

追求卓越 智造精品  
Strive for Excellence / Craft Quality Products



福士德锅炉

福士德锅炉有限公司  
FIRSTD BOILER CO., Ltd

Toll-free: 400-180-1966

E-mail: fsdgl@163.com

Website: www.firstdboiler.com  
www.cnfirstdboiler.com  
www.frstd.com

服务更专业更贴心

24小时服务专线 400-180-1966



26年版

FIRSTD BOILER |  福士德锅炉

详情请访问 [www.frstd.com](http://www.frstd.com)  
For more information, please visit [www.frstd.com](http://www.frstd.com)

电加热锅炉/产品手册 Electric Boiler/Product Manual

## FIRSTD BOILER

- ↳ 电蒸汽锅炉  
Electric Steam Boilers
- ↳ 卧式常压电热水锅炉  
Horizontal Atmospheric Electric Hot Water Boilers
- ↳ 卧式承压电热水锅炉  
Horizontal Pressure Electric Hot Water Boilers
- ↳ 电真空热水锅炉  
Electric Vacuum Hot Water Boilers
- ↳ 电热开水锅炉  
Electric Boiling Water Boilers
- ↳ 电极式锅炉  
Electrode Boilers
- ↳ 电加热蒸汽发生器  
Electric Heating Steam Generators

新能源集成方案专家 >>>

EXPERT IN NEW ENERGY INTEGRATION SOLUTIONS

## 关于福士德 ABOUT FIRSTD >>>

福士德锅炉有限公司是一家专业研发、制造节能环保锅炉的高新技术企业，作为绿智低碳能源集成运营服务商的福士德锅炉拥有标准的现代化生产基地，先进的自动化锅炉生产设备；公司注册资金1.02亿元，现为国家A级锅炉、压力容器制造单位，拥有国家A级安装改造维修资质和GC2工业管道安装资质，通过了ISO9001质量管理体系、ISO14001环境管理体系、ISO45001职业健康安全管理体系认证，入围《国家工业节能技术装备推荐目录》及《“能效之星”产品目录》，拥有专业的技术及精湛的工艺。

福士德锅炉有限公司主要生产燃（油）气SZS系列水管蒸汽锅炉、水管热水锅炉；烟气深度冷凝系统（深冷器）；内核三段式垃圾焚烧炉；WNS系列冷凝蒸汽、热水、真空锅炉；F系列丰能管低氮真空、热水锅炉；S系列水冷蒸汽、热水、真空锅炉、蒸汽发生器；D系列全预混低氮铸铝、全预混不锈钢冷凝锅炉、全预混商用热水机组及电加热系列蒸汽、蒸汽发生器、热水、真空、开水锅炉、高压电极锅炉；FSD全预混燃烧器和FSD双贫氧燃烧器等产品，产品热效率高、烟温低、配置高，主要辅机、配件均为原装进口或合资品牌，福士德锅炉的PLC控制系统可为客户实现集中和远程监测。福士德锅炉的远程监测系统，可以为客户实时提供增值服务，通过画面组态将锅炉的运行数据以生动形象的方式展现给客户。

福士德锅炉有限公司研发中心通过反复测试、实验，设计合理的炉膛结构和尺寸，匹配全进口和自主品牌低氮燃烧器，使用全预混、FGR烟气再循环、FIR双贫氧内循环燃烧技术，加上自主研发的PLC控制系统，使锅炉运行更加节能环保、安全可靠。通过测试数据显示，锅炉的NOx排放浓度可降至30mg/m³以下。

福士德锅炉有限公司已在国内各省市地区形成了拥有300多家合作经销商的销售网络，在全国各地区设置了百余个24小时全天候售后网点，公司产品有中国平安财险股份有限公司予以担保，有效解除客户的后顾之忧。

福士德锅炉有限公司将继续以造福世界、以士为本、厚德载物为公司理念，为客户创造价值，提供更优质的技术、产品和服务。

Firstd Boiler Co., Ltd. is a high-tech enterprise specializing in the R&D and manufacturing of energy-saving and environmentally friendly boilers. As a green, intelligent and low-carbon energy integration and operation service provider, Firstd Boiler is equipped with a standardized modern production base and advanced automated boiler production equipment. With a registered capital of 102 million yuan, the company is a national Grade A boiler and pressure vessel manufacturer, possessing national Grade A installation, renovation, and maintenance qualifications as well as GC2 industrial pipeline installation qualifications. It has been certified for ISO 9001 Quality Management System, ISO 14001 Environmental Management System, and ISO 45001 Occupational Health And Safety Management System. The company has been included in the National Industrial Energy-Saving Technology and Equipment Recommendation Catalogue and the "Energy Efficiency Star" Product Catalogue, demonstrating its professional technology and exquisite craftsmanship.

Firstd Boiler Co., Ltd. mainly manufactures the following products: fuel gas SZS series water pipe steam boilers, water pipe hot water boilers, flue gas deep condensation systems (deep coolers), three-stage core waste incinerators, WNS series condensing steam, hot water and vacuum boilers, F series high-efficiency tube low-nitrogen vacuum and hot water boilers, S series water-cooled steam, hot water and vacuum boilers, as well as steam generators, D series fully premixed low-nitrogen cast aluminum boilers, fully premixed stainless steel condensing boilers, fully premixed commercial hot water units, electric heating series steam boilers, steam generators, hot water boilers, vacuum boilers, water boilers and high-voltage electrode boilers, and FSD fully premixed burners and FSD double lean-oxygen burners. These products feature high thermal efficiency, low flue gas temperature and high configuration. All key auxiliary machines and accessories are originally imported or from joint-venture brands. Firstd Boiler's PLC control system enables centralized and remote monitoring for customers. Firstd Boiler's remote monitoring system provides real-time value-added services for customers, and vividly displays boiler operation data to customers through screen configuration.

The R&D center of Firstd Boiler Co., Ltd. has designed a reasonable furnace structure and dimensions through repeated testing and experimentation. It is equipped with fully imported and self-owned brand low-nitrogen burners, and adopts fully premixed technology, FGR (flue gas recirculation), and FIR (Flue Gas Internal Recirculation) dual lean oxygen internal circulation combustion technology. Combined with the self-developed PLC control system, it ensures that the boiler operates with higher energy efficiency, better environmental performance, and enhanced safety and reliability. Test data shows that the NOx emission concentration of the boiler can be reduced to below 30 mg/m³.

Firstd Boiler Co., Ltd. has established a sales network with over 300 cooperative dealers across various provinces and cities in China. Additionally, we have set up more than 100 24/7 after-sales service outlets throughout the country. Our products are guaranteed by Ping An Property and Casualty Insurance Company of China, Ltd., effectively eliminating any concerns customers may have.

Firstd Boiler Co., Ltd. will continue to uphold the corporate philosophy of Benefiting the World, People-oriented and Great Virtue Upholds All, creating value for customers, and providing superior technology, products, and services.

专业制造 **20** 年 打造冷凝、节能、低氮、环保锅炉

With 20 years of professional manufacturing experience, we craft condensing, energy-saving, low-nitrogen, and environmentally friendly boilers.



## 资质/装备 >>> EXCELLENT EQUIPMENT



现代化标准厂房+自动化锅炉生产设备+专业的技术及精湛的工艺  
自科技为先，精益求精，为您打造专业的产品。

It boasts modern standard factory buildings and automated boiler production equipment. With professional technology and exquisite craftsmanship, we prioritize science and technology, strive for excellence, and create professional products for you.



△数控等离子切割机 CNC Plasma Cutting Machine



△数控四辊卷板机 CNC Four-Roller Plate Bending Machine



△机器人焊接 Robot Welding



△激光焊接设备 Laser Welding Equipment



△埋弧自动焊 Automatic Submerged Arc Welding



△自动管板焊 Automatic Tube-To-Sheet Welding



△膜式壁生产线 Membrane Wall Production Line



△热工测试平台 Thermal Engineering Testing Platform

# 科技智领未来

感受科技 + 铸就冷凝 · 节能 · 低氮 · 环保锅炉  
实现「低碳」排放 共创美丽中国

TECHNOLOGY LEADS THE FUTURE WITH INTELLIGENCE

Technology and craft a condensing, energy-saving, low-nitrogen, and environmentally friendly boiler  
Achieve low-carbon emissions and jointly create a beautiful China



国际理念 领先技术  
设计合理  
Reasonable design



多项智能保护装置  
安全可靠  
Safe and reliable



热效率精 吸收充分  
节能降耗  
Energy conservation and consumption reduction



自主研发 专业制造  
科技创新  
Technological innovation



标准制作 精工细作  
标准制作  
Standard production



操作简便 人性化设计  
操作简单  
Easy to operate



卧式承压电热水锅炉

Horizontal Atmospheric Electric Hot Water Boilers

卧式常压电热水锅炉

Horizontal Pressure Electric Hot Water Boilers

电蒸汽锅炉

Electric Steam Boilers



电真空热水锅炉

Electric Vacuum Hot Water Boilers

电极式锅炉

Electrode Boilers

电蒸汽发生器

Electric Heating Steam Generators

## 电加热系列—蒸汽锅炉

### ELECTRIC HEATING SERIES—STEAM BOILERS

## 电蒸汽锅炉 ELECTRIC STEAM BOILERS



LDR(0.1~0.3) -0.7  
WDR(0.5~6) -(1.0/1.25)

## FRSTD BOILER

### 电蒸汽锅炉的优势

#### Advantages of Electric Steam Boilers

- 01、电蒸汽锅炉产品主要以电力为能源，通过电加热管加热供暖，及提供卫生用水；
- 02、产品安装简便，环保产品；
- 03、采用逐级加载或减载设计，负荷调节平衡，能有效保护加热元件及减小对电网的冲击，延长使用寿命；
- 04、电气配件采用国内外品牌的电气元件，确保运行稳定，使用寿命长；
- 05、加热管采用优质英格莱800镍基合金材质，德国技术，工艺先进，质量可靠，确保产品的使用寿命；
- 06、可定制特殊电锅炉(专用660v 3相电热锅炉)，采用定制耐高压加热管及电器元件，更安全。适用于工业矿山的供暖及热风等特殊环境；
- 07、锅炉控制器采用全中文显示，图形化运行界面，显示状态丰富，并设有密码保护功能，确保锅炉正常运行，不受外接干扰；
- 08、控制系统还设置了完善的自我保护功能；
- 09、外壳(外包)采用进口彩板包装，美观、大方、耐用，不锈蚀，是常见的工业级包装材料；
- 10、整机快装出厂，外形美观，安装方便。

01. Electric steam boilers mainly use electricity as energy source, heating through electric heating tubes and providing sanitary water;
02. The product is easy to install and environmentally friendly;
03. Adopting step-by-step loading or unloading design, with balanced load regulation, can effectively protect heating elements, reduce impact on the power grid, and extend their service life;
04. Electrical components from domestic and foreign brands are used to ensure stable operation and long service life;
05. The heating tube is made of high-quality Incoloy 800 nickel-based alloy material, with advanced German technology and reliable quality, ensuring the service life of the product;
06. Special electric boilers (specialized 660v 3-phase electric boilers) can be customized, using customized high-pressure resistant heating tubes and electrical components for greater safety. They are suitable for special environments such as heating and hot air in industrial mines;
07. The boiler controller adopts a full Chinese display and graphical operation interface with rich display status indication, and is equipped with a password protection function to ensure the normal operation of the boiler without external interference;
08. The control system is also equipped with comprehensive self-protection functions;
09. The outer shell (outer casing) is packaged with imported color plates, which are beautiful, generous, durable, rust free, and are common industrial grade packaging materials;
10. The whole machine is fully assembled before delivery, with a beautiful appearance and easy installation.



立式电蒸汽锅炉

Zero pollution, higher environmental friendliness/Intelligent temperature control system for higher thermal efficiency / High-quality components ensure longer service life.



零污染更环保



智能温控系统热效率更高



优质元件寿命更长

## 电蒸汽锅炉技术参数 TECHNICAL PARAMETERS OF ELECTRIC STEAM BOILERS

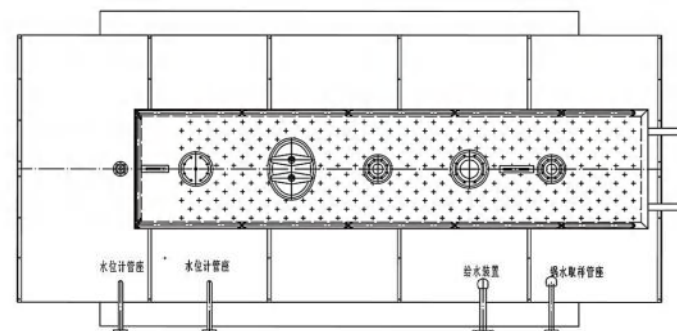
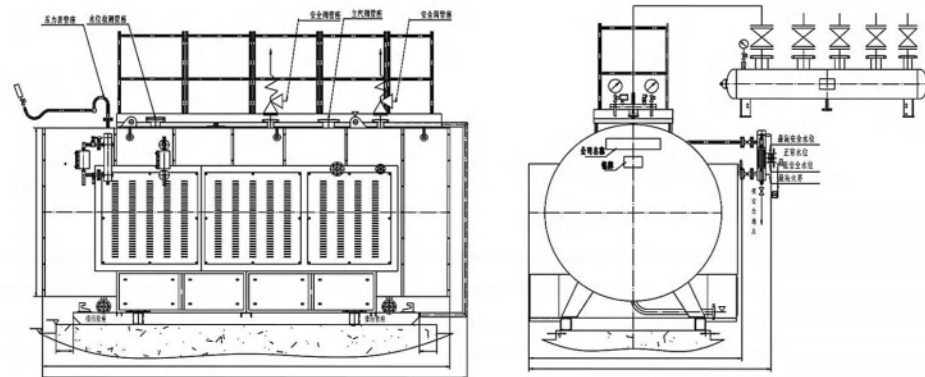
项目型号 Item / Model	WDR0.5-1.0	WDR1-1.0	WDR1-1.25	WDR1-1.6	WDR2-1.25	WDR2-1.25	WDR4-1.25	WDR6-1.25
额定蒸发量 Rated evaporation capacity (t/h)	0.5	1	1	1	2	2	4	6
额定压力 Rated pressure (MPa)	1.0		1.25	1.6	1.25			
电功率 Electric power (kW)	360	720	780	780	1440	1560	3000	4500
额定蒸汽温度 Rated steam temperature (°C)	184	184	194	204	194	194	194	194
有效水容积 Effective water volume (m <sup>3</sup> )	0.8	1.91	2.7	2.7	3.5	4.1	8	10.4
热效率 Thermal efficiency (%)	98% ~ 99.5%							
电源 Power supply (V/Hz)	380/ 660 /50							
电流 Current (A)	547	1093	1080	1080	2188	2370	4376	6837
蒸汽口 Steam outlet (mm)	DN50	DN65	DN65	DN65	DN80	DN80	DN100	DN125
进水口 Water inlet (mm)	DN25						DN40	DN50
排污口 Discharge outlet (mm)	DN40	DN40	DN50	DN50	DN50	DN50	DN50	DN50
炉体外形尺寸 Furnace overall dimensions	长 (L)	2175	2630	3200	3200	3108	3500	4708
	宽 (W)	996	1366	1954	1560	1781	1740	2530
	高 (H)	1322	1840	1908	1900	2270	2261	2536
重量 Weight (T)	0.7	1.4	2.0	2.2	2.6	3.1	5.3	6.6

注：保留在不事先通知的情况下重新定义或更改产品信息权利（包括外形、技术、内部结构等）

Note: We reserve the right to redefine or modify product information (including appearance, technology, internal structure, etc.) without prior notice.



## 电蒸汽锅炉外型图 OUTLINE DRAWING OF ELECTRIC STEAM BOILERS



## 电加热系列—常压热水 ELECTRIC HEATING SERIES—ATMOSPHERIC HOT WATER

### 卧式常压电热水锅炉 HORIZONTAL ATMOSPHERIC ELECTRIC HOT WATER BOILERS



CLDR(0.1-0.35)-85/70  
CWDR(0.5-8)-85/70

## FIRSTD BOILER

### 卧式常压电热水锅炉的优势

Advantages of Horizontal Atmospheric Electric Hot Water Boilers

#### 安全可靠 Safe and Reliable

常压热水锅炉顶部设有通大气口，锅炉本体始终处于常压运行状态的无压热水锅炉，它的主要特点就是锅炉不承压，无爆炸危险，没有安全隐患，无需办理使用手续。

The atmospheric hot water boiler is equipped with an atmospheric vent on top, keeping the boiler body always operating under atmospheric pressure. Its main feature is that the boiler is non-pressurized, has no explosion risk, pose no safety hazards, and does not require any usage procedures.

#### 多重保护 Multiple Protections

多重保护功能：漏电保护、缺水保护、接地保护、过流保护、电源保护。

Multiple protection functions: earth leakage protection, water shortage protection, grounding protection, overcurrent protection, and power supply protection.

#### 自动运行 Auto Run

可根据用户需求设定每周7天的工作时间，每天可设置3个运行时段，锅炉全自动运行，方便使用。

The working hours can be set 7 days a week according to user needs, with 3 operating periods per day. The boiler operates fully automatically, making it convenient to use.

#### 质量可靠 Reliable Quality

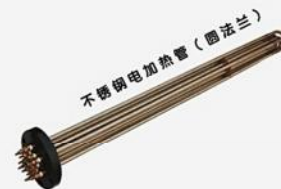
采用优质英格莱800镍基合金加热管，德国技术质量可靠。

Using high-quality Incoloy 800 nickel-based alloy heating tubes, with reliable German technology and quality.

#### 电加热管 ELECTRIC HEATING TUBE



陶瓷电加热管  
Ceramic Electric Heating Tube



不锈钢电加热管（圆法兰）  
Stainless Steel Electric Heating Tube (Round Flange)

## 电加热系列—承压热水 ELECTRIC HEATING SERIES—PRESSURE HOT WATER

### 卧式承压电热水锅炉 HORIZONTAL PRESSURIZED ELECTRIC HOT WATER BOILERS



LDR(0.1-0.5)-1.0/95/70  
WDR(0.7-2.8)-1.0/95/70

## FIRSTD BOILER

卧式承压电热水锅炉的优势  
Advantages of Horizontal Pressure Electric Hot Water Boilers



- ▶ 锅炉承压运行，炉水升温快，热损失小，热效率高。
- ▶ 锅炉控制系统可集成控制热水循环泵、系统补水泵。
- ▶ 锅炉出水温度可调，用户可任意调节供水温度。
- ▶ 多重保护功能：漏电保护、缺水保护、接地保护、超压保护、过流保护、电源保护。
- ▶ 采用优质英格莱800镍基合金加热管，德国技术质量可靠。

- ▶ The boiler operates under pressure, heating up the water quickly, featuring low heat loss and high thermal efficiency.
- ▶ The boiler control system can integrally control the hot water circulation pump and system makeup water pump.
- ▶ The outlet water temperature can be adjusted, and users can freely set the water supply temperature.
- ▶ Multiple protection functions: earth leakage protection, water shortage protection, grounding protection, overpressure protection, overcurrent protection, and power supply protection.
- ▶ Using high-quality Incoloy 800 nickel-based alloy heating tubes, with reliable German technology and quality.

### 电控柜 Electric Control Cabinet

- 1、部分采用GGD型交流低压控制柜；  
1. GGD type AC low-voltage control cabinets are adopted for some models;
- 2、根据温度自动控制加热组投入功率；  
2. Automatically control the power input of the heating group based on temperature;
- 3、电气元件均采用优质品牌；  
3. All electrical components are of high-quality brands;
- 4、实时动态显示运行状态。  
4. Real-time dynamic display of operating status.



名称 Name	电锅炉大小 Size of Electric Boilers	尺寸(宽*高*厚)/配置 Size (W * H * T)/Configuration
控制箱/柜 Control Box /Cabinet	锅炉 ≤ 90KW Boiler	500*1000*250
	90KW < 锅炉 ≤ 180KW Boiler	600*1500*300
	210KW ≤ 锅炉 ≤ 270KW Boiler	700*1700*300
	360KW ≤ 锅炉 ≤ 510KW Boiler	1300*1700*350
	540KW ≤ 锅炉 ≥ 720KW Boiler	1400*2000*350

## 电热水锅炉（陶瓷加热管）技术参数 TECHNICAL PARAMETERS OF ELECTRIC HOT WATER BOILERS (CERAMIC HEATING TUBE)

炉型 Boiler type		立式Vertical			卧式Horizontal	
项目/型号 Item/Model		LDR -12- II	LDR -24- II	LDR -36- II	WDR -60- II	WDR -90- II
额定热功率 Rated thermal power	万kCal/h	1	2	3	5	7.5
	MW	0.012	0.024	0.036	0.060	0.090
电功率 Electric power (kW)		12	24	36	60	90
额定压力 Rated pressure MPa		0				
额定供回水温度 Rated supply and return water temperature (°C)		85/70				
有效水容积 Effective water volume (m³)		95	95	108	210	260
取暖面积 Heating area (m²)		130	250	380	630	940
热出水量 Hot water output m³/h Δt=25°C		0.4	0.8	1.2	2	3
循环水量 Circulating water volume (m³/h)		0.68	1.36	2.04	3.4	5.1
电源 Power supply (V/Hz)		380/50				
电流 Current (A)		18	36	55	91	137
热效率 Thermal efficiency (%)		99%				
供回水口 Supply and return water inlet (mm)		DN25	DN32	DN32	DN40	DN40
通大气口 Atmospheric vent (mm)		DN25	DN32	DN32	DN40	DN40
排污口 Discharge outlet (mm)		25	DN32	DN32	DN40	DN40
炉体外形尺寸 Overall dimensions of boiler body (mm)	长L	640	640	820	1210	1210
	宽W	460	488	554	910	960
	高H	920	920	980	955	1165
重量 Weight (kg)		140	180	220	410	620

注：保留在不事先通知的情况下重新定义或更改产品信息权利（包括外形、技术、内部结构等）。720kW及以下的电炉采用机电一体结构，表中的炉体尺寸为锅炉与电柜的整体尺寸。  
Note: We reserve the right to redefine or modify product information (including appearance, technology, internal structure, etc.) without prior notice. Electric boilers of 720kW and below adopts an electromechanical integrated structure, and the boiler body dimensions in the table are the overall dimensions of the boiler and electrical cabinet.

## 电热水锅炉（不锈钢加热管）技术参数 TECHNICAL PARAMETERS OF ELECTRIC HOT WATER BOILERS (STAINLESS STEEL HEATING TUBE)

炉型 Boiler type		立式常压 Vertical atmospheric boiler											立式承压 Vertical pressure boiler				
项目/型号 Item/Model		LDR-30	LDR-45	LDR-60	LDR-90	CLDR 0.12-85/70	CLDR 0.14-85/70	CLDR 0.18-85/70	CLDR 0.21-85/70	CLDR 0.23-85/70	CLDR 0.27-85/70	CLDR 0.35-85/70	LDR0.1-10/95/70	LDR0.2-10/95/70	LDR0.35-10/95/70	LDR0.5-10/95/70	
额定热功率 Rated thermal power	万kCal	2.5	4	5	7.5	10	12	16	18	20	23	30	9	17	30	43	
	MW	0.03	0.045	0.06	0.09	0.12	0.14	0.18	0.21	0.23	0.27	0.35	0.1	0.2	0.35	0.5	
电功率 Electric power (kW)		30	45	60	90	120	150	180	210	240	270	360	105	210	360	510	
额定压力 Rated pressure MPa		0											1				
额定供回水温度 Rated supply and return water temperature (°C)		85/70											95/70				
有效水容积 Effective water volume (m³)		0.25	0.25	0.25	0.25	0.37	0.41	0.52	0.93	0.95	0.97	1.32	0.27	0.33	1.01	1.3	
取暖面积 Heating area (m²)		310	470	630	630	1286	1500	1929	2250	2464	2893	3750	1071	2143	3750	5357	
热出水量 Hot water output m³/h Δt=25°C		1	1.6	2	3	4	4.8	6.4	7.2	8	9.2	12	3.4	6.9	12	17.1	
循环水量 Circulating water volume (m³/h)		1.7	2.6	3.4	5.2	6.8	8	10.7	12	13.3	15.4	20	3.4	6.9	12	17.1	
电源 Power supply (V/Hz)		380 / 50															
电流 Current (A)		46	68	91	137	182	228	273	319	365	410	547	150	300	547	760	
热效率 Thermal efficiency (%)		98%-99%															
供回水口 Supply and return water inlet (mm)		DN40	DN40	DN50	DN50	DN65	DN65	DN65	DN65	DN65	DN65	DN65	DN80	DN50	DN50	DN50	DN65
通大气口 Atmospheric vent (mm)		DN40	DN40	DN50	DN50	DN65	DN65	DN65	DN65	DN65	DN65	DN65	DN80	/	/	/	/
排污口 Discharge outlet (mm)		DN40	DN40	DN50	DN50	DN65	DN65	DN65	DN65	DN65	DN65	DN65	DN80	DN25	DN25	DN40	DN40
炉体外形尺寸 Overall dimensions of boiler body (mm)	长L	1020	1020	1020	1020	1085	1085	1085	1355	1355	1355	1380	1140	1210	1520	1570	
	宽W	845	845	845	845	835	835	835	1215	1215	1215	1215	955	955	1410	1410	
	高H	1180	1180	1190	1190	1660	1660	1660	1755	1755	1755	1890	1460	1685	2015	2360	
重量 Weight (kg)		170	182	194	218	236	243	250	410	420	430	437	268	373	635	806	

## 电热水锅炉（不锈钢加热管）技术参数 TECHNICAL PARAMETERS OF ELECTRIC HOT WATER BOILERS (STAINLESS STEEL HEATING TUBE)

炉型 Boiler type		卧式常压 Horizontal atmospheric boiler														
项目/型号 Item/Model		CWDR 0.5-85/70	CWDR 0.7-85/70	CWDR 1.05-85/70	CWDR 1.4-85/70	CWDR 1.75-85/70	CWDR 2.1-85/70	CWDR 2.8-85/70	CWDR 3.5-85/70	CWDR 4.2-85/70	CWDR 5-85/70	CWDR 6-85/70	CWDR 7-85/70	CWDR 8-85/70	CWDR 10-85/70	
额定热功率 Rated thermal power	万kCal/h	43	60	90	120	150	180	240	86	172	257	343	429	514	600	686
	MW	0.5	0.7	1.05	1.4	1.75	2.1	2.8	1	2	3	4	5	6	7	8
电功率 Electric power (kW)		510	720	1080	1440	1800	2160	2880	1020	2040	3000	4020	5040	6000	7020	8040
额定压力 Rated pressure MPa		0														
额定供水温度 Rated supply and return water temperature (°C)		85 / 70														
有效水容积 Effective water volume (m³)		0.72	1.19	1.72	2.16	2.5	3.5	6.6	1.7	3.0	6.6	9.6	10.8	13.8	15.4	18.4
取暖面积 Heating area (m²)		5357	7500	11250	15000	18750	22500	30000	10714	21429	32143	42857	53571	64286	75000	85714
热出水量 Hot water output m³/h Δt=25°C		17.1	24	36	48	60	72	96	34	68	102	137	171	206	240	274
循环水量 Circulating water volume (m³/h)		28.7	40	60	80	100	120	160	57	114	171	228	286	343	400	457
电源 Power supply (V/Hz)		380/50														
电流 Current (A)		774	1094	1641	2188	2735	3282	4376	1514	3028	4543	6107	7600	9116	10636	12155
热效率 Thermal efficiency (%)		98%-99%														
供水口 Supply and return water inlet (mm)		DN80	DN80	DN100	DN125	DN150	DN150	DN200	DN125	DN150	DN200	DN200	DN200	DN250	DN250	DN250
通大气口 Atmospheric vent (mm)		DN65	DN80	DN100	DN125	DN150	DN150	DN200	DN125	DN150	DN200	DN200	DN200	DN250	DN250	DN250
排污口 Discharge outlet (mm)		DN80	DN80	DN100	DN125	DN150	DN150	DN200	DN125	DN150	DN200	DN200	DN200	DN250	DN250	DN250
炉体外形尺寸 Overall dimensions of boiler body (mm)	长L	2095	2095	2295	2245	2245	2600	3600	2224	2298	3478	4000	4820	4620	5120	6120
	宽W	1300	1470	1250	1500	1520	1750	2090	1250	1700	1900	2300	2300	2500	2500	2500
	高H	1800	1800	2190	2400	2530	2650	3530	1866	2216	2486	2540	2550	2740	2740	2740
电控柜外形尺寸 Dimensions of the electrical control cabinet (mm)	长L			2000	2400	3600	3600	4800	2000	4800	4800	4800	4800	4800	4800	4800
	宽W			600	600	600	600	600	600	600	600	600	600	600	600	600
	高H			2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200
重量Weight (kg)		523	780	1120	1583	1733	2090	3670	1220	2563	3712	5096	5661	6436	7617	8815

## 电热水锅炉（不锈钢加热管）技术参数 TECHNICAL PARAMETERS OF ELECTRIC HOT WATER BOILERS (STAINLESS STEEL HEATING TUBE)

炉型 Boiler type		卧式承压 Horizontal pressure boiler					
项目/型号 Item/Model		WDR0.7-1.0/95/70	WDR1.05-1.0/95/70	WDR1.4-1.0/95/70	WDR1.75-1.0/95/70	WDR2.1-1.0/95/70	WDR2.8-1.0/95/70
额定热功率 Rated thermal power	万kCal/h	60	90	120	150	180	240
	MW	0.7	1.05	1.4	1.75	2.1	2.8
电功率 Electric power (kW)		720	1080	1440	1860	2220	3000
额定压力 Rated pressure MPa		1					
额定供水温度 Rated supply and return water temperature (°C)		95 / 70					
有效水容积 Effective water volume (m³)		2.1	2.75	3.29	4.9	5.52	7.58
取暖面积 Heating area (m²)		7500	11250	15000	18750	22500	30000
热出水量 Hot water output m³/h Δt=25°C		24	36	48	60	72	96
循环水量 Circulating water volume (m³/h)		24	36	48	60	72	96
电源 Power supply (V/Hz)		380/50					
电流 Current (A)		1125	1584	2127	2790	3191	4225
热效率 Thermal efficiency (%)		98%-99%					
供水口 Supply and return water inlet (mm)		DN65	DN100	DN100	DN150	DN150	DN200
通大气口 Atmospheric vent (mm)		/	/	/	/	/	/
排污口 Discharge outlet (mm)		DN40	DN50	DN50	DN50	DN50	DN50
炉体外形尺寸 Overall dimensions of boiler body (mm)	长L	3015	3375	3230	3370	3800	3860
	宽W	1690	1495	1500	1720	1900	2000
	高H	2100	2005	1970	2200	2370	3535
电控柜外形尺寸 Dimensions of the electrical control cabinet (mm)	长L		2000	2400	3600	3600	4800
	宽W		600	600	600	600	600
	高H		2200	2200	2200	2200	2200
重量Weight (kg)		1190	1771	1996	2734	3966	4299

注：保留在不事先通知的情况下重新定义或更改产品信息权利（包括外形、技术、内部结构等）。720kW及以下的电炉采用机电一体结构，表中的炉体尺寸为锅炉与电控柜的整体尺寸。  
Note: We reserve the right to redefine or modify product information (including appearance, technology, internal structure, etc.) without prior notice. Electric boilers of 720kW and below adopts an electromechanical integrated structure, and the boiler body dimensions in the table are the overall dimensions of the boiler and electrical cabinet.

## 电加热系列-开水锅炉

### ELECTRIC HEATING SERIES—BOILING WATER BOILERS

## 电热开水锅炉 ELECTRIC BOILING WATER BOILERS



中文液晶屏 Chinese LCD screen

陶瓷电热管，水电分离结构，可在不放水的情况下更换电热管，不受水垢影响，寿命长，更换方便。

Ceramic Electric Heating Tube, The water and electricity separation structure allows for the replacement of electric heating tubes without draining water, which is not affected by scale, has a long lifespan, and is easy to replace.



陶瓷电热管 Ceramic Electric Heating Tube

具备时间模块功能，智能控制中文液晶屏提供中文操作界面，操作简便轻松，可自动设定温度，用户可按需要自行调整锅炉开关机时间及温度设定。

Equipped with a time module function, the intelligently controlled Chinese LCD screen provides a Chinese operation interface, which is easy to operate and can automatically set the temperature. Users can adjust the boiler's on/off time and temperature settings according to their needs.

CKS(60D-2000D)-Y



## FIRSTD BOILER

### 电热开水锅炉的优势

#### The Advantages of Electric Boiling Water Boilers

1. 采用独特水电分离结构，不受水垢影响；
  2. 方便检修，可在不放水的情况下更换电热管；
  3. 自动控制采用芯片自动程序控制，全自动运行，中文液晶屏提供中文操作界面，操作简便轻松；
  4. 步进加热方式，手自动切换，可随意控制加热元件；
  5. 数字显示温度明明白白喝开水；
  6. 采用优质陶瓷加热管，散热均匀，寿命长，更换方便；
  7. 内胆经过特殊处理，纯净水质。可连续不间断供应开水，也可配置蓄热开水箱，更适用于机关、学校瞬间用水量过大时使用；
  8. 独特结构设计，沸水区取水，保证100℃开水；
  9. 具备过热、过流、漏电、缺水、缺相、短路等安全保护，安全可靠；
  10. 进口彩板，玻璃丝棉包装，美观大方，不锈蚀，保温效果好；
  11. 低氮、节能、无噪音、环保推荐产品。
1. Adopting a unique water-electricity separation structure, which is not affected by scale;
  2. Convenient for maintenance, the electric heating tube can be replaced without draining water;
  3. The automatic control adopts chip automatic program control for fully automatic operation, and Chinese LCD screen provides a Chinese operation interface, making operation simple and easy;
  4. Step by step heating mode with manual automatic switching, allowing free control of heating elements;
  5. Digital temperature display ensures clear visibility, allowing you to drink boiling water with peace of mind;
  6. Using high-quality ceramic heating tubes, with uniform heat dissipation, long service life and easy replacement;
  7. The inner container has undergone special treatment to ensure pure water quality. It can continuously supply boiling water without interruption, and can also be equipped with a thermal storage boiling water tank, which is more suitable for offices and schools with excessive instantaneous water consumption;
  8. Unique structural design, and water intake in boiling water area, ensuring 100°C boiling water;
  9. Equipped with safety protections against overheating, overcurrent, leakage, water shortage, phase loss, short circuit, etc., it is safe and reliable;
  10. Imported color plates and glass wool package, which are beautiful and elegant, rust-proof, and have good insulation effect;
  11. It is a recommended product with low nitrogen, energy saving, no noise and environmental protection.

### 电热开水锅炉技术参数

#### Technical Parameters of Electric Boiling Water Boiler

炉型	项目/型号	电功率 kW	开水量 L/h	浴水量 L/h Δ t=25℃	水容积 m <sup>3</sup>	电源 V/Hz	电流 A	热效率 %	开水口 mm	进水口 mm	清污口 mm	通大气口 mm	清洗口 mm	炉体外形尺寸mm			重量 T
														长L	宽W	高H	
圆形	CKS60D-Y	6	60	150	0.11	380/50	9	99%	DN40	DN15	DN25	DN32	DN80	655	498	1160	0.11
	CKS120D-Y	12	120	300	0.11		18		DN40	DN15	DN25	DN32	DN80	655	498	1160	0.11
	CKS240D-Y	24	240	600	0.11		36		DN40	DN15	DN25	DN40	DN80	655	498	1175	0.11
	CKS360D-Y	36	360	900	0.18		54		DN40	DN15	DN25	DN40	DN80	755	598	1275	0.17
	CKS500D-Y	54	500	1300	0.37		82		DN40	DN25	DN25	DN80	DN80	1045	850	1632	0.28
	CKS1000D-Y	120	1000	2700	1.5		182		DN40	DN25	DN40	DN80	DN80	1230	1475	2052	0.64
	CKS2000D-Y	240	2000	5500	1.7		362		DN40	DN25	DN40	DN80	DN80	1370	1655	2177	1.07

注：保留在不事先通知的情况下重新定义或更改产品信息权利（包括外形、技术、内部结构等）

Note: We reserve the right to redefine or modify product information (including appearance, technology, internal structure, etc.) without prior notice

## 电加热系列—真空锅炉

### ELECTRIC HEATING SERIES—VACUUM BOILERS

## 电真空热水锅炉 ELECTRIC VACUUM HOT WATER BOILERS

电真空热水锅炉内部是大气密闭的整体，在运行时，中间介质水中的氧析出，排出电真空热水锅炉外，真空热水锅炉内长期不会发生氧腐蚀。

The interior of an electric vacuum hot water boiler is a hermetically sealed integral structure. During operation, oxygen in the intermediate medium water precipitates and is discharged outside the electric vacuum hot water boiler, so oxygen corrosion will not occur inside the vacuum hot water boiler for a long time.



Z-WDR(0.35-2.8)-1.0/1.6/2.0

## FIRSTD BOILER

### 电真空热水锅炉的优势

#### Advantages of Electric Vacuum Hot Water Boilers

电真空热水锅炉具有电压超高、超低保护，当电源电压超出正常设定范围后，自动切断电源报警。

The electric vacuum hot water boiler has ultra-high and ultra-low voltage protection. When the power supply voltage exceeds the normal set range, it will automatically cut off the power supply and trigger an alarm.

电真空锅炉多重保护功能：漏电保护、缺水保护、接地保护、超压保护、过流保护、电源保护。

The electric vacuum boiler has multiple protection functions: earth leakage protection, water shortage protection, grounding protection, overpressure protection, overcurrent protection, and power supply protection.

产品运行无噪音、零污染、安装简便的环保产品。

It is an environmentally friendly product that operates with no noise, achieves zero pollution, and is easy to install.

人性化控制系统：高彩触摸屏、动态图形显示、多级菜单与权限、故障自动记录。

Humanized control system: high-color touch screen, dynamic graphic display, multi-level menu and permissions, automatic fault recording.

具有缺水报警功能：锅炉水位低于安全水位时，自动切断电源并报警。

Equipped with water shortage alarm function: When the boiler water level is lower than the safer level, the power will be automatically cut off and an alarm will be triggered.

锅炉具备时间控制功能，可根据客户需要设定工作时间，并设有密码保护功能，确保锅炉正常运行，不受外界干扰。

The boiler has a time control function, which can set the working time according to customer needs, and is equipped with a password protection function to ensure the normal operation of the boiler without external interference.



A、产品运行无噪音、无氮氧化物污染、安装简便的低氮环保产品；

A. The product operates without noise and nitrogen oxide pollution, and is an easy-to-install, low-nitrogen and environmentally friendly product;

B、电真空热水锅炉内部保持真空，不与空气接触，无氧腐蚀，使用寿命长；

B. The electric vacuum hot water boiler maintains a vacuum inside, does not come into contact with air, has no oxygen corrosion, and has a long service life;

C、电真空锅炉多重保护功能：漏电保护、缺水保护、接地保护、超压保护、过流保护、电源保护；

C. Multiple protection functions of the electric vacuum boiler: earth leakage protection, water shortage protection, grounding protection, overpressure protection, overcurrent protection, and power supply protection;

D、采用优质英格莱800镍基合金加热管，德国技术质量可靠；

D. Using high-quality Incoloy 800 nickel-based alloy heating tubes, with reliable German technology and quality;

E、控制系统还设置了完善的自我保护功能，一旦出现故障，在报警的同时，系统自动采取保护措施，从而确保锅炉的控制更加安全可靠。

E. The control system is also equipped with comprehensive self-protection functions. In the event of a malfunction, the system will automatically take protective measures while alarming, ensuring safer and more reliable control of the boiler.

### 电真空热水锅炉技术参数

#### Parameters of Electric Vacuum Boilers

项目/型号/Model	额定供热量/Rated heat supply		换热器工作压力/Mpa Heat exchanger operating pressure (MPa)	电源/Power supply (V/Hz)	电流/Current (A)	电功率/Electric power (kW)	热效率/Thermal efficiency (%)	运输净重/Shipping net weight (T)	运行重量(约)/Operating weight (approx.) (T)	A型换热器/Type-A heat exchanger		B型换热器/Type-B heat exchanger		最大外形尺寸/Overall dimensions of the largest part (mm)					
	10 <sup>4</sup> cal/h	MW								热水流量/Hot water flow rate (m <sup>3</sup> /h)	接管口径/Connection diameter (mm)	热水流量/Hot water flow rate (m <sup>3</sup> /h)	接管口径/Connection diameter (mm)	长/L	宽/W	高/H			
Z-WDR 0.35	30	0.35	1.0/ 1.6/ 2.0	380 /50	532	360	98-99	1.8	3	Δt=10°C, 进出口温度 50/60°C	30	DN65	15	DN50	2000	1686	2180		
Z-WDR 0.7	60	0.7			1064	720		2.36	3.94	60	DN100	Δt=20°C, 进出口温度 40/60°C, 适用于地暖、中央空调采暖循环	60	DN100	30	DN65	2300	1786	2407
Z-WDR 1.05	90	1.05			1520	1080		2.63	4.43	90	DN125	Δt=10°C, inlet/outlet temperature 50/60°C or 45/55°C, suitable for underfloor heating, central air conditioning heating, circulation.	90	DN125	45	DN80	2400	1886	2625
Z-WDR 1.4	120	1.4			2127	1440		3.55	5.57	120	DN125	Δt=20°C, 进出口温度 40/60°C, 适用于卫生热水	120	DN125	60	DN100	2700	2006	2766
Z-WDR 2.1	180	2.1			3192	2160		3.82	6.28	180	DN150	Δt=2°C, inlet/outlet temperature 40/60°C, suitable for sanitary hot water.	180	DN150	90	DN125	3000	2058	3105
Z-WDR 2.8	240	2.8			4256	2880		4.27	7.17	240	DN200		240	DN200	120	DN125	3300	2288	3258

备注：1、机组换热器温差可根据用户要求定制，例如70/95°C、60/85°C；

2、上述参数仅供参考，保留在不事先通知的情况下重新定义更改产品信息权利（包括外形、技术、内部结构等）具体以提供图纸为准；

Note: 1. The temperature difference of the unit heat exchanger can be customized according to user requirements, such as 70/95°C, 60/85°C;

2. The above parameters are for reference only. We reserve the right to redefine and modify product information (including appearance, technology, internal structure, etc.) without prior notice. Please refer to the provided drawings for specific details;

## 电加热系列—高压电极锅炉

### ELECTRIC HEATING SERIES—HIGH VOLTAGE ELECTRODE BOILERS

## 电极式锅炉 ELECTRODE BOILERS



LDJ(4-90)  
LDJ(1.4-42)

## FIRSTD BOILER

### 电极式锅炉的概念

#### The Concept of Electrode Boilers

将连接高压电源的电极直接浸没在锅炉的炉水中进行加热，从而产生热水或蒸汽。炉水与锅炉外壁采用绝缘隔离的方式，避免锅炉金属筒体带电。电极锅炉是利用水的高热阻特性，直接将电能转换为热能并产生热水或蒸汽的一种技术。

The electrode connected to the high-voltage power supply is directly immersed into the boiler water for heating, thereby generating hot water or steam. The boiler water and the outer wall of the boiler are insulated and isolated to prevent the metal cylinder of the boiler from being charged. The electrode boiler utilizes the high thermal resistance of water to directly convert electrical energy into thermal energy, generating hot water or steam.

### 产品结构及技术原理

#### Product Structure and Technical Principles.

该系列锅炉技术原理：高压电极锅炉直接利用较高电压的电源(6-25KV)将高压电极浸没在一定电导率的水中，利用水的导电性和高热阻特性，直接将电能转换为热能，转化效率为99%以上。

The technical principle of this series of boilers: The high-voltage electrode boiler directly uses a higher voltage power source (6-25KV) to immerse the high-voltage electrode in water with a certain conductivity. By utilizing the conductivity and high thermal resistance characteristics of water, it directly converts electrical energy into thermal energy, with a conversion efficiency of over 99%.



### 电极式锅炉的特点 Characteristics of Electrode Boilers

- 1、抗震性能设计，主机控制，软件智能化程度高，故障自动记录。  
1. Seismic performance design, host control, high degree of software intelligence, and automatic fault recording.
- 2、高承压设计，运行压力高，提高谷电蓄热值。  
2. High pressure-bearing design, high operating pressure, and improved thermal storage value of off-peak electricity.
- 3、介质性质稳定，导电率均衡性好，运行可靠性高。  
3. The medium has stable properties, good conductivity balance, and high operational reliability.
- 4、99%能量转换效率、零污染、无噪音。  
4. 99% energy conversion efficiency, zero pollution, and no noise.
- 5、体积小、重量轻、出力足、运行安全可靠无噪音、技术先进。  
5. Small size, light weight, sufficient output, safe and reliable operation without noise, and advanced technology.
- 6、5-100%负荷范围可快速、稳定调节、安全可靠。  
6. The 5-100% load range can be quickly and stably adjusted, and is safe and reliable.
- 7、全自动运行、按需供热、无需人员值守。  
7. Fully automatic operation, on-demand heating, no need for personnel on duty.
- 8、谷电储热运行方式可自动、快速的进行电网调峰。  
8. The operation mode of off-peak electricity thermal storage can automatically and quickly adjust the peak load of the power grid.
- 9、进口电气元件、精准控制、启动快速、性能可靠、无级调节容量。  
9. Imported electrical components, precise control, fast start-up, reliable performance, and stepless capacity adjustment.
- 10、安装方便、地基施工简单、投资少、维修方便。  
10. Easy installation, simple foundation construction, low investment, and convenient maintenance.

### 电极式热水锅炉的优势 Advantages of Electrode Hot Water Boilers

电极式热水锅炉的电极系统包括三相电极和保护盾;电极安置在绝缘体上,和炉体隔离,系统还包括保护盾,把电极和循环水隔离。保护盾由电动执行器控制,可以调节锅炉的供热负荷量,调节负荷从5%-100%。锅炉本体安装在绝缘器上,这种安装方式具有高电阻率,锅炉的进、出水管,电动执行器和其他锅炉接触的配件都配有绝缘体;控制进出水流的低导电率,保证运行的绝对安全性;电压在10KV时,电阻仅为1.5-2.5KQ,高压电极热水锅炉控制系统可直接与电脑连接,实现无人值守控制。

The electrode system of an electrode hot water boiler includes three-phase electrodes and a protective shield. The electrode is placed on an insulator and isolated from the boiler body. The system also includes a protective shield to isolate the electrodes from the circulating water. The protective shield is controlled by an electric actuator and can adjust the heating load of the boiler from 5% to 100%. The boiler body is installed on the insulator, which has high electrical resistivity. The inlet and outlet pipes of the boiler, electric actuators, and other accessories that come into contact with the boiler are all equipped with insulators to control the low conductivity of the inlet and outlet water flow, ensuring absolute safety during operation. When the voltage is 10KV, the resistance is only 1.5-2.5KQ, and the high-voltage electrode hot water boiler control system can be directly connected to the computer for unmanned control.

### 电极式蒸汽锅炉的优势 Advantages of Electrode Steam Boilers

电极蒸汽锅炉是一种新型的锅炉,它采用了电极加热的方式来产生蒸汽。电极蒸汽锅炉具有更高的效率和更低的污染排放,因此在现代工业生产中得到了广泛的应用。电极蒸汽锅炉的原理是利用电极产生的电流来加热水,使其变成蒸汽。锅炉内部有两个电极,它们之间的距离可以调节,以控制加热的强度。当电极通电时,电流会通过水中的离子,产生热量,使水温升高,最终变成蒸汽。蒸汽可以通过管道输送到需要的地方,用于加热或驱动机械设备。电极蒸汽锅炉的优点在于它的加热效率非常高。它的启动速度非常快,电极蒸汽锅炉的维护成本也比较低不需要进行清洗和维修。电极蒸汽锅炉是一种高效、环保、易于维护的锅炉。

Electrode steam boiler is a new type of boiler that uses electrode heating to generate steam. Electrode steam boilers have been widely used in modern industrial production due to their higher efficiency and lower pollution emissions. The principle of an electrode steam boiler is to use the current generated by the electrodes to heat water and turn it into steam. There are two electrodes inside the boiler, and the distance between them can be adjusted to control the heating intensity. When the electrode is energized, the current passes through the ions in the water, generating heat that raises the water temperature and ultimately turns it into steam. Steam can be transported through pipelines to the desired location for heating or driving mechanical equipment. The advantage of an electrode steam boiler is that its heating efficiency is very high. Its start-up speed is very fast, and the maintenance cost of the electrode steam boiler is relatively low, without need for cleaning and maintenance. The electrode steam boiler is an efficient, environmentally friendly, and easy-to-maintain boiler.

## 应用场景 Application scenarios

#### 工业用热 Industrial Heat Demand

畜牧业、医药行业、食品行业、酒厂,造纸等工业用蒸汽。Steam is used in industries such as animal husbandry, pharmaceuticals, food, distilleries, and papermaking.

鉴于化石能源控制使用及国内新能源发展趋势,结合当前用能结构及环保要求,根据不同行业工艺用热要求特点,使用电极锅炉在满足工厂“稳定、高品质”用热的条件下解决工厂碳排放问题。

Considering the controlled use of fossil fuels and the development trend of new energy in China, combined with the current energy consumption structure and environmental protection requirements, and based on the characteristics of heat requirements in different industries, electrode boilers are used to solve the carbon emissions problem of factories while meeting the conditions of "stable and high-quality" heat consumption requirements of factories.



#### 集中供热 Centralized Heating

集中供热、区域供热、生活用水。Centralized heating, regional heating, and domestic water supply.

在城市集中/区域供暖地区,根据当地环保要求及煤、气价格浮动情况,在谷电电价条件下采用电极锅炉作为替代或者补充热源。在谷电时段进行蓄热,峰、平电价时段将谷电时段所蓄热能释放供应末端采暖或者直接当做生活热水使用,实现清洁供暖的同时解决用热成本高的问题。

In urban centralized/regional heating areas, electrode boilers are used as alternative or supplementary heat sources under the off-peak electricity price conditions, in accordance with local environmental requirements and fluctuations in coal and gas prices. During the off-peak electricity period, heat storage is carried out. During peak and flat electricity price periods, the heat energy stored during the off-peak electricity period is released to supply end-user heating or directly used as domestic hot water, achieving clean heating while solving the problem of high heat costs.



#### 调频调峰 Frequency Regulation and Peak Shaving

电厂灵活性改造、电厂启动锅炉。Flexibility renovation of power plants and start-up boilers of power plants.

电极蒸汽锅炉响应速度快,用于电厂启动锅炉的建设,同时电厂产生的多余热量也可作为电厂的备用热源,周边生活区供暖等。

The electrode steam boiler has a fast response speed and is used for the construction of start-up boilers in power plants. At the same time, the excess heat generated by the power plant can also be used as a backup heat source for the power plant and for heating the surrounding living areas.



#### 新能源消纳 New energy accommodation

“风、光”等新能源消纳。Consumption of new energy sources such as wind and solar power.

采用电极锅炉,把原本废弃的“风、光”电转化成热能,结合蓄热储能技术,进行新能源消纳的同时解决当地清洁供暖问题。

By using an electrode boiler, the originally discarded "wind and solar" electricity is converted into heat energy. Combined with thermal storage and energy storage technology, it achieves new energy consumption while solving the local clean heating problem.



### 高压电极式热水锅炉技术参数

#### Technical Parameters of High-Voltage Electrode Hot Waters Boiler

型号 model	额定热功率 Rated thermal power(MW)	额定供水温度 Rated supply and return water temperature (°C)	设计压力 Design pressure (MPa)	电压 Voltage (KV)	控制范围 Control range	效率 Efficiency	外形长度 Overall length (mm)	外形宽度 Overall width (mm)	外形高度 Overall height (mm)	运输重量 Shipping weight (t)	运行重量 Operating weight (t)
LDJ1.4	1.4	150/70 130/70 115/70 95/70	1.0~2.5	6~22	10~100%	99%	1780	1620	3570	2.3	4.6
LDJ2.1	2.1									2.65	4.95
LDJ2.8	2.8									2.8	5.1
LDJ4.2	4.2									2.94	5.24
LDJ5.6	5.6									4.7	8
LDJ7	7									6	10
LDJ10.5	10.5						10	14			
LDJ14	14						11	17			
LDJ21	21						12	24			
LDJ28	28						13	33			
LDJ35	35						20	40			
LDJ42	42						25	45			

### 高压电极式蒸汽锅炉技术参数

#### Technical Parameters of High-Voltage Electrode Steam Boilers

型号 model	功率 Power (MW)	额定蒸发量 Rated evaporation capacity(t/h)	设计压力 Design pressure (MPa)	电压 Voltage (KV)	控制范围 Scope of control	最大调节时间 Maximum adjustment time (min)	效率 Efficiency	补水要求最大电导率 Maximum conductivity required for water replenishment (µs/cm)	炉体高度 Furnace height (mm)	炉体直径 Furnace body diameter (mm)	运输重量 Shipping weight (t)	运行重量 Operating weight (t)
LDJ4	2.8	4	1.0~6.3	6~22	10~100%	5	> 99%	< 5	6400	2400	6.5	9.8
LDJ6	4.2	6										
LDJ8	5.6	8										
LDJ10	7	10										
LDJ15	10.5	15										
LDJ20	14	20										
LDJ25	17.5	25							6540	2900	11	16
LDJ30	21	30										
LDJ40	28	40										
LDJ50	35	50										
LDJ60	42	60										
LDJ70	49	70										
LDJ80	56	80	8400	3600	24	35						
LDJ90	63	90					8900	4000	32	45		

注:保留在不事先通知的情况下重新定义或更改产品信息权利(包括外形、技术、内部结构等)

Note: We reserve the right to redefine or modify product information (including appearance, technology, internal structure, etc.) without prior notice

## 用户安装现场 USER INSTALLATION SITE



**集中控制室**  
Centralized Control Room



**远程监控画面**  
Remote Monitoring Screen



**换热机组**  
Heat Exchange Unit

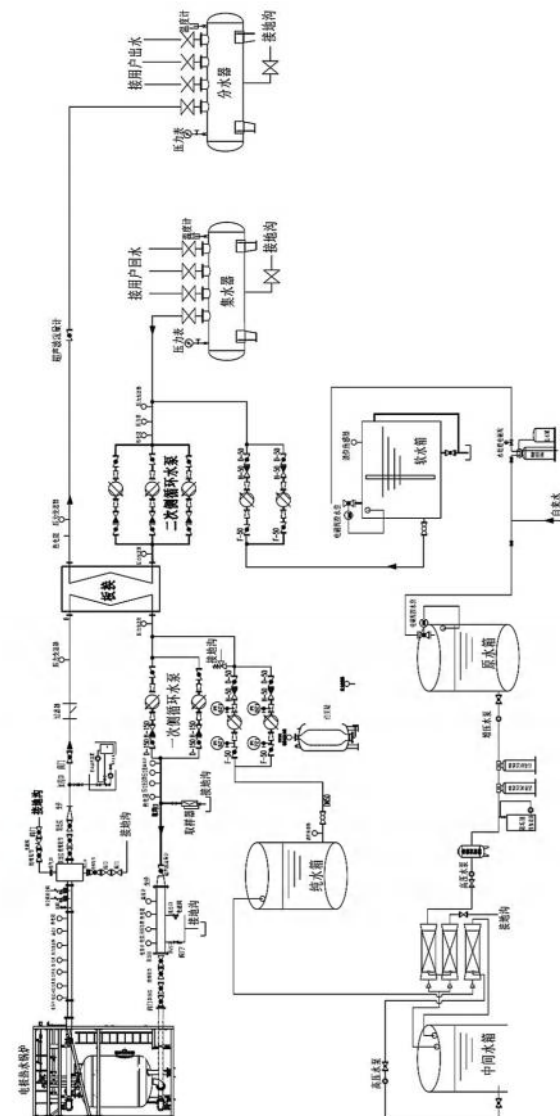


**高低压配电柜**  
High and Low Voltage Distribution Cabinets



**电极锅炉**  
Electrode Boilers

## 电极锅炉系统图 Electrode Boiler System Diagram



## D系列 D SERIES

### 电加热蒸汽发生器 ELECTRIC HEATING STEAM GENERATORS



LDR(0.1-1)-0.8

## FRSTD BOILER

### 电加热蒸汽发生器的优势 Advantages of Electric Heating Steam Generators

1. 独特的内部结构设计，该产品单台水容积小于30L，无需办理锅炉使用证，无需年检，无需操作证，即买即用，使用方便简单。
2. 汽水分离装置与炉体耦合式设计，蒸汽干燥度大于98%，高于监控锅炉标准，满足客户对高品质蒸汽的要求。
3. 采用电加热，只有炉体表面散热损失，热效率高达98%以上。
4. 锅炉本体采用小容积高辐射设计，加热均匀、稳定、蒸发面积大。产蒸汽时间只需3分钟，5分钟即可达到额定蒸汽压力。
5. 采用量身定制的专用蒸汽发生器电加热管，优质不锈钢材质，使用寿命长，导热材料使用高温氧化镁粉耐高温可达900℃，封口材料都是高品质原材料，有效确保电加热管的使用寿命；电加热管与炉体采用法兰连接，利于更换、维修和保养。
6. 采用国内外知名电器元件，确保运行稳定，使用寿命长。
7. 炉体设计有弹簧式安全阀，敏感度高，超压自动泄压，保证锅炉工作安全。
8. 本锅炉所配备的水位传感器具有自动控制给水、水位报警和连锁功能。
9. 锅炉设置有加热器分组投入运行和分组退出运行的自动控制装置；设置有负荷自动调节装置。
10. 采用全自动液晶显示智能电控系统。锅炉操作系统为全自动控制，所有的运行状态均可在液晶屏中一目了然。
11. 结构紧凑，模块化并联组合设计，可根据客户需求随意组合。

1. This product features a unique internal structure design, with a single water volume of less than 30L. It does not require a boiler usage certificate, annual inspection, or operation certificate and can be purchased and used immediately, making it convenient and simple to use.
2. The steam-water separation device is designed in a coupled manner with the boiler body, and the steam dryness is greater than 98%, which is higher than the boiler supervision and inspection standard and meets the customer's requirements for high-quality steam.
3. Using electric heating, only the surface of the boiler body has heat dissipation loss, and the thermal efficiency is over 98%.
4. The boiler body adopts a small-volume high-radiation design, with uniform and stable heating and a large evaporation area. The steam production time only takes 3 minutes, and the rated steam pressure can be reached in 5 minutes.
5. Tailored specialized steam generator electric heating tubes are used, made of high-quality stainless-steel material with a long service life. The thermal conductivity material uses high-temperature magnesium oxide powder, which can withstand high temperatures up to 900°C. The sealing materials are all high-quality raw materials, effectively ensuring the service life of the electric heating tubes. The electric heating tube is connected to the boiler body with a flange, which facilitates replacement, repair, and maintenance.
6. Using well-known domestic and foreign electrical components to ensure stable operation and long service life.
7. The boiler body is designed with a spring-type safety valve, which has high sensitivity and automatically relieves pressure when overpressurized, ensuring the safety of boiler operation.
8. The water level sensor equipped in this boiler has automatic control of water supply, water level alarm, and interlocking functions.
9. The boiler is equipped with automatic control devices for grouping heaters into operation and grouping them out of operation; it is also equipped with an automatic load adjustment device.
10. Adopting a fully automatic LCD display intelligent electronic control system. The boiler operating system is fully automatic, and all operating statuses can be clearly displayed on the LCD screen.
11. Compact structure with a modular parallel combination design, which can be freely combined according to customer needs.

### 电加热蒸汽发生器参数 PARAMETERS OF ELECTRIC HEATING STEAM GENERATORS

项目/型号 Item / Model	额定蒸发量 Rated evaporation capacity (t/h)	额定压力 Rated steam pressure (Mpa)	额定蒸汽温度 Rated steam temperature (°C)	电功率 Electric power (kW)	水容积 Effective water volume (m <sup>3</sup> )	热效率 Thermal efficiency (%)	产出蒸汽时间 Steam generation time (min)	进水口 Water inlet (mm)	蒸汽口 Steam vent (mm)	安全阀口 Safety valve port (mm)	排水口 Drainage outlet (mm)	外形尺寸 Overall dimensions (mm)		重量 Weight (kg)
												长 L	宽 W	
LDR0.1-0.8	100	0.8	175	72	<30	99	5	DN25	DN25	DN25	DN25	940*840*1675	100	
LDR0.2-0.8	200	0.8	175	144	<30	99		DN25	DN25	DN25	DN25	1540*840*1675	200	
LDR0.3-0.8	300	0.8	175	216	<30	99		DN25	DN25	DN25	DN25	1840*840*1675	300	
LDR0.4-0.8	400	0.8	175	288	<30	99		DN25	DN32	DN32	DN25	1540*1340*1675	400	
LDR0.5-0.8	500	0.8	175	360	<30	99		DN25	DN32	DN32	DN25	1840*1340*1675	500	
LDR1-0.8	1000	0.8	175	720	<30	99		DN25 (两个)	DN32 (两个)	DN32 (两个)	DN25 (两个)	3240*1340*1675	1000	

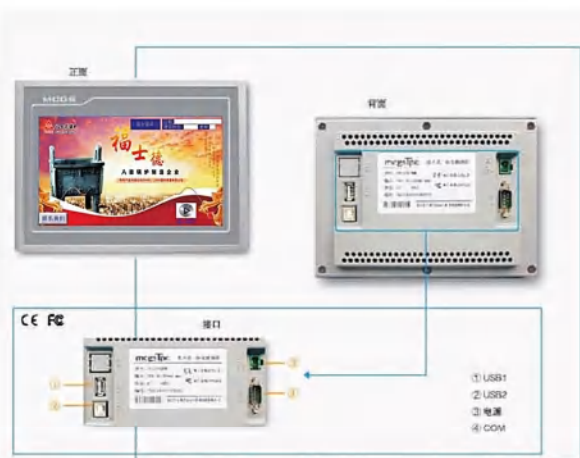
注：保留在不事先通知的情况下重新定义或更改产品信息的权利（包括外形、技术、内部结构等）

Note: We reserve the right to redefine or modify product information (including appearance, technology, internal structure, etc.) without prior notice

## 全自动智能控制系统 >>> FULLY AUTOMATIC INTELLIGENT CONTROLLERS

福士德公司拥有完全自主知识产权自主设计开发的PLC全自动智能控制系统,采用机电一体化控制设备和可编程逻辑控制器(PLC)联合控制方式。以先进的可编程逻辑控制器(PLC)为控制系统的“中央处理器”。控制系统通过触摸屏进行操作,使锅炉自动化控制程度和运行可靠程度大大提高,操作更加简便直观。

Firstd Company possesses a fully automatic intelligent PLC control system independently designed and developed with complete intellectual property rights. It adopts a joint control mode combining electromechanical integration control equipment and programmable logic controller (PLC). The advanced programmable logic controller (PLC) serves as the "central processing unit" of the control system. The control system is operated via a touch screen, which greatly improves the automation control level and operational reliability of the boiler, and makes the operation more convenient and intuitive.



该产品是一套的已嵌入式低功耗CPU为核心(主频400MHz)的高性能嵌入式一体化触摸屏。该产品设计采用了高亮度TFT液晶显示屏(分辨率800×480),四线电阻式触摸屏(分辨率4096×4096)。同时还预装了MCGS嵌入式组态软件(运行版),具备强大的图像显示和数据处理能力。

PLC触摸屏的控制系统,具备通讯接口,通过协议与上位机软件,可实现集中和远程监控,上位机适时监控锅炉运行参数及负载变化,更可组成多台锅炉控制网路,实现根据负载变化自动选择锅炉运行台数。

This product is a high-performance embedded all-in-one touch screen centered on an embedded low-power CPU (with a clock frequency of 400MHz). It is designed with a high-brightness TFT LCD display (resolution: 800×800) and a four-wire resistive touch screen (resolution: 4096×4096). Additionally, it comes pre-installed with MCGS embedded configuration software (operational version), featuring powerful image display and data processing capabilities.

The control system of the PLC touch screen is equipped with a communication interface. Through a protocol with the host computer software, it can realize centralized and remote monitoring. The host computer can monitor boiler operating parameters and load changes in real-time, and can also form a control network for multiple boilers, realizing the automatic selection of the number of operating boilers based on load changes.

## 锅炉远程控制 REMOTE CONTROL OF BOILERS:

采用先进成熟的GPRS DTU模块为远程数据传输模块,依托稳定可靠的中国移动GPRS网络,组成一套无线数据传输网络的实时监控,安全可靠,及时性强,通过画面组态将锅炉的运行数据以生动形象的方式展现出来,同时通过WEB发布功能将监控画面发布到网络上,工作人员通过登录APP查看用户设备锅炉运行状态,工作人员根据用户锅炉的排烟温度、进出水温度、燃烧机的启停等数据,对异常情况进行告警,避免产品出现严重故障问题,对用户提出合理的建议,保证锅炉安全、高效的运行,用户可以通过登录APP查看自己的锅炉运行状态。

An advanced and mature GPRS DTU module is adopted as the remote data transmission module, which relies on the stable and reliable China Mobile GPRS network to form a real-time monitoring system of a wireless data transmission network. It is safe, reliable and highly timely. Through screen configuration, the operating data of the boiler is displayed in a vivid and intuitive way; at the same time, the monitoring screen is released to the network through the WEB publishing function. Staff can check the operating status of the user's boiler equipment by logging in to the APP. Based on the user's boiler data such as exhaust gas temperature, inlet and outlet water temperature, and burner start-stop status, the staff can issue alarms for abnormal conditions, avoid serious product failures, put forward reasonable suggestions to users, and ensure the safe and efficient operation of the boiler. Users can also check the operating status of their own boilers by logging in to the APP.



## 优质服务 >>>

### HIGH-QUALITY SERVICE



高效、安全、专业  
Efficient, Safe and Professional

#### 优质的产品更需要优质的服务

High-quality products require even higher-quality services

出现故障的时候，您是否需要快捷、专业的帮助，因为故障意味着昂贵的成本！

在对所有的系统进行更新升级的时候，您是否需要支持！

福士德技术将随时待命，

为您提供高效、安全、专业的服务！

When a malfunction occurs, do you need prompt and professional assistance? Because malfunctions mean high costs!

Do you need support when updating and upgrading your existing system?

Firstd Technology will be on standby at all times to provide you with efficient, safe, and professional services!



33个客服中心  
200个服务网点  
33 Customer Service Centers  
200 Service Outlets

#### 全国布局客服中心,服务更便捷

Nationally Distributed Customer Service Centers Ensure More Convenient Service

只有站在顾客的角度为顾客着想，才能赢得市场。福士德严格按照国家规定的三包政策做好售后服务。在全国设立了33个客户服务中心，200多个售后服务网点，全程支持您在使用过程中遇到的任何问题。

Only by standing in the customers' shoes and thinking for them can we win the market. Firstd strictly adheres to the three-guarantee policy stipulated by the state to provide quality after-sales service. We have established 33 customer service centers and more than 200 after-sales service outlets across the country, providing full support for any issues you may encounter during use.



工程师  
在线技术支持  
Engineers' Online  
Technical Support

#### 随时待命：专业的服务

On Call: Professional Service

我们的客户服务每天24小时时刻待命。得益于我们精心编织的服务区域网络，我们能够确保最短的反应时间，除了维护服务，故障跟踪和维修，我们还为您提供系统常规检查支持，如果您不确定您的系统是否稳定，是否依旧高效运转，那么我们将十分乐意协助您，我们将会对您的系统进行分析，如果需要的话，还会对其进行更新升级。

在正常的工作时间内，您可以直接联系当地的客户服务工程师，直接与当地的客户服务工程师联系，可以为您节省大量宝贵的时间。当地客户服务工程师解决不了的问题，客户可以拨打我们的24小时：服务专线400-180-1966，我们将通过电话对于您的问题给予专业的、合理化建议，定制化的解决方案。

Our customer service is available 24/7. Thanks to our meticulously established service area network, we can ensure the shortest response time. In addition to maintenance services, fault tracking and repairs, we also provide you with regular system inspection support. If you are unsure whether your system is stable and still operating efficiently, we will be more than happy to assist you. We will analyze your system and, if necessary, perform updates and upgrades.

During regular working hours, you can directly contact your local customer service engineer, which can save you a significant amount of valuable time. If the local customer service engineer is unable to resolve the issue, you can call our 24-hour service hotline at 400-180-1966. We will provide professional and reasonable suggestions as well as customized solutions for your problems over the phone.

