



Model SN9423-6

3/4" SEPARATION NUT

Description:

The separation nut releases a 3/4" threaded bolt (typically 3/4-16 UNJF-3A) when used with Hi-Shear PC154 booster cartridges or PC182 through-bulkhead initiators. The gases released from the cartridges or initiators actuate internal components that release the bolted connection. Fully qualified and pyrotechnically redundant, the SN9423-6 separation nut has been proven extremely reliable in numerous earth-orbital applications. (Dimensions provided on page 2.)



Performance Characteristics:

Releases loads as high as 43,500 lbf, and prior to actuation the separation nut can support loads as high as 65,200 lbf.

Functional Load: 43,500 lbf
Proof Load: 65,200 lbf

Release Time:

Defined as the period of time between application of current and complete exit of the bolt from the separation nut.

Release Time < 20 milliseconds

High Reliability:

.99995 reliability with .95 confidence..

Non-Destructive Lot Acceptance Requirements:

Visual and dimensional inspection, X-ray per MIL-STD-1576 (Method 1103) and MIL-STD-453 (quality level 2-2T), and N-ray per MIL-STD-1576 (Method 1404.)

Temperature:

Functional tests at -90 °F (-68 °C) and +190 °F (+88 °C) after temperature cycling per MIL-STD-1576 (Method 3407) or MIL-STD-1540.

Shock Survivability Testing:

See page 2. Tests performed per MIL-STD-1540 with inert or live cartridges installed.

Random Vibration Survivability Testing:

See page 2. Tests performed per MIL-STD-1540 with inert or live cartridges installed.

Note: Test levels represent previous design requirements, not design limits. Design and testing can be modified for unique customer requirements.

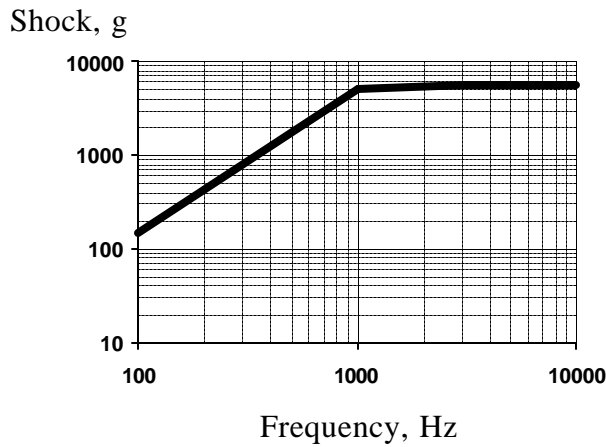


24225 GARNIER STREET · TORRANCE · CALIFORNIA 90505-5355 · U.S.A.
 TELEPHONES: (310) 784-2100 · (800) 733-0321 · FAX: (310) 326-0797
 E-mail: info@hstc.com

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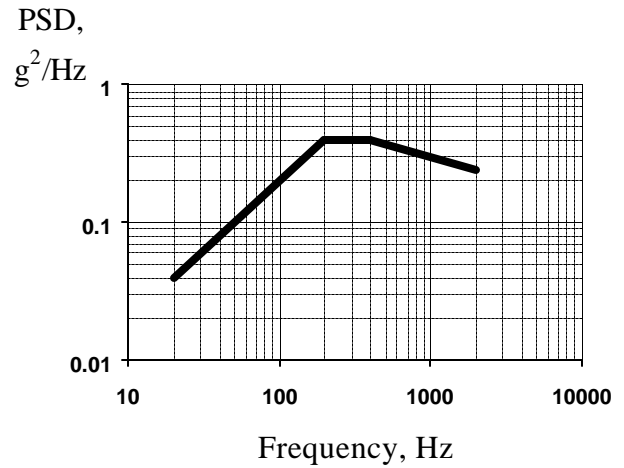
Shock Testing:

Three (3) shocks per axis along three (3) mutually perpendicular axes.



Vibration Testing:

Overall: 24.3 g_{rms}. Three orthogonal axes for three (3) minutes in each axis.



Interface Dimensions (inches):

