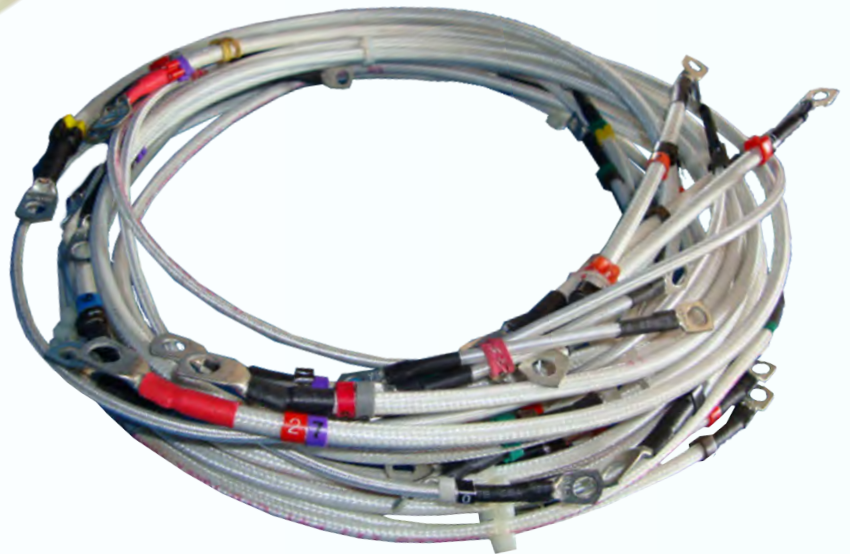


# UNINYVIN

**MIRACLENYVIN™**



**MIRACLECABLES™**  
Smart cable solutions

## Miracle NYVIN™ cables

Miracle NYVIN™ cables are single Core, Annealed Tinned Copper Conductor, Heat Resistance 105°C Poly Vinyl Chloride (HR-PVC) insulation cables with Fiber Glass, Nylon Braided Nylon Lacquering.

These Cables are traditionally used in Air Craft wiring. These cables are economical and efficient to use as UPS Battery Cable, UPS Wiring, Battery bank interconnections, Panel Board wirings, interconnection wires apart from various othersuitable applications. These cables are suitable for use in continuous service. It has conductor temperature rating of 105°C. Cable ambient temperatures – 30°C to 65°C. Uninyvin has good moisture and abrasion resistance. Good resistance to fuels, oils and alkalis. Miracle NYVIN™ conforms standard specification as per BSG- 177.

Miracle NYVIN™ can be supplied as wire forms, cable kits and wire looms; we have the men and machine to make world class cutting, striping and crimping.

UNINYVIN CABLES					
Uninyvin Cable	Size(area)	Conductor Diameter "Max"	Overall Diameter "Max"	Conductor Resistance at 20°C "Max"	Max Current Rating "Amps"
Core	"Sq. mm"	"mm"	"mm"	"Ω/ 900m"	BS-G-177
22	0.347	0.838	2.00	49.660	11
20	0.566	1.04	2.30	30.950	14
18	0.966	1.32	2.50	17.820	18
16	1.17	1.55	2.80	14.700	21
14	2.05	1.95	3.40	8.410	31
12	3.22	2.43	3.80	5.350	43
10	5.33	3.15	5.00	3.230	61
8	8.76	4.24	6.30	1.970	87
6	13.3	5.54	7.50	1.300	115
4	21.5	6.90	9.30	0.802	160
2	33.3	8.76	11.00	0.517	200
1	40.7	9.75	12.20	0.423	220
0	53.0	11.0	13.70	0.325	240
00	68.3	12.4	15.40	0.252	270
000	84.2	13.9	16.90	0.204	300
0000	109	15.6	18.70	0.158	350

### De-rating Factors of Nyvin Cables for Different ambient

Ambient Tem. °C	40	45	50	55	60	65	70	75	80	85	90	95	100
De rating Factors	1.0	0.96	0.92	0.88	0.83	0.78	0.75	0.73	0.68	0.62	0.53	0.48	0.30

### Miracle Nyvin™

Uninyvin Cable No.	"Sq. mm"	Maximum continuous Rating Amperes in Free Air			
		Single Cable	3 Bonched Cables	7 Bonched Cables	12 Bonched Cables
22	0.347	11	7	5	4
20	0.566	14	9	7	5
18	0.966	18	13	10	6
16	1.170	21	15	11	7
14	2.050	31	24	17	12
12	3.220	43	30	22	15
10	5.330	61	47	36	25
8	8.760	87	65	49	36
6	13.300	115	87	65	-
4	21.500	160	120	92	-
2	33.300	200	155	120	-
1	40.700	220	165	130	-
0	53.000	240	185	168**	-
00	68.300	270	210/240*	190**	-
000	84.200	300	235/265*	210**	-
0000	109.000	350	270/305*	245**	-

(\* = Denotes two cables only, \*\* = Denotes five cables only)

These current rating are based on a temperature rise of 40°C and allow for an ambient temperature of 65°C. The maximum permissible conductor temperature is 105°C. If the ambient temperature “t” is continuously in excess of 65°C; the current should be multiplied by the factor “k” where,

$$k = \sqrt{\frac{105-t}{40}}$$

### COMPARISON CHART – NORMAL PVC CABLES VS UNINYVIN CABLES

PVC CABLE			UNINYVIN CABLE		
Size mm <sup>2</sup>	Cable Dia mm	Current Rating Amp	Size AWG	Cable Dia mm	Current Rating Amp
2.50	3.50	20	18	2.50	23
4.00	4.30	27	16	2.80	27
6.00	5.30	35	14	2.40	40
10.0	6.70	46	12	3.80	55
16.0	8.20	62	10	5.00	78
25.0	10.00	80	8	6.30	111
35.0	11.30	102	6	7.50	148
50.0	13.50	138	4	9.30	205
70.0	15.50	214	2	11.00	256
95.0	18.50	260	1	12.20	282
120	20.90	305	0	13.70	308
150	22.50	355	00	15.40	346
185	24.60	415	000	16.90	386
240	27.60	450	0000	18.90	450

### General Comparison between Nyvin cable & PVC Cable

Particulars	Nyvin Cables -22	PVC Insulated Cables 1 Sq MM
Cable weight	6.5kg/km	15kg/km (1.00sq.mm)
Cable Size	Lower size (0.347sqmm)	Higher size(1.00sqmm)
Current Rating	14 Amps	12Amps
Temperature Rating	105°C	70°C
Insulation grade	Type-C HR-105°C ( High Temp)	Type-A 70°C
Conductor Material	Tinned Plated copper (No corrosion)	Plain copper
Abrasive strength	Good ( F- Glass & Nylon Jacket)	Nil
Heat Test	Cable shall separate without sticking	Test Not applicable as per ISI Standard
Bending radius mini.	3 to 6 times of Cable Dia	3 to 6 times of Cable dia
Mechanical Strength	Good (16.00N/sqmm)	Normal ( 12.5N/sqmm)
Flexibility Test	No signs of damage	Normal
Voltage grade	600Volts rms.	Up to & including 650 / 1100 V

Note: The comparisons chart and other example data given are based on our experience the result may vary based on various factors; no warranty or damage claim shall be entertained or will not bind Miracle Cable India Pvt. Ltd legally. Customers are requested to verify the facts before using the products.



## About us

**M**iracle Cables (I) Pvt. Ltd is 16 years young company with aspirations to grow as a significant player in the cables industry. The company has an array of professionals dedicated to give the exceptional products and services to its customers. Situated in Mumbai, a strategic location of India, Miracle Cables currently caters to several world class organizations in India as well as abroad. Miracle Cables (I) Pvt. Ltd. has following achievements to its credit-

- ARAI(The automotive Research Association of India) test certificate
- ISO 9001-2008
- ISI Certification
- NTH (National Test House) test certificate
- CPRI test Certificate
- UL (Underwriters' Laboratories) Certification
- CVRDE (Combat Vehicles R & D Estt.) approval
- DGQA (Directorate General of Quality Association) approval
- ERTL (Electronics Regional Test Laboratory) certificate
- ERDA (Electrical Research & Development Association) test certificate
- ROHS Test certificate

Apart from Auto Cables, Miracle Cables (I) Pvt. Ltd also manufactures cables for wide range of applications. These cables include Uninyvin Cable, Power cables, Control & instrumentation cable, Eco-friendly cable, and many more.