

# Medium voltage flat reeling cable

## Protolon(FL)-LWL<sup>®</sup> (N)TSFLCGEWOEU



DERZEIT KEIN BILD VERFÜGBAR. | NO IMAGE AVAILABLE.

**Application:** Flexible reeling cable with integrated fibre optics. For use with high mechanical stresses, e.g. dynamic tensile loads, multiple changes of direction within one plane, running over rollers. Mainly for mobile equipment, e.g. container cranes, cranes, large mobile equipment and excavators.

Fibre optics: six tubes, laid up around a central support element, with one, two or three optical fibers in each.

### Construction and technical data:

<b>Standard:</b>	DIN VDE 0250-813 (with ref. to)
<b>Conductor material:</b>	tinned copper
<b>Conductor construction:</b>	Class 5 = flexible
<b>Insulation:</b>	rubber 3GI3
<b>Arrangement of cores:</b>	three parallel arranged cores
<b>Electrical field control:</b>	inner and outer semiconducting rubber layer
<b>Arrangement of protective conductors:</b>	tinned copper wire braid over each phase
<b>Sheathing material:</b>	rubber 5GM5
<b>Colour of outer sheath:</b>	red
<b>Flame-retardant:</b>	VDE 0482-332-1-2/IEC 60332-1-2
<b>UV-resistant:</b>	yes
<b>Oil-resistant:</b>	EN 60811-404
<b>Ozone-resistant:</b>	yes
<b>Max. temperature at conductor, °C:</b>	90 °C
<b>Permitted outer cable temperature, fixed, °C:</b>	-50 - +80 °C
<b>Permitted outer cable temperature, moved, °C:</b>	-35 - +80 °C
<b>Bending radius, fixed installation:</b>	6 x Ø
<b>Min. distance with S-type directional changes:</b>	20 x Ø
<b>Bending radius, moving application:</b>	10 x Ø
<b>Maximum tensile strength at the conductor:</b>	15 N/mm <sup>2</sup>
<b>Operating speed:</b>	120 m/min.



The products and information presented here are for technical calculation only. They are subject to technical progress and in no way represent the ability of shipment. Outer diameters are approximately.

Protolon(FL)-LWL<sup>®</sup> (N)TSFLCGEWOEU 6/10 kV

**Nominal voltage U<sub>0</sub>:** 6 kV  
**Nominal voltage U:** 10 kV  
**Maximum permitted operating voltage in three-phase systems:** 12 kV  
**Test voltage:** 17 kV

part no.	part name	RI [Ohm/km]	I <sub>bl</sub> [A]	I <sub>k</sub> [kA]	w [mm]	h [mm]	F <sub>zp</sub> [N]	Cu	G [kg]
053378	03x35+4x25/4E+1x(12E9 LWL)	0.565	130	5.01	91.7	28.3	1575	1324	4064

RI	Conductor resistance
I <sub>bl</sub>	Ampacity in air (30 °C)
I <sub>k</sub>	Short-circuit current (1 s)
w	Width
h	Height
F <sub>zp</sub>	Tensile strength (permanent)
Cu	Copper weight (GER)
G	net weight per 1000