



# Industrial Electric Convectors

for ATEX/IECEx hazardous areas

SPACE HEATING

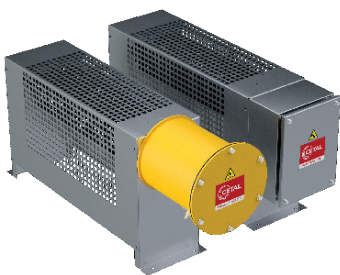
New  
optimized  
range !



The ATEX/IECEx industrial convectors by CETAL are designed in a particularly robust way for space heating in hazardous areas.

## Applications

- Industrial premises
- Technical facilities
- Containers
- Paint booths
- Storage halls for flammable chemicals
- Drilling platforms and sites



New models  
with Ex e  
connection box



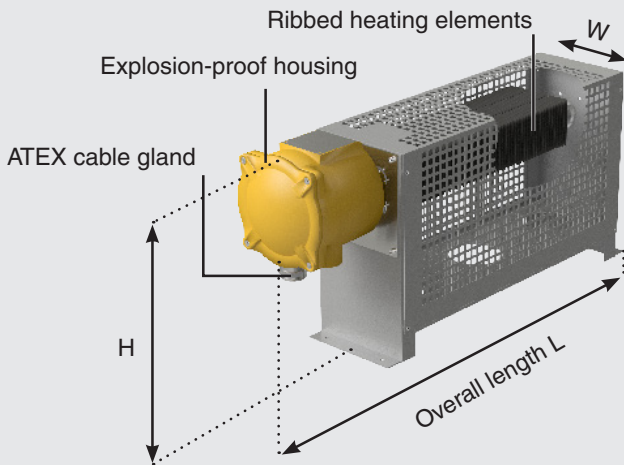
ATEX



DESP CE EAC

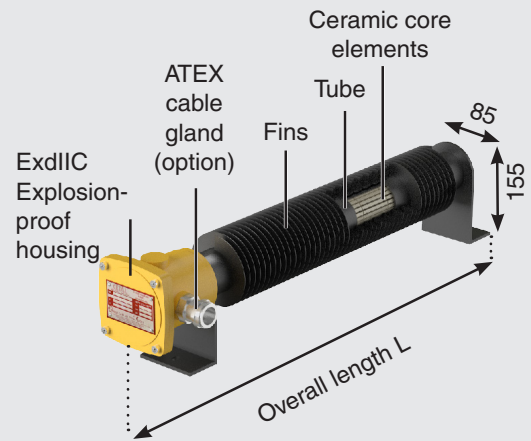
### RAE Series

500 W to 3 kW, 230 V 1PH, 400 V 3PH  
Ex d, Ex e



### RBAE Series

500 W to 2 kW, 230 V 1PH,  
Ex d



	RAE Series	RBAE Series
According to EC type examination certification	LCIE 01 ATEX 6042 X IECEX certification undergoing treatment	LCIE 01 ATEX 6042 X IECEX certification undergoing treatment
Type of heating elements	Ribbed heating elements	Ceramic core element
Materials	Partially open galvanized steel frame, or stainless steel, enamelled fins. The stainless steel version is recommended for use in particular environments such as salt-water environment.	Coated steel tube and fins
Support and chassis	Galvanized steel or stainless steel	Painted steel
ATEX/IECEX temperature class	T3 / T4	T3 / T4*
Ambient operating temperature	- 50 °C ≤ Ta ≤ + 40° C	
Max. temperature on heating element	+ 200 °C (T3) / + 135 °C (T4) at 40 °C ambient temperature	
Coupling	500 W and 750 W versions: 230 V 1PH Other versions: 230 V 1PH or 400 V 3PH star or delta connection **	230 V 1PH, 400 V 3PH on demand
ATEX/IECEX housing	Type d ExdIIc, painted aluminium, RAL 1004 yellow paint finish including ATEX cable gland, nickel-plated brass	Type "d" ExdIIc, painted aluminium, RAL 1004 yellow paint finish
Options	Integrated thermostat, stainless steel sleeve, 0/40 °C 3PH, -20/+50 °C 1PH or 0/38 °C 1PH depending on the model	
	<ul style="list-style-type: none"> <li>• Wall mounting kit</li> <li>• Other supply voltage on demand</li> <li>• Other ambient temperature on demand</li> </ul>	

\* on request

\*\* other voltage on demand, max. 680 V



## Certifications

- Certified for operation in hazardous areas in zone 1/21 and 2/22
- EC-type examination certificate LCIE 01 ATEX 6042X
- IECEx certification undergoing treatment
- EAC & CU TR (former GOST)



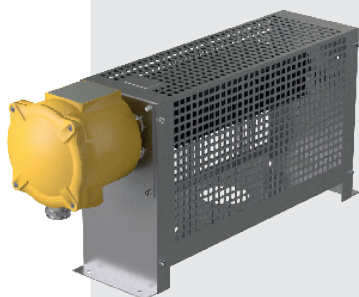
ATEX



DESP CE EAC

## ATEX housings, types of protection d and e

In zone 1/21 and 2/22, both types of protection can be used

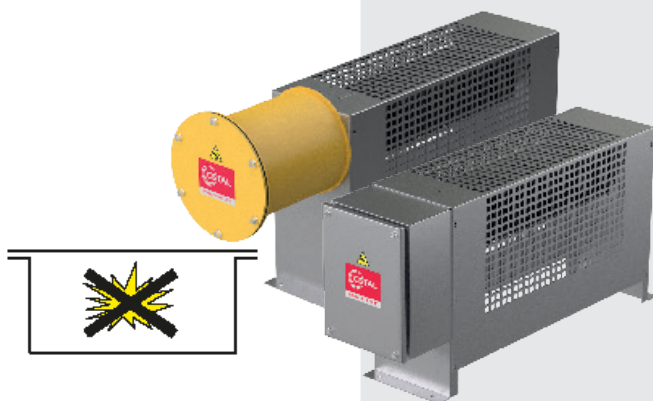


### Type of protection Ex d explosion-proof housing

With this method, the housing (casing) must contain the explosion within the enclosure

- make sure that the ignition cannot reach the hazardous area
- always keep a temperature lower than the auto-ignition temperature of any surrounding gases and vapors

The power and temperature control circuits can be accommodated in separate housings.



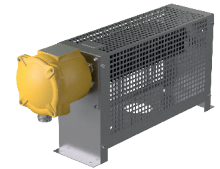
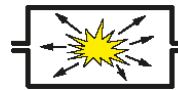
### Type of protection Ex e increased safety

Method: To prevent the occurrence of any accidental ignition source (electric arcs, heating).

This mode of protection is achieved by:

- Selecting high-quality insulating material
- Defining the right creepage distances
- Ensuring the quality of electrical connections

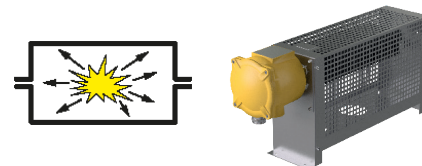
## Ordering references for RAE range



## RAE d 230 V 1PH

Reference	Power (W)	ATEX temp. class	Connection box	Chassis	Option Thermostat	Overall length L (mm)	Width W (mm)	Height H (mm)	Weight (kg)
<b>RAE d 230 V standard</b>									
RAE05T3-M230-d-G	500	T3	Painted aluminium	Galvanized steel	-	585	180	365	15
RAE07T3-M230-d-G	750	T3			-	675	180	365	17
RAE10T3-M230-d-G	1000	T3			-	780	180	365	19
RAE15T3-M230-d-G	1500	T3			-	960	180	365	23
RAE20T3-M230-d-G	2000	T3			-	1155	180	365	25
RAE30T3-M230-d-G	3000	T3			-	1530	180	365	29
RAE05T4-M230-d-G	500	T4			-	780	180	365	19
RAE10T4-M230-d-G	1000	T4			-	1155	180	365	25
RAE15T4-M230-d-G	1500	T4			-	1530	180	365	29
<b>RAE d 230 V standard + thermostat</b>									
RAE05T3-M230-d-G-T	500	T3	Painted aluminium	Galvanized steel	Thermostat 0/38 °C 1PH	585	180	365	15
RAE07T3-M230-d-G-T	750	T3				675	180	365	17
RAE10T3-M230-d-G-T	1000	T3				780	180	365	19
RAE15T3-M230-d-G-T	1500	T3				960	180	365	23
RAE20T3-M230-d-G-T	2000	T3				1155	180	365	25
RAE30T3-M230-d-G-T	3000	T3				1530	180	365	29
RAE05T4-M230-d-G-T	500	T4				780	180	365	19
RAE10T4-M230-d-G-T	1000	T4				1155	180	365	25
RAE15T4-M230-d-G-T	1500	T4				1530	180	365	29
<b>RAE d 230 V stainless steel + thermostat</b>									
RAE05T3-M230-d-S-T	500	T3	Painted aluminium	Stainless steel	Thermostat 0/38 °C 1PH	585	180	365	15
RAE07T3-M230-d-S-T	750	T3				675	180	365	17
RAE10T3-M230-d-S-T	1000	T3				780	180	365	19
RAE15T3-M230-d-S-T	1500	T3				960	180	365	23
RAE20T3-M230-d-S-T	2000	T3				1155	180	365	25
RAE30T3-M230-d-S-T	3000	T3				1530	180	365	29
RAE05T4-M230-d-S-T	500	T4				780	180	365	19
RAE10T4-M230-d-S-T	1000	T4				1155	180	365	25
RAE15T4-M230-d-S-T	1500	T4				1530	180	365	29
<b>RAE d 230 V stainless steel</b>									
RAE05T3-M230-d-S	500	T3	Painted aluminium	Stainless steel	-	585	180	365	15
RAE07T3-M230-d-S	750	T3			-	675	180	365	17
RAE10T3-M230-d-S	1000	T3			-	780	180	365	19
RAE15T3-M230-d-S	1500	T3			-	960	180	365	23
RAE20T3-M230-d-S	2000	T3			-	1155	180	365	25
RAE30T3-M230-d-S	3000	T3			-	1530	180	365	29
RAE05T4-M230-d-S	500	T4			-	780	180	365	19
RAE10T4-M230-d-S	1000	T4			-	1155	180	365	25
RAE15T4-M230-d-S	1500	T4			-	1530	180	365	29

## Ordering references for RAE range



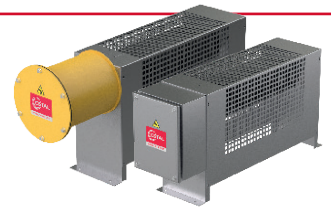
## RAE d 400 V 3PH

Reference	Power (W)	ATEX temp. class	Connection box	Chassis	Option Thermostat	Overall length (mm)	Width W (mm)	Height H (mm)	Weight (kg)
<b>RAE d 400 V standard</b>									
RAE10T3-T400-d-G	1000	T3	Painted aluminium	Galvanized steel	-	780	180	365	19
RAE15T3-T400-d-G	1500	T3			-	960	180	365	23
RAE20T3-T400-d-G	2000	T3			-	1155	180	365	25
RAE30T3-T400-d-G	3000	T3			-	1530	180	365	29
RAE10T4-T400-d-G	1000	T4			-	1155	180	365	25
RAE15T4-T400-d-G	1500	T4			-	1530	180	365	29
<b>RAE d 400 V standard + thermostat</b>									
RAE10T3-T400-d-G-T	1000	T3	Painted aluminium	Galvanized steel	Thermostat 0/40 °C 3PH	780	180	365	19
RAE15T3-T400-d-G-T	1500	T3				960	180	365	23
RAE20T3-T400-d-G-T	2000	T3				1155	180	365	25
RAE30T3-T400-d-G-T	3000	T3				1530	180	365	29
RAE10T4-T400-d-G-T	1000	T4				1155	180	365	25
RAE15T4-T400-d-G-T	1500	T4				1530	180	365	29
<b>RAE d 400 V stainless steel + thermostat</b>									
RAE10T3-T400-d-S-T	1000	T3	Painted aluminium	Stainless steel	Thermostat 0/40 °C 3PH	780	180	365	19
RAE15T3-T400-d-S-T	1500	T3				960	180	365	23
RAE20T3-T400-d-S-T	2000	T3				1155	180	365	25
RAE30T3-T400-d-S-T	3000	T3				1530	180	365	29
RAE10T4-T400-d-S-T	1000	T4				1155	180	365	25
RAE15T4-T400-d-S-T	1500	T4				1530	180	365	29
<b>RAE d 400 V stainless steel</b>									
RAE10T3-T400-d-S	1000	T3	Painted aluminium	Stainless steel	-	780	180	365	19
RAE15T3-T400-d-S	1500	T3			-	960	180	365	23
RAE20T3-T400-d-S	2000	T3			-	1155	180	365	25
RAE30T3-T400-d-S	3000	T3			-	1530	180	365	29
RAE10T4-T400-d-S	1000	T4			-	1155	180	365	25
RAE15T4-T400-d-S	1500	T4			-	1530	180	365	29

**Wall mounting kit option**

A set of mounting brackets is available as option.

## Ordering references for RAE range



## RAE e 230 V 1PH

Reference	Power (W)	ATEX temp. class	Connection box	Chassis	Option Thermostat	Overall length (mm)	Width W (mm)	Height H (mm)	Weight (kg)
<b>RAE e 230 V standard</b>									
RAE05T3-M230-e-G	500	T3	Round, painted steel	Galvanized steel	-	615	210	382	15
RAE07T3-M230-e-G	750	T3			-	705	210	382	17
RAE10T3-M230-e-G	1000	T3			-	810	210	382	19
RAE15T3-M230-e-G	1500	T3			-	990	210	382	23
RAE20T3-M230-e-G	2000	T3			-	1185	210	382	25
RAE30T3-M230-e-G	3000	T3			-	1560	210	382	29
RAE05T4-M230-e-G	500	T4			-	810	210	382	19
RAE10T4-M230-e-G	1000	T4			-	1185	210	382	25
RAE15T4-M230-e-G	1500	T4			-	1560	210	382	29
<b>RAE e 230 V standard + thermostat</b>									
RAE05T3-M230-e-G-T	500	T3	Square, stainless steel	Galvanized steel	Thermostat -20/+50 °C 1PH	545	180	342	15
RAE07T3-M230-e-G-T	750	T3				635	180	342	17
RAE10T3-M230-e-G-T	1000	T3				740	180	342	19
RAE15T3-M230-e-G-T	1500	T3				920	180	342	23
RAE20T3-M230-e-G-T	2000	T3				1115	180	342	25
RAE30T3-M230-e-G-T	3000	T3				1490	180	342	29
RAE05T4-M230-e-G-T	500	T4				740	180	342	15
RAE10T4-M230-e-G-T	1000	T4				1115	180	342	19
RAE15T4-M230-e-G-T	1500	T4				1490	180	342	23
<b>RAE e 230 V stainless steel + thermostat</b>									
RAE05T3-M230-e-S-T	500	T3	Square, stainless steel	Stainless steel	Thermostat -20/+50 °C 1PH	545	180	342	15
RAE07T3-M230-e-S-T	750	T3				635	180	342	17
RAE10T3-M230-e-S-T	1000	T3				740	180	342	19
RAE15T3-M230-e-S-T	1500	T3				920	180	342	23
RAE20T3-M230-e-S-T	2000	T3				1115	180	342	25
RAE30T3-M230-e-S-T	3000	T3				1490	180	342	29
RAE05T4-M230-e-S-T	500	T4				740	180	342	15
RAE10T4-M230-e-S-T	1000	T4				1115	180	342	19
RAE15T4-M230-e-S-T	1500	T4				1490	180	342	23
<b>RAE e 230 V stainless steel</b>									
RAE05T3-M230-e-S	500	T3	Round, painted steel	Stainless steel	-	615	210	382	15
RAE07T3-M230-e-S	750	T3			-	705	210	382	17
RAE10T3-M230-e-S	1000	T3			-	810	210	382	19
RAE15T3-M230-e-S	1500	T3			-	990	210	382	23
RAE20T3-M230-e-S	2000	T3			-	1185	210	382	25
RAE30T3-M230-e-S	3000	T3			-	1560	210	382	29
RAE05T4-M230-e-S	500	T4			-	810	210	382	19
RAE10T4-M230-e-S	1000	T4			-	1185	210	382	25
RAE15T4-M230-e-S	1500	T4			-	1560	210	382	29

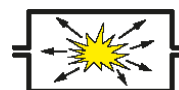
## Ordering references for RAE range



## RAE e 400 V 3PH

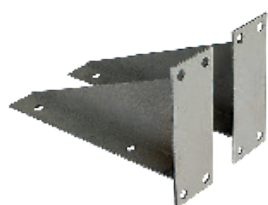
Reference	Power (W)	ATEX temp. class	Connection box	Chassis	Option Thermostat	Overall length (mm)	Width W (mm)	Height H (mm)	Weight (kg)
RAE e 400 V standard									
RAE10T3-T400-e-G	1000	T3	Round, painted steel	Galvanized steel	-	810	210	382	19
RAE15T3-T400-e-G	1500	T3			-	990	210	382	23
RAE20T3-T400-e-G	2000	T3			-	1185	210	382	25
RAE30T3-T400-e-G	3000	T3			-	1560	210	382	29
RAE10T4-T400-e-G	1000	T4			-	1185	210	382	25
RAE15T4-T400-e-G	1500	T4			-	1560	210	382	29
RAE e 400 V inox									
RAE10T3-T400-e-S	1000	T3	Round, painted steel	Stainless steel	-	810	210	382	19
RAE15T3-T400-e-S	1500	T3			-	990	210	382	23
RAE20T3-T400-e-S	2000	T3			-	1185	210	382	25
RAE30T3-T400-e-S	3000	T3			-	1560	210	382	29
RAE10T4-T400-e-S	1000	T4			-	1185	210	382	25
RAE15T4-T400-e-S	1500	T4			-	1560	210	382	29

## Ordering references for RBAE range



Reference	Power (W)	Supply voltage (V)	Coupling	ATEX temp. class	ATEX/IECEX type of protection	Number of heating elements	Overall length (mm)	Weight (kg)
RBAE Series T3								
RBAE 05 T3	500	230	1PH*	T3	Ex d	1	825	15
RBAE 10 T3	1000	230	1PH*	T3	Ex d	1	1275	19
RBAE 16 T3	1600	230	1PH*	T3	Ex d	1	1875	23
RBAE 20 T3	2000	230	1PH*	T3	Ex d	1	2125	25

\* 3PH on demand, 400/440 V on demand



## Option wall mounting kit

A set of mounting brackets is available as option.

**All CETAL products can be adapted to your specifications.**

**Contact us!**



Flange immersion heaters



Screw plug immersion heaters



Removable immersion heaters



Circulation heaters



Cast line heaters



Air duct heaters



Industrial convectors



Formed elements



Cast elements



Ribbed heaters



Anti-condensation heating elements



Bolt heaters



Power control panels – Standard range

