Features

- Steam purging possible
- Self-limiting
- Can be used in explosive atmospheres without temperature limiter
- Can be cut to length at random thanks to its parallel current supply
- Simple installation thanks favourable dimensions
- Corrosion-proof and resistant to chemical attack thanks to its protective outer jacket of fluoropolymer

Self-limiting parallel heating tape HSB

1. Conductors:
stranded copper wire, 1.2 mm², nickel-plated

2. Self-limiting, irradiated polymer heating element

3. Fluoropolymer electrical insulation jacket

4. Nickel-plated copper braiding

5. Fluoropolymer protective jacket

Description

A temperature-dependant resistive element between two parallel copper conductors regulates and limits the power output of the heating tape. This output regulation is carried out automatically along the entire length of the heating tape according to the prevailing ambient temperature. If the ambient temperature rises, the power output of the tape is reduced. This self-limiting property prevents overheating even when the tapes are crossed.

Thanks to the parallel design the heating tape can be cut to any required length. This feature considerably simplifies project planning and installation. The heating tape is cut and terminated directly on the construction site according to the circumstances.

The heating system must be designed to ensure that the maximum operating temperature of +120 °C will not be exceeded when it is energized.

When switched off, the heating tape can be exposed to a temperature of 200 °C for a short time, not more than 1,000 hours cumulated.

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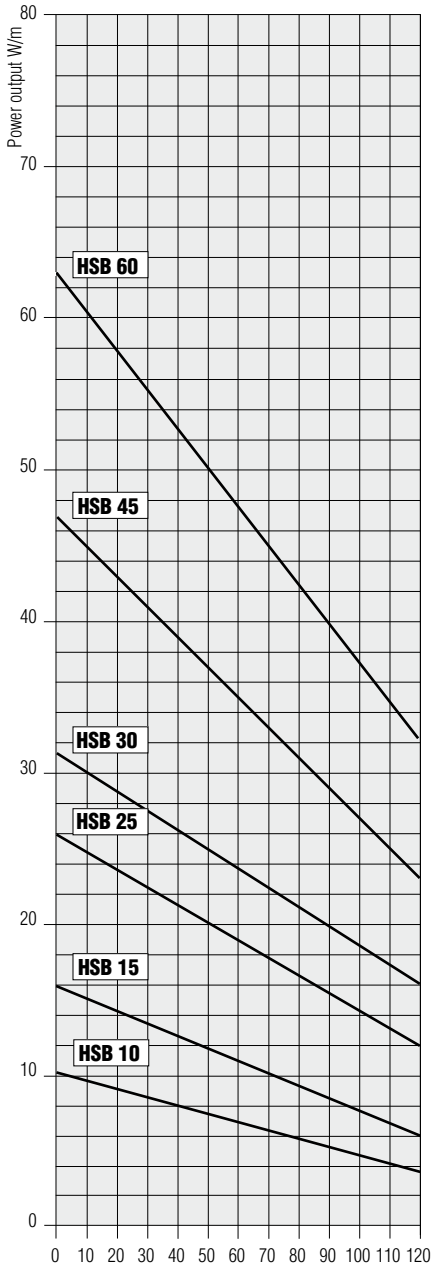
HSB characteristics



Power output on insulated steel pipes at **230 V** under nominal conditions.

Areas of application

The HSB heating tape is suitable for frost protecting in industrial areas. The level of its maximum possible heating output allows the heating tape to be used for maintaining high process temperatures.

For questions regarding the chemical resistance please contact your BARTEC sales representative.

Explosion protection

Ex protection type

Ⓔx II 2G Ex e IIC 200 °C (T2), T3, T4 Gb
Ⓔx II 2D Ex tb IIIC T200 °C, T195 °C, T130 °C Db

Certification

System

KEMA 08 ATEX 0110 X
IECEx KEM 09.0083X
TC RU C-DE.ГБ06.B.00230
CSA 1862457

Heating tape

KEMA 02 ATEX 2327 U
IECEx KEM 07.0048 U

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Technical data

Nominal voltage AC 208 V to 254 V, AC 110 V to 120 V

Power setting at +10 °C						
Power output	**HSB 10**	**HSB 15**	**HSB 25**	**HSB 30**	**HSB 45**	**HSB 60**
at AC 230 V	10 W/m	15 W/m	25 W/m	30 W/m	45 W/m	60 W/m
at AC 120 V	10.8 W/m	16.1 W/m	26.6 W/m	31.8 W/m	47.1 W/m	62.0 W/m

Max. exposure temperature
switched on +120 °C
switched off +200 °C

Min. installation temperature -60 °C

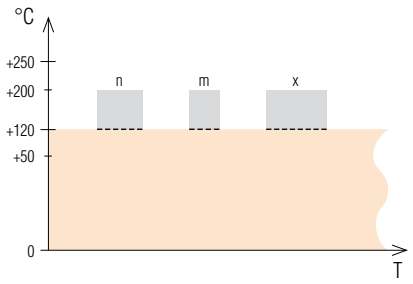
Min. start-up temperature -60 °C

Max. braid resistance < 18.2 Ω/km

Dimensions
with braiding and
Fluoropolymer jacket 10.2 x 4.8 mm

Min. bending radius 25 mm

Maximum exposure temperature



Continuous operation, switched on heating tape
Period of time in switched-off state , n + m + x ... ≤ 1000 h
(n, m, x... ≤ 48 hours, breaks in between at least 4 weeks)

Max. length of heating circuit at 254 V (for automatic circuit-breakers with C characteristic)						
Circuit breaker size	**HSB 10**	**HSB 15**	**HSB 25**	**HSB 30**	**HSB 45**	**HSB 60**
16 A, start-up temperature +10 °C	200 m	165 m	120 m	85 m	70 m	50 m
16 A, start-up temperature -25 °C	175 m	117 m	88 m	69 m	49 m	38 m
16 A, start-up temperature -60 °C	165 m	110 m	80 m	65 m	45 m	35 m
20 A, start-up temperature +10 °C	235 m	189 m	140 m	114 m	82 m	64 m
20 A, start-up temperature -25 °C	235 m	152 m	120 m	92 m	66 m	52 m
20 A, start-up temperature -60 °C	225 m	144 m	114 m	86 m	62 m	48 m
25 A, start-up temperature +10 °C	235 m	189 m	140 m	114 m	82 m	64 m
25 A, start-up temperature -25 °C	235 m	170 m	130 m	100 m	75 m	58 m
25 A, start-up temperature -60 °C	230 m	160 m	120 m	92 m	70 m	52 m
32 A, start-up temperature +10 °C	235 m	189 m	140 m	114 m	82 m	64 m
32 A, start-up temperature -25 °C	235 m	189 m	140 m	114 m	82 m	64 m
32 A, start-up temperature -60 °C	235 m	189 m	136 m	110 m	78 m	60 m

Max. length of heating circuit at 120 V (for automatic circuit-breakers with C characteristic)						
Circuit breaker size	**HSB 10**	**HSB 15**	**HSB 25**	**HSB 30**	**HSB 45**	**HSB 60**
16 A, start-up temperature +10 °C	100 m	80 m	60 m	44 m	35 m	25 m
16 A, start-up temperature -25 °C	89 m	56 m	44 m	35 m	24 m	20 m
16 A, start-up temperature -60 °C	82 m	52 m	40 m	32 m	22 m	17 m
20 A, start-up temperature +10 °C	120 m	95 m	69 m	58 m	41 m	32 m
20 A, start-up temperature -25 °C	120 m	75 m	59 m	45 m	33 m	25 m
20 A, start-up temperature -60 °C	120 m	75 m	55 m	41 m	26 m	21 m
25 A, start-up temperature +10 °C	120 m	95 m	69 m	58 m	41 m	32 m
25 A, start-up temperature -25 °C	120 m	80 m	64 m	50 m	35 m	28 m
25 A, start-up temperature -60 °C	120 m	80 m	60 m	45 m	32 m	26 m
32 A, start-up temperature +10 °C	120 m	95 m	69 m	58 m	41 m	32 m
32 A, start-up temperature -25 °C	120 m	95 m	69 m	58 m	41 m	32 m
32 A, start-up temperature -60 °C	120 m	95 m	69 m	58 m	41 m	32 m

Selection chart HSB

Description	Type	Heating output	Order no.
HSB parallel heating tape AC 254 V - self-limiting - steam purging possible - Ex explosion protected - Ⓜ media protected	HSB 10	10 W	**07-5803-210A**
	HSB 15	15 W	**07-5803-215A**
	HSB 25	25 W	**07-5803-225A**
	HSB 30	30 W	**07-5803-230A**
	HSB 45	45 W	**07-5803-245A**
	HSB 60	60 W	**07-5803-260A**
HSB parallel heating tape AC 120 V - self-limiting - steam purging possible - Ex explosion protected - Ⓜ media protected	HSB 10	10 W	**07-5803-110A**
	HSB 15	15 W	**07-5803-115A**
	HSB 25	25 W	**07-5803-125A**
	HSB 30	30 W	**07-5803-130A**
	HSB 45	45 W	**07-5803-145A**
	HSB 60	60 W	**07-5803-160A**

Technical data subject to change without notice.

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