

# Sag & Tension Tables (NESC: Heavy)

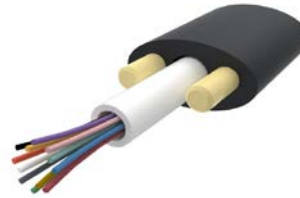
## Self-Support All-Dielectric Outdoor Drop Cable

### O-012-DF-XY-F12NS/NR

Loading Conditions:	NESC HEAVY	SI	US
Ice Thickness mm (in):		12.70	(0.5)
Wind Pressure N/m <sup>2</sup> (lb/ft <sup>2</sup> ):		191.5	(4.0)
Temperature °C (°F):		-17.8	(0.0)
Safety Factor N/m (ft*lb):		4.38	(3.23)

Environmental Conditions			
Max. Environmental Load kg (lbs):		159	(351)
Max. Environmental Cable Strain (%):		0.45	(0.45)
Maximum Vertical Sag m (ft):		1.59	(5.2)

Design Specifications:		SI	US
Maximum Span m (ft):		42	(138)
Cable Weight kg/km (lb/mf):		36	(24)
Cable Diameter mm (in):		8.0	(0.31)
Cable Height mm (in):		4.3	(0.17)
Install Temp °C (°F):		20	(68.0)



Maximum Allowable Install Load and Strain			
Max. Install. Load kg (lb):		15	(34)
Max. Install. Cable Strain (%):		0.07	(0.07)

Install Location	Install Conditions at 20 °C					Loaded Conditions at -18 °C				
	Max Span	Sag	Install Sag	Tension	Cable Strain	Vertical Sag % of Span	Vertical Sag	Horizontal Sag	Tension	Cable Strain
	m (ft)	m (ft)	(%)	kg (lbs)	(%)	(%)	m (ft)	m (ft)	kg (lbs)	(%)

	<b>31 (102)</b>	0.31 (1.0)	1.00	14 (31)	0.06	2.93%	0.91 (3.0)	0.75 (2.5)	149 (329)	0.42
	<b>30 (98)</b>	0.45 (1.5)	1.50	9 (20)	0.05	3.01%	0.90 (3.0)	0.75 (2.5)	141 (310)	0.40
	<b>29 (95)</b>	0.58 (1.9)	2.00	6 (14)	0.04	3.11%	0.90 (3.0)	0.75 (2.5)	132 (290)	0.37
	<b>30 (98)</b>	0.90 (3.0)	3.00	4 (10)	0.03	3.49%	1.05 (3.4)	0.87 (2.8)	122 (268)	0.34

	<b>34 (112)</b>	0.34 (1.1)	1.00	15 (34)	0.07	3.02%	1.03 (3.4)	0.85 (2.8)	159 (350)	0.45
	<b>36 (118)</b>	0.54 (1.8)	1.50	11 (24)	0.05	3.19%	1.15 (3.8)	0.95 (3.1)	159 (351)	0.45
	<b>38 (125)</b>	0.76 (2.5)	2.00	8 (19)	0.05	3.37%	1.28 (4.2)	1.06 (3.5)	159 (351)	0.45
	<b>42 (138)</b>	1.26 (4.1)	3.00	6 (14)	0.04	3.79%	1.59 (5.2)	1.32 (4.3)	157 (346)	0.44

	<b>34 (112)</b>	0.34 (1.1)	1.00	15 (34)	0.07	3.02%	1.03 (3.4)	0.85 (2.8)	159 (350)	0.45
	<b>36 (118)</b>	0.54 (1.8)	1.50	11 (24)	0.05	3.19%	1.15 (3.8)	0.95 (3.1)	159 (351)	0.45
	<b>38 (125)</b>	0.76 (2.5)	2.00	8 (19)	0.05	3.37%	1.28 (4.2)	1.06 (3.5)	159 (351)	0.45
	<b>42 (138)</b>	1.26 (4.1)	3.00	6 (14)	0.04	3.79%	1.59 (5.2)	1.32 (4.3)	157 (346)	0.44

Note: Assumptions made regarding Install Locations. Changes to these assumptions may change the Max Spans.

† Street crossing distances with 18.0 ft attachment height and a 3.0 ft maximum vertical sag.

‡ Pedestrian crossing distances with 18.0 ft attachment height and a 9.0 ft maximum vertical sag.

\* Max span with no limits imposed on sag.

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