

## FIELD ADJUSTABLE SCREW PLUG IMMERSION HEATER/CLEAN WATER AND OIL APPLICATIONS

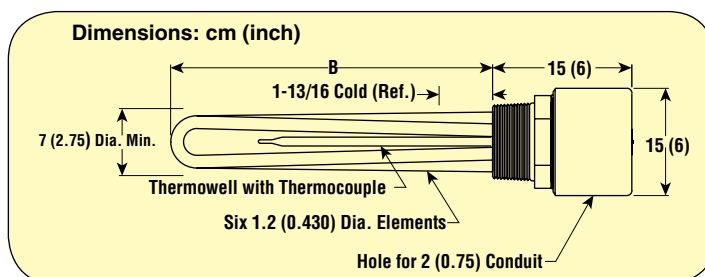
### VTS Series



- ✓ 2½ NPT Steel Screw Plug
- ✓ Incoloy® Sheath Elements
- ✓ Field Adjustable kW and Voltage Ratings
- ✓ Integral Type J Thermocouple
- ✓ General Purpose Terminal Enclosure
- ✓ Process Temperature up to 148°C (300°F)

and spare parts since each heater may be used in several different heating applications. See the application matrix for the many kW values available with different wiring styles and voltages.

VTS-3240/240 shown smaller than actual size.



OMEGALUX® field adjustable screw plug immersion heaters can be applied to a variety of clean water and oil applications. The unique versatility of this design allows field adjustment of the rating by simple connections to the six elements of the heater. This simplifies selection

### SPECIFICATIONS

**Wattage:**  
**Water:** 0.5 to 40 kW  
**Oil:** 0.5 to 10 kW  
**Watt Density:**  
**Water:** 2 to 80 W/in<sup>2</sup>  
**Oil:** 2 to 23 W/in<sup>2</sup>

### Power:

**1 Phase:** 120, 208, 240 and 480V  
**3 Phase:** 208, 240 and 480V  
**Sheath:** 1.2 cm (0.430") diameter Incoloy  
**Screw Plug:** 6.4 cm (2.5") steel  
**Enclosure:** General purpose, NEMA 1 rated enclosure can be rotated 360° to match conduit connections

### To Order

Maximum kW	Maximum Volts	Dim cm (inch) B	Model No.	Weight kg (lb)
See Applications Matrix on next page for rating		51 (20 <sup>3</sup> / <sub>16</sub> )	VTS-3180/240	5.5 (12)
		51 (20 <sup>3</sup> / <sub>16</sub> )	VTS-3180/480	5.5 (12)
		77 (30 <sup>3</sup> / <sub>8</sub> )	VTS-3200/240	7 (15)
		51 (20 <sup>3</sup> / <sub>16</sub> )	VTS-3240/240	5.5 (12)
		51 (20 <sup>3</sup> / <sub>16</sub> )	VTS-3240/480	5.5 (12)
		77 (30 <sup>3</sup> / <sub>8</sub> )	VTS-3400/480	7 (15)

**Note:** 240 and 480 in model number indicates max voltage rating. Other voltages can be used. See application matrix for details.

**Ordering Examples:** VTS-3240/240, field adjustable heater, 240 Vac maximum.

VTS-3200/240, immersion heater, field adjustable, 240V.

## Selection Example: Light oil heating application, 2.75 kW 240V 3-phase capacity

1. Select oil application matrix
2. Locate 2.75 kW on chart. Use 3 kW as next higher rating. Confirm that 20 W/in<sup>2</sup> is suitable for light oil.
3. Find column with 240 Volt 3-phase power
4. Intersection of row and column is model number VTS-3240/480. Confirm 3-phase and single-phase available. Note there is spare capacity for back up or for future increase in requirements.
5. Locate model number **VTS-3240/480** in the “To Order” table for price. When received, this heater will have instructions on wiring for the required rating. Contact Omega’s Application Engineers with any questions.

## Application Matrix—Oil

Model No.					
kW	W/in <sup>2</sup>	120 Volts 1 phase	208 Volts 1 or 3 phase	240 Volts 1 or 3 phase	480 Volts 1 or 3 phase
0.50	2			VTS-3240/480	
0.75	5	VTS-3240/480*	VTS-3240/480*		
1.50	5	VTS-3240/480	VTS-3240/480	VTS-3240/480	VTS-3180/480
2.25	15		VTS-3240/480*	VTS-3180/480*	
2.50	6	VTS-3400/480	VTS-3400/480	VTS-3400/480	
3.00	20	VTS-3240/240*	VTS-3240/240*	VTS-3240/480*	
4.50	15	VTS-3180/240	VTS-3240/480	VTS-3180/480	VTS-3180/480
5.00	11	VTS-3200/240	VTS-3200/240	VTS-3200/240	
6.00	20	VTS-3240/240	VTS-3240/240	VTS-3240/480	VTS-3240/480
10.00	21			VTS-3400/480	VTS-3400/480

## Application Matrix—Water

Model No.					
kW	W/in <sup>2</sup>	120 Volts 1 phase	208 Volts 1 or 3 phase	240 Volts 1 or 3 phase	480 Volts 1 or 3 phase
0.50	2			VTS-3240/480	
0.75	5	VTS-3240/480*	VTS-3240/480*		
1.50	5	VTS-3240/480	VTS-3240/480	VTS-3240/480	VTS-3180/480
2.25	15		VTS-3240/480*	VTS-3180/480*	
2.50	6	VTS-3400/480	VTS-3400/480	VTS-3400/480	
3.00	20	VTS-3240/240*	VTS-3240/240*	VTS-3240/480*	
4.50	15	VTS-3180/240	VTS-3240/480	VTS-3180/480	VTS-3180/480
5.00	11	VTS-3200/240	VTS-3200/240	VTS-3200/240	
6.00	20	VTS-3240/240	VTS-3240/240	VTS-3240/480	VTS-3240/480
9.00	59			VTS-3400/480	VTS-3400/480
10.00	21			VTS-3400/480	VTS-3400/480
12.00	78			VTS-3240/240*	VTS-3240/480*
18.00	59			VTS-3180/240	VTS-3180/480
20.00	80			VTS-3200/240	VTS-3400/480*
24.00	78			VTS-3240/240	VTS-3240/480
40.00	80				VTS-3400/480

Note: Shaded items are 3 phase only  
 \*Items have 100% spare capacity