



HY-TREX[®]

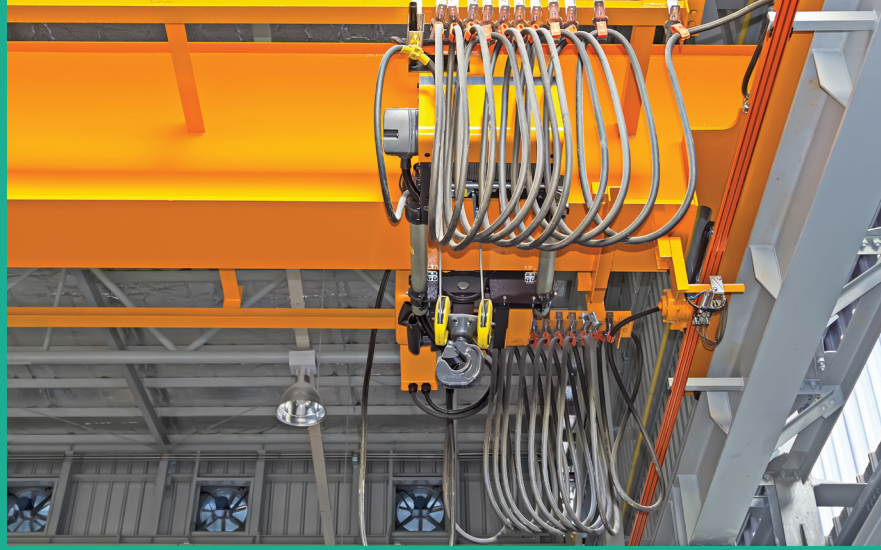
Motor Power Series



TPC WIRE & CABLE CORP.
EXPECT HIGH PERFORMANCE[®]

OEM SOLUTIONS

For over 40 years TPC Wire and Cable has been partnering with OEM customers to engineer custom quality products for high performing industrial environments. Headquartered in Northeast Ohio, TPC serves as a single source for quality and consistent electrical solutions for a wide variety of applications. As a key OEM partner in a global supply chain, TPC provides industry-leading solutions tailored to each customer's specified needs that drive innovation, increase efficiency, and simplify inventory.



HY-TREX[®] MOTOR POWER CABLE

This is Ideal for motor and power applications that command resilience and longevity during continuous flexing, torsion and twisting. The **Hy-Trex[®] motor power cable** offers a portfolio of UL rated shielded and unshielded options that withstand constant high temperatures and unparalleled resistance to abrasion, UV and oils. This highly flexible and durable cable series is easy to install and rated to perform.

CONSTRUCTION

CONDUCTORS:

Bare copper, Class K 30 AWG strand

INSULATION:

Special Formulation TPE compound

COLOR-CODE:

Black conductors with alphanumeric ID
Green or green/yellow ground

SHIELD:

Tinned copper braid, 85% coverage

JACKET:

TPE compound - black

RATINGS / APPROVALS

VOLTAGE:

600V TC-ER/1000V WTTTC

MAX CONDUCTOR TEMP:

90°C Dry / 75°C Wet

FLAME: FT4

UL: TC-ER per UL 1277

WTTTC per UL 2277

AWM Styles 20886, 10269

MTW per UL 1063

cUL: CIC-TC per CSA 22.2 No. 239

NEC:

Suitable for Class I, Division 2 per
Article 501

PERFORMANCE

BEND RADIUS STATIC:

6x cable outer diameter

BEND RADIUS DYNAMIC:

8x cable outer diameter

COLD BEND: -25°C

COLD IMPACT: -40°C

OIL RESISTANCE: Oil Resistant I

APPLICATIONS

Ideal for industrial automation, integrators, manufacturers, conveyor technology, machining, robotics, and packaging.

PART NUMBER LEGEND EXAMPLE:

PART NUMBER BREAKDOWN:

Complete Part Number: MP500-014-4C-GY-U

MP
Family

Motor Power

500
Series

014

Conductor Size

0__=AWG Size

_OT=AWG Size

___K=kcmil Size

4C

Conductor
Configuration

#C=# of Conductors

GY

Ground
Configuration

B=Black ground wire

G=Green ground wire

*GY=Green/Yellow
ground wire*

U

Overall Shield
/ Un-shielded

S=Overall Shield

U=Un-shielded



HY-TREX® MOTOR POWER CABLE – SHIELDED

PART NO.	CONDUCTOR SIZE		NUMBER OF CONDUCTORS	COND STRANDING	NOM O.D. (IN.)	WEIGHT (LBS/1000')	BEND RADIUS (IN)	GLAND* P/N
	AWG	EQUIV (MM ²)						
MP-500-018-3C-GY-S	18	0.75	3	19/30	0.327	91	2.7	55002
MP-500-018-4C-GY-S	18	0.75	4	19/30	0.350	106	2.8	55002
MP-500-018-5C-GY-S	18	0.75	5	19/30	0.378	121	3.1	55002
MP-500-016-3C-GY-S	16	1.5	3	26/30	0.354	107	2.9	55002
MP500-016-4C-GY-S	16	1.5	4	26/30	0.382	126	3.1	55002
MP500-016-5C-GY-S	16	1.5	5	26/30	0.409	145	3.3	55002
MP500-014-3C-GY-S	14	2.5	3	41/30	0.386	135	3.1	55002
MP500-014-4C-GY-S	14	2.5	4	41/30	0.417	159	3.4	55002
MP500-014-5C-GY-S	14	2.5	5	41/30	0.453	185	3.7	55004
MP500-012-3C-GY-S	12	4	3	65/30	0.433	177	3.5	55004
MP500-012-4C-GY-S	12	4	4	65/30	0.472	211	3.8	55004
MP500-012-5C-GY-S	12	4	5	65/30	0.512	247	4.1	55005
MP500-010-3C-GY-S	10	6	3	105/30	0.508	248	4.1	55005
MP500-010-4C-GY-S	10	6	4	105/30	0.583	317	4.7	55005
MP500-010-5C-GY-S	10	6	5	105/30	0.634	375	5.1	55006
MP500-008-3C-GY-S	8	10	3	168/30	0.720	440	5.8	55008
MP500-008-4C-GY-S	8	10	4	168/30	0.787	536	6.3	55008
MP500-008-5C-GY-S	8	10	5	168/30	0.898	669	7.2	55009
MP500-006-3C-GY-S	6	16	3	266/30	0.791	572	6.4	55008
MP500-006-4C-GY-S	6	16	4	266/30	0.906	741	7.3	55009
MP500-006-5C-GY-S	6	16	5	266/30	0.988	879	8.0	55010
MP500-004-3C-GY-S	4	25	3	420/30	1.000	882	8.0	55010
MP500-004-4C-GY-S	4	25	4	420/30	1.094	1089	8.8	55010/55011
MP500-004-5C-GY-S	4	25	5	420/30	1.201	1300	9.7	55010/55011
MP500-002-3C-GY-S	2	35	3	665/30	1.165	1247	9.4	55010/55011
MP500-002-4C-GY-S	2	35	4	665/30	1.280	1554	10.3	55012/55014
MP500-002-5C-GY-S	2	35	5	665/30	1.406	1867	11.3	55014
MP500-001-3C-GY-S	1	50	3	798/30	1.299	1507	10.4	55013/55014
MP500-001-4C-GY-S	1	50	4	798/30	1.429	1881	11.5	55014
MP500-001-5C-GY-S	1	50	5	798/30	1.571	2263	12.6	55014/55015
MP500-10T-3C-GY-S	1/0	55	3	1045/30	1.339	1791	10.8	55013/55014
MP500-10T-4C-GY-S	1/0	55	4	1045/30	1.476	2244	11.9	55014/55015
MP500-10T-5C-GY-S	1/0	55	5	1045/30	1.622	2705	13.0	55014/55015
MP500-20T-3C-GY-S	2/0	70	3	1330/30	1.508	2246	12.1	55014/55015
MP500-20T-4C-GY-S	2/0	70	4	1330/30	1.724	2928	13.8	55015/55016
MP500-20T-5C-GY-S	2/0	70	5	1330/30	1.894	3525	15.2	55015/55016
MP500-30T-3C-GY-S	3/0	95	3	1691/30	1.559	2602	12.5	55014/55015
MP500-30T-4C-GY-S	3/0	95	4	1691/30	1.783	3398	14.3	55015/55016
MP500-30T-5C-GY-S	3/0	95	5	1691/30	1.957	4106	15.7	55015/55016/ 55017
MP500-40T-3C-GY-S	4/0	120	3	2160/30	1.843	3426	14.8	55015/55016
MP500-40T-4C-GY-S	4/0	120	4	2160/30	2.031	4323	16.3	55016/55017
MP500-40T-5C-GY-S	4/0	120	5	2160/30	2.236	5233	17.9	55015/55016/ 55017

* Aluminum Straight Grip-Seals. Sizing based on nominal cable O.D. Due to process tolerances, a smaller/larger gland size may be required.



HY-TREX® MOTOR POWER CABLE – UNSHIELDED

PART NO.	LEGACY PART NO.	COND SIZE		NUMBER OF CONDUCTORS	COND STRANDING	NOM O.D. (IN.)	WEIGHT (LBS/1000')	BEND RADIUS (IN)	GLAND* P/N
		AWG	EQUIV (mm ²)						
MP500-018-3C-GY-U	-	18	0.75	3	19/30	0.311	57	2.5	55001
MP500-018-4C-GY-U	-	18	0.75	4	19/30	0.331	68	2.7	55002
MP500-018-5C-GY-U	-	18	0.75	5	19/30	0.358	85	2.9	55002
MP500-016-3C-GY-U	76193	16	1.5	3	26/30	0.339	69	2.8	55002
MP500-016-4C-GY-U	76198	16	1.5	4	26/30	0.365	85	3.0	55002
MP500-016-5C-GY-U	76202	16	1.5	5	26/30	0.386	102	3.1	55002
MP500-014-3C-GY-U	-	14	2.5	3	41/30	0.384	88	3.1	55002
MP500-014-4C-GY-U	76199	14	2.5	4	41/30	0.394	109	3.2	55002
MP500-014-5C-GY-U	76195	14	2.5	5	41/30	0.430	132	3.5	55004
MP500-012-3C-GY-U	76303	12	4	3	65/30	0.411	118	3.3	55004
MP500-012-4C-GY-U	76200	12	4	4	65/30	0.452	149	3.7	55004
MP500-012-5C-GY-U	77205	12	4	5	65/30	0.500	182	4.0	55005
MP500-010-3C-GY-U	-	10	6	3	105/30	0.561	175	4.5	55005
MP500-010-4C-GY-U	76201	10	6	4	105/30	0.576	243	4.7	55005
MP500-010-5C-GY-U	76205	10	6	5	105/30	0.619	304	5.0	55005
MP500-008-3C-GY-U	-	8	10	3	168/30	0.686	340	5.5	55007
MP500-008-4C-GY-U	61804	8	10	4	168/30	0.756	433	6.1	55007
MP500-008-5C-GY-U	61805	8	10	5	168/30	0.824	530	6.6	55008
MP500-006-3C-GY-U	-	6	16	3	266/30	0.780	460	6.3	55008
MP500-006-4C-GY-U	61806	6	16	4	266/30	0.900	618	7.2	55009
MP500-006-5C-GY-U	-	6	16	5	266/30	0.961	753	7.7	55009
MP500-004-3C-GY-U	61807	4	25	3	420/30	1.000	743	8.0	55010
MP500-004-4C-GY-U	61808	4	25	4	420/30	1.060	935	8.5	55010
MP500-004-5C-GY-U	61809	4	25	5	420/30	1.180	1149	9.5	55011
MP500-002-3C-GY-U	61803	2	35	3	665/30	1.140	1040	9.2	55011
MP500-002-4C-GY-U	61810	2	35	4	665/30	1.250	1366	10.0	55011
MP500-002-5C-GY-U	-	2	35	5	665/30	1.390	1706	11.2	55014
MP500-001-3C-GY-U	-	1	50	3	798/30	1.272	1317	10.2	55013/55014
MP500-001-4C-GY-U	-	1	50	4	798/30	1.406	1645	11.3	55014
MP500-001-5C-GY-U	-	1	50	5	798/30	1.555	2087	12.5	55014
MP500-10T-3C-GY-U	-	1/0	55	3	1045/30	1.307	1546	10.5	55014
MP500-10T-4C-GY-U	-	1/0	55	4	1045/30	1.449	2021	11.6	55014
MP500-10T-5C-GY-U	-	1/0	55	5	1045/30	1.598	2465	12.8	55015
MP500-20T-3C-GY-U	-	2/0	70	3	1330/30	1.480	2003	11.9	55014
MP500-20T-4C-GY-U	-	2/0	70	4	1330/30	1.638	2546	13.2	55015
MP500-20T-5C-GY-U	-	2/0	70	5	1330/30	1.870	3250	15.0	55016
MP500-30T-3C-GY-U	-	3/0	95	3	1691/30	1.535	2329	12.3	55014
MP500-30T-4C-GY-U	-	3/0	95	4	1691/30	1.748	3091	14.0	55015
MP500-30T-5C-GY-U	-	3/0	95	5	1691/30	1.933	3824	15.5	55016
MP500-40T-3C-GY-U	-	4/0	120	3	2160/30	1.815	3100	14.6	55015/55016
MP500-40T-4C-GY-U	-	4/0	120	4	2160/30	1.992	3960	16.0	55016
MP500-40T-5C-GY-U	-	4/0	120	5	2160/30	2.209	4922	17.7	55017

* Aluminum Straight Grip-Seals. Sizing based on nominal cable O.D. Due to process tolerances, a smaller/larger gland size may be required.

GROUND WIRE

Hy-Trex® ground wire is the ideal solution for machines and equipment in any environment. TPC offers two types of UL/ CSA rated Hy-Trex® ground wire that protects against heat, moisture, and oils and contaminants providing a safe conducting path to ground electrical currents in cases of electrical short circuits or other hazardous conditions. The MTW/ TEW rated wire offers a flexible green and yellow jacket. The THHN/ THWN rated wire features a nylon jacket which offers added protection. Both options feature tinned copper conductors with high strand counts providing a very flexible design to simplify installation.



HY-TREX® MTW/TEW GROUND WIRE

Hy-Trex® MTW/TEW ground wire is designed with a tough PVC jacketing for protection and tinned copper stranding to provide increased flexibility. This wire has passed the FT-1 flame test and has a max conductor temperature of 105° C.

CONSTRUCTION

CONDUCTOR:

Tinned copper, Class K 30 AWG strand

JACKET:

PVC Jacket - Green with yellow stripe

RATINGS / APPROVALS

VOLTAGE: 600V

TEMPERATURE:

105°C Max Conductor Temperature

FLAME: FT1

UL:

MTW per UL 1015

THW per UL 83

CSA: TEW per CSA C22.2 No. 127-18

PERFORMANCE

BEND RADIUS STATIC:

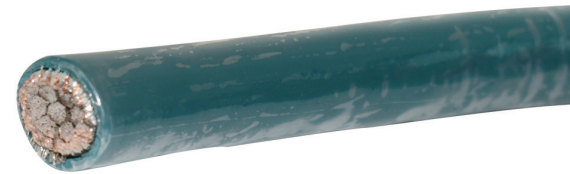
6x cable outer diameter

BEND RADIUS DYNAMIC:

8x cable outer diameter

HY-TREX® THHN/THWN GROUND WIRE

Hy-Trex® THHN/THWN grounding wire is designed with a tough PVC insulation and nylon jacketing offering greater tear and abrasion resistance and is applicable for both dry and wet applications. This wire can also be used in cable trays if the wire features a four AWG or larger conductor size.



CONSTRUCTION

CONDUCTOR:

Tinned copper, Class K 30 AWG strand

JACKET:

Special formulation PVC/Nylon - Green

RATINGS / APPROVALS

VOLTAGE: 600V

TEMPERATURE:

90°C Max Conductor Temperature

FLAME: VW1

UL: THHN/THWN per UL 83

CABLE TRAY:

For CT Use, 4 AWG and larger

PERFORMANCE

BEND RADIUS STATIC:

6x cable outer diameter

BEND RADIUS DYNAMIC:

8x cable outer diameter

GASOLINE/OIL:

Gasoline & Oil Resistant II

HY-TREX® MTW/TEW GROUND WIRE

PART NO.	COND SIZE		STRANDING	NOM O.D. (IN.)	WEIGHT (LBS/1000')	BEND RADIUS (IN)
	AWG	EQUIV (MM ²)				
37310	10	6	105/30	0.189	42	1.6
37318	8	10	168/30	0.259	71	2.1
37316	6	16	266/30	0.314	113	2.6
37314	4	25	413/30	0.366	167	3.0
37312	2	35	665/30	0.429	252	3.5
37311	1	50	836/30	0.516	330	4.2
37301	1/0	55	1045/30	0.560	403	4.5
37302	2/0	70	1330/30	0.605	500	4.9
37303	3/0	95	1672/30	0.650	610	5.2
37304	4/0	120	2109/30	0.715	753	5.8

HY-TREX® THHN/THWN GROUND WIRE

PART NO.	COND SIZE		STRANDING	NOM O.D. (IN.)	WEIGHT (LBS/1000')	BEND RADIUS (IN)
	AWG	EQUIV (MM ²)				
57310	10	6	105/30	0.179	42	1.5
57318	8	10	168/30	0.241	67	2.0
57316	6	16	266/30	0.266	98	2.2
57314	4	25	413/30	0.338	158	2.8
57312	2	35	665/30	0.403	241	3.3
57311	1	50	836/30	0.465	312	3.8
57301	1/0	55	1045/30	0.510	384	4.1
57302	2/0	70	1330/30	0.555	482	4.5
57300	3/0	95	1672/30	0.600	581	4.8
57304	4/0	120	2109/30	0.665	739	5.4

