

# Section 10

## Power Solutions Integrated Equipment

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MPS



IPC



IPC2

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**Power Solutions Integrated Equipment Overview**

For over 30 years, the Schneider Electric Power Solutions business has been providing integrated equipment solutions for retail construction, commercial, and industrial projects. The Square D<sup>™</sup> brand family of integrated equipment combines electrical distribution, building controls, and automation into a single, factory-assembled and pre-wired enclosure/lineup. Our innovative, cost-effective, integrated solutions save valuable floor space, shorten construction cycle times, and reduce installation and material handling costs.

**Modular Panelboard System—Pre-Engineered Solution**

The Modular Panelboard System (MPS) is tailored to customer specifications and may include panels and lighting control equipment. Special Powerlink<sup>™</sup> lighting control and column-width panel interiors are available. Additional options include power and control cable wiring, contactors, terminal blocks, surge protective devices (SPDs), equipment spaces, and power metering/monitoring solutions. Seismically qualified MPS sections are also available.

Tailored to customer specifications, MPS sections are:

- 86 in. (2184 mm) high,
- 9.5 in. (241 mm) deep, and
- vary in width depending on customer specifications

**Integrated Power Center—Custom-Designed Solution**

For more complex applications, the Integrated Power Center (IPC) allows for the integration of a variety of components, including electrical distribution equipment, HVAC controls, lighting controls, power quality and power conditioning products, SPDs, building management systems and power metering/monitoring solutions. As with all Power Solutions Integrated Equipment products, the IPC is designed to meet applicable codes and standards and is available as seismically qualified. Factory-assembled, pre-wired (based on shipping splits), and tested in a controlled environment, IPC sections are:

- 84 in. (2134 mm) high,
- 10.5 in. (267 mm) deep, and
- vary in width depending on customer specifications

**Integrated Power Center 2**

The newest addition to the family of Integrated Equipment products, the Integrated Power Center 2 (IPC2<sup>™</sup>) provides maximum flexibility to meet customers' specifications. Features include those found in the IPC and are provided in a free-standing enclosure that can be front and rear aligned when transformers are included. The IPC2 family is available as seismically-qualified. Enclosure options include NEMA 1, NEMA 1 with driphood and NEMA 3R. IPC2 sections are:

- 91.5 in. (2324 mm) high, and
- vary in width and depth depending on customer specifications

**Integrated Power Center 2 Transformer Combo**

Ideally suited for projects having both 480Y/277 V and 208Y/120 V requirements. Available as a stand-alone solution or can be incorporated into an MPS, IPC or IPC2 lineup. The standard 42in. wide x 24 in. deep footprint will decrease space requirements by 40% or more. A typical IPC2 Transformer Combo includes two panels in the upper cells and a transformer in the bottom cell. Other upper cell options include contactors, individually mounted circuit breakers, ATS's, equipment spaces and power metering/monitoring solutions. The IPC2 Transformer Combo is available as seismically qualified. Enclosure options include NEMA 1, NEMA 1 with driphood and NEMA 3R. IPC2 Transformer Combo sections are:

- 91.5 in. (2324 mm) high, and
- vary in width and depth depending on the transformer kVA

Additional savings are realized on installation, material costs and material handling, as shown in the table below.

**Table 10.1: IPC2 Transformer Combo—Estimated Savings [1]**

	Stick-Built	Transformer Combo	Savings Realized
Estimated Installation Hours	26–32	3–6	23–26
Materials	Associated pipe, wire and fittings	—	Associated pipe, wire and fittings
No. of Pieces Handled	20–30	1	19–29

[1] Based on an NF 480 V panel, 75 kVA transformer, NQ 240 V panel installation.



Modular Panelboard System



MPS Interior

**Modular Panelboard System**

The pre-engineered Modular Panelboard System (MPS) bundles electrical distribution equipment into a single factory-assembled and wired integrated system. This approach replaces the traditional method of independently mounting each panelboard and lighting control system. MPS allows for the integration of a variety of components including:

- Panelboards: I-Line, NF, NQ, and Column-width
- Surge Suppression: SPD integral to panel and/or separately mounted
- Lighting Controls: Powerlink™ or lighting contactors
- Monitoring/Metering: PowerLogic™ power meters, circuit monitors, branch circuit monitoring, and system display meters

Equipment spaces including factory-installed lighting contactors are available in three configurations:

1. Unwired: Mounted in cell only
2. Line side wired: Line side of each pole is wired to a branch circuit breaker
3. Fully wired: Line side of each pole is wired to a branch circuit breaker, load side of each pole is wired to a terminal block

Built on a panelboard platform, Modular Panelboard System sections are NEMA 1-rated and meet the requirements of UL 67. Individual MPS configurations include panel sections in full-height, stacked or side-by-side arrangements. Individual sections measure:

- 86 in. (2184 mm) high
- 10–44 in. (254–1118 mm) wide
- 9.5 in. (241 mm) deep

Typical applications for MPS equipment include:

- Restaurants / Food service
- Office buildings / Public buildings
- Warehouses
- Schools / Universities



Integrated Power Center



IPC Interior

## Integrated Power Center

The custom-designed Integrated Power Center (IPC) combines electrical distribution equipment and building management controls into a single factory-assembled and wired integrated system. IPC has much greater design flexibility for producing a fully customized solution integrating a variety of distribution and control components, including:

- Panelboards: I-Line, NF, NQ, and Column-width
- Surge Suppression: SPD integral to panel and/or separately mounted
- Lighting Controls: Powerlink™ or lighting contactors
- Monitoring/Metering: PowerLogic™ power meters, circuit monitors, branch circuit monitoring, and system display meters
- Power quality and power conditioning
- Building automation
- HVAC controls

Equipment spaces including factory-installed lighting contactors are available in three configurations:

1. Unwired: Mounted in cell only
2. Line side wired: Line side of each pole is wired to a branch circuit breaker
3. Fully wired: Line side of each pole is wired to a branch circuit breaker, load side of each pole is wired to a terminal block

Integrated Power Centers are NEMA 1 rated and meet the requirements of UL 891. As with all integrated solutions, IPCs are shipped to the site fully assembled, completely pre-tested and ready-to-install. Individual IPC configurations include panel sections in full height, stacked, or side-by-side arrangements. IPC sections measure:

- 84 in. (2134 mm) High
- 10.25 (260 mm) Deep
- Widths vary, depending upon customer specifications

Typical applications for IPC equipment include:

- Retail stores / Grocery stores
- Office buildings / Public buildings
- Shopping malls / Strip malls
- Schools/Universities
- Restaurants / Food service
- Hotels/Motels
- Warehouses
- Equipment rooms

### MPS and IPC Layout, Lead Time, and Pricing

Contact your local Schneider Electric representative or distributor.

### MPS and IPC Shipping

MPS and IPC lineups are shipped factory-assembled and pre-wired. Customers may specify single- or multiple-section shipping splits (some limitations apply). In addition, lineups may be ordered with or without factory-installed power cables.



Integrated Power Center 2

## Integrated Power Center 2

The Integrated Power Center 2 (IPC2™) provides maximum design flexibility. In addition to the features found in the Integrated Power Center (IPC), IPC2 lineups are free-standing enclosures that can be front and rear-aligned. IPC2 has the ability to incorporate:

- Panelboards: I-Line, NF, and NQ
- Transformers: 300 kVA (max)
  - K-rated also available; may limit max kVA size of transformer
- Individually mounted circuit breakers
- Surge Suppression: SPD integral to panel and/or separately mounted
- Automatic Transfer Switch: Open type 400 A 3-pole maximum including a variety of options
- Lighting Controls: Powerlink™ or lighting contactors
- PowerLogic™ Monitoring / Metering: power meters, circuit monitors, branch circuit monitoring, and system display meters
- Building Management Systems

As a stand-alone solution, the IPC2 family provides the flexibility to enter and/or exit the section from either the top or bottom. IPC2 is offered in a variety of widths and depths:

- 24–48 in. (610–1219 mm) Wide
- 24–36 in. (610–915 mm) Deep

Typical applications for IPC2 equipment include:

- |                         |  |
|-------------------------|--|
| • Schools/Universities  | • Casinos                                  |
| • Office buildings      | • Healthcare                               |
| • Data centers          | • Hotels                                   |
| • Industrial facilities | • Any project with panels and transformers |

### IPC2 Layout, Lead Time, and Pricing

Contact your local Schneider Electric representative or distributor.

### IPC2 Shipping

IPC2 lineups are shipped fully assembled and ready-to-install. Customers may specify single- or multiple-section shipping splits (some limitations apply). In addition, lineups may be ordered with or without factory-installed power cables.

### Integrated Power Center 2 Transformer Combo

For projects having both 480Y/277 V and 208Y/120 V requirements, the Integrated Power Center 2 (IPC2) Transformer Combo is the perfect solution. One of the most popular members of the IPC2 product family, the IPC2 Transformer Combo has been recognized by the industry multiple times for its innovative design.

As a stand-alone solution, the IPC2 Transformer Combo is appropriate when panelboards and transformers are installed in close proximity to each other. It provides the flexibility to enter and/or exit the section from either the top or the bottom. Catalog numbers have been created for some of the more typical configurations.

All IPC2 sections can be close-coupled to QED switchboard, MPS, and IPC products. Enclosure options for IPC2 include NEMA 1, NEMA 1 with driphood, and NEMA 3R-rated, and all meet the requirements of UL 891. These sections are also seismically qualified to meet IBC and ASCE7 requirements.



IPC2 Transformer Combo

## Level 2 208 V/240 V Fleet Charging and Level 3 480 V Nevi Compliant DC Fast Charging

Electric Vehicles (EV) are rapidly gaining popularity, driving demand for reliable and efficient charging infrastructure. Schneider Electric offers customized integrated solutions to address power distribution needs for a wide variety of Level 2 and Level 3 (DC fast) EV charging applications.

Our solutions include flexible design options:

- Single or multi-section configurations
- Panelboards for I-Line, NF, and NQ applications
- Breaker-in-transformer cell design acting as main circuit breaker for panelboard

Example Configurations:

- 300 kVA Transformer = (2) 600 A NQ Panels w/ (2) 80% rated 600 A breakers for Level 2 fleet charging
- 225 kVA Transformer = (2) 400 A NQ Panels w/ (2) 100% rated 400 A breakers
- MDP Only = For Level 3 DC fast charging high-power requirements

Variation of Transformer sizes:

- 15 kVA to 300 kVA

Applications:

- Fleet Charging Level-2
- Quick Charging Level-3
- Parking Deck, Hotel, Other

The integrated EV offer comes in a compact NEMA 1 or 3R rated enclosure meeting UL891 requirements. Free standing construction. Units ship fully assembled, wired, tested, and ready for quick installation onsite. Typical dimensions are 91.5" high with widths and depths varying based on transformer size.

With diverse configurations available, Schneider Electric's EV charging power solutions ensure reliable, high-efficiency operation tailored to your facility's needs. Contact us to learn how our innovative offerings can power your EV charging infrastructure.

Scan for brochure

