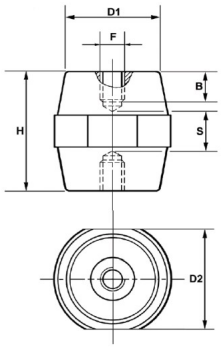
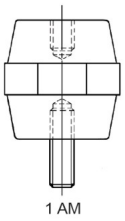
DB SERIES

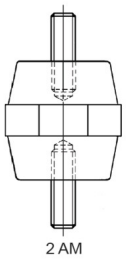
INSULATED SEPARATORS

ADVANCED TECHNICAL INFORMATION

DRAWINGS AND DIMENSIONS




1 AM


2 AM



AVAILABLE REFERENCES

*Reference**	*F*	*H* [mm]	*D1* [mm]	*D2* [mm]	*S* [mm]	*B* [mm]**	V_N [V_{AC}]	V_N [V_{DC}]	UL
DB12/P	M3-M4	12	10	11	3	3	220	310	A
DB16/P	M3-M4	16	13	14	6	4	380	536	A
DB20/P	M4-M5-M6	20	15	17	8	5	500	705	A
DB25/P	M5-M6	25.2	15	19	9	6	600	846	A
DB30/P	M6-M8	30	26	30	10	8	600	846	A
DB34/P	M6-M8-M10	35	28	32	10	10	1000	1410	A,B
DB35/P	M6-M8-M10	35.5	35	41	10	10	1000	1410	A,B
DB40/P	M6-M8-M10-M12	40	40	46	10	12	1000	1410	A,B
DB45/P	M6-M8-M10-M12	45	35	41	15	12	1500	2115	A,B
DB50/P	M6-M8-M10-M12	51	29	36	20	12	2000	2820	A,B
DB60/P	M8-M10-M12	60	46	55	20	14	2000	2820	A,B
DB65/P	M6-M8-M10-M12	63.5	35	41	30	16	3000	4230	A,B
DB70/P	M10-M12-M16	70	52	65	25	16	4000	5640	A,B
DB75/P	M8-M10-M12	76	36	50	25	16	5000	7050	A,B
DB750/P	M8-M10-M12-M16	75	52	65	25	19	5000	7050	A,B
DB100/P	M10-M12-M16	101	52	65	25	19	8000	11280	A,B

**We can also provide the insulators in black color phenolic resin ("/F" instead "/P" reference termination)*

***Reference's minimum nominal value of all its metric threads options. See table on page 2 for the exact depth depending reference and metric insert.*

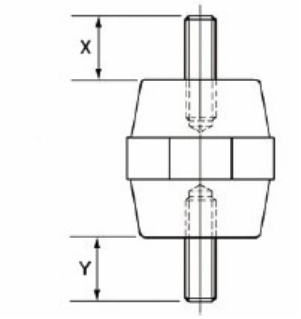
UL type A: compliance with category QEUY2/8 (components with operating voltage up to 1000 V.)

UL type B: compliance with category DLAR2/8 (components with operating voltage above 1000 V.)

ORDER CODES

DBxx/P xx – xAMxx / xx

(1) (2) (3) (4) (5)



1 - General code for insulator series. (see available references table)
2 - Female connections metric thread size. (see available references table)
3 - Number of male threaded studs. 1AM single stud, 2AM for both. (optional)
4 - When 1AM or 2AM option, the length X (in mm) of studs.
5 - When option 2AM with different length studs, length Y (in mm) of the second male threaded stud. (optional)

Note: *Threaded stud length tolerance: ±1 mm.*

Examples:

DB20/P M4 : Insulator type DB20/P with M4 connection drilled holes.

DB30/P M8 – 2AM20 : Insulator type DB30/P with connection drilled holes of M8 with two threaded stud connections (M8) of the same length, 20 mm.

DB65/P M10 – 2AM20/30 : Insulator type DB65/P with M10 connection drilled holes with two threaded stud connections (M10) one of them of 20 mm and the other of 30 mm.

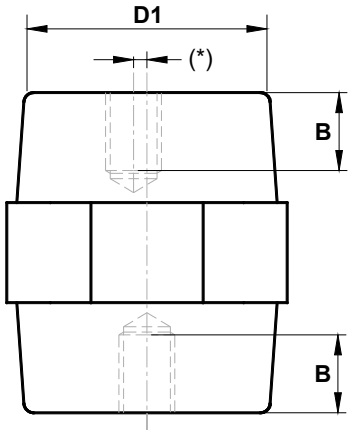
Rectificadores Guasch, S.A.U. reserves the right to change limits, test conditions and dimensions given in this data sheet at any time without previous notice.

USABLE THREADED DEPTH AND MAXIMUM TIGHTENING TORQUE

Usable threaded depth insert (B) in mm								
				Metric				
Reference	M3	M4	M5	M6	M8	M10	M12	M16
DB12/P	3	3	–	–	–	–	–	–
DB16/P	*4*	4	–	–	–	–	–	–
DB20/P	–	6	6	5	–	–	–	–
DB25/P	–	–	7	6	–	–	–	–
DB30/P	–	–	–	8	8	–	–	–
DB34/P	–	–	–	10	10	10	–	–
DB35/P	–	–	–	10	10	10	–	–
DB40/P	–	–	–	13	13	13	13	–
DB45/P	–	–	–	13	13	13	13	–
DB50/P	–	–	–	13	13	13	13	–
DB60/P	–	–	–	–	17	17	17	–
DB65/P	–	–	–	17	17	17	17	–
DB70/P	–	–	–	–	–	17	17	18
DB75/P	–	–	–	–	17	17	17	–
DB750/P	–	–	–	–	17	20	20	18
DB100/P	–	–	–	–	–	20	20	18

**All values in mm. Tolerance: B±10%*

Thightening torque in Nm								
				Metric				
Reference	M3	M4	M5	M6	M8	M10	M12	M16
DB12/P	1	2	–	–	–	–	–	–
DB16/P	2	4	–	–	–	–	–	–
DB20/P	–	4	5	8	–	–	–	–
DB25/P	–	–	6	8	–	–	–	–
DB30/P	–	–	–	12	16	–	–	–
DB34/P	–	–	–	12	18	24	–	–
DB35/P	–	–	–	12	18	24	–	–
DB40/P	–	–	–	14	22	26	36	–
DB45/P	–	–	–	14	22	26	36	–
DB50/P	–	–	–	14	22	26	36	–
DB60/P	–	–	–	12	22	26	36	–
DB65/P	–	–	–	–	22	26	36	–
DB70/P	–	–	–	–	–	26	36	50
DB75/P	–	–	–	–	22	26	36	–
DB750/P	–	–	–	–	22	26	36	50
DB100/P	–	–	–	–	–	26	36	50



(*) *Maximum eccentricity displacement between threaded insert and body of 3% of body nominal diameter.*

Rectificadores Guasch, S.A.U. reserves the right to change limits, test conditions and dimensions given in this data sheet at any time without previous notice.

TECHNICAL CHARACTERISTICS

Reference	Surface flashover [kV_{AC}]	Internal flashover [kV_{AC}]	Tensile stress [kN]	Cantilever stress [kN]	Compression stress [kN]	Twisting stress [Nm]
DB16/P	3	8	1	0.5	5	4
DB20/P	4	15	1.5	0.6	6	4
DB25/P	7	20	3	1.8	2.1	30
DB30/P	8	23	5	2.5	44	30
DB34/P	10	30	8	4.5	65	50
DB35/P	10	30	11	8	80	90
DB40/P	10	40	11	8	83	100
DB45/P	12	40	12	8	80	100
DB50/P	12	40	8.5	4.5	68	60
DB60/P	15	40	15	8	117	100
DB65/P	15	40	15	7	83	60
DB70/P	23	50	24.5	9.5	166	100
DB75/P	25	50	23	9	100	100
DB750/P	25	50	28	1.5	150	130
DB100/P	30	50	29.5	1.55	167	145

Operating temperature	Fire reaction	Breaking charge	Water absortion
-40ºC +130ºC	EN 45545-2 HI2 class UL94-V0 class	Tolerance ±10%	<0.2%

MATERIAL TECHNICAL CHARACTERISTICS (POLYGLASS)

Property	Standard	Value
Flexural strength	ISO R 178	80 N/mm²
Flexural modulus	ISO 178	7 GPa
Impact strength	ISO 179	25 kJ/m²
Hot deflection temperature	ISO 75	> 200 ºC
Hardness	UNI 4278	80 HRM
Linear shrinkage	ISO 2577	0.18%
Flammability	UL 94	V0 >3mm
Dielectric strength	IEC 60243-1	12 kV/mm
Tracking resistance	IEC 60112	CTI >600 -0.0
Arc resistance	ASTM D495	>180 s
Density	ISO 1183-1	1.8 g/cm³
Water absortion	ISO 62	<0.2 %
Color	RAL	RAL 3002 (red)

CE

Our Polyester insulators are in conformity with DIRECTIVE 2006/95/EC (Electrical equipment designed for use within certain voltage limits). Directive 2006/95/EC is a codifying Directive which brings together in one text the “original” Low Voltage Directive 73/23/EEC6 with its subsequent amendments. Directive 2006/95/EC came into force and repealed Directive 73/23/EC as from 16th January 2007. The Directive applies to all electrical equipment designed for use with a voltage rating of between 50 and 1000 V for alternating current and between 75 and 1500 V for direct current. The CE marking is placed on the electrical equipment or, where this is not practically possible, on the packaging.

UL

This polyester insulators are molded of Underwriters Laboratories Incorporated recognized flame-resistant fiberglass-reinforced polyester molding compound.

EN 45545

Conformity according to EN 45545 part 2 : Railway application- Fire protection on railway vehicles - Part 2: Requirements for fire behaviour of materials and components.
Test results :
Spread of flame : HL3 / Smoke : HL2 / Toxicity : HL3 / Heat release : HL2 / Final classification : HL2

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