



Ergon Energy Corporation Limited

Technical Specification for Spiral Vibration Dampers

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Technical Specification for Spiral Vibration Dampers

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1. Purpose and Scope

This specification sets out the technical requirements for the manufacture, testing, supply and delivery of spiral vibration dampers for use on overhead electricity distribution systems in a totally exposed environment.

The items covered by the specification are listed below:

ITEM NUMBER	STOCK CODE NUMBER	DESCRIPTION
1	0417604	Damper spiral vibration (red) to suit 3/2.75 SC/AC & 3/2.75 SC/GZ
2	0417515	Damper spiral vibration (blue) to suit 3/4/2.5 ACSR and 7/2.5 AAAC
3	0417523	Damper spiral vibration (black) to suit 4/3/3.0 ACSR, 6/1/3.0 ACSR, 6/1/3.75 ACSR, 7/3.0 AAC, 7/3.75 AAC, 7/3.0AAAC and 7/3.75 AAAC
4	0417558	Damper spiral vibration (yellow) to suit 6/4.75+7/1.60 ACSR, 7/4.75AAC, and 7/4.75AAAC
5	0104195	Damper spiral vibration (green) to suit 19/3.75AAC and 19/3.75AAAC
6	0104522	DAMPER,VIBRATION,TRANSMISSION LINE DAMPER, Spiral Vibration, Black, Short/Long Spans, ADSS 36/48 Optical Fibre Cable 14.3-18.99mm Dia

2. References

2.1 Applicable Standards

The items shall be manufactured and tested in accordance with the relevant parts of the following Standards and all amendments issued from time to time except where varied by this specification.

STANDARD	TITLE
AS 1154	Insulator and conductor fittings for overhead power lines

3. Drawings

3.1 Drawings by the Purchaser

There are no drawings attached to this specification.

3.2 Drawings by the Tenderer

The Tenderer shall supply with the tender, detailed drawings or pamphlets of the items tendered.

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4. Service Conditions

The vibration dampers will be subject to the following additional service conditions:

Solar radiation intensity of 1 000W/m ² .
Tropical summer storms with gust wind speeds above 160km/h and an annual rainfall in excess of 1 500mm.
Temperatures between -5 ⁰ C(winter night time)and 45 ⁰ C(summer day time)
Extended periods of humidity in excess of 90%
Areas of coastal salt spray and/or industrial pollution with equivalent salt deposits densities in the range of 2.0 - 3.0g/m ² .

5. Design and Construction

5.1 General

Spiral vibration dampers shall be designed to minimise the effects of aeolian vibration on overhead conductors and communication cables erected in accordance with the following nominal every day tensions:

Conductor Type	Every Day Tension - % Of Conductor Breaking Load
Fibre Optic	10
AAC	20
AAAC	20
ACSR	22
SCAC/SCGZ	25

Spiral vibration dampers shall comply with the requirements of AS 1154. Materials used in the manufacture of SVD's shall have adequate resistance to the effects of ozone, UV radiation, mineral oils, and other atmospheric contaminants.

The items tendered for the overhead conductors shall be capable of withstanding conductor temperatures between 5o C and 90o C without permanent loss of essential properties.

5.2 Marking

Each fitting shall be provided with an identification tag marked with the following information:

The manufacturer's name or trademark
The year of manufacture
Manufacturer's part number
Conductor Diameter Range
Colour Code

6. Technical Details

Technical details of dampers tendered are to be set out on **Attachment 1**.

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7. Performance and Testing

7.1 Type Tests

Type Test Certificates to demonstrate the service performance of the items tendered shall be submitted with the tender.

8. Risk Assessment

There is no requirement for manufacturer provided safety risk assessments for the items covered in this specification.

9. Quality Assurance

9.1 Purchasers Policy

It is the Purchaser's policy to procure goods, equipment and services from sources that demonstrate the ability to supply quality products.

9.2 Documentary Evidence

Tenderers are required to submit documentary evidence that the design and manufacture of the fuses offered is in accordance with AS/NZS/ISO 9001.

This documentation shall include the Capability Statement associated with the Quality System Certification.

Tenderer's attention is drawn to MP000801F100: Management Systems Information Schedule (Form) which forms an integral part of this specification.

10. Samples

10.1 Production Samples

The Tenderer must submit, when requested, one (1) production sample of each item Tendered to assist in the evaluation of the Tender. Samples shall be delivered to the address nominated within five (5) working days of the request. The Tenderer shall allow the cost of supply and delivery of samples in the Tendered prices.

Each sample shall be suitably packaged and labelled with the following information:

Name of Supplier and this Contract No.
Contract Item Numbers
Any supporting data on features or characteristics

11. Packaging and Marking

11.1 General

Each packaged lot shall be marked with the following information:

Manufacturers Name

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Purchase Order Number
Contract no.
Ergon Stock Code
Item Description
Pack Size
Pack Weight

12. Service Performance

Suppliers shall state:

- (a) the period of service achieved by the items tendered within Australian service conditions;
- (b) Australian electricity supply authorities who have a service history of the items tendered; AND
- (c) Contact names and phone numbers of relevant employees of those supply authorities who can verify the service performance claimed.

13. Reliability

13.1 Service Life

Suppliers are required to comment on the reliability of the equipment and the performance of the materials tendered for a service life of 25 years under the specified system and environmental conditions.

13.2 Evidence in Support of Reliability

Such comments shall include evidence in support of the reliability and performance claimed including information on Failure Mode and Effect Analysis.

14. Training

14.1 Training Material

Training material in the form of drawings, instructions and/or audio visuals (in CD format) are required to be provided for the items accepted under the tender. The Tenderers shall allow the cost of production and delivery of training material in the tendered prices.

The training materials should include but not be limited to the following topics:

- Handling
- Storage
- Application (particularly in areas of heavy coastal pollution)
- Installation
- Maintenance
- Environmental performance
- Electrical performance
- Mechanical performance
- Disposal

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14.2 Training Audio Visuals

The successful Tenderer is required to provide training audio visuals for the Purchaser's staff/contractors in the correct use of all items to be supplied under the contract. Training audio visuals are to be supplied BEFORE the 1st deliveries are made under the contract.

The format and content of the audio visuals will be subject to negotiation between the Purchaser and the successful tenderer concerned. It is expected that as a minimum, the audio visuals will detail the correct installation practice for all items covered by the contract. The number of audio visuals required, in CD format, is thirty (30). Permission shall be given to the Purchaser to make additional copies if required.

In the production of the audio visuals, the Purchaser will make available suitable staff and equipment to demonstrate the recommended installation techniques.

15. Environmental Considerations

Suppliers are required to comment on the environmental soundness of the design and the materials used in the manufacture of the items Tendered. In particular, comments should address such issues as recycling and disposal at the end of service life.

16. Information to be Provided

16.1 Specific Technical Requirements

The specific technical requirements for the items Tendered shall be as stated in **Attachment 1** of this specification. The supplier shall provide all details requested by **Attachment 1** and shall guarantee such data.

16.2 Checklist of Supporting Documentation

Attachment 2 details a checklist of supporting technical documentation which is required to be submitted with the Tender.

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17. Attachment 1 – Technical Details

NOTE: A separate schedule is to be provided for each item tendered except where information common to all items which only needs to be provided once.

Particulars	Units	Tenderer's Response
Manufacturer's Name & Address		
Place of Manufacture		
Manufacturer's Product Catalogue Number		
Manufacturer's Drawing Number		
Type Test Report/Certificate No.		
Damper material		
Conductor diameter range	(mm)	
Colour code		
Pack Size		
Pack Weight	(kg)	

SIGNATURE OF TENDERER: _____

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18. Attachment 2 – Technical Document Checklist

Clause Ref.	Particulars	Tenderer's Response
Have full and comprehensive details been submitted WITH the Tender documents associated with each of the following items?		
3.2	Drawings of item Tendered	Yes/No
7.1	Type Test Certificate	Yes/No
9.2	Documentary evidence of the Quality System Certification of BOTH the SUPPLIER and the MANUFACTURER (including Capability Statement)	Yes/No
12	Service Performance	Yes/No
13	Reliability	Yes/No
14.1 / 14.2	Training materials	Yes/No
15	Environmental considerations	Yes/No
16	Information to be Provided: Completed Attachment 1 and 2	Yes/No

NAME OF TENDERER:

ADDRESS OF TENDERER: _____

SIGNATURE: _____ FOR AND ON BEHALF OF TENDERER

DATE: _____