

# QUESTIONNAIRE

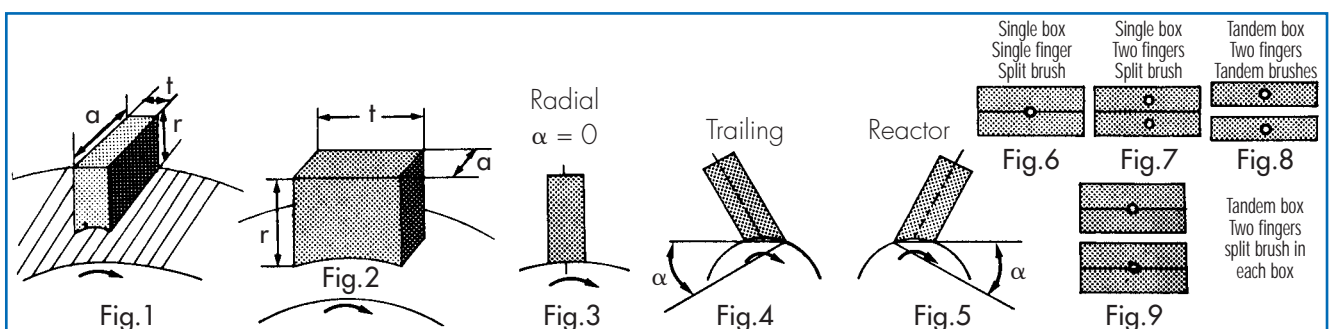
FOR THE CHOICE OF A SUITABLE BRUSH GRADE  
(Text conforms with publication 136.3 of the I.E.C.)

NAME & ADDRESS of User ..... Letter - Report - Reference

.....  
Date :

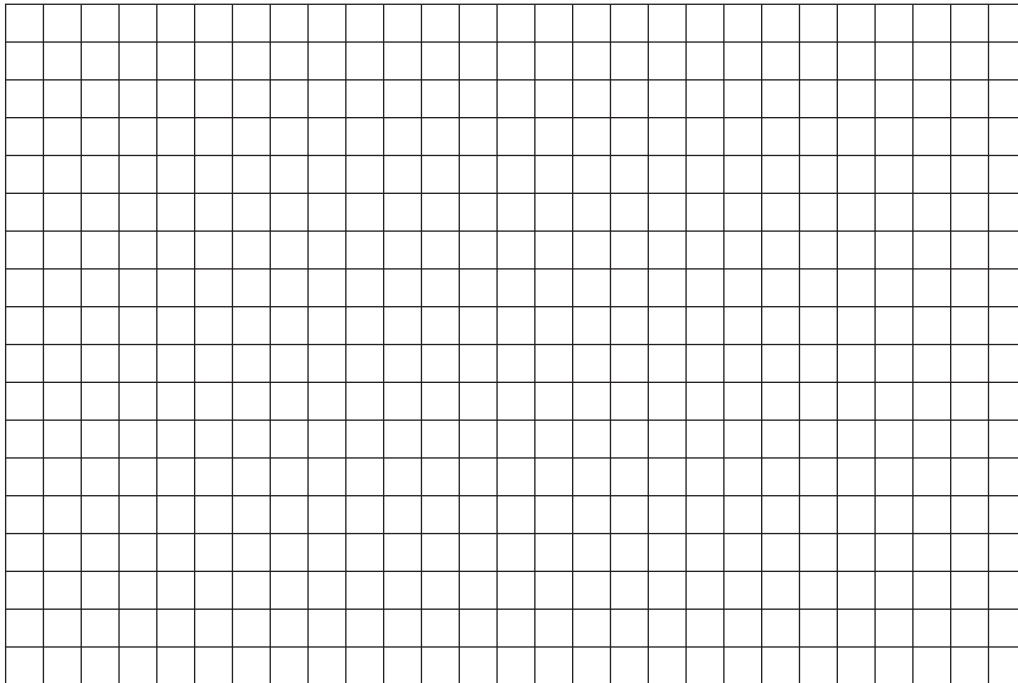
● To permit the supply of the most appropriate brush would you please complete the following questionnaire.  
**PLEASE NOTE** - Where the question is followed by a straight line give the information asked for ● In the case of questions within a frame please strike out the inappropriate words ● The questions in blue are especially important.

1	Constructor of machine .....	30	<b>RING MATERIAL</b> .....
2	Constructor type .....	31	Are rings helically grooved .....
3	Serial number .....	32	Are rings inboard or outboard ...
4	<input type="checkbox"/> Generator / <input type="checkbox"/> Motor	33	<b>ARE RINGS TOTALLY DEVELOPED</b> .....
	<input type="checkbox"/> DC / AC / Rectified AC <input type="checkbox"/> Reversible / Unidirectional	34	Are brushes lifted during normal running ? .....
5	Converters	35	<b>RING CURRENT</b> <input type="checkbox"/> DC / AC (A) .....
	<input type="checkbox"/> DC - AC or AC - DC	36	Temperature in service <input type="checkbox"/> Commutator / <input type="checkbox"/> Ring °C .....
	Nominal	37	<b>SURFACE STATE</b> <input type="checkbox"/> <b>COMMUTATOR OF RINGS</b>
	In Service		<input type="checkbox"/> Good / polished / Matt <input type="checkbox"/> Smooth / Worn / Grooved <input type="checkbox"/> Uniformed Marked
	Normal		Marks <input type="checkbox"/> Regular / Irregular <input type="checkbox"/> Burnt
	Max.		Colour <input type="checkbox"/> Light / Medium / Dark
6	<b>SPEED (r.p.m.)</b> .....	38	Date of last stoning <input type="checkbox"/> of the Commutator / of the rings .....
7	<b>VOLTAGE (V)</b> .....	39	<b>NUMBER OF BRUSH ARMS PER COMMUTATOR</b> .....
8	<b>CURRENT (A)</b> .....	40	<b>NUMBER OF BRUSHES PER ARM</b> .....
9	<b>POWER (kW)</b> .....	41	<b>NUMBER OF RINGS</b> .....
10	<b>DUTY</b> .....	42	<b>NUMBER OF BRUSHES PER RING</b> .....
11	<b>DUTY CYCLE</b> (include % no load) .....	43	<b>BRUSH DIMENSIONS (mm) Fig. <input type="checkbox"/>1 <input type="checkbox"/>2</b>
	.....		t = .....    a = .....    r = .....
12	Number of phases .....	44	<b>ANGLE OF INCLINAISON <math>\alpha</math> OF THE BRUSH Fig. <input type="checkbox"/>3 <input type="checkbox"/>4 <input type="checkbox"/>5</b> $\alpha =$ .....°
13	Frequency (Hz) .....		<b>ANGLE OF TOP BEVEL <math>\beta</math> OF THE BRUSH Fig. <input type="checkbox"/>10</b> $\beta =$ .....°
14	Number of main poles .....	45	<b>SPLIT BRUSHES Fig. <input type="checkbox"/>6 <input type="checkbox"/>7 <input type="checkbox"/>8 <input type="checkbox"/>9</b>
15	Interpoles .....	46	Are the brushes in the arms <input type="checkbox"/> In Line / <input type="checkbox"/> Staggered
16	Compensation winding .....		and by how much ? .....
17	Excitation <input type="checkbox"/> Shunt / <input type="checkbox"/> Separate / <input type="checkbox"/> Series / <input type="checkbox"/> Compound	47	Spring force acting on the brush daN (kg) .....
18	Construction <input type="checkbox"/> Machine open / <input type="checkbox"/> Protected / <input type="checkbox"/> Closed	48	<b>MAKE AND GRADE OF BRUSH IN USE</b> .....
19	Ambient Temperature (°C) .....	49	What is the average brush life hours .....
20	Relative Humidity (%) .....	50	<b>WHAT PROBLEMS (IF ANY) ARE PRESENT ?</b> .....
21	Oil Vapours .....		.....
22	Corrosive gases - which ? .....		.....
23	Dust .....		.....
24	Vibration .....		.....
25	Axial play .....		.....
26	<b>DIAMETER OF <input type="checkbox"/> COMMUTATOR OR <input type="checkbox"/> RINGS (mm) .....</b>		.....
27	Usable length of commutator .....		.....
	Width of rings (mm) .....		.....
28	Number of bars .....		.....
29	<b>ARE MICAS RECESSED ?</b> .....		.....



WHEN POSSIBLE SEND US A SAMPLE OF THE BRUSH IN USE  
 a partly worn one for preference - or a detailed sketch of the brush with its flexible and terminal  
 as shown in the sample sketch at the foot of this page.

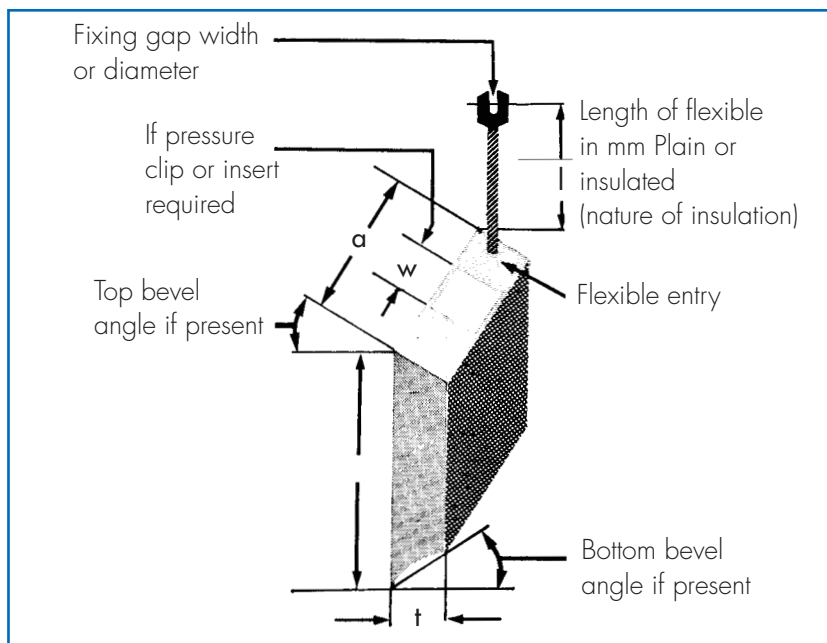
SKETCH of BRUSH



Length of flexible mm . . . . .	_____
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Diameter or width of fixing gap mm . . . .	_____
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ESSENTIAL INFORMATION for the MANUFACTURE of A BRUSH  
 Fig. 10



**CARBONE LORRAINE**  
**APPLICATIONS ELECTRIQUES**  
 10, rue Roger Dumoulin  
 F-80084 AMIENS Cedex 2  
 FRANCE