

### EPBI Stand-Off Insulators

The EPBI insulator is a lightweight polymeric design comprising a solid polymer core covered by an elastomeric shedded insulation. This high voltage insulation is bonded to the core forming an excellent environmental seal.

Conventional glass fibre and porcelain core insulators have large steel or aluminium end fittings which can be subject to corrosion and mechanical problems. In this new design mechanical connection is achieved by stainless steel studs threaded into the engineering polymer core.

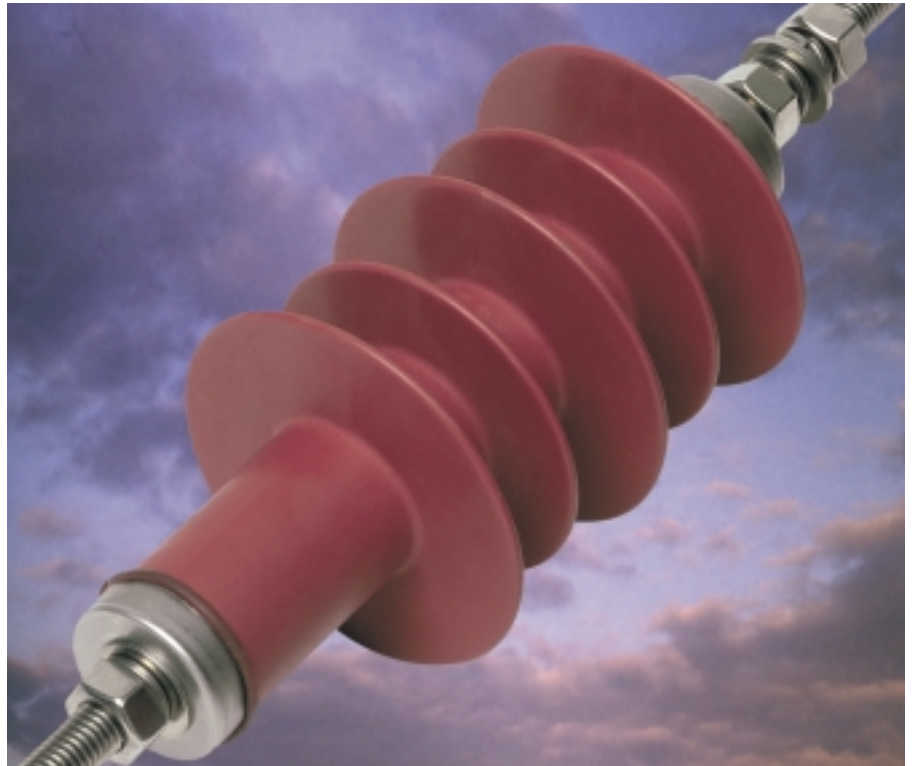
The insulator is suitable for compressive and cantilever loads. One typical application is the support of outdoor cable terminations.

#### Features

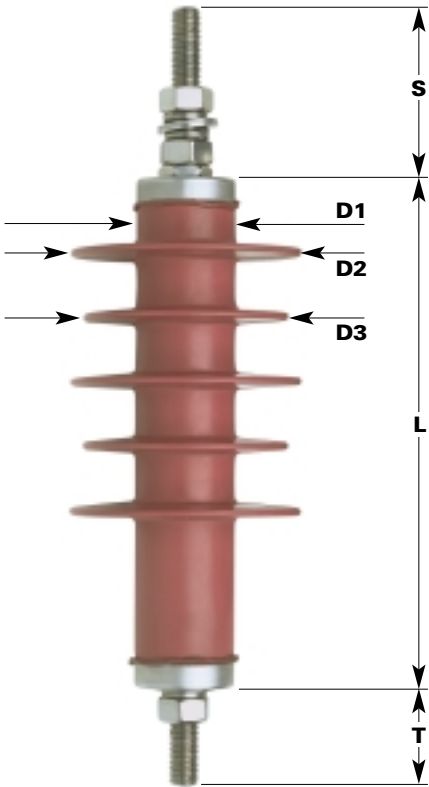
- Solid polymer core
- Mechanical connection by stainless steel studs
- Proven interfacial seal system
- Shedded insulation using proven non-tracking U.V. stable materials technology with 20 years successful experience in all weather conditions

#### Benefits

- Lightweight - easy erection and reduced transport costs
- High corrosion resistance
  - easy installation
- High resistance to water ingress
  - long term reliability
- Reliable insulation performance even in polluted environments
- Excellent vandal resistance. Shatterproof – breakages eliminated during erection



**Technical Specification**



Dimensions	EPBI 1000	EPBI 2000	EPBI 3000	EPBI 2000-VL-205	EPBI 2000-VL-305
Length L (mm)	195	305	380	205	305
Stud length S (mm)	65 (M12)	85 (M12)	65 (M12)	-*	-*
Stud length T (mm)	35 (M12)	35 (M12)	35 (M12)	-*	-*
Diameter D1 (mm)	38	36	54	37	37
Diameter D2 (mm)	87	87	135	85	85
Diameter D3 (mm)	77	77	115	105	105
Creepage distance (mm)	390	660	1100	655	755

**Electrical**

Impulse withstand (kV)	120	170	220	160	180
Dry AC withstand (kV)	85	100	135	80	100
Wet AC withstand (kV)	50	80	100	60	75

**Mechanical**

Max. Bending moment (Nm)	150	200	700	200	200
Specified Tensile Load (kN)	25	25	25	25	25
Torque M12 (Nm)	50	50	50	- *	- *

\* EPBI 2000-VL-205 and EPBI 2000-VL-305 are without studs e.g. for the use in fuseholders

**Ordering Information**

Description	U.O.M	Contents	Weight (g)
EPBI 1000	1 Kit	3 Insulators/Kit	1650
EPBI 2000	1 Kit	3 Insulators/Kit	2355
EPBI 3000	1 Kit	3 Insulators/Kit	4800
EPBI 2000-VL-205	1 Kit	3 Insulators/Kit	2100
EPBI 2000-VL-305	1 Kit	3 Insulators/Kit	2400



**Applications**

The insulators are suitable for small compressive and cantilever loads up to a system voltage of 36 kV, e.g. stand off insulators for outdoor cable terminations and support insulators for lightweight fuseholders (see EPP 0847). The insulator length can be adapted on customer's request.

**Vandal resistance**

12 bore shot gun; full choke; 10 yards range; no immediate electrical or mechanical failure. Drop test: 5 m on concrete: - no mechanical failure.

**Environmental**

British Rail Interfacial seal test (BR AC 213); Leakage current after 10 cycles less than 1 nA (spec. Maximum: 100 nA) IEC 61109, Annex C: 5000 hours ageing test under operating voltage simulating weather conditions (various stresses in a cyclic manner)

**Test Reports**

- UVR 8150 Qualification report on EPBI insulators
- UVR 8160 Qualification report on EPBI 3000 insulators
- PPR 1454 Electrical type tests of EPBI 2000-VL-205



Electronics

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