

thermal.borgwarner.com







For Additional BorgWarner Thermal Systems Information:

800-927-7811 USA 49-7544-969-207 Germany 88-574-820-9696 China

thermal@borgwarner.com



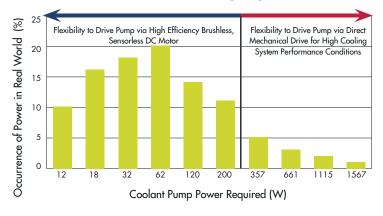
Dual Mode Coolant Pump

Features & Advantages

BorgWarner Dual Mode Coolant Pumps are electrically driven under most conditions but also can mechanically engage for peak cooling demands.



Dual Mode Coolant Pump Operation



Features

- Variable flow via high efficiency BLDC motor
- Clutched mechanical pulley drive
- Multi-control/integrated control electronics

Benefits

- Fuel economy and emissions improvement
 - Downsized pump for 80% of duty cycle
 - Flow after engine shutdown
 - Enables higher run temperature (solves after-boil)
 - Enables start/stop and turbo cooling
 - No/low flow for fast warm-up and part load friction improvement
 - Increased flow for low speed cooled EGR
- Controls and system complexity improved with "all in one" pump
- Failsafe Engine/Vehicle Cooling



