



PRO Pocket Guide: Self-Regulating vs. Constant Wattage Cable

A quick-reference guide designed for trade professionals, contractors, and installers to help determine when to quote self-regulating versus constant wattage heating cables.



Constant Wattage Kits



A pre-assembled, plug-and-play constant wattage cable delivering a fixed heat output of **5W/ft**. Designed for straightforward, DIY-friendly residential projects. 120V only, plug-in, asphalt shingle roofs.

- Fixed 5 Watts/foot output
- 120V plug-in only
- Pre-packaged 20-240 ft kits
- No cutting or overlapping allowed
- Low upfront cost

Self-Regulating Cut-to-Length Cable



A highly flexible, professional-grade cable that **adjusts heat output** based on ambient temperatures. Cut to length on-site, safely overlapped, ideal for complex rooflines, valleys, and commercial applications.

- Variable 5-10 Watts/foot output
- 120V, 208V, 240V, 277V options
- Sold in rolls — cut to exact length
- Safe to overlap without overheating
- Up to 589 ft per circuit

Side-by-Side Comparison

Feature	Constant Wattage	Self-Regulating Cut-to-Length
Heating Technology	Constant Wattage (Fixed resistance)	Self-Regulating (Conductive polymer core)
Heat Output	Fixed at 5 W/ft	Varies with temp: 5-10 W/ft
Voltage Options	120V only	120V, 208V, 240V, 277V
Installation Type	DIY / Plug-in (3-prong plug)	Professional / Hardwired or Plug-in
On-Site Customization	Cannot be cut or shortened	Cut to exact length on-site
Overlapping Allowed?	No — will overheat and burn out	Yes — safely overlaps
Max Length per Circuit	240 ft	589 ft
Best For	Small-to-medium residential eaves, gutters, downspouts	Complex rooflines, valleys, commercial, large residential
Upfront Cost	Low	Moderate-to-High
Operating Efficiency	Lower — runs at 100% when energized	Higher — reduces power as temp rises; fully automatic

Deep Dive: Ice Shield (Constant Wattage Cable)

How It Works: Ice Shield utilizes a constant wattage heating element that outputs a steady **5W/ft**. It comes pre-assembled with a 6-foot cold lead and a grounded 3-prong plug.

Key Specs	Best Applications	✓ Pros	⚠ Cons
<ul style="list-style-type: none">Wattage: 5 W/ftVoltage: 120VLengths: 20 ft – 240 ft pre-packaged kitsControls: Manual or timer/outlet-wired	<ul style="list-style-type: none">Asphalt shingle residential eaves (zig-zag pattern)Gutters and downspoutsDIY homeowners — affordable, easy installProjects limited to existing outdoor GFCI outlet	<ul style="list-style-type: none">Extremely low upfront costNo special tools or connection kitsSimple plug-and-play installation	<ul style="list-style-type: none">Cannot be cut to lengthRuns at 100% power constantlyLimited to 120V circuits only

Deep Dive: Ice Shield PRO (Self-Regulating Cable) PROFESSIONAL GRADE

PROFESSIONAL GRADE

How It Works: Ice Shield PRO features a conductive polymer core that sits between two parallel bus wires. As temperature drops, the core contracts — creating more electrical paths and increasing heat. As temperature rises, the core expands, reducing heat output automatically.

Key Specs	Best Applications	✓ Pros	⚠ Cons
<ul style="list-style-type: none">Wattage: 5–10 W/ft (self-regulating)Voltage: 120V, 208V, 240V, 277VRolls: 50', 100', 250', 500', 1000' spoolsControls: Hardwired panels with ambient/moisture sensors; plug-in kit available (140 ft max at 120V)	<ul style="list-style-type: none">Complex roofs with valleys, dormers, varying guttersCommercial buildings and multi-family complexesHigh-end residential projectsNarrow downspouts or areas requiring cable overlap	<ul style="list-style-type: none">Cut to exact length — no wasteSafe to overlap without damageHighly energy-efficient; fully automatic240V supports up to 589 ft per circuit	<ul style="list-style-type: none">Higher upfront material costRequires professional installationNeeds specialized connection kits

Need Help Choosing the Right System?

Whether you are looking for a quick, cost-effective residential fix or designing a complex commercial deicing system, getting the specifications right is crucial to avoiding ice dams and system failures.

Don't guess on your next project—let our experts do the heavy lifting. Our team is dedicated to providing tailored solutions that prevent ice dams and system malfunctions, ensuring long-term performance and safety for your property.

Talk to a Roof & Gutter Deicing Specialist Today!

Call Us: 800-875-5285

Our specialists are available to assist you Monday – Friday, 8:00 AM – 5:00 PM EST.

Next steps:

01

Get Accurate Measurements

To ensure the best installation, our WarmlyYours Specialist will provide you with the assistance you need to capture the correct measurements of the roof and gutter area you want to heat.

02

Receive Your Custom Quote & SmartPlan

Once your measurements are completed, you will be contacted to discuss your options and receive an accurate, no-obligation quote, SmartPlan, and electrical plan prepared for you by our engineers.

03

Place Your Order

The last and very important step is to place your order! After your order is received, you can expect the same attention to detail and care as you received during the ordering process.

PRO Tip:

To ensure an instant and accurate quote, please have the following information ready when you call:

- Total eave length
- Total gutter length
- Number of downspouts
- Available voltage (120V, 208V, 240V, or 277V)