


RAIL COACH FACTORY KAPURTHALA

MD35131



Sub: Issue of specification no. MDTS-46270 Rev-1 Schedule of Technical requirements of Fire Extinguisher with Anti-Theft Mechanism.

Please find enclosed a copy of specification no. MDTS-46270 Rev-1 , Schedule of Technical requirements of Fire Extinguisher with Anti-Theft Mechanism, for information and necessary action at your end.


(D K Singh) 10
Dy CME/D-2

CQM, CPLE, CWE (Fur), CMM/HSQ, CMM/Tkj, Dy. CMM/Fur/LHB, Dy CMM/G CMT,
Dy.CPLE-III ,

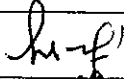


SSE /LIB. Design

SSE / Records

Copy for kind information to:


CDE

SPECIFICATION	SCHEDULE OF TECHNICAL REQUIREMENTS FOR FIRE EXTINGUISHER WITH ANTI-THEFT MECHANISM	MDTS 46270 Rev-01 Dated 12.11.2018 Page 1 of 5
---------------	---	--

NAME	DESIGNATION	SIGNATURE	DATE	LEVEL
Harish Kumar	SSE/VD		12/11/18	Prepared
D. K. Singh	Dy CME/D-II		12/11/18	Agreed & Reviewed
Manish Bhimte	CDE		12.11.18	Approved

Issue / Rev.	Details of changes	Date
Rev01	<ul style="list-style-type: none">I. Timer switch to avoid continued sounding of the hooter added in para 4.iii.II. Para 1(b), Prototype approval (Para 6), 3(iii, v, vi) & 4(i) modified.III. Aluminium body cylinder with seamless structure added in para's 2 & 3(i).IV. Weight and dimension in Table-I modified..	29.10.2018


Prepared by


12/11/18
Agreed By

SPECIFICATION	SCHEDULE OF TECHNICAL REQUIREMENTS FOR FIRE EXTINGUISHER WITH ANTI-THEFT MECHANISM	MDTS 46270 Rev-01 Dated 12.11.2018 Page 2 of 5
----------------------	---	--

1. General:

- a. This specification covers the general & technical requirements dry chemical powder type fire extinguisher with anti-theft mechanism to be provided in passenger coaches of Indian Railway.
- b. While quoting, the supplier shall submit the following details:
 - Technical data sheet of the offered product.
 - Clause-wise comments on the specification.
 - Deviation statement with respect to specification, if any.
 - Credentials and performance of the original supplier i.e. OEM
 - In case of an authorized dealer of OEM, letter of authorization from the OEM.
 - Test certificates from NABL certified Labs OR from the OEM Test Lab (NABL accredited lab) (issue date of test certificates submitted shall not be more than four years old from the date of opening of tender) indicating compliance to all the test parameters.

2. Description:

The system shall consist of 4 kg ABC type dry chemical powder aluminium body fire extinguisher with anti-theft mechanism. The anti theft mechanism shall be electro-mechanical device to prevent misuse/theft of the fire extinguisher system from its mounting location fixed inside the Railway passenger coaches.

3. Description of fire extinguisher :

- i. The fire extinguisher should be ABC dry chemical powder aluminium body with stored pressure and shall be of seamless structure. The details requirements should be as per Table-1.

Table-1

S.No.	Description	Parameters
1	Capacity	4 kgs
2	Standard specification	IS:15683:2006
3	Fire rating	1A & 13B or 2A & 34B
4	Discharge time	Not less than 13 seconds
5	Minimum effective range	4 m
6	Minimum effective discharge time	13 seconds (minimum)
7	Propellant	Nitrogen
8	Dia of cylinder	160 mm ±5 or as specified in IS:15683
9	Overall height of extinguisher	425 mm (approx) or as specified in IS:15683
10	Gross weight	6.0 kgs (maximum)
11	Empty weight	2.0 kgs (maximum)

hump
Prepared by

hump
Agreed By 12/11/18

SPECIFICATION	SCHEDULE OF TECHNICAL REQUIREMENTS FOR FIRE EXTINGUISHER WITH ANTI-THEFT MECHANISM	MDTS 46270 Rev-01 Dated 12.11.2018 Page 3 of 5
---------------	---	--

- ii. Mono Ammonium Phosphate dry chemical powder type fire extinguisher capacity 4 Kg should be conforming to IS 15683:2006 with latest amendments. The current and valid BIS certification IS 15683:2006 needs to be submitted along with offer.
- iii. The fire extinguisher shall be ISI marked OR EN 3-7:2004, EN 3-8:2006 approved.
- iv. Dry Chemical powder used as extinguishing agent should be Mono Ammonium Phosphate with more than 90% concentration conforming to IS 14609:1999. Material safety data sheet of the powder being used needs to be submitted along with the offer.
- v. The extinguisher shall be completely seamless body. The external coating of can should have epoxy powder coating.
- vi. Each vessel needs to be checked for hydrostatic pressure upto 35 kg/cm² and OEM has to submit Hydrostatic pressure testing certificate for the same.
- vii. The extinguishers should be pressurized with using high grade dry Nitrogen (propellant) as per IS:1747 standard. OEM declaration should be submitted.
- viii. OEM should have in-house Helium leak detection testing facility. Each cylinder should be tested for leak detection to ensure availability of stored pressure in the cylinder for a period of 5 years. Every extinguisher would be supplied with its own individual Helium leak detection test certificate
- ix. Fire Rating for Class A: 1A/2A and Class B:13B/34B needs to be provided for the extinguisher. The firm should submit the product performance test report from NABL accredited /Government Lab.
- x. The extinguisher should have pressure gauge.
- xi. The extinguisher should have a controllable discharge mechanism to provide flexibility of releasing extinguishing agent on targeted fire location.

4. Description of anti theft mechanism :

- i. The antitheft mechanism should be an electro-mechanical device to prevent misuse/theft of fire extinguisher. The complete mechanism should be a wall mounted with a rust resistant steel cable/wire/ chain, one end of which is attached to an alarm device and the other end is attached securely with the extinguisher. On removal of the extinguisher from its mounting, for any reason, the steel cable should get pulled out from the device and thereby activating an alarm.


Prepared by


12/11/18
Agreed By

SPECIFICATION	SCHEDULE OF TECHNICAL REQUIREMENTS FOR FIRE EXTINGUISHER WITH ANTI-THEFT MECHANISM	MDTS 46270 Rev-01 Dated 12.11.2018 Page 4 of 5
---------------	--	--

- ii. The steel cable attaching the alarm and the extinguisher should be more than 3.5 mm thick and should have a protective layer to prevent rusting during the normal life span of the product.
- iii. The activated alarm should have audibility of not less than 80 decibel (dB) at a distance of 1 meter. The alarm should remain activated for at least 5 minutes. A timer switch (with time adjusting facilities by 30 seconds) shall be provided so that alarm on timer can be adjusted.
- iv. The device should also have a reset mechanism that in case the cable is reinserted, the alarm would be deactivated.
- v. It should be self- powered with suitable 9 volts long life batteries to provide a stand by battery life of at least 12 months.
- vi. The device should not weigh more than 350 grams all-inclusive and its dimensions should not more than 150 mm x 150 mm x 60 mm (height).
- vii. The mechanism should have tamper proof sturdy design and should be made from long life rust free material such as an engineering plastic.

5. Warranty :


The manufacturer shall submit a 5 years warranty on the fire extinguisher and antitheft device. (a sample of the warranty card is to be submitted along with the tender with all terms & conditions).

6. Prototype approval:

The firm who has not got their prototype sample approved earlier, shall submit following documents for prototype approval from CDE/RCF for PO placed by RCF or to user railways for PO placed by them, before bulk supply:

- Mounting details & dimensions,
- Technical and safety data-sheet of the offered product
- Test certificates from NABL certified Labs OR from the OEM Test Lab (NABL accredited lab) (latest test report or within last one year) indicating compliance to all the test parameters.
- Letter of authorization from the OEM (in case of an authorized dealer of OEM).

The prototype and drawings shall be examined from all view points and supplier shall incorporate modifications suggested by RCF on the basis of this review of prototype and drawings. Only after getting approval of drawings and prototype from CDE, the firm can undertake bulk supply.


Prepared by



Agreed By 12/11/18

SPECIFICATION	SCHEDULE OF TECHNICAL REQUIREMENTS FOR FIRE EXTINGUISHER WITH ANTI-THEFT MECHANISM	MDTS 46270 Rev-01 Dated 12.11.2018 Page 5 of 5
---------------	--	--

The prototype approval is applicable on the first supply of material as per this specification from a supplier. RCF will do prototype approval for POs placed by RCF only. Above approval for PO placed by Railways is to be done by them.

7. Up gradation of design:

Suppliers may offer alternate design of anti-theft mechanism for all of the above or any of the above clauses with a view to upgrade design/concept. Clause wise justification shall be given by the supplier in such case. Specification details for the subject item may be deviated from those specified above, if sufficient technical justification is provided. However, RCF's decision on all such matters shall be final and binding.


Prepared by


12/11/18
Agreed By