# Commercial Application Point-of-Use Tankless Electric



Mini™ | DHC | Mini™-E | DHC-E | Tempra®



# The Finest Tankless Electric Water Heaters Available!











- On-demand, continuous, unlimited hot water
- > No venting required
- > Exclusive design prevents dry firing
- Saves space
- > 99% efficiency & no standby losses

# Tankless electric water heaters for point-of-use



**Superior, Reliable & Energy Saving Performance** | All Stiebel Eltron tankless electric water heaters have flow and temperature sensors. Electronic models feed their readings into proprietary microprocessor controls. Auto-modulation ensures that heating elements are engaged in stages, achieving the water temperature desired, with the lowest possible energy usage. Both the input and output water temperature and the flow rate are continually monitored. This smart Electronic Temperature Control microprocessor technology ensures steady output at the set point temperature even if flow rates vary up or down. Tankless electric water heaters from other manufacturers don't maintain steady temperature if the incoming flow rate varies.

Best Warranty in the Industry | Stiebel Eltron has an enviable track record of engineering excellence and product quality. The three-year parts warranty is unique in the industry. You can depend on a Stiebel Eltron tankless electric water heater for many years to come.

## Superior Engineering in Every Way

Electronic models are completely silent in operation. Mechanical models are virtually silent. All models feature an exclusive design that prevents failure from dry-firing, plus manual safety highlimit cutoffs.

#### Simple Design of Plumbing System

There is no need for a T & P valve, drain or mixing valve. The design of the hot water plumbing system is very simple and straightforward.

Sleek Design Fits in Anywhere | Due to their compact dimensions, these water heaters may be installed close to draw-off points to minimize piping runs and also in areas where larger devices will not fit. The attractive housings may be left unconcealed in many applications.

**Seismic Proof Construction** | These tankless water heaters are not subject to seismic code. There is no need for preventative construction, as required with bulky water storage heating systems.

**No Venting Required** | The units are electric and require no venting. This allows for installation possibilities not possible for gas units.

Code Compliance Made Easy | A water temperature required by code can simply be dialed in on all electronic models. The accuracy of the water temperature is guaranteed by sophisticated electronics. The DHC-E and Tempra® can supply up to 140°F (60°C) water when health codes call for it. They can also be set internally to limit output temperature to a maximum of 109°F (43°C) where scalding water is a hazard. Mini™-E and DHC-E models have optional externally attached mixing

valve assemblies for installations where UPC code compliance is a necessity. No need to worry about mixing valves that go out of adjustment and wear out. At the same time, when lower, non-scalding temperatures are needed, the advanced electronics of the DHC-E / Tempra® ensure what you set is what you get.

#### **Electronic Model Temperature Control**

The Mini-E is factory-set internally to deliver maximum 100°F (38°C) water temperature. It can be field set or custom ordered to deliver a different water temperature. Tempra® and DHC-E are adjusted on the front cover to set output water temperature between 68 to 140°F (20-60°C).

### These are the ones that work.





Stiebel Eltron Mini™, DHC, DHC-E & Tempra® Tankless Electric Water Heaters deliver instant hot water, and can eliminate time waiting for hot water, preserve precious water resources, and save energy.

7 years leakage/ 3 years parts. Complete warranty online.

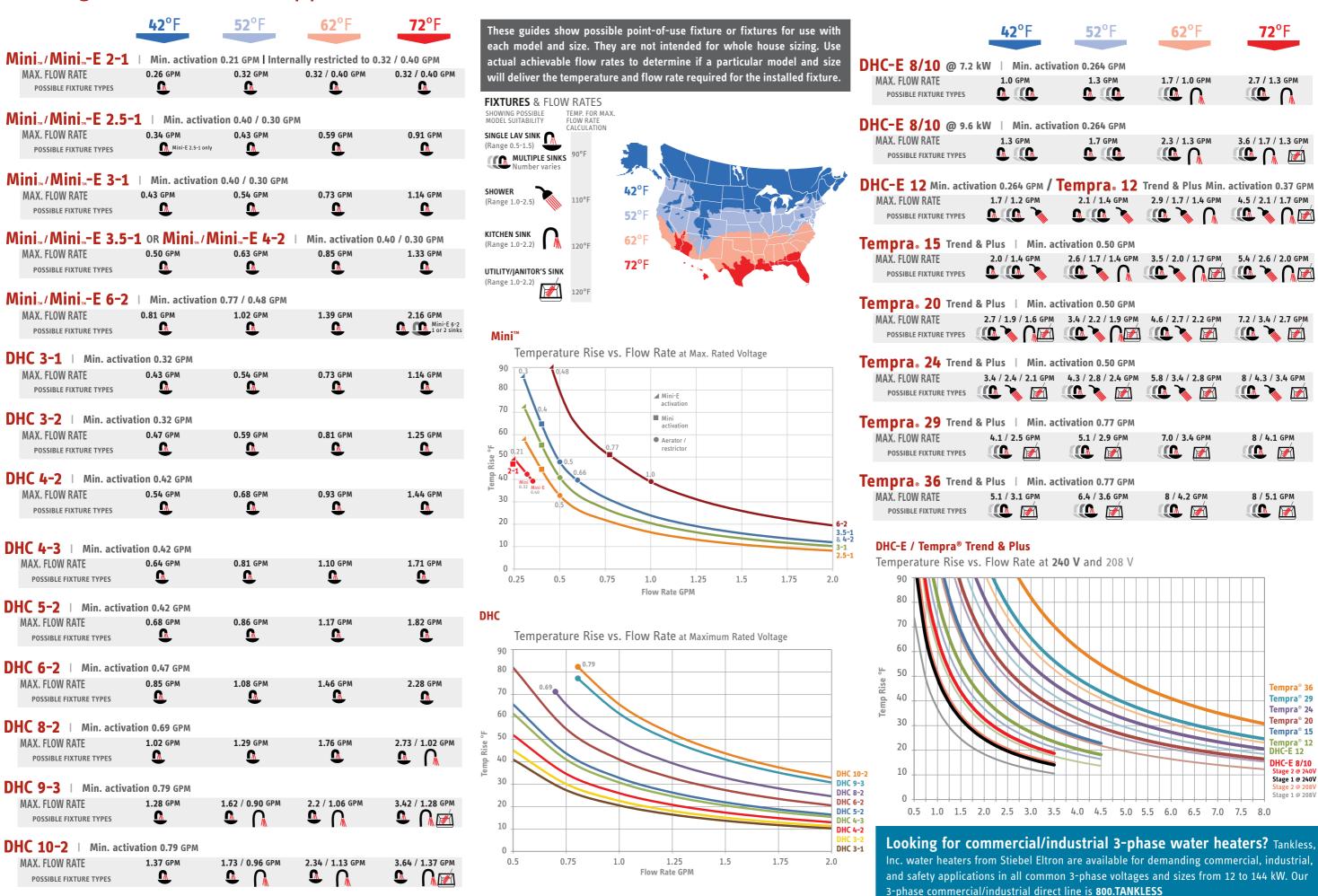
	Mini <sub>™</sub>	Mini <sub>™</sub> -E	DHC	DHC-E	Tempra <sup>®</sup>
Best applications	single handwashing sink	single handwashing sink	single sink	multiple handwashing sinks or single high flow sink	multiple handwashing sinks or single high flow sink
Mechanical or electronic	Mechanical	Electronic	Mechanical	Electronic	Electronic
Installation orientations	below or above sink water connections point- ing up or down	below or above sink water connections pointing up or down	below or above sink water connections pointing down	below or above sink water connections pointing down	below or above sink water connections pointing down
Voltages available	120/240 V	120/240 V	120/240/277 V	240 V	240 V
Output range for model	1.8 - 5.7 kW	1.8 - 5.7 kW	3 - 9.6 kW	7.2 – 12 kW	12-36 kW
Power draw for model	14.6 - 29 A	14.6 - 29 A	14-40 A	30 - 50 A	50 - 150 A
Activation flow rate (varies by kW)	0.21, 0.40, 0.77 gpm	0.21, 0.30 gpm	0.32, 0.42, 0.47, 0.69, 0.79 gpm	0.264 gpm	0.37, 0.50, 0.77 gpm
Temperature rise range (approx.)	~30 °F	~30°F	~30-80°F	~20-90 °F	~30-90°F
Temperature selector	no	yes	no	yes	yes
Width/height/depth	7½ / 6½ / 3¼ inches 190 / 165 / 82 cm	7½ / 6½ / 3¼ inches 190 / 165 / 82 cm	7 <sup>7</sup> / <sub>16</sub> / 14 <sup>3</sup> / <sub>16</sub> / 4 <sup>1</sup> / <sub>16</sub> inches 20.0 / 36.0 / 10.4 cm	7 <sup>7</sup> / <sub>16</sub> / 14 <sup>3</sup> / <sub>16</sub> / 4 <sup>1</sup> / <sub>16</sub> inches 20.0 / 36.0 / 10.4 cm	16 <sup>5</sup> / <sub>8</sub> / 14 <sup>1</sup> / <sub>2</sub> / 4 <sup>5</sup> / <sub>8</sub> inches 42.0 / 36.9 / 11.7 cm

### **Superior Technical Support**

Stiebel Eltron's knowledgeable customer support staff can offer product and sizing recommendations as well as help with troubleshooting and technical questions.

800.582.8423

# The Right Size for the Application COMMERCIAL POINT-OF-USE SIZING GUIDES



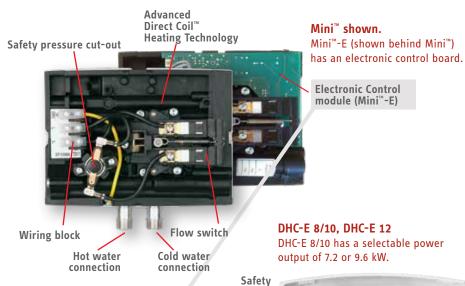
# STIEBEL ELTRON

## Engineering & Manufacturing Excellence Since 1924

Take The Cover Off | Whether it is our solid copper or our Advanced Direct Coil™ heating system, we're happy to have you take the cover off. We've done our homework for over 90 years. As an international leader in the tankless electric water heating industry, Stiebel Eltron is proud to have invented and pioneered tankless water heating technology. Our German engineering and manufacturing tradition of excellence means that you can depend on the performance of all our products for many years to come.

**Advanced Direct Coil™ Heating** System in Mini™ and Mini™-E | Mini™ and Mini™-E feature our Direct Coil™ heating system. The ultra-reliable Mini<sup>™</sup> and Mini<sup>™</sup>-E are more powerful than their small size might lead you to

**Tempra® Trend & Tempra® Plus with Advanced Flow Control™** | Advanced Flow Control™, invented by Stiebel Eltron and awarded German patent DE 102004037966 A1 and other patents, is exclusive to Tempra® Plus. No other manufacturer of tankless electric water heaters has anything like it. Advanced Flow Control™ ensures constant temperature output at the set point. No matter how great the demand is for hot water, even if it is temporarily greater than capacity, Advanced Flow Control™ automatically reduces water flow slightly to maintain delivery at the desired temperature.



Variable Flow Steady Temperature

think.

Our exclusive Electronic Temperature Control compensates for flow rate fluctuations to maintain constant temperature output. Tankless electric water heaters from other manufacturers do not maintain

steady temperature if flow varies. Stiebel Eltron electronically-controlled models deliver consistent comfort – every time – all the time.

Tempra® 15, 20 or 24 Plus shown. Tempra® 12 has one heating element, Tempra® 29 & 36 have three heating elements.



Wiring block

Flow sensor

**Temperature** 

**Electronic** Control module

Flow sensor

Control

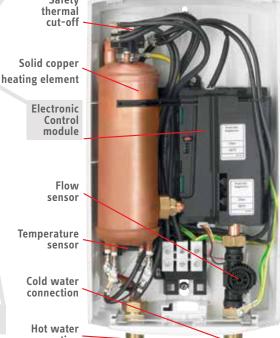
thermal

Solid copper

Temperature sensor

> Cold water connection

Hot water connection



Advanced Flow Control™ in Tempra® Plus was invented by Stiebel Eltron. No other manufacturer of tankless electric has anything like it.

#### Mini.../Mini...-E

Mechanical models: Thermostatic models:	Mini* <b>2-1</b> 231045 Mini*- <b>E 2-1</b> 236011	Mini <sup>™</sup> <b>2.5-1</b> 232098 Mini <sup>™</sup> -E <b>2.5-1</b> 236135	Mini™ <b>3-1</b> 220816 Mini™- <b>E 3-1</b> 236010	Mini <sup>™</sup> <b>3.5-1</b> 232099 Mini <sup>™</sup> -E <b>3.5-1</b> 236136		<b>2</b> 222039 <b>4-2</b> 236009		2 220817 <b>6-2</b> 236008
Phase - 50/60 Hz	1						,	
Voltage <sup>1</sup>	120 V	120 V	120 V	120 V	240 V or	208 V	240 V or	208 V
Wattage	1.8 kW	2.4 kW	3.0 kW	3.5 kW	3.5 kW	3.5 kW 2.6 kW		4.3 kW
Amperage draw	15 A	20 A	25 A	29 A	15 A	13 A	24 A	21 A
Min. recommended circuit breaker size <sup>2</sup>	15 A (SP)	20 A (SP)	25 A (SP)	30 A (SP)	15 A (DP)		25 A (DP)	
Min. recommended wire size <sup>3</sup> (copper)	14/2 AWG	12/2 AWG	10/2 AWG	10/2 AWG	14/2 AWG		10/2 AWG	
Min. flow to activate Mechanical units Thermostatic units	0.21 gpm (0.8 l/min) 0.21 gpm (0.8 l/min)	0.40 gpm (1.5 l/min) 0.30 gpm (1.15 l/min)	0.40 gpm (1.5 l/min) 0.30 gpm (1.15 l/min)	0.40 gpm (1.5 l/min) 0.36 gpm (1.35 l/min)	J 01	(1.5 l/min) (1.15 l/min)	01	(2.9 l/min) (1.8 l/min)
Water temp. range	Electronic units are	adjustable from 86-122	°F (30-50°C)					
Energy Factor (EF) (Mechanical / Thermostatic)	0.98 / 0.97 (UEF)	1.0 / 0.99	0.99 / 0.99	0.99 / 0.99	0.99 / 1.	0	0.99 / 1.	0
Weight	3.44 lb (1.56 kg)							
Dimensions	Width 71/2" (190 mm)	x Height 6½" (165 mm)	x Depth 31/4" (82 mm)					
Water volume in unit	0.026 gal (0.1 I)							
Working pressure	150 psi (10 bar)							
Tested to pressure	300 psi (20 bar)							

Water connections 4 3/8" O.D. flexible braided stainless steel hose connectors

Mini™ 2-1 is internally restricted to 0.32 gpm (1.2 l/min). Mini™-E 2-1 is internally restricted to 0.40 gpm (1.5 l/min).

 $All\ Mini \\ ^{\bowtie}\ models\ ship\ with\ appropriately\ sized\ pressure\ compensating\ flow-reducer/aerators\ that\ must\ be\ installed.$ 

#### DHC

Model	DHC 3-1	DHC 3-2	2	DHC 4-2		DHC 4-3	DHC 5-	2	DHC 6-2	2	DHC 8-2	2	DHC 9-3	DHC 10	-2
Item no.	074050	074052		074053		074051	074054		074424		074055		232204	074056	
<b>Phase</b> - 50/60 Hz	1														
Voltage	120 v	240 v	208 v	240 v	208 v	277 v	240 v	208 v	240 v	208 v	240 v	208 v	277 v	240 v	208 v
Wattage	3.0 kW	3.3 kW	2.5 kW	3.8 kW	2.9 kW	4.5 kW	4.8 kW	3.6 kW	6.0 kW	4.5 kW	7.2 kW	5.4 kW	9.0 kW	9.6 kW	7.2 kW
Amperage	25 A	14 A	12 A	16 A	14 A	17 A	20 A	18 A	25 A	22 A	30 A	26 A	32.5 A	40 A	35 A
Min. recommended circuit breaker size 1	<b>25</b> A	15 A	15 A	20 A	15 A	20 A	20 A	20 A	25 A	25 A	30 A	30 A	35 A	40 A	35 A
Min. recommended wire size 2	10/2 AWG	14/2 AW	G	12/2 AWG	14/2 AWG	12/2 AWG	12/2 AW	/G	10/2 AW	G	10/2 AW	G	8/2 AWG	8/2 AWG	
Minimum water flow to activate unit	0.32 gpm (1.2 l/min)	0.32 gpm (1.2 l/mi		0.42 gpm (1.6 l/min)		0.42 gpm (1.6 l/min)	0.42 gpr (1.6 l/mi		0.47 gpm (1.8 l/mi		0.69 gpn (2.6 l/mi		0.79 gpm (3.0 l/min)	0.79 gpm (3.0 l/mi	
Weight	4.6 lb (2.1 kg)	5.3 lb (2	.4 kg)	5.3 lb (2.4	kg)	4.6 lb (2.1 kg)	4.6 lb (2	?.1 kg)	4.6 lb (2	.1 kg)	5.3 lb (2	.4 kg)	5.3 lb (2.4 kg)	5.3 lb (2	.4 kg)
Dimensions	Width 7 <sup>7</sup> / <sub>8</sub> " (20	0.0 cm) x	Height 1	43/16" (36.0	cm) X Dept	<b>h 4</b> <sup>1</sup> / <sub>8</sub> " (10.4 cm)	)								
Nominal water volume	0.13 gal (0.5 l)														
Working pressure	150 psi (10 bar)	)													
Tested to pressure	300 psi (20 bar	)													
Water connections <sup>3</sup>	1/2" NPT														

DHC 3-1, 3-2, 4-2 ship with a 0.5 gpm (1.9 l/min) pressure compensating flow-reducer/aerator that must be installed.

<sup>&</sup>lt;sup>1</sup> Nominal mains voltage is 110-120 V and 220-240 V.

<sup>&</sup>lt;sup>2</sup>This is our recommendation for overcurrent protection sized at 100% of load. Check local codes for compliance if necessary. Tankless water heaters are considered a non-continuous load.

<sup>&</sup>lt;sup>3</sup> Copper must be used. Conductors should be sized to maintain a voltage drop of less than 3% under load.

<sup>&</sup>lt;sup>6</sup> Mechanical units suitable for supply with cold water only. Thermostatic units can accept inlet water of 105 °F.

<sup>&</sup>lt;sup>1</sup> This is our recommendation for overcurrent protection sized at 100% of load (DP for 240/208/277 V & SP for 120 V models). Check local codes for compliance if necessary. Tankless water heaters are considered a non-continuous load.

 $<sup>^{2}</sup>$  Copper must be used. Conductors should be sized to maintain a voltage drop of less than 3% under load.

<sup>&</sup>lt;sup>3</sup> Suitable for supply with cold water only.

#### DHC-F

Working pressure

Tested to pressure

Water connections

<b>STIEBEL</b>	ELTRON
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Model Item Number		DHC-E 8/10*	224201	DHC-E 12	230628					
Phase		single 50/60	Hz	single 50/60 Hz						
Voltage		240 v or	208 v	240 v or	208 V					
Wattage		7.2/9.6 kw	5.4/7.2 kw	12 kW	9 kw					
Amperage		30/40 A	26/35 A	50 A	44 A					
Min. recommended circuit	breaker¹ (DP)	30/40 A	30/35 A	50 A	50 A					
Min. recommended wire size	<b>ze</b> ² (copper)	10 AWG/8 AV	VG .	8 AWG						
Maximum	@ 0.75 GPM	66/87°F	49/66°F	92 °F	82 °F					
temperature increase	@ 1.00 GPM	49/66°F	37/49°F	82 °F	61°F					
above	@ 1.50 GPM	33/44°F	25/33°F	54°F	41 °F					
ambient	@ 2.25 GPM	-	-	36 °F	27 °F					
water temp.	@ 3.00 GPM	-	-	27 °F	20 °F					
Min. water flow to activate	unit	0.264 gpm (1.0 l/min)								
Max. inlet water temperatu	ire	131 °F (55 °C)								
Weight		5.9 lb (2.7 kg)								
Nominal water volume		0.13 gal (0.5 l)								
Dimensions	Width $7^1/8^{\prime\prime}$	(20.0 cm) x Height $14^3/_{16}$ " (36.0 cm) x Depth $4^1/_8$ " (11.0 cm								

150 psi (10 bar)

300 psi (20 bar)



Mini" / DHC:
Certified to ANSI/UL Std. 499
Conforms to CAN/CSA Std. E335-1
& E335-2-35
Mini"-E / DHC-E:
Certified to ANSI/UL Std. 499
Conforms to CAN/CSA Std. C22.2
No. 64
Tempra\*:
Certified to ANSI/UL Std. 499
Conforms to CAN/CSA Std. C22.2



Tested and certified by WQA against NSF/ANSI 372 for lead free compliance.



- \*DHC-E 8/10 is a single unit that is switchable at installation via jumper for output at 7.2 kW (Stage 1) or 9.6 kW (Stage 2).
- <sup>1</sup> Overcurrent protection sized at 100% of load. Tankless water heaters are considered a non-continuous load.
- <sup>2</sup> Copper conductors with a temperature rating of 75 °C or greater must be used. Conductors should be sized to maintain a voltage drop of less than 3% under load. These are our recommendations. Check local codes for compliance if necessary.

# Tempra® Trend & Plus

<b>Tempra® Model</b> Item Number		<b>12 Trend</b> 239213 <b>12 Plus</b> 239219				<b>20 Trend</b> 239215 <b>20 Plus</b> 239221		24 Trend³ 239216 24 Plus³ 239222		29 Trend <sup>4</sup> 239217 29 Plus <sup>4</sup> 239223		<b>36 Trend</b> <sup>5</sup> 239218 <b>36 Plus</b> <sup>5</sup> 239225	
Phase		single 50/60 Hz		single <sup>6</sup> 50/60 Hz		single <sup>6</sup> 50/60 Hz		single <sup>6</sup> 50/60 Hz		single <sup>6</sup> 50/60 Hz		single <sup>6</sup> 50/60 Hz	
Voltage		240 V or	208 V	240 V or	208 V	240 V or	208 V	240 V or	208 V	240 V or	208 V	240 V or	208 V
Wattage		12 kW	9 kW	14.4 kW	10.8 kW	19.2 kW	14.4 kW	24 kW	18 kW	28.8 kW	21.6 kW	36 kW	27 kW
Amperage draw		50 A	44 A	2 x 30 A	2 x 26 A	2 x 40 A	2 x 35 A	2 x 50 A	2 x 44 A	3 x 40 A	3 x 35 A	3 x 50 A	3 x 44 A
Number & min. recommended size of circuit breakers¹ (DP)		1 x 50 A		2 x 30 A		2 x 40 A	2 x 35 A	2 x 50 A		3 x 40 A	3 x 35 A	3 x 50 A	
Number of runs & min. recommended wire size <sup>2</sup> (copper)		1 x 8/2 AWG	i	2 x 10/2 AWG		2 x 8/2 AWG		2 x 8/2 AWG		3 x 8/2 AWG		3 x 8/2 AWG	
Maximum	@ 1.50 GPM	54°F	41°F	65°F	49°F	88°F	66°F	92°F	82°F	92°F	92°F	92°F	92°F
temperature increase above	@ 2.25 GPM	36°F	27 °F	43°F	37°F	58°F	44°F	73°F	54°F	87°F	66°F	92°F	82°F
ambient	@ 3.00 GPM	27°F	20 °F	33°F	25 °F	44°F	33 °F	54°F	41°F	66°F	49°F	82°F	61°F
water temp	@ 4.50 GPM	-	-	-	-	29°F	22°F	37 °F	27°F	44°F	33°F	55°F	41°F
Min. water flow to	activate unit	0.37 gpm (1.4 l/min)		0.50 gpm (1.9 l/min)		0.50 gpm (1.9 l/min)		0.50 gpm (1.9 l/min)		0.77 gpm (2.9 l/min)		0.77 gpm (2.9 l/min)	
Weight		13.5 lb (6.1	13.5 lb (6.1 kg) 16.1 lb (		kg)	16.1 lb (7.3 kg)		16.1 lb (7.3 kg)		19.0 lb (8.6 kg)		19.0 lb (8.6 kg)	
Nominal water vol	ıme	0.13 gal (0.5 l) 0.26 gal (1.0 l)		0.26 gal (1.0 l) 0.26 gal (1.0 l)		0.39 gal (1.5 l)		0.39 gal (1.5 l)					
Max. inlet water te	mperature	131°F (55°	C)										
Dimensions		Width 16 <sup>5</sup> /8"	(42.0 cm)	X Height 14 <sup>1</sup> /2	" (36.9 cm)	X Depth 4 <sup>5</sup> /8"	(11.7 cm)						
Working pressure		150 psi (10 l	bar)										
Tested to pressure		300 psi (20	bar)										
Water connections		3/4" NPT											

<sup>&</sup>lt;sup>1</sup> Overcurrent protection sized at 100% of load. Tankless water heaters are considered a non-continuous load.

These are our recommendations. Check local codes for compliance if necessary.

<sup>&</sup>lt;sup>2</sup> Copper conductors with a temperature rating of 75 °C or greater must be used. Conductors should be sized to maintain a voltage drop of less than 3% under load.

<sup>&</sup>lt;sup>3</sup> Requires minimum 150 A main service. <sup>4</sup> Requires 200 A main service. <sup>5</sup> Requires 300 A main service.

<sup>&</sup>lt;sup>6</sup> 29 Trend/Plus & 36 Trend/Plus may be wired for balanced 3-phase 208 V. 15 Trend/Plus, 20 Trend/Plus, 24 Trend/Plus may be wired for unbalanced 3-phase 208 V.