

NWHSRG & NWHOSR

The Chromalox® **versa THERM** Heater
Clean Water and Oil Applications



- Field Adjustable kW and Voltage Ratings
- Multiple Inlet Connections
- 0.5 - 40 kW Water
0.5 - 10 kW Oil
- 120, 208, 240 and 480V, 1 Phase
208, 240 and 480V, 3 Phase
- INCOLOY® Sheath Elements
(2 - 80 W/In² Water)
(2 - 23 W/In² Oil)
- Heavy Wall Cast Iron or Galvanized Pipe Body
- General Purpose Terminal Enclosure
- Integral Thermocouple

Applications

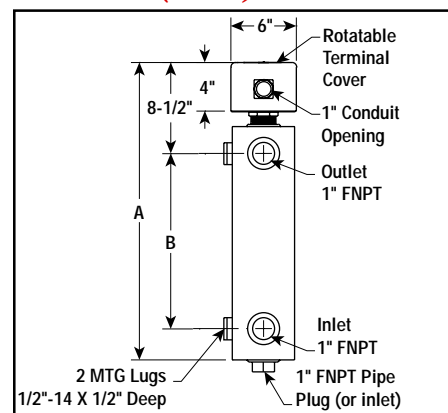
Chromalox versaTHERM circulation heaters can boost water (NWHSRG) or oil (NWHOSR) temperature anywhere in a distribution system or application.

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 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.



Dimensions (Inches)



Clean Water and Oil

Features

Field Adjustable Ratings — Each standard heater may be wired to different voltages and kW's. See chart on following page for application matrix.

Inlet Connections — Standard side inlet can be changed to end connection for ease of piping.

Terminal Enclosures — E1 General Purpose is standard. Housing can be rotated 360° to match conduit connections.

Elements — INCOLOY® sheath heating element welded to a 2.5" steel screw plug.

Vessel — Cast iron body available with galvanized coating for water applications.

Mounting — Easy to install; compact size.

Standard Integral Thermocouple — J type thermocouple in a thermowell; can be used for process or overtemperature control on the process fluid. See 4468 series control panel for stock power and temperature control components for complete heating solution.

Specifications and Ordering Information-Table

Max. kW	Max. Volts	DIM (In.)		Model	Stock	PCN	Wt. (Lbs.)
		A	B				
Cast Iron Pipe Body / Oil • 5 to 10 kW							
See Application Matrix for Rating	29	19	NWHOSR-06-04P5-E1	AS	100108	45	
	29	19	NWHOSR-06-04P5-E1	AS	100116	45	
	41	30-3/4	NWHOSR-06-005P-E1	AS	100124	65	
	29	19	NWHOSR-06-006P-E1	AS	100132	45	
	29	19	NWHOSR-06-006P-E1	AS	100140	45	
	41	30-3/4	NWHOSR-06-010P-E1	AS	100159	65	
Galvanized Pipe Body / Water • 5 to 40 kW							
See Application Matrix for Rating	29	19	NWHSRG-06-018P-E1	AS	100010	45	
	29	19	NWHSRG-06-018P-E1	AS	100028	45	
	41	30-3/4	NWHSRG-06-020P-E1	AS	100036	65	
	29	19	NWHSRG-06-024P-E1	AS	100044	45	
	29	19	NWHSRG-06-024P-E1	AS	100079	45	
	41	30-3/4	NWHSRG-06-040P-E1	AS	100095	65	
Stock Status: S = stock AS = assembly stock/fastship NS = non-stock To Order —Specify model, volts, phase, kW, PCN and quantity.							



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Clean Water and Oil Applications (*cont'd.*)

Selection Steps

Note that the same part can be field adjusted for another rating or reapplied for a different application.

1. Select which type of heater you need: oil, or water.
2. Using the application matrix for the oil or water heater find the row in the matrix that has kW capacity you need. Select next larger unit if between ratings. For ratings over 40 kW on water and 10 kW on oil use multiple units piped in series or parallel.
3. Select the column that matches the voltage rating that you require.
4. Find the intersection of the column and row selected. This is the PCN for your voltage and wattage requirement. Verify voltage for single or three phase. Shaded areas are 3 phase only.
5. Go to the specifications and ordering table on the prior page. Locate PCN number identified in step 4. Note model number and description from this table. Dimensions will be shown.
6. Place order for item identified in step 5. When unit is received, instructions will show you how to wire the kW and voltage configuration that you desire. Only show description from ordering table when ordering.

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/sq. in. is suitable for light oil.
3. Find column with 240Volt 3 phase power.
4. Intersection of row and column is PCN 100140. Confirm 3 phase and single phase available. Note there is spare capacity for back up or for future increase in requirements.
5. Locate PCN 100140 in specifications and ordering table as a NWHOSR-06-006P-E1 unit. When received this will have instructions on wiring for 3 kW 240 V 3 phase application with labels for this rating.
6. Order NWHOSR-06-006P-E1 PCN 100140 unit.

Contact Sales Office with any questions when ordering

Application Matrix - Oil

kW	W/In ²	PCN			
		120 Volts 1ph	208 Volts 1 or 3 ph	240 Volts 1 or 3 ph	480 Volts 1 or 3 ph
0.50	2			100140	
0.75	5	100140*	100140*		
1.50	5	100140	100140	100140	100116
2.25	15		100140*	100116*	
2.50	6	100159	100159	100159	
3.00	20	100132*	100132*	100140*	
4.50	15	100108	100140	100116	100116
5.00	11	100124	100124	100124	
6.00	20	100132	100132	100140	100140
10.00	21			100159	100159

Note — Shaded items are 3 ph only * items have 100% spare capacity

Application Matrix - Water

kW	W/In ²	PCN			
		120 Volts 1ph	208 Volts 1 or 3ph	240 Volts 1 or 3 ph	480 Volts 1 or 3 ph
0.50	2			100079	
0.75	5	100079*	100079*		
1.50	5	100079	100079	100079	100028
2.25	15		100079*	100028*	
2.50	6	100095	100095	100095	
3.00	20	100044*	100044*	100079*	
4.50	15	100010	100079	100028	100028
5.00	11	100036	100036	100036	
6.00	20	100044	100044	100079	100079
9.00	59			100010*	100028*
10.00	21			100095	100095
12.00	78			100044*	100079*
18.00	59			100010	100028
20.00	80			100036	100095*
24.00	78			100044	100079
40.00	80				100095

Note — Shaded items are 3 ph only * items have 100% spare capacity

Ordering Information

To Order —
Complete the Model Number using the Matrix provided.

Model	Water Booster Heater			
NWH	Circulation Heater			
SRG	Galvanized Tank - Water			
OSR	Cast Iron - Oil			
	Code	Number of Elements		
	06	six		
		Code	Max. kW	
		04P5	4.5	018P 18.0
		005P	5.0	020P 20.0
		006P	6.0	024P 24.0
		010P	10.0	040P 40.0
			Code	Terminal Enclosure
			E1	General Purpose
NWHSRG-06 - 005P - E1 Typical Model Number				