



## FIREROD Cartridge Heaters

The following tables contain lists of standard base FIREROD constructions. The Watlow SELECT™ program offers millions of potential FIREROD configurations to meet your thermal needs, many of those configurations available in one or five days. Please contact your local Watlow distributor or sales office to configure your FIREROD.

### Heater Part Numbers

Diameter in.	Sheath Length in. (mm)	Volts	Watts	Watt Density		Approx. Net Wt.		Part Number	
				W/in <sup>2</sup>	(W/cm <sup>2</sup> )	lbs	(kg)		
1/8	1 (25.0)	24	20	104	(16)	0.02	(0.009)	<b>C1A-9600</b> <sup>①</sup>	
	1 (25.0)	24	25	130	(20)	0.02	(0.009)	<b>C1A-9601</b> <sup>①</sup>	
	1 (25.0)	24	30	157	(24)	0.02	(0.009)	<b>C1A-9602</b> <sup>①</sup>	
	1 (25.0)	48	20	104	(16)	0.02	(0.009)	<b>C1A-9603</b> <sup>①</sup>	
	1 (25.0)	48	40	208	(32)	0.02	(0.009)	<b>C1A-9604</b> <sup>①</sup>	
	1 (25.0)	50	50	260	(40)	0.02	(0.009)	<b>C1A-9605</b> <sup>①</sup>	
	1 1/4 (32.0)	120	25	87	(13)	0.02	(0.009)	<b>C1E14</b>	
	1 1/4 (32.0)	120	50	174	(18)	0.02	(0.009)	<b>C1E13</b>	
	1 1/4 (32.0)	240	35	113	(27)	0.02	(0.009)	<b>C1E42</b>	
	1 1/2 (38.0)	120	30	78	(12)	0.02	(0.009)	<b>C1J5</b>	
	1 1/2 (38.0)	120	60	156	(24)	0.02	(0.009)	<b>C1J6</b>	
	2 (51.0)	120	50	87	(13)	0.02	(0.009)	<b>C2A4</b>	
	2 (51.0)	120	100	174	(27)	0.02	(0.009)	<b>C2A5</b>	
	1/4	1 (25.0)	120	80	208	(32)	0.02	(0.009)	<b>E1A51</b>
		1 (25.0)	120	100	260	(40)	0.02	(0.009)	<b>E1A52</b>
1 (25.0)		120	150	390	(60)	0.02	(0.009)	<b>E1A53</b>	
1 (25.0)		240	100	250	(39)	0.02	(0.009)	<b>E1A66</b>	
1 1/4 (32.0)		120	75	130	(20)	0.02	(0.009)	<b>E1E41</b>	
1 1/4 (32.0)		120	100	173	(27)	0.02	(0.009)	<b>E1E42</b>	
1 1/4 (32.0)		120	150	260	(40)	0.02	(0.009)	<b>E1E43</b>	
1 1/4 (32.0)		240	225	390	(60)	0.02	(0.009)	<b>E1E61</b>	
1 1/2 (38.0)		120	50	65	(10)	0.02	(0.009)	<b>E1J39</b>	
1 1/2 (38.0)		120	100	130	(20)	0.02	(0.009)	<b>E1J40</b>	
1 1/2 (38.0)		120	150	195	(30)	0.02	(0.009)	<b>E1J41</b>	
1 1/2 (38.0)		240	175	228	(35)	0.02	(0.009)	<b>E1J49</b>	
1 1/2 (38.0)		120	200	260	(40)	0.02	(0.009)	<b>E1J42</b>	
1 1/2 (38.0)		240	200	260	(40)	0.02	(0.009)	<b>E1J52</b>	
1 1/2 (38.0)		240	250	325	(50)	0.02	(0.009)	<b>E1J35</b>	
2 (51.0)		120	80	68	(11)	0.03	(0.014)	<b>E2A136</b>	
2 (51.0)		120	100	87	(13)	0.03	(0.014)	<b>E2A55</b>	
2 (51.0)		240	125	108	(17)	0.03	(0.014)	<b>E2A82</b>	
2 (51.0)		120	150	130	(20)	0.03	(0.014)	<b>E2A56</b>	
2 (51.0)		240	150	130	(20)	0.03	(0.014)	<b>E2A77</b>	
2 (51.0)		120	200	173	(27)	0.03	(0.014)	<b>E2A57</b>	
2 (51.0)		240	200	173	(27)	0.03	(0.014)	<b>E2A50</b>	
2 (51.0)		120	250	217	(33)	0.03	(0.014)	<b>E2A72</b>	
2 (51.0)		240	250	215	(33)	0.03	(0.014)	<b>E2A76</b>	
2 (51.0)		240	300	260	(40)	0.03	(0.014)	<b>E2A83</b>	
2 1/2 (64.0)		120	250	159	(25)	0.03	(0.014)	<b>E2J80</b>	
2 1/2 (64.0)		240	250	159	(25)	0.03	(0.014)	<b>E2J49</b>	
3 (76.0)		120	100	52	(8)	0.04	(0.018)	<b>E3A48</b>	
3 (76.0)		120	200	104	(16)	0.04	(0.018)	<b>E3A49</b>	
3 (76.0)		240	200	104	(16)	0.04	(0.018)	<b>E3A60</b>	
3 (76.0)		240	250	128	(20)	0.04	(0.018)	<b>E3A124</b>	
3 (76.0)		120	300	156	(24)	0.04	(0.018)	<b>E3A50</b>	
3 (76.0)		240	300	156	(24)	0.04	(0.018)	<b>E3A51</b>	
4 (102.0)		120	100	37	(6)	0.04	(0.018)	<b>E4A28</b>	
4 (102.0)		120	200	74	(11)	0.04	(0.018)	<b>E4A29</b>	
4 (102.0)	240	200	74	(11)	0.04	(0.018)	<b>E4A32</b>		
4 (102.0)	120	300	111	(17)	0.04	(0.018)	<b>E4A30</b>		
4 (102.0)	240	300	111	(17)	0.04	(0.018)	<b>E4A6</b>		

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Heaters are manufactured to standard specifications. 12 inch crimped on GGS leads supplied unless otherwise specified.

<sup>①</sup>12 inch GGS swaged-in leads, no additional options available.

# Cartridge/Insertion Heaters



## FIREROD Cartridge Heaters

### Heater Part Numbers

Diameter in.	Sheath Length		Volts	Watts	Watt Density		Approx. Net Wt.		Part Number
	in.	(mm)			W/in <sup>2</sup>	(W/cm <sup>2</sup> )	lbs	(kg)	
1/4	4 1/2	(114.0)	120	200	64	(10)	0.05	(0.023)	<b>E4J30</b>
	5	(127.0)	240	350	101	(16)	0.05	(0.023)	<b>E5A45</b>
	5	(127.0)	120	400	113	(18)	0.05	(0.023)	<b>E5A57</b>
	5	(127.0)	240	400	113	(18)	0.05	(0.023)	<b>E5A34</b>
	6	(152.0)	240	400	94	(14)	0.06	(0.027)	<b>E6A46</b>
	8	(203.0)	240	800	136	(21)	0.08	(0.036)	<b>E8A76</b>
3/8	1	(25.0)	120	55	95	(15)	0.03	(0.014)	<b>G1A71</b>
	1	(25.0)	120	100	172	(26)	0.03	(0.014)	<b>G1A29</b>
	1	(25.0)	120	150	259	(40)	0.03	(0.014)	<b>G1A38</b>
	1	(25.0)	240	200	344	(53)	0.03	(0.014)	<b>G1A83</b>
	1 1/4	(32.0)	120	100	115	(18)	0.03	(0.014)	<b>G1E91</b>
	1 1/4	(32.0)	120	125	144	(22)	0.03	(0.014)	<b>G1E74</b>
	1 1/4	(32.0)	120	150	172	(27)	0.03	(0.014)	<b>G1E92</b>
	1 1/4	(32.0)	240	150	172	(27)	0.03	(0.014)	<b>G1E93</b>
	1 1/4	(32.0)	120	200	230	(35)	0.03	(0.014)	<b>G1E94</b>
	1 1/4	(32.0)	240	200	230	(35)	0.03	(0.014)	<b>G1E95</b>
	1 1/4	(32.0)	120	400	426	(66)	0.03	(0.014)	<b>G1E99</b>
	1 1/2	(38.0)	120	50	43	(7)	0.04	(0.018)	<b>G1J25</b>
	1 1/2	(38.0)	120	75	65	(10)	0.04	(0.018)	<b>G1J70</b>
	1 1/2	(38.0)	120	80	68	(11)	0.04	(0.018)	<b>G1J66</b>
	1 1/2	(38.0)	120	100	86	(13)	0.04	(0.018)	<b>G1J59</b>
	1 1/2	(38.0)	240	100	86	(13)	0.04	(0.018)	<b>G1J110</b>
	1 1/2	(38.0)	240	125	106	(16)	0.04	(0.018)	<b>G1J182</b>
	1 1/2	(38.0)	120	150	129	(20)	0.04	(0.018)	<b>G1J31</b>
	1 1/2	(38.0)	240	150	129	(20)	0.04	(0.018)	<b>G1J39</b>
	1 1/2	(38.0)	120	200	173	(27)	0.04	(0.018)	<b>G1J85</b>
	1 1/2	(38.0)	240	200	173	(27)	0.04	(0.018)	<b>G1J73</b>
	1 1/2	(38.0)	120	250	216	(33)	0.04	(0.018)	<b>G1J86</b>
	1 1/2	(38.0)	240	250	216	(33)	0.04	(0.018)	<b>G1J54</b>
	1 3/4	(45.0)	120	125	86	(13)	0.05	(0.023)	<b>G1N45</b>
	1 3/4	(45.0)	120	175	122	(19)	0.05	(0.023)	<b>G1N46</b>
	1 3/4	(45.0)	120	250	172	(27)	0.05	(0.023)	<b>G1N43</b>
	1 3/4	(45.0)	240	250	172	(27)	0.05	(0.023)	<b>G1N32</b>
	2	(51.0)	120	50	29	(5)	0.06	(0.027)	<b>G2A53</b>
	2	(51.0)	120	75	42	(7)	0.06	(0.027)	<b>G2A192</b>
	2	(51.0)	120	100	57	(9)	0.06	(0.027)	<b>G2A84</b>
	2	(51.0)	240	100	57	(9)	0.06	(0.027)	<b>G2A76</b>
	2	(51.0)	120	150	86	(13)	0.06	(0.027)	<b>G2A56</b>
	2	(51.0)	240	150	86	(13)	0.06	(0.027)	<b>G2A81</b>
	2	(51.0)	120	200	115	(18)	0.06	(0.027)	<b>G2A127</b>
	2	(51.0)	240	200	115	(18)	0.06	(0.027)	<b>G2A37</b>
	2	(51.0)	120	250	144	(22)	0.06	(0.027)	<b>G2A47</b>
	2	(51.0)	240	250	144	(22)	0.06	(0.027)	<b>G2A73</b>
	2	(51.0)	120	300	172	(27)	0.06	(0.027)	<b>G2A139</b>
	2	(51.0)	240	300	172	(27)	0.06	(0.027)	<b>G2A98</b>
	2	(51.0)	120	400	230	(36)	0.06	(0.027)	<b>G2A153</b>
	2	(51.0)	240	400	230	(36)	0.06	(0.027)	<b>G2A146</b>
	2	(51.0)	120	500	282	(44)	0.06	(0.027)	<b>G2A95</b>
2	(51.0)	240	500	282	(44)	0.06	(0.027)	<b>G2A97</b>	
2 1/4	(57.0)	120	75	37	(6)	0.07	(0.032)	<b>G2E88</b>	
2 1/4	(57.0)	120	125	62	(10)	0.07	(0.032)	<b>G2E89</b>	

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# Cartridge/Insertion Heaters



## FIREROD Cartridge Heaters

### Heater Part Numbers

Diameter in.	Sheath Length		Volts	Watts	Watt Density		Approx. Net Wt.		Part Number
	in.	(mm)			W/in <sup>2</sup>	(W/cm <sup>2</sup> )	lbs	(kg)	
3/8	2 1/4	(57.0)	240	125	62	(10)	0.07	(0.032)	<b>G2E138</b>
	2 1/4	(57.0)	240	150	73	(11)	0.07	(0.032)	<b>G2E68</b>
	2 1/4	(57.0)	120	175	86	(13)	0.07	(0.032)	<b>G2E90</b>
	2 1/4	(57.0)	120	250	123	(19)	0.07	(0.032)	<b>G2E2</b>
	2 1/4	(57.0)	240	250	123	(19)	0.07	(0.032)	<b>G2E78</b>
	2 1/4	(57.0)	120	300	148	(23)	0.07	(0.032)	<b>G2E108</b>
	2 1/4	(57.0)	240	300	148	(23)	0.07	(0.032)	<b>G2E12</b>
	2 1/4	(57.0)	120	350	173	(27)	0.07	(0.032)	<b>G2E91</b>
	2 1/4	(57.0)	240	350	173	(27)	0.07	(0.032)	<b>G2E75</b>
	2 1/2	(64.0)	120	200	87	(13)	0.07	(0.032)	<b>G2J110</b>
	2 1/2	(64.0)	240	200	87	(13)	0.07	(0.032)	<b>G2J81</b>
	2 1/2	(64.0)	120	250	108	(17)	0.07	(0.032)	<b>G2J46</b>
	2 1/2	(64.0)	240	250	108	(17)	0.07	(0.032)	<b>G2J80</b>
	2 1/2	(64.0)	120	300	130	(20)	0.07	(0.032)	<b>G2J118</b>
	2 1/2	(64.0)	240	300	130	(20)	0.07	(0.032)	<b>G2J119</b>
	2 1/2	(64.0)	120	400	174	(27)	0.07	(0.032)	<b>G2J26</b>
	2 1/2	(64.0)	240	400	174	(27)	0.07	(0.032)	<b>G2J146</b>
	2 1/2	(64.0)	120	500	216	(33)	0.07	(0.032)	<b>G2J109</b>
	2 1/2	(64.0)	240	500	216	(33)	0.07	(0.032)	<b>G2J52</b>
	3	(76.0)	120	100	34	(5)	0.08	(0.036)	<b>G3A55</b>
	3	(76.0)	240	100	34	(5)	0.08	(0.036)	<b>G3A137</b>
	3	(76.0)	120	150	52	(8)	0.08	(0.036)	<b>G3A121</b>
	3	(76.0)	120	200	69	(11)	0.08	(0.036)	<b>G3A61</b>
	3	(76.0)	240	200	69	(11)	0.08	(0.036)	<b>G3A39</b>
	3	(76.0)	120	250	86	(13)	0.08	(0.036)	<b>G3A52</b>
	3	(76.0)	240	250	86	(13)	0.08	(0.036)	<b>G3A54</b>
	3	(76.0)	120	300	104	(16)	0.08	(0.036)	<b>G3A73</b>
	3	(76.0)	240	300	104	(16)	0.08	(0.036)	<b>G3A92</b>
	3	(76.0)	120	400	138	(21)	0.08	(0.036)	<b>G3A44</b>
	3	(76.0)	240	400	138	(21)	0.08	(0.036)	<b>G3A65</b>
	3	(76.0)	120	500	173	(27)	0.08	(0.036)	<b>G3A119</b>
	3	(76.0)	240	500	173	(27)	0.08	(0.036)	<b>G3A120</b>
	3	(76.0)	240	600	208	(32)	0.08	(0.036)	<b>G3A133</b>
3 1/2	(89.0)	120	250	72	(11)	0.09	(0.041)	<b>G3J77</b>	
3 1/2	(89.0)	240	250	72	(11)	0.09	(0.041)	<b>G3J65</b>	
3 1/2	(89.0)	120	300	87	(13)	0.09	(0.041)	<b>G3J87</b>	
3 1/2	(89.0)	240	300	87	(13)	0.09	(0.041)	<b>G3J68</b>	
3 1/2	(89.0)	120	500	144	(22)	0.09	(0.041)	<b>G3J22</b>	
3 1/2	(89.0)	240	500	144	(22)	0.09	(0.041)	<b>G3J63</b>	
4	(102.0)	120	125	31	(5)	0.09	(0.041)	<b>G4A54</b>	
4	(102.0)	240	125	31	(5)	0.09	(0.041)	<b>G4A163</b>	
4	(102.0)	120	150	37	(6)	0.09	(0.041)	<b>G4A78</b>	
4	(102.0)	120	175	43	(7)	0.09	(0.041)	<b>G4A191</b>	
4	(102.0)	120	250	62	(10)	0.09	(0.041)	<b>G4A40</b>	
4	(102.0)	240	250	62	(10)	0.09	(0.041)	<b>G4A87</b>	
4	(102.0)	120	300	74	(11)	0.09	(0.041)	<b>G4A94</b>	
4	(102.0)	240	300	74	(11)	0.09	(0.041)	<b>G4A95</b>	
4	(102.0)	120	400	99	(15)	0.09	(0.041)	<b>G4A48</b>	
4	(102.0)	240	400	99	(15)	0.09	(0.041)	<b>G4A44</b>	
4	(102.0)	240	450	109	(17)	0.09	(0.041)	<b>G4A64</b>	
4	(102.0)	120	500	123	(19)	0.09	(0.041)	<b>G4A96</b>	
4	(102.0)	240	500	123	(19)	0.09	(0.041)	<b>G4A92</b>	

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