More than just Power

Fast Power Module Solutions

tyco Electronics

More than just power

Tyco Electronics Power Systems is one of the market leaders in Power Modules for applications as motor drives, power supplies, welding equipment as well as Solid State Relays for the automation market. With 12 different standard housings and more than 30 standard product families Tyco Electronics offers one of the largest varieties of Power Modules in terms of sizes and configurations in the market. Among these products are PIM modules (combined input rectifier, six pack output inverter with or without open emitters, and brake chopper), stand-alone six pack modules, PFC-, H-bridge and half-bridge modules. Tyco Electronics serves a broad current range from 5A to 600A at 600V and from 5A to 450A at 1200V.

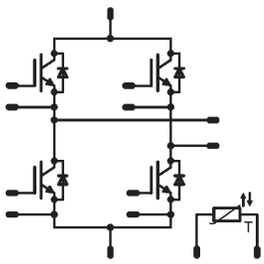
Tyco Electronics Fast Power Modules such as PIM (input rectifier and H-bridge), PFC-, H-bridge and half-bridge modules cover a wide power range. They are available in 3 different standard housings for up to 100A at 600V, and 100A at 1200V suitable for switching frequencies of up to 400kHz at 600V and 50kHz at 1200V.

*fast*PACK 0 H 2nd gen

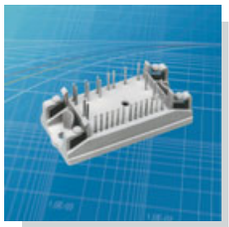
- Ultra low inductive design
- Ultra fast switching frequency
- Clip-in PCB mounting

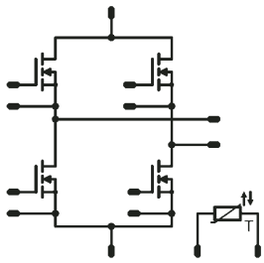
Part-Nº	Voltage	Current*	Frequency
V23990-P622-F64-PM	600V	50A	400kHz
V23990-P622-F74-PM[1)]	600V	50A	400kHz
V23990-P629-F44-PM	1200V	25A	50kHz
V23990-P623-F-PM[2)]	600V	60A	250kHz
V23990-P623-F10-PM[1) 2)]	600V	60A	250kHz
V23990-P623-F04-PM	600V	60A	250kHz
V23990-P623-F14-PM[1)]	600V	60A	250kHz
V23990-P623-F24-PM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

1) High performance version with improved Rth
2) Without NTC
3) With hyperfast diodes



P623-P629





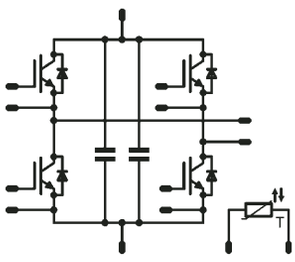
P622

*fast*PACK 0 H 2nd gen with capacitor

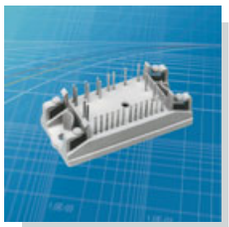
- P62x with integrated capacitor
- Ultra low inductive design
- Ultra fast switching frequency
- Clip-in PCB mounting

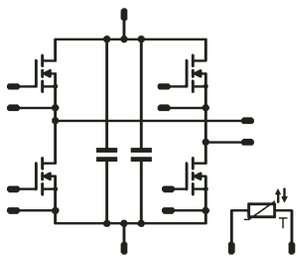
Part-Nº	Voltage	Current*	Frequency
V23990-P722-F64-PM	600V	50A	400kHz
V23990-P722-F74-PM[1)]	600V	50A	400kHz
V23990-P723-F-PM[2)]	600V	60A	250kHz
V23990-P723-F10-PM[1) 2)]	600V	60A	250kHz
V23990-P723-F04-PM	600V	60A	250kHz
V23990-P723-F14-PM[1)]	600V	60A	250kHz
V23990-P729-F44-PM	1200V	25A	50kHz
V23990-P729-F54-PM[1)]	1200V	25A	50kHz
V23990-P729-F46-PM[3)]	1200V	25A	50kHz
V23990-P729-F56-PM[1) 3)]	1200V	25A	50kHz

1) High performance version with improved Rth
2) Without NTC
3) With hyperfast diodes



P723-P729





P722

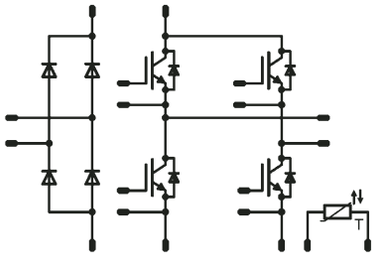
* Rated current of components

*fast*PIM 1 H

- Ultra fast switching frequency
- A-version with enhanced FREDs

Part-Nº	Voltage	Current*
V23990-P381-A-PM	600V	12A
V23990-P382-A-PM	600V	20A
V23990-P380-A-PM	600V	30A
V23990-P385-A11-PM[1)]	600V	20A
V23990-P386-A11-PM[1)]	600V	30A
V23990-P387-A11-PM[1)]	600V	40A

1) High performance version with improved Rth

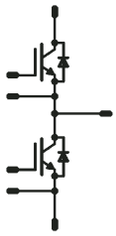


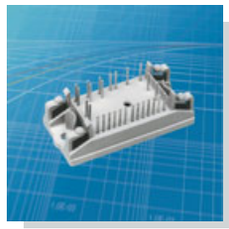
*fast*PHASE 0

- Phantom speed IGBTs for up to 50kHz switching frequency
- Low inductive design
- Clip-in PCB mounting

Part-Nº	Voltage	Current*	Frequency
V23990-P569-F20-PM[1)]	1200V	100A	50kHz
V23990-P569-F21-PM[1) 3)]	1200V	100A	25kHz
V23990-P569-F30-PM	1200V	100A	50kHz
V23990-P569-F31-PM[3)]	1200V	100A	25kHz

1) High performance version with improved Rth
3) With hyperfast diodes



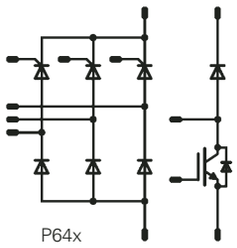


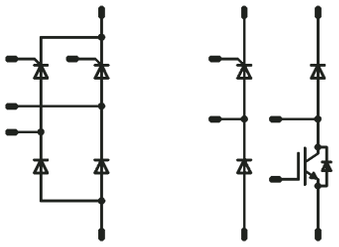
*flow*CON 0

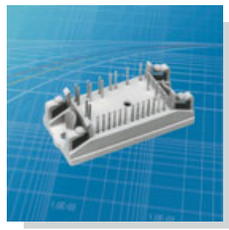
- Modular input rectifier optional half controlled
- Compatible with Fast 0 inverter
- Clip-in PCB mounting

Part-Nº	Voltage	Current*
V23990-P648-G-PM[4)]	1600V	35A
V23990-P648-G10-PM	1600V	35A
V23990-P648-H-PM[4) 5)]	1600V	35A
V23990-P648-H10[5)]	1600V	35A
V23990-P649-G-PM[4)]	1600V	50A
V23990-P649-G10-PM	1600V	50A
V23990-P649-H-PM[4) 5)]	1600V	50A
V23990-P649-H10-PM[5)]	1600V	50A
V23990-P640-G-PM[4)]	1600V	75A
V23990-P640-G10-PM	1600V	75A
V23990-P640-H-PM[4) 5)]	1600V	75A
V23990-P640-H10-PM[4)]	1600V	75A
V23990-P590-J-PM[4)]	1600V	105A
V23990-P590-J10-PM	1600V	78A
V23990-P600-I-PM[4)]	1600V	105A
V23990-P600-I10-PM	1600V	78A

4) Without half controlled rectifier
5) Without brake


P64x


P590 P600

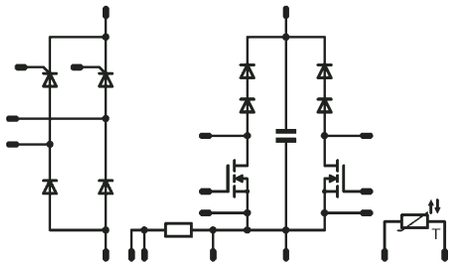


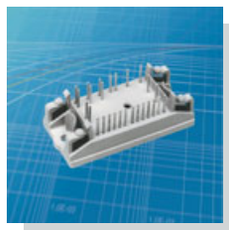
*flow*PFC 0

- High power high efficient PFC circuit
- Switching frequency of up to 400kHz
- MOSFET and IGBT designs
- Integrated high frequency capacity

Part-Nº	Voltage	Power (50kHz)	Power (400kHz)	Special Features
V23990-P802-[6)]-PM	500V	4.0kW	1.6kW	CoolMOS + Tandem Diode
V23990-P803-[6)]-PM	500V	8.0kW	3.2kW	CoolMOS + Tandem Diode
V23990-P804-D-PM[4)]	500V	8.0kW		Highspeed IGBT + Tandem Diode
V23990-P800-[6)]-PM	500V	7.8kW	4.9kW	CoolMOS + SiC Diode

4) Without half controlled rectifier
6) D30 with standard rectifier
D40 with half controlled rectifier

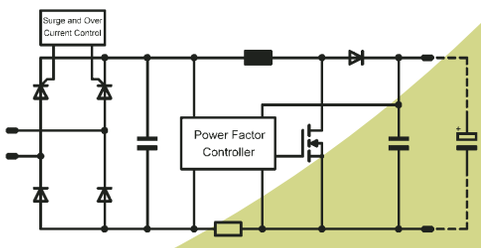


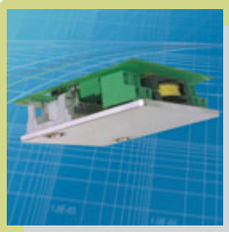


PFC-IPM

- Evaluation tool for *flow*PFC 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 width: 66 mm depth: 33 mm
flow 1		height*: 17 mm width: 82 mm depth: 38 mm
flow 2		height*: 17 mm width: 108 mm depth: 47 mm
*flow*90 1		height*: 28 mm width: 84 mm depth: 21 mm
*flow*90 2		height*: 33 mm width: 109 mm depth: 21 mm
*flow*SCREW 2		height*: 17 mm width: 117 mm depth: 64 mm
*flow*SCREW 3		height*: 17 mm width: 150 mm depth: 64 mm

*flyer*IPM		height: 19 mm width: 99 mm depth: 97 mm
PFC-IPM		height*: 25 mm width: 79 mm depth: 69 mm
flat 1		height*: 13 mm width: 70 mm depth: 41 mm
MiniSKiiP® 1		height*: 16 mm width: 42 mm depth: 40 mm
MiniSKiiP® 2		height*: 16 mm width: 59 mm depth: 52 mm
MiniSKiiP® 3		height*: 16 mm width: 82 mm depth: 59 mm

*Height equals to installation height

Tyco Electronics is a worldwide leading company for developing and manufacturing passive and active electronic components. In 1996 Tyco Electronics decided to step into the future oriented Power Module market. The responsibility for this product group was transferred to Tyco Electronics Power Systems 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 inside the European Union. Furthermore, our modules follow RoHS standard, and are 100 % electrically and functionally tested prior to packaging. This way we constantly guarantee high quality products.

Tyco Electronics, your reliable partner!

tyco Electronics

RoHS Ready

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