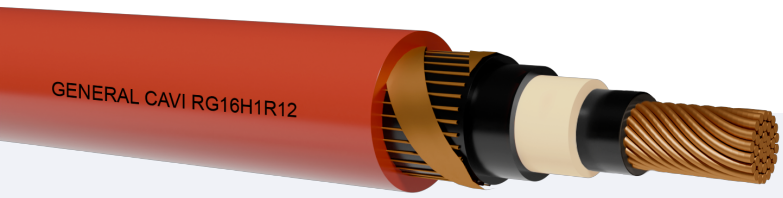
RG16H1R12 da 1,8/3kV a 18/30 kV.

(UNIPOLARI EX RG7H1R) CPR Eca

Model Product: 7I0-7L0-7M0-7O0-7P0-7Q0 - 20250618



MEDIOM VOLTAGE

- Nominal voltage U0: da 1,8kV a 18kV
- Nominal voltage U: da 3kV a 30kV
- Maximun operating temperature: +90°C
- Maximun short circuit temperature: +250°C
- Minimum installation and laying temperature: 0°C
- Min. operating temperature (without mechanical shocks): -15°C

Rigid class 2 red copper conductor.
Inner semi-conducting layer
Elastomeric mixture insulation (G16 quality).
Outer semi-conducting layer special high module hepr for 1.8 / 3 kV only on request
Red copper wire shield.
Outer Sheath PVC R12 type.

STANDARDS

CEI 20-13, HD 620 IEC 60502pqa
EN 50575:2014 + EN 50575/A1:2016 (IEC 60332-1-2)

Complies with Directive 2011/65/EU (RoHS 3), REACH, RAEE

CORE COLOURS

Single core: pink

Three cores: pink

SHEATH COLOUR

Red

NOTE

In cables with a rated voltage of Uo insulation to lower ground or equal to 3.6 kV is allowed the omission of the semiconductor layers.

COMMON FEATURES

Suitable for the transport of energy between the substations and large users.For electrical power system in constructions alnd other civil engineering bulginngs,in order to limit fire and smoke production and spread,in accordance with the CPR For free hanging, pipe or channel. Laying underground also not protected.

EMPLOYMENT

Minimum bending radius per D cable diameter (in mm): 12 D

Maximum pulling stress: 60 N/mm

PACKING

Packaging and minimal quantity to agree

RG16H1R12 da 1,8/3kV a 18/30 kV.

(UNIPOLARI EX RG7H1R) CPR Eca

Model Product: 7I0-7L0-7M0-7O0-7P0-7Q0 - 20250618

Uo/U : 1,8/3 kV - U max : 3,6 kV(EX GRADO 8)

Conductor number	Nominal cross section	Approx cond. diameter	Insulation diameter	Approx overall diameter	Approx cable weight	Minimum radius bending
(N.)	(mm2)	(mm)	(mm)	(mm)	(kg/km)	(mm)
Single core						
1x	10	4.0	8.0	14.5	289	180
1x	16	4.8	8.8	15.2	348	190
1x	25	6.0	10.0	16.5	448	200
1x	35	7.0	11.0	17.5	547	220
1x	50	8.1	12.1	18.5	677	240
1x	70	9.9	13.9	20.1	905	260
1x	95	11.5	15.5	22.1	1174	290
1x	120	12.9	16.9	23.3	1423	310
1x	150	14.2	18.2	24.7	1692	330
1x	185	15.9	19.9	26.5	2040	350
1x	240	18.3	22.3	29.0	2587	390
1x	300	20.7	24.7	31.6	3184	420
1x	400	23.5	27.5	34.6	4010	460
1x	500	26.5	31.0	38.3	5055	510
1x	630	31.2	36.2	43.1	6388	570

Formation	Elettric Resistace 20°C	Capacities 50 Hz	Apparent resistance at 90°C and 50 Hz		Phase Reactance		Current carrying capacities			
			Trefoil formation	Flat	Trefoil formation	Flat	Trefoil formation in air	Flat in air	Trefoil formation in ground	Flat in ground
(N° x mmq)	(Ohm/km)	(microF/km)	(Ohm/km)	(Ohm/km)	(Ohm/km)	(Ohm/km)	(A)	(A)	(A)	(A)
Single core										
1x10	1,83	0,19	2,34	2,34	0,13	0,19	87	111	99	104
1x16	1,15	0,23	1,47	1,47	1.12	0,18	114	145	126	133
1x25	0,727	0,27	0,927	0,927	0,12	0,18	149	190	162	171
1x35	0,524	0,30	0,669	0,668	0,11	0,17	181	230	193	204
1x50	0,387	0,34	0,494	0,494	0,11	0,16	219	276	227	241
1x70	0,268	0,40	0,342	0,342	0,10	0,16	275	345	278	294
1x95	0,193	0,45	0,246	0,246	0,098	0,16	339	422	332	351
1x120	0,153	0,50	0,196	0,196	0,095	0,15	393	487	377	399
1x150	0,124	0,55	0,159	0,158	0,092	0,15	466	550	421	445
1x185	0,0991	0,60	0,128	0,127	0,089	0,15	516	635	477	500
1x240	0,0754	0,68	0,0985	0,0974	0,086	0,14	617	745	550	580
1x300	0,0601	0,75	0,0797	0,0781	0,084	0,14	709	855	621	650
1x400	0,0470	0,83	0,0638	0,0628	0,083	0,14	824	990	702	735
1x500	0,0366	0,88	0,0517	0,0492	0,081	0,14	954	1140	790	830

RG16H1R12 da 1,8/3kV a 18/30 kV.

(UNIPOLARI EX RG7H1R) CPR Eca

Model Product: 7I0-7L0-7M0-7O0-7P0-7Q0 - 20250618

Formation	Elettric Resistace 20°C	Capacities 50 Hz	Apparent resistance at 90°C and 50 Hz		Phase Reactance		Current carrying capacities			
			Trefoil formation	Flat	Trefoil formation	Flat	Trefoil formation in air	Flat in air	Trefoil formation in ground	Flat in ground
(N° x mmq)	(Ohm/km)	(microF/km)	(Ohm/km)	(Ohm/km)	(Ohm/km)	(Ohm/km)	(A)	(A)	(A)	(A)
1x630	0,0283	0,92	0,0425	0,0392	0,079	0,14	1102	1300	885	930

RG16H1R12 da 1,8/3kV a 18/30 kV.

(UNIPOLARI EX RG7H1R) CPR Eca

Model Product: 7I0-7L0-7M0-7O0-7P0-7Q0 - 20250618

Uo/U : 3,6/6 kV - U max : 7,2 kV(EX GRADO 11)

Conductor number	Nominal cross section	Approx cond. diameter	Insulation diameter	Approx overall diameter	Approx cable weight	Minimum radius bending
(N.)	(mm2)	(mm)	(mm)	(mm)	(kg/km)	(mm)
Single core						
1x	10	4.0	11.6	17.5	347	210
1x	16	4.8	12.4	17.0	416	204
1x	25	6.0	13.6	18.8	549	225
1x	35	7.0	14.6	19.8	653	238
1x	50	8.1	15.7	21.4	792	257
1x	70	9.9	17.5	23.3	1035	280
1x	95	11.5	19.1	24.8	1317	298
1x	120	12.9	20.5	26.3	1564	316
1x	150	14.2	21.8	27.8	1841	334
1x	185	15.9	23.6	29.5	2203	354
1x	240	18.3	26.0	32.1	2822	386
1x	300	20.7	28.4	34.8	3366	418
1x	400	23.5	32.4	37.8	4158	454
1x	500	26.5	35.9	41.8	5247	502
1x	630	31.2	39.9	45.8	6534	550

Formation	Electric resistance at 20°C	Capacities 50 Hz	Apparent resistance at 90°C and 50 Hz		Phase Reactance		Current carrying capacities			
			Trefoil formation	Flat	Trefoil formation	Flat	Trefoil formation in air	Flat in air	Trefoil formation in ground	Flat in ground
(N° x mmq)	(Ohm/km)	(microF/km)	(Ohm/km)	(Ohm/km)	(Ohm/km)	(Ohm/km)	(A)	(A)	(A)	(A)
Single core										
1x10	1.83	0.16	2.34	2.34	0.16	0.21	91	105	93	98
1x16	1.15	0.18	1.47	1.47	0.15	0.20	117	136	120	128
1x25	0.727	0.21	0.927	0.927	0.14	0.19	154	178	155	163
1x35	0.524	0.23	0.669	0.669	0.13	0.19	186	219	185	195
1x50	0.387	0.26	0.494	0.494	0.12	0.18	223	260	218	231
1x70	0.268	0.29	0.342	0.342	0.12	0.17	279	325	270	285
1x95	0.193	0.32	0.246	0.246	0.11	0.17	340	398	320	340
1x120	0.153	0.36	0.196	0.196	0.11	0.16	395	460	365	385
1x150	0.124	0.38	0.159	0.158	0.10	0.16	448	520	410	432
1x185	0.0991	0.42	0.128	0.127	0.10	0.16	516	600	464	490
1x240	0.0754	0.47	0.0985	0.0973	0.097	0.16	610	705	540	565
1x300	0.0601	0.52	0.0797	0.0780	0,095	0.15	703	810	605	635
1x400	0.0470	0.57	0.0638	0.0617	0.092	0.15	815	935	690	720
1x500	0.0366	0.64	0.0517	0.0490	0.089	0.15	945	1080	780	810

RG16H1R12 da 1,8/3kV a 18/30 kV.

(UNIPOLARI EX RG7H1R) CPR Eca

Model Product: 7I0-7L0-7M0-7O0-7P0-7Q0 - 20250618

Formation	Electric resistance at 20°C	Capacities 50 Hz	Apparent resistance at 90°C and 50 Hz		Phase Reactance		Current carrying capacities			
			Trefoil formation	Flat	Trefoil formation	Flat	Trefoil formation in air	Flat in air	Trefoil formation in ground	Flat in ground
(N° x mmq)	(Ohm/km)	(microF/km)	(Ohm/km)	(Ohm/km)	(Ohm/km)	(Ohm/km)	(A)	(A)	(A)	(A)
1x630	0.0283	0.73	0.0425	0.0390	0.087	0.15	1085	1230	875	900

RG16H1R12 da 1,8/3kV a 18/30 kV.

(UNIPOLARI EX RG7H1R) CPR Eca

Model Product: 7I0-7L0-7M0-7O0-7P0-7Q0 - 20250618

Uo/U : 6/10 kV - U max : 12 kV(EX GRADO 17)

Conductor Number	Nominal Section	Approx conductor diameter	Approx insulation diameter	Approx external production diameter	Approx cable weight	Minimum radius bending
(N°)	(mmq)	(mm)	(mm)	(mm)	(kg/km)	(mm)
Single core						
1x	10	4.0	14.2	19.9	458	260
1x	16	4.8	14.2	20.4	547	280
1x	25	6.0	15.4	21.8	647	300
1x	35	7.0	16.4	23.3	766	310
1x	50	8.1	17.5	24.8	945	330
1x	70	9.9	19.3	26.3	1144	350
1x	95	11.5	20.9	27.8	1443	380
1x	120	12.9	22.3	29.3	1682	400
1x	150	14.2	23.6	30.8	1990	410
1x	185	15.9	25.4	32.8	2388	440
1x	240	18.3	27.8	35.3	2965	480
1x	300	20.7	30.2	37.8	3582	510
1x	400	23.5	33.0	40.8	4378	550
1x	500	26.5	36.0	44.3	5512	600
1x	630	31.2	40.7	54.8	6965	670

Formation	Electric resistance at 20°C	Capacities 50 Hz	Apparent resistance at 90°C and 50 Hz		Phase Reactance		Current carrying capacities			
			Trefoil formation	Flat	Trefoil formation	Flat	Trefoil formation in air	Flat in air	Trefoil formation in ground	Flat in ground
(N° x mmq)	(Ohm/km)	(microF/km)	(Ohm/km)	(Ohm/km)	(Ohm/km)	(Ohm/km)	(A)	(A)	(A)	(A)
Single core										
1x10	1.83	0.16	2.34	2.34	0.16	0.21	91	105	93	98
1x16	1.15	0.18	1.47	1.47	0.15	0.20	117	136	120	128
1x25	0.727	0.21	0.927	0.927	0.14	0.19	154	178	155	163
1x35	0.524	0.23	0.669	0.669	0.13	0.19	186	219	185	195
1x50	0.387	0.26	0.494	0.494	0.12	0.18	223	260	218	231
1x70	0.268	0.29	0.342	0.342	0.12	0.17	279	325	270	285
1x95	0.193	0.32	0.246	0.246	0.11	0.17	340	398	320	340
1x120	0.153	0.36	0.196	0.196	0.11	0.16	395	460	365	385
1x150	0.124	0.38	0.159	0.158	0.10	0.16	448	520	410	432
1x185	0.0991	0.42	0.128	0.127	0.10	0.16	516	600	464	490
1x240	0.0754	0.47	0.0985	0.0973	0.097	0.16	610	705	540	565
1x300	0.0601	0.52	0.0797	0.0780	0.095	0.15	703	810	605	635
1x400	0.0470	0.57	0.0638	0.0617	0.092	0.15	815	935	690	720
1x500	0.0366	0.64	0.0517	0.0490	0.089	0.15	945	1080	780	810

RG16H1R12 da 1,8/3kV a 18/30 kV.

(UNIPOLARI EX RG7H1R) CPR Eca

Model Product: 7I0-7L0-7M0-7O0-7P0-7Q0 - 20250618

Formation	Electric resistance at 20°C	Capacities 50 Hz	Apparent resistance at 90°C and 50 Hz		Phase Reactance		Current carrying capacities			
			Trefoil formation	Flat	Trefoil formation	Flat	Trefoil formation in air	Flat in air	Trefoil formation in ground	Flat in ground
(N° x mmq)	(Ohm/km)	(microF/km)	(Ohm/km)	(Ohm/km)	(Ohm/km)	(Ohm/km)	(A)	(A)	(A)	(A)
1x630	0.0283	0.73	0.0425	0.0390	0.087	0.15	1085	1230	875	900

RG16H1R12 da 1,8/3kV a 18/30 kV.

(UNIPOLARI EX RG7H1R) CPR Eca

Model Product: 7I0-7L0-7M0-7O0-7P0-7Q0 - 20250618

Uo/U : 8,7/15 kV - U max : 17,5 kV(EX GRADO 24)

Conductor Number	Nominal Section	Approx conductor diameter	Approx insulation diameter	Approx external production diameter	Approx cable weight	Minimum radius bending
(N°)	(mmq)	(mm)	(mm)	(mm)	(kg/km)	(mm)
Single core						
1x	16	4.8	17.4	23.0	627	310
1x	25	6.0	17.4	24.3	746	320
1x	35	7.0	18.4	25.3	856	340
1x	50	8.1	19.5	26.3	1005	350
1x	70	9.9	21.3	28.3	1234	380
1x	95	11.5	22.9	30.3	1512	400
1x	120	12.9	24.3	31.9	1771	420
1x	150	14.2	25.6	33.3	2090	440
1x	185	15.9	27.4	35.3	2458	470
1x	240	18.3	29.8	38.3	3035	500
1x	300	20.7	32.2	40.3	3672	530
1x	400	23.5	35.0	43.3	4547	580
1x	500	26.5	38.0	47.3	5602	620
1x	630	31.2	42.7	52.3	7134	690

Nominal Section	Elettric Resistace 20°C	Capacities 50 Hz	Apparent resistance at 90°C and 50 Hz		Phase Reactance		Current carrying capacities			
			Trefoil formation	Flat	Trefoil formation	Flat	Trefoil formation in air	Flat in air	Trefoil formation in ground	Flat in ground
(N°xmmq)	(Ohm/km)	(microF/km)	(Ohm/km)	(Ohm/km)	(Ohm/km)	(Ohm/km)	(A)	(A)	(A)	(A)
Single core										
1x16	1.15	0.15	1.47	1.47	0.15	0.21	120	135	118	123
1x25	0.727	0.18	0.927	0.927	0.14	0.20	155	177	152	158
1x35	0.524	0.19	0.669	0.669	0.14	0.19	190	215	181	190
1x50	0.387	0.21	0.494	0.494	0.13	0.19	225	258	213	224
1x70	0.268	0.24	0.342	0.342	0.12	0.18	282	323	262	276
1x95	0.193	0.26	0.246	0.246	0.12	0.17	345	393	313	330
1x120	0.153	0.29	0.196	0.196	0.11	0.17	400	455	358	375
1x150	0.124	0.31	0.159	0.158	0.11	0.17	450	515	396	420
1x185	0.0991	0.34	0.128	0.127	0.11	0.16	518	590	453	475
1x240	0.0754	0.37	0.0985	0.0973	0.10	0.16	615	700	525	550
1x300	0.0601	0.42	0.0797	0.0780	0.099	0.16	704	800	590	620
1x400	0.0470	0.45	0.0638	0.0617	0.096	0.15	816	920	670	700
1x500	0.0366	0.51	0.0517	0.0490	0.092	0.15	954	1060	760	785
1x630	0.0283	0.58	0.0425	0.0390	0.090	0.15	1088	1210	850	870

RG16H1R12 da 1,8/3kV a 18/30 kV.

(UNIPOLARI EX RG7H1R) CPR Eca

Model Product: 7I0-7L0-7M0-7O0-7P0-7Q0 - 20250618

Uo/U : 12/20 kV - U max : 24 kV(EX GRADO 32)

Conductor Number	Nominal Section	Approx conductor diameter	Approx insulation diameter	Approx external production diameter	Approx cable weight	Minimum radius bending
(N°)	(mmq)	(mm)	(mm)	(mm)	(kg/km)	(mm)
Single core						
1x	25	6.0	20.4	26.9	846	360
1x	35	7.0	20.4	27.3	945	360
1x	50	8.1	21.5	28.5	1095	380
1x	70	9.9	23.3	30.4	1343	400
1x	95	11.5	24.9	32.4	1652	430
1x	120	12.9	26.3	33.9	1920	450
1x	150	14.2	27.6	35.2	2209	470
1x	185	15.9	29.4	37.0	2587	490
1x	240	18.3	31.8	39.5	3174	530
1x	300	20.7	34.2	42.0	3821	560
1x	400	23.5	37.0	45.3	4696	610
1x	500	26.5	40.0	49.0	5771	650
1x	630	31.2	44.7	53.7	7323	730

Formation	Elettric Resistace 20°C	Capacities 50 Hz	Apparent resistance at 90°C and 50 Hz		Phase Reactance		Current carrying capacities			
			Trefoil formation	flat	Trefoil formation	Flat	Trefoil formation in air	Flat in air	Trefoil formation in ground	Flat in ground
(N° x mmq)	(Ohm/km)	(microF/km)	(Ohm/km)	(Ohm/km)	(Ohm/km)	(Ohm/km)	(A)	(A)	(A)	(A)
Single core										
1x25	0.727	0.16	0.927	0.927	0.14	0.20	158	176	153	158
1x35	0.524	0.17	0.669	0.669	0.14	0.20	190	213	182	189
1x50	0.387	0.18	0.494	0.494	0.13	0.19	230	255	216	225
1x70	0.268	0.21	0.342	0.342	0.13	0.19	285	320	265	275
1x95	0.193	0.23	0.246	0.246	0.12	0.18	348	390	315	329
1x120	0.153	0.25	0.196	0.196	0.12	0.18	400	450	360	374
1x150	0.124	0.27	0.159	0.158	0.11	0.17	450	510	402	416
1x185	0.0991	0.29	0.128	0.127	0.11	0.17	520	585	455	472
1x240	0.0754	0.32	0.0985	0.0972	0.11	0.16	615	690	528	545
1x300	0.0601	0.35	0.0797	0.0779	0.10	0.16	705	790	595	611
1x400	0.0470	0.39	0.0638	0.0616	0.099	0.16	815	910	674	690
1x500	0.0366	0.43	0.0517	0.0489	0.096	0.15	945	1050	762	776
1x630	0.0283	0.49	0.0425	0.0389	0.093	0.15	1087	1190	858	875

RG16H1R12 da 1,8/3kV a 18/30 kV.

(UNIPOLARI EX RG7H1R) CPR Eca

Model Product: 7I0-7L0-7M0-7O0-7P0-7Q0 - 20250618

Uo/U : 18/30 kV - U max : 36 kV(EX GRADO 47)

Conductor Number	Nominal Section	Approx conductor diameter	Approx insulation diameter	Approx external production diameter	Approx cable weight	Minimum radius bending
(N°)	(mmq)	(mm)	(mm)	(mm)	(kg/km)	(mm)
Single core						
1x	35	7.0	28.0	33.8	1290	450
1x	50	8.1	27.1	35.9	1420	460
1x	70	9.9	28.9	36.1	1660	470
1x	95	11.5	30.5	37.8	1980	510
1x	120	12.9	31.9	39.1	2260	520
1x	150	14.2	33.2	40.7	2560	540
1x	185	15.9	35.0	42.6	2960	570
1x	240	18.3	37.4	45.3	3610	610
1x	300	20.7	39.8	47.8	4280	640
1x	400	23.5	42.6	51.2	5200	680
1x	500	26.5	45.6	55.0	6310	730
1x	630	31.2	50.3	61.9	7930	800

Formation	Elettric Resistace 20°C	Capacities 50 Hz	Apparent resistance at 90°C and 50 Hz		Phase Reactance		Current carrying capacities			
			Trefoil formation	Flat	Trefoil formation	Flat	Trefoil formation in air	Flat in air	Trefoil formation in ground	Flat in ground
(N° x mmq)	(Ohm/km)	(microF/km)	(Ohm/km)	(Ohm/km)	(Ohm/km)	(Ohm/km)	(A)	(A)	(A)	(A)
Single core										
1x35	0.524	0.14	0.669	0.669	0.15	0.20	191	212	182	188
1x50	0.387	0.15	0.494	0.494	0.15	0.20	229	254	214	222
1x70	0.268	0.16	0.342	0.342	0.14	0.20	285	316	263	272
1x95	0.193	0.18	0.246	0.246	0.13	0.19	347	387	314	325
1x120	0.153	0.19	0.196	0.196	0.13	0.18	401	445	358	370
1x150	0.124	0.20	0.159	0.158	0.12	0.18	452	505	400	415
1x185	0.0991	0.22	0.128	0.127	0.12	0.18	520	580	453	469
1x240	0.0754	0.24	0.0985	0.0972	0.11	0.17	615	680	525	540
1x300	0.0601	0.27	0.0797	0.0779	0.11	0.17	705	775	593	606
1x400	0.0470	0.29	0.0638	0.0616	0.11	0.16	815	895	671	685
1x500	0.0366	0.32	0.0517	0.0489	0.10	0.16	943	1030	761	775
1x630	0.0283	0.36	0.0425	0.0389	0.099	0.16	1085	1170	860	875

The current carrying capacities of underground cables have been calculated with thermal resistivity of the Land 100 ° C cm / W