Vincotech

10-PY07NPA150SM02-L365F08Y

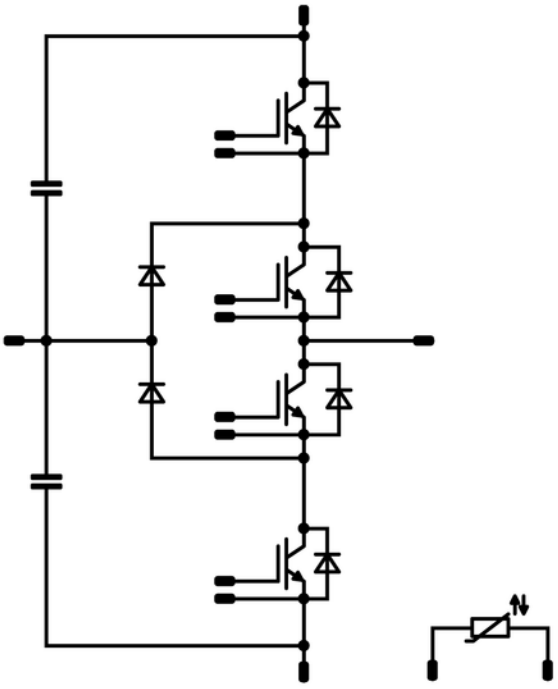
*flow*NPC 1

Basic module information

Part number:	10-PY07NPA150SM02-L365F08Y
Product line:	*flow*NPC 1
Product status:	Series production
Break down voltage:	1200 V
Nominal chip current rating:	150 A
Standard Packing Quantity:	100
Module datasheet:	PDF, 3 MB

Additional information

- 4 quadrant operations, very high speed
- for ESS



Product details

Topology:	Three-level NPC (I-Type)

- Neutral Point Clamped Topology (I-Type)

- Kelvin Emitter for improved switching performance
- Integrated DC capacitor
- Temperature sensor

Chip technology (main switch):	IGBT H5

- High efficiency in hard switching and resonant topologies
- High speed switching
- Low gate charge

Base isolation (e.g. ceramic):	Al_2O_3
Electrical interconnection:	Press-fit pin

Housing related details

Module housing:	*flow* 1
Mechanical connection to the PCB:	4 towers
Footprint:	82 mm x 37.4 mm
Height:	12 mm

- Convex shaped substrate for superior thermal contact
- No PCB hole damage to enable reuse
- Reliable cold welding connection to PCB
- Thermo-mechanical push-and-pull force relief

Related info

- Protection of thermal interface material - Procap

ProCaps protect thermal interface material against contamination.

/ **Handling instruction** PDF, 3 MB
The handling instruction gives information during the design phase of the application and for usage in the production.
To ensure a proper long term stability and reliability of the power module in the application details about the PCB requirements, heat sinks and thermal interface material as well as instructions on the assembly process are shown.

/ **Packaging datasheet** PDF, 137 kB
The package data gives information about dimensions of the housing.

/ **3D module outline (STEP)** STP, 2 MB
The 3D step file can be downloaded for the implementation into your CAD system.

/ **Power module datasheet explanation** PDF, 4 MB
Explanation of measurement conditions and data sources used in Vincotech's power module datasheets.

/ **Product Qualification at Vincotech** PDF, 293 kB
Vincotech's qualification tests follow the minimum requirements for the series release of power modules described in this document. These tests also apply for release and re-qualification of modified products.

/ **UL (Underwriters laboratories)** PDF, 309 kB
Vincotech power modules are recognized by UL (Underwriters Laboratories). The UL Mark indicates that UL has tested representative samples of the product and found it to be compliant with the applicable standard or other requirements with respect to its potential risk of fire, electric shock and mechanical hazards.

/ **RoHS** PDF, 323 kB
All Vincotech standard power modules comply with the RoHS specification.

Technical articles / Application notes

Power Modules in Low Power Drive Applications	Technical paper	2018-11	PDF, 136 KB
New Generation of Fast 650 V IGBT	Technical paper	2018-10	PDF, 442 KB
Making the most of three-level NPC topology	Technical paper	2018-06	PDF, 495 KB
Half-Bridge versus SixPACK for motor drives	Technical paper	2017-01	PDF, 220 KB
Motor drive applications	Technical paper	2017-01	PDF, 235 KB
MiniSKiiP with a Si3N4 AMB Substrate	Technical paper	2016-05	PDF, 459 KB
Benchmarking Highly Efficient, Three-level, Power Factor Correction Topologies	Technical paper	2016-05	PDF, 274 KB
Embedded Designs Drive Tomorrow's Solutions	Technical paper	2016-04	PDF, 224 KB
The flow7PACK Power Module – A Flexible, Cost-effective Solution for Industrial Drives	Technical paper	2015-08	PDF, 717 KB
Asymmetrical inductance supporting long cable at low power motor drive applications	Technical paper	2015-07	PDF, 131 KB
Applying Power Circulation Theory to More Accurately Measure Power Loss and Efficiency	Technical paper	2015-05	PDF, 908 KB
Increasing Efficiency in Booster Power Modules with SiC Components	Technical paper	2014-12	PDF, 348 KB
Highly Efficient UPS Topologies with Regenerated Switching Losses	Technical paper	2013-08	PDF, 465 KB
Vincotech's modules with pre-applied phase-change material	Technical paper	2013-07	PDF, 178 KB
Increasing the Efficiency of an IPM-based Drive Design	Technical paper	2011-10	PDF, 103 KB
Optimized Power Modules - The pursuit of industry best-in-class performance	Technical paper	2011-09	PDF, 99 KB

Power modules for fast switching motor drive applications	Technical paper	2011-07	PDF, 29 KB
IPMs – a solution for compact motor drive applications?	Technical paper	2011-05	PDF, 188 KB
Increasing Motor Efficiency with Power Factor Control	Technical paper	2011-04	PDF, 55 KB
Paralleling of IGBTs and Diodes of one Power Module – pushes power capability!	Technical paper	2010-09	PDF, 602 KB
Advantages of NPC Inverter Topologies with Power Modules	Technical paper	2009-07	PDF, 92 KB
Motor Integrated IPM-Solution for Servo Drive Applications	Technical paper	2006-04	PDF, 210 KB
flow90PIM 1	Technical paper	2005-09	PDF, 254 KB
Thermal interface material	Application note	2013-10	PDF, 671 KB
Vincotech's Compliant Pin	Application note	2014-10	PDF, 690 KB
Thermal interface material	Videos		YouTube
Press-fit technology	Videos		YouTube
Module beats discretes	Videos		YouTube
Press-in process of a flow 1B	Videos		YouTube