

Applications

SIMBAL 'FLEXIDRUM TPE/PUR' drum reeling cables are suitable for use in dry and damp areas, explosive environments and for various heavy duty outdoor applications such as hoisting gear, transportation systems, motorised cable reels rail traction motors and agricultural machinery plus many other applications where high mechanical stresses are involved.

Design

1. **Conductor :-** Flexible plain copper, Class 6 to DIN VDE 0295
2. **Insulation :-** Special TPE
3. **Inner sheath :-** Special polyurethane with support braid from textile threads.
4. **Outer Sheath :-** Special polyurethane, flame resistant, halogen free.
5. **Colour :-** Yellow or Black

Marking

Flexidrum TPE/PUR 0.6/1kV core x cross section

Core Identification

Up to 5 cores - colour coded in acc. With VDE 0293
From 7 cores - white cores with black numbers

Standards

VDE reg No 6510 E 195107 Style 10264/20235 80 deg C
1000 V LL 46997 CSA AWM II A/B 600V 90 deg C FT1



Mechanical Properties

Bending Radii (Dynamic)	5 x cable thickness
Tensile Strength	25 N/mm ²
Max travelling speed	250 m/min (faster speeds may be available on request)

Chemical Properties

Lead & Silicon Free, Halogen Free & Oil resistant
For Indoor & Outdoor applications
Flame retardant in accordance with VDE 0472 part 804, test type B, IEC 332-1

Electrical & Thermal Properties

Nominal Voltage	U ₀ / U	0.6/1kV
Test Voltage	4000 V	
Current Rating	See facing page	
Max surface temperature		
- fixed installation	- 50 deg C up to + 80 deg C	
- mobile installation	- 40 deg C up to + 80 deg C	



FLEXIDRUM TPE/PUR Drum Reeling Cable'

Cable Specification

600 / 1000 V

Number of cores & nominal cross section	Gland PG / ISO	Current rating at 30 deg C	Outer diameter Approx	Weight Approx
4c x 1.50mm ²	PG11 / M20S	20 Amps	10.2mm	0.157kg/m
5c x 1.50mm ²	PG13.5 / M20S	20 Amps	10.8mm	0.176kg/m
7c x 1.50mm ²	PG16 / M20	20 Amps	12.9mm	0.245kg/m
12c x 1.50mm ²	PG29 / M25	20 Amps	18.4mm	0.337kg/m
18c x 1.50mm ²	PG29 / M25	20 Amps	18.6mm	0.526kg/m
24c x 1.50mm ² Bd	PG29 / M32	20 Amps	23.2mm	0.680kg/m
30c x 1.50mm ² Bd	PG29 / M32	20 Amps	27.4mm	0.920kg/m
36 x 1.50mm ² Bd	PG36 / M40	20 Amps	29.0mm	0.953kg/m
42c x 1.50mm ² Bd	PG36 / M40	20 Amps	29.5mm	1.192kg/m
4c x 2.50mm ²	PG13.5 / M20	25 Amps	11.7mm	0.208kg/m
5c x 2.50mm ²	PG16 / M20	25 Amps	12.7mm	0.263kg/m
7c x 2.50mm ²	PG21 / M25	25 Amps	14.8mm	0.327kg/m
12c x 2.50mm ²	PG29 / M32	25 Amps	20.4mm	0.533kg/m
18c x 2.50mm ²	PG29 / M32	25 Amps	21.1mm	0.725kg/m
24c x 2.50mm ² Bd	PG29 / M32	25 Amps	26.4mm	1.000kg/m
30c x 2.50mm ² Bd	PG36 / M40	25 Amps	28.8mm	1.299kg/m
36c x 2.50mm ² Bd	PG36 / M40	25 Amps	32.4mm	1.411kg/m
42c x 2.50mm ² Bd	PG36 / M50S	25 Amps	33.5mm	1.637kg/m
49c x 2.50mm ² Bd	PG42 / M50S	25 Amps	38.0mm	2.156kg/m
4c x 4.0mm ²	PG16 / M20	36 Amps	12.5mm	0.270kg/m
5c x 4.0mm ²	PG21 / M25	36 Amps	14.3mm	0.362kg/m
4c x 6.0mm ²	PG21 / M25	47 Amps	16.9mm	0.409kg/m
5c x 6.0mm ²	PG21 / M25	47 Amps	17.8mm	0.511kg/m
7c x 6.0mm ²	PG29 / M32	47 Amps	20.9mm	0.715kg/m
4c x 10.0mm ²	PG29 / M32	64 Amps	19.6mm	0.633kg/m
5c x 10.0mm ²	PG29 / M32	64 Amps	20.9mm	0.766kg/m
7c x 10.0mm ²	PG36 / M40	64 Amps	25.8mm	1.044kg/m
4c x 16.0mm ²	PG29 / M32	86 Amps	23.8mm	0.936kg/m
5c x 16.0mm ²	PG36 / M40	86 Amps	25.3mm	1.173kg/m
4c x 25.0mm ²	PG36 / M40	114 Amps	27.7mm	1.483kg/m
4c x 35.0mm ²	PG36 / M40	140 Amps	30.1mm	2.115kg/m
4c x 50.0mm ²	PG42 / M50S	180 Amps	35.2mm	2.600kg/m
4c x 70.0mm ²	PG48 / M50	242 Amps	40.3mm	3.700kg/m
4c x 95.0mm ²	M63S	293 Amps	50.6mm	4.800kg/m
4c x 120.0mm ²	M63	340 Amps	53.0mm	5.900kg/m
4c x 150.0mm ²	M63		56.0mm	7.100kg/m

SALES HOTLINE - 01298 813883
sales@simbal.net

Applications

SIMBAL 'FLEXIDRUM DR 720 P drum reeling cables are especially designed for heavy duty, motorised reeling applications such as heavy duty cranes and transport systems, the hard wearing features make the cable especially suited to harsh environments such as steel mills and other similar applications.

Design

1. **Conductor :-** Flexible plain copper, Class 5 to IEC 60228 & VDE0295
2. **Insulation :-** Special polymer
3. **Inner sheath :-** PUR
4. **Supporting Element :-** High Tech Yarns
5. **Outer Sheath :-** Yellow or Black PUR

Marking

Flexidrum FLEXIDRUM DR720P 0.6/1kV core x cross section

Core Identification

Up to 5 cores - colour coded in acc. With VDE 0293

From 7 cores - black cores with white numbers

Always inc. Earth core (G/Y)

**HIGH FLEXIBILITY
WITH REDUCED
WEIGHT & DIAMETER**



Mechanical Properties

Bending Radii (Dynamic)	6 x cable thickness (7.5 x D when using deflector pulleys)
Tensile Strength	In acc. With DIN VDE 0298-300
Max travelling speed	120 m/min (faster speeds may be available on request)

Chemical Properties

Lead & Silicon Free, Halogen Free & Oil resistant
For Indoor & Outdoor applications
Flame retardant & self extinguishing in accordance with IEC 60332-1 & EN60332-1-2

Electrical & Thermal Properties

Nominal Voltage	U _o / U	0.6/1kV
Test Voltage	4000V	
Current Rating	See facing page	
Max surface temperature		
- fixed installation	- 50 deg C up to + 90 deg C	
- mobile installation	- 40 deg C up to + 90 deg C	



FLEXIDRUM 'DR 720 P Highflex' Reeling Cable'

600 / 1000 V

Cable Specification

Number of cores & nominal cross section	Current rating at 30 deg C	Outer diameter Approx	Weight Approx
4c x 1.50mm ²	20 Amps	9.1mm	0.111kg/m
5c x 1.50mm ²	20 Amps	9.9mm	0.133kg/m
7c x 1.50mm ²	20 Amps	11.9mm	0.193kg/m
12c x 1.50mm ²	20 Amps	16.7mm	0.341kg/m
18c x 1.50mm ²	20 Amps	16.5mm	0.411kg/m
4c x 2.50mm ²	25 Amps	10.5mm	0.163kg/m
5c x 2.50mm ²	25 Amps	11.7mm	0.200kg/m
7c x 2.50mm ²	25 Amps	13.9mm	0.295kg/m
12c x 2.50mm ²	25 Amps	19.7mm	0.506kg/m
18c x 2.50mm ²	25 Amps	19.6mm	0.611kg/m
24c x 2.50mm ²	25 Amps	23.9mm	0.843kg/m
30c x 2.50mm ²	25 Amps	26.7mm	1.057kg/m
50c x 2.50mm ²	25 Amps	32.5mm	1.688kg/m
36c x 2.50mm ²	25 Amps	26.8mm	1.164kg/m
42c x 2.50mm ²	25 Amps	28.7mm	1.405kg/m
56c x 2.50mm ²	25 Amps	33.7mm	1.783kg/m
4c x 4mm ²	36 Amps	12.5mm	0.240kg/m
7c x 4mm ²	36 Amps	16.6mm	0.425kg/m
16c x 4mm ²	36 Amps	23.9mm	0.880kg/m
4c x 6mm ²	47 Amps	14.6mm	0.344kg/m
4c x 10mm ²	64 Amps	18.1mm	0.574kg/m
4c x 16mm ²	86 Amps	22.4mm	0.873kg/m
3c x 25mm ² + 3 G 6	114 Amps	24.3mm	1.181kg/m
4c x 25mm ²	114 Amps	26.6mm	1.341kg/m
3c x 35mm ² + 3 G 6	140 Amps	28.1mm	1.569kg/m
4c x 35mm ²	140 Amps	31.2mm	1.880kg/m
3c x 50mm ² + 3 G 10	180 Amps	31.9mm	2.219kg/m
4c x 16mm ² + 4 x 2 x 1.5		28.2mm	1.030kg/m
4c x 35mm ² + 25 x 1.5		37.4mm	2.286kg/m
4c x 50mm ² + 3 x 2 x 1.0		35.3mm	2.700kg/m
4c x 50mm ² + 7 x 2.5		39.2mm	2.786kg/m

SALES HOTLINE - 01298 813883
sales@simbal.net

Applications

SIMBAL 'FLEXIDRUM DR 700 PT drum reeling cables are especially designed for reeling applications in very harsh conditions with high risk of mechanical damage such as mining and tunnelling applications.

**VERY HEAVY DUTY CABLE
 SUITABLE FOR MINING &
 TUNNELLING MACHINES**

Design

1. **Conductor :-** Flexible plain copper, Class 5 to IEC 60228
2. **Insulation :-** Power :-HEPR Special compound
 Earth :- XLPE Special compound
3. **Inner sheath :-** PVC Flexible special compound
4. **Supporting Element :-** High Tech Yarns
5. **Outer Sheath :-** Yellow PUR

Marking

Flexidrum FLEXIDRUM DR700PT 0.6/1kV core x cross section

Core Identification

Power cores - Black, Brown, Blue
 Earth core—Green / Yellow


Mechanical Properties

Bending Radii (Dynamic)	10 x cable thickness
Tensile Strength	30 N/mm ²
Max travelling speed	60 m/min (faster speeds may be available on request)

Chemical Properties

Lead & Silicon Free, Halogen Free & Oil resistant
 For Indoor & Outdoor applications
 Flame retardant in accordance with IEC 60332-1

Electrical & Thermal Properties

Nominal Voltage	U ₀ / U	0.6/1kV
Test Voltage	3500 V (Power) 2500V (Control)	
Current Rating	See facing page	
Max surface temperature		
- fixed installation	- 30 deg C up to + 80 deg C	
- mobile installation	- 20 deg C up to + 80 deg C	
Max Temperature at conductor		
- In service	+ 90 deg C	
- Flexible Installation	+ 250 deg C	



FLEXIDRUM 'DR 700 PT'
Reeling Cable'
600 / 1000 V

Cable Specification

Number of cores & nominal cross section	Current rating at 30 deg C	Outer diameter Approx	Weight Approx
3c x 25.0mm ² + 3G 6	180 Amps	24.0 - 26.5mm	1.250kg/m
3c x 35.0mm ² + 3 G 6	242 Amps	26.0 - 29.0mm	1.540kg/m
3c x 50.0mm ² + 3G 10	180 Amps	29.5 - 32.5mm	2.200kg/m
3c x 70.0mm ² + 3 G 16	242 Amps	34.0 - 37.5mm	3.090kg/m
3c x 95.0mm ² + 3 G 16	293 Amps	38.5 - 42.0mm	3.760kg/m
3c x 120.0mm ² + 3 G 25	340 Amps	43.5 - 47.0mm	4.970kg/m
3c x 150.0mm ² + 3 G 25		48.5 - 52.0mm	6.000kg/m
3c x 185.0mm ² + 3 G 35		52.5 - 56.5mm	7.290kg/m
3c x 240.0mm ² + 3 G 50		58.5 - 63.0mm	9.440kg/m
3c x 300.0mm ² + 3 G 50		68.5 - 72.5mm	12.300kg/m

**VERY HEAVY DUTY CABLE
SUITABLE FOR MINING &
TUNNELLING MACHINES**

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Applications

SIMBAL 'FLEXIDRUM DR 700 P drum reeling cables are especially designed for reeling applications in very harsh conditions such as quarries and mines and other similar applications where high mechanical stresses are involved.

**VERY HEAVY DUTY CABLE
 SUITABLE FOR MINING &
 QUARRYING APPLICATIONS**

Design

1. **Conductor :-** Flexible plain copper, Class 5 to IEC 60228
2. **Insulation :-** Special Polymer
3. **Inner sheath :-** PUR
4. **Supporting Element :-** High Tech Yarns
5. **Outer Sheath :-** Reinforced polyurethane, flame resistant, halogen free.
6. **Colour :-** Yellow

Marking

Flexidrum FLEXIDRUM DR700P 0.6/1kV core x cross section

Core Identification

Up to 5 cores - colour coded in acc. With VDE 0293
 From 7 cores - white cores with black numbers



Mechanical Properties

Bending Radii (Dynamic)	8 x cable thickness
Tensile Strength	25 N/mm ²
Max travelling speed	120 m/min (faster speeds may be available on request)

Chemical Properties

Lead & Silicon Free, Halogen Free & Oil resistant
 For Indoor & Outdoor applications
 Flame retardant in accordance with IEC 60332-1

Electrical & Thermal Properties

Nominal Voltage	U ₀ / U	0.6/1kV
Test Voltage	3500 V (Power) 2500V (Control)	
Current Rating	See facing page	
Max surface temperature		
- fixed installation	- 40 deg C up to + 80 deg C	
- mobile installation	- 30 deg C up to + 80 deg C	



FLEXIDRUM 'DR 700 P' Drum Reeling Cable' 600 / 1000 V

Cable Specification

Number of cores & nominal cross section	Gland PG / ISO	Current rating at 30 deg C	Outer diameter Approx	Weight Approx
7c x 1.50mm ²	PG16 / M20	20 Amps	12.2mm	0.210kg/m
12c x 1.50mm ²	PG21 / M25	20 Amps	16.7mm	0.330kg/m
18c x 1.50mm ²	PG21 / M25	20 Amps	16.7mm	0.410kg/m
24c x 1.50mm ²	PG29 / M32	20 Amps	20.24mm	0.680kg/m
36c x 1.50mm ²	PG29 / M32	20 Amps	23.0mm	0.900kg/m
4c x 2.50mm ²	PG13.5 / M20	25 Amps	10.7mm	0.180kg/m
5c x 2.50mm ²	PG16 / M20	25 Amps	11.7mm	0.220kg/m
7c x 2.50mm ²	PG16 / M20	25 Amps	13.2mm	0.330kg/m
12c x 2.50mm ²	PG29 / M32	25 Amps	19.5mm	0.610kg/m
18c x 2.50mm ²	PG29 / M32	25 Amps	19.5mm	0.740kg/m
24c x 2.50mm ²	PG29 / M32	25 Amps	23.5mm	1.050kg/m
36c x 2.50mm ²	PG36 / M40	25 Amps	26.5mm	1.430kg/m
42c x 2.50mm ²	PG36 / M40	25 Amps	28.2mm	1.500kg/m
4c x 4.0mm ²	PG16 / M20	36 Amps	12.2mm	0.260kg/m
5c x 4.0mm ²	PG21 / M25	36 Amps	13.7mm	0.320kg/m
4c x 6.0mm ²	PG21 / M25	47 Amps	13.7mm	0.370kg/m
5c x 6.0mm ²	PG21 / M25	47 Amps	15.7mm	0.450kg/m
4c x 10.0mm ²	PG21 / M25	64 Amps	16.2mm	0.580kg/m
5c x 10.0mm ²	PG29 / M32	64 Amps	19.0mm	0.700kg/m
4c x 16.0mm ²	PG29 / M32	86 Amps	20.5mm	0.920kg/m
5c x 16.0mm ²	PG29 / M32	86 Amps	23.0mm	1.100kg/m
3c x 25.0mm ² + 3G 6	PG36 / M40	114 Amps	24.5mm	1.240kg/m
5c x 25.0mm ²	PG36 / M40	114 Amps	28.2mm	1.550kg/m
3c x 35.0mm ² + 3G 6	PG36 / M40	140 Amps	28.2mm	1.640kg/m
5c x 35.0mm ²	PG42 / M50S	140 Amps	32.2mm	2.050kg/m
3c x 50.0mm ² + 3G 10	PG42 / M50S	180 Amps	31.2mm	2.240kg/m
3c x 70.0mm ² + 3 G 16	PG42 / M50S	242 Amps	36.2mm	3.100kg/m
3c x 95.0mm ² + 3 G 16	PG42 / M50S	293 Amps	40.5mm	3.890kg/m
4c x 120.0mm ² + 3 G 25	M50	340 Amps	45.5mm	5.080kg/m
4c x 150.0mm ² + 3 G 25	M63		50.7mm	6.160kg/m
4c x 185.0mm ² + 3 G 35			56.0mm	7.680kg/m
4c x 240.0mm ² + 3 G 50			62.5mm	9.870kg/m
4c x 300.0mm ² + 3 G 50			70.5mm	12.300kg/m

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Applications

SIMBAL 'FLEXIDRUM DR 820 P Highflex drum reeling cables are especially designed for heavy duty, motorised reeling applications such as heavy duty cranes and transport systems, the hard wearing features make the cable especially suited to harsh environments such as steel mills and other similar applications. The cable is suitable for high winding speeds up to 180 m/min

Design

1. **Conductor :-** Flexible plain copper, Class 5 to IEC 60228 & VDE0295
2. **Insulation :-** EPR Rubber
3. **Inner sheath :-** PUR
4. **Supporting Element :-** Anti twist textile braiding
5. **Outer Sheath :-** Yellow or Black PUR

Marking

Flexidrum FLEXIDRUM DR820P HF 0.6/1kV core x cross section

Core Identification

Up to 5 cores - colour coded in acc. With VDE 0293
 From 7 cores - black cores with white numbers
 Always inc. Earth core (G/Y)



Mechanical Properties

Bending Radii (Dynamic)	6 x cable thickness (7.5 x D when using deflector pulleys)
Tensile Strength	In acc. With DIN VDE 0298-300
Max travelling speed	180 m/min (faster speeds may be available on request)

Chemical Properties

Lead & Silicon Free, Halogen Free & Oil resistant
 For Indoor & Outdoor applications
 Flame retardant & self extinguishing in accordance with IEC 60332-1 & EN60332-1-2

Electrical & Thermal Properties

Nominal Voltage	U ₀ / U	0.6/1kV
Test Voltage	4000V	
Current Rating	See facing page	
Max surface temperature		
- fixed installation	- 50 deg C up to + 90 deg C	
- mobile installation	- 40 deg C up to + 90 deg C	



FLEXIDRUM 'DR 820 P Highflex'

Reeling Cable'

600 / 1000 V

Cable Specification

Number of cores & nominal cross section	Current rating at 30 deg C	Outer diameter Approx	Weight Approx
4c x 1.50mm ²	20 Amps	13.1mm	0.200kg/m
7c x 1.50mm ²	20 Amps	16.2mm	0.320kg/m
12c x 1.50mm ²	20 Amps	21.4mm	0.570kg/m
18c x 1.50mm ²	20 Amps	21.5mm	0.610kg/m
24c x 1.50mm ²	20 Amps	25.6mm	0.840kg/m
30c x 1.50mm ²	20 Amps	28.3mm	1.040kg/m
36c x 1.50mm ²	20 Amps	28.6mm	1.090kg/m
42c x 1.50mm ²	20 Amps	30.7mm	1.280kg/m
4c x 2.50mm ²	25 Amps	14.5mm	0.270kg/m
5c x 2.50mm ²	25 Amps	15.5mm	0.320kg/m
7c x 2.50mm ²	25 Amps	18.1mm	0.440kg/m
12c x 2.50mm ²	25 Amps	24.6mm	0.820kg/m
18c x 2.50mm ²	25 Amps	24.5mm	0.890kg/m
24c x 2.50mm ²	25 Amps	29.5mm	1.230kg/m
30c x 2.50mm ²	25 Amps	32.2mm	1.540kg/m
36c x 2.50mm ²	25 Amps	32.5mm	1.620kg/m
4c x 4mm ²	36 Amps	16.3mm	0.350kg/m
5c x 4mm ²	36 Amps	17.5mm	0.430kg/m
4c x 6mm ²	47 Amps	17.6mm	0.430kg/m
5c x 6mm ²	47 Amps	19.1mm	0.540kg/m
4c x 10mm ²	64 Amps	20.7mm	0.680kg/m
5c x 10mm ²	64 Amps	22.8mm	0.840kg/m
4c x 16mm ²	86 Amps	23.1mm	0.920kg/m
5c x 16mm ²	86 Amps	25.4mm	1.160kg/m
4c x 25mm ²	114 Amps	28.5mm	1.440kg/m
5c x 25mm ²	114 Amps	31.4mm	1.780kg/m
4c x 35mm ²	140 Amps	31.2mm	1.870kg/m
5c x 35mm ²	140 Amps	34.6mm	2.350kg/m
4c x 50mm ²	180 Amps	36.4mm	2.580kg/m
4c x 70mm ²	242 Amps	40.9mm	3.550kg/m
4c x 95mm ²	293 Amps	46.3mm	4.600kg/m
4c x 120mm ²	340 Amps	52.0mm	5.790kg/m
4c x 150mm ²	425 Amps	52.7mm	7.110kg/m
4c x 50mm ² + 3 x 25/3	180 Amps	32.8mm	2.410kg/m
4c x 70mm ² + 3 x 35/3	242 Amps	36.6mm	3.300kg/m
4c x 95mm ² + 3 x 50/3	293 Amps	41.8mm	4.180kg/m
4c x 120mm ² + 3 x 70/3	340 Amps	45.9mm	5.370kg/m
4c x 120mm ² + 3 x 70/3	425 Amps	50.8mm	6.440kg/m
4c x 150mm ² + 3 x 95/3	475 Amps	54.9mm	7.780kg/m

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sales@simbal.net