



INTEGRAL
CONTROL SYSTEMS LTD.



AAR S-5502
Compliant

Automatic Engine Start/Stop



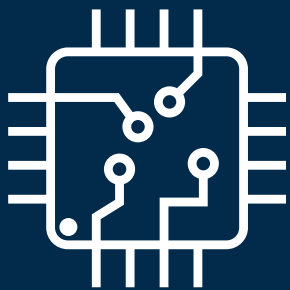
Save on Fuel



Lower Emissions



Reduce Maintenance



Meet rising efficiency and emissions demands head-on with Integral's AESS, featuring an integrated VR module for optimized battery charging and voltage regulation.



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Automatic Engine Start/Stop

Key Benefits

- Compatible with nearly every locomotive model in service
- Integrated VR (Voltage Regulator) module with multi-stage optimized battery charging and voltage regulation
- Compact design for easy placement
- Quick and simple installation
- Integrates seamlessly with a wide range of locomotives
- Integral AES idle reduction technology reduces harmful pollutants such as nitrogen oxides (NOx), carbon monoxide (CO) and particulate matter (PM), for better air quality **
- Allows you to qualify for EPA's 40 CFR part 1033.115(g)
- AAR S-5502 (2011) Compliant
- Available with a hardened starter motor
- Operator override for critical operational needs
- By reducing unnecessary idling, locomotives consume less fuel, leading to significant cost savings *
- Less idling means less wear and tear on the engine, which can lower maintenance expenses and prolong the lifespan of locomotive engines *
- Reducing idling decreases noise levels, creating a more comfortable environment for operators *
- Lower emissions and noise levels can improve relationships with communities near rail yards and tracks *

*epa.gov

** nepis.epa.gov

Specifications

- Cooling: integrated forced air
- Operating ambient temperature: -40°C to 70°C
- Dimensions: ~ 8" (W) x 9" (H) x 13" (D)
- Shock and vibration: MIL-STD-810G
- Weight fully loaded: ~30lbs
- Isolated EN50155 rated internal power supply

Solutions Kits

- AES-K001: AESS Locomotive Materials Kit
plus
- AES-K002: AAR S-5502 Compliant Electronics
or
- AES-K003: Basic Electronics kit

Control
Systems

Speed
Sensing

Power
Electronics

System
Integration

Operator
Displays

Air Brake
Integration

Design
Services

Remote
Monitoring

