

Model:ECF(K)10D500-PLHDAJ1-RF

Fan type:EC Backward curved centrifugal fan



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## Fan Introduction

This product consist of outer rotor(EC)motor, backward curved centrifugal impeller, with features of compact structure, large airflow, high static pressure, low vibration, low noise, convenient installation, energy saving, high efficiency etc..

## Scope of application

General purpose fan, can be widely used in purification of air conditioning systems, ventilation duct dust, environmental protection, refrigeration equipment and other fields.

## Environmental requirements

- Operating ambient temperature range:-25℃~+50℃
- Working environment humidity range:≤90%
- Transportation and storage temperature range:-40℃~+80℃
- Transportation and storage environment humidity range:≤80%
- The storage place is well ventilated, corrosive gases not contained.

## Conformity with standards

- JB/T 10563 Technical specification for general purposes centrifugal fans
- GB/T 14711 Safety requirements of small and medium size rotating electrical machines

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- GB/T 755/IEC60034-1 Rotating electrical machines - Part 1: Rating and performance
- IEC 60335-2-40:2022 Household and similar electrical appliances - Safety - Part 2-40: Particular requirements for electrical heat pumps, air-conditioners and dehumidifiers
- Balance quality grade for rotor is G6.3, in accordance with ISO 1940-1.
- Vibration testing and velocity is performed according to JB/T 8689.

## Product certification

CE-LVD:EN 60034-1:2010 EN 60034-5:2001+A1:2007

UKCA-LVD:EN 60034-1:2010 EN 60034-5:2001+A1

CE-EMC:EN IEC 61000-6-2:2019 EN IEC 61000-6-4:2019

UKCA-EMC:BS EN IEC 61000-6-2:2019 BS EN IEC 61000-6-4:2019

## Technical features

|                   |                                                              |
|-------------------|--------------------------------------------------------------|
| Mass              | 34 kg                                                        |
| Size              | φ500 mm                                                      |
| Impeller material | Sheet aluminium                                              |
| Rotation          | Counter-clockwise(Seen from cable exit)                      |
| Protection class  | IP54                                                         |
| Insulation class  | F                                                            |
| Mounting          | Shaft horizontal or rotor on bottom; rotor on top on request |
| Mode of operation | S1(Continuous operation)                                     |
| Bearings          | Maintenance-free ball bearings                               |

## Controller Information

|                               |                                                                                                                                                       |
|-------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| Controller connection type    | Cable exit                                                                                                                                            |
| MODBUS protocol series        | MZBUS_N                                                                                                                                               |
| Controller technical features | <ul style="list-style-type: none"> <li>- Alarm relay</li> <li>- RS485 MODBUS-RTU</li> <li>- Motor current limitation</li> <li>- Soft start</li> </ul> |

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|  |                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|--|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | <ul style="list-style-type: none"> <li>- Thermal overload protection for electronics (overheating derating/shutdown protection)</li> <li>- Line undervoltage/ Line overvoltage detection</li> <li>- Output 10 VDC, max.10 mA</li> <li>- Control input 0-10 VDC/PWM</li> <li>- Motor phase failure detection</li> <li>- Motor rotor lock protection</li> <li>- Motor overcurrent protection</li> <li>- Linear control of speed</li> </ul> |
|--|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

## Structures

|               |                                   |
|---------------|-----------------------------------|
| Inlet type    | Single Inlet                      |
| Impeller type | Backward curved impeller          |
| Housing       | Without housing; With inlet ring; |

## Technical parameters

| Method of obtaining data               | Nameplate nominal value | Max. load               | Max. efficiency         | Free air                |
|----------------------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| Voltage(V) Frequency(Hz) Speed control | 400   50/60   FullSpeed | 400   50/60   FullSpeed | 400   50/60   FullSpeed | 400   50/60   FullSpeed |
| Power(W)                               | 5600                    | 5880                    | 5470                    | 3697                    |
| Speed(rpm)                             | 2180                    | 2270                    | 2115                    | 2270                    |
| Current(A)                             | 9.26                    | 9.01                    | 8.42                    | 5.73                    |
| AirFlow(m³/h )                         | 10150                   | 13934                   | 10187                   | 17680                   |
| Static Pressure(Pa)                    | 1300                    | 865                     | 1215                    | 0                       |
| Sound Pressure Suction-side(dBA)       | 86                      | 93.3                    | 85.4                    | 99.1                    |
| Sound Pressure Pressure-side(dBA)      | -                       | 98.3                    | 90.4                    | 104.1                   |
| Sound Power Suction-side(dBA)          | -                       | 100                     | 92.1                    | 105.8                   |
| Sound Power Pressure-side(dBA)         | -                       | 105                     | 97.1                    | 110.8                   |

## Data according to Commission Regulation -ErP2026[(EU) 2024/1834]

|                                                   |           |
|---------------------------------------------------|-----------|
| Overall efficiency $\eta_{es}$ , Actual Target(%) | 65.3 61.2 |
| Measurement category                              | A         |
| Efficiency category                               | Static    |

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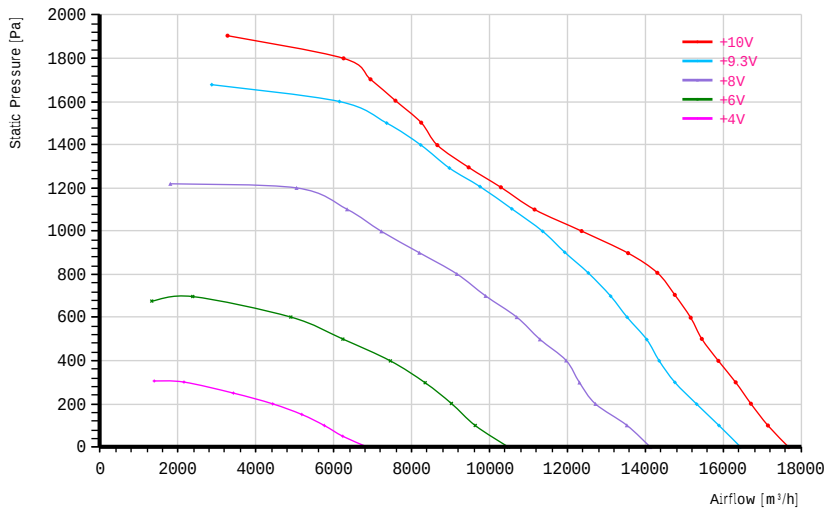
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|                                   |         |
|-----------------------------------|---------|
| Efficiency grade N, Actual Target | 68.2 64 |
| Variable speed drive              | Yes     |
| Power consumption(W)              | 5470    |
| Air flow Qv(m³/h)                 | 10187   |
| Pressure increase Pfs(Pa)         | 1215    |
| Speed n(rpm)                      | 2115    |
| Specific ratio(1+Pfs/100000)      | 1.012   |

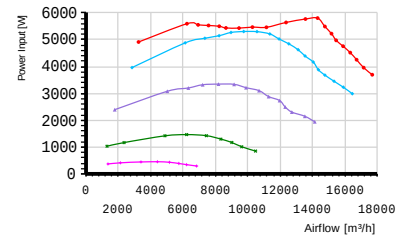
The above data are the results of calculations in accordance with the EU regulations after interpolation to determine the optimum efficiency point based on the measured data of the fan at full speed operation.

## Performance curve

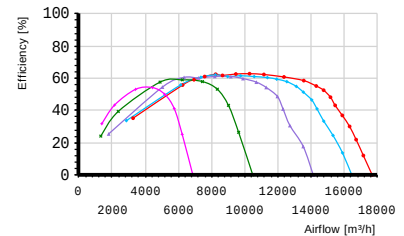
Airflow curve



Power input curve



Efficiency on static pressure



## Performance test with reference to GB/T 1236-2017, equivalent to ISO 5801

|                  |           |             |             |             |         |                 |                  |                |                    |             |
|------------------|-----------|-------------|-------------|-------------|---------|-----------------|------------------|----------------|--------------------|-------------|
| TestID           |           |             | 2022031901  |             |         | Control voltage |                  |                | 10 VDC             |             |
| Test environment |           |             |             |             |         |                 |                  |                |                    |             |
| Outlet size      |           | Outlet area |             | Temperature |         | Humidity        |                  | Baropressure   |                    | Density     |
| 616mm            |           | 0.298m²     |             | 21.54℃      |         | 61%             |                  | 101.2kPa       |                    | 1.2kg/m³    |
| Test data        |           |             |             |             |         |                 |                  |                |                    |             |
| Voltage          | Frequency | Speed       | Power input | Current     | Airflow | Static pressure | Dynamic pressure | Total pressure | Pressure Differenc | Nozzle Size |
| V                | Hz        | r/min       | W           | A           | m³/h    | Pa              | Pa               | Pa             | Pa                 | mm          |
| 398.5            | 50        | 2270        | 4917        | 7.61        | 3271    | 1905            | 6                | 1911           | 243                | 150+189*1   |
| 399              | 50        | 2229        | 5598        | 8.67        | 6250    | 1800            | 20               | 1820           | 340                | 150+189*2   |
| 399.6            | 50        | 2200        | 5556        | 8.57        | 6942    | 1703            | 25               | 1728           | 419                | 150+189*2   |
| 399.4            | 50        | 2183        | 5532        | 8.54        | 7583    | 1604            | 30               | 1634           | 499                | 150+189*2   |

# Product specification

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|       |    |      |      |      |       |      |     |      |     |           |
|-------|----|------|------|------|-------|------|-----|------|-----|-----------|
| 399.9 | 50 | 2165 | 5504 | 8.48 | 8245  | 1502 | 35  | 1537 | 590 | 150+189*2 |
| 400.7 | 50 | 2143 | 5442 | 8.39 | 8659  | 1398 | 39  | 1437 | 211 | 150+189*4 |
| 400.7 | 50 | 2125 | 5435 | 8.36 | 9464  | 1295 | 46  | 1342 | 252 | 150+189*4 |
| 400.2 | 50 | 2115 | 5472 | 8.42 | 10290 | 1203 | 55  | 1258 | 298 | 150+189*4 |
| 400.7 | 50 | 2131 | 5466 | 8.42 | 11156 | 1100 | 64  | 1164 | 349 | 150+189*4 |
| 400   | 50 | 2180 | 5647 | 8.67 | 12364 | 1000 | 79  | 1079 | 210 | 150+189*6 |
| 399.8 | 50 | 2270 | 5774 | 8.87 | 13558 | 898  | 95  | 993  | 252 | 150+189*6 |
| 399.6 | 50 | 2270 | 5810 | 8.91 | 14309 | 807  | 106 | 913  | 281 | 150+189*6 |
| 398.5 | 50 | 2270 | 5495 | 8.49 | 14757 | 705  | 113 | 817  | 298 | 150+189*6 |
| 399.7 | 50 | 2270 | 5229 | 8.08 | 15166 | 599  | 119 | 718  | 315 | 150+189*6 |
| 400.2 | 50 | 2270 | 4980 | 7.68 | 15451 | 501  | 123 | 625  | 327 | 150+189*6 |
| 399   | 50 | 2270 | 4760 | 7.4  | 15878 | 399  | 130 | 529  | 345 | 150+189*6 |
| 400   | 50 | 2270 | 4522 | 7.01 | 16322 | 300  | 138 | 437  | 364 | 150+189*6 |
| 401   | 50 | 2270 | 4257 | 6.59 | 16712 | 201  | 144 | 345  | 382 | 150+189*6 |
| 401   | 50 | 2270 | 3961 | 6.13 | 17150 | 100  | 152 | 252  | 402 | 150+189*6 |
| 401.6 | 50 | 2270 | 3697 | 5.73 | 17680 | 0    | 162 | 162  | 427 | 150+189*6 |

|                  |             |             |          |                 |          |         |  |
|------------------|-------------|-------------|----------|-----------------|----------|---------|--|
| TestID           |             | 2022032104  |          | Control voltage |          | 9.3 VDC |  |
| Test environment |             |             |          |                 |          |         |  |
| Outlet size      | Outlet area | Temperature | Humidity | Baropressure    | Density  |         |  |
| 616mm            | 0.298m²     | 17.65℃      | 72%      | 101.9kPa        | 1.2kg/m³ |         |  |

|           |           |       |             |         |         |                 |                  |                |                    |             |
|-----------|-----------|-------|-------------|---------|---------|-----------------|------------------|----------------|--------------------|-------------|
| Test data |           |       |             |         |         |                 |                  |                |                    |             |
| Voltage   | Frequency | Speed | Power input | Current | Airflow | Static pressure | Dynamic pressure | Total pressure | Pressure Differenc | Nozzle Size |
| V         | Hz        | r/min | W           | A       | m³/h    | Pa              | Pa               | Pa             | Pa                 | mm          |
| 401.1     | 50        | 2110  | 3965        | 6.1     | 2866    | 1678            | 4                | 1683           | 191                | 150+189*1   |
| 399.8     | 50        | 2110  | 4884        | 7.51    | 6144    | 1600            | 20               | 1620           | 336                | 150+189*2   |
| 400.9     | 50        | 2110  | 5057        | 7.73    | 7359    | 1500            | 28               | 1528           | 253                | 150+189*3   |
| 400.6     | 50        | 2110  | 5151        | 7.9     | 8233    | 1399            | 36               | 1435           | 316                | 150+189*3   |
| 398.5     | 50        | 2110  | 5272        | 8.08    | 8970    | 1292            | 42               | 1334           | 232                | 150+189*4   |
| 399.3     | 50        | 2110  | 5308        | 8.13    | 9756    | 1206            | 50               | 1256           | 274                | 150+189*4   |
| 401.9     | 50        | 2110  | 5304        | 8.11    | 10572   | 1103            | 59               | 1162           | 321                | 150+189*4   |
| 399.7     | 50        | 2110  | 5218        | 7.99    | 11366   | 999             | 68               | 1067           | 370                | 150+189*4   |
| 400.7     | 50        | 2110  | 5030        | 7.68    | 11931   | 902             | 75               | 977            | 408                | 150+189*4   |
| 400.2     | 50        | 2110  | 4848        | 7.43    | 12537   | 806             | 83               | 889            | 220                | 150+189*6   |
| 400       | 50        | 2110  | 4630        | 7.11    | 13110   | 699             | 91               | 790            | 241                | 150+189*6   |
| 401       | 50        | 2110  | 4395        | 6.74    | 13535   | 601             | 97               | 698            | 257                | 150+189*6   |
| 400.7     | 50        | 2110  | 4170        | 6.41    | 14037   | 498             | 104              | 602            | 276                | 150+189*6   |
| 400       | 50        | 2110  | 3883        | 5.98    | 14359   | 399             | 109              | 508            | 289                | 150+189*6   |
| 399.7     | 50        | 2110  | 3684        | 5.68    | 14760   | 300             | 115              | 415            | 305                | 150+189*6   |
| 400.2     | 50        | 2110  | 3456        | 5.3     | 15321   | 199             | 124              | 322            | 328                | 150+189*6   |
| 400.5     | 50        | 2110  | 3233        | 4.97    | 15893   | 100             | 133              | 233            | 353                | 150+189*6   |
| 399.2     | 50        | 2110  | 2991        | 4.6     | 16449   | 0               | 143              | 143            | 378                | 150+189*6   |

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centrifugal fan

|                  |           |             |             |             |         |                 |                  |                |                    |             |  |
|------------------|-----------|-------------|-------------|-------------|---------|-----------------|------------------|----------------|--------------------|-------------|--|
| TestID           |           |             | 2022032101  |             |         | Control voltage |                  |                | 8 VDC              |             |  |
| Test environment |           |             |             |             |         |                 |                  |                |                    |             |  |
| Outlet size      |           | Outlet area |             | Temperature |         | Humidity        |                  | Baropressure   |                    | Density     |  |
| 616mm            |           | 0.298m²     |             | 17.3℃       |         | 72%             |                  | 101.9kPa       |                    | 1.2kg/m³    |  |
| Test data        |           |             |             |             |         |                 |                  |                |                    |             |  |
| Voltage          | Frequency | Speed       | Power input | Current     | Airflow | Static pressure | Dynamic pressure | Total pressure | Pressure Differenc | Nozzle Size |  |
| V                | Hz        | r/min       | W           | A           | m³/h    | Pa              | Pa               | Pa             | Pa                 | mm          |  |
| 402.1            | 50        | 1812        | 2394        | 3.75        | 1801    | 1219            | 2                | 1220           | 503                | 150+189*0   |  |
| 399.9            | 50        | 1812        | 3081        | 4.78        | 5042    | 1200            | 13               | 1213           | 227                | 150+189*2   |  |
| 400.2            | 50        | 1812        | 3204        | 4.96        | 6341    | 1101            | 21               | 1122           | 358                | 150+189*2   |  |
| 401              | 50        | 1812        | 3325        | 5.14        | 7220    | 999             | 28               | 1026           | 244                | 150+189*3   |  |
| 401.1            | 50        | 1812        | 3349        | 5.16        | 8197    | 900             | 36               | 936            | 314                | 150+189*3   |  |
| 400              | 50        | 1812        | 3340        | 5.16        | 9161    | 802             | 44               | 846            | 241                | 150+189*4   |  |
| 400.1            | 50        | 1812        | 3216        | 4.97        | 9897    | 700             | 52               | 752            | 281                | 150+189*4   |  |
| 401.4            | 50        | 1812        | 3104        | 4.79        | 10698   | 602             | 60               | 662            | 328                | 150+189*4   |  |
| 401              | 50        | 1812        | 2882        | 4.46        | 11293   | 499             | 67               | 566            | 366                | 150+189*4   |  |
| 401.5            | 50        | 1812        | 2736        | 4.24        | 11967   | 401             | 76               | 477            | 410                | 150+189*4   |  |
| 400.5            | 50        | 1812        | 2496        | 3.89        | 12309   | 299             | 80               | 379            | 213                | 150+189*6   |  |
| 402              | 50        | 1812        | 2305        | 3.59        | 12721   | 200             | 86               | 285            | 227                | 150+189*6   |  |
| 401.5            | 50        | 1812        | 2149        | 3.36        | 13526   | 101             | 97               | 198            | 256                | 150+189*6   |  |
| 401.4            | 50        | 1812        | 1944        | 3.07        | 14130   | 0               | 106              | 106            | 280                | 150+189*6   |  |

|                  |           |             |             |             |         |                 |                  |                |                    |             |
|------------------|-----------|-------------|-------------|-------------|---------|-----------------|------------------|----------------|--------------------|-------------|
| TestID           |           |             | 2022032102  |             |         | Control voltage |                  |                | 6 VDC              |             |
| Test environment |           |             |             |             |         |                 |                  |                |                    |             |
| Outlet size      |           | Outlet area |             | Temperature |         | Humidity        |                  | Baropressure   |                    | Density     |
| 616mm            |           | 0.298m²     |             | 17.68℃      |         | 71%             |                  | 101.9kPa       |                    | 1.2kg/m³    |
| Test data        |           |             |             |             |         |                 |                  |                |                    |             |
| Voltage          | Frequency | Speed       | Power input | Current     | Airflow | Static pressure | Dynamic pressure | Total pressure | Pressure Differenc | Nozzle Size |
| V                | Hz        | r/min       | W           | A           | m³/h    | Pa              | Pa               | Pa             | Pa                 | mm          |
| 400.9            | 50        | 1360        | 1033        | 1.87        | 1325    | 676             | 1                | 677            | 273                | 150+189*0   |
| 399.8            | 50        | 1360        | 1168        | 2.04        | 2377    | 697             | 3                | 700            | 347                | +189*1      |
| 400.4            | 50        | 1360        | 1421        | 2.41        | 4897    | 602             | 13               | 615            | 214                | 150+189*2   |
| 400.7            | 50        | 1360        | 1466        | 2.46        | 6233    | 500             | 20               | 520            | 346                | 150+189*2   |
| 400.1            | 50        | 1360        | 1425        | 2.44        | 7452    | 399             | 29               | 429            | 493                | 150+189*2   |
| 400.8            | 50        | 1360        | 1298        | 2.22        | 8346    | 298             | 37               | 335            | 200                | 150+189*4   |
| 399.7            | 50        | 1360        | 1172        | 2.02        | 9020    | 202             | 43               | 244            | 234                | 150+189*4   |
| 397              | 50        | 1360        | 1011        | 1.82        | 9632    | 100             | 49               | 149            | 266                | 150+189*4   |
| 400.9            | 50        | 1360        | 852         | 1.6         | 10484   | 0               | 58               | 58             | 315                | 150+189*4   |

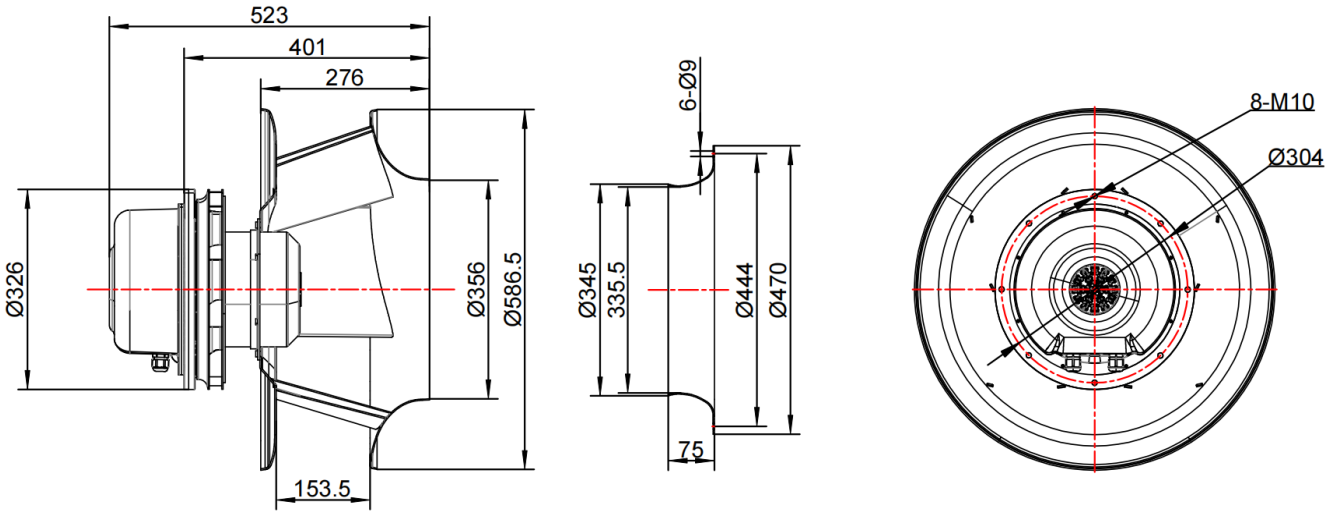


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|                  |           |             |             |             |         |                 |                  |                |                    |             |
|------------------|-----------|-------------|-------------|-------------|---------|-----------------|------------------|----------------|--------------------|-------------|
| TestID           |           |             | 2022032103  |             |         | Control voltage |                  |                | 4 VDC              |             |
| Test environment |           |             |             |             |         |                 |                  |                |                    |             |
| Outlet size      |           | Outlet area |             | Temperature |         | Humidity        |                  | Baropressure   |                    | Density     |
| 616mm            |           | 0.298m²     |             | 17.64℃      |         | 72%             |                  | 101.9kPa       |                    | 1.2kg/m³    |
| Test data        |           |             |             |             |         |                 |                  |                |                    |             |
| Voltage          | Frequency | Speed       | Power input | Current     | Airflow | Static pressure | Dynamic pressure | Total pressure | Pressure Differenc | Nozzle Size |
| V                | Hz        | r/min       | W           | A           | m³/h    | Pa              | Pa               | Pa             | Pa                 | mm          |
| 400.8            | 50        | 900         | 371         | 0.94        | 1386    | 306             | 1                | 307            | 299                | 150+189*0   |
| 400.6            | 50        | 900         | 415         | 0.95        | 2152    | 301             | 2                | 304            | 285                | +189*1      |
| 401.3            | 50        | 900         | 447         | 0.92        | 3420    | 250             | 6                | 256            | 272                | 150+189*1   |
| 400.3            | 50        | 900         | 454         | 0.95        | 4432    | 200             | 10               | 210            | 454                | 150+189*1   |
| 399.2            | 50        | 900         | 434         | 0.87        | 5179    | 151             | 14               | 165            | 239                | 150+189*2   |
| 401.4            | 50        | 900         | 389         | 0.88        | 5756    | 100             | 18               | 117            | 295                | 150+189*2   |
| 400.6            | 50        | 900         | 344         | 0.8         | 6231    | 50              | 20               | 70             | 345                | 150+189*2   |
| 400.9            | 50        | 900         | 295         | 0.7         | 6854    | 1               | 25               | 26             | 417                | 150+189*2   |

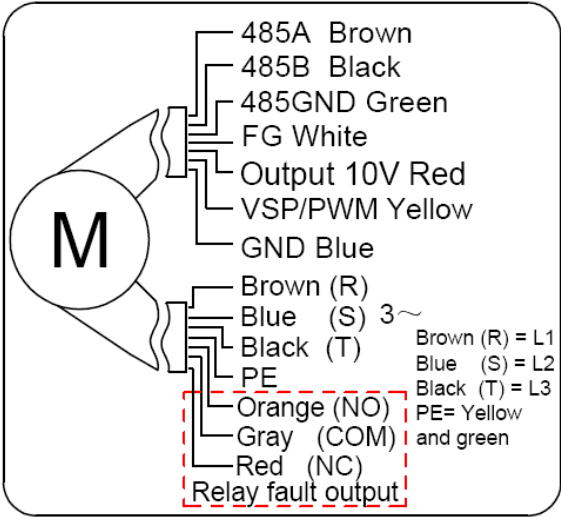
## Dimensions(in mm) (K-Factor=280)



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## Wiring diagram



## Electrical connections

| Connection | Assignment/function                                                                                                                                                                                                                                                                 |
|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| L1、L2、L3   | Three-phase supply connection, voltage range 380-480VAC, frequency 50/60Hz                                                                                                                                                                                                          |
| PE         | Protective earth                                                                                                                                                                                                                                                                    |
| 485A       | RS485 interface for MODBUS-RTU                                                                                                                                                                                                                                                      |
| 485B       | RS485 interface for MODBUS-RTU                                                                                                                                                                                                                                                      |
| 485GND     | Reference ground for control interface                                                                                                                                                                                                                                              |
| NC         | Status relay, mode2--close on normal, open on fault                                                                                                                                                                                                                                 |
| COM        | Common connection of status relay, contact rating 250VAC/3A                                                                                                                                                                                                                         |
| NO         | Status relay, mode2--open on normal, close on fault                                                                                                                                                                                                                                 |
| FG         | Speed feedback pulse output, 2 pulses per revolution, can be customized. External pull-up voltage and pull-up resistor are required:<br>Pull-up voltage optional range: $V_{fg}=(3.3-30)VDC$<br>Recommended configuration pull-up resistor $R_{fg} \geq 1000 \cdot (V_{fg}) \Omega$ |
| +10V       | 10VDC output,maximum output current 10mA                                                                                                                                                                                                                                            |
| VSP/PWM    | Speed control signal input connection, 0-10V voltage or PWM signal (amplitude 10-12V, frequency 1k-10kHz)                                                                                                                                                                           |
| GND        | Signal ground for control interface                                                                                                                                                                                                                                                 |

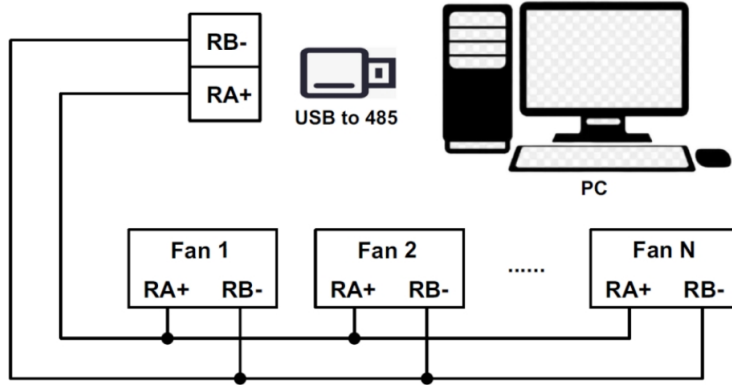


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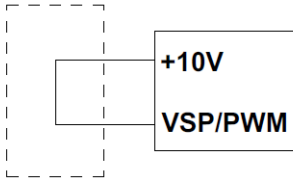
## Multi-fan communication connection description

This fan controller supports one master and multiple slaves communication mode, a master can connect up to 20 slaves for communication at the same time, the slaves be connected in parallel with each other (see illust), and the maximum communication distance is up to 200 meters by using twisted shielded communication cable.  
Note: All fans connected in parallel must have different device address, which can be set via the MODBUS protocol.

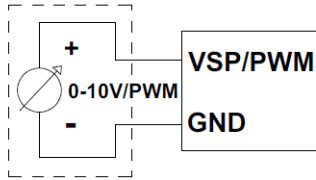


## Schematic for connections

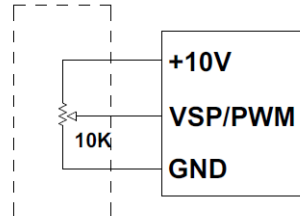
1.Full speed



2.Adjustable Speed



3.Speed adjustable via potentiometer



## NamePlate

|                                                                                                   |  |                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                       |  |
|---------------------------------------------------------------------------------------------------|--|--------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|--|
|  <b>SANMU®</b> |  | <b>ECF(K)10D500-PLHDAJ1-RF</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  |  |
| Volt.:400V    Freq.:50/60Hz    Amp.:9.26A                                                         |  |                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                       |  |
| Input:5600W    Speed:2180r/min    Airflow:10150m³/h                                               |  |                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                       |  |
| P <sub>st</sub> :1300Pa    IP54    CL.F    ErP2020                                                |  |                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                       |  |
| Rotation :     |  |                                |  <ul style="list-style-type: none"> <li>485A Brown</li> <li>485B Black</li> <li>485GND Green</li> <li>FG White</li> <li>Output 10V Red</li> <li>VSP/PWM Yellow</li> <li>GND Blue</li> <li>Brown (R)</li> <li>Blue (S) 3~</li> <li>Black (T)</li> <li>PE</li> <li>Orange (NO)</li> <li>Gray (COM)</li> <li>Red (NC)</li> <li>Relay fault output</li> </ul> <p>           Brown (R) = L1<br/>           Blue (S) = L2<br/>           Black (T) = L3<br/>           PE= Yellow and green         </p> |                                                                                       |  |

Model:ECF(K)10D500-PLHDAJ1-RF

Fan type:EC Backward curved centrifugal fan

## Attentions

- ★Please check the appearance and the accessories if there is no damage before use, check the model is consistent with requirements;
- ★Keep reliable grounding according to the wiring diagram. to avoid motor burning and personal accident, please check wiring is loose or fall off;
- ★Before connect the power supply, check whether the motor is reliable, otherwise it will cause motor damage and personal injury;
- ★It is forbidden to pull the power cable, if the power cable is damaged, to be repaired before use, to avoid the accident of electric shock;
- ★Drop or impact motor is forbidden;
- ★Washing motor with water is prohibited, it will reduce the motor insulation level, even lead to electric leakage even endanger personal safety;
- ★Special customized product is designed for specified requirements, please consult with our engineers before change useage;
- ★The temperature of the motor shell may be higher in a short time after the fan stopped, Please avoid direct contact with the motor surface. If necessary, please take protective measures to prevent scald;
- ★Do not contact the impeller when the fan running, you need to wait for all the parts stopped before operate it;
- ★When the fan is installed, check and ensure thers is no debris in the shell and other shell body, keep the fan clean;
- ★After the fan installation complete, before connected to supply, please confirm that there is no collision or interference or stuck.

## Service life, maintenance, warranty and Disclaimer

- The design life of this product is 40,000 hours. This data is derived from the expected life of L10 for general ball bearings at 40℃ is 40,000 hours. The actual service life of the product is affected by the use environment (temperature, humidity, installation, bearing load, etc.).
- According to the use of the environment, please make a clean maintenance every 3~6 months.

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- From the date of purchase (order delivery date), The warranty period is one year (If there is another contractual agreement, the period of time shall be as agreed in the contract). During this period, for failure due to the quality of the product itself, we provide free replacement or repairing. If the damage caused by improper disassembly, transportation, artificial damage or natural disasters, etc., is not in the scope of this warranty;