



KINETICS® LDR

LIGHT DUTY RAIL ISOLATION SYSTEM

Features

- Cost effective isolation solution for light weight rooftop isolation
- Zinc plated steel housing
- Bright zinc plated hardware
- Seismic and wind restraint certifications available
- Currently available in 1" deflection. 2" deflection coming soon.
- Shipped assembled with four (4) isolators, two (2) lengths of strut, and four (4) equipment attachment clip assemblies. All hardware is provided to mount the equipment to the rail.
- Load capacities up to 810 lbs per set of four (4) isolators (up to 205 lbs per isolator)
- Can be used on a single unit or multiple units farmed together using longer strut and custom quantities of isolators

Description

Kinetics® LDR light duty rail isolation system is a low-cost solution designed to isolate residential style condensing units and other light weight equipment (small fans, mini split systems, etc.). LDR eliminates vibration from penetrating into the structure and occupants below.

Standard LDR isolation system orders will include four (4) seismic isolators with snubbers, two (2) pieces of 24" or 48" Unistrut (custom sizes available), and four (4) equipment attachment clip assemblies (clips, strut nuts, and clip bolts).

Application

LDR light duty rail isolation system is recommended for the isolation of rooftop condensing units to eliminate vibration from penetrating into the structure below and disturbing the occupants. LDR is used to isolate an individual condensing unit and is fully customized into long lengths of strut with custom quantities of isolators for large numbers of units in a single area.

Specification

Isolation system shall be comprised of 2 independent support rails with adjustable equipment mounting clips each supported by 2 seismic and wind resistant housed spring isolators. The springs shall have all of the characteristics of free standing coil spring isolators per section D below. Isolators shall consist of a single laterally stable steel coil spring assembled into steel housings designed to limit movement of the supported equipment in all directions.

Housing assembly shall be a steel member that includes provisions for attachment to structural or elevated roof island elements. It shall interface with a coil spring leveling assembly and a 3-axis restraint snubbing element that shall bolt directly to the underside of the equipment support rail. The housing shall be fitted with integral non-skid isolation pads and holes for anchoring the housing to the supporting structure. Housing shall be zinc plated for outdoor corrosion resistance. Housing shall be designed to provide a constant free and operating height within 1/8" (3 mm).

The isolator housing shall be designed to withstand the project design seismic forces in all directions.

Coil spring elements shall be selected to provide static deflections of either 1 or 2 inches as shown on the vibration isolation schedule or as indicated or required in the project documents. Spring elements shall be color coded or otherwise easily identified. Springs shall have a lateral stiffness greater than 1.1 times the rated vertical stiffness and shall be designed to retain a minimum of 0.75 inch travel beyond the rated capacity to accommodate overloads. Non-welded spring elements shall be epoxy powder coated and shall have a minimum of a 1000 hour rating when tested in accordance with ASTM B-117.

Spring rail assembly shall be model LDR as manufactured by Kinetics Noise Control.

STANDARD RATINGS		SPRING COIL (SINGLE ISOLATOR)				
TYPE	SIZE	COLOR	FREE HT.	O.D.	RATED	
					LOAD lbs (kg)	DEFL. in (mm)
LDR	1-120	BLUE	2.50 (64)	1.46 (37)	120 (54)	2.00 (51)
LDR	1-260	GREEN	2.50 (64)	1.46 (37)	260 (118)	2.00 (51)
LDR	1-480	GRAY	2.50 (64)	1.46 (37)	480 (218)	1.90 (48)
LDR	1-820	BROWN	2.50 (64)	1.46 (37)	820 (372)	1.90 (48)



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