

Intelligent Power Module Market by Voltage Rating (Up to 600 V, 601-1,200 V, Above 1,200 V), Current Rating, Circuit Configuration (6-Pack, 7-Pack), Power Devices (IGBT, MOSFET), Vertical, Region (North America, Europe, APAC, RoW) - Global Forecast to 2027

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Abstracts

The global intelligent power module market size is anticipated to grow from USD 1.8billion in 2022 to USD 3.0billion by 2027, at a CAGR of 10.7% from 2022 to 2027. Rising requirements for power generation through renewable sources, focus of OEMs on providing novel and efficient energy and power monitoring modules as well as surging demand for IPMs in industrial, automotive and consumer electronics vertical are some of the major factors propelling the growth of intelligent power module market.

COVID-19 has emerged as a global pandemic that has spread worldwide and disrupted various industries around the world. The prominent players across industries have been affected by this pandemic. The foreseeable decline in the growth of end-user industries may have a considerable direct impact on the intelligent power module market.

“Up to 100 A current rating segment to account for the larger share of market from 2022 to 2027”

IPMs with a current rating of up to 100 A suffice for domestic applications, which comprise daily use appliances such as washing machines, air conditioners, and dishwashers. Such IPMs are manufactured by all major players, such as Mitsubishi Electric Corp. (Japan), Fuji Electric Co., Ltd. (Japan), ON Semiconductor Corporation (US), and Infineon Technologies AG (Germany). The key target segment of these IPMs is the consumer electronics sector. Some of the benefits of these IPMs are the cost savings from a smaller footprint and reduced PCB space. Easy implementation of 2- or

3-phase motor drives with half-bridge IPMs and half-bridge configuration enables a more flexible board design with better thermal performance.

“Industrial verticals expected to contribute largest market share of the intelligent power module market during the forecast period.”

The industrial segment is projected to hold the largest share of the intelligent power module market during forecast. Industrial is among the key verticals for the intelligent power module market. The industrial segment comprises industrial manufacturing, process industries, and the energy & power industry. Industrial devices, such as pumps, conveyors, compressors, cranes, winders, extruders, and rollers use powered modules for controlling and protecting the circuitry. Processes such as electroplating, electrolysis, welding, lighting, and induction heating are equipped with power modules to use electric power efficiently and safely. The ease of manufacturing has led to the availability of these devices in a vast range of current ratings and high voltage ratings. IPMs control all motors employed in rolling, textile, and cement mills.

“Asia is expected to account for the largest share of market during the forecast period.”

Asia Pacific is expected to contribute the largest size of the intelligent power module market in 2022. Rapid industrialization and infrastructure development are driving the growth of consumer electronics and automotive industries in China, which is expected to increase the demand for intelligent power module in the region. China is the world's largest producer and end user of consumer electronics devices, such as smartphones, tablets, and home appliances. The increasing need for power management in consumer electronics products is fueling the demand for intelligent power modules in the consumer electronics vertical.

Break-up of the profiles of primary participants:

By Company Type – Tier 1 – 56%, Tier 2 – 23%, and Tier 3 – 21%

By Designation – C-level Executives – 45%, Directors – 30%, and Others – 25%

By Region – North America - 40%, Europe – 23%, Asia Pacific – 26%, and RoW – 11%

Research Coverage:

Intelligent Power Module Market by Voltage Rating (Up to 600 V, 601-1,200 V, Above 1,200 V), Current Rating, C...

The intelligent power module market has been segmented into current rating, voltage rating, circuit configuration, power devices, vertical and region. The intelligent power module market has been studied for North America, Europe, Asia Pacific, and the Rest of the World (RoW).

Reasons to buy the report:

Illustrative segmentation, analysis, and forecast of the market based on current rating, voltage rating, circuit configuration, power devices, vertical and region have been conducted to give an overall view of the intelligent power module market.

A value chain analysis has been performed to provide in-depth insights into the intelligent power module market.

The key drivers, restraints, opportunities, and challenges pertaining to the intelligent power module market have been detailed in this report.

The report includes a detailed competitive landscape of the market, along with key players, as well as an in-depth analysis of their revenues

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