

Combustion



Hybrid

# Explore our Technologies

## eVCT (Electric Variable Cam Timing)

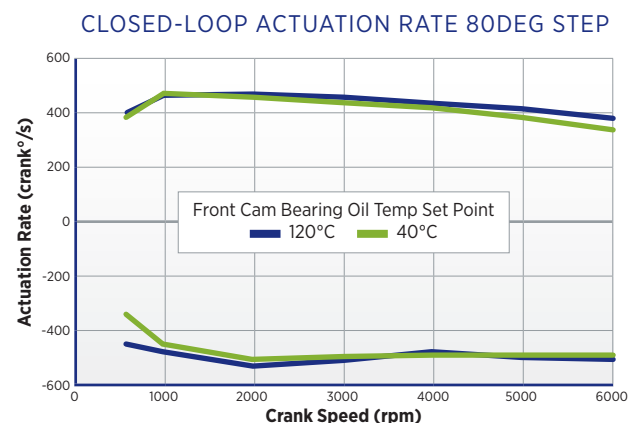
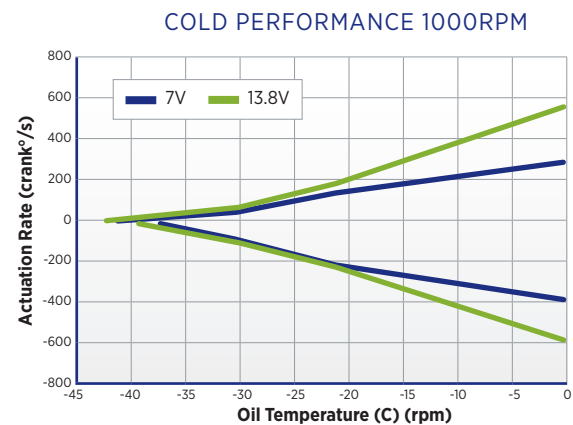
# eVCT (Electric Variable Cam Timing)

## FEATURES & BENEFITS

- Faster speed, and greater range of control over hydraulic phaser
- Stop/Start
  - Decreased time to torque/vehicle acceleration
  - Allows decompression for improved NVH
  - Actuation rate for decompression startup recovery
  - Able to reposition camshaft before cranking and improves start NVH for high compression engines
- Able to move quickly across the ROA
- Improved catalyst light off time (Requires eVCT on exhaust)
- Lower power consumption and reduces “time to pressure” requirements from oil pump
- Eliminates “no fly zone” typically seen with hydraulic phasers, including phasing during cranking
- Able to operate at low oil pressure, low oil temperature
- Abnormal shutdown or change of mind recovery
  - Phaser can be commanded to position at or before start

## Product Specifications

- Low drag gear system
- Compact efficient brushless motor
- Controls can be integrated on electric motor or in ECU
- Phaser housing diameter: 82 or 70mm
- Axial length: 74mm (with controls)
- Speeds up to 550 degs/s (crank)
- 250 millisecond time to target at startup
- Cam position stability within +1CA
- Normal operating temperature: -40 to 130C
- Peak current to eMotor with controls: 30A



For Additional  
BorgWarner Information:  
[borgwarner.com](http://borgwarner.com)

