

# voltmax

ELECTRIC BOILER  
58 KW TO 408 KW



**COMMERCIAL / 400**



## CONCENTRATED ENERGY

The VoltMax line of electric boilers was developed to efficiently supply hydronic heating systems in commercial, institutional and industrial applications. This boiler is offered under different voltages to respond to any single-phase or three-phase electrical supply. Its easy-to-use electronic controller provides precise temperature and power control to minimize energy costs and to optimize the boiler's performance. VoltMax's compact design is great for small spaces and requires minimal clearance around the unit.



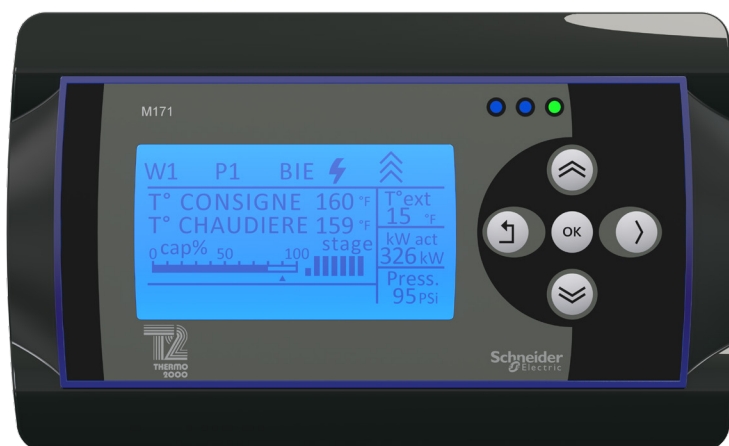
Peak-performance  
heating systems

## Efficient kW Management

The controller can modulate the power of the unit from 0 to 100%, based on heating demand through the use of a solid-state SCR relay. The benefits of this operating mode are increased temperature control and reduced wear on the power relays. In addition, it very precisely limits the maximum electrical power required for the boiler in order to prevent wasteful and costly peaks in consumption.

## Energy at Your Fingertips

The VoltMax electronic controller makes it easy to control the boiler's operating settings related to the application in order to obtain optimal performance. Its large backlit screen provides the boiler's operating status at a glance. The controller keys provide quick management menu navigation to access the system's various functions.



The display screen includes the following information:

- Heat demand
- Set point temperature
- Boiler outlet temperature
- Outdoor temperature when the sensor is connected
- Boiler power in real time
- Stage status
- Operating pressure
- Operating modes: electric, auxiliary or dual-energy
- Boost mode in operation
- Boiler OFF when the outdoor temperature is high WWST
- Visual and audible alarm with alarm code
- Operating status indicator lights: green, yellow or red
- Choice of temperature units (°F/°C) and languages (English/French)
- Maximum allowed power

# VoltMax 58 KW TO 408 KW

1. DIGITAL CONTROLLER
2. HEATING WATER CONNECTIONS AND INSPECTION PORTS
3. EASILY-REPLACEABLE IMMERSION-TYPE "INCOLOY" HEATING ELEMENTS
4. LOW VOLTAGE FUSE PROTECTION (CONTROL CIRCUIT)
5. HIGH VOLTAGE FUSE PROTECTION (POWER CIRCUIT)
6. POWER CONTACTOR
7. SOLID STATE SCR RELAY
8. CONTROL CIRCUIT ON/OFF SWITCH
9. LOW-WATER CUT-OFF CONTROL WITH AUTOMATIC RESET, TEST BUTTON AND INDICATOR LIGHTS
10. CURRENT TRANSDUCERS
11. MAIN DISCONNECT SWITCH (OPTIONAL EQUIPMENT)



VoltMax 408 kW – 600 V  
with main disconnect switch option

## STANDARD FEATURES

- A first adjustable high-limit with automatic reset
- A second fixed high-limit with manual reset
- 1 1/4" NPT drain valve
- ASME safety valve
- 3" insulation

## OPTIONAL EQUIPMENTS

- Main disconnect switch with or without built-in fuses. This option is not available for VoltMax 336 kW to 408 kW 480 VAC 3 phases
- 60 PSI, 125 PSI or 150 PSI pressure relief valve (standard)

VoltMax	Features
MODEL	58 to 408 kW
WEIGHT	1200 lb
VOLUME	62 US gallons
CONNECTIONS	3" NPT male
MAXIMUM WORKING PRESSURE	160 PSI
SAFETY VALVE PRESSURE	150 PSI*

\* A safety valve having a lower set pressure—of 60 PSI or 125 PSI—can be installed as an option.



4 CONNECTIONS  
INLET AND OUTLET  
(MULTIPOSITION)



**VOLTMAX IS AVAILABLE IN DIFFERENT  
POWERS AND VOLTAGES**

## SINGLE-PHASE 60Hz

208 VAC	58 kW to 72 kW
240 VAC	77 kW to 96 kW

## THREE-PHASE 60Hz

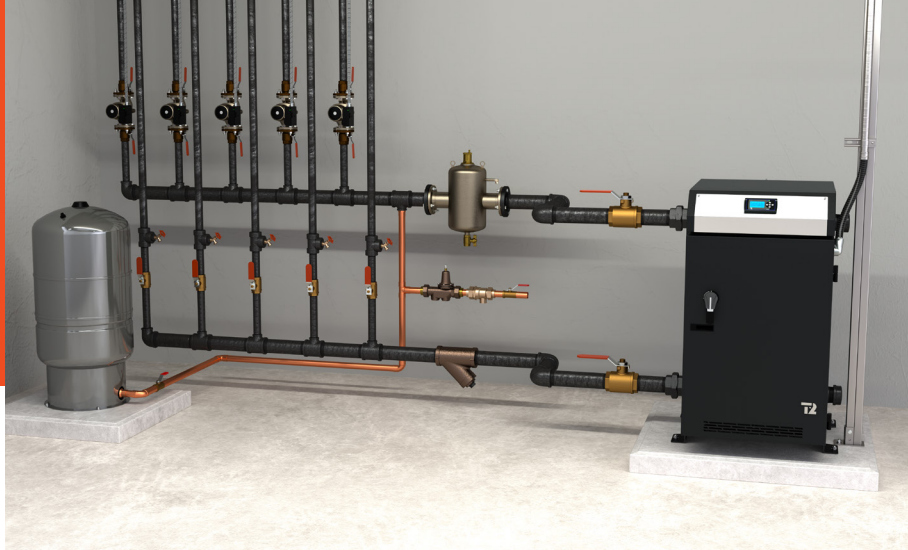
208 VAC	79 kW to 108 kW
240 VAC	105 kW to 144 kW
480 VAC	192 kW to 408 kW
600 VAC	192 kW to 408 kW

## For 100% Efficiency

- Compact vertical boiler to optimize space
- Easy access to component parts
- Operates only when needed
- Set point temperature adjustable from 50 °F to 200 °F (10 °C to 93 °C)
- Silent, clean and requires little maintenance
- Robust industrial-grade construction
- Water temperature and boiler power modulation
- Contact to activate an external alarm
- Amperage measurements to detect anomalies and to estimate electrical consumption
- Boiler return temperature and boiler flow readings
- Can be easily connected with an auxiliary boiler as a power backup or for a dual-energy configuration
- Temperature-lowering function via an external contact when building is unoccupied



- Ethernet and BACnet network communication ports enable remote communication
- Ability to view operating status and to modify the settings remotely through a webpage
- Information about operating anomalies and history
- Can be configured to send alarms by email



## Increased Temperature Control

The VoltMax boiler provides maximum comfort through accurate, efficient temperature control of these different modes:

- A "fixed" set point temperature
- Water temperature modulation with external temperature sensor
- Remote control the water temperature using an external BACnet IP or MSTP controller
- Variable water temperature based on a building occupancy schedule
- 0-10 VDC external temperature control

For all these modes, you can use the controller to set a second "fixed" set point temperature, adjusted to a greater value, to use an indirect water heater.



## Increased Power Control

To maximize savings without compromising comfort, the VoltMax boiler provides efficient power control according to these different modes:

- The controller acts without constraint or limitation
- The maximum power is determined manually
- Maximum power modulation based on the outdoor temperature sensor
- Remote power control (through an external BACnet IP or MSTP controller)
- Variable maximum power based on an hourly schedule
- 0-10 VDC external power control
- Auxiliary energy source used as a backup or master source

## VoltMax 208 VAC / 60 Hz / 1 phase<sup>1</sup>

Model	Power		Amps	Elements 240 V	Relay Stages	SCR Stage
	kW	BTU/h				
VOLTMAX 58	57.8	197 043	278	7 x 5 kW + 7 x 6 kW	6 x 8.25 kW	1 x 8.25 kW
VOLTMAX 60	60	204 720	288	16 x 5 kW	7 x 7.5 kW	1 x 7.5 kW
VOLTMAX 63	63	214 956	303	14 x 6 kW	6 X 9 kW	1 X 9 kW
VOLTMAX 66	66	225 192	317	8 x 5 kW + 8 x 6 kW	7 x 8.25 kW	1 x 8.25 kW
VOLTMAX 72	72	245 664	346	16 x 6 kW	7 x 9 kW	1 x 9 kW

<sup>1</sup> 208 V 1-phase electrical supply (L1-L2) with two 90 °C conductors and a ground.

## VoltMax 240 VAC / 60 Hz / 1 phase<sup>1</sup>

Model	Power		Amps	Elements 240 V	Relay Stages	SCR Stage
	kW	BTU/h				
VOLTMAX 77	77	262 724	321	7 x 5 kW + 7 x 6 kW	6 x 11 kW	1 x 11 kW
VOLTMAX 80	80	272 960	333	16 x 5 kW	7 x 10 kW	1 x 10 kW
VOLTMAX 84	84	286 608	350	14 x 6 kW	6 X 12 kW	1 X 12 kW
VOLTMAX 88	88	300 256	366	8 x 5 kW + 8 x 6 kW	7 x 11 kW	1 x 11 kW
VOLTMAX 96	96	327 552	400	16 x 6 kW	7 x 12 kW	1 x 12 kW

<sup>1</sup> 240 V 1-phase electrical supply (L1-L2) with two 90 °C conductors and a ground.

## VoltMax 208 VAC / 60 Hz / 3 phases<sup>1</sup>

Model	Power		Amps	Elements 240 V	Relay Stages	SCR Stage
	kW	BTU/h				
VOLTMAX 79	78.8	268 695	219	7 x 15 kW	6 x 11.25 kW	1 x 11.25 kW
VOLTMAX 90	90	307 080	250	8 x 15 kW	7 x 11.25 kW	1 x 11.25 kW
VOLTMAX 95	94.5	322 434	263	7 x 18 kW	6 x 13.5 kW	1 x 13.5 kW
VOLTMAX 108	108	368 496	300	8 x 18 kW	7 x 13.5 kW	1 x 13.5 kW

<sup>1</sup> 208 V 3-phase electrical supply (L1-L2-L3) with three 90 °C conductors and a ground

## VoltMax 240 VAC / 60 Hz / 3 phases<sup>1</sup>

Model	Power		Amps	Elements 240 V	Relay Stages	SCR Stage
	kW	BTU/h				
VOLTMAX 105	105	358 260	253	7 x 15 kW	6 x 15 kW	1 x 15 kW
VOLTMAX 120	120	409 440	289	8 x 15 kW	7 x 15 kW	1 x 15 kW
VOLTMAX 126	126	429 912	303	7 x 18 kW	6 x 18 kW	1 x 18 kW
VOLTMAX 144	144	491 328	347	8 x 18 kW	7 x 18 kW	1 x 18 kW

<sup>1</sup> 240 V 3-phase electrical supply (L1-L2-L3) with three 90 °C conductors and a ground

## VoltMax 480 VAC<sup>1</sup> and 600 VAC<sup>2</sup> / 60 Hz / 3 phases

Model	Power		Amps		Elements	Relay Stages	SCR Stage
	kW	BTU/h	480 VAC	600 VAC			
VOLTMAX 192	192	655 104	231	185	8 x 15 kW + 4 x 18 kW	3 x 48 kW	1 x 48 kW
VOLTMAX 204	204	696 048	246	197	8 x 18 kW + 4 x 15 kW	3 x 51 kW	1 x 51 kW
VOLTMAX 216	216	736 992	Ø	208	12 x 18 kW	3 x 54 kW	1 x 54 kW
VOLTMAX 225	225	767 700	271	217	15 x 15 kW	4 x 45 kW	1 x 45 kW
VOLTMAX 240	240	818 880	289	231	10 x 15 kW + 5 x 18 kW	4 x 48 kW	1 x 48 kW
VOLTMAX 255	255	870 060	307	246	10 x 18 kW + 5 x 15 kW	4 x 51 kW	1 x 51 kW
VOLTMAX 270	270	921 240	Ø	260	15 x 18 kW	4 x 54 kW	1 x 54 kW
VOLTMAX 288	288	982 656	347	277	12 x 15 kW + 6 x 18 kW	5 x 48 kW	1 x 48 kW
VOLTMAX 306	306	1 044 072	368	295	12 x 18 kW + 6 x 15 kW	5 x 51 kW	1 x 51 kW
VOLTMAX 315	315	1 074 780	379	303	21 x 15 kW	6 x 45 kW	1 x 45 kW
VOLTMAX 324	324	1 105 488	Ø	312	18 x 18 kW	5 x 54 kW	1 x 54 kW
VOLTMAX 336	336	1 146 432	405	324	14 x 15 kW + 7 x 18 kW	6 x 48 kW	1 x 48 kW
VOLTMAX 357	357	1 218 084	430	344	14 x 18 kW + 7 x 15 kW	6 x 51 kW	1 x 51 kW
VOLTMAX 378	378	1 289 736	Ø	364	21 x 18 kW	6 x 54 kW	1 x 54 kW
VOLTMAX 384	384	1 310 208	462	370	16 x 15 kW + 8 x 18 kW	7 x 48 kW	1 x 48 kW
VOLTMAX 408	408	1 392 096	491	393	16 x 18 kW + 8 x 15 kW	7 x 51 kW	1 x 51 kW

<sup>1</sup> 480 V 3-phase electrical supply (L1-L2-L3) with three 90 °C conductors and a ground.

<sup>2</sup> 600 V 3-phase electrical supply (L1-L2-L3) with three 90 °C conductors and a ground.

**10-YEAR WARRANTY**  
ON THE RESERVOIR

**2-YEAR WARRANTY**  
ON ELECTRICAL AND MECHANICAL PARTS



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