

**Keywords**

Storage, start-up, capacitors, reform, electrolyte, defective capacitors when switching on

**It concerns**

All units with DC link capacitors

**Problem**

The DC link capacitors are destroyed when switching on after lengthy storage.

**Reason**

The DC link of the KEB COMBIVERT is equipped with electrolytic capacitors. If electrolytic capacitors are stored de-energized, the oxide film working as dielectric fluid reacts with the acidic electrolyte and destroy themselves slowly. This affects the dielectric strength and the capacity.

If the capacitor starts running with rated voltage, it is tried to build the oxide film abrupt again. This causes heat and gas and leads to the destruction of the capacitor.

**Remedy**

In order to avoid defectives, the KEB COMBIVERT must be started up depending on the storage period in accordance with the following specification:

Storage period < 1 year			
• Start-up without special measures			
Storage period 1...2 years			
• Operate frequency inverter one hour without modulation			
Storage period 2...3 years			
• Remove all cables from the power circuit; especially of braking resistor or module			
• Open control release			
• Connect variable transformer to inverter input			
• Increase variable transformer slowly to indicated input voltage (>1 min) and remain at least on the specified time.			
	Voltage class	Input voltage	Residence time
	400 V	0...280 V	15 min
		280...400 V	15 min
		400...500 V	1 h
	690 V	0...420 V	15 min
		420...600 V	15 min
		600...760 V	1 h
Storage period > 3 years			
• Input voltages as before, however double the times per year. Eventually change capacitors.			

After expiration of this start-up the KEB COMBIVERT can be operated on or delivered to a new storage.

**Also see**

-