



bambachcables.com.au



# Bambach

SPECIALISED & INDUSTRIAL CABLES

Australian Owned and Operated Since 1936

## Introduction

Established in 1936, Bambach Wires & Cables are proud to be a fully Australian owned and operated company.

We seek to be our customers preferred partner for low and medium voltage cabling products. Whether you need new or unique wire and cable technology, or just someone you can count on to deliver the basics, Bambach can supply

the appropriate product. In addition to manufacturing a large range of cables in our Sydney factory, we have a fully developed network of local and high quality European manufacturers to meet your cable requirements.

We can supply	
Brads & Terminated Brads	Mining Cable
Control Cable	Navy Cable
Data & Instrumentation Cable	Pump Cable
Defence Approved Cable	PVC Flexible Cable
EMC/VSD Cable	Rail Cable
High Temperature Cable	Rope
Lighting Cable	Rubber Cable
Litz Wire	Solar Cable
LSZH Cable	Silicon Insulated
Marine Cable	Telephone Cable
Meter Sealing Wire	Traffic Cable

Our head office, in Sydney, combines production, sales and administration under one roof, and we have sales branches in Newcastle, Brisbane, Melbourne and Perth holding stock for convenient, local service and supply. Bambach Wires & Cables are committed to providing the right solution to meet your needs and therefore ensuring your total satisfaction. Our dedicated and experienced staff draws on over 70 years of industry knowledge and

experience, the highest quality standards, and continual monitoring of our performance to ensure the optimum product and service you require. The content of these pages is only an indication of our capabilities; if you do not find what you are looking for please do not hesitate to contact our sales team for further information.

## Quality Assurance



As an AS/NZS ISO 9001:2008 certified company, you have the assurance of professionalism and expertise in the development and manufacture of the highest quality specialist industrial cables.

Bambach Wires & Cables are dedicated to quality, customer service and the continual improvement of our business. We are constantly reviewing our products and services and welcome your suggestions for improvement.

### Disclaimer

This is a sales catalogue compiled by Bambach Wires and Cables Pty Ltd (BWC). It is intended as a general reference, and does not constitute professional advice or instruction. You should exercise your own skill and care or seek professional advice before installing any wire or cable product. BWC will endeavour to maintain the catalogue current and accurate. BWC provides this catalogue on the basis that BWC is not responsible for any loss or damage arising out of any actions taken on the basis of the catalogue. BWC does not warrant or represent that the information is free from

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## Custom Cable Solutions

With your knowledge and our know-how Bambach Wires & Cables we can also provide a range of options for customised cable. The composition of a cable can be altered in order to meet your specific requirements, or to meet local or international specifications, such as AS/NZS1125; AS/NZS3808; AS/NZS5000; AS/NZS3166; AS/NZS3191; AS/NZS3158; AS/NZS1125 IEC 60332-1; IEC 60332-3; IEC 60228; IEC 60287; DIN 51900 DET Norske Veritas (DNV), Germanischer Lloyd (GL), Lloyds Register (LR), Gost R, Bureau Vertas (BV), VDE, ROHS

Customisation does not have to be as complex as developing a new cable from scratch, it can be as simple as a modification or addition to an existing cable from our range.



You will find this symbol throughout our catalogue which identifies the cable as being manufactured in Australia by Bambach Wires & Cables. We maintain a flexible manufacturing operation in Sydney with some of the smallest minimum order quantities and shortest lead times in our market place and any of these cables can be customised to suit your needs.

### Insulation and Sheathing Compounds

Compound	Mechanical Strength Low Temperature	Mechanical Strength High Temperature	Flexibility	Abrasion And Impact Resistance	Electrical Performance	Chemical Performance	Fire Performance
PVC Poly Vinyl Chloride	Good	Average	Good	Average	Good	Fair	Good
PE Polyethylene Low Density High Density Cellular	Good	Poor	Average	Average	Excellent	Good	Poor
XLPE Cross-Linked Polyethylene	Good	High	Poor	Excellent	Excellent	Good	Average
PUR Polyurethane	Good	Average	Average	Excellent	Average	Good	Excellent
LSZH – HF90 Low Smoke, Zero Halogen	Average	Average	Average	Good	Excellent	Excellent	Excellent
X-HF-110 Cross-Linked Polyolefine	Good	High	Good	Good	Excellent	Good	Excellent
TPV Thermo Plastic Vulcanizate	Good	Poor	Excellent	Good	Excellent	Excellent	Good
Nylon Polyamide	High	High	Poor	Good	Poor	Excellent	Poor

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## Mining Cable

### Type 1 Machine Cable



#### Application:

Typically used for interconnection of control boxes or motors on non-mobile or fixed apparatus. Used when exposure to heat is not an issue and where added mechanical strength is required

Benefits	
Robust Construction	Cores are taped and tightly braided to minimise damage from vibration
Extremely Flexible	Flexible cable using class 5 conductors
Easy to Install	Flexible insulation and sheath for use in confined applications
Excellent Screening	Composite tinned copper and poly-yarn screening provides excellent mechanical strength with high coverage
Features	
✓	Fine conductor stranding for high flexing
✓	RoHS compliant to European environmental requirements
✓	Tinned copper strands for high corrosion protection
✓	Tinned copper braid with 90% minimum coverage provides excellent EMI and mechanical protection
✓	Easy to identify white cores with black numbering
Construction	
Conductor	Tinned annealed copper wire, class 5
Insulation	V90-HT PVC
Screening	Tinned annealed copper wire inter woven with high textile poly-yarn
Sheath	5V90 PVC
Colours	White with black numbering
Ratings	
Temperature	0°C to + 90°C
Voltage	1.1/1.1kV
Conductor DC Resistance	12.3Ω/km
Capacitance (Core – Core, 1kHz)	110pF/m
Inductance (Parallel Cores, 1kHz)	0.67μH/m
L/R Ratio	27.8μH/Ω
Applicable Standards	AS/NZS1125, AS/NZS1972, AS/NZS3808



Flexible Conductor:  
Class 5



Tinned Copper  
for Corrosion Resistance



Minimum Service  
Temperature:  
0°C



Maximum Service  
Temperature:  
90°C



Maximum Short Circuit  
Temperature:  
160°C (Max 5s)



Impact Resistant



Abrasion Resistant



Chemical & Oil Resistant



Flame  
Non-Propagation



UV Resistant



Minimum Recommended  
Bend Radius Fixed 6 x OD

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## Type 1 Machine Cable

Bambach Item Code	Conductor CSA mm <sup>2</sup>	Conductor Stranding No. of Strands/mm	Nom Ø mm	Current Rating* Amps	Weight kg/km
14475BK	2 x 1.5	30/0.25	8.6	17	105
14463BK	4 x 1.5	30/0.25	9.8	14	154
14461BK	6 x 1.5	30/0.25	12.3	12	255
47894BK	30 x 1.5	30/0.25	24.5	8	1056

\*Current ratings based on AS/NZS3008.1.1:2009 table 10 column 12, table 13 column 12 and table 22 row 2



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## Mining Cable

### Type 3 Machine Cable



#### Application:

For use where excess heat is generated at connection points. Cable can be used for control boxes, motors or resistor boxes fitted to mobile haulage machinery (shuttle cars). Cable is also designed to provide mechanical strength

**Note:** Cable has a maximum continuous operating temperature of 90°C, except for a short distance adjacent to the connecting terminals where the outer covering has been removed. Here the maximum permissible operating temperature is 150°C

#### Benefits

Excellent Heat Resistance	R-S-150 insulation provides outstanding long term performance in high temperature connections
Robust Construction	Cores are taped and tightly braided to minimise damage from vibration
Extremely Flexible	Flexible cable using class 5 conductors
Easy to Install	Flexible insulation and sheath for use in confined applications
Excellent Screening	Composite tinned copper and poly-yarn screening provides excellent mechanical strength with high coverage

#### Features

- ✓ Rated up to 150°C at connections
- ✓ Fine conductor stranding for high flexing
- ✓ RoHS compliant to European environmental requirements
- ✓ Tinned copper strands for high corrosion protection
- ✓ Tinned copper braid with 90% minimum coverage provides excellent EMI and mechanical protection

#### Construction

Conductor	Tinned annealed copper wire, class 5
Insulation	R-S-150
Screening	Tinned annealed copper wire inter woven with high textile poly-yarn
Sheath	5V90 PVC
Colours	Red, black, blue, white

#### Ratings

Temperature	0°C to + 90°C
Voltage	1.1/1.1kV
Conductor DC Resistance	12.3 Ω/km
Capacitance (Core – Core, 1kHz)	70pF/m
Inductance (Parallel Cores, 1kHz)	0.64µH/m
L/R Ratio	26.0µH/Ω
Applicable Standards	AS/NZS1125, AS/NZS1972, AS/NZS3808



Flexible Conductor:  
Class 5



Tinned Copper  
for Corrosion Resistance



Minimum Service  
Temperature:  
0°C



Maximum Service  
Temperature:  
90°C



Maximum Short Circuit  
Temperature:  
250°C (Max 5s)



Impact Resistant



Abrasion Resistant



Chemical & Oil Resistant



Flame  
Non-Propagation



Minimum Recommended  
Bend Radius Fixed 6 x OD

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## Type 3 Machine Cable

Bambach Item Code	Conductor CSA mm <sup>2</sup>	Conductor Stranding No. of Strands/mm	Nom Ø mm	Current Rating* Amps	Weight kg/km
14494RD	4 x 1.5	30/0.25	10.6	17	118

\* Current ratings based on AS/NZS3008.1.1:2009 table 14 column 12



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## Mining Cable

### Type 9 Machine Cable



#### Application:

For signal and control interconnection between enclosures on mining machines. Used in non-intrinsically safe environments.

Benefits	
Gas Non-Transmission	Cables do not aid propagation of ignition source
Extremely Flexible	Flexible cable using class 5 conductors
Easy to Install	Flexible insulation and sheath for use in confined applications
Excellent Screening	Tinned copper screening provides excellent EMI protection
Features	
✓	Cables comply with non-transmission of an internal ignition
✓	Fine conductor stranding for high flexing
✓	RoHS compliant to European environmental requirements
✓	Tinned copper strands for high corrosion protection
✓	Tinned copper braid with 80% minimum coverage provides excellent EMI protection
✓	Choice of individual or overall braid screening
Construction	
Conductor	Tinned annealed copper wire, class 5
Insulation	V90-HT PVC
Screening	Tinned annealed copper wire (individual or overall, as specified)
Sheath	5V90 PVC
Colours	Coloured cores, with hash marking for > 12 cores
Ratings	
Temperature	0°C to + 90°C
Voltage	ELV - Not suitable for connection to mains
Applicable Standards	AS/NZS1125, AS/NZS1972, AS/NZS3808.1



Flexible Conductor:  
Class 5



Tinned Copper  
for Corrosion Resistance



Minimum Service  
Temperature:  
0°C



Maximum Service  
Temperature:  
90°C



Impact Resistant



Abrasion Resistant



Chemical & Oil  
Resistant



Flame  
Non-Propagation



Intrinsically Safe



Minimum Recommended  
Bend Radius Fixed 6 x OD

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### Type 9 Machine Cable - Individually Screened

Bambach Item Code	Conductor CSA mm <sup>2</sup>	Conductor Stranding No. of Strands/mm	Nom Ø mm	Weight kg/km
40670BE	12 x 0.5	16/0.20	11.0	210
42505BE	25 x 0.5	16/0.20	13.9	447
19295BE	4 x 0.75	24/0.20	11.2	171
19290BE	6 x 0.75	24/0.20	12.6	265
30308BE	2 x 1	32/0.20	9.2	118

### Type 9 Machine Cable - Collectively Screened

Bambach Item Code	Conductor CSA mm <sup>2</sup>	Conductor Stranding No. of Strands/mm	Nom Ø mm	Weight kg/km
22550BE	6 x 0.5	16/0.20	7.3	88
15790BE	2 x 0.75	24/0.20	8.9	126
19285BE	3 x 0.75	24/0.20	9.2	171

### Electrical Parameters

Bambach Item Code	Core DC Resistance Ω/km	Capacitance Core – Core, 1kHz pF/m	Inductance Parallel Cores, 1kHz µH/m	L/R µH/Ω
40670BE	36.2	141	0.77	10.6
42505BE	36.2	141	0.77	10.6
19295BE	24.1	116	0.90	18.6
19290BE	24.1	116	0.90	18.6
30308BE	18.1	166	0.79	21.8
22550BE	36.2	132	0.61	8.4
15790BE	24.1	93	0.77	16.0
19285BE	24.1	93	0.77	16.0

## PVC Flexible

### Tinned Copper Flexible Single Core Cables



#### Application:

Wiring of switchboards, control, instrumentation and communication systems, general wiring

Benefits	
Extreme Flexibility	Class 5 flexible conductor stranding
Easy to Solder	Tinned copper conductors for easy adhesion
High Temperature Rating	Allows for operation in high temperature applications*
Easy Identification	Hash marking and line striping available in a variety of colours
Wide Choice	12 colours available, many stocked for your convenience
Features	
✓ Tinned copper strands for corrosion protection	
✓ Tinned copper for high conductivity soldered connection	
✓ Class 5 conductors for extreme flexibility for those awkward to get to connections	
✓ RoHS compliant PVC to European environmental requirements	
✓ V90-HT insulation for high ambient temperature applications	
✓ V90-HT insulation for long term durability and flexibility	
✓ Distinctive hash marking for complex jobs with many colour combination needs	
Construction	
Conductor	Tinned annealed copper wire, class 5 or 6
Insulation	V90-HT PVC
Colours	Red, black, blue, white, brown, grey, orange, purple, pink, yellow, green and green/yellow. Others available upon request
Ratings	
Temperature	0°C to + 90°C (Continuous)      0°C to + 105°C (Limited duration)
Voltage	0.6/1kV
Applicable Standards	AS/NZS1125, AS/NZS3808, AS/NZS3191, AS/NZS5000.1



Flexible Conductor:  
Class 5/6



Tinned Copper  
for Corrosion Resistance



Minimum Service  
Temperature:  
0°C



Maximum Service  
Temperature:  
90°C



Maximum Short Circuit  
Temperature:  
160°C (Max 5s)



Impact Resistant



Abrasion Resistant



Chemical And Oil Resistant



Flame  
Non-Propagation



Minimum Recommended  
Bend Radius Fixed 4 x OD

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## PVC Flexible

Bambach Item Code	Conductor CSA mm <sup>2</sup>	Conductor Stranding No of Strands/mm	Nom Ø mm	Current Rating <sup>†</sup> Amps	Weight kg/km
21620	0.5	16/0.20	2.5	3	11
24600	0.75	24/0.20	2.8	7.5	14
25620	1	32/0.20	2.9	10	17
26620	1.5	30/0.25	3.2	16	22
27520	2.5	50/0.25	3.9	20	35
28320	4	56/0.30	4.7	25	54
28970	6	84/0.30	5.4	49	76
29810	10	140/0.30	6.3	69	121
29823	16	224/0.30	7.7	91	199
12024	25	350/0.30	9.8	121	277
12036	35	1121/0.20	10.8	150	384
29828	50	1568/0.20	13.6	189	534
20118	70	2226/0.20	16.3	238	738
20119	95	3021/0.20	18.0	287	999
20120	120	3800/0.20	19.3	341	1240

\*See Australian Standards AS/NZS3000/3808 for details

Cables insulated with V90-HT PVC insulation are allowed to operate for limited periods in applications where the temperature in the cable may rise to 105°C

†Current ratings based on AS/NZS3008.1.1:2009 table 4 column 3 and table 16

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## Flexible Earths

### VNR/Plain Copper



#### Application:

Industrial sub-distribution board, transformers, generators and wherever large flexible earths are required

Benefits	
Easy to Install	Flexible cable using class 5 conductors
High Temperature Rating	Allows for operation in high temperature applications
Extremely Flexible	VNR insulation allows for easy insulation in confined areas
Features	
✓	Fine stranded conductors for high flexing
✓	RoHS compliant to European environmental requirements
✓	VNR 90 insulation for high ambient temperature applications
✓	Highly flexible VNR insulation for easy bending in restricted places
Construction	
Conductor	Plain annealed copper wire, class 5
Insulation	VNR 90 Vinyl - Nitrile Rubber
Colours	Green/yellow
Ratings	
Temperature	0°C to + 90°C
Voltage	0.6/1kV
Applicable Standards	AS/NZS1125, AS/NZS3808, AS/NZS5000.1



Flexible Conductor:  
Class 5



Copper



Minimum Service  
Temperature:  
0°C



Maximum Service  
Temperature:  
90°C



Maximum Short Circuit  
Temperature:  
160°C (Max 5s)



Impact Resistant



Abrasion Resistant



Chemical and Oil Resistant



Flame  
Non-Propagation



Minimum Recommended  
Bend Radius Fixed 4 x OD

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## Flexible Earth Cables - VNR/Plain Copper

Bambach Item Code	Conductor CSA mm <sup>2</sup>	Conductor Stranding No. of Strands/mm	Nom Ø mm	Current Rating* Amps	Weight kg/km
20111AGNYW	16	182/0.32	7.6	91	200
20112AGNYW	25	308/0.32	9.5	121	300
20113AGNYW	35	434/0.32	10.7	150	390
20114AGNYW	50	627/0.32	13.7	189	570
20115AGNYW	70	872/0.32	16.7	238	750
20116AGNYW	95	1176/0.32	18.0	287	1080
20117AGNYW	120	1480/0.32	18.7	341	1460

\*Current ratings based on AS/NZS3008.1.1:2009 table 4, column 3



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## Flexible Earths

### PVC/Tinned Copper



#### Application:

Industrial sub-distribution board, transformers, generators and wherever large flexible earths are required

Benefits	
Easy to Install	Flexible cable using class 5 conductors
Easy to Solder	Tinned copper conductors for easy adhesion
Marine Applications	Tinned copper conductors minimises corrosion in marine environments
High Temperature Rating	Allows for operation in high temperature applications*
Features	
✓ Tinned copper strands for corrosion protection	
✓ Fine stranded conductors for high flexing	
✓ RoHS compliant PVC to European environmental requirements	
✓ V90-HT insulation for high ambient temperature applications	
✓ V90-HT insulation for long term durability and flexibility	
Construction	
Conductor	Tinned annealed copper wire, class 5
Insulation	V90-HT PVC
Colours	Green/yellow
Ratings	
Temperature	0°C to +90°C (Continuous)      0°C to +105°C (Limited duration)*
Voltage	0.6/1kV
Applicable Standards	AS/NZS1125, AS/NZS3808, AS/NZS5000.1



Flexible Conductor:  
Class 5/6



Tinned Copper  
for Corrosion Resistance



Minimum Service  
Temperature:  
0°C



Maximum Service  
Temperature:  
90°C



Maximum Short Circuit  
Temperature:  
160°C (Max 5s)



Impact Resistant



Abrasion Resistant



Chemical and Oil Resistance



Flame Non-Propagation



Minimum Recommended  
Bend Radius Fixed 4 x OD

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## Flexible Earth Cables - PVC/Tinned Copper

Bambach Item Code	Conductor CSA mm <sup>2</sup>	Conductor Stranding No. of Strands/mm	Nom Ø mm	Current Rating <sup>†</sup> Amps	Weight kg/km
29823GNYWS	16	224/0.30	7.5	91	199
12024GNYWS	25	350/0.30	9.8	121	277
12036GNYWS	35	1121/0.20	10.8	150	384
29828GNYWS	50	1568/0.20	13.6	189	534
20118GNYWS	70	2226/0.20	16.3	238	738
20119GNYWS	95	3021/0.20	18.0	287	999
20120GNYWS	120	3800/0.20	19.2	341	1240

\*See Australian Standards AS/NZS 3808.1.1:2009 for details

†Current ratings based on AS/NZS3008.1.1:2009 table 4, column 3

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## Rubber HO7 RN-F

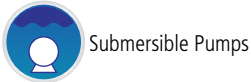
### Single Core - Double Insulated Cables



#### Application:

To supply power in demanding applications in the lighting industry, switchboards, generators, battery leads, welding flex, industrial applications and submersible pumps

Benefits	
Extremely Flexible	Flexible cable using class 5 conductors
Easy to Install	Flexible insulation & sheath for use in confined & difficult applications. Minimum bending radius 4 x diameter
Suitable for Outdoors	UV resistant sheath extends life in exposed environments
Submersible	Suitable for permanent deep water installations
Heavy Duty	Exceptional mechanical strength, impact and abrasion resistance
Chemical Resistance	Resistant to a range of chemicals & oils
Features	
✓	Fine stranded conductors for high reliability in flexing applications
✓	RoHS compliant to European environmental requirements
✓	Thermosetting rubber for excellent strength retention in high ambient temperature applications
✓	Metre marked
Construction	
Conductor	Plain annealed copper wire, class 5
Insulation	Thermosetting rubber (EPR type E14)
Sheath	Thermosetting rubber (CPE type EM2)
Colours	Black core, black sheath
Ratings	
Temperature	-25°C to + 90°C
Voltage	0.6/1kV
Applicable Standards	IEC 60332-1, HD 22.4, UNE 21027-4, EN 60228



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## Single Core Rubber Cables

Bambach Item Code	No. of Cores x Conductor CSA mm <sup>2</sup>	Conductor Stranding No. of Strands/mm	Nom Ø mm	Current Rating* Amps	Weight kg/km
51309A	6	84/0.30	8.3	59	116
51310A	10	80/0.40	10.1	83	182
51311A	16	128/0.40	11.4	110	25
51312A	25	200/0.40	13.4	147	361
51313A	35	280/0.40	14.7	183	469
51314A	50	400/0.40	17.5	231	671
51315A	70	356/0.50	19.6	292	892
51316A	95	485/0.50	22	351	114
51317A	120	614/0.50	24.2	418	142
51318A	150	765/0.50	26.6	483	176
51319A	185	944/0.50	28.8	555	209
51320A	240	1225/0.50	32.2	668	271
51321A	300	1551/0.50	34.9	772	331
51322A	400	1995/0.50	39.3	933	427

\*Current ratings based on AS/NZS3008.1.1:2009 table 5 column 9. For 3 phase current ratings refer to table 8

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## Rubber HO7 RN-F


















### Multi Core Cables



#### Application:

To supply power in demanding applications in the lighting industry, switchboards, generators, battery leads, welding flex, industrial applications and submersible pumps

Benefits	
Extremely Flexible	Flexible cable using class 5 conductors
Easy to Install	Flexible insulation & sheath for use in confined & difficult applications. Minimum bending radius 4 x diameter
Suitable for Outdoors	UV resistant sheath allows for installation outside
Submersible	Suitable for permanent deep water installations
Heavy Duty	Exceptional mechanical strength, impact and abrasion resistance
Chemical Resistance	Resistant to a range of chemicals & oils
Features	
✓	Fine stranded conductors for high reliability in flexing applications
✓	RoHS compliant to European environmental requirements
✓	Thermosetting rubber for excellent strength retention in high ambient temperature applications
✓	Metre marked
Construction	
Conductor	Plain annealed copper wire, class 5
Insulation	Thermosetting rubber (EPR type E14)
Sheath	Thermosetting rubber (CPE type EM2)
Colours	3 core - Brown, blue, green/yellow 4 Core - Brown, blue, black, green/yellow 5 Core - Black, blue, brown, grey, green/yellow >5 Core - Black with white printed numbers, green/yellow
Ratings	
Temperature	-25°C to + 90°C
Voltage	0.6/1kV
Applicable Standards	IEC 60332-1, HD 22.4, UNE 21027-4, EN 60228

 Flexible Conductor: Class 5	 Copper	 Minimum Service Temperature: -25°C	 Maximum Service Temperature: 90°C	 Maximum Short Circuit Temperature: 250°C (Max 5s)
 Impact Resistant	 Abrasion Resistance	 Grease & Mineral Oils Resistant	 Chemical & Oil Resistant	 Flame Non-Propagation
 UV Resistant	 Water Resistance: AD8 submerged	 Low Temperature Resistance: Excellent	 Anti-twist Resistance: Excellent	 Metre Marking
 Submersible Pumps	 Minimum Recommended Bend Radius Fixed 4 x OD			

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## Multi-Core Rubber Cables

Bambach Item Code	No. of Cores x Conductor CSA mm <sup>2</sup>	Conductor Stranding No. of Strands/mm	Nom Ø mm	Current Rating* Amps	Weight kg/km
51260A	2 x 1	32/0.21	8.3	18	92
51261A	2 x 1.5	30/0.26	8.7	23	109
51262A	2 x 2.5	50/0.26	10.6	30	162
51264A	3 x 1	32/0.21	8.9	15	111
51265A	3 x 1.5	30/0.26	9.7	19	137
51266A	3 x 2.5	50/0.26	11.4	26	198
51267A	3 x 4	56/0.31	13.1	34	276
51268A	3 x 6	84/0.31	14.8	43	370
51269A	3 x 10	80/0.41	20.1	61	668
51270A	3 x 16	128/0.41	22.6	81	906
51271A	3 x 25	200/0.41	27.4	108	1360
51276A	4 x 1	32/0.21	9.7	15	134
51277A	4 x 1.5	30/0.26	10.7	19	169
51278A	4 x 2.5	50/0.26	12.6	26	244
51279A	4 x 4	56/0.31	14.4	34	343
51280A	4 x 6	84/0.31	16.7	43	474
51281A	4 x 10	80/0.41	21.6	61	822
51282A	4 x 16	128/0.41	24.6	81	1120
52183A	4 x 25	200/0.41	30.7	108	1730
51284A	4 x 35	280/0.41	33.2	135	2180
51285A	4 x 50	400/0.41	39.2	170	3060
51292A	5 x 1.5	30/0.26	11.6	19	206
51293A	5 x 2.5	50/0.26	14.0	26	299
51294A	5 x 4	56/0.31	16.3	34	431
51295A	5 x 6	84/0.31	18.4	43	585
51296A	5 x 10	80/0.41	24.2	61	1010
51297A	5 x 16	128/0.41	27.1	81	1380
51298A	5 x 25	200/0.41	33.6	108	2110
51323A	5 x 35	280/0.41	36.6	135	2677
51299A	7 x 1.5	30/0.26	14.9	10	307
51300A	7 x 2.5	50/0.26	17.1	14	434
51301A	12 x 1.5	30/0.26	18.0	8	456
51302A	12 x 2.5	50/0.26	22.1	11	654
51308A	18 x 1.5	30/0.26	21.9	7	646

\*Current ratings based on AS/NZS3008.1.1:2009 table 11 column 6, table 14 column 6 and table 22 row 2

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## Power Cable

### Single Core - Double Insulated XLPE/PVC Cables



#### Application:

Used as submains for power supply to individual distribution boards. Also used for power supply in industrial environments. Installed in static environments where increased current ratings are needed

Benefits	
Flame Retardant	Flame retardant sheath provides protection during a fire situation
Increased Current Ratings	XLPE insulation is rated to carry higher continuous currents
Heavy Duty	SDI provides exceptional mechanical strength, impact and abrasion resistance
Suitable for Outdoors	UV resistant sheath extends life in exposed environments
Features	
✓	Stranded circular conductors are suitable for fixed installations
✓	XLPE Insulation for excellent electrical and mechanical performance at high ambient temperatures
✓	RoHS compliant to European environmental requirements
✓	Black UV resistant PVC sheath
Construction	
Conductor	Plain annealed copper wire, class 2
Insulation	XLPE
Sheath	Flame Retardant PVC
Colours	Natural insulation, black sheath
Ratings	
Temperature	-15°C to + 90°C
Voltage	0.6/1kV
Applicable Standards	IEC 60502-1



Copper



Minimum Service Temperature: -15°C



Maximum Service Temperature: 90°C



Maximum Short Circuit temperature: 250°C (Max 5s)



Impact Resistant



Abrasion Resistant



Flame Non-propagation



UV Resistant



Metre Marking



Minimum Recommended Bend Radius Fixed 12 x OD

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## SDI Power Cables XLPE/PVC

Bambach Item Code	Conductor CSA mm <sup>2</sup>	Conductor Stranding No. of Strands/mm	Nom Ø mm	Current Rating* Amps	Weight kg/km
47928A	2.5	7/0.67	6.7	27	65
47929A	4	7/0.85	7.2	36	81
47930A	6	7/1.04	7.8	46	108
47931A	10	7/1.35	9.4	64	155
47852A	16	7/1.80	10	85	210
47853A	25	7/2.30	12	114	315
47854A	35	7/2.60	13	141	414
47932A	50	7/3.20	14.5	178	542
47933A	70	19/2.30	16	225	761
47855A	95	19/2.60	18.5	271	1026
47984A	120	19/2.72	20	322	1279
47935A	150	37/2.30	22	373	1524
47856A	185	37/2.60	24	428	1872
47936A	240	37/2.80	27	515	2391
47937A	300	61/2.60	30	594	3023
47938A	400	61/2.95	34	715	3975
47988A	500	61/3.30	37	830	4894
47989A	630	61/3.60	42	969	6283

\* Current ratings based on AS/NZS3008.1.1:2009 table 5, column 9. For 3 phase current ratings refer to table 8

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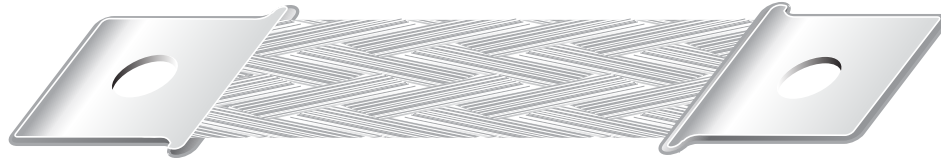
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## Braids & Terminated Braids

### Tinned Copper, Plain Copper and Stainless Steel Braids



#### Application:

Use in earthing, EMI shielding and marine installations. Copper braids can also be used as battery straps for termination or installed over cables for additional protection. Stainless steel can be used as flexible strength members

#### Benefits

Flexible Stranding	Superfine conductor stranding gives increased flexibility
Duplex Braid	Duplex braids offer larger conductor areas without the increased width, while maintaining flexibility
Robust Build	Battery straps and duplex braids are more durable than regular braids
Custom Terminated Braids	Made to suit specific customer dimensions

#### Features

- ✓ Terminated braids can be fitted with tinned annealed copper lugs for maximum conductivity
- ✓ Braids are manufactured with a shorter lay length to increase torsion resistance and improve flexibility
- ✓ Tinned copper and 316 grade stainless steel limits the affects of oxidisation and corrosion
- ✓ Stainless steel braids for excellent mechanical strength
- ✓ Lugs are pressed to increase mechanical strength of termination

#### Construction

Conductor	Tinned annealed copper, plain annealed copper or 316 grade stainless steel
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#### Ratings

Applicable Standards	AS/NZS1125
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#### Tinned Copper Braid

Bambach Item Code	Conductor CSA mm <sup>2</sup>	Stranding No. of Strands/mm	Approx. Width mm	Current Rating* Amps	Weight kg/km
17440	1.12	24/4/0.12	3.2	22	10
19160	1.68	24/6/0.12	4.8	30	15
20640	2.24	24/8/0.12	6.4	37	22
22000	3.92	24/14/0.12	7.0	45	39
23200	5.98	32/16/0.12	12.7	66	57
29720	11.96	2 x 32/16/0.12	12.7	90	114
25300	8.97	48/16/0.12	19.0	85	95
30360	17.94	2 x 48/16/0.12	19.0	118	167
26300	17.94	48/32/0.12	25.0	118	167
30920	35.88	2 x 48/32/0.12	26.0	190	334

## Tinned Copper Battery Straps

Bambach Item Code	Conductor CSA mm <sup>2</sup>	Stranding No. of Strands/mm	Approx. Width mm	Current Rating* Amps	Weight kg/km
28120	23.56	48/10/0.25	25	150	217
31480	47.12	2 x 48/10/0.25	28	240	461
29000	37.70	48/16/0.25	28	210	359
31485	75.40	2 x 48/16/0.25	33	310	718
35500	105.54	19/7/14/0.25 Rope O/A 36/8/0.25 Braid	16 Diameter Circular	390	1010

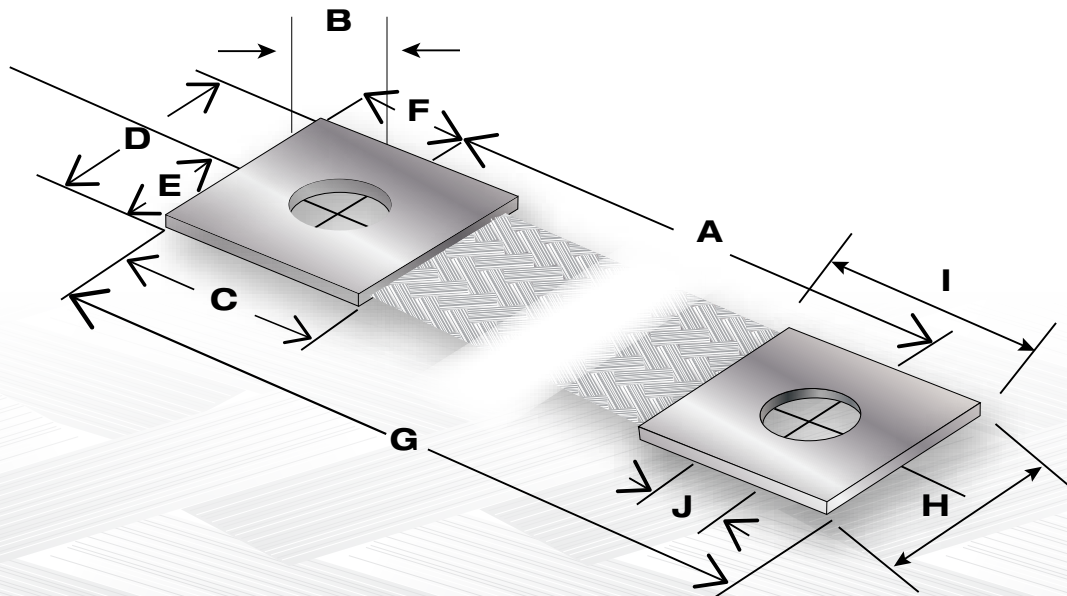
\*Calculated at 40°C temperature rise above 30°C ambient, over standard length 1m

## 316 Stainless Steel Braid - Circular

Bambach Item Code	Conductor CSA mm <sup>2</sup>	Stranding No. of Strands/mm	Approx Diam mm	Weight kg/km
12201	2.26	24/3/0.20	3.7	22
12200	3.01	24/4/0.20	3.9	29

## Terminated Braids

Terminated braids are custom designed to meet specific requirements.





## Halogen Free, Low Smoke, High Temperature, Flame Retardant Cables

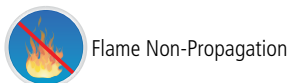
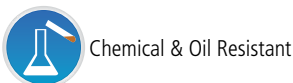
### BETAtherm® 145 & BETAflam® 145 Tinned Copper Flexible



#### Application:

Wiring of switchboards, control, instrumentation, marine and communication equipment

Benefits	
Low Smoke	Reduced smoke emission in a fire situation
Low Toxicity	Reduced toxicity in a fire situation
Non-Corrosive	No corrosive gas emission in a fire situation
High Temperature Rating	High temperature rating can allow reduced sizes, saving space and weight
High Flexibility	Class 5 flexible conductor stranding
Heavy Duty	Exceptional mechanical strength, impact and abrasion resistance
Flame Retardant	Flame retardant, low fire load and non-flame propagating
Marine Approved	Marine class approvals – Lloyds, BV, DNV, GL, VDE & Gost R
Features	
✓	Tinned copper strands for corrosion protection
✓	145°C halogen free insulation for high ambient temperature applications
✓	Tinned copper for high conductivity soldered connection
✓	Fine stranded conductors for high flexing
✓	RoHS compliant to European standards
✓	Marine class approvals: Lloyd's Register, DNV, BV and GL
✓	Electron beam crosslinked polyolefin copolymer for enhanced mechanical strength
Construction	
Conductor	Tinned annealed copper wire, class 5
Insulation	Electron beam crosslinked polyolefin copolymer halogen free 145°C
Ratings	
Temperature	-55°C to +145°C
Voltage	$U_0/U \leq 1 \text{ mm}^2$ 300 / 500 V   $U_0/U \geq 1.5 \text{ mm}^2$ 450 / 750 V   For fixed and protected installation $U_0/U \geq 1.5 \text{ mm}^2$ 600 / 1000 V
Applicable Standards	IEC 60332-1, IEC 60332-3, IEC 60228, DIN 51900



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## BETAtherm® 145 - Single Core

Bambach Item Code	Conductor CSA mm <sup>2</sup>	Conductor Stranding No. of Strands/mm	Nom Ø mm	Current Rating* Amps	Weight kg/km
13137A	0.25	14 /0.15	1.6	11	5
13246A	0.5	16/0.20	1.9	15	9
13247A	0.75	24/0.20	2.2	20	13
13248A	1	32/0.20	2.4	25	15
13245A	1.5	30/0.25	3.0	31	22
13249A	2.5	50/0.25	3.7	41	34
13251A	4	56/0.30	4.2	56	47
13252A	6	84/0.30	4.7	72	72
13253A	10	80/0.40	6.1	100	120
13139A	16	126/0.40	7.5	132	190
13140A	25	196/0.40	9.0	174	290
13141A	35	280/0.40	10.1	215	400
13142A	50	399/0.40	12.7	264	550
13143A	70	570/0.40	14.7	340	770
13144A	95	475/0.50	16.4	415	1010

Sizes up to 630mm<sup>2</sup> available on request.

### Ship and offshore approvals

VDE permission no. 9887

Germanischer Lloyd (GL) certificate no. 96630 - 94 HH

Lloyd's Register (LR) certificate no. 03 / 20056

BUREAU VERITAS (BV) certificate no. 13349 / BO BV

DNV certificate no. E-7684

Gost R: Certificate no. 83 B 00 682

## BETAflam® 145 Flex - Multi-Core

Bambach Item Code	Conductor CSA mm <sup>2</sup>	Conductor Stranding No. of Strands/mm	Nom Ø mm	Current Rating* Amps	Weight kg/km
13060A	2 x 1.5	30/0.25	7.6	23	71
13206A	3 x 1	32/0.20	6.8	19	66
13270A	3 x 1.5	30/0.25	8.1	23	96
13268A	3 X 2.5	50/0.25	9.8	31	145
13064A	3 x 6	84/0.30	12.4	53	309
13266A	4 x 1.5	30/0.25	8.8	23	123
13264A	4 x 2.5	50/0.25	10.8	31	189
13263A	4 x 4	56/0.30	12.2	41	260
13262A	4 x 6	84/0.30	13.8	53	375
13066A	4 x 10	80/0.40	17.5	72	627
13061A	5 x 1.5	30/0.25	9.8	23	156
13271A	5 X 2.5	50/0.25	12.0	31	235
13065A	5 X 6	84/0.30	15.4	53	494
13261A	7 x 1.5	30/0.25	12.0	23	224
13062A	10 X 1.5	30/0.25	14.6	23	314
13258A	12 X 1.5	30/0.25	14.6	23	346
13257A	16 X 1.5	30/0.25	16.2	23	452

Other sizes & screened versions available on request. \*Current ratings based on ambient temperature of 40°C as per IEC 60287

### Ship and offshore approvals

Germanischer Lloyd (GL) certificate no. 96627-94HH

Lloyd's Register (LR) certificate no. 03/20057

BUREAU VERITAS (BV) certificate no. 13348/BO BV

DET Norske Veritas (DNV) certificate no. E-8948/8950

Gost R certificate no. 83 B 00 682

Current ratings based on ambient temperature of 40°C as per IEC 60287

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## EMC/VSD Cable

### Variable Speed Drive Cable - PVC



#### Application:

Variable speed drives (VSD's), equipment control and measurement. All Applications requiring electrical/electronic screening of cable

Benefits	
Excellent Screening	Huge reduction in electrical and electronic emissions from cable
Reduced Noise Effects	Greatly reduces the effects of noise disturbance on cable signals
Easy to Install Easy to Use	Easy to install easy to use-flexible cable using class 5 conductors
Extremely Flexible	Extremely flexible insulation and sheath for use in confined and difficult applications
Easy to Solder	Easy to solder tinned copper conductors and braid
Choice Of Range	Easy to use braid or foil taped and braid cover
Features	
✓ Tinned copper braid only cables provide excellent screening, particularly at low frequencies and medium frequencies	
✓ Tinned copper and foil screen cables give ultimate protection with 100% cover and excellent screening throughout the frequency range	
✓ Split earths (6mm <sup>2</sup> and larger) provide enhanced balance for harmonics	
✓ UV resistant V75 PVC	
✓ RoHS compliant to European environmental requirements	
Construction	
Conductor	Tinned annealed copper wire, class 5
Insulation	V90-HT PVC
Screening	Tinned copper wire braid, minimum coverage 85% Aluminium/PET tape and tinned copper wire braid, 100% coverage
Sheath	V75 PVC
Colours	2 Core + Earth – Blue, brown & green/yellow 3 Core + Earth – Black, blue, brown & green/yellow >5 Core – White numbered cores and green/yellow earth
Ratings	
Temperature	0°C to + 75°C
Voltage	0.6/1kV
Applicable Standards	AS/NZS1125, AS/NZS3808, AS/NZS5000.1



Flexible Conductor:  
Class 5



Tinned Copper  
for Corrosion  
Resistance



Minimum Service  
Temperature:  
0°C



Maximum Service  
Temperature:  
75°C



Maximum Short Circuit  
Temperature:  
160°C (Max 5s)



Impact Resistant



Abrasion  
Resistant



Chemical and  
Oil Resistant



UV Resistant



Minimum Recommended  
Bend Radius Fixed  
4 x OD (Braid only)  
8 x OD (Braid & foil)

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## EMC/VSD PVC Cable - Braid and Foil Screen

Bambach Item Code	Conductor CSA mm <sup>2</sup>	Conductor Stranding No. of Strands/mm	Construction	Nom Ø mm	Current Rating <sup>†</sup> Amps	Weight kg/km
45885CRS	1.5	30/0.25	2 Core + E	11.2	18	176
45886CRS	2.5	50/0.25	2 Core + E	12.1	25	223
45902CRS	4	56/0.30	2 Core + E	14.3	33	322
45905CRS	6	84/0.30	2 Core + E	16.1	42	458
45890CRS	1.5	30/0.25	3 Core + E	12.1	16	213
45900CRS	2.5	50/0.25	3 Core + E	13.1	21	250
45901CRS	4	56/0.30	3 Core + E	15.3	28	392
45904CRS	6	Core 84/0.30 Earth 30/0.25	3 Core + 3 E	17.6	36	561
45903CRS	10	Core 140/0.30 Earth 30/0.25	3 Core + 3 E	18.6	51	749
45908CRS	16	Core 224/0.30 Earth 50/0.25	3 Core + 3 E	21.1	67	1018
46020CRS	25	Core 350/0.30 Earth 56/0.30	3 Core + 3 E	26.6	89	1300
46025CRS	35	Core 494/0.30 Earth 56/0.30	3 Core + 3 E	29.0	110	1806
45906CRS	2.5	50/0.25	5 Core + E	15.4	17	385
45920CRS	2.5	50/0.25	7 Core + E	15.7	15	456
45907CRS	2.5	50/0.25	11 Core + E	18.6	14	715

## EMC/ VSD PVC Cable - Braid Screen

Bambach Item Code	Conductor CSA mm <sup>2</sup>	Conductor Stranding No. of Strands/mm	Construction	Nom Ø mm	Current Rating <sup>†</sup> Amps	Weight kg/km
45883CRS	1.5	30/0.25	2 Core + E	11.3	18	180
45884CRS	2.5	50/0.25	2 Core + E	12.6	25	229
45899CRS	0.75	24/0.20	6 Core + E	12.5	6	243
45911CRS	1.5	30/0.25	6 Core + E	14.1	12	325
45918CRS	0.75	24/0.20	12 Core + E	14.9	5	376
45922CRS	1.5	30/0.25	12 Core + E	17.2	9	474

<sup>†</sup>Current ratings based on AS/NZS3008.1.1:2009 Table 10 column 6, table 13 column 6 and table 22 row 2

NOTE: the screen is not designed as an electrical safety earth conductor and should not be used in place of a protective earth core

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## EMC/VSD Cable

### Variable Speed Drive Cable - XLPE



#### Application:

Variable speed drives (VSD's), equipment control and measurement. All applications requiring electrical/electronic screening of cable. XLPE insulated cores are used where current demands are higher

#### Benefits

Excellent Screening	Huge reduction in electrical and electronic emissions from cable
Reduced Noise Effects	Greatly reduces the effects of noise disturbance on cable signals
Increased Current Ratings	XLPE insulation is rated to carry higher continuous currents
Easy to Install Easy to Use	Easy to install easy to use-flexible cable using class 5 conductors
Extremely Flexible	Extremely flexible insulation and sheath for use in confined and difficult applications
Easy to Solder	Easy to solder tinned copper conductors and braid

#### Features

- ✓ Tinned copper braid provide excellent screening from external EMI
- ✓ Higher performance VSD cable with improved temperature and current ratings
- ✓ Lighter weight and reduced overall diameter
- ✓ Split earths (6mm<sup>2</sup> and larger) provide enhanced balance for harmonics
- ✓ UV resistant black 5V90 PVC sheath
- ✓ RoHS compliant to European environmental requirements

#### Construction

Conductor	Tinned annealed copper wire, class 5
Insulation	Flexible X-90
Screening	Tinned copper wire braid, minimum coverage 85%
Sheath	5V90 PVC
Colours	2 Core + Earth - Blue, brown & green/yellow 3 Core + Earth - Black, blue, brown & green/yellow

#### Ratings

Temperature	0°C to + 90°C
Voltage	0.6/1kV
Applicable Standards	AS/NZS1125, AS/NZS3808, AS/NZS5000.1



Flexible Conductor:  
Class 5



Tinned Copper  
for Corrosion Resistance



Minimum Service  
Temperature:  
0°C



Maximum Service  
Temperature:  
90°C



Maximum Short Circuit  
Temperature:  
250°C (Max 5s)



Impact Resistant



Abrasion Resistant



Chemical & Oil  
Resistant



UV Resistant



Flame  
Non-Propagation



Minimum Recommended  
Bend Radius Fixed 4 x OD

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## EMC/VSD XLPE Cable - Braid Screen

Bambach Item Code	Conductor CSA mm <sup>2</sup>	Conductor Stranding No. of Strands/mm	Construction	Nom Ø mm	Current Rating* Amps	Weight kg/km
46030BK	2.5	50/0.25	2 Core + E	11.9	30	215
46031BK	4	56/0.30	2 Core + E	13.1	40	274
46032BK	6	84/0.30	2 Core + E	14.7	51	353
46035BK	2.5	50/0.25	3 Core + E	12.7	26	256
46036BK	4	56/0.30	3 Core + E	14.1	34	335
46037BK	6	Core 84/0.30 Earth 30/0.25	3 Core + 3 E	15.9	43	435
46038BK	10	Core 140/0.30 Earth 30/0.25	3 Core + 3 E	18.1	61	591
46039BK	16	Core 224/0.30 Earth 50/0.25	3 Core + 3 E	20.3	81	826
46040BK	25	Core 350/0.30 Earth 56/0.30	3 Core + 3 E	23.9	108	1192

\*Current ratings based on AS/NZS3008.1.1:2009 table 11, column 6 and table 14, column 6

Note: the screen is not designed as an electrical safety earth and should not be in place of a protective earth core.

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## Control Cable

### Flexible Control Cable, Flexible Multi-Core Cable



#### Application:

For use in control and measurement of equipment. Cable can be installed for instrument to instrument connection, electrical sensing, electrical measuring devices and general transmission of electrical signals

Benefits	
Easy to Install	Flexible cable using class 5 conductors
Easy to Use	White cores with black numbers make the cores easily identified in low light
Extremely Flexible	Flexible insulation and sheath for use in confined & difficult applications
Easy to Solder	Tinned copper conductors
Marine Applications	Tinned copper conductors minimise corrosion in marine environments
Suitable for Outdoors	UV resistant black PVC sheath provides extended outdoor life

Features	
✓	Tinned copper conductors for reduced oxidation effects
✓	Fine stranded conductors for high flexing
✓	RoHS compliant PVC to European environmental requirements
✓	V90-HT insulation for high ambient temperature at terminations
✓	V90-HT insulation for long term durability and flexibility
✓	Highly flexible 5V90 sheath for easy bending in restricted spaces

Construction	
Conductor	Tinned annealed copper wire, class 5
Insulation	V90-HT PVC
Sheath	5V90 PVC
Colours	White cores with black numbering and green/yellow earth

Ratings	
Temperature	0°C to + 90°C
Voltage	300/500V
Applicable Standards	AS/NZS1125, AS/NZS3808



Flexible Conductor:  
Class 5



Tinned Copper  
for Corrosion Resistance



Minimum Service  
Temperature:  
0°C



Maximum Service  
Temperature:  
90°C



Maximum Short Circuit  
Temperature:  
160°C (Max 5s)



Impact Resistant



Abrasion Resistant



Chemical & Oil Resistant



Flame  
Non-Propagation



UV Resistant



Minimum Recommended  
Bend Radius Fixed 4 x OD

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## Control Cable

Bambach Item Code	Conductor CSA mm <sup>2</sup>	Conductor Stranding No. Strands/mm	Construction	Nom Ø mm	Weight kg/km
14448BKS	1.5	30/0.25	3 Core + E	8.1	118
14447BKS	0.75	24/0.20	4 Core + E	7.8	99
14451BKS	0.75	24/0.20	6 Core + E	8.7	129
14454BKS	1	32/0.20	6 Core + E	8.9	142
14458BKS	1.5	30/0.25	6 Core + E	9.7	206
14459BKS	0.75	24/0.20	11 Core + E	10.9	226
14460BKS	1	32/0.2	11 Core + E	11.8	249
14462BKS	1.5	30/0.25	11 Core + E	13.5	311
14466BKS	2.5	50/0.25	11 Core + E	15.5	455
14468BKS	0.5	16/0.20	17 Core + E	12.1	244
14470BKS	0.75	24/0.20	17 Core + E	13.3	287
14617BKS	1	32/0.20	17 Core + E	13.8	332
14464BKS	1.5	30/0.25	17 Core + E	15.5	432
14485BKS	0.75	32/0.20	24 Core + E	15.7	399
14490BKS	1.5	30/0.25	24 Core + E	19.6	655

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## High Temperature

### Silicone Rubber Cables 150°C - 200°C



#### Application:

Industrial heating and cooling, areas where extreme high and low temperatures are apparent

Benefits	
Wide Temperature Range	Silicone rubber insulation is suitable in extreme high and low temperatures
Flexible Stranding	Class 5 flexible conductor stranding
Acid and Oil Resistance	Good resistance to oils, gasoline and some acids
Marine Applications	Tinned copper conductor minimises corrosion in marine environments
Halogen Free	Silicone rubber insulation does not release corrosive gases when ignited
Features	
✓ R-S-200 insulation has a very wide operating range between -50°C and + 200°C	
✓ Tinned copper conductors provide excellent corrosion resistance at elevated temperatures	
✓ Silicone rubber exhibits excellent electrical resistance	
✓ Good flame retardance with zero halogens	
Construction	
Conductor	Tinned annealed copper wire, class 5
Insulation	R-S-200 (0.5mm <sup>2</sup> - 6mm <sup>2</sup> single core, R-S-150 other sizes)
Colours	Blue, black, brown, green, grey, orange, purple, pink, red, white, yellow, 3 Core – Blue, brown and green, black outer sheath
Ratings	
Temperature	R-S-200 -50°C to + 200°C      R-S-150 -10°C to +150°C
Voltage	0.6/1kV
Applicable Standards	AS/NZS1125, AS/NZS3808, AS/NZS3191



Flexible Conductor:  
Class 5



Tinned Copper  
for Corrosion Resistance



Minimum Service  
Temperature:  
-50°C



Maximum Service  
Temperature:  
200°C Single Core up to  
6mm<sup>2</sup> other sizes 150°C



Maximum Short Circuit  
Temperature:  
350°C (Max 5s)



Grease & Minerals Oils  
Resistant



Chemical & Oil Resistant



UV Resistant



Low Temperature Resistant



Halogen Free



Minimum Recommended  
Bend Radius Fixed 6 x OD

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### Silicone Rubber Single Core - 200°C

Bambach Item Code	Conductor CSA mm <sup>2</sup>	Conductor Stranding No. of Strands/mm	Nom Ø mm	Current Rating* Amps	Weight kg/km
10685A	0.5	16/0.20	2.7	19	12
13005	0.75	24/0.20	2.9	24	15
15105	1	32/0.20	3.3	28	19
17025	1.5	30/0.25	3.6	37	24
18765	2.5	50/0.25	4.0	50	35
20285	4	56/0.30	4.7	67	51
21640	6	84/0.30	6.1	87	72

### Silicone Rubber Single Core - 150°C

Bambach Item Code	Conductor CSA mm <sup>2</sup>	Conductor Stranding No. of Strands/mm	Nom Ø mm	Current Rating* Amps	Weight kg/km
22880A	10	140/0.30	8.2	120	115
23960A	16	224/0.30	9.4	165	176
24980A	25	350/0.30	11.0	215	264

### Silicone Rubber Multi Core - 150°C

Bambach Item Code	Conductor CSA mm <sup>2</sup>	Conductor Stranding No. of Strands/mm	Nom Ø mm	Current Rating† Amps	Weight kg/km
25720	2 x 0.75	24/0.20	7.0	24	70
25760	3 x 0.75	24/0.20	8.0	20	80
25980	3 x 1	32/0.20	9.0	24	110
26980	3 x 1.5	30/0.25	10.0	31	140
27015	3 x 2.5	50/0.25	12.0	43	180

\*Current ratings based on AS/NZS3008.1.1:2009 table 17 column 2

†Current ratings based on AS/NZS3008.1.1:2009 table 17 column 4

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## High Temperature

### Glass Braided Silicone Rubber Cables 150°C - 200°C



#### Application:

For use in heating equipment and areas with high ambient temperature. Also for applications that require additional abrasion resistance and mechanical strength

Benefits		
High Temperature Rating	Silicone rubber insulation is suitable for use in high temperatures	
Flexible Stranding	Class 5 flexible conductor stranding	
Abrasion Resistant	Varnish impregnated glass braid provides excellent abrasion resistance	
Easy to Solder	Tinned copper conductors for easy adhesion	
Mechanical Strength	Glass braid coupled with silicone insulation gives good tensile strength	
Features		
✓	R-S-200 insulation is suitable for operation in temperatures up to 200°C (R-S-150 for temperatures to 150°C)	
✓	Silicone rubber exhibits excellent electrical resistance	
✓	Double glass braid gives 100% coverage of silicone insulation	
✓	Varnish impregnated glass braid provides excellent wear resistance, particularly at high temperatures	
✓	Tinned copper strands for corrosion protection	
Construction		
Conductor	Tinned annealed copper wire, class 5	
Insulation	R-S-200 or R-S-150	
Braid	Glass fibre braid impregnated with silicone varnish	
Colours	Blue, black, brown, green, red, white	
Ratings		
Temperature	0°C to + 200°C – Single Cores up to 6mm <sup>2</sup>	0°C to +150°C - Other sizes
Voltage	0.6/1kV	
Applicable Standards	AS/NZS1125, AS/NZS3808, AS/NZS3191	



Flexible Conductor:  
Class 5



Tinned Copper  
for Corrosion Resistance



Minimum Service  
Temperature:  
0°C



Maximum Service  
Temperature:  
200°C up to 6mm<sup>2</sup>,  
150°C other sizes



Maximum Short Circuit  
Temperature:  
350°C (Max 5s)



Impact Resistant



Abrasion Resistant



Minimum Recommended  
Bend Radius Fixed 6 x OD

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### Silicone Rubber/Glass Braided Single Core 200°C

Bambach Item Code	Conductor CSA mm <sup>2</sup>	Conductor Stranding No. of Strands/mm	Nom Ø mm	Current Rating* Amps	Weight kg/km
10046	0.5	16/0.20	3.3	19	14
10050	0.75	24/0.20	3.4	24	17
11190	1	32/0.20	3.8	28	21
11310	1.5	30/0.25	3.9	37	25
11490	2.5	50/0.25	4.5	50	39
12125	4	56/0.30	5.3	67	54
12250	6	84/0.30	6.7	87	76

### Silicone Rubber/Glass Braided Single Core 150°C

Bambach Item Code	Conductor CSA mm <sup>2</sup>	Conductor Stranding No. of Strands/mm	Nom Ø mm	Current Rating* Amps	Weight kg/km
13455	10	140/0.30	9.7	120	120
13620	16	224/0.30	10.4	165	181
13650	25	350/0.30	12.0	215	269

\*Current ratings based on AS/NZS3008.1.1:2009 table 17 column 2

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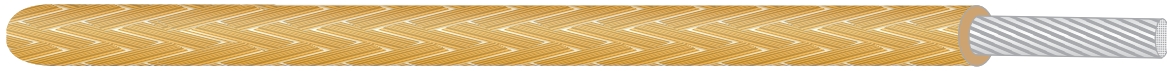
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## High Temperature

### Glass Insulated, Tinned Copper Single Core Cables 150°C



#### Application:

Suitable for high ambient temperature environments up to 150°C

Benefits	
High Temperature Rating	Glass insulated tinned copper conductors are suitable for use in high temperature areas
Flexible Stranding	Class 5 flexible conductor stranding
Easy to Solder	Tinned copper conductors for easy solder adhesion
Abrasion Resistant	Silicone varnish impregnated, double glass braided insulation provides excellent abrasion resistance
Wide Choice Available	A variety of colours available ex-stock
Features	
✓	Tinned Copper conductors are suitable for operation up to 150°C
✓	Class 5 stranding provides increased flexibility
✓	Double glass braid for high insulation resistance
✓	Silicone varnish and double glass braid for 100% coverage
Construction	
Conductor	Tinned annealed copper wire, class 5
Insulation	Double glass fibre braid impregnated with silicone varnish
Colours	Blue, black, green, natural, red and white
Ratings	
Temperature	0°C to +150°C
Voltage	0.6/1kV
Applicable Standards	AS/NZS1125, AS/NZS3158



Flexible Conductor:  
Class 5



Tinned Copper  
for Corrosion Resistance



Minimum Service  
Temperature:  
0°C



Maximum Service  
Temperature:  
150°C



Maximum Short Circuit  
Temperature:  
350°C (Max 5s)



Impact Resistant



Abrasion Resistant



Flame  
Non-Propagation



Minimum Recommended  
Bend Radius Fixed 6 x OD

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## Tinned Copper/Glass Braided

Bambach Item Code	Conductor CSA mm <sup>2</sup>	Conductor Stranding No. of Strands/mm	Nom Ø mm	Current Rating* Amps	Weight kg/km
16100	0.75	24/0.20	3.2	24	14
17780	1	32/0.20	3.5	28	23
19520	1.5	30/0.25	3.7	37	27
21000	2.5	50/0.25	4.0	50	39
22280	4	56/0.30	4.9	67	55

\*Current ratings based on AS/NZS3008.1.1:2009 table 17 column 2.



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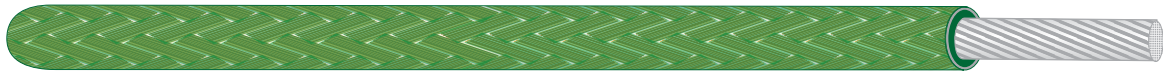
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## High Temperature

### Glass Insulated, Pure Nickel Single Core Cables 350°C



#### Application:

Suitable for high ambient temperature environments up to 350°C

Benefits	
High Temperature Rating	Glass insulated pure nickel conductors are suitable for use in very high temperature environments
Pure Nickel Conductors	Nickel conductors offer high strength and corrosion resistance at elevated temperatures where copper and tinned copper degrade
Flexible Stranding	Class 5 flexible conductor stranding
Abrasion Resistant	Silicone varnish impregnated, glass braided insulation provides excellent abrasion resistance
Reduced Diameter	Double fine and super fine options are available to fit specific inserts
Wide Choice Available	A variety of colours available ex-stock

Features	
✓	Pure nickel conductors are suitable for operation up to 350°C
✓	Class 5 stranding allows increased flexibility
✓	Double glass braid for high insulation resistance
✓	Silicone varnish and double glass braid for 100% coverage

Construction	
Conductor	Pure nickel wire, class 5 stranding
Insulation	Double glass fibre braid impregnated with silicone varnish
Colours	Blue, black, green, natural, red and white

Ratings	
Temperature	0°C to + 350°C
Voltage	0.6/1kV*
Applicable Standards	AS/NZS3158†



Flexible Conductor:  
Class 5



Pure Nickel



Minimum Service  
Temperature:  
0°C



Maximum Service  
Temperature:  
350°C



Impact Resistant



Abrasion Resistant



Flame Non-Propagation



Minimum Recommended  
Bend Radius Fixed 6 x OD

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### Pure Nickel/Glass braided 350°C<sup>†</sup>

Bambach Item Code	Conductor CSA mm <sup>2</sup>	Conductor Stranding No. of Strands/mm	Nom Ø mm	Weight kg/km
32760	0.5	16/0.20	2.9	9
33160	0.75	24/0.20	3.2	14
33520	1	32/0.20	3.5	23
33840	1.5	30/0.25	3.7	26
34160	2.5	50/0.25	4.0	38
34440	4	56/0.30	4.9	52

### Pure Nickel/Glass braided 350°C Super Fine\*

Bambach Item Code	Conductor CSA mm <sup>2</sup>	Conductor Stranding No. of Strands/mm	Nom Ø mm	Weight kg/km
34970	0.5	16/0.20	1.95	9
34945	0.75	24/0.20	2.0	11
34950	1	32/0.20	2.2	16
34960	1.5	30/0.25	2.4	18

### Pure Nickel/Glass braided 350°C Double Fine\*

Bambach Item Code	Conductor CSA mm <sup>2</sup>	Conductor Stranding No. of Strands/mm	Nom Ø mm	Weight kg/km
35000	0.5	16/0.20	2.1	10
35280	0.75	24/0.20	2.4	11
35560	1	32/0.20	2.6	16
35840	1.5	30/0.25	2.8	18

\*Super fine and double fine nickel cables have reduced insulation thicknesses to fit specific inserts. 0.6/1kV voltage rating does not apply

†Pure nickel conductors are generally to AS/NZS 3158 as the standard covers up to class 27(27% nickel)



## High Temperature

### Lighting Discharge Cable 150°C



#### Application:

For use in high luminous lights where voltage can reach 7.5kV and other high voltage discharge applications

Benefits	
High Temperature Ratings	Silicone rubber insulation is suitable in extreme high and low temperatures : -50°C to +150°C
Extremely Flexible	Class 5 flexible conductor stranding and flexible silicone rubber insulation
High Voltage Rating	Thick silicone rubber insulation provides protection at high voltages
Features	
✓	7.5kV voltage rating based on AS3166
✓	Silicone insulation offers operation up to +150°C
✓	Silicone rubber exhibits excellent electrical resistance
Construction	
Conductor	Tinned annealed copper wire, class 5
Insulation	R-S-150
Colours	Clear or Black
Ratings	
Temperature	-50°C to +150°C
Voltage	7.5kV
Applicable Standards	AS/NZS1125, AS/NZS3166

#### Lighting Discharge Cable

Bambach Item Code	Conductor CSA mm <sup>2</sup>	Conductor Stranding No. of Strands/mm	Avg. Insulation Thickness mm	Nom Ø mm	Weight kg/km
44405A	1.5	30/0.25	3.2	8.2	72



Flexible Conductor:  
Class 5



Tinned Copper  
for Corrosion Resistance



Minimum Service  
Temperature:  
-50°C



Maximum Service  
Temperature:  
150°C



Maximum Short Circuit  
Temperature:  
350°C (Max 5s)



Abrasion Resistant



Minimum Recommended  
Bend Radius Fixed 8 x OD

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## Data & Instrument

### Screened Signal & Microphone Cable



#### Application:

For connection of low voltage signal, audio and instrument equipment. Used where EMI screening is required

Benefits	
EMI Shielding	Tinned copper braid reduces the affect of electrical interference throughout the frequency spectrum
Extremely Flexible	Flexible conductor and braid stranding allow for high flexibility
Easy to Install	Flexible cable using class 5 conductors
Easy to Solder	Tinned copper conductors for easy adhesion
Marine Applications	Tinned copper conductors minimise corrosion in marine environments
Features	
✓	Copper braid with minimum coverage of 80% gives excellent EMI shielding
✓	V90-HT insulation for high temperature applications
✓	Tinned copper conductors for corrosion protection
✓	Fine stranded conductors for high flexibility
✓	Highly flexible 5V90 PVC sheath for easy bending
✓	UV resistant black sheath provides extended outdoor life
✓	RoHS compliant to comply with European environmental requirements
Construction	
Conductor	Tinned annealed copper wire, class 5
Insulation	V90-HT PVC
Screening	Tinned annealed copper wire, minimum coverage 80%
Sheath	5V90 PVC
Colours	1 Core – Red 2 Core – Red & white, 3 Core – Red, blue & green 4 Core – Red, black, yellow & blue 6 Core – Black, blue, green, red, white & yellow
Ratings	
Temperature	0°C to + 90°C
Voltage	ELV – Not suitable for connection to mains
Applicable Standards	AS/NZS1125, AS/NZS3808



Flexible Conductor:  
Class 5



Tinned Copper  
for Corrosion Resistance



Minimum Service  
Temperature:  
0°C



Maximum Service  
Temperature:  
90°C



Impact Resistant



Abrasion Resistant



Chemical & Oil  
Resistant



UV Resistant



Flame  
Non-Propagation



Minimum Recommended  
Bend Radius Fixed 6 x OD

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## Data and Instrument - Collectively Screened

Bambach Item Code	No. of Cores x Conductor CSA mm <sup>2</sup>	Conductor Stranding No. Strands/mm	Nom Ø mm	Weight kg/km
11320BK	1 x 0.5	16/0.20	4.0	24
15790BK	2 x 0.5	16/0.20	5.6	44
19280BK	3 x 0.5	16/0.20	5.6	60
22120BK	4 x 0.5	16/0.20	5.8	69
22550BK	6 x 0.5	16/0.20	7.3	81
11675BE	1 x 0.75	24/0.20	5.2	46
11955BE	1 x 1	32/0.20	5.4	50

## Electrical Parameters

Bambach Item Code	Core DC Resistance Ω/km	Capacitance Core – Core, 1kHz pF/m	Capacitance Core – Screen, 1kHz pF/m	Inductance Parallel Cores, 1kHz μH/m	L/R μH/Ω
11320BK	36.2	-	445	-	-
15700BK	36.2	183	-	0.63	8.7
19280BK	36.2	183	-	0.63	8.7
22120BK	36.2	183	-	0.63	8.7
22550BK	36.2	183	-	0.63	8.7
11675BE	24.1	-	320	-	-
11955BE	18.1	-	353	-	-

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## Microphone Cable

### Braid Screened Microphone Cable



#### Application:

For use in high frequency audio equipment where high flexing and EMI shielding is required

#### Benefits

EMI Shielding	Tinned copper braid reduces the affect of electrical interference throughout the frequency spectrum
High Flexibility	Very fine wire and TPE sheath provides excellent flexibility
Excellent Signal Transmission	Plain copper conductor coupled with polyolefin insulation provides excellent signal transmission at low and high frequencies

#### Features

- ✓ Copper braid with minimum coverage of 90% gives excellent EMI shielding
- ✓ Drain wire and braid for easy shield termination
- ✓ Cable does not release halogen material when ignited
- ✓ RoHS compliant to comply with European environmental requirements

#### Construction

Conductor	Plain annealed copper wire, class 6
Insulation	PE
Screening	Tinned annealed copper wire, min. coverage 90%
Sheath	TPE
Colours	Blue & White

#### Ratings

Temperature	-25°C to + 70°C
Voltage	ELV - Not suitable for connection to mains
Conductor DC Resistance	51.7Ω/km
Characteristic Impedance, (1kHz)	95Ω
Mutual Capacitance, (1kHz)	80pF/m
Capacitance, Unbalanced (1kHz)	<2%
Applicable Standards	AS/NZS1125, AS/NZS3808

#### Microphone Cable

Bambach Item Code	No of Pairs x Nominal Area mm <sup>2</sup>	Conductor Stranding No. Strands/mm	Nom Ø mm	Weight kg/km
15750BK	1 x 0.35	30/0.12	6.6	42



Flexible Conductor:  
Class 6



Copper



Minimum Service  
Temperature:  
-25°C



Maximum Service  
Temperature:  
70°C



Impact Resistant



Halogen Free



Minimum  
Recommended Bend  
Radius Fixed x 4 OD

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## Speaker Cable

### Flexible Speaker Extension Cable



#### Application:

Wiring of extension speakers and power supply to electronic equipment

Benefits	
Extreme Flexibility	Class 5 flexible conductor stranding for easy installation
Easy to Install	Soft V75 PVC insulation provides increased flexibility for confined installations
Features	
✓	Fine conductor stranding for high flexing
✓	RoHS compliant to meet European environmental requirements
✓	Available in clear and gold insulation
Construction	
Conductor	Plain annealed copper wire, class 5
Insulation	V75 PVC
Colours	Clear or Gold
Ratings	
Temperature	0°C to + 75°C
Voltage	250/250V
Applicable Standards	AS/NZS1125, AS/NZS3808 , AS/NZS3191

#### Speaker Cable

Bambach Item Code	Conductor CSA mm <sup>2</sup>	Conductor Stranding No. Strands/mm	Nom Ø mm	Current Rating* Amps	Weight kg/km
15500	2 x 2.64	84/0.20	4.3 x 9.2	22	89

\*Current ratings based on AS/NZS 3808.1:2009 Table 4, Column 9



Flexible Conductor:  
Class 5



Copper



Minimum Service  
Temperature:  
0°C



Maximum Service  
Temperature:  
75°C



Impact Resistant



Abrasion Resistant



Chemical & Oil Resistant



UV Resistant



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## Traffic Cable

### Loop Detector Cable



#### Application:

For use in inductive vehicle-detector loops within traffic signal installations

Benefits	
Extra Heavy Duty	Exceptional mechanical strength, impact and abrasion resistance
High UV Resistance	High carbon content insulation provides excellent UV protection
Chemical Resistant	Resistant to a range of chemicals
Features	
✓ Tinned copper strands for corrosion protection	
✓ High temperature insulation for high ambient temperature applications	
✓ Cross-Linked insulation for additional mechanical and thermal stability	
Construction	
Conductor	Tinned annealed copper wire, class 2
Insulation	X-90UV
Colour	Black
Ratings	
Temperature	-10°C to + 90°C
Voltage	250/250V
Applicable Standards	AS/NZS1125, AS/NZS2276.3, AS/NZS3808

#### Loop Detector Cable

Bambach Item Code	Conductor CSA mm <sup>2</sup>	Conductor Stranding No. of Strands/mm	Nom Ø mm	Weight kg/km
46005BKM	1.5	7/0.50	3.9	24



Tinned Copper for Corrosion Resistance



Minimum Service Temperature: -10°C



Maximum Service Temperature: 90°C



Impact Resistant



Abrasion Resistant



UV Resistant



Halogen Free



Minimum Recommended Bend Radius Fixed 6 x OD

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## Traffic Cable

### Traffic Feeder Cable



#### Application:

For use in inductive vehicle detector loops with traffic signal applications, connecting the control box to the loop detector cable.

Benefits	
Water Blocking Gel	Inert gel prevents any ingress of water up the cable
Easy to Use	Water blocking gel is easy to wipe away and does not stick to hands
Excellent Electrical Integrity	Blocking agent minimises any change in electrical characteristics
Suitable for Outdoors	UV resistant sheath allows for installation outside
Features	
✓	Double application of water blocking agent for further protection against ingress of water
✓	Multi-pair cable version allows for easier installation
✓	Robust materials provides additional mechanical, impact and abrasion resistance
✓	Water blocking gel is very easy to use and wipes away to nothing
Construction	
Conductor	Plain annealed copper wire, class 2
Insulation	PE
Pair Colours	Black/Black (Single Pair)      Red/White, Blue/White, Black/White (3 Pair)
Water Block	Gel Filled
Bedding	PE
Screen	Aluminium/Polyester tape with 7/0.25mm TC drain wire
Sheath	5V90 PVC
Ratings	
Temperature	-10°C to + 70°C
Voltage	ELV
Characteristic Impedance (25kHz – 100kHz)	80-100Ω
Mutual Capacitance (1kHz)	65-80pF/m
Unbalanced Capacitance (1kHz)	<2%
Applicable Standards	AS/NZS1125, AS/NZS2276.2, AS/NZS3808

#### Traffic Feeder Cable

Bambach Item Code	No. of Pairs x Conductor CSA mm <sup>2</sup>	Conductor Stranding No. of Strands/mm	Nom Ø mm	Weight kg/km
46000BKD	1 x 1.5	7/0.50	8.7	98
46015BKD	3 x 1.5	7/0.50	13.5	237



Copper



Minimum Service Temperature: -10°C



Maximum Service Temperature: 70°C



Impact Resistant



Abrasion Resistant



Flame Non-Propagation



UV Resistant



Minimum Recommended Bend Radius Fixed 6 x OD

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## Low Voltage

### Garden Lighting and Automotive Cable



#### Application:

For use in extra low voltage applications such as garden lighting or the automotive industry

Benefits	
High Temperature	V90-HT PVC insulation suitable for continuous operating at high temperatures
Easy to Install	Class 5 flexible conductor stranding for easy installation
Extremely Flexible	PVC insulation allows for a small bending radius
Features	
✓	Fine conductor stranding for high flexing
✓	V90-HT allows for high ambient temperature applications
✓	RoHS compliant to meet European standards
Construction	
Conductor	Plain annealed copper wire, class 5
Insulation	V90-HT PVC
Sheath	V90-HT PVC (Applies to twin flat sheathed)
Colours	Figure 8 – Black Twin sheathed flat – Red and black cores, black sheath
Ratings	
Temperature	0°C to + 90°C
Voltage	32V - Not suitable for connection to mains
Applicable Standards	AS/NZS1125, AS/NZS3808



Flexible Conductor:  
Class 5



Copper



Minimum Service  
Temperature:  
0°C



Maximum Service  
Temperature:  
90°C



Impact Resistant



Abrasion Resistant



Chemical & Oil Resistant



Flame  
Non-Propagation



UV Resistant

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### Low Voltage Cable - Figure 8

Bambach Item Code	Conductor CSA mm <sup>2</sup>	Conductor Stranding No. Strands/mm	Nom Ø mm	Current Rating* Amps	Weight kg/km
30000BK	2 x 3.3	46/0.30	4.7 x 9.0	26	96
78036BK	2 x 10	140/0.30	6.5 x 13.3	63	239

### Low Voltage Cable - Twin Flat Sheath

Bambach Item Code	Conductor CSA mm <sup>2</sup>	Conductor Stranding No. Strands/mm	Nom Ø mm	Current Rating* Amps	Weight kg/km
25330BK	2 x 1.2	17/0.30	4.2 x 6.8	16	58
25580BK	2 x 2	28/0.30	4.8 x 7.6	20	76
25690BK	2 x 3	19/0.45	5.2 x 8.7	26	100
26580BK	2 x 5	31/0.45	6.0 x 10.3	35	163

\*Current ratings based on AS/NZS3008.1.1:2009 Table 10, Column 3



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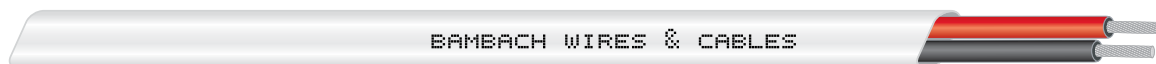
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## Marine Cable

### General Power, Battery and Starter Marine Cable



#### Application:

General purpose 32V DC marine and battery applications

Benefits	
Tinned Copper Conductors	Tinned copper conductors minimise the affects of corrosion and oxidation
Longer Lifespan	Salinity accelerates the corrosion of copper so a tin coating protects the conductor and increases the lifespan
Extremely Flexible	Battery and starter cable contains class 5 conductor stranding for easier use
High Temperature Range	High grade PVC allows for operation at higher temperatures
Features	
✓	RoHS compliant to comply with European standards
✓	Tinned copper conductors to reduce corrosion and oxidation
✓	V90-HT insulation allows for increased operating temperatures
Construction	
Conductor	Tinned annealed copper wire, class 2
Insulation	V90-HT PVC
Sheath	V90-HT PVC (Sheathed cables only)
Colours	Single Core and B & S – Red and black Figure 8 - White and white with black hash mark Twin Sheathed Flat – Red and black cores, white sheath
Ratings	
Temperature	0°C to + 90°C
Voltage	32V - Not suitable for connection to mains
Applicable Standards	AS/NZS1125, AS/NZS3808



Tinned Copper  
for Corrosion Resistance



Minimum Service  
Temperature:  
0°C



Maximum Service  
Temperature:  
90°C



Impact Resistant



Abrasion Resistant



Chemical & Oil Resistant



Flame  
Non-Propagation

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### Marine Cable - Single Core

Bambach Item Code	Conductor CSA mm <sup>2</sup>	Conductor Stranding No. Strands/mm	Nom Ø mm	Current Rating* Amps	Weight kg/km
20430	2	28/0.30	3.0	21	27
20590	5	31/0.45	4.4	38	64

### Marine Cable - Battery and Starter

Bambach Item Code	Conductor CSA mm <sup>2</sup>	Conductor Stranding No. Strands/mm	Nom Ø mm	Current Rating† Amps	Weight kg/km
33300	25 (3 B & S)	360/0.30	10.4	168	332
20614	32 (2 B & S)	455/0.30	11.3	188	428

### Marine Cable - Twin Flat Sheathed

Bambach Item Code	Conductor CSA mm <sup>2</sup>	Conductor Stranding No. Strands/mm	Nom Ø mm	Current Rating† Amps	Weight kg/km
11960WE	2 x 2	28/0.30	4.8 x 7.6	20	77
14200WE	2 x 5	31/0.45	6.0 x 10.3	35	167

### Marine Cable - Figure 8

Bambach Item Code	Conductor CSA mm <sup>2</sup>	Conductor Stranding No. Strands/mm	Nom Ø mm	Current Rating* Amps	Weight kg/km
14600WEBK	2 x 2	28/0.30	3.0 x 6.1	26	54

\*Current ratings based on AS/NZS3008.1.1:2009 Table 4, Column 3

†JASO D609 single core at 30°C 100% Duty Cycle

\*Current ratings based on AS/NZS3008.1.1:2009 Table 10, Column 3

## Telephone Cable

### Underground – Dry Core Telephone Cable



#### Application:

For connecting telephones networks to the exchange above and below ground. For use in switchboards and internal wiring

Benefits	
Low Capacitance	Low capacitance cable gives less signal attenuation and allows the signal to travel further without distortion
Easy to Solder	Large diameter, single strand wire assists with soldering and allows for easy connection
Termite Protection	Optional nylon jacket provides protection against termites in underground installations
Features	
✓ Nylon jacket telecom cable is suitable for installation underground	
✓ Tape over bunched pairs allows the sheath to be removed easily to assist in installation	
✓ Large conductor size for less attenuation and easy installation	
Construction	
Conductor	Plain annealed copper wire
Insulation	PE
Sheath	PE (Additional nylon jacket PA 12 available)
Colours	2 Pair – White/blue and red/black 6 Pair – White/blue, white/brown, white/orange, white/grey, white/green and red/blue 10 Pair – Red/brown, whitebrown, red/orange, white/orange, red/blue, white/blue, red/grey, white/grey, red/green and white/green
Ratings	
Temperature	0°C to + 70°C
Voltage	ELV - Not suitable for connection to mains
Applicable Standards	AS/NZS1125, AS/NZS3808, AS/NZS1049



Copper



Minimum Service Temperature: 0°C



Maximum Service Temperature: 70°C



Impact Resistant



Abrasion Resistant



Chemical & Oil Resistant



Minimum Recommended Bend Radius Fixed 8 x OD

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## Telephone Cable

Bambach Item Code	No. of Pairs x Conductor O.D. mm	Conductor Stranding No. Strands/mm	Nom Ø mm	Weight kg/km
14510BKS	2 x 0.91	1/0.91	7.1	46
14520BKS	6 x 0.91	1/0.91	12.0	125
14535BKS	10 x 0.91	1/0.91	13.3	183

## Underground Telephone Cable – Nylon Jacket

Bambach Item Code	No. of Pairs x Conductor O.D. mm	Conductor Stranding No. Strands/mm	Nom Ø mm	Weight kg/km
14515BKS	2 x 0.91	1/0.91	7.7	51



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## Pump Cable

### Submersible Pump Cable



#### Application:

Power and control cable for pumps and other submerged equipment. For use in deep underwater applications

Benefits	
Submersible	Suitable for permanent deep water installations
Extremely Flexible	Flexible cable using class 5 conductors
Easy to Install	Flexible insulation and sheath for use in confined applications
Easy to Fit	Cable manufactured to fit common gland sizes
Suitable For Outdoors	UV resistant sheath extends life in exposed environments
Chemical Resistance	Excellent resistance to acids, alkalis, sewerage and ozone
Excellent Screening	Tinned copper braid reduces EMI from surrounding environment

Features	
✓	Fine conductor stranding for high flexing
✓	RoHS compliant to European environmental requirements
✓	Tinned copper strands for high corrosion protection
✓	Tinned copper braid with 85% minimum coverage provides excellent EMI protection
✓	TPV insulation and sheath provides excellent ozone, water, chemical and weathering resistance
✓	All cables have specific diameters to suit common gland sizes

Construction	
Conductor	Tinned annealed copper wire, class 5
Insulation	Thermoplastic Vulcanizate TPV
Screening	Tinned annealed copper wire (as specified)
Sheath	Thermoplastic Vulcanizate TPV
Colours	Cores - Black, brown, blue, green/yellow - Pilots – White with black numbers

Ratings	
Temperature	-30°C to + 75°C
Voltage	0.6/1kV
Applicable Standards	AS/NZS1125



Flexible Conductor:  
Class 5



Tinned Copper  
for Corrosion Resistance



Minimum Service  
Temperature:  
-30°C



Maximum Service  
Temperature:  
75°C



Maximum Short Circuit  
Temperature:  
160°C (Max 5s)



Impact Resistant



Grease & Mineral Oils  
Resistant



Chemical & Oil Resistant



UV Resistant



Water Resistant



Halogen Free



Submersible Pumps



Minimum Recommended  
Bend Radius Fixed 4 x OD

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### Pump Cable - Unscreened

Bambach Item Code	Conductor CSA mm <sup>2</sup>	Conductor Stranding No of Strands/mm	Nom Ø mm	Current Rating* Amps	Weight kg/km
14988BE	4 Core x 2.5mm <sup>2</sup> + 4 Pilots x 0.75mm <sup>2</sup>	50/0.25 24/0.20	15.0	21	210
14990BE	4 Core x 4mm <sup>2</sup> + 4 Pilots x 1mm <sup>2</sup>	56/0.30 32/0.20	20.0	28	410
14992BE	4 Core x 6mm <sup>2</sup> + 4 Pilots x 1mm <sup>2</sup>	84/0.30 32/0.20	18.5	36	498
14994BE	4 Core x 10mm <sup>2</sup> + 4 Pilots x 1mm <sup>2</sup>	140/0.30 32/0.20	20.5	51	632
14996BE	4 Core x 16mm <sup>2</sup> + 4 Pilots x 1mm <sup>2</sup>	224/0.30 32/0.20	28.0	67	1095

### Pump Cable - Screened

Bambach Item Code	Conductor CSA mm <sup>2</sup>	Conductor Stranding No of Strands/mm	Nom Ø mm	Current Rating* Amps	Weight kg/km
15000BE	4 Core x 4mm <sup>2</sup> + 4 Pilots x 1mm <sup>2</sup>	56/0.30 32/0.20	19.5	28	491
15001BE	4 Core x 6mm <sup>2</sup> + 4 Pilots x 1mm <sup>2</sup>	84/0.30 32/0.20	21.5	36	731
15002BE	4 Core x 10mm <sup>2</sup> + 4 Pilots x 1mm <sup>2</sup>	140/0.30 32/0.20	25.5	51	917
15003BE	4 Core x 16mm <sup>2</sup> + 4 Pilots x 1mm <sup>2</sup>	224/0.30 32/0.20	29.5	67	1281

\* Current ratings based on AS/NZS3008.1.1:2009 table 13 column 6

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## Conductor Information

### Common Conductor Sizes, Resistance Values and Weights

CSA mm <sup>2</sup>	DC Resistance at 20°C Ω/km	Weight kg/km
0.22	82.29	2.1
0.35	51.72	3.2
0.5	36.21	4.7
0.75	24.14	7.0
1	18.10	9.4
1.5	12.07	13.8
2.5	7.24	22.9
4	4.53	37.0
6	3.02	55.4
10	1.81	92.4
16	1.13	147.8
25	0.72	230.9
35	0.52	328.7
50	0.36	459.8
70	0.26	652.8
95	0.19	885.9
120	0.15	1114.4

### Wire Gauge and Conductor Area

Gauge	CSA mm <sup>2</sup>	Gauge	CSA mm <sup>2</sup>
26	0.13	11	4.16
25	0.16	10	5.27
24	0.21	9	6.63
23	0.26	8	8.35
22	0.32	7	10.54
21	0.41	6	13.29
20	0.52	5	16.76
19	0.65	4	21.14
18	0.82	3	26.65
17	1.04	2	33.61
16	1.31	1	42.38
15	1.65	0	53.45
14	2.09	0 0	67.40
13	2.63	0 0 0	84.91
12	3.30	0 0 0 0	104.09



**Bambach cables are proven to last saving you \$\$ in maintenance costs**

**High quality products paired with technical expertise ensures longevity of our cables**



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## AC Resistance

### Flexible Conductors (Class 5/6) at 50Hz, Ω/km

CSA mm <sup>2</sup>	Single Core Conductor Temperature, °C			Multi Core Conductor Temperature, °C		
	75	90	110	75	90	110
0.5	47.40	49.70	52.80	47.40	49.70	52.80
0.75	31.60	33.20	35.20	31.60	33.20	35.20
1	23.70	24.90	26.40	23.70	24.90	26.40
1.5	16.20	17.00	18.00	16.20	17.00	18.00
2.5	9.70	10.20	10.80	9.70	10.20	10.80
4	6.02	6.31	6.70	6.02	6.31	6.70
6	4.01	4.21	4.47	4.01	4.21	4.47
10	2.32	2.44	2.59	2.32	2.44	2.59
16	1.47	1.54	1.64	1.47	1.54	1.64
25	0.949	0.995	1.061	0.949	0.995	1.060
35	0.674	0.707	0.750	0.674	0.707	0.750
50	0.470	0.493	0.523	0.470	0.493	0.523
70	0.332	0.348	0.369	0.332	0.348	0.369
95	0.252	0.264	0.280	0.252	0.264	0.280
120	0.197	0.207	0.219	0.198	0.207	0.219

\* Values based on AS3008.1.1:2009 table 37. For the resistance of tinned copper, multiply values by 1.01

### Circular Conductors (Class 2) at 50Hz, Ω/km

CSA mm <sup>2</sup>	Single Core Conductor Temperature, °C			Multi Core Conductor Temperature, °C		
	75	90	110	75	90	110
1	25.8	27.0	28.7	25.8	27.0	28.7
1.5	16.5	17.3	18.4	16.5	17.3	18.4
2.5	9.01	9.45	10.0	9.01	9.45	10.0
4	5.61	5.88	6.24	5.61	5.88	6.24
6	3.75	3.93	4.17	3.75	3.93	4.17
10	2.23	2.33	2.48	2.23	2.33	2.48
16	1.40	1.47	1.56	1.40	1.47	1.56
25	0.884	0.927	0.984	0.884	0.927	0.984
35	0.638	0.668	0.710	0.638	0.669	0.710
50	0.471	0.494	0.524	0.471	0.494	0.524
70	0.327	0.342	0.363	0.327	0.343	0.364
95	0.236	0.247	0.262	0.236	0.248	0.262
120	0.188	0.197	0.208	0.188	0.197	0.209

\* Values based on AS3008.1.1:2009 table 34 and 35. For the resistance of tinned copper, multiply values by 1.01

## Three Phase Voltage Drop

### Flexible Conductors (Class 5/6) at 50Hz, mV/A.m

CSA mm <sup>2</sup>	Single Core Conductor Temperature, °C			Multi Core Conductor Temperature, °C		
	75	90	110	75	90	110
0.5	82.20	86.10	91.40	82.20	86.10	91.40
0.75	54.80	57.40	61.00	54.80	57.40	61.00
1	41.10	43.10	45.70	41.10	43.10	45.70
1.5	28.00	29.40	31.20	28.00	29.40	31.20
2.5	16.80	17.60	18.70	16.80	17.60	18.70
4	10.40	10.90	11.60	10.40	10.90	11.60
6	6.96	7.29	7.74	6.95	7.29	7.74
10	4.03	4.22	4.48	4.03	4.22	4.48
16	2.56	2.68	2.85	2.55	2.68	2.84
25	1.66	1.74	1.84	1.65	1.73	1.84
35	1.18	1.24	1.31	1.18	1.23	1.31
50	0.837	0.875	0.926	0.827	0.866	0.917
70	0.603	0.630	0.665	0.591	0.618	0.654
95	0.473	0.492	0.518	0.457	0.477	0.504
120	0.385	0.399	0.419	0.367	0.383	0.403

\* Values based on AS3008.1.1:2009 table 41 and 42. To determine single phase voltage drop, the current in the neutral conductor needs to be considered by multiplying the three phase value by 1.155

### Circular Conductors (Class 2) at 50Hz, mV/A.m

CSA mm <sup>2</sup>	Single Core Conductor Temperature, °C			Multi Core Conductor Temperature, °C		
	75	90	110	75	90	110
1	44.7	46.8	49.7	44.7	46.8	49.7
1.5	28.6	30.0	31.9	28.6	30.0	31.9
2.5	15.6	16.4	17.4	15.6	16.4	17.4
4	9.71	10.2	10.8	9.71	10.2	10.8
6	6.49	6.81	7.23	6.49	6.80	7.22
10	3.86	4.05	4.30	3.86	4.05	4.29
16	2.43	2.55	2.71	2.43	2.55	2.70
25	1.55	1.62	1.72	1.54	1.61	1.71
35	1.12	1.18	1.25	1.11	1.17	1.24
50	0.840	0.878	0.929	0.829	0.868	0.920
70	0.597	0.623	0.657	0.583	0.609	0.645
95	0.449	0.467	0.491	0.431	0.450	0.475
120	0.371	0.385	0.403	0.351	0.366	0.385

\* Values based on AS3008.1.1:2009 table 47 and 48. To determine single phase voltage drop, the current in the neutral conductor needs to be considered by multiplying the three phase value by 1.155