

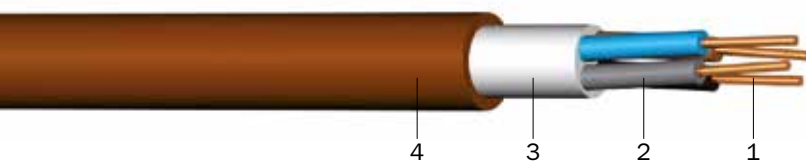
# PRAFlaDur® +

1-CSKH-V180 + P15-R – P60-R, PH120-R, P<sub>750</sub> 90-R, PS15 – PS60 B2<sub>ca</sub> s1d1a1

Halogen-free energy cables with low heat release rate in case of fire

with circuit integrity of whole cable installation according to ČSN 73 0895, STN 92 0205

## DESIGN



- 1 | Copper conductor, round solid (RE), resp. round stranded (RM)
- 2 | Core insulation (silicone rubber)
- 3 | Inner covering (halogen-free polymer compound)
- 4 | Sheath (halogen-free polymer compound, brown, UV resistant)

## APPLICATION

This cable is intended for the stationary distribution of electrical energy and can be used in environments according to the External influences table below as long as the ends of the cable are thoroughly secured against the ingress of water and moisture and its sheath remains undamaged during installation and operation. The terminal equipment into which the cable is connected (e.g. distribution boxes, switchboards, couplers etc.) must comply with at least the same operating environment requirements as the cable itself. The cable is intended for fixed, universal installation – outside in air (the cable is not self-supporting) or underground, but also inside buildings such as hotels, hospitals, underground railways, airports and in other places where there is an increased concentration of people, etc. to protect people and technical building equipment in the event of fire if circuit integrity is not required. The cable releases little heat and smoke under fire. The cable is UV-resistant.

## TECHNICAL DATA



**Standard:**

TP PRAKAB 01/05 and ZP PRAKAB 01/17



**Rated voltage:**

0.6/1 kV



**Test voltage:**

4 kV/50 Hz



**Temperature range:**

laying temperature: min. -5 °C  
 operating temperature: -50 °C up to +90 °C  
 conductor temperature: max. +90 °C  
 short-circuit temperature: max. +250 °C/5 sec



**Bending radius (min.):**

6 x Ø of cable for Ø < 20 mm  
 12 x Ø of cable for Ø 20 mm to 40 mm  
 15 x Ø of cable for Ø > 40 mm



**Cable operating environment:**

See external influence table  
 ČSN 33 2000-5-51 ed. 3

**Cable Installation:**

Outside or inside  
 ČSN 33 2000-5-52 ed. 2, Annex NA  
 Circuit integrity  
 ČSN 73 0895



**Core identification:**

HD 308 S2, EN 50334



**Fire properties:**

flame retardant:  
 EN 60332-1-2  
 halogen-free, non-corrosive combustion gases:  
 EN 60754-2  
 low smoke emission:  
 EN 61034-2  
 reduced flame propagation:  
 EN 60332-3-22  
 insulation integrity:  
 IEC 60331-21 – 180 min.  
 circuit integrity:  
 ČSN 73 0895, STN 92 0205  
 classification of the reaction to fire:  
 EN 13501-6



**Certificate:**

EZÚ Czech Republic

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External influence	Code	External influence	Code
AA – Ambient temperature (°C)	AA2 to AA8	AP – Seismic effects	AP1
AB – Atmospheric humidity	AB2 to AB8	AQ – Lighting	AQ1
AC – Altitude	AC1, AC2	AR – Movement of air	AR1 to AR3
AD – Presence of water	AD1 to AD7	AS – Wind	AS1, AS2
AE – Presence of foreign solid bodies or dust	AE1 to AE6	BA – Capability of persons	BA4, BA5
AF – Presence of corrosive or polluting substances	AF1 to AF3	BC – Contact of persons with earth potential	BC1 to BC3
AG – Mechanical shock	AG1, AG2	BD – Conditions of evacuation in case of emergency	BD1 to BD4
AH – Vibrations	AH1, AH2	BE – Nature of processed or stored materials	BE1, BE2
AK – Presence of flora and/or moulds growth	AK1, AK2	CA – Construction materials	CA1, CA2
AL – Presence of fauna	AL1	CB – Building design	CB1 to CB3
AN – Solar radiation	AN1, AN2		

Note: The cable can be installed into these types of environment as long as the sheath of the cable remains undamaged during installation and operation. The terminal equipment into which the cable is connected must comply with at least the same operating environment requirements as the cable itself.

Number of cores x nominal cross section (mm <sup>2</sup> )	Max, conductor resistance (Ω/km)	Current rating in the ground (A)	Current rating in the air (A)	Outer diameter ca. (mm)	Total weight ca. (kg/km)	Standard lengths/packing (m)
<b>PRAFlaDur® +</b>						
2 x 1.5 RE	12.531	37.0	28.0	10.0	160	1,000 D
3 x 1.5 RE	12.531	31.0	24.0	10.4	180	1,000 D
4 x 1.5 RE	12.531	31.0	24.0	11.2	210	1,000 D
5 x 1.5 RE	12.531	21.0	16.0	12.1	240	1,000 D
7 x 1.5 RE	12.531	18.5	15.5	13.1	295	1,000 D
12 x 1.5 RE	12.531	14.5	12.5	16.6	440	500 D
19 x 1.5 RE	12.531	12.0	10.5	19.3	620	500 D
24 x 1.5 RE	12.531	10.5	9.5	23.2	825	500 D
37 x 1.5 RE	12.531	9.5	8.5	26.2	1,140	500 D
48 x 1.5 RE	12.531	8.5	7.5	29.8	1,430	500 D
2 x 2.5 RE	7.520	47.0	37.0	10.8	200	1,000 D
3 x 2.5 RE	7.520	40.0	32.0	11.3	225	1,000 D
4 x 2.5 RE	7.520	40.0	32.0	12.2	265	1,000 D
5 x 2.5 RE	7.520	27.0	22.0	13.3	315	1,000 D
7 x 2.5 RE	7.520	24.0	20.5	14.3	385	1,000 D
12 x 2.5 RE	7.520	19.0	16.5	18.4	595	500 D
19 x 2.5 RE	7.520	16.0	14.0	22.0	895	500 D
24 x 2.5 RE	7.520	14.0	12.5	25.6	1,120	500 D
37 x 2.5 RE	7.520	12.5	11.5	29.2	1,570	500 D
48 x 2.5 RE	7.520	11.0	10.0	33.6	2,020	500 D
2 x 4 RE	4.700	61.0	49.0	12.7	285	1,000 D
3 x 4 RE	4.700	52.0	42.0	13.4	330	1,000 D
4 x 4 RE	4.700	52.0	42.0	14.5	390	1,000 D
5 x 4 RE	4.700	35.0	28.0	15.7	460	1,000 D

**PRAFlaDur® +**

**1-CSKH-V180 + P15-R – P60-R, PH120-R, P<sub>750</sub> 90-R, PS15 – PS60 B<sub>2</sub>ca s1d1a1**

Number of cores x nominal cross section (mm <sup>2</sup> )	Max, conductor resistance (Ω/km)	Current rating in the ground (A)	Current rating in the air (A)	Outer diameter ca. (mm)	Total weight ca. (kg/km)	Standard lengths/packing (m)
<b>PRAFlaDur® +</b>						
7 x 4 RE	4.700	31.0	27.0	16.9	570	1,000 D
12 x 4 RE	4.700	24.5	22.0	22.8	945	500 D
1 x 6 RE	3.133	102.0	72.0	8.8	150	1,000 D
2 x 6 RE	3.133	75.0	62.0	13.7	350	1,000 D
3 x 6 RE	3.133	64.0	53.0	14.4	410	1,000 D
4 x 6 RE	3.133	64.0	53.0	15.7	490	1,000 D
5 x 6 RE	3.133	46.0	36.0	17.0	585	1,000 D
1 x 10 RE	1.880	136.0	99.0	9.6	195	1,000 D
2 x 10 RE	1.880	99.0	85.0	15.3	465	1,000 D
3 x 10 RE	1.880	86.0	74.0	16.1	560	1,000 D
4 x 10 RE	1.880	86.0	74.0	17.6	680	1,000 D
5 x 10 RE	1.880	60.0	49.0	19.3	820	500 D
1 x 16 RE	1.175	176.0	131.0	10.5	260	1,000 D
2 x 16 RE	1.175	129.0	113.0	17.1	630	500 D
3 x 16 RE	1.175	112.0	98.0	18.3	780	500 D
4 x 16 RE	1.175	112.0	98.0	20.7	1,010	500 D
5 x 16 RE	1.175	77.0	65.0	22.6	1,210	500 D
1 x 25 RM	0.752	229.0	177.0	12.7	380	1,000 D
3 x 25 RE	0.752	145.0	133.0	22.2	1,180	500 D
3 x 25 RM	0.752	145.0	133.0	24.2	1,310	500 D
3 x 25 RE + 16 RE	0.752/1.175	145.0	133.0	24.4	1,390	500 D
3 x 25 RM + 16 RE	0.752/1.175	145.0	133.0	26.4	1,500	500 D
4 x 25 RM	0.752	145.0	133.0	26.4	1,600	500 D
5 x 25 RM	0.752	98.0	90.0	28.9	1,920	500 D
1 x 35 RM	0.537	275.0	217.0	13.7	480	1,000 D
2 x 35 RM	0.537	199.0	186.0	24.4	1,320	500 D
3 x 35 RM	0.537	174.0	162.0	25.9	1,640	500 D
3 x 35 RM + 16 RE	0.537/1.175	174.0	162.0	28.3	1,830	500 D
3 x 35 RM + 25 RM	0.537/0.752	174.0	162.0	28.3	1,930	500 D
4 x 35 RM	0.537	174.0	162.0	28.3	2,020	500 D
5 x 35 RM	0.537	117.0	109.0	31.3	2,450	500 D
1 x 50 RM	0.387	326.0	26.0	15.5	650	1,000 D
3 x 50 RM	0.387	206.0	197.0	29.8	2,260	500 D
3 x 50 RM + 25 RM	0.387/0.752	206.0	197.0	33.1	2,590	500 D
3 x 50 RM + 35 RM	0.387/0.537	206.0	197.0	33.1	2,680	500 D
4 x 50 RM	0.387	206.0	197.0	33.1	2,840	500 D
5 x 50 RM	0.387	139.0	133.0	36.5	3,450	500 D
1 x 70 RM	0.268	400.0	336.0	17.1	850	1,000 D
3 x 70 RM	0.268	254.0	250.0	34.0	3,020	500 D
3 x 70 RM + 35 RM	0.268/0.537	254.0	250.0	37.3	3,410	500 D
3 x 70 RM + 50 RM	0.268/0.387	254.0	250.0	37.3	3,570	500 D
4 x 70 RM	0.268	254.0	250.0	37.3	3,750	500 D

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Number of cores x nominal cross section (mm <sup>2</sup> )	Max, conductor resistance (Ω/km)	Current rating in the ground (A)	Current rating in the air (A)	Outer diameter ca. (mm)	Total weight ca. (kg/km)	Standard lengths/packing (m)
<b>PRAFlaDur® +</b>						
5 x 70 RM	0.268	183.0	180.0	41.2	4,570	500 D
1 x 95 RM	0.198	480.0	415.0	19.4	1,130	1,000 D
3 x 95 RM	0.198	305.0	308.0	38.6	3,980	500 D
3 x 95 RM + 50 RM	0.198/0.387	305.0	308.0	42.7	4,560	500 D
4 x 95 RM	0.198	305.0	3308.0	42.7	4,980	500 D
5 x 95 RM	0.198	213.0	215.0	47.2	6,070	500 D
1 x 120 RM	0.157	548.0	485.0	21.7	1,430	1,000 D
3 x 120 RM	0.157	348.0	359.0	41.9	4,890	500 D
3 x 120 RM + 50 RM	0.157/0.387	348.0	359.0	46.4	5,470	500 D
3 x 120 RM + 70 RM	0.157/0.268	348.0	359.0	46.4	5,650	500 D
4 x 120 RM	0.157	348.0	359.0	46.4	6,130	500 D
5 x 120 RM	0.157	239.0	247.0	52.1	7,460	500 D
1 x 150 RM	0.124	616.0	557.0	23.4	1,640	500 D
3 x 150 RM	0.124	392.0	412.0	46.2	5,740	500 D
3 x 150 RM + 70 RM	0.124/0.268	392.0	412.0	52.0	6,640	500 D
4 x 150 RM	0.124	392.0	412.0	52.0	7,340	500 D
5 x 150 RM	0.124	266.0	279.0	57.0	8,960	500 D
1 x 185 RM	0.102	698.0	646.0	24.6	2,060	500 D
3 x 185 RM	0.102	444.0	475.0	49.5	6,935	300 D
3 x 185 + 95 RM/RM	0.102/0.198	444.0	475.0	54.7	8,040	300 D
4 x 185 RM	0.102	444.0	475.0	54.7	8,765	300 D
5 x 185 RM	0.102	300.0	279.0	60.8	10,625	300 D
1 x 240 RM	0.078	815.0	901.0	26.9	2,680	500 D
3 x 240 RM	0.078	517.0	649.0	54.6	9,055	300 D
3 x 240 + 120 RM/RM	0.078/0.157	517.0	649.0	60.5	10,150	300 D
4 x 240 RM	0.078	517.0	649.0	60.5	11,340	300 D
5 x 240 RM	0.078	348.0	466.0	67.2	14,040	300 D

Subject to technical changes.