

## FUA

### FUA-1800 | FUA-2100 | FUA-3000 | FUA-4700

The FUA is an extraction fan that is specially designed to remove welding and other harmful fumes as dust, oil mist and exhaust gases.

The fan is intended and designed for mounting to extraction arms and filter units.



#### APPLICATIONS

The FUA is intended to be used for the following applications:

- MIG-MAG/GMAW welding
- TIG welding
- FCAW welding
- stick/MMAW welding
- vehicle exhaust extraction systems



Do **not** use the FUA for the following applications or in the following circumstances:

- aluminium laser cutting
- extraction of aggressive fumes and gases (e.g. from acids, alkaline or soldering paste containing lithium)
- extraction of hot gases (more than 80°C/176°F continuously)
- grinding aluminium and magnesium
- flame spraying
- extraction of cement, saw dust, wood dust, etc.
- explosive environments or explosive substances/gases



#### SPECIFICATIONS

##### Physical dimensions and properties

|                           |                          |
|---------------------------|--------------------------|
| Material:                 |                          |
| • fan                     | aluminium                |
| • housing                 | sheet metal              |
| Colour:                   |                          |
| • motor                   | black (RAL 9005)         |
| • housing                 | grey (RAL 7011)          |
| Motor design              | IEC 60072                |
| Fan type                  | radial                   |
| Design conditions         | 20°C (68°F) at sea level |
| Max. airflow temperature  | 80°C/176°F               |
| <b>Performance</b>        |                          |
| Speed                     | 2800 rpm                 |
| <b>Electrical data</b>    |                          |
| Max. start/stops per hour | 30                       |
| Insulation class          | F                        |
| Protection class          | IP 55                    |

##### Ambient conditions

|                        |                                                 |
|------------------------|-------------------------------------------------|
| Operating temperature: |                                                 |
| • min.                 | 5°C (41°F)                                      |
| • nom.                 | 20°C (68°F)                                     |
| • max.                 | 40°C (104°F)                                    |
| Max. relative humidity | 80%                                             |
| Outdoor use allowed    | no                                              |
| Storage conditions     | 5-40°C (41-104°F)<br>relative humidity max. 80% |

##### Scope of supply

Fan – Connection flange with grid

##### Order information

|                |   |
|----------------|---|
| Number/package | 1 |
|----------------|---|

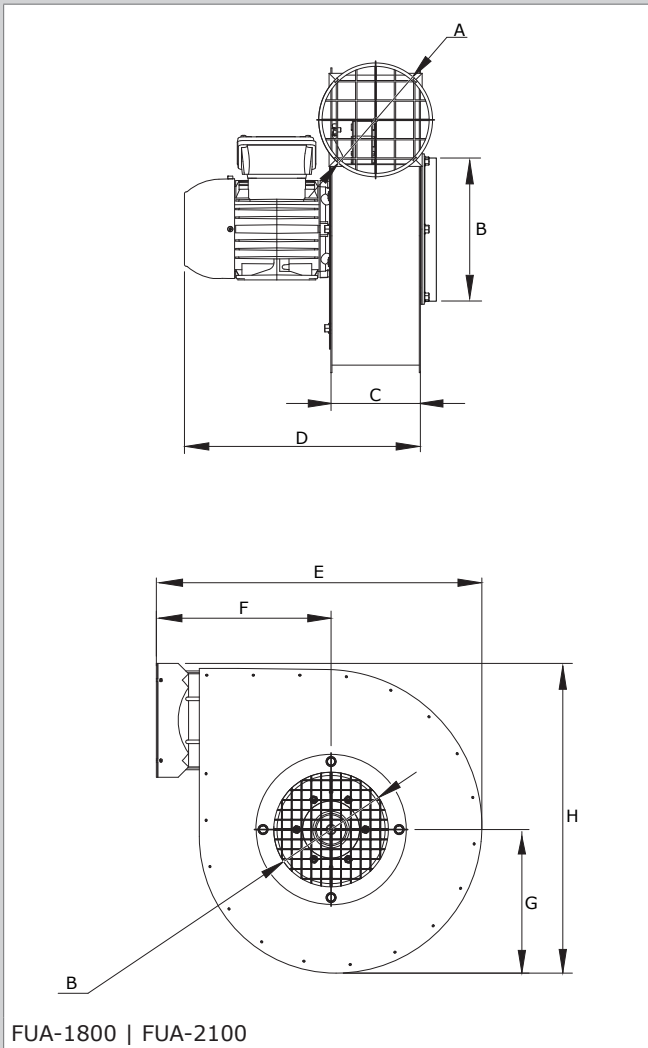
##### Shipping data

|                        |              |
|------------------------|--------------|
| Harmonized Tariff Code | 8414.5940.90 |
|------------------------|--------------|

#### APPROVALS/CERTIFICATES

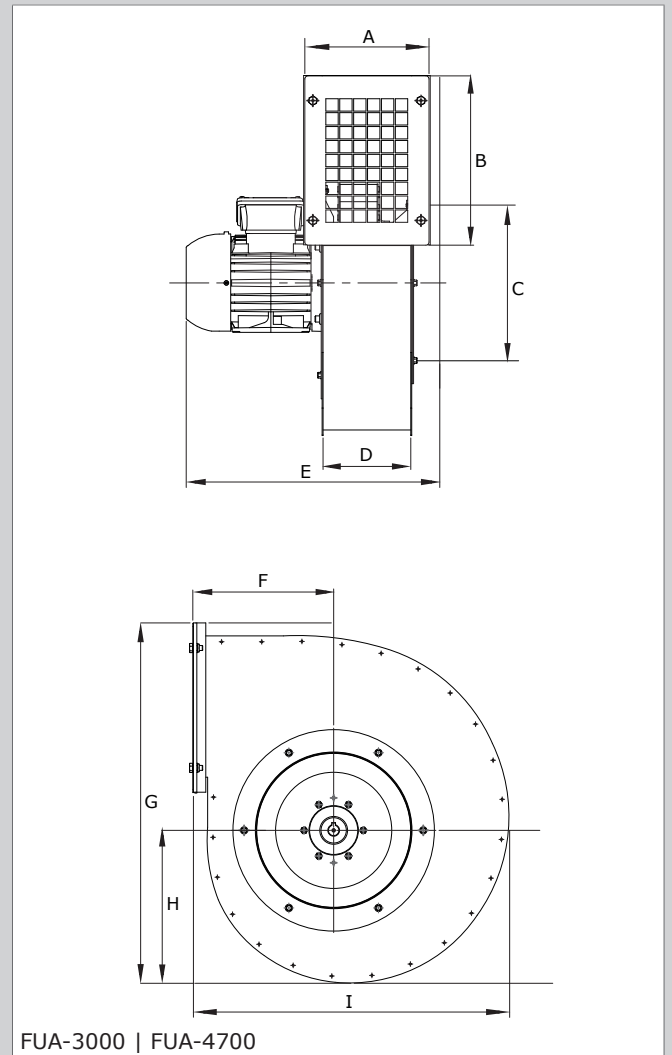
|  |                                                        |
|--|--------------------------------------------------------|
|  | FUA-1800   FUA-4700                                    |
|  | Directive 2011/65/EC (RoHS)<br>valid as of 8 June 2011 |

## DIMENSIONS



FUA-1800 | FUA-2100

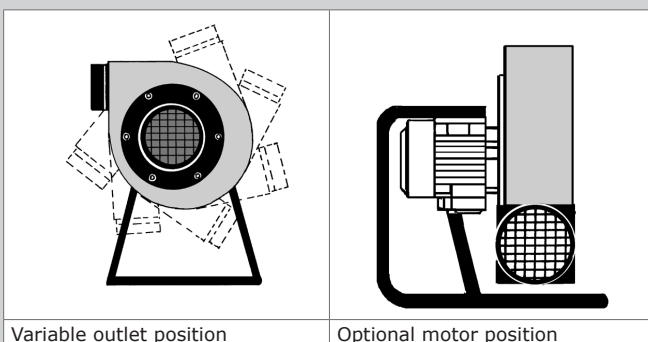
|                              | FUA-1800 |        | FUA-2100 |        |
|------------------------------|----------|--------|----------|--------|
|                              | mm       | inch   | mm       | inch   |
| A                            | Ø 160    | Ø 6.3  | Ø 160    | Ø 6.3  |
| B                            | Ø 160    | Ø 6.3  | Ø 160    | Ø 6.3  |
| C                            | 122      | 4.8    | 122      | 4.8    |
| D                            | 330      | 12.9   | 353      | 13.9   |
| E                            | 455 mm   | 17.9   | 455      | 17.9   |
| F                            | 244 mm   | 9.6    | 244      | 9.6    |
| G                            | Ø 160    | Ø 6.3  | Ø 160    | Ø 6.3  |
| H                            | 433      | 17     | 433 mm   | 17     |
| I                            | 201      | 7.9    | 201 mm   | 7.9    |
| <b>Fan wheel (not shown)</b> |          |        |          |        |
| Diameter                     | Ø 300    | Ø 11.8 | Ø 300    | Ø 11.8 |
| Width                        | 25       | 1      | 60       | 2.4    |



FUA-3000 | FUA-4700

|                              | FUA-3000 |        | FUA-4700 |       |
|------------------------------|----------|--------|----------|-------|
|                              | mm       | inch   | mm       | inch  |
| A                            | 201      | 7.9    | 205      | 8.1   |
| B                            | 274      | 10.8   | 348      | 13.7  |
| C                            | Ø 250    | Ø 9.8  | Ø 245    | Ø 9.6 |
| D                            | 142      | 5.6    | 142      | 5.6   |
| E                            | 410      | 16.1   | 480      | 18.9  |
| F                            | 228      | 9      | 258      | 10.6  |
| G                            | 583      | 23     | 733      | 28.9  |
| H                            | 247      | 9.7    | 297      | 11.7  |
| I                            | 512      | 20.2   | 591      | 23.3  |
| <b>Fan wheel (not shown)</b> |          |        |          |       |
| Diameter                     | Ø 320    | Ø 12.6 | Ø 380    | Ø 15  |
| Width                        | 60       | 2.4    | 45       | 1.8   |

## DISCHARGE AND MOTOR POSITIONS



Variable outlet position

Optional motor position

|                  |                                |
|------------------|--------------------------------|
| Product type     | <b>FUA-1800/2100/3000/4700</b> |
| Article no.      | see order information          |
| Product category | extraction fan                 |
| Version          | 120320/C                       |

Always check the latest version on [www.plymovent.com](http://www.plymovent.com)

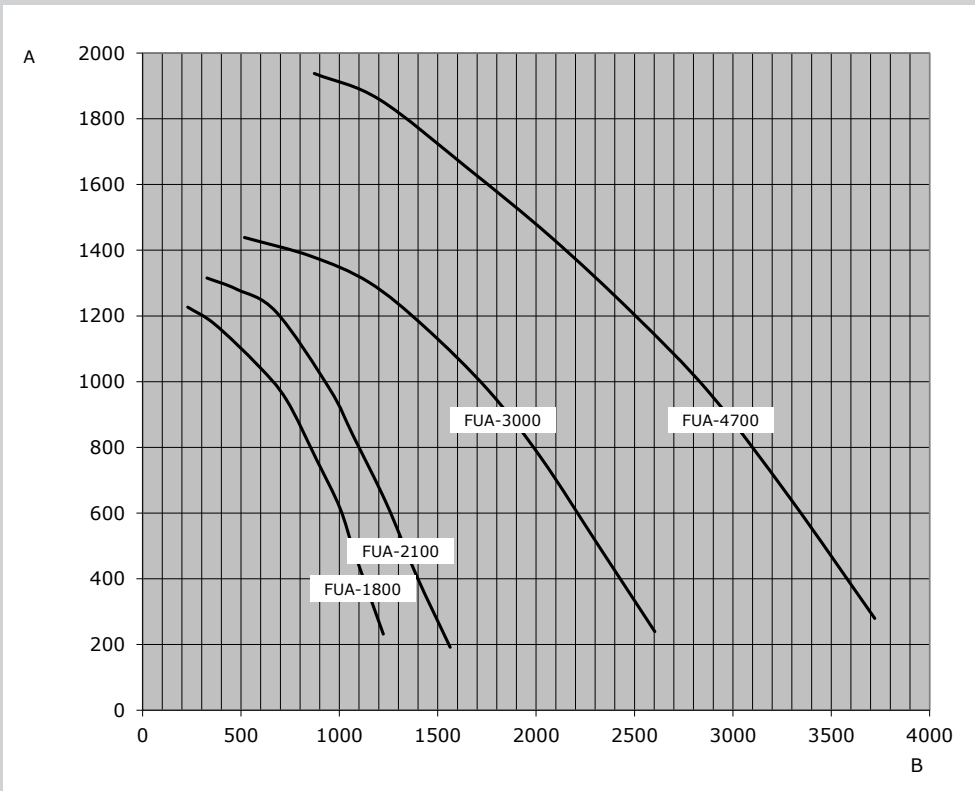
**REMAINING SPECIFICATIONS AND AVAILABLE OPTIONS AND ACCESSORIES**

| Features                                                                                                                                                                | FUA-1800                                       | FUA-2100                                       |                                                | FUA-3000                                       | FUA-4700                                       |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|------------------------------------------------|------------------------------------------------|------------------------------------------------|------------------------------------------------|
|                                                                                                                                                                         | 230-400V                                       | 230V                                           | 230-400V                                       | 230-400V                                       | 230-400V                                       |
| Article number                                                                                                                                                          | 0000100303                                     | 0000100301                                     | 0000100304                                     | 0000100306                                     | 0000100308                                     |
| <b>■ Weight</b>                                                                                                                                                         |                                                |                                                |                                                |                                                |                                                |
| Net weight                                                                                                                                                              | 12,3 kg<br>(27.1 lbs)                          | 16,5 kg<br>(36.4 lbs)                          | 16,4 kg<br>(36.2 lbs)                          | 21,9 kg<br>(48.3 lbs)                          | 34,5 kg<br>(76.1 lbs)                          |
| <b>■ Electrical data</b>                                                                                                                                                |                                                |                                                |                                                |                                                |                                                |
| Connection voltages                                                                                                                                                     | 230-400V/<br>3~/50Hz                           | 230V/<br>1~/50Hz                               | 230-400V/<br>3~/50Hz                           | 230-400V/<br>3~/50Hz                           | 230-400V/<br>3~/50Hz                           |
| Power consumption                                                                                                                                                       | 0,55 kW<br>(0.75 HP)                           | 0,75 kW<br>(1 HP)                              | 0,75 kW<br>(1 HP)                              | 1,1 kW<br>(1.5 HP)                             | 2,2 kW<br>(3 HP)                               |
| Nominal current<br>- 230V<br>- 400V                                                                                                                                     | -<br>1,5/1,4 A                                 | 5 A<br>-                                       | -<br>2/1,9 A                                   | -<br>2,7/2,5 A                                 | -<br>4,9/4,8 A                                 |
| <b>■ Performance</b>                                                                                                                                                    |                                                |                                                |                                                |                                                |                                                |
| Noise level (pressure and suction side duct connected)                                                                                                                  | 63,8 dB(A)                                     | 65,9 dB(A)                                     | 65,9 dB(A)                                     | 68,1 dB(A)                                     | 75,9 dB(A)                                     |
| <b>■ Options and accessories</b>                                                                                                                                        |                                                |                                                |                                                |                                                |                                                |
| <i>Fan on/off manually (wall)</i><br>Motor starter:<br>- motor protection switch 230V/1~/50Hz<br>- motor protection switch 400V/3~/50Hz                                 | -<br>MPS-1-1,6 A                               | MPS-4,0-6,3 A<br>-                             | -<br>MPS-1,6-2,5 A                             | -<br>MPS-2,5-4,0 A                             | -<br>MPS-4-6,3 A                               |
| <i>Fan on/off manually (on hood of extraction arm)</i><br>- starter for fan and working light<br>- thermal relay 230V/3~/50Hz<br>- thermal relay 400V/3~/50Hz           | SA-24-75<br>MS-2.3/3.2<br>MS-0.9/1.3           | SA-24-75<br>MS-4.5/6.3<br>-                    | SA-24-75<br>MS-2.3/3.2<br>MS-1.4/2.0           | SA-24-75<br>MS-4.5/6.3<br>MS-2.3/3.2           | SA-24-75<br>MS-7.2/10<br>MS-4.5/6.3            |
| <i>Fan on/off automatically (inductive sensor)</i><br>- starter for fan and working light<br>- thermal relay 230V/3~/50Hz<br>- thermal relay 400V/3~/50Hz               | ES-90-005<br>MS-2.3/3.2<br>MS-0.9/1.3          | ES-90-005<br>MS-4.5/6.3<br>-                   | ES-90-005<br>MS-2.3/3.2<br>MS-1.4/2.0          | ES-90-005<br>MS-4.5/6.3<br>MS-2.3/3.2          | ES-90-005<br>MS-7.2/10<br>MS-4.5/6.3           |
| <i>Fan on/off automatically (light sensor)</i><br>- starter for fan and working light<br>- light sensor<br>- thermal relay 230V/3~/50Hz<br>- thermal relay 400V/3~/50Hz | ES-90-005<br>LS-12<br>MS-2.3/3.2<br>MS-0.9/1.3 | ES-90-005<br>LS-12<br>MS-4.5/6.3<br>-          | ES-90-005<br>LS-12<br>MS-2.3/3.2<br>MS-1.4/2.0 | ES-90-005<br>LS-12<br>MS-4.5/6.3<br>MS-2.3/3.2 | ES-90-005<br>LS-12<br>MS-7.2/10<br>MS-4.5/6.3  |
| Mounting bracket stand (for free standing or mounting on wall, ceiling or platform)                                                                                     | MB-FUA/S1                                      | MB-FUA/S1                                      | MB-FUA/S1                                      | MB-FUA/S2                                      | MB-FUA/S2                                      |
| Mounting bracket crane (for mounting on UK or FlexMax)                                                                                                                  | MB-FUA/C1                                      | MB-FUA/C1                                      | MB-FUA/C1                                      | MB-FUA/C2                                      | -                                              |
| Outlet transition from rectangular to round<br>- Ø 250 mm<br>- Ø 315 mm                                                                                                 | -<br>-                                         | -<br>-                                         | -<br>-                                         | OL-250<br>-                                    | OL-250<br>OL-315                               |
| Soft connection for noise and vibration free connection to duct<br>- inlet<br>- outlet                                                                                  | SC-160<br>SC-160                               | SC-160<br>SC-160                               | SC-160<br>SC-160                               | SC-250<br>SC-250                               | SC-250<br>SC-250/315                           |
| <b>■ Shipping data</b>                                                                                                                                                  |                                                |                                                |                                                |                                                |                                                |
| Gross weight                                                                                                                                                            | 14,4 kg<br>(31.8 lbs)                          | 18,5 kg<br>(40.8 lbs)                          | 18,5 kg<br>(40.8 lbs)                          | 26 kg<br>(57.3 lbs)                            | 43,5 kg<br>(95.9 lbs)                          |
| Packing dimensions                                                                                                                                                      | 470 x 470 x 515 mm<br>(18.5 x 18.5 x 20.3 in.) | 470 x 470 x 515 mm<br>(18.5 x 18.5 x 20.3 in.) | 470 x 470 x 515 mm<br>(18.5 x 18.5 x 20.3 in.) | 590 x 590 x 480 mm<br>(23.3 x 23.3 x 18.9 in.) | 860 x 750 x 630 mm<br>(33.9 x 29.5 x 24.8 in.) |

## PRODUCT COMBINATIONS

| Fan type                                           |   | Application                                                                                                                                            | Mounting bracket                                                    |
|----------------------------------------------------|---|--------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|
| <b>General</b>                                     |   |                                                                                                                                                        |                                                                     |
| FUA-1800<br>FUA-2100                               | + | (Free-)standing, wall or ceiling mounting (universal)                                                                                                  | ▶ MB-FUA/S1                                                         |
| FUA-3000<br>FUA-4700                               | + | (Free-)standing, wall or ceiling mounting (universal)                                                                                                  | ▶ MB-FUA/S2                                                         |
| <b>Extraction arm/crane</b>                        |   |                                                                                                                                                        |                                                                     |
| FUA-1800<br>FUA-2100                               | + | KUA-160<br>KUA-200<br>Junior LM-2<br>EconomyArm                                                                                                        | <i>No bracket required<br/>(direct mounting on arm<br/>bracket)</i> |
| FUA-1800<br>FUA-2100                               | + | MultiSmart Arm-125<br>MultiSmart Arm-160<br>MultiSmart Arm-200<br>FlexMax<br>UK "Plymoth"<br>FEB crane (vehicle exhaust)<br>EB crane (vehicle exhaust) | ▶ MB-FUA/C1                                                         |
| FUA-3000                                           | + | MSA-200<br>FlexMax<br>UK "Plymoth"<br>FEB crane<br>EB crane                                                                                            | ▶ MB-FUA/C2                                                         |
| FUA-3000                                           | + | KUA-200<br>MultiSmart Arm-200                                                                                                                          | ▶ MB-FUA/C2                                                         |
| <b>Duct connection / central extraction system</b> |   |                                                                                                                                                        |                                                                     |
| FUA-1800<br>FUA-2100                               | + | Duct connection                                                                                                                                        | ▶ MB-FUA/S1                                                         |
| FUA-3000<br>FUA-4700                               | + | Duct connection                                                                                                                                        | ▶ MB-FUA/S2                                                         |
| <b>Hose reel / drop system</b>                     |   |                                                                                                                                                        |                                                                     |
| FUA-1800<br>FUA-2100                               | + | Hose reel / drop system (vehicle exhaust)                                                                                                              | ▶ FEF-KIT                                                           |

## FAN CURVES



A = Static pressure (Pa)

B = Airflow (m<sup>3</sup>/h)