# **VARMEBLÆSER**



# EA WALL MOUNTED





# FΔ **ELECTRIC FAN HEATERS FOR** WALL MOUNTING

EA is a range of electric fan heaters with a broad output range intended for permanent heating of warehouses, Industrial premises, garages, drying rooms, and more. The simple clean design also makes the EA range suitable for public areas, such as stores.

- 5 different output variants from 6 kW to 30 kW
- Two fan speeds
- · Integrated regulator and switches for low/high fan speed and continuous/intermittent fan operation
- Regulated with 0...10 V signal or room thermostat
- · Air deflector for vertical adjustment of the outlet air
- Together with the thermostat MCD4-1999, complies with the Ecodesign directive 2009/125/EU and EU regulation 2015/1188.
- · Wall bracket allows for continuous angular adjustment of the fan heater



#### **DESIGN**

The casing is made of white lacquered galvanised sheet steel and the heating elements are made of stainless steel, EN 1.4301. The terminal box contains automation for temperature control. IP44 degree of protection (splash-proof execution) and approved for use in humid and wet areas (e.g. drying room).

#### **MOUNTING/INSTALLATION**

Wall brackets are included.

EA is supplied with a type OK 2 external switch used for turning the heating fan on/off, and to limit power consumption.

An EA with a connected sensor/thermostat can control an unlimited amount of slaved EA units. The slave-controlled units receive their control signal from the EA which has a sensor/thermostat connected.

### **Approvals**

Fan heater tested and approved by Intertek Semko AB according to:

LVD directive: EN 60335-1 and EN 60335-2-30

EMC directives: EN 61000-6-1, EN 61000-6-2, EN 61000-6-3 and EN 61000-6-4

EMF directive: EN 62233



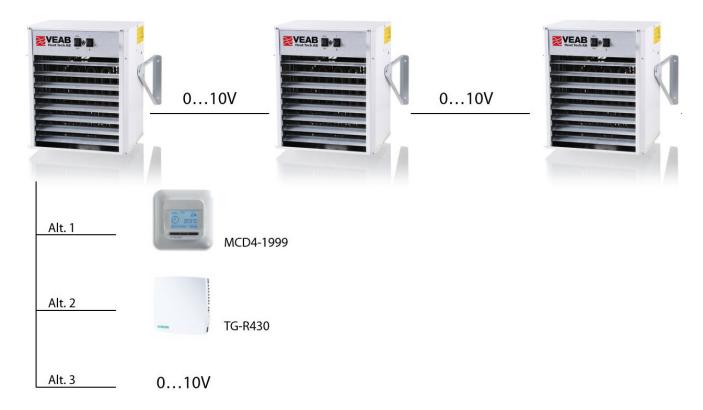








#### **CONTROL UNIT**



#### **PRODUCT RANGE OVERVIEW**

Туре		EA 6	EA 9	EA 14	EA 21	EA 30
Voltage	V	400 VAC 3-ph. N 50/60 Hz				
Current	Α	8.8	13.1	20.4	30.5	43.5
Output	kW	6	9	14	21	30
Output stage	kW	0-3-6	0-6-9	0-7-14	0-14-21	0-20-30
Air volume (low/high speed)	m³/h	970 / 1300	970 / 1300	1950 / 2650	1950 / 2650	2800 / 3900
Temp. increase due to heater (low/high speed)	°C	17 / 13	26 / 19	20 / 15	30 / 22	30 / 21
Max. horizontal range (low/high speed)	m	10 / 13	10 / 13	11 / 15	11 / 15	12 / 16
Sound pressure level <sup>1)</sup> (low/high speed)	dB(A)	45 / 54	45 / 54	48 / 57	48 / 57	56 / 63
Weight	kg	15	16	30	33	43
Dimensions excl. wall bracket, W × H × D	mm	388 × 453 × 350	388 × 453 × 350	552 × 610 × 385	552 × 610 × 385	552 × 610 × 505
Dimensions incl. wall bracket, $W \times H \times D$	mm	388 × 453 × 475	388 × 453 × 475	552 × 610 × 510	552 × 610 × 510	552 × 610 × 615
Degree of protection		IP44	IP44	IP44	IP44	IP44

 $<sup>^{1)}</sup>$  Measured at 5 metres in front of appliance.

# **Project Design/Orders**

#### **Description - EA**

Electrical fan heater, VEAB type EA, with casing made of white lacquered sheet steel and heating elements made of stainless steel, EN 1.4301 IP44 degree of protection. EA heaters are supplied with wall brackets and external switch (type OK2). Feedback control is achieved by means of the MCD4-1999 room thermostat or an external 0...10 V control signal. Outside the EU, sensors can also be used. Accessories such as a thermostat and sensor must be ordered separately.



# ROBUST C ELECTRIC FAN HEATERS FOR CORROSIVE ENVIRONMENTS

Robust C has been specially designed for wall-mounting in corrosive environments, such as vehicle washing facilities, sewage treatment plants and industrial plants. Robust C features an IP65 degree of protection and is thus protected against water projected from a nozzle.

- · Approved for use in humid and corrosive environments
- Casing, heating elements, grille and legs/stand made of stainless steel
- · All models are for mobile use or wall mounting
- IP65 degree of protection—protected against dust and water jets
- · Corrosion class C5-M



The casing, heating elements and grille are made of acid-resistant stainless steel, EN 1.4404 and the legs/stand are made of stainless steel, EN 1.4301. Integrated thermostat and power selector. Easy electrical installation with plug (except 230 VAC 1-ph., 230 VAC 3-ph.).

IP65 degree of protection (protected against dust and water jets).



#### **ACCESSORIES**

An external RTC/RTC4 control box, with IP65 degree of protection can be connected to the Robust C.





#### PRODUCT RANGE OVERVIEW

Туре		C3	C6	C6N	C9	C9N	C15
Voltage	V	230 VAC 1-ph. 50/60 Hz	400 VAC 3-ph. 50/60 Hz	230 VAC 3-ph. 50/60 Hz	400 VAC 3-ph. 50/60 Hz	230 VAC 3-ph. 50/60 Hz	400 VAC 3-ph. 50/60 Hz
Output	kW	3	6	6	9	9	15
Output stage	kW	0-2-3	0-3-6	0-3-6	0-4.5-9	0-4.5-9	0-7.5-15
Current	Α	9.1 / 13.5	4.5 / 8.9	7.8 / 15.4	6.7 / 13.2	11.6 / 22.9	11.2 / 22
Temp. increase due to heater	°C	21	17	17	25	25	32
Thermostat	°C	0-35	0-35	0-35	0-35	0-35	0-35
Sound pressure level <sup>1)</sup>	dB(A)	48	55	55	55	55	62
Air volume	m³/h	400	1000	1000	1000	1000	1300
Weight	kg	11	19	19	19	19	22
Width	mm	300	375	375	375	375	375
Height	mm	375	445	445	445	445	445
Depth	mm	360	432	432	432	432	432

# **Project Design/Orders**

#### **Description - Robust C**

Electrical fan heater, VEAB type Robust C, with casing, heating element and grille made of stainless, acid-resistant steel, EN 1.4404, and legs/stand made of stainless steel, EN 1.4301. IP65 degree of protection. Feedback control is achieved by means of the integrated thermostat and the power selector. Optional RTC/RTC4 external control box to be ordered separately..



# ROBUST H ELECTRIC FAN HEATERS FOR INDUSTRIAL APPLICATIONS

Robust H is intended for applications and premises that need to be heated to a max. temperature of 70 °C. The fans are used for drying and curing processes as well as for pest control.

- · Approved for temperatures up to 70 °C
- · Casing, heating elements, grille and legs/stand made of stainless steel
- · All models are for mobile use or wall mounting
- IP44 degree of protection splash-proof



The casing is made of stainless sheet steel, EN 1.4016, the heating elements and grille are made of acid-resistant stainless steel, EN 1.4404, and the legs/stand are made of stainless steel, EN 1.4301. Integrated thermostat and power selector. Easy electrical installation with plug (except 230 VAC 3-ph.). IP44 degree of protection (splash-proof).





#### **ACCESSORIES**

An external RTH thermostat, with IP44 degree of protection can be connected to the Robust H.

#### PRODUCT RANGE OVERVIEW

Туре		H6	H6N	H9
Voltage	V	400 VAC 3-ph. N 50/60 Hz	230 VAC 3-ph. 50/60 Hz	400 VAC 3-ph. N 50/60 Hz
Output	kW	6	6	9
Output stage	kW	0-3-6	0-3-6	0-4.5-9
Current	А	4.5 / 8.9	7.8 / 15.4	6.7 / 13.2
Temp. increase due to heater	°C	17	17	25
Thermostat	°C	0-70	0-70	0-70
Sound pressure level <sup>1)</sup>	dB(A)A	55	55	55
Air volume	m³/h	1000	1000	1000
Weight	kg	19	19	19
Width × Height × Depth	mm	375 × 445 × 432	375 × 445 × 432	375 × 445 × 432

<sup>1)</sup> Measured at 5 metres in front of appliance.

### **Project Design/Orders**

#### **Description - Robust H**

Electrical fan heater, VEAB type Robust H, with casing made of stainless sheet steel, EN 1.4016, heating elements and grille made of acid-resistant stainless steel, EN 1.4404, and legs/stand made of stainless steel, EN 1.4301. IP44 degree of protection. Feedback control is achieved by means of the integrated thermostat and the power selector. Optional RTH thermostat to be ordered separately.



# ROBUST C ELECTRIC FAN HEATERS FOR MARINE AND OFFSHORE APPLICATIONS

Robust V is designed for use on ships and in the offshore industry.

The heating elements are electrically insulated from the casing to prevent leakage currents.

- Tested and approved by Det Norske Veritas
- Electrical safety and vibration tested for use on ships
- · Reinforced electrical insulation
- Bracketed heating elements and reinforced motor support
- · All models are for mobile use or wall mounting
- IP44 degree of protection splash-proof



The casing is made of stainless sheet steel, EN 1.4016, the grille is made of stainless steel, EN 1.4301, and the legs/wall bracket are made of zinc-plated sheet steel lacquered with black epoxy. Robust V3, V3R and V3.6 come with heating elements made of acid-resistant stainless steel, EN 1.4404 and Robust V5, V5N and V6 come with heating elements made of stainless steel, EN 1.4301. The heating elements are electrically insulated from the casing to eliminate leakage currents. Heating element package and motor with reinforced fastenings to handle vibrations on ships. Integrated thermostat and power selector. IP44 degree of protection (splash-proof).



#### **ACCESSORIES**

An external RTC/RTC4 control box, with IP65 degree of protection can be connected to the Robust V.

#### **PRODUCT RANGE OVERVIEW**

Туре		V3R	V3	V3.6	V5N	V5	V6
Voltage	V	230 VAC 1-ph. 50/60 Hz	400 VAC 3-ph. 50/60 Hz	440 VAC 3-ph. 50/60 Hz	230 VAC 3-ph. 50/60 Hz	400 VAC 3-ph. 50/60 Hz	440 VAC 3-ph. 50/60 Hz
Output	kW	3	3	3.6	5	5	6
Output stage	kW	0-2-3	0-1.5-3	0-1.8-3.6	0-2.5-5	0-2.5-5	0-3-6
Current	Α	9.1 / 13.5	4.0 / 4.6	4.4 / 5.1	10.7 / 12.0	6.5 / 7.5	7.1 / 8.2
Temp. increase due to heater	°C	21	21	25	20	20	24
Thermostat	°C	0-35	0-35	0-35	0-35	0-35	0-35
Sound pressure level <sup>1)</sup>	dB(A)	48	48	48	53	53	53
Air volume	m³/h	400	400	400	700	700	700
Weight	kg	12	12	12	12	12	12
Width	mm	300	300	300	300	300	300
Height	mm	375	375	375	375	375	375
Depth	mm	360	360	360	360	360	360

### **Project Design/Orders**

#### **Description - Robust V**

Electrical fan heater, VEAB type Robust V, with casing made of stainless sheet steel, EN 1.4016, grille made of stainless steel, EN 1.4301, and legs/wall bracket made of zinc-plated sheet steel lacquered with black epoxy. Robust V3, V3R and V3.6 come with heating elements made of acid-resistant stainless steel, EN 1.4404 and Robust V5, V5N, V6T and V6 come with heating elements made of stainless steel, EN 1.4301. The heating elements are electrically insulated from the casing. Heating element package and motor with reinforced fastenings. IP44 degree of protection. Feedback control is achieved by means of the integrated thermostat and the power selector. Optional RTC/RTC4 external control box to be ordered separately.



#### **VORES PRODUKTSORTIMENT INKLUDERER:**













### VI FØRER PRODUKTER INDENFOR KATEGORIERNE:



HVAC & BYGNINGS-



AUTOMATIK

HVAC & BYGNING AUTOMATIK

**KØLEPROFILER** 



