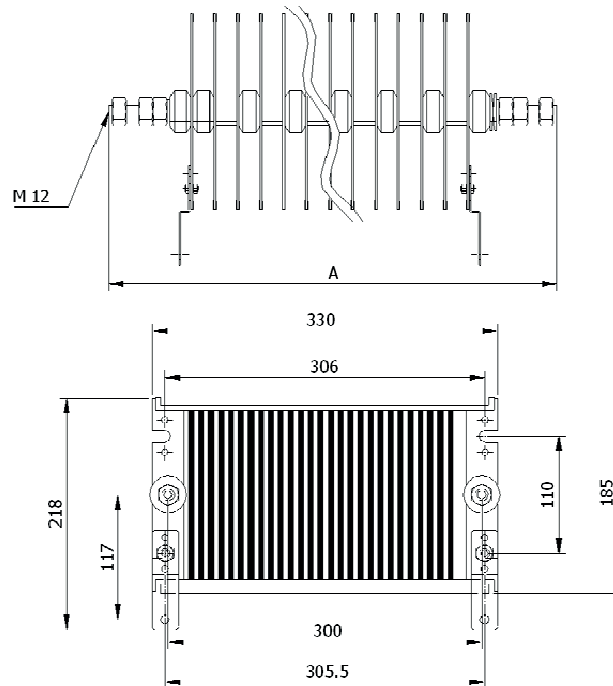




GROUNDING GRID RESISTORS MODEL GRF

TECHNICAL DESIGN



GRIDS NUMBERS	
	1+3 4 5 6 7 8 9 10
A	180 200 220 240 260 280 300 320

GRIDS NUMBERS	
	11 12 13 14 15 16 17 18
A	340 360 380 400 420 440 460 480

GRIDS NUMBERS	
	19 20 21 22 23 24 25 26
A	500 520 540 560 580 600 620 640

GRIDS NUMBERS	
	27 28 29 30 31 32 33 34
A	660 680 700 720 740 760 780 800

GRIDS NUMBERS	
	35 36 37 38 39 40 41 42
A	820 840 860 880 900 920 940 960

GENERAL FEATURES

OFEL RMT GRF resistors are robustly built earth connection resistors produced with materials that guarantee high dependability; the stainless steel protective casing, the stainless steel grid, the insulators in steatite and the insulating materials used confer robustness and a high degree of insulation to the RMT GRF product, also making it non-inflammable.

The RMT GRF resistors are used in all cases where there are high breakdown voltages and low electrical resistance values are required.

The groups are mounted on modular grid elements on two M12 braces and realise connections through reinforced stainless steel bridges with copper bars in the event of strong voltages.

USE

The purpose of an grounding resistor of the star centre is to protect transformers and generators from short circuits between phases and between phases and the earth connection. In fact, when a resistor is inserted between the star and the earth connection the short circuit current is limited to a pre-set value that does not damage the equipment connected. Additionally, the use of the resistor has the following advantages over other systems:

- It minimizes damage caused by mono phase failures at the earth connection
- It prevents the formation of temporary overloads;
- It limits the electro dynamic strain deriving from external breakdowns (in the network and down line);
- It decreases needless interruptions by protective devices.

ELECTRICAL CHARACTERISTICS

- Tolerance on resistance value $\pm 10\%$ Standard
- Temperature coefficient 570 ppm
- Maximum utilisation temperature 55+450 [°C]
- Insulation current depends on requirements
- Minimum resistance value depends on the number of elements
- Maximum resistance value depends on the number of elements
- Level of protection (IEC 529) IP 00 standard Maximum temperature reached on elements at the end of transit 450 [°K] (unless requested otherwise)

MATERIALS USED

- Active material: X10CrAl13
- Support Braces AISI 304
- Insulators steatite C221
- Screws Inox A2

APPLICABLE STANDARD

- IEC 529
- IEEE 32
- CEI EN 60694

DATA NECESSARY TO REQUEST AN OFFER

The RMT GRF resistor has dimensions established by our technical office, taking into consideration:

- Ohm value $R[\text{Ohm}]$
- The maximum breakdown current $I_g [\text{A}]$
- The maximum duration of breakdown current $t [\text{Sec}]$
- Level of potential respect for earth connection $E [\text{kV}]$

OPTIONAL

- Ohm values off standard compatibly with production
- Off standard tolerances
- Special production with increased protection level up to IP IP54.
- Epoxy powder paint in RAL colours on request