

# NIC PRODUCT PROFILE

## NPIM\_PA Series

### AECQ200 Metal Composite High Current Power Inductors

#### Description:

Extending from NIC's NPIM\_P series the NPIM\_PA adds AECQ200 availability to its strong feature list including higher current ratings, lower DCR and 6 standard case sizes. Case sizes ranging from 3.5mm X 3.2mm to 13.5mm X 12.5mm (LxW) with component heights of 1.8mm to 6.2mm. Inductance values range from 0.1uH ~ 220uH in ±20% (M) inductance tolerance.

An upgrade from standard ferrite based shielded power inductors molded metal composite construction provides high saturation current characteristics, increased frequency performance, and higher efficiency at higher switching frequencies, making these ideal choices for today's efficient DC-DC converters.

The NPIM\_PA series meets the requirements of AECQ200 and suggested for use in automotive grade applications or where higher quality components may be required.

#### Get More Information:

Series Pages: [www.niccomp.com/series/NPIM\\_PA](http://www.niccomp.com/series/NPIM_PA)

All Inductors: [www.niccomp.com/inductors](http://www.niccomp.com/inductors)

All Magnetics: [www.niccomp.com/magnetics](http://www.niccomp.com/magnetics)

Automotive Grade: [www.niccomp.com/auto](http://www.niccomp.com/auto)

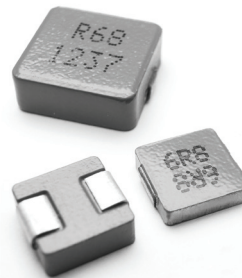
#### Characteristics:

Series	Size (mm)	Inductance Range	DCR Range	I <sub>rms</sub> Max	I <sub>sat</sub> Max
NPIM32PA	3.5 x 3.2 x 2.0	0.1 ~ 10uH	9.0mΩ ~ 422mΩ	10.5A	14A
NPIM42PA	4.4 x 4.06 x 2.0	0.1 ~ 22uH	4.0mΩ ~ 500mΩ	12A	35A
NPIM74PA	7.3 x 6.6 x 3.0	0.1 ~ 47uH	1.7mΩ ~ 363mΩ	32.5A	60A
NPIM104PA	11.0 x 10.0 x 4.0	0.15 ~ 68uH	0.6mΩ ~ 240mΩ	43A	75A
NPIM145PA	13.5 x 12.5 x 6.0	1.0 ~ 220uH	2.4mΩ ~ 550mΩ	29A	45A
NPIM146PA	13.5 x 12.5 x 6.5	0.15 ~ 47uH	0.6mΩ ~ 90mΩ	55A	118A

#### Search with QuickBUILDER

- ◆ Over 8,000 Inductors to Search
- ◆ Compare up to 5 results Side-By-Side
- ◆ Sort by Price & Series Focus
- ◆ Lifecycle, Upgrades, and Application Focus

[NICcomp.com/QB-Inductors](http://NICcomp.com/QB-Inductors)



#### NPIM\_PA Co-Sell Products

- ◆ Hybrid Aluminum E-Caps (NSPE-TF)
- ◆ Thin Film Chip Resistors (NTRA)
- ◆ Ferrite Chip Beads (NCB, NCB-H)

#### Cross & Replace with NPIM\_PA

- ◆ Vishay IHLP-1A Series
- ◆ Cynotec VCHA, VCMT, VCMI Series

#### NPIM\_PA Automotive Applications

- ◆ **Passenger Comfort**
  - Electric Windows & Roof
  - Climate Control
  - Navigation
  - Entertainment Systems
  - Seat Control & Heating
  - Ethernet Gateway
  - Headlamp Control
  - Windshield Wiper
  - Instrumentation Cluster
- ◆ **Convenience**
  - Keyless Entry
  - Automatic Rain Sensors
  - LED lighting
  - CAN BUS System
- ◆ **Power Train**
  - Electronic Throttle Control
  - Cooling Fan Control
  - Electrical gear shifter
- ◆ **Crash Avoidance**
  - Adaptive Cruise Control
  - Radar
  - Parking Sensors
  - Rear View Cameras
  - Front View Cameras
  - Displays for Lane Departure Warning
  - Automatic Parking System
- ◆ **Safety & Security**
  - Tire Pressure Monitoring
  - Theft Prevention
  - Occupant Detection

Don't see an application above? Contact NIC TPMG to review NPIM\_PA usage



NIC Components Corp.



Cross & Replacement Support ... [tpmg@niccomp.com](mailto:tpmg@niccomp.com)