

Type HWT Capacitors

REFER TO CAPACITOR UNIT INSTRUCTION GEH-2743 INCLUDED WITH THIS EQUIPMENT BEFORE PERFORMING ANY WORK ON THE EQUIPMENT.

VISUALLY INSPECT PARTS FOR DAMAGE BEFORE USING.

INSTALLATION

Check the capacitor nameplate to make certain that the capacitor voltage is the same as the applied voltage. The equipment should be located so as to minimize the transfer of heat from other equipment or from the environment into the capacitors. The preferred mounting position is with the capacitor vertical (terminal box on top) for greater protection from the weather. Be sure that air can circulate freely about the capacitors. Incoming leads should be arranged or supported so as not to place a strain on the fuses or bushings inside the terminal box. Type HWT capacitors are not suitable for use with shielded cable.

FUSE ASSEMBLY AND CONNECTIONS

Type HWT capacitors can be ordered with none, 2 or 3 fuses; with or without remote blown fuse indication per 3-phase capacitor unit. Fuses are directly screwed to the capacitor unit studs. Some fuses may use an adapter block. Equipments are shipped with the fuses assembled to the capacitor.

To remove a fuse **without an adapter block**; loosen the ½" jam nut on the bushing terminal beneath the fuse. The fuse will unscrew from the terminal. Installation is opposite removal. Torque ½" jam nut to 15 ft lbs. max.

To remove a fuse **with an adapter block**; unscrew the locking set screw in the adapter block with a ¼" Allen wrench. The fuse will pull or unscrew out of the adapter block. Installation is opposite removal. Torque set screw to 80 in lbs.

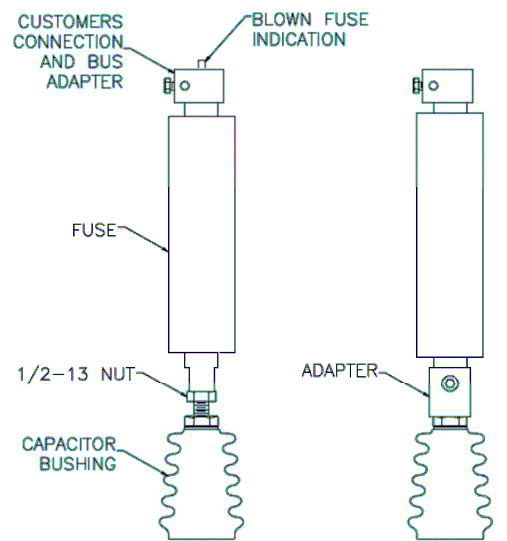
Refer to equipment outline drawing (included with the equipment) for provisions for connecting conductors.

Current limiting fuses with blown fuse indicators are used in all type HWT capacitors. Table I indicates

fuse sizes normally used with various individual capacitor units included in HWT capacitors.

TABLE I

Capacitor Voltage (Volts)	Capacitor Unit Sizes (kVAr)	Fuse Voltage Rating (Volts)	Fuse Current Rating (Amperes)
2400	25, 50, 75	4300	35
2400	100, 125, 150, 175	4300	75
2400	200, 225, 250, 275	4300	100
4160	25, 50, 75	5500	18
4160	100, 125, 150, 175, 200, 225	5500	50
4160	250, 275, 300	5500	75
4800	25, 50, 75	5500	18
4800	100, 125, 150, 175, 200, 225, 250	5500	50
4800	275, 300	5500	75



**FUSE MOUNTING
FIGURE I**

These instructions do not purport to cover all details or variations in equipment nor to provide for every possible contingency to be met in connection with installation, operation, or maintenance. Should further information be desired or should particular problems arise which are not covered sufficiently for the purchaser's purposes, the matter should be referred to GE Energy.

GEH-2711E, Type HWT Capacitors

Connection Wire Size² Insulated Triplexed or Three Single-Conductor Copper Cables in Isolated conduit in air at 40°C

2400V ²			4160V ²			4800V ²		
Total KVAR	135% 3PH Rated Amps	MIN CU ¹ CABLE 90C AWG MCM	Total KVAR	135% 3PH Rated Amps	MIN CU ¹ CABLE 90C AWG MCM	Total KVAR	135% 3PH Rated Amps	MIN CU ¹ CABLE 90C AWG MCM
25	8.1	8	25	4.7	8	25	4.1	8
50	16.2	8	50	9.4	8	50	8.1	8
75	24.4	8	75	14.1	8	75	12.2	8
100	32.5	8	100	18.7	8	100	16.2	8
125	40.6	8	125	23.4	8	125	20.3	8
150	48.7	8	150	28.1	8	150	24.4	8
175	56.8	6	175	32.8	8	175	28.4	8
200	65.0	6	200	37.5	8	200	32.5	8
225	73.1	6	225	42.2	8	225	36.5	8
250	81.2	4	250	46.8	8	250	40.6	8
275	89.3	4	275	51.5	8	275	44.7	8
300	97.4	2	300	56.2	6	300	48.7	8
325	105.5	2	325	60.9	6	325	52.8	8
350	113.7	2	350	65.6	6	350	56.8	6
375	121.8	2	375	70.3	6	375	60.9	6
400	129.9	2	400	74.9	6	400	65.0	6
425	138.0	1	425	79.6	4	425	69.0	6
450	146.1	1	450	84.3	4	450	73.1	6
475	154.3	1	475	89.0	4	475	77.1	4
500	162.4	1/0	500	93.7	4	500	81.2	4
525	170.5	1/0	525	98.4	2	525	85.2	4
550	178.6	1/0	550	103.0	2	550	89.3	4
575	186.7	2/0	575	107.7	2	575	93.4	4
600	194.9	2/0	600	112.4	2	600	97.4	2
625	203.0	2/0	625	117.1	2	625	101.5	2
650	211.1	3/0	650	121.8	2	650	105.5	2
675	219.2	3/0	675	126.5	2	675	109.6	2
700	227.3	3/0	700	131.2	1	700	113.7	2
725	235.5	3/0	725	135.8	1	725	117.7	2
750	243.6	4/0	750	140.5	1	750	121.8	2
775	251.7	4/0	775	145.2	1	775	125.8	2
800	259.8	4/0	800	149.9	1	800	129.9	2
825	267.9	4/0	825	154.6	1	825	134.0	1
			850	159.3	1/0	850	138.0	1
			875	163.9	1/0	875	142.1	1
			900	168.6	1/0	900	146.1	1

Wire size based on NEC 2002 TABLE 310-73

¹ References NEC 2002 310-5; minimum size of conductors for 2001-8000 volts is 8 AWG.

² References NEC 2002 310-15; Ampacity for Type V conductors rated 2001-8000 volts.