

ULTRA-FLEXIBLE TurboFlex Rugged Power Cable



TurboFlex® Copper Core, Duralectric™ D Insulation and Fabric Overbraid, 2000-4500 VAC • 961-044

FEATURES

- Fabric overbraid provides abrasion and temperature protection. Choose the appropriate braid with the selection guide table at right.
- Voltage rating is dependent on insulation wall thickness, select per application requirements.

HOW TO ORDER TURBOFLEX®

Sample Part Number		961-044	-1	-C	-G	-2	-D	-0
Basic No.	TurboFlex with Duralectric D Insulation and fabric overbraid							
Wall Thickness	-1 = .125" (4500 VAC) -2 = .093" (3500 VAC) -3 = .062" (3000 VAC) -4 = .032" (2000 VAC) -5 = .016"							
Conductor Material	-T = Tin/Copper (-65° - 150°C) -S = Silver/Copper (-65° - 200°C) -N = Nickel/Copper (-65° - 200°C)							
Wire Size (See Table I)	See Table I: (Conductor size availability depends on Insulation thickness) A, B, C, D, E, F, G, H, I, J, K, L, T, R, S							
Duralectric D Insulation Color	See Table II							
Braid Material	See Braid Material and Color Selection Guide							
Braid Color	See Braid Material and Color Selection Guide							

Table I: Conductor Size Code (availability depends on Insulation thickness)

Conductor size (AWG)	Insulation Thickness in. (mm)				
	.125	.093	.062	.032	.016
20	N/A	N/A	N/A	T	T
16				R	R
14				S	S
12			A	A	A
10			B	B	B
8		C	C	C	C
6		D	D	D	N/A
4		E	E	E	
2		F	F	F	
1/0	G	G	G	N/A	
2/0	H	H	H		
3/0	I	I	I		
4/0	J	J	J		
250 MCM	K	K	N/A		N/A
450 MCM	L	L			

Table IV: Approximate Outer Diameter

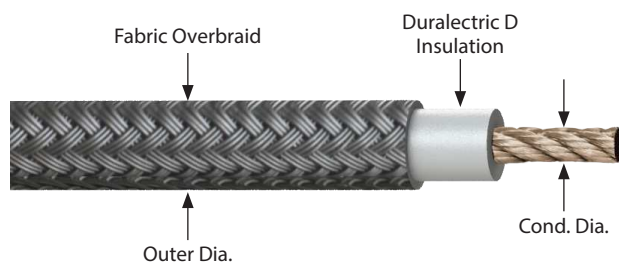
Conductor size (AWG)	Insulation Thickness in. (mm)				
	.125	.093	.062	.032	.016
20	N/A	N/A	N/A	.16	.12
16				.18	.16
14				.20	.17
12			.28	.22	.19
10			.31	.25	.22
8		.40	.34	.28	.25
6		.44	.38	.32	N/A
4		.51	.45	.39	
2		.58	.52	.46	
1/0	.74	.67	.61	.55	
2/0	.79	.72	.66	N/A	
3/0	.85	.79	.73		
4/0	.92	.85	.79		
250 MCM	.97	.90	N/A		
450 MCM	1.20	1.13			

Table II: Duralectric D Insulation Color

Weatherproof, halogen free, flame resistant	
0	Black
1	Brown
2	Red
3	Orange
4	Yellow
5	Kelly Green
6	Blue
7	Violet
8	Gray
9	White
Consult factory for other specific colors	

Table III: Voltage Rating

Insulation Thickness	AC Voltage Rating, RMS
.125 (3.18)	4500
.093 (2.36)	3500
.062 (1.57)	3000
.032 (0.81)	2000
.016 (0.41)	1000



NOTES

- Cable will be tagged with complete part number

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Braid Material and Color Selection Guide										
Principal Selection Criteria	General Duty / Abrasion Resistance					Economy		Temperature Tolerance	Fire Resistance	
Braid Code Material Construction	Z Monofilament FEP	P Monofilament PET, Type FR	H Monofilament Halar®	M Yarn, Nomex®	R Monofilament Ryton, Type R-7	D Yarn, Dacron®	Y Yarn, Nylon	K Monofilament PEEK	X Yarn, PTFE-Glass	V Yarn, Kevlar®
Color Code Options	C = Clear	B = Black W = White	B = Black W = White BW = Black w/ White Tracer WB = White w/ Black Tracer	B = Black R = Red OR = Orange GN = Green GY = Gray W = White TN = Desert Tan	N = Natural	B = Black	B = Black GY = Gray OD = Olive Drab	B = Black	BR = Brown N = Natural	B = Black N = Natural
Halogen-Free	NO		NO						NO	
Temperature Range	-55°C to +200°C	-55°C to +125°C	-65°C to +150°C	-55°C to +200°C	-65°C to +180°C	-62°C to +125°C	-20° to +170°	-65°C to +260°C	-204°C to +482°C	-73°C to +160°C
Tensile Strength (PSI) Yield	3300	50,000	7000	90,000	19,000	10,000	12,400	13,000	450,000	400,000
Elongation Percentage	50%	20%	15%	25%	40%	12%	90%	38%	5%	3.6%
Chemical Resistance	Excellent	Good	Excellent	Excellent	Excellent	Good	Excellent	Excellent	Excellent	Excellent
Abrasion Resistance	Good	Good	Excellent	Good	Excellent	Fair	Excellent	Excellent	Excellent	Good
Weight / Duty (specific gravity)	Heavy (2.17)	Medium (1.38)	Medium (1.68)	Medium (1.58)	Light (1.25)	Medium (1.38)	Light (1.14)	Light (1.3)	Heavy (2.5)	Medium (1.44)
Flammability	Very Low	Flammable, Self-Extinguishing	Very Low	Will Not Melt	Very Low	Flammable	Flammable	Very Low	Will Not Burn	Will Not Melt

TURBOFLEX

Table V: Service Temperature Matrix (min/max in °C) Service temperature dependent on conductor and braid material selected				
Braid Code	Braid Material (and temperature range)	Conductor Material (and temperature range)		
		Tin Copper (-65/+150)	Silver Copper (-65/+200)	Nickel Copper (-65/+260)
D	Dacron (-62/+125)	(-65/+125)	(-65/+125)	(-65/+125)
H	Halar (-65/+150)	(-65/+150)	(-65/+150)	(-65/+150)
Y	Nylon (-20/+170)	(-20/+150)	(-20/+170)	(-20/+170)
M	Nomex (-55/+200)	(-55/+150)	(-55/+200)	(-55/+200)
P	Polyester Type FR (-55/+125)	(-55/+125)	(-55/+125)	(-55/+125)
Z	FEP Teflon (-55/+200)	(-55/+150)	(-55/+200)	(-55/+200)
R	Ryton Type R-7 (-65/+180)	(-65/+150)	(-65/+180)	(-65/+180)
K	PEEK (-65/+260)	(-65/+150)	(-65/+200)	(-65/+260)
V	Kevlar (-73/+160)	(-65/+150)	(-65/+160)	(-65/+160)
X	PTFE-Glass (-204/+482)	(-65/+150)	(-65/+200)	(-65/+260)

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