

## RENEWAL PARTS

## TYPE HFA AUXILIARY RELAYS

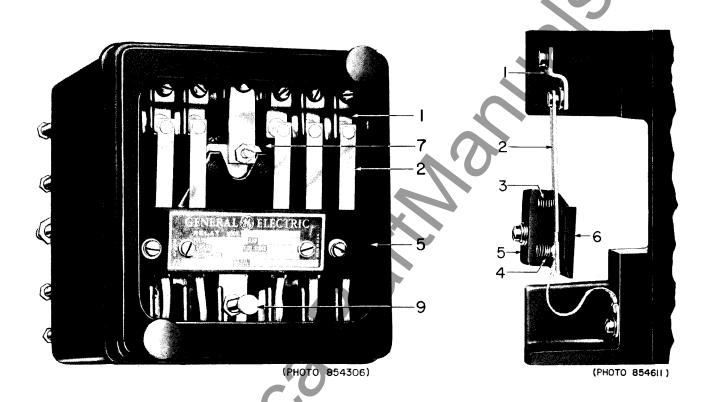


Fig. 1. Typical HFA relay

Fig. 2. Cutaway view of HFA contact arrangement

## ORDERING INSTRUCTIONS

- 1. Always specify the complete nameplate data of the relay.
- 2. Specify the quantity, catalog number (if listed), reference number (if listed), description, and this bulletin number.
- 3. Standard hardware such as screws, bolts, nuts, washers, etc., is not listed in this bulletin. Such items should be purchased locally.
- 4. For prices, refer to the nearest office of the General Electric Company.

When ordering renewal parts, give quantity, catalog number, description of each item required, and complete nameplate reading.



There are several varieties of HFA relays and each variety is, in turn, available in several ratings. As indicated in the table below, renewal parts are relatively few and, with the exception of coils, common to all forms of these relays. Because of the great number of possible combinations of relay form and rating, however, a listing of coils for individual relay models would cover many pages. To simplify the listing, therefore, coils are identified by an "index" number. This number is not the actual coil drawing number, but is a cross-reference between relay model number and coil drawing number. Note that relay model numbers in the main heading of the table include the symbol §. This symbol represents the relay "form number", whatever it may be, which varies with the rating. The symbol § also represents the coil index "group number", which is identical to the relay "form number".

Footnotes ‡ and § explain the method of determining the complete coil reference. When an order for a coil is received at the factory the engineering section will select the proper coil drawing number from the index number ordered. The actual coil drawing number, or numbers - not the index number - will appear on the shipping papers.

		Quantity Required for Model -	<b>(0)</b>	
	FS CS ES	13A\$F 13B\$F 13B\$F 13B\$F 13F\$F 13B\$F 14B\$F 14C\$F 14C\$F 14B\$F 14J\$F 14J\$F 20A\$F 20B\$F 20B\$F 25C\$F		
Ref. No.	11A\$E, 11B\$E, 11C\$E, 11D\$E,	138 138 138 138 138 138 138 148 140 141 141 141 141 141 141 141 141 141	Catalog Number Description	
	<b>⋖</b> : I	<del>C</del>		
	12HFA	12HF,		
*1	6 6 6 6 6 6	6 6 6 6 6 6 6 6 6 6 6 6 6 6 2 2 6 6	6118675G2 Stationary contact	
*2	6666666	6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 2 2 6	6118675G1 Moving contact with Fulcrum spring (up)	
3 4	666666	6 6 6 6 6 6 6 6 6 6 6 6 6 6 2 2 6 6	6078994   Fulcrum spring (upp   6078997   Fulcrum spring (low	
5	111111		6128771P9 Contact support (fro	,
6	111111		6128771P8 Contact support (bac	
*7	111111	111111111	‡6400824G§ Operating coil	
*7			\$\frac{16400825G\$(Oper.)}{16400825G\$(Oper.)}\$ Operating coil	
*†8 *7			16400825G§(Reset)   Reset coil	
*7 9	111111		t6400826G\$   Operating coil   6140437   Adjusting screw	
†10	111111		6140437 Adjusting screw 6078993 Tension spring for I	Ref. 9

<sup>\*</sup>Recommended for stock for normal maintenance.

Handbook Reference 7280

LOW VOLTAGE SWITCHGEAR DEPARTMENT, GENERAL ELECTRIC COMPANY, PHILADELPHIA, PA.

<sup>†</sup>Not shown.

<sup>‡</sup>Coil index number. Caution: When ordering 6400825G§ be sure to include either "(Oper.)" or "(Reset)" following the index number, as indicated, since both coils are included under the same reference. If the note is omitted both operating coil and reset coil will automatically be furnished. See footnote§.

<sup>\$</sup>Represents relay "form number" and coil "group number", which are identical. See footnote 1.

Example 1: Operating coil for relay model 12HFA11A14 is 6400824G14.

Example 2: Operating coil for relay model 12HFA14H9E is 6400825G9 (Oper.). Reset coil for relay model 12HFA14H9E is 6400825G9 (Reset).