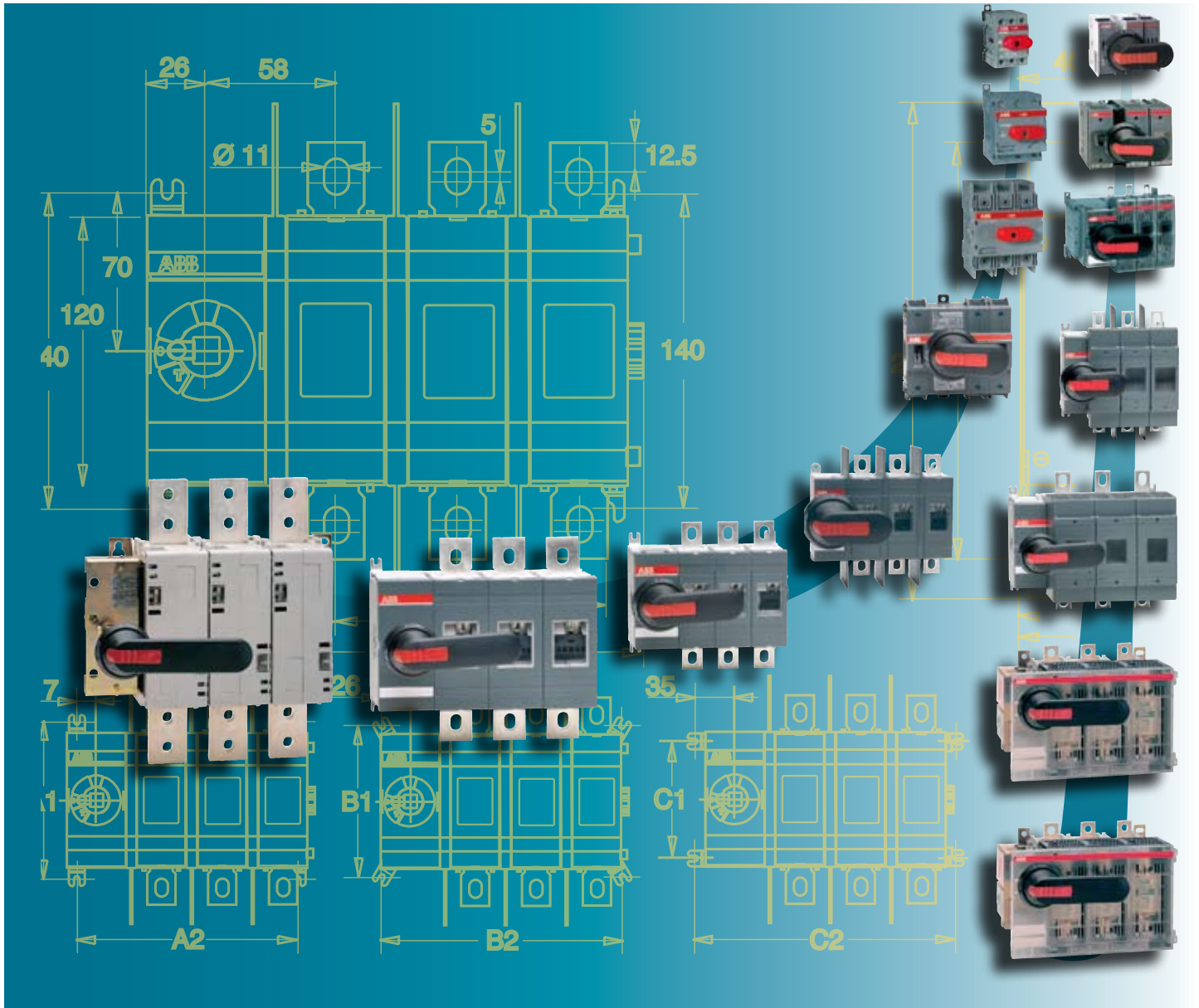


Disconnect Switches

Specifiers guide



ABB

Part 1 - General

Part 2 - Products

Specification Number: 26 28 16.13

Product Name: DISCONNECT SWITCHES - HEAVY DUTY
SECTION 26 28 16.13
DISCONNECT SWITCHES - HEAVY DUTY

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Switches shall be furnished and installed at locations as shown on the drawings. Switches shall be of the type approved, indicated and specified herein.

1.02 REFERENCES

Switches shall be manufactured in accordance with the following standards:

- A. UL 98 - Enclosed and Dead Front Switches

1.03 SERVICE ENTRANCE

- A. Switches identified for use as service equipment are to be labeled for this application.

1.04 DRAWINGS

- A. Provide outline drawings with dimensions, and equipment ratings for voltage, amperage, horsepower and short circuit ratings.

1.05 MATERIAL (Optional requirement)

- A. Switches shall be compliant with RoHS directives (OT & OS Series)

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Switches shall be manufactured by ABB Inc. [no equal] [or approved equal].

2.02 SWITCH INTERIOR

- A. Switches [non-fusible, 125-3150 amperes] shall have switch blades which are visible when the switch is OFF and the cover is open. All other non-fusible and fusible disconnects shall have non-visible blades.
- B. Lugs shall be UL Listed for [60o C or 75o C conductors (30-100 ampere)], [75o C conductors (200-800 ampere)], aluminum or copper.
- C. All current carrying parts shall be plated to resist corrosion.

2.03 SWITCH MECHANISM

- A. The switch operating mechanism shall be quick-make, quick-break such that, during normal operation of the switch, the operation of the contacts shall not be capable of being restrained by the operating handle after the closing or opening action of the contacts has started.

2.04 SWITCH OPERATING HANDLE

Flange Handle

- A. The flange-mounted operating handle shall be an integral part of the enclosure.
- B. The door interlock may be defeated in the ON position but reactivates automatically when the enclosure door is closed.
- C. With enclosure door open, it shall be possible to defeat the handle interlock without using a special tool.
- D. Handle shall allow padlocking in the OFF position with the enclosure door open or closed.
- E. With switch on, handle door interlock may be defeated with a tool to allow the door to be opened.
- F. Operating handle must comply with NFPA79 and UL508A operating handle requirements for industrial machinery.

Through-the-door Handle

- A. The through-the-door operating handle shall be integral part of the enclosure door.
- B. The door interlock may be defeated in the ON position but reactivates automatically when the enclosure door is closed.
- C. With enclosure door open, it shall be possible to operate the switch with an auxiliary handle by defeating the handle interlock without using a special tool.
- D. Handle shall allow padlocking in the OFF position with the enclosure door open or closed.
- E. With switch on, handle door interlock may be defeated with a tool to allow the door to be opened.
- F. (Optional requirement for non-standard padlock hasp) Operating handle shall be equipped with a stainless steel padlock hasp to permit the use of oversize padlocks or padlock 'trees' that hold multiple padlocks.
- G. (Optional requirement for non-standard direct mount handle) Operating handle must comply with NFPA79 and UL508A operating handle requirements for industrial machinery.

2.05 SWITCH ENCLOSURES

NEMA 1

- A. The enclosure shall be fabricated from 16 gauge steel with seam welds that are ground smooth.
- B. Enclosure shall be equipped with a continuously hinged door which is held closed with type 304 stainless steel clamps

Part 2 - Products



- C. The enclosure and door shall be finished inside and out with ANSI 61 light gray polyester powder coating applied over a five stage immersion style zinc phosphate pre-treatment.
- D. The enclosure and door shall be capable of withstanding at least 1000 hours of salt spray without showing visible rust.
- E. Grounding provisions shall be provided on the enclosure door and inside the enclosure.
- F. Mounting feet shall be formed from the enclosure body to reduce potential corrosion.

NEMA 3R

- A. The enclosure shall be fabricated from 16 gauge steel with seam welds that are ground smooth.
- B. Enclosure shall be equipped with a continuously hinged door which is held closed with type 304 stainless steel clamps.
- C. The enclosure and door shall be finished inside and out with ANSI 61 light gray polyester powder coating applied over a five stage immersion style zinc phosphate pre-treatment over cold rolled steel.
 - 1. The enclosure and door shall be capable of withstanding at least 1000 hours of salt spray without showing visible rust.
- D. Grounding provisions shall be provided on the enclosure door and inside the enclosure.
- E. Mounting feet shall be formed from the enclosure body to reduce potential corrosion.
- F. Enclosure shall be provided with removable drain screw.

NEMA 12

- A. The enclosure shall be fabricated from 16 gauge steel with seam welds that are ground smooth.
- B. Enclosure shall be equipped with a continuously hinged door which is held closed with type 304 stainless steel clamps
- C. The enclosure and door shall be finished inside and out with ANSI 61 light gray polyester powder coating applied over a five stage immersion style zinc phosphate pre-treatment.
 - 1. The enclosure and door shall be capable of withstanding at least 1000 hours of salt spray without showing visible rust.
- D. Grounding provisions shall be provided on the enclosure door and inside the enclosure.
- E. Door gasketing shall be Rogers Corporation Poron-brand closed cell urethane for maximum resistance to compression collapse.

- F. Mounting feet shall be formed from the enclosure body to reduce potential corrosion.

2.06 SWITCH RATINGS

- A. Switches shall be horsepower rated for 240Vac, 480Vac, or 600Vac as indicated on the plans.
- B. The UL Listed short circuit rating shall be:
 - 1. [10,000 rms symmetrical amperes when used with or protected by class CC fuses (Non-Fusible 16, 25 and 40 amperes)]
 - 2. [10,000 rms symmetrical amperes (Non-Fusible 16, 25 and 40 amperes), 50,000 rms (Non-Fusible 30, 60, and 100 amperes), and 100,000 rms symmetrical amperes (Non-Fusible UL508 listed 60 and 80 amperes and 200, 400 and 600 amperes) when protected by Class J fuses]
 - 3. [100,00 symmetrical amperes when used with Class L fuse (Non-Fusible 800-2000 amperes)]
 - 4. [10,000 rms symmetrical amperes when used with or protected by H or K fuses (Non-Fusible 30-600 amperes)]
 - 5. [100,000 rms symmetrical amperes when used with or protected by Class R fuses (Non-Fusible 30-600 ampere switches employing appropriate fuse rejection scheme)]
 - 6. [100,000 rms symmetrical amperes when used with Class T fuses (Non-Fusible 400-800 ampere switches designated as Class T Fusible Switches)].
 - 7. [200,000 rms symmetrical amperes (Fusible 30, 60, 100, 400, 600, 800)]
 - 8. [100,000 rms symmetrical amperes (Fusible 200)]

PART 3 EXECUTION

NOT USED

END OF SECTION



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