

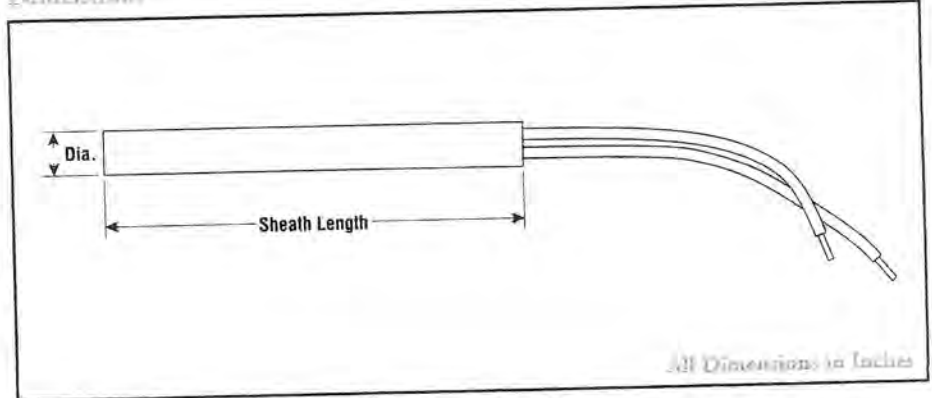


CIR

1/4 - 3/4" Dia. Cartridge Heater

- 1/4, 3/8, 1/2, 5/8 and 3/4" Dia.
- 50 - 5,000 Watts
- 120 and 240 Volt
- 1-1/4 - 48" Sheath Lengths
- INCOLOY® Sheath

Dimensions



All Dimensions in Inches

Applications

- Dies and Molds
- Packing Machinery
- Laminating/Adhesives
- Hot Glue Melting
- Lead Melting
- Medical Application
- Extruding Dies
- Stamping and Marking Machine

Features

Leads can be bent at right angle near the heater without exposing bare wire therefore eliminating electrical shorts.

Sheath Material — Type CIR cartridge heaters are made with a high-temperature INCOLOY® sheath material.

High Temperature Leadwire — Up to 842°F (450°C).

Lead Length — Type CIR heaters are stocked with 14" long leads. Longer lead lengths can be readily spliced on.

Advantages

Higher Temperatures, Faster Production Rates — Because Type CIR's patented construction and high watt density capability let you put more heat in less space.

Shock and Vibration Resistant — Tightly compacted refractory insulation makes CIR heaters suitable for severe applications.

Even Temperature throughout the heater's length is produced by the uniform winding of the wire on the smooth supporting core. Close and even spacing between wire and inside of sheath is maintained for good heat transfer. Tight spacing between turns permits the use of largest gauge resistance wire.

Excellent Oxidation and Corrosion Resistance is provided by special Chromalox alloy sheath. Thermal expansion characteristics of sheath and refractory are closely matched.

Specifications and Ordering Information

DIM (In.)						120V		240V		Wt. (Lbs.)
Dia.	Sheath Length	Watts	W/In ²	Model	Stock	PCN	Stock	PCN		
1/4" Diameter										
1/4	1-1/4	75	128	CIR-1013	S	279216	—	—	0.02	
1/4	1-1/4	100	171	CIR-1012	S	274255	—	—	0.02	
1/4	1-1/4	150	256	CIR-1014	NS	279224	—	—	0.02	
1/4	1-1/4	225	388	CIR-10121	—	—	S	242050	0.02	
1/4	1-1/2	50	64	CIR-1016	NS	279232	—	—	0.02	
1/4	1-1/2	100	128	CIR-1017	NS	279240	—	—	0.02	
1/4	1-1/2	125	160	CIR-1015	S	274263	—	—	0.02	
1/4	1-1/2	150	192	CIR-1018	NS	279259	—	—	0.02	
1/4	1-1/2	175	220	CIR-1019	NS	279267	NS	279275	0.02	
1/4	1-1/2	200	256	CIR-10151	NS	279283	S	279291	0.02	
1/4	1-1/2	250	290	CIR-10153	—	—	S	283952	0.02	
1/4	1-3/4	100	127	CIR-10181	NS	140396	—	—	0.03	
1/4	2	100	85	CIR-1021	S	279304	—	—	0.03	
1/4	2	125	107	CIR-1022	—	279312	NS	279320	0.03	
1/4	2	150	128	CIR-1020	S	274271	S	279339	0.03	
1/4	2	200	171	CIR-1023	NS	279347	S	279355	0.03	
1/4	2	250	214	CIR-1024	NS	279363	S	279371	0.03	
1/4	2	300	256	CIR-10201	—	—	NS	284664	0.03	

Specifications and Ordering Information

DIM (In.)						120V		240V		Wt.
Dia.	Sheath Length	Watts	W/In ²	Model	Stock	PCN	Stock	PCN	(Lbs.)	
1/4" Diameter										
1/4	2-1/4	150	127	CIR-10231	S	140409	—	—		
1/4	2-1/4	200	170	CIR-10231	S	140417	—	—		
1/4	2-1/4	80	67	CIR-10231	NS	140425	—	—		
1/4	2-1/2	175	112	CIR-1025	NS	279380	—	242077	0.03	
1/4	2-1/2	200	128	CIR-1027	—	284550	S	283960	0.03	
1/4	2-1/2	250	160	CIR-1029	NS	242085	NS	242093	0.03	
1/4	2-3/4	200	127	CIR-10281	NS	140433	—	—		
1/4	3	100	51	CIR-1031	NS	279400	—	279419	0.04	
1/4	3	150	77	CIR-1034	—	284605	S	283979	0.04	
1/4	3	200	103	CIR-1030	S	274280	S	279427	0.04	
1/4	3	250	129	CIR-10301	—	—	S	284672	0.04	
1/4	3	300	153	CIR-1032	NS	279435	S	279443	0.04	
1/4	3	400	205	CIR-1033	—	—	S	279451	0.04	
1/4	3-1/4	200	102	CIR-10331	S	140441	—	—		
1/4	3-1/2	100	43	CIR-1035	—	279460	—	279478	0.04	
1/4	3-1/2	200	85	CIR-1036	—	279486	—	279494	0.04	
1/4	3-1/2	225	96	CIR-1038	—	—	—	285421	0.04	
1/4	3-1/2	300	127	CIR-1037	—	—	S	284699	0.04	

CIR 1/4 - 3/4" Dia. Cartridge Heater (cont'd.)

Specifications and Ordering Information

Specifications and Ordering Information

DIM (In.)						120V		240V		Wt. (Lbs.)
Dia.	Sheath Length	Watts	W/In ²	Model	Stock	PCN	Stock	PCN		
1/4" Diameter										
1/4	4	100	37	CIR-1041	NS	279507	—	279515	0.04	
1/4	4	150	53	CIR-1044	—	—	NS	284592	0.04	
1/4	4	200	73	CIR-1042	NS	279523	S	279531	0.04	
1/4	4	250	92	CIR-1043	—	—	—	283987	0.04	
1/4	4	300	110	CIR-1040	S	274298	S	279540	0.04	
1/4	4-1/2	200	61	CIR-1046	NS	242106	—	—	0.05	
1/4	4-1/2	300	93	CIR-1045	—	—	NS	284568	0.05	
1/4	4-3/4	300	109	CIR-10481	NS	140450	—	—	—	
1/4	5	100	28	CIR-1051	—	279566	—	—	0.05	
1/4	5	150	42	CIR-10501	—	—	S	284007	0.05	
1/4	5	200	57	CIR-1052	—	279582	—	279590	0.05	
1/4	5	300	85	CIR-1053	—	279603	S	279611	0.05	
1/4	5	350	100	CIR-1050	—	—	NS	274300	0.05	
1/4	5	400	111	CIR-1054	—	—	S	283995	0.05	
1/4	5-1/2	150	38	CIR-1055	—	—	—	279620	0.05	
1/4	5-1/2	500	126	CIR-1056	—	—	S	284015	0.05	
1/4	6	400	93	CIR-1060	—	—	S	274319	0.06	
3/8" Diameter										
3/8	1-1/4	100	114	CIR-2013	S	274511	—	—	0.05	
3/8	1-1/4	125	143	CIR-20131	S	242157	—	—	0.05	
3/8	1-1/4	150	171	CIR-2012	S	274327	S	242165	0.05	
3/8	1-1/4	200	228	CIR-2014	S	242173	S	242181	0.05	
3/8	1-1/2	30	26	CIR-20141	S	140011	—	—	0.06	
3/8	1-1/2	50	43	CIR-2018	S	274520	—	—	0.06	
3/8	1-1/2	85	73	CIR-2016	S	274335	—	—	0.06	
3/8	1-1/2	100	85	CIR-20151	S	279638	NS	242190	0.06	
3/8	1-1/2	130	111	CIR-20152	—	—	S	160979	0.06	
3/8	1-1/2	150	129	CIR-2019	S	274538	S	160995	0.06	
3/8	1-1/2	200	171	CIR-2015	S	274343	S	274351	0.06	
3/8	1-1/2	250	214	CIR-20191	S	242202	S	242210	0.06	
3/8	1-3/4	125	85	CIR-2017	NS	242229	—	—	0.06	
3/8	1-3/4	150	107	CIR-20181	S	140468	—	—	0.06	
3/8	1-3/4	175	120	CIR-20171	NS	242237	—	—	0.06	
3/8	1-3/4	250	170	CIR-20172	AS	242245	NS	242253	—	
3/8	1-13/16	200	128	CIR-20173	—	242261	—	—	0.06	
3/8	2	50	29	CIR-20201	S	279662	—	—	0.07	
3/8	2	75	42	CIR-20209	—	242288	—	—	0.07	
3/8	2	100	57	CIR-20202	S	279670	S	161031	0.07	
3/8	2	150	85	CIR-2021	NS	274546	NS	161058	0.07	
3/8	2	200	114	CIR-20203	NS	279700	S	161074	0.07	
3/8	2	250	142	CIR-2020	S	274360	S	274378	0.07	
3/8	2	300	171	CIR-20204	NS	279726	S	161111	0.07	
3/8	2	350	199	CIR-20205	—	279742	NS	161138	0.07	
3/8	2	400	228	CIR-20206	NS	279769	S	161154	0.07	
3/8	2	500	262	CIR-20207	NS	242296	S	165235	0.07	
3/8	2-1/4	75	37	CIR-20225	S	242309	—	—	0.08	
3/8	2-1/4	100	49	CIR-20221	—	279785	—	161170	0.08	
3/8	2-1/4	125	61	CIR-2023	S	242317	—	242325	0.08	
3/8	2-1/4	150	73	CIR-20222	—	279806	S	161197	0.08	
3/8	2-1/4	175	86	CIR-20226	—	242333	—	—	0.08	
3/8	2-1/4	200	98	CIR-20223	—	279822	—	279830	0.08	
3/8	2-1/4	250	122	CIR-2022	S	275215	S	161234	0.08	
3/8	2-1/4	300	147	CIR-20224	NS	279857	NS	279865	0.08	
3/8	2-1/4	350	172	CIR-20227	NS	242341	NS	242350	0.08	
3/8	2-3/8	75	34	CIR-2025	S	275223	—	—	0.09	
3/8	2-3/8	165	75	CIR-2024	S	274386	S	274394	0.09	
3/8	2-1/2	75	33	CIR-20251	S	140484	—	—	0.1	
3/8	2-1/2	100	43	CIR-2027	—	—	—	165403	0.1	
3/8	2-1/2	165	72	CIR-20251	S	140476	—	242376	0.1	
3/8	2-1/2	200	86	CIR-2028	—	242368	S	161293	0.1	
3/8	2-1/2	250	107	CIR-20251	—	279873	—	242392	0.1	
3/8	2-1/2	300	129	CIR-2029	NS	242384	S	161314	0.1	
3/8	2-1/2	400	171	CIR-2026	NS	279890	—	242413	—	
3/8	2-1/2	500	214	CIR-20252	—	242405	—	—	—	
3/8	2-13/16	250	91	CIR-20253	—	242421	—	—	0.11	
3/8	2-13/16	300	109	CIR-20254	—	—	—	242430	0.11	
3/8	3	100	34	CIR-2032	S	275231	S	275240	0.12	
3/8	3	150	51	CIR-2033	NS	279910	NS	161357	0.12	

DIM (In.)						120V		240V		Wt. (Lbs.)
Dia.	Sheath Length	Watts	W/In ²	Model	Stock	PCN	Stock	PCN		
3/8" Diameter										
3/8	3	200	68	CIR-2031	S	274407	S	274415	0.12	
3/8	3	250	85	CIR-2034	NS	279937	S	161390	0.12	
3/8	3	300	103	CIR-20301	NS	279953	S	161410	0.12	
3/8	3	400	137	CIR-20302	NS	279970	NS	161437	0.12	
3/8	3	500	171	CIR-2030	S	274423	S	274431	0.12	
3/8	3	600	205	CIR-2036	—	—	S	242448	0.12	
3/8	3-1/4	500	158	CIR-20331	S	140492	—	—	—	
3/8	3-1/4	500	158	CIR-20332	—	—	S	140505	—	
3/8	3-1/2	250	71	CIR-2037	—	242456	NS	242464	0.14	
3/8	3-1/2	300	86	CIR-2038	NS	242472	—	242480	0.14	
3/8	3-1/2	500	142	CIR-2035	NS	242499	NS	279996	0.14	
3/8	3-13/16	150	37	CIR-2039	—	242501	—	—	0.15	
3/8	3-13/16	500	128	CIR-20303	—	—	—	242510	0.15	
3/8	4	125	30	CIR-2045	S	242528	—	242536	0.16	
3/8	4	150	37	CIR-2041	S	275258	S	275266	0.16	
3/8	4	175	44	CIR-2046	—	242544	—	—	0.16	
3/8	4	200	51	CIR-2044	—	—	—	165243	0.16	
3/8	4	250	61	CIR-2042	NS	280006	S	161517	0.16	
3/8	4	300	73	CIR-2040	S	274440	S	274458	0.16	
3/8	4	400	102	CIR-2047	S	242552	S	242560	0.16	
3/8	4	450	110	CIR-2048	—	—	NS	242579	0.16	
3/8	4	500	122	CIR-2043	NS	280022	S	161550	0.16	
3/8	4	550	133	CIR-2049	NS	242587	—	—	0.16	
3/8	4-1/2	250	61	CIR-20451	S	140513	—	—	—	
3/8	4-1/2	300	64	CIR-20401	NS	242595	NS	242608	0.18	
3/8	4-1/2	500	106	CIR-20402	NS	242616	NS	242624	0.18	
3/8	4-13/16	300	58	CIR-20403	—	—	—	242632	0.19	
3/8	4-13/16	500	97	CIR-20404	—	—	—	242640	0.19	
3/8	5	150	29	CIR-2055	—	242659	—	242667	0.2	
3/8	5	200	38	CIR-2051	S	275274	S	275282	0.2	
3/8	5	300	57	CIR-2052	—	280049	NS	161592	0.2	
3/8	5	400	76	CIR-2050	S	274466	S	274474	0.2	
3/8	5	500	95	CIR-2053	NS	280065	S	161630	0.2	
3/8	5	750	142	CIR-2054	—	—	NS	161656	0.2	
3/8	5	1,000	190	CIR-2056	—	—	NS	242675	0.2	
3/8	5-1/4	200	44	CIR-2057	—	—	—	242683	0.21	
3/8	5-1/2	400	76	CIR-20551	S	140521	—	—	—	
3/8	5-1/2	600	102	CIR-2058	—	—	NS	242691	0.22	
3/8	5-1/2	1,000	171	CIR-2059	—	—	—	242704	0.22	
3/8	6	200	31	CIR-2064	S	242712	—	—	0.24	
3/8	6	250	39	CIR-2061	S	275290	S	275303	0.24	
3/8	6	400	62	CIR-2065	S	242720	S	242739	0.24	
3/8	6	500	78	CIR-2060	S	274482	S	274490	0.24	
3/8	6	600	93	CIR-2066	S	242747	S	242755	0.24	
3/8	6	750	117	CIR-2062	—	—	S	161710	0.24	
3/8	6	1,000	155	CIR-2063	—	—	S	161736	0.24	
3/8	6-1/2	500	77	CIR-20652	—	—	S	140548	—	
3/8	6-1/2	600	85	CIR-2067	S	140504	—	242763	0.26	
3/8	6-1/2	1,000	143	CIR-2068	—	—	—	242771	0.26	
3/8	7	250	33	CIR-2070	S	242780	NS	242798	0.28	
3/8	7	275	39	CIR-2072	—	—	S	140020	—	
3/8	7	600	79	CIR-2076	S	242800	S	242819	0.28	
3/8	7	1,000	131	CIR-2079	—	—	NS	242827	0.28	
3/8	7-1/2	600	73	CIR-2075	—	—	—	242835	0.3	
3/8	7-1/2	1,000	122	CIR-2077	—	—	NS	242843	0.3	
3/8	8	300	34	CIR-2081	S	242851	S	275311	0.32	
3/8	8	400	45	CIR-2082	—	242860	—	—	0.32	
3/8	8	500	57	CIR-2085	NS	242878	S	242886	0.32	
3/8	8	600	68	CIR-2086	S	242894	S	242907	0.32	
3/8	8	700	80	CIR-2080	S	274503	S	276015	0.32	
3/8	8	1,000	115	CIR-2089	—	—	S	242915	0.32	
3/8	9	350	37	CIR-2092	—	—	S	140038	—	
3/8	9-1/2	600	57	CIR-2090	—	—	NS	242923	0.38	
3/8	9-1/2	1,000	97	CIR-2091	—	—	NS	242931	0.38	
3/8	10	400	36	CIR-2102	S	242940	—	—	0.4	
3/8	10	600	54	CIR-2100	NS	280110	NS	280129	0.4	
3/8	10	1,000	90	CIR-2101	—	—	NS	161816	0.4	

CIR 1/4 - 3/4" Dia. Cartridge Heater (cont'd.)

Sord's Electric ~ 216-765-4230

Specifications and Ordering Information

Specifications and Ordering Information

DIM (In.)						120V		240V		
Dia.	Sheath Length	Watts	W/In ²	Model	Stock	PCN	Stock	PCN	Wt. (Lbs.)	
3/8" Diameter										
3/8	12	400	30	CIR-2122	S	242958	—	—	0.48	
3/8	12	600	45	CIR-2123	S	242966	S	242974	0.48	
3/8	12	900	67	CIR-2120	S	276023	S	276031	0.48	
3/8	12	1,000	74	CIR-2121	—	—	S	161859	0.48	
3/8	15	1,100	65	CIR-2150	—	—	S	276040	0.6	
3/8	20	1,300	57	CIR-2200	—	—	—	276058	0.8	
3/8	24	1,500	55	CIR-2240	—	—	S	276066	0.9	
1/2" Diameter										
1/2	1-1/4	50	44	CIR-3014	S	243002	—	—	0.09	
1/2	1-1/4	100	85	CIR-3012	—	280153	—	—	0.09	
1/2	1-1/4	125	107	CIR-3019	S	243010	—	243029	0.09	
1/2	1-1/4	150	128	CIR-3013	—	280161	—	280170	0.09	
1/2	1-1/4	200	170	CIR-30121	—	—	S	243037	0.09	
1/2	1-1/4	250	210	CIR-30122	—	—	—	243045	0.09	
1/2	1-1/2	50	32	CIR-30151	S	243053	—	—	0.1	
1/2	1-1/2	100	60	CIR-3016	—	280188	—	—	0.1	
1/2	1-1/2	125	80	CIR-3017	—	280196	S	161955	0.1	
1/2	1-1/2	150	96	CIR-3015	NS	276074	NS	276082	0.1	
1/2	1-1/2	200	128	CIR-3018	S	280217	S	161998	0.1	
1/2	1-3/4	150	85	CIR-30181	S	140572	—	—	—	
1/2	2	75	32	CIR-30204	S	243061	—	—	0.12	
1/2	2	100	43	CIR-30201	—	280233	S	162018	0.12	
1/2	2	200	85	CIR-3021	S	275320	S	162034	0.12	
1/2	2	250	107	CIR-30202	S	280268	S	162050	0.12	
1/2	2	300	128	CIR-30203	S	280284	S	162077	0.12	
1/2	2	400	171	CIR-3020	S	276090	S	276103	0.12	
1/2	2-1/4	75	28	CIR-30221	S	243070	—	—	0.13	
1/2	2-1/4	125	45	CIR-30222	S	243088	—	—	0.13	
1/2	2-1/4	250	85	CIR-3022	S	243096	S	165251	0.13	
1/2	2-1/4	300	117	CIR-30231	S	140599	—	—	—	
1/2	2-1/4	300	117	CIR-30232	—	—	S	140580	—	
1/2	2-1/4	400	145	CIR-30223	—	243109	—	243117	0.13	
1/2	2-1/4	500	170	CIR-30224	S	243125	S	243133	0.13	
1/2	2-3/8	75	26	CIR-3025	S	275338	S	275346	0.13	
1/2	2-3/8	100	34	CIR-3026	S	275354	S	275362	0.13	
1/2	2-3/8	120	41	CIR-3027	S	275370	S	275389	0.13	
1/2	2-3/8	250	85	CIR-3023	NS	276111	NS	276120	0.13	
1/2	2-3/8	450	154	CIR-3024	S	275397	S	275400	0.13	
1/2	2-3/8	500	170	CIR-30231	—	243141	—	243150	0.13	
1/2	2-1/2	100	32	CIR-30255	S	243168	—	243176	0.14	
1/2	2-1/2	150	48	CIR-30251	—	280305	S	162210	0.14	
1/2	2-1/2	250	80	CIR-30252	S	280321	S	162237	0.14	
1/2	2-1/2	300	96	CIR-3028	—	243184	—	243192	0.14	
1/2	2-1/2	400	128	CIR-30253	S	280348	S	162253	0.14	
1/2	2-1/2	500	160	CIR-30254	S	243205	S	162270	0.14	
1/2	2-9/16	350	106	CIR-3029	—	243213	—	—	0.14	
1/2	2-9/16	300	92	CIR-30291	—	—	—	243221	0.14	
1/2	2-3/4	400	113	CIR-30271	S	243230	—	243248	0.14	
1/2	3	125	32	CIR-30302	—	243256	—	243264	0.17	
1/2	3	250	64	CIR-3031	NS	275418	NS	275426	0.17	
1/2	3	300	77	CIR-3032	S	280372	S	162317	0.17	
1/2	3	350	88	CIR-30303	—	243272	—	—	0.17	
1/2	3	400	103	CIR-3033	S	280399	S	162333	0.17	
1/2	3	500	128	CIR-3030	S	276138	S	276146	0.17	
1/2	3	600	154	CIR-3034	S	280410	S	162376	0.17	
1/2	3	750	192	CIR-30301	—	280436	S	162392	0.17	
1/2	3-1/2	250	53	CIR-3035	NS	243280	—	243299	0.2	
1/2	3-1/2	350	74	CIR-3036	—	—	—	243301	0.2	
1/2	3-1/2	500	105	CIR-3037	S	243310	S	243328	0.2	
1/2	3-1/2	750	160	CIR-3038	—	—	—	243336	0.2	
1/2	3-13/16	250	48	CIR-3039	—	—	S	243352	0.21	
1/2	3-13/16	500	96	CIR-30391	S	243344	—	—	0.21	
1/2	4	150	28	CIR-3045	S	243360	S	243379	0.22	
1/2	4	180	33	CIR-3040	NS	275434	NS	275442	0.22	
1/2	4	250	44	CIR-30402	S	243387	S	165260	0.22	
1/2	4	300	55	CIR-3042	S	280452	S	162430	0.22	
1/2	4	350	65	CIR-3046	S	243395	S	243408	0.22	
1/2	4	400	73	CIR-3043	NS	280479	NS	162456	0.22	

DIM (In.)					120V		240V		
Dia.	Sheath Length	Watts	W/In ²	Model	Stock	PCN	Stock	PCN	Wt. (Lbs.)
1/2" Diameter									
1/2	4	500	92	CIR-3041	S	275450	S	275469	0.22
1/2	4	750	137	CIR-3044	—	280495	S	162499	0.22
1/2	4	1,000	183	CIR-30401	—	—	S	162510	0.22
1/2	4-5/16	550	91	CIR-3048	—	243416	—	—	0.24
1/2	4-1/2	500	79	CIR-3047	—	243424	—	243432	0.25
1/2	4-1/2	750	119	CIR-3049	—	243440	—	243459	0.25
1/2	4-13/16	300	146	CIR-30403	—	—	—	243467	0.26
1/2	4-13/16	1,000	146	CIR-30404	—	—	—	243475	0.26
1/2	5	200	28	CIR-3053	S	243483	—	243491	0.27
1/2	5	350	50	CIR-3051	S	280524	S	280532	0.27
1/2	5	400	56	CIR-3054	NS	243504	S	243512	0.27
1/2	5	500	71	CIR-30501	S	280540	S	162552	0.27
1/2	5	750	107	CIR-3050	S	276154	S	276162	0.27
1/2	5	1,000	142	CIR-30502	—	—	S	162595	0.27
1/2	5-13/16	150	18	CIR-3059	S	140054	S	140046	—
1/2	5-1/4	250	34	CIR-3052	S	275477	S	275485	0.29
1/2	5-1/2	500	64	CIR-3055	—	243520	—	243539	0.31
1/2	5-1/2	650	83	CIR-3056	—	—	—	243547	0.31
1/2	5-1/2	750	97	CIR-3057	—	243555	—	243563	0.31
1/2	5-13/16	300	36	CIR-30582	—	—	—	243571	0.32
1/2	5-13/16	700	85	CIR-3058	S	276170	S	276189	0.32
1/2	6	200	22	CIR-3065	—	—	S	165278	0.34
1/2	6	250	27	CIR-3067	S	243580	—	243598	0.34
1/2	6	300	35	CIR-3061	S	275493	S	275506	0.34
1/2	6	350	41	CIR-3068	—	—	—	243600	0.34
1/2	6	400	45	CIR-3066	—	—	S	165286	0.34
1/2	6	500	58	CIR-3062	S	280575	S	162675	0.34
1/2	6	750	87	CIR-3063	—	280591	S	162691	0.34
1/2	6	850	99	CIR-3060	NS	276197	NS	276200	0.34
1/2	6	1,000	117	CIR-3064	S	243619	S	162739	0.34
1/2	6-1/2	300	36	CIR-30652	—	—	NS	140601	—
1/2	6-1/2	500	54	CIR-3069	—	—	—	243627	0.37
1/2	6-1/2	850	100	CIR-30651	S	140610	—	—	—
1/2	6-1/2	1,000	108	CIR-30601	—	—	NS	243635	0.37
1/2	7	250	25	CIR-3070	S	243643	—	—	0.4
1/2	7	500	50	CIR-3071	S	243651	S	243660	0.4
1/2	7	600	60	CIR-3072	—	243678	NS	243686	0.4
1/2	7	1,000	98	CIR-3075	—	—	S	243694	0.4
1/2	7-1/2	500	46	CIR-3076	—	—	—	243707	0.43
1/2	7-1/2	1,000	91	CIR-3077	—	—	—	243715	0.43
1/2	8	250	21	CIR-3083	—	—	S	165294	0.45
1/2	8	300	26	CIR-3085	NS	243723	—	243731	0.45
1/2	8	400	34	CIR-3081	—	—	S	275514	0.45
1/2	8	500	42	CIR-3084	S	243740	S	165307	0.45
1/2	8	750	62	CIR-30801	—	—	S	165315	0.45
1/2	8	1,000	85	CIR-3080	S	276218	S	276226	0.45
1/2	8	1,500	128	CIR-3082	—	—	S	162798	0.45
1/2	8	2,000	170	CIR-3086	—	—	S	243758	0.45
1/2	8-1/2	300	24	CIR-3087	—	—	—	243766	0.45
1/2	8-1/2	500	40	CIR-3088	—	—	—	243774	0.45
1/2	8-1/2	1,000	80	CIR-3089	—	—	—	243782	0.45
1/2	8-3/4	1,000	84	CIR-30882	—	—	S	140628	—
1/2	9	500	37	CIR-3090	—	—	S	165323	0.5
1/2	9	1,000	74	CIR-3091	—	—	—	243790	0.5
1/2	9-1/2	500	36	CIR-3092	—	—	—	243803	0.53
1/2	9-1/2	1,000	72	CIR-3093	—	—	—	243811	0.53
1/2	10	475	32	CIR-3100	—	—	S	275522	0.56
1/2	10	500	34	CIR-3103	S	243820	S	243838	0.56
1/2	10	1,000	68	CIR-3101	S	243846	—	162835	0.56
1/2	10	1,500	101	CIR-3102	—	—	NS	162851	0.56
1/2	10	2,000	134	CIR-3105	—	—	S	243854	0.56
1/2	12	550	31	CIR-3121	S	243862	S	275530	0.67
1/2	12	1,000	56	CIR-3122	NS	243870	NS	162894	0.67
1/2	12	1,500	84	CIR-3120	—	—	S	276234	0.67
1/2	12	2,000	112	CIR-3125	—	—	S	243889	0.67
1/2	14	675	33	CIR-3143	—	—	S	140062	—
1/2	14	1,000	48	CIR-3141	—	—	—	243897	0.78

CIR 1/4 - 3/4" Dia. Cartridge Heater (cont'd.)

Specifications and Ordering Information

Specifications and Ordering Information

DIM (In.)		Watts	W/In ²	Model	120V		240V		Wt. (Lbs.)
Dia.	Sheath Length				Stock	PCN	Stock	PCN	
1/2" Diameter									
1/2	14	1,600	76	CIR-3140	—	—	S	276242	0.78
1/2	14	2,300	110	CIR-3142	—	—	—	243900	0.78
1/2	15	1,500	66	CIR-3150	—	—	—	243918	0.84
1/2	16	1,000	41	CIR-3160	—	—	—	243926	0.84
1/2	18	800	30	CIR-3183	—	—	S	140070	1
1/2	18	1,500	55	CIR-3182	—	—	—	243934	
1/2	18	1,700	62	CIR-3180	—	—	S	276250	1
1/2	24	1,000	28	CIR-3241	—	—	S	140089	1
1/2	24	1,800	55	CIR-3240	—	—	S	276269	
1/2	30	1,300	29	CIR-3301	—	—	S	140097	2
1/2	30	1,900	47	CIR-3300	—	—	NS	276277	
1/2	36	2,000	40	CIR-3360	—	—	NS	276285	
5/8" Diameter									
5/8	1-1/4	50	34	CIR-4011	NS	243942	—	—	0.1
5/8	1-1/4	200	135	CIR-4012	S	243950	—	—	0.1
5/8	1-1/4	250	169	CIR-4013	S	243969	—	—	0.1
5/8	1-1/2	100	51	CIR-4016	—	280663	—	280671	0.1
5/8	1-1/2	200	101	CIR-4015	S	275549	S	163053	0.1
5/8	1-1/2	250	126	CIR-4017	—	243977	—	243985	0.1
5/8	2	100	34	CIR-40201	S	243993	—	—	0.13
5/8	2	200	68	CIR-4020	S	276293	S	276306	0.13
5/8	2	300	103	CIR-4021	—	280698	—	163096	0.13
5/8	2	500	171	CIR-4022	—	280719	S	163117	0.13
5/8	2-1/4	100	29	CIR-4023	NS	244005	—	—	0.15
5/8	2-1/4	250	72	CIR-4028	NS	244013	S	244021	0.15
5/8	2-1/4	350	102	CIR-4029	NS	244030	S	244048	0.15
5/8	2-3/8	75	21	CIR-40233	S	140126	—	—	0.15
5/8	2-3/8	75	21	CIR-40235	—	—	S	140142	
5/8	2-3/8	100	27	CIR-40231	—	—	S	140100	0.15
5/8	2-3/8	100	27	CIR-40234	S	140134	—	—	
5/8	2-3/8	125	34	CIR-4025	S	275557	S	275565	0.15
5/8	2-3/8	150	41	CIR-4026	S	275573	S	275581	
5/8	2-3/8	165	45	CIR-40232	—	—	S	140118	0.15
5/8	2-3/8	165	45	CIR-40236	S	140150	—	—	
5/8	2-3/8	180	49	CIR-4027	S	275590	S	275602	0.15
5/8	2-3/8	280	77	CIR-4024	S	276314	S	276322	
5/8	3	150	31	CIR-4035	S	244056	—	—	0.2
5/8	3	250	51	CIR-4031	S	280735	S	163213	0.2
5/8	3	400	82	CIR-4032	—	280751	S	163230	0.2
5/8	3	500	103	CIR-4030	S	276330	S	276349	0.2
5/8	3	600	123	CIR-4033	—	—	S	163272	0.2
5/8	3	750	154	CIR-4034	—	—	S	163299	0.2
5/8	3-3/4	150	24	CIR-40371	S	140177	S	140169	0.24
5/8	3-3/4	240	38	CIR-4038	S	275610	S	275629	
5/8	3-3/4	525	83	CIR-4037	S	276357	S	276365	
5/8	4	250	37	CIR-4044	S	244064	—	244072	0.26
5/8	4	400	58	CIR-4045	—	—	S	244080	0.26
5/8	4	500	73	CIR-4041	—	280794	NS	163352	0.26
5/8	4	600	88	CIR-4046	—	—	NS	244099	0.26
5/8	4	750	110	CIR-4040	S	276373	S	276381	0.26
5/8	4	1,000	147	CIR-4042	—	—	S	163395	0.26
5/8	4-1/4	525	86	CIR-4037	S	276357	S	276365	0.32
5/8	4-1/2	500	76	CIR-40451	S	140871	—	—	
5/8	4-3/8	240	32	CIR-4043	NS	275637	NS	275645	0.28
5/8	5	250	28	CIR-4056	S	244101	—	244110	0.32
5/8	5	500	57	CIR-4051	—	280823	S	163432	0.32
5/8	5	750	85	CIR-4050	S	276390	S	276402	0.32
5/8	5	1,000	114	CIR-4052	—	—	S	163475	0.32
5/8	5	1,300	148	CIR-4053	—	—	S	163491	0.32
5/8	5-3/8	285	30	CIR-4055	S	275653	S	275661	0.34
5/8	5-3/8	800	84	CIR-4054	NS	276410	NS	276429	0.34
5/8	5-1/2	750	87	CIR-40551	NS	140880	—	—	0.38
5/8	6	300	28	CIR-4067	S	244128	S	244136	
5/8	6	500	47	CIR-4061	NS	280866	S	163555	
5/8	6	750	70	CIR-4063	—	—	S	165454	
5/8	6	1,000	93	CIR-4060	S	276437	S	276445	
5/8	6	1,500	140	CIR-4062	NS	244144	S	163598	

DIM (In.)		Watts	W/In ²	Model	120V		240V		Wt. (Lbs.)
Dia.	Sheath Length				Stock	PCN	Stock	PCN	
5/8" Diameter									
5/8	6-1/2	350	30	CIR-4066	S	275670	S	275688	0.41
5/8	6-1/2	500	43	CIR-4068	NS	244152	NS	244160	0.41
5/8	6-1/2	1,000	85	CIR-4065	NS	276453	NS	276461	0.41
5/8	7	500	39	CIR-4072	S	244179	NS	244187	0.45
5/8	7	1,000	79	CIR-4070	—	—	NS	163651	0.45
5/8	7	1,500	118	CIR-4071	—	—	S	280903	0.45
5/8	8	400	28	CIR-4081	S	140185	S	275696	0.50
5/8	8	500	34	CIR-4085	S	244195	S	244208	0.50
5/8	8	750	51	CIR-4082	—	—	S	163715	0.50
5/8	8	850	58	CIR-4088	—	—	S	244216	0.50
5/8	8	1,000	68	CIR-4083	—	—	S	163731	0.50
5/8	8	1,200	82	CIR-4080	NS	276470	NS	276488	0.50
5/8	8	1,500	103	CIR-4084	—	—	S	163774	0.50
5/8	8	2,000	137	CIR-40801	—	—	S	163790	0.50
5/8	8-3/4	450	30	CIR-4087	S	140193	S	275709	0.50
5/8	10	500	27	CIR-4103	S	244224	S	244232	0.64
5/8	10	750	40	CIR-4104	—	—	S	244240	0.64
5/8	10	1,000	54	CIR-4100	—	—	S	163838	0.64
5/8	10	1,500	81	CIR-4101	—	—	S	163854	0.64
5/8	10	2,000	108	CIR-4102	—	—	NS	163870	0.64
5/8	10-3/4	500	25	CIR-4107	S	275717	S	275725	0.68
5/8	10-3/4	1,700	85	CIR-4105	S	276496	S	276509	0.68
5/8	12	500	22	CIR-4125	S	244259	S	244267	0.75
5/8	12	900	40	CIR-4129	—	—	S	244275	0.75
5/8	12	1,000	45	CIR-4120	S	244283	S	163934	0.75
5/8	12	1,500	67	CIR-4121	S	244291	NS	280997	0.75
5/8	12	2,000	89	CIR-4122	—	—	S	163977	0.75
5/8	12-7/8	550	24	CIR-4128	NS	140206	NS	275733	0.81
5/8	14	3,700	139	CIR-4140	—	—	S	244304	0.88
5/8	15	600	22	CIR-4151	NS	140214	S	275741	0.95
5/8	15	750	27	CIR-4153	—	—	S	244312	0.95
5/8	15	1,500	53	CIR-4152	—	—	NS	281017	0.95
5/8	15	2,400	85	CIR-4150	—	—	S	278010	0.95
5/8	15	4,000	140	CIR-4154	—	—	S	244320	0.95
5/8	16	2,500	82	CIR-4160	—	—	NS	244339	1.02
5/8	16	4,500	148	CIR-4167	—	—	S	244347	1.02
5/8	17	800	26	CIR-4170	—	—	S	140222	1.10
5/8	18	1,500	44	CIR-4180	—	—	S	281025	1.18
5/8	18	2,600	76	CIR-4181	—	—	NS	281033	1.18
5/8	18	3,000	88	CIR-4182	—	—	S	244355	1.18
5/8	18	4,700	136	CIR-4184	—	—	NS	244363	1.18
5/8	19	950	27	CIR-4190	—	—	NS	140230	1.24
5/8	20	1,500	40	CIR-4200	—	—	S	244371	1.26
5/8	20	3,500	92	CIR-4203	—	—	S	244380	1.26
5/8	20	4,700	123	CIR-4205	—	—	S	244398	1.26
5/8	21	1,075	28	CIR-4211	—	—	S	140249	1.32
5/8	21	2,800	70	CIR-4210	—	—	S	278029	1.32
5/8	24	1,200	26	CIR-4241	—	—	NS	275750	1.51
5/8	24	2,000	44	CIR-4242	—	—	S	244400	1.51
5/8	24	3,000	65	CIR-4240	—	—	S	278037	1.51
5/8	24	4,700	102	CIR-4243	—	—	S	244419	1.51
5/8	30	2,000	35	CIR-4300	—	—	NS	140257	1.80
5/8	36	2,500	37	CIR-43611	—	—	S	140265	2.27
5/8	36	3,000	44	CIR-4361	—	—	S	244427	2.27
5/8	36	3,500	51	CIR-4360	—	—	NS	278045	2.27
3/4" Diameter									
3/4	2-1/4	200	49	CIR-5022	—	244435	—	—	0.18
3/4	2-3/8	200	45	CIR-5023	NS	275768	NS	275776	0.19
3/4	3	250	43	CIR-5031	S	244443	—	—	0.23
3/4	3	500	85	CIR-5030	—	281041	S	164216	0.23
3/4	3-1/4	250	39	CIR-5033	—	275784	S	275792	0.26
3/4	3-1/4	650	101	CIR-5032	S	278053	S	278061	0.26
3/4	4	250	31	CIR-5042	S	244451	—	—	0.32
3/4	4	500	61	CIR-5040	—	—	S	281068	0.32
3/4	4	1,000	122	CIR-5041	—	—	S	281076	0.32
3/4	4-3/4	350	35	CIR-5047	S	140273	S	275805	0.38

CIR 1/4 - 3/4" Dia. Cartridge Heater (cont'd.)

Specifications and Ordering Information

Specifications and Ordering Information

DIM (In.)		Watts	W/In²	Model	120V		240V		Wt. (Lbs.)	
Dia.	Sheath Length				Stock	PCN	Stock	PCN		
1/2" Diameter										
3/4	5	300	28	CIR-5052	S	244460	—	—	0.39	
3/4	5	500	47	CIR-5051	—	—	S	281084	0.39	
3/4	5	1,000	95	CIR-5050	NS	278070	NS	278088	0.39	
3/4	6	350	27	CIR-5061	S	140281	S	275813	0.48	
3/4	6	500	39	CIR-5065	S	244478	S	244486	0.48	
3/4	6	750	58	CIR-5062	—	—	—	281092	0.48	
3/4	6	1,000	78	CIR-5067	—	—	S	244494	0.48	
3/4	6	1,100	85	CIR-5060	NS	278096	S	278109	0.48	
3/4	6	1,500	117	CIR-5068	—	—	—	244507	0.48	
3/4	6	2,000	155	CIR-5069	—	—	S	244515	0.48	
3/4	7	500	33	CIR-5075	S	244523	—	244531	0.57	
3/4	7	1,000	66	CIR-5072	—	—	S	244540	0.57	
3/4	7-5/8	450	27	CIR-5077	S	140290	S	275821	0.61	
3/4	7-5/8	1,300	78	CIR-5076	—	278117	S	278125	0.61	
3/4	8	500	28	CIR-5085	NS	244558	NS	244566	0.64	
3/4	8	1,000	57	CIR-5080	—	—	S	281105	0.64	
3/4	8	1,500	85	CIR-5081	—	—	—	281113	0.64	
3/4	8	2,000	113	CIR-5082	—	—	S	281121	0.64	
3/4	9-1/8	500	25	CIR-5091	NS	140302	S	275830	0.73	
3/4	10	1,000	45	CIR-5100	—	—	S	281130	0.79	
3/4	10	2,000	90	CIR-5102	—	—	S	244574	0.79	
3/4	10-1/2	550	23	CIR-5106	NS	140310	NS	275848	0.83	
3/4	10-1/2	2,000	85	CIR-5105	S	278133	S	278141	0.83	
3/4	11-7/8	600	22	CIR-5118	NS	140329	S	275856	0.91	
3/4	12	1,000	37	CIR-5120	—	—	S	281148	0.92	
3/4	12	2,000	74	CIR-5121	—	—	S	281156	0.92	
3/4	12	3,000	111	CIR-5122	—	—	—	281164	0.92	
3/4	12	4,000	148	CIR-5124	—	—	S	244582	0.92	
3/4	13-3/8	650	21	CIR-5135	NS	140337	S	275864	1.02	
3/4	13-3/8	2,500	83	CIR-5134	—	—	S	278150	1.02	
3/4	14	1,250	40	CIR-5141	—	—	—	244590	1.07	
3/4	14	2,500	80	CIR-5142	—	—	—	244603	1.07	

DIM (In.)		Watts	W/In ²	Model	120V		240V		Wt. (Lbs.)	
Dia.	Sheath Length				Stock	PCN	Stock	PCN		
3/4" Diameter										
3/4	14	4,500	142	CIR-5144	—	—	—	244611	1.07	
3/4	14-7/8	750	22	CIR-5148	S	140345	S	275872	1.14	
3/4	15	1,500	44	CIR-5150	—	—	—	281172	1.15	
3/4	16	1,800	49	CIR-5162	—	—	—	244620	1.23	
3/4	16	4,700	128	CIR-5165	—	—	—	244638	1.23	
3/4	16-1/4	800	22	CIR-5163	—	—	S	140353		
3/4	17-3/4	850	21	CIR-5177	—	—	NS	275880	1.36	
3/4	18	1,500	36	CIR-5180	—	—	—	281180	1.38	
3/4	18	2,000	48	CIR-5182	—	—	—	244646	1.38	
3/4	18	5,000	122	CIR-5185	—	—	—	244654	1.38	
3/4	20	1,000	22	CIR-5204	—	—	NS	140361		
3/4	20	1,150	25	CIR-5202	—	—	—	244662	1.53	
3/4	20	2,000	44	CIR-5201	—	—	—	281199	1.53	
3/4	20	2,250	49	CIR-5203	—	—	—	244670	1.53	
3/4	20	3,850	84	CIR-5200	—	—	S	278168	1.53	
3/4	20	5,000	110	CIR-5205	—	—	—	244689	1.53	
3/4	22	1,150	23	CIR-5220	—	—	S	140370		
3/4	24	1,250	23	CIR-5241	—	—	S	275899	1.84	
3/4	24	1,375	25	CIR-5243	—	—	—	244697	1.84	
3/4	24	2,500	42	CIR-5242	—	—	—	281201	1.84	
3/4	24	2,750	50	CIR-5244	—	—	—	244700	1.84	
3/4	24	4,600	83	CIR-5240	—	—	S	278176	1.84	
3/4	24	5,000	85	CIR-5245	—	—	—	244718	1.84	
3/4	30	2,500	37	CIR-5301	—	—	S	140388		
3/4	30	4,800	69	CIR-5300	—	—	S	278184	2.3	
3/4	36	2,500	30	CIR-5362	—	—	—	244726	2.75	
3/4	36	4,900	59	CIR-5360	—	—	NS	278192	2.75	
3/4	48	5,000	45	CIR-5480	—	—	S	278205	3.7	
Stock Status: S = stock AS = assembly stock NS = non-stock										
To Order—Specify model, PCN, watts, volts and quantity.										

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