Technical data

Outside diameter of conventional cable cross-sections
Short forms of cables

The outside diameters are average values of different products.

Cable cross-section mm²	NYM mm Ø	NYY mm Ø	NYCY NYCWY mm Ø
1x4	8	9	–
1x6	8.5	10	–
1x10	9.5	10.5	–
1x16	11	12	–
1x25	–	14	–
1x35	–	15	–
1x50	–	16.5	–
1x70	–	18	–
1x95	–	20	–
1x120	–	21	–
1x150	–	23	–
1x185	–	25	–
1x240	–	28	–
1x300	–	30	–
2x1.5	10	12	–
2x2.5	11	13	–
2x4	–	15	–
2x6	–	16	–
2x10	–	18	–
2x16	–	20	–
2x25	–	–	–
2x35	–	–	–
3x1.5	10.5	12.5	13
3x2.5	11	13	14
3x4	13	16	16
3x6	15	17	17
3x10	18	19	18
3x16	20	21	21
3x25	–	26	–
3x35	–	–	–
3x50	–	–	–
3x70	–	–	–
3x95	–	–	–
3x120	–	–	–
3x150	–	–	–
3x185	–	–	–
3x240	–	–	–
3x25/16	–	27	27
3x35/16	–	28	27
3x50/25	–	32	32
3x70/35	–	32-36	36
3x95/50	–	37-41	40
3x120/70	–	42	43
3x150/70	–	46	47
3x185/95	–	52	48-54
3x240/120	–	57-63	60
3x300/150	–	63-69	–

Cable cross-section mm²	NYM mm Ø	NYY mm Ø	NYCY NYCWY mm Ø
4x1.5	11	13.5	14
4x2.5	12.5	14.5	15
4x4	14.5	17.5	17
4x6	16.5	18	18
4x10	18.5	20	20
4x16	23.5	23	23
4x25	28.5	28	28
4x35	32	26-30	29
4x50	–	30-35	34
4x70	–	34-40	37
4x95	–	38-45	42
4x120	–	42-50	47
4x150	–	46-53	52
4x185	–	53-60	60
4x240	–	59-71	70
4x25/16	–	–	30
4x35/16	–	–	30
4x50/25	–	–	34-37
4x70/35	–	–	40
4x95/50	–	–	44.5
4x120/70	–	–	48.5
4x150/70	–	–	53
4x185/95	–	–	–
4x240/120	–	–	–
5x1.5	12	15	15
5x2.5	13.5	16	17
5x4	15.5	16.5	18
5x6	18	19	20
5x10	20	21	–
5x16	26	24	–
5x25	31.5	–	–
7x1.5	13	16	–
7x2.5	14.5	16.5	–
19x1.5	–	22	–
24x1.5	–	25	–

Short forms of cables

NYM	Light plastic-sheathed cable
NYY	Plastic-sheathed cable
NYCY	Plastic-sheathed cable with concentric conductor
NYCWY	Plastic-sheathed cable with concentric. undulated conductor

Definition of Terms
Rated values for setting up low-voltage switchgear are given in the standard IEC 61 439-1

Rated voltage (U_n)
highest nominal value of the a.c. (r.m.s.) or d.c. voltage, declared by the assembly manufacturer, to which the main circuit(s) of the assembly is (are) designed to be connected.

Rated operational voltage (U_e) (of a circuit of an assembly)
value of voltage, declared by the assembly manufacturer, which combined with the rated current determines its application.

Rated insulation voltage (U_i)
r.m.s. withstand voltage value, assigned by the assembly manufacturer to the equipment or to a part of it, characterising the specified (long-term) withstand capability of the insulation.

Rated impulse voltage (U_{imp})
impulse withstand voltage value, declared by the assembly manufacturer, characterising the specified withstand capability of the insulation against transient overvoltages.

Rated current (I_n)
value of current, declared by the assembly manufacturer taking into consideration the ratings of the components, their disposition and application, which can be carried without the temperature-rise of various parts of the assembly exceeding specified limits under specified conditions.

Prospective short circuit current (I_{cp})
current which flows when the supply conductors to the circuit are short-circuited by a conductor of negligible impedance located as near as practicable to the supply terminals of the assembly.

Rated peak withstand current (I_{pk})
value of peak short-circuit current, declared by the assembly manufacturer, that can be withstood under specified conditions.

Rated short-time withstand current (I_{cw})
r.m.s value of short-time current, declared by the assembly manufacturer, that can be carried without damage under specified conditions, defined in terms of a current and time.

Rated current of the assembly (I_{nA})
The rated current of the assembly is the smaller of:
- the sum of the rated currents of the incoming circuits within the assembly operated in parallel;

- the total current which the main busbar is capable of distributing in the particular assembly arrangement.

This current shall be carried without the temperature rise of the individual parts exceeding the limits specified in the standard.

Rated current of a circuit (I_{nc})
The rated current of a circuit is stated by the assembly manufacturer, taking into consideration the ratings of the devices within the circuit, their disposition and application. This current shall be carried without the temperature rise of the various parts of the assembly exceeding the limits specified in the standard when the circuit is loaded alone.

Rated diversity factor (RDF)
per unit value of the rated current, assigned by the assembly manufacturer, to which outgoing circuits of an assembly can be continuously and simultaneously loaded taking into account the mutual thermal influences.