 mm, driven by the new 3-phase external-rotor motors, with input power up to 2.6 kW.

The new 3-phase models share many characteristics with the single-phase models already available since long.

This attachment to the PFP catalogue describes the new features, which are specific of the three-phase models.

Please refer to the PFP catalogue for additional information on all the common features.

Please, keep in contact with your Nicotra Gebhardt sales representative, to receive timely updates on the latest additions to the PFP range.

Smart EC 3-phase motor controllers

The new 3-phase motor controllers, or “drivers”, fitted to the PFP fans, have a nominal maximum input power of 2.6 kW in the PFP purpose-designed case with an IP55 protection grade.

They comply with the EMC requirements for class C2 of power-drive systems, according to EN 61800-3. As such, they are suitable for use in the “first environment”, under condition that they are incorporated into an apparatus, system or installation, which is neither a plug-in device nor a movable device. Such devices shall have to be installed and commissioned only by a professional.

According to the EN 61000-3-2 standard (“Limits for harmonic current emissions – equipment input current ≤16 A per phase – “), these devices are classified as “professional devices having total input power greater than 1 kW”. Direct connection to a low voltage supply (public networks) may be allowed insofar as this has been approved by the respective energy distribution authority.

The 3-phase PFP power drive systems comply with the emission requirements set by the EN 61000-6-4 standard for use in industrial environments and also with the immunity requirements for industrial environments, according to EN 61000-6-2.

All these driver units use sensorless technology, to simplify their architecture and increase their operational reliability.

The PFP drivers are factory-configured to be ready for use in their basic operating mode, i.e. with continuous speed control, having the fan speed proportional to an analogue input signal (0-10 Vdc or PWM).

The drivers incorporate advanced protection features, preventing the user from exceeding the safety limits of both the driver and the motor. If the combination of the air system configuration and the speed demand from the user bring the fan to exceed one or more of the limits, which are set for input power, motor torque, or operating temperature of the electronics, then the fan speed and power requirement is automatically reduced, to bring-back the fan within safe operating conditions.

The performance diagrams of the different PFP fan models, in this catalogue, show the fan performance under standard laboratory conditions and already account for this automatic restriction of the fan performance, according to speed, power and torque limits.

If the software protection features should not be enough, a temperature-sensitive switch is fitted inside all motors, to stop the drive-system, preventing any permanent damage from overloading and overheating.

Beyond those operational features, which are already available from the single-phase drivers, the new three phase drivers introduce two new and additional features:

A. Frequency-range skip

The supporting frame of the PFP fans is highly resistant to structural vibration and resonance, thanks to the combination of a stiff structure with the lightweight design of the motors, built around high-intensity magnets.

Notwithstanding this, if an application, having an unusually flexible structure, should suffer from mechanical resonance, at a critical frequency falling within the useful fan speed range, the driver can be configured to avoid a selectable bracket within the fan speed range, to prevent the application from developing ample, noisy and potentially unsafe vibrations.

B. Flying Start & Re-start

When the motors with single-phase drivers lose synchronism, i.e. the driver loses control of the rotor angular position, because of a temporary loss of power, or because the fan is started with a windmilling impeller, the single-phase drivers bring the rotor to a standstill condition, and then re-start the motor, in the correct direction and in a controlled way.

The new three-phase drivers are capable of a flying-start. This means that, when electrical power is restored, after a power-loss, with the impeller still running, or when the fan is started while the impeller is windmilling, the new three-phase drivers can sense the speed and position of the moving rotor, and can immediately regain control of the motor, without having to brake the fan to standstill.

By design, these drive systems are insensitive to the frequency of the power supply, so all the PFP three-phase fans are suitable for operation with any power network at 50 or 60 Hz frequency, in the 400V +/- 10% voltage range.

Advanced operating modes.

The 3-phase smart drivers provide the same advanced functions available from the less powerful single-phase units. Please refer to the existing catalogue for single-phase models for further details.

These advanced modes are already available from the standard firmware, without firmware upgrades or additional hardware: they only require activation and configuration through one of the serial interfaces of the driver, using a software tool.

Advanced SW interface.

A new and more advanced monitoring and configuration software tool, “Fan Configurator”, has been specifically developed to provide a flexible user interface for monitoring and configuration of the fans, in combination with the new three-phase drivers, and also with the former single-phase units.

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Please note that the Nicotra Gebhardt “Fan Configuration Program”, used so far to support the single-phase drivers, is not suitable for use with the new three-phase drivers.

The former Nicotra Gebhardt “Fan Configuration Program”, Revision 2, can connect to the three-phase drivers and still provide some of the basic monitoring functions, but cannot read a number of the new parameters, and is definitely not suitable to configure the three-phase drivers.

Please, contact Nicotra Gebhardt if you have difficulties downloading the new control software package.

Extended analogue interface

To support those customers who connect the PFP fan to an electromechanical control system, the new 3-phase smart drivers also provide the alarm signal using a normally-closed (NC) relay, suitable for 250 Vac / 30Vdc 5A , as well as through the normal low-power digital output.

The relay is closed during normal operation, open when an alarm is raised, or when the power supply is switched-off.

Specifications

PFP 2.6 kW 3-Phase range

Direct-driven plug/plenum fan, with integrated drive system and high-efficiency backward-curved impeller without scroll.

The IP54 drive system includes a high-efficiency external-rotor permanent-magnet motor and a smart electronic motor driver, providing speed-control and self-protection against overloading or overheating.

The external-rotor motor, using high-intensity rare-earth magnets for better efficiency and compactness, is directly integrated in the hub of the impeller and supported, behind the impeller, on the replaceable driver case, which acts as supporting flange.

The three-phase 2.6 kW driver, fitted into the fan supporting flange, provides advanced control functions as well as both analogue and digital external interfaces, and incorporates passive EMC filters, keeping the fan power factor constantly at optimum values, as well as reducing harmonic distortion and emissions.

The three-phase drive system complies with the EMC emission requirements of the class C2 (“First environment, with installation by professionals”), as defined in the EN 61800-3 standard for power-drive systems, and also with the more demanding immunity requirements for industrial environments, according to EN 61000-6-2.

The driver case, of pressure-cast aluminium, incorporates a patented forced-cooling system, protecting both the driver and the driver-side bearing from overheating.

The high-efficiency lightweight backward-inclined impellers, directly bolted onto the motor, are made of welded aluminium plate, to guarantee the stiffness and strength required for high-speed operation, without generating unmanageable vibrations.

Code	Description	Size	Motor+Driver	Optimum energy efficiency point	
				Flow rate	Pressure
				[m^3/h]	[Pa]
S80538	PFP A1-0280 M6F8	280	1416F8	2670	1003
S80529	PFP A3-0280 M6F8	280	1416F8	2670	1003
S80539	PFP A1-0315 M6F8	315	1416F8	3138	1021
S80530BQE	PFP A3-0315 M6F8	315	1416F8	3138	1021
S80540	PFP A1-0355 M6F6	355	1416F6	4301	1094
S80531BQE	PFP A3-0355 M6F6	355	1416F6	4301	1094
S80541	PFP A1-0400 M6F5	400	1416F5	5074	1153
S80532BQE	PFP A3-0400 M6F5	400	1416F5	5074	1153
S80542	PFP A1-0450 M6F7	450	1416F7	6173	865
S80533BQE	PFP A3-0450 M6F7	450	1416F7	6173	865

Update: The 6-10 character part-numbering system, used to assign the part numbers to the products shown in this table, was superseded, in 2019, by a new, 16-character structured coding system, and some of the A3 fan models have also been replaced by new designs, with the same performance but having a larger base-plate, for ease of installation.
Please consult the Corrigendum 2021, for additional information on these changes to the standard PFP product range.

	Maximum values			IP fan grade	Tmin	Tmax	Page
	Adsorbed power	Pressure (q=0)	Flow rate (P=0)				
	[W]	[Pa]	[m^3/h]		[°C]	[°C]	
	1320	1244	4148	54	-20	+40	
	1320	1244	4148	54	-20	+40	
	1500	1188	5051	54	-20	+40	
	1500	1188	5051	54	-20	+40	
	2110	1288	6701	54	-20	+40	
	2110	1288	6701	54	-20	+40	
	2600	1421	8750	54	-20	+40	
	2600	1421	8750	54	-20	+40	
	2370	1086	10250	54	-20	+40	
	2370	1086	10250	54	-20	+40	

Update: Since 2020, the protection grade of the PFP fan models with BL 130 motors was upgraded to IP55, according to IEC 60529, both with the motor running or stationary, under condition that the cable glands and the cover lid are properly secured, and that any unused cable gland is closed with the sealing-plug provided.

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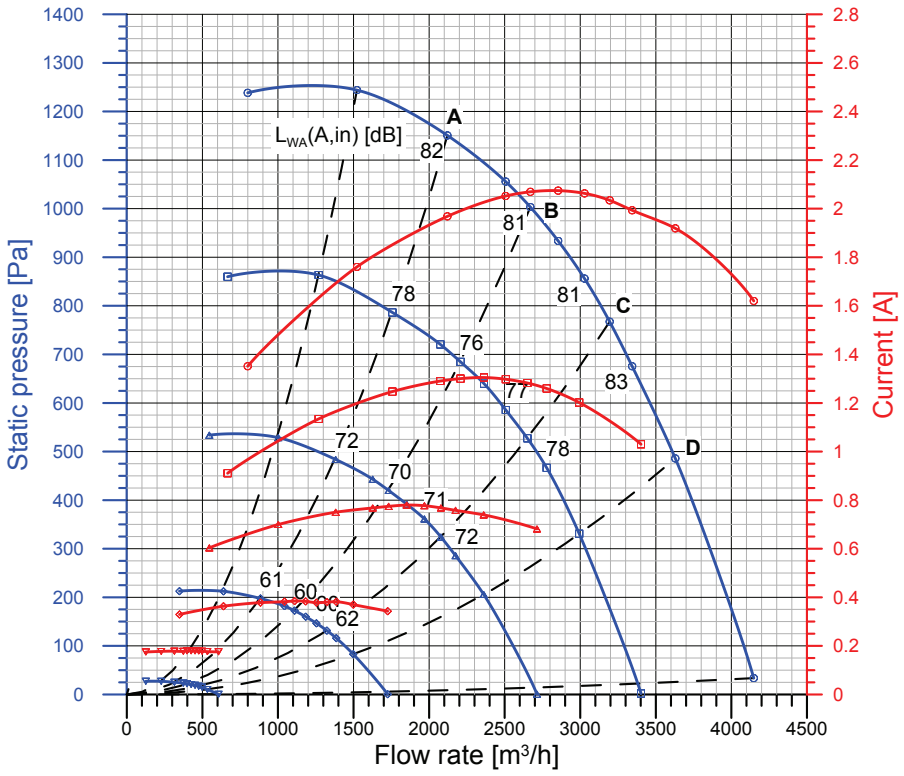
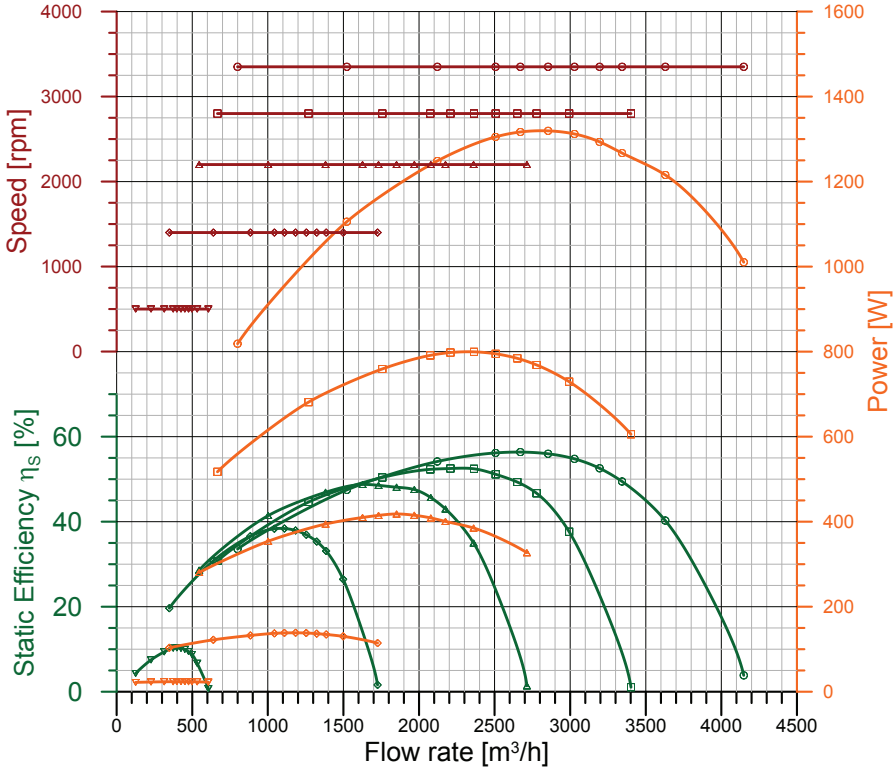
Type: PFP A3-0280 1.4kW 3Ph
Motor: 1416F8

Power:	1320 W (input, max)	Protection Cl.:	IP 55
Poles:	8	Insulation Cl.:	F
Voltage:	400 V	Thermal prot.:	YES-Integral
Supply:	3~	Temp. Min:	-20 °C
Frequency:	50-60 Hz	Temp. Max:	+40 °C (+50°C)
Capacitor:	n.a.	Current Max:	2.07 A

Performance data referring to:
Standard air density ρ= 1.20 kg / m³
Installation type "A": free inlet, free outlet

Sound Power Levels shown are
Inlet-side L_{WA}(A,in), A-weighted, in dBA





Integral speed-control by On-board Integral Driver

	qv m3/h	pfs Pa	Pe W	n rpm	I A	ηs %
○ **Maximum performance curve (10 V)**						
A	2121	1151	1249	3350	1.97	54.2
B	2670	1003	1317	3350	2.07	56.4
C	3195	767	1293	3350	2.03	52.6
D	3629	486	1216	3350	1.92	40.3
□ **Performance at 2800 rpm**						
A	1757	786	759	2800	1.25	50.4
B	2208	685	798	2800	1.30	52.5
C	2650	527	784	2800	1.28	49.3
D	2993	331	729	2800	1.20	37.6
△ **Performance at 2200 rpm**						
A	1382	484	394	2200	0.75	46.9
B	1732	420	415	2200	0.77	48.6
C	2078	324	409	2200	0.77	45.7
D	2361	206	385	2200	0.74	35.0
◇ **Performance at 1400 rpm**						
A	884	198	132	1400	0.38	36.6
B	1110	173	138	1400	0.38	38.4
C	1324	132	137	1400	0.38	35.3
D	1498	83	130	1400	0.37	26.4
▽ **Performance at 500 rpm**						
A	315	25	23	500	0.18	9.4
B	398	22	24	500	0.18	10.3
C	476	17	24	500	0.18	9.5
D	533	11	23	500	0.18	6.7

ErP Data acc. to Reg. 327/11/CE

Performance referred to the best efficiency duty point

Compl. with Reg. 327/11/EC:	Tier II (2015)
Overall Efficiency (η x Cc) [%]:	60.9
Measurement category:	A
Efficiency category:	Static
Efficiency grade N [%]:	70.1

A variable speed drive is integrated with this fan

Manufactured since: 2018
By:
Regal Beloit Italy S.p.A.
Via Modena 18
24040 Ciserano - Italy

Power input [kW]:	1.317
Volume flow rate qv [m³/s]:	0.742
Static Pressure [Pa]:	1003
Speed [rpm]:	3350
Specific ratio:	1.01

Information on:
- Disassembly, recycling and disposal at end of life
- Optimal installation, use and maintenance of fans

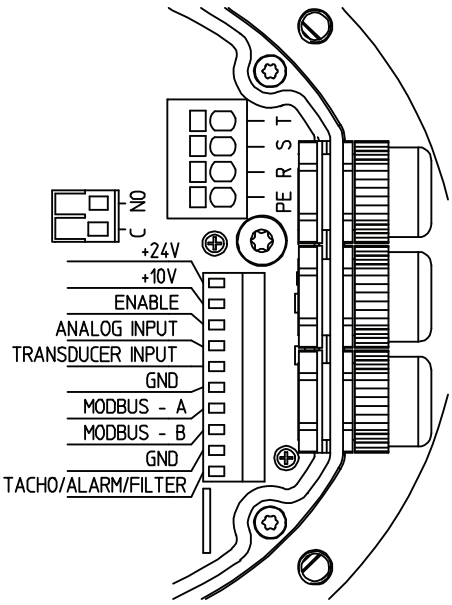
are freely downloadable from
www.nicotra-gebhardt.com

Testing is carried out with the optional components of the test airway required, according to ISO 5801:2007, for the installation type detailed here on top.

Test nr.: NG-W 17879-88-89-90-91 Date: 14/06/2018

NICOTRA Gebhardt

WIRING DIAGRAM
SCHEMA DI COLLEGAMENTO



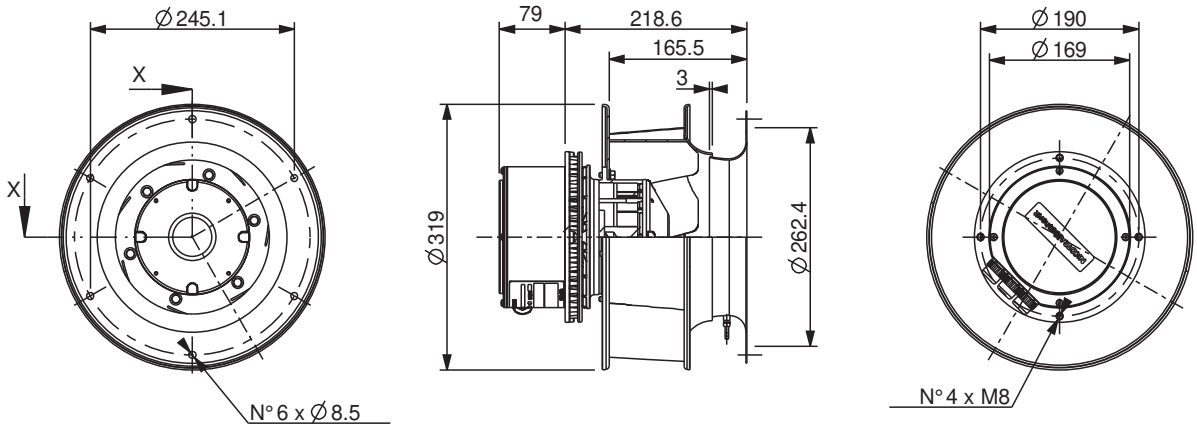
NOISE DATA
DATI DI RUMORE

Working point			Sound power level for inlet side (Lw) in dB								
		m^3/h	63	125	250	500	1k	2k	4k	8kHz	LwA
230 V / 50 Hz	A	2121	74.0	76.0	82.0	80.0	76.0	73.0	71.0	65.0	82.0
Fan Maximum	B	2670	73.0	75.0	81.0	79.0	75.0	72.0	70.0	64.0	81.0
Working	C	3195	74.0	76.0	82.0	80.0	76.0	73.0	71.0	65.0	82.0
Limit	D	3629	75.0	78.0	85.0	83.0	80.0	75.0	73.0	67.0	85.0
230 V / 50 Hz	A	1757	70.0	72.0	78.0	76.0	72.0	69.0	67.0	61.0	78.0
2800 rpm	B	2208	68.0	70.0	76.0	74.0	70.0	67.0	65.0	59.0	76.0
	C	2650	69.0	71.0	77.0	75.0	71.0	68.0	66.0	60.0	77.0
	D	2993	70.0	73.0	80.0	78.0	75.0	70.0	68.0	62.0	80.0
230 V / 50 Hz	A	1382	64.0	66.0	72.0	70.0	66.0	63.0	61.0	55.0	72.0
2200 rpm	B	1732	62.0	64.0	70.0	68.0	64.0	61.0	59.0	53.0	70.0
	C	2078	64.0	66.0	72.0	70.0	66.0	63.0	61.0	55.0	72.0
	D	2361	64.0	67.0	74.0	72.0	69.0	64.0	62.0	56.0	74.0
230 V / 50 Hz	A	884	56.0	61.0	60.0	57.0	56.0	54.0	48.0	42.0	61.0
1400 rpm	B	1110	55.0	60.0	59.0	56.0	55.0	53.0	47.0	41.0	60.0
	C	1324	56.0	61.0	60.0	57.0	56.0	54.0	48.0	42.0	61.0
	D	1498	56.0	63.0	62.0	58.0	59.0	55.0	51.0	43.0	63.0
230 V / 50 Hz	A	315	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
500 rpm	B	398	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
	C	476	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
	D	533	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.

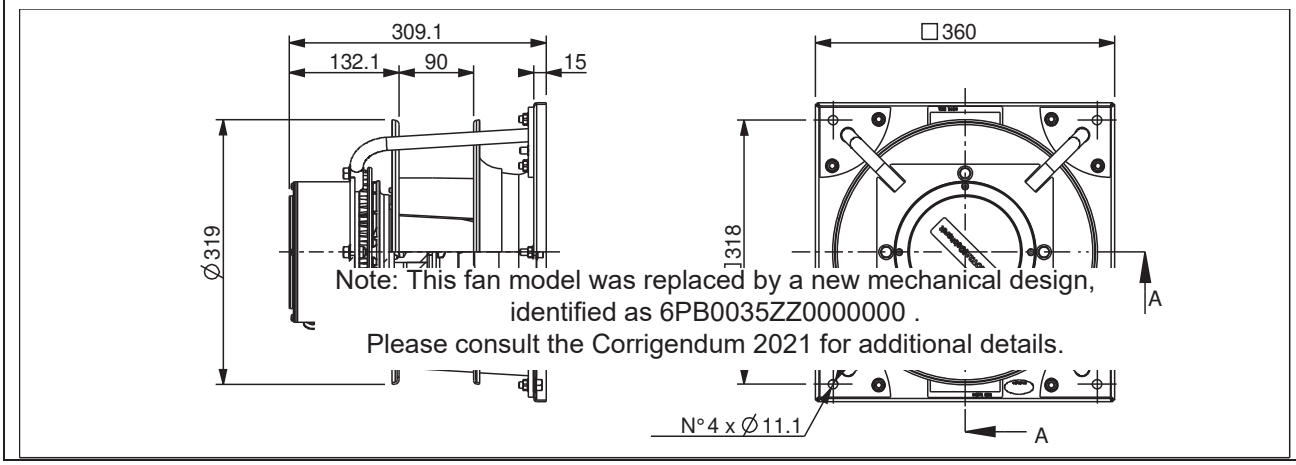
DIMENSIONAL DRAWINGS
DISEGNI DIMENSIONALI

S80538 – PFP A1-0280 M6F8

Note: This fan model was re-numbered 6PB0015ZZ0000000



S80529 – PFP A3-0280 M6F8



Note: This fan model was replaced by a new mechanical design, identified as 6PB0035ZZ0000000 .
Please consult the Corrigendum 2021 for additional details.

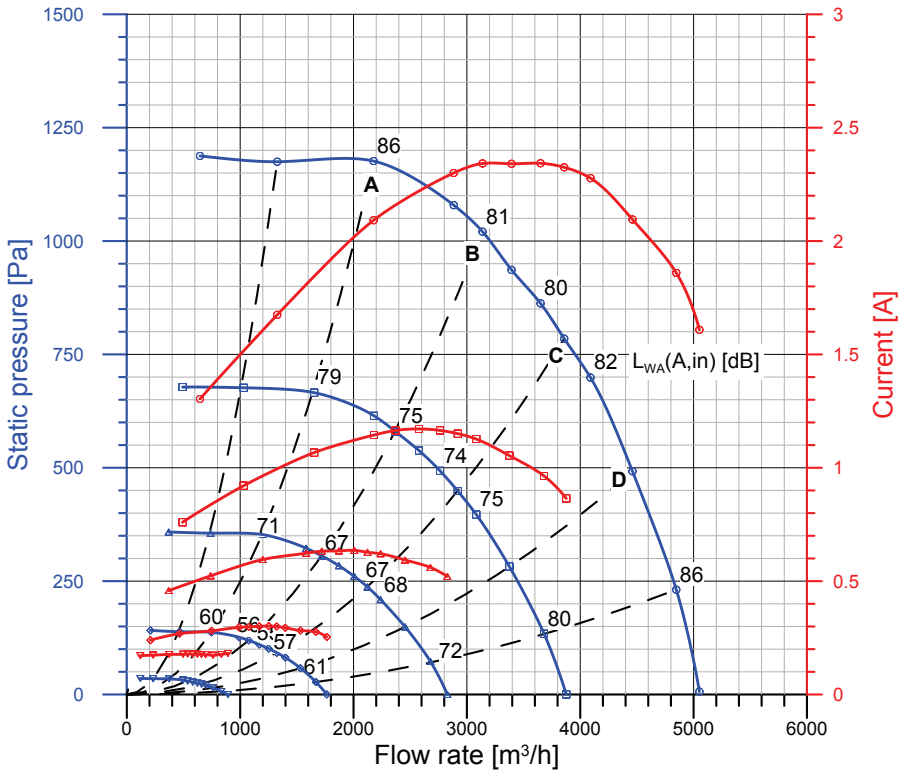
NICOTRA Gebhardt

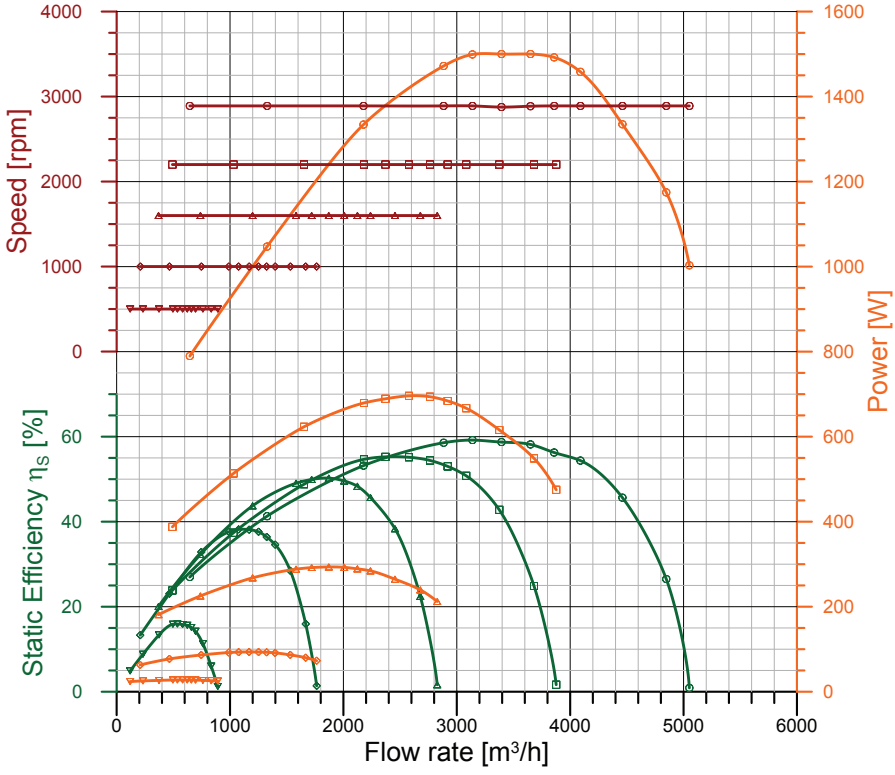
Type: PFP A3-0315 1.5kW 3Ph
Motor: 1416F8

Power:	1500 W (input, max)	Protection Cl.:	IP 55
Poles:	8	Insulation Cl.:	F
Voltage:	400 V	Thermal prot.:	YES-Integral
Supply:	3~	Temp. Min:	-20 °C
Frequency:	50-60 Hz	Temp. Max:	+40 °C (+50°C)
Capacitor:	n.a.	Current Max:	2.34 A

Performance data referring to:
Standard air density ρ= 1.20 kg / m³
Installation type "A": free inlet, free outlet

Sound Power Levels shown are
Inlet-side L_{WA}(A,in), A-weighted, in dBA





Integral speed-control by On-board Integral Driver

	qv m3/h	pfs Pa	Pe W	n rpm	I A	ηs %
○ **Maximum performance curve (10 V)**						
A	2177	1176	1334	2890	2.09	53.2
B	3138	1021	1499	2890	2.34	59.2
C	3859	785	1492	2890	2.33	56.3
D	4461	492	1335	2890	2.10	45.7
□ **Performance at 2200 rpm**						
A	1653	666	623	2200	1.07	48.8
B	2371	580	689	2200	1.16	55.2
C	2920	449	684	2200	1.15	53.0
D	3375	282	616	2200	1.05	42.8
△ **Performance at 1600 rpm**						
A	1199	353	268	1600	0.60	43.7
B	1720	306	292	1600	0.63	49.9
C	2123	237	289	1600	0.63	48.3
D	2455	149	265	1600	0.59	38.3
◇ **Performance at 1000 rpm**						
A	747	137	86	1000	0.28	32.9
B	1076	119	93	1000	0.30	38.2
C	1323	92	93	1000	0.30	36.4
D	1532	58	87	1000	0.28	28.5
▽ **Performance at 500 rpm**						
A	374	34	27	500	0.18	13.4
B	536	30	28	500	0.18	15.9
C	659	23	28	500	0.18	15.1
D	761	14	27	500	0.17	11.3

ErP Data acc. to Reg. 327/11/CE

Performance referred to the best efficiency duty point

Compl. with Reg. 327/11/EC:	Tier II (2015)
Overall Efficiency (η x Cc) [%]:	63.7
Measurement category:	A
Efficiency category:	Static
Efficiency grade N [%]:	72.4

A variable speed drive is integrated with this fan

Manufactured since:	2018

By:
Regal Beloit Italy S.p.A.
Via Modena 18
24040 Ciserano - Italy

Power input [kW]:	1.499
Volume flow rate qv [m³/s]:	0.872
Static Pressure [Pa]:	1021
Speed [rpm]:	2890
Specific ratio:	1.01

Information on:
- Disassembly, recycling and disposal at end of life
- Optimal installation, use and maintenance of fans

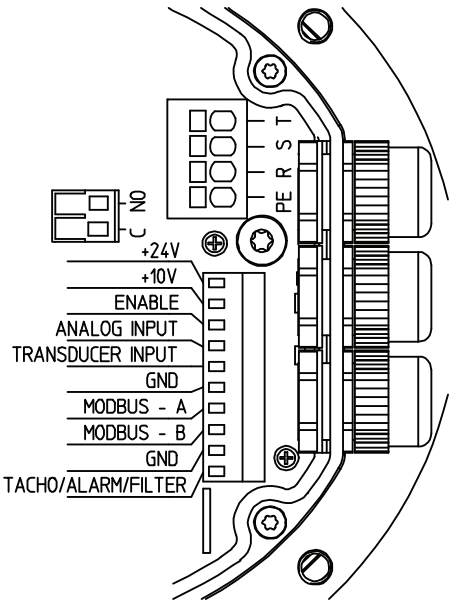
are freely downloadable from
www.nicotra-gebhardt.com

Testing is carried out with the optional components of the test airway required, according to ISO 5801:2007, for the installation type detailed here on top.

Test nr.: NG-W 17877-83-84-85-86 Date: 20/06/2018

NICOTRA Gebhardt

WIRING DIAGRAM
SCHEMA DI COLLEGAMENTO



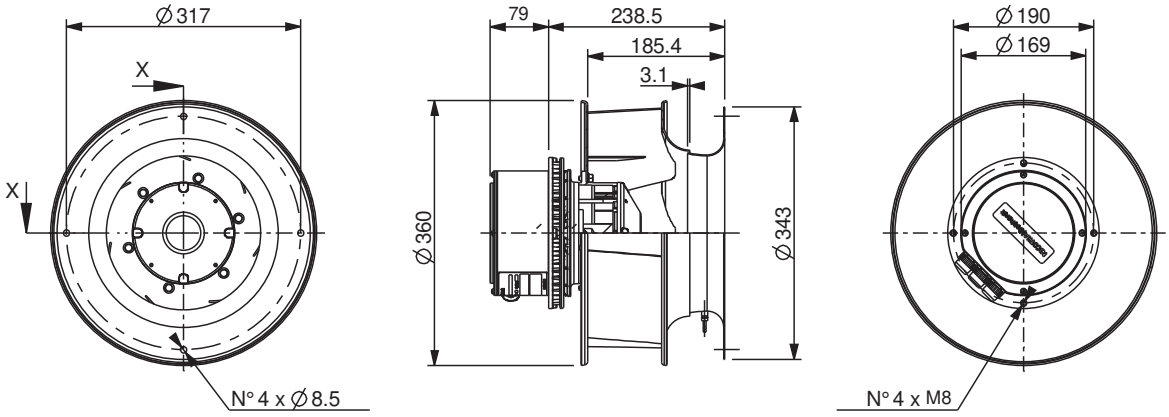
NOISE DATA
DATI DI RUMORE

Working point			Sound power level for inlet side (Lw) in dB								
		m^3/h	63	125	250	500	1k	2k	4k	8kHz	LwA
230 V / 50 Hz	A	2177	81.0	83.0	91.0	82.0	78.0	74.0	70.0	63.0	86.0
Fan Maximum	B	3138	72.0	74.0	82.0	78.0	75.0	73.0	69.0	63.0	81.0
Working	C	3859	72.0	74.0	82.0	78.0	75.0	73.0	69.0	63.0	81.0
Limit	D	4461	75.0	78.0	85.0	82.0	78.0	75.0	70.0	65.0	84.0
230 V / 50 Hz	A	1653	74.0	76.0	84.0	75.0	71.0	67.0	63.0	56.0	79.0
2200 rpm	B	2371	66.0	68.0	76.0	72.0	69.0	67.0	63.0	57.0	75.0
	C	2920	66.0	68.0	76.0	72.0	69.0	67.0	63.0	57.0	75.0
	D	3375	68.0	71.0	78.0	75.0	71.0	68.0	63.0	58.0	77.0
230 V / 50 Hz	A	1199	66.0	68.0	76.0	67.0	63.0	59.0	55.0	48.0	71.0
1600 rpm	B	1720	58.0	60.0	68.0	64.0	61.0	59.0	55.0	49.0	67.0
	C	2123	58.0	60.0	68.0	64.0	61.0	59.0	55.0	49.0	67.0
	D	2455	61.0	64.0	71.0	68.0	64.0	61.0	56.0	51.0	70.0
230 V / 50 Hz	A	747	60.0	67.0	60.0	57.0	54.0	51.0	43.0	36.0	60.0
1000 rpm	B	1076	52.0	58.0	56.0	53.0	50.0	48.0	41.0	33.0	56.0
	C	1323	52.0	58.0	56.0	53.0	50.0	48.0	41.0	33.0	56.0
	D	1532	55.0	61.0	60.0	57.0	53.0	50.0	44.0	35.0	59.0
230 V / 50 Hz	A	374	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
500 rpm	B	536	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
	C	659	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
	D	761	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.

DIMENSIONAL DRAWINGS
DISEGNI DIMENSIONALI

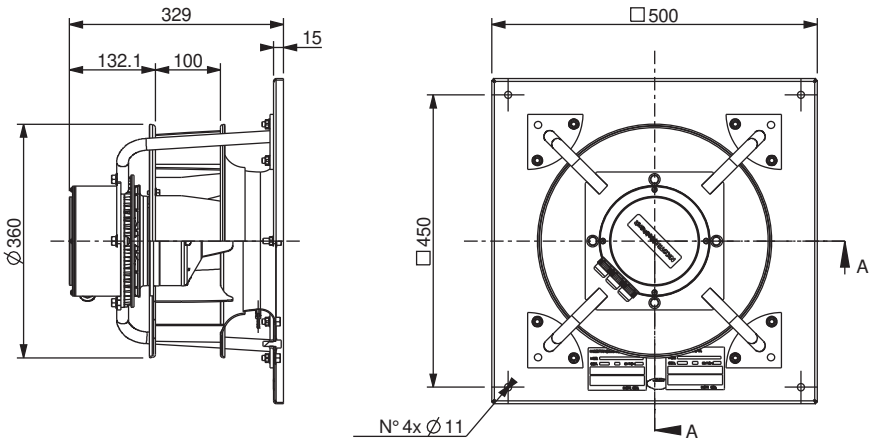
S80539 – PFP A1-0315 M6F8

Note: This fan model was re-numbered 6PB0016ZZ0000000



S80530BQE – PFP A3-0315 M6F8

Note: This fan model was re-numbered 6PB0036ZZ0000000



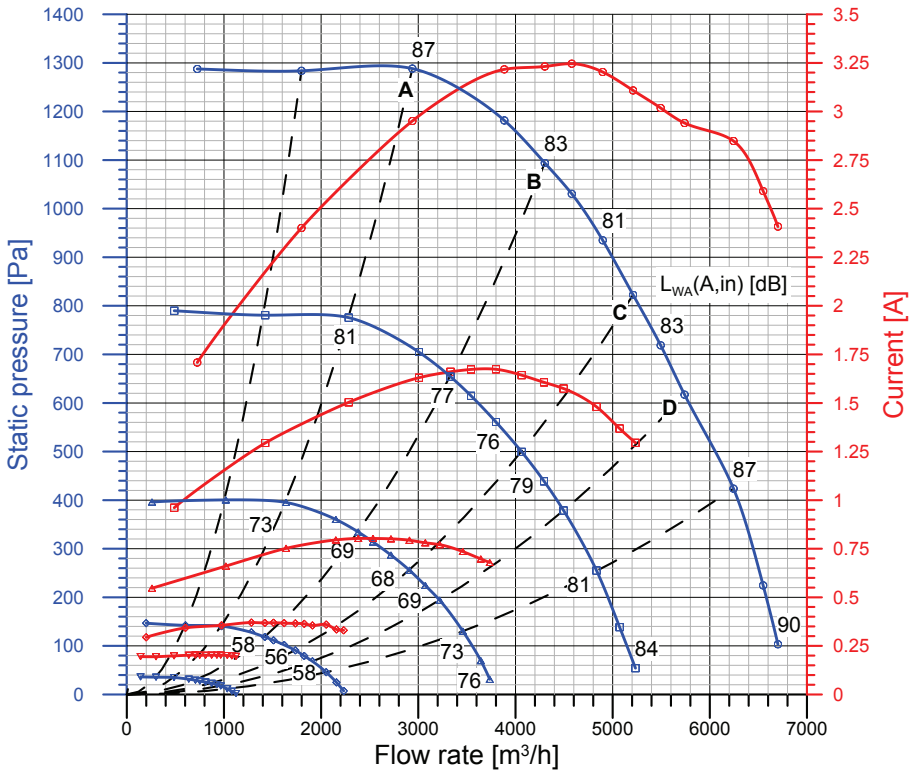
NICOTRA Gebhardt

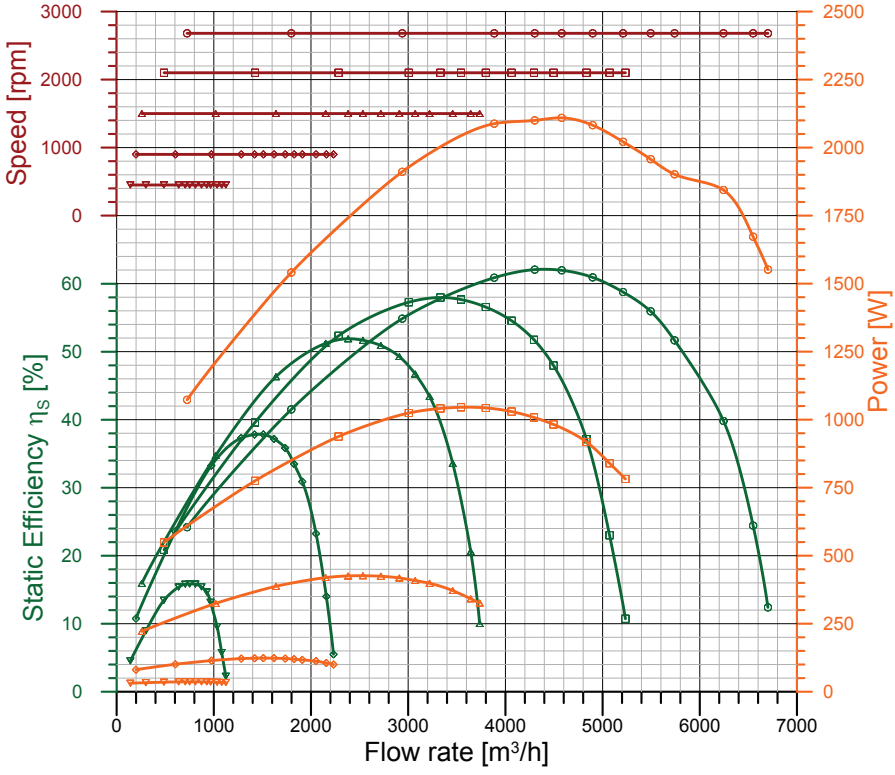
Type: PFP A3-0355 2.1kW 3Ph
Motor: 1416F6

Power:	2110 W (input, max)	Protection Cl.:	IP 55
Poles:	8	Insulation Cl.:	F
Voltage:	400 V	Thermal prot.:	YES-Integral
Supply:	3~	Temp. Min:	-20 °C
Frequency:	50-60 Hz	Temp. Max:	+40 °C (+50°C)
Capacitor:	n.a.	Current Max:	3.24 A

Performance data referring to:
Standard air density ρ= 1.20 kg / m³
Installation type "A": free inlet, free outlet

Sound Power Levels shown are
Inlet-side L_{WA}(A,in), A-weighted, in dBA





Integral speed-control by On-board Integral Driver

	qv m3/h	pfs Pa	Pe W	n rpm	I A	η_S %
○ **Maximum performance curve (10 V)**						
A	2939	1288	1911	2680	2.95	54.9
B	4302	1094	2100	2680	3.23	62.1
C	5211	823	2021	2680	3.11	58.8
D	5740	617	1902	2680	2.94	51.7
□ **Performance at 2100 rpm**						
A	2284	776	938	2100	1.50	52.4
B	3331	654	1041	2100	1.66	58.0
C	4064	499	1030	2100	1.64	54.6
D	4495	379	982	2100	1.57	48.0
△ **Performance at 1500 rpm**						
A	1639	395	387	1500	0.75	46.3
B	2382	334	426	1500	0.80	51.9
C	2909	256	418	1500	0.79	49.3
D	3220	194	399	1500	0.77	43.4
◇ **Performance at 900 rpm**						
A	974	141	114	900	0.36	33.3
B	1420	118	123	900	0.37	37.8
C	1734	91	122	900	0.37	35.9
D	1910	68	117	900	0.36	30.9
▽ **Performance at 450 rpm**						
A	486	35	35	450	0.20	13.4
B	706	29	36	450	0.20	15.8
C	873	23	36	450	0.20	15.4
D	966	17	36	450	0.20	13.2

ErP Data acc. to Reg. 327/11/CE

Performance referred to the best efficiency duty point

Compl. with Reg. 327/11/EC:	Tier II (2015)
Overall Efficiency (η x Cc) [%]:	66.2
Measurement category:	A
Efficiency category:	Static
Efficiency grade N [%]:	73.3

A variable speed drive is integrated with this fan

Manufactured since: 2018
By:
Regal Beloit Italy S.p.A.
Via Modena 18
24040 Ciserano - Italy

Power input [kW]:	2.1
Volume flow rate qv [m³/s]:	1.195
Static Pressure [Pa]:	1094
Speed [rpm]:	2680
Specific ratio:	1.011

Information on:
- Disassembly, recycling and disposal at end of life
- Optimal installation, use and maintenance of fans

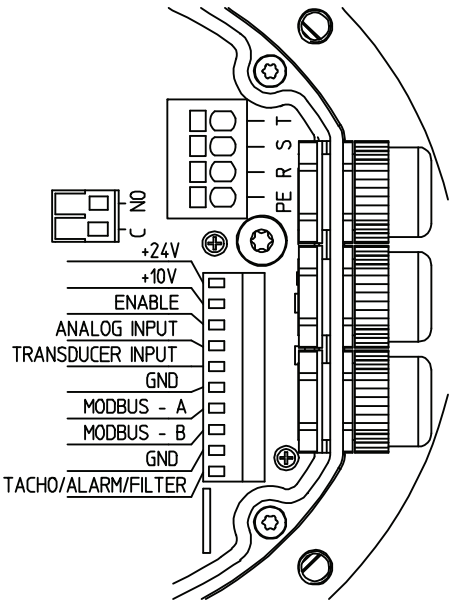
are freely downloadable from
www.nicotra-gebhardt.com

Testing is carried out with the optional components of the test airway required, according to ISO 5801:2007, for the installation type detailed here on top.

Test nr.: NGW-17805-20-21-22-23 Date: 11/04/2018

NICOTRA Gebhardt

WIRING DIAGRAM
SCHEMA DI COLLEGAMENTO



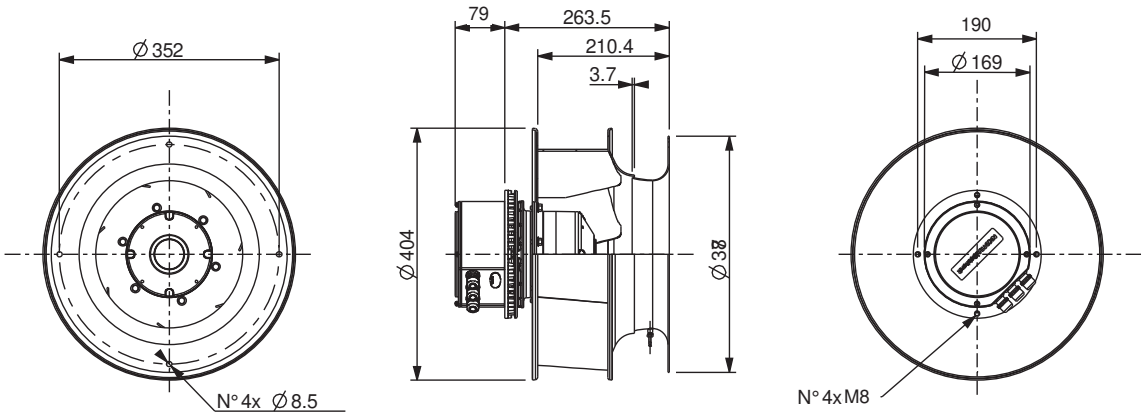
NOISE DATA
DATI DI RUMORE

Working point			Sound power level for inlet side (Lw) in dB									
		m^3/h	63	125	250	500	1k	2k	4k	8kHz		LwA
230 V / 50 Hz	A	2939	84.0	85.0	92.0	84.0	78.0	75.0	70.0	64.0		87.0
Fan Maximum	B	4302	79.0	79.0	86.0	81.0	76.0	73.0	70.0	63.0		83.0
Working	C	5211	78.0	78.0	85.0	80.0	75.0	72.0	69.0	62.0		82.0
Limit	D	5740	80.0	80.0	87.0	82.0	77.0	74.0	71.0	64.0		84.0
230 V / 50 Hz	A	2284	78.0	79.0	86.0	78.0	72.0	69.0	64.0	58.0		81.0
2100 rpm	B	3331	73.0	73.0	80.0	75.0	70.0	67.0	64.0	57.0		77.0
	C	4064	73.0	73.0	80.0	75.0	70.0	67.0	64.0	57.0		77.0
	D	4495	74.0	74.0	81.0	76.0	71.0	68.0	65.0	58.0		78.0
230 V / 50 Hz	A	1639	73.0	80.0	73.0	71.0	68.0	61.0	56.0	49.0		73.0
1500 rpm	B	2382	67.0	72.0	70.0	66.0	64.0	59.0	52.0	44.0		69.0
	C	2909	67.0	72.0	70.0	66.0	64.0	59.0	52.0	44.0		69.0
	D	3220	69.0	74.0	72.0	68.0	66.0	61.0	54.0	46.0		71.0
230 V / 50 Hz	A	974	61.0	68.0	61.0	59.0	56.0	49.0	44.0	37.0		61.0
900 rpm	B	1420	54.0	59.0	57.0	53.0	51.0	46.0	39.0	31.0		56.0
	C	1734	54.0	59.0	57.0	53.0	51.0	46.0	39.0	31.0		56.0
	D	1910	56.0	61.0	59.0	55.0	53.0	48.0	41.0	33.0		58.0
230 V / 50 Hz	A	486	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.		N.A.
450 rpm	B	706	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.		N.A.
	C	873	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.		N.A.
	D	966	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.		N.A.

DIMENSIONAL DRAWINGS
DISEGNI DIMENSIONALI

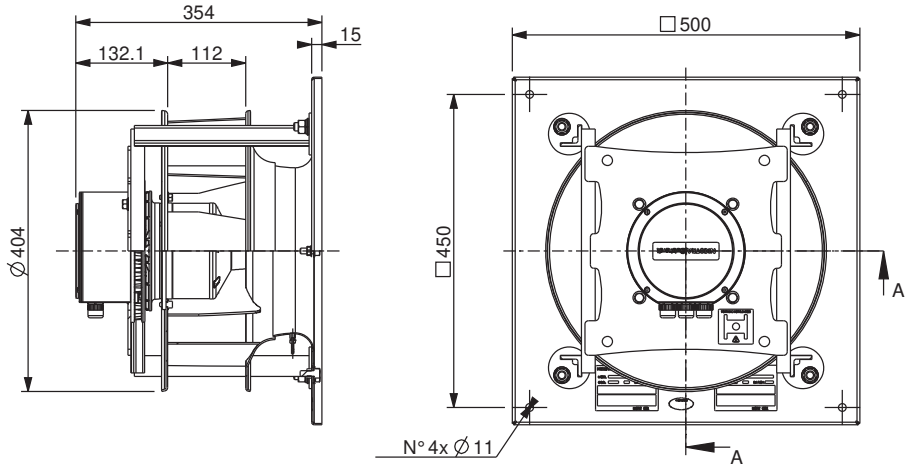
S80540 – PFP A1-0355 M6F6

Note: This fan model was re-numbered 6PB0017ZZ0000000



S80531BQE – PFP A3-0355 M6F6

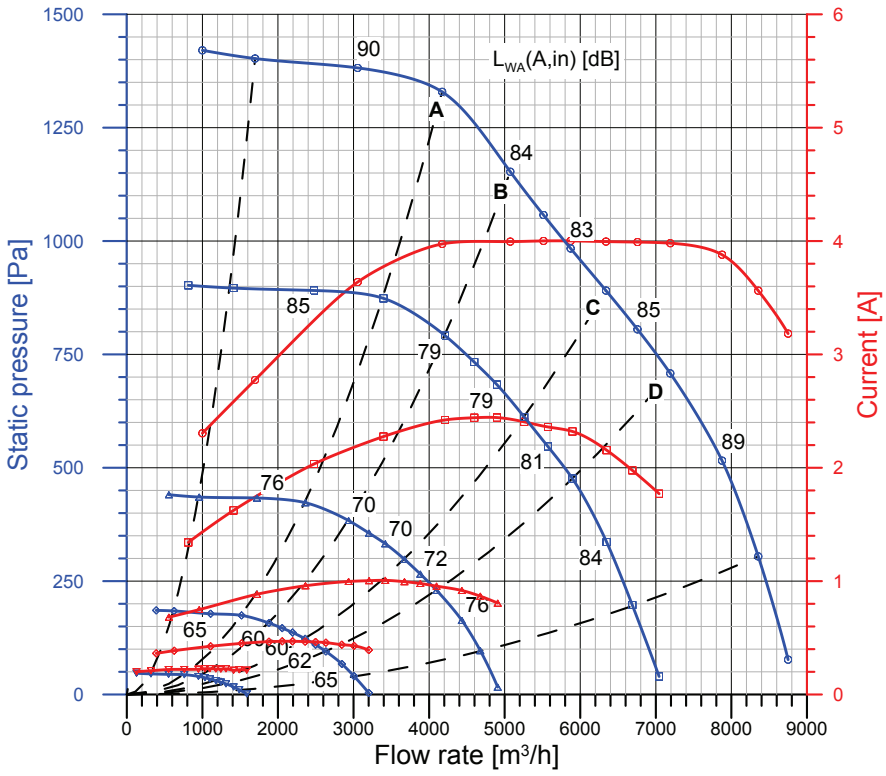
Note: This fan model was re-numbered 6PB0037ZZ0000000

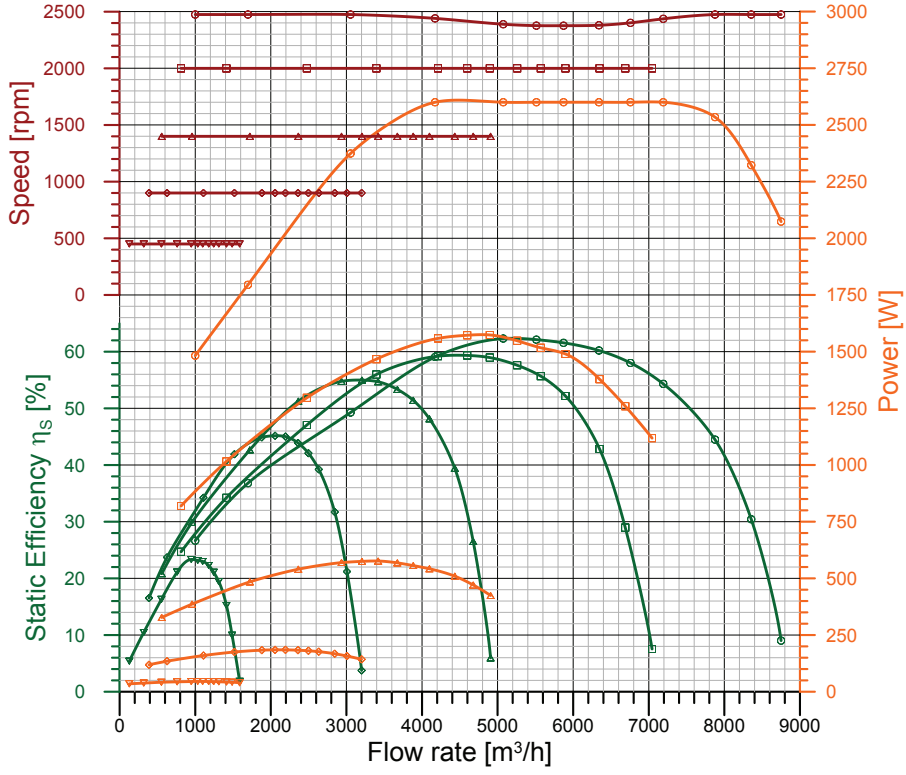


NICOTRA Gebhardt

Type: PFP A3-0400 2.6kW 3Ph
Motor: 1416F5

Power:	2600 W (input, max)	Protection Cl.:	IP 55
Poles:	8	Insulation Cl.:	F
Voltage:	400 V	Thermal prot.:	YES-Integral
Supply:	3~	Temp. Min:	-20 °C
Frequency:	50-60 Hz	Temp. Max:	+40 °C (+50°C)
Capacitor:	n.a.	Current Max:	4.0 A





Test nr.: NGW-17827/28/29/30/32 Date: 20/04/2018

Performance data referring to:
Standard air density ρ= 1.20 kg / m³
Installation type "A": free inlet, free outlet

Sound Power Levels shown are
Inlet-side L_{WA}(A,in), A-weighted, in dBA

Integral speed-control by On-board Integral Driver

	qv m3/h	pfs Pa	Pe W	n rpm	I A	η_S %
○ **Maximum performance curve (10 V)**						
A	4173	1329	2600	2441	3.97	59.1
B	5074	1153	2600	2389	4.00	62.3
C	6341	891	2600	2380	4.00	60.2
D	7192	708	2600	2437	3.98	54.3
□ **Performance at 2000 rpm**						
A	3396	874	1467	2000	2.28	56.0
B	4212	791	1558	2000	2.42	59.2
C	5259	612	1548	2000	2.40	57.6
D	5897	476	1490	2000	2.32	52.2
△ **Performance at 1400 rpm**						
A	2364	423	540	1400	0.96	51.3
B	2935	383	569	1400	1.00	54.8
C	3674	298	568	1400	1.00	53.3
D	4098	230	542	1400	0.96	48.2
◇ **Performance at 900 rpm**						
A	1519	174	175	900	0.45	41.9
B	1881	158	183	900	0.47	44.9
C	2359	123	183	900	0.47	43.9
D	2634	95	177	900	0.46	39.2
▽ **Performance at 450 rpm**						
A	761	44	44	450	0.22	21.1
B	947	40	45	450	0.22	23.3
C	1178	31	45	450	0.23	22.3
D	1311	24	44	450	0.23	19.4

ErP Data acc. to Reg. 327/11/CE

Performance referred to the best efficiency duty point

Compl. with Reg. 327/11/EC:	Tier II (2015)
Overall Efficiency (η x Cc) [%]:	66.0
Measurement category:	A
Efficiency category:	Static
Efficiency grade N [%]:	72.1

A variable speed drive is integrated with this fan

Manufactured since:	2018

By:
Regal Beloit Italy S.p.A.
Via Modena 18
24040 Ciserano - Italy

Power input [kW]:	2.6
Volume flow rate qv [m³/s]:	1.410
Static Pressure [Pa]:	1153
Speed [rpm]:	2389
Specific ratio:	1.011

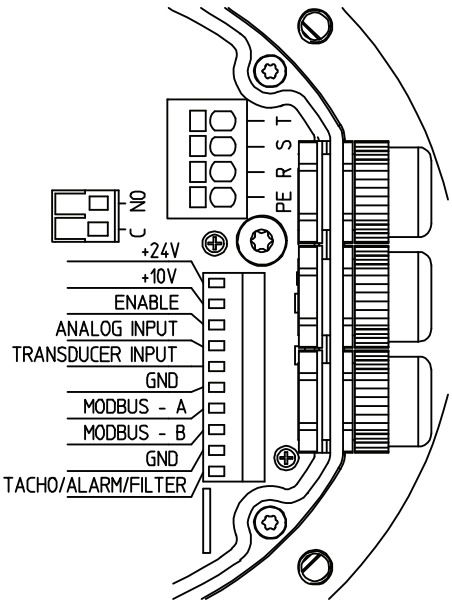
Information on:
- Disassembly, recycling and disposal at end of life
- Optimal installation, use and maintenance of fans

are freely downloadable from
www.nicotra-gebhardt.com

Testing is carried out with the optional components of the test airway required, according to ISO 5801:2007, for the installation type detailed here on top.

NICOTRA Gebhardt

WIRING DIAGRAM
SCHEMA DI COLLEGAMENTO

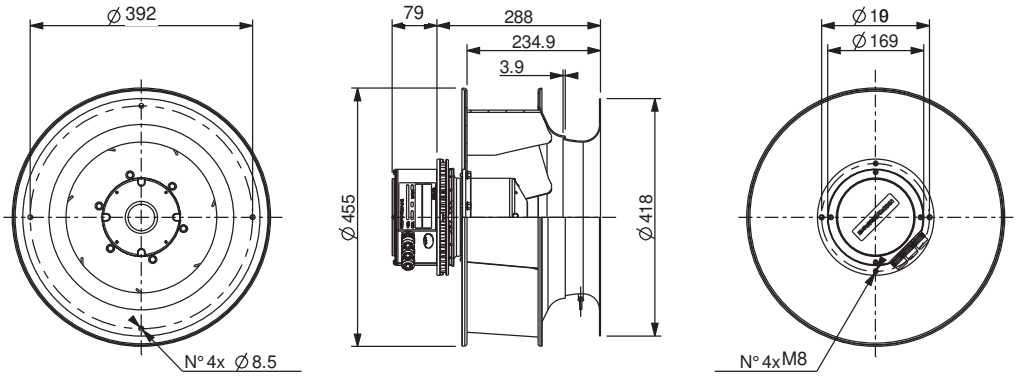


NOISE DATA
DATI DI RUMORE

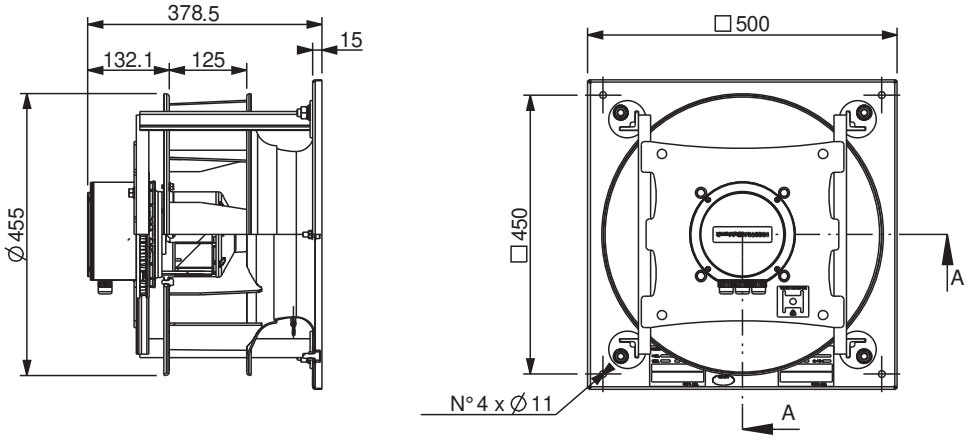
Working point			Sound power level for inlet side (Lw) in dB								
		m^3/h	63	125	250	500	1k	2k	4k	8kHz	LwA
230 V / 50 Hz	A	4173	81.0	86.0	90.0	85.0	78.0	72.0	67.0	62.0	86.0
Fan Maximum	B	5074	79.0	81.0	87.0	82.0	76.0	74.0	69.0	63.0	84.0
Working	C	6341	79.0	81.0	87.0	82.0	76.0	74.0	69.0	63.0	84.0
Limit	D	7192	82.0	84.0	90.0	85.0	79.0	77.0	72.0	66.0	87.0
230 V / 50 Hz	A	3396	76.0	81.0	85.0	80.0	73.0	67.0	62.0	57.0	81.0
2000 rpm	B	4212	74.0	76.0	82.0	77.0	71.0	69.0	64.0	58.0	79.0
	C	5259	75.0	77.0	83.0	78.0	72.0	70.0	65.0	59.0	80.0
	D	5897	77.0	79.0	85.0	80.0	74.0	72.0	67.0	61.0	82.0
230 V / 50 Hz	A	2364	73.0	81.0	73.0	71.0	66.0	61.0	56.0	50.0	73.0
1400 rpm	B	2935	68.0	75.0	72.0	69.0	64.0	58.0	52.0	44.0	70.0
	C	3674	69.0	76.0	73.0	70.0	65.0	59.0	53.0	45.0	71.0
	D	4098	71.0	78.0	75.0	72.0	67.0	61.0	55.0	47.0	73.0
230 V / 50 Hz	A	1519	62.0	70.0	62.0	60.0	55.0	50.0	45.0	39.0	62.0
900 rpm	B	1881	58.0	65.0	62.0	59.0	54.0	48.0	42.0	34.0	60.0
	C	2359	58.0	65.0	62.0	59.0	54.0	48.0	42.0	34.0	60.0
	D	2634	61.0	68.0	65.0	62.0	57.0	51.0	45.0	37.0	63.0
230 V / 50 Hz	A	761	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
450 rpm	B	947	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
	C	1178	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
	D	1311	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.

DIMENSIONAL DRAWINGS
DISEGNI DIMENSIONALI

S80541 – PFP A1-0400 M6F5 Note: This fan model was re-numbered 6PB0018ZZ0000000



S80532BQE – PFP A3-0400 M6F5 Note: This fan model was re-numbered 6PB0038ZZ0000000



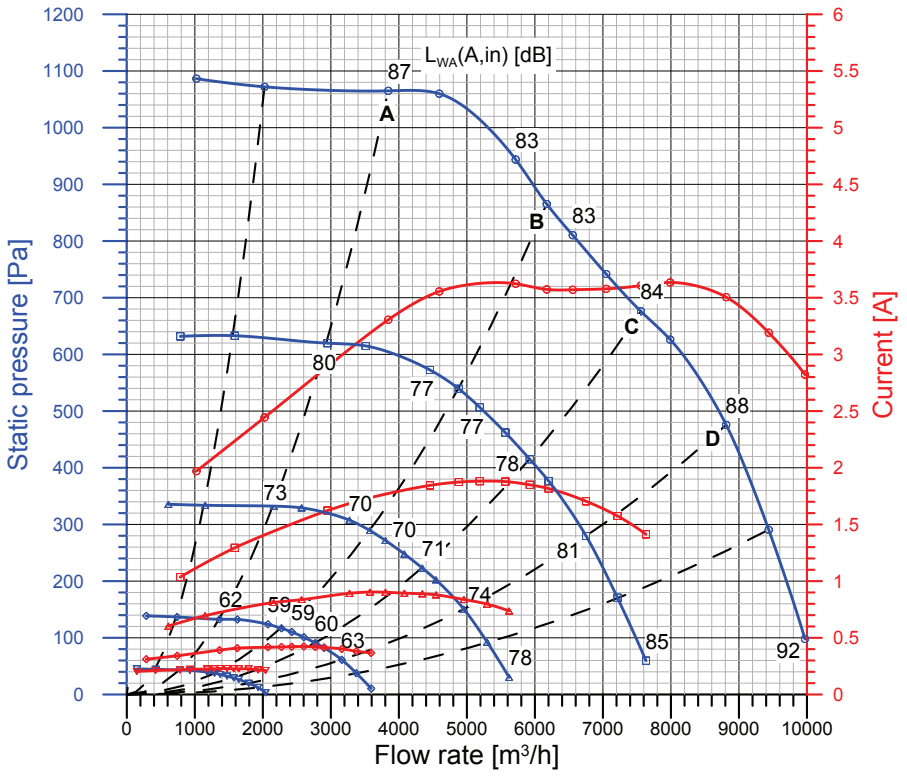
NICOTRA Gebhardt

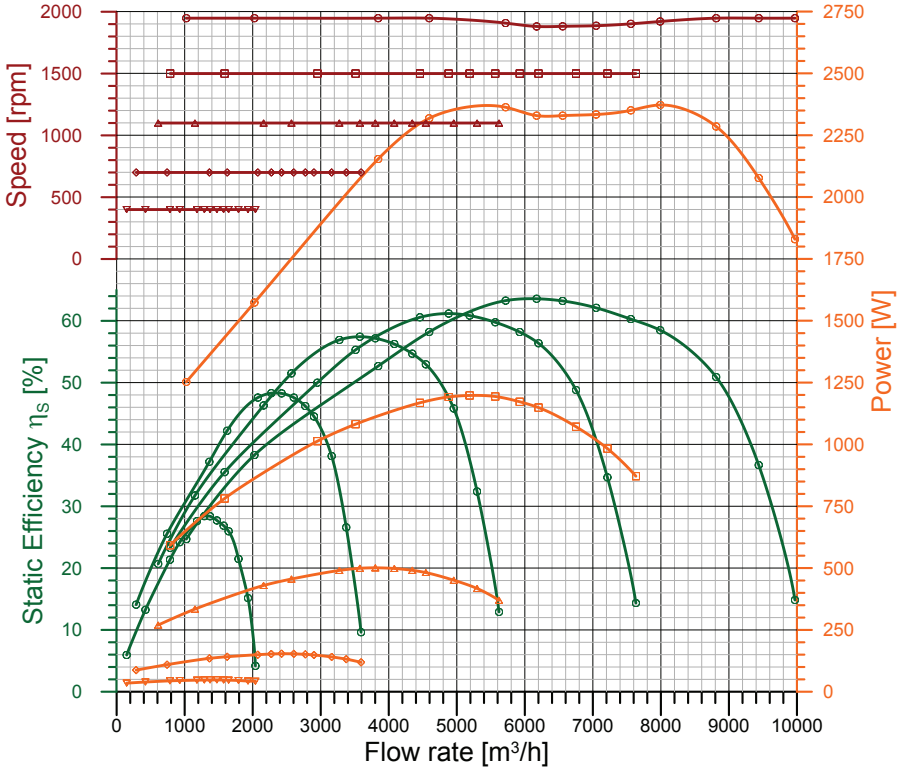
Type: PFP A3-0450 2.4kW 3Ph
Motor: 1416F7

Power:	2370 W (input, max)	Protection Cl.:	IP 55
Poles:	8	Insulation Cl.:	F
Voltage:	400 V	Thermal prot.:	YES-Integral
Supply:	3~	Temp. Min:	-20 °C
Frequency:	50-60 Hz	Temp. Max:	+40 °C (+50°C)
Capacitor:	n.a.	Current Max:	3.64 A

Performance data referring to:
Standard air density ρ= 1.20 kg / m³
Installation type "A": free inlet, free outlet

Sound Power Levels shown are
Inlet-side L_{WA}(A,in), A-weighted, in dBA





Integral speed-control by On-board Integral Driver

	qv m3/h	pfs Pa	Pe W	n rpm	I A	η_s %
○ **Maximum performance curve (10 V)**						
A	3844	1065	2154	1948	3.31	52.7
B	6173	865	2329	1881	3.57	63.6
C	7558	676	2351	1902	3.61	60.3
D	8812	476	2285	1948	3.51	50.9
□ **Performance at 1500 rpm**						
A	2951	620	1013	1500	1.62	50.0
B	4880	539	1192	1500	1.87	61.2
C	5925	415	1172	1500	1.85	58.2
D	6753	280	1071	1500	1.70	48.8
△ **Performance at 1100 rpm**						
A	2160	332	430	1100	0.81	46.3
B	3575	289	499	1100	0.90	57.4
C	4345	223	491	1100	0.89	54.7
D	4955	151	451	1100	0.84	45.8
◇ **Performance at 700 rpm**						
A	1363	133	135	700	0.39	37.2
B	2274	117	153	700	0.42	48.3
C	2773	91	151	700	0.42	46.2
D	3161	61	141	700	0.40	38.1
▽ **Performance at 400 rpm**						
A	784	43	44	400	0.22	21.3
B	1289	38	47	400	0.23	28.4
C	1573	29	47	400	0.23	26.9
D	1791	20	45	400	0.23	21.5

ErP Data acc. to Reg. 327/11/CE

Performance referred to the best efficiency duty point

Compl. with Reg. 327/11/EC:	Tier II (2015)
Overall Efficiency (η x Cc) [%]:	67.6
Measurement category:	A
Efficiency category:	Static
Efficiency grade N [%]:	74.2

A variable speed drive is integrated with this fan

Manufactured since: 2018

By:
Regal Beloit Italy S.p.A.
Via Modena 18
24040 Ciserano - Italy

Power input [kW]:	2.329
Volume flow rate qv [m³/s]:	1.715
Static Pressure [Pa]:	865
Speed [rpm]:	1881
Specific ratio:	1.009

Information on:
- Disassembly, recycling and disposal at end of life
- Optimal installation, use and maintenance of fans

are freely downloadable from
www.nicotra-gebhardt.com

Testing is carried out with the optional components of the test airway required, according to ISO 5801:2007, for the installation type detailed here on top.

Test nr.: NGW17834-35-36-37 Date: 24/04/2018

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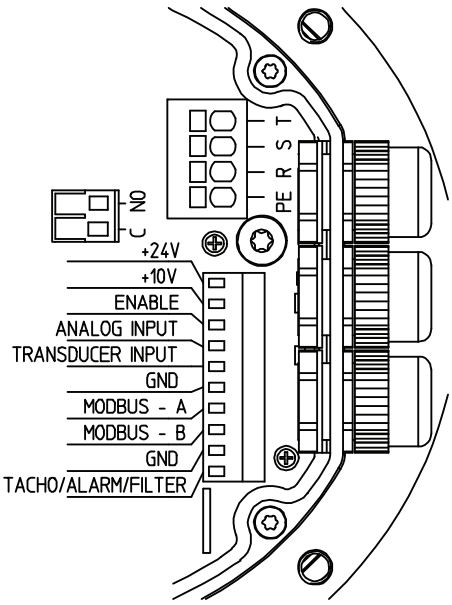
WIRING DIAGRAM
SCHEMA DI COLLEGAMENTO



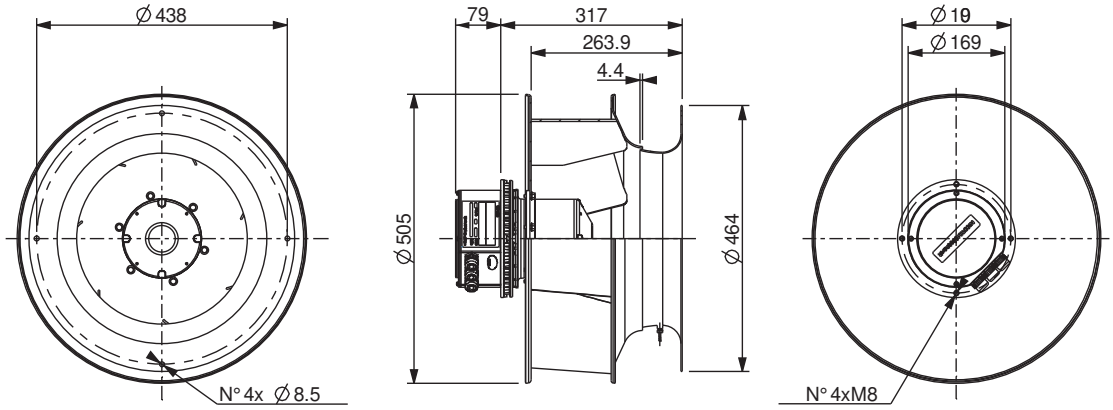
NOISE DATA
DATI DI RUMORE

Working point			Sound power level for inlet side (Lw) in dB								
		m^3/h	63	125	250	500	1k	2k	4k	8kHz	LwA
230 V / 50 Hz	A	3844	84.0	95.0	89.0	85.0	79.0	74.0	67.0	62.0	87.0
Fan Maximum	B	6173	79.0	86.0	87.0	81.0	75.0	71.0	65.0	59.0	83.0
Working	C	7558	80.0	87.0	88.0	82.0	76.0	72.0	66.0	60.0	84.0
Limit	D	8812	84.0	91.0	92.0	86.0	80.0	76.0	71.0	65.0	88.0
230 V / 50 Hz	A	2951	86.0	89.0	81.0	78.0	73.0	67.0	62.0	55.0	80.0
1500 rpm	B	4880	73.0	80.0	81.0	75.0	69.0	65.0	59.0	53.0	77.0
	C	5925	74.0	81.0	82.0	76.0	70.0	66.0	60.0	54.0	78.0
	D	6753	77.0	84.0	85.0	79.0	73.0	69.0	64.0	58.0	81.0
230 V / 50 Hz	A	2160	79.0	82.0	74.0	71.0	66.0	60.0	55.0	48.0	73.0
1100 rpm	B	3575	70.0	76.0	71.0	67.0	63.0	57.0	50.0	43.0	69.0
	C	4345	72.0	78.0	73.0	69.0	65.0	59.0	52.0	45.0	71.0
	D	4955	74.0	81.0	76.0	72.0	68.0	62.0	55.0	48.0	74.0
230 V / 50 Hz	A	1363	68.0	71.0	63.0	60.0	55.0	49.0	44.0	37.0	62.0
700 rpm	B	2274	60.0	66.0	61.0	57.0	53.0	47.0	40.0	33.0	59.0
	C	2773	61.0	67.0	62.0	58.0	54.0	48.0	41.0	34.0	60.0
	D	3161	63.0	70.0	65.0	61.0	57.0	51.0	44.0	37.0	63.0
230 V / 50 Hz	A	784	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
400 rpm	B	1289	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
	C	1573	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
	D	1791	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.

DIMENSIONAL DRAWINGS
DISEGNI DIMENSIONALI

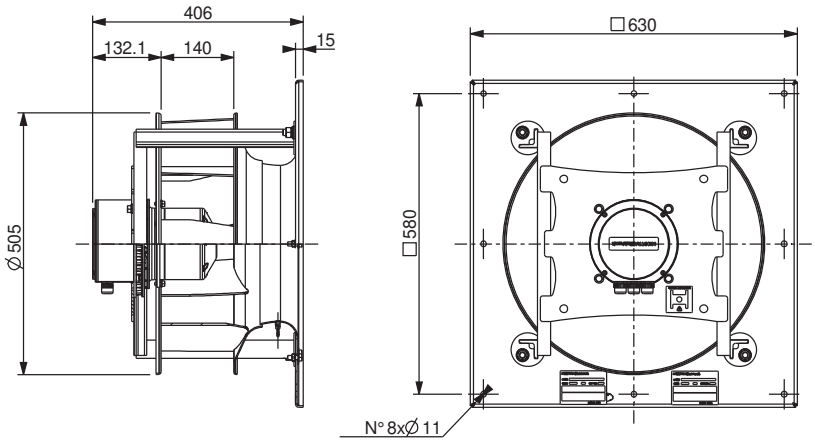
S80542 – PFP A1-0450 M6F7

Note: This fan model was re-numbered 6PB0019ZZ0000000



S80533BQE – PFP A3-0450 M6F7

Note: This fan model was re-numbered 6PB0039ZZ0000000



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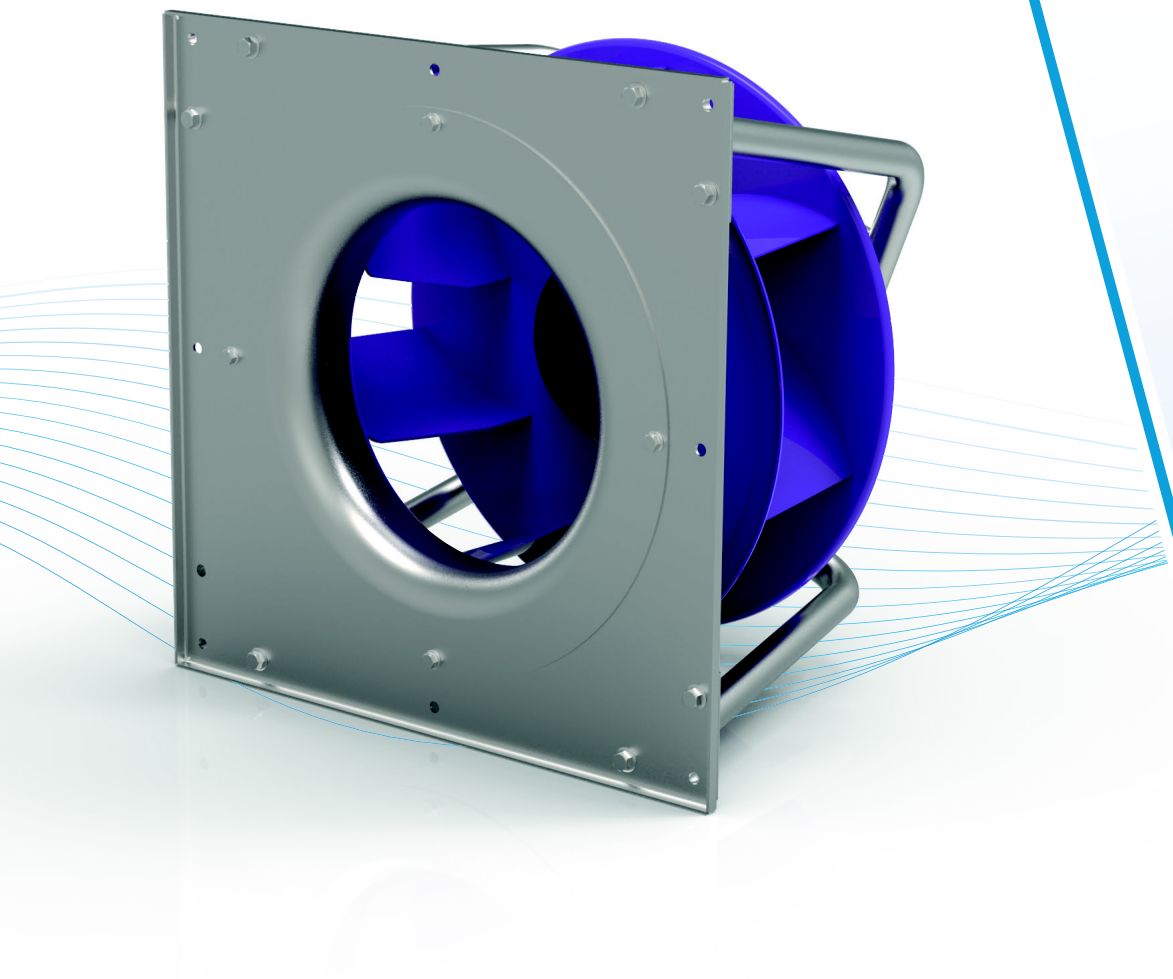

PFP

THE COMPACT LIGHTWEIGHT

CORRIGENDUM 2021 to:
PFP Catalogue 1-Ph models Ed. 2.4 - 2018-07-18
PFP Catalogue 3-Ph BL130 models Ed. 1.2 - 2018-10-11

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CORRIGENDUM to the PFP Catalogue for 1-Ph models Ed. 2.4 - 2018-07-18

New part-numbering system for PFP 1-Ph models with BL130 motors

With the extension of the new 16-character structured coding system to the range of Nicotra Gebhardt EC-driven fans, between 2019 and 2020, the older 6-10-character part numbers became obsolete.

At the same time, some of the A3 models were re-designed for ease of installation, and wider base plates replaced the original baseplates, which were sized in accordance with the former RLE range.

Re-coding of Single-phase PFP models with BL130 motors, A-type impellers and 230 V / 1.3 kW drivers Type-A				
Old P/no.	***Product Description***	***Action***	***New P/no.***	***New Product Description***
S80512	PFP A1-0280 M6F0	Was renumbered as:	6PA0015ZZ0000000	PFP A1-0280 1.3kW 230V-1F M6F0
S80508	PFP A3-0280 M6F0	Was replaced by a mechanically different model:	6PA0035ZZ0000000	PFP A3-0280 1.3kW 230V-1F M6F0
S80513	PFP A1-0315 M6F0	Was renumbered as:	6PA0016ZZ0000000	PFP A1-0315 1.3kW 230V-1F M6F0
S80503	PFP A3-0315 M6F0	Was replaced by a mechanically different model:	6PA0036ZZ0000000	PFP A3-0315 1.3kW 230V-1F M6F0
S80509	PFP A1-0355 M6F1	Was renumbered as:	6PA0017ZZ0000000	PFP A1-0355 1.3kW 230V-1F M6F1
S80502	PFP A3-0355 M6F1	Was replaced by a mechanically different model:	6PA0037ZZ0000000	PFP A3-0355 1.3kW 230V-1F M6F1
S80510	PFP A1-0400 M6F1	Was renumbered as:	6PA0018ZZ0000000	PFP A1-0400 1.3kW 230V-1F M6F1
S80504	PFP A3-0400 M6F1	Was replaced by a mechanically different model:	6PA0038ZZ0000000	PFP A3-0400 1.3kW 230V-1F M6F1
S80511	PFP A1-0450 M6F1	Was renumbered as:	6PA0019ZZ0000000	PFP A1-0450 1.3kW 230V-1F M6F1
S80524BQE	PFP A3-0450 M6F1	Was renumbered as:	6PA0039ZZ0000000	PFP A3-0450 1.3kW 230V-1F M6F1
S80514	PFP A1-0500 M6F2	Was renumbered as:	6PA001AZZ0000000	PFP A1-0500 1.3kW 230V-1F M6F2
S80525BQE	PFP A3-0500 M6F2	Was renumbered as:	6PA003AZZ0000000	PFP A3-0500 1.3kW 230V-1F M6F2

This table details which models shown in the PFP Single-phase catalogue were simply re-numbered, and which others were also subject to a re-design of their mechanical arrangement.

IP Protection grade of PFP A3 and A1 1-Ph models with BL130 motors

Since 2020, the IP protection grade of all the PFP fan models, A1 or A3, with 1-Phase and 3-Phase BL130 motors, was increased to IP 55, according to IEC 60529, whether with the fan running or stationary, under condition that the cable glands and the cover lid are properly secured, and that any unused cable gland is closed with the sealing-plug provided.

NICOTRA Gebhardt

New fan arrangement for PFP A3 1-Ph models with BL130 motors

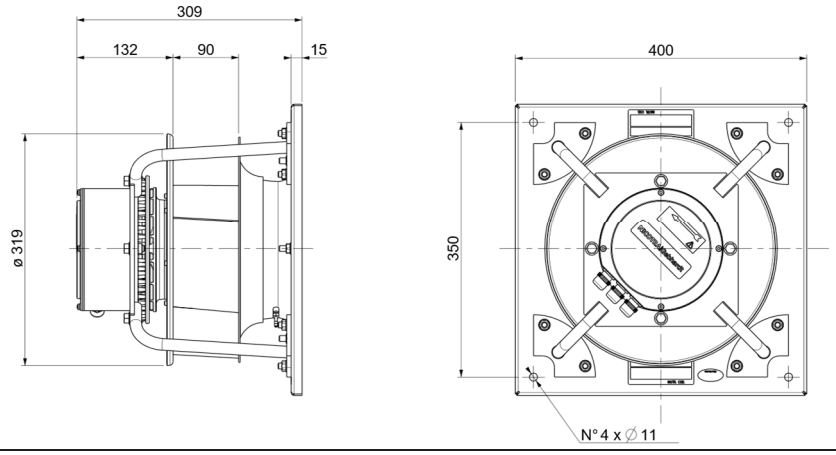
On those fan sizes which were re-designed, the mechanical changes do not alter the fan performance or its noise levels.

The older designs of these PFP fans remain available, on request, as spare parts.

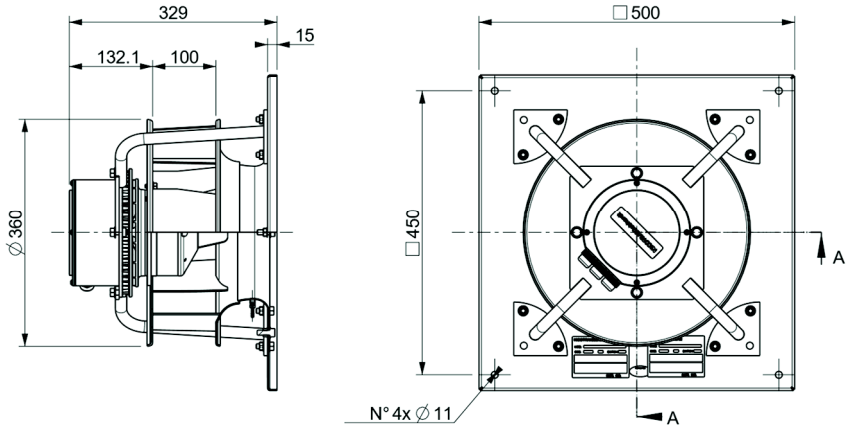
The new fan drawings are shown here below:

DIMENSIONAL DRAWINGS
DISEGNI DIMENSIONALI

6PA0035ZZ0000000 – PFP A3-0280 1.3kW 230V-1F M6F0



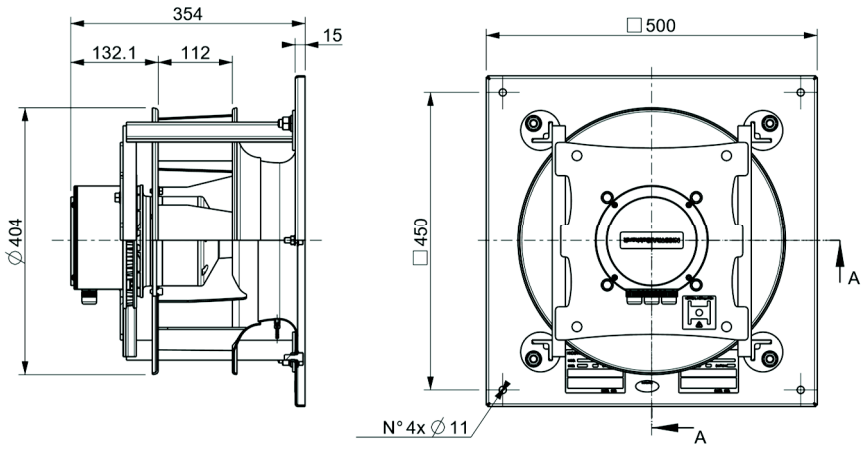
6PA0036ZZ0000000 – PFP A3-0315 1.3kW 230V-1F M6F0



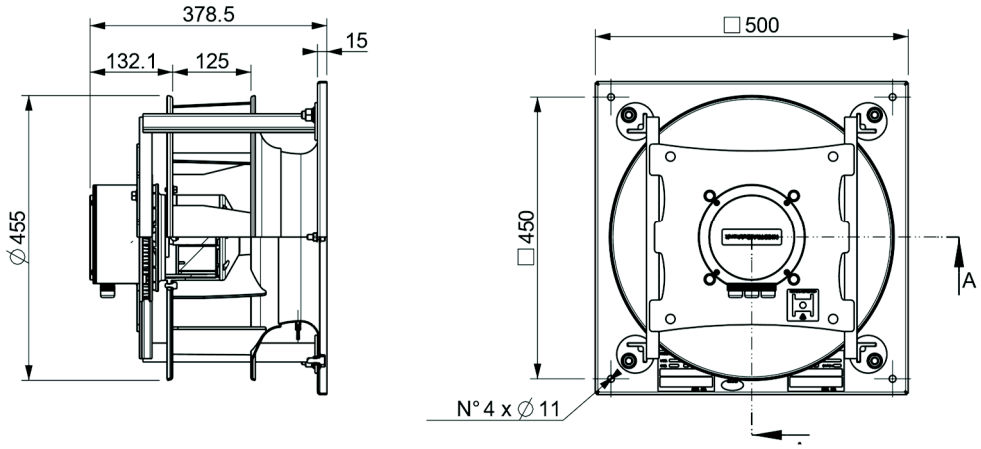
NICOTRA Gebhardt

DIMENSIONAL DRAWINGS
DISEGNI DIMENSIONALI

6PA0037ZZ0000000 – PFP A3-0355 1.3kW 230V-1F M6F1



6PA0038ZZ0000000 – PFP A3-0400 1.3kW 230V-1F M6F1



NICOTRA Gebhardt

CORRIGENDUM to the PFP Catalogue for 3-Ph models Ed. 1.3 - 2018-10-11

New part-numbering system for PFP 3-Ph models with BL130 motors

The new 16-character structured coding system replaced the older 6-10-character part numbers also for the fans of the sub range of PFP fans driven by 3-phase BL130 motors.

Re-coding of Three-phase PFP models with BL130 motors, A-type impellers and 400 V / 2.6 kW drivers Type-B				
Old P/no.	*Product Description*	*Action*	*New P/no.*	*New Product Description*
S80538	PFP A1-0280 M6F8	Was renumbered as:	6PB0015ZZ0000000	PFP A1-0280 1.4kW 400V-3F M6F8
S80529	PFP A3-0280 M6F8	Was replaced by a mechanically different model:	6PB0035ZZ0000000	PFP A3-0280 1.4kW 400V-3F M6F8
S80539	PFP A1-0315 M6F8	Was renumbered as:	6PB0016ZZ0000000	PFP A1-0315 1.5kW 400V-3F M6F8
S80530BQE	PFP A3-0315 M6F8	Was renumbered as:	6PB0036ZZ0000000	PFP A3-0315 1.5kW 400V-3F M6F8
S80540	PFP A1-0355 M6F6	Was renumbered as:	6PB0017ZZ0000000	PFP A1-0355 2.1kW 400V-3F M6F6
S80531BQE	PFP A3-0355 M6F6	Was renumbered as:	6PB0037ZZ0000000	PFP A3-0355 2.1kW 400V-3F M6F6
S80541	PFP A1-0400 M6F5	Was renumbered as:	6PB0018ZZ0000000	PFP A1-0400 2.6kW 400V-3F M6F5
S80532BQE	PFP A3-0400 M6F5	Was renumbered as:	6PB0038ZZ0000000	PFP A3-0400 2.6kW 400V-3F M6F5
S80542	PFP A1-0450 M6F7	Was renumbered as:	6PB0019ZZ0000000	PFP A1-0450 2.4kW 400V-3F M6F7
S80533BQE	PFP A3-0450 M6F7	Was renumbered as:	6PB0039ZZ0000000	PFP A3-0450 2.4kW 400V-3F M6F7

This table details which models, in the PFP Three-phase catalogue, were simply re-numbered, and which one was subject to a re-design of its mechanical arrangement.

IP Protection grade of PFP A3 and A1 3-Ph models with BL130 motors

Since 2020, the IP protection grade of all the PFP fan models, A1 or A3, with 1-Phase and 3-Phase BL130 motors, was increased to IP 55, according to IEC 60529, whether with the fan running or stationary, under condition that the cable glands and the cover lid are properly secured, and that any unused cable gland is closed with the sealing-plug provided.

NICOTRA Gebhardt

New fan arrangement for PFP A3 3-Ph models with BL130 motors

Only the smallest-sized A3 fan model in this range, PFP A3-0280, required a re-design to adopt the wider baseplate. This mechanical change does not alter the fan performance or its noise levels.

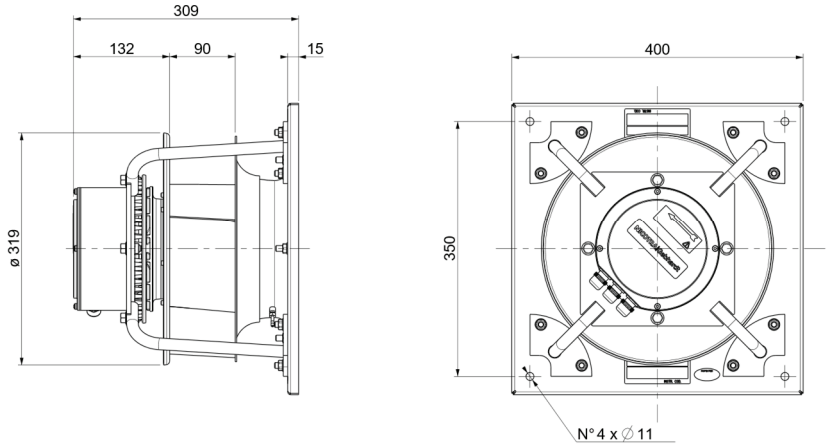
Al the other standard three-phase A3 models had already been created adopting this arrangement.

Alternative designs of the PFP fans, mechanically interchangeable with the older RLE models, remain available on request, for use as spare parts.

The new fan drawing is shown here below:

DIMENSIONAL DRAWINGS
DISEGNI DIMENSIONALI

6PB0035ZZ0000000 – PFP A3-0280 1.4kW 400V-3F M6F8



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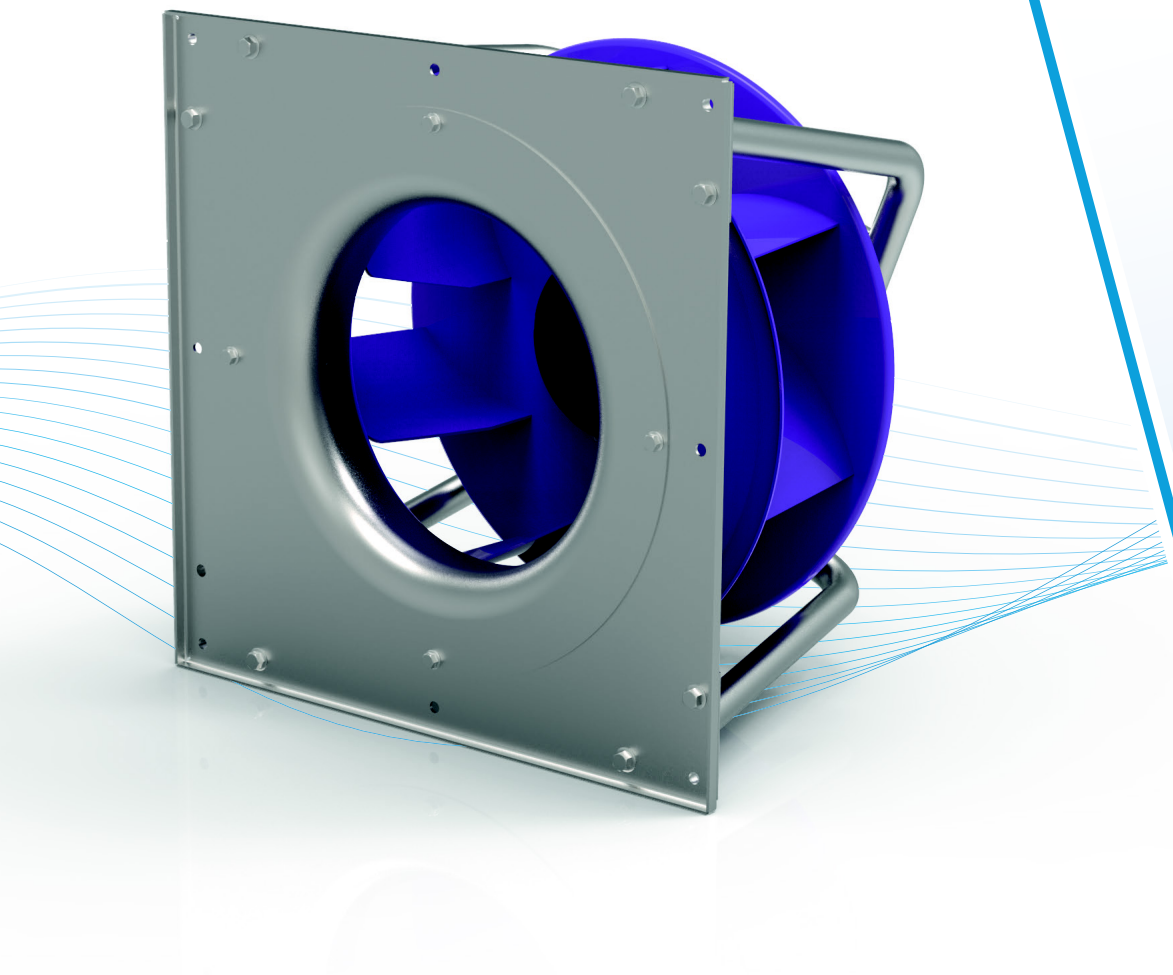

PFP

THE COMPACT LIGHTWEIGHT

Three-phase models with BL178 motors

PFP 3-Ph / BL178 Catalogue Ed.2.0 - 2021-10-21

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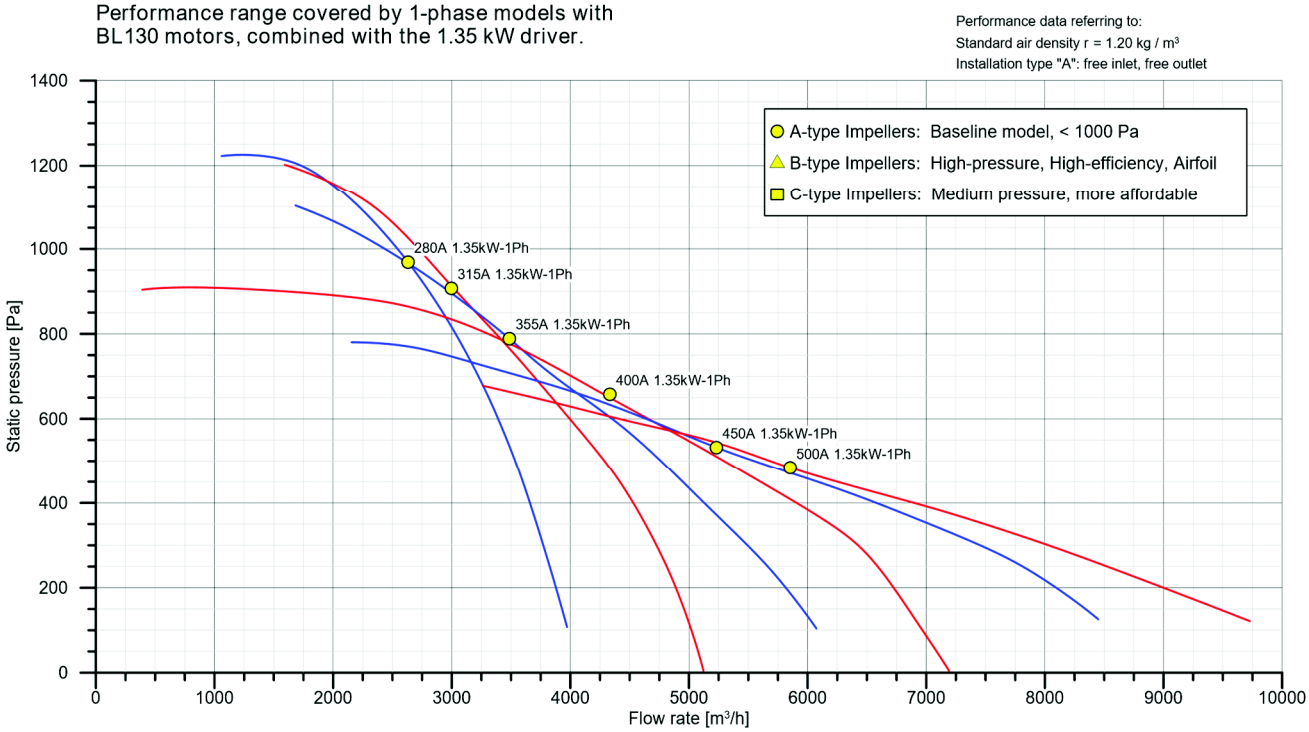
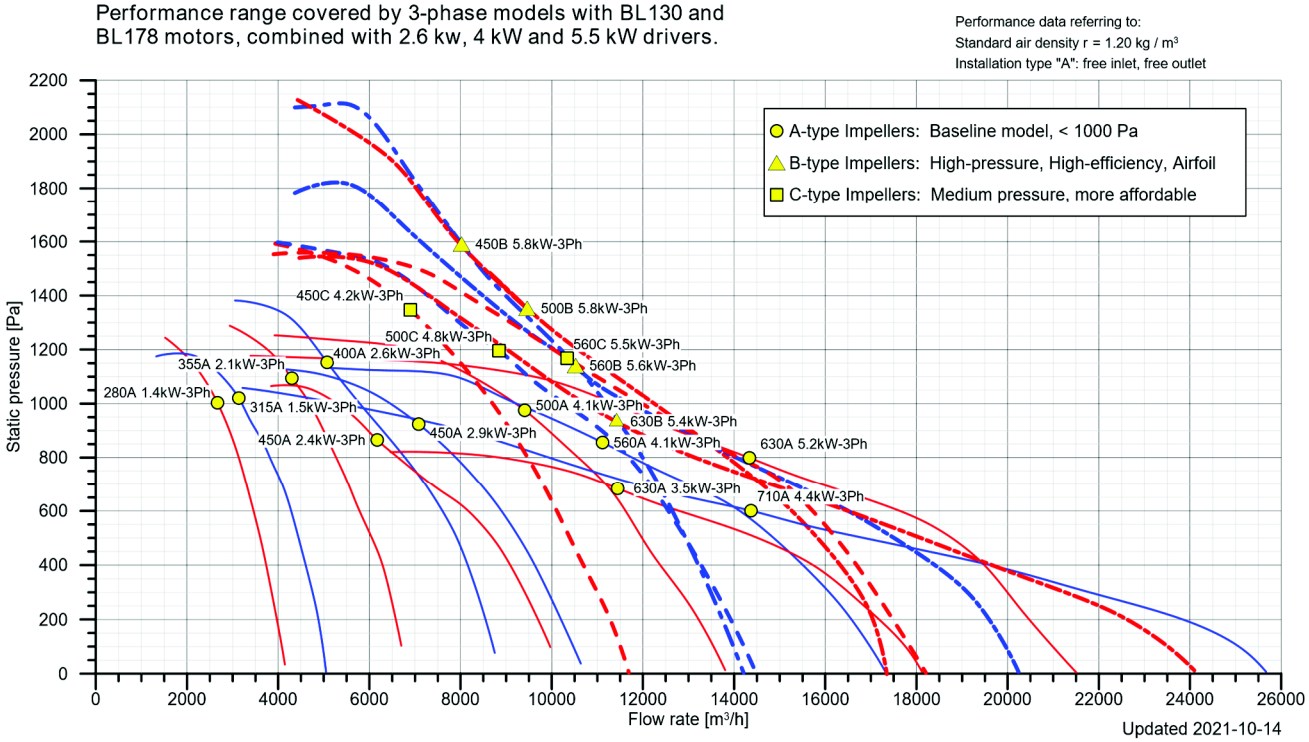
The PFP range at a glance

PFP:
Direct-driven Plug/Plenum fans with High-efficiency PM motors
Performance range covered by 1-phase models with BL130 motors, combined with the 1.35 kW driver.



PFP:
Direct-driven Plug/Plenum fans with High-efficiency PM motors
Performance range covered by 3-phase models with BL130 and BL178 motors, combined with 2.6 kw, 4 kW and 5.5 kW drivers.



Updated 2021-10-14

The PFP range extends to higher-powered three-phase models

The PFP range extends to include thirteen additional models, with fan sizes from 450 mm up to 710 mm, driven by the new series of high-torque 188 mm three-phase external-rotor motors.

The new motors and electronic drives stretch the power range up to 5.8 kW, while new sizes and models of impeller extend the pressure up to 1600 Pa, and the volume flow rate beyond 16000 m^3/h.

The new three-phase models share many characteristics with the less powerful models, already available since long.

This attachment to the PFP catalogue describes the new features, which are specific of the larger three-phase models.

The reader can refer to the PFP catalogue for additional information on the common features of the range.

Please, remember that the PFP is an expanding range. Keep in contact with your Nicotra Gebhardt sales representative, to receive timely updates on the latest additions to the PFP range.

New impeller types

To achieve a considerable extension in the performance range, for the first time in the Nicotra Gebhardt PFP range, the baseline series of impellers of the “A-type”, used so far in the range and quite effective for applications up to 1000 Pa, are now complemented by two new impeller types.

The “B-type” impellers are high-performance, high-efficiency airfoil impellers, made with welded aluminium. These impellers provide an outstanding combination of sturdiness and energy efficiency, with low noise levels. They are currently adopted on the most powerful variants of the PFP fans of sizes 450, 500, 560 and 630.

The “C-type” impellers are a more affordable alternative, available on the three impeller sizes 450, 500 and 560. Made of light-weight aluminium construction, they are less performant than the “B wheels”, but are useful for those applications where optimum performance is less critical, and a lower-cost solution may be preferable.

Smart EC three-phase motor controllers

The new high-power three-phase motor controllers, or “drivers”, fitted to the PFP fans, have a nominal input power of either 4 kW (driver “Type-C”) or 5.5 kW (driver “Type-D”).

The rated power of each fan is the maximum power input, at standard air density, of each driver, motor and impeller combination. The actual rated power of each fan model may differ from the nominal power of the driver alone, depending on the effectiveness of the cooling, and on the physical limits of the motor and of the wheel which are installed in the complete fan.

The drivers are enclosed in a purpose-designed case, integrated in the supporting flange of the PFP motor. The motor and driver assembly has IP55 protection grade, whether running or stationary.

These complete drive systems comply with the EMC requirements for class C1 of power-drive systems, according to EN 61800-3. As such, they are suitable for unconditional use in the “first environment”.

According to the EN 61000-3-2 standard (“Limits for harmonic current emissions – equipment input current ≤16 A per phase – “), these devices are classified as “professional devices having total input power greater than 1 kW”. Direct connection to a low voltage supply (public networks) may be allowed insofar as this has been approved by the respective energy distribution authority.

The three-phase PFP power drive systems comply with the emission requirements set by the EN 61000-6-3 standard, for use in domestic environments, and also with the immunity requirements for industrial environments, according to EN 61000-6-2.

All these driver units have been designed with sensorless technology, to simplify their architecture and increase their operational reliability.

The PFP drivers are factory-configured to be ready for use in their basic operating mode, i.e. with continuously-adjustable speed control, having the fan speed proportional to an analogue input signal (0-10 Vdc or PWM).

Other operating modes can be activated with a change of a register setting.

The drivers incorporate advanced protection features, preventing the user from exceeding the safety limits of the impeller, driver and motor. If the combination of the air system configuration and the speed demand from the user bring the fan to exceed one or more of the limits, which are set for input power, motor torque, and operating temperature of the electronics, then the fan speed and power requirement is automatically reduced, to bring-back the fan within safe operating conditions.

The diagrams of the different PFP fans, in this catalogue, show the fan performance under standard laboratory conditions and already account for this automatic restriction of the fan performance, according to speed, power and torque limits.

If the software protection features should not be enough, a temperature-sensitive switch is fitted inside all motors, to stop the drive-system, preventing any permanent damage from overloading and overheating.

By design, these drive systems are insensitive to the frequency of the power supply, so all the PFP three-phase fans are suitable for operation with any power network at 50 or 60 Hz frequency, in the 400V +/- 10% voltage range.

Advanced operating modes.

The new three-phase smart drivers provide the same advanced functions available from the less powerful units. Please refer to the existing catalogue of the single-phase models for further details.

The 5.5 kW drivers (driver “Type D”) introduce further enhancements.

While the less-powerful drivers let the impeller coast-down freely, when the fan speed is reduced abruptly, or is set to zero, the new 5.5 kW drivers reduce the speed of the motor in a controlled way, down to a pre-set “stop speed” value. If this “stop speed” is set to zero, the rotor is brought to stand-still and kept braked, whenever the fan is “on” and the set value of the running speed is zero.

The motor-starting procedure has also been radically changed, with torque-control taking immediate effect at start-up. The new starting procedure provides a faster and more reliable start, and a better control of any locked-rotor incident.

Advanced SW interface.

“Fan Configurator” is the most recent and advanced tool, to monitor and configure the Nicotra Gebhardt EC-driven fans. It is specifically developed to support the new line-up of three-phase drivers, as well as all the former single-phase units.

The installation package for the Nicotra Gebhardt Fan Configurator tool can be freely downloaded from the Nicotra Gebhardt website:

https://www.nicotra-gebhardt.com/en/products/fans-for-ventilation-and-air-conditioning/plug-fans-without-housing-with-direct-drive/523-pfp.html

Please, contact Nicotra Gebhardt if you have any difficulties downloading the new software package from the RDP product-page in the Nicotra Gebhardt website.

The older Nicotra Gebhardt “Fan Configuration Software Revision 2” can still connect to the three-phase drivers but provides only some of the most basic monitoring functions and cannot be used to configure these drivers.

We strongly encourage our customers take advantage of the most recent version of our service-tool.

Extended analogue interface

To support those customers who connect the RDP fan to an electromechanical control system, all the three-phase drivers also provide the alarm signal by means of an electromechanical relay (closed during normal operation, open without power supply or in case of fault), suitable for 250 Vac / 30 Vdc and 5A , as well as through the normal low-power digital output.

Specifications

PFP 4 kW / 5.5 kW three-phase range

Direct-driven plug/plenum fan, with integrated drive system and high-efficiency backward-curved impeller without scroll.

Fitted with a high-efficiency IP55 drive system, including an external-rotor permanent-magnet motor and a smart electronic driver, providing speed-control and self-protection against overloading or overheating.

Each fan is driven by an external-rotor motor, using high-intensity rare-earth magnets for better efficiency and compactness, directly integrated in the hub of the impeller and supported, behind the impeller, on the replaceable driver case, which acts as supporting flange.

Three-phase 4 kW or 5.5 kW integrated electronic driver, fitted into the fan supporting flange, providing advanced control functions as well as both analogue and digital external interfaces, and incorporating passive EMC filters, keeping the fan power factor constantly at optimum values, as well as reducing harmonic distortion and emissions. The actual rated power of each fan model, i.e. its maximum power input with standard air density, may differ from the nominal power of the driver, and shall be determined for each fan model, accounting for the effectiveness of the cooling, and for the performance limits of the motor and impeller.

Drive system compliant with the requirements of the class C1, for EMC- compatibility levels, according to EN 61800-3 standard for power-drive systems, throughout the range of EMC requirements, as well as with the immunity requirements for industrial environments, according to EN 61000-6-2.

Bottom of the driver case made of pressure-cast aluminium incorporating a patented forced-cooling system, to protect, from overheating, both the driver and the driver-side bearing.

High-efficiency lightweight backward-curved impellers, directly bolted onto the motor, made of welded (tab-locking for C-type wheels) aluminium plate or extruded profiles, to guarantee the stiffness and strength required for high-speed operation, without generating unmanageable vibrations.

Part number	Description	Size	Motor	Supply
6PC0019ZZ0000000	PFP A1-0450 2.9kW 400V-3F M6H7	450	1416H7	400 V +/- 10% - 50÷60 Hz
6PC0039ZZ0000000	PFP A3-0450 2.9kW 400V-3F M6H7	450	1416H7	400 V +/- 10% - 50÷60 Hz
6PD0119ZZ0000000	PFP B1-0450 5.8kW 400V-3F M6K5	450	1416K5	400 V +/- 10% - 50÷60 Hz
6PD0139ZZ0000000	PFP B3-0450 5.8kW 400V-3F M6K5	450	1416K5	400 V +/- 10% - 50÷60 Hz
6PD0219ZZ0000000	PFP C1-0450 4.2kW 400V-3F M6L1	450	1416L1	400 V +/- 10% - 50÷60 Hz
6PD0239ZZ0000000	PFP C3-0450 4.2kW 400V-3F M6L1	450	1416L1	400 V +/- 10% - 50÷60 Hz
6PC001AZZ0000000	PFP A1-0500 4.1kW 400V-3F M6H5	500	1416H5	400 V +/- 10% - 50÷60 Hz
6PC003AZZ0000000	PFP A3-0500 4.1kW 400V-3F M6H5	500	1416H5	400 V +/- 10% - 50÷60 Hz
6PD011AZZ0000000	PFP B1-0500 5.8kW 400V-3F M6K6	500	1416K6	400 V +/- 10% - 50÷60 Hz
6PD013AZZ0000000	PFP B3-0500 5.8kW 400V-3F M6K6	500	1416K6	400 V +/- 10% - 50÷60 Hz
6PD021AZZ0000000	PFP C1-0500 4.8kW 400V-3F M6L2	500	1416L2	400 V +/- 10% - 50÷60 Hz
6PD023AZZ0000000	PFP C3-0500 4.8kW 400V-3F M6L2	500	1416L2	400 V +/- 10% - 50÷60 Hz
6PC001BZZ0000000	PFP A1-0560 4.1kW 400V-3F M6H6	560	1416H6	400 V +/- 10% - 50÷60 Hz
6PC003BZZ0000000	PFP A3-0560 4.1kW 400V-3F M6H6	560	1416H6	400 V +/- 10% - 50÷60 Hz
6PD011BZZ0000000	PFP B1-0560 5.6kW 400V-3F M6K7	560	1416K7	400 V +/- 10% - 50÷60 Hz
6PD013BZZ0000000	PFP B3-0560 5.6kW 400V-3F M6K7	560	1416K7	400 V +/- 10% - 50÷60 Hz
6PD021BZZ0000000	PFP C1-0560 5.6kW 400V-3F M6L0	560	1416L0	400 V +/- 10% - 50÷60 Hz
6PD023BZZ0000000	PFP C3-0560 5.6kW 400V-3F M6L0	560	1416L0	400 V +/- 10% - 50÷60 Hz
6PC001CZZ0000000	PFP A1-0630 3.5kW 400V-3F M6H8	630	1416H8	400 V +/- 10% - 50÷60 Hz
6PC003CZZ0000000	PFP A3-0630 3.5kW 400V-3F M6H8	630	1416H8	400 V +/- 10% - 50÷60 Hz
6PD001CZZ0000000	PFP A1-0630 5.1kW 400V-3F M6K8	630	1416K8	400 V +/- 10% - 50÷60 Hz
6PD003CZZ0000000	PFP A3-0630 5.1kW 400V-3F M6K8	630	1416K8	400 V +/- 10% - 50÷60 Hz
6PD011CZZ0000000	PFP B1-0630 5.4kW 400V-3F M6K7	630	1416K7	400 V +/- 10% - 50÷60 Hz
6PD013CZZ0000000	PFP B3-0630 5.4kW 400V-3F M6K7	630	1416K7	400 V +/- 10% - 50÷60 Hz
6PD001DZZ0000000	PFP A1-0710 4.3kW 400V-3F M6K9	710	1416K9	400 V +/- 10% - 50÷60 Hz
6PD003DZZ0000000	PFP A3-0710 4.3kW 400V-3F M6K9	710	1416K9	400 V +/- 10% - 50÷60 Hz

	Optimum energy efficiency point		Maximum values			IP fan grade	Tmin	Tmax	Page
	Flow rate	Pressure	Adsorbed power	Pressure (q=0)	Flow rate (P=0)				
	[m^3/h]	[Pa]	[W]	[Pa]	[m^3/h]		[°C]	[°C]	
	7083	924	2860	1178	10639	55	-20	+40 (+50*)	
	7083	924	2860	1178	10639	55	-20	+40 (+50*)	
	14206	2114	5575	1574	8002	55	-20	+40 (+50*)	
	14206	2114	5575	1574	8002	55	-20	+40 (+50*)	
	6900	1347	4250	1592	11692	55	-20	+40 (+50*)	
	6900	1347	4250	1592	11692	55	-20	+40 (+50*)	
	9408	975	4120	1274	13805	55	-20	+40 (+50*)	
	9408	975	4120	1274	13805	55	-20	+40 (+50*)	
	9382	1330	5575	2133	17359	55	-20	+40 (+50*)	
	9382	1330	5575	2133	17359	55	-20	+40 (+50*)	
	8844	1196	4830	1597	14480	55	-20	+40 (+50*)	
	8844	1196	4830	1597	14480	55	-20	+40 (+50*)	
	11115	856	4140	1154	17330	55	-20	+40 (+50*)	
	11115	856	4140	1154	17330	55	-20	+40 (+50*)	
	10448	1120	5495	1782	20220	55	-20	+40 (+50*)	
	10448	1120	5495	1782	20220	55	-20	+40 (+50*)	
	10338	1168	5550	1553	18210	55	-20	+40 (+50*)	
	10338	1168	5550	1553	18210	55	-20	+40 (+50*)	
	11446	683	3460	857	18120	55	-20	+40 (+50*)	
	11446	683	3460	857	18120	55	-20	+40 (+50*)	
	12565	876	5060	1186	21570	55	-20	+40 (+50*)	
	12565	876	5060	1186	21570	55	-20	+40 (+50*)	
	11423	933	5360	1539	24165	55	-20	+40 (+50*)	
	11423	933	5360	1539	24165	55	-20	+40 (+50*)	
	14161	578	4280	1063	25730	55	-20	+40 (+50*)	
	14161	578	4280	1063	25730	55	-20	+40 (+50*)	

Notes: * +50 °C with possible automatic performance reduction

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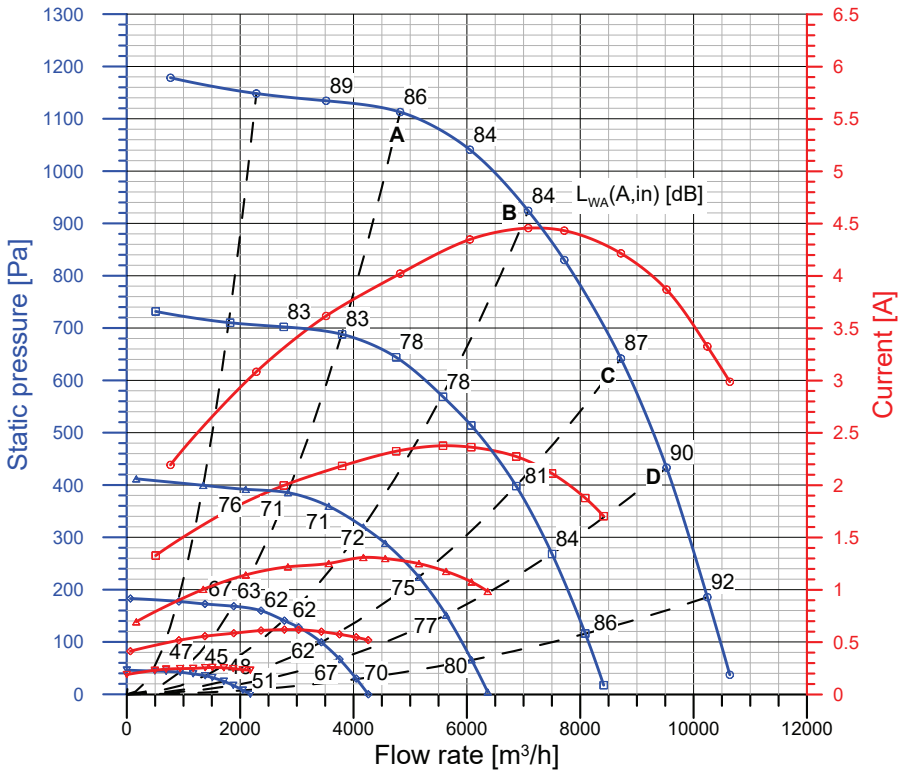
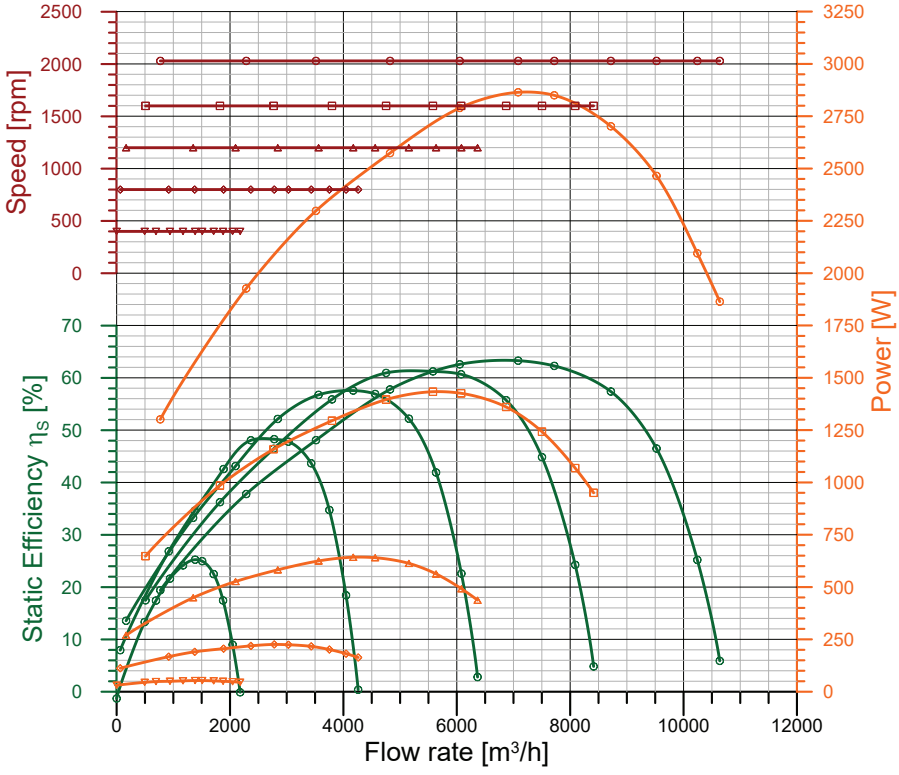
Type: PFP A3-0450 2.9kW 3Ph
Motor: 1416H7

Power:	2860 W (input, max)	Protection Cl.:	IP 54
Poles:	8	Insulation Cl.:	F
Voltage:	400 V	Thermal prot.:	YES-Integral
Supply:	3~	Temp. Min:	-20 °C
Frequency:	50-60 Hz	Temp. Max:	+40(+50) °C
Capacitor:	n.a.	Current Max:	4.5 A

Performance data referring to:
Standard air density ρ= 1.20 kg / m³
Installation type "A": free inlet, free outlet

Sound Power Levels shown are
Inlet-side L_{WA}(A,in), A-weighted, in dBA





Integral speed-control by Integral On-board Driver

	qv m3/h	pfs Pa	Pe W	n rpm	I A	η_s %
○ **Maximum performance curve (10 V)**						
A	4823	1113	2574	2030	4.02	57.8
B	7083	924	2864	2030	4.46	63.3
C	8718	642	2702	2030	4.22	57.4
D	9523	433	2465	2030	3.87	46.5
□ **Performance at 1600 rpm**						
A	3799	688	1295	1600	2.18	55.9
B	5579	569	1433	1600	2.38	61.3
C	6871	398	1361	1600	2.27	55.7
D	7503	268	1242	1600	2.11	44.9
△ **Performance at 1200 rpm**						
A	2843	385	582	1200	1.22	52.2
B	4174	320	643	1200	1.31	57.6
C	5155	224	613	1200	1.25	52.2
D	5634	152	563	1200	1.18	41.9
◇ **Performance at 800 rpm**						
A	1887	168	206	800	0.59	42.6
B	2779	141	226	800	0.62	48.3
C	3432	99	217	800	0.60	43.7
D	3752	67	202	800	0.58	34.7
▽ **Performance at 400 rpm**						
A	941	42	50	400	0.25	21.6
B	1384	35	53	400	0.26	25.2
C	1711	25	52	400	0.26	22.5
D	1878	17	50	400	0.25	17.5

ErP Data acc. to Reg. 327/11/CE

Performance referred to the best efficiency duty point

Compl. with Reg. 327/11/EC:	Tier II (2015)
Overall Efficiency (η x Cc) [%]:	66.9
Measurement category:	A
Efficiency category:	Static
Efficiency grade N [%]:	72.6

A variable speed drive is integrated with this fan

Manufactured since:	2019

By:
Regal Beloit Italy S.p.A.
Via Modena 18
24040 Ciserano - Italy

Power input [kW]:	2.864
Volume flow rate qv [m³/s]:	1.967
Static Pressure [Pa]:	924
Speed [rpm]:	2030
Specific ratio:	1.009

Information on:
- Disassembly, recycling and disposal at end of life
- Optimal installation, use and maintenance of fans

are freely downloadable from
www.nicotra-gebhardt.com

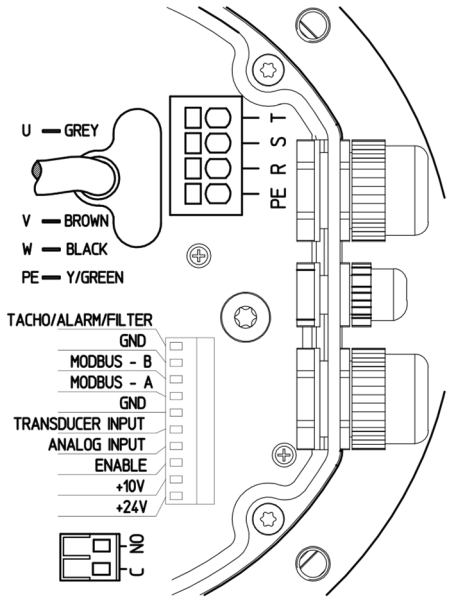
Testing is carried out with the optional components of the test airway required, according to ISO 5801:2007, for the installation type detailed here above.

Test nr.: W18259-60-61-62-63 Date: 06/11/2019
Laboratory: Nicotra Gebhardt GmbH - Waldenburg
Test chamber: DIN

This test data obtained in a laboratory registered by AMCA for AMCA 210/07 air performance testing. Data is not certified by AMCA.

NICOTRA Gebhardt

WIRING DIAGRAM
SCHEMA DI COLLEGAMENTO

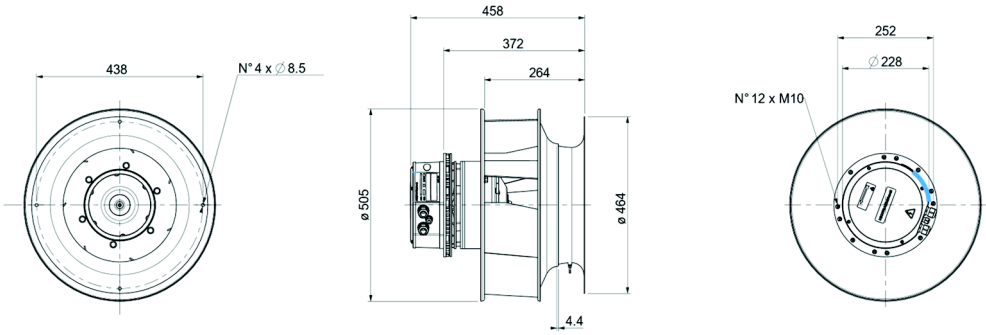


NOISE DATA
DATI DI RUMORE

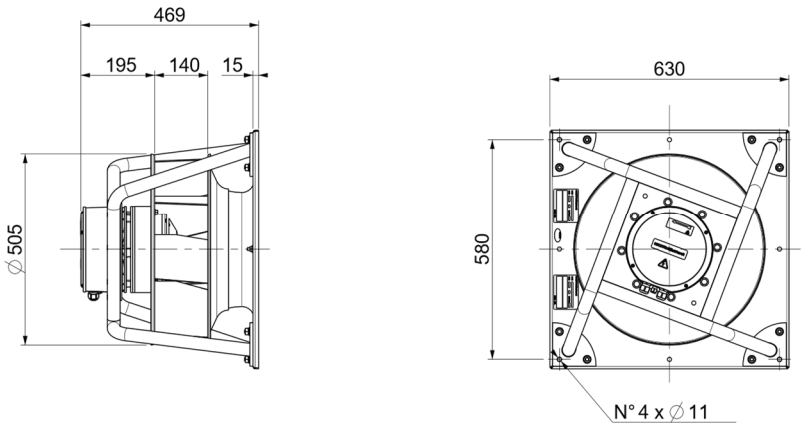
Working point			Sound power level for inlet side (Lw) in dB								
		m^3/h	63	125	250	500	1k	2k	4k	8kHz	LwA
400 V / 50-60 Hz	A	4823	82	86	93	80	73	68	61	59	**86**
Fan Maximum	B	7083	79	81	89	80	76	73	68	64	**84**
Working	C	8718	82	84	92	83	79	76	71	67	**87**
Limit	D	9523	83	86	94	86	83	79	75	70	**90**
400 V / 50-60 Hz	A	3799	79	83	90	77	70	65	58	56	**83**
1600 rpm	B	5579	73	75	83	74	70	67	62	58	**78**
	C	6871	76	78	86	77	73	70	65	61	**81**
	D	7503	77	80	88	80	77	73	69	64	**84**
400 V / 50-60 Hz	A	2843	67	67	74	69	64	61	58	51	**71**
1200 rpm	B	4174	73	79	74	70	66	60	53	46	**72**
	C	5155	75	82	77	73	69	63	56	49	**75**
	D	5634	77	84	79	75	71	65	58	51	**77**
400 V / 50-60 Hz	A	1887	69	72	64	61	56	50	45	38	**63**
800 rpm	B	2779	63	69	64	60	56	50	43	36	**62**
	C	3432	57	59	67	58	54	51	46	42	**62**
	D	3752	60	63	71	63	60	56	52	47	**67**
400 V / 50-60 Hz	A	941	43	47	54	41	34	29	22	20	**47**
400 rpm	B	1384	40	42	50	41	37	34	29	25	**45**
	C	1711	43	45	53	44	40	37	32	28	**48**
	D	1878	44	47	55	47	44	40	36	31	**51**

DIMENSIONAL DRAWINGS
DISEGNI DIMENSIONALI

6PC0019ZZ0000000 – PFP A1-0450 2.9kW 400V-3F M6H7



6PC0039ZZ0000000 – PFP A3-0450 2.9kW 400V-3F M6H7



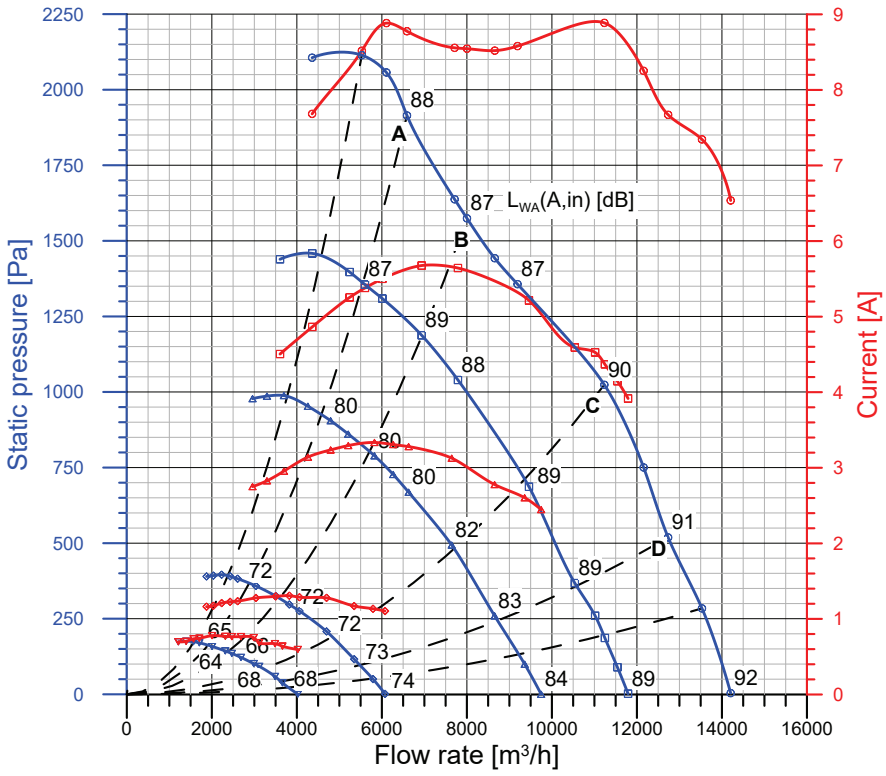
NICOTRA Gebhardt

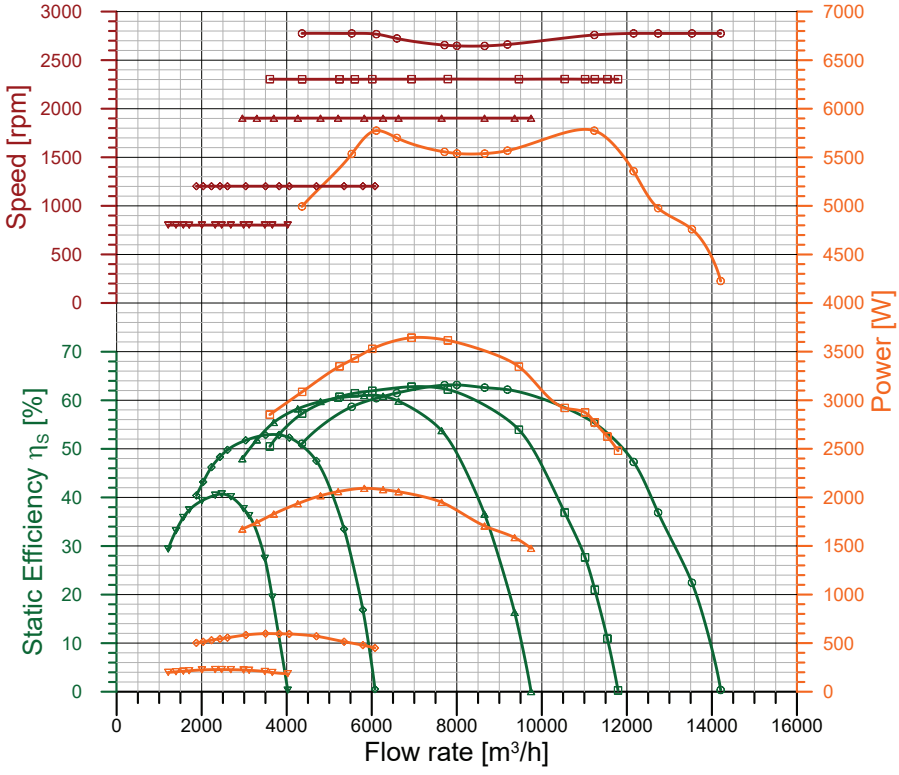
Type: PFP B3-0450 5.8kW 3Ph
Motor: 1416K5

Power:	5775 W (input, max)	Protection Cl.:	IP 55
Poles:	10	Insulation Cl.:	F
Voltage:	400 V	Thermal prot.:	YES-Integral
Supply:	3~	Temp. Min:	-20 °C
Frequency:	50-60 Hz	Temp. Max:	+40(+50) °C
Capacitor:	n.a.	Current Max:	8.9 A

Performance data referring to:
Standard air density ρ= 1.20 kg / m³
Installation type "A": free inlet, free outlet

Sound Power Levels shown are
Inlet-side L_{WA}(A,in), A-weighted, in dBA





Integral speed-control by Integral On-board Driver

	qv m3/h	pfs Pa	Pe W	n rpm	I A	η_s %
○ **Maximum performance curve (10 V)**						
A	6591	1915	5700	2723	8.78	61.5
B	8002	1574	5540	2647	8.55	63.2
C	11234	1024	5774	2759	8.89	55.3
D	12735	519	4976	2775	7.67	36.9
□ **Performance at 2300 rpm**						
A	5602	1355	3432	2303	5.38	61.5
B	6936	1188	3644	2304	5.68	62.8
C	9461	687	3345	2304	5.21	53.9
D	10539	368	2920	2305	4.59	36.9
△ **Performance at 1900 rpm**						
A	4794	905	2017	1903	3.24	59.8
B	5825	789	2094	1903	3.33	61.0
C	7642	494	1950	1903	3.13	53.8
D	8652	260	1706	1903	2.78	36.6
◇ **Performance at 1200 rpm**						
A	2606	382	556	1202	1.24	49.8
B	3036	358	584	1202	1.28	51.8
C	4699	208	571	1202	1.28	47.5
D	5349	116	515	1202	1.17	33.5
▽ **Performance at 800 rpm**						
A	2006	158	224	802	0.78	39.3
B	2317	143	228	802	0.77	40.5
C	3115	92	221	802	0.69	36.2
D	3661	38	198	802	0.64	19.4

ErP Data acc. to Reg. 327/11/CE

Performance referred to the best efficiency duty point

Compl. with Reg. 327/11/EC:	Tier II (2015)
Overall Efficiency (η x Cc) [%]:	65.5
Measurement category:	A
Efficiency category:	Static
Efficiency grade N [%]:	68.2

A variable speed drive is integrated with this fan

Manufactured since: 2021
By:
Regal Beloit Italy S.p.A.
Via Modena 18
24040 Ciserano - Italy

Power input [kW]:	5.540
Volume flow rate qv [m³/s]:	2.223
Static Pressure [Pa]:	1574
Speed [rpm]:	2647
Specific ratio:	1.016

Information on:
- Disassembly, recycling and disposal at end of life
- Optimal installation, use and maintenance of fans

are freely downloadable from
www.nicotra-gebhardt.com

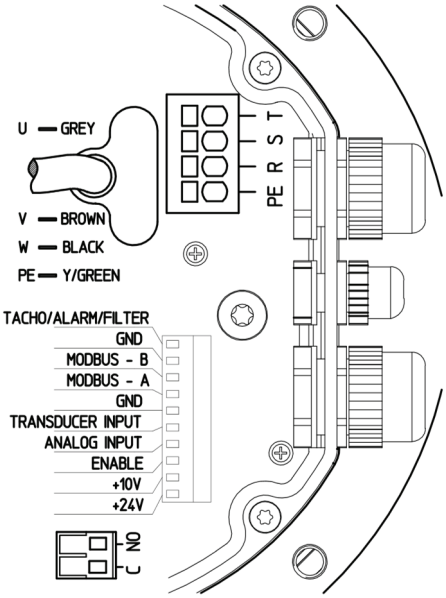
Testing is carried out with the optional components of the test airway required, according to ISO 5801:2007, for the installation type detailed here above.

Test nr.: 112-111-110-109-108 Date: 11/2020
Laboratory: Regal Beloit Italy SpA
Test chamber: AMCA-50000

This test data obtained in a laboratory registered by AMCA for AMCA 210/07 air performance testing. Data is not certified by AMCA.

NICOTRA Gebhardt

WIRING DIAGRAM
SCHEMA DI COLLEGAMENTO

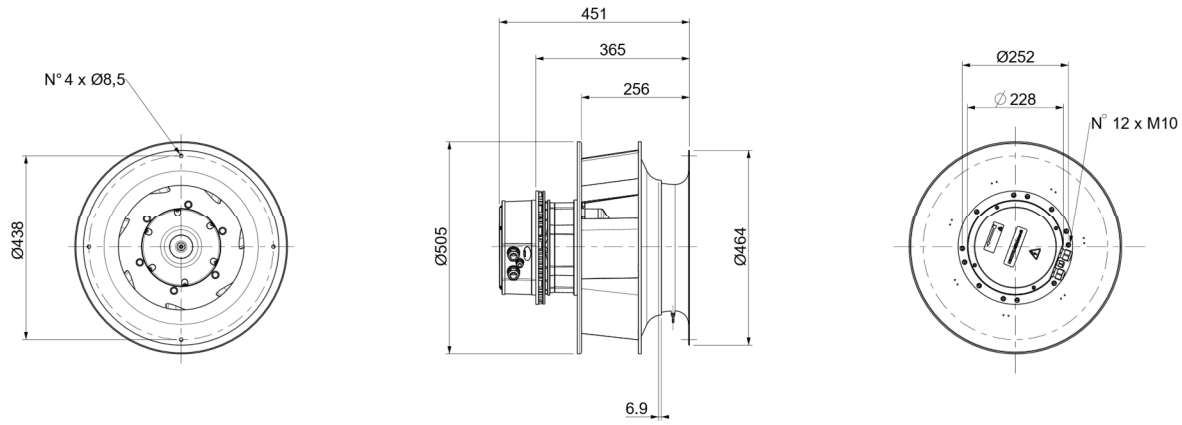


NOISE DATA
DATI DI RUMORE

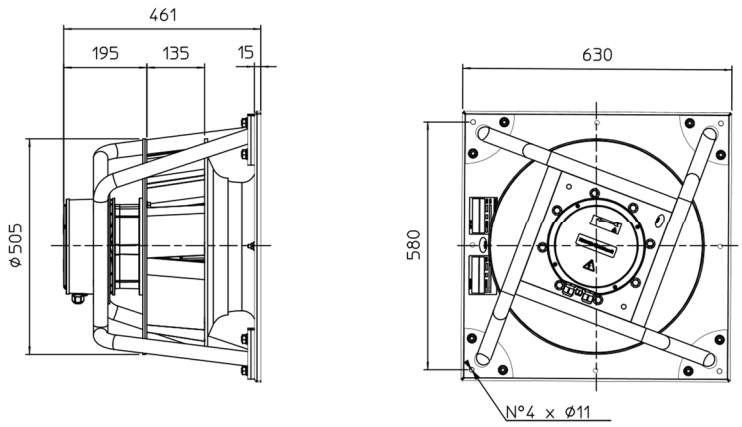
Working point			Sound power level for inlet side (Lw) in dB									
		m^3/h	63	125	250	500	1k	2k	4k	8kHz		LwA
400 V / 50-60 Hz	A	6591	93	86	90	85	77	80	79	78		**88**
Fan Maximum	B	8002	93	84	90	83	76	77	79	77		**87**
Working	C	11234	87	86	93	86	79	79	80	78		**90**
Limit	D	12735	91	85	94	88	81	82	81	79		**91**
400 V / 50-60 Hz	A	5602	87	83	87	81	73	83	76	74		**87**
2300 rpm	B	6936	89	82	85	80	73	86	76	74		**89**
	C	9461	83	83	87	83	74	86	76	74		**89**
	D	10539	85	82	89	84	75	85	77	75		**89**
400 V / 50-60 Hz	A	4794	82	78	81	76	69	70	74	67		**80**
1900 rpm	B	5825	81	79	80	76	69	72	72	67		**80**
	C	7642	83	81	85	81	70	73	70	68		**82**
	D	8652	83	82	84	82	71	74	71	69		**83**
400 V / 50-60 Hz	A	2606	73	75	69	67	64	67	63	54		**72**
1200 rpm	B	3036	74	71	69	67	65	68	64	54		**73**
	C	4699	72	75	70	68	65	66	60	55		**72**
	D	5349	73	75	70	70	67	67	61	55		**73**
400 V / 50-60 Hz	A	2006	69	68	64	61	59	59	49	40		**65**
800 rpm	B	2317	70	67	64	62	59	56	50	40		**64**
	C	3115	68	70	65	62	63	57	50	42		**66**
	D	3661	71	n.a.	65	63	63	59	51	44		**67**

DIMENSIONAL DRAWINGS
DISEGNI DIMENSIONALI

6PD0119ZZ0000000 – PFP B1-0450 5.8kW 400V-3F M6K5



6PD0139ZZ0000000 – PFP B3-0450 5.8kW 400V-3F M6K5



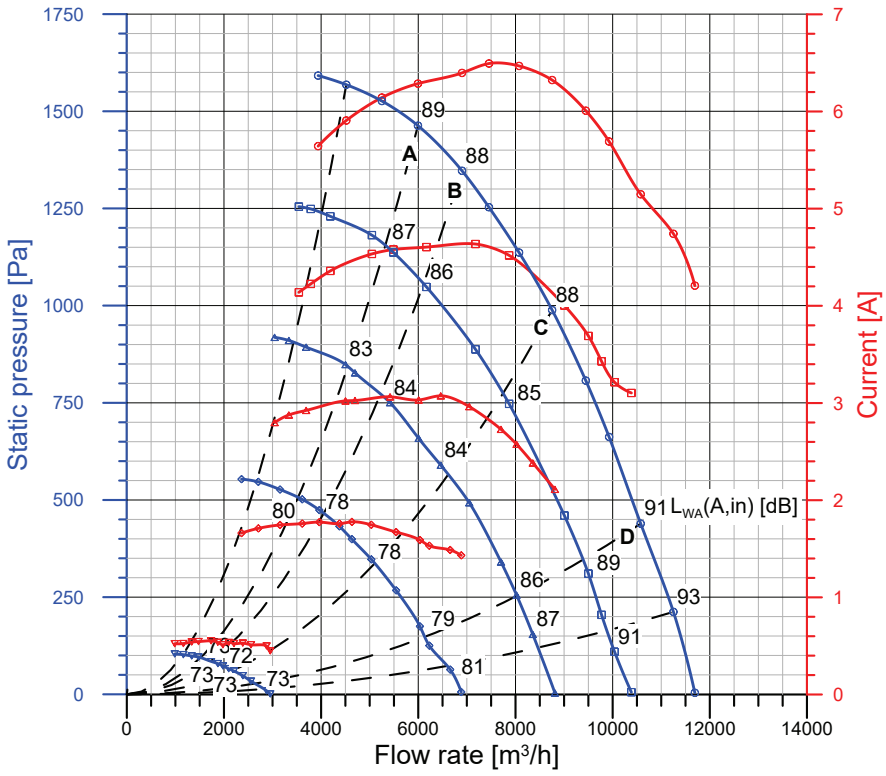
NICOTRA Gebhardt

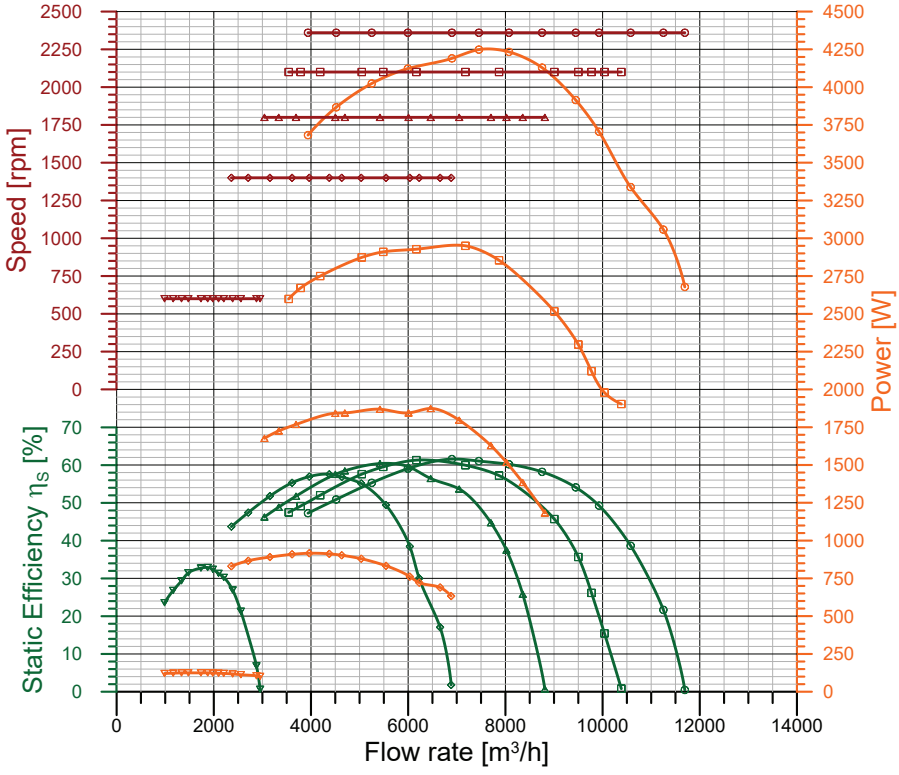
Type: PFP C3-0450 4.2kW 3Ph
Motor: 1416L1

Power:	4250 W (input, max)	Protection Cl.:	IP 55
Poles:	10	Insulation Cl.:	F
Voltage:	400 V	Thermal prot.:	YES-Integral
Supply:	3~	Temp. Min:	-20 °C
Frequency:	50-60 Hz	Temp. Max:	+40(+50) °C
Capacitor:	n.a.	Current Max:	6.5 A

Performance data referring to:
Standard air density ρ= 1.20 kg / m³
Installation type "A": free inlet, free outlet

Sound Power Levels shown are
Inlet-side L_{WA}(A,in), A-weighted, in dBA





Integral speed-control by Integral On-board Driver

	qv m3/h	pfs Pa	Pe W	n rpm	I A	η_s %
○ **Maximum performance curve (10 V)**						
A	5993	1463	4123	2360	6.29	59.1
B	6900	1347	4190	2360	6.40	61.6
C	8755	989	4129	2360	6.32	58.2
D	10578	439	3339	2360	5.15	38.6
□ **Performance at 2100 rpm**						
A	5044	1181	2873	2100	4.53	57.6
B	6168	1048	2928	2100	4.60	61.3
C	7870	747	2854	2100	4.52	57.2
D	9501	310	2297	2100	3.69	35.7
△ **Performance at 1800 rpm**						
A	4501	848	1843	1800	3.02	57.6
B	5419	750	1869	1800	3.06	60.4
C	6463	589	1874	1800	3.07	56.5
D	8022	255	1517	1800	2.58	37.5
◇ **Performance at 1400 rpm**						
A	3610	502	909	1400	1.76	55.3
B	3963	474	916	1400	1.77	57.0
C	5033	347	880	1400	1.75	55.1
D	6226	125	722	1400	1.53	30.0
▽ **Performance at 600 rpm**						
A	1476	96	125	600	0.54	31.5
B	1735	85	125	600	0.55	32.7
C	2097	66	123	600	0.54	31.3
D	2556	34	113	600	0.51	21.3

ErP Data acc. to Reg. 327/11/CE

Performance referred to the best efficiency duty point

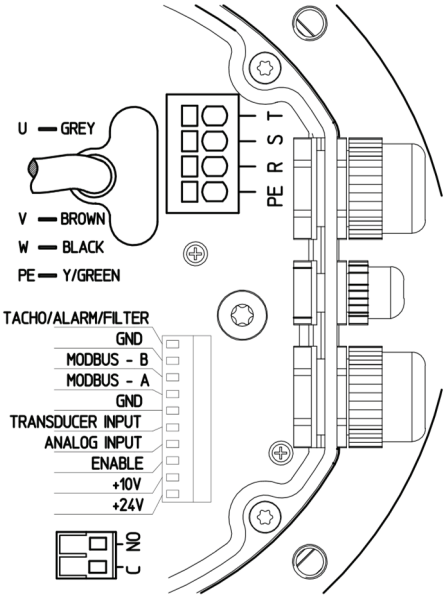
Compl. with Reg. 327/11/EC:	Tier II (2015)
Overall Efficiency (η x Cc) [%]:	64.4
Measurement category:	A
Efficiency category:	Static
Efficiency grade N [%]:	68.4
A variable speed drive is integrated with this fan	
Manufactured since:	2021
By:	
Regal Beloit Italy S.p.A.	
Via Modena 18	
24040 Ciserano - Italy	
Power input [kW]:	4.190
Volume flow rate qv [m³/s]:	1.917
Static Pressure [Pa]:	1347
Speed [rpm]:	2360
Specific ratio:	1.013
Information on:	
- Disassembly, recycling and disposal at end of life	
- Optimal installation, use and maintenance of fans	
are freely downloadable from	
www.nicotra-gebhardt.com	
Testing is carried out with the optional components of the test airway required, according to ISO 5801:2007, for the installation type detailed here above.	

Test nr.: 178-177-176-175-173
Laboratory: Regal Beloit Italy SpA
Test chamber: AMCA-50000
Date: 12/2020

This test data obtained in a laboratory registered by AMCA for AMCA 210/07 air performance testing. Data is not certified by AMCA.

NICOTRA Gebhardt

WIRING DIAGRAM
SCHEMA DI COLLEGAMENTO

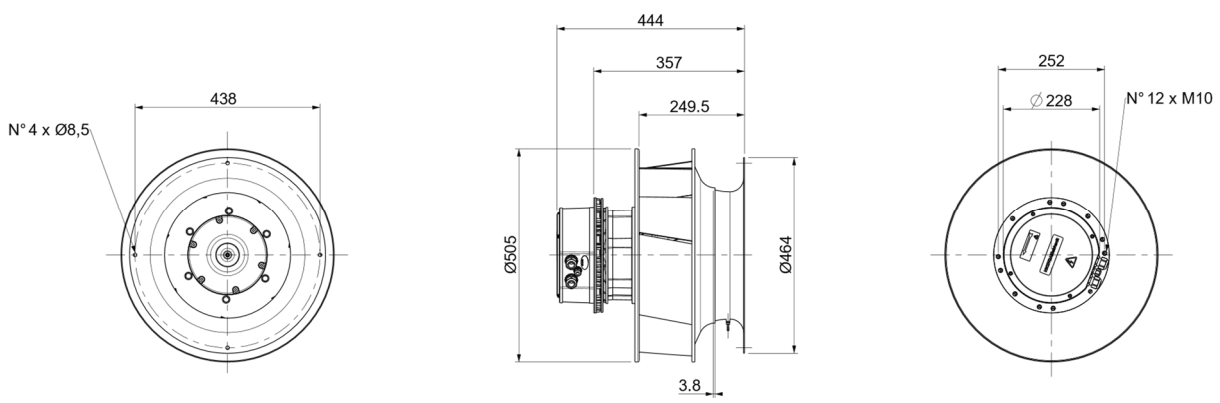


NOISE DATA
DATI DI RUMORE

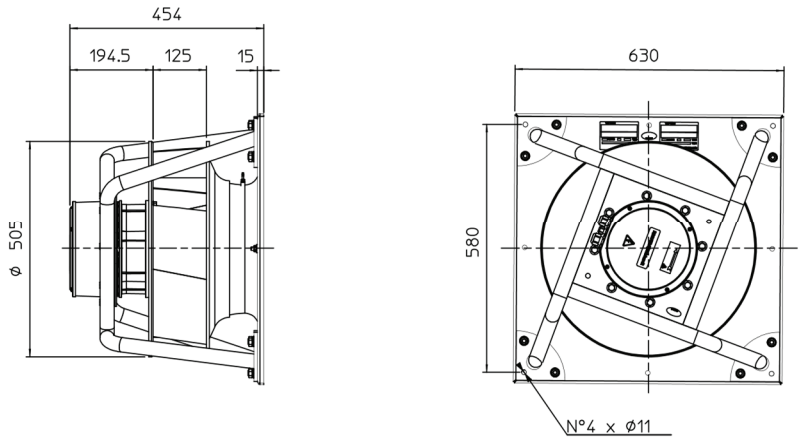
Working point			Sound power level for inlet side (Lw) in dB									
		m^3/h	63	125	250	500	1k	2k	4k	8kHz		LwA
400 V / 50-60 Hz	A	5993	84	82	92	83	79	80	81	78		**89**
Fan Maximum	B	6900	86	79	88	84	79	80	82	77		**88**
Working	C	8755	84	81	84	83	80	81	81	79		**88**
Limit	D	10578	84	82	88	87	83	83	83	81		**91**
400 V / 50-60 Hz	A	5044	81	81	93	81	76	76	79	75		**88**
2100 rpm	B	6168	81	77	87	81	76	76	80	74		**86**
	C	7870	83	78	86	80	77	77	79	75		**85**
	D	9501	82	81	91	86	80	80	81	77		**89**
400 V / 50-60 Hz	A	4501	79	89	83	79	73	77	75	70		**83**
1800 rpm	B	5419	75	80	87	79	73	77	75	69		**84**
	C	6463	78	76	78	84	74	77	75	71		**84**
	D	8022	79	78	87	84	77	78	77	71		**86**
400 V / 50-60 Hz	A	3610	73	82	74	71	73	72	72	62		**79**
1400 rpm	B	3963	72	78	74	71	73	72	71	61		**78**
	C	5033	72	75	74	72	72	72	69	60		**78**
	D	6226	77	86	77	76	74	72	71	62		**80**
400 V / 50-60 Hz	A	1476	72	66	64	67	70	62	47	37		**72**
600 rpm	B	1735	70	66	70	72	70	62	47	39		**73**
	C	2097	67	64	65	86	70	62	47	38		**83**
	D	2556	71	66	67	68	71	63	48	45		**73**

DIMENSIONAL DRAWINGS
DISEGNI DIMENSIONALI

6PD0219ZZ0000000 – PFP C1-0450 4.2kW 400V-3F M6L1



6PD0239ZZ0000000 – PFP C3-0450 4.2kW 400V-3F M6L1



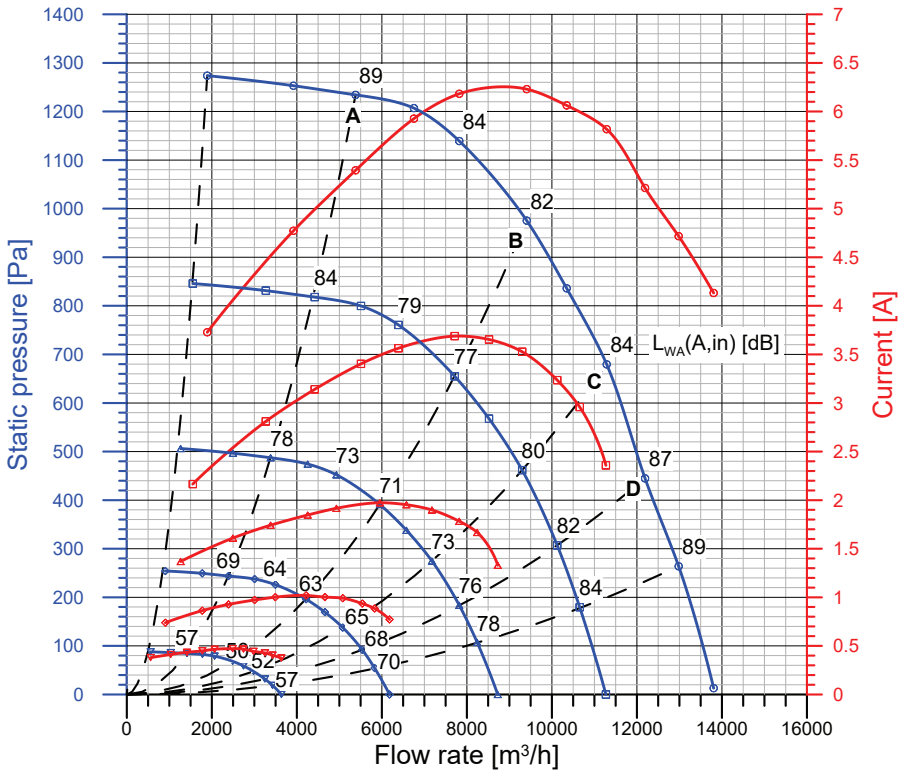
NICOTRA Gebhardt

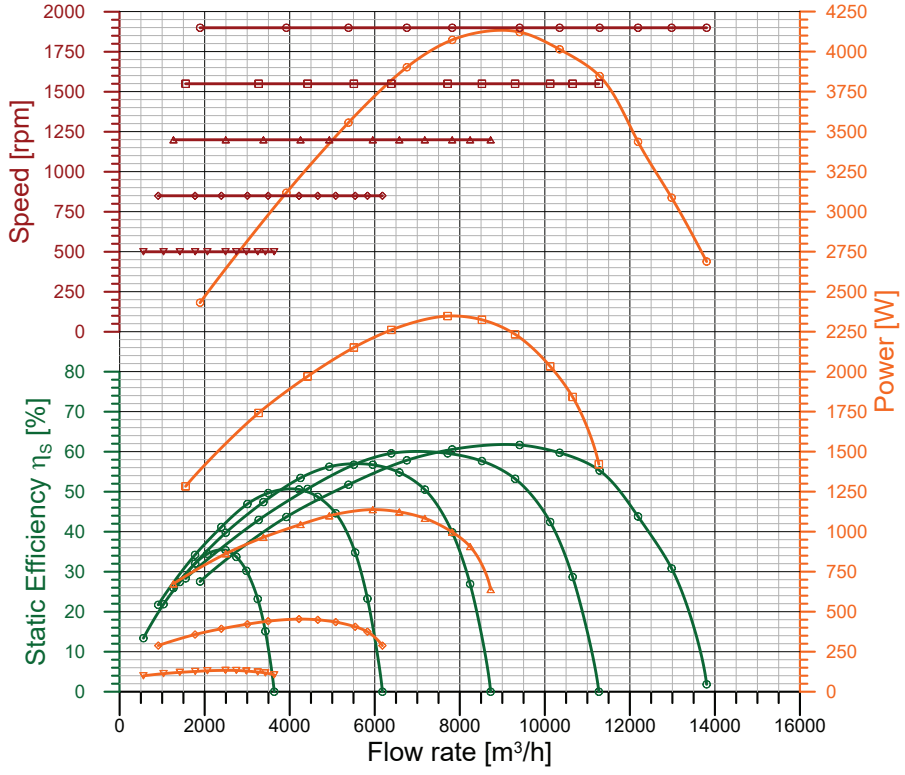
Type: PFP A3-0500 4.1kW 3Ph
Motor: 1416H5

Power:	4120 W (input, max)	Protection Cl.:	IP 54
Poles:	10	Insulation Cl.:	F
Voltage:	400 V	Thermal prot.:	YES-Integral
Supply:	3~	Temp. Min:	-20 °C
Frequency:	50-60 Hz	Temp. Max:	+40(+50) °C
Capacitor:	n.a.	Current Max:	6.23 A

Performance data referring to:
Standard air density ρ= 1.20 kg / m³
Installation type "A": free inlet, free outlet

Sound Power Levels shown are
Inlet-side L_{WA}(A,in), A-weighted, in dBA





Integral speed-control by Integral On-board Driver

	qv m3/h	pfs Pa	Pe W	n rpm	I A	η_s %
○ **Maximum performance curve (10 V)**						
A	5382	1234	3556	1900	5.39	51.8
B	9408	975	4122	1900	6.23	61.7
C	11289	679	3847	1900	5.82	55.3
D	12192	445	3436	1900	5.21	43.8
□ **Performance at 1550 rpm**						
A	4420	818	1971	1550	3.14	50.7
B	7713	655	2347	1550	3.69	59.6
C	9301	462	2233	1550	3.53	53.2
D	10125	307	2033	1550	3.24	42.4
△ **Performance at 1200 rpm**						
A	3382	487	965	1200	1.74	47.4
B	5954	391	1138	1200	1.97	56.7
C	7177	275	1084	1200	1.90	50.5
D	7821	184	998	1200	1.78	39.9
◇ **Performance at 850 rpm**						
A	2392	244	393	850	0.93	41.2
B	4218	196	454	850	1.02	50.6
C	5081	138	435	850	0.99	44.6
D	5540	92	406	850	0.94	34.8
▽ **Performance at 500 rpm**						
A	1415	85	121	500	0.43	27.4
B	2490	68	133	500	0.47	35.4
C	2981	47	129	500	0.44	30.2
D	3248	32	123	500	0.43	23.2

ErP Data acc. to Reg. 327/11/CE

Performance referred to the best efficiency duty point

Compl. with Reg. 327/11/EC:	Tier II (2015)
Overall Efficiency (η x Cc) [%]:	64.5
Measurement category:	A
Efficiency category:	Static
Efficiency grade N [%]:	68.5

A variable speed drive is integrated with this fan

Manufactured since: 2019
By:
Regal Beloit Italy S.p.A.
Via Modena 18
24040 Ciserano - Italy

Power input [kW]:	4.122
Volume flow rate qv [m³/s]:	2.613
Static Pressure [Pa]:	975
Speed [rpm]:	1900
Specific ratio:	1.01

Information on:
- Disassembly, recycling and disposal at end of life
- Optimal installation, use and maintenance of fans

are freely downloadable from
www.nicotra-gebhardt.com

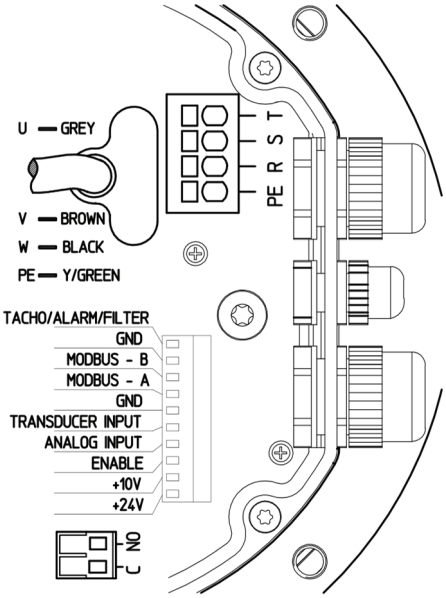
Testing is carried out with the optional components of the test airway required, according to ISO 5801:2007, for the installation type detailed here above.

Test nr.: S5693.000-W18166-7-8-9 Date: 05/07/2019
Laboratory: Nicotra Gebhardt S.p.A. - Zingonia
Test chamber: 50000 m3/h

This test data obtained in a laboratory registered by AMCA for AMCA 210/07 air performance testing. Data is not certified by AMCA.

NICOTRA Gebhardt

WIRING DIAGRAM
SCHEMA DI COLLEGAMENTO

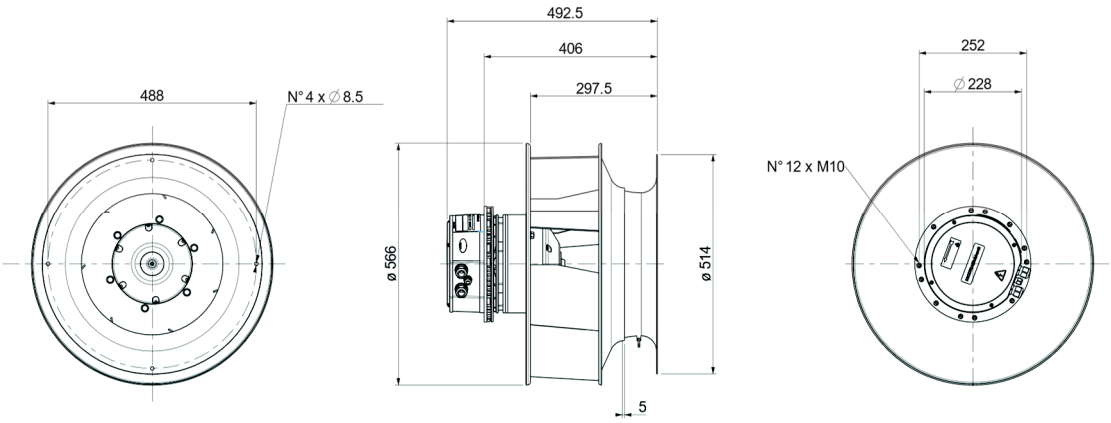


NOISE DATA
DATI DI RUMORE

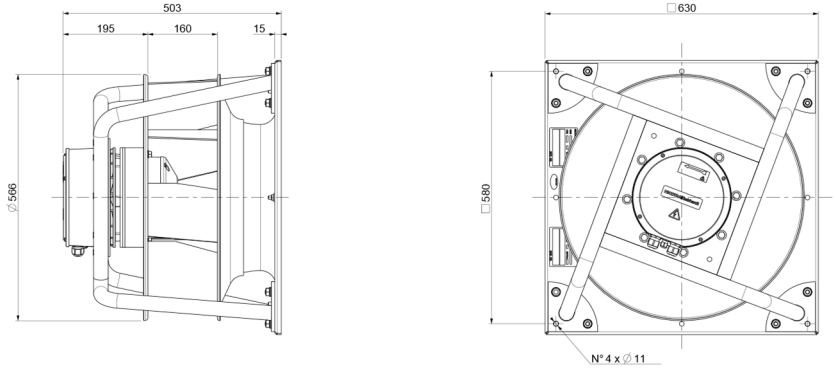
Working point			Sound power level for inlet side (Lw) in dB									
		m^3/h	63	125	250	500	1k	2k	4k	8kHz		LwA
400 V / 50-60 Hz	A	5382	88	92	95	84	78	76	72	71		**89**
Fan Maximum	B	9408	75	76	85	76	74	75	71	70		**82**
Working	C	11289	77	78	87	78	76	77	73	72		**84**
Limit	D	12192	79	81	91	82	79	80	75	74		**87**
400 V / 50-60 Hz	A	4420	88	93	86	80	76	71	68	63		**84**
1550 rpm	B	7713	73	79	78	73	72	68	66	62		**77**
	C	9301	76	82	81	76	75	71	69	65		**80**
	D	10125	77	84	84	78	77	73	71	67		**82**
400 V / 50-60 Hz	A	3382	82	87	80	74	70	65	62	57		**78**
1200 rpm	B	5954	67	73	72	67	66	62	60	56		**71**
	C	7177	69	75	74	69	68	64	62	58		**73**
	D	7821	71	78	78	72	71	67	65	61		**76**
400 V / 50-60 Hz	A	2392	73	78	71	65	61	56	53	48		**69**
850 rpm	B	4218	59	65	64	59	58	54	52	48		**63**
	C	5081	61	67	66	61	60	56	54	50		**65**
	D	5540	63	70	70	64	63	59	57	53		**68**
400 V / 50-60 Hz	A	1415	61	66	59	53	49	44	41	36		**57**
500 rpm	B	2490	46	52	51	46	45	41	39	35		**50**
	C	2981	48	54	53	48	47	43	41	37		**52**
	D	3248	50	57	57	51	50	46	44	40		**55**

DIMENSIONAL DRAWINGS
DISEGNI DIMENSIONALI

6PC001AZZ0000000 – PFP A1-0500 4.1kW 400V-3F M6H5



6PC003AZZ0000000 – PFP A3-0500 4.1kW 400V-3F M6H5



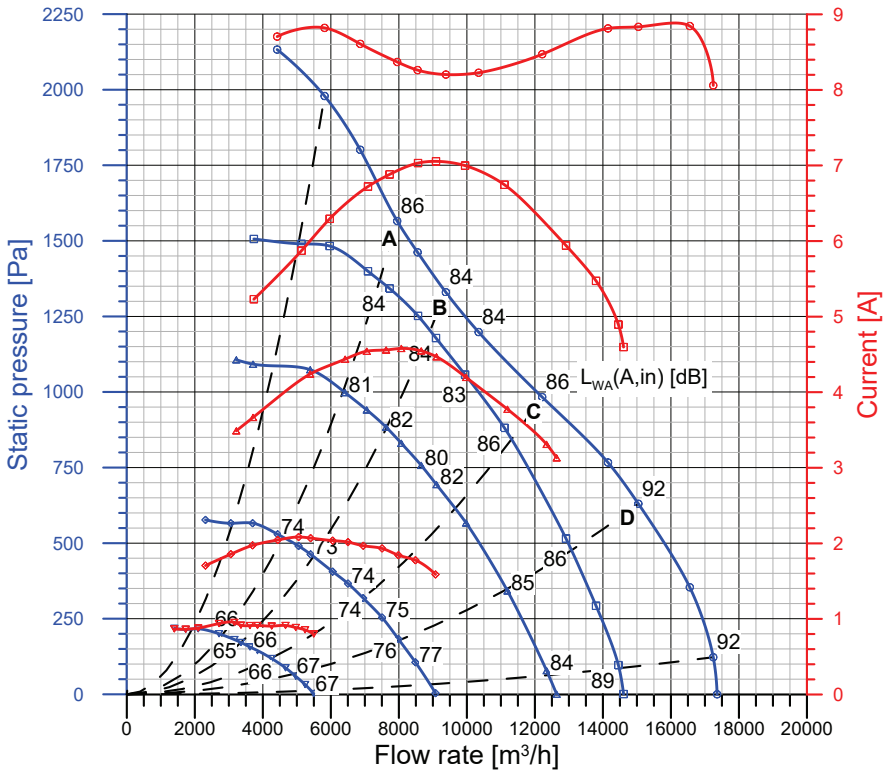
NICOTRA Gebhardt

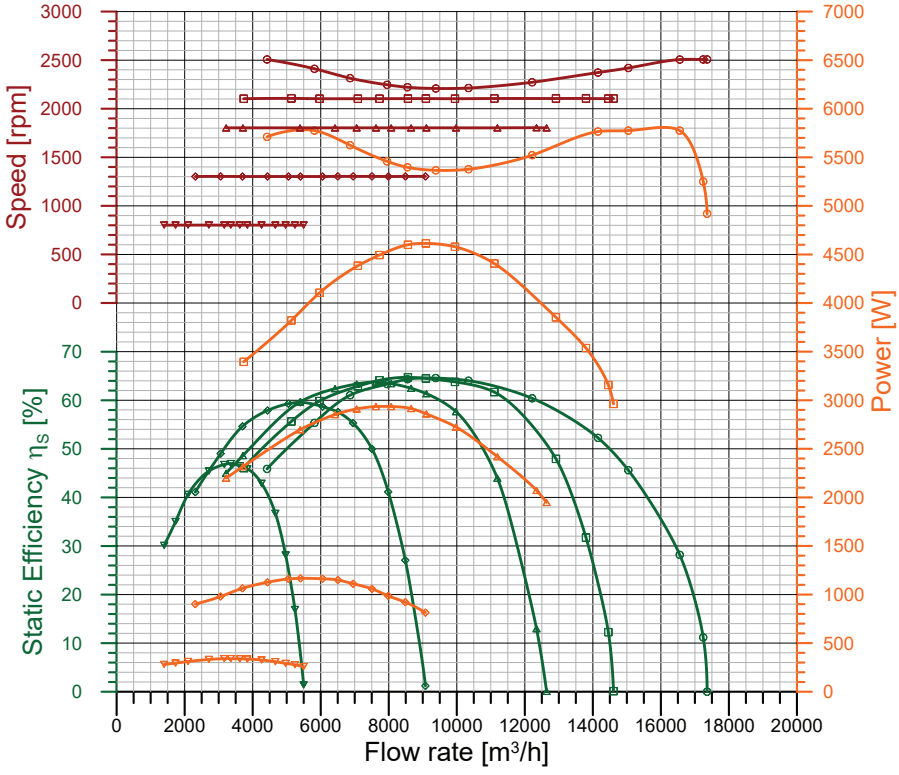
Type: PFP B3-0500 5.8kW 3Ph
Motor: 1416K6

Power:	5775 W (input, max)	Protection Cl.:	IP 55
Poles:	10	Insulation Cl.:	F
Voltage:	400 V	Thermal prot.:	YES-Integral
Supply:	3~	Temp. Min:	-20 °C
Frequency:	50-60 Hz	Temp. Max:	+40(+50) °C
Capacitor:	n.a.	Current Max:	8.8 A

Performance data referring to:
Standard air density ρ= 1.20 kg / m³
Installation type "A": free inlet, free outlet

Sound Power Levels shown are
Inlet-side L_{WA}(A,in), A-weighted, in dBA





Integral speed-control by Integral On-board Driver

	qv m3/h	pfs Pa	Pe W	n rpm	I A	η_S %
○ **Maximum performance curve (10 V)**						
A	7951	1565	5458	2246	8.37	63.3
B	9382	1330	5366	2208	8.20	64.6
C	12215	983	5522	2272	8.47	60.4
D	15043	630	5775	2419	8.83	45.6
□ **Performance at 2100 rpm**						
A	7728	1342	4494	2103	6.88	64.1
B	9092	1178	4614	2104	7.05	64.5
C	11104	881	4407	2105	6.75	61.7
D	12915	515	3854	2105	5.94	47.9
△ **Performance at 1800 rpm**						
A	6421	998	2852	1803	4.44	62.4
B	7625	884	2935	1803	4.56	63.8
C	9976	567	2725	1803	4.20	57.7
D	11193	342	2419	1803	3.77	44.0
◇ **Performance at 1300 rpm**						
A	4436	529	1126	1302	2.04	57.9
B	5404	463	1167	1302	2.07	59.6
C	6952	318	1111	1303	1.97	55.3
D	7987	183	986	1302	1.84	41.1
▽ **Performance at 800 rpm**						
A	2711	200	332	802	0.94	45.4
B	3356	171	340	802	0.92	47.0
C	4260	118	326	802	0.91	42.9
D	4969	59	291	802	0.89	28.1

ErP Data acc. to Reg. 327/11/CE

Performance referred to the best efficiency duty point

Compl. with Reg. 327/11/EC:	Tier II (2015)
Overall Efficiency (η x Cc) [%]:	67.0
Measurement category:	A
Efficiency category:	Static
Efficiency grade N [%]:	69.8

A variable speed drive is integrated with this fan

Manufactured since: 2021
By:
Regal Beloit Italy S.p.A.
Via Modena 18
24040 Ciserano - Italy

Power input [kW]:	5.366
Volume flow rate qv [m³/s]:	2.606
Static Pressure [Pa]:	1330
Speed [rpm]:	2208
Specific ratio:	1.013

Information on:
- Disassembly, recycling and disposal at end of life
- Optimal installation, use and maintenance of fans

are freely downloadable from
www.nicotra-gebhardt.com

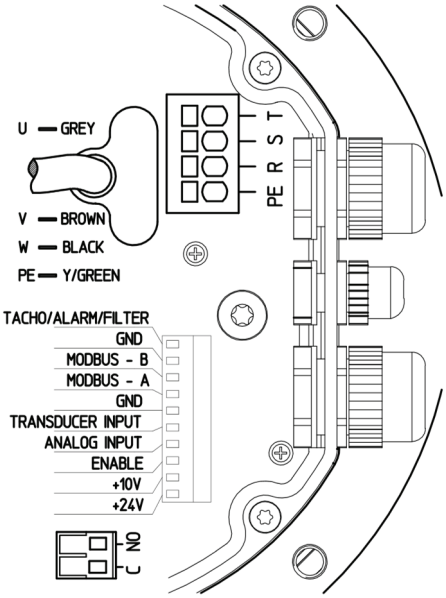
Testing is carried out with the optional components of the test airway required, according to ISO 5801:2007, for the installation type detailed here above.

Test nr.: 122-121-120-119-118 Date: 11/2020
Laboratory: Regal Beloit Italy SpA
Test chamber: AMCA-50000

This test data obtained in a laboratory registered by AMCA for AMCA 210/07 air performance testing. Data is not certified by AMCA.

NICOTRA Gebhardt

WIRING DIAGRAM
SCHEMA DI COLLEGAMENTO

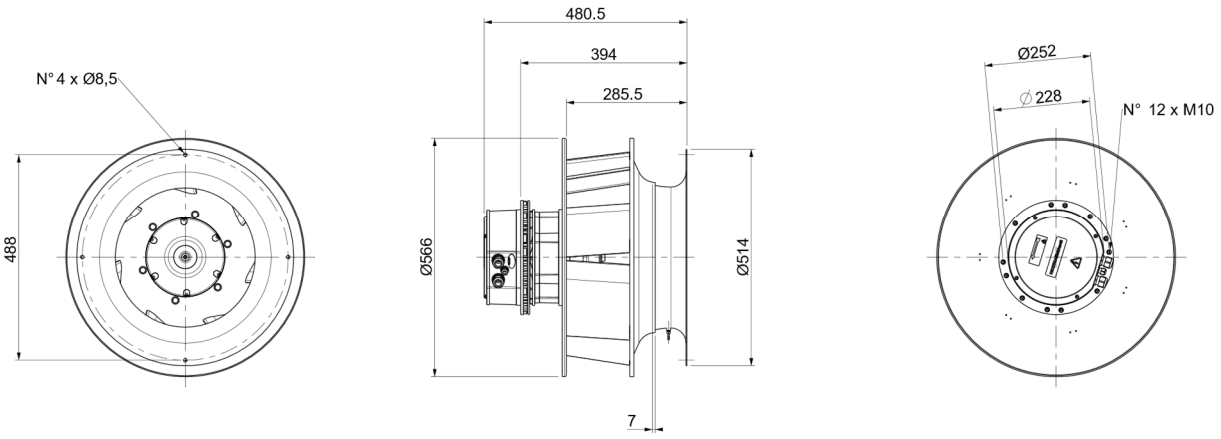


NOISE DATA
DATI DI RUMORE

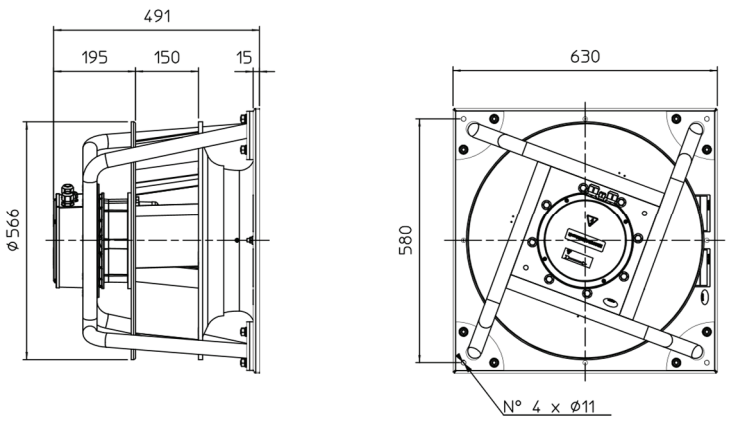
Working point			Sound power level for inlet side (Lw) in dB								
		m^3/h	63	125	250	500	1k	2k	4k	8kHz	LwA
400 V / 50-60 Hz	A	7951	84	82	90	80	76	79	76	77	**86**
Fan Maximum	B	9382	83	80	83	80	76	77	74	76	**84**
Working	C	12215	80	80	88	80	77	79	75	77	**86**
Limit	D	15043	84	83	97	85	80	83	78	80	**92**
400 V / 50-60 Hz	A	7728	81	80	86	80	76	77	74	76	**84**
2100 rpm	B	9092	81	79	87	78	77	77	72	76	**84**
	C	11104	79	80	90	80	78	78	72	76	**86**
	D	12915	80	81	87	81	78	79	75	77	**86**
400 V / 50-60 Hz	A	6421	77	82	80	76	71	74	73	69	**81**
1800 rpm	B	7625	76	77	88	77	71	73	69	68	**82**
	C	9976	76	78	86	79	71	75	69	69	**82**
	D	11193	78	80	91	80	72	76	71	71	**85**
400 V / 50-60 Hz	A	4436	72	78	72	67	66	69	67	60	**74**
1300 rpm	B	5404	73	78	71	67	65	69	62	60	**73**
	C	6952	73	83	71	67	66	69	61	59	**74**
	D	7987	74	79	75	70	67	71	64	62	**76**
400 V / 50-60 Hz	A	2711	68	66	64	62	60	61	53	42	**66**
800 rpm	B	3356	69	66	63	61	61	58	49	42	**65**
	C	4260	69	65	64	61	63	60	49	45	**66**
	D	4969	69	67	65	62	61	62	51	48	**67**

DIMENSIONAL DRAWINGS
DISEGNI DIMENSIONALI

6PD011AZZ0000000 – PFP B1-0500 5.8kW 400V-3F M6K6



6PD013AZZ0000000 – PFP B3-0500 5.8kW 400V-3F M6K6



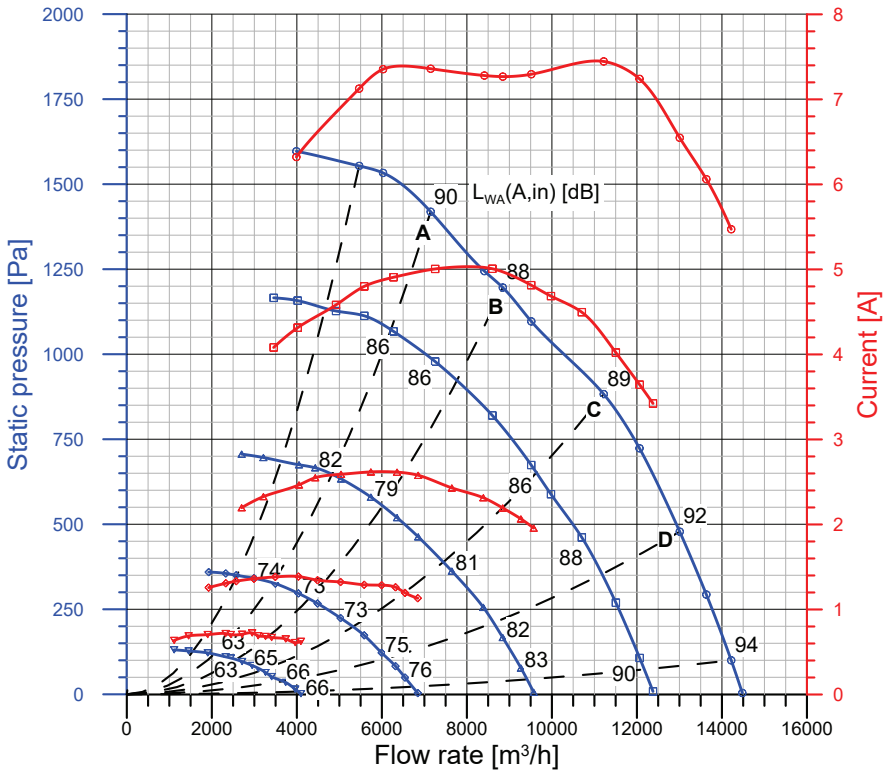
NICOTRA Gebhardt

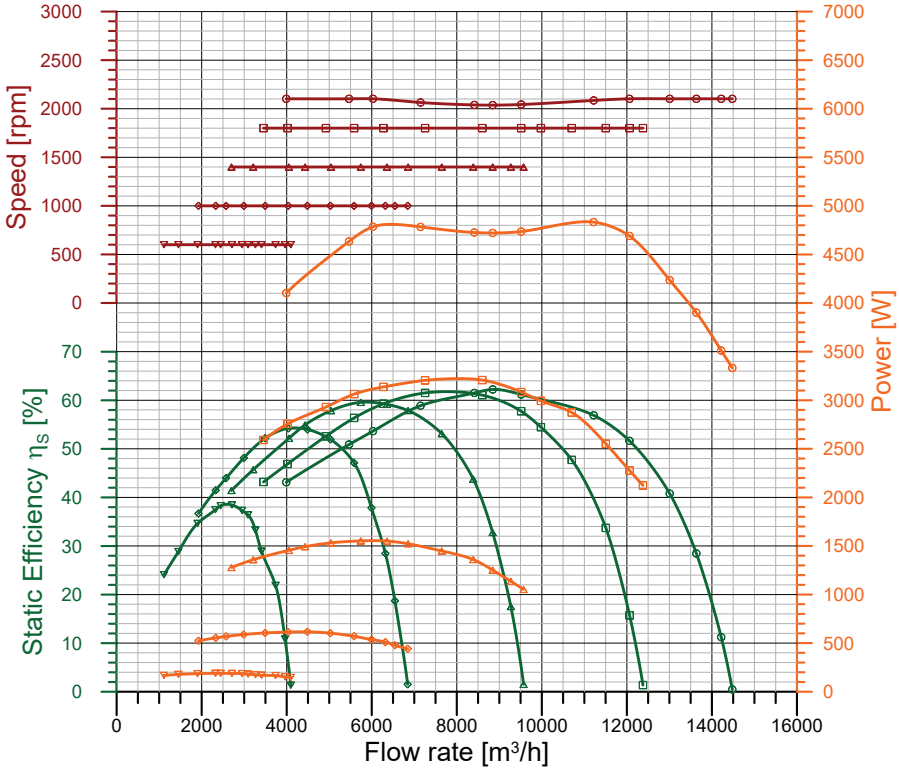
Type: PFP C3-0500 4.8kW 3Ph
Motor: 1416L2

Power:	4830 W (input, max)	Protection Cl.:	IP 55
Poles:	10	Insulation Cl.:	F
Voltage:	400 V	Thermal prot.:	YES-Integral
Supply:	3~	Temp. Min:	-20 °C
Frequency:	50-60 Hz	Temp. Max:	+40(+50) °C
Capacitor:	n.a.	Current Max:	7.5 A

Performance data referring to:
Standard air density ρ= 1.20 kg / m³
Installation type "A": free inlet, free outlet

Sound Power Levels shown are
Inlet-side L_{WA}(A,in), A-weighted, in dBA





Integral speed-control by Integral On-board Driver

	qv m3/h	pfs Pa	Pe W	n rpm	I A	ηs %
○ **Maximum performance curve (10 V)**						
A	7148	1419	4784	2064	7.36	58.9
B	8844	1196	4721	2037	7.27	62.2
C	11219	883	4833	2085	7.45	56.9
D	13007	478	4236	2102	6.55	40.8
□ **Performance at 1800 rpm**						
A	6274	1067	3137	1800	4.91	59.3
B	7254	978	3205	1800	5.01	61.5
C	9513	674	3084	1800	4.81	57.8
D	10704	461	2874	1800	4.50	47.7
△ **Performance at 1400 rpm**						
A	4432	666	1493	1400	2.55	54.9
B	5742	580	1552	1400	2.62	59.6
C	7646	362	1449	1400	2.43	53.1
D	8387	256	1361	1400	2.31	43.8
◇ **Performance at 1000 rpm**						
A	2991	341	589	1000	1.36	48.1
B	4037	297	614	1000	1.39	54.2
C	5028	224	603	1000	1.32	52.0
D	5994	122	537	1000	1.29	37.9
▽ **Performance at 600 rpm**						
A	1903	122	186	600	0.70	34.7
B	2446	107	189	600	0.70	38.3
C	3090	77	181	600	0.69	36.4
D	3738	35	166	600	0.65	21.9

ErP Data acc. to Reg. 327/11/CE

Performance referred to the best efficiency duty point

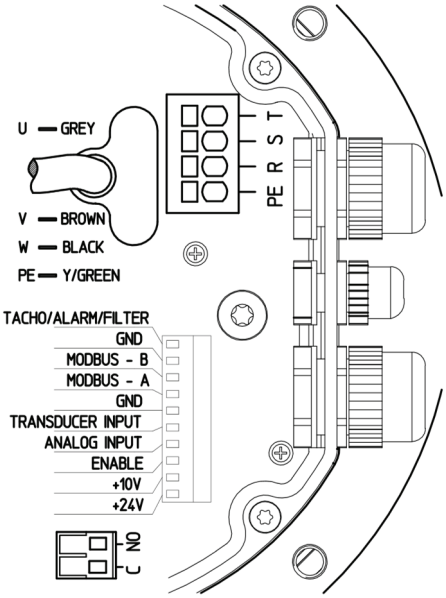
Compl. with Reg. 327/11/EC:	Tier II (2015)
Overall Efficiency (η x Cc) [%]:	64.8
Measurement category:	A
Efficiency category:	Static
Efficiency grade N [%]:	68.2
A variable speed drive is integrated with this fan	
Manufactured since:	2021
By:	
Regal Beloit Italy S.p.A.	
Via Modena 18	
24040 Ciserano - Italy	
Power input [kW]:	4.721
Volume flow rate qv [m³/s]:	2.457
Static Pressure [Pa]:	1196
Speed [rpm]:	2037
Specific ratio:	1.012
Information on:	
- Disassembly, recycling and disposal at end of life	
- Optimal installation, use and maintenance of fans	
are freely downloadable from	
www.nicotra-gebhardt.com	
Testing is carried out with the optional components of the test airway required, according to ISO 5801:2007, for the installation type detailed here above.	

Test nr.: 187-186-185-184-183
Laboratory: Regal Beloit Italy SpA
Test chamber: AMCA-50000
Date: 12/2020

This test data obtained in a laboratory registered by AMCA for AMCA 210/07 air performance testing. Data is not certified by AMCA.

NICOTRA Gebhardt

WIRING DIAGRAM
SCHEMA DI COLLEGAMENTO

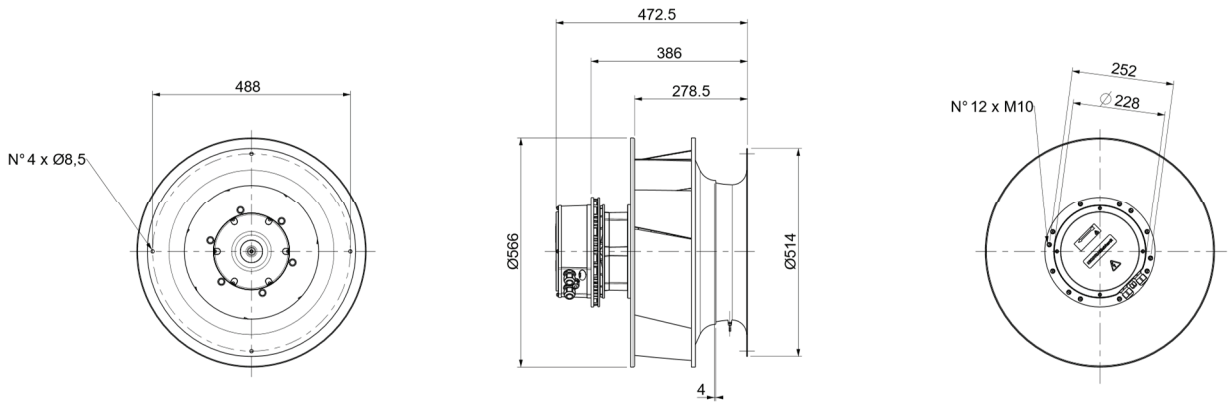


NOISE DATA
DATI DI RUMORE

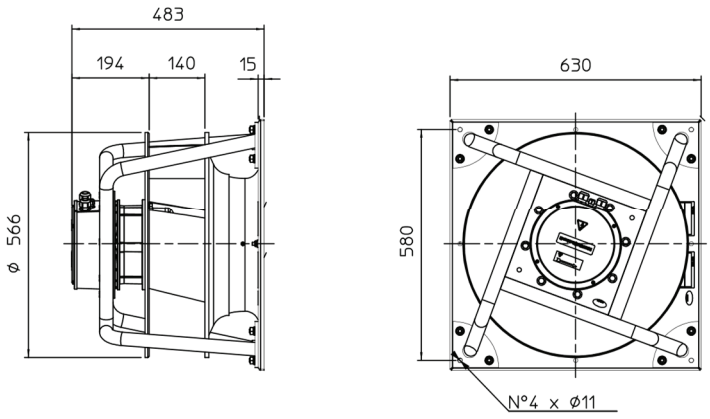
Working point			Sound power level for inlet side (Lw) in dB								
		m^3/h	63	125	250	500	1k	2k	4k	8kHz	LwA
400 V / 50-60 Hz	A	7148	85	85	95	82	77	80	83	78	**90**
Fan Maximum	B	8844	84	81	88	82	77	80	81	77	**88**
Working	C	11219	83	83	89	83	80	82	83	79	**89**
Limit	D	13007	84	86	94	87	82	84	84	82	**92**
400 V / 50-60 Hz	A	6274	81	94	86	77	74	78	80	74	**86**
1800 rpm	B	7254	78	87	91	77	74	77	78	74	**86**
	C	9513	78	81	86	83	76	79	79	74	**86**
	D	10704	81	84	88	84	78	80	81	77	**88**
400 V / 50-60 Hz	A	4432	76	95	77	70	70	72	75	67	**82**
1400 rpm	B	5742	75	85	81	72	68	71	72	66	**79**
	C	7646	75	83	83	75	70	72	73	66	**81**
	D	8387	77	87	81	76	72	74	75	69	**82**
400 V / 50-60 Hz	A	2991	74	81	72	64	70	65	65	57	**74**
1000 rpm	B	4037	72	71	71	64	71	64	63	56	**73**
	C	5028	72	72	71	66	69	65	63	55	**73**
	D	5994	73	75	75	70	70	67	65	57	**75**
400 V / 50-60 Hz	A	1903	77	66	64	59	58	56	48	40	**64**
600 rpm	B	2446	68	66	65	62	57	54	48	39	**64**
	C	3090	69	68	64	60	62	55	48	43	**65**
	D	3738	73	68	65	61	62	58	51	45	**66**

DIMENSIONAL DRAWINGS
DISEGNI DIMENSIONALI

6PD021AZZ0000000 – PFP C1-0500 4.8kW 400V-3F M6L2



6PD023AZZ0000000 – PFP C3-0500 4.8kW 400V-3F M6L2



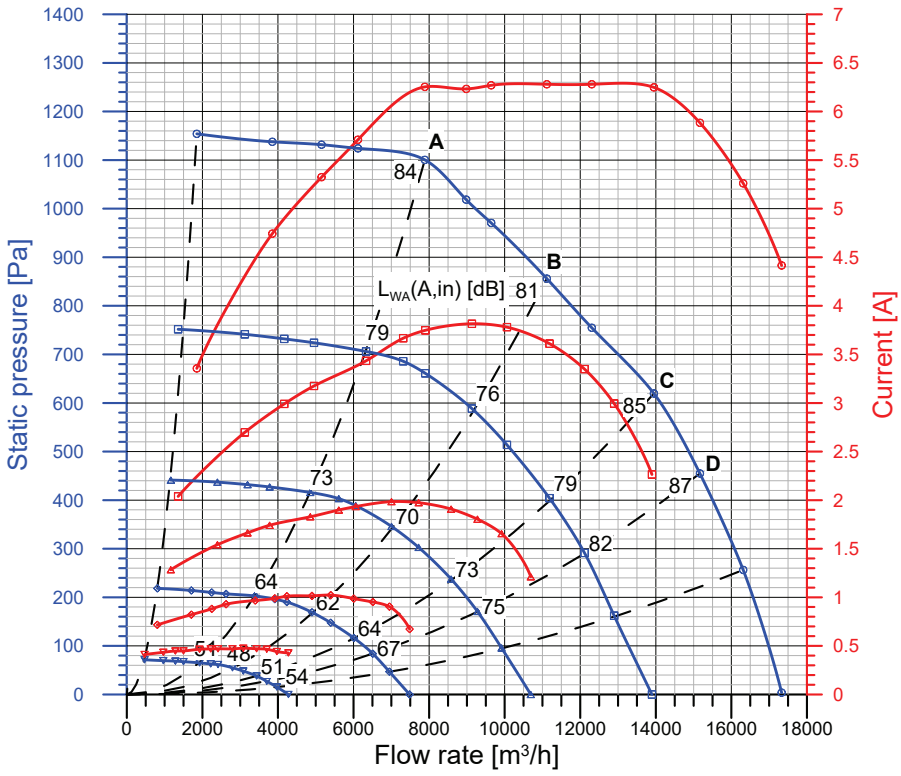
NICOTRA Gebhardt

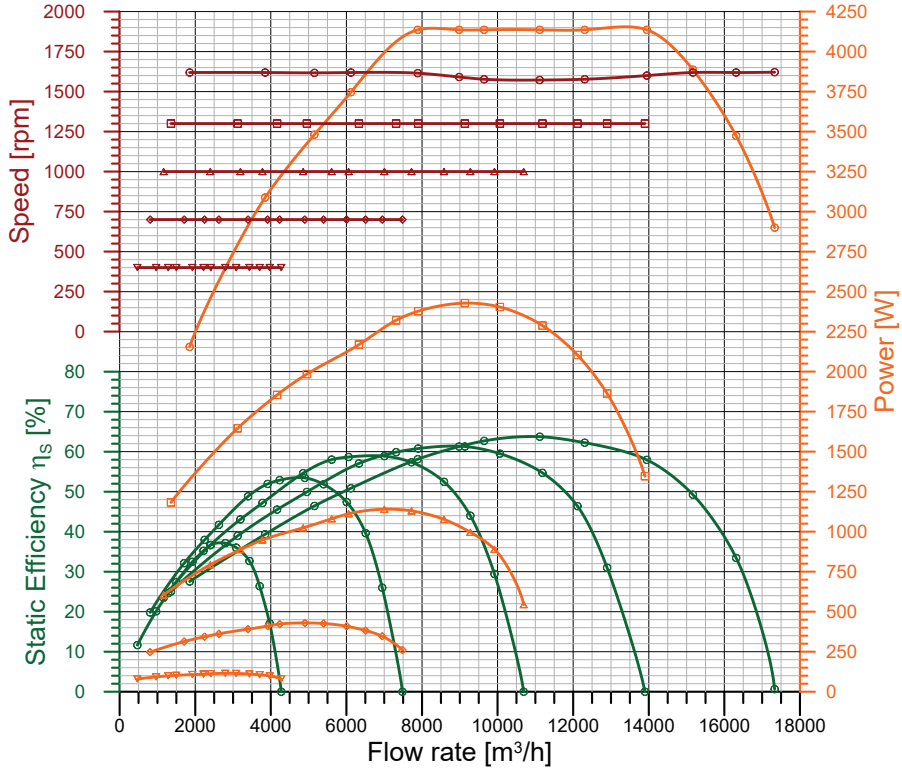
Type: PFP A3-0560 4.1kW 3Ph
Motor: 1416H6

Power:	4140 W (input, max)	Protection Cl.:	IP 54
Poles:	8	Insulation Cl.:	F
Voltage:	400 V	Thermal prot.:	YES-Integral
Supply:	3~	Temp. Min:	-20 °C
Frequency:	50-60 Hz	Temp. Max:	+40(+50) °C
Capacitor:	n.a.	Current Max:	6.28 A

Performance data referring to:
Standard air density ρ= 1.20 kg / m³
Installation type "A": free inlet, free outlet

Sound Power Levels shown are
Inlet-side L_{WA}(A,in), A-weighted, in dBA





Integral speed-control by Integral On-board Driver

	qv m3/h	pfs Pa	Pe W	n rpm	I A	η_s %
○ **Maximum performance curve (10 V)**						
A	7888	1100	4136	1615	6.25	58.1
B	11115	856	4136	1572	6.28	63.8
C	13949	620	4136	1600	6.25	58.0
D	15167	455	3887	1619	5.88	49.3
□ **Performance at 1300 rpm**						
A	6331	706	2169	1300	3.43	57.1
B	9133	589	2428	1300	3.82	61.3
C	11187	404	2288	1300	3.61	54.7
D	12114	291	2104	1300	3.35	46.4
△ **Performance at 1000 rpm**						
A	4856	416	1024	1000	1.83	54.6
B	7005	346	1141	1000	1.99	58.9
C	8582	238	1077	1000	1.91	52.5
D	9280	171	997	1000	1.80	44.0
◇ **Performance at 700 rpm**						
A	3398	203	391	700	0.97	48.8
B	4900	169	430	700	1.02	53.5
C	6008	116	409	700	0.99	47.4
D	6510	84	382	700	0.95	39.6
▽ **Performance at 400 rpm**						
A	1925	65	107	400	0.47	32.5
B	2797	55	115	400	0.47	37.1
C	3435	38	111	400	0.47	32.7
D	3704	27	106	400	0.47	26.4

ErP Data acc. to Reg. 327/11/CE

Performance referred to the best efficiency duty point

Compl. with Reg. 327/11/EC:	Tier II (2015)
Overall Efficiency (η x Cc) [%]:	66.6
Measurement category:	A
Efficiency category:	Static
Efficiency grade N [%]:	70.6

A variable speed drive is integrated with this fan

Manufactured since: 2019
By:
Regal Beloit Italy S.p.A.
Via Modena 18
24040 Ciserano - Italy

Power input [kW]:	4.136
Volume flow rate qv [m³/s]:	3.087
Static Pressure [Pa]:	856
Speed [rpm]:	1572
Specific ratio:	1.008

Information on:
- Disassembly, recycling and disposal at end of life
- Optimal installation, use and maintenance of fans

are freely downloadable from
www.nicotra-gebhardt.com

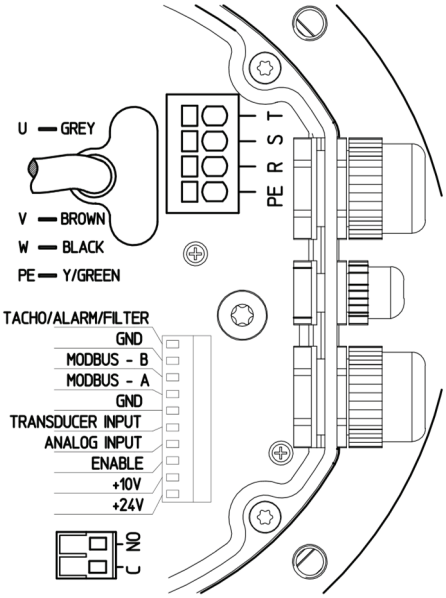
Testing is carried out with the optional components of the test airway required, according to ISO 5801:2007, for the installation type detailed here above.

Test nr.: S5718.003-W18172-3-4-5 Date: 31/07/2019
Laboratory: Nicotra Gebhardt S.p.A. - Zingonia
Test chamber: 50000 m3/h

This test data obtained in a laboratory registered by AMCA for AMCA 210/07 air performance testing. Data is not certified by AMCA.

NICOTRA Gebhardt

WIRING DIAGRAM
SCHEMA DI COLLEGAMENTO

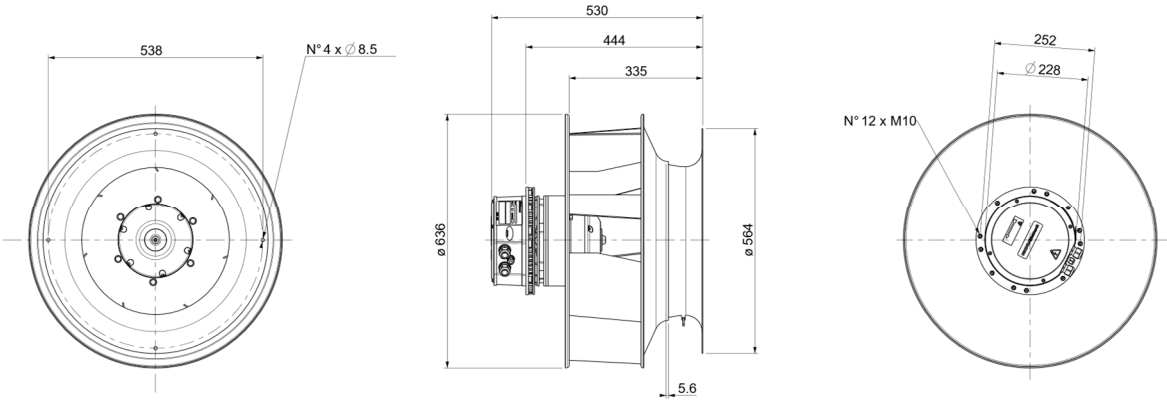


NOISE DATA
DATI DI RUMORE

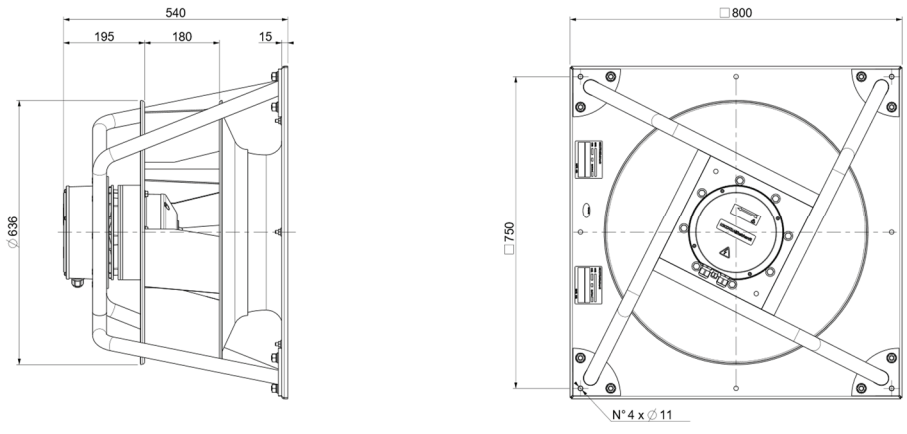
Working point			Sound power level for inlet side (Lw) in dB									
		m^3/h	63	125	250	500	1k	2k	4k	8kHz		LwA
400 V / 50-60 Hz	A	7888	84	92	86	80	76	71	66	65		**84**
Fan Maximum	B	11115	76	79	84	77	75	73	70	68		**81**
Working	C	13949	80	83	88	81	79	77	74	72		**85**
Limit	D	15167	81	84	90	83	81	79	75	72		**87**
400 V / 50-60 Hz	A	6331	84	86	81	74	72	66	63	57		**79**
1300 rpm	B	9133	75	80	77	72	71	67	64	59		**76**
	C	11187	78	83	80	75	74	70	67	62		**79**
	D	12114	80	87	82	78	77	72	69	63		**82**
400 V / 50-60 Hz	A	4856	78	80	75	68	66	60	57	51		**73**
1000 rpm	B	7005	69	74	71	66	65	61	58	53		**70**
	C	8582	72	77	74	69	68	64	61	56		**73**
	D	9280	73	80	75	71	70	65	62	56		**75**
400 V / 50-60 Hz	A	3398	69	71	66	59	57	51	48	42		**64**
700 rpm	B	4900	61	66	63	58	57	53	50	45		**62**
	C	6008	63	68	65	60	59	55	52	47		**64**
	D	6510	65	72	67	63	62	57	54	48		**67**
400 V / 50-60 Hz	A	1925	56	58	53	46	44	38	35	29		**51**
400 rpm	B	2797	47	52	49	44	43	39	36	31		**48**
	C	3435	50	55	52	47	46	42	39	34		**51**
	D	3704	52	59	54	50	49	44	41	35		**54**

DIMENSIONAL DRAWINGS
DISEGNI DIMENSIONALI

6PC001BZZ0000000 – PFP A1-0560 4.1kW 400V-3F M6H6



6PC003BZZ0000000 – PFP A3-0560 4.1kW 400V-3F M6H6



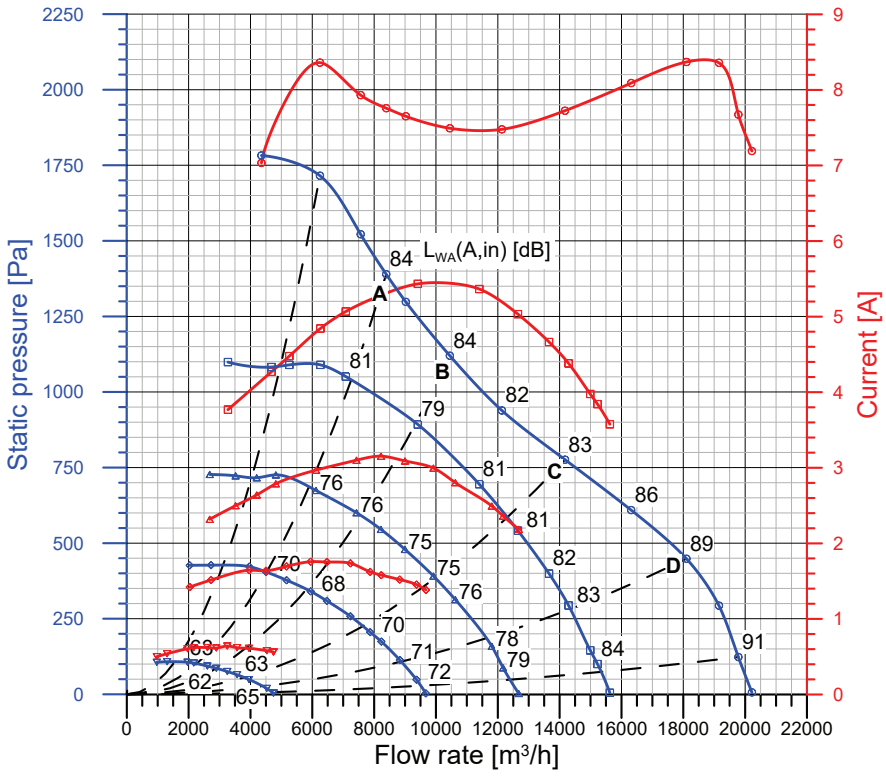
NICOTRA Gebhardt

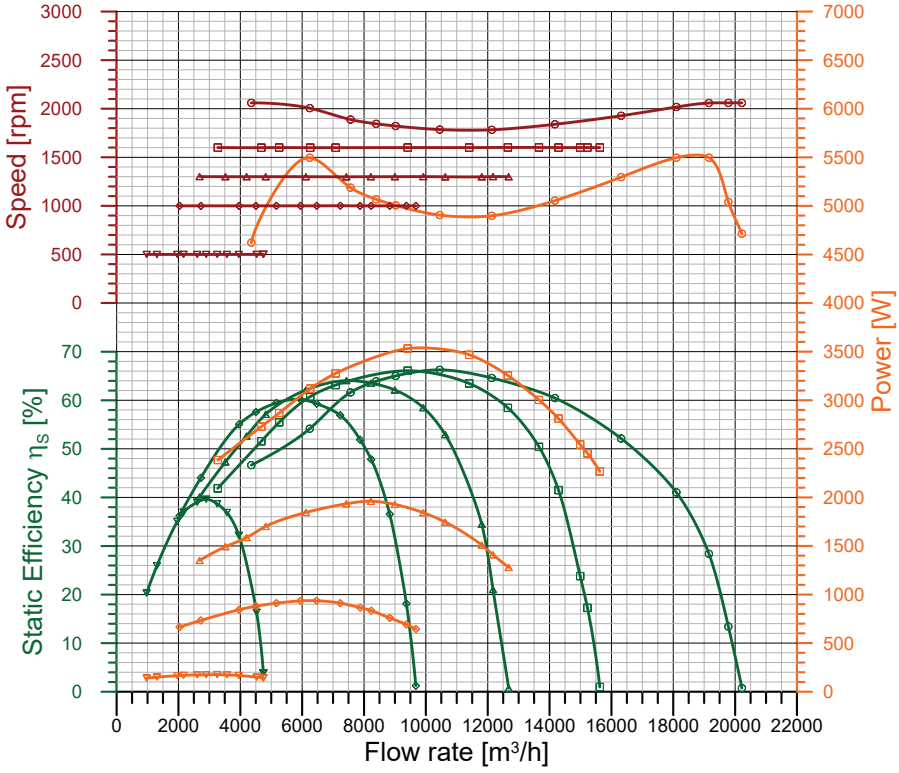
Type: PFP B3-0560 5.5kW 3Ph
Motor: 1416K7

Power:	5495 W (input, max)	Protection Cl.:	IP 55
Poles:	10	Insulation Cl.:	F
Voltage:	400 V	Thermal prot.:	YES-Integral
Supply:	3~	Temp. Min:	-20 °C
Frequency:	50-60 Hz	Temp. Max:	+40(+50) °C
Capacitor:	n.a.	Current Max:	8.4 A

Performance data referring to:
Standard air density ρ= 1.20 kg / m³
Installation type "A": free inlet, free outlet

Sound Power Levels shown are
Inlet-side L_{WA}(A,in), A-weighted, in dBA





Integral speed-control by Integral On-board Driver

	qv m3/h	pfs Pa	Pe W	n rpm	I A	ηs %
○ **Maximum performance curve (10 V)**						
A	8392	1390	5069	1845	7.76	63.9
B	10448	1120	4905	1785	7.49	66.3
C	14173	776	5054	1839	7.72	60.5
D	18102	448	5496	2018	8.37	41.0
□ **Performance at 1600 rpm**						
A	7083	1051	3276	1599	5.07	63.1
B	9413	893	3532	1600	5.43	66.1
C	12652	541	3254	1601	5.03	58.4
D	14289	294	2811	1600	4.38	41.5
△ **Performance at 1300 rpm**						
A	6120	674	1845	1300	2.97	62.1
B	7429	601	1935	1299	3.10	64.1
C	9918	391	1843	1301	3.00	58.5
D	11806	159	1509	1299	2.49	34.5
◇ **Performance at 1000 rpm**						
A	4503	405	880	1000	1.64	57.6
B	5947	341	935	1000	1.76	60.2
C	7872	206	866	1000	1.62	51.9
D	8830	113	760	1000	1.52	36.6
▽ **Performance at 500 rpm**						
A	2165	103	168	500	0.62	37.0
B	2895	86	175	500	0.61	39.6
C	3565	65	174	500	0.62	36.9
D	4527	19	150	500	0.58	16.3

ErP Data acc. to Reg. 327/11/CE

Performance referred to the best efficiency duty point

Compl. with Reg. 327/11/EC:	Tier II (2015)
Overall Efficiency (η x Cc) [%]:	68.9
Measurement category:	A
Efficiency category:	Static
Efficiency grade N [%]:	72.1

A variable speed drive is integrated with this fan

Manufactured since: 2021
By:
Regal Beloit Italy S.p.A.
Via Modena 18
24040 Ciserano - Italy

Power input [kW]:	4.905
Volume flow rate qv [m³/s]:	2.902
Static Pressure [Pa]:	1120
Speed [rpm]:	1785
Specific ratio:	1.011

Information on:
- Disassembly, recycling and disposal at end of life
- Optimal installation, use and maintenance of fans

are freely downloadable from
www.nicotra-gebhardt.com

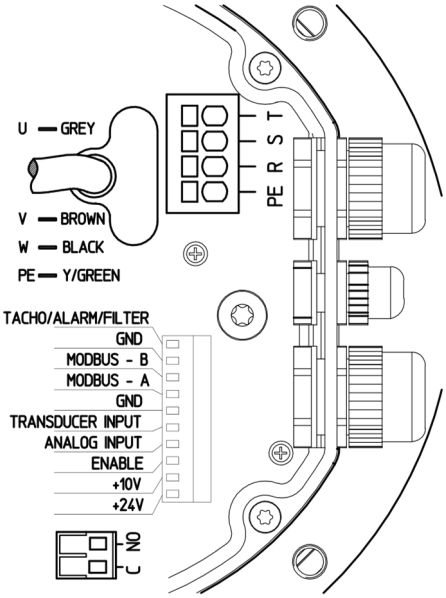
Testing is carried out with the optional components of the test airway required, according to ISO 5801:2007, for the installation type detailed here above.

Test nr.: 132-131-130-129-128
Laboratory: Regal Beloit Italy SpA
Test chamber: AMCA-50000
Date: 11/2020

This test data obtained in a laboratory registered by AMCA for AMCA 210/07 air performance testing. Data is not certified by AMCA.

NICOTRA Gebhardt

WIRING DIAGRAM
SCHEMA DI COLLEGAMENTO

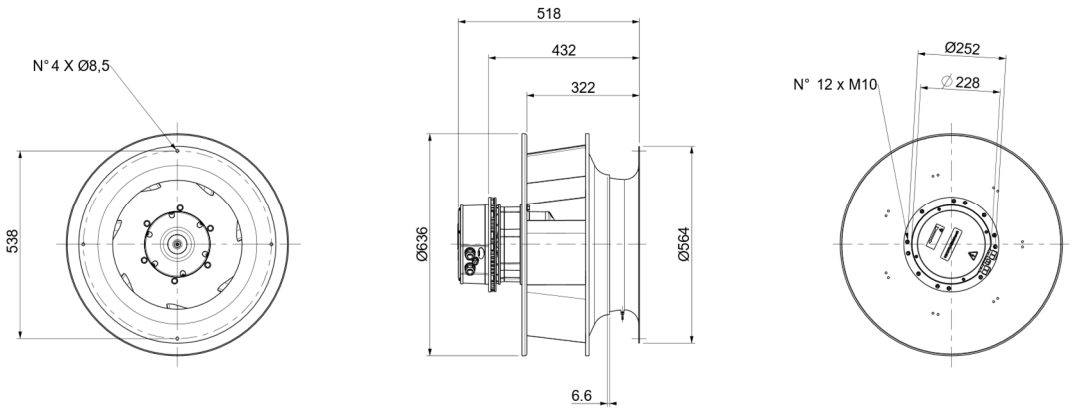


NOISE DATA
DATI DI RUMORE

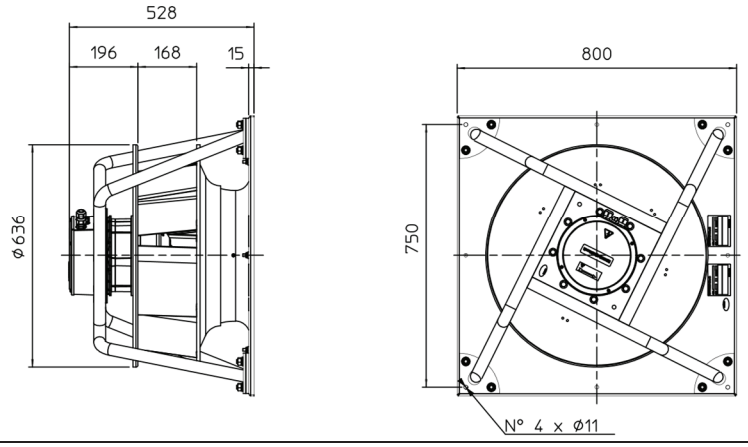
Working point			Sound power level for inlet side (Lw) in dB								
		m^3/h	63	125	250	500	1k	2k	4k	8kHz	LwA
400 V / 50-60 Hz	A	8392	86	88	87	79	74	72	74	75	**84**
Fan Maximum	B	10448	82	82	89	79	73	72	72	74	**84**
Working	C	14173	81	85	86	80	75	72	72	75	**83**
Limit	D	18102	87	89	93	85	79	78	76	78	**89**
400 V / 50-60 Hz	A	7083	80	89	81	77	73	70	72	72	**81**
1600 rpm	B	9413	79	80	79	76	72	69	69	72	**79**
	C	12652	81	82	83	78	72	69	69	73	**81**
	D	14289	83	87	85	82	74	71	70	74	**83**
400 V / 50-60 Hz	A	6120	76	85	76	71	67	69	67	64	**76**
1300 rpm	B	7429	74	86	77	70	66	68	65	62	**76**
	C	9918	75	80	77	71	65	68	65	64	**75**
	D	11806	80	86	81	74	67	70	67	67	**78**
400 V / 50-60 Hz	A	4503	74	74	70	66	64	61	63	57	**70**
1000 rpm	B	5947	71	71	69	64	61	59	59	55	**68**
	C	7872	73	73	71	67	62	59	59	58	**70**
	D	8830	76	79	73	68	62	61	61	60	**71**
400 V / 50-60 Hz	A	2165	74	67	63	62	57	52	45	33	**63**
500 rpm	B	2895	71	64	63	62	56	51	44	33	**62**
	C	3565	73	66	62	62	57	51	45	41	**63**
	D	4527	73	68	62	63	60	53	46	41	**64**

DIMENSIONAL DRAWINGS
DISEGNI DIMENSIONALI

6PD011BZZ0000000 – PFP B1-0560 5.5kW 400V-3F M6K7



6PD013BZZ0000000 – PFP B3-0560 5.5kW 400V-3F M6K7



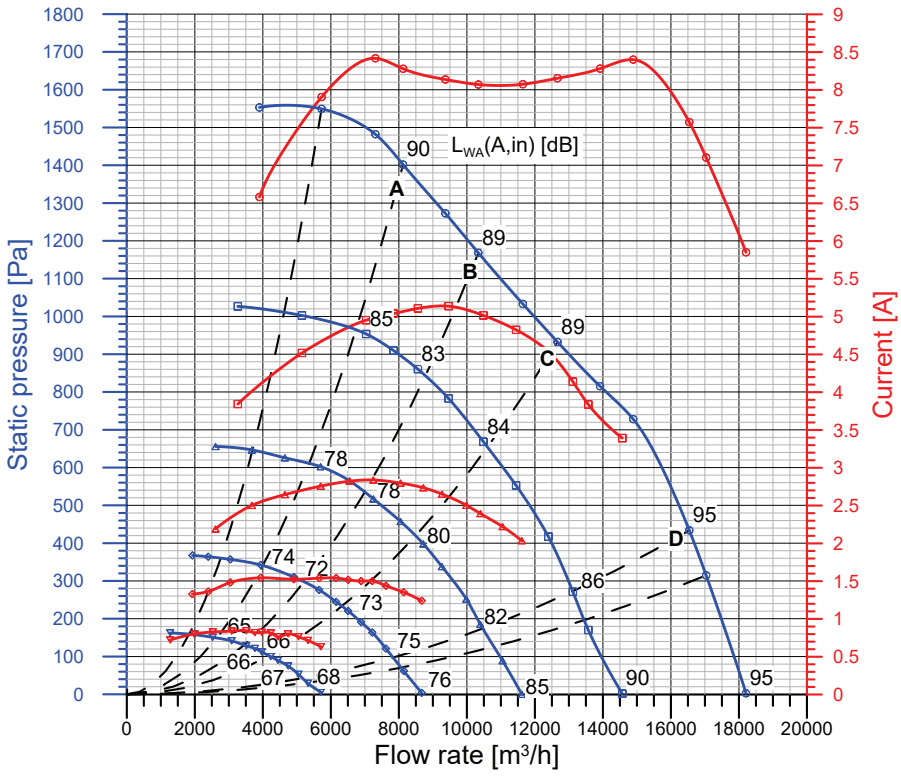
NICOTRA Gebhardt

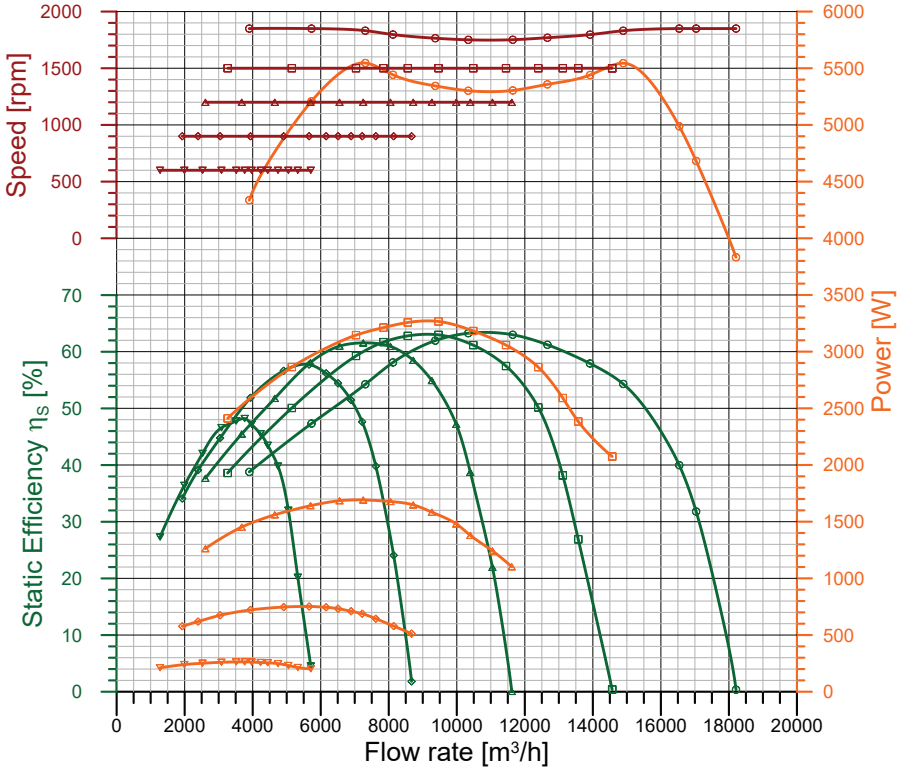
Type: PFP C3-0560 5.5kW 3Ph
Motor: 1416L0

Power:	5550 W (input, max)	Protection Cl.:	IP 55
Poles:	10	Insulation Cl.:	F
Voltage:	400 V	Thermal prot.:	YES-Integral
Supply:	3~	Temp. Min:	-20 °C
Frequency:	50-60 Hz	Temp. Max:	+40(+50) °C
Capacitor:	n.a.	Current Max:	8.4 A

Performance data referring to:
Standard air density ρ= 1.20 kg / m³
Installation type "A": free inlet, free outlet

Sound Power Levels shown are
Inlet-side L_{WA}(A,in), A-weighted, in dBA





Integral speed-control by Integral On-board Driver

	qv m3/h	pfs Pa	Pe W	n rpm	I A	η_s %
○ **Maximum performance curve (10 V)**						
A	8123	1402	5443	1797	8.28	58.1
B	10338	1168	5302	1751	8.07	63.3
C	12665	933	5358	1769	8.15	61.2
D	16541	434	4988	1850	7.57	40.0
□ **Performance at 1500 rpm**						
A	7037	954	3146	1500	4.95	59.3
B	8559	860	3257	1500	5.11	62.8
C	10485	668	3182	1500	5.02	61.2
D	13116	272	2591	1500	4.14	38.2
△ **Performance at 1200 rpm**						
A	5699	602	1641	1200	2.76	58.1
B	7250	517	1692	1200	2.84	61.6
C	8720	398	1648	1200	2.74	58.5
D	10398	185	1380	1200	2.39	38.7
◇ **Performance at 900 rpm**						
A	3935	342	722	900	1.54	51.9
B	5659	276	752	900	1.54	57.7
C	6509	221	733	900	1.52	54.4
D	7620	121	644	900	1.44	39.8
▽ **Performance at 600 rpm**						
A	2525	151	252	600	0.83	42.1
B	3515	129	263	600	0.84	47.8
C	4233	100	258	600	0.81	45.5
D	5049	53	231	600	0.76	32.0

ErP Data acc. to Reg. 327/11/CE

Performance referred to the best efficiency duty point

Compl. with Reg. 327/11/EC:	Tier II (2015)
Overall Efficiency (η x Cc) [%]:	65.7
Measurement category:	A
Efficiency category:	Static
Efficiency grade N [%]:	68.6

A variable speed drive is integrated with this fan

Manufactured since: 2021
By:
Regal Beloit Italy S.p.A.
Via Modena 18
24040 Ciserano - Italy

Power input [kW]:	5.302
Volume flow rate qv [m³/s]:	2.872
Static Pressure [Pa]:	1168
Speed [rpm]:	1751
Specific ratio:	1.012

Information on:
- Disassembly, recycling and disposal at end of life
- Optimal installation, use and maintenance of fans

are freely downloadable from
www.nicotra-gebhardt.com

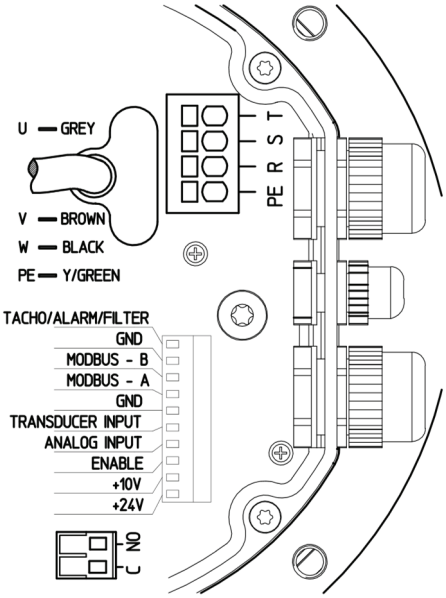
Testing is carried out with the optional components of the test airway required, according to ISO 5801:2007, for the installation type detailed here above.

Test nr.: 201-200-199-198-197
Laboratory: Regal Beloit Italy SpA
Test chamber: AMCA-50000
Date: 12/2020

This test data obtained in a laboratory registered by AMCA for AMCA 210/07 air performance testing. Data is not certified by AMCA.

NICOTRA Gebhardt

WIRING DIAGRAM
SCHEMA DI COLLEGAMENTO

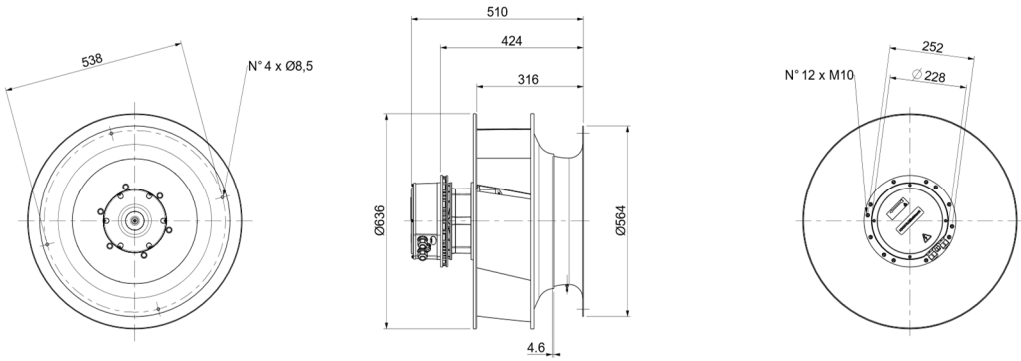


NOISE DATA
DATI DI RUMORE

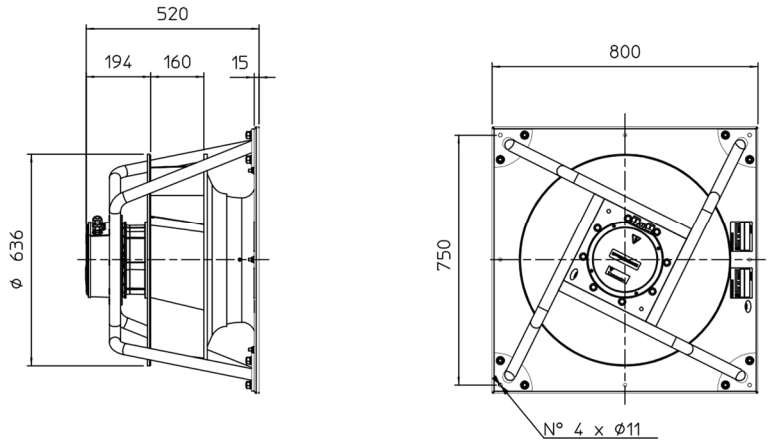
Working point			Sound power level for inlet side (Lw) in dB								
		m^3/h	63	125	250	500	1k	2k	4k	8kHz	LwA
400 V / 50-60 Hz	A	8123	90	100	95	79	78	78	81	77	**90**
Fan Maximum	B	10338	84	84	96	79	78	77	79	75	**89**
Working	C	12665	81	82	95	83	79	78	79	76	**89**
Limit	D	16541	86	91	101	89	84	82	82	81	**95**
400 V / 50-60 Hz	A	7037	83	96	84	76	74	77	77	72	**85**
1500 rpm	B	8559	82	86	84	77	74	76	75	71	**83**
	C	10485	81	88	85	79	75	77	76	71	**84**
	D	13116	83	87	87	82	78	78	77	73	**86**
400 V / 50-60 Hz	A	5699	78	84	81	72	69	69	71	66	**78**
1200 rpm	B	7250	75	83	81	72	69	69	70	64	**78**
	C	8720	76	81	86	73	70	69	71	64	**80**
	D	10398	78	82	88	76	72	70	71	65	**82**
400 V / 50-60 Hz	A	3935	89	81	74	65	68	64	64	58	**74**
900 rpm	B	5659	73	83	78	66	66	63	63	55	**74**
	C	6509	74	80	76	66	67	64	63	55	**73**
	D	7620	77	85	76	70	67	64	63	56	**75**
400 V / 50-60 Hz	A	2525	84	70	67	63	60	57	54	44	**67**
600 rpm	B	3515	75	70	67	62	60	55	50	43	**65**
	C	4233	75	70	68	62	60	56	52	49	**66**
	D	5049	75	71	69	64	61	57	51	47	**67**

DIMENSIONAL DRAWINGS
DISEGNI DIMENSIONALI

6PD021BZZ0000000 – PFP C1-0560 5.5kW 400V-3F M6L0



6PD023BZZ0000000 – PFP C3-0560 5.5kW 400V-3F M6L0



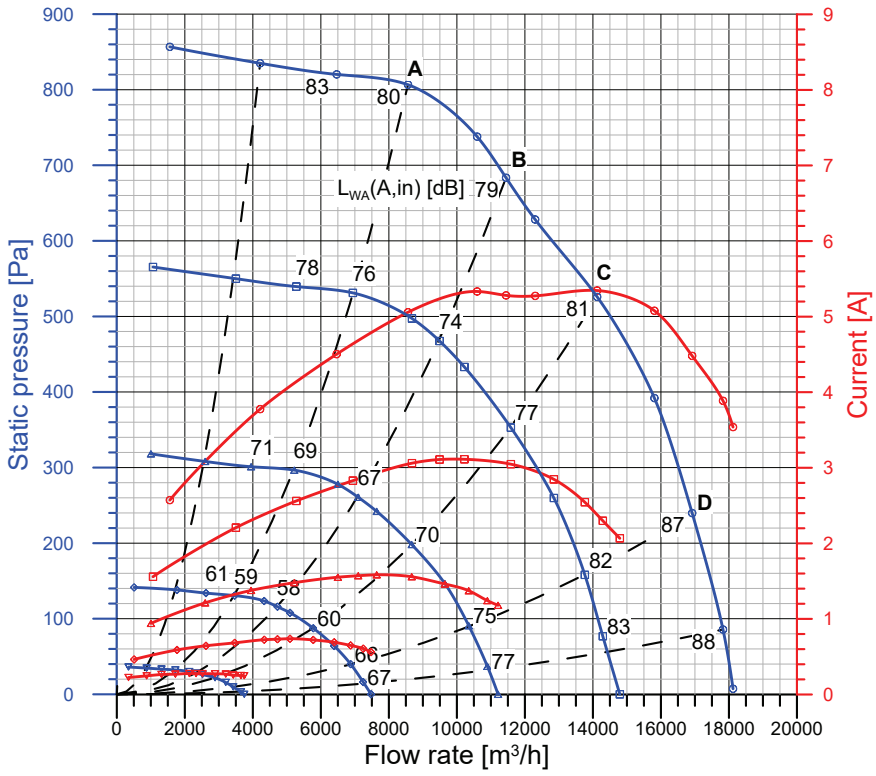
NICOTRA Gebhardt

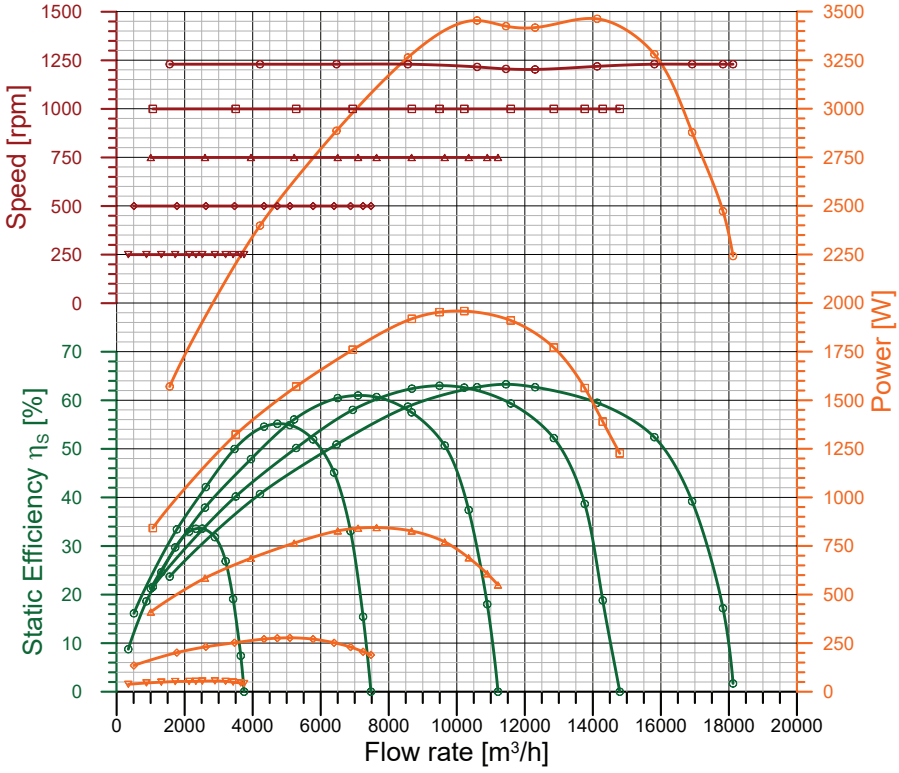
Type: PFP A3-0630 3.5kW 3Ph
Motor: 1416H8

Power:	3460 W (input, max)	Protection Cl.:	IP 54
Poles:	8	Insulation Cl.:	F
Voltage:	400 V	Thermal prot.:	YES-Integral
Supply:	3~	Temp. Min:	-20 °C
Frequency:	50-60 Hz	Temp. Max:	+40(+50) °C
Capacitor:	n.a.	Current Max:	5.3 A

Performance data referring to:
Standard air density ρ= 1.20 kg / m³
Installation type "A": free inlet, free outlet

Sound Power Levels shown are
Inlet-side L_{WA}(A,in), A-weighted, in dBA





Integral speed-control by Integral On-board Driver

	qv m3/h	pfs Pa	Pe W	n rpm	I A	η_s %
○	**Maximum performance curve (10 V)**					
A	8563	807	3264	1230	5.06	58.7
B	11446	683	3425	1206	5.28	63.3
C	14126	526	3463	1219	5.35	59.5
D	16919	240	2878	1230	4.48	39.2
□	**Performance at 1000 rpm**					
A	6942	531	1760	1000	2.83	58.0
B	9491	467	1953	1000	3.11	63.0
C	11587	353	1910	1000	3.05	59.3
D	13762	158	1563	1000	2.54	38.7
△	**Performance at 750 rpm**					
A	5219	297	765	750	1.48	56.1
B	7098	261	842	750	1.57	61.0
C	8672	198	827	750	1.56	57.5
D	10350	91	689	750	1.37	37.4
◇	**Performance at 500 rpm**					
A	3466	131	252	500	0.68	50.0
B	4724	116	276	500	0.73	55.2
C	5778	87	271	500	0.72	51.9
D	6877	40	230	500	0.65	33.0
▽	**Performance at 250 rpm**					
A	1723	32	52	250	0.27	29.7
B	2330	28	54	250	0.28	33.6
C	2890	22	55	250	0.27	31.8
D	3425	10	49	250	0.26	19.1

ErP Data acc. to Reg. 327/11/CE

Performance referred to the best efficiency duty point

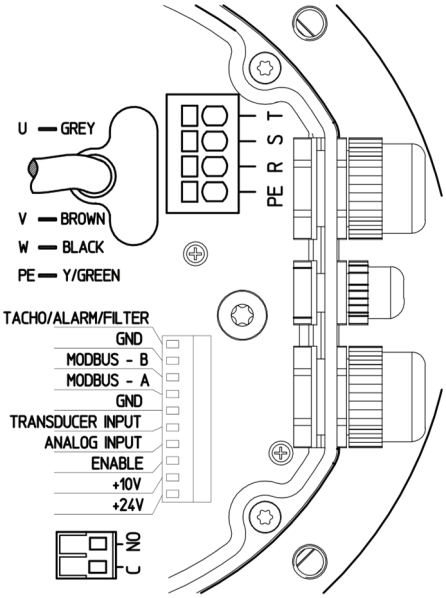
Compl. with Reg. 327/11/EC:	Tier II (2015)
Overall Efficiency (η x Cc) [%]:	66.5
Measurement category:	A
Efficiency category:	Static
Efficiency grade N [%]:	71.4
A variable speed drive is integrated with this fan	
Manufactured since:	2019
By:	
Regal Beloit Italy S.p.A.	
Via Modena 18	
24040 Ciserano - Italy	
Power input [kW]:	3.425
Volume flow rate qv [m³/s]:	3.179
Static Pressure [Pa]:	683
Speed [rpm]:	1206
Specific ratio:	1.007
Information on:	
- Disassembly, recycling and disposal at end of life	
- Optimal installation, use and maintenance of fans	
are freely downloadable from	
www.nicotra-gebhardt.com	
Testing is carried out with the optional components of the test airway required, according to ISO 5801:2007, for the installation type detailed here above.	

Test nr.: W18233-34-35-36-37 Date: 23/09/2019
Laboratory: Nicotra Gebhardt GmbH - Waldenburg
Test chamber: DIN

This test data obtained in a laboratory registered by AMCA for AMCA 210/07 air performance testing. Data is not certified by AMCA.

NICOTRA Gebhardt

WIRING DIAGRAM
SCHEMA DI COLLEGAMENTO

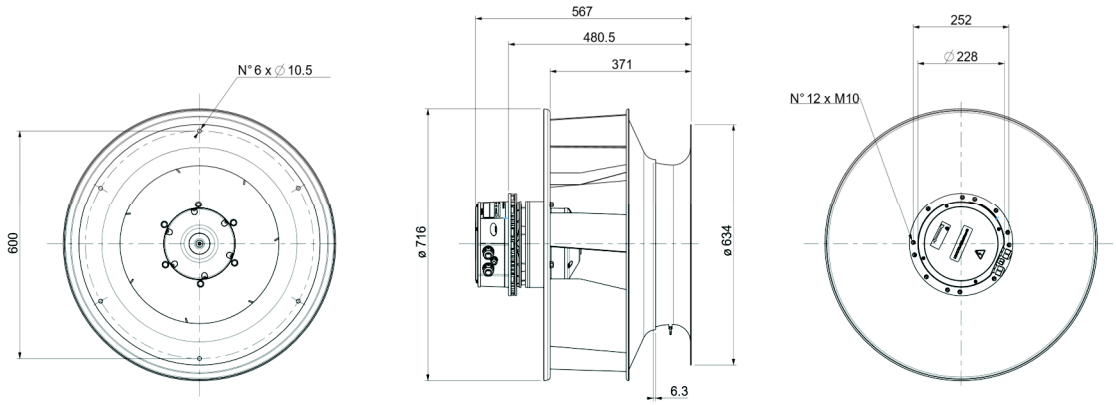


NOISE DATA
DATI DI RUMORE

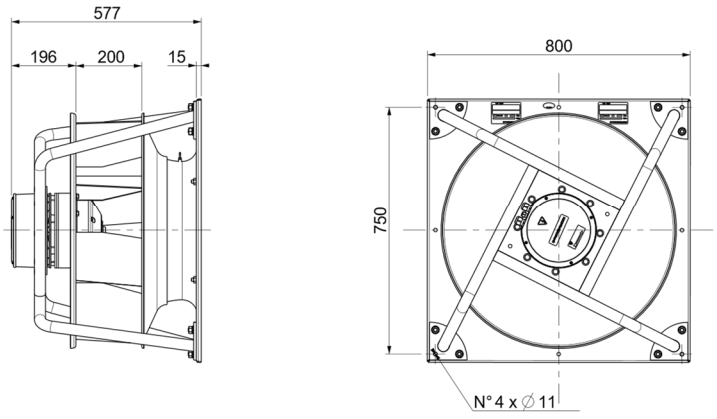
Working point			Sound power level for inlet side (Lw) in dB									
		m^3/h	63	125	250	500	1k	2k	4k	8kHz		LwA
400 V / 50-60 Hz	A	8563	86	90	82	76	72	66	63	61		**80**
Fan Maximum	B	11446	75	82	78	74	75	70	68	64		**79**
Working	C	14126	77	84	80	76	77	72	70	66		**81**
Limit	D	16919	83	90	86	83	83	79	74	71		**87**
400 V / 50-60 Hz	A	6942	82	86	78	72	68	62	59	57		**76**
1000 rpm	B	9491	70	77	73	69	70	65	63	59		**74**
	C	11587	73	80	76	72	73	68	66	62		**77**
	D	13762	78	85	81	78	78	74	69	66		**82**
400 V / 50-60 Hz	A	5219	87	77	70	65	61	54	52	48		**69**
750 rpm	B	7098	72	69	66	65	63	56	54	50		**67**
	C	8672	75	72	69	68	66	59	57	53		**70**
	D	10350	78	77	73	73	72	64	59	57		**75**
400 V / 50-60 Hz	A	3466	77	67	60	55	51	44	42	38		**59**
500 rpm	B	4724	63	60	57	56	54	47	45	41		**58**
	C	5778	65	62	59	58	56	49	47	43		**60**
	D	6877	69	68	64	64	63	55	50	48		**66**
400 V / 50-60 Hz	A	1723	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.		**n.a.**
250 rpm	B	2330	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.		**n.a.**
	C	2890	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.		**n.a.**
	D	3425	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.		**n.a.**

DIMENSIONAL DRAWINGS
DISEGNI DIMENSIONALI

6PC001CZZ0000000 – PFP A1-0630 3.5kW 400V-3F M6H8



6PC003CZZ0000000 – PFP A3-0630 3.5kW 400V-3F M6H8



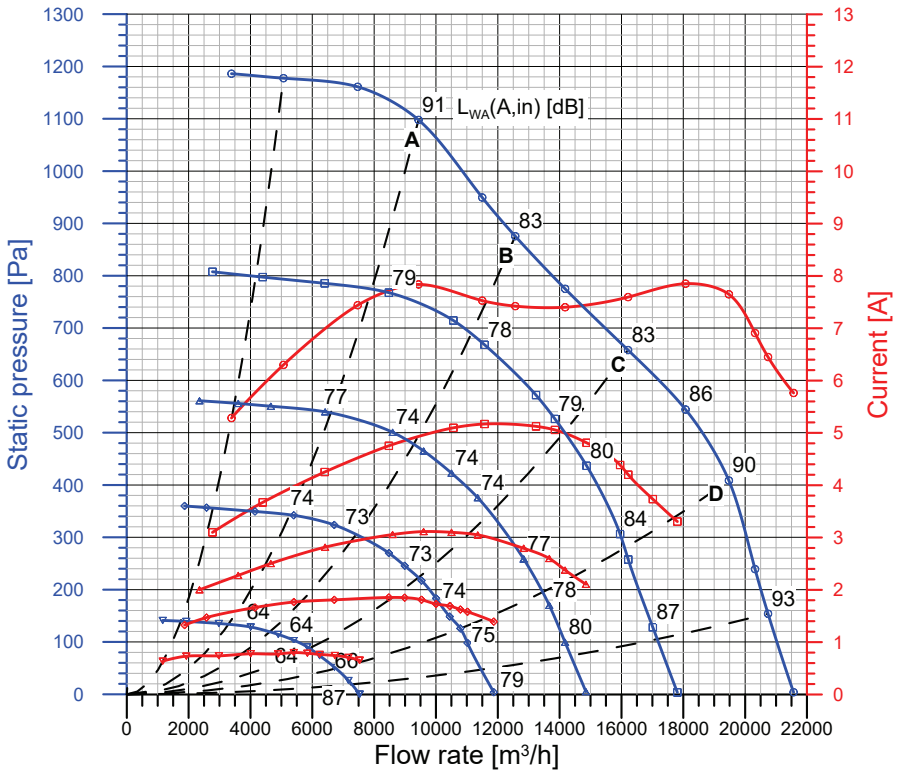
NICOTRA | Gebhardt

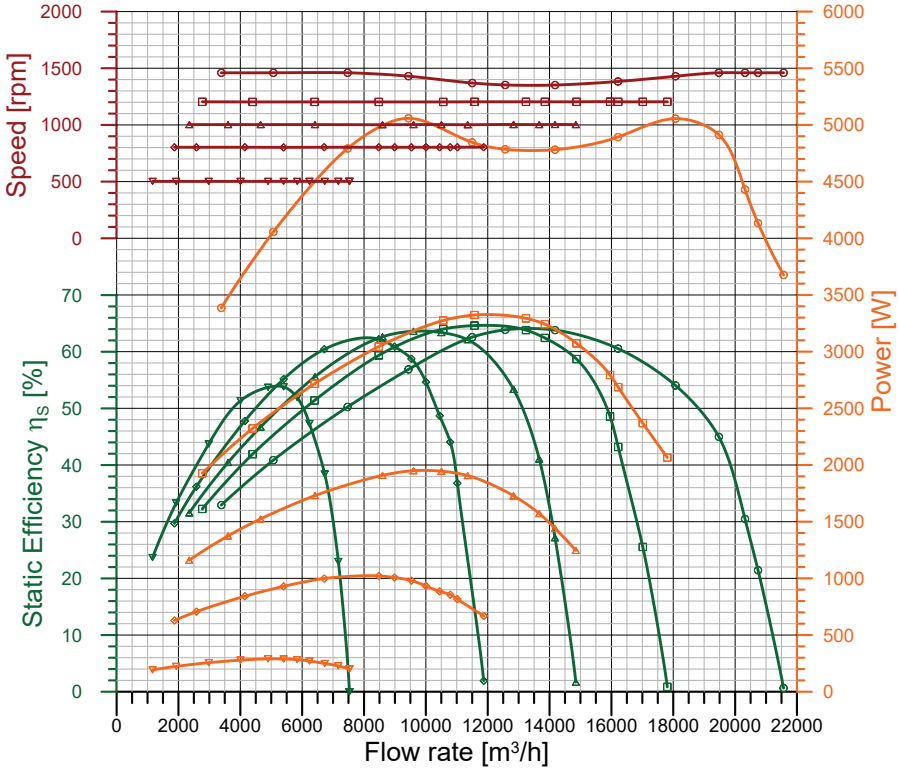
Type: PFP A3-0630 5.1kW 3Ph
Motor: 1416K8

Power:	5060 W (input, max)	Protection Cl.:	IP 55
Poles:	10	Insulation Cl.:	F
Voltage:	400 V	Thermal prot.:	YES-Integral
Supply:	3~	Temp. Min:	-20 °C
Frequency:	50-60 Hz	Temp. Max:	+40(+50) °C
Capacitor:	n.a.	Current Max:	7.9 A

Performance data referring to:
Standard air density ρ= 1.20 kg / m³
Installation type "A": free inlet, free outlet

Sound Power Levels shown are
Inlet-side L_{WA}(A,in), A-weighted, in dBA





Integral speed-control by Integral On-board Driver

	qv m3/h	pfs Pa	Pe W	n rpm	I A	η_s %
○ **Maximum performance curve (10 V)**						
A	9436	1098	5059	1430	7.84	56.9
B	12565	876	4785	1353	7.42	63.9
C	16214	658	4893	1383	7.60	60.6
D	19475	409	4913	1460	7.65	45.0
□ **Performance at 1200 rpm**						
A	8476	768	3044	1203	4.75	59.4
B	11572	668	3323	1204	5.17	64.6
C	13848	526	3242	1204	5.06	62.4
D	16220	258	2687	1204	4.20	43.2
△ **Performance at 1000 rpm**						
A	6414	540	1730	1003	2.82	55.6
B	9600	465	1950	1003	3.11	63.6
C	11352	376	1907	1002	3.05	62.1
D	12837	259	1728	1004	2.79	53.4
◇ **Performance at 800 rpm**						
A	5400	342	930	802	1.77	55.2
B	6711	324	999	803	1.81	60.4
C	10004	183	932	803	1.73	54.6
D	10788	126	856	803	1.62	44.1
▽ **Performance at 500 rpm**						
A	2978	135	256	502	0.74	43.7
B	4898	114	290	502	0.78	53.7
C	6236	74	271	502	0.77	47.3
D	7170	26	228	502	0.71	23.0

ErP Data acc. to Reg. 327/11/CE

Performance referred to the best efficiency duty point

Compl. with Reg. 327/11/EC:	Tier II (2015)
Overall Efficiency (η x Cc) [%]:	66.5
Measurement category:	A
Efficiency category:	Static
Efficiency grade N [%]:	69.9

A variable speed drive is integrated with this fan

Manufactured since: 2021
By:
Regal Beloit Italy S.p.A.
Via Modena 18
24040 Ciserano - Italy

Power input [kW]:	4.785
Volume flow rate qv [m³/s]:	3.490
Static Pressure [Pa]:	876
Speed [rpm]:	1353
Specific ratio:	1.009

Information on:
- Disassembly, recycling and disposal at end of life
- Optimal installation, use and maintenance of fans

are freely downloadable from
www.nicotra-gebhardt.com

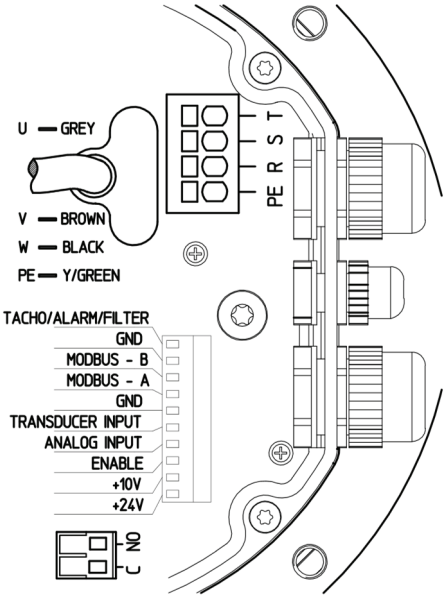
Testing is carried out with the optional components of the test airway required, according to ISO 5801:2007, for the installation type detailed here above.

Test nr.: 141-140-139-138-137 Date: 11/2020
Laboratory: Regal Beloit Italy SpA
Test chamber: AMCA-50000

This test data obtained in a laboratory registered by AMCA for AMCA 210/07 air performance testing. Data is not certified by AMCA.

NICOTRA Gebhardt

WIRING DIAGRAM
SCHEMA DI COLLEGAMENTO

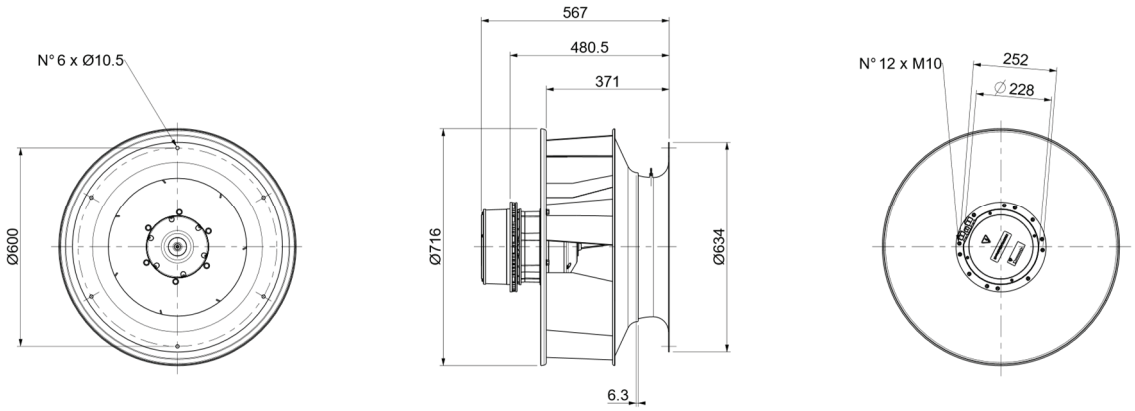


NOISE DATA
DATI DI RUMORE

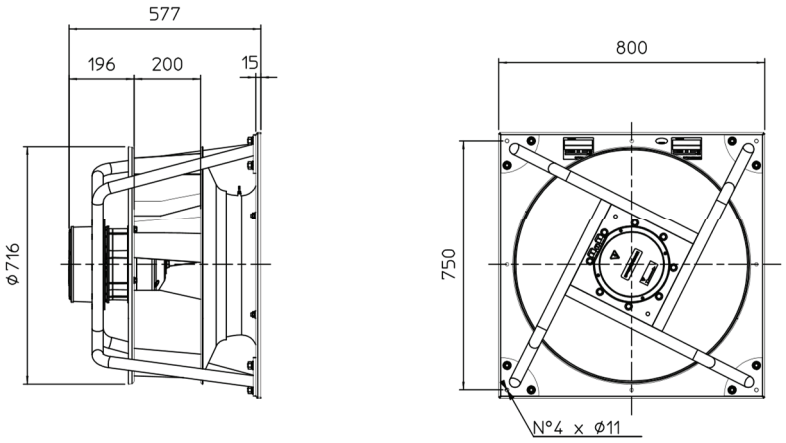
Working point			Sound power level for inlet side (Lw) in dB								
		m^3/h	63	125	250	500	1k	2k	4k	8kHz	LwA
400 V / 50-60 Hz	A	9436	87	105	88	77	77	73	75	73	**91**
Fan Maximum	B	12565	76	94	81	75	74	73	72	72	**83**
Working	C	16214	80	90	84	77	74	78	72	73	**83**
Limit	D	19475	84	98	90	82	80	84	75	74	**90**
400 V / 50-60 Hz	A	8476	82	86	81	73	70	69	69	69	**79**
1200 rpm	B	11572	73	84	79	72	71	70	69	69	**78**
	C	13848	75	85	81	73	71	72	68	69	**79**
	D	16220	81	87	85	76	74	80	69	69	**84**
400 V / 50-60 Hz	A	6414	81	89	79	70	66	65	66	62	**77**
1000 rpm	B	9600	71	78	77	68	67	65	64	61	**74**
	C	11352	71	78	76	68	68	66	64	60	**74**
	D	12837	77	80	80	71	71	68	64	60	**77**
400 V / 50-60 Hz	A	5400	87	73	81	65	62	61	61	56	**74**
800 rpm	B	6711	77	75	80	64	63	60	60	54	**73**
	C	10004	75	78	80	65	66	62	58	53	**74**
	D	10788	77	76	81	66	69	63	59	54	**75**
400 V / 50-60 Hz	A	2978	83	69	64	62	59	56	52	39	**65**
500 rpm	B	4898	70	69	64	61	58	54	48	40	**63**
	C	6236	76	69	65	61	59	54	49	43	**64**
	D	7170	79	72	67	61	61	55	50	43	**66**

DIMENSIONAL DRAWINGS
DISEGNI DIMENSIONALI

6PD001CZZ0000000 – PFP A1-0630 5.1kW 400V-3F M6K8



6PD003CZZ0000000 – PFP A3-0630 5.1kW 400V-3F M6K8



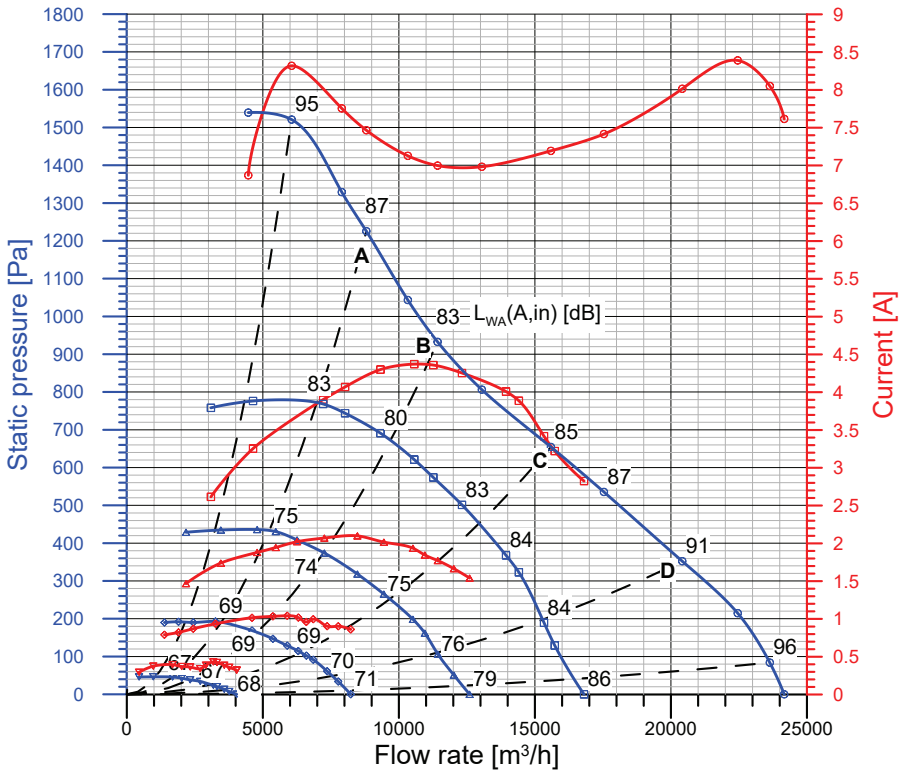
NICOTRA Gebhardt

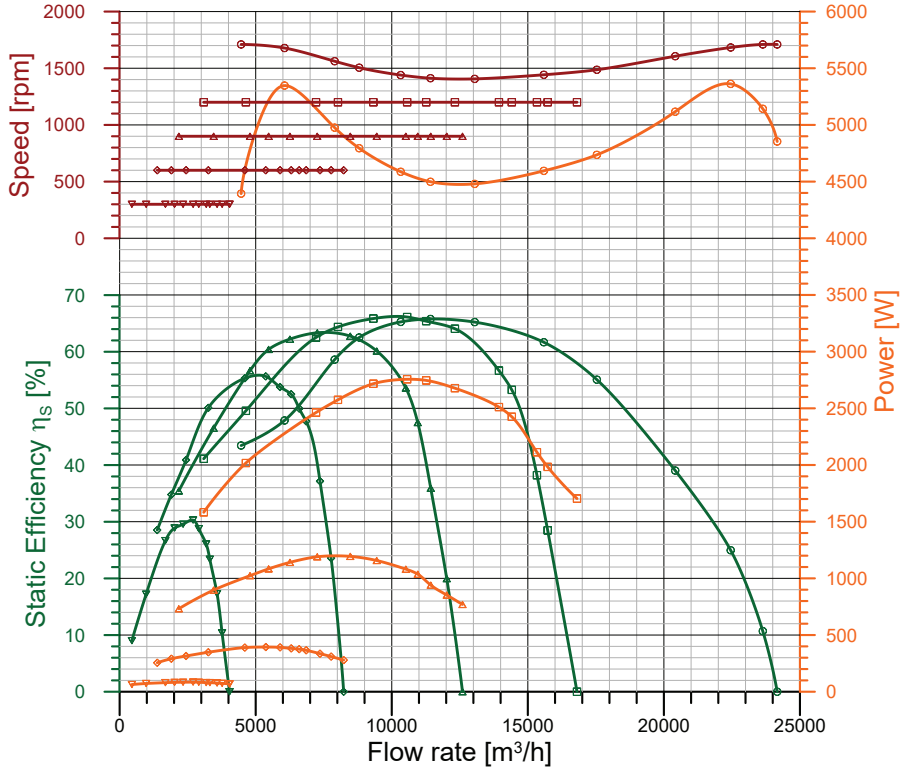
Type: PFP B3-0630 5.4kW 3Ph
Motor: 1416K7

Power:	5360 W (input, max)	Protection Cl.:	IP 55
Poles:	10	Insulation Cl.:	F
Voltage:	400 V	Thermal prot.:	YES-Integral
Supply:	3~	Temp. Min:	-20 °C
Frequency:	50-60 Hz	Temp. Max:	+40(+50) °C
Capacitor:	n.a.	Current Max:	8.4 A

Performance data referring to:
Standard air density ρ= 1.20 kg / m³
Installation type "A": free inlet, free outlet

Sound Power Levels shown are
Inlet-side L_{WA}(A,in), A-weighted, in dBA





Integral speed-control by Integral On-board Driver

	qv m3/h	pfs Pa	Pe W	n rpm	I A	η_s %
○ **Maximum performance curve (10 V)**						
A	8805	1226	4794	1505	7.47	62.5
B	11423	933	4499	1412	7.00	65.8
C	15588	654	4595	1442	7.19	61.7
D	20417	352	5117	1606	8.02	39.0
□ **Performance at 1200 rpm**						
A	7217	768	2463	1200	3.90	62.5
B	9323	691	2717	1200	4.30	65.9
C	12320	501	2678	1200	4.25	64.1
D	15335	189	2112	1200	3.42	38.2
△ **Performance at 900 rpm**						
A	5475	431	1084	900	1.95	60.4
B	7261	374	1190	900	2.07	63.4
C	9448	265	1157	900	2.02	60.1
D	11432	106	941	900	1.77	35.9
◇ **Performance at 600 rpm**						
A	3259	193	348	600	0.94	50.1
B	4602	169	390	600	1.02	55.3
C	6304	115	382	600	1.02	52.5
D	7363	61	336	600	0.90	37.1
▽ **Performance at 300 rpm**						
A	1682	46	80	300	0.39	26.7
B	2331	38	84	300	0.36	29.6
C	3181	24	81	300	0.43	26.1
D	3580	13	76	300	0.39	17.3

ErP Data acc. to Reg. 327/11/CE

Performance referred to the best efficiency duty point

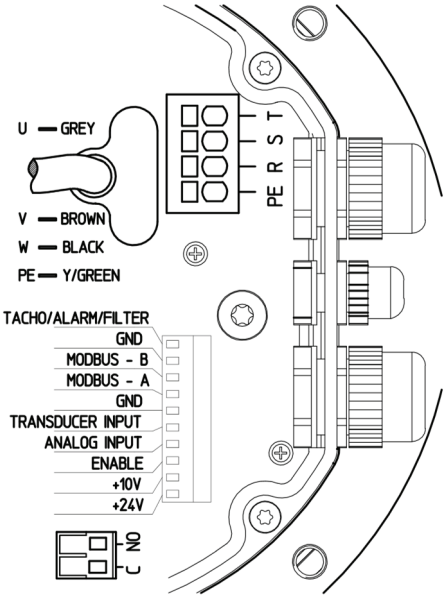
Compl. with Reg. 327/11/EC:	Tier II (2015)
Overall Efficiency (η x Cc) [%]:	68.6
Measurement category:	A
Efficiency category:	Static
Efficiency grade N [%]:	72.2
A variable speed drive is integrated with this fan	
Manufactured since:	2021
By:	
Regal Beloit Italy S.p.A.	
Via Modena 18	
24040 Ciserano - Italy	
Power input [kW]:	4.499
Volume flow rate qv [m³/s]:	3.173
Static Pressure [Pa]:	933
Speed [rpm]:	1412
Specific ratio:	1.009
Information on:	
- Disassembly, recycling and disposal at end of life	
- Optimal installation, use and maintenance of fans	
are freely downloadable from	
www.nicotra-gebhardt.com	
Testing is carried out with the optional components of the test airway required, according to ISO 5801:2007, for the installation type detailed here above.	

Test nr.: 00595-93-92-91-90
Laboratory: Regal Beloit Italy SpA
Test chamber: AMCA-50000
Date: 11/2020

This test data obtained in a laboratory registered by AMCA for AMCA 210/07 air performance testing. Data is not certified by AMCA.

NICOTRA Gebhardt

WIRING DIAGRAM
SCHEMA DI COLLEGAMENTO

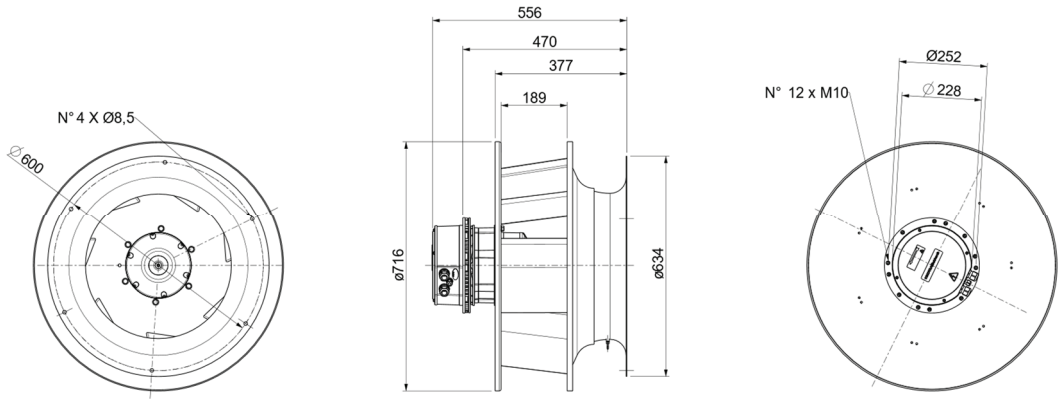


NOISE DATA
DATI DI RUMORE

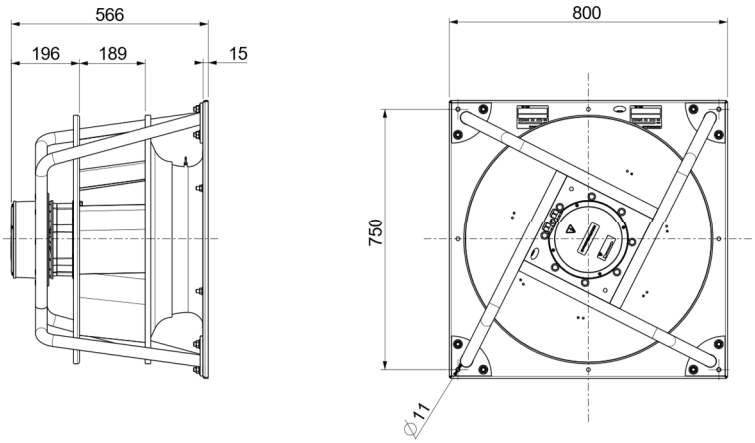
Working point			Sound power level for inlet side (Lw) in dB								
		m^3/h	63	125	250	500	1k	2k	4k	8kHz	LwA
400 V / 50-60 Hz	A	8805	90	98	90	81	78	73	72	73	**87**
Fan Maximum	B	11423	89	93	86	77	76	71	69	71	**83**
Working	C	15588	93	94	88	79	77	74	70	71	**85**
Limit	D	20417	96	100	96	85	82	77	75	74	**91**
400 V / 50-60 Hz	A	7217	87	94	84	75	74	71	67	69	**83**
1200 rpm	B	9323	84	87	82	75	73	71	66	68	**80**
	C	12320	84	96	82	76	73	71	65	67	**83**
	D	15335	88	93	88	77	75	74	67	66	**84**
400 V / 50-60 Hz	A	5475	92	83	78	69	66	62	62	59	**75**
900 rpm	B	7261	82	79	79	68	66	62	59	56	**74**
	C	9448	80	82	80	68	68	63	57	53	**75**
	D	11432	86	82	82	70	69	66	59	54	**76**
400 V / 50-60 Hz	A	3259	82	76	71	64	62	59	57	45	**69**
600 rpm	B	4602	81	77	71	64	62	56	55	44	**69**
	C	6304	80	77	71	65	64	57	47	42	**69**
	D	7363	82	76	72	65	66	57	49	48	**70**
400 V / 50-60 Hz	A	1682	79	76	72	62	59	53	44	38	**68**
300 rpm	B	2331	78	75	72	62	59	53	43	38	**67**
	C	3181	78	75	72	63	59	53	44	38	**67**
	D	3580	77	76	73	63	59	53	45	47	**68**

DIMENSIONAL DRAWINGS
DISEGNI DIMENSIONALI

6PD011CZZ0000000 – PFP B1-0630 5.4kW 400V-3F M6K7



6PD013CZZ0000000 – PFP B3-0630 5.4kW 400V-3F M6K7



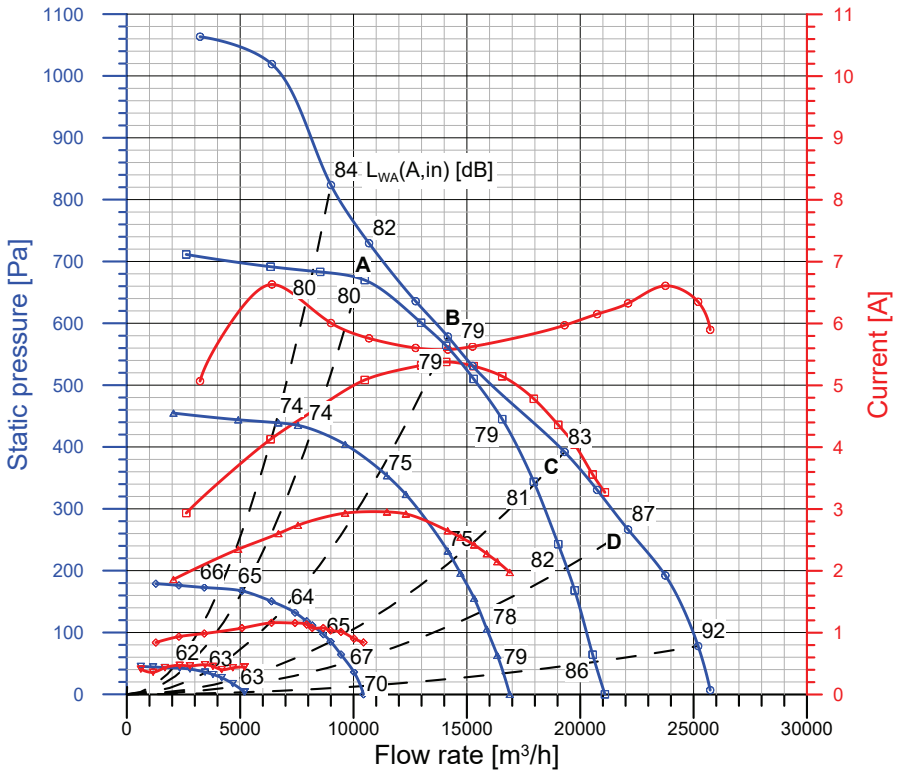
NICOTRA Gebhardt

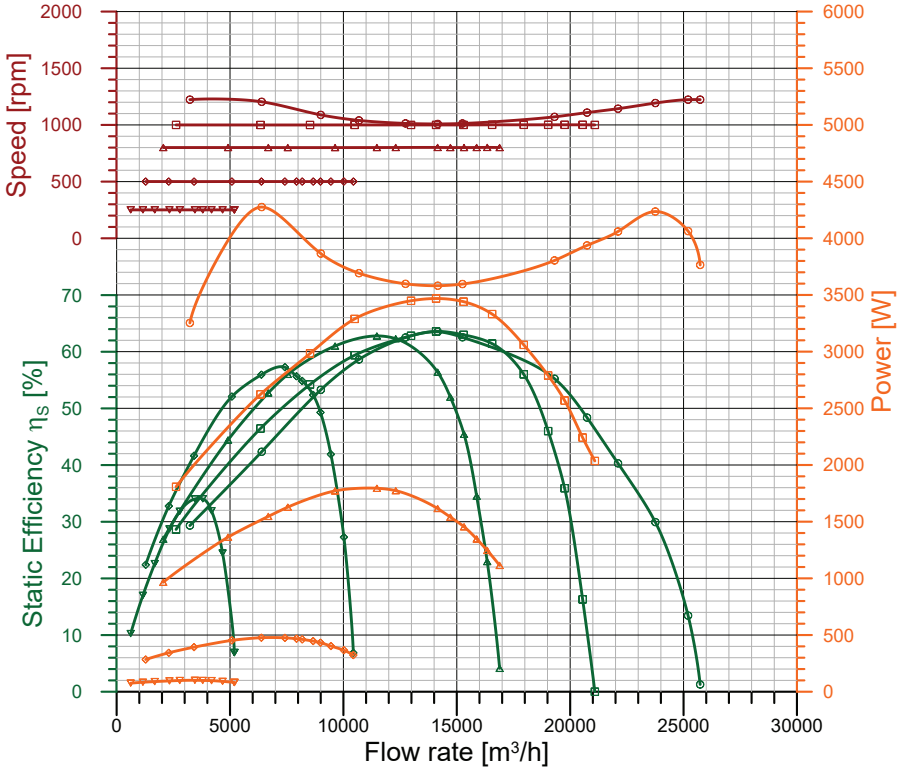
Type: PFP A3-0710 4.3kW 3Ph
Motor: 1416K9

Power:	4280 W (input, max)	Protection Cl.:	IP 55
Poles:	10	Insulation Cl.:	F
Voltage:	400 V	Thermal prot.:	YES-Integral
Supply:	3~	Temp. Min:	-20 °C
Frequency:	50-60 Hz	Temp. Max:	+40(+50) °C
Capacitor:	n.a.	Current Max:	6.6 A

Performance data referring to:
Standard air density ρ= 1.20 kg / m³
Installation type "A": free inlet, free outlet

Sound Power Levels shown are
Inlet-side L_{WA}(A,in), A-weighted, in dBA





Integral speed-control by Integral On-board Driver

	qv m3/h	pfs Pa	Pe W	n rpm	I A	η_s %
○ **Maximum performance curve (10 V)**						
A	10684	729	3692	1040	5.76	58.6
B	14161	578	3582	1009	5.58	63.5
C	19309	392	3805	1071	5.97	55.3
D	22110	266	4060	1143	6.33	40.3
□ **Performance at 1000 rpm**						
A	10496	670	3289	1000	5.09	59.4
B	14086	564	3469	1000	5.38	63.6
C	16558	445	3331	1001	5.15	61.4
D	19029	243	2790	1001	4.36	46.0
△ **Performance at 800 rpm**						
A	7548	435	1628	800	2.74	56.0
B	11476	354	1795	801	2.95	62.8
C	14154	232	1616	801	2.65	56.4
D	15319	155	1455	801	2.42	45.4
◇ **Performance at 500 rpm**						
A	5083	167	453	501	1.07	52.1
B	7420	132	476	501	1.16	57.3
C	8989	85	433	501	1.04	49.3
D	9448	64	403	501	1.01	41.9
▽ **Performance at 250 rpm**						
A	2330	42	95	251	0.47	28.7
B	3451	36	101	251	0.48	34.0
C	4185	27	98	251	0.40	31.9
D	4672	17	91	251	0.43	24.5

ErP Data acc. to Reg. 327/11/CE

Performance referred to the best efficiency duty point

Compl. with Reg. 327/11/EC:	Tier II (2015)
Overall Efficiency (η x Cc) [%]:	66.7
Measurement category:	A
Efficiency category:	Static
Efficiency grade N [%]:	71.4

A variable speed drive is integrated with this fan

Manufactured since: 2021

By:
Regal Beloit Italy S.p.A.
Via Modena 18
24040 Ciserano - Italy

Power input [kW]:	3.582
Volume flow rate qv [m³/s]:	3.934
Static Pressure [Pa]:	578
Speed [rpm]:	1009
Specific ratio:	1.006

Information on:
- Disassembly, recycling and disposal at end of life
- Optimal installation, use and maintenance of fans

are freely downloadable from
www.nicotra-gebhardt.com

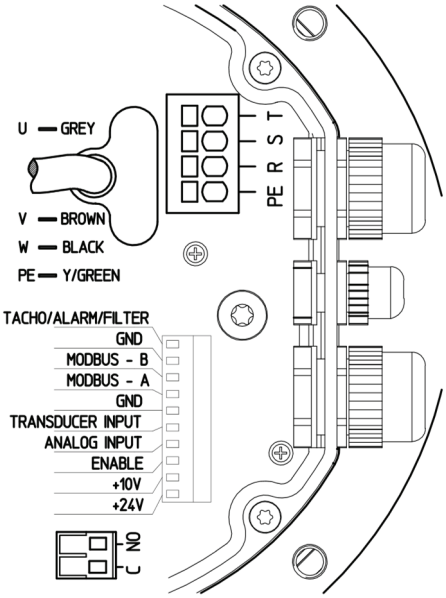
Testing is carried out with the optional components of the test airway required, according to ISO 5801:2007, for the installation type detailed here above.

Test nr.: 153-152-151-151-149 Date: 11/2020
Laboratory: Regal Beloit Italy SpA
Test chamber: AMCA-50000

This test data obtained in a laboratory registered by AMCA for AMCA 210/07 air performance testing. Data is not certified by AMCA.

NICOTRA Gebhardt

WIRING DIAGRAM
SCHEMA DI COLLEGAMENTO

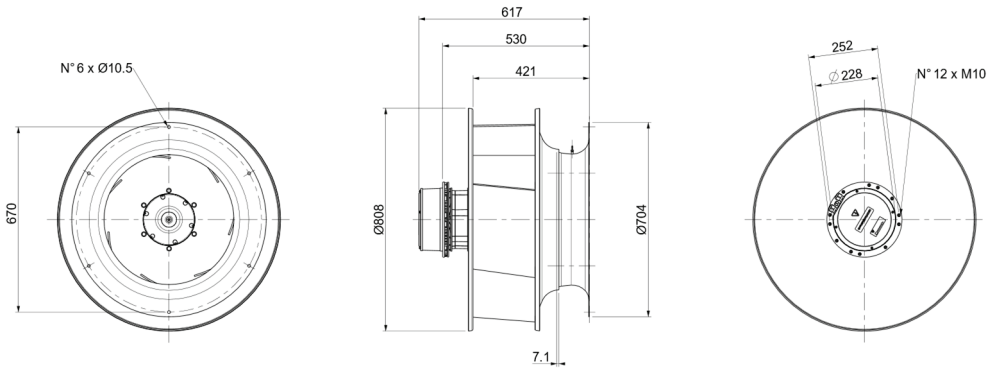


NOISE DATA
DATI DI RUMORE

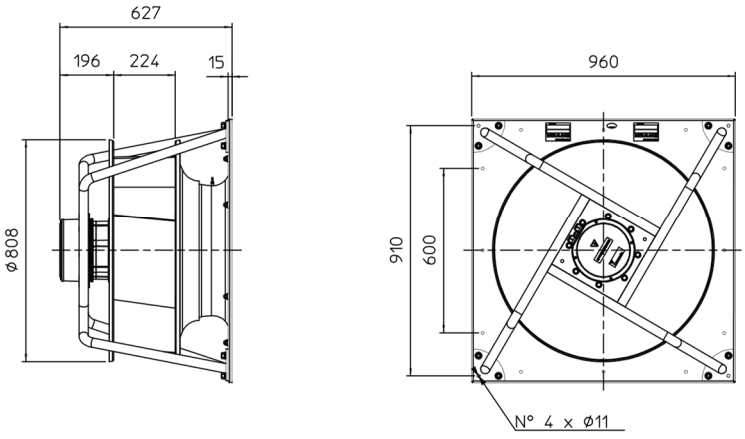
Working point			Sound power level for inlet side (Lw) in dB									
		m^3/h	63	125	250	500	1k	2k	4k	8kHz		LwA
400 V / 50-60 Hz	A	10684	82	93	83	75	72	71	70	70		**82**
Fan Maximum	B	14161	76	84	80	74	72	72	69	69		**79**
Working	C	19309	79	86	83	75	74	79	70	69		**83**
Limit	D	22110	85	98	87	79	76	82	72	70		**87**
400 V / 50-60 Hz	A	10496	82	88	82	73	71	70	69	69		**80**
1000 rpm	B	14086	75	81	81	72	71	71	68	69		**79**
	C	16558	75	81	80	72	73	73	68	69		**79**
	D	19029	80	87	83	73	73	78	67	67		**82**
400 V / 50-60 Hz	A	7548	89	80	78	68	65	63	63	62		**74**
800 rpm	B	11476	74	75	79	68	67	65	63	62		**75**
	C	14154	76	78	79	69	69	67	62	61		**75**
	D	15319	81	81	78	68	72	66	61	58		**76**
400 V / 50-60 Hz	A	5083	79	69	67	60	57	54	55	49		**65**
500 rpm	B	7420	74	68	65	61	58	54	50	48		**64**
	C	8989	78	70	66	61	59	55	49	46		**65**
	D	9448	78	70	67	61	60	55	49	45		**65**
400 V / 50-60 Hz	A	2330	67	66	68	57	55	50	43	33		**62**
250 rpm	B	3451	65	66	67	58	55	50	43	40		**62**
	C	4185	68	67	67	58	56	51	43	39		**62**
	D	4672	68	66	69	58	55	50	43	40		**63**

DIMENSIONAL DRAWINGS
DISEGNI DIMENSIONALI

6PD001DZZ0000000 – PFP A1-0710 4.3kW 400V-3F M6K9



6PD003DZZ0000000 – PFP A3-0710 4.3kW 400V-3F M6K9



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