

Final tables Calc. based on norm										
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## Nový kotevný úsek

Conductor: 243-AL1/39-ST1A

Parameters:

Diameter d [mm)]	Cross section S [mm²]	Weight m [kg/m]	Young module E [MPa]	Spec. gravity γ [N/m.mm²]	Thermal expans. coeff. α [1/°C]	Rated Tens. Stren. F [N]
21.84	282.54	0.988	75900	0.03429238	0.0000189	84120

Horizontal mechanical stress in -5°C : 70.796 Mpa Average cond. height in tensioning section : 12.381 m

Terr. characteristics: II

Agricultural land divided with hedges, distributed small agricultural settlements, houses and trees.

Terr. type: 2

Open flat terrain without obstacles, without snow, for example agricultural land without any obstacles.

Pull for -5+N [MPa] - ice overload per cent

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30%	40%	50%	70%									
76.37	78.18	79.97	83.5									

Reliabilty level: 1

Return time of the climate load: 50 years

lce area : I-0 - STN EN 50341-1 Wind area : I-SK, v = 24 m/s

Extreme ice overload : 3.97 N/m Mild ice overload : 1.39 N/m Extreme wind overload : 9.69 N/m

Mild wind and extreme ice overload: 4.74 N/m Extreme wind and mild ice overload: 6.08 N/m

Projected lifespan: 50 years Time from construction: 50 years

## Stress values $\sigma_{\!\scriptscriptstyle H}$ and parameter c for average span $\,$ = 300 m $\,$

temp. [°C]	-30	-20	-10	-5	-5+N	-5+V	-5+Nv	-5+vN	0	10	20	40	60	80
σ <sub>н</sub> [MPa]	85.58	79.07	73.37	70.8	88.65	88.83	92.01	84.23	68.39	64.06	60.28	54.05	49.18	45.29
c [m]	2495.58	2305.75	2139.49	2064.48	1833.9	1831.89	1798.48	1883.64	1994.46	1868.06	1757.72	1576.06	1434.04	1320.6
overloads	1	1	1	1	1.41	1.41	1.49	1.3	1	1	1	1	1	1
F <sub>□</sub> [kN]	24.18	22.34	20.73	20	25.05	25.1	26	23.8	19.32	18.1	17.03	15.27	13.89	12.8

## Visible sags, [m] in specific spans from tensioning section

temp. [°C]	-30	-20	-10	-5	-5+N	-5+V	-5+Nv	-5+vN	0	10	20	40	60	80
300	4.51	4.88	5.26	5.45	6.14	6.14	6.26	5.98	5.64	6.03	6.4	7.14	7.85	8.53
300	4.57	4.95	5.33	5.53	6.22	6.23	6.35	6.06	5.72	6.11	6.49	7.24	7.96	8.65
300	4.78	5.17	5.57	5.78	6.5	6.51	6.63	6.33	5.98	6.38	6.78	7.57	8.32	9.03
300	4.71	5.1	5.49	5.69	6.41	6.41	6.53	6.24	5.89	6.29	6.69	7.46	8.2	8.9
300	4.55	4.92	5.31	5.5	6.19	6.2	6.31	6.03	5.69	6.08	6.46	7.21	7.92	8.6
300	4.51	4.88	5.26	5.45	6.14	6.15	6.26	5.98	5.65	6.03	6.41	7.15	7.85	8.53
300	4.51	4.88	5.26	5.45	6.14	6.15	6.26	5.98	5.65	6.03	6.41	7.15	7.86	8.53
300	4.53	4.91	5.29	5.48	6.17	6.18	6.29	6.01	5.67	6.06	6.44	7.18	7.89	8.57
300	4.52	4.89	5.27	5.46	6.15	6.15	6.27	5.98	5.65	6.03	6.41	7.15	7.86	8.54
300	4.61	4.99	5.38	5.58	6.28	6.29	6.4	6.11	5.77	6.17	6.55	7.31	8.03	8.73
300	4.6	4.98	5.36	5.56	6.26	6.27	6.38	6.09	5.75	6.14	6.53	7.28	8.01	8.7
300	4.51	4.88	5.26	5.45	6.14	6.14	6.26	5.98	5.64	6.03	6.4	7.14	7.85	8.53
300	4.51	4.88	5.26	5.45	6.14	6.15	6.26	5.98	5.64	6.03	6.41	7.14	7.85	8.53
300	4.51	4.88	5.26	5.45	6.14	6.14	6.26	5.98	5.64	6.03	6.4	7.14	7.85	8.53
300	4.51	4.88	5.26	5.45	6.14	6.14	6.26	5.98	5.64	6.03	6.4	7.14	7.85	8.53
300	4.51	4.88	5.26	5.45	6.14	6.15	6.26	5.98	5.64	6.03	6.41	7.14	7.85	8.53
300	4.51	4.88	5.26	5.45	6.14	6.14	6.26	5.98	5.64	6.03	6.4	7.14	7.85	8.53
300	4.51	4.88	5.26	5.45	6.14	6.14	6.26	5.98	5.64	6.03	6.4	7.14	7.85	8.53
300	4.51	4.88	5.26	5.45	6.14	6.15	6.26	5.98	5.64	6.03	6.41	7.14	7.85	8.53
300	4.51	4.88	5.26	5.45	6.14	6.14	6.26	5.98	5.64	6.03	6.4	7.14	7.85	8.53
6000														