

BFV-AT HEATING BLANKETS

Heating blankets for the straightening and manipulation of high voltage cables



Catalog

BFV-AT standard heating blanket range



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Heating blankets for HV cables

Introduction

At **ECAS** we have developed along with experts in the field of the cable industry, a range of heating blankets for the management and straightening of high-voltage cables.

These thermal blankets provide constant temperatures and can be adjusted up to 120° C, which improves the handling of high voltage cables, allowing them to straighten, bending and joining easily.



Description

Our heating blankets facilitate the straightening of high-voltage cables before the installation, joining and finishing tasks performed by the cable assemblers.

The heating blanket allows heating the cable (132 kV - 400 kV) before installation.

The temperature of the blankets is controlled through a PTC1000 sensor incorporated in the blanket. The sensor is connected to the **DP16A / 321** digital thermostat through a five-pin connector.

We can manufacture **BFV-AT** heaters for HV cables and **DPA** controllers at 230V and 110V.

Application areas

High voltage electric cables for electricity companies and the high voltage renewable energy sectors (EHV-HV).

This product is perfect for:

- Straightening of cables.
- Straightening of high voltage cables.
- Cable relaxation
- Joining of high voltage cables.
- Post curing of epoxy joints.

Brands

Tyco, ABB Kabeldon, Pfisterer, uniones de cables Prysmian, etc.

High voltage cable heaters

Handling and straightening of high-voltage cables

High voltage (HV) and ultra-high voltage (UHV) cables are very rigid.

The inner wires of the high voltage cables have strong mechanical tensions. It is very difficult to bend this kind of cables.

Most of the time the cable is laid in a straight line underground. But it is sometimes necessary to bend the cable to follow a precise path, to make junctions or terminations.

The solution is to pre-heat the cables prior to bending.

The heat makes the inner wires and the complete cable more flexible. The operators can then bend the cable or start the connection.

Elementos Calefactores AS, with its product range **BFV-AT**, provides flexible heating jackets that meet the requirements of manufacturers and installers of high voltage (HV) cables.

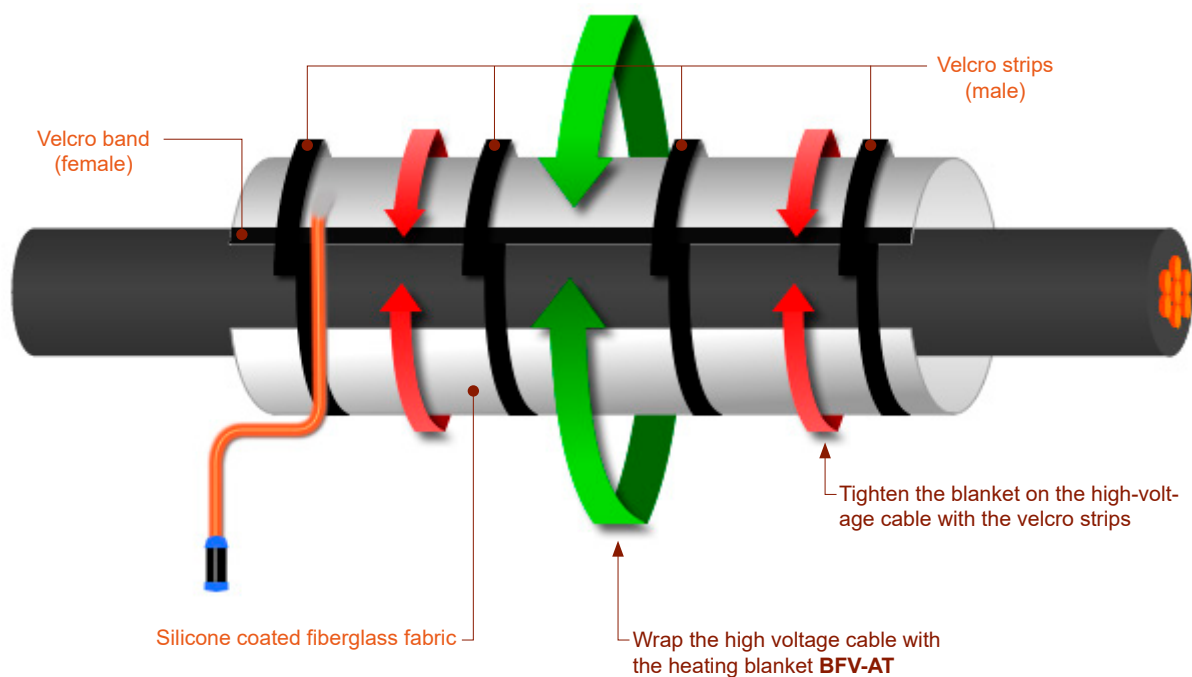
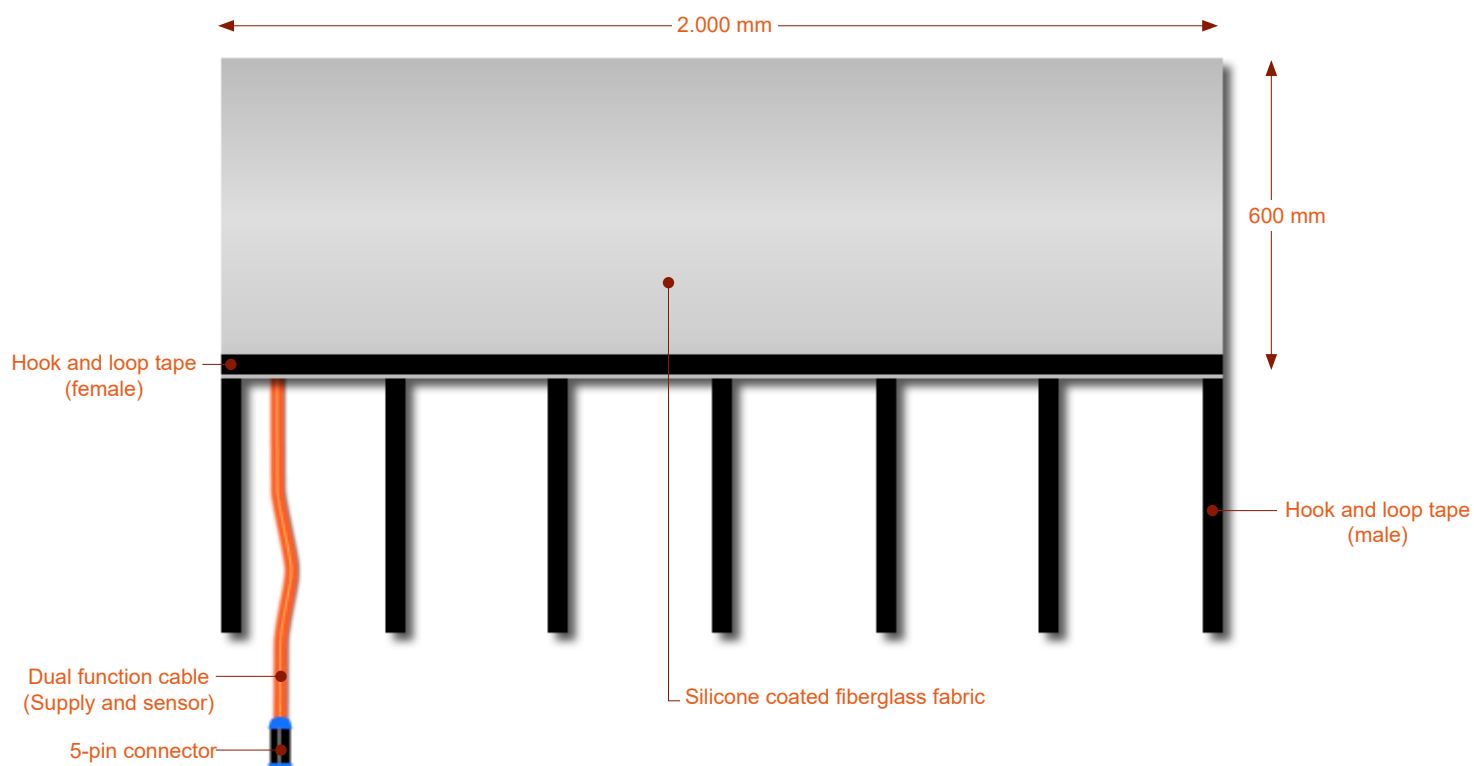


The challenge

The challenge is to provide flexible heating jackets based on heating cable technology with the following performance:

- An efficient safety system to prevent any risk of overheating.
- Durable and easy-to-use fasteners.
- Length of the heating blanket up to 2 meters.
- Positioned sensors to optimize the temperature control of the heating jacket.
- An electronic control system for temperature control.

System elements



Straightening and manipulation of HV-Cables

BFV-AT2000600900: Heating blankets for straightening and manipulation of high voltage cables.

BFV-AT



Model	BFV-AT
Reference	BFV-AT2000600900
Length	2.000 mm
Width	600 mm
Power (W)	900 W
Voltage (V)	230 V - 50 HZ
Temp. range	0 - 120° C
Fastening device	Velcro

Temperature control device

DP16A/321: Programmable digital thermostat to control and regulate the temperature of heating blankets for high voltage cables.

DP16A/321



Model	Description
DP16A/321	- Case Size (L x W x H): 155 x 110 x 74 mm - Box without window IP-40 - Temperature Range: -40 / 140° C - Supply Voltage: 230 V - 50 HZ - Maximum Power: 3.500 Watts - Sensor Input: PTC1000 via 5-pin connector - Output to heater: 5-pin connector - Supply Cable: 2.5 metre - 3 x 1.5mm² H07RNF - Electrical Protection: 16 Amp fuse at 230 V

Technical characteristics

Model:	BFV-AT2000600900
Application areas:	Straightening and manipulation of high voltage cables
Power delivery at 230 V:	900 W
Maximum working temperature:	120° C ± 5° C
Minimum working temperature:	- 40° C ± 5° C
Heating conductor:	Ni/Cr 80/20
Conductor insulation:	Thermal silicone double insulation
Maximum working temp. of the conductor:	- 40 / 180° C
Heating blanket insulation:	Siliconed fiberglass fabric (both sides)
	100% Textured filament fiberglass
	Treatment: One side silicone translucent
	Weft: EC-9-136 Tex * 1
	Warp: EC-9-136 Tex * 1
	Tensile strength
	Weft: 5000N/5 cm
	Warp: 3000N/5 cm
	Total thickness of the heating blanket: 14 mm
	Fabric: Cross Twill
	Fire resistance: IMO Res. MSC.61(67) FTP - Cod
Protection:	IP-40
Approximate dimensions:	2.000 x 600 x 14 mm
Type of fastener device:	Velcro
Dielectric strength:	1.500 V 1 min. ≥ 50GΩ
Power cable:	Conductor 3 x 1 mm ² H07RN-F
Standards:	2014 / 35 / UE
	2014 / 30 / UE
	EN60335-1
	EN ISO 12100-1 & 2
Safety sensor:	Thermal fuse 130° C or micro-thermostat 120° C
Thermostat:	DP16A/321



Straightening and manipulation of HV-Cables

BFV-AT20006001500: Heating blankets for straightening and manipulation of high voltage cables.

BFV-AT



Model	BFV-AT
Reference	BFV-AT20006001500
Length	2.000 mm
Width	600 mm
Power (W)	1.500 W
Voltage (V)	230 V
Temp. range	0 - 120° C
Fastening device	Velcro

Temperature control device

DP16A/321: Programmable digital thermostat to control and regulate the temperature of heating blankets for high voltage cables.

DP16A/321



Model	Description
DP16A/321	- Case Size (L x W x H): 155 x 110 x 74 mm - Box without window IP-40 - Temperature Range: -40 / 140° C - Supply Voltage: 230 Volts AC - Maximum Power: 3.500 Watts - Sensor Input: PTC1000 via 5-pin connector - Output to heater: 5-pin connector - Supply Cable: 2.5 metre - 3 x 1.5mm² H07RNF - Electrical Protection: Fuse 16 A

Technical characteristics

Model:	BFV-AT20006001500
Application areas:	Straightening and manipulation of high voltage cables
Power delivery at 230 V:	1.500 W
Maximum working temperature:	120° C ± 5° C
Minimum working temperature:	- 40° C ± 5° C
Heating conductor:	Ni/Cr 80/20
Conductor insulation:	Thermal silicone double insulation
Maximum working temp. of the conductor:	- 40 / 180° C
Heating blanket insulation:	Siliconed fiberglass fabric (both sides)
	100% Textured filament fiberglass
	Treatment: One side silicone translucent
	Weft: EC-9-136 Tex * 1
	Warp: EC-9-136 Tex * 1
	Tensile strength
	Weft: 5000N/5 cm
	Warp: 3000N/5 cm
	Total thickness of the heating blanket: 14 mm
	Fabric: Cross Twill
	Fire resistance: IMO Res. MSC.61(67) FTP - Cod
Protection:	IP-40
Approximate dimensions:	2.000 x 600 x 14 mm
Type of fastener device:	Velcro
Dielectric strength:	1.500 V 1 min. ≥ 50GΩ
Power cable:	Conductor 3 x 1 mm ² H07RN-F
Standards:	2014 / 35 / UE
	2014 / 30 / UE
	EN60335-1
	EN ISO 12100-1 & 2
Safety sensor:	Thermal fuse 130° C or micro-thermostat 120° C
Thermostat:	DP16A/321



Troubleshooting

Storage

1. The heating blanket and the thermostat will not be inserted inside the storage tube, until the temperature of the heating mantle does not drop until it matches the ambient temperature.
2. Disconnect the heater from the thermostat.
3. Fold the blanket in half, place the thermostat in the middle and wrap the blanket around the thermostat.
4. Do not insert tools or sharp items into the storage tube.

Troubleshooting solutions guide

Please read this guide before contacting **Elementos Calefactores AS**, or your official distributor.

This guide is designed to answer the most frequently asked questions. If you can not identify the problem or need additional assistance, contact **Elementos Calefactores AS**:

Telf. 00 34 93 486 36 82

Fax: 00 34 93 486 38 14

E-mail: as@elementoscalefactores.com

Problem solving

The blanket does not heat:

1. Check that the blanket is connected to the correct supply voltage. You will find the details on the label located on the power cord or on the technical sheet of the heating mantle.
2. Unplug the heating blanket:
 - For blankets with thermostat **AT056**, set it to 0° C, connect it and select the desired working temperature again.
 - For blankets that incorporate a **DP16A** or similar programmable digital thermostat, turn off the digital thermostat, reconnect it and check the **SET-POINT** setpoint temperature.
3. Check that the heating mantle is not connected to a magneto-thermal switch of lower amperage than that required by the heating mantle.
4. Examine the power cord of the heating blanket and check that it is not damaged.

Important

The **BFV-AT** heating blankets for handling and straightening high voltage cables are designed for a specific use. Giving it another use can affect its effectiveness, cause structural damage, and even cause serious accidents to personnel who handle the blankets.

Misuse or tampering with the heating blanket, as well as its components and/or accessories, may invalidate the warranty.



Request for heating blankets on demand

Request form

If you can not find the heating blanket that meets your specifications, we can also manufacture custom models.

Send us your specifications:

- **Email:** as@elementoscalefactores.com
- **Fax:** 00 34 93 486 38 14

Contact data

Name | Last name: Company:
 Telephone: Email:
 Address: PC:
 City: Country:

Project details

Location (city):
 To be used indoors, outdoors, both:

Type of fastener

Velcro:
 Nylon straps with plastic buckles:
 Springs:
 Other (specify):

Temperature and controll device

AT056: Analog thermostat -10/90° C
DP16A: Digital programmable thermostat -20 a +140° C
 Other: Specify:

ELEMENTOS CALEFACTORES AS, S.L

C/ Zamora, 99 - 101, 5º planta 1ª

08018 Barcelona

Tel. 00 34 93 486 36 82 - Fax 00 34 93 486 38 14

Email: as@elementoscalefactores.com



ECAS GROUP

• Main website •

www.elementoscalefactores.com

• Online store •

www.electricheatingstore.com

