Fixed Wirewound High Power Vitreous Resistors
Electrical Traction Model

"CS" Type 1 Collars

FEATURES

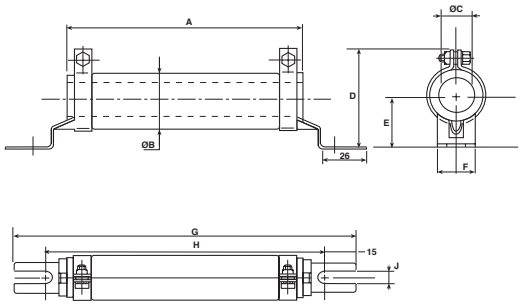
- 95 Watt to 800 Watt at 25°C
- NF C 93-214
- RB 25 x 168, RB 30 x 250
- Rugged construction for use in severe environmental conditions

The RWST vitreous wirewound high power resistors are known for their excellent reliability which has developed out of the VISHAY SFERNICE experience over several decades in the field of high current applications.

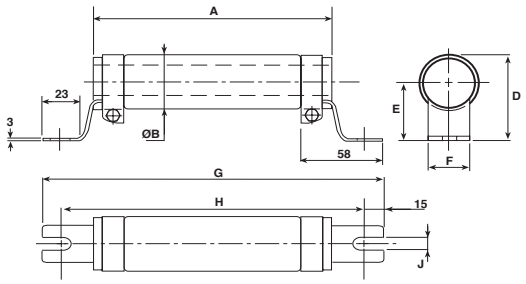
Extremely severe conditions of use are encountered in electrical traction including repeated overloads. To withstand such conditions the new RWST model is extremely rugged and is manufactured to a very carefully monitored process using the best materials

DIMENSIONS in millimeters

STAINLESS STEEL 304 L COLLARS "CS" type



STAINLESS STEEL 304 L COLLARS "CS" type



DIMENSIONS in millimeters					
RWST STYLE	**25 x 138**	**25 x 168**	**30 x 250**	**40 x 370**	**50 x 373**
Connections	CS Type 1/B/AN	CS Type 1/B/AN	CS Type 1/B/AN	CS Type 2/B/AN	CS Type 2/B/AN
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	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
Average unit weight in g (CS collars)	225	250	445	1400	2200

RWST

Vishay Sfernice

Fixed Wirewound High Power Vitreous Resistors
Electrical Traction Model

MECHANICAL SPECIFICATIONS

Mechanical Protection	Vitreous enamel
Resistive Element	Ni-Cr wire
Connections	CS supporting collars
AN Collar or B	on Request
Average Unit Weight	225 to 2200g

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)

PERFORMANCE

TESTS		CONDITIONS	REQUIREMENTS	TYPICAL VALUES AND DRIFTS
Short Time Overload		10Pr during 5s Voltage limited at < 5000V	2% or 0.05Ω	0.5%
Climatic Sequence		– 55°C + 200°C	2% or 0.05Ω Insulation resistance 100MΩ	0.5%
Humidity (Steady State)		56 days 95% relative humidity	3% or 0.05Ω Insulation resistance 100MΩ	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 1000h at Pr 25°C	5%	1000h 1% 5000h 2%

SPECIAL FEATURES

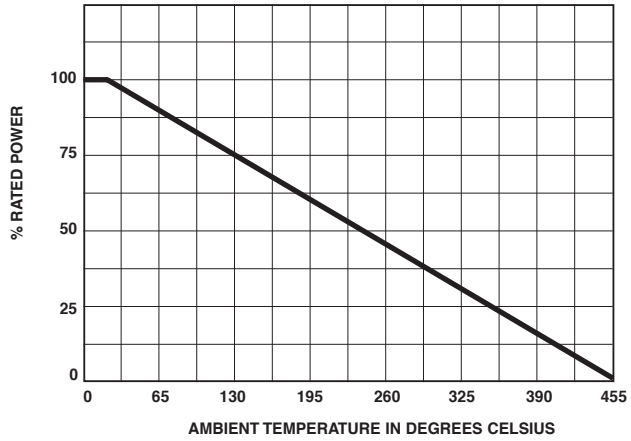
RWST STYLE		25 x 138	25 x 168	30 x 250	40 x 370	50 x 373
Designation NF C 93-214		–	RB 25 x 168	RB 30 x 250	–	–
Power Rating at 25°C		95W	160W	280W	500W	700W
Maximum Power Rating at 25°C	**P max.**	110W	180W	320W	600W	800W
Ohmic Range (E12, E24 series)		2.7Ω 82kΩ	2.7Ω 100kΩ	4.7Ω 220kΩ	8.2Ω 360kΩ	12Ω 430kΩ
Limiting Element Voltage		1400V	1900V	3000V	4500V	5000V
Critical Resistance		18kΩ	20kΩ	30kΩ	36kΩ	30kΩ

NON INDUCTIVE WINDING

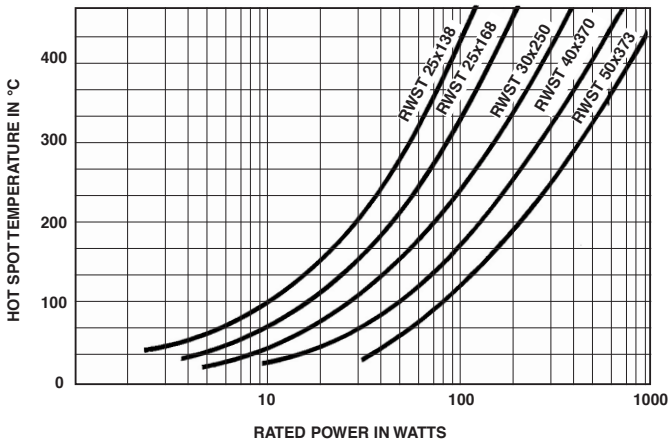
For high frequencies, low self induction resistors are available with special windings.
RWSTNI designation.

MODEL AND STYLE	RWSTNI 25 x 138	RWSTNI 25 x 168	RWSTNI 30 x 250	RWSTNI 40 x 370	RWSTNI 50 x 373
Ohmic range (E12 series)	22Ω 2.5kΩ	22Ω 4kΩ	120Ω 6.8kΩ	120Ω 8.2kΩ	150Ω 8.2kΩ

POWER RATING CHART



TEMPERATURE RISE



MARKING

SFERNICE trademark, model, style, nominal resistance (in Ω), tolerance (in %), manufacturing date.

ORDERING INFORMATION

RWST	**30 x 250**	**NI**		**CS**	**6.8kΩ**	**± 5%**
MODEL	STYLE	NON-INDUCTIVE BOBINAGE	SPECIAL DESIGN	CONNECTIONS	OHMIC VALUE	TOLERANCE
		Optional	Optional		Custom items are subject to extra-charge and min. order. Please see price list.	

Notice

Specifications of the products displayed herein are subject to change without notice. Vishay Intertechnology, Inc., or anyone on its behalf, assumes no responsibility or liability for any errors or inaccuracies.

Information contained herein is intended to provide a product description only. No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted by this document. Except as provided in Vishay's terms and conditions of sale for such products, Vishay assumes no liability whatsoever, and disclaims any express or implied warranty, relating to sale and/or use of Vishay products including liability or warranties relating to fitness for a particular purpose, merchantability, or infringement of any patent, copyright, or other intellectual property right.

The products shown herein are not designed for use in medical, life-saving, or life-sustaining applications. Customers using or selling these products for use in such applications do so at their own risk and agree to fully indemnify Vishay for any damages resulting from such improper use or sale.