



EAST PITTSBURGH WORKS  
L.V. SWITCHGEAR ENGRGS. 8NN

From : East Pittsburgh Works  
WIN :  
Date : September 22, 1970  
Subject: Capacitor Trip Device  
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cc: East Pittsburgh Works - L.V. Swgr. Drafting 8NN - Harold Hoffman, Supv.  
cc: East Pittsburgh Works - L.V. Swgr. Drafting 8NN - George Rudolph, Group Leader

Be informed that capacitor trip device S#382D719G04 has superceded S#382D719G01-G02 and G03. You are requested to specify G04 for all applications. Read C. F. Burke's letter, attached, for a complete explanation.

*M.G. B.*

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Engineering Department  
8N-North

msw

Oct. 22, 1969

We presently have four different styles for capacitor trip devices, 382D719 G01 and 382D719 G02 for the single voltage device (230 V. AC, 60 cycles) without (G01) and with cover (G02), and style 382D719 G03 and 382D719 G04 for the multi-voltage device (115/230/460 V. AC, 60 cycles) without (G03) and with cover (G04).

Our DB Section 33-353 and Instruction Sheet 33-351-1 both indicate the single voltage styles for electrically operated breakers and the multi-voltage styles for manually operated breakers.

About two years ago an outside source of supply was developed for the G04 style and because of its availability, it was used as a substitute for orders originally specifying the G02 style.

Mr. Thompson of our Sharon Plant had previously written seeking assurances that the G04 style was suitable for electrically operated breakers used for instantaneous reclosing duty.

Historically, the standard capacitor trip device was a multi-voltage device for all applications until approx. 1953 when it was discovered that when operated on some of the voltage taps, the unit would not recharge fast enough for instantaneous reclosing duty due to the rectifier characteristics and the impedance of the transformer. A 230 V. AC device then came into existence for use with electrically operated breakers and the multi-voltage device was limited to manually operated breakers. However, since that time there has been a change in the transformer design and the rectifier. (The two selenium stacks having been replaced by a silicon unit.)

A series of tests has recently been completed on the present multi-voltage device. It revealed that any tap could be energized at 60% of the nominal tap voltage and still sustain a 0-zero second-CO operation of the type 144GC breaker.

Consequently, we are in the process of changing our style records to show the G01-G02 and G03 styles as superseded by the G04 style for all applications and will likewise change DB 33-353 and IS 33-351-1 to show diagram and style of the G04 unit only, eliminating all reference to "electrically operated" and "manually operated" breakers.

We request all other departments or divisions who use this capacitor trip device to kindly change their records and/or key drawings to specify S-382D719 G04 instead of G01, G02 or G03 and to use the multi-voltage device wiring and schematic diagram.

*C. F. Burke*

C. F. Burke  
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