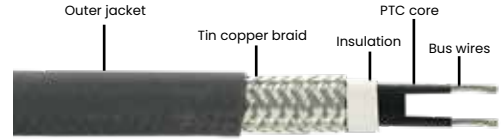




TLC-TP - 12 mm BULK

12 mm TLC-TP Self Regulating Heating Cable

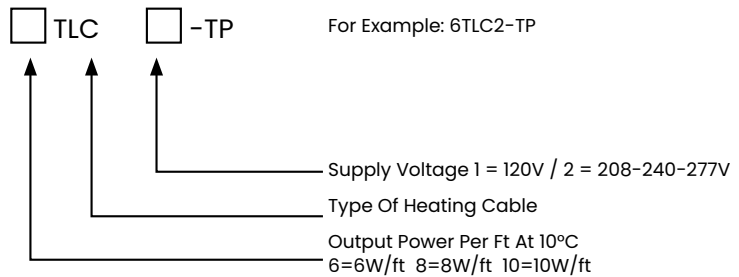
TLC-TP cables are ideal for roof & gutter de-icing and help prevent ice damage caused by ice dams. They promote free flow of melt water through gutters and downspouts to ground level and drains, for residential and commercial applications. These cables use the latest self-regulating technology adjusting heat output according to the ambient temperature, making them energy efficient and cost effective.



- Cable can be cut to desired length and overlapped without risk of overheating.
- Suitable for metal or plastic surfaces.
- Low installation and maintenance cost.
- Tinned copper braid provides additional protection to the cable core.
- Flame retardant thermoplastic outer jacket option, protects against certain chemical solution, abrasion and impact damage.

Product number

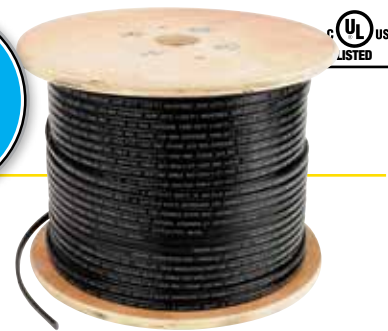
| MODEL | WATTS | VOLTAGE |
|---------------------|-------|-----------|
| 6TLC1-TP, 6TLC2-TP | 6 | 120V/240V |
| 8TLC1-TP, 8TLC2-TP | 8 | 120V/240V |
| 10TLC1-TP, 10TLC-TP | 10 | 120V/240V |



| SPECIFICATION | |
|---|----------------------------|
| Jacket | Thermoplastic |
| Chemical Resistance | Inorganic aqueous solution |
| Nominal Thickness (mm) | 6 |
| Nominal Width (mm) | 12 |
| Minimum Bending Radius (mm) | 36 |
| Weight (kg/100m) | 11 |
| Electrical Classification | Non-Hazardous |
| Service Voltage | 120V/240V (208-277V) |
| Max. maintain or continuous exposure temperature (power on) | 65°C (150°F) |
| Max. Intermittent Exposure | 85°C (185°F) |
| Minimum Installation Temperature | -40°C (-40°F) |
| Protective Braid resistance | <18.2 Ω/km |
| Bus Wire Gauge | 16 AWG |
| Approvals | UL |

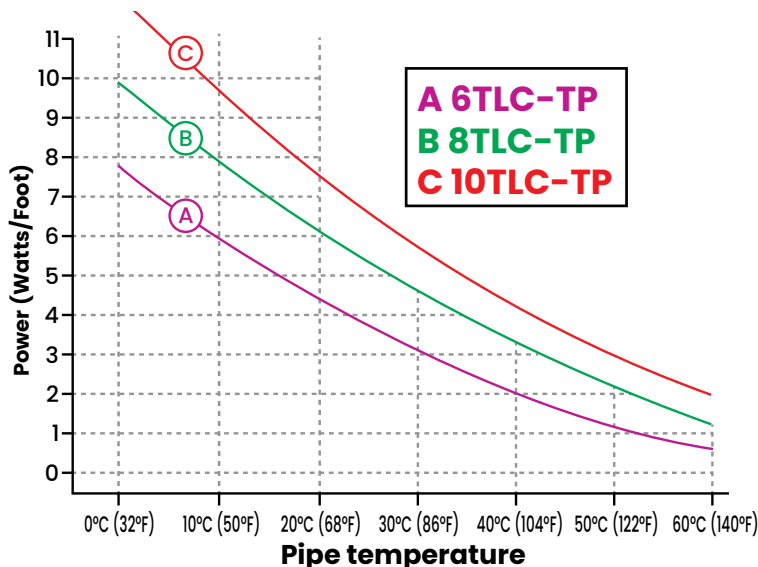
TLC-TP - 12 mm BULK

12 mm TLC-TP Self Regulating Heating Cable



Power output curves

Nominal power output at 240V TLC cable



| | Adjustment Factors | | | |
|----------|--------------------|------|----------------|------|
| | Power Output | | Circuit Length | |
| | 208V | 277V | 208V | 277V |
| 6TLC-TP | 0.85 | 1.15 | 0.93 | 1.08 |
| 8TLC-TP | 0.88 | 1.12 | 0.92 | 1.11 |
| 10TLC-TP | 0.91 | 1.10 | 0.92 | 1.10 |

Maximum Length Based On Circuit Breaker Size

| Minimum Start-up Temp. | CB Size | 6TLC-TP | | 8TLC-TP | | 10TLC-TP | |
|------------------------|---------|------------|------------|------------|------------|------------|------------|
| | Amps | 120V ft | 240V ft | 120V ft | 240V ft | 120V ft | 240V ft |
| 10°C (50°F) | 15 | 175 | 349 | 154 | 307 | 125 | 250 |
| | 20 | 233 | 465 | 205 | 409 | 167 | 334 |
| | 30 | 279 | 561 | 243 | 482 | 207 | 410 |
| | 40 | 279 | 561 | 243 | 482 | 207 | 410 |
| 0°C (32°F) | 15 | 150 | 295 | 131 | 262 | 110 | 220 |
| | 20 | 197 | 394 | 175 | 350 | 146 | 293 |
| | 30 | 279 | 561 | 243 | 482 | 207 | 410 |
| | 40 | 279 | 561 | 243 | 482 | 207 | 410 |
| -10°C (14°F) | 15 | 134 | 265 | 119 | 238 | 101 | 202 |
| | 20 | 177 | 353 | 159 | 318 | 134 | 269 |
| | 30 | 256 | 513 | 227 | 453 | 195 | 388 |
| | 40 | 279 | 561 | 243 | 482 | 207 | 410 |
| -18°C (0°F) | 15 | 113 | 226 | 104 | 207 | 90 | 179 |
| | 20 | 150 | 301 | 138 | 276 | 120 | 239 |
| | 30 | 226 | 451 | 207 | 415 | 179 | 359 |
| | 40 | 279 | 561 | 243 | 482 | 207 | 410 |
| -29°C (-20°F) | 15 | 99 | 198 | 92 | 184 | 81 | 161 |
| | 20 | 132 | 264 | 122 | 245 | 107 | 215 |
| | 30 | 198 | 395 | 184 | 367 | 161 | 322 |
| | 40 | 264 | 527 | 243 | 482 | 207 | 410 |
| -40°C (-40°F) | 15 | 88 | 176 | 82 | 165 | 73 | 146 |
| | 20 | 117 | 235 | 110 | 219 | 97 | 195 |
| | 30 | 176 | 352 | 165 | 329 | 146 | 292 |
| | 40 | 235 | 469 | 219 | 439 | 195 | 390 |



TLC-TP - 12 MM

12 mm TLC-TP Self Regulating Heating Cable

Freeze protection table

Typical insulated drain pipe choosing the right cable length for pipe tracing.

| Size | Type | 5 ft | 10 ft | 15 ft | 20 ft | 25 ft | 30 ft | 35 ft | 40 ft | 45 ft | 50 ft | 55 ft | 60 ft | | | |
|--------|---------|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1/2" | Metal | A | B | C | D | E | E | E | F | F | F | G | G | | | |
| | Plastic | A | B | C | D | E | E | F | F | F | G | G | H | | | |
| 1" | Metal | A | B | C | D | E | E | E | F | F | F | G | G | | | |
| | Plastic | B | B | C | D | E | E | F | F | F | G | G | H | | | |
| 1-1/2" | Metal | A | B | C | D | E | E | E | F | F | F | G | G | | | |
| | Plastic | B | C | D | E | E | F | F | F | G | G | H | H | | | |
| 2" | Metal | A | B | C | D | E | E | E | F | F | G | G | H | | | |
| | Plastic | B | C | E | E | F | G | H | H | I | J | J | K | | | |
| 2-1/2" | Metal | A | C | C | D | E | F | F | F | G | G | H | H | | | |
| | Plastic | B | D | E | F | G | H | I | J | K | L | M | L | | | |
| Size | | 65 ft | 70 ft | 75 ft | 80 ft | 85 ft | 90 ft | 95 ft | 100 ft | 125 ft | 150 ft | 175 ft | 200 ft | 250 ft | 290 ft | 325 ft |
| 1/2" | Metal | H | H | H | I | I | J | J | J | L | N | P | Q | S | T | U |
| | Plastic | H | H | I | I | J | J | J | K | M | O | Q | R | U | | |
| 1" | Metal | H | H | H | I | I | J | J | J | L | N | P | Q | S | T | U |
| | Plastic | H | H | I | I | J | J | J | K | M | O | Q | R | T | | |
| 1-1/2" | Metal | H | H | H | I | I | J | J | J | L | N | P | Q | S | T | U |
| | Plastic | H | I | I | J | J | J | K | L | O | Q | R | T | U | | |
| 2" | Metal | H | H | I | I | J | J | J | K | M | O | Q | R | U | | |
| | Plastic | L | M | N | N | O | P | Q | R | S | U | | | | | |
| 2-1/2" | Metal | I | I | J | J | K | K | L | L | N | Q | R | S | U | | |
| | Plastic | O | M | Q | Q | R | R | S | S | U | | | | | | |

Choosing the right cable length for pipe tracing

Legend Suggested Cable Length (feet)

TLC-TP1 = 120 VOLTS & TLC-TP2 = 240 VOLTS

| | A | B | C | D | E | F | G | H |
|------|-----|------|------|------|------|------|------|------|
| 120V | 6' | 12' | 18' | 24' | 37' | 50' | 62' | 75' |
| 240V | 6' | 12' | 18' | 24' | 37' | 50' | 62' | 75' |
| | I | J | K | L | M | N | O | P |
| 120V | 87' | 100' | 112' | 125' | 137' | 150' | - | - |
| 240V | 87' | 100' | 112' | 125' | 137' | 150' | 162' | 175' |
| | Q | R | S | T | U | | | |
| 120V | - | - | - | - | - | | | |
| 240V | | 200' | 225' | 250' | 290' | 325' | | |

TLC-TP - 12 mm



Important:

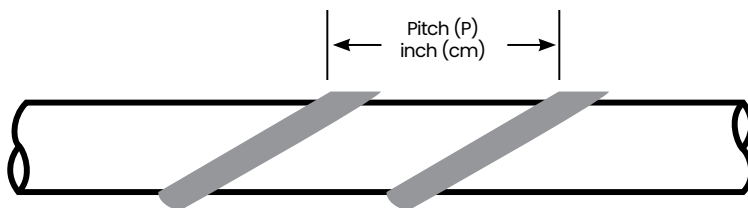
If the cable is longer than the pipe, it must be spiraled around it, evenly distributed. If twice the length, double trace the cable straight on the pipe in a 4 and 7 o'clock position. Apply a minimum insulation thickness of one (1) inch.

The TLC-TP cable can be run into an open non-pressurized drain pipe containing only water. The cable end seal cannot be immersed in water. Otherwise, place the self-regulating heating cable on the outside pipe with insulation.

TABLE FOR SPIRAL PITCH (P)

To compensate for heat loss, and for an output ratio between 1X (single trace) and 2X (dual trace) use the following table.

| Pipe Size IPS | | Ratio of feet (meters) of cable per foot (meter) of pipe | | | | | | | | | | | | | | | |
|---------------|-----|--|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|
| | | 1.1 | | 1.2 | | 1.3 | | 1.4 | | 1.5 | | 1.6 | | 1.7 | | 1.8 | |
| inch | cm | inch | cm | inch | cm | inch | cm | inch | cm | inch | cm | inch | cm | inch | cm | inch | cm |
| 1 | 2.5 | 9 | 23 | 6 | 15 | 5 | 13 | 4 | 10 | 4 | 10 | 3 | 8 | 3 | 8 | 3 | 8 |
| 1 1/4 | 3.2 | 11 | 28 | 8 | 20 | 6 | 15 | 5 | 13 | 5 | 13 | 4 | 10 | 4 | 10 | 3 | 8 |
| 1 1/2 | 3.8 | 13 | 33 | 9 | 23 | 7 | 18 | 6 | 15 | 5 | 13 | 5 | 13 | 4 | 10 | 4 | 10 |
| 2 | 5.0 | 16 | 41 | 11 | 28 | 9 | 23 | 7 | 18 | 6 | 15 | 6 | 15 | 5 | 13 | 5 | 13 |
| 2 1/2 | 6.4 | 20 | 51 | 14 | 36 | 11 | 28 | 9 | 23 | 8 | 20 | 7 | 18 | 6 | 15 | 6 | 15 |
| 3 | 7.5 | 24 | 61 | 17 | 43 | 13 | 33 | 11 | 28 | 10 | 25 | 9 | 23 | 8 | 20 | 7 | 18 |
| 4 | 10 | 31 | 79 | 21 | 53 | 17 | 43 | 14 | 36 | 13 | 33 | 11 | 28 | 10 | 25 | 9 | 23 |
| 6 | 15 | 45 | 114 | 31 | 79 | 25 | 64 | 21 | 53 | 18 | 46 | 17 | 43 | 15 | 38 | 14 | 36 |
| 8 | 20 | 59 | 150 | 41 | 104 | 32 | 81 | 27 | 69 | 24 | 61 | 22 | 56 | 20 | 51 | 18 | 46 |
| 10 | 25 | 74 | 188 | 51 | 130 | 41 | 104 | 34 | 86 | 30 | 76 | 27 | 69 | 25 | 64 | 23 | 58 |
| 12 | 30 | 87 | 221 | 60 | 152 | 48 | 122 | 41 | 104 | 36 | 91 | 32 | 81 | 30 | 76 | 27 | 69 |
| 14 | 35 | 96 | 244 | 66 | 168 | 53 | 135 | 45 | 114 | 39 | 99 | 35 | 89 | 32 | 81 | 29 | 74 |
| 16 | 40 | 110 | 279 | 76 | 193 | 61 | 155 | 51 | 130 | 45 | 114 | 40 | 102 | 37 | 94 | 34 | 86 |
| 18 | 45 | 123 | 312 | 89 | 226 | 68 | 173 | 58 | 147 | 51 | 130 | 45 | 114 | 41 | 104 | 38 | 97 |
| 20 | 50 | 137 | 348 | 95 | 241 | 76 | 193 | 64 | 163 | 56 | 142 | 50 | 127 | 46 | 117 | 42 | 107 |
| 24 | 60 | 164 | 417 | 114 | 290 | 91 | 231 | 77 | 196 | 67 | 170 | 60 | 152 | 55 | 140 | 50 | 127 |



Example : For 4 inch pipe in diameter, with 1.5 feet of heater cable per foot of pipe, P = 13 inches.