

OVERHEAD LINE FITTINGS (U.K.) LIMITED



EDITION A08



WOOD LANE WORKS, NORTON-JUXTA-TWYCROSS, ATHERSTONE,
WARWICKSHIRE. CV9 3QB





INSULATORS

Section A



PIN INSULATORS



CAP & PIN DISC INSULATORS



STAYWIRE INSULATORS



LOW VOLTAGE INSULATORS



RAILWAY INSULATORS



TOUGHENED GLASS INSULATORS



PORCELAIN INSULATORS



*Overhead
Line Fittings (U.K.)
Limited (OLF) supply
porcelain insulators suitable
for all overhead line applications
ranging from low voltage, using one
piece service insulators, to pin
insulators and cap and pin type disc
insulators for medium and high voltage
usages.*



*All insulators are manufactured to the highest
standard from high grade wet process porcelain
and are usually glazed brown. Insulators with grey
glaze can also be supplied upon request.*

*Our insulators are designed to meet the onerous test
requirements of all National and International test
specifications.*

*Pin insulators are supplied complete with Zinc
Thimbles cemented in and threaded to receive
pins having Ref. No.16 large steel heads to
BS 3288. All pin insulators are normally
supplied with heads having a semi-conducting
glaze which is very effective in reducing
radio noise.*



*A comprehensive stock of insulators is
maintained to enable OLF to respond
quickly and effectively to
customers' requirements.*





PORCELAIN INSULATORS

This section illustrates standard porcelain pin insulators suitable for nominal systems voltages up to and including 33kV.



The dimensions given are nominal and are subject to the tolerances permitted in BS EN 60383-1.

The head of the insulator is glazed with a semi-conducting glaze which is very effective in reducing radio noise.

The insulators are supplied with a zinc thimble cemented in the pin hole. The thimbles are threaded to receive pins having Ref. No.16 steel heads to BS 3288.

Prices for suitable galvanised steel insulator pins are available upon request, details of which can be found immediately after the pin insulators section.

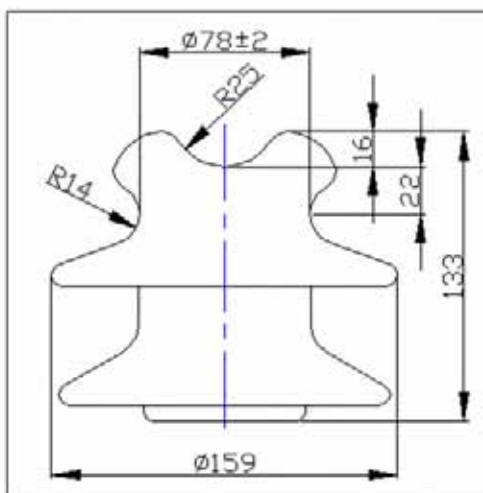




PORCELAIN INSULATORS



11kV PIN INSULATOR



TECHNICAL DETAILS

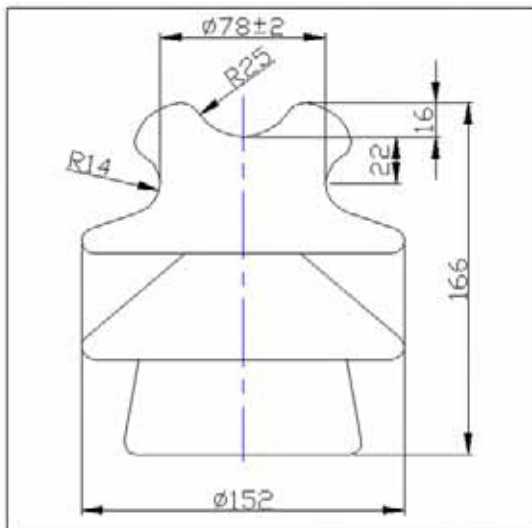
OLF REFERENCE	38EY12		
DIMENSIONS	TOTAL CREEPAGE DISTANCE - MINIMUM	mm	240
MINIMUM FAILING LOAD	MECHANICAL TEST	kN	10
ELECTRICAL CHARACTERISTICS	POWER FREQUENCY FLASHOVER VOLTAGE	DRY	kV (rms) 80
		WET	kV (rms) 50
	IMPULSE FLASHOVER VOLTAGE	POSITIVE	kV (pk) 110
		NEGATIVE	kV (pk) 150
	POWER FREQUENCY WITHSTAND VOLTAGE (ONE MINUTE)	DRY	kV (rms) 75
		WET	kV (rms) 45
	IMPULSE WITHSTAND VOLTAGE		kV (pk) 95
	POWER FREQUENCY PUNCTURE VOLTAGE		kV (rms) 130
WEIGHT	WEIGHT OF UNIT	kg	2.1

THE ELECTRICAL CHARACTERISTICS HAVE BEEN OBTAINED FROM TESTS CARRIED OUT IN ACCORDANCE WITH BS EN 60383-1



PORCELAIN INSULATORS

11 kV PIN INSULATOR



TECHNICAL DETAILS

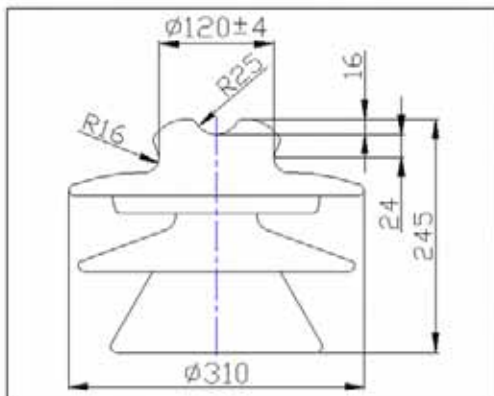
OLF REFERENCE		38EY13	
DIMENSIONS	TOTAL CREEPAGE DISTANCE - MINIMUM	mm	320
MINIMUM FAILING LOAD	MECHANICAL TEST	kN	10
ELECTRICAL CHARACTERISTICS	POWER FREQUENCY FLASHOVER VOLTAGE	DRY	kV (rms) 80
		WET	kV (rms) 55
	IMPULSE FLASHOVER VOLTAGE	POSITIVE	kV (pk) 120
		NEGATIVE	kV (pk) 150
	POWER FREQUENCY WITHSTAND VOLTAGE (ONE MINUTE)	DRY	kV (rms) 75
		WET	kV (rms) 50
	IMPULSE WITHSTAND VOLTAGE		kV (pk) 110
POWER FREQUENCY PUNCTURE VOLTAGE		kV (rms) 130	
WEIGHT	WEIGHT OF UNIT	kg	2.5

THE ELECTRICAL CHARACTERISTICS HAVE BEEN OBTAINED FROM TESTS CARRIED OUT IN ACCORDANCE WITH BS EN 60383-1



PORCELAIN INSULATORS

33kV PIN INSULATOR



TECHNICAL DETAILS

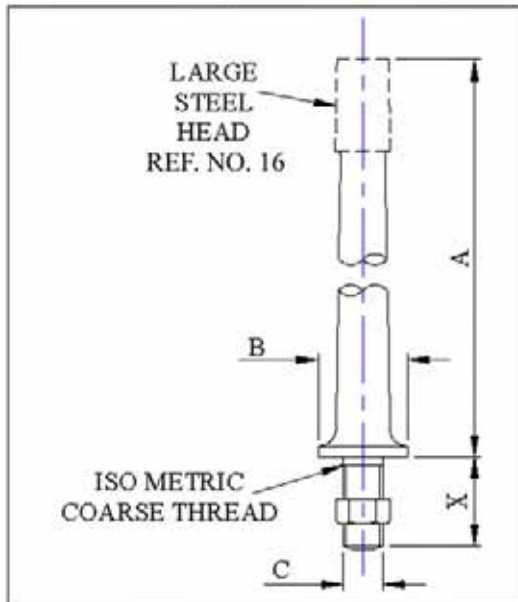
OLF REFERENCE			38EY14
DIMENSIONS	TOTAL CREEPAGE DISTANCE - MINIMUM	mm	740
MINIMUM FAILING LOAD	MECHANICAL TEST	kN	10
ELECTRICAL CHARACTERISTICS	POWER FREQUENCY FLASHOVER VOLTAGE	DRY	kV (rms) 145
		WET	kV (rms) 100
	IMPULSE FLASHOVER VOLTAGE	POSITIVE	kV (pk) 220
		NEGATIVE	kV (pk) 270
	POWER FREQUENCY WITHSTAND VOLTAGE (ONE MINUTE)	DRY	kV (rms) 135
		WET	kV (rms) 90
	IMPULSE WITHSTAND VOLTAGE	kV (pk) 200	
	POWER FREQUENCY PUNCTURE VOLTAGE	kV (rms) 210	
WEIGHT	WEIGHT OF UNIT	kg	9.8

THE ELECTRICAL CHARACTERISTICS HAVE BEEN OBTAINED FROM TESTS CARRIED OUT IN ACCORDANCE WITH BS EN 60383-1



PORCELAIN INSULATORS

LINE PINS



NOTE:
 Dimension "X" is 130mm screwed for 75mm or 50mm
 screwed for 45mm.
 Other lengths may be available upon request.

TECHNICAL DETAILS

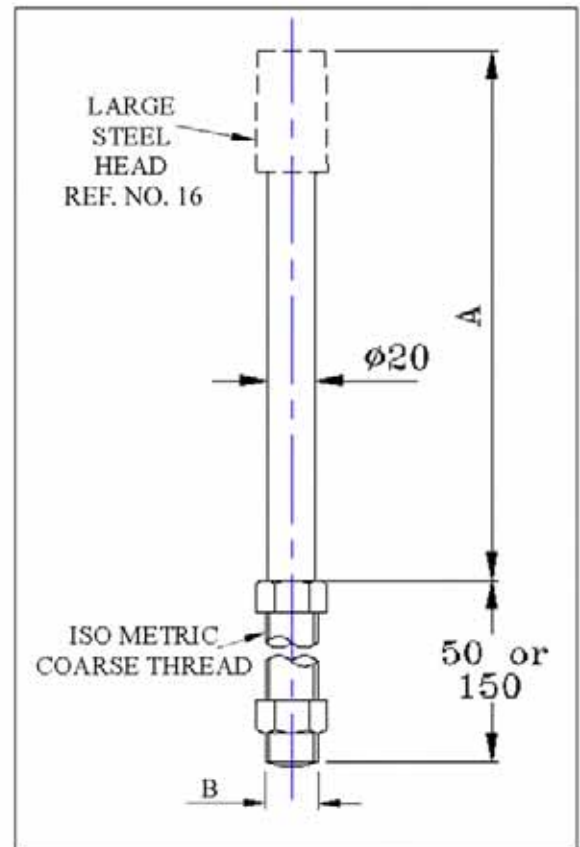
OLF REFERENCE			22BJ28	22BJ29	22BJ30	22BJ31
B.S. REFERENCE			R28	R29	R30	R31
MINIMUM FAILING LOAD	MECHANICAL TEST	kN	5	10	5	10
DIMENSIONS	A	mm	230	230	305	305
	B	mm	42	52	44	64
	C	mm	22	22	22	22
WEIGHT	WEIGHT PER 100					
	SHANK 50mm	kg	135	170	180	295
	SHANK 130mm	kg	160	190	205	320

THE DIMENSIONS ARE IN ACCORDANCE WITH BS 3288-2



PORCELAIN INSULATORS

PILOT PINS



TECHNICAL DETAILS

OLF REFERENCE			22BJ45	22BJ50
B.S. REFERENCE			R45	R50
MINIMUM FAILING LOAD	MECHANICAL TEST	N	650	650
DIMENSIONS	A	mm	400	500
	B	mm	20	20
WEIGHT	WEIGHT PER 100			
	SHANK 50mm	kg	160	180
	SHANK 130mm	kg	195	220

THE STALK AND SHANK LENGTHS CAN BE AMENDED TO MEET PARTICULAR REQUIREMENTS
THE DIMENSIONS ARE IN ACCORDANCE WITH BS 3288-2



PORCELAIN INSULATORS



In the following section a range of porcelain cap and pin insulator units are illustrated.

These insulators comply in all respects with BS EN-60305 and BS EN 60383-1.

The dimensions of the porcelain components and the spacing are nominal and are subject to the tolerances permitted in BS EN 60383-1.

All insulators have standard ball and socket couplings in accordance with BS 3288-3 and BS EN 60120.

Alternatively, insulators with clevis and tongue fittings can be supplied.





PORCELAIN INSULATORS

80kN PLAIN DISC INSULATOR



TECHNICAL DETAILS

OLF REFERENCE			40EY02
DIMENSIONS	DIAMETER	mm	254
	SPACING	mm	140
	TOTAL CREEPAGE DISTANCE - MINIMUM	mm	300
	BALL AND SOCKET COUPLING SIZE		16B
MINIMUM FAILING LOAD	ELECTRO-MECHANICAL TEST	kN	80
ELECTRICAL CHARACTERISTICS	POWER FREQUENCY FLASHOVER VOLTAGE	DRY	kV (rms) 80
		WET	kV (rms) 50
	IMPULSE FLASHOVER VOLTAGE	POSITIVE	kV (pk) 125
		NEGATIVE	kV (pk) 130
	POWER FREQUENCY WITHSTAND VOLTAGE (ONE MINUTE)	DRY	kV (rms) 70
		WET	kV (rms) 45
IMPULSE WITHSTAND VOLTAGE		kV (pk) 100	
POWER FREQUENCY PUNCTURE VOLTAGE		kV (rms) 110	
WEIGHT	WEIGHT OF UNIT	kg	5.2

THE ELECTRICAL CHARACTERISTICS HAVE BEEN OBTAINED FROM TESTS CARRIED OUT IN ACCORDANCE WITH BS EN 60383-1



PORCELAIN INSULATORS

125kN PLAIN DISC INSULATOR



TECHNICAL DETAILS

OLF REFERENCE			41EY00
DIMENSIONS	DIAMETER	mm	280
	SPACING	mm	178
	TOTAL CREEPAGE DISTANCE - MINIMUM	mm	340
	BALL AND SOCKET COUPLING SIZE	mm	20
MINIMUM FAILING LOAD	ELECTRO-MECHANICAL TEST	kN	125
ELECTRICAL CHARACTERISTICS	POWER FREQUENCY FLASHOVER VOLTAGE	DRY	kV (rms) 80
		WET	kV (rms) 50
	IMPULSE FLASHOVER VOLTAGE	POSITIVE	kV (pk) 125
		NEGATIVE	kV (pk) 130
	POWER FREQUENCY WITHSTAND VOLTAGE (ONE MINUTE)	DRY	kV (rms) 70
		WET	kV (rms) 45
IMPULSE WITHSTAND VOLTAGE		kV (pk) 110	
POWER FREQUENCY PUNCTURE VOLTAGE		kV (rms) 130	
WEIGHT	WEIGHT OF UNIT	kg	8.5

THE ELECTRICAL CHARACTERISTICS HAVE BEEN OBTAINED FROM TESTS CARRIED OUT IN ACCORDANCE WITH BS EN 60383-1



PORCELAIN INSULATORS



80kN ANTI-FOG DISC INSULATOR



TECHNICAL DETAILS

OLF REFERENCE			40EY12
DIMENSIONS	DIAMETER	mm	254
	SPACING	mm	140
	TOTAL CREEPAGE DISTANCE - MINIMUM	mm	432
	BALL AND SOCKET COUPLING SIZE		16B
MINIMUM FAILING LOAD	(ELECTRO-MECHANICAL TEST)	kN	80
ELECTRICAL CHARACTERISTICS	POWER FREQUENCY FLASHOVER VOLTAGE	DRY	kV (rms) 100
		WET	kV (rms) 60
	IMPULSE FLASHOVER VOLTAGE	POSITIVE	kV (pk) 150
		NEGATIVE	kV (pk) 150
	POWER FREQUENCY WITHSTAND VOLTAGE (ONE MINUTE)	DRY	kV (rms) 90
		WET	kV (rms) 50
IMPULSE WITHSTAND VOLTAGE		kV (pk) 125	
POWER FREQUENCY PUNCTURE VOLTAGE		kV (rms) 130	
WEIGHT	WEIGHT OF UNIT	kg	7.0

THE ELECTRICAL CHARACTERISTICS HAVE BEEN OBTAINED FROM TESTS CARRIED OUT IN ACCORDANCE WITH BS EN 60383-1



PORCELAIN INSULATORS



The porcelain staywire insulators illustrated are suitable for the majority of standard insulated staywire systems including those specified in ESI 43-91.





PORCELAIN INSULATORS



11 kV STAYWIRE INSULATOR



TECHNICAL DETAILS

OLF REFERENCE		39EH08	
DIMENSIONS	OVERALL WIDTH	mm	75
	OVERALL LENGTH	mm	120
	DIAMETER OF HOLE	mm	21
	TOTAL CREEPAGE DISTANCE - MINIMUM	mm	70
MINIMUM FAILING LOAD	MECHANICAL TEST	kN	110
ELECTRICAL CHARACTERISTICS	POWER FREQUENCY FLASHOVER VOLTAGE	WET	kV (rms) 17
	IMPULSE WITHSTAND VOLTAGE		kV (pk) 50
WEIGHT	WEIGHT OF UNIT	kg	1.2

THE ELECTRICAL CHARACTERISTICS HAVE BEEN OBTAINED FROM TESTS CARRIED OUT IN ACCORDANCE WITH BS EN 60383-1



PORCELAIN INSULATORS



20kV STAYWIRE INSULATOR



TECHNICAL DETAILS

OLF REFERENCE			39EH11
DIMENSIONS	OVERALL WIDTH	mm	100
	OVERALL LENGTH	mm	210
	DIAMETER OF HOLE	mm	22
	TOTAL CREEPAGE DISTANCE - MINIMUM	mm	110
MINIMUM FAILING LOAD	MECHANICAL TEST	kN	70
ELECTRICAL CHARACTERISTICS	POWER FREQUENCY FLASHOVER VOLTAGE	DRY	kV (rms) 26
		WET	kV (rms) 25
	POWER FREQUENCY WITHSTAND VOLTAGE (ONE MINUTE)	DRY	kV (rms) 25
		WET	kV (rms) 24
WEIGHT	WEIGHT OF UNIT	kg	2.6

THE ELECTRICAL CHARACTERISTICS HAVE BEEN OBTAINED FROM TESTS CARRIED OUT IN ACCORDANCE WITH BS EN 60383-1



PORCELAIN INSULATORS

33kV STAYWIRE INSULATOR



TECHNICAL DETAILS

OLF REFERENCE				39EH09
DIMENSIONS	OVERALL WIDTH		mm	120
	OVERALL LENGTH		mm	220
	DIAMETER OF HOLE		mm	28
	TOTAL CREEPAGE DISTANCE - MINIMUM		mm	95
MINIMUM FAILING LOAD	MECHANICAL TEST		kN	140
ELECTRICAL CHARACTERISTICS	POWER FREQUENCY FLASHOVER VOLTAGE			
	SINGLE UNIT	WET	kV (rms)	26
	2 UNITS IN SERIES	WET	kV (rms)	48
	IMPULSE WITHSTAND VOLTAGE - SINGLE UNIT		kV (pk)	75
	2 UNITS IN SERIES		kV (pk)	150
WEIGHT	WEIGHT OF UNIT		kg	5.4

THE ELECTRICAL CHARACTERISTICS HAVE BEEN OBTAINED FROM TESTS CARRIED OUT IN ACCORDANCE WITH BS EN 60383-1



PORCELAIN INSULATORS



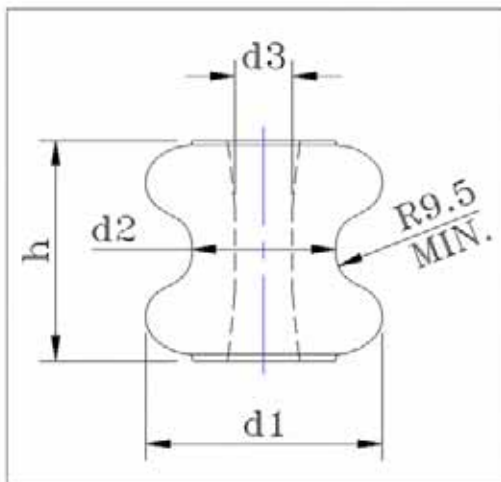
Porcelain insulators included in this section are suitable for most low voltage applications and comply with the requirements specified in ESI 43-93.





PORCELAIN INSULATORS

REEL INSULATOR



TECHNICAL DETAILS

OLF REFERENCE			39EH06
DIMENSIONS	HEIGHT, h		mm 65
	DIAMETER, d1		mm 76
	DIAMETER, d2		mm 44
	DIAMETER, d3 - MINIMUM		mm 17.5
MINIMUM FAILING LOAD	MECHANICAL TEST		kN 15
ELECTRICAL CHARACTERISTICS	POWER FREQUENCY FLASHOVER VOLTAGE	DRY	kV (rms) 20
		WET	kV (rms) 10
WEIGHT	WEIGHT OF UNIT		kg 0.4

THE ELECTRICAL CHARACTERISTICS HAVE BEEN OBTAINED FROM TESTS CARRIED OUT IN ACCORDANCE WITH BS EN 60383-1



PORCELAIN INSULATORS



COACHSCREW INSULATOR



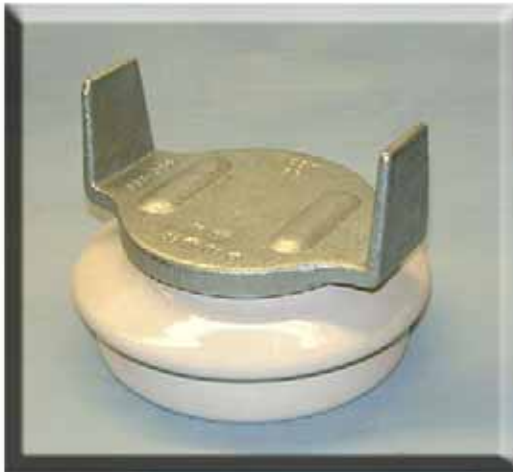
TECHNICAL DETAILS

OLF REFERENCE		39EH07	
DIMENSIONS	OVERALL HEIGHT OF PORCELAIN	mm	70
	OVERALL DIAMETER OF PORCELAIN	mm	57
	DIAMETER OF HOLE - MINIMUM	mm	16
	LENGTH OF COACHSCREW	mm	60
MINIMUM FAILING LOAD	(TENSILE TEST)	kN	4
	(BENDING TEST)	kN	2.5
WEIGHT	WEIGHT OF UNIT	kg	0.4

THE FAILING LOAD VALUES RELATE TO TESTS CARRIED OUT IN ACCORDANCE WITH ESI 43-93



PORCELAIN INSULATORS



Overhead Line Fittings (UK) Limited have available a range of porcelain pedestal type rail insulators.

The insulators are used for the support of top running conductor rail current collection systems up to 1000V.

Insulators are available for both Railtrack and London Underground systems and have been approved for use by both companies.





PORCELAIN INSULATORS



CONDUCTOR RAIL INSULATORS



TECHNICAL DETAILS

OLF REFERENCE			42EY00	42EY01	42EY02
DIMENSIONS	HEIGHT - TOP OF PAD TO BASE OF INSULATOR	mm	100	120	140
	DIAMETER OF PORCELAIN	mm	170	170	160
MINIMUM FAILING LOAD	COMPRESSION FAILING LOAD	kN	120	120	120
	LATERAL BENDING LOAD (at 25mm above top of pads)	kN	6	6	6
	IMPACT LOAD	kgm	1	1	1
ELECTRICAL CHARACTERISTICS	POWER FREQUENCY	DRY	kV (rms) 25	25	25
	WITHSTAND VOLTAGE	WET	kV (rms) 3.5	3.5	3.5
WEIGHT	WEIGHT OF UNIT	kg	5.5	6.6	7.7

THE ELECTRICAL CHARACTERISTICS RELATE TO TESTS CARRIED OUT WITH INSULATORS STANDING IN 13mm OF WATER
 THE CHARACTERISTICS RELATE TO TESTS CARRIED OUT IN ACCORDANCE WITH RT/E/C/27020



PORCELAIN INSULATORS



CONDUCTOR RAIL INSULATORS



TECHNICAL DETAILS

LUL REFERENCE			317P21
OLF REFERENCE			42EY03
DIMENSIONS	HEIGHT - TOP OF PAD TO BASE OF INSULATOR	mm	75
	DIAMETER OF PORCELAIN	(mm)	170
	TOTAL CREEPAGE DISTANCE-MIN.	mm	50
ELECTRICAL CHARACTERISTICS	NOMINAL VOLTAGE	kV (dc)	0.75
	CONTINUOUS WITHSTAND VOLTAGE	kV (dc)	1.00
	SURGE WITHSTAND FOR 100 μ s	kV (dep)	5.00
WEIGHT	WEIGHT OF UNIT	kg	3.5

TESTED IN ACCORDANCE WITH TE-DS-0104-A3 AND TE-DS-0327-A2



TOUGHENED GLASS INSULATORS



In the following section a range of toughened glass cap and pin insulator units are illustrated.

These insulators comply in all respects with BS EN 60305 and BS EN 60383-1.

The dimensions of the toughened glass components and the spacing are nominal and are subject to the tolerances permitted in BS EN 60383-1.

All insulators have standard ball and socket couplings in accordance with BS 3288-3 and BS EN 60120.

Alternatively, insulators with clevis and tongue fittings can be supplied.





TOUGHENED GLASS INSULATORS



80kN PLAIN DISC INSULATOR



TECHNICAL DETAILS

OLF REFERENCE			60SG00
DIMENSIONS	DIAMETER		mm 255
	SPACING		mm 140
	TOTAL CREEPAGE DISTANCE		mm 320
	BALL AND SOCKET COUPLING SIZE		mm 16B
MINIMUM FAILING LOAD	(MECHANICAL TEST)		kN 80
ELECTRICAL CHARACTERISTICS	POWER FREQUENCY FLASHOVER VOLTAGE	DRY	kV (rms) 78
		WET	kV (rms) 45
	IMPULSE FLASHOVER VOLTAGE	POSITIVE	kV (pk) 105
		NEGATIVE	kV (pk) 110
	POWER FREQUENCY WITHSTAND VOLTAGE (ONE MINUTE)	DRY	kV (rms) 70
		WET	kV (rms) 40
	IMPULSE WITHSTAND VOLTAGE		kV (pk) 100
	POWER FREQUENCY PUNCTURE VOLTAGE		kV (rms) 130
WEIGHT	WEIGHT OF UNIT		kg 3.45

THE ELECTRICAL CHARACTERISTICS HAVE BEEN OBTAINED FROM TESTS CARRIED OUT IN ACCORDANCE WITH BS EN 60383-1



TOUGHENED GLASS INSULATORS



80kN ANTI-FOG DISC INSULATOR



TECHNICAL DETAILS

OLF REFERENCE				60SG10
DIMENSIONS	DIAMETER		mm	255
	SPACING		mm	140
	TOTAL CREEPAGE DISTANCE		mm	390
	BALL AND SOCKET COUPLING SIZE		mm	16B
MINIMUM FAILING LOAD	MECHANICAL TEST		kN	80
ELECTRICAL CHARACTERISTICS	POWER FREQUENCY FLASHOVER VOLTAGE	DRY	kV (rms)	100
		WET	kV (rms)	60
	IMPULSE FLASHOVER VOLTAGE	POSITIVE	kV (pk)	150
		NEGATIVE	kV (pk)	150
	POWER FREQUENCY WITHSTAND VOLTAGE (ONE MINUTE)	DRY	kV (rms)	90
		WET	kV (rms)	50
IMPULSE WITHSTAND VOLTAGE		kV (pk)	125	
POWER FREQUENCY PUNCTURE VOLTAGE		kV (rms)	130	
WEIGHT	WEIGHT OF UNIT		kg	4.7

THE ELECTRICAL CHARACTERISTICS HAVE BEEN OBTAINED FROM TESTS CARRIED OUT IN ACCORDANCE WITH BS EN 60383-1



TOUGHENED GLASS INSULATORS



125kN PLAIN DISC INSULATOR



TECHNICAL DETAILS

OLF REFERENCE			60SG20
DIMENSIONS	DIAMETER	mm	280
	SPACING	mm	178
	TOTAL CREEPAGE DISTANCE	mm	380
	BALL AND SOCKET COUPLING SIZE	mm	20
MINIMUM FAILING LOAD	MECHANICAL TEST	kN	125
ELECTRICAL CHARACTERISTICS	POWER FREQUENCY FLASHOVER VOLTAGE	DRY	kV (rms) 80
		WET	kV (rms) 50
	IMPULSE FLASHOVER VOLTAGE	POSITIVE	kV (pk) 110
		NEGATIVE	kV (pk) 115
	POWER FREQUENCY WITHSTAND VOLTAGE (ONE MINUTE)	DRY	kV (rms) 75
		WET	kV (rms) 45
IMPULSE WITHSTAND VOLTAGE		kV (pk) 100	
POWER FREQUENCY PUNCTURE VOLTAGE		kV (rms) 130	
WEIGHT	WEIGHT OF UNIT	kg	6.35

THE ELECTRICAL CHARACTERISTICS HAVE BEEN OBTAINED FROM TESTS CARRIED OUT IN ACCORDANCE WITH BS EN 60383-1