




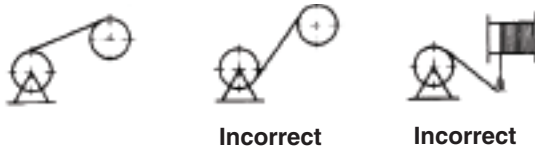
Pendant and Reel Cable Installation Instructions

Applications	Motor reel without guidance  Main applications	Motor reel guidance with rollers  Main application	Cable Carriage  Suitable
Guide Systems			

Installation Instructions and Recommendations

- Whenever possible, the delivery reel should be transported to the installation site. Avoid rolling the reel. If the reel cannot be mounted directly on the equipment, the cable should be unreeled with the aid of idle pulleys and a drag rope.
- During unreeling, the cable must be taken only from revolving reels and only from the top while ensuring that tension is maintained and the cable is neither deflected nor dragged over sharp edges.
- Before installation, the cable must be laid out and stretched. If this is not possible, it is essential to keep the distance between the delivery reel and the equipment reels as long as possible. Avoid S-bends or other deflections when the cable is laid in position.

Correct



Incorrect

Incorrect

- The cable must be spooled onto the equipment reel without twisting. It is equally important to avoid twisting when making connections.
- It is essential to use properly sized clamps (length 4x cable diameter) for fastening the cable ends in order to prevent crushing. The length of cable left unreeled before the fastening point must be at least 40x diameter, but it is advisable to use a compensating pulley here also.
- At least two coils must remain on the equipment reel when the cable has run out.

- For cables with an outer diameter of up to 21.5 mm the inner bending diameter should not be less than 10x and above that figure, 12.5 x the cable diameter.
- S-bends in the cable must be avoided. However, if this is not possible, the center spacing must be as shown below:

Correct



Incorrect



- The maximum permissible reeling speed is 2m/sec with and a maximum acceleration of 0.4m/sec².
- The static continuous tensile stress should not exceed 15 N/mm² of the total copper cross section and the dynamic peak tensile stress may not exceed 25 N/mm².
- The actual current rating in continuous operation is limited by:
 - The conductor cross section (see table 1)
 - The ambient temperature (see table 2)
 - The number of layers spooled on the reel (see table 3)
 The maximum permissible current on the installed cable is obtained from the following formula: $I = I_{max} \times f_1 \times f_2$

Table 1		Table 2		Table 3	
Conductor cross section in mm ²	I _{max} in A	Ambient temp. in °C	f ₁	Number of layers	f ₂
1.5	18	≤30	1	1	.80
2.5	26	31 – 35	0.91	2	.68
4	34	36 – 40	0.82	3	.58
6	44	41 – 45	0.71	4	.60
10	61	46 – 50	0.58	5	.48
16	82	51 – 55	0.41	6	.46
25	108				
35	135				