
Capacitor Reforming Procedure After Long Storage

General

If the drive was not connected to mains for an extended period of time, the capacitors must be restored to their full performance before the motor is started.

NOTICE

REDUCED CAPACITOR PERFORMANCE

- Apply mains voltage to the drive for one hour before starting the motor if the drive has not been connected to mains for the following periods of time:
 - 12 months at a maximum storage temperature of +50°C (+122°F)
 - 24 months at a maximum storage temperature of +45°C (+113°F)
 - 36 months at a maximum storage temperature of +40°C (+104°F)
- Verify that no Run command can be applied before the period of one hour has elapsed.
- Verify the date of manufacture if the drive is commissioned for the first time and run the specified procedure if the date of manufacture is more than 12 months in the past.

Failure to follow these instructions can result in equipment damage.

If the specified procedure cannot be performed without a Run command because of internal mains contactor control, perform this procedure with the power stage enabled, but the motor being at standstill so that there is no appreciable mains current in the capacitors.

As a function of the duration of storage, you must re-apply voltage progressively to the product to reform the capacitors. Calculate the storage time from the date code of the product and not from the date of delivery.

Storage Temperature Between –25°C (–13°F) and +70°C (158°C)

When the inverter was disconnected over a longer period, the performance of its electrolyte capacitors is reduced. But due to the **active balancing system** no special treatment of the drive is necessary when the maximum storage time has not been exceeded as follows:

- 12 months at a maximum storage temperature of +50°C (122°F)
- 24 months at a maximum storage temperature of +45°C (113°F)
- 36 months at a maximum storage temperature of +40°C (104°F)

Maximum Storage Temperature Exceeded

When the maximum storage temperature has been exceeded, the inverter has to be applied with:

- The AC main voltage (L1, L2, L3 inputs) for about one hour (forming the electrolyte capacitors) before pulse enable takes place. We recommend executing this process already after a shutdown period of 6 months.
- a DC voltage from an external DC supply between PA/+ and PC/- inputs according to the nominal voltage of the drive (tension nominal * SQRT 2)
- Increase the DC voltage step by step until the nominal voltage (with current limitation on the DC external DC supply), then let the drive at DC voltage during one hour minimum before putting the AC voltage and the run order
- DC supply specifications: 600 Vdc - 2 A
- In case of line contactor control the line contactor has to be controlled manually without applying a start command to the frequency inverter.