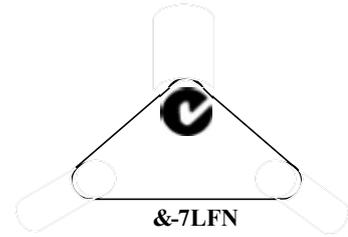




CSL



Systems Built to save

GENERATOR TRACTOR MOUNT

INSTRUCTION MANUAL

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CSL TRACTOR MOUNT GENERATORS



General Description:

CSL Tractor Mount Generators are Three phase, brushless, synchronous generators designed to generate 415 volts 50Hz at 1000 RPM . They are mounted on a zinc and powder coated frame that fits onto the three point linkage of the tractor. The heavy duty coupling shaft slides onto the tractor PTO shaft. The Generators are run and tested to comply with NZS/AS 3010:2007 AND 3000:2007 in our workshop.

Sizing Tractor for Generator:

1kw = 1.34Hp

To get maximum power from the generator the tractor needs to have at least 20% more power than the generator. E.g. 50kw/67Hp generator needs 60kw/82Hp tractor.

Keep in mind a tractor loses power the older it gets. Using a smaller tractor is fine when only using portable sockets on side of generator.

Control Panel:

The control panel has a Voltmeter that displays the 3 phase voltages, a Hertz meter displaying the generator frequency, an Ammeter displaying the 3 phase currents, a Voltage Adjust Potentiometer to increase or decrease the voltage at a set speed, a Red lamp to show generator power available, and a Green lamp to show the main switch is on.



Operation:

1. Fit generator to tractor shaft and 3 point linkage. Ensure shaft far enough in to drive, but not too far in to hit the coupling, Lower generator onto solid, level ground.
2. Plug generator lead into shed inlet plug. This should be connected to a Mains/Off/Gen switch at the shed switchboard.
3. Operate the tractor PTO and run it up to 1000 RPM. At 500 RPM the Hz meter will move but the voltmeter will stay at zero, keep increasing the speed. The Hz meter will drop back. As you near 1000 RPM the Hz meter and the voltmeter will start to move.
4. Run the generator to 51Hz, Voltmeter should read around 420V on all phases.
5. Turn on Main Switch on generator.
6. Turn Mains/Off/Gen switch to Gen.
7. Check direction of a 3 Phase pump (DOL , not on variable speed control).If wrong direction, change phase wires in Mains/Off/Gen switch.
8. Operate all shed electrics, check Generator Hz, Voltage and Amps on each phase. Ensure Frequency is between 50-51Hz, Voltage around 415V, and all phase currents are balanced within 10%.
9. Check that nothing drops out when the washdown and effluent pumps start. If there is a problem soft starters may need to be installed on some pumps.
10. To shut off generator. Turn Mains/Off/Gen switch to Off or Mains
11. Turn off Main switch on generator and stop tractor PTO.

12. Disconnect lead at shed, roll up and secure on generator.

Storage:

Store generator out of weather. The plastic cover will keep the dust off and is designed to be used when the generator is in use to keep the generator dry.

Maintenance:

Grease the drive shaft grease nipples annually.

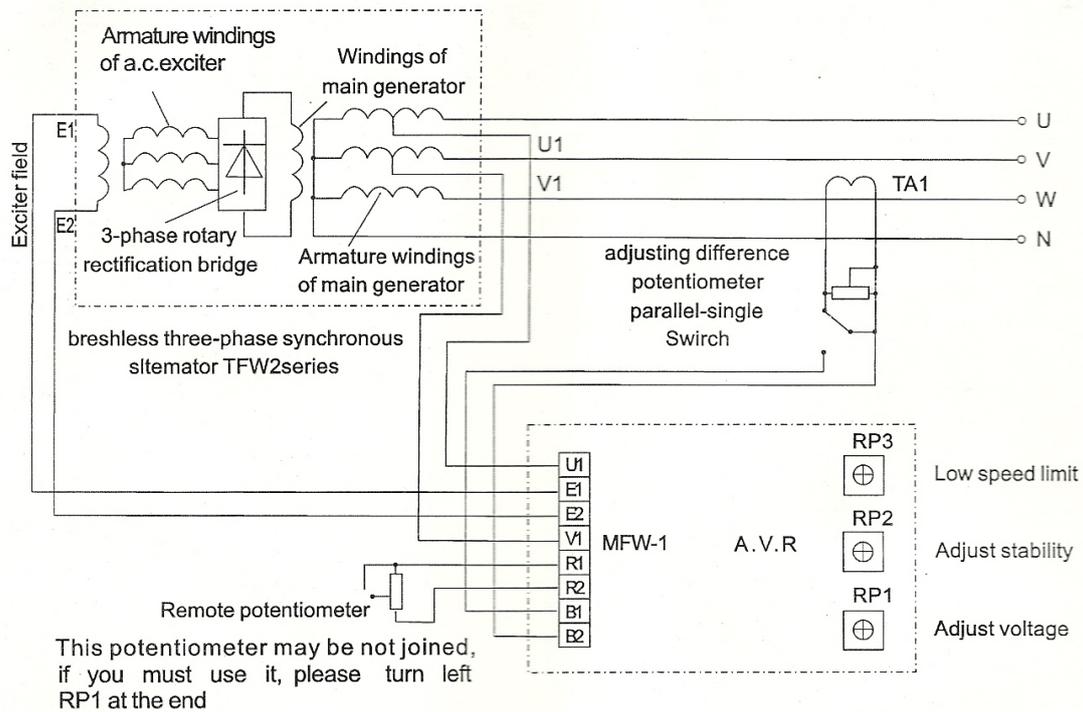
We suggest running the generator for a milking every 6 months, to ensure all is working.

Options:

The generators can be fitted with extra outlets for use on the farm. These include 16Amp 3 Phase outlets and 10Amp Single Phase RCD protected outlets.



Generator Electrical Diagram:



Safety:

Beware of rotating parts, covers are fitted to drive shaft.

Ensure generator is seated on the ground and 3 point linkage is hooked onto tractor before operating.

Connect generator lead to shed before turning on generator main switch (especially in wet conditions).

Warranty:

All parts have a 12month warranty from the date of purchase.