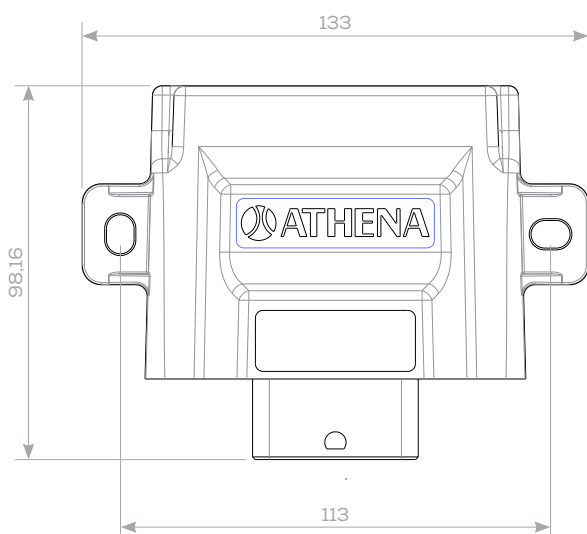# ST 48 EGAS Ride by Wire ECU

S-SERIES is the engine control units' family, developed by Athena's electronic division for the complete management of the EFI engines. This platform is extremely flexible and subjected to strict validation tests, based on Automotive standards.

PERFORMANCE SPECS

Connector	48 Ways MOLEX p/n 500762-048
Cylinders	2
Ignition coils	2
Application	2/3 Wheels Monofuel
Injectors	Saturated
Operating Voltage	8V – 16V
Operating Temperature range	– 40°C + 85°C
Storage Temperature range	– 40°C + 105°C
Waterproof and Dust proof	
CAN BUS communication	
Electric throttle body	
Euro 5 – BS VI	compliant
OBD II	compliant
ISO 26262	ready
REACH and ROHS	compliant

/ STRATEGIES

EMISSION RELATED

Fine Cranking and Flare Control

CAT Light-Off Control

Advanced PI Lambda Closed Loop

Cut-Off Control

IACV Idle Speed Closed Loop Control

Ignition Idle Speed Closed Loop Control

Alpha-N, Speed Density or Hybrid Control

LEARNING FUNCTIONS

Long Term Self Adjustment (Self Learning)

0-TPS Learning

IACV Learning

SPECIAL FUNCTIONS

ISG Support Control

Baro reading from Map Sensor

Oil Sensor Control

Safety Strategies for Start Control

Advanced Rev Limiter

Cooling Fan Safety Control

Dual maps

GPA Traction Control

DIAGNOSTICS

ISO 15765 (description of the physical interface via CAN)

ISO 14229 (description of the services, UDS)

OBD stage I & Stage II

Misfire detection

History Report

Hour Meter with Total and Partial working time

/ VALIDATION

EMC TEST

Radiated Emission	according to CISPR25
Conducted Emission of Power line	according to CISPR25
Radiated Immunity	according to ISO 11452-4 and ISO 11452-2
ESD	according to ISO 10605
Electrical transient (Pulse 1, 2a, 2b, 3a, 3b, 4)	according to ISO 7637 – 2

ENVIRONMENTAL RELIABILITY TEST

Thermal	According to ISO 16750-4
Mechanical	According to ISO 16750-3
Road conditions	According to ISO 16750-5 and ISO 20653

ELECTRICAL PERFORMANCE TEST — According to ISO 16750-2

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