

Technical Pages

Power cables are frequently modified or shipped in non-standard configuration to fit customer needs. Therefore, it is important to determine exactly which cable is used because once new cable is cut, it is non-refundable. You may need a measuring device to accurately identify the cable if all descriptive markings are worn away

PROCEDURE

1 – Identify the cable from the jacket – HOMA has primarily used 3 types of cable over the years. You can identify the type and size from the cable jacket

Black RHW Cable



Cable size is printed on the cable above as “**4/C 14AWG + 4/C 14AWG.**” This means this cable has Qty.4 14AWG Power leads and Qty.4 14AWG Control leads. RHW power cables have Qty.4 Power leads of different sizes and Qty.4 14 AWG Control leads. E.G., 4x10+4x14, 4x4+4x14. If there are 8 leads in the cable, it is RHW cable. (Note: some arrangements may use a Qty. 12 16AWG SOOW Control cable in addition to the power cable and smaller pumps may only use a Qty. 4 14AWG SOOW cable)

Black H07RN Cable



Cable size is printed on the cable above as “**10G1.5.**” This means this cable has Qty.10 leads that are 1.5 sq mm in cross-section. H07RN cable sizes are given as (# of conductors) G (size of conductors in sq.mm). E.G., 4G4, 5G1.5, 7G1.5

Yellow NSSHOU Cable

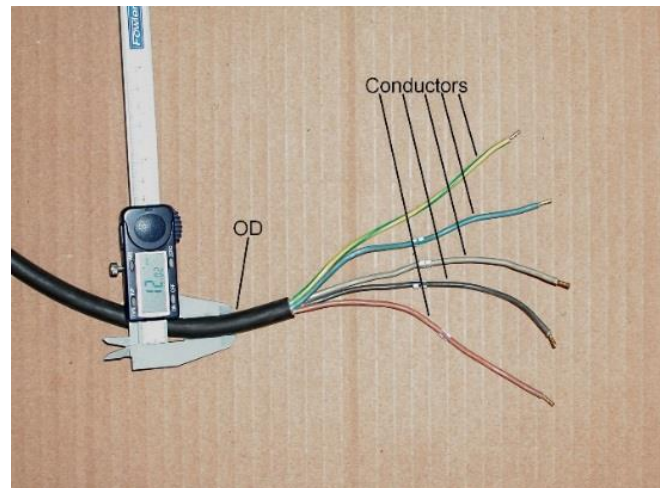


Cable size is embossed on the cable above as “4x4.” This means this cable has Qty.4 leads that are 4 sq mm in cross-section. NSSHOU cable sizes are given as (# of conductors) x (size of conductors in sq.mm). E.G., 4x1.5, 7x2.5, 4x25

2 – Identify the cable arrangement – If the text is worn off the cable jacket or otherwise unreadable, begin by counting the number of leads. If there are 8 leads or 12 leads, it is RHW cable. If it is a black cable with any other number of leads, it is H07RN cable. If it is a yellow cable, it is NSSHOU cable. Consult the tables below to see what cable sizes use that number of leads. It may be possible to determine the cable from just this info.

3 – Measure the jacket diameter – If the number of leads is not enough to determine the cable, measure the jacket outer diameter (OD). The table below shows the OD of cables in inches and mm.

4 – Water Damage – When measuring a water-damaged cable, keep in mind that it may have swelled and expanded. If this is the case, the best way to determine the cable size is to measure the diameter of the sheath of one lead, the “Conductor Diameter.” Water intrusion is identified by a swollen jacket, the jacket having a spongy feel, and the interior of the jacket having a white, pasty texture.



REMEMBER: before placing your order, measure the cable length to be replaced. The standard length is 10 meters, or slightly over 30 feet. Please specify if more is needed.

Power Cable Dimensions

RHW (Black)

Cable Size	Jacket OD (mm)	Jacket OD (in)	Conductor Diameter (in) approx.
4x14 + 4x14	20	0.79	0.15 & 0.15
4x12 + 4x14	22	0.87	0.17 & 0.15
4x10 + 4x14	30	1.18	0.2 & 0.15
4x8 + 4x14	31	1.22	0.25 & 0.15
4x6 + 4x14	32	1.26	0.28 & 0.15
4x4 + 4x14	33	1.30	0.325 & 0.15
12x16*	18	0.71	0.11
4x14*	14.5	0.57	0.15

*SOOW-type Control Cable

H07RN (Black)

Cable Size	Jacket OD (mm)	Jacket OD (in)	Conductor Diameter (in) approx.
4 x 1.5	11	0.43	0.125
5 x 1.5	12	0.47	0.125
6 x 1.5	14	0.55	0.125
7 x 1.5 (Old)	13	0.5	0.125
7 x 1.5	16	0.62	0.125
7 x 2.5	18	0.7	0.15
7 x 4	22	0.86	0.185
10 x 1.5	19	0.74	0.125
10 x 2.5	21	0.82	0.15
10 x 4	24	0.94	0.185
5 x 6	19	0.74	0.21
4 x 2.5	13	0.5	0.15
4 x 4	16	0.6	0.185
4 x 6	18	0.7	0.21
4 x 10	23	0.9	0.265
4 x 16	28	1.09	0.31
4 x 25	32	1.25	0.34
4 x 35	34		

NSSHOU (Yellow)

Cable Size	Jacket OD (mm)	Jacket OD (in)	Conductor Diameter (in) approx.
4 x 1.5	13	0.5	0.125
5 x 1.5	15	0.55	0.125
7 x 1.5	17	0.66	0.125
7 x 2.5	19	0.74	0.15
10 x 1.5	19	0.74	0.125
5 x 6	22	0.85	0.21
3x6 + 3x1.5**	21	0.82	0.21 & 0.125
4 x 2.5	17	0.67	0.15
4 x 4	18	0.71	0.185
4 x 6	20	0.77	0.21
4 x 10	23	0.9	0.265
4 x 16	29	1.14	0.31
4 x 25	34	1.3	0.34
4 x 35	35	1.35	0.415

**3 x 6 yellow cable has three 6 sq.mm conductors and three 1.5 sq.mm conductors