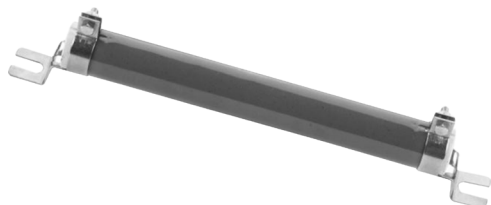


# High Power Vitreous Resistor

**RoHS  
Compliant**



## Features

- 95W to 800W at 25°C
- NF C 93-214
- RB 25 × 168, RB 30 × 250
- Rugged construction for use in severe environmental conditions

## Mechanical Specifications:

Mechanical Protection	: Vitreous enamel
Resistive Element	: Ni-Cr wire
Connections	: CS supporting collars
AN Collar or B	: On Request
Average Unit Weight	: 225g to 2,200g

## Environmental Specifications:

Temperature Limits	: - 55°C + 450°C
Climatic Category	: - 55°C/+ 200°C/56 days

## Electrical Specifications:

Resistance Range	: 2.7Ω to 430kΩ E12-E24 preferred series values
Resistance Tolerance Standard	: ± 5%
Power Rating	: 95W to 800W at 25°C
Temperature Coefficient	: 75ppm/°C (typical)
Shelf Life	: 0.1% year (typical)

RWST Style	25 × 138	25 × 168	30 × 250	40 × 370	50 × 373
Connections	AN-B CS type 1	AN-B CS type 1	AN-B CS type 1	AN CS type 2	AN CS type 2
A ± 2	138	168	250	370	373
Ø B max.	28	28	33	45	53
Ø C min.	12	12	17	22	27.1
D	50 ± 1.5	50 ± 1.5	60 ± 1.5	69 max.	80 max.
E	27 ± 1	27 ± 1	30 ± 1	45 ± 1.5	51 ± 1.5
F ± 0.5	24	24	25	30	30
G - 4/+ 0	199	229	317	432	432
H - 4/+ 0	169	199	287	405	405
J ± 0.5	6.5	6.5	9	9	9
K	28.5 ± 1	28.5 ± 1	31 ± 1	45 ± 1.5	51 ± 1.5
L - 0/+ 0.5	9	9	13	18	18

Dimensions: Millimetres

# High Power Vitreous Resistor

RWST Style	25 × 138	25 × 168	30 × 250	40 × 370	50 × 373
N	117 ± 2	147 ± 2	227 ± 2	332 ± 3	332 ± 3
P	51 ± 1.5	51 ± 1.5	55 ± 1.5	81.5 max.	92.5 max.
Q - 0/+ 0.5	15	15	18	-	-
R - 0.3/+ 0.9	26	26	31	-	-
S max.	38.5	38.5	43.5	-	-
T ± 1	23.5	23.5	26	-	-
Ø U	5.7	5.7	5.7	9.2	9.2
V	33.5 ± 1	33.5 ± 1	36 ± 1	57 ± 1.5	63 ± 1.5
Z	6	6	5	10	11.5
Average unit weight in g (CS collars)	225	250	445	1,400	2,200

Dimensions: Millimetres

## Performance

Tests	Conditions	Requirements	Typical Values And Drifts
Short Time Overload	10 Pr during 5s Voltage limited at < 5,000V	2% or 0.05Ω	0.5%
Climatic Sequence	- 55°C + 200°C	2% or 0.05Ω Insulation resistance 100 MΩ	0.5%
Humidity (Steady State)	56 days 95% relative humidity	3% or 0.05Ω Insulation resistance 100 MΩ	0.5%
Thermal Shock	Load at 100% Pr followed by cold temperature exposure at - 55°C/15'	2% or 0.05Ω	0.5%
Shock	Severity 50A 9 shocks/each side	1% or 0.05Ω	0.25%
Vibration	Severity 55B	1% or 0.05Ω	0.25%
Terminal Strength AN B	Traction 40Ncm Torque 60Ncm	1% or 0.05Ω	0.5%
Load Life	90'/30' cycle 1,000h at Pr 25°C	5%	1,000h 1%
			5,000h 2%

# High Power Vitreous Resistor

## Special Features

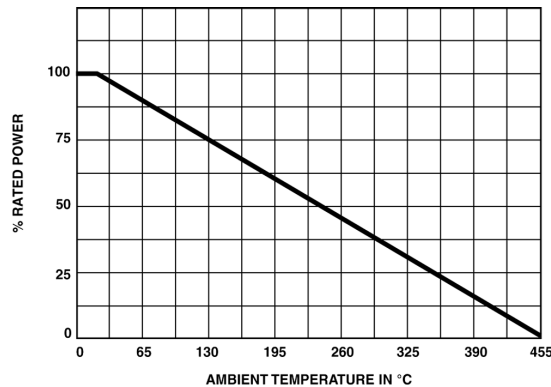
RWST STYLE	25 × 138	25 × 168	30 × 250	40 × 370	50 × 373
Designation NF C 93-214	-	RB 25 × 168	RB 30 × 250	-	-
Power Rating at 25 °C	95W	160W	280W	500W	700W
Maximum Power Rating at 25 °C P max.	110W	180W	320W	600W	800W
Ohmic Range (E12, E24 series)	2.7Ω 82kΩ	2.7Ω 100kΩ	4.7Ω 220kΩ	8.2Ω 360kΩ	12Ω 430kΩ
Limiting Element Voltage	1,400V	1,900V	3,000V	4,500V	5,000V
Critical Resistance	18kΩ	20kΩ	30kΩ	36kΩ	30kΩ

## Non Inductive Winding

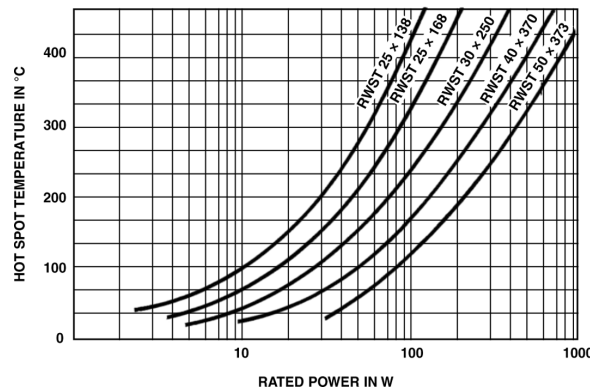
For high frequencies, low self induction resistors are available with special windings. RWSTNI designation.

Model And Style	RWSTNI 25 × 138	RWSTNI 25 × 168	RWSTNI 30 × 250	RWSTNI 40 × 370	RWSTNI 50 × 373
OHMIC RANGE (E12 SERIES)	22Ω 2.5kΩ	22Ω 4kΩ	120Ω 6.8kΩ	120Ω 8.2kΩ	150Ω 8.2kΩ

## Power Rating Chart

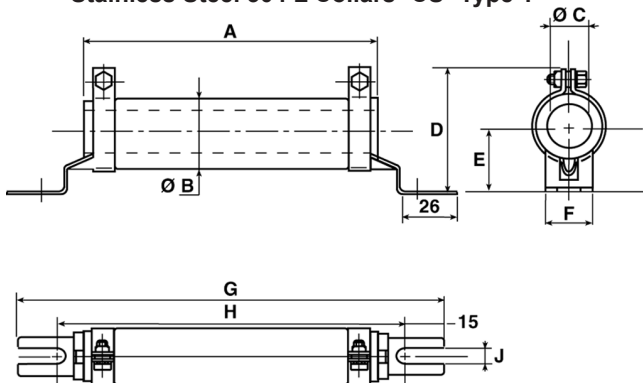


## Temperature Rise

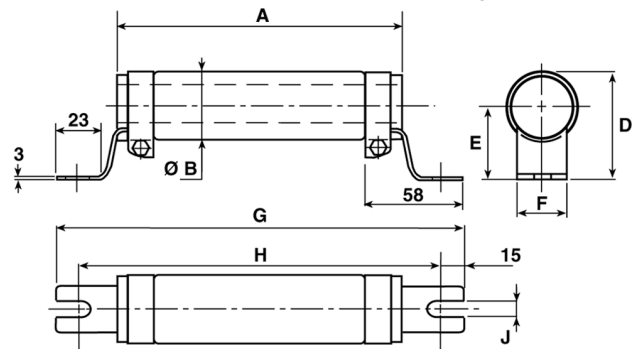


# High Power Vitreous Resistor

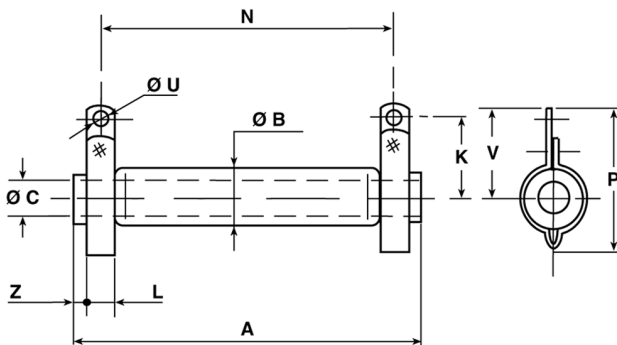
**Stainless Steel 304 L Collars "CS" Type 1**



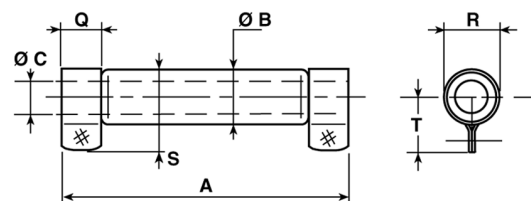
**Stainless Steel 304 L Collars "CS" Type 2**



**Welded Stainless Steel 304 L Collars "An"**



**Welded Stainless Steel 304 L Band "B"**



Dimensions: Millimetres

**Part Number Table**

Description	Part number
Resistor, 50Ω 25W	MC14657
Resistor, 5Ω 25W	MC14658
Resistor, 100Ω 25W	MC14659
Resistor, 1kΩ 25W	MC14660
Resistor, 1Ω 50W	MC14661
Resistor, 5Ω 50W	MC14662
Resistor, 10Ω 50W	MC14663
Resistor, 50Ω 50W	MC14665
Resistor, 100Ω 50W	MC14666
Resistor, 1kΩ 50W	MC14667

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