

Factory testing of VLT[®] Frequency Converters

The below test sequence is used for the factory testing of 380 – 500 Volt VLT[®] Frequency Converters series 5000 (VLT[®] 5060-5600) and series 6000 (VLT[®] 6075-6550).

The test assures that the drives are in compliance with our specifications, which can be documented.

The VLT[®] 5000 and VLT[®] 6000 series are designed to meet the requirements in the national and international standards listed in Certificate of Conformity (document-ID: 501G1026).

UNIT TEST

Combination of Initial and Function tests

Test	Test no.	Description	Remarks
High Potential	0	Insulation test at input/output terminals	2.5 kV DC for 1 second.
Initial Tests (no load connected)	1	Power On	Check that Drive initializes.
	2	Output On	At 60Hz output, check output voltages.
	3	Overvoltage	Check to make sure drive gives warning, trips and resets.
	4	Undervoltage	Check to make sure drive gives warning, trips and resets.
Functional Tests (load connected)	5	Input Current	Check that Input Current is balanced.
	6	Output Current	Check that Output Current is Balanced at rated current.
	7	Current Limit	Check that Output Current > 150% (105% Aqua & Hvac) of rated current is achieved.
	8	2 Phase Short Circuit	2 Output phases shorted together. Drive must trip.
	9	Ground Fault	1 Output phase shorted to ground. Drive must trip.
	10	Switching on Output	Motor can be connected with drive output at 15 Hz and drive does not trip.
	11	Brake Current (option)	Measure braking current.
Final Step		Factory setting	After test the VLT [®] is set up for factory default settings.



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