Fast Power Module Solutions
Vincotech is one of the market leaders in Power Modules. Target applications include motor drives, power supplies and welding equipment. With 13 different standard housings and more than 35 standard product families, Vincotech offers a wide power range using different topologies.

The products include Power Integrated Modules (combination of input rectifier, six pack inverter and brake chopper), Six Pack Modules, PFC-, H-Bridge and Half-Bridge Modules. Vincotech covers a broad power spectrum, ranging from 5A to 450A at 600V and 1200V.

Vincotech Fast Power Modules are available in 2 different standard housings for up to 100A at 600V and 1200V and are suitable for switching frequencies of up to 400kHz at 600V and 50kHz at 1200V.
Ultra low inductive design
Ultra fast switching frequency
Clip-in PCB mounting

Part-No | Voltage | Current* | Frequency
---|---|---|---
V23990-P622-F64-PM | 600V | 30A | 400kHz
V23990-P622-F74-PM<sup>1</sup> | 600V | 30A | 400kHz
V23990-P623-F-PM<sup>2</sup> | 600V | 60A | 250kHz
V23990-P623-F04-PM | 600V | 60A | 250kHz
V23990-P623-F10-PM<sup>1,2</sup> | 600V | 60A | 250kHz
V23990-P623-F14-PM<sup>1</sup> | 600V | 60A | 250kHz
V23990-P623-F24-PM | 600V | 50A | 30kHz
V23990-P624-F24-PM | 600V | 75A | 30kHz
V23990-P625-F24-PM | 600V | 100A | 30kHz
V23990-P629-F44-PM | 1200V | 25A | 50kHz
V23990-P629-F46-PM<sup>3</sup> | 1200V | 25A | 50kHz
V23990-P629-F54-PM<sup>1</sup> | 1200V | 25A | 50kHz
V23990-P629-F56-PM<sup>1,3</sup> | 1200V | 25A | 50kHz

1) High performance version with improved Rth
2) Without NTC
3) With hyperfast diodes
4) Standard rectifier
5) Without brake

* Rated current of components
### fastPIM 1 H
- Ultra fast switching frequency
- Ultra low inductive design

<table>
<thead>
<tr>
<th>Part-No</th>
<th>Voltage</th>
<th>Current*</th>
</tr>
</thead>
<tbody>
<tr>
<td>V23990-P381-A-PM</td>
<td>600V</td>
<td>12A</td>
</tr>
<tr>
<td>V23990-P382-A-PM</td>
<td>600V</td>
<td>20A</td>
</tr>
<tr>
<td>V23990-P380-A-PM</td>
<td>600V</td>
<td>30A</td>
</tr>
<tr>
<td>V23990-P385-A11-PM</td>
<td>600V</td>
<td>20A</td>
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<tr>
<td>V23990-P386-A11-PM</td>
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<td>30A</td>
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<td>V23990-P387-A11-PM</td>
<td>600V</td>
<td>40A</td>
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</table>

### fastPHASE 0
- Up to 50kHz switching frequency
- Low inductive design
- Clip-in PCB mounting

<table>
<thead>
<tr>
<th>Part-No</th>
<th>Voltage</th>
<th>Current*</th>
<th>Frequency</th>
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</thead>
<tbody>
<tr>
<td>V23990-P569-F20-PM</td>
<td>1200V</td>
<td>100A</td>
<td>25kHz/50kHz (ZVS)</td>
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<tr>
<td>V23990-P569-F21-PM</td>
<td>1200V</td>
<td>100A</td>
<td>25kHz/50kHz (ZVS)</td>
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<tr>
<td>V23990-P569-F30-PM</td>
<td>1200V</td>
<td>100A</td>
<td>25kHz/50kHz (ZVS)</td>
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<tr>
<td>V23990-P569-F31-PM</td>
<td>1200V</td>
<td>100A</td>
<td>25kHz/50kHz (ZVS)</td>
</tr>
<tr>
<td>V23990-P569-F40-PM</td>
<td>1200V</td>
<td>100A</td>
<td>80kHz (ZVS)</td>
</tr>
<tr>
<td>V23990-P569-F50-PM</td>
<td>1200V</td>
<td>100A</td>
<td>80kHz (ZVS)</td>
</tr>
</tbody>
</table>
### Modular input rectifier
- Optionally half controlled
- Compatible with
  - flowPHASE 0,
  - flowPACK 0/1/2,
  - fastPHASE 0
  - fastPACK 0
- Clip-in PCB mounting

<table>
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<tr>
<th>Part-No</th>
<th>Voltage</th>
<th>Current*</th>
</tr>
</thead>
<tbody>
<tr>
<td>V23990-P649-G-PM</td>
<td>1600V</td>
<td>50A</td>
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<tr>
<td>V23990-P649-G10-PM</td>
<td>1600V</td>
<td>50A</td>
</tr>
<tr>
<td>V23990-P649-H-PM</td>
<td>1600V</td>
<td>50A</td>
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<tr>
<td>V23990-P649-H10-PM</td>
<td>1600V</td>
<td>50A</td>
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<tr>
<td>V23990-P640-G-PM</td>
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<td>75A</td>
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<td>V23990-P640-G10-PM</td>
<td>1600V</td>
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<td>V23990-P640-H-PM</td>
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<td>75A</td>
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<tr>
<td>V23990-P640-H10-PM</td>
<td>1600V</td>
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<tr>
<td>V23990-P590-J09-PM</td>
<td>1600V</td>
<td>105A</td>
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<tr>
<td>V23990-P590-J19-PM</td>
<td>1600V</td>
<td>78A</td>
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<tr>
<td>V23990-P600-I09-PM</td>
<td>1600V</td>
<td>105A</td>
</tr>
<tr>
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<td>1600V</td>
<td>78A</td>
</tr>
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</table>
High power, high efficiency PFC circuit
Up to 400kHz switching frequency
MOSFET and IGBT designs
Integrated high frequency capacitor

Part-No | Voltage | Power (50kHz) | Power (400kHz) | Special Features
--- | --- | --- | --- | ---
V23990-P802-D30-PM | 500V | 4.0kW | 1.6kW | CoolMOS™ + Tandem Diode
V23990-P802-D40-PM | 500V | 4.0kW | 1.6kW | CoolMOS™ + Tandem Diode half controlled rectifier
V23990-P803-D30-PM | 500V | 8.0kW | 3.2kW | CoolMOS™ + Tandem Diode
V23990-P803-D40-PM | 500V | 8.0kW | 3.2kW | CoolMOS™ + Tandem Diode half controlled rectifier
V23990-P804-D30-PM | 600V | 8.0kW | | Highspeed IGBT + Tandem Diode Improved performance
V23990-P804-D31-PM | 600V | 8.0kW | | Highspeed IGBT + Tandem Diode
V23990-P804-D41-PM | 600V | 8.0kW | | Highspeed IGBT + Tandem Diode half controlled rectifier
V23990-P800-D30-PM | 500V | 7.8kW | 4.9kW | CoolMOS™ + SiC Diode
V23990-P800-D40-PM | 500V | 7.8kW | 4.9kW | CoolMOS™ + SiC Diode half controlled rectifier

Evaluation tool for flowPFC 0
Ultra low profile
High power density
200kHz switching frequency

Part-No | Input Voltage | Power
--- | --- | ---
V23990-P411-D-PM | 230V | 1kW
Housing Dimensions

flow 0
- height*: 17 mm
- length: 66 mm
- width: 33 mm

flow 0 12 mm
- height*: 12 mm
- length: 66 mm
- width: 33 mm

flow 1
- height*: 17 mm
- length: 82 mm
- width: 38 mm

flow 2
- height*: 17 mm
- length: 108 mm
- width: 47 mm

flow90 1
- height*: 28 mm
- length: 84 mm
- width: 21 mm

flowSCREW 2
- height*: 17 mm
- length: 117 mm
- width: 64 mm

flowSCREW 3
- height*: 17 mm
- length: 150 mm
- width: 64 mm

flyer IPM
- height*: 19 mm
- length: 99 mm
- width: 97 mm

PFC-IPM
- height*: 25 mm
- length: 79 mm
- width: 69 mm

flat 1
- height*: 13 mm
- length: 70 mm
- width: 41 mm

MiniSKiiP® 1
- height*: 16 mm
- length: 42 mm
- width: 40 mm

MiniSKiiP® 2
- height*: 16 mm
- length: 59 mm
- width: 52 mm

MiniSKiiP® 3
- height*: 16 mm
- length: 82 mm
- width: 59 mm

* Height implies installation height

Vincotech is a worldwide leading company in the development and manufacturing of passive and active electronic components. In 1996, the decision was made to step into the future-oriented Power Module market. The responsibility for this product group is based in Ottobrunn, Germany. A dedicated team continuously develops new state of the art technologies, which are turned into standard and customized products. All Power Module products are developed and manufactured in our ISO9001 and TS16949 certified factory in Hungary. Our modules conform to the RoHS standard and are 100% electrically and functionally tested prior to packaging. This way we constantly guarantee high quality products.

Vincotech, your reliable partner!

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COOLMOS is a trademark of Infineon Technologies AG.

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