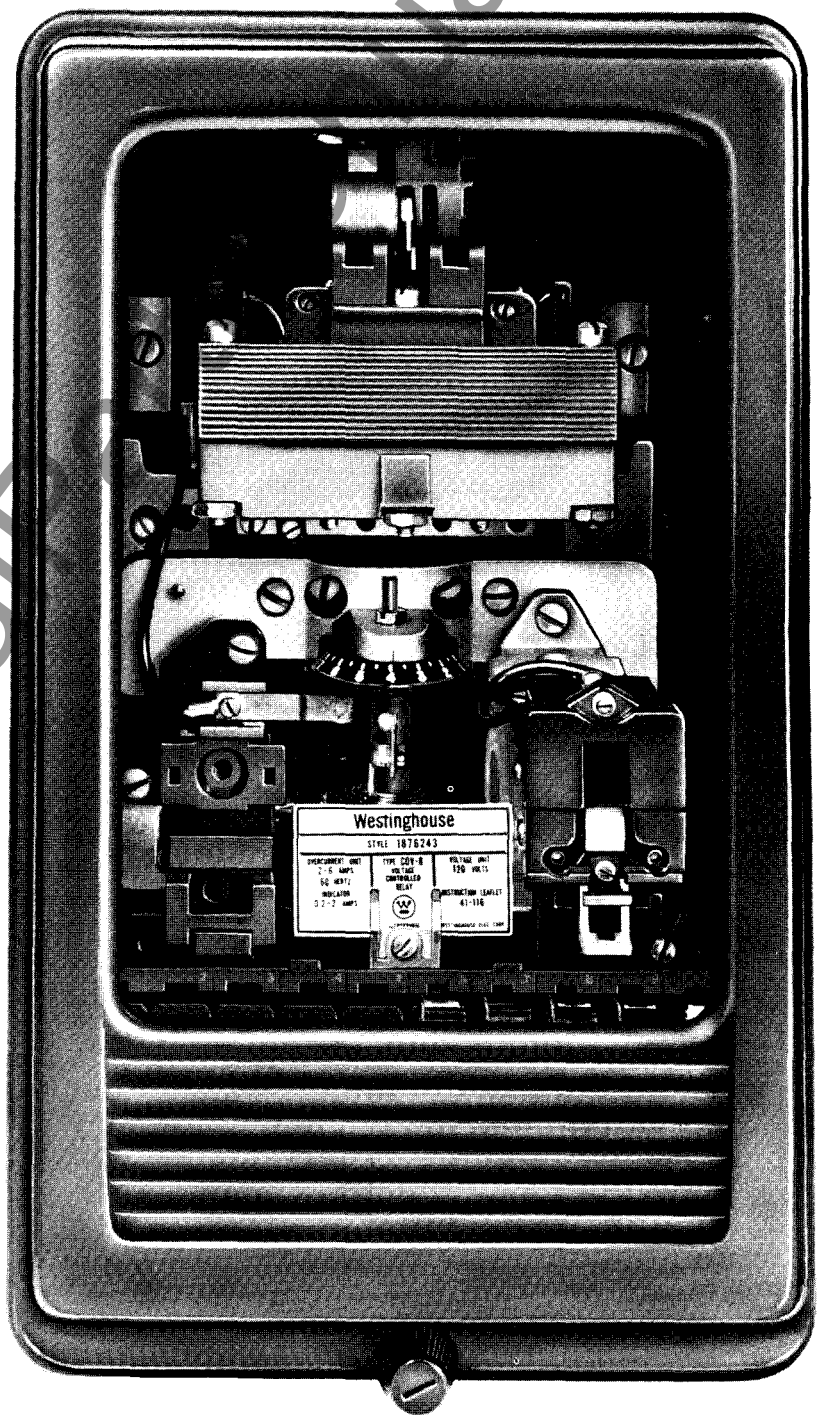
Westinghouse Electric Corporation
Relay-Instrument Division
Coral Springs, FL 33060

December, 1978
Supersedes DB 41-115 D WE A
dated February, 1976
E, D, C/2013/DB

Type COV Voltage Controlled Overcurrent Relay

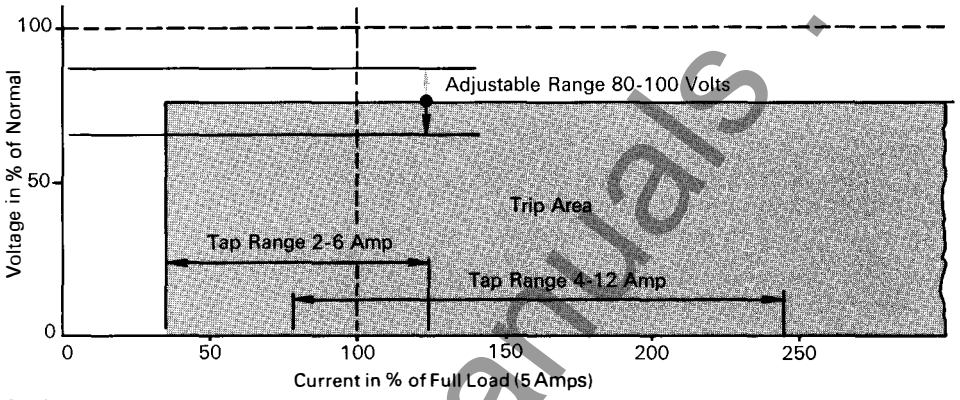


Time-Overcurrent Unit Coordination
Type COV back-up relays should use the same operating time characteristics as the primary protective relays on the adjacent system should be used to assure selective coordination.

A minimum coordinating time of 0.3 second, plus breaker operating time, is recommended between the COV relay and the relays with which coordination is to be effected.

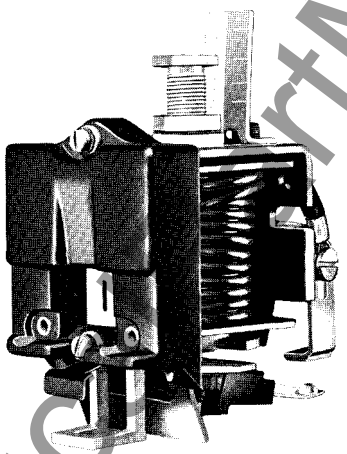
Overcurrent unit settings are defined either by (a) time dial setting and current tap setting or (b) tap setting and multiples of tap value current applied – providing a specific operating time.

Typical Tripping Characteristics①



① 90 volt setting when shipped from factory.

Indicating Instantaneous Trip (IIT)



The IIT provides high speed protection from heavy fault currents. Also mounted on the test-jack pedestal, the Indicating Instantaneous Trip is similar in construction to the Indicating Contactor Switch, with the exception that it is ac operated and is adjustable over a range of 1 to 4 times minimum pickup. Variable pickup is provided by core-screw adjustment on top of switch. When energized above pickup setting, IIT contacts close to complete the trip circuit and the target drops. The IIT unit is accurate within 10% of setting and has a variable drop-out to pickup ratio from 65% at minimum setting to 90% at maximum setting.

Suggested Settings
(Normal Application)

1. Voltage Unit
Set for 90 volts drop-out (80 to 100 volts adjustable range).

2. Overcurrent Range
Set on 2.0 ampere tap (2-6 ampere range).

3. Time Dial
Set for selective time coordination with relays on adjacent circuits

Characteristics

Voltage Unit Burden Data and Thermal Capacities

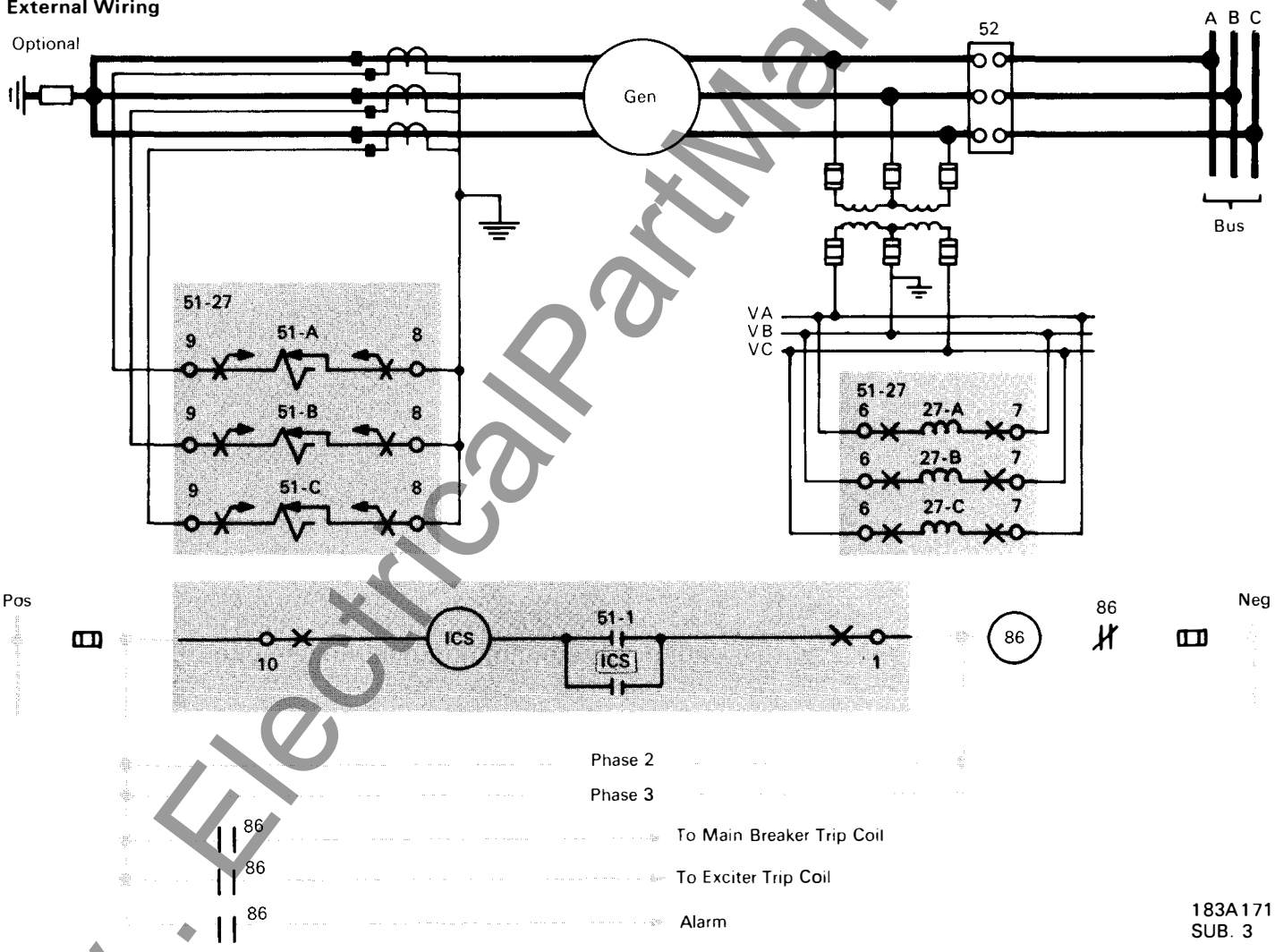
Frequency: Cycles	Drop-out Adjustment: Volts	Drop-out Ratio in Percent of Pickup	Burden at 120 Volts in Volt-Amperes①	Voltage Rating, Continuous
60	80-100	98	8.0	132

① Average for various settings.

Time-Overcurrent (CO) Unit
Refer to Performance Data 41-100 for burden data and thermal capabilities, and time curves.

ICS Unit and IIT Unit
For description, characteristics and burden see Descriptive Bulletin 41-080.

External Wiring



183A171
SUB. 3

Device Numbers
51-67 – Voltage Controlled Overcurrent Relay, Type COV
27 – Voltage Unit of Type COV
51 – Overcurrent Unit of Type COV
86 – Auxiliary Tripping Relay, Type WL
52 – Power Circuit Breaker
ICS – Indicating Contactor Switch

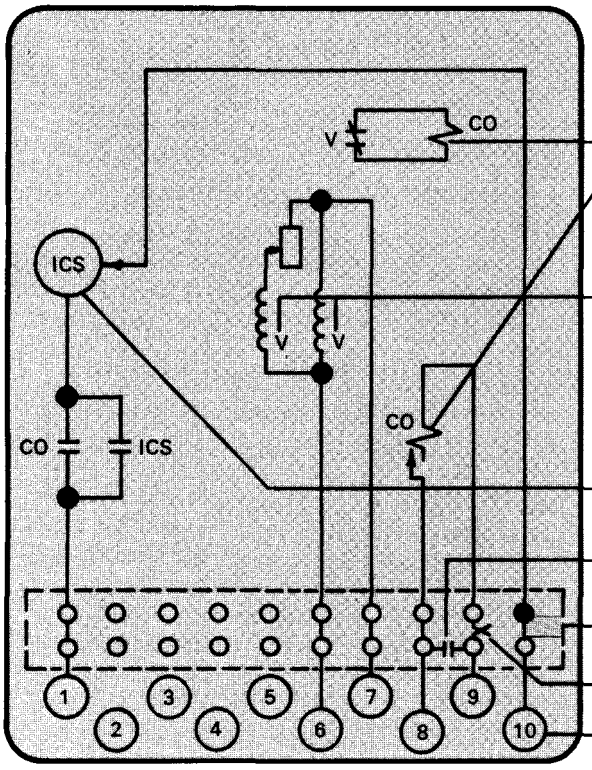
Further Information
Prices: PL 41-020
Case Dimensions: DB 41-075
Instructions: IL 41-116
Other Protective Relays: Selector Guide 41-000 A, B, C

Shipping Weights and Carton Dimensions

Case Type	Weight: Net Shipping		Domestic Shipping Carton Dimensions:
FT-21	12 lbs. (5.4 kg)	16 lbs. (7.3 kg)	9 x 12 x 13 inches 23 x 30 x 33 cm.

Internal Wiring, FT-21 Flexitest® Case

Single Trip, Circuit Closing Contact



Overcurrent Unit

Voltage Unit

Indicating Contractor Switch

Chassis Operated Shorting Switch

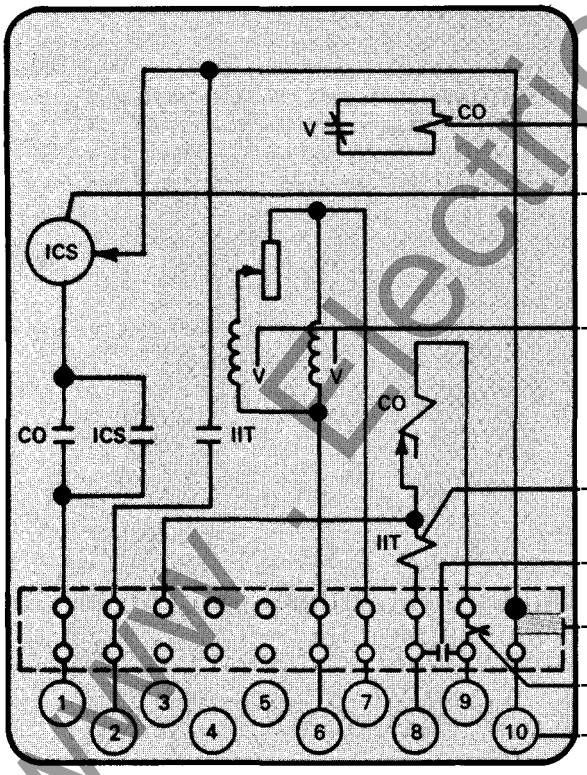
Flexitest Switch

Current Test Jack

Case Terminals

183A047 Sub. 3

Single Trip, Circuit Closing Contact, with IIT



Overcurrent Unit

Indicating Contractor Switch

Voltage Unit

Indicating Instantaneous Unit

Chassis Operated Shorting Switch

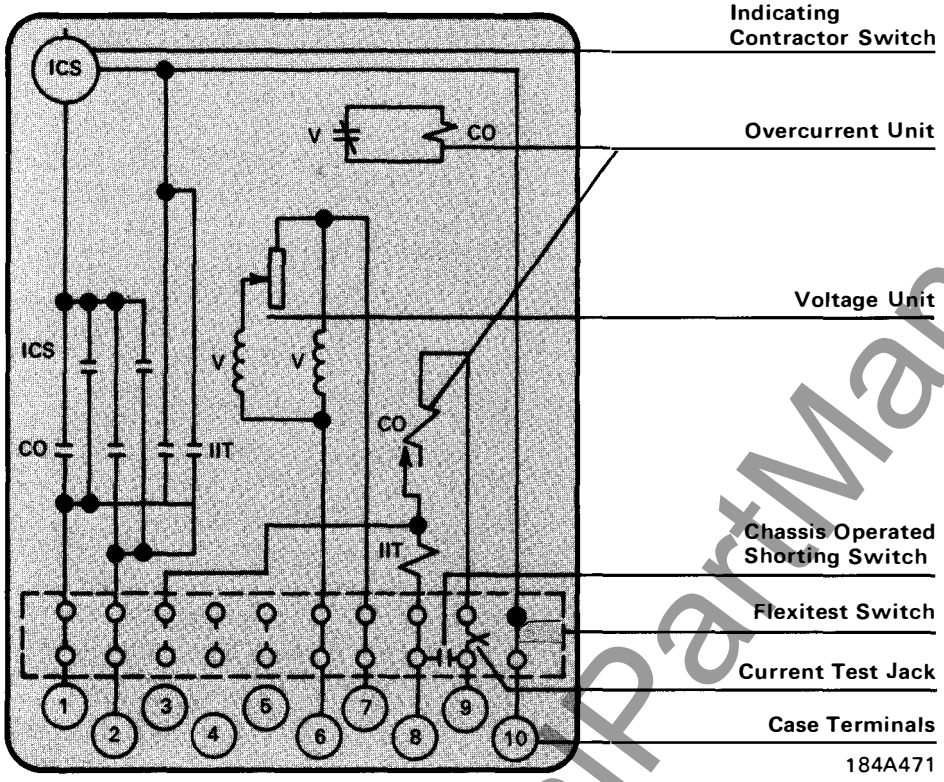
Flexitest Switch

Current Test Jack

Case Terminals

183A048 Sub. 4

Double Trip, Circuit Closing Contacts, with IIT



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