



Low-voltage polyurethane (PUR) reeling cables

RP / RP-D 12YRDT11YH

RP / RP-D Halogen-Free PUR Reeling Cable (0.6/1 kV)

Compact halogen-free double-PUR reeling cable (12YRDT11YH) for reels up to 80 m/min



0.6/1 kV

12YRDT11YH

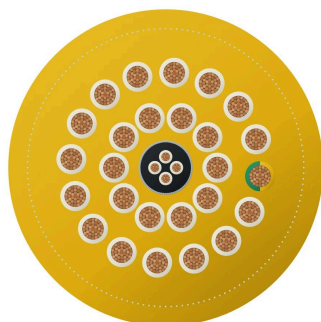
Halogen-Free PUR

Application

Compact 0.6/1 kV halogen-free PUR reeling cable (12YRDT11Y / 12YRDT11YH) with Class 5/6 plain copper cores, thin-wall 12Y/XLPE insulation, and double PUR sheath with anti-torsion braid across 25 RP power/control and 4 RP-D data/PROFINET sizes.

Typical uses: Industrial Cranes & Hoists, Automated Handling Systems, Intralogistics & Transfer Cars, Indoor/Outdoor Halogen-Free Plant

Construction



Cross-section, not to scale

- 1 Flexible plain copper conductor
- 2 Thin-wall core insulation (12Y / XLPE)
- 3 Screened control or PROFINET element (RP-D)
- 4 Inner sheath (11Y)
- 5 Embedded anti-torsion reinforcement (RDT)
- 6 Outer sheath (11YH)

Technical data

Typical values

Rated voltage U0/U	0.6/1 kV (0.3/0.5 kV for special design code 12YRDT11YH)	Max. operating voltage AC	0.7/1.2 kV
Max. operating voltage DC	0.9/1.8 kV	AC test voltage	3.5 kV AC (power cores) / 2.5 kV AC (control cores)
Current rating (DIN VDE 0298-4)	Per DIN VDE 0298-4 at 30 °C ambient (reel layer factors: 0.80 for 1 layer, 0.61 for 2 layers, 0.49 for 3 layers)	Temperature, flexing	–20 °C to +70 °C (overview text notes up to +80 °C; consult below –25 °C)
Temperature, fixed installation	–30 °C to +70 °C (overview text notes up to +80 °C)	Max. conductor temperature	+90 °C
Short-circuit temperature	+250 °C	Max. travel speed	Up to 80 m/min horizontal (> 80 m/min on request)
Max. tensile load (dynamic)	15 N/mm ² (150–8,325 N across 29 sizes)	Min. bending radius	8 × D continuous reeling (6 × D on request) · 6 × D fixed installation
S-bend distance	≥ 20 × D minimum distance between two changes of bending direction	Halogen-free & silicone-free	Halogen-free polyurethane (11YH) inner and outer sheaths; LBS-free / silicone-free
Oil, UV & ozone resistance	Oil, ozone, UV, humidity and moisture resistant	Flame retardance	Low flammability per IEC 60332-1-2
Standards	Design codes 12YRDT11Y / 12YRDT11YH (TPE-E/XLPE core insulation, double PUR sheath with anti-torsion braid)		

Sizes

29 standard constructions

Tick the sizes you need and send this page to info@tebaoflex.com or WhatsApp +86 185 9591 3361.

Designation	Cores × mm ²	Outer Ø min	Outer Ø max	Cu number	Weight ≈	Permitted pull	Reel R min 8×D
RP Control Cable (1.5 – 2.5 mm ²) 12 sizes							
☐ RP 7 × 1.5	7 × 1.5	11.5	13.2	105	245	158	106
☐ RP 12 × 1.5	12 × 1.5	16.5	18.5	180	337	270	148
☐ RP 18 × 1.5	18 × 1.5	16.5	18.6	270	525	405	149
☐ RP 24 × 1.5	24 × 1.5	19	21.5	360	660	540	172
☐ RP 36 × 1.5	36 × 1.5	27	29.5	540	950	810	236
☐ RP 4 G 2.5	4 G 2.5	11.4	12	100	205	150	96
☐ RP 5 G 2.5	5 G 2.5	12.4	13	122	260	188	104
☐ RP 7 × 2.5	7 × 2.5	12.5	14.8	176	320	263	118
☐ RP 12 × 2.5	12 × 2.5	18.5	20.5	332	530	450	164
☐ RP 18 × 2.5	18 × 2.5	19	21.5	454	725	675	172
☐ RP 24 × 2.5	24 × 2.5	22.5	24.9	656	990	900	199
☐ RP 36 × 2.5	36 × 2.5	25.5	28.3	900	1,410	1,350	226
RP Power Cable (4 – 185 mm ²) 13 sizes							
☐ RP 4 G 4	4 G 4	11.3	12.8	160	270	240	102
☐ RP 4 G 6	4 G 6	14.7	16.9	240	405	360	135
☐ RP 4 G 10	4 G 10	16.8	19.8	400	630	600	158
☐ RP 4 G 16	4 G 16	20	23.8	640	935	960	190
☐ RP 4 G 25	4 G 25	26	27.9	1,000	1,483	1,500	223
☐ RP 3 × 25 + 3 G 6	3 × 25 + 3 G 6	23.5	25.5	893	1,240	1,125	204
☐ RP 3 × 35 + 3 G 6	3 × 35 + 3 G 6	27	29.5	1,181	1,640	1,575	236
☐ RP 3 × 50 + 3 G 10	3 × 50 + 3 G 10	30	32.5	1,728	2,240	2,250	260

Designation	Cores × mm ²	Outer Ø min	Outer Ø max	Cu number	Weight ≈	Permitted pull	Reel R min 8-D
☐ RP 3 × 70 + 3 G 16	3 × 70 + 3 G 16	35	37.5	2,477	3,100	3,150	300
☐ RP 3 × 95 + 3 G 16	3 × 95 + 3 G 16	39	42	3,197	3,890	4,275	336
☐ RP 3 × 120 + 3 G 25	3 × 120 + 3 G 25	44	47	4,176	5,080	5,400	376
☐ RP 3 × 150 + 3 G 25	3 × 150 + 3 G 25	49	53	5,040	6,160	6,750	424
☐ RP 3 × 185 + 3 G 35	3 × 185 + 3 G 35	54.5	59	6,048	7,680	8,325	472
RP-D Composite Data / PROFINET / Power 4 sizes							
☐ RP-D 26 G 2.5 + (4 × 1.5) C	26 G 2.5 + (4 × 1.5) C	24.5	27	683	933	975	216
☐ RP-D 26 G 2.5 + (4 × 2.5) C	26 G 2.5 + (4 × 2.5) C	24.5	27	720	1,012	1,270	216
☐ RP-D 26 G 2.5 + 2 × (2 × AWG22) PN	26 G 2.5 + 2 × (2 × AWG22) PN	24.5	27	663	1,060	975	216
☐ RP-D 4 G 25 + 2 × 4 × 2.5	4 G 25 + 2 × 4 × 2.5	31	33	1,152	1,590	1,500	264

- All 29 configurations verified against the reference reeling cable catalog.
- In RP-D configurations, '(4 × 1.5)C' and '(4 × 2.5)C' denote copper-screened 4-core bundles, and '2 × (2 × AWG22) PN' denotes two screened PROFINET data pairs.
- Permitted dynamic tensile load is calculated at 15 N/mm² of active copper cross-section (up to 8,325 N on 3 × 185 + 3 G 35).

Electrical reference data

29 sizes

Designation	Rated U0/U	Max. DC R 20 °C	Ref. Ampacity 30 °C	AC Test Voltage
RP Control Cable (1.5 – 2.5 mm ²) 12 sizes				
RP 7 × 1.5	0.6/1 kV (0.3/0.5 kV signal)	19.5	18	3.5 kV (power) / 2.5 kV (ctrl)
RP 12 × 1.5	0.6/1 kV (0.3/0.5 kV signal)	19.5	18	3.5 kV (power) / 2.5 kV (ctrl)
RP 18 × 1.5	0.6/1 kV (0.3/0.5 kV signal)	19.5	18	3.5 kV (power) / 2.5 kV (ctrl)
RP 24 × 1.5	0.6/1 kV (0.3/0.5 kV signal)	19.5	18	3.5 kV (power) / 2.5 kV (ctrl)
RP 36 × 1.5	0.6/1 kV (0.3/0.5 kV signal)	19.5	18	3.5 kV (power) / 2.5 kV (ctrl)
RP 4 G 2.5	0.6/1 kV (0.3/0.5 kV signal)	7.98	26	3.5 kV (power) / 2.5 kV (ctrl)
RP 5 G 2.5	0.6/1 kV (0.3/0.5 kV signal)	7.98	26	3.5 kV (power) / 2.5 kV (ctrl)
RP 7 × 2.5	0.6/1 kV (0.3/0.5 kV signal)	7.98	26	3.5 kV (power) / 2.5 kV (ctrl)
RP 12 × 2.5	0.6/1 kV (0.3/0.5 kV signal)	7.98	26	3.5 kV (power) / 2.5 kV (ctrl)
RP 18 × 2.5	0.6/1 kV (0.3/0.5 kV signal)	7.98	26	3.5 kV (power) / 2.5 kV (ctrl)
RP 24 × 2.5	0.6/1 kV (0.3/0.5 kV signal)	7.98	26	3.5 kV (power) / 2.5 kV (ctrl)
RP 36 × 2.5	0.6/1 kV (0.3/0.5 kV signal)	7.98	26	3.5 kV (power) / 2.5 kV (ctrl)
RP Power Cable (4 – 185 mm ²) 13 sizes				
RP 4 G 4	0.6/1 kV (0.3/0.5 kV signal)	4.95	34	3.5 kV (power) / 2.5 kV (ctrl)
RP 4 G 6	0.6/1 kV (0.3/0.5 kV signal)	3.30	44	3.5 kV (power) / 2.5 kV (ctrl)
RP 4 G 10	0.6/1 kV (0.3/0.5 kV signal)	1.91	61	3.5 kV (power) / 2.5 kV (ctrl)
RP 4 G 16	0.6/1 kV (0.3/0.5 kV signal)	1.21	82	3.5 kV (power) / 2.5 kV (ctrl)
RP 4 G 25	0.6/1 kV (0.3/0.5 kV signal)	0.780	108	3.5 kV (power) / 2.5 kV (ctrl)
RP 3 × 25 + 3 G 6	0.6/1 kV (0.3/0.5 kV signal)	0.780	108	3.5 kV (power) / 2.5 kV (ctrl)
RP 3 × 35 + 3 G 6	0.6/1 kV (0.3/0.5 kV signal)	0.554	135	3.5 kV (power) / 2.5 kV (ctrl)
RP 3 × 50 + 3 G 10	0.6/1 kV (0.3/0.5 kV signal)	0.386	168	3.5 kV (power) / 2.5 kV (ctrl)
RP 3 × 70 + 3 G 16	0.6/1 kV (0.3/0.5 kV signal)	0.272	207	3.5 kV (power) / 2.5 kV (ctrl)
RP 3 × 95 + 3 G 16	0.6/1 kV (0.3/0.5 kV signal)	0.206	250	3.5 kV (power) / 2.5 kV (ctrl)
RP 3 × 120 + 3 G 25	0.6/1 kV (0.3/0.5 kV signal)	0.161	292	3.5 kV (power) / 2.5 kV (ctrl)
RP 3 × 150 + 3 G 25	0.6/1 kV (0.3/0.5 kV signal)	0.129	335	3.5 kV (power) / 2.5 kV (ctrl)
RP 3 × 185 + 3 G 35	0.6/1 kV (0.3/0.5 kV signal)	0.106	382	3.5 kV (power) / 2.5 kV (ctrl)
RP-D Composite Data / PROFINET / Power 4 sizes				
RP-D 26 G 2.5 + (4 × 1.5) C	0.6/1 kV (0.3/0.5 kV signal)	7.98 / 19.5	26 / 18	3.5 kV (power) / 2.5 kV (ctrl)
RP-D 26 G 2.5 + (4 × 2.5) C	0.6/1 kV (0.3/0.5 kV signal)	7.98	26	3.5 kV (power) / 2.5 kV (ctrl)
RP-D 26 G 2.5 + 2 × (2 × AWG22) PN	0.6/1 kV (0.3/0.5 kV signal)	7.98 / 55.0	26 / —	3.5 kV (power) / 2.5 kV (ctrl)

Designation	Rated U0/U	Max. DC R 20 °C	Ref. Ampacity 30 °C	AC Test Voltage
RP-D 4 G 25 + 2 × 4 × 2.5	0.6/1 kV (0.3/0.5 kV signal)	0.780 / 7.98	108 / 26	3.5 kV (power) / 2.5 kV (ctrl)

- Maximum DC conductor resistance at 20 °C per IEC 60228 Table 3 for Class 5 plain copper conductors.
- Free-air reference ampacity at 30 °C ambient per DIN VDE 0298-4; apply reel layer factor (0.80 for 1 layer, 0.61 for 2 layers, 0.49 for 3 layers).

Standards and approvals

Certifications



Management systems: ISO 9001, ISO 14001, ISO 45001

Request a quotation

Send the size, length and destination. An application engineer replies within 2 business hours.

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Typical values for this cable type. Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.