

## CABLURI DE SEMNALIZARE CU IZOLATIE DE PVC



1. Conductor masiv de cupru
2. Izolatie de PVC
3. Invelis intern
4. Ecran (numai la cablurile ecranate)
5. Manta interioara (numai la cablurile armate)
6. Armatura din benzi de otel
7. Manta exterioara de PVC

### TIP CABLU:

**CSYY ; CSYY-F**  
**CSYEY ; CSYEY-F**  
**CSYAbY ; CSYAbY-F**  
**CSYEYAbY ; CSYEAbY-F**  
**0,6/1 KV**  
**IEC 60502-1**

**TENSIUNE NOMINALA:**  
**STANDARD DE PRODUS:**

### UTILIZARE

Cabluri de semnalizare pentru instalatii electrice fixe: pentru utilizare in canale de cabluri, in interior sau in exteriorul cladirilor, fara riscuri de deteriorari mecanice in timpul pozarii sau functionarii (cabluri nearmate).

### COD DE CULORI

Codul de culori al izolatiei conductoarelor este urmatorul (cod de culori cu conductor pilot):  
In fiecare strat doua conductoare alaturate au culori diferite, o culoare mai inchisa, indicand conductorul de la care se incepe numaratoarea si altul de culoare mai deschisa, indicand directia de numarare, Restul conductoarelor vor avea aceeasi culoare, dar diferita de cele doua culori mentionate.  
Codul de culori utilizat curent este: in fiecare strat un conductor albastru si unul rosu, restul conductoarelor avand culoarea natur a izolatiei de PVC.

### CARACTERISTICI GENERALE

Tensiune nominala  $U_0/U = 0,6/1$  kV ; 50 Hz

Temperatura minima a mediului ambient (pe manta): - la instalare: +5°C  
- in functionare: - 30°C

Temperatura maxima admisibila pe conductor: +70°C

Tensiunea de incercare: 3,5 kV, 50 Hz, timp 5 min.

Incercari la ardere:

- Cablurile **CSYY** in constructie standard sunt cu intarziere la propagarea flacarii si corespund incercarii la ardere pe un singur cablu vertical in conformitate cu EN 50265-2-1 (IEC 60332-1).
- La cerere, cablurile pot fi executate cu intarziere marita la propagarea flacarii. In acest caz ele sunt denumite **CSYY-F** si corespund incercarii la ardere executata pe manunchi de cabluri conform standardului 50266-2-4 (IEC 60332-3-24 Cat.C).  
Cablurile **CSYY-F** au mantaua exterioara verde.  
In mod asemanator, pot fi executate cabluri tip **CSYEY-F**, **CSYAbY-F** si **CSYEAbY-F**.

**CSYY ; CSYY-F**

NUMAR DE CONDUCTOARE x SECTIUNEA NOMINALA	DIAMETRU EXTERIOR (APROX)	GREUTATE NETA (APROX)	REZISTENTA ELECTRICA MAXIMA LA 20°C	SARCINA ADMISIBILA IN PAMANT LA 20°C	SARCINA ADMISIBILA IN AER LA 30°C
mm <sup>2</sup>	mm	Kg/Km	Ω/Km	A	A
2 x 1	9	115	18.1	14	10
3 x 1	9.5	135		14	10
4 x 1	10.5	155		14	10
5 x 1	11	180		14	10
7 x 1	11.5	190		10	6.5
9 x 1	13.5	240		7	6
12 x 1	15	290		6.7	5.5
14 x 1	15.5	325		6.3	5
16 x 1	16	365		6	4.8
19 x 1	17	420		5.6	4.5
21 x 1	18	455		5.3	4.3
24 x 1	19.5	520		5	4
27 x 1	20	565		4.5	3.5
30 x 1	21	615		4.5	3.5
33 x 1	21.5	665		4.5	3.5
37 x 1	22.5	735		4.54	3.5
42 x 1	24.5	825		4	3
48 x 1	25.5	930		4	3
52 x 1	26.5	1005		4	3
56 x 1	27.5	1075		4	3
61 x 1	28	1155		4	3
2 x 1.5	9.5	130	12.1	27	20
3 x 1.5	10	160		27	20
4 x 1.5	11	185		27	20
5 x 1.5	11.5	215		19	15
7 x 1.5	12.5	230		16	13
9 x 1.5	14.5	295		16	13
12 x 1.5	16	360		13	10.6
14 x 1.5	16.5	410		12	10
16 x 1.5	17.5	460		11.6	9.6
19 x 1.5	18.5	525		10.8	9
21 x 1.5	19.5	575		10.3	8.6
24 x 1.5	21	655		9.5	8
27 x 1.5	22	715		9.3	7.7
30 x 1.5	22.5	785		9	7.5
33 x 1.5	23.5	850		9	7.5
37 x 1.5	24.5	940		9	7.5
42 x 1.5	26.5	1070		8.1	7
48 x 1.5	28	1205		7.5	6.5
52 x 1.5	28.5	1290		7	6
56 x 1.5	29.5	1395		7	6
61 x 1.5	30.5	1505		7	6
2 x 2.5	10.5	170	7.41	36	25
3 x 2.5	11	205		36	25
4 x 2.5	12	245		36	25
5 x 2.5	13	285		25	19
7 x 2.5	13.5	320		22	16
9 x 2.5	16.5	405		18	14
12 x 2.5	17.5	510		17	13.5
14 x 2.5	18.5	580		16.2	12.5
16 x 2.5	19.5	650		15.5	12
19 x 2.5	20.5	755		14.5	11

21 x 2.5	21.5	825		13.7	10.5
24 x 2.5	24	940		12.6	10
27 x 2.5	24.5	1035		11.5	9
30 x 2.5	25.5	1140		11.5	9
33 x 2.5	26.5	1240		11.5	9
37 x 2.5	27.5	1385		11.5	9
2 x 4	12	235	4.61	46	34
3 x 4	13	290		46	34
4 x 4	14	355		46	34
5 x 4	15	420		32	25
7 x 4	16.5	460		28	22
9 x 4	20.5	640		23	19
12 x 4	21	745		22	18
2 x 6	13	285	3.08	58	44
3 x 6	14	360		58	44
4 x 6	15	435		28	44
5 x 6	16.5	515		40	33
7 x 6	17.5	595		35	28

### **CSYFY ; CSYFY-F**

NUMAR DE CONDUCTOARE x SECTIUNEA NOMINALA	DIAMETRU EXTERIOR (APROX)	GREUTATE NETA (APROX)	REZISTENTA ELECTRICA MAXIMA LA 20°C	SARCINA ADMISIBILA IN PAMANT LA 20°C	SARCINA ADMISIBILA IN AER LA 30°C
mm <sup>2</sup>	mm	Kg/Km	Ω/Km	A	A
2 x 1	9	100	18.1	14	10
3 x 1	9.5	120		14	10
4 x 1	10.5	140		14	10
5 x 1	11	165		14	10
7 x 1	12	200		10	6.5
9 x 1	14	250		7	6
12 x 1	15	305		6.7	5.5
14 x 1	16	365		6.3	5
16 x 1	16.5	380		6	4.8
19 x 1	17.5	435		5.6	4.5
21 x 1	18	470		5.3	4.3
24 x 1	20	535		5	4
27 x 1	20.5	585		4.5	3.5
30 x 1	21	635		4.5	3.5
33 x 1	22	690		4.5	3.5
37 x 1	22.5	760		4.54	3.5
42 x 1	24.5	850		4	3
48 x 1	26	965		4	3
52 x 1	27	1035		4	3
56 x 1	27.5	1100		4	3
61 x 1	28.5	1185		4	3
2 x 1.5	9.5	115	12.1	27	20
3 x 1.5	10	140		27	20
4 x 1.5	11	165		27	20
5 x 1.5	12	195		19	15
7 x 1.5	12.5	245		16	13
9 x 1.5	15	305		16	13
12 x 1.5	16	375		13	10.6
14 x 1.5	17	425		12	10
16 x 1.5	17.5	475		11.6	9.6
19 x 1.5	18.5	545		10.8	9

21 x 1.5	19.5	595		10.3	8.6
24 x 1.5	21.5	670		9.5	8
27 x 1.5	22	740		9.3	7.7
30 x 1.5	23	805		9	7.5
33 x 1.5	23.5	875		9	7.5
37 x 1.5	24.5	965		9	7.5
42 x 1.5	26.5	1095		8.1	7
48 x 1.5	28	1235		7.5	6.5
52 x 1.5	29	1335		7	6
56 x 1.5	30	1425		7	6
61 x 1.5	31	1535		7	6
2 x 2.5	10.5	145	7.41	36	25
3 x 2.5	11	180		36	25
4 x 2.5	12	220		36	25
5 x 2.5	13	260		25	19
7 x 2.5	14	335		22	16
9 x 2.5	16.5	420		18	14
12 x 2.5	18	525		17	13.5
14 x 2.5	19	600		16.2	12.5
16 x 2.5	19.5	670		15.5	12
19 x 2.5	20.5	775		14.5	11
21 x 2.5	22	850		13.7	10.5
24 x 2.5	24	965		12.6	10
27 x 2.5	24.5	1065		11.5	9
30 x 2.5	25.5	1165		11.5	9
33 x 2.5	26.5	1280		11.5	9
37 x 2.5	27.5	1415		11.5	9
2 x 4	12.5	195	4.61	46	34
3 x 4	13	250		46	34
4 x 4	14	310		46	34
5 x 4	15	370		32	25
7 x 4	16.5	475		28	22
9 x 4	20	605		23	19
12 x 4	21.5	765		22	18
2 x 6	13	240	3.08	58	44
3 x 6	14	310		58	44
4 x 6	15	390		28	44
5 x 6	16.5	465		40	33
7 x 6	18	610		35	28

### CSYAbY ; CSYAbY-F

NUMAR DE CONDUCTOARE x SECTIUNEA NOMINALA	DIAMETRU EXTERIOR (APROX)	GREUTATE NETA (APROX)	REZISTENTA ELECTRICA MAXIMA LA 20°C	SARCINA ADMISIBILA IN PAMANT LA 20°C	SARCINA ADMISIBILA IN AER LA 30°C
mm <sup>2</sup>	mm	Kg/Km	Ω/Km	A	A
2 x 1	11.5	215	18.1	14	10
3 x 1	12	240		14	10
4 x 1	12.5	265		14	10
5 x 1	13.5	300		14	10
7 x 1	14	325		10	6.5
9 x 1	16.5	395		7	6
12 x 1	17.5	460		6.7	5.5
14 x 1	18	505		6.3	5
16 x 1	19	550		6	4.8
19 x 1	19.5	610		5.6	4.5

21 x 1	20.5	660		5.3	4.3
24 x 1	22.5	740		5	4
27 x 1	22.5	795		4.5	3.5
30 x 1	23.5	855		4.5	3.5
33 x 1	24	915		4.5	3.5
37 x 1	25	995		4.54	3.5
42 x 1	27	1115		4	3
48 x 1	28.5	1235		4	3
52 x 1	29	1320		4	3
56 x 1	30	1395		4	3
61 x 1	31	1520		4	3
2 x 1.5	12	235	12.1	27	20
3 x 1.5	12.5	270		27	20
4 x 1.5	13.5	305		27	20
5 x 1.5	14	340		19	15
7 x 1.5	15	375		16	13
9 x 1.5	17.5	460		16	13
12 x 1.5	18.5	545		13	10.6
14 x 1.5	19	600		12	10
16 x 1.5	20	655		11.6	9.6
19 x 1.5	21	735		10.8	9
21 x 1.5	22	795		10.3	8.6
24 x 1.5	24	895		9.5	8
27 x 1.5	24.5	965		9.3	7.7
30 x 1.5	25	1040		9	7.5
33 x 1.5	26	1120		9	7.5
37 x 1.5	27	1230		9	7.5
42 x 1.5	29	1385		8.1	7
48 x 1.5	31	1565		7.5	6.5
52 x 1.5	31.5	1665		7	6
56 x 1.5	32.5	1775		7	6
61 x 1.5	35	2220		7	6
2 x 2.5	13	285	7.41	36	25
3 x 2.5	13.5	325		36	25
4 x 2.5	14.5	375		36	25
5 x 2.5	15.5	425		25	19
7 x 2.5	16	475		22	16
9 x 2.5	19	595		18	14
12 x 2.5	20	710		17	13.5
14 x 2.5	21	790		16.2	12.5
16 x 2.5	22	875		15.5	12
19 x 2.5	23	990		14.5	11
21 x 2.5	24	1075		13.7	10.5
24 x 2.5	26.5	1225		12.6	10
27 x 2.5	27	1330		11.5	9
30 x 2.5	28	1440		11.5	9
33 x 2.5	29	1555		11.5	9
37 x 2.5	30	1715		11.5	9
2 x 4	14.5	365	4.61	46	34
3 x 4	15.5	430		46	34
4 x 4	16.5	500		46	34
5 x 4	17.5	570		32	25
7 x 4	19	645		28	22
9 x 4	22	810		23	19
12 x 4	23.5	985		22	18
2 x 6	15.5	430	3.08	58	44
3 x 6	16.5	510		58	44
4 x 6	17.5	600		28	44
5 x 6	19	695		40	33
7 x 6	20	795		35	28

## CSYEAbY ; CSYEAbY-F

NUMAR DE CONDUCTOARE x SECTIUNEA NOMINALA	DIAMETRU EXTERIOR (APROX)	GREUTATE NETA (APROX)	REZISTENTA ELECTRICA MAXIMA LA 20°C	SARCINA ADMISIBILA IN PAMANT LA 20°C	SARCINA ADMISIBILA IN AER LA 30°C
mm <sup>2</sup>	mm	Kg/Km	Ω/Km	A	A
2 x 1	11.5	190	18.1	14	10
3 x 1	12	215		14	10
4 x 1	12.5	240		14	10
5 x 1	13	270		14	10
7 x 1	14	315		10	6.5
9 x 1	16	390		7	6
12 x 1	17	455		6.7	5.5
14 x 1	18	495		6.3	5
16 x 1	18.5	540		6	4.8
19 x 1	20	620		5.6	4.5
21 x 1	20.5	670		5.3	4.3
24 x 1	22.5	750		5	4
27 x 1	23	795		4.5	3.5
30 x 1	23.5	865		4.5	3.5
33 x 1	24.5	925		4.5	3.5
37 x 1	25	1005		4.54	3.5
42 x 1	27	1125		4	3
48 x 1	28.5	1255		4	3
52 x 1	29.5	1330		4	3
56 x 1	30.5	1435		4	3
61 x 1	31	1530		4	3
2 x 1.5	12	210	12.1	27	20
3 x 1.5	12.5	240		27	20
4 x 1.5	13	275		27	20
5 x 1.5	14	310		19	15
7 x 1.5	15	365		16	13
9 x 1.5	17	455		16	13
12 x 1.5	18	535		13	10.6
14 x 1.5	19	590		12	10
16 x 1.5	20	670		11.6	9.6
19 x 1.5	21	745		10.8	9
21 x 1.5	22	805		10.3	8.6
24 x 1.5	23.5	895		9.5	8
27 x 1.5	24.5	975		9.3	7.7
30 x 1.5	25.5	1060		9	7.5
33 x 1.5	26	1140		9	7.5
37 x 1.5	26.5	1200		9	7.5
42 x 1.5	29	1395		8.1	7
48 x 1.5	31	1575		7.5	6.5
52 x 1.5	32	1685		7	6
56 x 1.5	34	2115		7	6
61 x 1.5	35	2245		7	6
2 x 2.5	12.5	245	7.41	36	25
3 x 2.5	13	290		36	25
4 x 2.5	14	340		36	25
5 x 2.5	15	385		25	19
7 x 2.5	16	470		22	16
9 x 2.5	19	585		18	14
12 x 2.5	20.5	720		17	13.5
14 x 2.5	21	800		16.2	12.5

16 x 2.5	22	885		15.5	12
19 x 2.5	24	1055		14.5	11
21 x 2.5	24.5	1085		13.7	10.5
24 x 2.5	26.5	1225		12.6	10
27 x 2.5	27.5	1340		11.5	9
30 x 2.5	28	1450		11.5	9
33 x 2.5	29.5	1580		11.5	9
37 x 2.5	30.5	1725		11.5	9
2 x 4	14.5	315	4.61	46	34
3 x 4	15	375		46	34
4 x 4	16	445		46	34
5 x 4	17.5	515		32	25
7 x 4	20	725		28	22
9 x 4	22.5	820		23	19
12 x 4	24	1255		22	18
2 x 6	15.5	365	3.08	58	44
3 x 6	16	445		58	44
4 x 6	17.5	535		28	44
5 x 6	19	660		40	33
7 x 6	20.5	805		35	28

Nota : Incarcarile in curent sunt date pentru o temperatura ambianta de 30°C, o temperatura a solului de 20°C si o rezistivitate termica a solului de 1 Km/W. Pentru alte conditii se aplica factori de corectie.

<b>Temperatura aer °C</b>	15	20	25	35	40	45	50
<b>Factor de corectie</b>	1,17	1,12	1,06	0,94	0,87	0,79	0,71

<b>Temperatura solului °C</b>	15	20	25	30	35	40
<b>Factor de corectie</b>	1,08	1	0,95	0,89	0,84	0,77

<b>Rezistivitatea termica a solului Km/W</b>	0,8	1	1,2	1,5	2,0	2,5	3,0
<b>Factor de corectie</b>	1,07	1	0,93	0,87	0,79	0,71	0,65