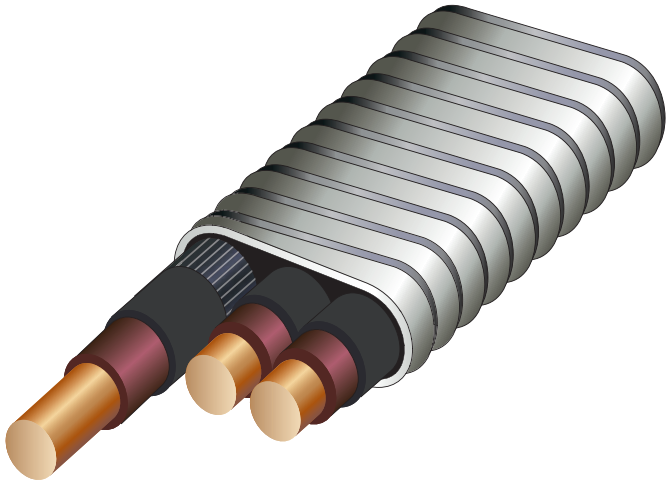
WANDA 450-FLAT ESP CABLE

DESCRIPTION

BARE SOLID COPPER CONDUCTOR, EPDM INSULATION, LEAD SHEATH , FIBER TAPE COMPLETELY COVERED THE SHEATH, GALVANIZED STEEL (SS OR MONEL)ARMOR



STANDARD

IEEE1018, API RP11S5, API RP 11S6

PACKING

ALL STEEL REELS, WOODEN COVER OUTSIDE. CABLE LENGTH TO MEET CUSTOMER'S REQUIREMENTS.

CABLE SPECIFICATION AND PARAMETERS

NO.	VOLTAGE RATING (KV)	CONDUCTOR		NOMINAL CONDUCTOR OD		INSULATION OD		LEAD SHEATH OD		ARMOR	MAX CABLE DIMENSION		NOMINAL WEIGHT (APPROXIMATE)	
		AWG	mm²	inch	mm	inch	mm	inch	mm		inch	mm	lbs/ft	kg/m
1	5KV	4	20	0.20	5.19	0.373	9.48	0.441	11.20	GAL.STEEL TAPE	0.592x1.506	15.0x38.3	1.48	2.2
2	5KV	2	33	0.26	6.54	0.427	10.80	0.494	12.60	GAL.STEEL TAPE	0.646x1.666	16.4x42.3	1.89	2.8
3	5KV	1	42	0.29	7.34	0.458	11.64	0.526	13.40	GAL.STEEL TAPE	0.677x1.761	17.2x44.7	2.15	3.2

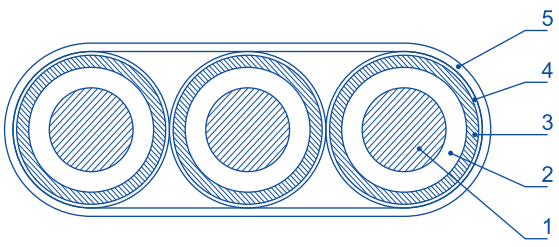
WANDA 450-FLAT ESP CABLE SPECIFICATION

CONSTRUCTION: FLAT/SOL BARE COPPER/2 AWG/5KV/EPDM/LEAD SHEATH/FIBER TAPE/ GALV./450°F

※**CONDUCTOR CAN BE TINNED OR BARE**

1. CONDUCTOR:	2AWG SOLID BC	MAX.	DIA=0.26"	6.54mm
2. INSULATION:	EPDM,HIGH DIELECTRIC STRENGTH,5KV 0.075" MINIMUM AVG WALL THICKNESS 0.067" MINIMUM AVG WALL THICKNESS AT ANY POINT	MAX.	DIA=0.427"	10.80 mm
3. LEAD SHEATH:	LEAD,FATIGUE RESISTANT,MEETS ASTM B-29 0.030" MINIMUM AVG WALL THICKNESS 0.024"MINIMUM AVG WALL THICKNESS AT ANY POINT MAX. DIAMETER OVER LEAD SHEATH		DIA=0.494"	12.60 mm
4. TAPES:	PROTECTIVE FIBER TAPE TO PROTECT THE LEAD SHEATH FROM MECHANICAL ATTACK AND TO PROVIDE ADDITIONAL CONTAINMENT TO THE CABLE PHASES BEDDING TAPE SHALL BE TIGHTLY WRAPPED TO PROTECT LEAD SHEATH DURING THE ARMORING OPERATION. PROVIDES 100% PROTECTION TO THE LEAD SHEATH			
5. ARMOR:	GALVANIZED STEEL ARMOR, 0.02" THICKNESS MAX. DIAMETER OVER ARMOR NOMINAL WEIGHT PER FOOT		0.646" X1.666"	16.4mmx42.3mm
TEMPERATURE:	TEMPERATURE RATING 450-LEAD SHEATH		-40℃ TO 232℃ -40℉ TO 450℉	

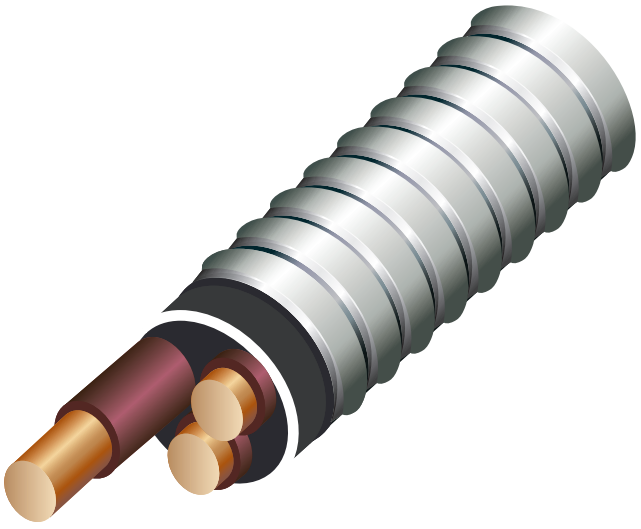
TESTED: IEEE1018,API RP 11S5,API RP 11S6 AND WANDA SPECIFICATIONS
CONDUCTOR RESISTANCE=MAX.0.566Ω/KM@20℃
INSULATION RESISTANCE=899MΩ.KM@15.6℃
DC TEST(5MIN.@35KV)
MAX. DC LEAKAGE=0.100 μAmp/kft/kV



WANDA 450-ROUND ESP CABLE

DESCRIPTION

SOL BARE COPPER, EPDM INSULATION, LEAD SHEATH , FIBER TAPE COMPLETELY COVERED THE SHEATH,COLLECTIVE JACKET, GALVANIZED STEEL (SS OR MONEL)ARMOR



STANDARD

IEEE1018, API RP11S5, API RP 11S6

PACKING

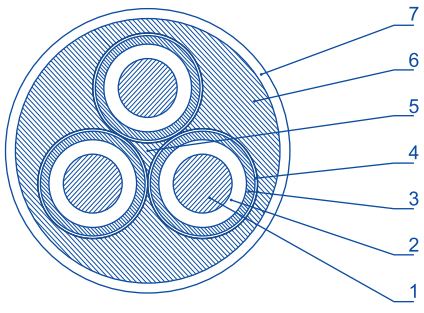
STEEL REELS, WOODEN COVER OUTSIDE. CABLE LENGTH TO MEET CUSTOMER'S REQUIREMENTS.

CABLE SPECIFICATION AND PARAMETERS

NO.	VOLTAGE RATING (KV)	CONDUCTOR		NOMINAL CONDUCTOR OD		INSULATION OD		LEAD SHEATH OD		JACKET OD		ARMOR	MAX CABLE OD		NOMINAL WEIGHT (APPROXIMATE)	
		AWG	mm²	inch	mm	inch	mm	inch	mm	inch	mm		inch	mm	lbs/ft	kg/m
1	5KV	4	20	0.20	5.19	0.373	9.48	0.47	11.90	1.15	29.10	GAL.STEEL TAPE	1.248	31.7	2.0	3.0
2	5KV	2	33	0.26	6.54	0.427	10.80	0.52	13.20	1.26	32.10	GAL.STEEL TAPE	1.36	34.5	2.4	3.6
3	5KV	1	42	0.29	7.34	0.458	11.64	0.55	14.00	1.40	35.60	GAL.STEEL TAPE	1.527	38.8	2.7	4.0

WANDA 450-ROUND+LEAD ESP CABLE SPECIFICATION

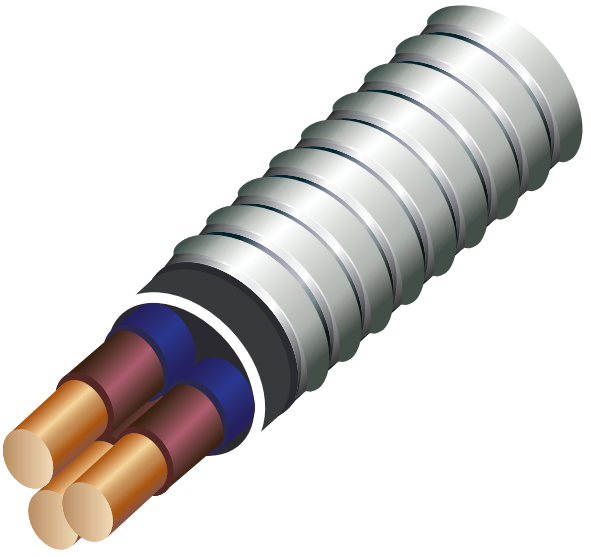
CONSTRUCTION:	ROUND/ SOL BARE COPPER / 4AWG / 5KV / EPDM/ (LEAD/EPDM)/BARRIER/GALV./450°F ※**CONDUCTOR CAN BE TINNED OR BARE**		
1. CONDUCTOR :	4AWG SOLID BC		DIA=0.204" 5.19mm
2. INSULATION :	EPDM,HIGH DIELECTRIC STRENGTH,5KV 0.075" MINIMUM AVG WALL THICKNESS 0.067" MINIMUM AVG WALL THICKNESS AT ANY POINT	MAX.	DIA=0.374" 9.50mm
3. LEAD SHEATH :	LEAD,FATIGUE RESISTANT,MEETS ASTM B-29 0.039" MINIMUM AVG WALL THICKNESS 0.031" MINIMUM AVG WALL THICKNESS AT ANY POINT MAX. DIAMETER OVER LEAD SHEATH		DIA=0.469" 11.90mm
4. TAPES :	PROTECTIVE FIBER TAPE TO PROTECT THE LEAD SHEATH FROM MECHANICAL ATTACK AND TO PROVIDE ADDITIONAL CONTAINMENT TO THE CABLE PHASES		
5. FILLER :	ELASTIC EPDM MATERIAL FILLER		
6. COLLECTIVE JACKET :	EPDM,HIGH DIELECTRIC STRENGTH,5KV 0.060" MINIMUM AVG WALL THICKNESS 0.048" MINIMUM AVG WALL THICKNESS AT ANY POINT	MAX.	DIA=1.146" 29.10mm
7. ARMOR :	GALVANIZED STEEL ARMOR, 0.025" THICKNESS MAX. DIAMETER OVER ARMOR		DIA=1.248" 31.70mm
TEMPERATURE:	TEMPERATURE RATING 450-LEAD SHEATH		-40℃ TO 232℃ -40℉ TO 450℉
TESTED:	IEEE1018,API RP 11S5,API RP 11S6 AND WANDA SPECIFICATIONS CONDUCTOR RESISTANCE=MAX.0.873Ω/KM@20℃ INSULATION RESISTANCE=1355MΩ.KM@15.6℃ DC TEST(5MIN.@35KV) MAX. DC LEAKAGE=0.100μAmp/kft/kV		



WANDA 400-ROUND ESP CABLE

DESCRIPTION

SOL BARE COPPER, EPDM INSULATION,
FEP AS SECOND INSULATION
TO BETTER CABLE ELECTRICAL PROPERTY,
COLLECTIVE JACKET, GALVANIZED STEEL
(SS OR MONEL)ARMOR



STANDARD

IEEE1018, API RP11S5, API RP 11S6

PACKING

STEEL REELS, WOODEN COVER OUTSIDE.
CABLE LENGTH TO MEET CUSTOMER'S
REQUIREMENTS.

CABLE SPECIFICATION AND PARAMETERS

NO.	VOLTAGE RATING (KV)	CONDUCTOR		NOMINAL CONDUCTOR OD		INSULATION OD		FEP OD		JACKET OD		ARMOR	MAX CABLE OD		NOMINAL WEIGHT (APPROXIMATE)	
		AWG	mm²	inch	mm	inch	mm	inch	mm	inch	mm		inch	mm	lbs/ft	kg/m
1	5KV	4	20	0.20	5.19	0.37	9.46	0.39	10.00	1.04	26.5	GAL.STEEL TAPE	1.2	31.0	1.26	1.9
2	5KV	2	33	0.26	6.54	0.43	10.85	0.45	11.45	1.16	29.5	GAL.STEEL TAPE	1.3	34.0	1.62	2.4
3	5KV	1	42	0.29	7.35	0.46	11.8	0.49	12.40	1.20	30.5	GAL.STEEL TAPE	1.4	36.5	1.75	2.6

WANDA 400-ROUND ESP CABLE SPECIFICATION

CONSTRUCTION: ROUND/ SOL COPPER / 2AWG / 5KV / EPDM / EPDM / BARRIER/ GALV. / 400°F

※**CONDUCTOR CAN BE TINNED OR BARE**

1. CONDUCTOR :	2AWG SOLID BC	DIA=0.260"	6.54mm
2. INSULATION :	EPDM,HIGH DIELECTRIC STRENGTH,5KV	MAX. DIA=0.427"	10.85mm
	0.078"MINIMUM AVG WALL THICKNESS		
	0.07"MINIMUM AVG WALL THICKNESS AT ANY POINT		
3. BARRIER :	FEP EXTRUSION,AS SECOND INSULATION LAYER		
	0.011" MINIMUM AVG WALL THICKNESS		
	0.010"MINIMUM AVG WALL THICKNESS AT ANY POINT		
	MAX. DIAMETER	DIA=0.451"	11.45mm
	TO MAKE THE ELECTRICAL PROPERTY MUCH BETTER		
	TO PROTECT THE EPDM INSULATION FROM MECHANICAL ATTACK AND TO		
	PROVIDE ADDITIONAL CONTAINMENT TO THE CABLE PHASES		
4. FILLER :	ELASTIC EPDM MATERIAL FILLER		
5. COLLECTIVE JACKET :	EPDM,HIGH DIELECTRIC STRENGTH,5KV	MAX. DIA=1.161"	29.5mm
	0.059" MINIMUM AVG WALL THICKNESS		
	0.047" MINIMUM AVG WALL THICKNESS AT ANY POINT		
6. ARMOR :	GALVANIZED STEEL ARMOR, 0.025" THICKNESS		
	MAX. DIAMETER OVER ARMOR	DIA=1.339"	34.0mm

TEMPERATURE: TEMPERATURE RATING 400-EPDM -40℃ TO 204℃

-40℉ TO 400℉

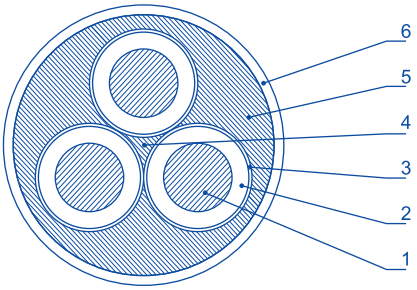
TESTED: IEEE1018,API RP 11S5,API RP 11S6 AND WANDA SPECIFICATIONS

CONDUCTOR RESISTANCE=MAX 0.566Ω/km

INSULATION RESISTANCE=1294MΩ.KM@15.6℃

DC TEST(5MIN.@35KV)

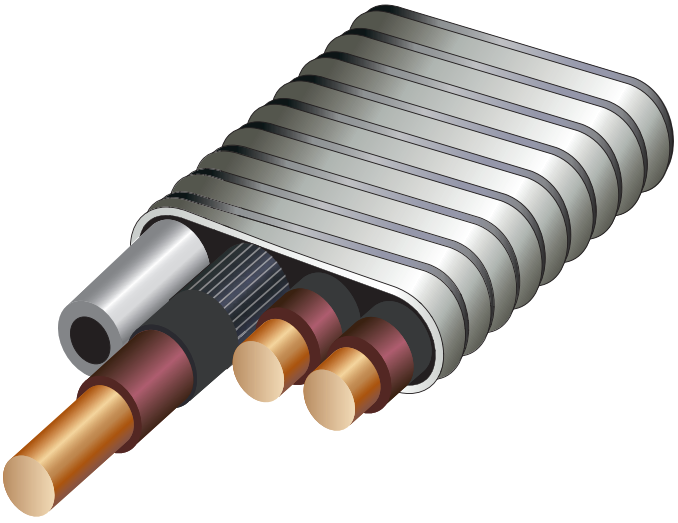
MAX. DC LEAKAGE=0.100 μAmp/kft/kV



WANDA 450-FLAT+CT ESP CABLE

DESCRIPTION

BARE SOLID COPPER CONDUCTOR,
EPDM INSULATION, LEAD SHEATH ,
FIBER TAPE
COMPLETELY COVERED THE SHEATH,
SS MATERIAL CAPILLARY TUBE,GALVANIZED
STEEL(SS OR MONEL)ARMOR



STANDARD

IEEE1018, API RP11S5, API RP 11S6

PACKING

STEEL REELS, WOODEN COVER OUTSIDE.
CABLE LENGTH TO MEET CUSTOMER'S
REQUIREMENTS.

CABLE SPECIFICATION AND PARAMETERS

NO.	VOLTAGE RATING (KV)	CONDUCTOR		NOMINAL CONDUCTOR OD		INSULATION OD		LEAD SHEATH OD		CT		ARMOR	MAX CABLE DIMENSION		NOMINAL WEIGHT (APPROXIMATE)	
		AWG	mm²	inch	mm	inch	mm	inch	mm	ID inch	OD inch		inch	mm	lbs/ft	kg/m
1	5KV	4	20	0.20	5.19	0.373	9.48	0.441	11.20	0.049	0.375	GAL.STEEL TAPE	0.592x1.881	15.0x47.9	1.8	2.7
2	5KV	2	33	0.26	6.54	0.427	10.80	0.494	12.60			GAL.STEEL TAPE	0.646 X2.041	16.4x51.9	2.2	3.3
3	5KV	1	42	0.29	7.34	0.458	11.64	0.526	13.40			GAL.STEEL TAPE	0.677x1.761	17.2x54.3	2.4	3.6

WANDA 450-FLAT+CT ESP CABLE SPECIFICATION

CONSTRUCTION: FLAT/SOL BC/2AWG/5KV/ EPDM INSULATION/ LEAD SHEATH/ FIBER TAPE/3/8" CT/ GALV./450 °F

※**CONDUCTOR CAN BE TINNED OR BARE**

1. CONDUCTOR:	2AWG SOLID BC	MAX.	DIA=0.26"	6.54 mm
2. INSULATION:	EPDM,HIGH DIELECTRIC STRENGTH,5KV	MAX.	DIA=0.427"	10.80 mm
	0.075" MINIMUM AVG WALL THICKNESS			
	0.067" MINIMUM AVG WALL THICKNESS AT ANY POINT			
3. LEAD SHEATH:	LEAD,FATIGUE RESISTANT,MEETS ASTM B-29			
	0.030" MINIMUM AVG WALL THICKNESS			
	0.024"MINIMUM AVG WALL THICKNESS AT ANY POINT			
	MAX. DIAMETER OVER LEAD SHEATH		DIA=0.494"	12.6 mm
4. TAPES:	PROTECTIVE FIBER TAPE			
	TO PROTECT THE LEAD SHEATH FROM MECHANICAL ATTACK AND TO			
	PROVIDE ADDITIONAL CONTAINMENT TO THE CABLE PHASES			
	BEDDING TAPE SHALL BE TIGHTLY WRAPPED TO PROTECT LEAD SHEATH			
	DURING THE ARMORING OPERATION. PROVIDES 100% PROTECTION TO			
	THE LEAD SHEATH			
5. ARMOR:	GALVANIZED STEEL ARMOR, 0.02" THICKNESS			
6. ARMOR:	GALVANIZED STEEL ARMOR, 0.02" THICKNESS			
	MAX. DIAMETER OVER ARMOR		0.646" X2.041"	16.4mmx51.9mm

TEMPERATURE: TEMPERATURE RATING 450-LEAD SHEATH -40℃ TO 232℃

-40℉ TO 450℉

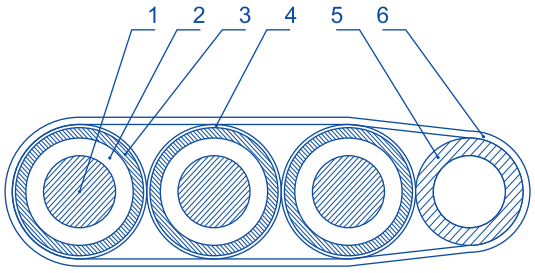
TESTED: IEEE1018,API RP 11S5,API RP 11S6 AND WANDA SPECIFICATIONS

CONDUCTOR RESISTANCE=MAX.0.566Ω/KM@20℃

INSULATION RESISTANCE=899MΩ.KM@15.6℃

DC TEST(5MIN.@35KV)

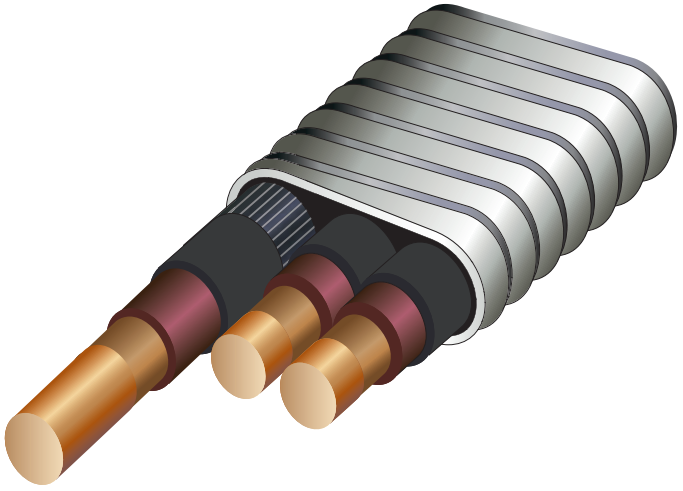
MAX. DC LEAKAGE=0.100 μAmp/kft/kV



WANDA 450-MLE CABLE

DESCRIPTION

BARE SOLID COPPER CONDUCTOR, EPDM+POLYIMIDE FILM INSULATION, LEAD SHEATH , FIBER TAPE,COMPLETELY COVERED THE SHEATH,GALVANIZED STEEL(SS OR MONEL)ARMOR



STANDARD

IEEE1018, API RP11S5, API RP 11S6

PACKING

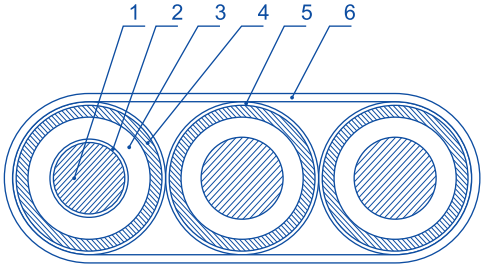
STEEL REELS, WOODEN COVER OUTSIDE. CABLE LENGTH TO MEET CUSTOMER'S REQUIREMENTS.

CABLE SPECIFICATION AND PARAMETERS

NO.	VOLTAGE RATING (KV)	CONDUCTOR		NOMINAL CONDUCTOR OD		INSULATION OD		LEAD SHEATH OD		ARMOR	MAX CABLE DIMENSION		NOMINAL WEIGHT (APPROXIMATE)	
		AWG	mm²	inch	mm	inch	mm	inch	mm		inch	mm	lbs/ft	kg/m
1	3KV	6	13.2	0.16	4.12	0.24	5.99	0.29	7.37	GAL.STEEL TAPE	0.378 X0.969	9.6x24.61	0.82	1.22
2	4KV	4	20	0.20	5.19	0.316	8.03	0.39	9.86	GAL.STEEL TAPE	0.510X1.260	12.95x32	1.28	1.90
3	4KV	6	13.2	0.16	4.12	0.276	7.01	0.35	8.79	GAL.STEEL TAPE	0.468X1.134	11.89×28.8	1.03	1.53

WANDA 450-MLE CABLE SPECIFICATION

CONSTRUCTION:	FLAT/SOL BARE COPPER/6 AWG/3KV/PI+EPDM/LEAD SHEATH/FIBER TAPE/GALV./400°F		
1. CONDUCTOR:	6AWG SOLID BC	MAX. DIA=0.162"	4.12mm
2. POLYIMIDE FILM:	AS FIRST LAYER OF INSULATION, WORK TOGETHER WITH EPDM TO PROVIDE BETTER INSULATION PROPERTY		
3. INSULATION:	PI+EPDM,HIGH DIELECTRIC STRENGTH,5KV 0.033"MINIMUM AVG WALL THICKNESS 0.030"MINIMUM AVG WALL THICKNESS AT ANY POINT POLYIMIDE FILM TIGHLY WRAPPED OVER THE EPDM INSULATION	MAX. DIA=0.236"	5.99mm
4. LEAD SHEATH:	LEAD,FATIGUE RESISTANT,MEETS ASTM B-29 0.025" MINIMUM AVG WALL THICKNESS 0.019" MINIMUM AVG WALL THICKNESS AT ANY POINT MAX DIAMETER OVER LEAD SHEATH	DIA=0.290"	7.37 mm
5. TAPES:	PROTECTIVE FIBER TAPE TO PROTECT THE LEAD SHEATH FROM MECHANICAL ATTACK AND TO PROVIDE ADDITIONAL CONTAINMENT TO THE CABLE PHASES BEDDING TAPE SHALL BE TIGHTLY WRAPPED TO PROTECT LEAD SHEATH DURING THE ARMORING OPERATION. PROVIDES 100% PROTECTION TO THE LEAD SHEATH		
6. ARMOR:	GALVANIZED STEEL ARMOR, 0.015" THICKNESS MAX. DIAMETER OVER ARMOR	0.378" X0.969"	9.6mmx24.61mm
TEMPERATURE:	TEMPERATURE RATING 450-LEAD SHEATH	-40℃ TO 204℃ -40℉ TO 450℉	
TESTED:	IEEE1018,API RP 11S5,API RP 11S6 AND WANDA SPECIFICATIONS CONDUCTOR RESISTANCE=MAX.1.39Ω/KM@20℃ INSULATION RESISTANCE=820MΩ.KM@15.6℃ DC TEST(5MIN.@35KV) MAX. DC LEAKAGE=0.100 μAmp/kft/kV		



MONOCONDUCTOR 7/32" VS 5/16"

PROPERITIES

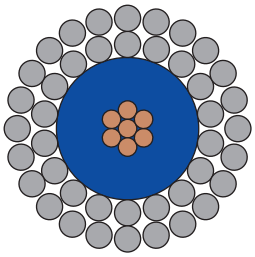
Cable Diameter	7/32" (5.6 mm)	5/16" (8.0mm)
Minimum Sheave Diameter	11" (280mm)	16" (400mm)
Cable Stretcch Coefficient	2.2 ft/Kft/Klbs (2.5m/Km/5KN)	1.2 ft/Kft/Klbs(1.35m/Km/5KN)

ELECTRICAL

Maximum Conductor Voltage	1,000VAC	1,000VAC
Conductor AWG Rating	16	14
Minimum Insulation Resistance	1,640 MΩ/Kft (500MΩ/Km)	1,640 MΩ/Kft (500MΩ/Km)

MECHANICAL

Cable Breaking Strength		
Ends Fixed	6,300 lbs(28KN)	12,375 lbs(55KN)
Maximum Suggested Working Tension	4,725 lbs(21KN)	9,281 lbs(41.25KN)
Number and Size of Wires		
Inner Armor	15 wires 0.61 mm	12 wires 1.11 mm
Outer Armor	15 wires 0.89 mm	18 wires 1.11 mm



Cable Type	Main Description							Cable Weight
	Temp Rating	Insulation Type	Insulation Thickness	Copper Construction	Resistance	Cap. Typical	O.D In mm	Lbs/Kft Kg/Km
W1F-5.6 HS 1×1.35	450 F 232 C	FEP	0.021 in 0.55 mm	19*0.30mm	4.0 Ω/Kft 13.1 Ω/Km	58 pF/ft 190 pF/m	0.22 5.6	92 137
W1F-8.0 HS 1×2.0	450 F 232 C	FEP	0.033 in 0.85 mm	19*0.37mm	2.80 Ω/Kft 9.2 Ω/Km	58 pF/ft 190 pF/m	0.32 8.0	184 274

MONOCONDUCTOR 7/32" VS 5/16"

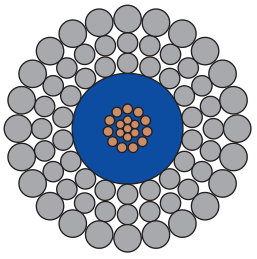
PROPERITIES

Cable Diameter	7/32" (5.6 mm)	5/16" (8.0mm)
Minimum Sheave Diameter	11" (280mm)	16" (400mm)
Cable Stretcch Coefficient	1.63 ft/Kft/Klbs (1.83m/Km/5KN)	1.08 ft/Kft/Klbs(1.22m/Km/5KN)

ELECTRICAL

Maximum Conductor Voltage	1,000VAC	1,000VAC
Conductor AWG Rating	17	17
Minimum Insulation Resistance	1,640 MΩ/Kft (500MΩ/Km)	1,640 MΩ/Kft (500MΩ/Km)

MECHANICAL



Cable Breaking Strength		
Ends Fixed	7,200 lbs(32KN)	15,975 lbs(71KN)
Maximum Suggested Working Tension	5,400 lbs(24KN)	11,981 lbs(53.25KN)
Number and Size of Wires		
Inner Armor	15 wires 0.5 mm	11 wires 0.79 mm
Middle Armor	21 wires 0.5 mm	14 wires 1.0 mm
Outer Armor	18 wires 0.79 mm	18 wires 1.11 mm

Cable Type	Main Description							Cable Weight
	Temp Rating	Insulation Type	Insulation Thickness	Copper Construction	Resistance	Cap. Typical	O.D In mm	Lbs/Kft Kg/Km
W1F-5.6 JQ/HS 1×1.0	450 F 232 C	FEP	0.0142 in 0.36 mm	19*0.26mm	5.48Ω/Kft 18 Ω/Km	58 pF/ft 190 pF/m	0.22 5.6	99 147
W1F-8.0 JQ/HS 1×1.0	450 F 232 C	FEP	0.0177 in 0.45 mm	19*0.26mm	5.48Ω/Kft 18 Ω/Km	53 pF/ft 170 pF/m	0.32 8.0	200 297

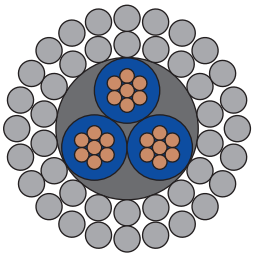
3-CONDUCTOR
7/32" VS 5/16" VS15/32"

PROPERITIES

Cable Diameter	7/32" (5.6 mm)	5/16" (8.0mm)	15/32" (11.8mm)
Minimum Sheave Diameter	11" (280mm)	16" (400mm)	23" (590mm)
Cable Stretcch Coefficient			
ft/Kft/Klbs (m/Km/5KN)	2.2 (2.5)	1.2 (1.35)	0.76 (0.85)

ELECTRICAL

Maximum Conductor Voltage	1,000 VAC	1,000 VAC	1,000VAC
Conductor AWG Rating	24	20	17
Minimum Insulation Resistance			
MΩ/Kft (MΩ/Km)	1,640 (500)	1,640 (500)	1,640 (500)



MECHANICAL

Cable Breaking Strength			
Ends Fixed	5,622 lbs(25KN)	10,125 lbs(45KN)	19,125 lbs(85KN)
Maximum Suggested Working Tension	4,050 lbs(18KN)	7,425 lbs(33KN)	14,175 lbs(63KN)
Number and Size of Wires			
Inner Armor	12 wires 0.79 mm	12 wires 0.81 mm	24 wires 1.0 mm
Outer Armor	18 wires 0.79 mm	18 wires 1.11 mm	24 wires 1.26 mm

Cable Type	Main Description							Cable Weight
	Temp Rating	Insulation Type	Insulation Thickness	Copper Construction	Conductor Resistance	Cap. Typical	O.D In mm	Lbs/Kft Kg/Km
W3FP-5.6 3×0.24	450 F 232 C	FEP	0.0087 in 0.22 mm	7*0.21 mm	25.9Ω/Kft 85 Ω/Km	51.8 pF/ft 170 pF/m	0.22 5.6	97 144
W3FP-8.0 3×0.50	450 F 232 C	FEP	0.017 in 0.43 mm	7*0.30 mm	11Ω/Kft 36 Ω/Km	51.8 pF/ft 170 pF/m	0.32 8.0	179 266
W3FP-11.8 3×1.12	450 F 232 C	FEP	0.033 in 0.85 mm	19*0.28 mm	9.4Ω/Kft 31 Ω/Km	39.6 pF/ft 130 pF/m	0.46 11.8	355 528

7-CONDUCTOR
7/32" VS 1/2" VS 33/64"

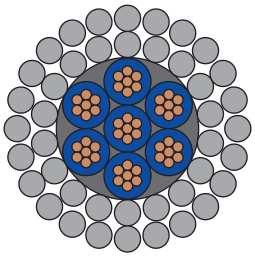
PROPERITIES

Cable Diameter	15/32" (11.8mm)	1/2" (12.4mm)	33/64" (13.2mm)
Minimum Sheave Diameter	23" (590mm)	25" (620mm)	26" (660mm)
Cable Stretcch Coefficient			
ft/Kft/Klbs (m/Km/5KN)	0.756 (0.85)	0.578 (0.65)	0.578 (0.64)

ELECTRICAL

Maximum Conductor Voltage	1,000 VAC	1,000 VAC	1,000VAC
Conductor AWG Rating	20	20	20
Minimum Insulation Resistance			
MΩ/Kft (MΩ/Km)	1,640 (500)	1,640 (500)	1,640 (500)

MECHANICAL

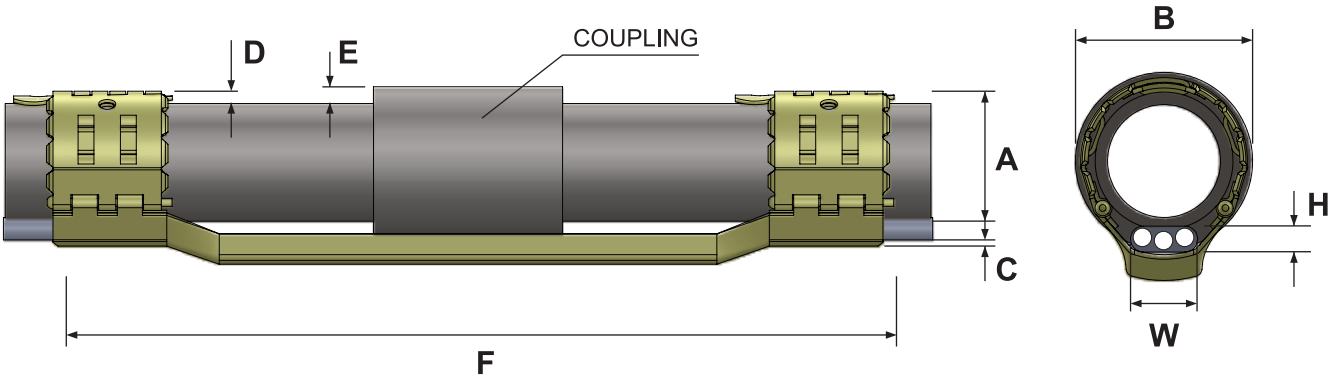


Cable Breaking Strength			
Ends Fixed	22,500 lbs(100KN)	24,750 lbs(110KN)	28,125 lbs(125KN)
Maximum Suggested Working Tension	16,875 lbs(75KN)	18,563 lbs(82.5KN)	21,094 lbs(93.75KN)
Number and Size of Wires			
Inner Armor	24 wires 1.0 mm	22 wires 1.11 mm	16 wires 1.5 mm
Outer Armor	24 wires 1.26 mm	22 wires 1.44 mm	20 wires 1.67 mm

Cable Type	Main Description							Cable Weight
	Temp Rating	Insulation Type	Insulation Thickness	Copper Construction	Conductor Resistance	Cap. Typical	O.D In mm	Lbs/Kft Kg/Km
W7FPP-11.8 HS 7×0.56	450 F 232 C	FEP	0.0256 in 0.65 mm	7*0.32 mm	10.3Ω/Kft 34 Ω/Km	48.7 pF/ft 160 pF/m	0.46 11.8	357 531
W7FPP-12.4 HS 7×0.56	450 F 232 C	FEP	0.0256 in 0.65 mm	7*0.32 mm	10.3Ω/Kft 34 Ω/Km	48.7 pF/ft 160 pF/m	0.50 12.4	384 571
W7FPP-13.2 HS 7×0.56	450 F 232 C	FEP	0.0260 in 0.66 mm	7*0.32 mm	10.3Ω/Kft 34 Ω/Km	48.7 pF/ft 160 pF/m	0.52 13.2	465 692

WANDA CABLE PROTECTOR

PROPERITIES



Production Tubing (A)	Collar OD (B)	Channel Offset (C)
2-3/8"	3.16	0.39
2-7/8"	3.66	047
3-1/2"	4.29	0.59
4-1/2"	5.29	0.59
5-1/2"	6.29	0.39
7"	7.79	0.39

D=0.38"for All Standard Protectors

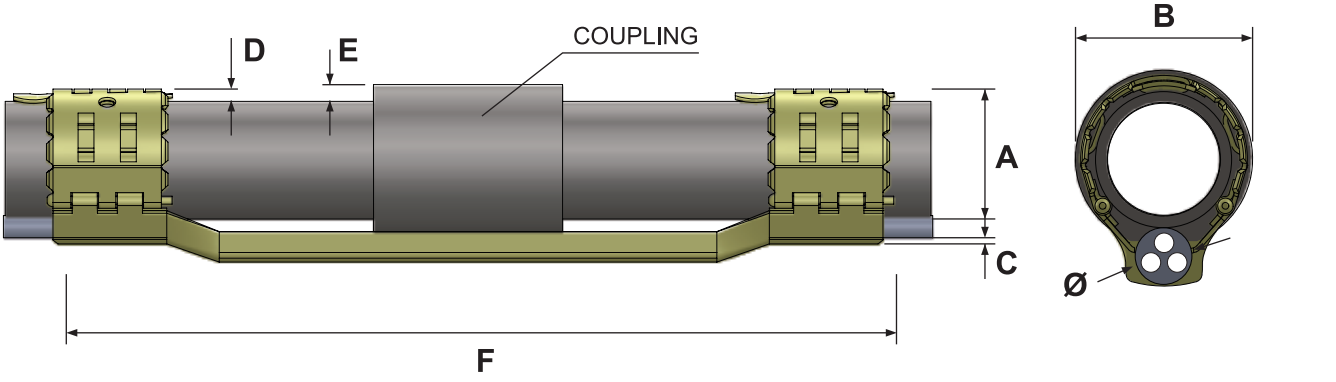
E=Coupling Dimension

F=24.7"for All Standard Protectors

Calculation of Running OD

A+C+H+0.12"(material thickness)

+（Larger of D or E）



Production Tubing (A)	Collar OD (B)	Channel Offset (C)
2-3/8"	3.16	0.39
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3-1/2"	4.29	0.59
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5-1/2"	6.29	0.39
7"	7.79	0.39

D=0.38"for All Standard Protectors

E=Coupling Dimension

F=24.7"for All Standard Protectors

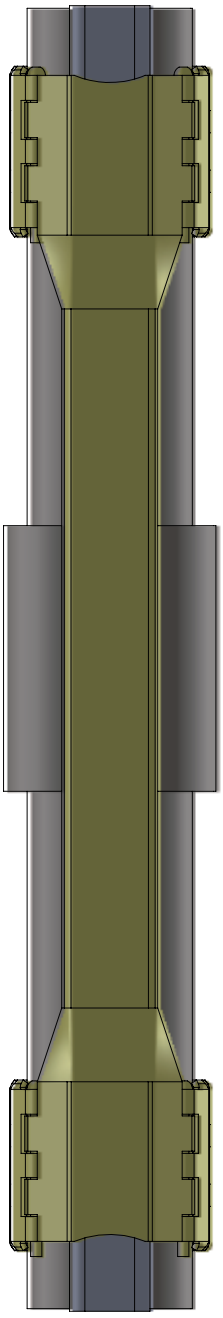
Calculation of Running OD

A+C+Ø+0.12"(material thickness)

+（Larger of D or E）

WANDA CABLE PROTECTOR

WANDA CABLE IS THE MOST PROFESSIONAL MANUFACTUR PROTECTORS. STABLE PROTECTION OF ESP CABLE, CONTROL LINE AND ENCAPSULATED IN THE WELLBORE.



OUR CABLE PROTECTORS USE CHANNELS TO SHIELD CABLES OR LINES AS THEY TRANSLTION ACROSS THE COUPLING TO PREVENT DAMAGE DURING INSTALLATION OR RETRIEVAL OF COMPLETIONS.

OUR CABLE PROTECTORS ARE WIDELY USED TO PROTECT THE WIDE RANGE OF ESP CABLE,CONTROL LINE,UMBILICAL LINES OR ENCAPSULATED BUNDIES IN THE WELLBORE.

OUR CABLE PROTECTORS USES A COMPRESSIVE FIT DESIGN TO ACCOMMODATE OVERSIZE OR UNDERSIZE TUBING PER API SPEC AND SECURELY ENGAGE THE CABLE OR LINES TO THE TUBING.

Features:

quickly
Safely
efficiently