Introduction

Hook-Up With Belden and Lead The Way

Consistency is vital wherever cables are used. From data processing to lighting, from services to HVAC – cable quality delivers a performance that makes life easier, more efficient and problem free.

Off-the-shelf or tailor-made, Belden hook-up and lead wire products are manufactured in a variety of materials, sizes and designs to meet rigid industry specifications. By manufacturing in-house, Belden has full control from start to finish – from the initial copper rod through rubber formulation and plastic mixing to the finished product. The way Belden manufactures cables is the guarantee of durable quality, perfect performance and top specifications which will meet or exceed industry standards.

Key Applications

- Inter-connection circuits
- Wiring of computers
- Wiring of data processing equipment
- Appliances
- Lighting
- Motor leads
- Heating and cooling equipment
- Harness fabrication
- Automotive
- Aerospace/defense
- Nuclear environment/radiation resistance

Special Features

- Extended temperature and chemical resistant cables: these cables are suitable for applications in the temperature range from -190°C up to +1250°C.

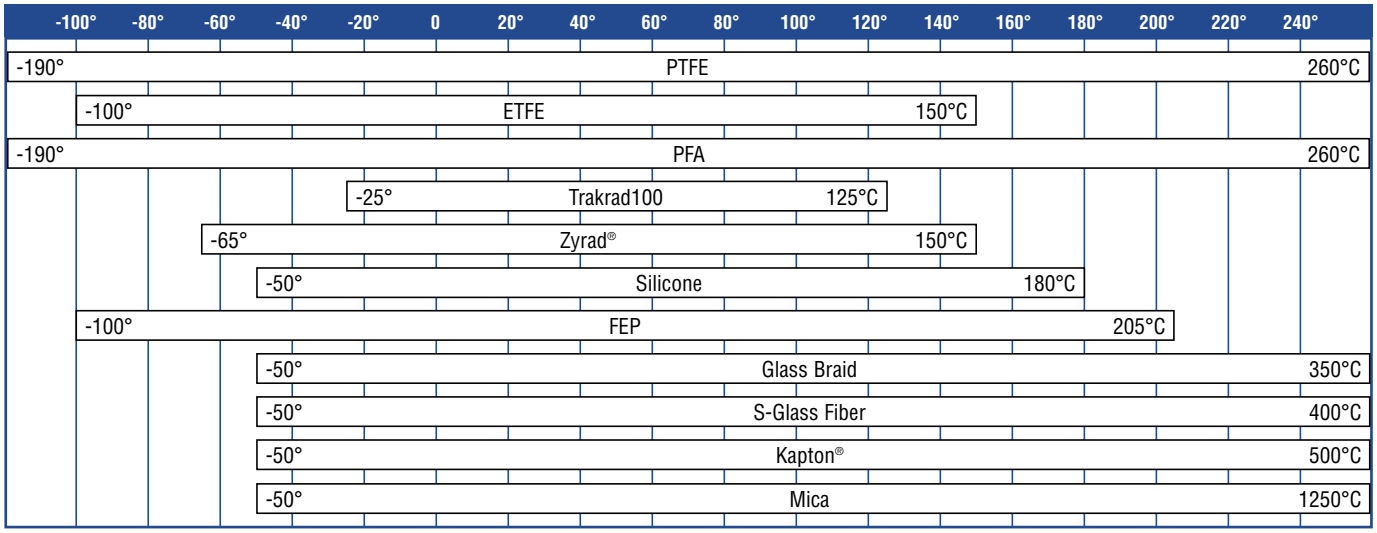
Availability

Most of our hook-up and lead wire constructions are available from stock in a wide variety of colors and packages. Many of these are available off the shelf from distributors. If you have a new or unusual application or you cannot find a hook up wire cable in this catalog section that meets your technical requirements, see our U.S. Master Catalog or contact technical support at +31-77-3875-414 or techsupport.venlo@belden.com.

Index by Voltage and Temperature Rating

*peak voltage

Nominal Temperature Operating Ranges (°C)



Kapton® is a DuPont trademark.

Technical Information
Conductor and Insulation Materials

Conductors

Uni-Strand®
Uni-Strand tinned copper conductor. In this type of construction, the bare copper wires are stranded and then tinned to coat the strands and also fill the interstices between the strands. This allows for easier wire stripping with no re-twisting operation.

Plated Copper Conductor
There are a number of plating materials used to enhance the characteristics of the copper conductor. Tin plating is mainly used to improve the soldering characteristics of the conductor. Silver is used to increase the temperature and conductivity of the conductor as well as its soldering characteristics. Nickel-plating increases the temperature rating of the conductor even higher as well as offering excellent anti-oxidation characteristics.

Insulation Materials

Silicone Rubber
Braidless silicone lead wire features easy and clean stripping without the problems associated with glass braid lead wire. It has excellent physical and mechanical strength properties.

Recommended for high temperature applications in motors, lighting fixtures, clothes dryers, stoves, therapeutic and electronic devices. It is recommended that varnish compatibility be checked before production. Some rigid varnishes may cause cracking when the wire is severely bent.

Silicone Rubber – Glass Braid
The silicone insulation strips clean and easy. The glass braid provides additional abrasion resistance and is treated to prevent fraying. Recommended for high-temperature applications in motors, lighting fixtures, clothes dryers, stoves, therapeutic and electronic devices.

FEP Teflon®
Teflon® is a fluorinated thermoplastic with outstanding thermal, physical, and electrical properties. Teflon® is generally restricted to applications requiring its special characteristics because its basic resin and processing costs are relatively high.

Belden Teflon® wire products are highly recommended for miniature cable applications because of their superior thermal and electrical properties. Teflon® is especially suitable for internal wiring soldering applications where insulation melt back is a specific problem.

Belden wiring products insulated with Teflon® are outstanding in their resistance to oil, oxidation, heat, sunlight and flame; and also in their ability to remain flexible at low temperatures. They have excellent resistance to ozone, water, alcohol, gasoline, acids, alkalis, aromatic hydrocarbons and solvents.

PTFE
Best chemical resistance and very good electrical and mechanical properties are characteristic for this material. Belden processes PTFE in the form of wrapped tapes and extrusion.

PFA
Same material properties as PTFE. Applied by extrusion.

ETFE
Chemical and mechanical properties comparable to PTFE. Applied by extrusion.

Trakrad 100
Trakrad is a cross-linked polyolefin insulated cable designed for traction and rolling stock, and is suitable for fixed installations within vehicles and between motor and underframe. These cables are also designed for use in connections to coil windings, wiring of motor vehicles, control panels and switchgear. They are designed to provide enhanced oil resistance to meet British Rail spec. TDE 76/P/16.

Zyrad®
Zyrad® 500 and 555 are a modified cross-linked polyolefin having a 600V 155°C rating for commercial applications, in particular class F motor lead wires.

Zyrad® 500 is approved to UL3289 and CSA CL 1503. Both Zyrad® 500 and Zyrad® 555 have excellent abrasion resistance, coupled with good flexibility, and will withstand varnish bake temperatures of 190°C and short term exposure at 250°C.

EFGLAS
EFGLAS cable range is designed to meet the specification BSG222, a specification for aircraft wiring cables at high (+260°C) and low (-70°C) temperature. These cables are popular though throughout many industries and applications because of their temperature rating and improved abrasion resistance.

Ceramic Material Insulated Cables
Belden offers special insulation and sheath materials based on ceramic and mica. These material allow service at a constant ambient temperature of +800°C and peak temperatures up to +1550°C even under extreme conditions, e.g. application in glass, iron- and steel fabrication.

In order to extend the fields of application, glass fiber materials can be combined with other high performance materials e.g. PTFE, FEP, Kapton®, silicone or mica. These combinations ensure application in humid areas at an excellent dielectric strength.

Kapton®
Kapton® film is a compact, lightweight mechanically tough cable insulation system offering both space and weight saving characteristics. Kapton® equipment wires have excellent electrical properties as well as generating low smoke and being classed as low toxic.

Kapton® and Teflon® are DuPont trademarks.

PTFE / Kapton® / PTFE

600V, 260°C

Description	Part No.	UL NEC / C(UL)CEC Type IEC	Standard Lengths ft.	Standard Lengths m	Standard Unit Weight lbs.	Standard Unit Weight kg	Conductor (Stranding) Diameter Nom. DCR	Nominal Conductor OD AWG	Nominal Conductor OD Section mm²	Shielding Material Nom. DCR	Nominal OD inch	Nominal OD mm	Application
260°C • 20 - 4/0 AWG • Stranded Nickel-Plated Copper Wire													
PTFE/Kapton®/White PTFE Insulation • according to VG 95218 part 20 B													
		ASTM-D 4895								Unshielded			For wiring at high ambient temperatures and increased mechanical stress e.g. - Aerospace - Lead wires for engines and gearboxes
	HMC4000	1000	305	6.7	3.0	37 wires NPC		20	0.50		0.083	2.10	
	HMC4001	1000	305	8.7	4.0	37 wires NPC		18	0.75		0.091	2.30	
	HMC4002	1000	305	10.8	4.9	37 wires NPC		17	1.00		0.098	2.50	
	HMC4003	1000	305	15.5	7.0	37 wires NPC		16	1.50		0.110	2.80	
	HMC4004	1000	305	23.5	10.7	37 wires NPC		14	2.50		0.138	3.50	
	HMC4005	1000	305	37.6	17.1	7 legs NPC		12	4		0.173	4.40	
	HMC4006	1000	305	51.8	23.5	7 legs NPC		10	6		0.209	5.30	
	HMC4007	500	152	41.3	18.8	19 legs NPC		8	10		0.256	6.50	
	HMC4008	500	152	66.5	30.2	19 legs NPC		6	16		0.303	7.70	
	HMC4009	500	152	100.5	45.6	37 legs NPC		4	25		0.378	9.60	
	HMC4010	500	152	137.8	62.5	37 legs NPC		2	35		0.429	10.90	
	HMC4011	500	152	184.8	83.8	37 legs NPC		1	50		0.504	12.80	
	HMC4012	500	152	252.7	114.6	37 legs NPC		2/0	70		0.587	14.90	
	HMC4013	500	152	335.1	152.0	37 legs NPC		3/0	95		0.685	17.40	
	HMC4014	500	152	407.3	184.8	37 legs NPC		4/0	120		0.756	19.20	

NPC = Nickel-Plated Copper • DCR = DC resistance

Kapton® is a DuPont trademark.

PTFE

600V, 260°C, peak temp 300°C

Description	Part No.	UL NEC / C(UL)CEC Type IEC	Standard lengths ft.	Standard lengths m	Standard Unit Weight lbs.	Standard Unit Weight kg	Conductor (Stranding) Diameter Nom. DCR	Nominal Conductor OD AWG	Nominal Conductor OD Section mm²	Shielding Material Nom. DCR	Nominal OD inch	Nominal OD mm	Application

260°C • 20 - 2 AWG • Stranded Nickel-Plated Copper Wire

PTFE Insulation (Brown, Red, Orange, Yellow, Green, Violet, Grey, White, Black and Blue) • **According to MIL-W-16878**

ASTM-D 4895 — Unshielded — For internal wiring at low and high ambient temperatures and/or corrosive environments.

Bi-color and tri-color combinations are available on request.

HMC4015	328	100	1.6	0.7	(7x0.30) NPC	20	0.50	0.059	1.51
HMC4016	328	100	2.4	1.1	(19x0.228) NPC	18	0.75	0.067	1.69
HMC4017	328	100	2.9	1.3	(29x0.203) NPC	17	1.00	0.074	1.88
HMC4018	328	100	4.0	1.8	(27x0.254) NPC	16	1.50	0.088	2.24
HMC4019	328	100	6.6	3.0	(45x0.254) NPC	14	2.50	0.104	2.65
HMC4020	328	100	9.9	4.5	(50x0.30) NPC	12	4	0.124	3.15
HMC4021	328	100	14.6	6.6	(75x0.30) NPC	10	6	0.152	3.85
HMC4022	328	100	25.6	11.6	(80x0.404) NPC	8	10	0.224	5.70
HMC4023	328	100	38.8	17.6	(126x0.404) NPC	6	16	0.268	6.80
HMC4024	328	100	60.0	27.2	(196x0.404) NPC	4	25	0.339	8.60
HMC4025	328	100	82.7	37.5	(276x0.404) NPC	2	35	0.390	9.90

260°C • 30 - 20 AWG • Solid Nickel-Plated Copper Wire

PTFE Insulation (Brown, Red, Orange, Yellow, Green, Violet, Grey, White, Black and Blue) • **According to MIL-W-16878**

ASTM-D 4895 — Unshielded

Bi-color and tri-color combinations are available on request.

HMC4026	328	100	0.3	0.1	(1x0.254) NPC	30	0.051	0.034	0.86
HMC4027	328	100	0.4	0.2	(1x0.32) NPC	28	0.080	0.036	0.92
HMC4028	328	100	0.6	0.3	(1x0.40) NPC	26	0.126	0.039	1.00
HMC4029	328	100	0.8	0.4	(1x0.50) NPC	24	0.197	0.043	1.10
HMC4030	328	100	1.1	0.5	(1x0.64) NPC	22	0.32	0.049	1.24
HMC4031	328	100	1.5	0.7	(1x0.80) NPC	20	0.50	0.055	1.40

NPC = Nickel-Plated Copper • DCR = DC resistance

Also available on request:
- BS3G 210 Type A (300V)
- BS3G 210 Type B (600V)
- BS3G 210 Type C (1000V)

FEP (VDE approved)

300/500V, 180°C

Description	Part No.	UL NEC/C(UL)CEC Type IEC	Standard Lengths ft.	Standard Lengths m	Standard Unit Weight lbs.	Standard Unit Weight kg	Conductor (Stranding) Diameter Nom. DCR	Nominal Conductor OD AWG	Nominal Conductor OD Section mm²	Shielding Material Nom. DCR	Nominal OD inch	Nominal OD mm	Application
180°C • 20 - 14 AWG • Stranded Tin-Plated Copper Wire													
FEP Insulation (Brown, Red, Orange, Yellow, Green, Violet, Grey, White, Black and Blue) • **VDE reg. no. 6574 5519**													
		VDE 0207 Part 6								Unshielded			For wiring in electrical appliances and lighting up to a maximum operating temperature of 180°C.
	HMC4032	328	100	1.0	0.5	(16x0.20) TPC		20	0.50		0.059	1.50	
	HMC4033	328	100	1.6	0.7	(24x0.20) TPC		18	0.75		0.067	1.70	
	HMC4034	328	100	2.2	1.0	(32x0.20) TPC		17	1.00		0.075	1.90	
	HMC4035	328	100	2.9	1.3	(30x0.25) TPC		16	1.50		0.083	2.10	
	HMC4036	328	100	4.2	1.9	(50x0.25) TPC		14	2.50		0.106	2.70	
180°C • 20 - 14 AWG • Solid Tin-Plated Copper Wire													
FEP Insulation (Brown, Red, Orange, Yellow, Green, Violet, Grey, White, Black and Blue) • **VDE reg. no. 6574 5519**													
		VDE 0207 Part 6								Unshielded			
	HMC4037	328	100	1.5	0.7	(1x0.80) TPC		20	0.50		0.055	1.40	
	HMC4038	328	100	2.1	1.0	(1x0.98) TPC		18	0.75		0.063	1.60	
	HMC4039	328	100	2.6	1.2	(1x1.13) TPC		17	1.00		0.065	1.65	
	HMC4040	328	100	3.7	1.7	(1x1.38) TPC		16	1.50		0.079	2.00	
	HMC4041	328	100	6.2	2.8	(1x1.78) TPC		14	2.50		0.098	2.50	

TPC = Tin-Plated Copper • DCR = DC resistance

FEP (VDE approved) double insulated

300/500V, 180°C

Description	Part No.	UL NEC / C(UL)CEC Type IEC	Standard Lengths ft.	Standard Lengths m	Standard Unit Weight lbs.	Standard Unit Weight kg	Conductor (Stranding) Diameter Nom. DCR	Nominal Conductor OD AWG	Nominal Conductor OD Section mm²	Shielding Material Nom. DCR	Nominal OD inch	Nominal OD mm	Application
180°C • 20 - 14 AWG • Stranded Tin-Plated Copper Wire													
FEP Double Insulation (Brown, Red, Orange, Yellow, Green, Violet, Grey, White, Black and Blue) • **VDE reg. no. 6574 9410**													
		VDE 0207 Part 6								Unshielded			For wiring in electrical appliances and lighting appropriate for protection class II up to an operating temperature of 180°C.
	HMC4042		328	100	2.6	1.2	(16x0.20) TPC	20	0.50		0.083	2.10	
	HMC4043		328	100	3.3	1.5	(24x0.20) TPC	18	0.75		0.091	2.30	
	HMC4044		328	100	4.0	1.8	(32x0.20) TPC	17	1.00		0.098	2.50	
	HMC4045		328	100	5.3	2.4	(30x0.25) TPC	16	1.50		0.106	2.70	
	HMC4046		328	100	8.2	3.7	(50x0.25) TPC	14	2.50		0.134	3.40	
180°C • 20 - 14 AWG • Solid Tin-Plated Copper Wire													
FEP Double Insulation (Brown, Red, Orange, Yellow, Green, Violet, Grey, White, Black and Blue) • **VDE reg. no. 6574 9410**													
		VDE 0207 Part 6								Unshielded			
	HMC4047		328	100	2.4	1.1	(1x0.80) TPC	20	0.50		0.079	2.00	
	HMC4048		328	100	3.1	1.4	(1x0.98) TPC	18	0.75		0.087	2.20	
	HMC4049		328	100	3.7	1.7	(1x1.13) TPC	17	1.00		0.091	2.30	
	HMC4050		328	100	5.1	2.3	(1x1.38) TPC	16	1.50		0.102	2.60	
	HMC4051		328	100	7.9	3.6	(1x1.78) TPC	14	2.50		0.126	3.20	

TPC = Tin-Plated Copper • DCR = DC resistance

FEP

600V, 200°C, peak temp 230°C

Description	Part No.	UL NEC / C(UL)CEC Type IEC	Standard Lengths ft.	Standard Lengths m	Standard Unit Weight lbs.	Standard Unit Weight kg	Conductor (Stranding) Diameter Nom. DCR	Nominal Conductor OD AWG	Nominal Conductor OD Section mm²	Shielding Material Nom. DCR	Nominal OD inch	Nominal OD mm	Application
200°C • 20 - 2 AWG • Stranded Silver-Plated Copper Wire													
FEP Insulation (Brown, Red, Orange, Yellow, Green, Violet, Grey, White, Black and Blue)													
		VDE 0207 Part 6 ASTM-D 2116								Unshielded			For wiring at low and high ambient temperatures and/or corrosive environments.
	HMC4052		1000	305	5.0	2.3	(7x0.30) SPC	20	0.50		0.059	1.51	
	HMC4053		1000	305	7.4	3.4	(19x0.228) SPC	18	0.75		0.067	1.69	
	HMC4054		1000	305	8.7	4.0	(29x0.203) SPC	17	1.00		0.074	1.88	
	HMC4055		1000	305	12.1	5.5	(27x0.254) SPC	16	1.50		0.088	2.24	
	HMC4056		1000	305	20.2	9.1	(45x0.254) SPC	14	2.50		0.104	2.65	
	HMC4057		1000	305	30.2	13.7	(50x0.30) SPC	12	4		0.124	3.15	
	HMC4058		500	152	22.2	10.1	(75x0.30) SPC	10	6		0.152	3.85	
	HMC4059		500	152	39.0	17.7	(80x0.404) SPC	8	10		0.224	5.70	
	HMC4060		500	152	59.1	26.8	(126x0.404) SPC	6	16		0.268	6.80	
	HMC4061		500	152	91.4	41.5	(196x0.404) SPC	4	25		0.339	8.60	
	HMC4062		500	152	126.0	57.2	(276x0.404) SPC	2	35		0.390	9.90	
200°C • 30 - 22 AWG • Solid Silver-Plated Copper Wire													
FEP Insulation (Brown, Red, Orange, Yellow, Green, Violet, Grey, White, Black and Blue)													
		VDE 0207 Part 6 ASTM-D 2116								Unshielded			
	HMC4063		1000	305	0.9	0.4	(1x0.254) SPC	30	0.051		0.034	0.86	
	HMC4064		1000	305	1.3	0.6	(1x0.32) SPC	28	0.080		0.036	0.92	
	HMC4065		1000	305	1.8	0.8	(1x0.40) SPC	26	0.126		0.039	1.00	
	HMC4066		1000	305	2.5	1.1	(1x0.50) SPC	24	0.197		0.043	1.10	
	HMC4067		1000	305	3.2	1.5	(1x0.64) SPC	22	0.32		0.049	1.24	

SPC = Silver-Plated Copper • DCR = DC resistance

FEP (VDE 0881)

900V*, 180°C, peak temp 200°C

Description	Part No.	UL NEC / C(UL)CEC Type IEC	Standard Lengths ft.	Standard Lengths m	Standard Unit Weight lbs.	Standard Unit Weight kg	Conductor (Stranding) Diameter Nom. DCR	Nominal Conductor OD AWG	Nominal Conductor OD Section mm²	Shielding Material Nom. DCR	Nominal OD inch	Nominal OD mm	Application
180°C • 31 - 12 AWG • Stranded Silver-Plated Copper Wire													
FEP Insulation (Brown, Red, Orange, Yellow, Green, Violet, Grey, White, Black and Blue)													
		VDE 0207 Part 6								Unshielded			For internal wiring of telecommunication devices, electronic modules in appliances and for wiring of telecommunication and data processing systems.
	HMC4068	1640	500	1.3	0.6	(7x0.08) SPC		31	0.035		0.034	0.87	
	HMC4069	1640	500	1.7	0.8	(7x0.10) SPC		30	0.055		0.037	0.93	
	HMC4070	1640	500	2.0	0.9	(7x0.12) SPC		28	0.079		0.039	0.99	
	HMC4071	1640	500	2.6	1.2	(7x0.15) SPC		26	0.12		0.043	1.08	
	HMC4072	1640	500	3.9	1.8	(7x0.20) SPC		24	0.22		0.048	1.23	
	HMC4073	1640	500	5.4	2.5	(7x0.25) SPC		22	0.34		0.054	1.38	
	HMC4074	1640	500	8.0	3.7	(7x0.32) SPC		20	0.56		0.063	1.59	
	HMC4075	1640	500	12.1	5.5	(19x0.25) SPC		18	0.93		0.075	1.90	
	HMC4076	1640	500	16.5	7.5	(19x0.29) SPC		16	1.30		0.083	2.10	
	HMC4077	1640	500	23.1	10.5	(19x0.36) SPC		14	1.90		0.096	2.45	
	HMC4078	1640	500	37.5	17.0	(19x0.46) SPC		12	3.20		0.116	2.95	
180°C • 31 - 12 AWG • Solid Silver-Plated Copper Wire													
FEP Insulation (Brown, Red, Orange, Yellow, Green, Violet, Grey, White, Black and Blue)													
		VDE 0207 Part 6								Unshielded			
	HMC4079	1640	500	1.4	0.7	(7x0.08) SPC		31	0.25		0.033	0.85	
	HMC4080	1640	500	1.9	0.9	(7x0.10) SPC		30	0.32		0.036	0.92	
	HMC4081	1640	500	2.4	1.1	(7x0.12) SPC		28	0.40		0.039	1.00	
	HMC4082	1640	500	3.3	1.5	(7x0.15) SPC		26	0.50		0.043	1.10	
	HMC4083	1640	500	4.7	2.2	(7x0.20) SPC		24	0.63		0.048	1.23	
	HMC4084	1640	500	6.9	3.2	(7x0.25) SPC		22	0.80		0.055	1.40	
	HMC4085	1640	500	10.0	4.6	(7x0.32) SPC		20	1.00		0.063	1.60	
	HMC4086	1640	500	16.5	7.5	(19x0.25) SPC		18	1.30		0.075	1.90	
	HMC4087	1640	500	23.1	10.5	(19x0.29) SPC		16	1.60		0.088	2.23	
	HMC4088	1640	500	38.6	17.5	(19x0.36) SPC		14	2.10		0.106	2.70	

* = peak voltage
SPC = Silver-Plated Copper • DCR = DC resistance

ETFE

450/750V, 135°C

Description	Part No.	UL NEC/ C(UL)CEC Type IEC	Standard Lengths ft.	Standard Lengths m	Standard Unit Weight lbs.	Standard Unit Weight kg	Conductor (Stranding) Diameter Nom. DCR	Nominal Conductor OD AWG	Nominal Conductor OD Section mm²	Shielding Material Nom. DCR	Nominal OD inch	Nominal OD mm	Application
135°C • 24 - 10 AWG • Stranded Tin-Plated Copper Wire													
ETFE Insulation (Brown, Red, Orange, Yellow, Green, Violet, Grey, White, Black and Blue)													
		VDE 0250 Part 106								Unshielded			For internal wiring of power electronics, heating appliances and lighting at an ambient temperature exceeding 55°C.
	HMC4089	1640	500	5.0	2.3	(14x0.15) TPC		24	0.25		0.061	1.55	
	HMC4090	1640	500	8.0	3.7	(16x0.20) TPC		20	0.50		0.073	1.85	
	HMC4091	1640	500	11.0	5.0	(24x0.20) TPC		18	0.75		0.079	2.00	
	HMC4092	1640	500	14.3	6.5	(32x0.20) TPC		17	1.00		0.087	2.20	
	HMC4093	1640	500	20.9	9.5	(30x0.25) TPC		16	1.50		0.104	2.65	
	HMC4094	1640	500	34.2	15.5	(50x0.25) TPC		14	2.50		0.132	3.35	
	HMC4095	1640	500	50.7	23.0	(56x0.30) TPC		12	4		0.150	3.80	
	HMC4096	1640	500	70.5	32.0	(84x0.30) TPC		10	6		0.173	4.40	
135°C • 24 - 10 AWG • Solid Tin-Plated Copper Wire													
ETFE Insulation (Brown, Red, Orange, Yellow, Green, Violet, Grey, White, Black and Blue)													
		VDE 0250 Part 106								Unshielded			
	HMC4097	1640	500	4.9	2.2	(1x0.56) TPC		24	0.25		0.057	1.45	
	HMC4098	1640	500	7.9	3.6	(1x0.80) TPC		20	0.50		0.067	1.70	
	HMC4099	1640	500	10.8	4.9	(1x0.98) TPC		18	0.75		0.075	1.90	
	HMC4100	1640	500	13.2	6.0	(1x1.13) TPC		17	1.00		0.081	2.05	
	HMC4101	1640	500	19.8	9.0	(1x1.38) TPC		16	1.50		0.098	2.50	
	HMC4102	1640	500	33.1	15.0	(1x1.78) TPC		14	2.50		0.122	3.10	
	HMC4103	1640	500	48.5	22.0	(1x2.26) TPC		12	4		0.142	3.60	
	HMC4104	1640	500	70.5	32.0	(1x2.76) TPC		10	6		0.161	4.10	

TPC = Tin-Plated Copper • DCR = DC resistance

ETFE
600V, 135°C

Description	Part No.	UL NEC / C(UL)CEC Type IEC	Standard Lengths ft.	Standard Lengths m	Standard Unit Weight lbs.	Standard Unit Weight kg	Conductor (Stranding) Diameter Nom. DCR	Nominal Conductor OD AWG	Nominal Conductor OD Section mm²	Shielding Material Nom. DCR	Nominal OD inch	Nominal OD mm	Application
135°C • 20 - 2 AWG • Stranded Tin-Plated Copper Wire													
ETFE Insulation (Brown, Red, Orange, Yellow, Green, Violet, Grey, White, Black and Blue)													
		VDE 0207 Part 6 ASTM-D 3159								Unshielded			For wiring at low and high ambient temperatures and/or corrosive environments.
Bi color combinations are available on request.													
	HMC4105		1640	500	7.5	3.4	(7x0.30) TPC	20	0.50		0.059	1.51	
	HMC4106		1640	500	7.6	3.5	(15x0.203) TPC	20	0.50		0.060	1.52	
	HMC4107		1640	500	11.0	5.0	(19x0.228) TPC	18	0.75		0.067	1.69	
	HMC4108		1640	500	10.4	4.7	(22x0.203) TPC	18	0.75		0.067	1.70	
	HMC4109		1640	500	13.2	6.0	(29x0.203) TPC	17	1.00		0.074	1.88	
	HMC4110		1640	500	18.7	8.5	(27x0.254) TPC	16	1.50		0.088	2.24	
	HMC4111		1640	500	30.9	14.0	(45x0.254) TPC	14	2.50		0.104	2.65	
	HMC4112		1640	500	47.4	21.5	(50x0.30) TPC	12	4		0.124	3.15	
	HMC4113		328	100	13.9	6.3	(75x0.30) TPC	10	6		0.152	3.85	
	HMC4114		328	100	24.3	11.0	(80x0.404) TPC	8	10		0.224	5.70	
	HMC4115		328	100	37.0	16.8	(126x0.404) TPC	6	16		0.268	6.80	
	HMC4116		328	100	56.4	25.6	(196x0.404) TPC	4	25		0.339	8.60	
	HMC4117		328	100	79.1	35.9	(276x0.404) TPC	2	35		0.390	9.90	
135°C • 30 - 20 AWG • Solid Tin-Plated Copper Wire													
ETFE Insulation (Brown, Red, Orange, Yellow, Green, Violet, Grey, White, Black and Blue)													
		VDE 0207 Part 6 ASTM-D 3159								Unshielded			
Bi color combinations are available on request.													
	HMC4118		1640	500	1.3	0.6	(1x0.254) TPC	30	0.051		0.034	0.86	
	HMC4119		1640	500	1.8	0.8	(1x0.32) TPC	28	0.080		0.036	0.92	
	HMC4120		1640	500	2.3	1.1	(1x0.40) TPC	26	0.126		0.039	1.00	
	HMC4121		1640	500	3.3	1.5	(1x0.50) TPC	24	0.197		0.043	1.10	
	HMC4122		1640	500	4.6	2.1	(1x0.64) TPC	22	0.32		0.049	1.24	
	HMC4123		1640	500	7.1	3.2	(1x0.80) TPC	20	0.50		0.055	1.40	

TPC = Tin-Plated Copper • DCR = DC resistance

Also available on request:
DEF STAN 61-12 Part 29 ETFE wires Type 1 to Type 6.

PFA

600V, 260°C, peak temp 280°C

Description	Part No.	UL NEC/C(UL)CEC Type IEC	Standard Lengths ft.	Standard Lengths m	Standard Unit Weight lbs.	Standard Unit Weight kg	Conductor (Stranding) Diameter Nom. DCR	Nominal Conductor OD AWG	Nominal Conductor OD Section mm²	Shielding Material Nom. DCR	Nominal OD inch	Nominal OD mm	Application
260°C • 20 - 2 AWG • Stranded Nickel-Plated Copper Wire													
PFA Insulation (Brown, Red, Orange, Yellow, Green, Violet, Grey, White, Black and Blue)													
		ASTM-D 3307								Unshielded			For internal wiring at low and high ambient temperatures and/or corrosive environments.
	HMC4124		1640	500	8.2	3.7	(7x0.30) NPC	20	0.50		0.059	1.51	
	HMC4125		1640	500	12.1	5.5	(19x0.228) NPC	18	0.75		0.067	1.69	
	HMC4126		1640	500	14.3	6.5	(29x0.203) NPC	17	1.00		0.074	1.88	
	HMC4127		1640	500	19.8	9.0	(27x0.254) NPC	16	1.50		0.088	2.24	
	HMC4128		1640	500	33.1	15.0	(45x0.254) NPC	14	2.50		0.104	2.65	
	HMC4129		1640	500	49.6	22.5	(50x0.30) NPC	12	4		0.124	3.15	
	HMC4130		328	100	14.6	6.6	(75x0.30) NPC	10	6		0.152	3.85	
	HMC4131		328	100	25.6	11.6	(80x0.404) NPC	8	10		0.224	5.70	
	HMC4132		328	100	38.8	17.6	(126x0.404) NPC	6	16		0.268	6.80	
	HMC4133		328	100	60.0	27.2	(196x0.404) NPC	4	25		0.339	8.60	
	HMC4134		328	100	82.7	37.5	(276x0.404) NPC	2	35		0.390	9.90	
260°C • 30 - 20 AWG • Solid Nickel-Plated Copper Wire													
PFA Insulation (Brown, Red, Orange, Yellow, Green, Violet, Grey, White, Black and Blue)													
		ASTM-D 3307								Unshielded			
	HMC4135		1640	500	1.5	0.7	(1x0.254) NPC	30	0.051		0.034	0.86	
	HMC4136		1640	500	2.2	1.0	(1x0.32) NPC	28	0.080		0.036	0.92	
	HMC4137		1640	500	3.0	1.4	(1x0.40) NPC	26	0.126		0.039	1.00	
	HMC4138		1640	500	4.1	1.9	(1x0.50) NPC	24	0.197		0.043	1.10	
	HMC4139		1640	500	5.3	2.4	(1x0.64) NPC	22	0.32		0.049	1.24	
	HMC4140		1640	500	7.7	3.5	(1x0.80) NPC	20	0.50		0.055	1.40	

NPC = Nickel-Plated Copper • DCR = DC resistance

Trakrad 100

1900/3300V, 125°C

Description	Part No.	UL NEC/C(UL)CEC Type IEC	Standard Lengths ft.	Standard Lengths m	Standard Unit Weight lbs.	Standard Unit Weight kg	Conductor (Stranding) Diameter Nom. DCR	Nominal Conductor OD AWG	Nominal Conductor OD Section mm²	Shielding Material Nom. DCR	Nominal OD inch	Nominal OD mm	Application
125°C • 20 AWG - 750 MCM • Stranded Tin-Plated Copper Wire													
Trakrad 100 Grey Insulation • Oil-Resistance • Flame-Retardant													
		BS 4066-1 IEC 60332-3(A)								Unshielded			Suitable for fixed installations within trains and between motor and underframe e.g. - Connections to coil windings - Wiring of motor trains - Control panels and switchgear Designed to provide enhanced oil resistance to meet British Rail spec. TDE 76/P/16.
	HMC4141	1640	500	13.3	6.0	(16x0.20) TPC	20	0.50		0.102	2.59	
	HMC4142	1640	500	16.9	7.7	(24x0.20) TPC	18	0.75		0.111	2.82	
	HMC4143	1640	500	19.8	9.0	(32x0.20) TPC	17	1.00		0.115	2.92	
	HMC4144	1640	500	21.4	9.7	(37x0.20) TPC	16.5	1.16		0.118	3.00	
	HMC4145	1640	500	26.9	12.2	(30x0.25) TPC	16	1.50		0.131	3.32	
	HMC4146	1640	500	30.9	14.0	(37x0.25) TPC	15	1.80		0.138	3.50	
	HMC4147	1640	500	38.9	17.7	(50x0.25) TPC	14	2.50		0.148	3.76	
	HMC4148	1640	500	41.1	18.6	(37x0.30) TPC	13	2.60		0.154	3.90	
	HMC4149	1640	500	56.6	25.7	(56x0.30) TPC	12	4		0.169	4.29	
	HMC4150	328	100	13.5	6.1	(37x0.40) TPC	11	4.70		0.189	4.80	
	HMC4151	328	100	18.4	8.3	(84x0.30) TPC	10	6		0.223	5.67	
	HMC4152	328	100	21.7	9.8	(61x0.40) TPC	9	7.70		0.236	6.00	
	HMC4153	328	100	28.2	12.8	(80x0.40) TPC	8	10		0.276	7.00	
	HMC4154	328	100	41.4	18.8	(126x0.40) TPC	6	16		0.319	8.10	
	HMC4155	328	100	65.6	29.8	(196x0.40) TPC	4	25		0.406	10.30	
	HMC4156	on request		891.1	404.2	(276x0.40) TPC	2	35		0.461	11.70	
	HMC4157	on request		1240.3	562.6	(396x0.40) TPC	1	50		0.539	13.70	
	HMC4158	on request		1728.0	783.8	(360x0.50) TPC	2/0	70		0.630	16.00	
	HMC4159	on request		2266.3	1028.0	(475x0.50) TPC	3/0	95		0.728	18.50	
	HMC4160	on request		2877.0	1305.0	(608x0.50) TPC	4/0	120		0.803	20.40	
	HMC4161	on request		3542.8	1607.0	(756x0.50) TPC	300 MCM	150		0.890	22.60	
	HMC4162	on request		4296.8	1949.0	(925x0.50) TPC	350 MCM	185		0.976	24.80	
	HMC4163	on request		5562.2	2523.0	(1221x0.50) TPC	500 MCM	240		1.094	27.80	
	HMC4164	on request		7067.9	3206.0	(1525x0.50) TPC	600 MCM	300		1.260	32.00	
	HMC4165	on request		9153.5	4152.0	(2013x0.50) TPC	750 MCM	400		1.417	36.00	
	Weights for "on request" are for 1 km											

TPC = Tin-Plated Copper • DCR = DC resistance

Zyrad® 500 UL/CSA

600V, 150°C

Description	Part No.	UL NEC/C(UL)CEC Type IEC	Standard Lengths ft.	Standard Lengths m	Standard Unit Weight lbs.	Standard Unit Weight kg	Conductor (Stranding) Diameter Nom. DCR	Nominal Conductor OD AWG	Nominal Conductor OD Section mm²	Shielding Material Nom. DCR	Nominal OD inch	Nominal OD mm	Application
150°C • 24 - 4/0 AWG • Stranded Tin-Plated Copper Wire													
Zyrad® 500 Insulation (Brown, Red, Orange, Yellow, Green, Violet, Grey, White, Black, Blue, Pink and Green/Yellow)													
		UL3289 CSA CL 1503								Unshielded			For wiring at high ambient temperatures, e.g. - Class F electric motors - Transformers - Domestic appliances - Inductive loop - Lighting - General hostile environments
	HMC4166	3280	1000	7.8	3.5	(19x0.13) TPC	24	0.25		0.089	2.25	
	HMC4167	3280	1000	11.3	5.1	(16x0.20) TPC	22	0.50		0.100	2.53	
	HMC4168	3280	1000	14.6	6.6	(24x0.20) TPC	20	0.75		0.108	2.74	
	HMC4169	3280	1000	17.7	8.1	(32x0.20) TPC	18	1.00		0.115	2.92	
	HMC4170	3280	1000	23.3	10.6	(30x0.25) TPC	16	1.50		0.126	3.20	
	HMC4171	1640	500	34.7	15.8	(50x0.25) TPC	14	2.50		0.144	3.67	
	HMC4172	1640	500	51.9	23.5	(56x0.30) TPC	12	4		0.165	4.20	
	HMC4173	328	100	14.6	6.6	(84x0.30) TPC	10	6		0.189	4.79	
	HMC4174	328	100	26.6	12.1	(80x0.40) TPC	8	10		0.260	6.60	
	HMC4175	328	100	42.3	19.2	(126x0.40) TPC	6	16		0.350	8.90	
	HMC4176	328	100	62.0	28.1	(196x0.40) TPC	4	25		0.406	10.30	
	HMC4177	164	50	42.3	19.2	(278x0.40) TPC	2	35		0.461	11.70	
	HMC4178	164	50	61.6	27.9	(399x0.40) TPC	1	50		0.563	14.30	
	HMC4179	164	50	84.7	38.4	(361x0.50) TPC	0	70		0.646	16.40	
	HMC4180	164	50	110.6	50.2	(475x0.50) TPC	3/0	95		0.728	18.50	
	HMC4181	164	50	141.1	64.0	(608x0.50) TPC	4/0	120		0.787	20.00	

TPC = Tin-Plated Copper • DCR = DC resistance

Zyrad® 555

600V, 155°C

Description	Part No.	UL NEC/C(UL)CEC Type IEC	Standard Lengths ft.	Standard Lengths m	Standard Unit Weight lbs.	Standard Unit Weight kg	Conductor (Stranding) Diameter Nom. DCR	Nominal Conductor OD AWG	Nominal Conductor OD Section mm²	Shielding Material Nom. DCR	Nominal OD inch	Nominal OD mm	Application
155°C • 24 - 4/0 AWG • Stranded Tin-Plated Copper Wire													
Zyrad® 555 Insulation (Brown, Red, Orange, Yellow, Green, Violet, Grey, White, Black, Blue, Pink and Green/Yellow)													
										Unshielded			For wiring at high ambient temperatures, e.g. - Class F electric motors - Transformers - Domestic appliances - Inductive loop - Lighting - General hostile environments
	HMC4182		3280	1000	4.4	2.0	(19x0.13) TPC	24	0.25		0.057	1.45	
	HMC4183		3280	1000	7.4	3.4	(19x0.18) TPC	20	0.50		0.069	1.75	
	HMC4184		3280	1000	11.8	5.3	(24x0.20) TPC	18	0.75		0.088	2.24	
	HMC4185		3280	1000	15.4	7.0	(32x0.20) TPC	17	1.00		0.099	2.52	
	HMC4186		3280	1000	20.7	9.4	(30x0.25) TPC	16	1.50		0.110	2.80	
	HMC4187		1640	500	31.6	14.3	(50x0.25) TPC	14	2.50		0.126	3.20	
	HMC4188		1640	500	49.2	22.3	(56x0.30) TPC	12	4		0.154	3.90	
	HMC4189		328	100	14.2	6.5	(84x0.30) TPC	10	6		0.181	4.59	
	HMC4190		328	100	24.8	11.3	(80x0.40) TPC	8	10		0.244	6.20	
	HMC4191		328	100	38.4	17.4	(126x0.40) TPC	6	16		0.311	7.90	
	HMC4192		328	100	58.3	26.4	(196x0.40) TPC	4	25		0.374	9.50	
	HMC4193		164	50	40.7	18.5	(278x0.40) TPC	2	35		0.437	11.10	
	HMC4194		164	50	58.1	26.4	(399x0.40) TPC	1	50		0.524	13.30	
	HMC4195		164	50	81.0	36.7	(361x0.50) TPC	2/0	70		0.614	15.60	
	HMC4196		164	50	108.1	49.1	(475x0.50) TPC	3/0	95		0.713	18.10	
	HMC4197		164	50	136.4	61.9	(608x0.50) TPC	4/0	120		0.772	19.60	

TPC = Tin-Plated Copper • DCR = DC resistance

Silicone Rubber

Braidless

300/500V, 180°C, peak temp 250°C

Description	Part No.	UL NEC/ C(UL)CEC Type IEC	Standard Lengths		Standard Unit Weight		Conductor (Stranding) Diameter Nom. DCR	Nominal Conductor OD		Shielding Material Nom. DCR	Nominal OD		Application
			ft.	m	lbs.	kg		AWG	Section mm²		inch	mm	

180°C • 24 AWG - 500 MCM • Stranded Tin-Plated Copper Wire

Silicone Halogen-Free Insulation (Brown, Red, Orange, Yellow, Green, Violet, Grey, White, Black and Blue)

IEC 60754-1
VDE 0282
Part 1

Unshielded

For wiring at high ambient temperatures, e.g.
- Lighting
- Domestic appliances
- Instrumentation engineering
- Mechanical engineering

HMC4198	328	100	1.3	0.6	(14x0.15) TPC	24	0.25		0.071	1.80	
HMC4199	328	100	2.0	0.9	(16x0.20) TPC	20	0.50		0.083	2.10	
HMC4200	328	100	2.4	1.1	(24x0.20) TPC	18	0.75		0.091	2.30	
HMC4201	328	100	3.1	1.4	(32x0.20) TPC	17	1.00		0.094	2.40	
HMC4202	328	100	4.2	1.9	(30x0.25) TPC	16	1.50		0.106	2.70	
HMC4203	328	100	6.4	2.9	(50x0.30) TPC	14	2.50		0.126	3.20	
HMC4204	328	100	9.7	4.4	(56x0.30) TPC	12	4		0.157	4.00	
HMC4205	328	100	13.7	6.2	(84x0.30) TPC	10	6		0.181	4.60	
HMC4206	328	100	27.3	12.4	(80x0.40) TPC	8	10		0.256	6.50	
HMC4207	328	100	40.8	18.5	(128x0.40) TPC	6	16		0.303	7.70	
HMC4208	328	100	61.9	28.1	(200x0.40) TPC	4	25		0.374	9.50	
HMC4209	on request		840.0	381.0	(280x0.40) TPC	2	35		0.429	10.90	
HMC4210	on request		1181.7	536.0	(400x0.40) TPC	1	50		0.500	12.70	
HMC4211	on request		1640.2	744.0	(356x0.50) TPC	2/0	70		0.575	14.60	
HMC4212	on request		2180.3	989.0	(485x0.50) TPC	3/0	95		0.685	17.40	
HMC4213	on request		2691.8	1221.0	(614x0.50) TPC	4/0	120		0.744	18.90	
HMC4214	on request		3353.2	1521.0	(765x0.50) TPC	300 MCM	150		0.815	20.70	
HMC4215	on request		4186.5	1899.0	(944x0.50) TPC	350 MCM	185		0.925	23.50	
HMC4216	on request		5732.0	2600.0	(1225x0.50) TPC	500 MCM	240		1.047	26.60	

Weights for "on request" are for 1 km

180°C • 20 - 12 AWG • Solid Tin-Plated Copper Wire

Silicone Halogen-Free Insulation (Brown, Red, Orange, Yellow, Green, Violet, Grey, White, Black and Blue)

IEC 60754-1
VDE 0282
Part 1

Unshielded

For wiring at high ambient temperatures, e.g.
- Lighting
- Domestic appliances
- Instrumentation engineering
- Mechanical engineering

HMC4217	328	100	1.8	0.8	(1x0.80) TPC	20	0.50		0.079	2.00	
HMC4218	328	100	2.4	1.1	(1x0.98) TPC	18	0.75		0.083	2.10	
HMC4219	328	100	2.9	1.3	(1x1.13) TPC	17	1.00		0.091	2.30	
HMC4220	328	100	4.0	1.8	(1x1.38) TPC	16	1.50		0.098	2.50	
HMC4221	328	100	6.4	2.9	(1x1.78) TPC	14	2.50		0.122	3.10	
HMC4222	328	100	9.9	4.5	(1x2.26) TPC	12	4		0.150	3.80	

Weights for "on request" are for 1 km

TPC = Tin-Plated Copper • DCR = DC resistance

Silicone Rubber (H05S)

Braidless

300/500V, 180°C, peak temp 250°C

Description	Part No.	UL NEC/ C(UL)CEC Type IEC	Standard Lengths ft.	Standard Lengths m	Standard Unit Weight lbs.	Standard Unit Weight kg	Conductor (Stranding) Diameter Nom. DCR	Nominal Conductor OD AWG	Nominal Conductor OD Section mm²	Shielding Material Nom. DCR	Nominal OD inch	Nominal OD mm	Application
180°C • 20 - 14 AWG • Stranded Tin-Plated Copper Wire													
Silicone Halogen-Free Insulation (Brown, Red, Orange, Yellow, Green, Violet, Grey, White, Black and Blue)													
		IEC 60754-1 VDE 0282 Part 3								Unshielded			For wiring in electrical appliances and lighting up to a maximum operating temperature of 180°C.
 H05S-K													
	HMC4223		328	100	2.6	1.2	(16x0.20) TPC	20	0.50		0.098	2.50	
	HMC4224		328	100	3.3	1.5	(24x0.20) TPC	18	0.75		0.106	2.70	
	HMC4225		328	100	3.7	1.7	(32x0.20) TPC	17	1.00		0.110	2.80	
	HMC4226		328	100	5.5	2.5	(30x0.25) TPC	16	1.50		0.130	3.30	
	HMC4227		328	100	8.2	3.7	(50x0.25) TPC	14	2.50		0.154	3.90	
180°C • 20 - 14 AWG • Solid Tin-Plated Copper Wire													
Silicone Halogen-Free Insulation (Brown, Red, Orange, Yellow, Green, Violet, Grey, White, Black and Blue)													
		IEC 60754-1 VDE 0282 Part 3								Unshielded			
 H05S-U													
	HMC4228		328	100	2.4	1.1	(1x0.80) TPC	20	0.50		0.094	2.40	
	HMC4229		328	100	3.1	1.4	(1x0.98) TPC	18	0.75		0.098	2.50	
	HMC4230		328	100	3.7	1.7	(1x1.13) TPC	17	1.00		0.106	2.70	
	HMC4231		328	100	5.3	2.4	(1x1.38) TPC	16	1.50		0.122	3.10	
	HMC4232		328	100	7.9	3.6	(1x1.78) TPC	14	2.50		0.146	3.70	

TPC = Tin-Plated Copper • DCR = DC resistance

Silicone Rubber (VDE approved)

Braidless

300/300V, 180°C, peak temp 250°C

Description	Part No.	UL NEC/ C(UL)CEC Type IEC	Standard Lengths ft.	Standard Lengths m	Standard Unit Weight lbs.	Standard Unit Weight kg	Conductor (Stranding) Diameter Nom. DCR	Nominal Conductor OD AWG	Nominal Conductor OD Section mm²	Shielding Material Nom. DCR	Nominal OD inch	Nominal OD mm	Application
180°C • 20 - 14 AWG • Stranded Tin-Plated Copper Wire													
Silicone Halogen-Free Insulation (Brown, Red, Orange, Yellow, Green, Violet, Grey, White, Black and Blue) • **VDE reg. no. N2GFA resp. (N)2GFA**													
		IEC 60754-1 VDE 0282 Part 1								Unshielded			For wiring in electrical appliances and lighting up to a maximum operating temperature of 180°C.
	HMC4233		1000	305	6.0	2.7	(16x0.20) TPC	20	0.50		0.083	2.10	
	HMC4234		1000	305	7.4	3.4	(24x0.20) TPC	18	0.75		0.091	2.30	
	HMC4235		1000	305	9.4	4.3	(32x0.20) TPC	17	1.00		0.094	2.40	
	HMC4236		1000	305	13.4	6.1	(30x0.25) TPC	16	1.50		0.114	2.90	
	HMC4237		1000	305	21.5	9.8	(50x0.25) TPC	14	2.50		0.138	3.50	
180°C • 20 - 14 AWG • Solid Tin-Plated Copper Wire													
Silicone Halogen-Free Insulation (Brown, Red, Orange, Yellow, Green, Violet, Grey, White, Black and Blue) • **VDE reg. no. N2GFA resp. (N)2GFA**													
		IEC 60754-1 VDE 0282 Part 1								Unshielded			
N2GFA	**HMC4238**		1000	305	5.4	2.4	(1x0.80) TPC	20	0.50		0.079	2.00	
	HMC4239		1000	305	7.4	3.4	(1x0.98) TPC	18	0.75		0.083	2.10	
	HMC4240		1000	305	8.7	4.0	(1x1.13) TPC	17	1.00		0.091	2.30	
	HMC4241		1000	305	12.1	5.5	(1x1.38) TPC	16	1.50		0.106	2.70	
	HMC4242		1000	305	19.5	8.8	(1x1.78) TPC	14	2.50		0.130	3.30	

TPC = Tin-Plated Copper • DCR = DC resistance

Silicone Rubber (Superflex)

Braidless

300/500V, 180°C, peak temp 250°C

Description	Part No.	UL NEC/ C(UL)CEC Type IEC	Standard Lengths ft.	Standard Lengths m	Standard Unit Weight lbs.	Standard Unit Weight kg	Conductor (Stranding) Diameter Nom. DCR	Nominal Conductor OD AWG	Nominal Conductor OD Section mm²	Shielding Material Nom. DCR	Nominal OD inch	Nominal OD mm	Application
180°C • 24 - 2 AWG • Stranded Tin-Plated Copper Wire													
Silicone Halogen-Free Insulation (Brown, Red, Orange, Yellow, Green, Violet, Grey, White, Black and Blue)													
		IEC 60754-1 VDE 0282 Part 1								Unshielded			For wiring at high ambient temperatures, e.g. - Lighting - Domestic appliances - Instrumentation engineering - Mechanical engineering
	HMC4243	1640	500	6.6	3.0	(128x0.05) TPC	24	0.25		0.071	1.80	
	HMC4244	1640	500	11.0	5.0	(256x0.05) TPC	20	0.50		0.087	2.20	
	HMC4245	1640	500	13.2	6.0	(384x0.05) TPC	18	0.75		0.094	2.40	
	HMC4246	1640	500	17.6	8.0	(512x0.05) TPC	17	1.00		0.106	2.70	
	HMC4247	1640	500	24.3	11.0	(392x0.07) TPC	16	1.50		0.122	3.10	
	HMC4248	1640	500	38.6	17.5	(651x0.07) TPC	14	2.50		0.150	3.80	
	HMC4249	1640	500	58.4	26.5	(1040x0.07) TPC	12	4		0.185	4.70	
	HMC4250	1640	500	83.8	38.0	(1560x0.07) TPC	10	6		0.205	5.20	
	HMC4251	1640	500	135.6	61.5	(2600x0.07) TPC	8	10		0.276	7.00	
	HMC4252	1640	500	208.3	94.5	(2048x0.10) TPC	6	16		0.335	8.50	
	HMC4253	1640	500	320.8	145.5	(3200x0.10) TPC	4	25		0.402	10.20	
	HMC4254	1640	500	445.3	202.0	(1120x0.20) TPC	2	35		0.465	11.80	

TPC = Tin-Plated Copper • DCR = DC resistance

Silicone Rubber (H05SJ-K)

Glass Braid
300/500V, 180°C

De-scription	Part No.	UL NEC/ C(UL)CEC Type IEC	Standard Lengths		Standard Unit Weight		Conductor (Stranding) Diameter Nom. DCR	Nominal Conductor OD		Shielding Material Nom. DCR	Nominal OD		Application
			ft.	m	lbs.	kg		AWG	Section mm²		inch	mm	

180°C • 20 AWG - 350 MCM • Stranded Tin-Plated Copper Wire

White Halogen-Free Silicone Insulation • Silicone-Impregnated Glass-Fiber Braid

IEC 60754-1
VDE 0282
Part 1

Overall
Glass-Fiber Braid

For internal wiring at high ambient temperatures, e.g.
- Lighting
- Domestic appliances
- Mechanical engineering

Identification tracer

HMC4255	328	100	2.6	1.2	(16x0.20) TPC	20	0.50		0.106	2.70	
HMC4256	328	100	3.3	1.5	(24x0.20) TPC	18	0.75		0.114	2.90	
HMC4257	328	100	4.0	1.8	(32x0.20) TPC	17	1.00		0.118	3.00	
HMC4258	328	100	4.9	2.2	(30x0.25) TPC	16	1.50		0.138	3.50	
HMC4259	328	100	7.7	3.5	(50x0.25) TPC	14	2.50		0.161	4.10	
HMC4260	328	100	10.8	4.9	(56x0.30) TPC	12	4		0.181	4.60	
HMC4261	328	100	15.0	6.8	(84x0.30) TPC	10	6		0.205	5.20	
HMC4262	328	100	28.9	13.1	(80x0.40) TPC	8	10		0.283	7.20	
HMC4263	328	100	43.4	19.7	(128x0.40) TPC	6	16		0.331	8.40	
HMC4264	164	50	32.5	14.8	(200x0.40) TPC	4	25		0.402	10.20	
HMC4265	164	50	43.4	19.7	(280x0.40) TPC	2	35		0.457	11.60	
HMC4266	164	50	60.6	27.5	(400x0.40) TPC	1	50		0.528	13.40	
HMC4267	164	50	83.9	38.1	(356x0.50) TPC	2/0	70		0.602	15.30	
HMC4268	on request		2211.2	1003.0	(485x0.50) TPC	3/0	95		0.713	18.10	
HMC4269	on request		2731.5	1239.0	(614x0.50) TPC	4/0	120		0.772	19.60	
HMC4270	on request		3386.3	1536.0	(765x0.50) TPC	300 MCM	150		0.843	21.40	
HMC4271	on request		4241.7	1924.0	(944x0.50) TPC	350 MCM	185		0.953	24.20	

Weights for “on request” are for 1 km

180°C • 20 - 8 AWG • Solid Tin-Plated Copper Wire

White Halogen-Free Silicone Insulation • Silicone-impregnated Glass-Fiber Braid

IEC 60754-1
VDE 0282
Part 1

Overall
Glass-Fiber Braid

Identification tracer

HMC4272	328	100	2.4	1.1	(1x0.80) TPC	20	0.50*		0.102	2.60	
HMC4273	328	100	3.1	1.4	(1x0.98) TPC	18	0.75*		0.106	2.70	
HMC4274	328	100	4.0	1.8	(1x1.13) TPC	17	1.00		0.114	2.90	
HMC4275	328	100	5.3	2.4	(1x1.38) TPC	16	1.50		0.150	3.80	
HMC4276	328	100	7.7	3.5	(1x1.78) TPC	14	2.50		0.154	3.90	
HMC4277	328	100	11.5	5.2	(1x2.26) TPC	12	4		0.173	4.40	
HMC4278	328	100	16.3	7.4	(1x2.78) TPC	10	6		0.193	4.90	
HMC4279	328	100	26.7	12.1	(1x3.60) TPC	8	10		0.248	6.30	

* = according to VDE 0282 part 3

TPC = Tin-Plated Copper • DCR = DC resistance

Glass Braid

250V, 350°C

Description	Part No.	UL NEC/ C(UL)CEC Type IEC	Standard Lengths ft.	Standard Lengths m	Standard Unit Weight lbs.	Standard Unit Weight kg	Conductor (Stranding) Diameter Nom. DCR	Nominal Conductor OD AWG	Nominal Conductor OD Section mm²	Shielding Material Nom. DCR	Nominal OD inch	Nominal OD mm	Application
350°C • 24 - 10 AWG • Stranded Nickel-Plated Copper Wire													
Glass Braid Insulation • Impregnated Glass-Fiber Braid													
										Overall Glass-Fiber Braid			For wiring at high ambient temperatures and increased mechanical stress e.g. - Domestic appliances (stoves, heating plates, ovens) - Extrusion and drying installations - Electric heating systems - Steel and iron fabrication - Glass and ceramic fabrication
 Separator foil													
	HMC4280		328	100	0.8	0.4	(7x0.20) NPC	24	0.22		0.043	1.10	
	HMC4281		328	100	1.2	0.6	(14x0.15) NPC	23	0.25		0.075	1.90	
	HMC4282		328	100	2.4	1.1	(7x0.254) NPC	22	0.34		0.075	1.90	
	HMC4283		328	100	2.9	1.3	(16x0.203) NPC	20	0.50		0.083	2.10	
	HMC4284		328	100	3.7	1.7	(24x0.203) NPC	18	0.75		0.091	2.30	
	HMC4285		328	100	4.9	2.2	(32x0.203) NPC	17	1.00		0.098	2.50	
	HMC4286		328	100	6.0	2.7	(30x0.254) NPC	16	1.50		0.110	2.80	
	HMC4287		328	100	11.0	5.0	(50x0.254) NPC	14	2.50		0.169	4.30	
	HMC4288		328	100	14.6	6.6	(56x0.30) NPC	12	4		0.197	5.00	
	HMC4289		328	100	17.9	8.1	(84x0.30) NPC	10	6		0.224	5.70	

Kapton®

Glass Braid

300/300V, 220°C, Month 300°C, Peak Temp 500°C

Description	Part No.	UL NEC/ C(UL)CEC Type IEC	Standard Lengths ft.	Standard Lengths m	Standard Unit Weight lbs.	Standard Unit Weight kg	Conductor (Stranding) Diameter Nom. DCR	Nominal Conductor OD AWG	Nominal Conductor OD Section mm²	Shielding Material Nom. DCR	Nominal OD inch	Nominal OD mm	Application
350°C • 24 - 10 AWG • Stranded Nickel-Plated Copper Wire													
Kapton® Insulation • Impregnated Glass-Fiber Braid													
										Overall Glass-Fiber Braid			For wiring at high ambient temperatures and increased mechanical stress e.g. - Domestic appliances (stoves, heating plates, ovens) - Extrusion and drying installations - Traffic technology
													
	HMC4290		328	100	1.5	0.7	(7x0.20) NPC	24	0.22		0.047	1.20	
	HMC4291		328	100	1.0	0.5	(14x0.15) NPC	23	0.25		0.051	1.30	
	HMC4292		328	100	1.7	0.8	(7x0.254) NPC	22	0.34		0.055	1.40	
	HMC4293		328	100	1.8	0.8	(16x0.203) NPC	20	0.50		0.067	1.70	
	HMC4294		328	100	2.4	1.1	(24x0.203) NPC	18	0.75		0.075	1.90	
	HMC4295		328	100	2.9	1.3	(32x0.203) NPC	17	1.00		0.079	2.00	
	HMC4296		328	100	4.0	1.8	(30x0.254) NPC	16	1.50		0.098	2.50	
	HMC4297		328	100	6.6	3.0	(50x0.254) NPC	14	2.50		0.110	2.80	
	HMC4298		328	100	11.0	5.0	(56x0.30) NPC	12	4		0.138	3.50	
	HMC4299		328	100	14.3	6.5	(84x0.30) NPC	10	6		0.161	4.10	

NPC = Nickel-Plated Copper • DCR = DC resistance • Kapton® is a DuPont trademark.

Mica

Glass and Ceramic Braid

300/500V

Description	Part No.	UL NEC/ C(UL)CEC Type IEC	Standard Lengths ft.	Standard Lengths m	Standard Unit Weight lbs.	Standard Unit Weight kg	Conductor (Stranding) Diameter Nom. DCR	Nominal Conductor OD AWG	Nominal Conductor OD Section mm²	Shielding Material Nom. DCR	Nominal OD inch	Nominal OD mm	Application
350°C (peak temp 500°C) • 20 - 10 AWG • Stranded Nickel-Plated Copper Wire													
Mica Insulation • Impregnated Glass-Fiber Braid													
										Overall Glass-Fiber Braid			For wiring at high ambient temperatures and increased operating voltage e.g. - Industrial furnaces - Extrusion and drying installations - Electric heating systems
	HMC4300		328	100	2.9	1.3	(16x0.203) NPC	20	0.50		0.094	2.40	
	HMC4301		328	100	4.0	1.8	(24x0.203) NPC	18	0.75		0.102	2.60	
	HMC4302		328	100	4.9	2.2	(32x0.203) NPC	17	1.00		0.122	3.10	
	HMC4303		328	100	6.6	3.0	(30x0.254) NPC	16	1.50		0.134	3.40	
	HMC4304		328	100	8.6	3.9	(50x0.254) NPC	14	2.50		0.154	3.90	
	HMC4305		328	100	13.0	5.9	(56x0.30) NPC	12	4		0.185	4.70	
	HMC4306		328	100	17.9	8.1	(84x0.30) NPC	10	6		0.213	5.40	
1550°C (short term) • 20 - 8 AWG • Stranded Nickel-Plated Copper Wire													
Mica Insulation • Impregnated Ceramic Braid													
										Overall Ceramic Braid			For wiring at high ambient temperatures and increased mechanical stess e.g. - Glass, steel and iron fabrication - Industrial furnaces - Electric heating systems
	UL approval and other conductor materials (e.g. special alloys) available on request.												
	HMC4307		328	100	2.4	1.1	(16x0.203) NPC	20	0.50		0.094	2.40	
	HMC4308		328	100	4.0	1.8	(24x0.203) NPC	18	0.75		0.098	2.50	
	HMC4309		328	100	5.1	2.3	(32x0.203) NPC	17	1.00		0.126	3.20	
	HMC4310		328	100	6.2	2.8	(30x0.254) NPC	16	1.50		0.142	3.60	
	HMC4311		328	100	10.1	4.6	(50x0.254) NPC	14	2.50		0.154	3.90	
	HMC4312		328	100	15.4	7.0	(56x0.30) NPC	12	4		0.205	5.20	
	HMC4313		328	100	22.9	10.4	(84x0.30) NPC	10	6		0.236	6.00	
	HMC4314		328	100	32.4	14.7	(80x0.40) NPC	8	10		0.291	7.40	

NPC = Nickel-Plated Copper • DCR = DC resistance

EFGLAS

Glass Braid/PTFE
600V, 260°C

Description	Part No.	UL NEC/C(UL)CEC Type IEC	Standard Lengths ft.	Standard Lengths m	Standard Unit Weight lbs.	Standard Unit Weight kg	Conductor (Stranding) Diameter Nom. DCR	Nominal Conductor OD AWG	Nominal Conductor OD Section mm²	Shielding Material Nom. DCR	Nominal OD inch	Nominal OD mm	Application
260°C • 22 - 0000 AWG • Stranded Nickel-Plated Copper Wire													
EFGLAS Insulation • PTFE-Impregnated Glass Yarn Braid													
		BSG 222 : 1976 acc. MIL-W-22759/3								Unshielded			For wiring at high ambient temperatures and improved abrasion resistance e.g. - Aircraft wiring
	HMC4315		1000	305	5.8	2.6	(19x0.15) NPC	22	0.336		0.081	2.05	
	HMC4316		1000	305	8.2	3.7	(19x0.20) NPC	20	0.597		0.091	2.30	
	HMC4317		1000	305	10.8	4.9	(19x0.25) NPC	18	0.933		0.100	2.55	
	HMC4318		1000	305	13.8	6.3	(19x0.30) NPC	16	1.340		0.110	2.80	
	HMC4319		1000	305	18.1	8.2	(37x0.25) NPC	14	1.820		0.122	3.10	
	HMC4320		1000	305	26.2	11.9	(37x0.32) NPC	12	2.890		0.148	3.75	
	HMC4321		1000	305	44.4	20.1	(37x0.40) NPC	10	4.650		0.187	4.75	
	HMC4322		1000	305	71.2	32.3	(17/7x0.30) NPC	8	8.410		0.246	6.25	
	HMC4323		500	152	58.5	26.5	(26/7x0.30) NPC	6	12.85		0.287	7.30	
	HMC4324		500	152	93.4	42.4	(42/7x0.30) NPC	4	20.75		0.360	9.15	
	HMC4325		500	152	142.5	64.6	(703x0.25) NPC	2	34.49		0.427	10.85	
	HMC4326		500	152	168.0	76.2	(851x0.25) NPC	1	41.75		0.469	11.90	
	HMC4327		500	152	212.4	96.3	(1073x0.25) NPC	0	52.64		0.518	13.15	
	HMC4328		500	152	270.5	122.7	(1369x0.25) NPC	2/0	67.16		0.569	14.45	
	HMC4329		500	152	339.4	154.0	(1728x0.25) NPC	3/0	84.78		0.632	16.05	
	HMC4330		500	152	426.8	193.6	(2196x0.25) NPC	4/0	107.74		0.691	17.55	

NPC = Nickel-Plated Copper • DCR = DC resistance