



www.nph-processheaters.com
1-877-674-9744

CHANNEL STRIP HEATERS with or without fins



Applications:

- *HOT PLATES*
- *SPACE HEATING*
- *OVENS*
- *MOLDS*
- *PRE-HEATERS*
- *SEALING BARS*
- *LOAD BANK RESISTORS*

NPH channel strip heaters are reliable flat heating cells, designed to provide efficient heat to flat surfaces and in space heating applications. The thick rectangular stainless housing of these heaters provides a rugged construction suitable for industrial applications. Finned channel strip heaters have relatively larger exposed surfaces compared to regular channel heaters. This makes them highly efficient in transferring heat in both natural and forced convection space heating.

Construction

The housing of a channel strip heater is 0.375" x 1.5" stainless steel rectangular tubing. Coiled Nickel-Chrome wire is placed inside special ceramic tiles. The terminals are secured with ceramic and mica insulators to the sheath. In order to improve their heat transferring capability and to make them vibration-resistant, channel strip heaters are filled with magnesium oxide powder that is compacted through vibration. Channel strip heaters are made with or without slotted mounting tabs.

Finned channel strip heaters utilize 2" x 1.375" Aluminized steel fins (Stainless steel optional) that are designed in such a way that they grip the channel heater housing and dissipate heat efficiently.



CHANNEL STRIP HEATERS

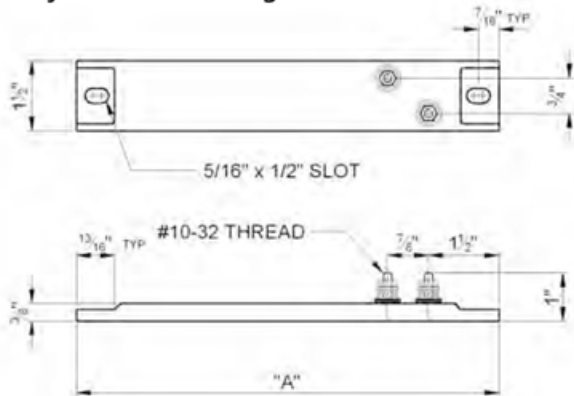
Channel Strip heaters

Max Sheath Temp : 1200°F
 Standard Voltage : 120 or 240 Volts
 (other voltages are available; consult the factory)
 Max Amps : 20 A

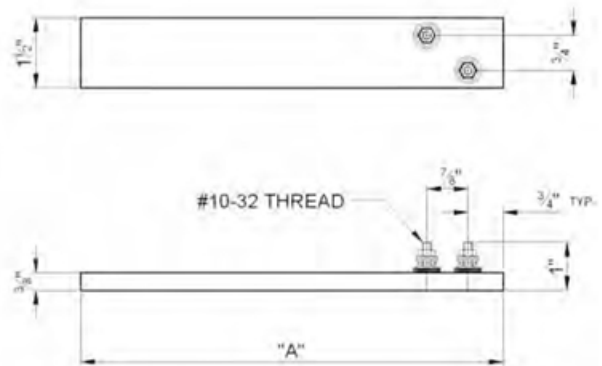
Watt density (*nominal*): 20 w/in²
 Wattage tolerance : + 5%, - 10%

Termination Styles

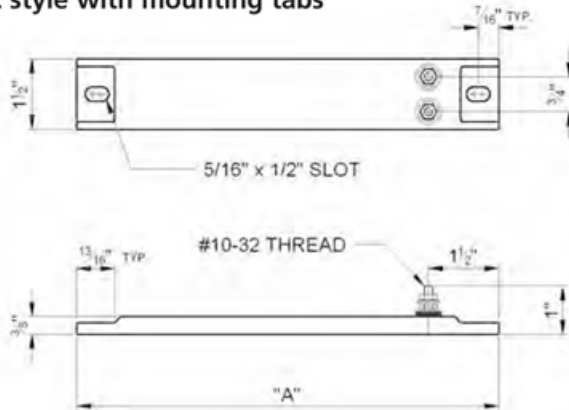
BA style with mounting tabs



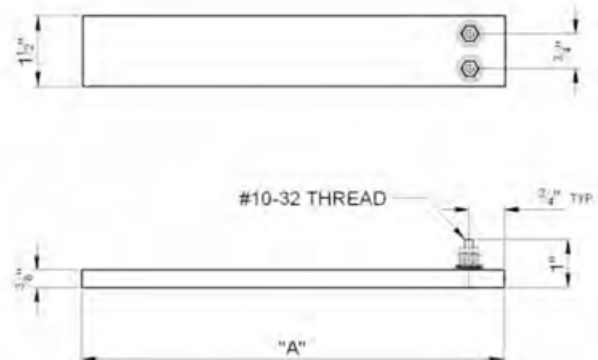
BA style without mounting tabs



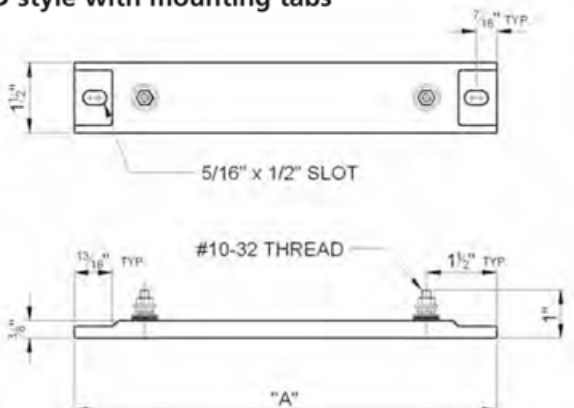
BC style with mounting tabs



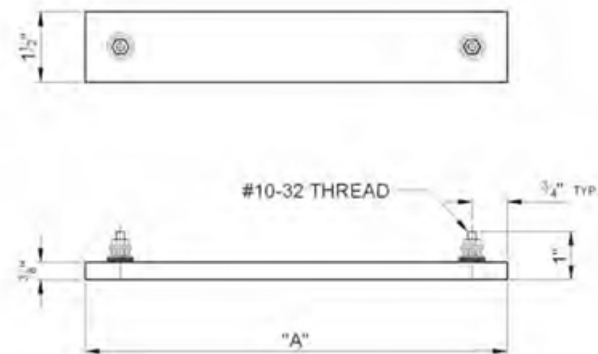
BC style without mounting tabs



BD style with mounting tabs



BD style without mounting tabs



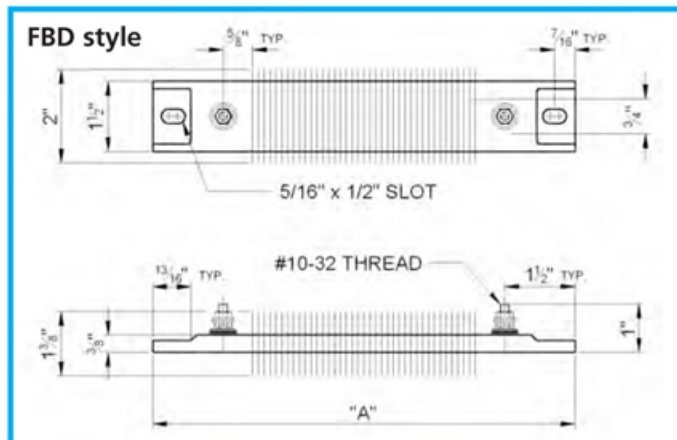
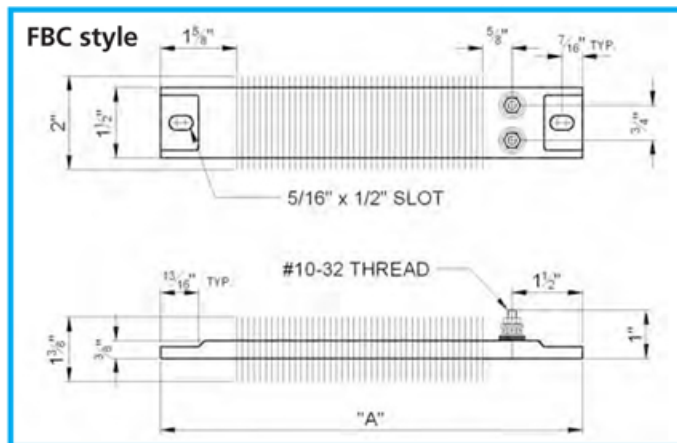
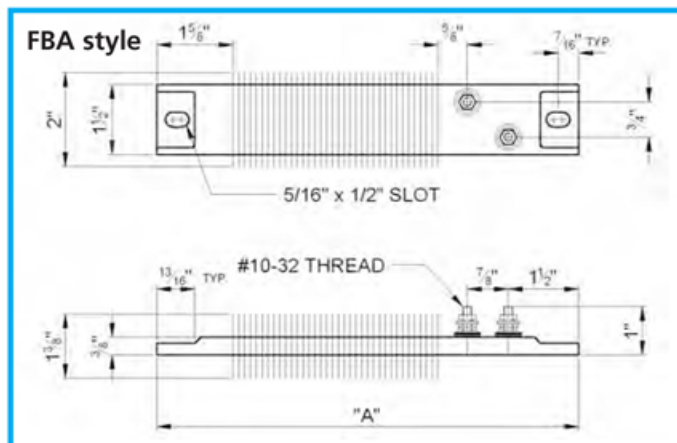
CHANNEL STRIP HEATERS

Finned Channel Strip heaters

Max Sheath Temp :	1200°F
Standard Voltage :	120 or 240 Volts <i>(other voltages are available; consult the factory)</i>
Max Amps :	20 A
Watt density in still air	
Up to 250°F :	20 w/in ²
250°F-500°F :	15 w/in ²
500°F-750°F :	10 w/in ²

Watt density 10 ft/sec moving air	
up to 200°F :	38 w/in ²
200°F-350°F :	30 w/in ²
350°F-500°F :	20 w/in ²
<i>(for other air velocity/temp combinations consult the factory)</i>	
Wattage tolerance :	+ 5%, - 10%

Termination Styles



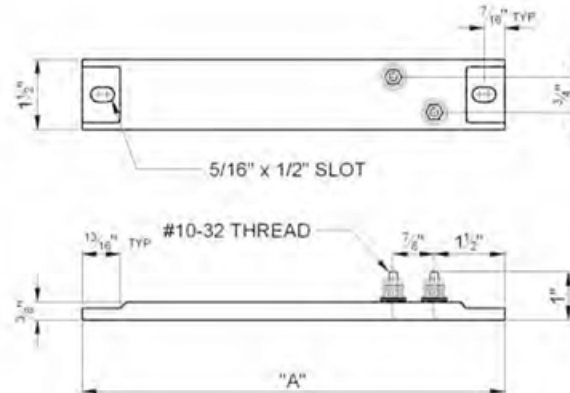
Installation Tips

- It is critical to have a good surface-to-surface contact between channel strip heaters and mounting surfaces. These surfaces should be clean, flat and smooth.
- Channel strip heaters expand when energized and thus tend to get detached from the surfaces they are mounted on. To prevent this, it is essential to allow room for expansion by tightening firmly the mounting screw on one end (usually the terminal side) and leaving the other side slightly loose. When relatively long strip heaters are used, it is good practice to use clamps to hold strip heaters firmly attached to application surfaces.
- While tightening post terminals, a backup wrench should be used to hold the counter-nut to ensure tightness and prevent terminals from damage.
- When a finned channel strip heater is placed in an air stream, the air flow should be perpendicular to the length of the heater and parallel to its width (1.5" side).
- Channel strip heaters (with or without fins) that operate at a potential difference of more than 300V between their line voltage and the ground, should be isolated from the surface of an application by secondary isolating ceramic bushings. Bucan offers insulators that are adequate for Ø 1/4" screws. To be able to use these ceramic insulators, strip heaters should have 1/2" x 5/8" mounting slots (factory pre-punched upon request).



CHANNEL STRIP HEATERS

BA style with mounting tabs



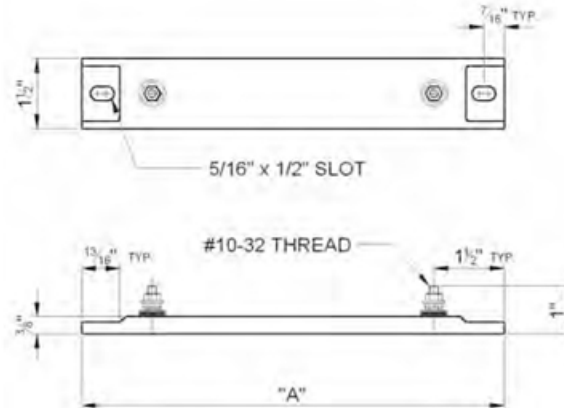
TYPE BA STAINLESS STEEL STRIP HEATER WITH OFFSET TERMINALS AT ONE END

DIM. "A"		WATTS	WATTS PER		CATALOG NUMBER			
inch	mm		in ²	cm ²	120V	208V	240V	287V
5 1/2	140	70	25	3.9	BA140-70-1	BA140-70-2	BA140-70-3	BA140-70-4
6	152	100	21	3.3	BA152-100-1	BA152-100-2	BA152-100-3	BA152-100-4
7 1/4	184	100	11	1.7	BA184-100-1	BA184-100-2	BA184-100-3	BA184-100-4
7 1/4	184	200	21	3.3	BA184-200-1	BA184-200-2	BA184-200-3	BA184-200-4
8	203	250	21	3.3	BA203-250-1	BA203-250-2	BA203-250-3	BA203-250-4
8	203	300	25	3.9	BA203-300-1	BA203-300-2	BA203-300-3	BA203-300-4
10 1/2	267	400	19	2.9	BA267-400-1	BA267-400-2	BA267-400-3	BA267-400-4
11 3/4	298	500	22	3.4	BA298-500-1	BA298-500-2	BA298-500-3	BA298-500-4
14	356	300	9	1.4	BA356-300-1	BA356-300-2	BA356-300-3	BA356-300-4
14	356	500	14	2.2	BA356-500-1	BA356-500-2	BA356-500-3	BA356-500-4
15	381	500	13	2	BA381-500-1	BA381-500-2	BA381-500-3	BA381-500-4
17 3/4	451	350	7	1.1	BA451-350-1	BA451-350-2	BA451-350-3	BA451-350-4
17 3/4	451	500	10	1.6	BA451-500-1	BA451-500-2	BA451-500-3	BA451-500-4
17 3/4	451	750	15	2.3	BA451-750-1	BA451-750-2	BA451-750-3	BA451-750-4
17 3/4	451	1000	21	3.3	BA451-1000-1	BA451-1000-2	BA451-1000-3	BA451-1000-4
19 1/2	495	500	9	1.4	BA495-500-1	BA495-500-2	BA495-500-3	BA495-500-4
19 1/2	495	1000	18	2.8	BA495-1000-1	BA495-1000-2	BA495-1000-3	BA495-1000-4
21	533	750	12	1.9	BA533-750-1	BA533-750-2	BA533-750-3	BA533-750-4
23 1/2	597	750	11	1.7	BA597-750-1	BA597-750-2	BA597-750-3	BA597-750-4
23 1/2	597	1000	14	2.2	BA597-1000-1	BA597-1000-2	BA597-1000-3	BA597-1000-4
25 1/2	648	750	10	1.6	BA648-750-1	BA648-750-2	BA648-750-3	BA648-750-4
25 1/2	648	1000	13	2	BA648-1000-1	BA648-1000-2	BA648-1000-3	BA648-1000-4
26 3/4	679	1000	12	1.9	BA679-1000-1	BA679-1000-2	BA679-1000-3	BA679-1000-4
30 1/2	768	1000	10	1.6	BA768-1000-1	BA768-1000-2	BA768-1000-3	BA768-1000-4
33 1/2	851	1250	12	1.9	BA851-1250-1	BA851-1250-2	BA851-1250-3	BA851-1250-4
35 3/4	908	1500	13	2	BA908-1500-1	BA908-1500-2	BA908-1500-3	BA908-1500-4
38 1/2	978	1000	8	1.2	BA978-1000-1	BA978-1000-2	BA978-1000-3	BA978-1000-4
38 1/2	978	1250	10	1.6	BA978-1250-1	BA978-1250-2	BA978-1250-3	BA978-1250-4
42 1/4	1073	1250	9	1.4	BA1073-1250-1	BA1073-1250-2	BA1073-1250-3	BA1073-1250-4
42 1/4	1073	1500	11	1.7	BA1073-1500-1	BA1073-1500-2	BA1073-1500-3	BA1073-1500-4

For higher or lower voltages or wattages please consult our factory

CHANNEL STRIP HEATERS

BD style with mounting tabs

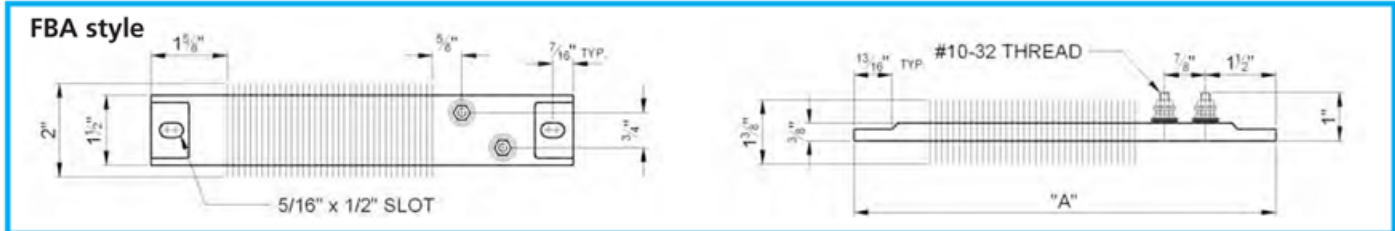


TYPE BD STAINLESS STEEL STRIP HEATER WITH TERMINALS AT EACH END

DIM. "A"		WATTS	WATTS PER		CATALOG NUMBER			
inch	mm		in ²	cm ²	120V	208V	240V	287V
5 1/2	140	70	25	3.9	BD140-70-1	BD140-70-2	BD140-70-3	BD140-70-4
6	152	100	21	3.3	BD152-100-1	BD152-100-2	BD152-100-3	BD152-100-4
7 1/4	184	100	11	1.7	BD184-100-1	BD184-100-2	BD184-100-3	BD184-100-4
7 1/4	184	200	21	3.3	BD184-200-1	BD184-200-2	BD184-200-3	BD184-200-4
8	203	250	21	3.3	BD203-250-1	BD203-250-2	BD203-250-3	BD203-250-4
8	203	300	25	3.9	BD203-300-1	BD203-300-2	BD203-300-3	BD203-300-4
10 1/2	267	400	19	2.9	BD267-400-1	BD267-400-2	BD267-400-3	BD267-400-4
11 3/4	295	500	22	3.4	BD298-500-1	BD298-500-2	BD298-500-3	BD298-500-4
14	358	300	9	1.4	BD356-300-1	BD356-300-2	BD356-300-3	BD356-300-4
14	356	500	14	2.2	BD356-500-1	BD356-500-2	BD356-500-3	BD356-500-4
15	381	500	13	2.0	BD381-500-1	BD381-500-2	BD381-500-3	BD381-500-4
17 3/4	451	350	7	1.1	BD451-350-1	BD451-350-2	BD451-350-3	BD451-350-4
17 3/4	451	500	10	1.6	BD451-500-1	BD451-500-2	BD451-500-3	BD451-500-4
17 3/4	451	750	15	2.3	BD451-750-1	BD451-750-2	BD451-750-3	BD451-750-4
17 3/4	451	1000	21	3.3	BD451-1000-1	BD451-1000-2	BD451-1000-3	BD451-1000-4
19 1/2	495	500	9	1.4	BD495-500-1	BD495-500-2	BD495-500-3	BD495-500-4
19 1/2	495	1000	18	2.8	BD495-1000-1	BD495-1000-2	BD495-1000-3	BD495-1000-4
21	533	750	12	1.9	BD533-750-1	BD533-750-2	BD533-750-3	BD533-750-4
23 1/2	597	750	11	1.7	BD597-750-1	BD597-750-2	BD597-750-3	BD597-750-4
23 1/2	597	1000	14	2.2	BD597-1000-1	BD597-1000-2	BD597-1000-3	BD597-1000-4
25 1/2	648	750	10	1.6	BD648-750-1	BD648-750-2	BD648-750-3	BD648-750-4
25 1/2	648	1000	13	2.0	BD648-1000-1	BD648-1000-2	BD648-1000-3	BD648-1000-4
26 3/4	679	1000	12	1.9	BD679-1000-1	BD679-1000-2	BD679-1000-3	BD679-1000-4
30 1/4	768	1000	10	1.6	BD768-1000-1	BD768-1000-2	BD768-1000-3	BD768-1000-4
33 1/2	851	1250	12	1.9	BD851-1250-1	BD851-1250-2	BD851-1250-3	BD851-1250-4
35 3/4	908	1500	13	2.0	BD908-1500-1	BD908-1500-2	BD908-1500-3	BD908-1500-4
38 1/2	978	1000	8	1.2	BD978-1000-1	BD978-1000-2	BD978-1000-3	BD978-1000-4
38 1/2	978	1250	10	1.6	BD978-1250-1	BD978-1250-2	BD978-1250-3	BD978-1250-4
42 1/4	1073	1250	9	1.4	BD1073-1250-1	BD1073-1250-2	BD1073-1250-3	BD1073-1250-4
42 1/4	1073	1500	11	1.7	BD1073-1500-1	BD1073-1500-2	BD1073-1500-3	BD1073-1500-49

For higher or lower voltages or wattages please consult our factory

CHANNEL STRIP HEATERS



TYPE FBA STAINLESS STEEL STRIP HEATER WITH OFFSET TERMINALS AT ONE END

DIM. "A"		WATTS	WATTS PER		CATALOG NUMBER			
inch	mm		in ²	cm ²	120V	208V	240V	287V
7 1/4	184	180	19	2.9	FBA184-180-1	FBA184-180-2	FBA184-180-3	FBA184-180-4
8 1/2	216	250	18	2.8	FBA216-250-1	FBA216-250-2	FBA216-250-3	FBA216-250-4
10 1/2	267	350	16	2.5	FBA267-350-1	FBA267-350-2	FBA267-350-3	FBA267-350-4
10 1/2	267	500	23	3.6	FBA267-500-1	FBA267-500-2	FBA267-500-3	FBA267-500-4
10 1/2	267	600	28	4.3	FBA267-600-1	FBA267-600-2	FBA267-600-3	FBA267-600-4
10 1/2	267	725	34	5.3	FBA267-725-1	FBA267-725-2	FBA267-725-3	FBA267-725-4
11 3/4	298	500	19	2.9	FBA298-500-1	FBA298-500-2	FBA298-500-3	FBA298-500-4
11 3/4	298	900	34	5.3	FBA298-900-1	FBA298-900-2	FBA298-900-3	FBA298-900-4
14	356	750	22	3.4	FBA356-750-1	FBA356-750-2	FBA356-750-3	FBA356-750-4
14	356	1100	32	5.0	FBA356-1100-1	FBA356-1100-2	FBA356-1100-3	FBA356-1100-4
15 1/2	394	750	19	2.9	FBA394-750-1	FBA394-750-2	FBA394-750-3	FBA394-750-4
15 1/2	394	1000	25	3.9	FBA394-1000-1	FBA394-1000-2	FBA394-1000-3	FBA394-1000-4
15 1/2	394	1250	31	4.8	FBA394-1250-1	FBA394-1250-2	FBA394-1250-3	FBA394-1250-4
17 3/4	451	1000	21	3.3	FBA451-1000-1	FBA451-1000-2	FBA451-1000-3	FBA451-1000-4
17 3/4	451	1250	26	4.0	FBA451-1250-1	FBA451-1250-2	FBA451-1250-3	FBA451-1250-4
17 3/4	451	1500	31	4.8	FBA451-1500-1	FBA451-1500-2	FBA451-1500-3	FBA451-1500-4
19 1/2	495	1250	23	3.6	FBA495-1250-1	FBA495-1250-2	FBA495-1250-3	FBA495-1250-4
19 1/2	495	1750	32	5.0	FBA495-1750-1	FBA495-1750-2	FBA495-1750-3	FBA495-1750-4
21	533	1900	31	4.8	FBA533-1900-1	FBA533-1900-2	FBA533-1900-3	FBA533-1900-4
23 3/4	603	1000	14	2.2	FBA603-1000-1	FBA603-1000-2	FBA603-1000-3	FBA603-1000-4
23 3/4	603	1600	22	3.4	FBA603-1600-1	FBA603-1600-2	FBA603-1600-3	FBA603-1600-4
23 3/4	603	2200	31	4.8	FBA603-2200-1	FBA603-2200-2	FBA603-2200-3	FBA603-2200-4
25 1/2	648	1250	16	2.5	FBA648-1250-1	FBA648-1250-2	FBA648-1250-3	FBA648-1250-4
26 3/4	679	1350	16	2.5	FBA679-1350-1	FBA679-1350-2	FBA679-1350-3	FBA679-1350-4
26 3/4	679	2500	30	4.7	FBA679-2500-1	FBA679-2500-2	FBA679-2500-3	FBA679-2500-4
30 1/2	775	1500	16	2.5	FBA775-1500-1	FBA775-1500-2	FBA775-1500-3	FBA775-1500-4
30 1/2	775	2800	29	4.5	FBA775-2800-1	FBA775-2800-2	FBA775-2800-3	FBA775-2800-4
33 1/2	851	1700	16	2.5	FBA851-1700-1	FBA851-1700-2	FBA851-1700-3	FBA851-1700-4
33 1/2	851	3150	29	4.5	FBA851-3150-1	FBA851-3150-2	FBA851-3150-3	FBA851-3150-4
35 3/4	908	1800	15	2.3	FBA908-1800-1	FBA908-1800-2	FBA908-1800-3	FBA908-1800-4
35 3/4	908	3450	30	4.7	FBA908-3450-1	FBA908-3450-2	FBA908-3450-3	FBA908-3450-4
38 1/2	978	2000	16	2.5	FBA978-2000-1	FBA978-2000-2	FBA978-2000-3	FBA978-2000-4
38 1/2	978	3700	29	4.5	FBA978-3700-1	FBA978-3700-2	FBA978-3700-3	FBA978-3700-4
42 1/2	1080	2100	15	2.3	FBA1080-2100-1	FBA1080-2100-2	FBA1080-2100-3	FBA1080-2100-4
42 1/2	1080	4150	29	4.5	FBA1080-4150-1	FBA1080-4150-2	FBA1080-4150-3	FBA1080-4150-4

For higher or lower voltages or wattages please consult our factory

To order channel strip heaters please specify:

- Length
- Voltage
- Wattage
- Termination style
- Tabs or no tabs
- Fins or no fins
- Fin material
- Secondary insulation bushing

