

VIPower™ Zero series

Innovative smart power switches for high-current applications



Low-ohmic high-side drivers for Automotive high-power loads

ST's VIPower™ Zero series offers innovative and high-performance protected switches for driving high-power applications.

This series covers today's growing demand for intelligent power devices able to drive and protect high-power loads such as those used in high-current fan motors, heaters and protected battery lines in electrical power distribution systems.

VIPower™ Zero series complements the granular M0-7 portfolio extending its automotive DNA to a wider range of applications, including those requiring the lowest on-state resistance.

KEY FEATURES

- Complete family of low on-resistance protected solutions
- Output re-activation during reverse polarity
- State-of-the-art and adaptable protection strategy
- Sophisticated diagnostics
- Cold-cranking capability (device option)

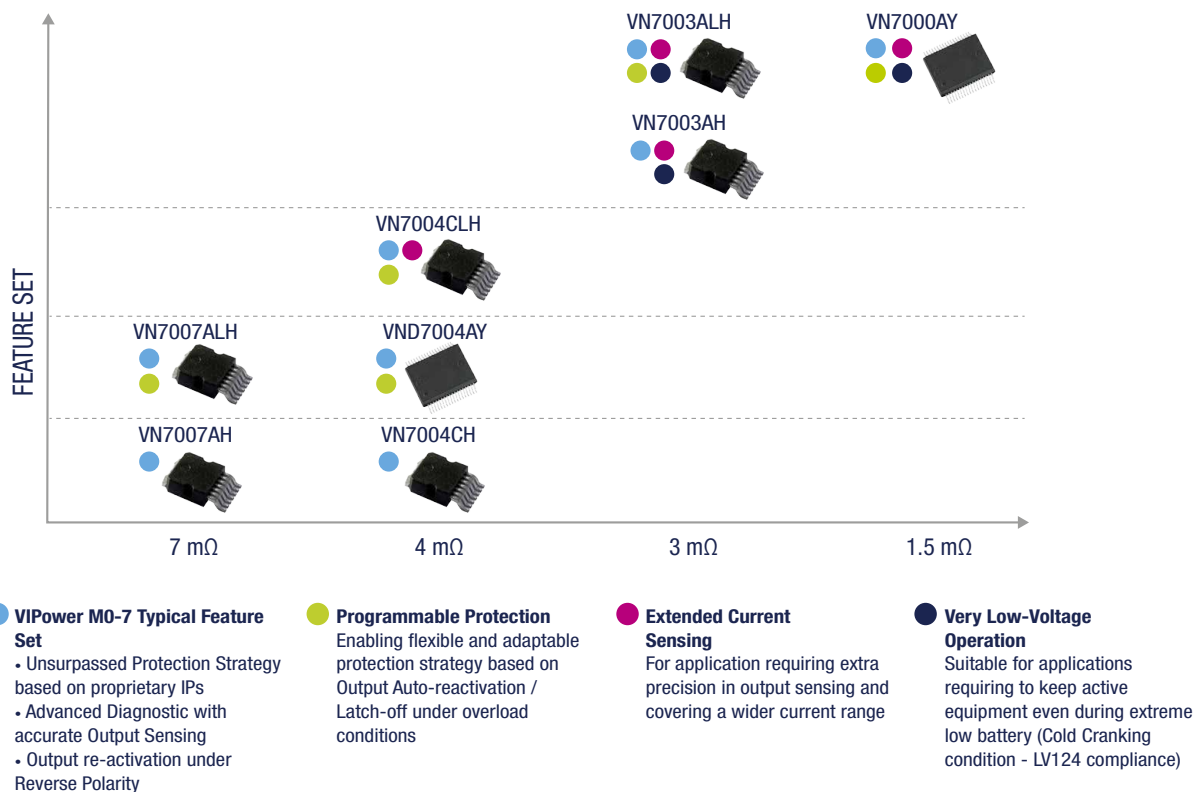
KEY BENEFITS

- Granular portfolio covering wide range of high-power applications
- Industry's lowest $R_{DS(on)}$ in the smallest footprint
- Device option with extended diagnostics capability cover a wide range of load currents
- Suitable for Start&Stop systems and applications required to work at very low battery voltage (device option)

KEY APPLICATIONS

- Power distribution (smart fuse boxes)
- Glow plugs
- High-power heaters
- Starter relays
- High-current DC motors
- Any high-power application





ENABLING THE SMART DRIVING OF HIGH-POWER APPLICATION

VIPOWER™ Zero series features very high current capability and outstanding thermal performances in tiny and eco-friendly packages. Covering different market segments and application domains, the portfolio is complemented with device options equipped for specific functions tailored for new and emerging system requirements. VIPOWER™ Zero represents an outstanding single-package smart solution for supplying a protected 12 V battery to every high-power system.

PRODUCT TABLE

Commercial Product	Channel	Package	Supply voltage (V _{CC})	Minimum Cranking Supply Voltage	On-state resistance R _{DS(ON)}	Diagnostic feedback	Short-circuit protection
VN7000AYTR (*)	1	PowerSSO-36	4 - 28 (V)	3 (V)	1.5 mΩ	Analog Current Sense	Autorestart & Latch-off
VN7003AHTR	1	Octapak			3.5 mΩ	Analog Current Sense	Autorestart
VN7003ALHTR	1	Octapak			3.5 mΩ	Analog Current Sense	Autorestart & Latch-off
VN7004CHTR	1	Octapak		4 mΩ	Analog Current Sense	Autorestart	
VN7004CLHTR	1	Octapak		4 mΩ	Analog Current Sense	Autorestart & Latch-off	
VND7004AYTR	2	PowerSSO-36		4 mΩ	Analog Current Sense	Autorestart & Latch-off	
VN7007AHTR	1	Octapak		7 mΩ	Analog Current Sense	Autorestart	
VN7007ALHTR	1	Octapak		7 mΩ	Analog Current Sense	Autorestart & Latch-off	

(*) under development



© STMicroelectronics - November 2016 - Printed in United Kingdom - All rights reserved
 The STMicroelectronics corporate logo is a registered trademark of the STMicroelectronics group of companies
 All other names are the property of their respective owners

