



TEBAOFLEX CABLE

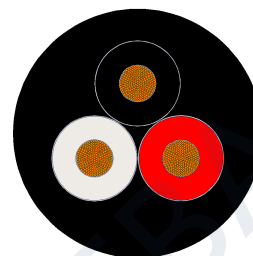
DATA SHEET

Mining&Industrial cable

TYPE W

Round 3C construction reference

600 V to 2000 V portable mining cable - round 3C, flat 2C and flat 4C configurations



APPLICATION

Heavy-duty flexible portable power cable for underground and surface mining equipment, available in round three-conductor, flat two-conductor and flat four-conductor configurations. Suitable for pumps, drills, conveyors, shuttle cars, cutters, loaders, continuous miners and other mobile or relocatable machinery on compatible 600 V to 2000 V circuits. The flexible tinned-copper conductors, EPR insulation and reinforced CPE jacket support repeated handling, bending, relocation and dragging under controlled conditions.

CONSTRUCTION

Component	Description
Conductors	Two-, three- or four-core flexible rope-lay stranded annealed tinned copper conductors
Insulation	Heat-, moisture- and ozone-resistant ethylene-propylene rubber (EPR)
Core identification	Colour-coded insulated conductors; final colours and conductor functions per the order drawing
Core assembly	Round (3C) or flat (2C, 4C) flexible configurations according to conductor count and application
Reinforcement	Synthetic yarn reinforcement for mechanical support within the jacket system
Outer jacket	Extra-heavy-duty chlorinated polyethylene (CPE), black
Optional jacket compounds	CSP, PCP, NBR or PVC compounds, subject to project-specific construction review
Optional jacket design	Two-layer jacket with reinforcing fibre, subject to project-specific construction review

CHARACTERISTICS

- Heavy-duty flexible Type W portable power cable for underground and surface mining service.
- 90 °C EPR insulation provides the electrical insulation for the stated 600 V to 2000 V constructions.
- Extra-heavy-duty black CPE jacket with synthetic-yarn reinforcement provides the outer mechanical and environmental protection.
- Flexible construction supports repeated handling, bending, relocation and dragging under controlled conditions.
- Round 3C, flat 2C and flat 4C configurations, 8 AWG to 4/0 AWG depending on construction, without a ground-check conductor.
- Maximum continuous conductor operating temperature: +90 °C.

TECHNICAL INFORMATION

Parameter	Unit	Value
Rated voltage range	V	600 to 2000
Configurations covered		Round 3C; flat 2C; flat 4C (3 phase + ground)
Maximum conductor temperature	°C	+90
Ambient temperature for ampacity	°C	+40
Minimum bending radius		6 x overall cable dimension
Primary cable standard (reference)		ICEA S-75-381 / NEMA WC 58
Conductor standards (reference)		ASTM B172; ASTM B33
Canadian standard (design reference)		CAN/CSA C22.2 No. 96

TECHNICAL DATA

DIMENSIONS, WEIGHT AND AMPACITY

Nominal construction dimensions, cable weight and continuous-duty current-carrying capacity at 40 °C ambient.

Construction cores x AWG	Strands	Insulation in / mm	Nominal overall diameter in / mm	Weight lb/kft / kg/km	Ampacity A, 40 °C ambient
TYPE W ROUND 3C - THREE PHASE CONDUCTORS, NO GROUNDING CONDUCTOR					
3 x 8	133	0.060 / 1.5	0.91 / 23.1	550 / 818	59
3 x 6	133	0.060 / 1.5	1.01 / 25.7	730 / 1086	79
3 x 4	259	0.060 / 1.5	1.17 / 29.7	1020 / 1518	104
3 x 2	259	0.060 / 1.5	1.34 / 34.0	1430 / 2128	138
3 x 1	259	0.080 / 2.0	1.51 / 38.4	1800 / 2678	161
3 x 1/0	266	0.080 / 2.0	1.65 / 41.9	2140 / 3184	186
3 x 2/0	323	0.080 / 2.0	1.75 / 44.5	2580 / 3839	215
3 x 3/0	418	0.080 / 2.0	1.89 / 48.0	2922 / 4347	249
3 x 4/0	532	0.080 / 2.0	2.04 / 51.8	3800 / 5654	287

NOTES

- Round 3C: three phase conductors, no grounding conductor.
 - Ampacity is the TEBAOFLEX rating on the ICEA S-75-381 / NEMA WC 58 basis (2008/2017 editions): single isolated cable in free air, continuous duty at +90 °C conductor temperature and +40 °C ambient temperature, cable not wound on a reel.
 - Dimensions and weights are nominal. Single values are overall diameter; paired values are height x width. Confirm them on the TEBAOFLEX order drawing.
- NEC Table 400.5(A)(2) reference values at +30 °C ambient and the ICEA reel-layer multipliers are published on the TEBAOFLEX Type W product page; the NEC values are code-table reference values, not TEBAOFLEX ratings.
 - Standards are named as design and reference standards for the constructions in this datasheet.
 - Final cable selection must consider installation method, ambient temperature, reel layers, voltage drop, derating and the applicable regulations and mine specification.

TECHNICAL DATA

DIMENSIONS, WEIGHT AND AMPACITY

Nominal construction dimensions, cable weight and continuous-duty current-carrying capacity at 40 °C ambient.

Construction cores x AWG	Strands	Insulation in / mm	Nominal H x W in / mm	Weight lb/kft / kg/km	Ampacity A, 40 °C ambient
TYPE W FLAT 2C - TWO CURRENT-CARRYING CONDUCTORS					
2 x 8	133	0.060 / 1.5	0.51 x 0.84 / 13.0 x 21.3	340 / 505	72
2 x 6	133	0.060 / 1.5	0.56 x 0.93 / 14.2 x 23.6	440 / 655	95
2 x 4	259	0.060 / 1.5	0.61 x 1.05 / 15.5 x 26.7	580 / 863	127
2 x 3	259	0.060 / 1.5	0.68 x 1.14 / 17.3 x 29.0	675 / 1005	145
2 x 2	259	0.060 / 1.5	0.73 x 1.24 / 18.5 x 31.5	850 / 1265	167
2 x 1	259	0.080 / 2.0	0.81 x 1.40 / 20.6 x 35.6	1070 / 1592	191
2 x 1/0	259	0.080 / 2.0	0.93 x 1.51 / 23.6 x 38.4	1310 / 1949	217
2 x 2/0	329	0.080 / 2.0	0.99 x 1.63 / 25.1 x 41.4	1600 / 2381	250
2 x 3/0	413	0.080 / 2.0	1.03 x 1.77 / 26.2 x 45.0	1810 / 2694	286
2 x 4/0	532	0.080 / 2.0	1.10 x 1.89 / 27.9 x 48.0	2300 / 3423	328

NOTES

- Flat 2C: two current-carrying conductors.
 - Ampacity is the TEBAOFLEX rating on the ICEA S-75-381 / NEMA WC 58 basis (2008/2017 editions): single isolated cable in free air, continuous duty at +90 °C conductor temperature and +40 °C ambient temperature, cable not wound on a reel.
 - Dimensions and weights are nominal. Single values are overall diameter; paired values are height x width. Confirm them on the TEBAOFLEX order drawing.
- NEC Table 400.5(A)(2) reference values at +30 °C ambient and the ICEA reel-layer multipliers are published on the TEBAOFLEX Type W product page; the NEC values are code-table reference values, not TEBAOFLEX ratings.
 - Standards are named as design and reference standards for the constructions in this datasheet.
 - Final cable selection must consider installation method, ambient temperature, reel layers, voltage drop, derating and the applicable regulations and mine specification.

TECHNICAL DATA

DIMENSIONS, WEIGHT AND AMPACITY

Nominal construction dimensions, cable weight and continuous-duty current-carrying capacity at 40 °C ambient.

Construction cores x AWG	Strands	Insulation in / mm	Nominal H x W in / mm	Weight lb/kft / kg/km	Ampacity A, 40 °C ambient
TYPE W FLAT 4C, SURFACE MINING - THREE PHASE CONDUCTORS + GROUND					
4 x 6	133	0.060 / 1.5	0.67 x 1.69 / 17.0 x 42.9	895 / 1332	72
4 x 4	259	0.060 / 1.5	0.75 x 1.89 / 19.0 x 48.0	1185 / 1764	93
4 x 2	259	0.060 / 1.5	0.84 x 2.23 / 20.6 x 56.6	1620 / 2411	122
4 x 1	259	0.080 / 2.0	0.97 x 2.60 / 24.6 x 66.0	2100 / 3125	143
4 x 1/0	259	0.080 / 2.0	1.01 x 2.73 / 25.7 x 69.3	2500 / 3721	165
4 x 2/0	329	0.080 / 2.0	1.10 x 2.96 / 27.9 x 75.2	2900 / 4316	192
4 x 3/0	413	0.080 / 2.0	1.18 x 3.25 / 30.0 x 82.6	3500 / 5209	221
4 x 4/0	532	0.080 / 2.0	1.29 x 3.46 / 32.8 x 87.9	4225 / 6288	255

NOTES

- Flat 4C: three phase conductors plus a grounding conductor. Its ratings are ICEA four-conductor values, lower than the round 3C rating of the same size, and assume the fourth conductor is a grounding conductor; if all four conductors carry current, do not use these ratings.
 - Ampacity is the TEBAOFLEX rating on the ICEA S-75-381 / NEMA WC 58 basis (2008/2017 editions): single isolated cable in free air, continuous duty at +90 °C conductor temperature and +40 °C ambient temperature, cable not wound on a reel.
 - Dimensions and weights are nominal. Single values are overall diameter; paired values are height x width. Confirm them on the TEBAOFLEX order drawing.
- NEC Table 400.5(A)(2) reference values at +30 °C ambient and the ICEA reel-layer multipliers are published on the TEBAOFLEX Type W product page; the NEC values are code-table reference values, not TEBAOFLEX ratings.
 - Standards are named as design and reference standards for the constructions in this datasheet.
 - Final cable selection must consider installation method, ambient temperature, reel layers, voltage drop, derating and the applicable regulations and mine specification.

CERTIFICATIONS

