

TECNICAL BULLETIN No. 08 LB - Issue: March 03,

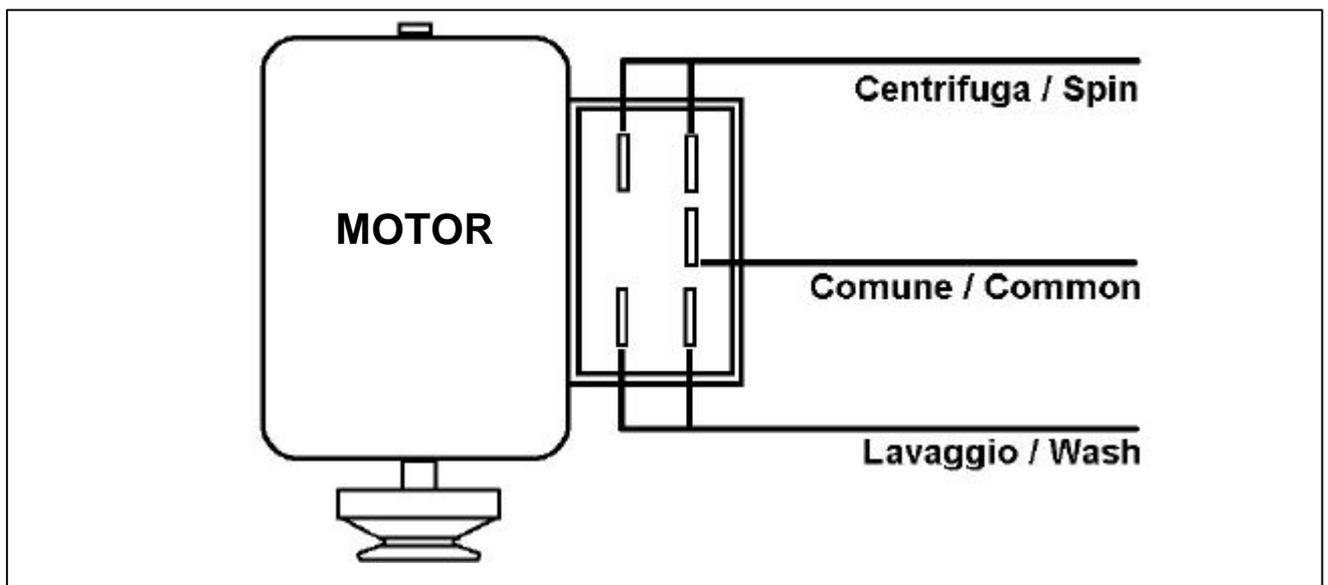
SUBJECT: Technics for bench testing of induction and commutator motors.

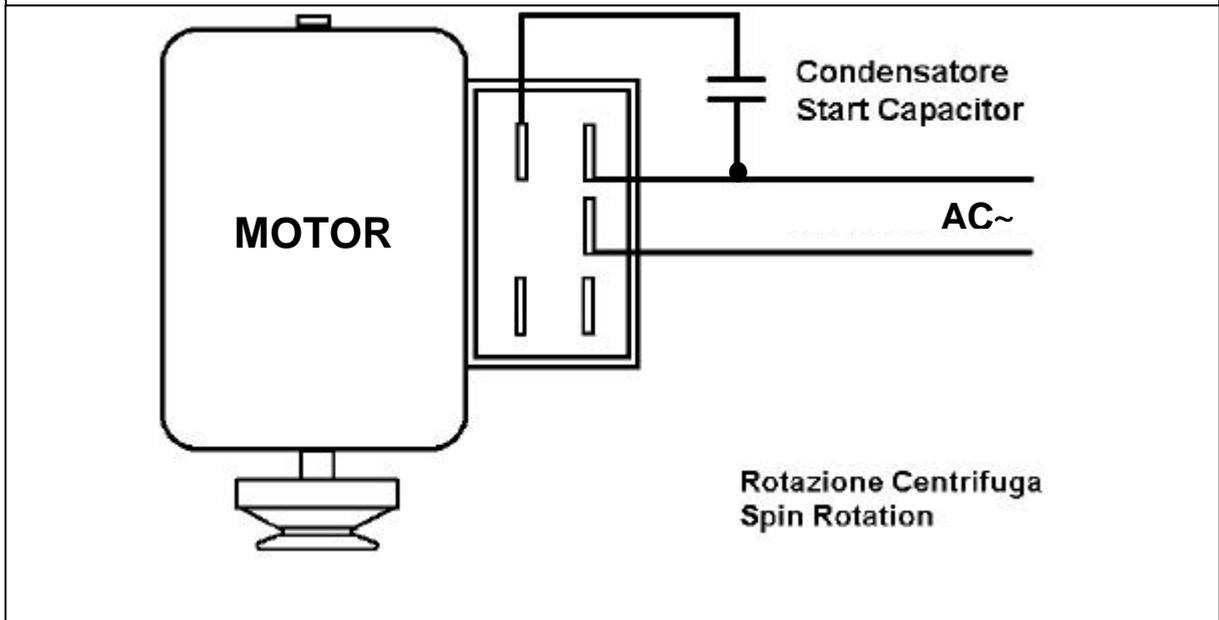
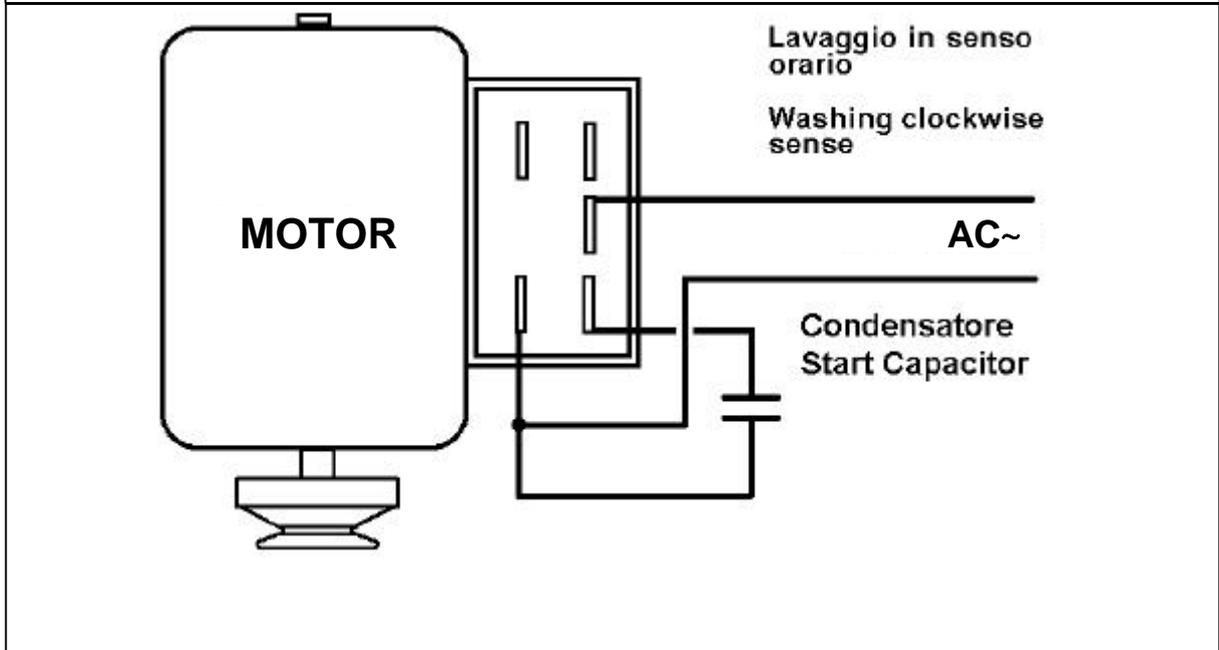
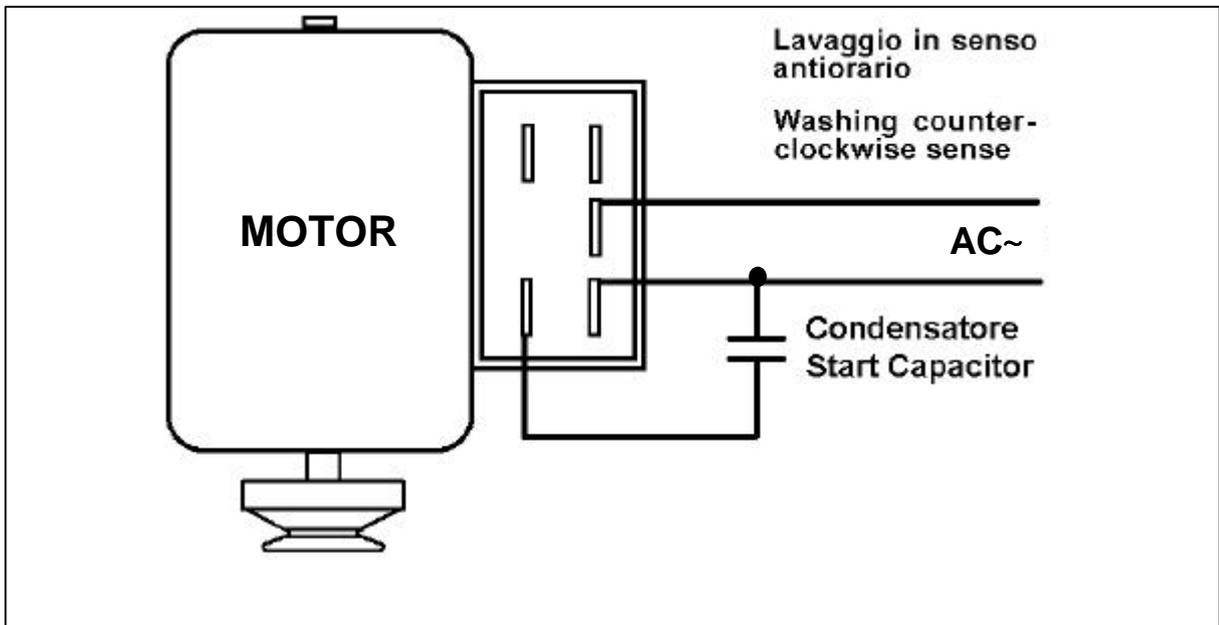
A) METHODOLOGY FOR BENCH TESTING OF INDUCTION MOTORS.

In the following figures, we explain how to electrically connect for bench testing the various induction motors, which are mounted in production on our washing machines and wash 'n dryers.

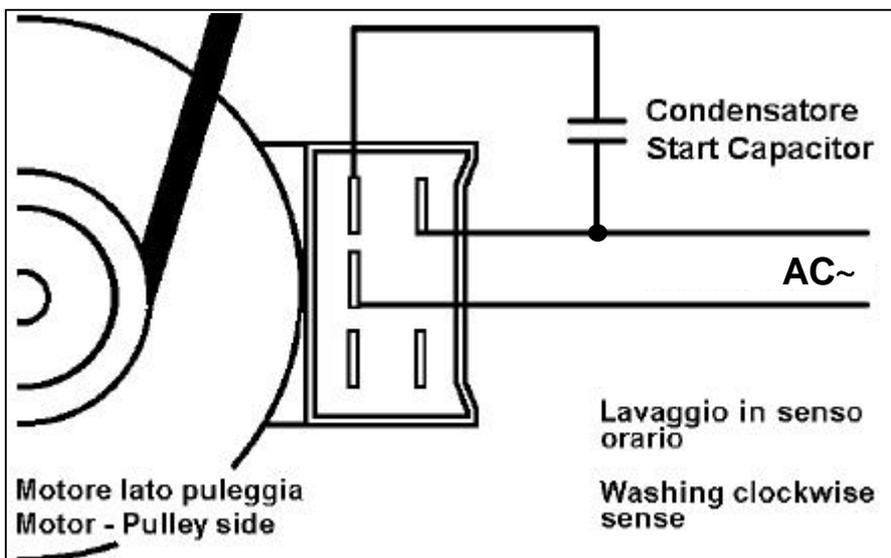
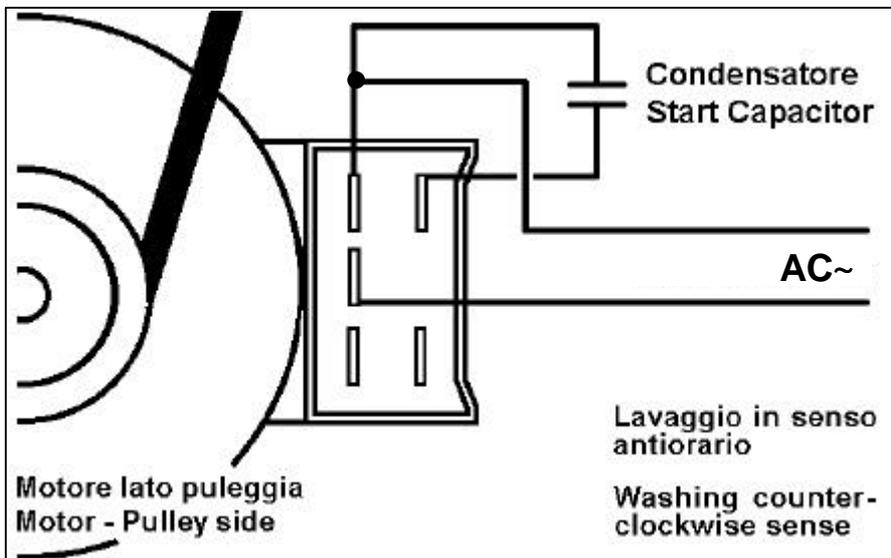
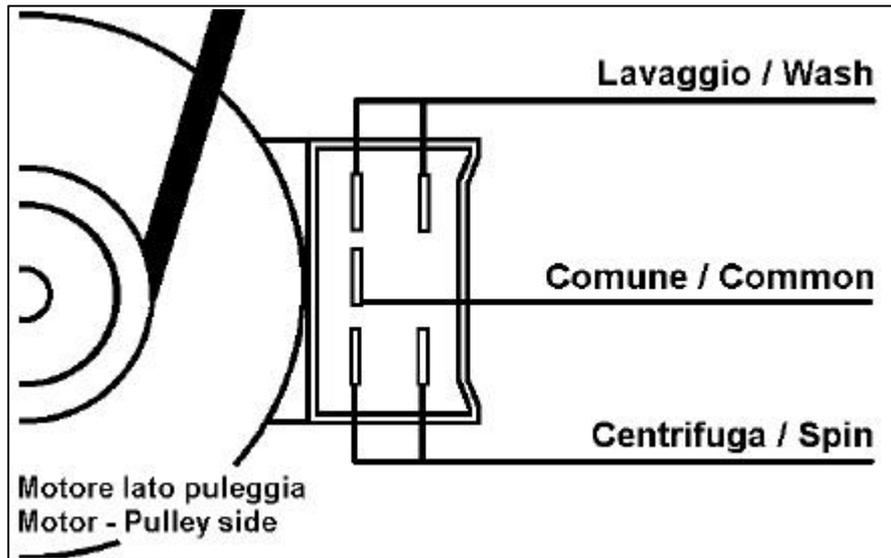
We kindly remind You that the start capacitor for the bench testing, **must be of the same type and capacity of the one originally supplied with the motor** which is going to be tested.

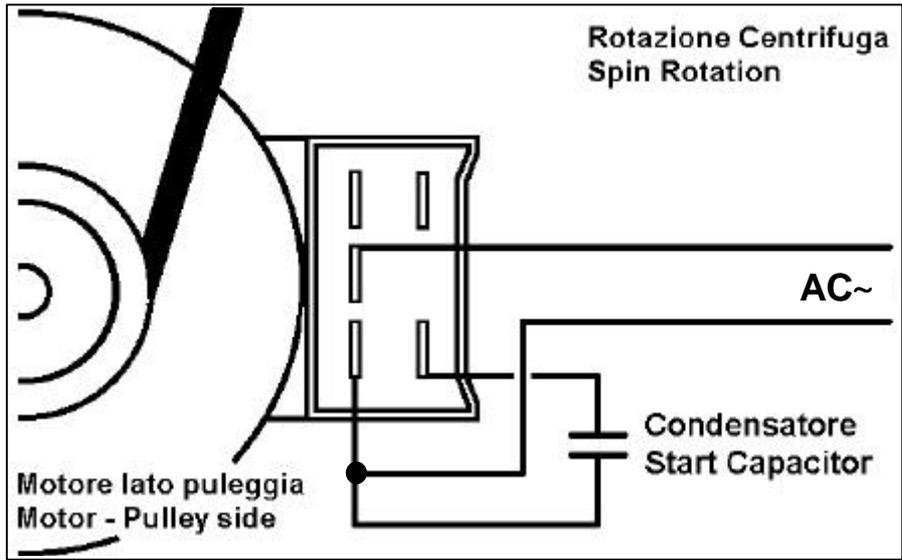
A1) Induction motors with "A" type connector (Common Contact External).



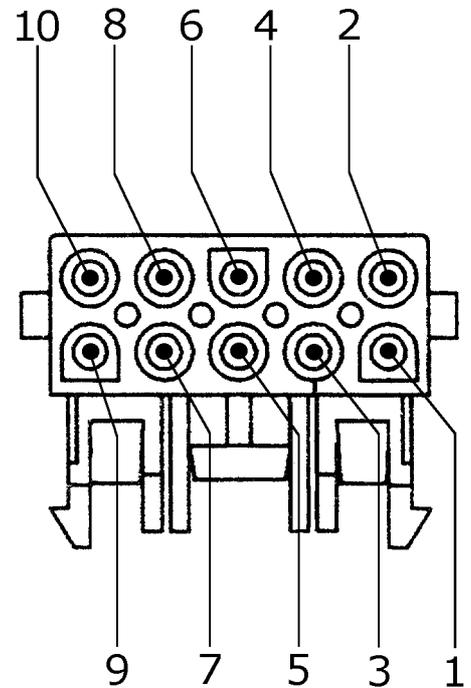
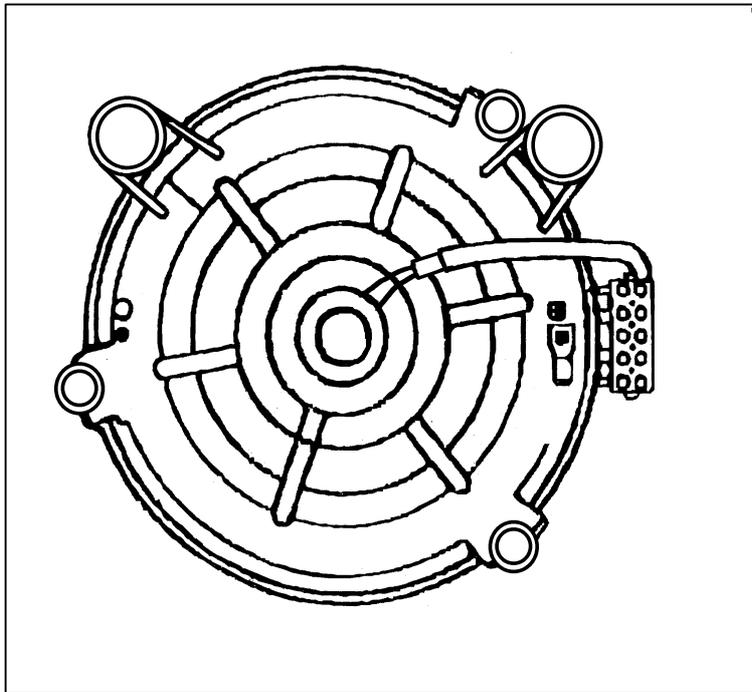


A2) Induction motors with "B" type connector (Common Contact Internal).





A) METHODOLOGY FOR BENCH TESTING OF INDUCTION MOTORS OPERATING WITH TACHOMETRIC DYNAMO AND ELECTRONIC COMMAND MODULE.



Contacts n° **10** and n° **9** : CLIXON (Motor's internal Thermal Device).

Contact n° **8** : COMMON contact of windings.

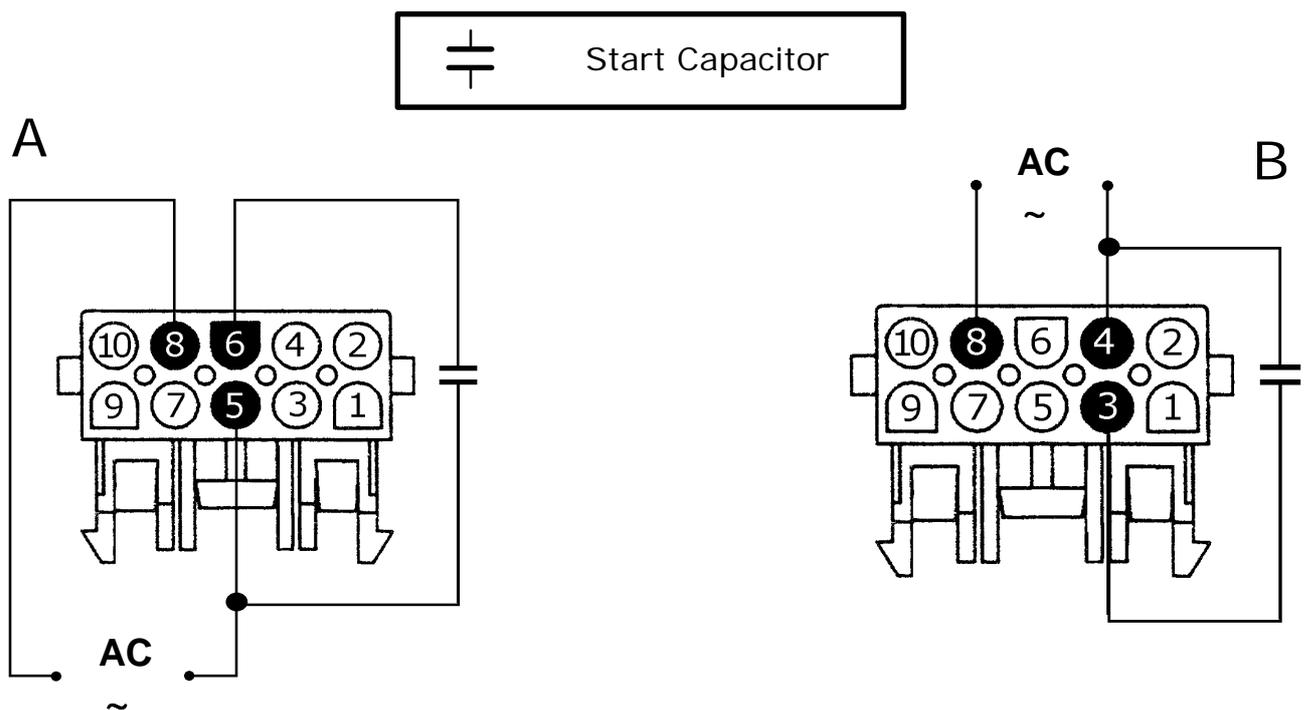
Contact n° **7** : Not used.

Contacts n° **6** and n° **5** : **2 Poles** winding.

Contacts n° **4** and n° **3** : **12 Poles** winding.

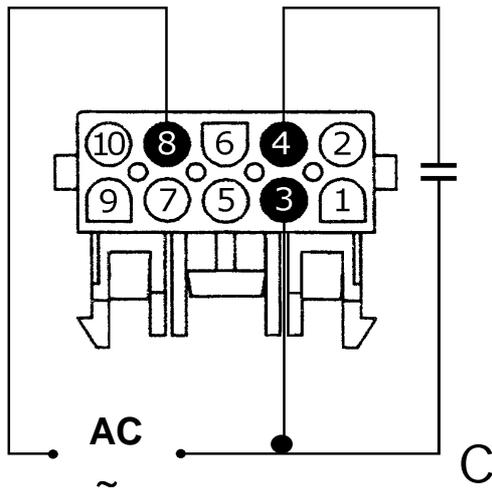
Contacts n° **2** and n° **1** : Tachometric Dynamo.

B1) Bench testing of motor's functionality, to be performed **without electronic module**:



A = Testing counterclockwise spin rotation.

B = Testing clockwise rotation during washing.



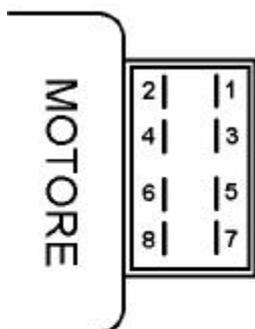
C = Testing counterclockwise rotation during washing.

PLEASE NOTE : If needed, round shaped leads are available at GIAS stock, to make test connections to the motor. Leads can be ordered with P/N. **91940402**.

C) METHODOLOGY FOR BENCH TESTING OF COMMUTATOR MOTORS WITH CARBON BRUSHES, OPERATING THROUGH TACHOMETRIC DYNAMO AND ELECTRONIC COMMAND MODULE:

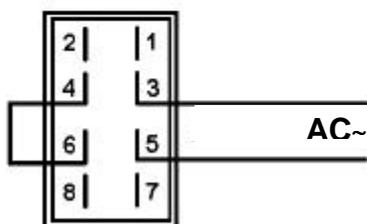
C1) Bench testing of motor's functionality, to be performed **without electronic module**:

C1a) COMMUTATOR MOTOR WITH CONNECTOR 8 CONTACTS:



- Contacts 1-2 = Tachometric Dynamo
- Contacts 7-8 = Internal Thermal Device.
- Contacts 3-4 = Rotor.
- Contacts 5-6 = Stator.

To perform bench testing, proceed as follows:



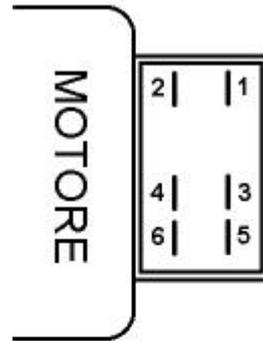
- 1°) Contacts **1-2** and **7-8** **not connected**.
- 2°) Make **jumper wire** between contacts **4-6**.
- 3°) Give **tension** to contacts **3-5**.

C1b) COMMUTATOR MOTOR WITH CONNECTOR 6 CONTACTS:

Contacts 1-2 = Tachometric Dynamo.

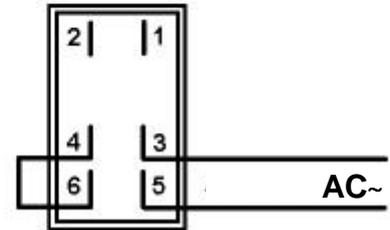
Contacts 3-4 = Rotor.

Contacts 5-6 = Stator.

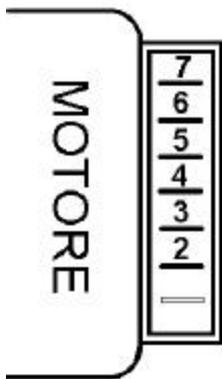


To perform bench testing, proceed as follows:

- 1°) Contacts **1-2 not connected**.
- 2°) Make **jumper wire** between contacts **4-6**.
- 3°) Give **tension** to contacts **3-5**.



C1c) COMMUTATOR MOTOR WITH CONNECTOR 6 CONTACTS ON THE SAME LINE:

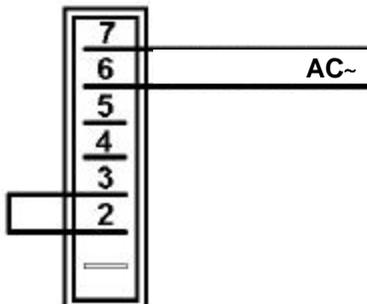


Contact 1 = Empty (No Lead)

Contacts 2-6 = Rotor.

Contacts 3-7 = Stator.

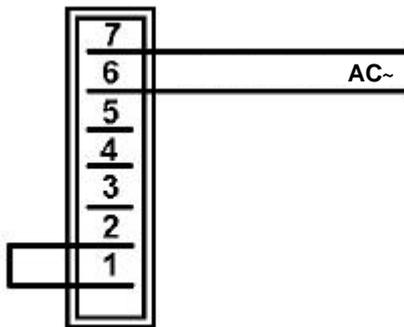
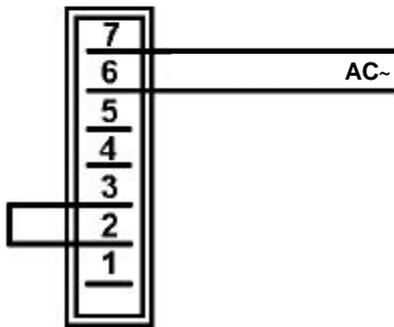
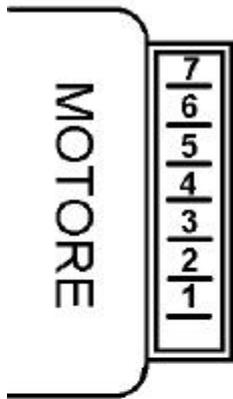
Contacts 4-5 = Tachometric Dynamo.



To perform bench testing, proceed as follows:

- 1°) Contacts **4-5 not connected**.
- 2°) Make **jumper wire** between contacts **2-3**.
- 3°) Give **tension** to contacts **6-7**.

C1d) **COMMUTATOR MOTOR WITH CONNECTOR 7 CONTACTS ON THE SAME LINE:**



Contacts 2-6 = Rotor.

Contacts 3-7 = Stator (Low Speed Rotation).

Contacts 1-7 = Stator (High Speed Rotation).

Contacts 4-5 = Tachometric Dynamo.

To perform **low speed** bench testing, proceed as follows:

- 1°) Contacts **1-4-5 not connected.**
- 2°) Make **jumper wire** between contacts **2-3.**
- 3°) Give **tension** to contacts **6-7.**

To perform **high speed** bench testing, proceed as follows:

- 1°) Contacts **3-4-5 not connected.**
- 2°) Make **jumper wire** between contacts **1-2.**
- 3°) Give **tension** to contacts **6-7.**

Best regards.

GIAS S.r.l.