

Conductor Protection Index

Dampers

607..... Vibration Damper 4R Stockbridge.....G-1

Armor Rods

AP8..... Aluminum Armor Rods.....G-6

APGS..... Galvanized Steel Armor RodsG-8

APAS..... Aluminum-Clad Steel Armor Rods.....G-9

Line Guards

PL5..... Aluminum Line Guards.....G-10

Protector Rods

PR5 Aluminum Protector Rods.....G-12

Cross Reference

Armor Rods, Line Guards & Protector Rods.....G-13

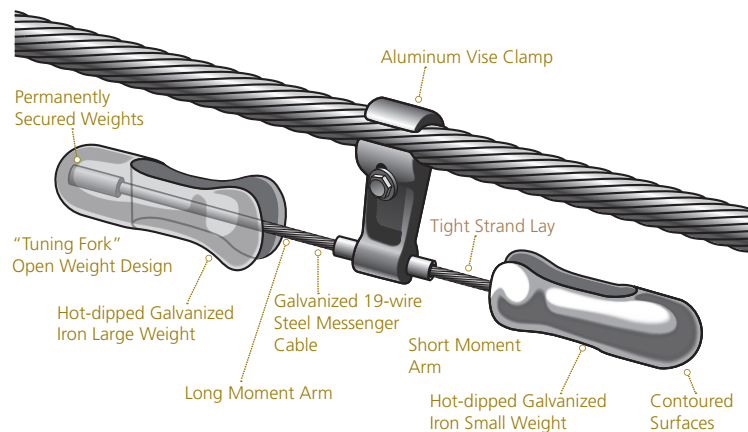
Dampers

Vibration Damper 4R Stockbridge

Fargo® 4-R vibration dampers effectively prevent fatigue damage to conductor and static wires caused by wind-induced aeolian vibration.

The 4-R concept improves on the design of the basic Stockbridge damper, significantly increasing the efficiency of converting wind-induced energy into heat. The improved design employs unequal weights on messengers of unequal length. This configuration doubles the number of resonant peaks from two generated by the old-style Stockbridge damper to four in the improved Fargo 4-R. These additional resonant peaks create an envelope of dynamic response that protects the conductor through the entire range of dangerous vibration frequencies.

To assure maximum performance, Fargo utilizes a sophisticated computer simulation whose development has been verified by decades of testing and field measurements. This computer model identifies the optimum damper placement on the span.



Fargo 4-R Vibration Damper System Provides You...

Maximum Protection From Wind-Induced Conductor Bending Strain

The four-resonant peaks include two separate cantilever response modes and two separate rotational response modes of the weight and messenger cable. These peaks also provide maximum energy dissipation to reduce strain over the entire spectrum of dangerous wind velocities.

- Wide frequency response range optimizes protection of your system
- Large 19 strand wire and tight strand lay dissipate energy more efficiently
- Press fit permanent weight attachment technique assures long-term performance
- Contoured surfaces prevent corona discharge

Comprehensive Application Program for Optimum Performance

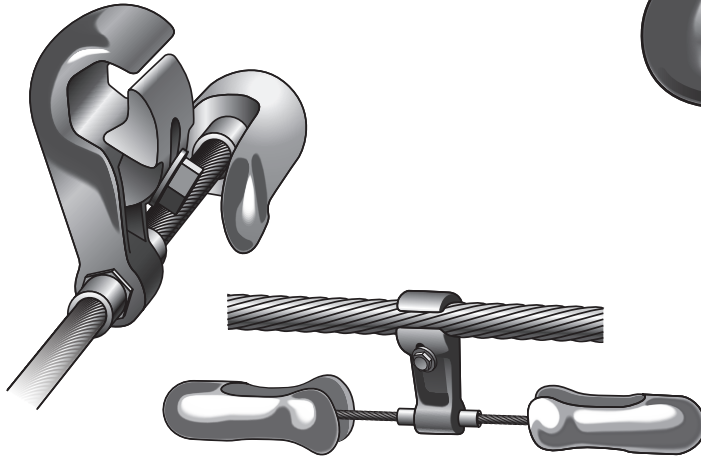
Provides precise selection and placement through our proprietary computer simulation

- Computer program based on a mathematical model verified by decades of laboratory testing and field vibration measurements
- Precisely identifies the vibration performance characteristics of transmission lines
- Determines dangerous tension levels for existing or proposed spans
- Identifies the frequency range, tension level and span lengths requiring damper protection
- Identifies proper damper placement for required vibration energy dissipation
- Results of the above analysis for conductors and shield wires are available online at: <http://hpsapps.com/damper2>
Fargo 4-R Damper Application Software
- See the Reference Materials section of this catalog for a detailed program description.

Dampers

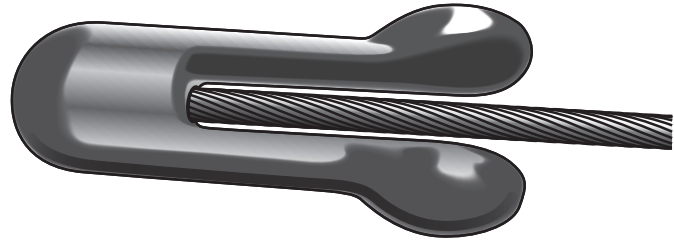
Vibration Damper 4R Stockbridge

Messenger Cable: Materials and stranding are selected to obtain the best energy absorption characteristics. The galvanized steel messenger is manufactured to rigid engineering standards.

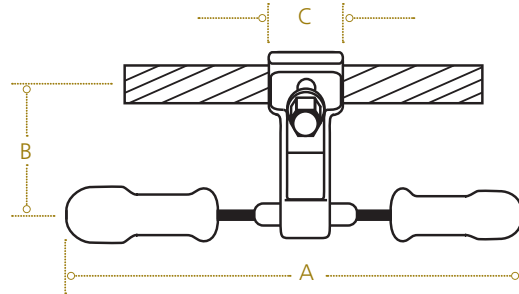


Clamp: The bolted clamp permits easy installation on a wide range of conductor sizes. Aluminum clamping bolt ensures that damper clamp remains tight as conductor temperature changes with current load cycling.

Fargo® 4-R vibration dampers effectively prevent fatigue damage to conductor and static wires caused by wind-induced aeolian vibration.



Weights: Uniquely shaped so that the resonant peaks are effectively distributed over the desired frequency range. All weights are given a corrosion-resistant finish and have smooth surfaces and rounded edges to eliminate possible corona discharge.



Product Data

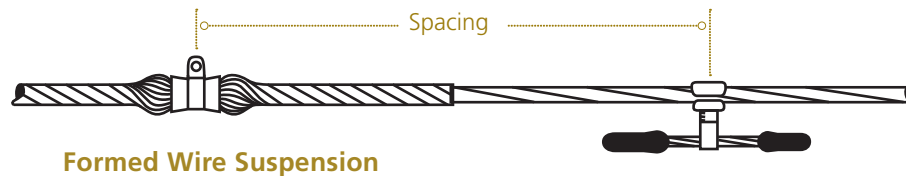
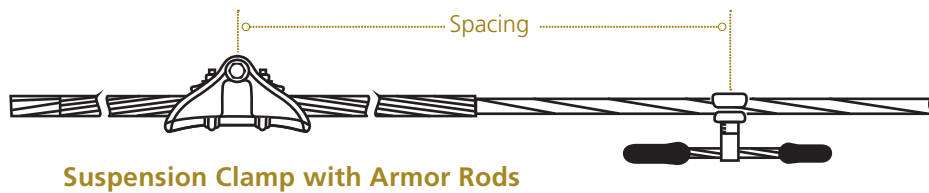
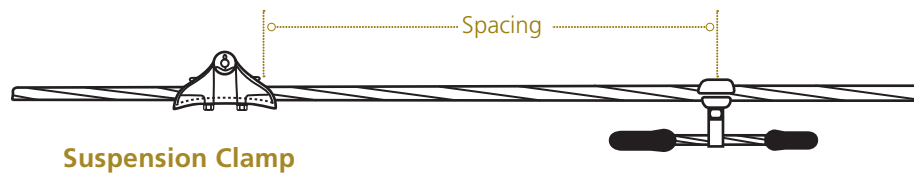
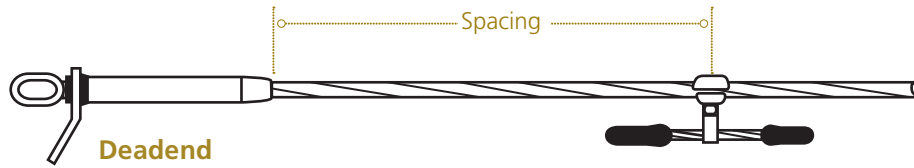
Damper Catalog Number ⁽¹⁾	Bare Conductor/Cable Diameter Range ⁽²⁾ in. (mm)	Conductor/Cable Dia. Over Armor Rods Range ⁽²⁾ in. (mm)	Clamp Bolt Torque ft-lb	Dimensions - inches (mm)			Weight Each lb (kg)	Std Pkg Qty
				A	B	C		
607048	0.270 - 0.438 (6.86 - 11.1)	-	20	11.1 (282)	2.38 (60)	1.75 (44)	2.8 (1.3)	10
607051011	0.439 - 0.858 (11.2 - 21.9)	0.524 - 0.865 (13.3 - 22.0)	25	16.1 (409)	2.69 (68)	1.75 (44)	4.8 (2.2)	6
6070512	-	0.710 - 1.170 (18.0 - 29.7)	25	16.1 (409)	2.91 (74)	2.26 (57)	5.0 (2.3)	6
6071012	0.859 - 1.130 (21.8 - 28.7)	-	25	20.0 (508)	2.91 (74)	2.26 (57)	9.0 (4.1)	6
6071018	-	1.170 - 1.755 (29.7 - 44.6)	40	20.0 (508)	3.20 (81)	2.26 (57)	9.4 (4.3)	6
6071513	1.131 - 1.425 (28.7 - 36.2)	-	25	21.9 (556)	3.78 (96)	2.82 (72)	15.7 (7.1)	4
6071523	-	1.640 - 2.230 (41.7 - 58.4)	40	21.9 (556)	4.20 (107)	2.82 (72)	16.0 (7.3)	3
6072014	1.426 - 1.821 (36.2 - 46.3)	-	40	24.0 (610)	5.92 (150)	3.54 (90)	22.0 (10)	3
6072025	-	1.940 - 2.560 (49.3 - 65.0)	40	24.0 (610)	6.30 (160)	3.54 (90)	22.5 (10.2)	3

(1) To specify Torque Head/Break Away bolt option, add suffix "O" to catalog number.

(2) Recommended conductor/cable size range limits. Physical clamp range may be slightly larger.

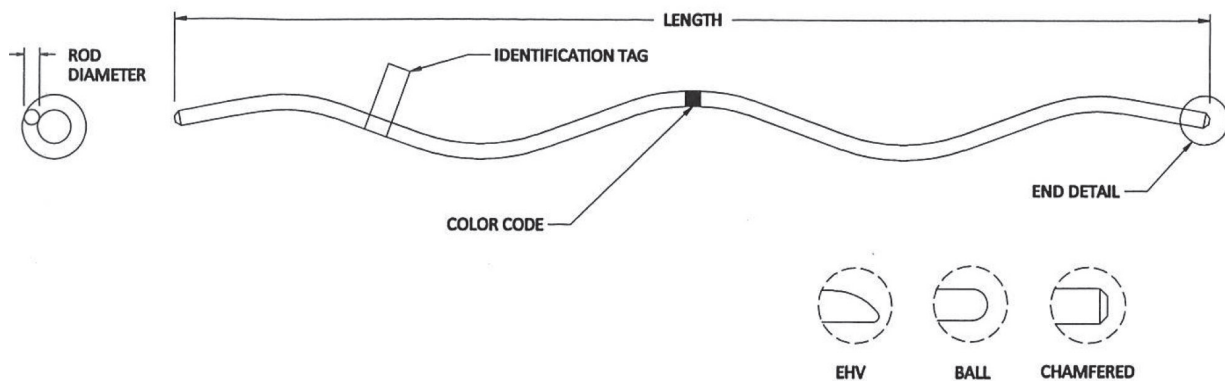
Dampers

4-R Damper Installation Instructions



NOTE: Dampers shall be located from the center of the damper clamp to either the dead end or the suspension support as shown above. The orientation of the damper weights along the conductor is optional. For convenience, orient the damper such that the clamp bolt head faces the installer. When only one damper is required per conductor per span, it can be installed at either span extremity when the support hardware is identical. When support hardware differs, place the damper at the suspension structure. When two dampers are required per conductor per span, the preferred placement is one at each span extremity.

Armor Rods & Line Guards



Industry Competitive

- Price, quality & lead time
- Look, feel & function
- ACSR/ACSS; ACSR/ACSS TW; AAC, AAAC; ACAR

Production

- EHV rated, made to order
- Inventory available for popular sizes
- Sample orders welcomed

Product Specs

- Aluminum Alloy
- Right Hand Lay
- Ball Ends ≥ 0.250 "
- Chamfered Ends < 0.250 "
- Add "E" Suffix for EHV Rod End
- Add "D" Prefix for Double Supported Length (For rod diameters < 0.25 " only)



Armor Rods & Line Guards

Materials:

Rods – manufactured from either aluminum covered steel, aluminum alloy or galvanized steel

Color code and center mark – establishes alignment of rods during application and identifies conductor size

Identification tag – identifies catalog number and conductor details



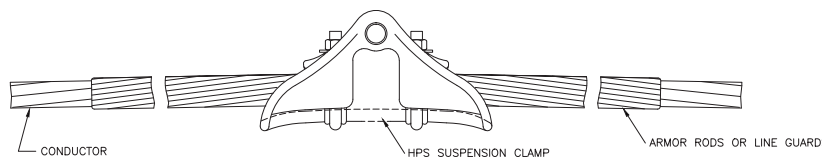
Industry Knowledge:

Armor Rods and Line Guards have overlapping purpose – to protect conductors from fatigue-damage by providing a stiffening support for suspended conductors. They also protect from abrasion-damage at attachment points by providing a buffer between the conductor and the clamping connector. They are both made up of sets of individual rods of the same diameter. When installed, the set of individual rods grip rigidly onto their respective conductors. Once each rod of the respective set has been installed, the set should evenly enclose the conductor along the length of the rods.

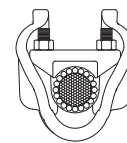
Physically, the line guard sets are shorter in length and the individual rods are smaller in diameter. The application for line guards is typically found on light transmission lines with shorter spans, smaller conductor sizes and lower voltages. Armor Rods are recommended for applications where the conductor is clamped or suspended with bolted type connectors.

Product Offerings:*

- Aluminum Armor Rods
- Aluminum Line Guards
- Aluminum Protector Rods
- Galvanized Steel Rods
- Alumo-Weld® Steel Rods



- EHV @ 250° C for respective suspension clamp & conductor application*
- Application O.D. = (Rod O.D. X 2) + Conductor O.D.



General Recommendations

Armor Rods

1. Fargo® Armor Rods are intended to protect conductors from stress and damage which can be caused by a bend, compression, abrasion or arc over. They are also designed to repair conductors which have sustained < 50% outer strand damage.*
2. Armor Rods should be considered as minimum protection for clamp style supports or suspension hardware for spans > 300 feet.
3. Armor Rods are designed to provide an extra degree of protection to the conductor at support points, **not act as vibration dampers**. In areas where vibration is suspected or known to occur, the use of Fargo® 4-R Dampers is recommended.

Line Guards

1. Fargo® Line Guards are intended to provide an extra degree of protection for the conductor against abrasion and arc over. They are also designed to repair conductors which have sustained < 25% outer strand damage.*
2. Line Guards should be considered as minimum protection for hand-tied spans ≤ 300 feet in urban areas with no history of vibration.
3. Line Guards should be considered as a cost saving alternate to Armor Rods when applicable. Note: HPS Distribution Ties are recommended as an improvement over Line Guards and hand ties, providing a stronger and more uniform tie.

*The degree of protection required is dependent upon line design, tension, temperature, and wind conditions. Contact HPS Connectors Business Unit for specific recommendations.

Conductor Protection — Armor Rods

For use on stranded aluminum and aluminum composite conductors, including high-temperature conductor designs.⁽⁴⁾



ALUMINUM

AP8

Material: aluminum alloy

Product Data and Conductor Size

Catalog Number	Conductor Dia. Range In. (mm)		Nominal Conductor Size (AWG or KCMIL)		Applied Length (in.)	Rod Dia. (in.)	Rods Per Set	Sets Per Carton	Wt. Per Carton (lbs.)	Color Code
	Min.	Max.	ACSR/ACSS	AAC, AAAC						
AP8114 DAP8114	0.309 (7.8)	0.326 (8.3)	#2 (6/1)		44 56(D)	0.136	9	50	32 40	Red
AP8115 DAP8115	0.327 (8.3)	0.346 (8.8)		#1	46 58(D)	0.146	9	50	38 46	Blue
AP8116 DAP8116	0.347 (8.8)	0.366 (9.3)	#1 (6/1)		48 60(D)	0.146	9	50	40 49	Green
AP8117 DAP8117	0.367 (9.3)	0.389 (9.9)		1/0	50 62(D)	0.146	10	50	45 55	Black
AP8118 DAP8118	0.390 (9.9)	0.413 (10.5)	1/0 (6/1)		52 64(D)	0.167	9	50	55 67	Yellow
AP8119 DA08119	0.414 (10.5)	0.436 (11.1)		2/0	52 64(D)	0.146	10	50	48 58	Brown
AP8120 DAP8120	0.437 (11.1)	0.463 (11.8)	2/0 (6/1)		54 66(D)	0.167	10	50	64 76	Blue
AP8121 DAP8121	0.464 (11.8)	0.490 (12.4)		3/0	54 66(D)	0.167	10	50	64 76	Green
AP8122 DAP8122	0.491 (12.5)	0.521 (13.2)	3/0 (6/1)		56 68(D)	0.167	11	25	37 46	Orange
AP8123 DAP8123	0.522 (13.3)	0.551 (14.0)		4/0	58 70(D)	0.167	11	25	38 46	Black
AP8124 DAP8124	0.552 (14.0)	0.585 (14.9)	4/0 (6/1)	250	60 72(D)	0.182	11	25	46 55	Red
AP8125 DAP8125	0.586 (14.9)	0.606 (15.4)		266.8	62 74(D)	0.182	12	25	52 61	Black
AP8126 DAP8126	0.607 (15.4)	0.630 (16.0)	266.8 (18/1)		64 76(D)	0.182	12	25	54 63	Purple
AP8127 DAP8127	0.631 (16.0)	0.655 (16.6)	266.8 (26/7)		64 76(D)	0.182	12	25	54 63	Yellow
AP8128 DAP8128	0.656 (16.7)	0.679 (17.2)		336.4	66 78(D)	0.182	13	18	43 51	Brown
AP8129 DAP8129	0.680 (17.3)	0.703 (17.9)	336.4 (18/1)		68 80(D)	0.204	12	18	52 60	Blue
AP8130 DAP8130	0.704 (17.9)	0.740 (18.8)	336.4 (26/7)	397.5	72 84(D)	0.204	12	18	54 64	Green
AP8131	0.741 (18.8)	0.782 (19.9)	397.5 (18/1)		72	0.204	13	18	59	Orange
AP8132	0.783 (19.9)	0.814 (20.7)	397.5 (26/7)	477, 500	76	0.250	11	15	66	Purple
AP8133	0.815 (20.7)	0.845 (21.5)			76	0.250	11	15	66	Red
AP8134	0.846 (21.5)	0.907 (23.0)	477 (26/7)	556.5	78	0.250	12	15	74	Blue
AP8135	0.908 (23.1)	0.929 (23.6)	556.5 (26/7)	636	80	0.250	13	12	66	Green
AP8136	0.930 (23.6)	0.976 (24.8)	556.5 (30/7) 605 (26/7)	715.5	88	0.250	13	12	72	White

NOTES:

- (1) Right-hand lay standard.
- (2) For aluminum conductor types & sizes not listed above, select rod set based on dia. range to accommodate conductor.
- (3) Applied O.D. of conductor with rods, for suspension clamp selection, equals conductor diameter plus two times rod dia.
- (4) Maximum conductor temperature limits vary with suspension clamp designs. See catalog Reference Data section for guidelines.

Conductor Protection — Armor Rods

For use on stranded aluminum and aluminum-composite conductors, including high-temperature conductor designs.(4)

For EHV applications, add suffix "E" to catalog numbers to Specify. Example AP8146E



ALUMINUM

AP8

Material: aluminum alloy

Product Data and Conductor Size

Catalog Number	Conductor Dia. Range In. (mm)		Nominal Conductor Size (AWG or KCMIL)		Applied Length (in.)	Rod Dia. (in.)	Rods Per Set	Sets Per Carton	Wt. Per Carton (lbs.)	Color Code
	Min.	Max.	ACSR/ACSS	AAC, AAAC						
AP8137	0.977 (24.8)	1.016 (25.8)	636 (24/7) (26/7) 666 (24/7) (26/7)	750	92	0.310	11	9	50	Yellow
AP8138	1.017 (25.8)	1.035 (26.3)	636.0 (30/19)	795	94	0.310	12	6	55	Brown
AP8139	1.036 (26.3)	1.064 (27.0)	715.5 (26/7) 795 (45/7)		96	0.310	12	6	56	Blue
AP8140	1.065 (27.1)	1.098 (27.9)	795 (24/7)	900	96	0.310	12	6	56	Green
AP8141	1.099 (27.9)	1.139 (28.9)	795 (26/7)	954	100	0.310	12	6	62	Orange
AP8142	1.140 (29.0)	1.161 (29.5)	954 (36/1)	1000	100	0.310	13	6	63	Purple
AP8143	1.162 (29.5)	1.208 (30.7)	954 (45/7) (54/7) 1033.5 (36/1)	1033	100	0.310	13	6	69	Red
AP8144	1.209 (30.7)	1.269 (32.2)	1033.5 (45/7) (54/7) 1113 (45/7)	1113	100	0.365	12	6	81	Black
AP8145	1.270 (32.3)	1.327 (33.7)	1113 (54/19) 1192.5 (45/7)	1272	100	0.365	12	6	81	White
AP8146	1.328 (33.7)	1.390 (35.3)	1192.5 (54/19) 1272 45/7 (54/19) 1351.5 (45/7)	1351.5 1431	100	0.365	13	3	45	Yellow
AP8147	1.391 (35.3)	1.440 (36.6)	1351.5 (54/19) 1434 (45/7)	1500	100	0.436	11	3	54	Brown
AP8163	1.441 (36.6)	1.508 (38.3)	1590 (45/7)	1590	100	0.436	12	3	58	Blue
AP8164	1.509 (38.3)	1.578 (40.1)	1590 (54/19)	1750	100	0.436	12	3	58	Green
AP8165	1.579 (40.1)	1.651 (41.9)	1780 (84/19)	2000	100	0.436	13	3	60	Orange
AP8166	1.652 (42.0)	1.728 (43.9)	2034.5 (72/7)		100	0.436	13	3	60	Purple
AP8167	1.729 (43.9)	1.809 (45.9)	2167 (72/7) 2156 (84/19)	2300	100	0.436	14	3	64	Red
AP8168	1.810 (46.0)	1.898 (48.2)	2515 (76/19)	2500	100	0.436	14	3	64	Black

NOTES:

- (1) Right-hand lay standard.
- (2) For aluminum conductor types & sizes not listed above, select rod set based on dia. range to accommodate conductor.
- (3) Applied O.D. of conductor with rods, for suspension clamp selection, equals conductor diameter plus two times rod dia.
- (4) Maximum conductor temperature limits vary with suspension clamp designs. See catalog Reference Data section for guidelines.

Conductor Protection — *Armor Rods*

For use on galvanized, stranded-steel cables with lefthand lay. Typical application is on transmission line overhead shield wires.

STEEL

APGS

Material: galvanized steel

Product Data

Catalog Number	Cable Dia. Range In. (mm)		Nominal Cable Diameter (in.)	Applied Length (in.)	Rod Dia. (in.)	Rods Per Set	Sets Per Carton	Wt. Per Carton (lbs.)	Color Code
	Min.	Max.							
APGS0516	0.309 (7.8)	0.326 (8.3)	5/16	44	0.100	11	50	60	Black
APGS0038	0.347 (8.8)	0.373 (9.5)	3/8	48	0.100	12	50	70	Orange
APGS0716	0.414 (10.5)	0.436 (11.1)	7/16	52	0.119	12	20	52	Green
APGS0012	0.491 (12.5)	0.521 (13.2)	1/2	56	0.138	12	20	62	Blue

NOTES:

- (1) Left-hand lay standard.
- (2) Applied O.D. of conductor with rods, for suspension clamp selection, equals conductor diameter plus two times rod dia.
- (3) Galvanized steel armor rods may be suitable for application on other cable types, Consult factory for specific information.

Conductor Protection — Armor Rods

For use on Alumoweld® (aluminum-clad, stranded-steel) cables with left-hand lay. Typical application is on transmission line overhead shield wires.

STEEL

APAS

Material: aluminum-clad steel

Product Data

Catalog Number	Cable Dia. Range In. (mm)		NOMINAL CABLE SIZE INCHES, AWG-STR M(UTS kLB)	Applied Length (in.)	Rod Dia. (in.)	Rods Per Set	Sets Per Carton	Wt. Per Carton (lbs.)	Color Code
	Min.	Max.							
APAS0710 DAPAS0710	0.296 (7.5)	0.314 (8.0)	5/16", 7#10, 3#7, 10M	46 58(D)	0.114	9	25	30 37	Black
APAS0079 DAPAS0079	0.334 (8.5)	0.352 (8.9)	7#9, 3#6, 12.5M	50 62(D)	0.114	10	25	35 44	Yellow
APAS0078 DAPAS0078	0.373 (9.5)	0.392 (10.0)	3/8", 7#8, 3#5, 16M	50 62(D)	0.128	10	25	44 54	Orange
APAS018M DAPAS018M	0.409 (10.4)	0.425 (10.8)	18M	54 66(D)	0.128	11	25	51 62	Black
APAS0077 DAPAS0077	0.426 (10.8)	0.450 (11.4)	7/16", 7#7, 20M	56 68(D)	0.128	12	25	58 70	Green
APAS0076 DAPAS0076	0.477 (12.1)	0.504 (12.8)	1/2", 7#6	56 68(D)	0.144	11	20	54 65	Blue
APAS0075 DAPAS0075	0.535 (13.6)	0.565 (14.4)	9/16", 7#5	60 72(D)	0.162	12	10	40 48	Yellow

NOTES:

- (1) Left-hand lay standard.
- (2) Applied O.D. of conductor with rods, for suspension clamp selection, equals conductor diameter plus two times rod dia.
- (3) Alumoweld is a registered trademark of the Copperweld Co.

Conductor Protection — Line Guards

For use on stranded aluminum and aluminum composite conductors, including high-temperature conductor designs.⁽⁴⁾

ALUMINUM

PL5

Material: aluminum alloy

Product Data and Conductor Size

Catalog Number	Conductor Dia. Range In. (mm)		Nominal Conductor Size (AWG or KCMIL)		Applied Length (in.)	Rod Dia. (in.)	Rods Per Set	Sets Per Carton	Wt. Per Carton (lbs.)	Color Code
	Min.	Max.	ACSR/ACSS	AAC, AAAC						
PL5130 DPL5130	0.290 (7.4)	0.308 (7.8)		#2	21 33(D)	0.121	9	100	25 38	Purple
PL5131 DPL5131	0.309 (7.8)	0.326 (8.3)	#2 (6/1)	#2	21 33(D)	0.121	9	100	25 38	Red
PL5132 DPL5132	0.327 (8.3)	0.346 (8.8)		#1	21 33(D)	0.121	10	100	28 42	Blue
PL5133 DPL5133	0.347 (8.8)	0.366 (9.3)	#1 (6/1)		23 35(D)	0.121	10	100	30 44	Green
PL5134 DPL5134	0.367 (9.3)	0.389 (9.9)		1/0	23 35(D)	0.121	11	100	32 46	Black
PL5135 DPL5135	0.390 (9.9)	0.413 (10.5)	1/0 (6/1)	1/0	25 37(D)	0.121	10	100	35 50	Yellow
PL5136 DPL5136	0.414 (10.5)	0.436 (11.1)		2/0	25 37(D)	0.121	12	50	20 29	Brown
PL5137 DPL5137	0.437 (11.1)	0.463 (11.8)	2/0 (6/1)		27 39(D)	0.121	13	50	23 32	Blue
PL5138 DPL5138	0.464 (11.8)	0.490 (12.4)		3/0	27 39(D)	0.121	13	50	24 32	Green
PL5139 DPL5139	0.491 (12.5)	0.521 (13.2)	3/0 (6/1)	195.7	29 41(D)	0.121	14	50	26 36	Orange
PL5140 DPL5140	0.522 (13.3)	0.551 (14.0)		4/0	29 41(D)	0.121	14	50	26 36	Black
PL5141 DPL5141	0.552 (14.0)	0.585 (14.9)	4/0 (6/1)	250	31 43(D)	0.121	15	50	30 40	Red
PL5142 DPL5142	0.586 (14.9)	0.606 (15.4)		266.8	31 43(D)	0.146	14	50	40 54	Black
PL5143 DPL5143	0.607 (15.4)	0.630 (16.0)	266.8 (18/1)	300	33 45(D)	0.146	14	50	42 57	White
PL5144 DPL5144	0.631 (16.0)	0.655 (16.6)	266.8 (26/7)	312.8	33 45(D)	0.146	14	50	42 57	Yellow
PL5145 DPL5145	0.656 (16.7)	0.679 (17.2)		336.4	35 47(D)	0.146	15	50	48 62	Brown
PL5146 DPL5146	0.680 (17.3)	0.703 (17.9)	336.4 (18/1)	350	35 47(D)	0.146	15	50	48 62	Blue
PL5147 DPL5147	0.704 (17.9)	0.740 (18.8)	336.4 (26/7)	397.5	37 49(D)	0.146	16	50	54 70	Green
PL5148 DPL5148	0.741 (18.8)	0.782 (19.9)	397.5 (18/1) (26/7)	477	39 51(D)	0.146	17	50	60 77	Orange
PL5149 DPL5149	0.793 (20.1)	0.840 (21.3)	397.5 (30/7) 477 (18/1)	500	39 51(D)	0.146	18	50	64 82	Purple
PL5150 DPL5150	0.841 (21.4)	0.898 (22.8)	477 (26/7) (30/7)	556.5, 600	41 53(D)	0.146	19	25	41 53	Blue
PL5151 DPL5151	0.899 (22.8)	0.954 (24.2)	556.5 (26/7) (30/7) 636 (18/1)	636	43 55(D)	0.167	18	25	46 58	Green

NOTES:

- (1) Right-hand lay standard.
- (2) For aluminum conductor types & sizes not listed above, select rod set based on dia. range to accommodate conductor.
- (3) Applied O.D. of conductor with rods, for suspension clamp selection, equals conductor diameter plus two times rod dia.
- (4) Maximum conductor temperature limits vary with suspension clamp designs. See catalog Reference Data section for guidelines.

Conductor Protection — Line Guards

Line Guards for conductors 1.0 inch diameter or larger are available for EHV application. Add suffix "E" to catalog number to specify. Example PL5155E

ALUMINUM

PL5

Product Data and Conductor Size (continued)

Catalog Number	Conductor Dia. Range In. (mm)		Nominal Conductor Size (AWG or KCMIL)		Applied Length (in.)	Rod Dia. (in.)	Rods Per Set	Sets Per Carton	Wt. Per Carton (lbs.)	Color Code
	Min.	Max.	ACSR/ACSS	AAC, AAAC						
PL5152 DPL5152	0.955 (24.3)	0.986 (25.0)	605 (26/7) 636 (24/7)	715.5	45 57(D)	0.182	17	25	54 68	White
PL5153 DPL5153	0.987 (25.1)	1.016 (25.8)	636 (26/7) 666 (24/7) (26/7)	750	45 57(D)	0.182	18	25	58 72	Yellow
PL5154 DPL5154	1.017 (25.8)	1.064 (27.0)	636 (30/19) 715 (26/7) 795 (45/7)	795	47 59(D)	0.182	18	25	60 74	Brown
PL5155 DPL5155	1.065 (27.1)	1.098 (27.9)	715.5 (30/19) 795 (54/7)	874.5, 900	49 61(D)	0.204	17	15	44 55	Green
PL5156 DPL5156	1.099 (27.9)	1.153 (29.3)	795 (26/7) (30/19)	954	49 61(D)	0.250	15	15	58 72	Orange
PL5157 DPL5157	1.154 (29.3)	1.208 (30.7)	954 (45/7) (54/7)	1033.5	51 63(D)	0.250	15	15	62 75	Purple
PL5158 DPL5158	1.209 (30.7)	1.268 (32.2)	954 (30/19) 1033.5 (45/7) (54/7) 1113 (45/7)	1113, 1192.5	53 65(D)	0.250	16	15	68 82	Black
PL5159 DPL5159	1.269 (32.2)	1.327 (33.7)	1113 (54/19) 1192.5 (45/7)	1272	53 65(D)	0.250	17	10	48 58	White
PL5160 DPL5160	1.328 (33.7)	1.390 (35.3)	1192.5 (54/19) 1272 (45/7) (54/19) 1351.5 (45/7)	1351.5, 1431	55 67(D)	0.250	16	10	50 60	Yellow
PL5161 DPL5161	1.391 (35.3)	1.440 (36.6)	1351.5 (54/19) 1431 (45/7)	1500	57 69(D)	0.310	15	5	33 40	Brown
PL5162 DPL5162	1.441 (36.6)	1.508 (38.3)	1431 (54/19) 1590 (45/7)	1590, 1700	59 71(D)	0.310	16	5	36 43	Blue
PL5163 DPL5163	1.509 (38.3)	1.578 (40.0)	1590 (54/19)	1750	61 73(D)	0.310	16	5	37 44	Green

NOTES:

- (1) Right-hand lay standard.
- (2) For aluminum conductor types & sizes not listed above, select rod set based on dia. range to accommodate conductor.
- (3) Applied O.D. of conductor with rods, for suspension clamp selection, equals conductor diameter plus two times rod dia.
- (4) Maximum conductor temperature limits vary with suspension clamp designs. See catalog Reference Data section for guidelines.

Conductor Protection — Protector Rods

Primary application as a mechanical reinforcement layer for mounting dampers or other devices on ACSS conductors or OPGW cables where suspension support reinforcing rods are not available to mount damper or device.

ALUMINUM

PR5

For EHV applications, add suffix "E" to catalog numbers to Specify. Example PR5158E

Product Data and Conductor Size

Catalog Number	Conductor / OPGW Dia. Range In. (mm)		Nominal Conductor Size (AWG or KCMIL)		Applied Length (in.)	Rod Dia. (in.)	Rods Per Set	Sets Per Carton	Wt. Per Carton (lbs.)	Color Code
	Min.	Max.	ACSS	ACSS/TW						
PR5139	0.476 (12.1)	0.533 (13.5)			16	0.121	13	50	14	Blue
PR5141	0.534 (13.6)	0.585 (14.9)			16	0.121	14	50	14	Green
PR5142	0.586 (14.9)	0.618 (15.7)			16	0.146	13	50	21	Orange
PR5144	0.619 (15.7)	0.667 (16.9)	266.8 (26/7) (30/7)		16	0.146	14	50	21	Purple
PR5146	0.668 (17.0)	0.722 (18.3)	336.4 (26/7)	336.4 (17/7) T23	20	0.146	15	50	29	Red
PR5148	0.723 (18.4)	0.816 (20.7)	397.5 (26/7) (30/7)	477 (18/7) T13 477 (18/7) T16	20	0.146	16	50	29	Black
PR5150	0.817 (20.8)	0.898 (22.8)	477 (26/7) (30/7)	477 (16/7) T23 556.5 (20/7) T16	20	0.146	18	50	31	White
PR5151	0.899 (22.8)	0.954 (24.2)	556.5 (26/7) (30/7)	636 (20/7) T16	24	0.167	17	50	47	Yellow
PR5152	0.955 (24.3)	1.019 (25.9)	636 (24/7) (26/7) (30/19) 666 (24/7) (26/7)	795 (21/7) T13 795 (20/7) T16	24	0.182	17	25	29	Brown
PR5154	1.020 (25.9)	1.064 (27.0)	715 (24/7) (26/7) 795 (45/7)	795 (22/19) T23 954 (33/7) T7	24	0.182	18	25	29	Blue
PR5155	1.065 (27.1)	1.098 (27.9)	795 (24/7) (54/7)	954 (21/7) T13	26	0.204	17	25	36	Green
PR5156	1.099 (27.9)	1.181 (30.0)	795 (26/7) (30/19) 954 (45/7)	1033.5 (33/7) T7 1033.5 (21/7) T13 1113 (33/7) T7	26	0.250	14	25	48	Orange
PR5158	1.182 (30.0)	1.298 (33.0)	954 (54/7) (30/19) 1033.5 (45/7) (54/7) 1113 (45/7) (54/19)	1113 (39/19) T13 1192.5 (39/19) T13 1272 (33/7) T7 (39/19) T13 1351.5 (33/7) T7	26	0.250	15	25	51	Purple
PR5160	1.299 (33.0)	1.415 (35.9)	1192.5 (45/7) (54/19) 1272 (45/7) (54/19) 1351.5 (45/7)	1351.5 (39/19) T13 1590 (36/7) T7	26	0.250	17	20	44	Blue
PR5162	1.416 (36.0)	1.543 (39.2)	1351.5 (54/19) 1431 (45/7) (54/19) 1590 (45/7)	1590 (42/19) T13 1780 (38/19) T8	26	0.250	18	20	48	Yellow
PR5163	1.544 (39.2)	1.685 (42.8)	1590 (54/19) 1780 (84/19)	2156 (64/19) T8	26	0.250	19	15	40	Brown
PR5164	1.686 (42.8)	1.84 (46.7)	2156 (84/19)		26	0.250	21	15	42	Blue

NOTES:

- (1) Right-hand lay standard.
- (2) For conductor/cable sizes not listed above, select rod set based on cable dia. range.
- (3) Applied O.D. of conductor/cable with rods equals cable diameter plus two times rod diameter.
- (4) Maximum conductor temperature limits vary with suspension clamp designs. Consult factory for information.

Cross Reference: Armor Rods, Line Guards & Protector Rods

G
13

results

Armor Rods — Aluminum

Product Data and Conductor Size

Conductor Dia. In. (mm)		Nominal Conductor Size (AWG or kCMIL)				HPS	PLP	DULMISON	HELICAL
Min.	Max.	ACSR/ACSS	ACSR/ACSS TW	AAC, AAAC	ACAR				
0.309 (7.8)	0.326 (8.3)	#2 6/1				AP8114	AR0114	AAR0785	AAR518
0.327 (8.3)	0.346 (8.8)			#1		AP8115	AR0115	AAR0830	AAR519
0.347 (8.8)	0.366 (9.3)	#1 6/1				AP8116	AR0116	AAR0880	AAR520
0.367 (9.3)	0.389 (9.9)			1/0		AP8117	AR0117	AAR0930	AAR521
0.390 (9.9)	0.413 (10.5)	1/0 6/1				AP8118	AR0118	AAR0990	AAR522
0.414 (10.5)	0.436 (11.1)			2/0		AP8119	AR0119	AAR1050	AAR523
0.437 (11.1)	0.463 (11.8)	2/0 6/1				AP8120	AR0120	AAR1110	AAR524
0.464 (11.8)	0.490 (12.4)			3/0		AP8121	AR0121	AAR1180	AAR525
0.491 (12.5)	0.521 (13.2)	3/0 6/1				AP8122	AR0122	AAR1245	AAR526
0.522 (13.3)	0.551 (14.0)			4/0		AP8123	AR0123	AAR1325	AAR527
0.552 (14.0)	0.585 (14.9)	4/0 6/1		250		AP8124	AR0124	AAR1400	AAR528
0.586 (14.9)	0.606 (15.4)		266.8 T16	266.8		AP8125	AR0125	AAR1490	AAR529
0.607 (15.4)	0.630 (16.0)	266.8 18/1				AP8126	AR0126	AAR1540	AAR530
0.631 (16.0)	0.655 (16.6)	266.8 26/7				AP8127	AR0127	AAR1605	AAR531
0.656 (16.7)	0.679 (17.2)		336.4 T16	336.4		AP8128	AR0128	AAR1665	AAR532
0.680 (17.3)	0.703 (17.9)	336.4 18/1	336.4 T23			AP8129	AR0129	AAR1725	AAR533
0.704 (17.9)	0.740 (18.8)	336.4 26/7	397.5 T16	397.5		AP8130	AR0130	AAR1790	AAR534
0.741 (18.8)	0.782 (19.9)	397.5 18/1	477 T13			AP8131	AR0131	AAR1880	AAR535
0.783 (19.9)	0.814 (20.7)	397.5 26/7	477 T16	477, 500	503.6	AP8132	AR0132	AAR1990	AAR536
0.815 (20.7)	0.845 (21.5)		477 T23 556.5 T13			AP8133	AR0133	AAR2070	AAR537

Armor Rods — Aluminum

Product Data and Conductor Size (continued)

Conductor Dia. In. (mm)		Nominal Conductor Size (AWG or kCMIL)				HPS	PLP	DULMISON	HELICAL
Min.	Max.	ACSR/ACSS	ACSR/ACSS TW	AAC, AAAC	ACAR				
0.846 (21.5)	0.907 (23.0)	480 5/7	556.5T16 636T13	556.5	545	AP8134	AR0134	AAR2150	AAR538
0.908 (23.1)	0.929 (23.6)	556.5 26/7	636T16 664.8T16	636	653.1	AP8135	AR0135	AAR2305	AAR539
0.930 (23.6)	0.976 (24.8)	556.5 30/7 605 26/7		715.5		AP8136	AR0136	AAR2360	AAR540
0.977 (24.8)	1.016 (25.8)	636 24/7 26/7 666 24/7 26/7	762.8T16 795T13, T16	750	739.8	AP8137 AP8137E	AR0137 AR0500	AAR2480 AAR2480E	AAR541 -
1.017 (25.8)	1.035 (26.3)	636.0 30/19		795		AP8138 AP8138E	AR0138 AR0501	AAR2585 AAR2585E	AAR542 -
1.036 (26.3)	1.064 (27.0)	715.5 26/7 795 45/7	964T7		853.7	AP8139 AP8139E	AR0139 AR0502	AAR2630 AAR2630E	AAR543 -
1.065 (27.1)	1.098 (27.9)	795 24/7	964T13			AP8140 AP8140E	AR0140 AR0503	AAR2705 AAR2705E	AAR544 -
1.099 (27.9)	1.139 (28.9)	795 26/7	959.6T16 1033.5T13	954	927.2	AP8141 AP8141E	AR0141 AR0504	AAR2790 AAR2790E	AAR545 -
1.140 (29.0)	1.161 (29.5)	954 36/1	1113T7			AP8142 AP8142E	AR0142 AR0505	AAR2895 AAR2895E	AAR546 -
1.162 (29.5)	1.208 (30.7)	954 45/7 54/7 1033.5 45/7	1158.4T7, T13 1113 T13		1024.5 1080.6	AP8143 AP8143E	AR0143 AR0506	AAR2950 AAR2950E	AAR547 -
1.209 (30.7)	1.269 (32.2)	1033.5 54/7 1113 45/7	1192.5T13 1272 T7, T13 1233.6T13 1351 T7	1113	1109 1198	AP8144 AP8144E	AR0144 AR0507	AAR3070 AAR3070E	AAR548 -
1.270 (32.3)	1.327 (33.7)	1113 54/19 1192.5 45/7	1351.5T13 1431T7	1272	1277	AP8145 AP8145E	AR0145 AR0508	AAR3225 AAR3225E	AAR549 -
1.328 (33.7)	1.390 (35.3)	1192.5 54/19 1272 45/7 54/19 1351.5 45/7	1433.6T13 1590T7	1351.5 1431	1361.5	AP8146 AP8146E	AR0146 AR0509	AAR3375 AAR3375E	AAR550 -
1.391 (35.3)	1.440 (36.6)	1351.5 54/19 1434 45/7	1590T13 1622T13		1534.4	AP8147 AP8147E	AR0147 AR0510	AAR3535 AAR3535E	AAR551 -
1.441 (36.6)	1.508 (38.3)	1596 3/7	1730.6T13 1949.6T7	1590	1703	AP8163 AP8163E	AR0163 AR0511	AAR3660 AAR3660E	AAR552 -
1.509 (38.3)	1.578 (40.1)	1592 16/19	1926.9T13	1750	1798	AP8164 AP8164E	AR0164 AR0512	AAR3835 AAR3835E	AAR553 -
1.579 (40.1)	1.651 (41.9)	1780.0 84/19	2156T8	2000	1933	AP8165 AP8165E	AR0165 AR0513	AAR4010 AAR4010E	AAR554 -
1.652 (42.0)	1.728 (43.9)	2034.5 72/7				AP8166 AP8166E	AR0166 AR0514	AAR4195 AAR4195E	AAR555 -
1.729 (43.9)	1.809 (45.9)	2167.0 72/7 2156 84/19	2627.3 T8	2300	2338	AP8167 AP8167E	AR0167 AR0516	AAR4390 AAR4390E	AAR556 -
1.810 (46.0)	1.898 (48.2)	2515.0 76/19		2500	2493	AP8168 AP8168E	AR0168 AR0517	AAR4595 AAR4595E	AAR557 -

Armor Rods — Aluminum, Double Suspension

Product Data and Conductor Size

Conductor Dia. In. (mm)		Nominal Conductor Size (AWG or kCMIL)				HPS	PLP	DULMISON	HELICAL
Min.	Max.	ACSR/ACSS	ACSR/ACSS TW	AAC, AAAC	ACAR				
0.309 (7.8)	0.326 (8.3)	#2 6/1				DAP8114	AR0314	DAAR0785	AAR618
0.327 (8.3)	0.346 (8.8)			#1		DAP8115	AR0315	DAAR0830	AAR619
0.347 (8.8)	0.366 (9.3)	#1 6/1				DAP8116	AR0316	DAAR0880	AAR620
0.367 (9.3)	0.389 (9.9)			1/0		DAP8117	AR0317	DAAR0930	AAR621
0.390 (9.9)	0.413 (10.5)	1/0 6/1				DAP8118	AR0318	DAAR0990	AAR622
0.414 (10.5)	0.436 (11.1)			2/0		DAP8119	AR0319	DAAR1050	AAR623
0.437 (11.1)	0.463 (11.8)	2/0 6/1				DAP8120	AR0320	DAAR1110	AAR624
0.464 (11.8)	0.490 (12.4)			3/0		DAP8121	AR0321	DAAR1180	AAR625
0.491 (12.5)	0.521 (13.2)	3/0 6/1				DAP8122	AR0322	DAAR1245	AAR626
0.522 (13.3)	0.551 (14.0)			4/0		DAP8123	AR0323	DAAR1325	AAR627
0.552 (14.0)	0.585 (14.9)	4/0 6/1		250		DAP8124	AR0324	DAAR1400	AAR628
0.586 (14.9)	0.606 (15.4)		266.8 T16	266.8		DAP8125	AR0325	DAAR1490	AAR629
0.607 (15.4)	0.630 (16.0)	266.8 18/1				DAP8126	AR0326	DAAR1540	AAR630
0.631 (16.0)	0.655 (16.6)	266.8 26/7				DAP8127	AR0327	DAAR1605	AAR631
0.656 (16.7)	0.679 (17.2)		336.4 T16	336.4		DAP8128	AR0328	DAAR1665	AAR632
0.680 (17.3)	0.703 (17.9)	303 5/7	336.4 T23			DAP8129	AR0329	DAAR1725	AAR633
0.704 (17.9)	0.740 (18.8)	336.4 26/7	397.5 T16	397.5		DAP8130	AR0342	DAAR1790	AAR634

Armor Rods — Galvanized Steel

Product Data and Conductor Size						
Conductor Dia. In. (mm)		HS & EHS Cable	HPS	PLP	DULMISON	HELICAL
Min.	Max.					
0.309 (7.8)	0.326 (8.3)	5/16"	APGS0516	AR1128	SAR0785	GAR526
0.347 (8.8)	0.373 (9.5)	3/8"	APGS0038	AR1130	SAR0880	GAR528
0.414 (10.5)	0.436 (11.1)	7/16"	APGS0716	AR1133	SAR1050	GAR531
0.491 (12.5)	0.521 (13.2)	1/2"	APGS0012	AR1139	SAR1245	GAR534

Armor Rods — Aluminum-Clad Steel (Alumoweld®)

Product Data and Conductor Size						
Conductor Dia. In. (mm)		HS & EHS Cable	HPS	PLP	DULMISON	HELICAL
Min.	Max.					
0.296 (7.5)	0.314 (8.0)	5/16", 7#10, 3#7, 10M	APAS0710	AR2124	AWAR0750	AWAR521
0.334 (8.5)	0.352 (8.9)	7#9, 3#6, 12.5M	APAS0079	AR2126	AWAR0850	AWAR523
0.373 (9.5)	0.392 (10.0)	3/8", 7#8, 3#5, 16M	APAS0078	AR2128	AWAR0950	AWAR525
0.409 (10.4)	0.425 (10.8)	18M	APAS018M	AR2130	AWAR1040	AWAR526
0.426 (10.8)	0.45 (11.4)	7/16", 7#7, 20M	APAS0077	AR2131	AWAR1080	AWAR528
0.477 (12.1)	0.504 (12.8)	1/2", 7#6	APAS0076	AR2133	AWAR1210	AWAR530
0.535 (13.6)	0.565 (14.4)	9/16", 7#5	APAS0075	AR2135	AWAR1360	AWAR532

Line Guards — Aluminum

Product Data and Conductor Size

Conductor Dia. In. (MM)		Nominal Conductor Size, (AWG or kCMIL)				HPS	PLP	DULMISON	HELICAL
Min.	Max.	ACSR/ACSS	ACSR/ACSS TW	AAC, AAAC	ACAR				
0.290 (7.4)	0.308 (7.8)			#2		PL5130 DPL5130	MG0130 MG0313	ALG0735 DALG0735	ALG517 ALG617
0.309 (7.8)	0.326 (8.3)	#2 6/1				PL5131 DPL5131	MG0131 MG0314	ALG0785 DALG0785	ALG518 ALG618
0.327 (8.3)	0.346 (8.8)			#1		PL5132 DPL5132	MG0132 MG0315	ALG0830 DALG0830	ALG519 ALG619
0.347 (8.8)	0.366 (9.3)	#1 6/1				PL5133 DPL5133	MG0133 MG0316	ALG0880 DALG0880	ALG520 ALG620
0.367 (9.3)	0.389 (9.9)			1/0		PL5134 DPL5134	MG0134 MG0317	ALG0930 DALG0930	ALG521 ALG621
0.390 (9.9)	0.413 (10.5)	1/0 6/1		123.3		PL5135 DPL5135	MG0135 MG0318	ALG0990 DALG0990	ALG522 ALG622
0.414 (10.5)	0.436 (11.1)			2/0		PL5136 DPL5136	MG0136 MG0319	ALG1050 DALG1050	ALG523 ALG623
0.437 (11.1)	0.463 (11.8)	2/0 6/1				PL5137 DPL5137	MG0137 MG0320	ALG1110 DALG1110	ALG524 ALG624
0.464 (11.8)	0.490 (12.4)			3/0		PL5138 DPL5138	MG0138 MG0321	ALG1180 DALG1180	ALG525 ALG615
0.491 (12.5)	0.521 (13.2)	3/0 6/1		195.7		PL5139 DPL5139	MG0139 MG0322	ALG1245 DALG1245	ALG526 ALG626
0.522 (13.3)	0.551 (14.0)			4/0		PL5140 DPL5140	MG0140 MG0323	ALG1325 DALG1325	ALG527 ALG627
0.552 (14.0)	0.585 (14.9)	4/0 6/1		250		PL5141 DPL5141	MG0141 MG0324	ALG1400 DALG1400	ALG528 ALG628
0.586 (14.9)	0.606 (15.4)		266.8 T16	266.8		PL5142 DPL5142	MG0142 MG0325	ALG1490 DALG1490	ALG529 ALG629
0.607 (15.4)	0.630 (16.0)	266.8 18/1				PL5143 DPL5143	MG0143 MG0326	ALG1540 DALG1540	ALG530 ALG630
0.631 (16.0)	0.655 (16.6)	266.8 26/7		312.8		PL5144 DPL5144	MG0144 MG0327	ALG1605 DALG1605	ALG531 ALG631
0.656 (16.7)	0.679 (17.2)		336.4 T16	336.4		PL5145 DPL5145	MG0145 MG0328	ALG1665 DALG1665	ALG532 ALG632
0.680 (17.3)	0.703 (17.9)	336.4 18/1	336.4 T23			PL5146 DPL5146	MG0146 MG0329	ALG1725 DALG1725	ALG533 ALG633
0.704 (17.9)	0.740 (18.8)	336.4 26/7	397.5 T16	397.5		PL5147 DPL5147	MG0147 MG0330	ALG1790 DALG1790	ALG534 ALG634
0.741 (18.8)	0.792 (20.1)	397.5 18/1 26/7	477 T13 T16	477		PL5148 DPL5148	MG0148 MG0331	ALG1880 DALG1880	ALG535 ALG635

Line Guards — Aluminum

Product Data and Conductor Size (continued)

Conductor Dia. In. (MM)		Nominal Conductor Size, (AWG or kCMIL)				HPS	PLP	DULMISON	HELICAL
Min.	Max.	ACSR/ACSS	ACSR/ACSS TW	AAC, AAAC	ACAR				
0.793 (20.1)	0.840 (21.3)	397.5 30/7, 477 18/1	477 T23, 556.5 T13	500	503.6	PL5149 DPL5149	MG0149 MG0332	ALG2015 DALG2015	ALG536 ALG636
0.841 (21.4)	0.898 (22.8)	477 26/7 30/7	556.5 T16, 565.3 T16 571.7 T13, 636 T13	556.5, 600	587.2	PL5150 DPL5150	MG0150 MG0333	ALG2135 DALG2135	ALG537 ALG637
0.899 (22.8)	0.954 (24.2)	556.5 26/7 30/7 636 18/1	636 T16, 664.6 T16	636	653.1	PL5151 DPL5151	MG0151 MG0334	ALG2285 DALG2285	ALG538 ALG638
0.955 (24.3)	0.986 (25.0)	605 26/7, 636 24/7	768.2 T13, 795 T7	715.5		PL5152 DPL5152	MG0152 MG0335	ALG2425 DALG2425	ALG539 ALG639
0.987 (25.1)	1.016 (25.8)	605 30/19, 636 26/7 666 24/7 26/7	762.8 T16, 795 T16	750	739.8	PL5153 DPL5153	MG0153 MG0336	ALG2505 DALG2505	ALG540 ALG640
1.017 (25.8)	1.064 (27)	636 30/19 715 26/7, 795 45/7	954 T7	795	853.7	PL5154 DPL5154	MG0154 MG0337	ALG2585 DALG2585	ALG541 ALG641
1.065 (27.1)	1.098 (27.9)	715.5 30/19 795 54/7	954 T13	874.5, 900		PL5155 DPL5155	MG0155 MG0338	ALG2705 DALG2705	ALG542 ALG642
1.099 (27.9)	1.153 (29.3)	795 26/7 30/19	959.6 T16 1033.5 T7 T13 1113 T7	954	927.2	PL5156 DPL5156	MG0156 MG0339	ALG2790 DALG2790	ALG543 ALG643
1.154 (29.3)	1.208 (30.7)	954 45/7 54/7	1158 T7 1113 T13, 1192.5 T7	1033.5	1024.5	PL5157 DPL5157	MG0157 MG0340	ALG2930 DALG2930	ALG544 ALG644
1.209 (30.7)	1.268 (32.2)	954 30/19 1033.5 45/7 54/7 1113 45/7	1192.5 T13, 1233.6 T13 1272 T7 T13 1351.5 T7	1113, 1192.5	1109 - 1198	PL5158 DPL5158	MG0158 MG0341	ALG3070 DALG3070	ALG545 ALG645
1.269 (32.2)	1.327 (33.7)	1113 54/19 1192.5 45/7	1351.5 T13 1431 T7	1272	1277	PL5159 DPL5159	MG0159 MG0342	ALG3225 DALG3225	ALG546 ALG646
1.328 (33.7)	1.390 (35.3)	1192.5 54/19 1272 45/7 54/19 1351.5 45/7	1431 & 1433.6 T13 1557.4 & 1590 T7	1351.5, 1431	1361.5	PL5160 DPL5160	MG0160 MG0343	ALG3375 DALG3375	ALG547 ALG647
1.391 (35.3)	1.440 (36.6)	1351.5 54/19 1431 45/7	1590 & 1622 T13		1534.4	PL5161 DPL5161	MG0161 MG0344	ALG3535 DALG3535	ALG548 ALG648
1.441 (36.6)	1.508 (38.3)	1431 54/19 1590 45/7	1780 T8 1949.6 T7	1590	1703	PL5162 DPL5162	MG0162 MG0345	ALG3660 DALG3660	ALG549 ALG649

Protector Rods — Aluminum

Product Data and Conductor Size

Conductor Dia. In. (MM)		Nominal Conductor Size, (AWG or kCMIL)		HPS	PLP
Min.	Max.	ACSS	ACSS TW		
0.476 (12.1)	0.533 (13.5)			PR5139	PR-0139
0.534 (13.6)	0.585 (14.9)			PR5141	PR-0141
0.586 (14.9)	0.618 (15.7)			PR5142	PR-0142
0.619 (15.7)	0.667 (16.9)	266.8 26/7		PR5144	PR-0144
0.668 (17.0)	0.722 (18.3)	336.4 26/7	336.4 T23	PR5146	PR-0146
0.723 (18.4)	0.816 (20.7)	397.5 26/7	477 T13, T16	PR5148	PR-0148
0.817 (20.8)	0.898 (22.8)	477 24/7, 26/7	477 T23	PR5150	PR-0150
0.899 (22.8)	0.954 (24.2)	556.5 24/7, 26/7	636 T16, T23	PR5151	PR-0151
0.955 (24.3)	1.019 (25.9)	636 24/7, 26/7 666 24/7, 26/7	765 T13, T16	PR5152	PR-0152
1.020 (25.9)	1.064 (27.0)	715.5 24/7, 26/7 795 45/7	795 T23	PR5154	PR-0154
1.065 (27.1)	1.098 (27.9)	795 24/7, 54/7	954 T13	PR5155	PR-0155
1.099 (27.9)	1.181 (30.0)	795 26/7, 30/7 954 45/7	959.6 T16 1033.5 T13	PR5156	PR-0156
1.182 (30.0)	1.298 (33.0)	954 54/7, 1033.5 54/7 1113 45/7, 54/19	1113 T13, 1192.5 T7, T13 1233.6 T13, 1272 T7, T13, 1351.5 T7	PR5158	PR-0158
1.299 (33.0)	1.415 (35.9)	1192.5 45/7, 54/19 1272 45/7, 54/19, 1351.5 45/7	1351.5 T13, 1433.6 T13 1590 T7, T13	PR5160	PR-0160
1.416 (36.0)	1.543 (39.2)	1351.5 54/19 1590 45/7	1622 T13, 1780 T8	PR5162	PR-0162
1.544 (39.2)	1.685 (42.8)	1590 54/19 1780 84/19	1926.9 T13, 2156 T8	PR5163	PR-0163
1.686 (42.8)	1.840 (46.7)	2156 84/19 2312 76/19	2627.3 T8	PR5164	PR-0164

G
20