



## Product card No. OS-18-20230212-174634-970-2 Fan USC-SFN 60/50/35/80

|                |   |               |                      |
|----------------|---|---------------|----------------------|
| Client         | XPLO Sp. z o.o.                                   | Prepared by   | m.sekienda@netecs.pl |
| Commission     | Wentylator V=5000 m <sup>3</sup> /h<br>pt=3000 Pa | Creation date | 2023-02-12           |
| Project number | -   | Comment       | -                    |

### INPUT DATA

|                  |           |               |                          |
|------------------|-----------|---------------|--------------------------|
| Supply frequency | 50 [Hz]   | Pressure type | Total                    |
| Pressure         | 3000 [Pa] | Air volume    | 5000 [m <sup>3</sup> /h] |
| Altitude ASL     | 0.000 [m] | Temperature   | 20 [°C]                  |
| Duct diameter    | 0.25 [m]  | EX            | No                       |

### OPERATING PARAMETERS

|                              |                          |  |                          |
|------------------------------|--------------------------|--|--------------------------|
| Air density                  | 1.2 [kg/m <sup>3</sup> ] | Air volume                                     | 5019 [m <sup>3</sup> /h] |
| Static pressure              | 2883 [Pa]                | Total pressure                                 | 3023 [Pa]                |
| Dynamic pressure             | 140 [Pa]                 | Total efficiency                               | 0.875 [-]                |
| Static efficiency            | 0.834 [-]                | Noise level                                    | 87.3 [dB(A)]             |
| Shaft power                  | 4.8 [kW]                 | Installed power                                | 5.5 [kW]                 |
| Duct diameter                | 0.25 [m]                 | Operating frequency                            | 50 [Hz]                  |
| Average air speed in ducting | 28.40 [m/s]              | Housing dimensions                             | 885x819 [mm]             |
| Weight                       | 173 [kg]                 | Minimum amount of air at the minimum frequency | 66 [m <sup>3</sup> /h]   |
| Average rated fan speed      | 2970 [1/min]             |  |                          |

### ATEX VERSION

|                              | Inside | Outside |
|------------------------------|--------|---------|
| Zone                         | -      | -       |
| Equipment group              | -      | -       |
| Equipment category           | -      | -       |
| Type of explosion protection | -      | -       |
| Temperature class            | -      | -       |
| ATEX marking                 | -      | -       |

### WORK RESTRICTIONS

|                                    | Minimum  | Maximum      |
|------------------------------------|----------|--------------|
| Temperature of the conveyed medium | 20 [°C]  | 60 [°C]      |
| Ambient temperature                | -20 [°C] | 40 [°C]      |
| Rotor revolutions                  | -        | 3000 [1/min] |



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## MOTOR

|                          |                   |                     |          |
|--------------------------|-------------------|---------------------|----------|
| Producer                 | Lammers           | Motor poles         | 2        |
| Rated speed              | 2950 [1/min]      | Rated power         | 5.5 [kW] |
| Motor designation        | 1TZ9003-1CA0_132S | Frequency           | 50 [Hz]  |
| Rated voltage            | 400/690 [V]       | Protection class    | IP55     |
| Thermal protection class | F                 | Efficiency class    | IE3      |
| Winding protection       | 1 thermistor kit  | Reinforced bearings | Yes      |
| Special version          | No                |                     |          |

## CORROSION PROTECTION

|                                   |       |                           |        |
|-----------------------------------|-------|---------------------------|--------|
| Class / Category                  | C2    | Underlay                  | ZG15   |
| Paint finish                      | ZE27  | Temperature resistance    | 120 °C |
| Total layer thickness             | 80 µm | RAL colour of the housing | 5015   |
| RAL colour of the rest of the fan | 5015  | RAL colour of the motor   | 5015   |

## FAN

|                        |  |                |               |
|------------------------|--|----------------|---------------|
| Fan kind               | CLASSIC Clean gas fans   | Fan type       | USC-SFN       |
| Fan type number        | 60/50/35/80  | Fan position   | GL 360 (LG 0) |
| Execution              | Standard   | Medium         | Clean gas     |
| Impeller               | Closed   | Drive          | Direct        |
| Balancing class        | G6,3   | Number of fans | 1             |
| Additional information | Welded steel housing, impeller statically and dynamically balanced |                |               |



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## ACCESSORIES

Additional accessories

Equipment included in  
price

## VALUATION

Fan USC-SFN 60/50/35/80

Total price: 2 915.20 EUR

## DELIVERY AND ADDITIONAL INFORMATIONS

Delivery time

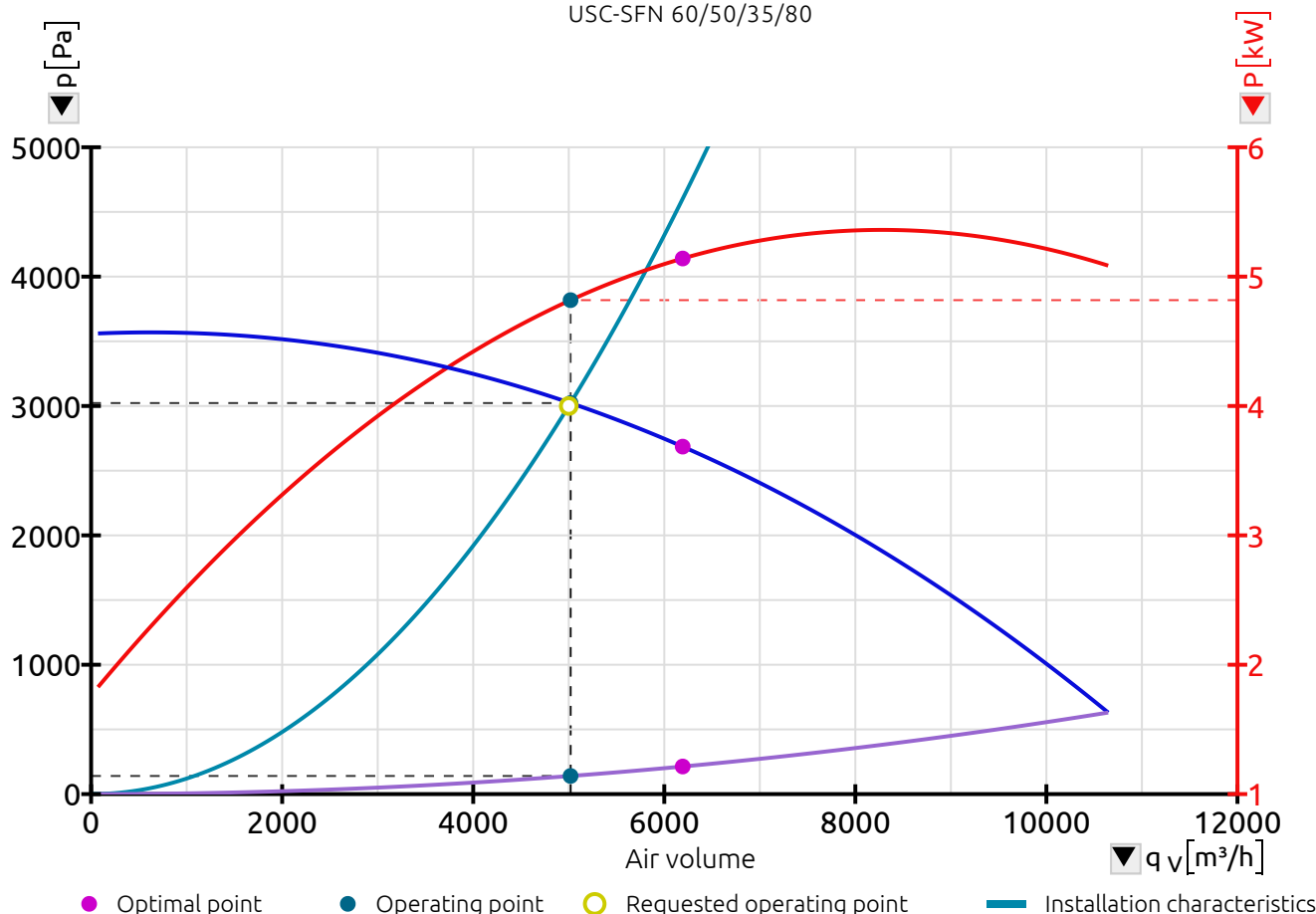
6 to 8 weeks from order date

Offer expiration time

6 weeks

### Characteristic curve

USC-SFN 60/50/35/80



#### CHART COMPONENTS

|                               |                                   |  |                                  |
|-------------------------------|-----------------------------------|--|----------------------------------|
| Total pressure [ $p_T$ ]      | Total efficiency [ $\eta_T$ ]     | Shaft power without material [ $P_a$ ] | Current at voltage $V_1$ (400 V) |
| Static pressure [ $p_{sF}$ ]  | Static efficiency [ $\eta_{sF}$ ] | Shaft power with material [ $P_a$ ]    | Noise level [ $L_{A6}$ ]         |
| Dynamic pressure [ $p_{dF}$ ] |                                   | Electrical power [ $P_e$ ]             | Current at voltage $V_2$ (690 V) |

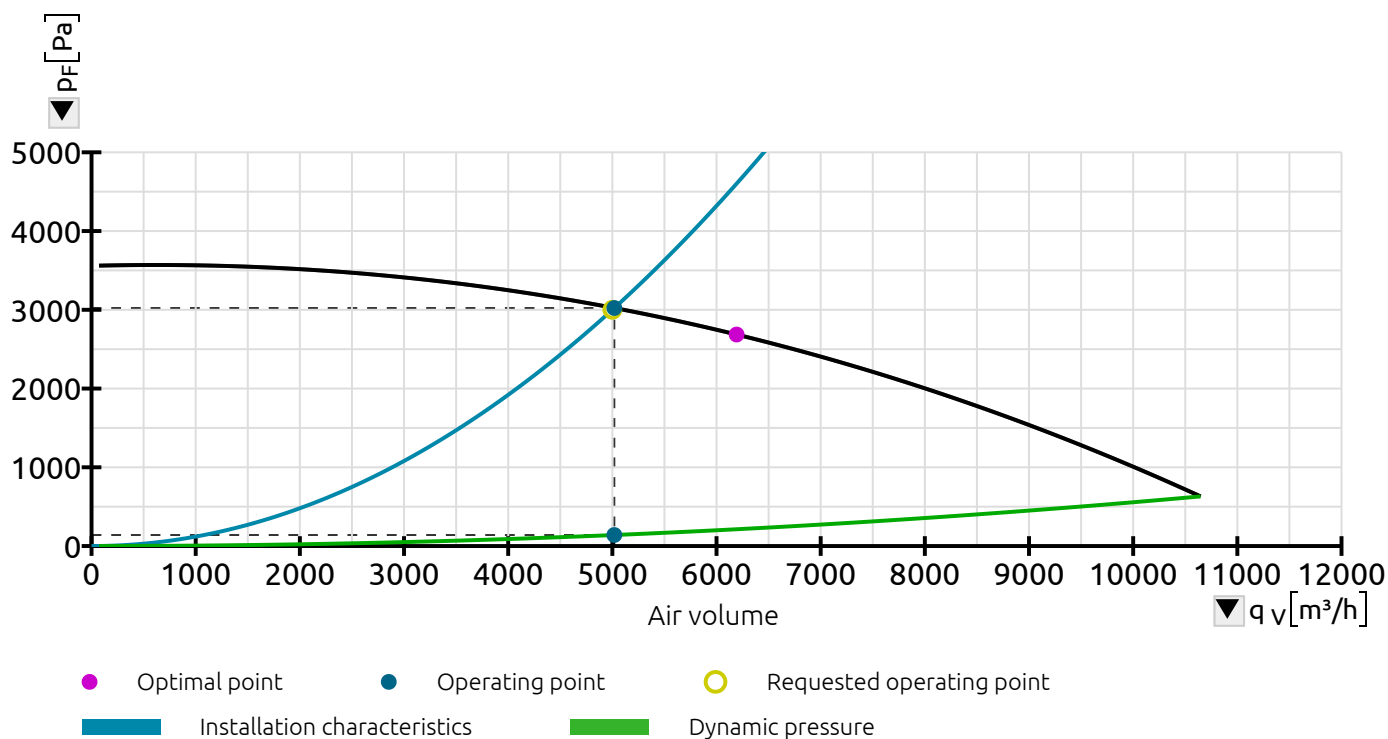
#### MAIN AXIS

|                  |                       |               |                     |                 |
|------------------|-----------------------|---------------|---------------------|-----------------|
| Pressure [ $p$ ] | Efficiency [ $\eta$ ] | Power [ $P$ ] | Noise level [ $L$ ] | Current [ $I$ ] |
|------------------|-----------------------|---------------|---------------------|-----------------|

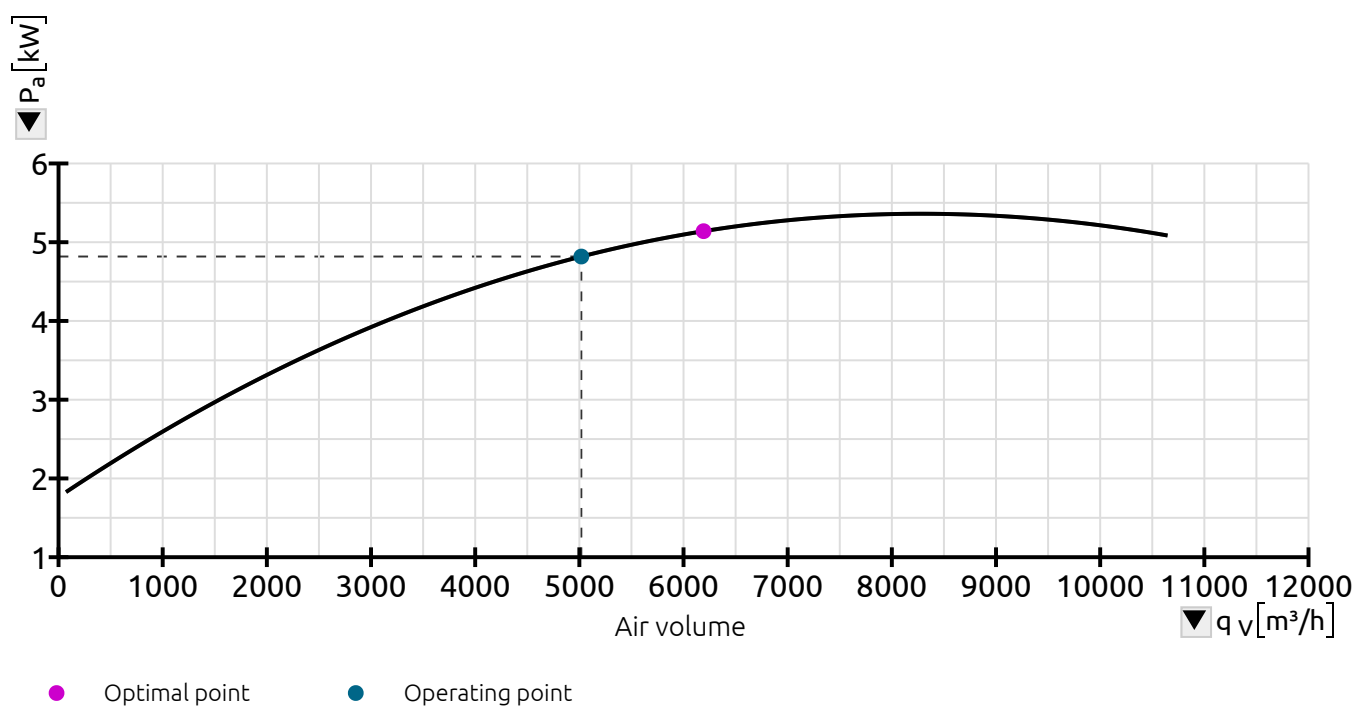
#### OPERATING POINT

|                              |                          |  |                          |
|------------------------------|--------------------------|--|--------------------------|
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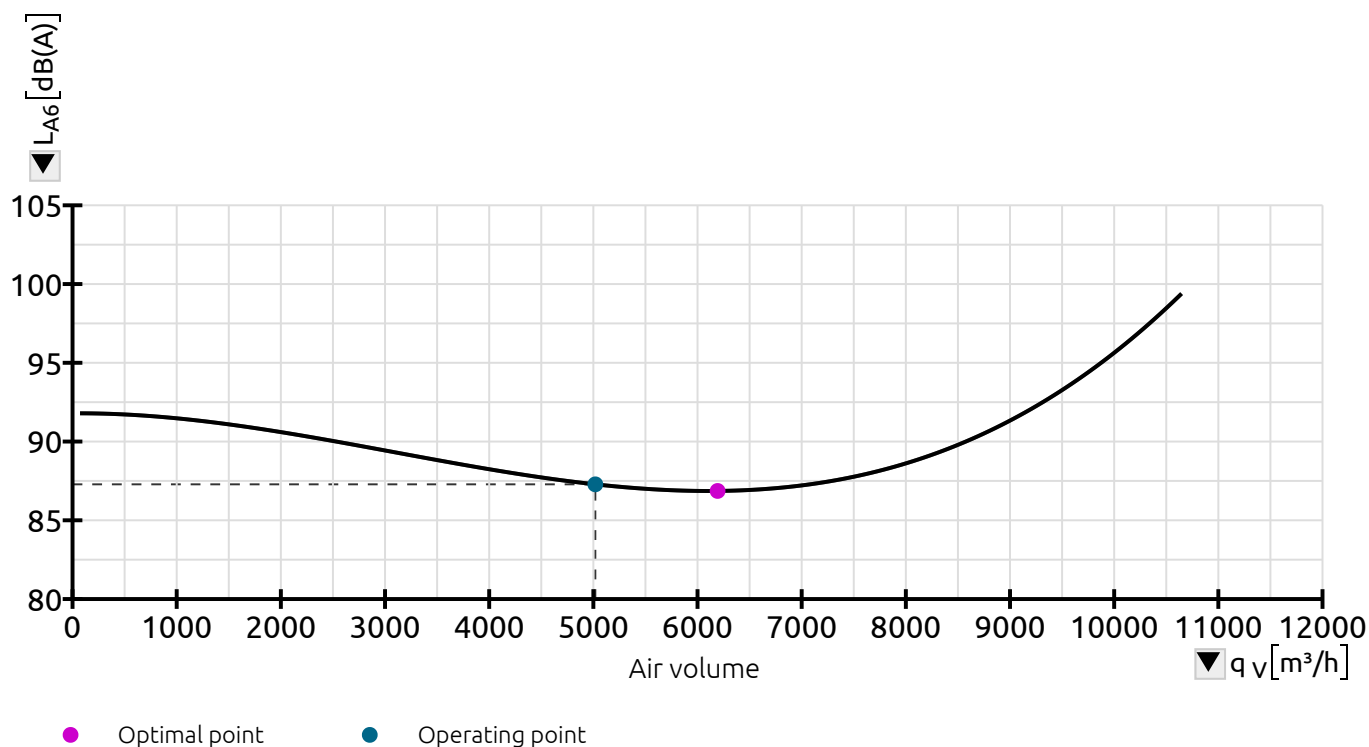
Total pressure [ $p_F$ ]

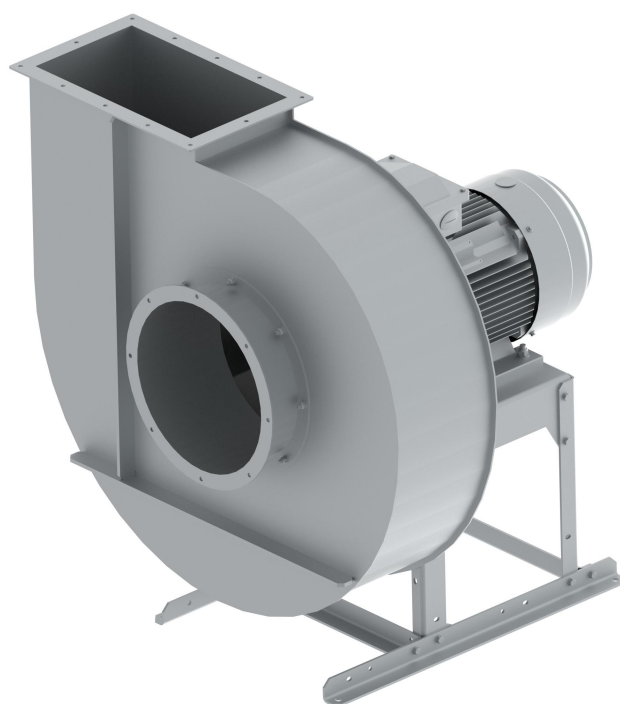


Shaft power without material [ $P_a$ ]



Noise level [ $L_{A6}$ ]





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