

TurboFlex® M AS22759-type conductor, Duraelectric™ D Insulation, 725–2875 VAC • 967-600 Imperial

TURBOFLEX M • COPPER CORE

FEATURES

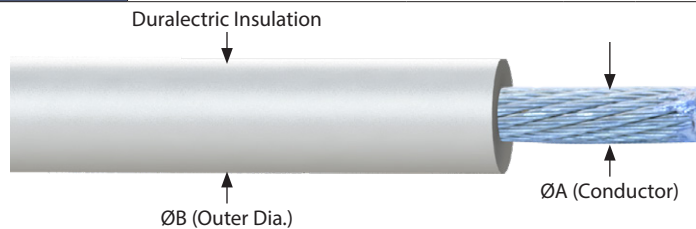
- TurboFlex M, with mil-spec conductor per AS29606 provides flight heritage and the stiffness required in some installations, while Duraelectric D Insulation provides more flexibility than standard mil-spec wire. 725–2875 VAC, 2450–6750 VDC-rated performance.

Standard M22759 mil-spec wire

TurboFlex M: M22759 core, Duraelectric jacket

Ultra-flexible TurboFlex rope-lay cable

How to Order TurboFlex® M					
Sample Part Number	967-600	-28	SCA	-016	-0
Basic No.	TurboFlex M = AS22759 type conductor with Duraelectric D Insulation				
Wire Conductor Size (See Tables)	-28, -26, -24, -22, -20, -18, -16, -14, -12, -10, -8, -6, -4, -2, -1, -0, -00, -000, -0000				
Conductor Type (See Tables for Specifications, Resistance Values, and Conductor Diameter)	NCA = Nickel-Coated High-Strength Copper Alloy (-60° – 200°C) NCC = Nickel-Coated Annealed Copper (-60° – 200°C) SCA = Silver-Coated High-Strength Copper Alloy (-60° – 200°C) SCC = Silver-Coated Annealed Copper (-60° – 200°C) TCC = Tin-Coated Annealed Copper (-60° – 150°C)				
Duraelectric D Insulation Thickness (See Tables)	-016 = .016	-024 = .024	-032 = .032	-047 = .047	
	-062 = .062	-093 = .093	-125 = .125		
Duraelectric D Insulation Color	See Table II				



NOTES

- Cable will be marked with "GLENAIR TURBOFLEX M", wire gauge, part number, CAGE 06324.
- Conductors per AS29606
- Bend radius (reference only) 3X O.D.
- Designed to meet all test requirements of M16878/7, M16878/8, NEMA HB6 Type ZHS and ZHSS

Table II: Duraelectric 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

VOLTAGE RATING / INSULATION RESISTANCE							
Wall (in.)	.016 wall	.024 wall	.032 wall	.047 wall	.062 wall	.093 wall	.125 wall
IR Test Voltage (VDC)	1000	1000	1500	1500	2000	2500	3000
Voltage Rating (VAC)	725	975	1125	1450	1750	2300	2875
DWV (VAC)	2450	2950	3250	3900	4500	5600	6750

Wire Size AWG	Insulation Resistance (Megohms / 1000 ft.)						
28	2100	N/A	N/A	N/A	N/A	N/A	N/A
26	1800	N/A	N/A	N/A	N/A	N/A	N/A
24	1500	2000	2300	N/A	N/A	N/A	N/A
22	1300	1800	2100	N/A	N/A	N/A	N/A
20	1100	1500	1800	N/A	N/A	N/A	N/A
18	1000	1300	1500	N/A	N/A	N/A	N/A
16	900	1200	1500	N/A	N/A	N/A	N/A
14	800	1100	1200	1600	N/A	N/A	N/A
12	600	900	1000	1400	N/A	N/A	N/A
10	500	700	900	1200	1400	N/A	N/A
8	400	600	700	900	1100	N/A	N/A
6	N/A	500	600	700	900	N/A	N/A
4	N/A	400	500	600	800	1000	1200
2	N/A	300	400	500	600	900	1100
1	N/A	300	400	500	600	800	1000
0	N/A	300	400	500	600	700	900
00	N/A	N/A	300	400	500	700	800
000	N/A	N/A	N/A	400	500	600	800
0000	N/A	N/A	N/A	N/A	400	600	700

TYPICAL CURRENT RANGE											
Tin Copper						Nickel/Silver Copper					
AWG	Amps	AWG	Amps	AWG	Amps	AWG	Amps	AWG	Amps	AWG	Amps
28	0-1.5	20	10-20	12	30-60	28	0-1.5	18	15-30	8	55-135
26	5-9	18	15-30	10	40-75	26	5-10	16	15-35	6	75-185
24	6-12	16	15-30	8	55-115	24	6-14	14	20-50	4	105-250
22	8-15	14	20-45			22	8-18	12	30-70	2	145-345
						20	10-25	10	40-90	1	170-400

TurboFlex® M AS22759-type conductor, Duralectric™ D Insulation, 725-2875 VAC • 967-600 Imperial

NCA NICKEL-COATED HIGH-STRENGTH COPPER ALLOY CONDUCTOR

NCA WIRE SPECIFICATIONS								
Wire Size AWG	No. Strands X AWG	Circular Mils Nom.	Ø B in. (mm)			Max Weight (lbs/1000 ft)		
			.016 wall	.024 wall	.032 wall	.016 wall	.024 wall	.032 wall
28	7 X 36	175	.047 ±.003 (1.19 ±.08)	N/A	N/A	1.6	N/A	N/A
26	19 X 38	304	.051 ±.003 (1.30 ±.08)	N/A	N/A	2.1	N/A	N/A
24	19 X 36	475	.055 ±.003 (1.40 ±.08)	.074 ±.003 (1.88 ±.08)	.087 ±.003 (2.21 ±.08)	2.8	3.9	4.9
22	19 X 34	754	.061 ±.003 (1.55 ±.08)	.080 ±.003 (2.03 ±.08)	.093 ±.003 (2.36 ±.08)	3.8	5.1	6.1
20	19 X 32	1216	.069 ±.003 (1.75 ±.08)	.088 ±.003 (2.24 ±.08)	.101 ±.003 (2.57 ±.08)	5.5	6.9	8.0
18	19 X 30	1900	.079 ±.003 (2.01 ±.08)	.098 ±.003 (2.49 ±.08)	.111 ±.003 (2.82 ±.08)	7.9	9.5	10.8
16	19 X 29	2426	.088 ±.003 (2.24 ±.08)	.104 ±.003 (2.64 ±.08)	.119 ±.003 (3.02 ±.08)	10.0	11.4	13.0

NCA WIRE RESISTANCE / CONDUCTOR DIA.		
Wire Size AWG	DC Resistance @ 20°C (Ohms/1000 ft.)	Ø A nom.
28	79.0	.014 (0.36)
26	49.4	.019 (0.48)
24	30.1	.024 (0.61)
22	18.6	.029 (0.74)
20	11.4	.038 (0.97)
18	6.79	.048 (1.22)
16	5.16	.053 (1.35)

TCC TIN-COATED ANNEALED COPPER CONDUCTOR

TCC WIRE SPECIFICATIONS													
Wire Size AWG	No. Strands X AWG	Circular Mils Nom.	Ø B in. (mm)					Max Weight (lbs/1000 ft)					
			.016 wall	.024 wall	.032 wall	.047 wall	.062 wall	.016 wall	.024 wall	.032 wall	.047 wall	.062 wall	
28	7 X 36	175	.047 ±.003 (1.19 ±.08)	N/A	N/A	N/A	N/A	N/A	1.6	N/A	N/A	N/A	N/A
26	19 X 38	304	.051 ±.003 (1.30 ±.08)	N/A	N/A	N/A	N/A	N/A	2.1	N/A	N/A	N/A	N/A
24	19 X 36	475	.055 ±.003 (1.40 ±.08)	.074 ±.003 (1.88 ±.08)	.087 ±.003 (2.21 ±.08)	N/A	N/A	2.8	3.9	4.9	N/A	N/A	
22	19 X 34	754	.061 ±.003 (1.55 ±.08)	.080 ±.003 (2.03 ±.08)	.093 ±.003 (2.36 ±.08)	N/A	N/A	3.8	5.1	6.1	N/A	N/A	
20	19 X 32	1216	.069 ±.003 (1.75 ±.08)	.088 ±.003 (2.24 ±.08)	.101 ±.003 (2.57 ±.08)	N/A	N/A	5.5	6.9	8.0	N/A	N/A	
18	19 X 30	1900	.079 ±.003 (2.01 ±.08)	.098 ±.003 (2.49 ±.08)	.111 ±.003 (2.82 ±.08)	N/A	N/A	7.9	9.5	10.8	N/A	N/A	
16	19 X 29	2426	.088 ±.003 (2.24 ±.08)	.104 ±.003 (2.64 ±.08)	.119 ±.003 (3.02 ±.08)	N/A	N/A	10.0	11.4	13.0	N/A	N/A	
14	19 X 27	3831	.100 ±.003 (2.54 ±.08)	.119 ±.003 (3.02 ±.08)	.131 ±.003 (3.33 ±.08)	.164 ±.003 (4.17 ±.08)	N/A	14.2	16.1	17.5	22.0	N/A	
12	37 X 28	5874	.118 ±.003 (3.00 ±.08)	.138 ±.003 (3.51 ±.08)	.150 ±.003 (3.81 ±.08)	.183 ±.003 (4.65 ±.08)	N/A	21.5	23.8	25.4	30.5	N/A	
10	37 X 26	9354	.143 ±.005 (3.63 ±.13)	.161 ±.005 (4.09 ±.13)	.175 ±.005 (4.44 ±.13)	.205 ±.005 (5.21 ±.13)	.235 ±.005 (5.97 ±.13)	33.8	36.4	38.6	43.9	50.0	
8	133 X 29	16983	.198 ±.006 (5.03 ±.15)	.219 ±.006 (5.56 ±.15)	.230 ±.006 (5.84 ±.15)	.260 ±.006 (6.60 ±.15)	.290 ±.006 (7.37 ±.15)	61.5	65.6	67.9	74.7	82.3	

TCC WIRE RESISTANCE / CONDUCTOR DIA.			TCC WIRE RESISTANCE / CONDUCTOR DIA.		
Wire Size AWG	DC Resistance @ 20°C (Ohms/1000 ft.)	Ø A nom.	Wire Size AWG	DC Resistance @ 20°C (Ohms/1000 ft.)	Ø A nom.
28	68.6	.015 (0.38)	14	3.06	.066 (1.68)
26	41.3	.019 (0.48)	12	2.02	.085 (2.16)
24	26.2	.024 (0.61)	10	1.26	.107 (2.72)
22	16.2	.030 (0.76)	8	.701	.161 (4.09)
20	9.88	.038 (0.97)			
18	6.23	.047 (1.19)			
16	4.81	.053 (1.35)			

TurboFlex® M AS22759-type conductor, Duralectric™ D Insulation, 725–2875 VAC • 967-600 Imperial

TURBOFLEX M • COPPER CORE

NCC NICKEL-COATED ANNEALED COPPER CONDUCTOR

NCC WIRE SPECIFICATIONS																
Wire Size AWG	No. Strands X AWG	Circular Mils Nom.	Ø B in. (mm)							Max Weight (lbs/1000 ft)						
			.016 wall	.024 wall	.032 wall	.047 wall	.062 wall	.093 wall	.125 wall	.016 wall	.024 wall	.032 wall	.047 wall	.062 wall	.093 wall	.125 wall
28	7 X 36	175	.047 ±.003 (1.19 ±.08)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1.6	N/A	N/A	N/A	N/A	N/A
26	19 X 38	304	.051 ±.003 (1.30 ±.08)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2.1	N/A	N/A	N/A	N/A	N/A
24	19 X 36	475	.055 ±.003 (1.40 ±.08)	.074 ±.003 (1.88 ±.08)	.087 ±.003 (2.21 ±.08)	N/A	N/A	N/A	N/A	N/A	2.8	3.9	4.9	N/A	N/A	N/A
22	19 X 34	754	.061 ±.003 (1.55 ±.08)	.080 ±.003 (2.03 ±.08)	.093 ±.003 (2.36 ±.08)	N/A	N/A	N/A	N/A	N/A	3.8	5.1	6.1	N/A	N/A	N/A
20	19 X 32	1216	.069 ±.003 (1.75 ±.08)	.088 ±.003 (2.24 ±.08)	.101 ±.003 (2.57 ±.08)	N/A	N/A	N/A	N/A	N/A	5.5	6.9	8.0	N/A	N/A	N/A
18	19 X 30	1900	.079 ±.003 (2.01 ±.08)	.098 ±.003 (2.49 ±.08)	.111 ±.003 (2.82 ±.08)	N/A	N/A	N/A	N/A	N/A	7.9	9.5	10.8	N/A	N/A	N/A
16	19 X 29	2426	.088 ±.003 (2.24 ±.08)	.104 ±.003 (2.64 ±.08)	.119 ±.003 (3.02 ±.08)	N/A	N/A	N/A	N/A	N/A	10.0	11.4	13.0	N/A	N/A	N/A
14	19 X 27	3831	.100 ±.003 (2.54 ±.08)	.119 ±.003 (3.02 ±.08)	.131 ±.003 (3.33 ±.08)	.164 ±.003 (4.17 ±.08)	N/A	N/A	N/A	N/A	14.2	16.1	17.5	22.0	N/A	N/A
12	37 X 28	5874	.118 ±.003 (3.00 ±.08)	.138 ±.003 (3.51 ±.08)	.150 ±.003 (3.81 ±.08)	.183 ±.003 (4.65 ±.08)	N/A	N/A	N/A	N/A	21.5	23.8	25.4	30.5	N/A	N/A
10	37 X 26	9354	.143 ±.005 (3.63 ±.13)	.161 ±.005 (4.09 ±.13)	.175 ±.005 (4.44 ±.13)	.205 ±.005 (5.21 ±.13)	.235 ±.005 (5.97 ±.13)	N/A	N/A	N/A	33.8	36.4	38.6	43.9	50.0	N/A
8	133 X 29	16983	.198 ±.006 (5.03 ±.15)	.219 ±.006 (5.56 ±.15)	.230 ±.006 (5.84 ±.15)	.260 ±.006 (6.60 ±.15)	.290 ±.006 (7.37 ±.15)	N/A	N/A	N/A	61.5	65.6	67.9	74.7	82.3	N/A
6	133 X 27	26818	N/A	.268 ±.006 (6.81 ±.15)	.282 ±.006 (7.16 ±.15)	.311 ±.006 (7.90 ±.15)	.341 ±.006 (8.66 ±.15)	N/A	N/A	N/A	N/A	99.7	103.3	111.2	120.2	N/A
4	133 X 25	42615	N/A	.320 ±.006 (8.13 ±.15)	.333 ±.006 (8.46 ±.15)	.363 ±.006 (9.22 ±.15)	.393 ±.006 (9.98 ±.15)	.455 ±.006 (11.56 ±.15)	.519 ±.006 (13.18 ±.15)	N/A	N/A	153.1	157.0	166.6	177.0	201.2
2	665 X 30	66500	N/A	.394 ±.007 (10.00 ±.18)	.407 ±.007 (10.34 ±.18)	.435 ±.007 (11.05 ±.18)	.466 ±.007 (11.84 ±.18)	.528 ±.007 (13.41 ±.18)	.592 ±.007 (15.04 ±.18)	N/A	N/A	245.0	249.8	260.6	273.4	301.7
1	817 X 30	81700	N/A	.434 ±.007 (11.02 ±.18)	.457 ±.007 (11.61 ±.18)	.477 ±.007 (12.12 ±.18)	.507 ±.007 (12.88 ±.18)	.565 ±.007 (14.35 ±.18)	.632 ±.007 (16.05 ±.18)	N/A	N/A	309.4	318.8	327.4	340.9	369.4
0	1045 X 30	104500	N/A	.482 ±.007 (12.24 ±.18)	.493 ±.007 (12.52 ±.18)	.522 ±.007 (13.26 ±.18)	.552 ±.007 (14.02 ±.18)	.617 ±.007 (15.67 ±.18)	.678 ±.007 (17.22 ±.18)	N/A	N/A	374.8	379.7	393.2	408.0	442.8
00	1330 X 30	133000	N/A	N/A	.543 ±.008 (13.79 ±.20)	.573 ±.008 (14.55 ±.20)	.603 ±.008 (15.32 ±.20)	.665 ±.008 (16.89 ±.20)	.729 ±.008 (18.52 ±.20)	N/A	N/A	N/A	469.0	484.4	500.6	536.6
000	1665 X 30	166500	N/A	N/A	N/A	.638 ±.008 (16.21 ±.20)	.668 ±.008 (16.97 ±.20)	.730 ±.008 (18.54 ±.20)	.794 ±.008 (20.17 ±.20)	N/A	N/A	N/A	N/A	593.7	611.6	651.3
0000	2109 X 30	210900	N/A	N/A	N/A	N/A	.733 ±.008 (18.62 ±.20)	.795 ±.008 (20.19 ±.20)	.859 ±.008 (21.82 ±.20)	N/A	N/A	N/A	N/A	756.0	799.3	847.7

NCC WIRE RESISTANCE / CONDUCTOR DIA.			NCC WIRE RESISTANCE / CONDUCTOR DIA.			NCC WIRE RESISTANCE / CONDUCTOR DIA.		
Wire Size AWG	DC Resistance @ 20°C (Ohms/1000 ft.)	Ø A nom.	Wire Size AWG	DC Resistance @ 20°C (Ohms/1000 ft.)	Ø A nom.	Wire Size AWG	DC Resistance @ 20°C (Ohms/1000 ft.)	Ø A nom.
28	67.9	.015 (0.38)	14	3.0	.067 (1.70)	2	0.177	.333 (8.46)
26	42.2	.019 (0.48)	12	1.98	.085 (2.16)	1	0.144	.370 (9.40)
24	25.9	.024 (0.61)	10	1.24	.107 (2.72)	0	0.113	.413 (10.49)
22	16.0	.030 (0.76)	8	0.694	.161 (4.09)	00	0.089	.467 (11.86)
20	9.77	.038 (0.97)	6	0.436	.209 (5.31)	000	0.071	.520 (13.21)
18	6.1	.047 (1.19)	4	0.275	.261 (6.63)	0000	0.056	.585 (14.86)
16	4.76	.053 (1.35)						

TurboFlex® M AS22759-type conductor, Duralectric™ D Insulation, 725-2875 VAC • 967-600 Imperial

TURBOFLEX M • COPPER CORE

SCA SILVER-COATED HIGH-STRENGTH COPPER ALLOY CONDUCTOR

SCA WIRE SPECIFICATIONS								
Wire Size AWG	No. Strands X AWG	Circular Mils Nom.	Ø B in. (mm)			Max Weight (lbs/1000 ft)		
			.016 wall	.024 wall	.032 wall	.016 wall	.024 wall	.032 wall
28	7 X 36	175	.047 ±.003 (1.19 ±.08)	N/A	N/A	1.6	N/A	N/A
26	19 X 38	304	.051 ±.003 (1.30 ±.08)	N/A	N/A	2.1	N/A	N/A
24	19 X 36	475	.055 ±.003 (1.40 ±.08)	.074 ±.003 (1.88 ±.08)	.087 ±.003 (2.21 ±.08)	2.8	3.9	4.9
22	19 X 34	754	.061 ±.003 (1.55 ±.08)	.080 ±.003 (2.03 ±.08)	.093 ±.003 (2.36 ±.08)	3.8	5.1	6.1
20	19 X 32	1216	.069 ±.003 (1.75 ±.08)	.088 ±.003 (2.24 ±.08)	.101 ±.003 (2.57 ±.08)	5.5	6.9	8.0
18	19 X 30	1900	.079 ±.003 (2.01 ±.08)	.098 ±.003 (2.49 ±.08)	.111 ±.003 (2.82 ±.08)	7.9	9.5	10.8
16	19 X 29	2426	.088 ±.003 (2.24 ±.08)	.104 ±.003 (2.64 ±.08)	.119 ±.003 (3.02 ±.08)	10.0	11.4	13.0

SCA WIRE RESISTANCE / CONDUCTOR DIA.		
Wire Size AWG	DC Resistance @ 20°C (Ohms/1000 ft.)	Ø A nom.
28	74.4	.015 (0.38)
26	44.8	.019 (0.48)
24	28.4	.024 (0.61)
22	17.5	.030 (0.76)
20	10.7	.038 (0.97)
18	6.43	.047 (1.19)
16	4.9	.053 (1.35)

SCC SILVER-COATED ANNEALED COPPER CONDUCTOR

SCC WIRE SPECIFICATIONS												
Wire Size AWG	No. Strands X AWG	Circular Mils Nom.	Ø B in. (mm)					Max Weight (lbs/1000 ft)				
			.016 wall	.024 wall	.032 wall	.047 wall	.062 wall	.016 wall	.024 wall	.032 wall	.047 wall	.062 wall
28	7 X 36	175	.047 ±.003 (1.19 ±.08)	N/A	N/A	N/A	N/A	1.6	N/A	N/A	N/A	N/A
26	19 X 38	304	.051 ±.003 (1.30 ±.08)	N/A	N/A	N/A	N/A	2.1	N/A	N/A	N/A	N/A
24	19 X 36	475	.055 ±.003 (1.40 ±.08)	.074 ±.003 (1.88 ±.08)	.087 ±.003 (2.21 ±.08)	N/A	N/A	2.8	3.9	4.9	N/A	N/A
22	19 X 34	754	.061 ±.003 (1.55 ±.08)	.080 ±.003 (2.03 ±.08)	.093 ±.003 (2.36 ±.08)	N/A	N/A	3.8	5.1	6.1	N/A	N/A
20	19 X 32	1216	.069 ±.003 (1.75 ±.08)	.088 ±.003 (2.24 ±.08)	.101 ±.003 (2.57 ±.08)	N/A	N/A	5.5	6.9	8.0	N/A	N/A
18	19 X 30	1900	.079 ±.003 (2.01 ±.08)	.098 ±.003 (2.49 ±.08)	.111 ±.003 (2.82 ±.08)	N/A	N/A	7.9	9.5	10.8	N/A	N/A
16	19 X 29	2426	.088 ±.003 (2.24 ±.08)	.104 ±.003 (2.64 ±.08)	.119 ±.003 (3.02 ±.08)	N/A	N/A	10.0	11.4	13.0	N/A	N/A
14	19 X 27	3831	.100 ±.003 (2.54 ±.08)	.119 ±.003 (3.02 ±.08)	.131 ±.003 (3.33 ±.08)	.164 ±.003 (4.17 ±.08)	N/A	14.2	16.1	17.5	22.0	N/A
12	37 X 28	5874	.118 ±.003 (3.00 ±.08)	.138 ±.003 (3.51 ±.08)	.150 ±.003 (3.81 ±.08)	.183 ±.003 (4.65 ±.08)	N/A	21.5	23.8	25.4	30.5	N/A
10	37 X 26	9354	.143 ±.005 (3.63 ±.13)	.161 ±.005 (4.09 ±.13)	.175 ±.005 (4.44 ±.13)	.205 ±.005 (5.21 ±.13)	.235 ±.005 (5.97 ±.13)	33.8	36.4	38.6	43.9	50.0
8	133 X 29	16983	.198 ±.006 (5.03 ±.15)	.219 ±.006 (5.56 ±.15)	.230 ±.006 (5.84 ±.15)	.260 ±.006 (6.60 ±.15)	.290 ±.006 (7.37 ±.15)	61.5	65.6	67.9	74.7	82.3

SCC WIRE RESISTANCE / CONDUCTOR DIA.			SCC WIRE RESISTANCE / CONDUCTOR DIA.			SCC WIRE RESISTANCE / CONDUCTOR DIA.		
Wire Size AWG	DC Resistance @ 20°C (Ohms/1000 ft.)	Ø A nom.	Wire Size AWG	DC Resistance @ 20°C (Ohms/1000 ft.)	Ø A nom.	Wire Size AWG	DC Resistance @ 20°C (Ohms/1000 ft.)	Ø A nom.
28	63.8	.014 (0.36)	20	9.19	.038 (0.97)	12	1.90	.086 (2.18)
26	38.4	.019 (0.48)	18	5.79	.047 (1.19)	10	1.19	.108 (2.74)
24	24.3	.024 (0.61)	16	4.52	.053 (1.35)	8	.658	.161 (4.09)
22	15.1	.030 (0.76)	14	2.88	.066 (1.68)			