Technical Data **TD02300001E**

Effective November 2015
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Integrated Power Assemblies

Contents

Integrated Power Assemblies

Powering Business Worldwide

Quality Eaton products in a single enclosure at a lower installed cost

Eaton invented the concept of grouping electrical distribution and control equipment in a modular enclosure called an Integrated Power Assembly (IPA) . . . custom designed to meet each customer's specific requirements.

Each Integrated Power Assembly arrives complete and ready to connect . . . saving time and money

When an IPA is delivered, all the customer typically needs to do is: (1) place it on the suitable foundation such as a concrete pad or base with similar strength and durability and (2) make the incoming and outgoing load connections.

That's because an IPA is a complete unit…and can be prewired and factory tested, if required.

An IPA provides these significant cost savings:

Lower installation cost

Job site labor and material costs are sharply reduced because an IPA arrives complete, ready for connections.

Minimal start-up yime

Each IPA is checked to ensure wiring accuracy, control scheme correctness, and equipment operation.

Installation delays reduced

Job site delays caused by trying to coordinate multiple vendors are eliminated.

Reduced procurement time

Scheduling and expediting are handled through a single-point contact and only one purchase order is required.

Customized design

Eaton's IPA buildings are completely customized buildings. They may be made of any size, shape, or color and may contain customer supplied equipment from other manufacturers.

Typical Integrated Power Assembly

We are your single source for Integrated Power Assemblies

Eaton's business offers the industry's most complete family of electrical distribution and control equipment and components, plus the widest selection of ratings. And we provide IPAs that meet or exceed distribution systems requirements.

As a single-source supplier, we provide these significant advantages:

Designing, assembling and testing

The Eaton business certifies that all equipment and components are in compliance with applicable NEMA®, IEEE, ANSI, UL® and IEC standards. The building is certified to meet IBC requirements, while the installation of the equipment meets NEC® requirements.

Consistent terms and conditions

The Eaton business provides a single uniform set of terms and conditions for all equipment and components. Additionally, the terms and conditions are compatible with those of other Eaton products that may be on the same project . . . providing the benefit of single-package negotiation.

One contact point

The Eaton worldwide network of engineers, sales representatives, and authorized distributors provides design and application assistance, pricing, delivery and warranty information.

One overall warranty

The Eaton business warrants all IPA equipment and components, plus the structure itself.

Seismic Qualification Label
(Unless required in specifications, not all buildings are certified to meet seismic ratings.)

Eaton distribution equipment is seismically tested, seismically qualified, and exceeds requirements of both the IBC and the California Building Code (CBC). CBC building certification is included only when required by specifications.

An Integrated Power Assembly can be installed where you want

Installation flexibility is essential since IPAs are often used in applications where a controlled, protective environment is required. However, the actual location of an IPA can often vary between customers.

IPAs have been installed indoors at ground level or on mezzanines; outdoors on roofs; or as a separate detached structure.

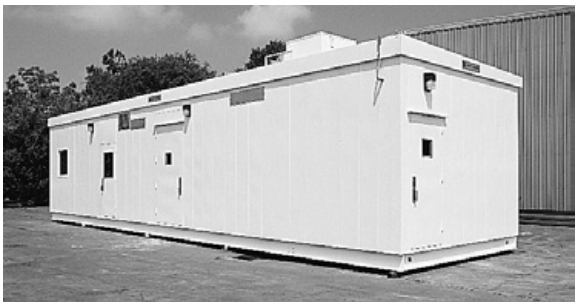
IPA assembly area

Two-story IPA

Typical Eaton equipment that can be installed in an Integrated Power Assembly

All types of Eaton electrical equipment can be installed in an IPA, including:

- Arc-resistant/Non arc-resistant medium voltage switch
- Arc-resistant/Non arc-resistant medium voltage VacClad-W metal-clad switchgear
- Arc-resistant/Non arc-resistant Ampgard® medium voltage starters
- Adjustable frequency drives
- Medium voltage non-segregated bus
- Arc-resistant/Non arc-resistant low voltage switchgear Type Magnum DS
- Low voltage switchboards — Pow-R-M-S — fixed or drawout
- Pow-R-Line C™ low voltage group mounted switchboards
- Pow-R-Line C low voltage panelboards
- Arc-resistant/Non arc-resistant Freedom™ 2100, IT. and Advantage™ motor control centers.
- Dry-type distribution transformers
- Arc-resistant/Non arc-resistant medium voltage adjustable frequency drives.
- Automatic transfer switches
- Non-segregated and Pow-R-Way III low voltage bus
- Microprocessor-based metering, protection, control and monitoring devices



Front view

Rear equipment access doors

Additional equipment and modifications

Since each IPA is custom designed, we not only provide the electrical gear you specify but can include any additional equipment and modifications requested.

Some examples include:

- Arc mitigating systems
- HVAC systems
- Pressurization units
- DC voltage battery systems
- Annunciators
- DCS and communications equipment
- Fire alarm security systems
- Relay and marshaling cabinets
- Installation and wiring of customer furnished PLCs and analyzers
- Office or work areas
- Plumbing and restrooms.
- Doors and windows
- Indoor, outdoor and emergency lights
- Wireway and cable trays
- Switches and receptacles
- Any other equipment specified by customer
- Custom paint color finishes
- Custom exterior appearance
  - Brick
  - Split-faced block
  - Stucco
  - Aggregate panel

Heating and air conditioning unit

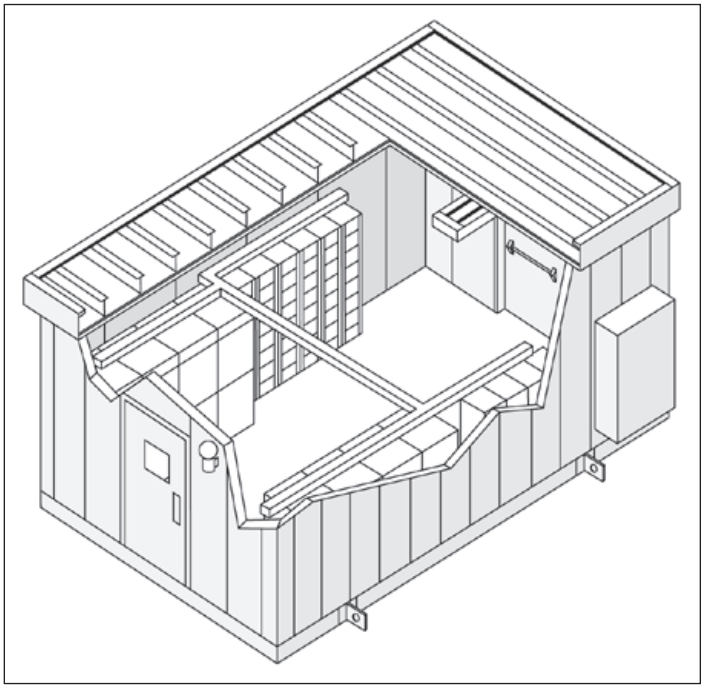


Figure 1. Integrated Power Assembly section review

A Variety of industries and service organizations

- Communications
- Food processing
- Heavy industry
- Materials handling
- Medical
- Mining
- Petrochemical
- Pollution control
- Power generation
- Public utilities
- Pulp and paper
- Rail and mass transit
- Water and waste treatment
- Many others

A broad range of applications

- Control center rooms
- Equipment skids
- Power generation
- Generator systems
- Motor control
- NEMA-4X non-walkin equipment enclosures
- Offshore platforms
- Pipelines
- Power substations
- Process control
- Pumping stations
- Refineries
- Switchgear enclosures
- Many others

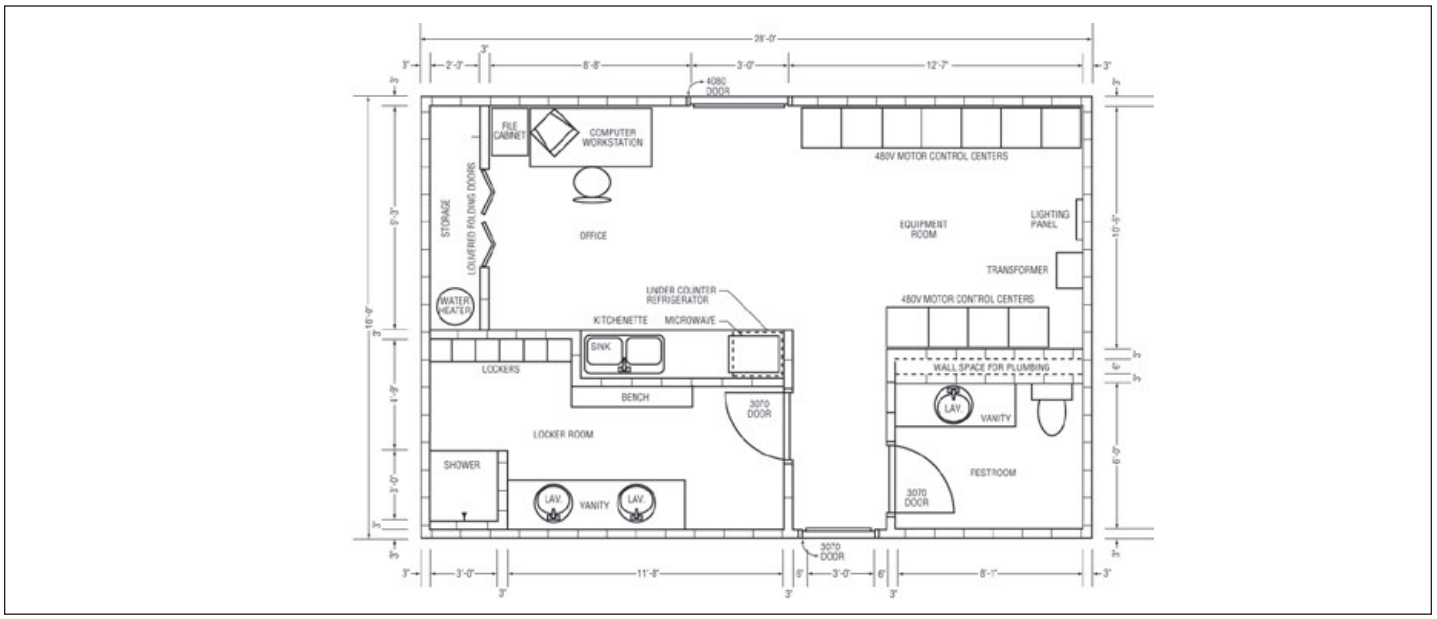


Figure 2. Layout plan views — example with low voltage equipment

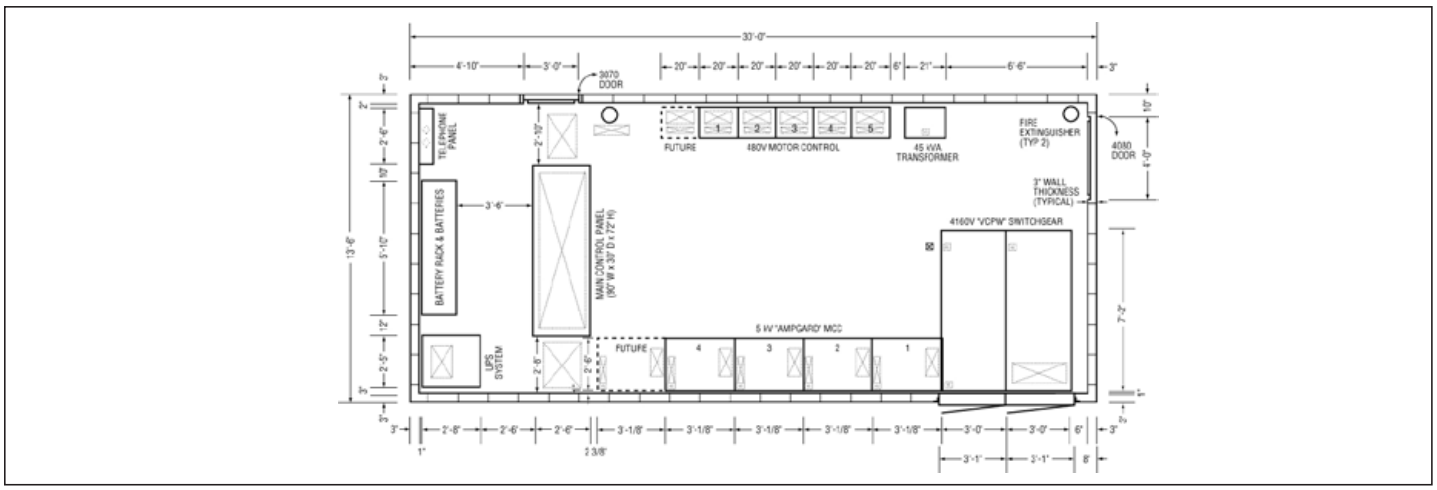


Figure 3. Layout plan views — example with low and medium voltage equipment

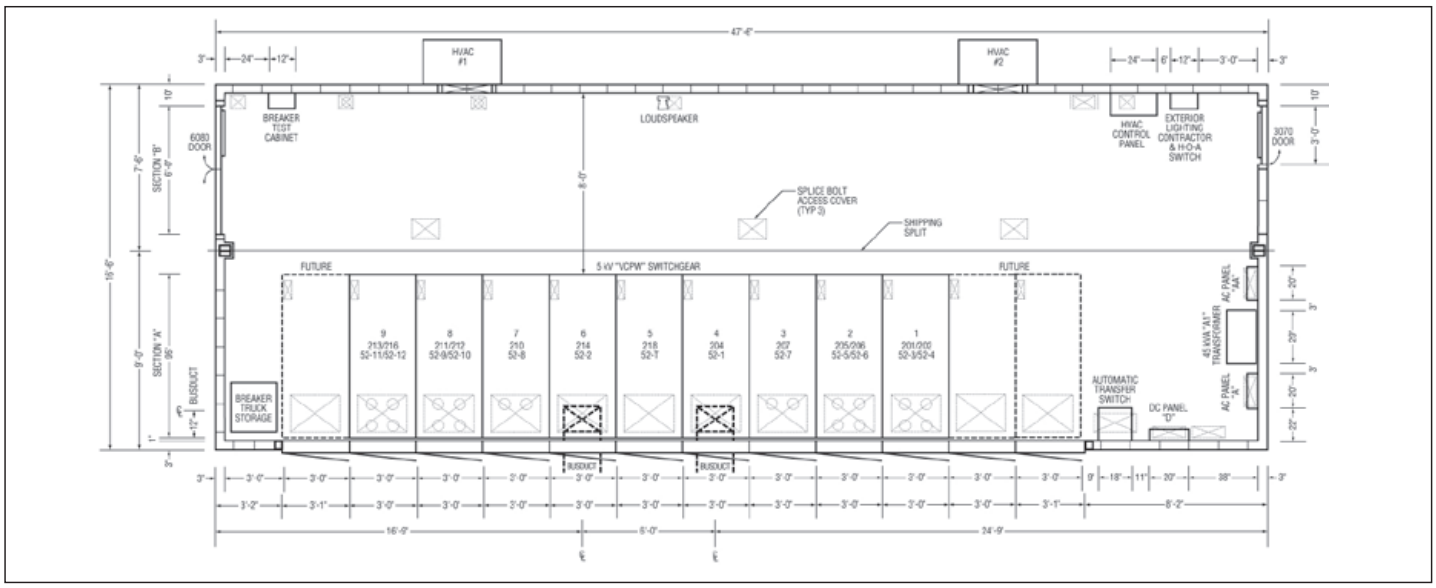


Figure 4. Layout plan view — example with medium voltage equipment

Typical specifications for Integrated Power Assemblies (16920, 26 05 91) can be found under Guide Specs on Eaton.com/consultants

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