

Figure 1. A line diagram depicting series coordination of a Fault Fiter fuse with a source-side induction disc overcurrent relay.

Table 1 and Table 2 on page 2 feature minimum pickup currents and **Time Dial** settings for source-side induction disc overcurrent relays selected to provide complete coordination with load-side inverse-curve type Fault Fiter Electronic Power Fuses. The minimum pickup currents and **Time Dial** settings listed in the tables are based on coordinating time intervals (CTIs), reflecting relay overtravel and tolerance of 0.15 seconds for uncalibrated relays and overtravel of 0.10 seconds for relays calibrated at the operating current.

To check for coordination with the Fault Fiter fuses, these CTI values were subtracted from relay operating curves, and the resultant curves were compared to Fault Fiter fuse total clearing curves. See Figure 2.

NOTICE

Fault Fiter Electronic Power Fuse control modules must be selected by qualified persons knowledgeable in equipment protection and time-current coordination and who understand the consequences of improperly coordinated overcurrent protective devices. Failure to achieve complete coordination between Fault Fiter Electronic Power Fuses and source-side or load-side protective devices may result in improper operation of one or more Fault Fiter fuses.

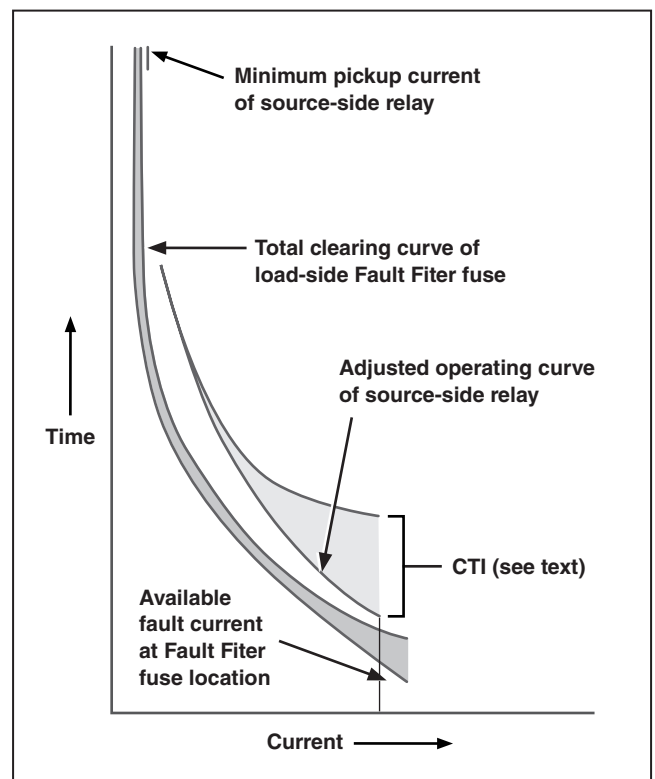


Figure 2. Comparison of Fault Fiter fuse and source-side relay TCC curves to check for coordination.



Supersedes Data Bulletin 440-170 dated 2-24-03

December 4, 2023

© S&C Electric Company 1985-2023, all rights reserved

Fault Fiter® Electronic Power Fuses

Table 1. Series Coordination of Inverse-Curve Type Fault Fiter Fuses (TCC No. 410-7) with General Electric Type IAC Induction Disc Overcurrent Relays

Control Module Catalog Number ↓	Minimum Pickup Current, Amperes, RMS ↓	Relay Settings																											
		Minimum Time Dial Setting ^①																											
Relay Characteristic and Type →		Inverse (IAC-51)								Very Inverse (IAC-53)								Extremely Inverse (IAC-77)											
Coordinating Time Interval (CTI), Seconds →		0.15				0.10				0.15				0.10				0.15				0.10							
Available Fault Current, kA, RMS Symmetrical →		10	20	30	40	10	20	30	40	10	20	30	40	10	20	30	40	10	20	30	40	10	20	30	40	10	20	30	40
814040	480	1	1	1	1	1	1	1	1	3	3	3	3	2	2	2	2	10	10	10	10	8	8	8	8	8	8	8	8
814050	600	1	1	1	1	1	1	1	1	3	3	3	3	2	2	2	2	9	10	10	10	7	8	8	8	8	8	8	8
814060	720	1	1	1	1	1	1	1	1	3	3	3	3	2	2	2	2	8	10	10	10	6	8	8	8	8	8	8	8
814070	840	1	1	1	1	1	1	1	1	3	3	3	3	2	2	2	2	8	10	10	10	6	8	8	8	8	8	8	8
814080	960	2	1	1	1	1	1	1	1	3	3	3	3	2	2	2	2	6	10	10	10	5	8	8	8	8	8	8	8
814100	1200	2	2	1	1	1	1	1	1	3	3	3	3	2	2	2	2	5	9	10	10	4	8	8	8	8	8	8	8
814125	1500	2	2	2	1	1	1	1	1	2	3	3	3	2	2	2	2	4	8	10	10	3	7	8	8	8	8	8	8
814150	1800	2	2	2	2	2	1	1	1	2	3	3	3	2	2	2	2	3	8	9	10	3	6	8	8	8	8	8	8

① The **Time Dial** setting shown is the lowest setting with which a Fault Fiter fuse will coordinate based on use of the coordinating time intervals listed in the table.

Table 2. Series Coordination of Inverse-Curve Type Fault Fiter Fuses (TCC No. 410-7) with Westinghouse Type CO Induction Disc Overcurrent Relays

Control Module Catalog Number ↓	Minimum Pickup Current, Amperes, RMS ↓	Relay Settings																											
		Minimum Time Dial Setting ^①																											
Relay Characteristic and Type →		Inverse (CO-8)								Very Inverse (CO-9)								Extremely Inverse (CO-11)											
Coordinating Time Interval (CTI), Seconds →		0.15				0.10				0.15				0.10				0.15				0.10							
Available Fault Current, kA, RMS Symmetrical →		10	20	30	40	10	20	30	40	10	20	30	40	10	20	30	40	10	20	30	40	10	20	30	40	10	20	30	40
814040	480	2	2	2	2	2	2	2	2	3	3	3	3	2	2	2	2	6	7	7	7	5	5	5	5	5	5	5	5
814050	600	2	2	2	2	2	2	2	2	3	3	3	3	2	2	2	2	6	7	7	7	5	5	5	5	5	5	5	5
814060	720	2	2	2	2	2	2	2	2	3	3	3	3	2	2	2	2	5	7	7	7	4	5	5	5	5	5	5	5
814070	840	2	2	2	2	2	2	2	2	3	3	3	3	2	2	2	2	5	7	7	7	4	5	5	5	5	5	5	5
814080	960	2	2	2	2	2	2	2	2	3	3	3	3	2	3	2	2	4	7	7	7	4	5	5	5	5	5	5	5
814100	1200	2	2	2	2	2	2	2	2	3	3	3	3	2	3	3	2	4	6	7	7	3	5	5	5	5	5	5	5
814125	1500	2	2	2	2	2	2	2	2	3	3	3	3	2	3	3	2	3	5	6	6	3	4	5	5	5	5	5	5
814150	1800	2	2	2	2	2	2	2	2	3	3	3	3	2	3	3	2	3	5	6	6	2	4	5	5	5	5	5	5

① The **Time Dial** setting shown is the lowest setting with which a Fault Fiter fuse will coordinate based on use of the coordinating time intervals listed in the table.