



# Frost Protection of Cold Chambers

## De-icing Cable

### SLAB PROTECTION

In cold store floors, the slab in contact with the ground can reach sub-zero temperatures, condensation can cause a lifting of the floor with the risk of cracking of the slab and degradation of the foundations. The installation of a low power heating cable in the slab avoids any damage.

### PROTECTION AGAINST GROUND ICING

In the entrance of cold rooms, frost often forms on the floor due to the incoming outside air, with consequent risks to the integrity of the floor and the safety of people. The installation of a defrosting heating cable in this area avoids these problems.

### EASY AND LOW-COST INSTALLATION

The installation is carried out during the construction of the cold store inside the concrete slab or under the floor covering. Only an electrical connection is required.



### EFFICIENT AND AUTONOMOUS

The system starts automatically when the temperature of the slab or floor approaches zero degrees. The installed power is low: about 20 W/m<sup>2</sup> for slab protection and about 100 W/m<sup>2</sup> for floor de-icing. Once installed, no maintenance is required.

## TYPES OF INSTALLATIONS

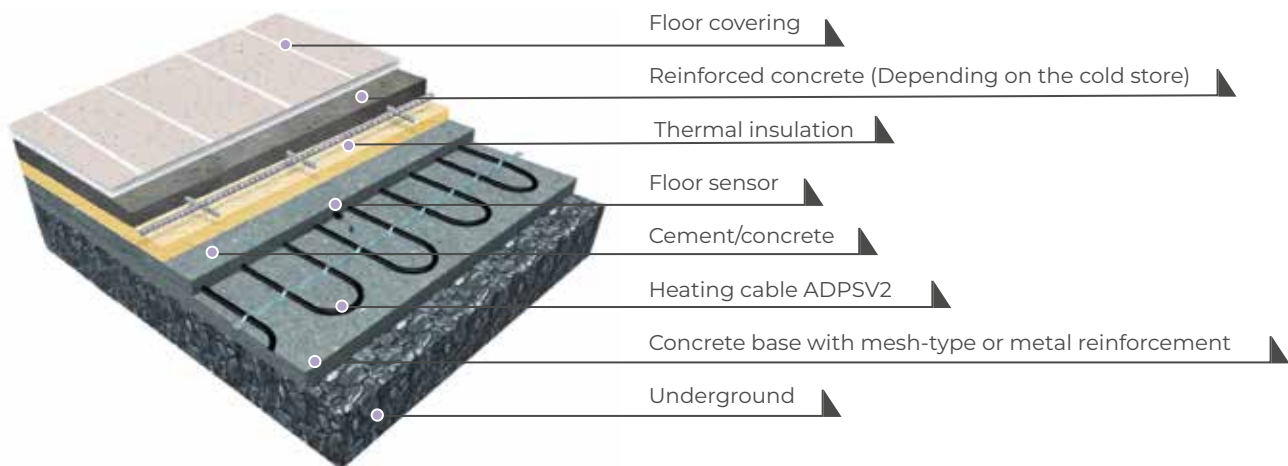
-  **EFFICIENT AND ECONOMICAL**
-  **EASY TO INSTALL**
-  **SAFE**



### INSTALLATION FOR SLAB PROTECTION

The heating cable is installed in the concrete slab of the cold store under the insulation layer. The power required to prevent freezing of the subfloor is between 20 and 40 W/m<sup>2</sup>. Cables with a linear power of 8 W/m are installed and distributed over the surface with a recommended cable spacing of less than 40 cm. Where possible, the cables should be fixed to the metal reinforcement. The concrete should perfectly embed the cable, avoiding air voids.

Due to the difficulty of later access, the installation of heating cables must always be doubled (one service circuit and one reserve circuit). The two circuits are installed together, the main circuit is connected to the control system and the standby circuit is inactive without connection as a backup in the event of a failure in the main circuit.



### INSTALLATION FOR PROTECTION AGAINST GROUND ICING

The heating cable is installed on the defined surface of the chamber entrance (including the door area). The cable is installed just below the floor covering for optimal reactivity. The linear power of the cable is between 17 and 22 W/m, with a surface power of 100 W/m<sup>2</sup> and a laying pitch of less than 25 cm. The installation is similar to the installation of an outdoor de-icing system or an indoor radiant heating system.

## CABLE REFERENCES

Cable ADPSV2 · 8 W/m · 230 V

Code	Output 230 V	Cable length (m)
58 930 17	102 W	13
58 930 21	128 W	15,9
58 930 25	174 W	21,7
58 930 29	215 W	27,3
58 930 33	285 W	35,7
58 930 37	345 W	42,6
58 930 41	405 W	50,2
58 930 45	460 W	57,5
58 930 49	485 W	60,6
58 930 53	550 W	68,7
58 930 57	620 W	77,6
58 930 61	685 W	85,8
58 930 69	815 W	101,4
58 930 73	1000 W	126
58 930 77	1170 W	145,9
58 930 81	1450 W	182,4
58 930 85	1760 W	221

Available in 400V.

Cable ADPSV2 · 17 W/m · 230 V

Code	Output 230 V	Cable length (m)
58 607 09	120 W	7,4
58 607 17	150 W	8,8
58 607 21	185 W	11
58 607 25	255 W	14,8
58 607 29	315 W	18,7
58 607 33	415 W	24,5
58 607 37	500 W	29,4
58 607 41	590 W	34,5
58 607 45	670 W	39,5
58 607 49	710 W	41,4
58 607 53	800 W	47,2
58 607 57	900 W	53,4
58 607 61	1000 W	58,8
58 607 69	1190 W	69,5
58 607 73	1460 W	86,3
58 607 77	1700 W	100,4
58 607 81	2100 W	126
58 607 85	2550 W	152,5

Available in 400V.

Cable ADPSV2 · 22 W/m · 230 V

Code	Output 230 V	Cable length (m)
58 610 09	140 W	6,3
58 610 17	170 W	7,8
58 610 21	210 W	9,7
58 610 25	290 W	13
58 610 29	360 W	16,3
58 610 33	475 W	21,4
58 610 37	570 W	25,8
58 610 41	670 W	30,4
58 610 45	760 W	34,8
58 610 49	800 W	36,7
58 610 53	910 W	41,5
58 610 57	1030 W	46,7
58 610 61	1140 W	51,6
58 610 69	1350 W	61,2
58 610 73	1660 W	75,9
58 610 77	1940 W	88
58 610 81	2400 W	110,2
58 610 85	2950 W	131,9

Available in 400V.



Manufacturer since 1975

## ACCESSORIES

Product	Code
Aluminium fixing tape (50 m roll)	09 108 01
Metallic fixing strip (10 m roll)	09 004 01



## REGULATION

The regulation is an essential element for an optimal and efficient operation of the system, with an immediate start-up as soon as the risk of frost appears. For both slab protection and frost protection, the thermostat will be activated when the floor probe detects a temperature lower than 3°C. The floor probe will be placed inside a corrugated tube (to allow the probe replacement if necessary), in the middle of two cable loops. For the protection of the slab, the probe shall be placed in the slab itself under the insulation. To prevent the formation of frost, the probe shall be placed just below the floor covering.

Product	Code
Thermostat EB800 (with floor sensor) 16 A	09 280 01
Additional floor sensor	09 280 02



**CEILHIT SLU**  
[www.ceilhit.es](http://www.ceilhit.es)  
 +34 93 261 11 25  
[comercial@ceilhit.es](mailto:comercial@ceilhit.es)