PERFORMANCE OVERVIEW SECTION ELEC. ENDURANCE STRENGTH LOW VOLTAGE

AC-HIGH CURRENT TESTING

		Test voltage	Test current	Time range
short-circuit	3-phase, 50 Hz	80 V - 800 V	25 kA	t = 60 ms/ protection by fuses
switching capacity / operating behavior	3-phae, 50 Hz	80 V - 800 V	15 kA	t = 300 ms
short-time with-stand current	3-phase, 50 Hz	80 V - 800 V	8 kA	t = 1,000 ms
			4 kA	t = 1,500 ms
			2 kA	t = 2,000 ms
	3-phase, 50 Hz	4 V	2 kA	t = ∞
	1-phase, 50 Hz	4 V	5 kA	t = ∞
	1-phase, 50 Hz	12 V	2 kA	t = ∞
	1-phase, 50 Hz	48 V	7 kA	t = 1,000 ms

DC-HIGH CURRENT TESTING

	Test voltage	Test current	Time range
short-circuit	110 V - 1,100 V	20 kA	t = 60 ms/ protection by fuses
switching capacity / operating behavior	110 V - 1,100 V	15 kA	t = 300 ms
short-time withstand current	110 V - 1,100 V	8 kA	t = 1,000 ms
		4 kA	t = 1,500 ms
		2 kA	t = 2,000 ms
		1 kA	t = 5,000 ms
	3.3 V	4.5 kA	t = ∞
	8 V	1 kA	t = ∞

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ELECTRICAL LIFETIME

		Test voltage	Test current
Alternating current	1 or 3-phase, 50 Hz	80 V - 800 V	15 kA
	1 or 3-phase, 50 Hz	0 V - 1,000 V	200 A
Direct current		110 V - 1,100 V	15 kA
		0 V - 1,300 V	200 A

MECHANICAL LIFETIME

HEATING TEST

			▪ continual data acquisition of temperature and power loss
Alternating current *	3-phase, 2,000 A	regulated	▪ Overload testing
	1-phase, 5,000 A		▪ determination of derating curves
Direct current *	2.000 A	regulated	▪ Cyclical current control

* testing with low voltage ≤ 5 V

POWER-FREQUENCY WITHSTAND: voltage upto 5 VAC

IMPULS WITHSTAND VOLTAGE: 1,2 µs/50 µs up to 24 kV (36 Joule)

CONNECTIONS AND TERMINALS

- longtermheating and ageing testing
- mechanical strength, bending tests, tensile tests
- Proof of rated cross-section

CREEPAGE DISTANCES AND CLEARANCES

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