

# TRANBERG® ENCLOSURE HEATERS

TEF 9207 Ex eb, T3 240 VAC, with Junction Box

Zone 1, Zone 2 & Safe Area



An enclosure heater is protecting mechanical, electrical and electronic equipment from freezing, condensation and corrosion. R. Stahl Tranberg offers globally approved Ex eb, self regulating enclosure heater

with rugged AISI 316L, acid resistant steel housing and low maintenance requirements. This model is supplied with a junction box and with power output from 100W up to 500W at 0°C.

It has a low profile and is easy to fit inside cabinets. The self regulating heating element prevents overheating.

## Application

- For use inside equipment enclosures and cabinets to prevent condensation and provide climatic control.
- Frost protection.

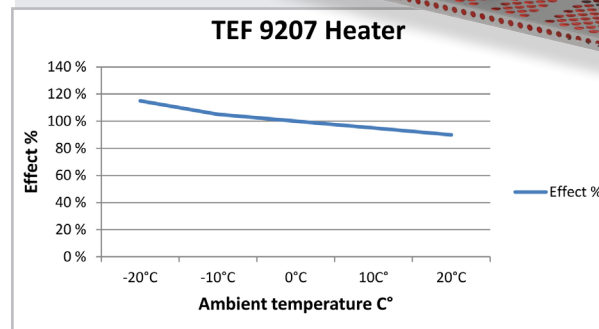
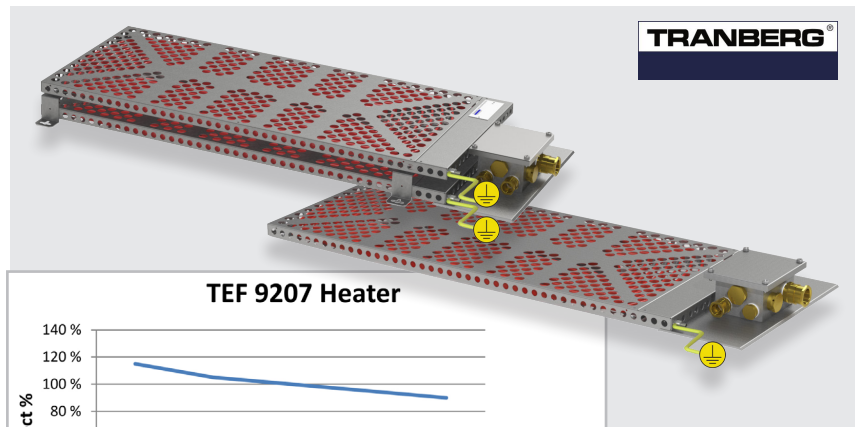
## Features and benefits

- Low profile, easy to fit inside cabinets.
- Self regulating heating element. Prevents overheating.
- Rugged AISI 316L, acid steel construction.
- Low maintenance.

## Approvals and certificates

Presafe 18ATEX12634X

IECEX PRE 18.0037X



**Estimated power output of heater in respect to ambient temperature.**

## Technical Data

Ex protection:	Ex II 2G Ex eb IIC T3 Gb
Operational ambient temp.:	-50°C ... +50°C
Max. withstand ambient temp.:	+50°C (Heater is energized) / +80°C (Heater is de-energized)
Nominal voltage:	230V 50/60 Hz
Material:	AISI 316L / EN 1.4404
Electrical connection:	The supply circuit shall include an electrical protection device according to IEC/EN 60079-30-1 CL 4.3. The unterminated flying lead 2.5mm <sup>2</sup> cable need an appropriate protection of the free end of the cable (for example terminated in an Ex e junction box). For heaters with a thermostat, max 16A circuit breaker with a breaking capacity of min. 1500A.
Ingress Protection (IP):	For use in enclosures with min. IP54 or higher.
Mounting:	Mounted with 4 pcs M6 screws.
Terminals in junction box:	6mm <sup>2</sup> : 2+2 pcs, 2.5mm <sup>2</sup> : 2 pcs, 10mm <sup>2</sup> PE terminals: 3 pcs.
Cable Glands:	1 pc TEF E204/622 M25/D2/9mm (Ø11,0-15,0mm), 1 pc TEF 7302 M25 drain plug, TEF 650 M20/M25 Stopping plugs.
Output Accuracy:	Approx. ±10%

**TRANBERG STAHL**

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## R. STAHL TRANBERG AS

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Description	EL No.	Part No.
Enclosure heater, 100W @ 0°C	5420934	92071001
Enclosure heater, 200W @ 0°C	5420935	92071002
Enclosure heater, 300W @ 0°C	5420936	92071003
Enclosure heater, 400W @ 0°C (Sandwich)	5420946	92073004
Enclosure heater, 500W @ 0°C	5420937	92071005
Enclosure heater, 600W @ 0°C (Sandwich)	5420947	92073006
Enclosure heater, 1000W @ 0°C (Sandwich)	5420948	92073010

Dimensions							
* Nominal output	Overall dimensions				Mounting dimensions		Weight
	A	B	C	D	E	F	
100W	200	430	30	80	190	160	2,9 kg.
200W	240	684	30	80	440	200	4,7 kg.
300W	280	834	30	80	590	240	6,7 kg.
400W	303	684	30	80	440	276	6,4 kg.
500W	360	1004	30	80	730	320	9,3 kg.
600W	343	834	80	80	590	316	11,7 kg.
1000W	424	1004	80	80	760	397	18,5 kg.

\* Note: Nominal at still air @ 0°C

## Dimensions / Mounting instructions

4xM6 mounting holes

**Note!**  
Never install the heater with junction box facing upwards.

4xØ6 mounting holes on the backside of the heater.

For the sandwich model, insert the M6 screws and a washer in the mounting brackets as shown. Use a wrench for tightening the screws firmly.

Hold the heater close to the installation surface, and insert the M6 screws in each of the 4 mounting holes.

Use a socket wrench to tighten the screws firmly and securing the heater.

STOPPING PLUG M25

POWER IN M25

DRAIN PLUG M25

STOPPING PLUG M25

\* 2X COLD LEAD ONLY FOR SANDWICH MODEL

\* COLD LEAD

EARTH BOLT M6x10

920A108158



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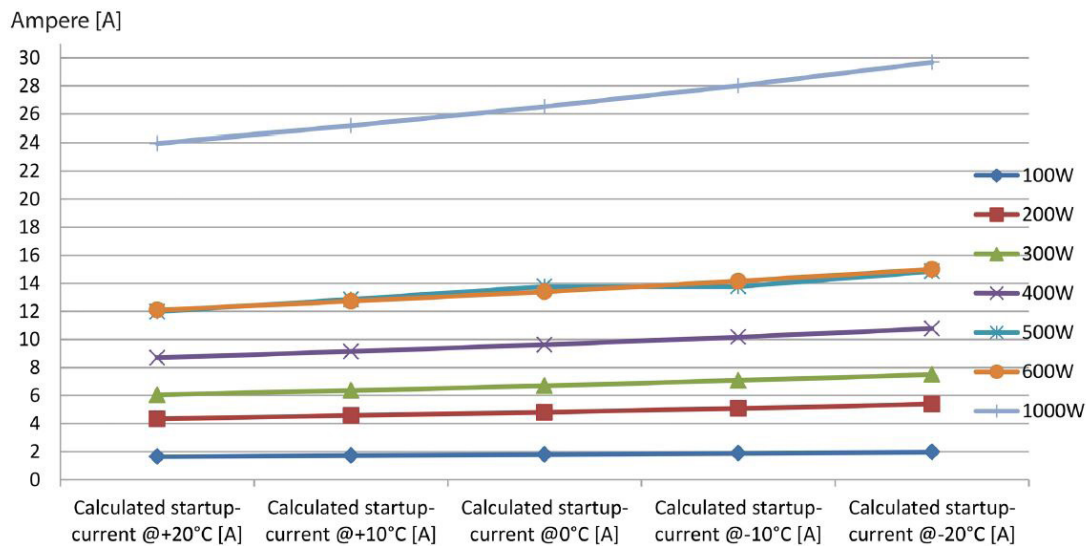
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## STARTUP CURRENT FOR TEF 9207 @ 230VAC \*

Nominal power [W]	Calculated startup-current @+20°C [A]	Calculated startup-current @+10°C [A]	Calculated startup-current @ 0°C [A]	Calculated startup-current @ -10°C [A]	Calculated startup-current @ -20°C [A]	Max no. of heaters on 16A type C MCB @-20°C
100	1.6	1.7	1.8	1.9	2.0	15
200	4.3	4.6	4.8	5.1	5.4	6
300	6.1	6.4	6.7	7.1	7.5	4
400	8.7	9.1	9.6	10.2	10.8	3
500	12.0	12.8	13.8	13.8	14.8	2
600	12.1	12.7	13.4	14.2	15.0	1
1000	24.0	24.0	26.5	28.0	29.7	1



**\* Note:**

The data contained in this document is based on a limited number of tests, and are presented based on our existing knowledge. The real startup-current is affected by a series of parameters including, but not limited to:

- Voltage fluctuations
- Defined HT-cable tolerance (+/- 10%)
- Installed cable cross-section and voltage drop in the circuit

The current is foreseen to drop to half of the calculated startup current after approximately 1 minute (no wind, 0°C).

The values shown are presented as a guide for installation and selection of circuit breakers. The precise startup current for each individual heater can not be guaranteed.