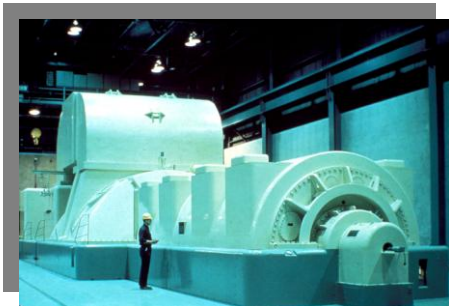




# MOTOR COMPONENT CATALOGUE

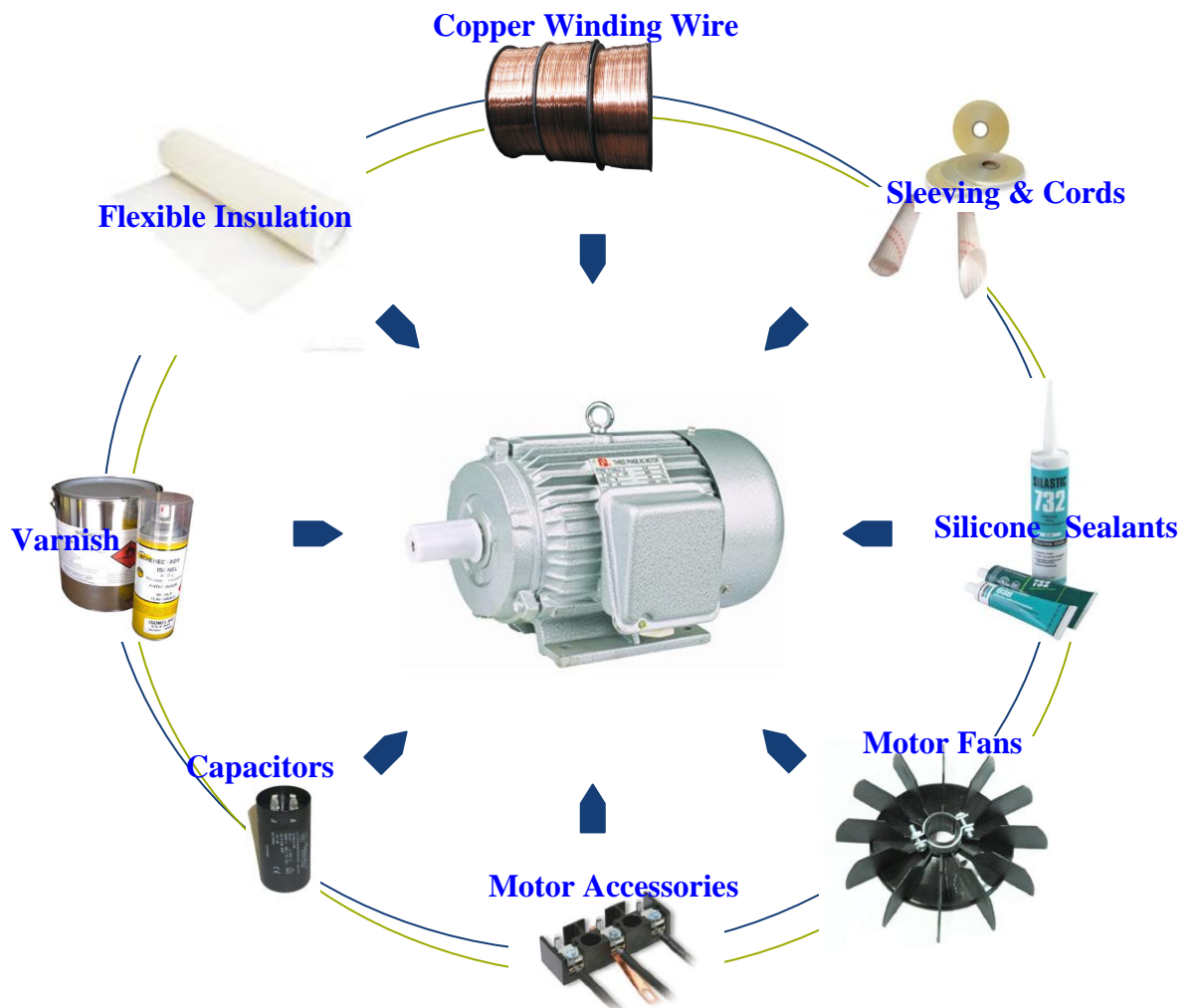


Multipurpose Capacitors | Motor Run  
Capacitors | Motor Start Capacitors |  
Copper Winding Wire | Flexible  
Insulation | Sleeving | Varnishes |  
Motor Fans | Silicone Sealants |  
Motor Accessories

High Quality. Long Life.

Capacitor Technologies (CapTech) is one of Australia's leading suppliers of capacitors. As part of our continuous commitment to improve the level of service to customers, CapTech has introduced a new range of motor repair components: Copper Wire, Flexible Insulation, Sleeving and Tying Cords, Silicone Sealants, Varnishes, Motor Fans and Motor Accessories.

*All products are manufactured to meet the most modern standards in order to ensure the highest level of quality and reliability.*



**CAPACITOR TECHNOLOGIES PTY LTD**

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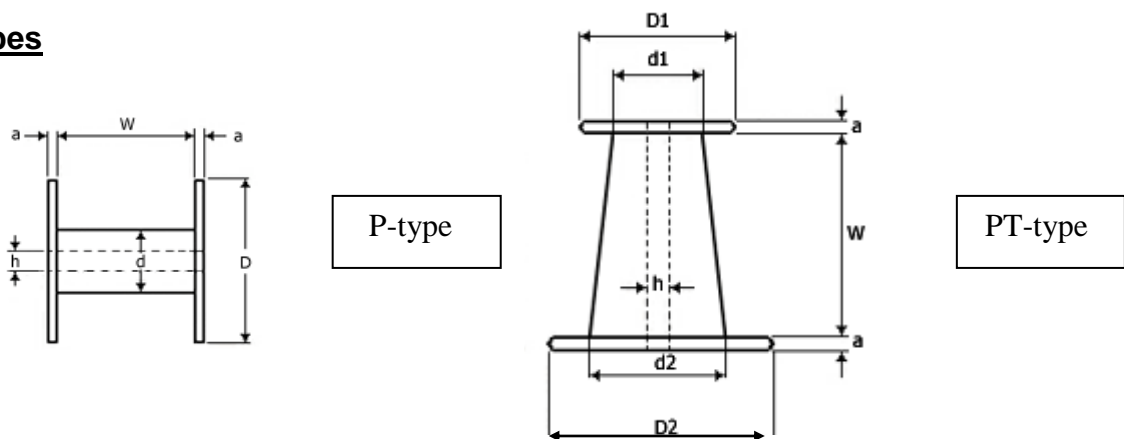
# Magnet Enamelled Copper Wire – PEI-2

## Specifications

- Chemical base of coat : Polyesterimide
- Standard colour : Light brown  
Medium brown
- Specification standard : IEC-60317, MW 30-C, AS 1194.1
- Thermal class, deg. C : 180 ( H)
- Heatshock, deg C : 200
- Oil resistance : Transformer oil resistance to IEC 851-4



## Spool Types



Spools									
Dimensions,mm	P-3	P-20	PT-4	PT-10	PT-15	PT-25	PT-60	PT-200	PT-270
D ( D1/D2)	130	270	124x140	160x180	180x200	215/230	270/300	375/400	435/460
d ( d1/d2)	60	140.00	74x86	96x110	96x110	110/130	150/180	224/250	255/280
W	90	115.00	170.0	200	200.0	250	350.0	530	530
a	10	15.00	15.0	15	15.0	15	20.0	50	50
h	20	35.00	26.0	30	30.0	30	45.0	100	100

## Applications

- Electrical motors
- Refrigeration equipment
- Transformer windings
- Hermetic compressors
- Hands tools

## Selection And Technical Data Tables

Grade2				
Diameter, mm	Tolerance, mm	Film Thickness, Min mm	Overall Diameter, Max mm	Resistance Max@ 20°C, Ohm /km
0.05	± 0.003	0.004	0.069	10,240.00
0.06	± 0.003	0.004	0.081	6,966.00
0.07	± 0.003	0.004	0.091	4,990.00
0.08	± 0.003	0.005	0.103	3,778.00
0.09	± 0.003	0.005	0.113	2,959.00
0.10	± 0.003	0.005	0.125	2,381.00
0.11	± 0.003	0.005	0.135	1,957.00
0.12	± 0.003	0.006	0.147	1,636.00
0.13	± 0.003	0.006	0.157	1,389.00
0.14	± 0.003	0.006	0.167	1,193.00
0.15	± 0.003	0.006	0.177	1,037.00
0.16	± 0.003	0.007	0.189	908.80
0.17	± 0.003	0.007	0.199	803.20
0.18	± 0.003	0.008	0.211	715.00
0.19	± 0.003	0.008	0.221	640.60
0.20	± 0.003	0.008	0.231	577.20
0.21	± 0.003	0.008	0.241	522.80
0.22	± 0.004	0.008	0.252	480.10
0.23	± 0.004	0.009	0.264	438.60
0.24	± 0.004	0.009	0.274	402.20
0.25	± 0.004	0.009	0.284	370.20
0.26	± 0.004	0.009	0.294	341.80
0.27	± 0.004	0.009	0.304	316.60
0.28	± 0.004	0.009	0.314	294.10
0.29	± 0.004	0.009	0.324	273.90
0.30	± 0.005	0.010	0.337	254.00
0.32	± 0.005	0.010	0.357	222.80
0.35	± 0.005	0.010	0.387	185.70
0.37	± 0.005	0.010	0.407	165.90
0.40	± 0.005	0.011	0.439	141.70
0.45	± 0.006	0.011	0.490	112.10
0.50	± 0.006	0.012	0.542	89.95
0.55	± 0.006	0.012	0.592	74.18
0.60	± 0.008	0.012	0.644	62.64
0.65	± 0.008	0.012	0.694	53.26
0.70	± 0.008	0.013	0.746	45.84
0.75	± 0.008	0.014	0.798	39.87
0.80	± 0.010	0.015	0.852	35.17
0.85	± 0.010	0.015	0.904	31.11
0.90	± 0.010	0.016	0.956	27.71
0.95	± 0.010	0.017	1.008	24.84
1.00	± 0.012	0.017	1.062	22.49





**Grade 1**

Diameter, mm	Tolerance, mm	Film Thickness, Min mm	Overall Diameter, Max mm	Resistance Max@ 20°C, Ohm /km
1.20	± 0.03	0.026	1.304	16.04
1.30	± 0.03	0.027	1.408	13.61
1.40	± 0.03	0.027	1.508	11.70
1.50	± 0.03	0.028	1.612	10.16
1.60	± 0.03	0.028	1.712	8.91
1.70	± 0.03	0.029	1.814	7.87
1.80	± 0.03	0.029	1.914	7.01
1.90	± 0.03	0.030	2.018	6.28
2.00	± 0.03	0.030	2.118	5.66
2.10	± 0.03	0.031	2.220	5.12
2.20	± 0.03	0.032	2.322	4.66
2.30	± 0.03	0.032	2.422	4.26
2.40	± 0.03	0.033	2.526	3.91
2.50	± 0.03	0.034	2.628	3.59
2.60	± 0.03	0.034	2.728	3.32
2.70	± 0.03	0.034	2.828	3.08
2.80	± 0.03	0.034	2.928	2.86
2.90	± 0.03	0.034	3.028	2.67
3.00	± 0.03	0.034	3.128	2.49
3.20	± 0.04	0.034	3.338	2.19
3.40	± 0.04	0.034	3.538	1.94
3.60	± 0.04	0.034	3.738	1.73



**Footnote:**

- 1) Please consult CapTech for confirmation of availability prior to placing orders
- 2) For other ratings or special requirements, please consult CapTech.

# Impregnated Varnish - Isonel

## Specifications

- Thermosetting modified polyester
- Thermal rating H (180°C)
- Cure time is from 2 to 6 hours at 135°C
- Flashpoint 27°C



## Applications

General purpose varnish for insulating, bonding and protecting motors, generators, transformers and coils. The varnish is suitable for hot dip impregnation.

Any of other usual methods as far as cold dip, vacuum impregnation, flood coating, etc are also suitable.

A basic cure time is 2 hours at 135°C. A cure cycle must relate time and temperature to the size of the work, type oven, performance expected etc.

## Selection Table

Isonel	
Item	Package
Isonel 31-398 Black	20 L
Isonel 300 Black	300 g
Isonel 300 Grey	300 g
Isonel 300 Red	300 g
Isonel 642 Clear	300 g



### Footnote:

- 1) Please consult CapTech for confirmation of availability prior to placing orders
- 2) For other ratings or special requirements, please consult CapTech .

# Flexible Insulation – NMN and DMD

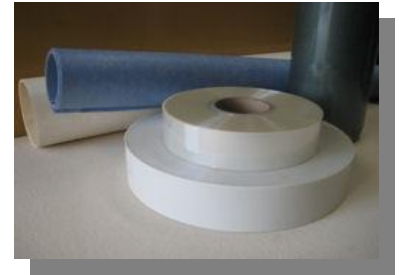
## Specifications

### **NMN - Nomex®/Mylar®/Nomex®**

- Triple layer: Nomex/Polyester Film/Nomex
- Colour: White
- Class H (180°C)
- Exceptional heat stability
- Low moisture absorption, good chemical resistance
- Smooth surface

### **DMD - Dacron®/Mylar®/Dacron®**

- Triple layer: Polyester mat/Polyester film/Polyester mat
- Colour: Green
- Class F (155°C)
- Meets the requirements of MIL-1-22834 and MIL-1-917D
- Exceptional heat stability
- Low moisture absorption, good chemical resistance



## Applications

**NMN** is recommended for motors, transformers and coil assemblies and can be used as both major and minor insulation without additional varnish.

**DMD** is suitable for use in fractional to the largest rotating electrical equipment as slot, phase and turn insulation. It can also act as ground and wrapper insulation in dry type transformers as well as in a variety of punched and fabricated parts.

# Flexible Insulation – NMN and DMD

## Selection And Technical Data Tables

### NMN

Item/size	Thickness, mm	Product Yield		Roll Length / Width, m
		m2/kg	kg/m2	
02-02-02	0.17	5.68	0.18	50/0.95
03-03-03	0.25	3.84	0.26	50/0.95
03-05-03	0.31	3.03	0.33	50/0.95
05-05-05	0.4	2.35	0.43	50/0.95



### DMD

Item/size	Thickness, mm	Product Yield		Roll Length / Width, m
		m2/kg	kg/m2	
02-02-02	0.15	8.76	0.11	50/0.95
03-03-03	0.23	5.71	0.17	50/0.95
03-05-03	0.28	4.39	0.23	50/0.95
05-03-05	0.33	3.81	0.26	50/0.95
05-05-05	0.38	3.42	0.29	50/0.95
05-10-05	0.51	2.63	0.38	50/0.95

**Footnote:**

- 1) Please consult CapTech for confirmation of availability prior to placing orders
- 2) For other ratings or special requirements, please consult CapTech.

# Cooling Fans

## Specifications

- The new range of Synflex “Yellow Fans” CS71-CS180, designed for electric motors Standard IEC71 – IEC180
- A single, large diameter bore
- Supplied with appropriated bushes to fit a variety of spindle dimensions
- Plastic and aluminium propellers

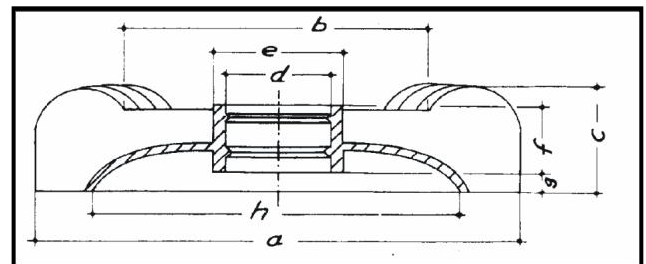


## Applications

Can be used for production and repairing motors. Due to the two-side bush installation, it is possible to adjust the distance between the motor housing and the cooler, and to individually adjust various makes of motors.

Various standard bushes are available.

## Selection Data Table



Dimensions								
Type	a	b	c	d	e	f	g	h
CS71	123	75	26	27.5	33	15	10	99
CS80	132	79	25	27.5	33	15	10	104
CS90	165	95	32	42.5	50	18.5	13	131
CS100	171	99	36	42.5	50	18.5	10	147
CS112	212	124.5	46	56	63	24.5	15	174
CS132	247	134	56	56	63	24.5	17	203
CS160	296	172.5	56	69	76	29	17	224
CS180	335	214	55	69	76	29	17	276

**Footnote:**

- 1) Please consult CapTech for confirmation of availability prior to placing orders
- 2) Dimensions are given in mm

# Acrylic Fibreglass Sleeving

## Specifications

- Construction: Braided Fibreglass coated with an Organic Acrylic Resin
- Thermal class: Class F (155° C)
- Short Term Temperature Rating: 200°C
- Breakdown Voltage: average – 2.5 kV, lowest – 2.0 kV
- Standard Colour: yellow
- Test Standard: UL 1441



## Application

Wiring insulator for F class electrical machinery, electrical home, appliances, electrical apparatus and protection of lead outs, such as in motors, transformers, chokes, etc

## Selection Data Table

Acrylic Fibreglass Sleeving		
Tolerance, mm	I.D., mm	Wall thickness, mm
+0.3/-0.0	0.5 - 1.0	0.40±0.05
+0.3/-0.0	1.5-30	0.42±0.06
+0.3/-0.0	3.5-4.0	0.45±0.07
+0.3/-0.0	5.0-6.0	0.50±0.08
+0.3/-0.0	7.0-9.0	0.60±0.08
+0.3/-0.0	10.0-12.0	0.70±0.08
+0.3/-0.0	14.0-16.0	0.75±0.08
+0.3/-0.0	18.0-22.0	0.80±0.09
+0.3/-0.0	24.0-30.0	0.85±0.09



**Footnote:**

- 1) Please consult CapTech for confirmation of availability prior to placing orders
- 2) For other ratings or special requirements, please consult CapTech.

# Silicone Sealants and Adhesives

## High Temperature Sealant RTV 106

- One-Component Acetoxyl ready-to-use adhesive/ sealant.
- Max. Temperature - 260°C
- Colour – Red
- Military Specification – MIL-A-46106, Type I
- Cure time- 3 days @ 25°C / 50% humidity
- Tack-Free Time- less than 45 min
- Packaging – cartridge 300 g



## Firefly™ High Temperature Adhesive

- Alkali Silicate Solution.
- Max. Temperature - 1100° C
- Colour – White to Grey
- Packaging – cartridge – 500 g

## Dow Corning® 738 Electrical Sealant

- One-Component non-corrosive electrical sealant
- Max. Temperature - 180°C
- Colour – White
- Military Specification – Mil-46146
- Cure time – 2-3 days @ 25°C / 50% humidity
- Tack-Free time – less than 45 min
- Packaging – cartridge 300g

## Dow Corning® 732 Sealant/Adhesive

- One-Component general purpose silicone adhesive/sealant
- Max. Temperature - 180°C (Black version - 205°C)
- Colour – White, Clear and Black
- Military Specification – Mil-A-46106
- Cure time – 2-3 days @ 25°C / 50% humidity
- Tack-Free time – less than 45 min
- Packaging – cartridge – 310 g

### **Dow Corning® 747 Sealant / Adhesive**

- One-Component neutral cure silicone sealant / adhesive
- Max. Temperature - 230°C
- Colour – White, Clear and Black
- Cure time – 2-3 days @ 25°C / 50% humidity
- Tack-Free time – less than 45 min
- Packaging – 310 g

### **Dow Corning® 748 Sealant / Adhesive**

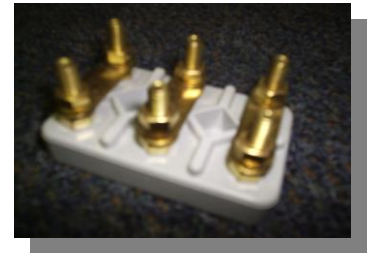
- One-Component neutral cure non-corrosive silicone/ sealant  
Suitable to be applied on copper
- Max. Temperature - 180°C
- Colour – White
- Military Specification – MIL-A-46146
- Cure time – 2-3 days @ 25°C / 50% humidity
- Tack-Free time – less than 1 hour
- Packaging – cartridge 310 g

**Footnote:**

- 1) Please consult CapTech for confirmation of availability prior to placing orders
- 3) For other ratings or special requirements, please consult CapTech.

# Motor Accessories

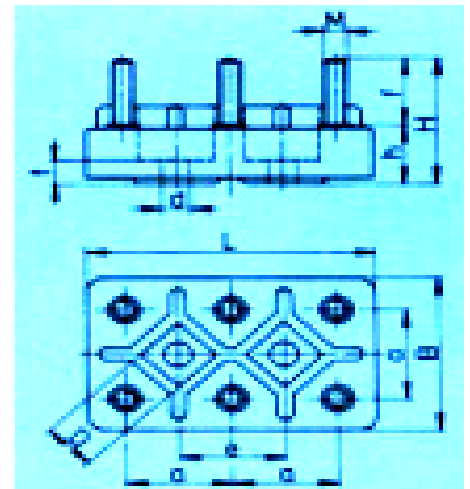
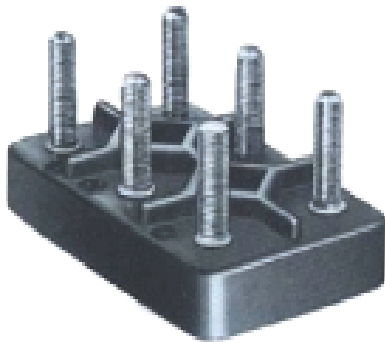
## Terminal Blocks



Terminal blocks are suited to a wide variety of application.

The stocked KM range of 6 stud terminals has 4 to M16 terminal stud threads with voltage rating from 440 to 2000 Volts Depending upon the type.

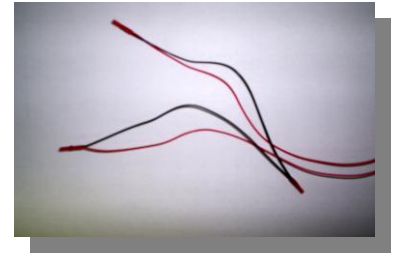
The KS range of terminal boards are for hazardous duty (explosion proof). These are certified to 750 Volts and are suitable for motor leads sizes from 2.5 mm<sup>2</sup> to 25 mm<sup>2</sup>.



**Selection Data Table**

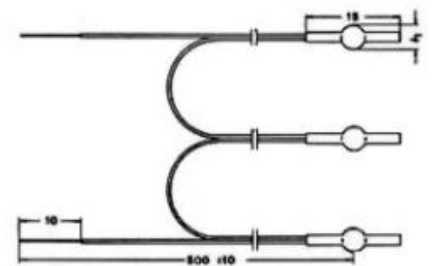
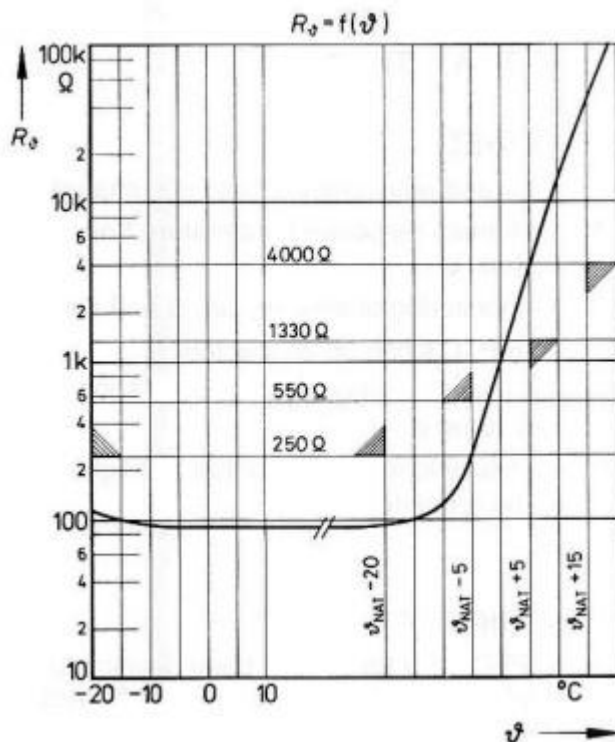
Type	L	B	M	H	h	f	a	e	D	d	t
KM4	54	34	4	28	13	15	20	20	10	5.5	5
KM5	64	40	5	32	13	19	23	23	10	5.5	5
KM6	78	48	6	40	16	24	28	28	11	6.6	6
KM8	96	60	8	46	18	28	35	35	15	9	8
KM10	120	75	10	56	22	34	45	45	18	11	10
KM12	150	95	12	65.5	25.5	40	55	55	18.8	11.5	17.5
KM16	160	100	16	93	28	65	60	60	20	14	18

## PTC Thermistors



Its main application is thermal protection of Motors and Machines in general; mainly that of higher power (>2,5 HP), always used together with a relay or Electronic Switcher that receives the sensor signal and executes the proper interruption. Due to its diminuta size (Max 4 mm), the PTC installed in the coils is able to receive heat instantly, reacting quickly to temperature changes. PTCs are supplied in “Single” version, that is, with a sensor head and two leads, or “Triple”, with three sensor Heads serially connected.

### TEMPERATURE-RESISTANCE CURVE



Thermistor KD with nominal diameter 0.25 mm<sup>2</sup> and black interconnections

Type	NAT° C	Standard code colours
KD 80	80	White-white
KD 90	90	Green-green
KD100	100	Red-red
KD 110	110	Brown-brown
KD 120	120	Grey-grey
KD 130	130	Blue-blue
KD 140	140	White-blue
KD 150	150	Black-black
KD 160	160	Blue-red
KD 170	170	White-green

## Thermik Thermal Protectors

Thermal Protectors of series 06 (normally closed) are used in numerous electric appliances e.g. in motors, transformers and ballasts.

These TPs characterize their ability to tolerate higher current load in spite of their small design. Furthermore, they are suitable to be installed into the windings, because they are very pressure- and impregnation resistant.



### SO 6 - normally closed

Operating Voltage, V	Rated Voltage, V	Rated Current, A	Max Switching Current, A	Height, mm	Diameter, mm <sup>2</sup>	Lead Length, mm
12-500 AC 12-100 DC	250 AC	10.0 / 6.3	25.0	6.6	9.4	300.0



## Temperature Sensors

- Ceramic body and fibreglass or Teflon insulated leads
- Temperature range - 50°C to + 500°C
- Nominal resistance 100 – 1000 Ω
- Body diameter 2.7 & 3.0 mm
- Body length 25.4 & 15.0 mm
- Fast response time
- Rugged and shock resistant
- Tip sensitive
- Low and high temperature series/ silver clad copper/nickel clad copper.

