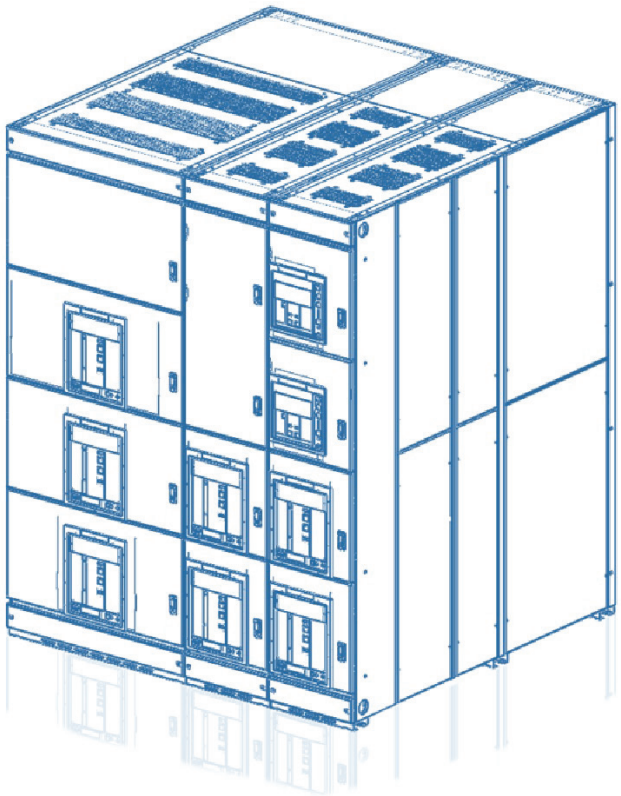
Technical Datasheet

Emax Link 2
UL 1558 Recognized abbreviated switchgear

The ABB Emax Link 2 UR 1558 structures and reference of UL 1558 file provides a turnkey solution for OEM's entering the ever growing low voltage switchgear market without the high overhead cost of labor, design and testing. Emax Link 2 combined with SACE Emax 2 circuit breakers provide advanced power distribution technology and safety in a fast, flexible and cost-effective solution for the OEM low voltage switchgear market.



Safety

Designed to incorporate a variety of protection features, Emax Link 2 has no ventilation openings in front of the equipment. Front and rear doors/panels and doors are manufactured in 11GA and 14GA steel for NEMA Type 1 ratings and tested and UL certified in compliance with ANSI standards.

Modularity and flexibility

Each section of Emax Link 2 has been designed with horizontal splice plates for easy to install side-by-side line-ups. Doors and panels are all optional, allowing custom OEM designs. The modular design provides flexibility of line up configurations applicable for a variety of applications.

Optimized footprint

The Emax Link 2 has one of the smallest footprints in the market, offering the possibility to install circuit breakers up to 2000A in 18", up to 3200A in 22" and up to 5000A in 38" wide 4 compartment high sections. It is available in optional depths of 72" and 84". Horizontal bus and vertical riser ratings are available from 2000A to 5000A in all section depths.

Power management and connectivity

The Emax 2 low voltage circuit breaker protection trip units are divided into two families: Ekip for distribution protection and Ekip G for generator protection. Exclusive functions such as the Ekip Power Controller and Network Analyzer complete the range, enabling power management and analysis of energy quality. Integrated IEC61850 communication module further enables connection to automation systems widely used in medium voltage power distribution to create intelligent networks (smart grids). All Emax 2 circuit breakers with Ekip Touch or Ekip Hi-Touch trip units can be equipped with communications for a variety of industrial protocols.

Product overview

Switchgear standards
- ANSI C37.20.1
- ANSI C37.51
- CSA C22.2, No. 31
- UL 1558/cUL

Circuit breaker standards
- ANSI C37.13
- ANSI C37.17
- ANSI C37.50
- UL 1066

Switchgear ratings
- 635V AC maximum
- Three-phase three-wire, three-phase four-wire
- 50/60 Hz
- 5000A maximum horizontal/vertical bus
- Silver plated copper bus as standard—optional tin plated copper
- Standard bus bracing 100kA
- NEMA 1 indoor

Circuit breaker ratings
- E1.2 up to 1200A, 65/42kA at 508/635V
- E2.2 up to 2000A, 100/85kA at 508/635V
- E4.2 up to 3200A, 100/100kA at 508/635V
- E6.2 up to 5000A, 100/100kA at 508/635V
- Emax 2 breakers sold separately
- Emax 2 UL Technical Catalog Document No. 1SDC200039D0201

Switchgear standard features
- ANSI 61 paint color (smooth finish)
- Glastic (GPO-3) bus compartment barrier between connecting sections
- GPO-3 barriers between bus compartment and cable compartment
- Ground bus mounted at bottom of enclosure as standard with option for top mounting
- Built-in top and horizontal wireway for control wires
- Lifting provisions for overhead lifting
- Top or bottom cable entry with removable, steel floor plates over conduit area
- Mounting pans in each instrument compartment

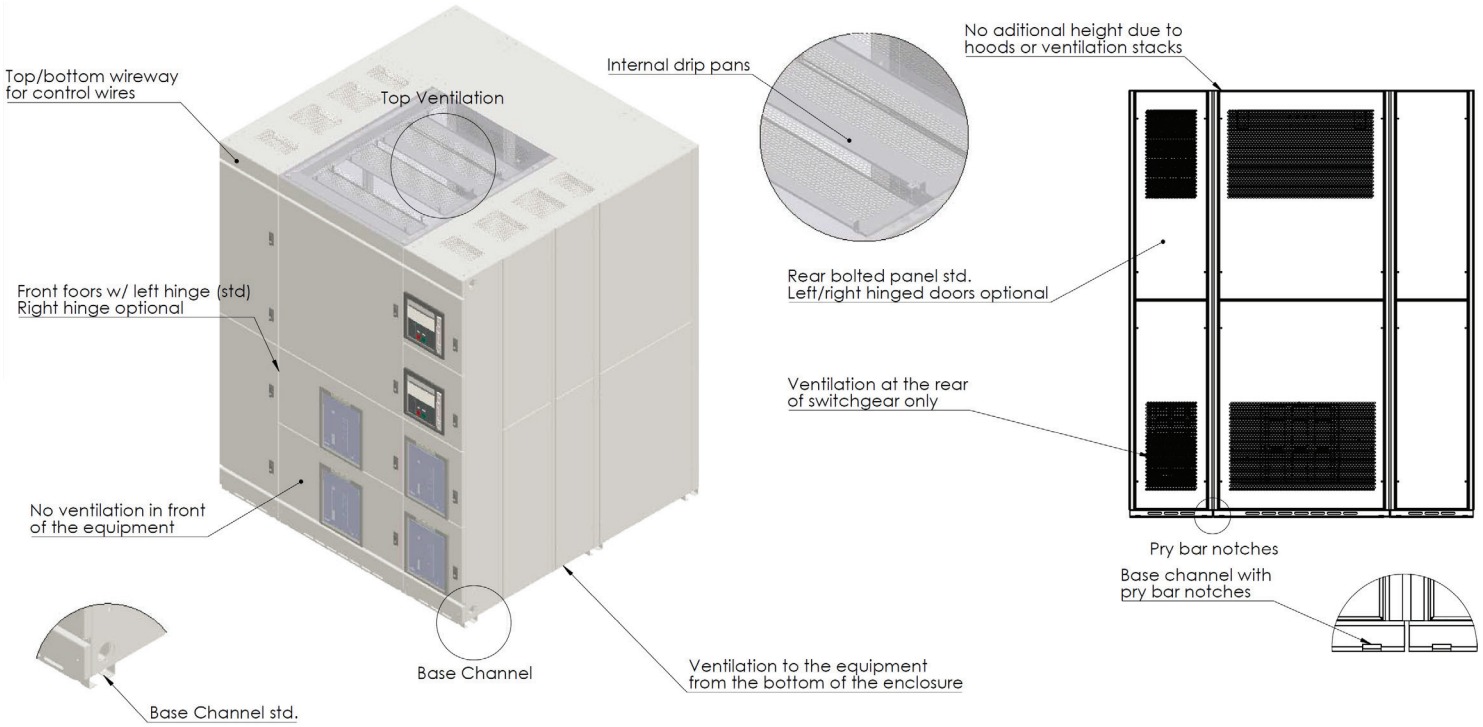
Switchgear options and accessories
- Side covers
- Left hinged front doors
- Rear covers or left/right hinged rear doors
- Overhead or floor lifting device for breakers
- Insulated bus (consult factory)
- Tandem section (consult factory)

Circuit breaker standard features
- Independent automatic shutters for upper/lower terminals to facilitate checking and maintenance operations
- Shutter lock for up to three 4mm/0.15"–8mm/1" padlocks
- Front-exchangeable trip units divided in two families:
  - Ekip for distribution protection
  - Ekip G for generator protection
- Ekip Power Controller function Ekip Touch trip units

Circuit breaker optional features
- Communication modules:
  - Bluetooth wireless communication
  - IEC 61850
  - Modbus TCP
  - Modbus RS-485
  - Profibus
  - Profinet
  - DeviceNet
  - Ethernet/IP
- Several communications modules have the ability for simultaneous use as well as the use of redundant protocols. In addition to the above, SACE Emax 2 circuit breakers offer a wide range of mechanical and electrical accessories.

Technical data

Construction—External view



Compartment door layouts

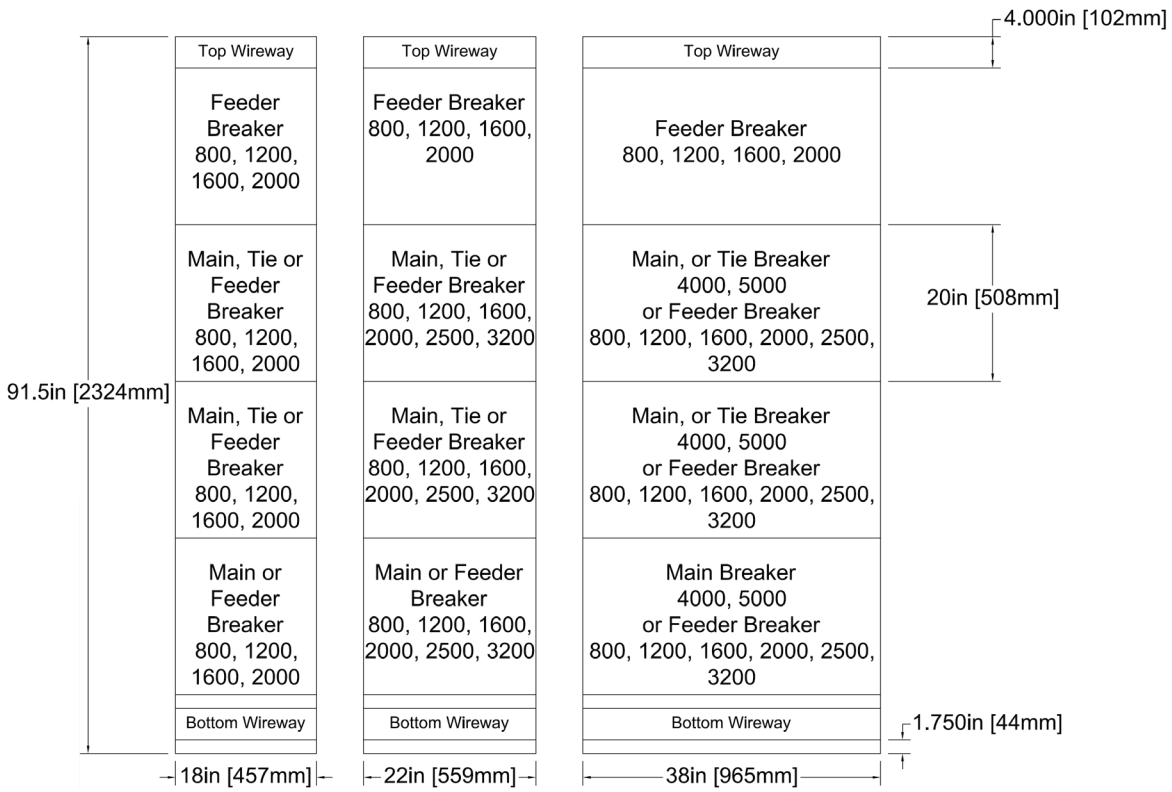
Top Wireway
A
B
C
D
Bottom Wireway

Top Wireway
AB
CD
Bottom Wireway

Top Wireway
Full Section (Auxiliary)
Bottom Wireway

Technical data

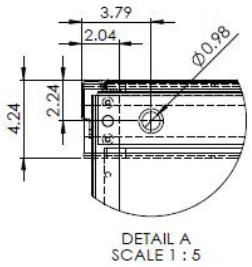
Breaker arrangements

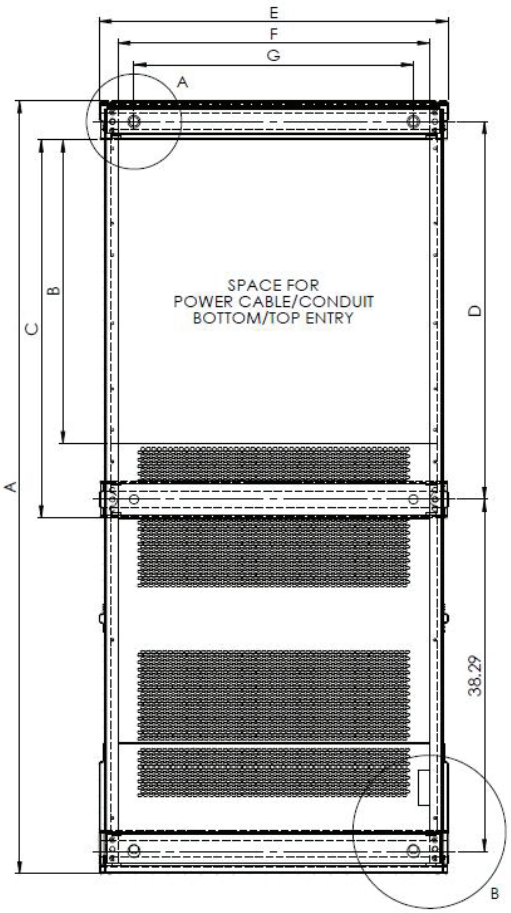


Considerations

- All compartments can be used as an empty space or instrument compartment
- Compartment A only available up to 2000A
- Maximum of two 3200A circuit breakers in the same section or three in a main-tie-main configuration
- Tie breakers to be selected in B and C compartments only
- Top and bottom wireways height is 4" in all sections
- Base channel is built into the structure with a height of 1.750"

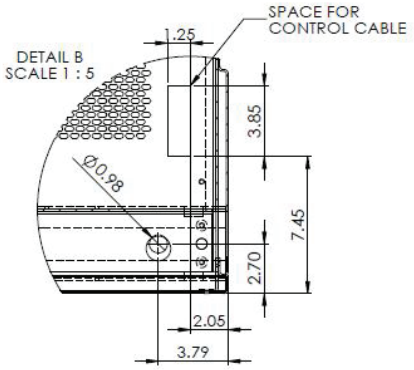
Cable compartment—conduit spacing





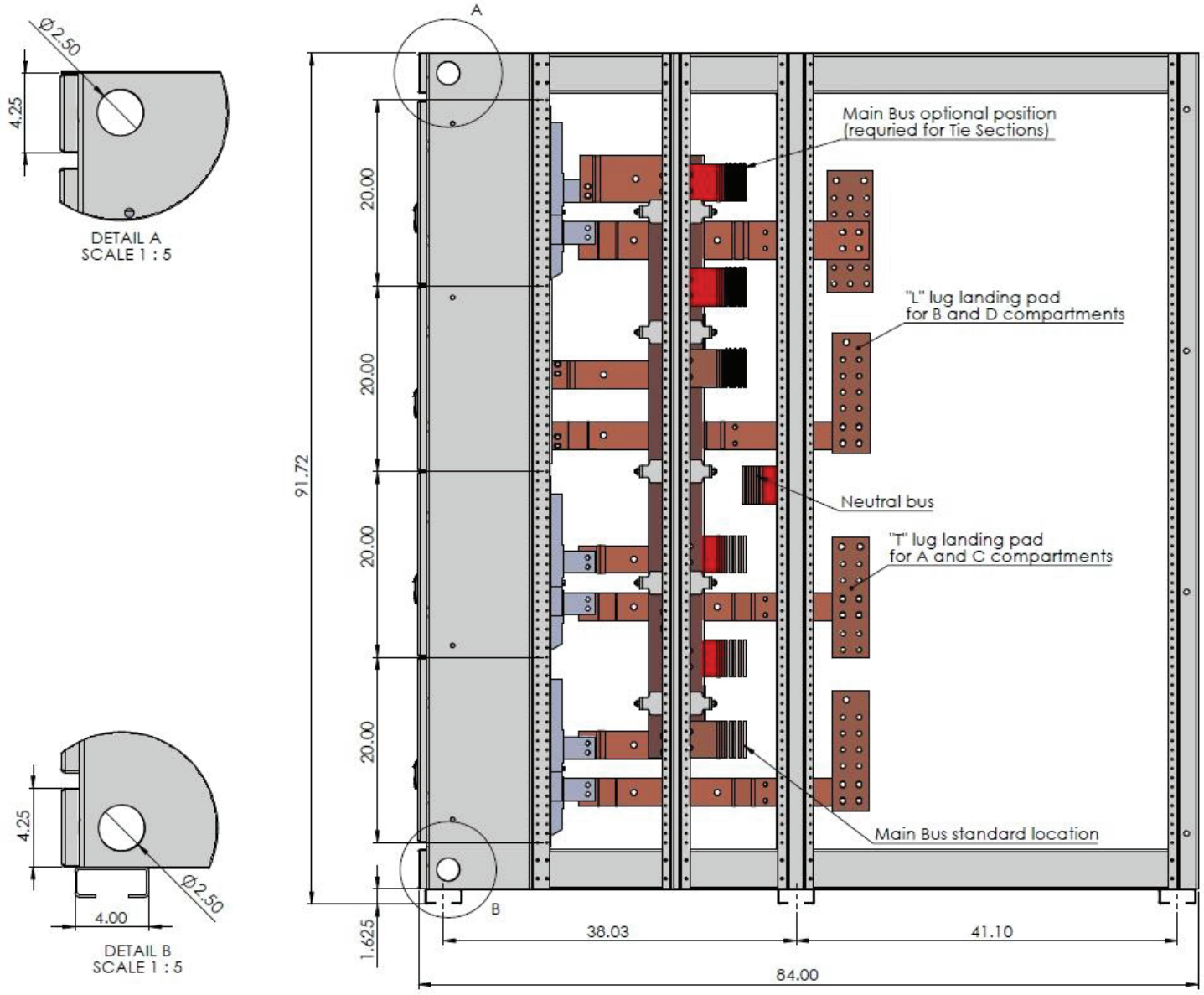
SECTION DEPTH A	CONDUIT SPACE DEPTH B	DISTANCE TO BUS COMPARTMENT C	DISTANCE BETWEEN BASE CHANNELS D
72.00	21.00	29.00	29.10
84.00	33.00	41.00	41.10

SECTION WIDTH E	CONDUIT SPACE WIDTH F	DISTANCE BETWEEN ANCHOR HOLES G
18.00	13.93	10.41
22.00	17.93	14.41
38.00	33.93	30.41



Technical data

Construction—internal side view



1SXU210226L0201, April 2016

Contact us

ABB
Electrification Products
8155 T&B Boulevard
Memphis, TN 38125
www.abb.com/lowvoltage

USA Technical Support: 888-385-1221
Customer Service: 888-862-3290
7:00 a.m. to 5:30 p.m., CST, Monday – Friday
lvps.support@us.abb.com