ELWA

Flow heater ERH 4600 WR

The reference class for water

ELWA Elektro-Wärme GmbH & Co. KG
Frauenstraße 26
D-82216 Maisach

tel +49-8141-22866-0
fax +49-8141-22866-10

email sales@elwa.com
web www.elwa.com

ELWA

product data sheet ERH 4600 WR

Description

The series 4600 WR heaters offer highly effective heating power for processes with water or similar media. The heating elements can be perfectly adapted to the customers application.

Design

The series 4600 WR heaters consist of a welded pressure vessel with an electric heating insert. The heating elements can be exchanged with standard tools. The design of the heating elements ensure excellent thermal reaction time and control accuracy.

Electrics

Due to the flexible design, the heating elements can be adapted to any operating voltage between 230 VAC and 690 VAC.

Operating pressure

10 bar in standard design/16 bar in HP design

Operating temperature

Max. 95/100 °C

Heat transfer

Due to the perfect hydraulic flow around the heating elements, the medium is gently heated to the specified temperature. The surface load (W/cm²) can be precisely adapted to the medium characteristics.
Recommended surface loads:

3,5 W/cm²	aggressive media (e.g. chlorinated water, bilge water,...)
6,5 W/cm²	potable water, cooling water with additives

Material

All components in contact with the medium can be made of material suited to the application. By standard and with short delivery times: P265GH (mild steel) and 1.4571 (stainless steel). Other materials are available on request.

Controls (ELWA)

The majority of our heaters are delivered with ELWA control cabinets specially designed for the specific applications. The heating steps can be controlled either with mechanical or electronic temperature controllers. The power is then switched with conventional contactors, solid state relays or thyristor controllers. Please see data sheets for ELWA ETU/ELWA SPC/ELWA STC. The control cabinets can either be mounted directly on the heaters or can be installed separately.

Typical applications

The series 4600 WR heaters are the perfect choice for heating water with/without additives, aggressive media or emulsions. Further possible areas of application: pharmaceutical industry/food industry

Safety

All heaters are equipped with built in safety temperature limiters (STB). Optional additional safety devices: flow switch, temperature limiter (self reset), PT-100 sensors and safety valves.

Thermal insulation
The heaters come with an efficient thermal insulation made of rockwool and galvanised steel sheet cover.
The cover is also available made of stainless steel (polished upon request).

Painting
Heavy duty industrial painting with 2K structured PUR paint

Process connections
Standard: Flanges according to DIN EN 1092-1/11B1/DN15-DN250/PN16
Optional: Triclamp or threaded connections
The position of the connections can be adapted on request.

Classifications
ABS, BV, DNV, CCS, GL, LRS, RINA, TÜV, MRS, others on request

Overview table

					Nozzle size		
Type	**heating power (kW)**		**heating steps (kW)**		**Min**	**Norm**	**Max**
4603WR-V	6	9	1x6	1x9	25	32	40
4606WR-V	12	18	2x6	2x9	25	32	50
4609WR-V	18	27	3x6	3x9	25	32	50
4612WR-V		36		2x18	25	32	80
4620WR-V	24	45	2x12	2x22,5	25	32	80
4624WR		54		3x18	25	32	80
4624WR-V	36	67,5	2x18	3x22,5	25	32	80
4636WR		81		3x27	25	40	80
4636WR-V	54	101	3x18	3x33,8	25	40	80
4648WR-V	72	135	4x18	4x33,8	25	40	100
4660WR-V	90	169	5x18	5x33,8	25	50	100
4672WR-V	108	202,5	6x18	6x33,8	25	50	125
4696WR-V	144	270	8x18	8x33,8	25	65	125
46128WR-V	192	360	8x24	8x45	25	65	150
46152WR-V	228	427,5	18+7 x 30	33,8+7x 56,3	25	65	150
surface load	3,5	6,5	3,5	6,5	W/cm²		

Complementary products

ELWA SPC

smart.power.control
Control box with heating steps and step-less control of a part of the heating power with our intelligent ELWA SPC control unit and solid state relays

ELWA STC

smart.thyristor.control
Control box with fully step-less regulation of the heating capacity using ELWA STC control

Service Hotline
+ 49 (0) 8141 – 22866-980