

VORTX™ Vibration Damper

Weight: 0.00kg

Dimensions: 0.00cm x 0.00cm x 0.00cm

Description

VORTX Dampers respond to wind induced line vibration that is characterized by high frequency, low amplitude motion a.k.a. aeolian vibration. The VORTX damper with Large and Small weights can achieve greater power dissipation and frequency response performance than “symmetrical weight” Stockbridge damper designs. Wider frequency coverage translates into better protection as energy is more effectively dissipated over the entire range of conductor/cable frequencies.

Features

- Contoured Clamp – Aluminum alloy extrusion offers a “precision” fit to evenly capture the conductor and uniformly distribute pressure along the conductor surface.
- Clamp Profile – During installation, the damper clamp will hang from the conductor in accordance with IEC standards. Hands are free to tighten the bolt to the proper torque.
- Messenger Strand – Precision manufactured galvanized steel messenger strand efficiently absorbs vibration energy.
- Weight – Open galvanized ductile iron weights do not enclose the messenger, reducing the possibility of corrosion.
- Weight Attachment – PLP’s novel weight attachment system exceeds the pull-off strength requirements of the IEC standards without changing the properties of the adjoining messenger. In contrast, heat from casting or welding attachment methods can alter the messenger strand and reduce performance.
- Breakaway Bolt Option – The VORTX Vibration Damper can also be ordered with a breakaway bolt. When tightened to the recommended torque level, the top head of this bolt will shear off, ensuring that the clamp is neither over, nor undertightened.
- May be installed on either energized (hot) or unenergized (cold) lines. Application instructions are supplied with each order which include the recommended installation procedure and bolt torque.
- VORTX Dampers are tested in accordance with IEC 61897: Overhead Lines – Requirements and Tests for Stockbridge Type Aeolian Vibration Dampers.
- PLP has developed a proprietary computer program known as the VORTX

Vibration Damper Placement Software or VORTX VDP for short. This software is based upon data gathered from laboratory testing, field studies, CAD research, and PLP's 60+ year knowledge base on vibration.

Documentation

Application Procedures

[SP-2993 \(VORTX Vibration Damper\)](#)

Catalog Pages

[VORTX Vibration Damper - Catalog](#)

Sales Materials

[VORTX Vibration Damper - Sell Sheet](#)

Reports & Manuals

[Aeolian Vibration Basics](#)

[Overhead Distribution Line Repair Manual](#)

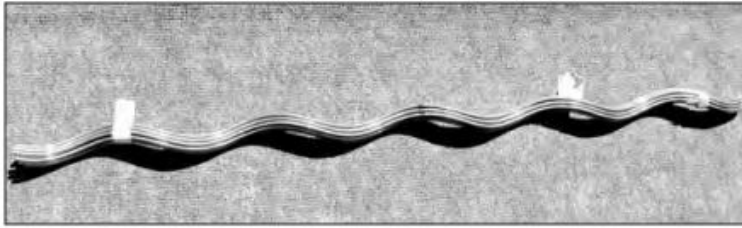
Part Tables

VORTX Damper Details for Conductor and Shield Wire Applications

Catalog Number	Clamp Range Inches		Clamp Range mm		Overall Length		Reference Length Long		Clamp Width		Bolt Size	Install Torque		Assembled Weight	
	Min	Max	Min	Max	Inches	mm	Inches	mm	Inches	mm		mm	Ft-lb	N-m	lb
VSD-1010	0.300	0.381	7.6	9.7	11.0	278	5.0	128	1.250	31.8	M10 x 50	30	41	2.3	1.0
VSD-1012	0.381	0.483	9.7	12.3	11.3	288	5.0	128	1.630	41.4	M10 x 50	30	41	2.4	1.1
VSD-1016	0.483	0.612	12.3	15.5	11.3	288	5.0	128	1.630	41.4	M10 x 50	30	41	2.4	1.1
VSD-1020	0.612	0.786	15.5	20.0	11.7	297	5.0	128	2.000	50.8	M10 x 50	30	41	2.7	1.2
VSD-1025	0.786	0.983	20.0	25.0	11.7	297	5.0	128	2.000	50.8	M10 x 50	30	41	2.8	1.3
VSD-1032	0.983	1.261	25.0	32.0	11.9	302	5.0	128	2.200	55.9	M12 x 70	40	54	3.2	1.4
VSD-2016	0.483	0.612	12.3	15.5	14.6	370	6.9	175	1.630	41.4	M10 x 50	30	41	3.6	1.6
VSD-2020	0.612	0.786	15.5	20.0	14.9	379	6.9	175	2.000	50.8	M10 x 50	30	41	3.9	1.8
VSD-2025	0.786	0.983	20.0	25.0	14.9	379	6.9	175	2.000	50.8	M10 x 50	30	41	4.0	1.8
VSD-2032	0.983	1.261	25.0	32.0	15.1	384	6.9	175	2.200	55.9	M12 x 70	40	54	4.4	2.0
VSD-2040	1.261	1.579	32.0	40.1	15.3	389	6.9	175	2.380	60.5	M12 x 70	40	54	4.6	2.1
VSD-2050	1.579	1.970	40.1	50.0	15.4	392	6.9	175	2.500	63.5	M12 x 70	40	54	4.9	2.2
VSD-2520	0.612	0.786	15.5	20.0	12.7	322	6.4	161	2.000	50.8	M10 x 50	30	41	4.9	2.2
VSD-2525	0.786	0.983	20.0	25.0	12.7	322	6.4	161	2.000	50.8	M10 x 50	30	41	5.0	2.3
VSD-2532	0.983	1.261	25.0	32.0	12.9	327	6.4	161	2.200	55.9	M12 x 70	40	54	5.4	2.5
VSD-2540	1.261	1.579	32.0	40.1	13.1	332	6.4	161	2.380	60.5	M12 x 70	40	54	5.7	2.6
VSD-3525	0.786	0.983	20.0	25.0	14.7	374	7.0	179	2.000	50.8	M10 x 50	30	41	7.3	3.3
VSD-3532	0.983	1.261	25.0	32.0	14.9	379	7.0	179	2.200	55.9	M12 x 70	40	54	7.7	3.5
VSD-3540	1.261	1.579	32.0	40.1	15.1	384	7.0	179	2.380	60.5	M12 x 70	40	54	7.9	3.6
VSD-3550	1.579	1.970	40.1	50.0	15.2	387	7.0	179	2.500	63.5	M12 x 70	40	54	8.2	3.7
VSD-4032	0.983	1.261	25.0	32.0	20.3	515	10.5	267	2.200	55.9	M12 x 70	40	54	10.8	4.9
VSD-4040	1.261	1.579	32.0	40.1	20.4	519	10.5	267	2.380	60.5	M12 x 70	40	54	11.1	5.0
VSD-4050	1.579	1.970	40.1	50.0	20.6	523	10.5	267	2.500	63.5	M12 x 70	40	54	11.4	5.2
VSD-4061	1.970	2.422	50.0	61.5	21.1	535	10.5	267	3.000	76.2	M12 x 75	40	54	12.1	5.5
VSD-5040	1.261	1.579	32.0	40.1	23.9	606	12.1	307	2.380	60.5	M12 x 75	40	54	11.5	5.2
VSD-5050	1.579	1.970	40.1	50.0	24.0	609	12.1	307	2.500	63.5	M12 x 75	40	54	11.8	5.3
VSD-5061	1.970	2.422	50.0	61.5	24.5	622	12.1	307	3.000	76.2	M12 x 75	40	54	12.5	5.7
VSD-5543	1.500	1.700	38.1	43.2	21.6	548	11.2	285	2.61	66.3	M12 X 75	45	61	18.4	8.3
VSD-5549	1.700	1.950	43.2	49.5	21.8	553	11.3	286	2.75	69.9	M12 X 50	50	68	18.5	8.4

Accessories

Protector Rods



**Thermal Rating (Continuous)
250°C**

Protector Rods for VORTX Damper on OPGW or Special Conductors:

Protector Rods provide a layer of mechanical protection and reinforcement for accessory items such as VORTX Dampers that clamp onto a cable. This product is not designed for protection at clamp type supports or suspensions. Protector Rods are not to be used as a repair product as they are not

designed to restore conductance or tensile strength to a cable or conductor. Standard Protector Rods are designed for line voltages of 230 kV and lower. For higher voltage applications, Parrot Bill rod end treatment can be provided – contact PLP for details.

PLP Protector Rods										
Catalog Number*	Cable Diameter Range				Rod Length		Wire Size Inches (mm)	Color Code	Units Per Carton	Weight/ Carton Pounds (Kg)
	Inches		mm							
	Min.	Max.	Min.	Max.	Inches	mm				
PR-0135	0.378	0.423	9.6	10.7	12	304	0.121 (3.1)	Yellow	50	10 (4.5)
PR-0137	0.424	0.475	10.8	12.1	12	304	0.121 (3.1)	Brown	50	10 (4.5)
PR-0139	0.476	0.533	12.1	13.5	16	406	0.121 (3.1)	Blue	50	14 (6.4)
PR-0141	0.534	0.585	13.6	14.8	16	406	0.121 (3.1)	Green	50	14 (6.4)
PR-0142	0.586	0.618	14.9	15.6	16	406	0.146 (3.7)	Orange	50	21 (9.5)
PR-0144	0.619	0.667	15.7	16.9	16	508	0.146 (3.7)	Purple	50	21 (9.5)
PR-0146	0.668	0.722	17.0	18.3	20	508	0.146 (3.7)	Red	50	29 (13.1)
PR-0148	0.723	0.816	18.4	20.3	20	508	0.146 (3.7)	Black	50	29 (13.1)
PR-0150	0.817	0.898	20.8	22.7	20	508	0.146 (3.7)	White	50	31 (14.1)
PR-0151	0.899	0.954	22.8	24.2	24	610	0.167 (4.2)	Yellow	50	47 (21.3)
PR-0152	0.955	1.019	24.3	25.8	24	610	0.182 (4.6)	Brown	25	29 (13.1)
PR-0154	1.020	1.064	25.9	27.0	24	610	0.182 (4.6)	Blue	25	29 (16.1)
PR-0155	1.065	1.098	27.1	27.8	26	660	0.204 (5.2)	Green	25	36 (16.3)
PR-0156	1.099	1.181	27.9	29.9	26	660	0.250 (6.4)	Orange	25	48 (21.7)
PR-0158	1.182	1.298	30.0	32.9	26	660	0.250 (6.4)	Purple	25	51 (23.1)
PR-0160	1.299	1.415	33.0	35.9	26	660	0.250 (6.4)	Blue	20	44 (19.9)
PR-0162	1.416	1.543	36.0	39.2	26	660	0.250 (6.4)	Yellow	20	48 (21.7)
PR-0163	1.544	1.685	39.2	42.8	26	660	0.250 (6.4)	Brown	15	40 (18.1)
PR-0164	1.686	1.840	42.8	46.7	26	660	0.250 (6.4)	Blue	15	42 (19.0)