

VARITRONIC

Made in Italy for Vespa

The unique electronic ignition system, 12v 90W with variable timing.



The ultimate for Lambretta owners who wish to use a reliable and efficient scooter, bright lights during the day and night, reliable running with no moving parts

The technical features are as follows:

- Timing adjusts automatically, with a pre programmed curve of up to 8 degrees
- Nylon fan, light with good air flow for cooling. Can be used with the standard cowls
- High power output, 12V 90W easy starting, greatly improved performance
- HT coil and regulator are both efficient and compact, can easily be fixed anywhere
- The regulator supplies a clean current assuring stable current for long life for bulbs and electrical systems
- Regulator can be used for both AC and DC, battery charge out will even allow you to run a PC or mobile phone!
- The power of the regulator is both powerful and strong, even at low revs there is enough power to run 35W halogen bulbs, giving safe riding night or day
- Twin sparks on each revolution also burns the waste gasses still in the cylinder, greatly reduces pollution
- The easy interchangeable nature of the system and its parts makes maintenance and repair very easy, without the need for specialist charges
- The electrical components can be replaced with just two bolts, with no need to reset or adjust the timing. All parts are checked and tested by us.
- All kits supplied complete including electrical diagram and securing spanner

GENERAL SPECIFICATIONS

Name: Flywell Magneto

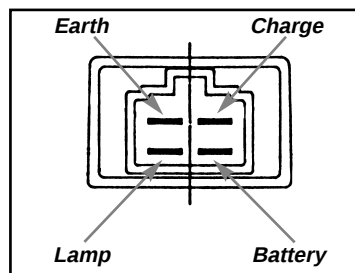
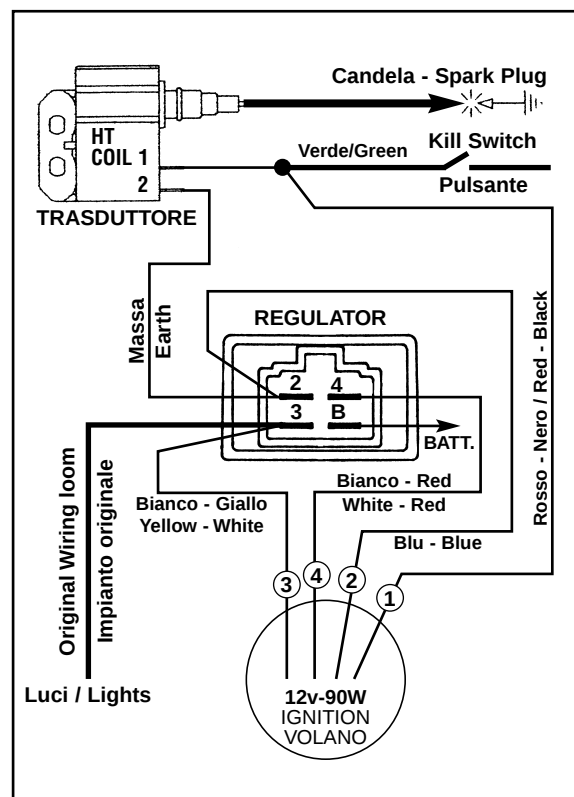
MECHANICAL SPECIFICATIONS

Direction of rotation Counterclockwise (viewed smaller taper side)
Range of revolution 500 rpm ~ 12000 rpm
Guaranteed Revolutions The deformation of outside diameter must be 0.05 max under 14000 rpm
Test for 3 minutes
Limit of umbalance By static ballance <10 g cm or less
Momenti di inerzia 12 Kg cm²
Total weight 1270 Kg
Stator 0.470 Kg
Rotor 0.800 Kg
Air Gap Between stator and rotor 0.55 mm Min
Surface treatment Yellow electroplated coating of zinc (Tmin guaranteed = 150° C)

ELECTRICAL SPECIFICATIONS

Ignition method C.D. Ignition system (Thyristor)
Number of sparks 2 sparks per revolution at 180°

ACTUAL CIRCUIT



MEANING OF SYMBOL

$\supset_n$ Supplied power
 θ Ignition timing before top lead dead center
 N r.p.m.
 V_o Secondary voltage 50pF loaded
NOTE The core of the stator must be at earth potential with the engine

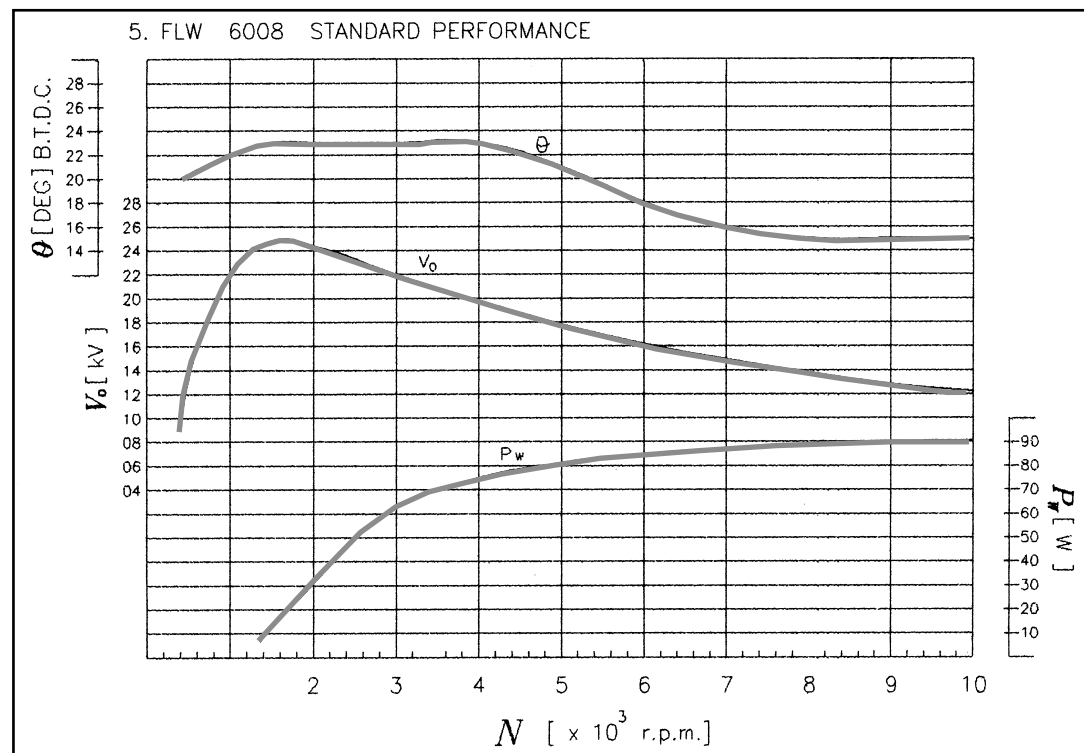
RESISTANCE VALUES OF COILS (AT 20°C)

Measuring place	Resistance value (OHM)
GREEN/EARTH	290 $\pm$ 20%
YELLOW/EARTH	0.4 $\pm$ 20%

HANDLING PRECAUTIONS FOR FLYWHEEL

1. No use of hammer when mounting or removing from the engine
2. Use only the specified puller when removing from the engine
3. Every kind of impact must never be applied: the ferrite segments may be damaged.

FLW 6008 STANDARD PERFORMANCE



SPECIFICATIONS

Storage temperature -30 ~ +80°C
Operating temperature -10 ~ +80°C
Allowable temperature SCR (AC) Junction Max +125°
SCR (DC) Junction Max +125°
Condenser surface Max +105°
Maximum regulate current (AC) Max 9 Aave
(DC) Max 5 Aave

ELECTRICAL CHARACTERISTICS

Regulate voltage (AC) 12.7 $\pm$ 0.5 Vrms (Battery full night circuit, 5000 rpm Ta=25°C Temp. coefficient max $\pm$ 8mV/°C)
(DC) 14.5 $\pm$ 0.5 Vrms (Battery full day circuit, 5000 rpm Ta=25°C Temp. coefficient max $\pm$ 12mV/°C)

Leak current Max 0.1 mA
Insulating resistance Min 50M Ω

RELIABILITY

Satisfy with the electrical characteristics each reliability testing
- Mechanical shock 980m/s² (100G). Shocked two times in each of X,Y and Z directions.
- Temperature cycling 100 cycles each consisting of +100°C 1 hour and -20°C 1 hour in atmosphere
- Vibration 196 m/s² (20G), 50 to 500 Hz/15 minutes log sweep for 4 hours in each of X, Y and Z directions
- Operate acceleration AC 5 Aave, DC 3Aave, 500 cycles each consisting of 30 min. ON/30 min OFF.
- Salt spray 5% salt water immersion 96 hours
- Weight 48 g