

# Operation and Maintenance Instructions

Operation and Maintenance Instructions for EC Aura 230V

Document no 210-OM0013-40

Issue 6



Part No: COOL500EC-230

Manufacturer: ebm-papst UK Ltd

Stationary class 1 motor operated appliance with a fixed supply cord

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## 1. Safety Notice



### **WARNING** **Danger of Electric Shock**



A connection converter plug suitable for a UK mains socket is pre-assembled. If this is not suitable refer to Section 3 for instructions to remove. A 2-pin and earth connector is pre-wired to the mains supply lead

### **OTHER HAZARDS**

- Do not leave under 14 years old children near the appliance unsupervised when appliance is in operation
- Do not push fingers or objects through guards
- Keep guards clear from obstructions
- Do not operate appliance in an explosive atmosphere
- If the supply cord is damaged it must be replaced by the manufacturer or its service agent, or similarly qualified person
- Isolate the appliance by disconnecting the plug and supply cord from the mains socket. The switch on the appliance does not isolate the appliance
- Do not move the appliance during operation. Disconnect from mains supply before moving
- Do not jet or power wash

### **OTHER CONSIDERATIONS**

The mains plug is a disconnection device. The earth bond resistance is nominally 0.16 ohms

## 2. Specification

### 2.1 General

This is a stationary Class I motor -appliance with a fixed supply lead

Manufacturer: ebm-papst UK ltd

Part number: COOL500EC-230

Voltage: 230 V 50/60 Hz

Current: rated for maximum 2.2 Amp

Ambient temperature: Maximum 55°C

Protection: IP54

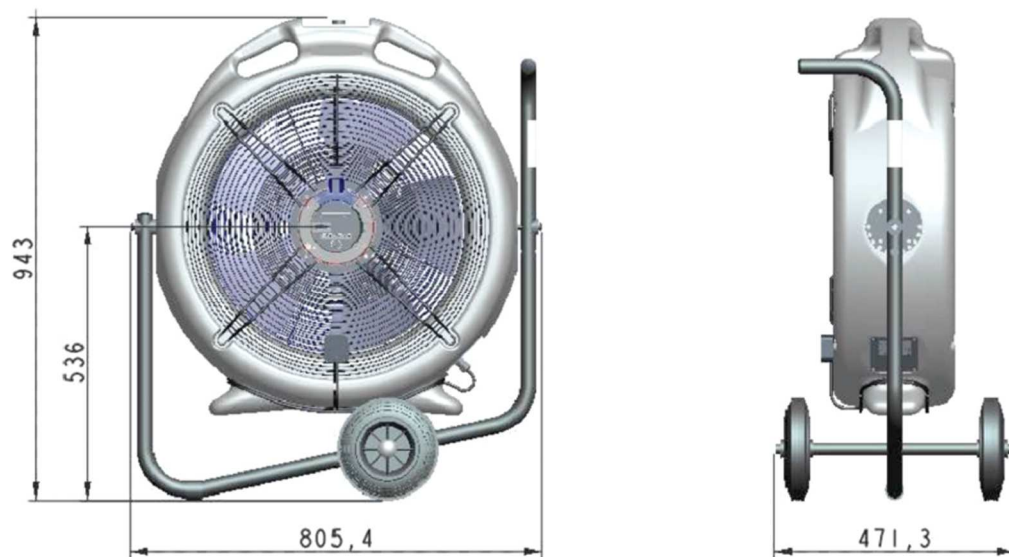


Figure 1 - EC Aura

### 2.2 eco-design regulation for fans 327/2011

The fan integrated in this appliance meets the requirements of eco-design regulation 327/2011 for fans driven by motors. The following is data as required by the regulation.

2.		Actual	Target
(1)	Overall efficiency $\eta_{es}$ (%)	32.9	30.8
(2)	Measurement category	A	
(3)	Efficiency category	Static	
(4)	Efficiency grade N	41.9	40
(5)	Variable Speed Drive (VSD)	yes	
(6)	Year of manufacture	The month and year of manufacture is shown on the data plate as month/year xx/xx	
(7)	Manufacturer	ebm-papst UK ltd Chelmsford Business Park Chelmsford Essex CM2 5EZ United Kingdom Great Britain	
(8)	Product model number	A3G500-AD01-51 with stator incorporated within the appliance housing	
(9) <sub>1</sub>	Power consumption $P_{ed}$ (kW) at optimal energy efficiency	0.357	

(9) <sub>2</sub>	Flow rate $q_v$ (m <sup>3</sup> /h) at the optimal energy efficiency	4,117
(9) <sub>3</sub>	Pressure $p_{sf}$ (Pa) at the optimal energy efficiency	92
(10)	Rotational speed rpm (n/min <sup>-1</sup> ) at the optimal energy efficiency	1,106
(11)	Specific ratio	1.00
(12)	Disassembly, recycling and disposal at end-of-life	Information is provided within the Operation and Maintenance Instructions
(13)	Maintenance	Information is provided within the Operation and Maintenance Instructions
(14)	Additional components	No additional components were used when determining the efficiency of the fan.

Table 1 - data according to regulation 327/2011

## 3 Use of connection converter plug

### 3.1 General

The appliance is supplied fitted with a supply cord and plug. The plug is a 'schuko' type plug to DIN VDE 0620 with a converter plug fitted over the 'schuko' plug for connection to a standard UK socket to BS 1363.

If the appliance is to be used in a country that has mains socket suitable for use with a 'schuko' plug then the converter plug can be removed with simple tools.

### 3.2 Warning

The converter plug should not be removed whilst connected to a mains socket. Disconnect from the mains before proceeding to 3.3

### 3.3 Removal of converter plug

- The appliance is supplied with the converter plug fitted over the 'schuko' plug as shown in figure 1.



*Figure 2 – As supplied; converter plug fitted*

- The screws of the converter plug are loosened as shown in figure 2



*Figure 3 – loosening of screws of converter plug*

- The top housing is held in place by two barbed inserts. Insert small screw driver as shown in figure 3 to release the barbed clips.



*Figure 4 – releasing of the barbed clips or the top housing*



- The top housing is then lifted allowing removal of the 'schuko' plug, see figure 5.

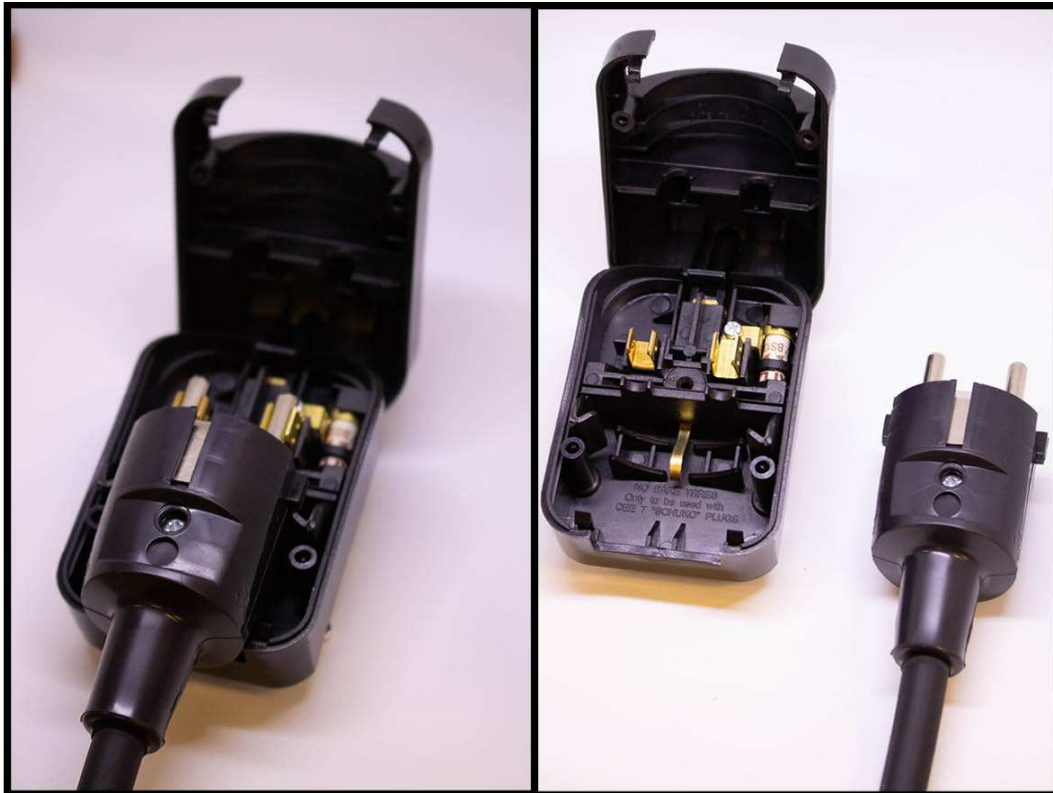


Figure 5 - picture showing 'schuko' plug inside converter plug

## 4 Operating instruction

The EC Aura is an appliance to assist cooling by blowing a jet of air. The appliance shall be connected to a mating mains socket and power turned on.

There is an actuator to turn the appliance on and off on the top of the appliance. Warning: this does not isolate the mains supply. To isolate the appliance disconnect the plug and supply cord from the mains supply socket.

When the actuator switch is turned on the speed of the fan and the volume of air moved is adjusted by rotating the knob on top of the appliance.

The appliance can be tilted to angle the jet of air up or down. Warning: ensure the supply cord does not become jammed.

The appliance can be moved using the fixed wheels. Warning: do not move the appliance during operation.

## 5 Maintenance

- Electrical Strength Test: the regular high-voltage test must be undertaken with a DC voltage to avoid damaging internal electronic components.
- A replaceable 5 AMP fuse is fitted in the convertible plug.
- This appliance contains no user serviceable parts.
- Clean only with a damp cloth. Warning: do not jet or power wash.

- If the supply cord is damaged return to the supplier for repair or repair using a suitably qualified person in order to avoid a hazard.

## 6 WEEE (waste electrical and electronic equipment)

ebm-papst UK Ltd complies with the Waste Electrical and Electronic Equipment (WEEE) Regulations through membership of a producer compliance scheme (PCS) as a B2B producer. EEE Producer registration number: WEE/CA0209WR.

## 7 End of life

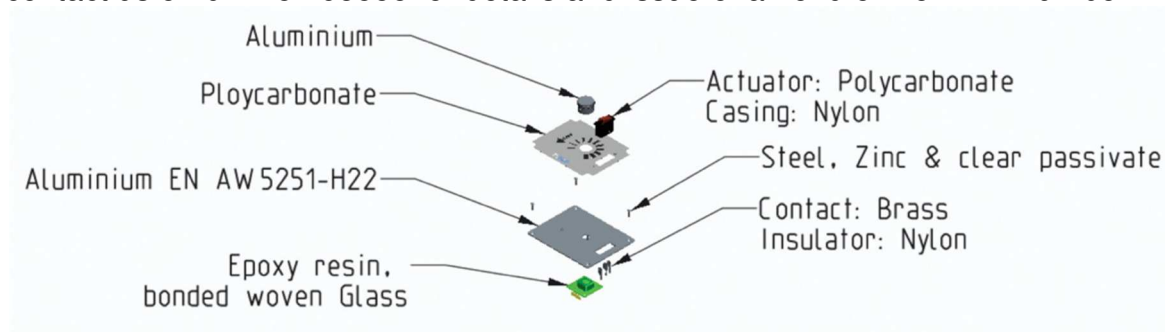
This product has been designed to consider re-use and end-of-life disposal. The parts likely to wear during use, the tilt mechanism, electric motor/fan and speed control unit are designed for easy repair or replacement. The manufacturer should undertake the repair of the components, but a suitably qualified and competent person can undertake replacement of the components, enabling the life of the product to be extended.

If the product has come to the end of its life and it is not practical to repair then the unit can be easily disassembled for the components to be recycled. The product has been designed to meet the requirements of the RoHS directive and most of the materials can be recycled.

Refer to figure 6, 7 and 8 when repairing or dismantling the appliance.

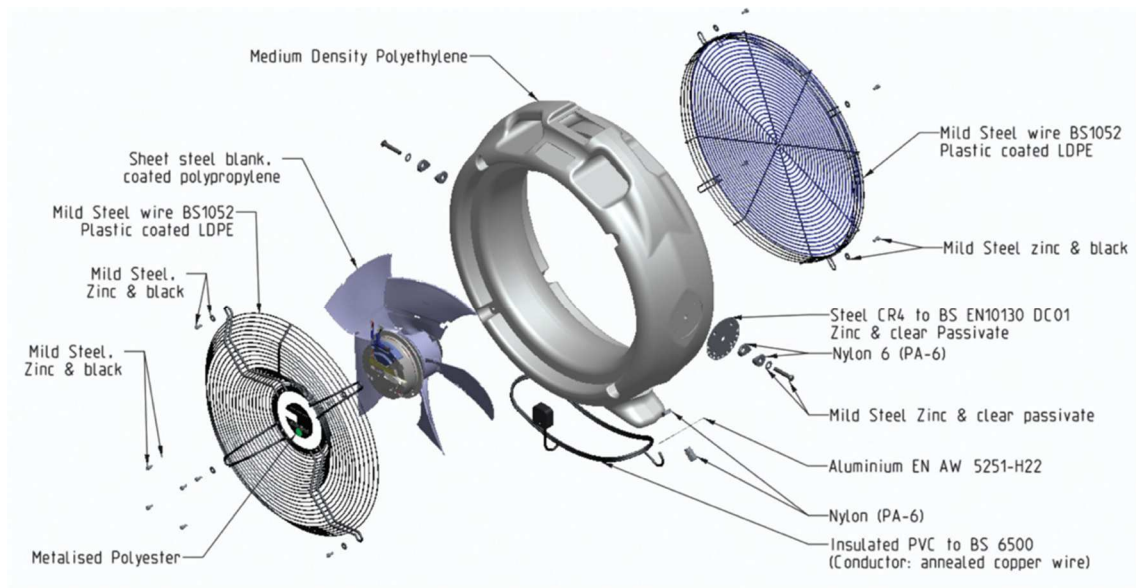
## 8 Take back policy

As part of our commitment to minimise the disposal of Waste Electrical and Electronic Equipment (WEEE) customers can return the ec aura at the end of its life. Please contact us on 01245 468555 for details and issue of an end of life RMA number.

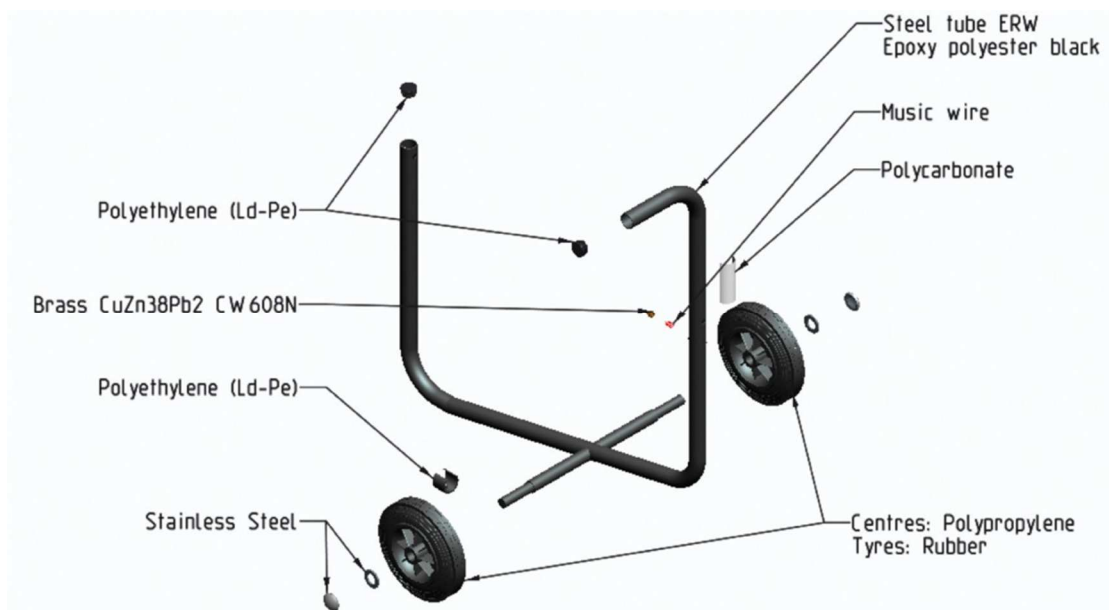


**Figure 6 - control panel sub assembly**





**Figure 7 - housing sub assembly**



**Figure 8 - trolley sub assembly**

## 9 Data sheet



## EC-Aura

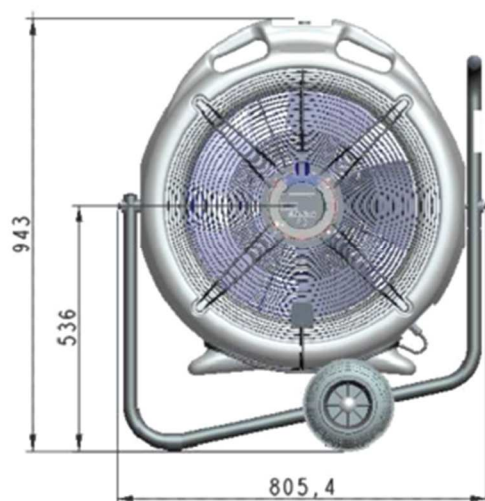
Stand alone, wheel mounted EC fan.

The EC Aura is a quiet yet powerful portable fan. Designed with a variable speed controller, the air flow can be varied to offer gentle cooling to high powered blowing. These fans provide an adjustable, energy efficient, low noise option to traditional temporary cooling solutions.

- Infinitely variable speed control
- Available in 230VAC & 110VAC 50/60Hz versions
- 180° adjustable tilt angle
- ebm-papst GreenTech energy efficient EC fan
- Robust Polyethylene moulding
- Rubber wheels and convenient handle for easy positioning
- Extrusion coated polypropylene impeller
- Heavy duty powder-coated wheeled frame for effortless positioning
- Maintenance-free IP54 Motor
- Supplied with adjustable EU and standard UK 3-pin

	Supply Voltage	Frequency	Maximum airflow	Max. Current Draw	Max. power input	Sound Pressure @ 3M	Mass	Max. Ambient Temperature	Air Velocity @ 5M	Air Velocity @ 10M	Air Velocity @ 15M	Air Velocity @ 20M
Part Number	VAC	Hz	m³/h	Amps	kW	dB(A)	kg	°C	m³/s	m³/s	m³/s	m³/s
Cool500ec-230	230	50/60	7250	2.2	0.36	67	24	+55	2.3	1.3	1.1	1.0
Cool500ec-115	115	50/60	7250	3.3	0.37	67	24	+55	2.3	1.3	1.1	1.0

### Dimensions



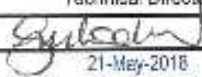
## 10 Certificate of Conformity

**ebmpapst**

Part No - COOL500EC-230

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Certificate No - COOL500EC-230CE

CE DECLARATION OF CONFORMITY		
<b>Declaration</b>		
We, ebm-papst UK Ltd, Chelmsford Business Park, Chelmsford, Essex CM2 5EZ certify that the product(s) listed are in conformity with:		
Low Voltage Directive 2014/35/EU Electromagnetic Compatibility Directive 2014/53/EU		
	<b>Declaration Approved</b>	<b>Technical File Compiled</b>
<b>Name</b>	G. M. Lockwood	Jeremy Spouge
<b>Position</b>	Technical Director	Mechanical Design Engineer
<b>Signature</b>		
<b>Date of Declaration</b>	21-May-2018	21-May-2018
<b>Issue / Bug No</b>	Issue 2	(Bug no 2254)
<b>Part number:</b>	COOL500EC-230	
<b>Description:</b>	Personnel Cooler with EC motor	
The product(s) have been assessed by the application of the following Standards: BS EN 60335-1:2012+A13:2017 - Specification for safety of household and similar electrical appliances. General requirements Interference emission acc to EN 61000-6-3 Interference Immunity acc to EN 61000-6-2 Harmonics acc to EN 61000-3-2/3 BS EN ISO 13857 - Safety of machinery. Safety distances to prevent hazard zones being reached by upper and lower limbs		