



**ENERGY FIJI LIMITED**

**TECHNICAL SPECIFICATION FOR DESIGN,  
MANUFACTURE, TESTING AND SUPPLY OF  
LV/MV FUSE LINKS**

**MR 05/2021**

## Revision History & Document Control

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## Next Scheduled Revision

This technical specification is due for review in January 2023.

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# 1. INTRODUCTION AND SCOPE OF WORK

Energy Fiji Limited [EFL] is responsible for generation, transmission and distribution of electricity in Viti Levu, Vanua Levu, Ovalau and Taveuni in Fiji. By the end of 2020, EFL had 205,580 customers. This includes residential, commercial and institutional customers.

EFL is requesting proposal for the Preferred Supplier to supply item listed below for EFL’s consumption to carryout repair, construction and maintenance of Power line Network in Fiji.

The preferred Supplier arrangement will be for a period of 3 (three) years from the date of signing of the contract.

This document outlines the technical requirements for cylindrical house service cut-outs, HRC and DIN fuse links for use in EFL’s distribution networks.

The items covered by this specification are listed below:

No.	Stock Code	Item Description
<b>House Service Cutout Fuse Links</b>		
1	New Item	25A House Service Cut-out Fuse Link
2	New Item	100A House Service Cut-out Fuse Link
<b>HRC Fuse Links</b>		
3	New Item	25A HRC Fuse
4	New Item	50A HRC Fuse
5	New Item	355A HRC Fuse
6	New Item	500A HRC Fuse
<b>DIN Fuse Links</b>		
7	New Item	355A DIN FUSE - DIN 3/ NH 3
8	New Item	800A DIN FUSE - DIN 3/ NH 3

**Table 1.1: Items Covered Under this Specification**

This specification covers the general requirements of design, manufacture, testing, supply and delivery of cylindrical house service cut-outs, HRC, and DIN fuse links to be used in EFLs distribution networks.

## 2. REFERENCES

### 2.1. Applicable Standard

The item shall be designed, manufactured and tested in accordance with the latest edition of the Standards specified below and all amendments issued prior to the date of closing of tenders except where varied by this specification.

AS/NZS 60269	Low Voltage Fuses
IEC 60269-1	Low Voltage Fuses - Part 1: General Requirements
AS 2650	High voltage a.c switchgear and control gear - common requirements
AS 1856	Electroplated coatings- silver
AS 2700	Color standards for general purpose.
AS 4169	Electroplated coatings- tin and tin alloys
AS ISO/IEC 17025	General requirements for the competence of testing and calibration laboratories
AS/NZS ISO:9001	Quality Management Systems - model for quality assurance in design, development, production, installation and servicing

Should inconsistencies be identified between standards and/or this specification, the tenderer shall immediately refer such inconsistencies to the EFL for resolution.

### 3. SERVICE CONDITIONS

#### 3.1. Environmental Conditions

The item shall be suitable for using outdoors and shall be designed to withstand the following service conditions.

Description		Conditions
Atmosphere Pollution Level	:	Very heavy (IEC 60815)
Ambient Temperature	:	Peak: 40°C 24 Hour Average: 30°C Annual Average: 22°C Minimum: 10°C
Relative Humidity (Average)	:	85%
Rainfall	:	Annual Average: 2663mm
Isokeraunic (Thunder day) level	:	60 thunder days per year
Seismic	:	To a maximum of 7 on the open-ended Richter Scale

Note: Fiji is situated in a region where cyclones are experienced frequently. All plant and equipment shall be designed and constructed to withstand these extreme conditions. Equipment may be installed in coastal environments and in conditions where special protection measures against corrosion will be required. Bidders are required to provide details of such protective measures for protection against corrosion.

#### 3.2. System Conditions

	System Voltages
Particulars	230V/415V
Nominal System Voltage	230V (p-n), 415V (p-p)
Highest (Equivalent) System Voltage	244V (p-n), 440V (p-p)
System Frequency	50Hz
Number of Phases	1 or 3
System Earthing	Effectively Earthed
Impulse Withstand Voltage (peak)	AC 10kV rms
Power Frequency Withstand Voltage	

## 4. DESIGN AND CONSTRUCTION

### 4.1. LV/MV Fuse Links

#### 4.1.1 General

The fuses shall comply with the requirements of the Australian Standards of the AS/NZS 60269 series and shall have the following characteristics in particular.

Utilisation category: Type 'gG' (fuse-links with a full-range breaking capacity for general application).

Rated current: As per item descriptions in Table 1.1.

The required minimum breaking capacity for the fuse group will be specified below. If, due to historical and or manufacturing reasons, or due to conflict in meeting other fuse-link characteristic requirements in this technical specification, such minimum rated breaking capacity cannot be achieved for a particular fuse-link type then Tenderers are encouraged to submit their highest rated breaking capacity alternative offer for that item/ fuse type including full details of the item/s. Such submissions must be clearly highlighted as a Departure from Specifications in the bid submissions. Failure to declare such departure from specifications could result in bidder being disqualified due to false declaration.

The current- time characteristics of the fuses offered shall be included in the tender in the formats as outlined in these specifications.

Fuse elements shall be of pure silver. Should any other material be used, evidence to indicate that deterioration will not occur in the long term shall be offered.

All metallic components of the fuse shall be resistant to corrosive influences that may occur in normal use or in environmental conditions prevalent in Fiji.

All components of the fuse shall be sufficiently resistant to mechanical stresses that may occur in normal use as well as abnormal heat and fire.

Markings shall be provided on the fuses as required under the Clause 6.2 of AS/NZS 60269.1.

#### 4.1.2 Cylindrical House Service Cut-Out Fuse Links

The cylindrical house service cut-out fuse links supplied shall have the following characteristics:

- Rated voltage: minimum of 415V.
- Rated breaking shall be not less than 33kA.
- Maximum rated power dissipation levels shall not be greater than the values given in Section III, Table M of AS/NZS 60269.2.1.
- Fuses shall have dimensions of 57mm length and 22.2mm diameter.
- Fuses shall have a upper limit power dissipation of 6W or less to accommodate existing fuse holders.
- Time-current characteristics shall comply with the Section III, sub-clause 5.6 of AS/NZS 60269.2.1.
- $I^2t$  characteristics shall comply with Section III, sub-clause 7.7 of AS/NZS 60269.2.1.
- Dimensions in accordance with Section III, Figure 1(III\*) of AS/NZS 60269.2.1 and as detailed in Appendix A.1.



### 4.1.3 HRC Fuses

- Rated voltage: Minimum of 415V.
- Maximum rated power dissipation levels shall not be greater than the values given in Section II, Figure 1(II\*) of AS/NZS60269.2.1
- Rated breaking capacity of not less than 80kA at the rated voltage.
- Time-current characteristics shall comply with Section II, sub-clause 5.6 of AS/NZS 60269.2.1.
- $I^2t$  characteristics of the fuses offered shall be provided with the tender documentation in (MS Office) Excel format).
- Dimensions in accordance with Section II, Figure 1(II\*) of AS/NZS 60269.2.1 and as detailed in Appendix 13.2

### 4.1.4 DIN Fuses

- Rated voltage: Minimum of 500V.
- Rated breaking capacity shall not be less than 80kA.
- Maximum rated power dissipation levels shall not be greater than the values given in Section I, Figure 1(I\*) of AS/NZS 60269-1.
- Time-current characteristics shall comply with Section I, sub-clause 5.6 of AS/NZS 60269-1.
- $I^2t$  characteristics shall comply with Section I, sub-clause 7.7 of AS/NZS 60269-1 and the fuses offered shall be provided with the tender documentation in (MS Office) Excel format).
- $I^2t$  characteristics of the fuses offered shall be provided with the tender documentation in (MS Office) Excel format).
- Dimensions in accordance with Section I, Figure 1(I) of AS/NZS 60269.2.1.

### 4.1.5 Marking

The permanent marking of all items shall meet the requirements specified in AS/NZS 60269-1 Clause 6.2. The following shall be marked on the fuse links:

- Name of the manufacture or a trade mark by which he may be readily identified
- Manufacturers identification reference enabling all the characteristics listed in AS/NZS 60269-1 Clause 5.1.2 to be found
- Rated voltage
- Rated current
- Breaking range and utilization category (letter code), where applicable
- Kind of current and, if applicable, rated frequency

All marking on the fuses links shall be permanent for the service life of the product offered. Evidence shall be provided by the tenderers for/during evaluation.

### 4.1.6 Color

The background color of the HRC Fuses supplied under this specification shall be in accordance with AS 2700 and table below.

Item	Color	Color as per AS 2700
HRC Fuses	N14 White or similar	In accordance with the requirements of AS 2700

## 5. PERFORMANCE AND TESTING

### 5.1. General

Prior to delivery, the units shall have completed the type, routine and accuracy tests and inspections as required by the relevant international and Australian standards. The passing of such tests shall not prejudice the right of EFL to reject the Equipment if it does not comply with the Specification when received or installed.

All testing shall be undertaken by an AS ISO/IEC 17025 accredited test house. The bidder shall submit evidence showing IEC 17025 compliance. A formal report covering the outcome of the different tests shall be made available to EFL.

### 5.2. Testing - LV/MV Fuse Links

Fuses offered shall be tested in accordance with Section 8 of AS/NZS 60269.1. Copies of the Type Test Certificates confirming the following fuse characteristics for each item offered shall be supplied with the tender.

- Time-current characteristics plotted on a scaled drawing or a transparency having the same scales as used in Figure 1 of AS/NZS 60269.1 Manufacturing tolerances applicable to the above curves shall also be stated.
- $I^2t$  characteristics (for arcing and operating), Cut-off characteristics and Power dissipation characteristics of the fuses offered shall be submitted with the tender in (MS Office) Excel format.

**The successful bidder shall provide the routine and batch test certificates to EFL during the contract period.**

**The following tests shall be conducted on the fuse links and reports provided with the bid:**

No.	Description of Test	Test Method Reference
1	Verification of the insulating properties and of the suitability for isolation	AS/NZS 60269.1 Clause 8.2
2	Verification of temperature rise and power dissipation	AS/NZS 60269.1 Clause 8.3
3	Verification of operation	AS/NZS 60269.1 Clause 8.4
4	Verification of the breaking capacity	AS/NZS 60269.1 Clause 8.5
5	Verification of the cut-off current characteristics	AS/NZS 60269.1 1 Clause 8.6
6	Verification of $I^2t$ characteristics and overcurrent selectivity	AS/NZS 60269.1 Clause 8.7
7	Verification of the degree of protection of enclosures	AS/NZS 60269.1 Clause 8.8
8	Verification of resistance to heat	AS/NZS 60269.1 Clause 8.9
9	Verification of non-deterioration of contacts	AS/NZS 60269.1 Clause 8.10
10	Mechanical and miscellaneous tests	AS/NZS 60269.1 Clause 8.11

### 5.3. Acceptance Tests

The EFL may carry out acceptance test on product to prove it conforms to the requirements of this Specification and AS/NZS standards. Any product showing evidence of failure to comply with the requirements of this specification will be liable to rejection.

## **5.4. Witnessing of Tests**

The bidders shall make allowance for witnessing of routine tests on a batch of fuse links by two EFL Engineers at least once during the contract period. The return-air travel, accommodation, meals and other expenses related to routine test witnessing shall be borne by the bidder. Such costs shall be included in the cost of fuse link units.

The Supplier shall give EFL not less than four (4) weeks' notice of when each and every type test will be carried out. Such witnessing shall be required once in the contract period, upon purchase of the first unit. A copy of inspection and test plan shall be submitted to EFL with the bid submission, which shall be used in the factory.

## **5.5. Test Certificates**

Two certified copies of all test results shall be supplied to EFL for every product that will be supplied under the contract. Electronic copies shall also be submitted.

All test certificates shall include the manufacturer's serial number. On allocation, the corresponding EFL transformer number or stock code, the order number, contract number, item number, specification number and guaranteed losses must be added to the certificate, or attachment to the test report.

The successful bidder(s) shall be required to setup an online portal for recording and sharing of all test reports over the duration of the contract. EFL, at time of contract execution, shall provide a list of personnel who shall be allowed to access this portal from EFL. Each test report shall be stored by its serial number and shall be accessible to EFL via this online portal at any time. The cost of setup, hosting and maintenance of this portal shall be borne by the successful bidder(s).

## **5.6. Compliance**

The Supplier shall state in writing that their offer complies with the relevant Standards and this specification. If the Supplier is offering product manufactured to an equivalent standard, full details of that standard must be given including a copy written in English.

# **6. RELIABILITY**

## **6.1. Service Life**

Bidders are required to comment on the reliability of the product and the performance of the materials offered for a service life of 35 years under the specified system and environmental conditions in clause 3.

## **6.2. Evidence in Support of Reliability**

Where the specified guaranteed service life is less than 35 years Suppliers are required to provide comment and submit evidence in support of the reliability and performance claimed including detailed information on Failure Mode and Effect Analysis.

# **7. ENVIRONMENTAL/ HSE CONSIDERATIONS**

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

Bidders are required to provide the Material Safety Datasheet (MSDS) of the product.

## **8. PACKAGING AND MARKING**

### **8.1 Packaging**

The packaging of items by the bidder must ensure that they are capable of being delivered undamaged giving due consideration to the quantity, distance of transportation and the preferred method of handling at each location.

Each packaged lot shall be marked with the following information:

- Manufactures Name
- Purchase Order Number
- Contact No.
- EFL Stock Code
- Item Description
- Applicable standards
- Pack Size
- Pack Weight

## **9. QUALITY REQUIREMENTS**

Tenderers are required to submit evidence that the design and manufacture of the fuse links is in accordance with AS/NZS ISO 9001 and shall include the Capability Statement associated with the Quality System Certification.

If the Tenderer is a non-manufacturing supplier, the documentary evidence shall include the quality system certifications of both the supplier and the manufacturer.

## **10. OCCUPATIONAL HEALTH AND SAFETY REQUIREMENTS**

Tenderers are required to submit copies of certification to occupational health and safety management system, such as AS 4801 or to equivalent international standard ISO 45001. Such information is deemed mandatory bid submission and lack of it will result in disqualification of bid.

Bidders are also required to submit evidence of certification to ISO 14001.

In addition to this, Bidders also need to submit health and safety plans implemented in factories for design, manufacture and testing of the transformers, which will be used in this project, and details of agencies who carry out regular inspections at these factories.

## **11. STOCK AVAILABILITY**

The bidder is required to show the size of his/her stock holding and the ability to meet the required estimate quantity per annum. The movement of the fuse links will depend on the EFL's project works and for operation and maintenance purposes. An estimate movement of the item are outlined in the table below but it will not be purchase as a lump sum quantity at once. Hence, the successful bidder will be required to carry a consignment / safety stock at times to meet EFL's demand within the three year contract period.

No.	Stock Code	Item Description	Approximate 3-Year Stock Movement
<b>House Service Cutout Fuse Links</b>			
1	New Item	25A House Service Cut-out Fuse Link	20
2	New Item	100A House Service Cut-out Fuse Link	20
<b>HRC Fuse Links</b>			
3	New Item	25A HRC Fuse	20
4	New Item	50A HRC Fuse	20
5	New Item	355A HRC Fuse	20
6	New Item	500A HRC Fuse	20
<b>DIN Fuse Links</b>			
7	New Item	355A DIN FUSE - DIN 3/ NH 3	20
8	New Item	800A DIN FUSE - DIN 3/ NH 3	20

## 12. PRODUCT WARRANTY PERIOD

The bidders are required to provide the warranty period as part of the proposal. A minimum warranty period of 24 months from time of dispatch from factory will be preferred.

## 13. INFORMATION TO BE SUPPLIED BY THE BIDDER

### 13.1. Documentation to be supplied with the tender

To enable the EFL to fully evaluate the fuse links offered, (in addition to the completed Specification Requirement and Guaranteed Performance schedule) the bidder shall submit the following information with their tender: **(Note these are mandatory requirements)**

- Sectional view, showing the General constructional feature
- Complete dimensional drawing
- List showing similar product supplied to or on order for other utilities in Australia or New Zealand or the Oceania region for the past 5 years
- Type test certificates
- Sample routine test certificates
- End of service life disposal methods
- Product drawing/datasheet and catalogs
- Evidence of Quality Management Systems used in the manufacturing process
- Evidence of Health, Safety and Environmental plans
- Evidence of financial ability to provide the level of service and support
- Origin of materials used in manufacture of the fuse links
- **$I^2t$  time-current characteristics curves shall be provided with the offer including raw data in MS excel format.**

Bidders may be asked to provide additional information during tender assessment period or following award of contract.

### 13.2. Samples

As the items in this tender are new, production samples of each item shall be submitted with the offer.

Each sample shall be delivered freight free (Delivery Duty Paid (DDP)), suitably packaged and labelled with the following information:

- Name of supplier and this contact number
- Tender number
- EFL Stock code affixed on the respective items
- Any supporting data on features or characteristics

For this tender, the bidders are required to provide samples for each item as per the above requirement supplied to the following address within the first week of tender closing date for verification and approval.

c/f Mohammed Imnaz Ahmed  
Supply Chain Officer  
Energy Fiji Limited  
J P Bayle Road  
Navutu  
Lautoka

### **13.3. Training**

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
- Installation
- Maintenance
- Environmental performance
- Electrical performance
- Mechanical performance
- Disposal

All training material and product-related documentation shall also be put on the online portal where the test results will be stored for EFL staff to view at any time.

**Offers of vendors who fail to furnish above particulars shall be rejected.**

# 14. APPENDIX

## 14.1. Price Schedule

Bidders are required to complete the following price schedule and submit with the offer. EFL requires the bidding prices to be in CIF incoterms.

No.	Stock Code	Item Description	Unit Price (CIF)	Currency of Bid
<b>House Service Cutout Fuse Links</b>				
1	New Item	25A House Service Cut-out Fuse Link		
2	New Item	100A House Service Cut-out Fuse Link		
<b>HRC Fuse Links</b>				
3	New Item	25A HRC Fuse		
4	New Item	50A HRC Fuse		
5	New Item	355A HRC Fuse		
6	New Item	500A HRC Fuse		
<b>DIN Fuse Links</b>				
7	New Item	355A DIN FUSE - DIN 3/ NH 3		
8	New Item	800A DIN FUSE - DIN 3/ NH 3		

Bidders are to clearly indicate the currency of bid.

## 14.2. Technical Details - Cylindrical House Service Cut-Out Fuse Links

This schedule shall be completed and submitted with the offer. A separate schedule shall be provided for each item offered: **(Note these are mandatory requirements)**

Particulars	Units	Requirements	Tenderers Response
EFL Stock Code			
Manufactures Name			
Origin of materials used for manufacturing of fuses			
Country of manufacture			
Manufactures type test certificate number			
Rated voltage	V	Min. of 415	
Rated current	A	Bidder to state	
Breaking capacity	kA	33 Min	
Conventional non-fusing current	X rated current	Bidder to state	
Conventional fusing current	X rated current	Bidder to state	
Conventional time	Hours	Table 2 in AS/NZS 60269.2.1	
Category of duty		Bidder to state	
Power dissipation at rated current and power dissipation chart for each item	W	Bidder to state for each fuse size	
DC Resistance measured at no load at a stated ambient temp	Ohms@°C	Bidder to state	
Has the fuse been fully tested to AS/NZS 60269.1 by an accredited testing authority	Yes/No		
Name of testing authority			
Overall length	mm	Section II, Figure 1(II*) of AS/NZS 60269.2.1	
Diameter of end caps	mm		
Length of end caps	mm		
Barrel length	mm		
Barrel diameter	mm		
Barrel material	mm		
End cap corrosion protection		Bidder to state	



Fuse element material		Refer to Clause 4.1	
Are the I <sup>2</sup> t time-current characteristics curves provided with the offer including raw data in MS excel format?	Yes/No		
Weight of fuse	kg	Bidder to state	
Weight per crate	kg	Bidder to state	
Number of fuses per crate			

Name of Tenderer: \_\_\_\_\_

Signature of Tenderer: \_\_\_\_\_

Date: \_\_\_\_\_

### 14.3. Technical Details - HRC Fuse Links

This schedule shall be completed and submitted with the offer. A separate schedule shall be provided for each item offered: **(Note these are mandatory requirements)**

Particulars	Units	Requirements	Tenderers Response
EFL Stock Code			
Manufactures Name			
Origin of materials used for manufacturing of HRC Fuses			
Country of manufacture			
Manufactures type test certificate number			
Rated voltage	V	Min. of 415	
Rated current	A	Bidder to state	
Breaking capacity	kA	80	
Conventional non-fusing current	X rated current	Bidder to state	
Conventional fusing current	X rated current	Bidder to state	
Conventional time	Hours	Table 2 in AS/NZS 60269.2.1	
Category of duty		Bidder to state	
Power dissipation at rated current and power dissipation chart for each item	W	Section II, Figure 1(II*) of AS/NZS60269.2.1	
DC resistance measured at no load at 40°C	Ω	Bidder to state	
Has the fuse been fully tested to AS/NZS 60269.1 by an accredited testing authority	Yes/No		
Name of testing authority			
Overall length	mm	Section II, Figure 1(II*) of AS/NZS 60269.2.1	
Fixing centres	mm		
Length of tags	mm		
Width of tags	mm		
Height of tags	mm		
Diameter of end caps	mm		
Diameter A of elongated fixing holes	mm		

Diameter B of elongated fixing holes	mm		
Barrel length	mm		
Barrel diameter	mm		
Barrel material		Bidder to state	
End cap/ Tag corrosion protection		Bidder to state	
Fuse element material		Refer to Clause 4.1	
Are the I <sup>2</sup> t time-current characteristics curves provided with the offer including raw data in MS excel format?	Yes/No		
Weight of fuse	kg	Bidder to state	
Weight per crate	kg	Bidder to state	
Number of fuses per crate			

**Name of Tenderer:** \_\_\_\_\_

**Signature of Tenderer:** \_\_\_\_\_

**Date:** \_\_\_\_\_

#### 14.4. Technical Details - DIN Fuse Links

This schedule shall be completed and submitted with the offer. A separate schedule shall be provided for each item offered: **(Note these are mandatory requirements)**

Particulars	Units	Requirements	Tenderers Response
EFL Stock Code			
Manufactures Name			
Origin of materials used for manufacturing of DIN Fuses			
Country of manufacture			
Manufactures type test certificate number			
Applicable Standards		IEC 60269.1	
Rated voltage	V	Min. of 500	
Rated current	A	Bidder to state	
Breaking capacity	kA	80	
Conventional non-fusing current	X rated current	Bidder to state	
Conventional fusing current	X rated current	Bidder to state	
Conventional time	Hours	Table 2 in IEC 60269.1	
Category of duty		Bidder to state	
Power dissipation at rated current and power dissipation chart for each item	W	Figure 1(I*) of Section I in IEC 60269.1	
DC resistance measured at no load at 40°C	Ω	Bidder to state	
Has the fuse been fully tested to IEC 60269.1 by an accredited testing authority	Yes/No		
Name of testing authority			
Overall length	mm	Figure 1(I) of Section I in IEC 60269.1	
Length of Blade	mm		
Width of Blade	mm		
Height of Blade	mm		
Body Length	mm		
Body Width	mm		
Body Height	mm		
Body material		Bidder to state	

Blade corrosion protection		Bidder to state	
Fuse element material		Refer to Clause 4.1	
Fusing factor		Bidder to state	
Dimensional drawings of the fuses offered	Yes/ No		
Are the I <sup>2</sup> t time-current characteristics curves provided with the offer including raw data in MS excel format?	Yes/No		
Weight of fuse	kg	Bidder to state	
Weight per crate	kg	Bidder to state	
Number of fuses per crate			

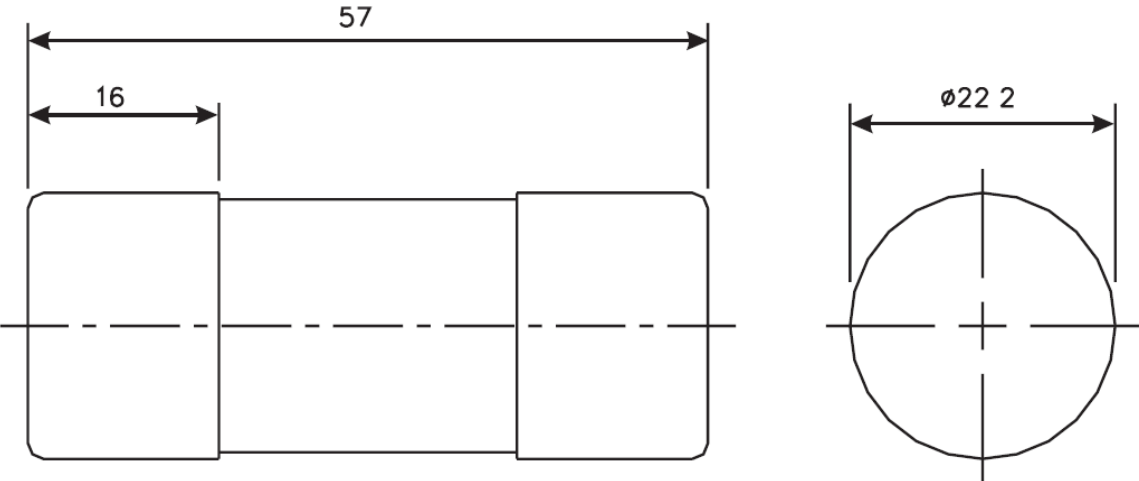
**Name of Tenderer:** \_\_\_\_\_

**Signature of Tenderer:** \_\_\_\_\_

**Date:** \_\_\_\_\_

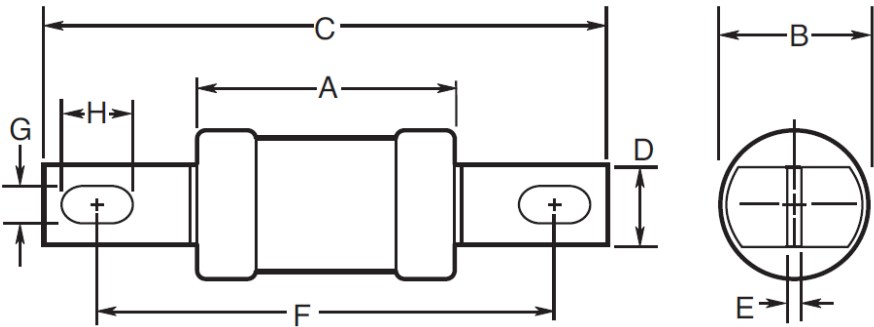
### 14.5. Typical Dimensions for Cylindrical House Service Cut-out Fuse Links

Provided below are fuse dimensions for cylindrical house service cut-out fuse links:



### 14.6. Typical Dimensions for HRC Fuse Links

The bidders shall consider the following dimensions for all HRC fuse links:



A	B	C	D	E	F	G	H
May vary depending on rating		128.5	14.2	1.5	111	8.7	11.8

**Note:**

1. All dimensions in the above table are in mm
2. The dimensions are just estimate considering the Fuse Links in which the HRC fuses will be used for, where dimension F shall be maintained to meeting the construction requirements of the Fuse Link

### 14.7. Typical Dimensions for DIN Fuse Links

The DIN fuse links supplied shall be of size DIN 3/ NH 3.

**14.8. Tender Submission - Mandatory Requirement**

All tenderers are required to complete and submit a copy of the submission requirements with their bid submissions. **(Note these are mandatory requirements)**

Requirements	Response from Bidders
Validity of bid (180 days required) (Yes/No)	
List of test reports/certificates provided. (As per Clause 5)	
Minimum warranty period offered for this product	
Completed price and technical schedules (Clause 13.1 and 13.2) (Yes/No)	
The bidding pricing to be in CIF incoterm.	
Currency of bid.	
Lead time of delivery after tender award.	
Bidders company profile outlining financial, technical and production capabilities.	
Disposal method after service life.	
Quality management system used in the production of fuses, attached certificate.	
<b>Bidder agrees with the requirements of AS 4912-2002; General conditions of contract for periodic supply of goods (Parts 1 and 2)</b>	
<b>Material safety datasheet to be provided for all items</b>	
The bidder to include the following as part of the bid:	
Company profile	
Company registration details	
Company financial capability statement	
Reference list of customers the same product is supplied to and contact details for reference check	
If the bidder is the manufacturer, the ISO certification shall be provided	
If the bidder is only the supplier of the product, then both the manufacturer and supplier ISO certifications shall be provided	

Name of Tenderer: \_\_\_\_\_

Signature of Tenderer: \_\_\_\_\_

Date: \_\_\_\_\_

Complete the following schedule as part of the bid: (Note these are mandatory requirements)

Stock Codes	Items	Country of Manufacture	Manufacturer of product	Brand Offered	Manufactured to standards	ISO Certification of Manufacturer	Lead Time of Delivery
<b>House Service Cutout Fuse Links</b>							
New Item	25A House Service Cut-out Fuse Link						
New Item	100A House Service Cut-out Fuse Link						
<b>HRC Fuse Links</b>							
New Item	25A HRC Fuse						
New Item	50A HRC Fuse						
New Item	355A HRC Fuse						
New Item	500A HRC Fuse						
<b>DIN Fuse Links</b>							
New Item	355A DIN FUSE - DIN 3/ NH 3						
New Item	800A DIN FUSE - DIN 3/ NH 3						

Name of Tenderer: \_\_\_\_\_

Signature of Tenderer: \_\_\_\_\_

Date: \_\_\_\_\_



## 14.9. Overall Evaluation Criteria

Tender Evaluation Criteria	
Category	Criteria
<b>Bid Responsiveness</b>	General responsiveness of bid, compliance to submission requirements and documentation.
<b>Health, Safety &amp; Environment</b>	Assessment of Tenderer's compliance to health, safety and environmental requirements detailed within the technical specification. Past performance of Tenderers.
<b>Quality Assurance</b>	Tenderer has Quality Management systems in place that are acceptable to Energy Fiji Limited.
<b>Technical Compliance</b>	Does the Tender meet Energy Fiji Limited's minimum technical requirements as outlined in the Technical Specification? <ul style="list-style-type: none"> <li>• Design of equipment and all components</li> <li>• Performance of equipment and all components</li> <li>• Type test certification</li> <li>• Comprehensiveness of proposal, composition of tenderer's team</li> <li>• Ability to deliver on time / delivery timeframe</li> <li>• Sample approval</li> </ul>
<b>Commercial Compliance</b>	Assessment of the Tenderers operational risks including conflicts of interest. Tenderer must comply with statutory requirements, such as that enforced by FRCS, FNPf, FNU, etc. and provide evidence of compliance as required in the specifications.
<b>Energy Fiji Limited Procedures</b>	Tenderer must comply with all relevant Energy Fiji Limited safety and environmental procedures. This is indicated by the Tenderer signing the Form of Tender Schedule, acknowledging all applicable procedures. Tenderer must also comply with the requirements of Electricity Act (2017), Electricity Regulations (2019).
<b>Financial Stability</b>	Assessment of Tenderer's current financial stability and ability to remain financially stable.
<b>Price Evaluation</b>	<ul style="list-style-type: none"> <li>• Base tendered prices;</li> <li>• Total ownership cost;</li> <li>• Other value adding options.</li> </ul>

#### 14.10. Tender Submission - Instruction to Bidders

The Energy Fiji Limited (EFL) (“The Employer”) is requesting proposal for the Preferred Supplier for Tender No. **MR 05/2021** for EFL’s consumption to carryout repair, maintenance and Construction of Power Line Network in Fiji.

The bidder shall seal the original hard copy of the technical proposal, the original hard copy of the financial proposal and each copy of the technical proposal and each copy of the financial proposal in **separate envelopes** clearly marking each one as: "ORIGINAL ", "COPY NO. 1 “etc. as appropriate.

The bidder shall seal the original bids and each copy of the bids in an inner and an outer envelope, duly marking the envelopes as "ORIGINAL" and "COPY".

The inner and outer envelopes shall be addressed to the Employer at the following address:

Jitendra Reddy  
UL Strategic Procurement & Inventory Management  
2 Marlow Street, Suva, FIJI.  
Phone: 679 3224 185  
Facsimile: 679 331 1882  
Email: [JReddy@efl.com.fj](mailto:JReddy@efl.com.fj)

The envelopes shall bear the following identification:

- Bid for: **MR05/2021: Preferred Supplier for Design, Manufacture, Testing & Supply of LV/MV Fuse Links**
- DO NOT OPEN BEFORE 1600hrs **17<sup>th</sup> February 2021**
- Address and contract details of bidder on the reverse of the envelope

It is mandatory for Bidders to upload a copy of their bid in the TENDER LINK Electronic Tender Box no later than 4:00pm, on Wednesday **17<sup>th</sup> February 2021**. The uploaded tender bids shall be in two (2) separate files clearly labelled as Technical Proposal and Financial Proposal respectively.

Bids shall remain valid for a period of **180 days** after the date of opening of technical and financial proposals.

To register your interest and tender a response, view 'Current Tenders' at: <https://www.tenderlink.com/efl>

For further information contact The Secretary Tender Committee, by e-mail [JReddy@efl.com.fj](mailto:JReddy@efl.com.fj)

**Hard copies of the Tender bid will also be accepted after the closing date and time provided a soft copy is uploaded in the e-Tender Box and hard copy is dispatched to courier before the closing date and time. Please note courier submission date should be forwarded to EFL with your bid.**

Tenders received after 4:00pm on the closing date of Wednesday **17<sup>th</sup> February 2021**:

- Will not be considered.
- Lowest bid will not necessarily be accepted as successful bid
- **It is the responsibility of the bidder to pay courier chargers and all other cost associated with the delivery of the hard copy of the Tender submission including any Duties/Taxes. Hard copies of the Tender submission via Post Box will not be considered.**

**Extension of tender closing date:** Bidders are to note that if they require extension on the tender closing date, they are required to request for an extension 3 working days prior to the initial tender closing date.