Sinus Jevi
Air duct Heaters

Sinus Jevi Electrical duct heaters are designed for flange mounting in connection with climate control/heat generation and ventilation systems. Special constructions for e.g. grain dryers, process systems, ships and high-temperature duct heaters are made upon request.

SINUS JEVI

Liquids Gasses Solids Spaces Resistors

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EFFK

APPLICATION

Electrical duct heaters are designed for flange mounting in connection with climate control/heat generation and ventilation systems. Special constructions for e.g. grain dryers, process systems, ships and high-temperature duct heaters are made upon request.

MATERIAL

The duct heaters are available as standard in hot-galvanised steel plate, but can be made of other materials, if requested.

EX-PROOF HEATERS

In addition to the duct heaters mentioned in this brochure Sinus Jevi offers a complete program of explosion-proof heaters. Please ask our sales department for more information.

DESCRIPTION

Duct section

Spotwelded galvanised steel plate with a flange.

Terminal box

Integrated in the duct section and fitted with cable glands.
Electric supply through the fitted clamps.
Proofing is IP34 other proofings can be made, if required.

Heating elements

Tubular heating elements made of AISI 304 (stainless) with a surface load of 2.5 W/cm² for air velocities above 2 m/sec. For air velocities below 2 m/sec a low surface load is used.

For high-temperature elements (max 800°C tubular cap temperature) AISI 309/Inconell (stainless) is used as tubular material. The heating elements are fitted with M14 brass plugs.

Overheating Protection

In the terminal box there is a built-in thermolimiter featuring automatic reset and a fire thermostat with manuel reset. These must be connected to the temperature control.

Temperature Regulation

It is recommended to use a multistep control device, e.g. Sinus Jevi's control featuring binary step control. However, duct heaters below 16.5 kW can be controlled by an electronic control.

Contact Sinus Jevi's technical department if you have special demands.

Standard Design EFFK 3 x 400 V-Y~

Article number	H-W-L	Output	No. of groups	Group 1	Group 2	Group 3	Group 4
401 005 400A	300 mm	5.25 kW	3	0.75 kW	1.5 kW	3 kW	-
401 009 400A		9.6 kW	3	1.5 kW	2.7 kW	5.4 kW	-
401 018 400B		18.9 kW	3	2.7 kW	5.4 kW	10.8 kW	-
401 010 400A	400 mm	10.8 kW	3	1.5 kW	3.3 kW	6 kW	-
401 018 400A		18.9 kW	3	2.7 kW	5.4 kW	10.8 kW	-
401 029 400A		29.4 kW	4	2.1 kW	3.9 kW	7.8 kW	15.6 kW
401 038 400A		38.1 kW	4	2.7 kW	5.4 kW	9.6 kW	20.4 kW
401 024 400A	500 mm	24.6 kW	4	1.5 kW	3.3 kW	6.6 kW	13.2 kW
401 048 400A		48.6 kW	4	3.3 kW	6.6 kW	13.2 kW	25.5 kW
401 076 400A		76.6 kW	4	5.1 kW	10.2 kW	20.4 kW	40.8 kW
401 031 400A	600 mm	31.5 kW	4	2.1 kW	4.2 kW	8.4 kW	16.8 kW
401 058 400A		58.5 kW	4	3.9 kW	7.8 kW	15.6 kW	31.2 kW
401 094 400A		94.5 kW	4	6.3 kW	12.6 kW	25.2 kW	50.4 kW
401 112 400A		112.5 kW	4	7.5 kW	15 kW	30 kW	60 kW

APPLICATION
Duct heaters for air heating systems, e.g. supplementary heating in heat regeneration systems in houses or in connection with air duct systems.

DESCRIPTION
Duct Section
Round galvanised steel tube with a rubber sealing ring in both ends.

Terminal Box
Electroplated sheet iron box fitted with one PG16 cable gland. Electric supply though the fitted row of clamps. Proofing IP34.

Heating Elements
Tubular heating elements made of AISI 304 (stainless) with a surface load of 2.5 W/m² for air velocities above 2 m/sec.

Overheating Protection
In the terminal box there is a built-in one pole thermolimiter (30 - 87°C) with automatic reset as well as one safety fuse (125°C).

Temperature Regulation
It is recommended to control the air temperature by a room thermostat, e.g. Pulser or TTC series.

Approval
EFR standard duct heaters for 230 V are approved by DEMKO.
For the EFR duct heaters Sinus Jevi can offer two types of simple one pole capillary thermostats, which can be used as a room thermostat or with a duct sensor. Both thermostats can be connected directly to the duct heater and use up to 16 A.

EFR is available for 400 V as well as other diameters and output levels.

Standard EFR 230 V			
Item No.	**Output**	**D**	**L**
402 125 033A	335 Watt	125 mm	400 mm
402 125 067A	670 Watt		
402 125 100A	1000 Watt		
402 125 200A	2000 Watt		
402 160 067A	670 Watt	160 mm	
402 160 100A	1000 Watt		
402 160 200A	2000 Watt		
402 200 067A	670 Watt	200 mm	
402 200 100A	1000 Watt		
402 200 200A	2000 Watt		
402 250 067A	670 Watt	250 mm	
402 250 100A	1000 Watt		
402 250 200A	2000 Watt		

SPECIAL DESIGNS

EFF
Special design of rectangular duct heater for such purposes as ventilation systems and process systems.

The duct part can be made of a variety of materials on request - for instance hot-galvanized and stainless steel -. The terminal box can be designed in varying densities, from IP22 to IP66. The heaters are made of different stainless qualities depending on the task. For high-temperature surfaces (max. 800°C), Incoloy 800 or Incoloy 600 is used for piping.

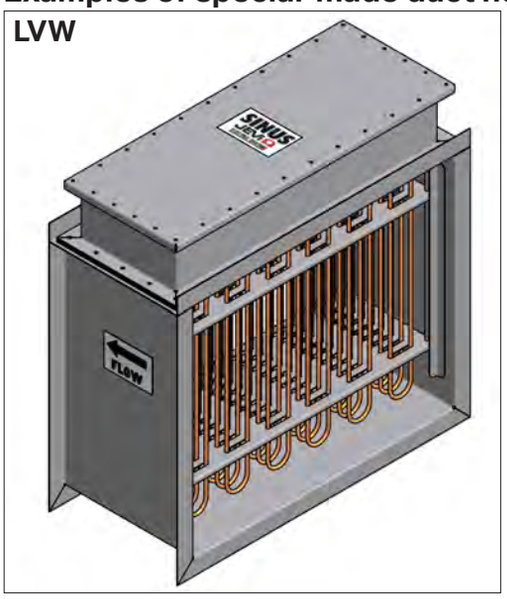
EFRS
Same as EFF, but for round ducts.

EFFL
Same as EFF, but with air flow between the terminal box and the duct piece.
Used at temperatures above 70°C in the duct.

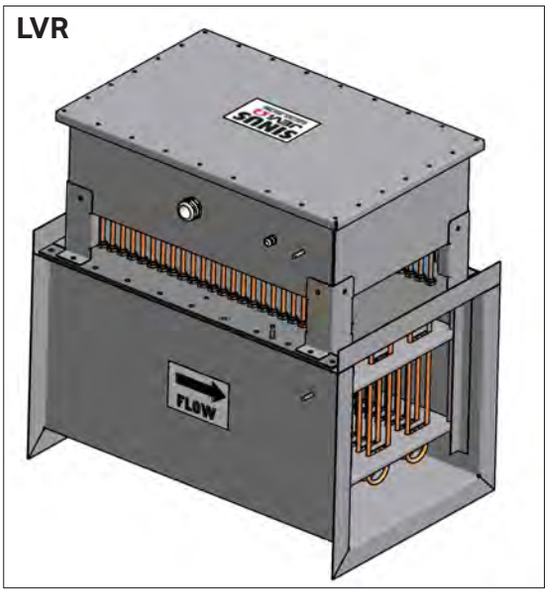
EFI
Inset heater intended for mounting in existing ducts of airconditioning systems, heat recovery systems and ventilation systems in which the heater can be removed without removing the duct part.
The terminal box is equipped with a mounting board with IP22 density. However, other densities are available on request. Built-in features include a thermo-restriction device with automatic re-closing and a fire thermostat with manual re-closing.

Examples of special-made duct heaters

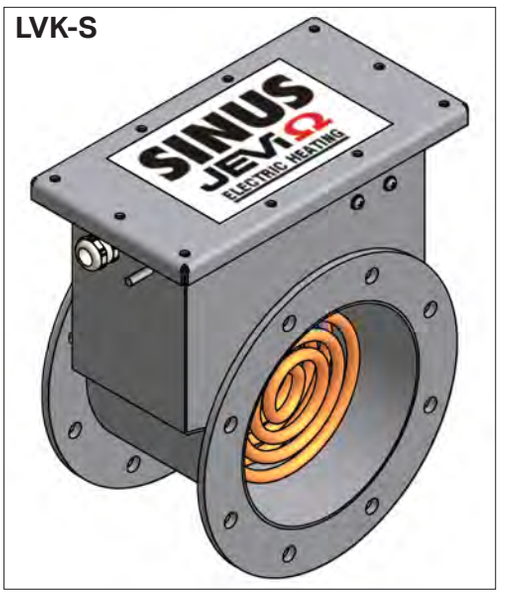
LVW



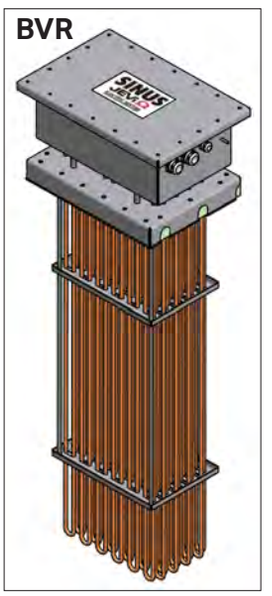
LVR



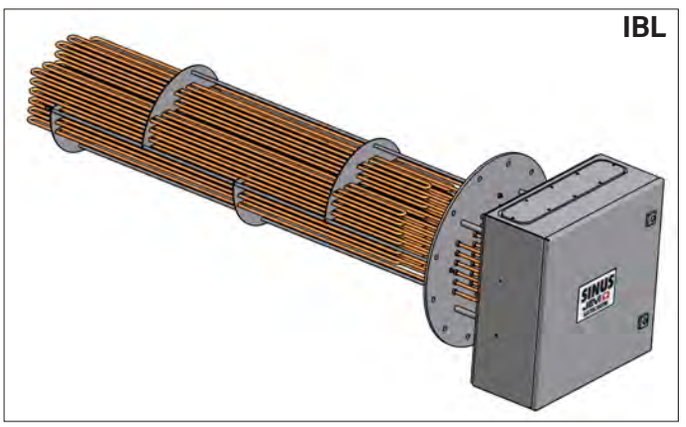
LVK-S



BVR



IBL



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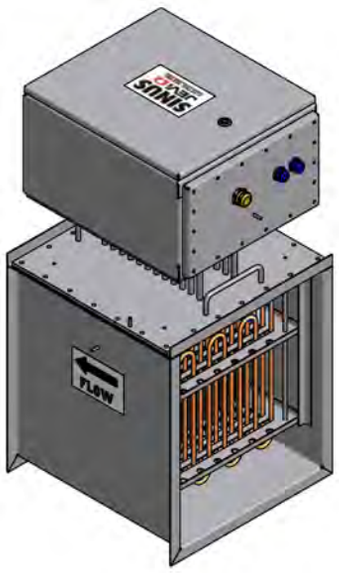
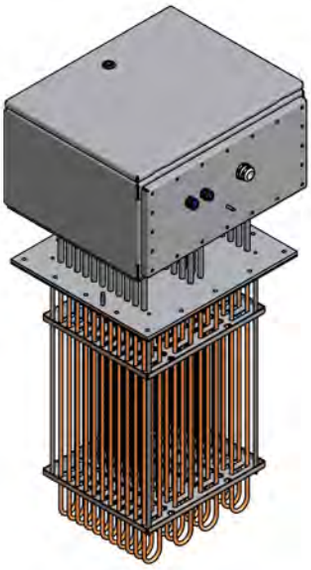
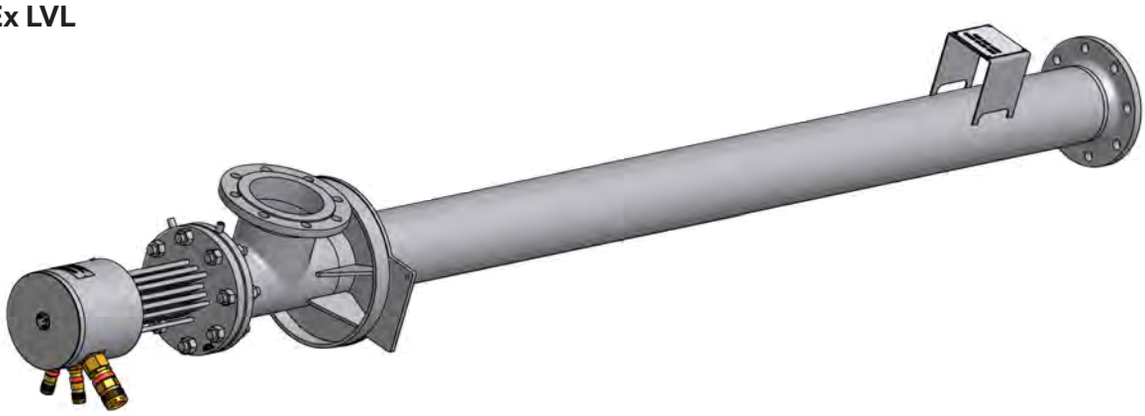


Ex BVR D8800



Ex LVL



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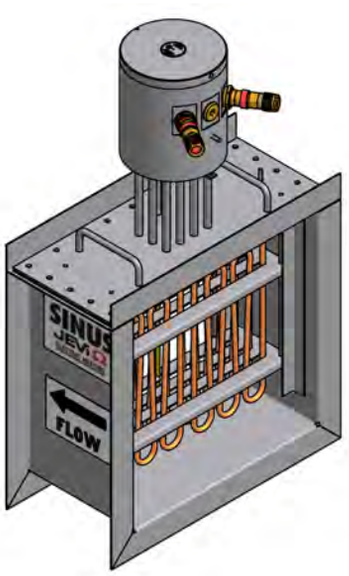

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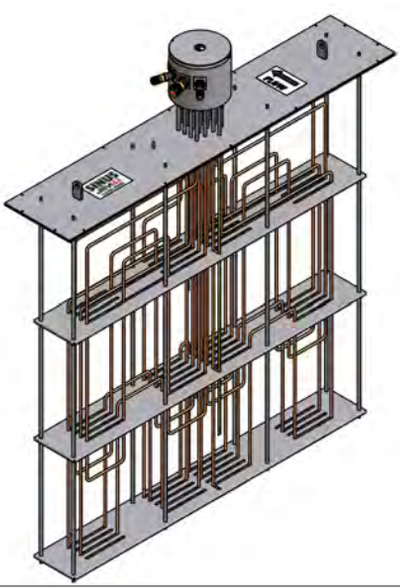

SINUS JEVI

Sinus is one of the pioneers in the field of explosion proof heating equipment, today we are still operating at the forefront. We manufacture according to ATEX as well as IECEx and EAC directives.

For the production of Ex-proof equipment a PQAN (Product Quality Assurance Notification) is issued by TUV-Nord. Our ISO-9001 and ISO-14001 systems are also monitored by this organisation.

NIBE

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