



ENERGY CHAIN CABLES

RH Series	142
CP Series	143
RHCY Series.....	144
AR Series	145



RH SERIES

High Performance Flexible Energy Chain Control Cable
300/500V 80°C



APPLICATIONS:

Energy/Drag Chains Designed for continuous movement where tight bending radii is required.

Control and Signals As power control or signal cables on machines, portable tools, conveying equipment or similar industrial applications.

PRODUCT FEATURES:

- ▶ Extra high flexibility suitable for continuous movement
- ▶ Suitable for tight bending radii
- ▶ UV stabilised
- ▶ Flame retardant
- ▶ Heat, oil and chemical resistant (*See Technical Section*)

CONSTRUCTION:

Conductor Annealed plain copper stranded extreme flexibility (Class 5 & 6).

Insulation Special SPVC with the cores stranded together in layers (if needed) while each layer has a different lay direction:

1st layer – left direction. 2nd layer – right direction.

Each layer has a special wrapping for increased flexibility.

Sheath Special SPVC.

CHARACTERISTICS:

Operating Temperature Range Fixed -20°C to 80°C / Flexing -5°C to 80°C.

Maximum Conductor Temperature 80°C.

Rated Voltage U_o/U 300/500v **Max AC Operating Voltage** U_o 318v.

Minimum Bending Radius Fixed 5 x cable diameter / Flexing 7.5 x cable diameter.

Sheath Colour Grey.

Standard Core Colours Black (numbered) + 1 Green/Yellow Earth.

Max. speed 2m/s.

Max. acceleration 10m/s².

Max. cycle >1 million.

Relevant Standards VDE 0295 Class 6, VDE 0281, VDE 0812, IEC 60332-1, IEC 60228, **CE** Directive 2006/95/EC,

RoHS Compliant.

Code	No. of Cores x Size (mm ²)	Approx. Stranding No. of wires x mm	Approx. Overall Diameter (mm)	Approx. Weight (Kg/Km)
RH03/0.75G	3 x 0.75	42/0.15	5.7	73
RH04/0.75G	4 x 0.75	42/0.15	6.4	77
RH05/0.75G	5 x 0.75	42/0.15	7.0	119
RH07/0.75G	7 x 0.75	42/0.15	8.3	165
RH12/0.75G	12 x 0.75	42/0.15	10.2	247
RH18/0.75G	18 x 0.75	42/0.15	12.1	356
RH25/0/75G	25 x 0.75	42/0.15	14.9	498
RH07/1.0G	7 x 1.0	56/0.15	8.8	192
RH12/1.0G	12 x 1.0	56/0.15	10.8	295
RH18/1.0G	18 x 1.0	56/0.15	13.0	420
RH04/1.5G	4 x 1.5	84/0.15	7.4	147
RH07/1.5G	7 x 1.5	84/0.15	9.9	273
RH12/1.5G	12 x 1.5	84/0.15	12.1	391
RH18/1.5G	18 x 1.5	84/0.15	14.5	590
RH25/1.5G	25 x 1.5	84/0.15	17.8	801
RH04/2.5G	4 x 2.5	140/0.15	9.1	200

Firstflex has taken every precaution to ensure accurate information in this catalogue, but accept no liability for any errors or omissions. Firstflex reserves the right to modify specifications at any time.

CP SERIES

**Extreme Performance Flexible
PUR Energy Chain Control Cable
300/500V 80°C**



APPLICATIONS:

Energy/Drag Chains Designed for continuous movement where tight bending radii is required.

Control and Signals As power control or signal cables on machines, portable tools, conveying equipment or similar industrial applications requiring screened cable for EMC.

Extreme Environments Extremely robust control cable with high abrasion and tear resistant properties plus high resistance to mineral oils and coolant emulsions.

PRODUCT FEATURES:

- ▶ Extra long service life
- ▶ Extra high flexibility suitable for continuous movement
- ▶ Suitable for tight bending radii
- ▶ UV stabilised
- ▶ Flame retardant
- ▶ High oil resistance especially to coolant emulsions
- ▶ Resistant to solvents, acids, alkalis and hydraulic liquidity
- ▶ Ozone, hydrolysis and conditionally microbe resistant
- ▶ High abrasion and tear resistance
- ▶ Heat and chemical resistant (*See Technical Section*)

CONSTRUCTION:

Conductor Annealed plain copper stranded extreme flexibility (Class 5 & 6).

Insulation Special STPE with the cores stranded together in layers (if needed) while each layer has a different lay direction: 1st layer – left direction. 2nd layer – right direction etc.

Each layer has a special wrapping for increased flexibility.

Sheath Special PUR TPU full polyurethane adhesion free.

CHARACTERISTICS:

Operating Temperature Range Fixed -50°C to 80°C / Flexing -40°C to 80°C.

Maximum Conductor Temperature 80°C.

Rated Voltage U_o/U 300/500v **Max AC Operating Voltage** U_o 318v.

Minimum Bending Radius Fixed 5 x cable diameter / Flexing 7.5 x cable diameter.

Sheath Colour Grey.

Standard Core Colours Black (numbered) + 1 Green/Yellow Earth.

Max. speed 4m/s.

Max. acceleration 10m/s².

Max. cycle 5 million.

Test of alternating bending cycle Approx 10 million VDE 0472-603 (H).

Relevant Standards VDE 0295, IEC 60228, VDE 0281-1, VDE 0293, IEC 60332-1, VDE 0472-804, **CE** Directive 2006/95/EC,

RoHS Compliant.

Code	No. of Cores x Size (mm ²)	Approx. Stranding No. of wires x mm	Approx. Overall Diameter (mm)	Approx. Weight (Kg/Km)
CP04/0.75	4 x 0.75	42/0.15	7.0	69
CP07/0.75	7 x 0.75	42/0.15	9.0	118
CP12/0.75	12 x 0.75	42/0.15	11.0	183
CP18/0.75	18 x 0.75	42/0.15	12.9	270
CP25/0.75	25 x 0.75	42/0.15	15.4	374
CP04/1.5	4 x 1.5	84/0.15	8.7	106
CP07/1.5	7 x 1.5	84/0.15	11.3	205
CP12/1.5	12 x 1.5	84/0.15	13.8	320
CP18/1.5	18 x 1.5	84/0.15	16.3	465

RHCY SERIES

High Performance Flexible CBS Energy Chain Control Cable 300/500V 80°C



APPLICATIONS:

Energy/Drag Chains Designed for continuous movement where tight bending radii is required.

Control and Signals For use on machines, portable tools, conveying equipment and other industrial applications requiring screened cables for EMC.

PRODUCT FEATURES:

- ▶ Extra high flexibility suitable for continuous movement
- ▶ Screened to prevent external interference
- ▶ Suitable for tight bending radii
- ▶ UV stabilised
- ▶ Flame retardant
- ▶ To be earthed using EMC compatible glands
- ▶ Heat, oil and chemical resistant (*See Technical Section*)

CONSTRUCTION:

Conductor Annealed plain copper stranded extreme flexibility (Class 5 & 6).

Insulation Special SPVC with the cores stranded together in layers (if needed) while each layer has a different lay direction:

1st layer – left direction. 2nd layer – right direction.

Each layer has a special wrapping for increased flexibility.

Screening Tinned copper braid 80% minimum coverage interwoven with synthetic cross-helix to improve bending behaviour.

Sheath Special SPVC.

CHARACTERISTICS:

Operating Temperature Range Fixed -20°C to 80°C /

Flexing -5°C to 80°C.

Maximum Conductor Temperature 80°C.

Rated Voltage U_o/U 300/500v **Max AC Operating Voltage** U_o 318v.

Minimum Bending Radius Fixed 5 x cable diameter /

Flexing 7.5 x cable diameter.

Sheath Colour Grey.

Standard Core Colours Black (numbered) + 1 Green/Yellow Earth.

Max. speed 2m/s.

Max. acceleration 10m/s².

Max. cycle >1 million.

Relevant Standards VDE 0295, VDE 0812-1, VDE 281, IEC 60332-1, IEC 60228, **CE** Directive 2006/95/EC, **RoHS** Compliant.

Code	No. of Cores x Size (mm ²)	Approx. Stranding No. of wires x mm	Approx. Overall Diameter (mm)	Approx. Weight (Kg/Km)
RHCY03/0.75	3 x 0.75	42/0.15	7.8	128
RHCY04/0.75	4 x 0.75	42/0.15	8.3	184
RHCY05/0.75	5 x 0.75	42/0.15	9.1	200
RHCY07/0.75	7 x 0.75	42/0.15	10.2	269
RHCY25/0.75	25 x 0.75	42/0.15	16.1	441
RHCY04/1.5	4 x 1.5	84/0.15	9.5	243
RHCY07/1.5	7 x 1.5	84/0.15	12.2	403
RHCY04/2.5	4 x 2.5	140/0.15	11.2	264

AR SERIES

Ultra Performance Flexible Power & Control Cable 0.6/1kV 90°C



APPLICATIONS:

Cable Festoon Systems Suitable for Backing Gate, machine and plant applications. (See Technical page for installation suggestions)

Energy/Drag Chains Power & Control cables for highest requirements in drag chain applications.

Food & Beverage Resistant to microbe & hydrolysis making it suitable for the food & beverage industry.

Harsh Environments With its high flexibility, robust TPE sheath and tensile strengthened centre support, this cable is suited to most harsh industrial environments including compost, sewage, car wash, laundry/humid rooms and outdoors.

PRODUCT FEATURES:

- ▶ Resistant to oil acc. to DIN EN 60811-404 4 h at +100 °C
- ▶ Silicone-free
- ▶ UV,- ozone- and weather resistant acc. EN 50396 und HD 605 S2
- ▶ Resistant to coolant fluids, microbes, hydrofluoric acid, salt acid and weakened sulfuric (See Technical section)
- ▶ NEW: with Ripcord, for faster and core protected dismantling

CONSTRUCTION:

Conductor Annealed plain copper stranded extreme flexibility (Class 6)

Insulation PELON®2

Sheath TPE

CHARACTERISTICS:

Operating Temperature Range Fixed -40°C to 90°C Flexing -30°C to 90°C

Maximum Conductor Temperature 90°C

Rated Voltage U₀/U 0.6/1kV

Max AC Operating Voltage U₀ 0.7kV

Minimum Bending Radius Fixed 3 x cable diameter/ Flexing 5 x cable diameter.

Speed Self-supporting: max 10 m/s, Gliding: max 5 m/s


Traverse Length Self-supporting/Gliding max 400 m

Acceleration max 100m/s

Sheath Colour Black

Standard Core Colours Black (numbered) + Green/Yellow Earth

Relevant Standards IEC 60228, IEC 60332-1, VDE 0295, DIN 47100, EN 60811, EN 50396, HD 605S2, **RoHS** Compliant, **CE** Directive 2014/35/EU, UL/CSA Approvals

Code	No. of Cores x Size (mm ²)	Approx. Stranding No. of wires x mm	Approx. Overall Diameter +/- 10% (mm)	Approx. Weight (Kg/Km)	Nominal Amps un-enclosed protected from sun @ 30°C fixed application
					Touching 
AR07/1.5	7 X 1.5	84/0.15	10	164	13
AR12/1.5	12 X 1.5	7/2.14	14.8	301	8