

## POWER CAPACITORS

### FKC Oil Switch

*GE Type FKC-oil switches offer you many value-packed features*

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The many outstanding design features of the GE Type FKC Oil Switch provide a reliable long-life switch with a mechanical life expectancy in excess of the 10,000 operations required by ANSI Standard C37.66.



In order to continually receive the optimum operating performance made possible by these features, it is recommended that the FKC Oil Switch be inspected annually or after 1200 opening and closing operations (whichever is first). Switching duty at each installation is affected by the peak inrush current, load current and number of operations per day. Experience will indicate the frequency of inspection required at each installation. For special applications such as those involving parallel bank switching operation life can be estimated from AIEE Transactions Paper 59-1150 entitled - "CONTACT EROSION ON A CAPACITOR SWITCH".

- PORCELAIN BUSHINGS are designed for low radio interference level, high insulation value and no maintenance.
- REMOTE CONTROLLED MOTOR UNIT draws less than three amperes, permitting installation without special power requirements; withstands high peak induced transient voltages associated with capacitor switching; utilizes corrosion resistant materials and is vented to minimize condensation effects. A small heating unit is an optional extra for special humidity conditions. Optional counter switch.
- INDUSTRY STANDARD 5-Pin Receptacle .
- OPERATING SHAFT has GE's "one-way seal" which prolongs oil-life and reduces maintenance by sealing off entrance of outside moisture while still venting internal pressure.
- STATIONARY AND MOVING CONTACTS are faced with arc-resisting material for long life and backed with steel springs for contact pressure. A toggle action mechanism releases spring energy for fast action on both make and break. This affects improvement in contact life on closing and opening. The contacts are mechanically latched when in the closed position .
- TANK IS GALVANIZED to reduce maintenance and to provide better electrical ground conductivity between head, tank and

motor box.

- OPENING DASHPOT reduces contact bounce on opening and increases restrike-free ability of switch.
- RE-USABLE NITRILE RUBBER GASKETS on head and bushings prolong service life by effectively sealing unit from moisture contamination
- TERMINAL ASSEMBLY handles either copper or aluminum conductors without special fittings. This type of terminal resists both corrosion and "cold-flow".

## FKC-2 Oil Switches

# of Poles	GE Catalog Number	Weight	
		LB	KG
Motor Operated (each switch equipped with its own motor and 5-pin receptacle)			
14.4 kV, 200A, 95 kV BIL			
1	9F90DBF142	37	17
2*	9F90DBF242	84	38
3*	9F90DBF342	120	54
24.9 Grd Y/14.4 kV, 200A, 110 kV BIL, 17" Creep			
1	9F90DCF142	38	17
2*	9f90DCF242	88	40
3*	9F90DCF342	126	57
34.5 Grd Y/19.92 kV, 60A,			
1	9F90DFF142	38	17
24.9 Grd Y/14.4 kV, 200A, 125 kV BIL, 17" Creep			
2*	9F90DFF242	88	40
3*	9F90DFF242	126	57
Hook-stick Operated			
4.4 kV, 200A, 95 kV BIL			
1	9F90DBC100	30	14

**\* Junction Box and Cable Assembly Available**

### Optional Items

- 9F90AAW027 - Disconnect plug for receptacle
- 9F90AAW111 - Bushing Caps
- Heater for condensation control
- Switch for electrical counter to permit remote control
- 9F90AAW077 - Mechanical counter under sleet hood for motor operated switch
- 9F90AAW076 - For manually operated switch
- Auxiliary Switch, single pole
- Holding Switch

**Drive Motor data:**

- Rating - 120 volts, 50/60 Hz, AC (240 volts, 50/60 Hz, AC, also available)
- Running Current - 3 A
- Operating Time - Approximately 3 seconds open, 3 seconds close

**Switching Data and Rating**

- Oil Tank capacity - 1.5 gallons
- Maximum Momentary rating - 9000 A rms. asymmetrical
- One second rating - 6000 A rms. symmetrical
- Make and Latch Rating - 9000 A rms. asymmetrical (9000 A applies only to motor operated switches. Safe rating for other types is 4000 A symmetrical, 6000 A asymmetrical. 125 kV BIL switch make and latch tested to 6600 A asymmetrical)
- Maximum Peak-Inrush rating - 12,000 A

Make-and-latch rating of 9000 A applies only to motor operated switches. Safe rating for other types is 4000 A Sym., 6000 A Asym.

125 kV BIL switch make-and-latch tested to 6600 A Asym.

**Capacitive Load Switching (Maximum)**

Maximum 3 $\phi$ , 60 Hz rating to be switched.

Amps	BIL	Volts	kVAR
200	95	2400	600
200	95	4160	1050
200	95	4800	1250
200	95	7200	1850
200	95	7960	2100
200	95	12470	3250
200	95	13200	3450
200	95	13800	3600
200	95	14400	3600
200	110 or 125	24900 Grd Wye	6000
60	125	34500 Grd Wye	2700

**Renewal Parts for FKC-2 Oil Switch (Parts also may be used on FKC-1 Oil Switch)**

GE Catalog Number	Qty per Switch	Description
9F90AAW118	2	Bushing assembly, 95 kV BIL (complete oil filled bushing with terminal assembly, gasket and contact carrier)

9F90AAW120	2	Bushing assembly, 110 kV BIL, 17 inch creep, otherwise same as 9F90AAW118)
9F90AAW124	2	Bushing assembly, 125 kV BIL, 17 inch creep, otherwise same as 9F90AAW118)
9F90AAW066	2	Porcelain for 95 kV BIL bushing
9F90AAW082	2	Porcelain for 110 kV BIL, 17 inch creep bushing
9F90AAW067	2	Porcelain for 125 kV BIL, 17 inch creep bushing
9F90AAW125	1	Set of contact parts including moving, stationary, springs, pins, and cup.
9F90AAW084	1	Operating rod, guide, dashpot, and buffer
9F90AAW161	1	Set of 2 - support stud and nut (fiber)
9F90AAW174	1	Set of 6-Bushing clamp and hardware
9F90AAW158	1	Set of gaskets for tank and bush (top, bottom and flange) 95, 110 and 125 kV BIL (catalog model 9F90DFFxxx only)
9F90AAW164	1	Set of gaskets for tank and bush (top, bottom and flange) 125 kV BIL (catalog model 9F90DFFxxx only)
9F90AAW159	1	Set of tank liners 95 and 110 kV BIL
9F90AAW169	1	Set of tank liners 125 kV BIL
9F90AAW037	1	Motor and housing without holding circuit
9F90AAW038	1	Motor and housing with holding circuit
9F90AAW039	1	Motor stator and coil only, 120 V for model 9F90DxFxxx switches
9F90AAW025	1	Motor control and or holding circuit switch
9F90AAW151	1	Cam crank and roller assembly with retaining ring
9F90AAW100	1	Tank
9F90AAW026	1	Five pin receptacle