RNC

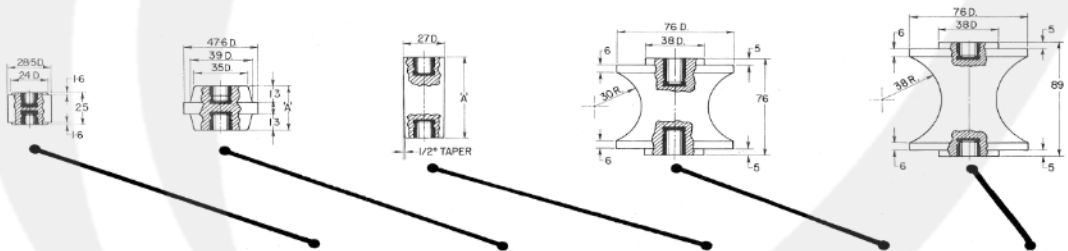
STAND-OFF INSULATORS

Type - RNC

- High Dielectric Strength
- Arc Quenching and Non Tracking
- Non Flammable
- Wear and Corrosion Resistant
- Chemical and Oil Resistant
- High Mechanical Strength
- Dimensional Stability
- Moulded-in Brass Inserts
- Metric and Imperial Thread Sizes
- Quality Finish and Appearance

AUSTRALIAN MADE

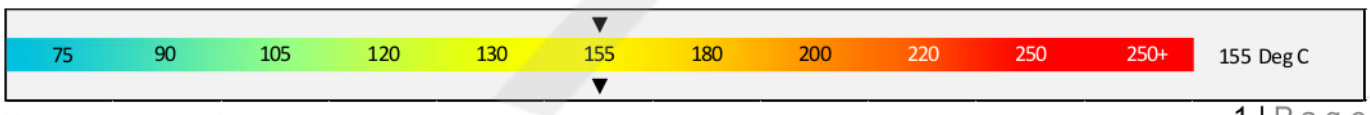
INSULATORS



RATING		660V	660V	660V			3.3kV	6.6kV
Length (Dim'A')		25	35 38 45 50	50S	63S	75S	76	89
INSERTS Imperial	1/4" BSW	•						
	5/16" BSW		• • • •					
	3/8" BSW		• • • •	•	•	•	•	•
Metric	M6	•						
	M8		• • • •					
	M10		• • • •	•	•	•	•	•
	M12		•				•	•

PART No:

RNC RATING / DIM 'A' X INSERT SIZE e.g. Straight type, 63mm long with M10 insert has a Part No. RNC660/63S X M10



Temperature Rating

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MATERIAL

BODY
— Glass reinforced polyester dough moulding compound manufactured in Australia under licence to British Industrial Plastics Limited. Type G/B is standard.

INSERT
— Machined Brass.

TESTS

TORQUE
— The Insulator was attached to a test block and a torque applied to the opposite end.

IMPACT
— A special test device was installed to test the impact values of the Insulators. Each insulator was attached in a horizontal position to a test base by one end. An impact was applied to a fitting attached to the opposite end of the Insulator.

GENERAL
— The tests carried out attempt to simulate the type of forces operating on an insulator(s) subjected to short circuit conditions which could apply to installations in normal industrial use. Test figures appearing on this page are the result of tests on random samples and are intended for guidance only.
Since conditions of installation can vary and are beyond our control, no warranty or guarantee expressed or implied is given.

TYPICAL PROPERTIES OF INSULATORS

MECHANICAL

TYPE/SIZE	INSERT	TENSILE		TORQUE		IMPACT		COMPRESSION	
		lbf/in²	MPa	lbf ft	Nm	lbf ft	Nm	lbf/in²	MPa
660/45	M10	3588	24.6	40	54	8	10.8	22930	158.1
660/50S	M10	2350	16.1	40	54	5	6.8	9982	68.8
3.3kV/75	M10	4030	27.8	45	61	13	17.6	39200	270.2
6.6kV/89	M10	3580	24.7	45	61	13	17.6	30912	213.1

ELECTRICAL

TYPE/SIZE	INSERT	DIELECTRIC STRENGTH AT 90° C	FLASH OVER VALUES IN AIR kV	IMPULSE VALUES 1/50 µS NEGATIVE WAVE
660/45	M10	200V/MIL	28	—
660/50	M10	200V/MIL	28	—
660/75S	M10	200V/MIL	28	—
3.3kV/75	M10	200V/MIL	40	127.5
6.6kV/89	M10	200V/MIL	46	152.5

TYPICAL PROPERTIES OF BODY MATERIAL TYPE G/B

PHYSICAL

Density	BS2782 Method 509A	g/ml oz/in³	1.73 1.00
Mould shrinkage	BS2782 Method 106B	m/m %	0.0015 0.15
After shrinkage (48h at 100° C)	BS2782 Method 106E		None
Water absorption	BS2782 Method 502G	mg	20
Deflection under load at 100° C	BS3840 Revision	mm	1.2
Oxygen Index	ASTM D2863-74	%	30

MECHANICAL

Tensile strength	BS2782 Method 301A	MPa* lbf/in²	41 6100
Flexural strength	BS2782 Method 304E	MPa* lbf/in²	92 13500
Flexural modulus	BS2782 Method 302D	GPa* lbf/in²	9.9 1.4x10⁶
Charpy impact strength (notched)	BS2782 Method 306E	kJ/m²	20

*1GPa = 1000MPa = 10000kgf/cm² approx

ELECTRICAL

Electric strength at 90° C	BS2782 Method 201A	MV/m V/mil	8.0 200
Insulation resistance (3mm specimen)	BS2782 Method 204C	Log_{10} ohm	12.3
Power factor (loss tangent) at 1 MHz	BS2782 Method 207A	tan	0.013
Permittivity at 1 MHz	BS2782 Method 207A		4.1
Arc resistance	ASTM D495-73	Seconds	150
Resistance to tracking	DIN 53480 Method A DIN 53480 Method B IEC 112 CTI 1959	Grade Volts	KA3c >B600 >1000

SERVICE TEMPERATURES

At 130° C	100% duty cycle (continuous)
At 170° C	16% duty cycle (10mins each 60min)