



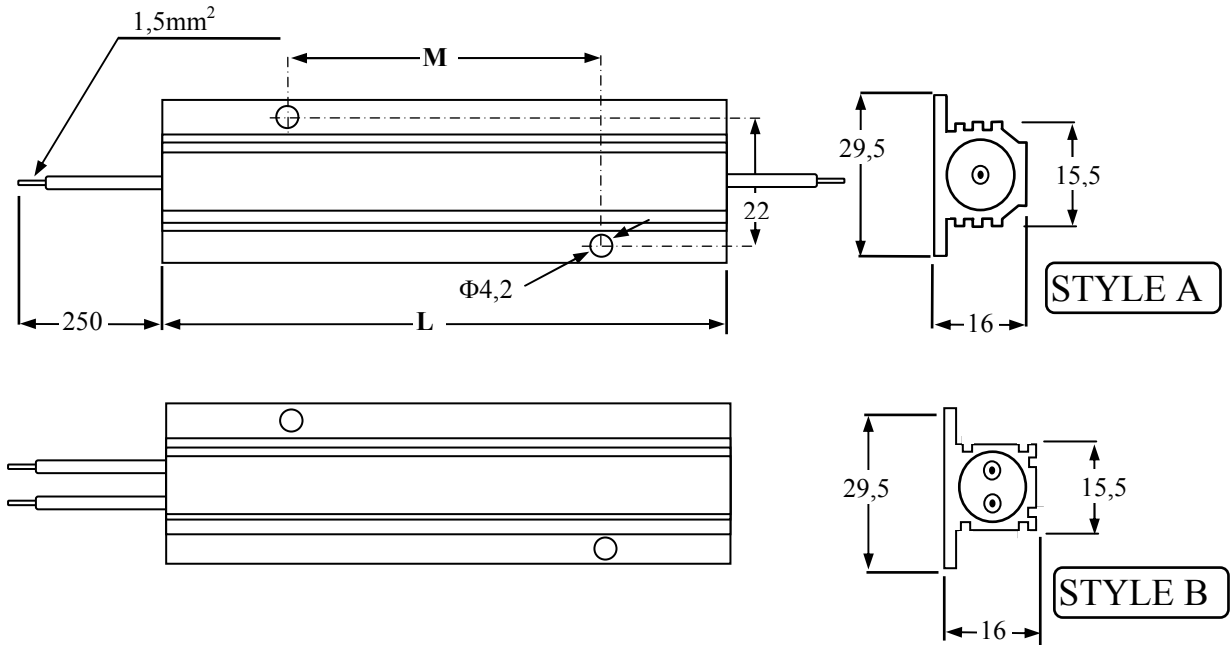
N. 590340

foglio 1 di 2

DATA SHEET

Approval Walter Cerutti
Verified Mauro Pellegatta
Revision 0 12.3.1996
Emission DT 12.3.1996

ALLUMINIUM HOUSED POWER WIREWOUND RESISTORS STYLE SRF 100 & 150



1. FEATURES

The SRF style resistors are a range of good quality products, designed to achieve a high level of protection (IP55) and an elevated dielectric strength.

The special construction technology makes use only of inorganic materials so as to permit confidence of use beyond 400°C. These resistors, in spite of the reduced dimensions, ensure a good endurance to adiabatic impulses added to an excellent possibility of thermal dissipation.

These characteristics and the mounting facility make the SRF style essential where high reliability is required even in heavy duty as:

- brake resistors
- inverter
- snubber
- capacity discharge

Moreover the power rating of the resistors may be increased rather a lot of times using a suitable heat sink.

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N. 590340

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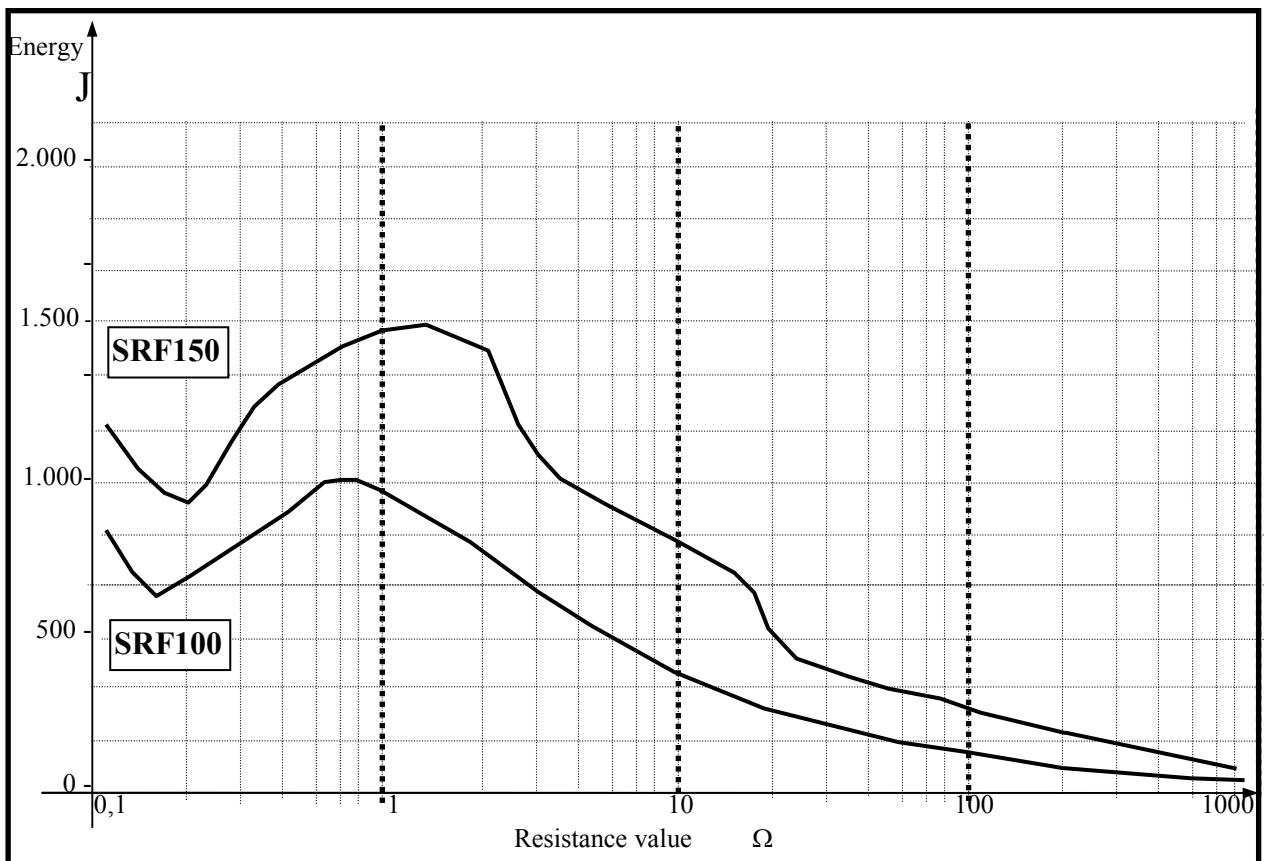
Approval Walter Cerutti
Verified Mauro Pellegatta
Revision 0 12.3.1996

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2. ELECTRICAL SPECIFICATIONS

Characteristics	SRF100	SRF150
Power rating (Pr)	100 W	150 W
Temperature rise @ Pr	370°C	370°C
Max. power on 1°/W heat sink	150 W	200 W
Max. power on water cooled heat sink	200 W	300 W
Absorbed energy @ 250°C ΔT	8.000 J	10.000 J
Absorbed energy in 5'' overload	4.000 J	6.000 J
Resistance range	0,39 ÷ 1.000 Ω	0,47 ÷ 1.500 Ω
Resistance tolerance	±5%	±5%
Parasitic capacity (from 1 to 100 kHz)	100 pF	150 pF
Max. working voltage	1.500 V	2.000 V
Insulation resistance @ 1000 VDC	≥10.000 MΩ	≥10.000 MΩ
Dielectric strength @ 50 Hz for 1'	4.000 Vrms	4.000 Vrms
Thermal time constant	9'	9'

3. Max. adiabatic impulse in relation to the resistance value



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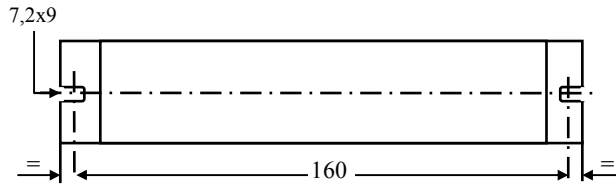
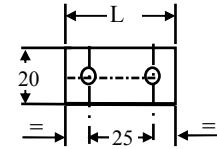
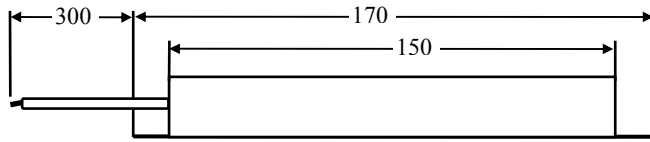
Approval Walter Cerutti
Verified Mauro Pellegatta
Revision 0 18.06.97

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Resistori di frenatura in custodia di alluminio Mod. SRF 120 & SRF 180

Brake resistors Style SRF 120 & SRF 180



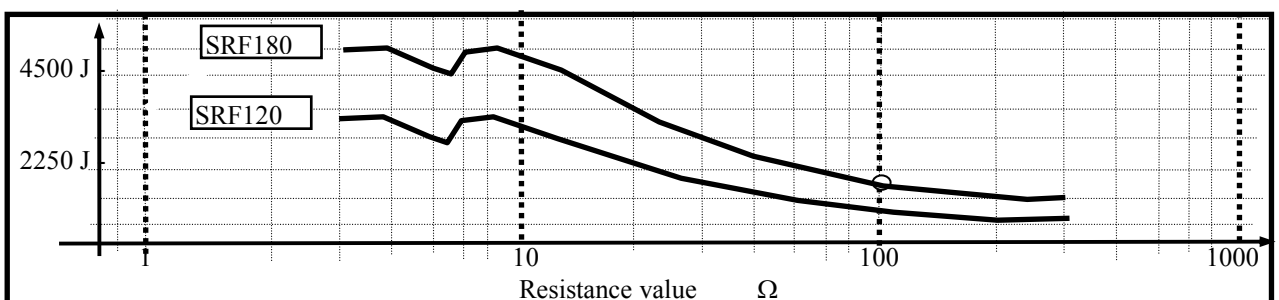
Modello	Style	Dimensions	
		L	peso weight
SRF120		42	350 g
SRF180		65	540 g

2. ELECTRICAL SPECIFICATIONS

Caratteristiche	SRF 120	SRF 180	Characteristics
Potenza nom.con dissipatore (Pr)	200 W	280 W	Power rating with heat sink(Pr)
Aumento di temperatura @ Pr	330°C	330°C	Temperature rise @ Pr
Resistenza termica del dissipatore	≤0,5°/W	≤0,5°/W	Thermal resistance of heat sink
Temperatura del dissipatore	80°C	100°C	Temperature of heat sink
Potenza max.senza dissipatore	120 W	180 W	Max. power without heat sink
Energia assorbita a 250°C ΔT	50.000 J	75.000 J	Absorbed energy @ 250°C ΔT
Energia assorbita in 5"di sovraccarico	6.000 J	9.000 J	Absorbed energy in 5" overload
Gamma valori	2 Ω ÷ 250 Ω	4 Ω ÷ 300 Ω	Resistance range
Tolleranza	±5%	±5%	Resistance tolerance
Capacità parassita	100 pF	140 pF	Parasitic capacity @ 1000 Hz
Massima tensione di impiego	1000 V	1000 V	Max. working voltage
Risistenza di isolamento @ 1000Vcc	≥1000 MΩ		Isolation resistance @ 1000 VDC
Rigidità dielettrica @ 50 Hz per 1'	4.000 V		Dielectric strength @ 50 Hz for 1'

3. Massimo impulso adiabatico in funzione del valore resistivo (t ≤ 0,1 sec)

Max. adiabatic impulse related to resistance value (t ≤ 0,1 sec)

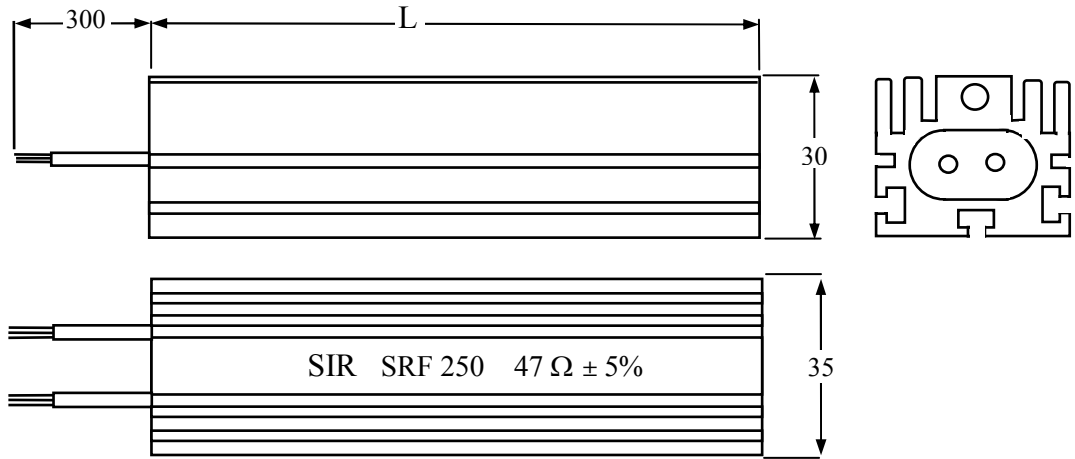


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ALLUMINIUM HOUSED POWER WIREWOUND RESISTORS STYLE SRF 250 & 350



STYLE	L	Power rating W
SRF250	150	250
SRF350	200	350

1. FEATURES

The SRF style resistors are products of good quality designed to achieve a high level of protection (IP55) and an elevated dielectric strength.

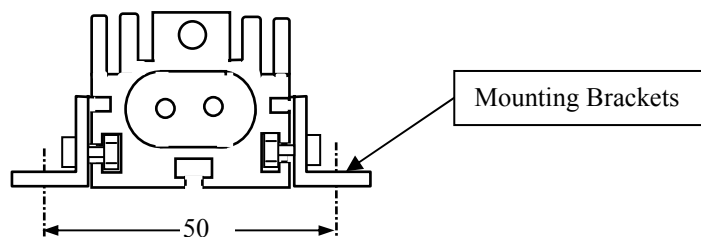
The special construction technology makes use only of inorganic materials so as to permit confidence of use beyond 400°C and to ensure a good endurance to adiabatic impulses. These characteristics and the mounting facility make the SRF style essential where high reliability is required even in heavy duties as:

- **brake resistors**
 - **inverter**
 - **snubber**
- **capacity discharge**

Moreover the power rating of resistors may be increased using a suitable heat sink.

2. MOUNTING SYSTEMS

On the resistor's body (as per drawing) three special grooves are placed to contain, without the possibility to turn, M4 nuts suitable to fasten the resistor in several ways. However the resistor can be supplied with the following brackets





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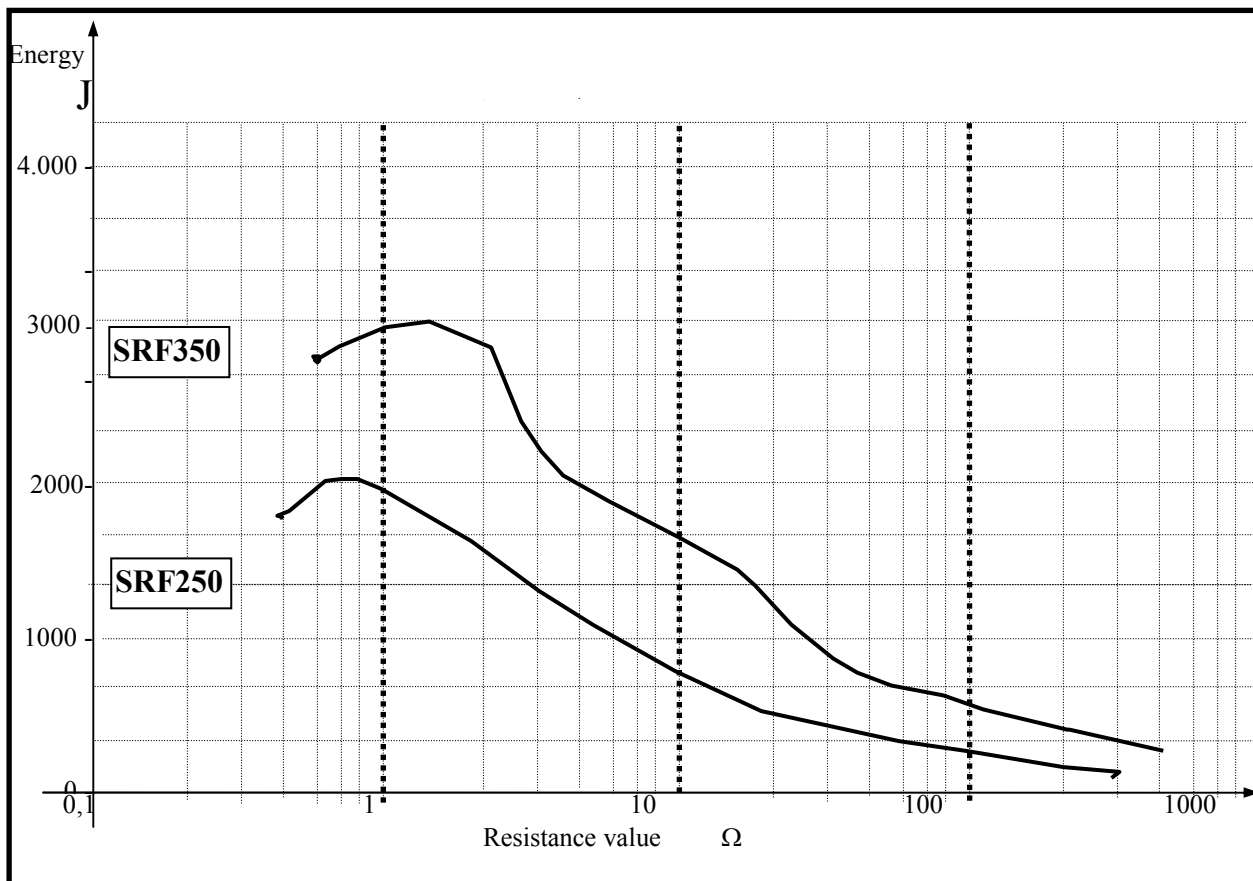
Approval Walter Cerutti
Verified Mauro Pellegatta
Revision 1 15/10/01

Emission DT 16.10.1996

2. ELECTRICAL SPECIFICATIONS

Characteristics	SRF250	SRF350
Power rating (Pr)	250 W	350 W
Temperature rise @ Pr	380°C	380°C
Max. power on 0,7°/W heat sink	300 W	400 W
Max. power on water cooled heat sink	400 W	500 W
Absorbed energy @ 250°C ΔT	18.000 J	24.000 J
Absorbed energy in 5'' overload	6.500 J	9.000 J
Resistance range	0,47 ÷ 300 Ω	0,68 ÷ 400 Ω
Resistance tolerance	±5%	±5%
Parasitic capacity from 1 to 100 kHz)	150	200
Max. working voltage	1.500 V	2.000 V
Insulation resistance @ 1000 VDC	≥1.000 MΩ	≥1.000 MΩ
Dielectric strength @ 50 Hz for 1'	4.000 Vrms	4.000 Vrms
Thermal time constant	14'	14'

3. Max. adiabatic impulse in relation to the resistance value

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N. 590670

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FOGLIO DATI

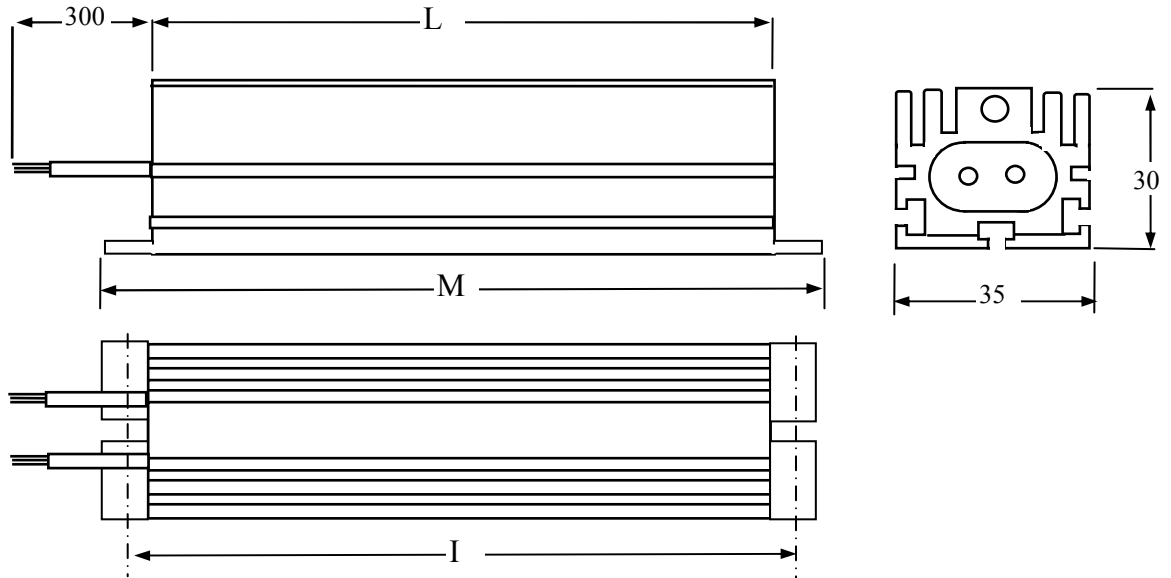
DATA SHEET

Approval Walter Cerutti
 Verified Mauro Pellegatta
 Revision 0 10/05/99

Emission DT 10.05.1999

RESISTORE DI POTENZA IN CUSTODIA DI ALLUMINIO MODELLO SRF 17x

ALLUMINIUM HOUSED POWER WIREWOUND RESISTORS STYLE SRF 17x



Dimension	SRF 170	SRF 171	SRF 172	SRF 173	SRF 174	SRF175
M	90	105	155	200	260	320
L	70	85	135	180	240	300
I	78÷92	92÷96	142÷146	187÷191	247÷251	307÷311
Peso	160 g	190 g	290 g	380 g	500 g	620 g

1. CARATTERISTICHE GENERALI

Il resistore modello SRF 17x è un prodotto di buona qualità studiato per ottenere un buon livello di protezione (IP55) unitamente a una rigidità dielettrica elevata.

La particolare tecnologia di costruzione impiega esclusivamente materiali inorganici, cosa questa che permette l'impiego di questo prodotto sino a 400 °C e nel contempo assicura un buon comportamento agli impulsi adiabatici. Malgrado le dimensioni ridotte la dissipazione termica è eccellente.

Con un dissipatore adatto la potenza dissipabile può essere aumentata notevolmente

1. FEATURES

The SRF 17x style resistors is a good quality product designed to achieve a high level of protection (IP55) and an elevated dielectric strength.

The special construction technology makes use only of inorganic materials so as to permit confidence of use beyond 400°C and to ensure a good endurance to adiabatic impulses added to an excellent capacity of thermal dissipation, in spite of the reduced dimensions of these resistors.

Moreover the power rating of resistors may be increased rather a lot of times using a suitable heat sink.

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FOGLIO DATI

DATA SHEET

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Emission DT 10.05.1999

2. CARATTERISTICHE ELETTRICHE 2. ELECTRICAL SPECIFICATIONS

Characteristics	SRF 170	SRF 171	SRF 172	SRF 173	SRF 174	SRF175
Potenza max su dissipatore da 0,2°/W <i>Max. power on 0,5°/W heat sink</i>	165 W	210 W	305 W	400 W	500 W	600 W
Pot. max su dissipatore raff.ad acqua <i>Max. power on water cooled heat sink</i>	180 W	230 W	340 W	440 W	540 W	650 W
Capacità termica @250°C ΔT <i>Thermal capacity @ 250°C ΔT</i>	115 J/°K	136 J/°K	216 J/°K	295 J/°K	385 J/°K	480 J/°K
Energia assorbibile in 5" di sovraccarico <i>Absorbed energy in 5" overload</i>	7500 J	10000 J	15000 J	20000 J	23000 J	25000 J
Gamma dei valori di resistenza <i>Resistance range</i>	1,8 ÷ 470 Ω	2.0 ÷ 620 Ω	2,7 ÷ 820 Ω	3,3 ÷ 1000 Ω	4,7 ÷ 1300 Ω	5,4 ÷ 1800 Ω
Tolleranza <i>Resistance tolerance</i>	±5%					
Capacità prassita pF <i>Parasitic capacity</i>	60 pF	65 pF	100 pF	140 pF	180 pF	230 pF
Massima tensione di impiego <i>Max. working voltage</i>	1.200 V	1500 V	1800 V	2500 V	2800 V	3000 V
Resistenza di isolamento @ 1000 Vcc <i>Insulation resistance @ 1000 VDC</i>	≥1000 MΩ					
Rigidità dielettrica @ 50 Hz per 1' <i>Dielectric strength @ 50 Hz for 1'Vrms</i>	4.000 Veff					
Costante di tempo termica <i>Thermal time constant</i>	11'	11'	12'	12'	12'	12
Massima temperatura superficiale <i>Max. surface temperature</i>	420°C					

3. ESECUZIONI SPECIALI

Su richiesta sono disponibili le seguenti esecuzioni speciali:

- Esecuzione con termostato (SRF 17x T)
- Esecuzione con cavi di lunghezza differente dallo standar (lunghezza massima m 1)

SPECIAL FEATURES

The following special features are available :

- Resistor with thermostat (Clixon type) with the denomination (SRF 17x T)
- Length of cables different than in the standard model (max. length m 1)

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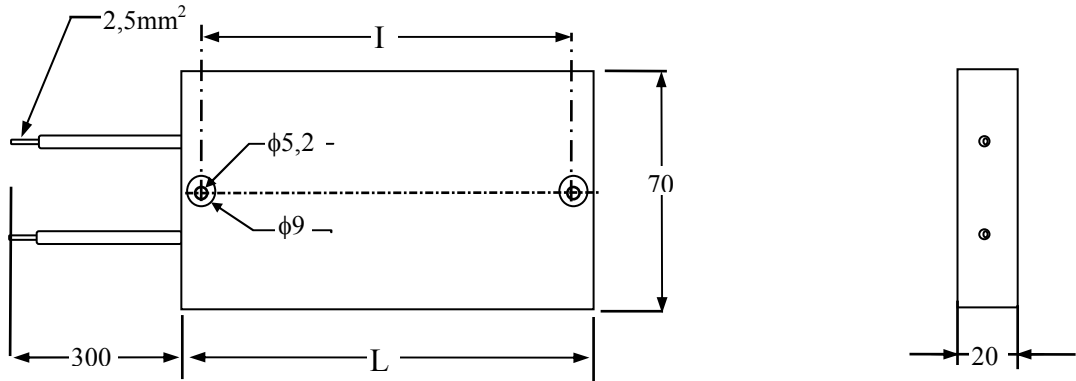
page 1 of 2

DATA SHEET

Approval Walter Cerutti
 Verified Mauro Pellegatta
 Revision 0 14/04/97
 Emission DT 14/04/97

Resistori di frenatura in custodia di alluminio
 Mod. SRF 650, SRF 950 SRF 1350

Brake resistors aluminium housed
 Style SRF 650, SRF 950, SRF 1350

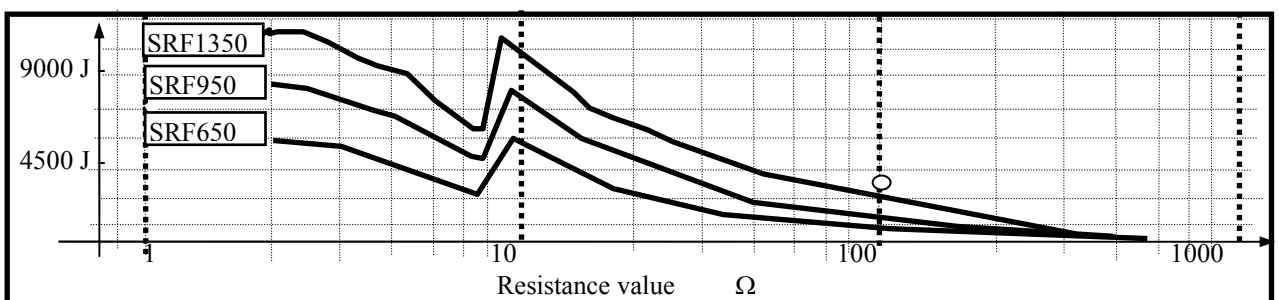


Modello	Style	Dimensioni		Dimensions	
		I	L	peso	weight
SRF 650		140	155	450 g	
SRF 950		190	205	600 g	
SRF 1350		240	255	750 g	

2. ELECTRICAL SPECIFICATIONS

Caratteristiche	SRF 650	SRF 950	SRF 1350	Characteristics
Potenza nom.con dissipatore (Pr)	650 W	950 W	1350 W	Power rating with heat sink(Pr)
Aumento di temperatura @ Pr	390°C	390	390	Temperature rise @ Pr
Resistenza termica del dissipatore	≤ 0,3°/W	≤ 0,2°/W	≤ 0,1°/W	Thermal resistance of heat sink
Potenza max.senza dissipatore	390 W	560 W	800 W	Max. power without heat sink
Energia assorbita a 250°C ΔT	90.000 J	120.000 J	150.000 J	Absorbed energy @ 250°C ΔT
Energia assorbita in 5"di sovraccarico	15.000 J	22.000 J	30.000 J	Absorbed energy in 5" overload
Gamma valori	2 ÷ 150Ω	2 ÷ 200Ω	3 ÷ 250Ω	Resistance range
Tolleranza	±5%	±5%	±5%	Resistance tolerance
Capacità parassita	120 pF	190 pF	250 pF	Parasitic capacity @ 1000 Hz
Induttanza	10÷100 μH	20÷120 μH	30÷150 μH	Inductance
Massima tensione di impiego	1000 V	1000 V	1000 V	Max. working voltage
Risistenza di isolamento @ 1000Vcc	≥1000 MΩ			Isolation resistance @ 1000 VDC
Rigidità dielettrica @ 50 Hz per 1'	3.500 V			Dielectric strength @ 50 Hz for 1'

3. Massimo impulso adiabatico in funzione del valore resistivo (t≤ 0,1 sec)
 Max. adiabatic impulse in relation of resistance value (t≤ 0,1 sec)

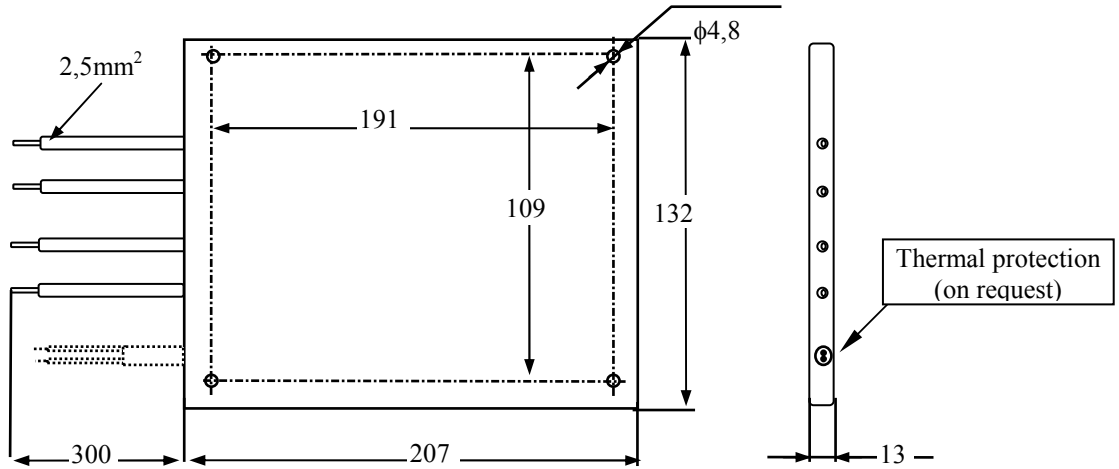


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NICKEL PLATED STEEL HOUSED POWER WIREWOUND RESISTORS STYLE SRF 2600



1. FEATURES

These types of resistors are made with two resistance element of the model SRF 1300 and are an implementation of the series SRF 601÷1301. They are a range of good quality products with a case in nickel plated steel, designed to achieve a good level of protection (IP33) and a good dielectric strength.

2. ELECTRICAL SPECIFICATIONS

Characteristics		Characteristics	
Power rating (Pr) (with 0,5°C/W heat sink)	2000 W	Temperature rise @ Pr	450°C
Max. power without heat sink	800 W	Absorbed energy in 5" overload	40.000 J
Resistance tolerance	±5%	Max. working voltage	1200 V
Isolation resistance @ 1000 VDC	≥500 MΩ	Dielectric strength for 1 min.	3.000 Vrms

3. Max. adiabatic impulse related to the resistance value (Time < 0,1 sec.) (for each resistance element)

