

→ ELECTROMAGNETIC COMPATIBILITY (EMC)

EN61000-6-3 – Emission standard for residential, commercial and light-industrial environments

Test	Environmental phenomena	Test specifications
EN 55022	Continuous disturbance voltage	Frequency range 150KHz – 30 MHz, DC power port
EN 55022	Radiated disturbance	Frequency range 30 – 1000 MHz, Enclosure port

EN61000-6-2 – Immunity standard for industrial environments

Test	Environmental phenomena	Test specifications
EN 61000-4-2	Electrostatic discharge	8kV Air Discharge, 4kV Contact Discharge, Enclosure port
EN 61000-4-3	Radiated electromagnetic field	10V/m, frequency range 80 – 1000 MHz, Enclosure port
EN 61000-4-4	Electrical Fast Transient/ Burst	2kV, in and out DC power ports
EN 61000-4-5	Surge	+/-0,5kV, in and out DC power ports
EN 61000-4-6	Injected currents	10 Vrms, 150KHz-80MHz, in and out DC power ports

→ SHOCK AND VIBRATIONS

Test	Environmental phenomena	Test specifications
EN 60068-2-6	Sine vibration testing	8,2-500Hz, const. acceleration 40m/s ² , 5 cycles, on 3 axes
EN 60068-2-64	Random vibration test	10-500Hz, acceleration 3g, 1h per axis on 3 axes
EN 60068-2-27	Shock test	Peak acceleration 300g, pulse duration 11ms, on 3 axes

→ ROAD VEHICLES – ISO 7637-2 (Immunity to conducted disturbances)

12-24V system	Test pulse	Severity level	Performance criteria and min. number of pulses
24V	1 -450V	III	C 5000 pulses
24V	2a +50V	IV	A 5000 pulses
24V	2b +20V	IV	C 10 pulses
24V	3a -200V	IV	A 1 hour
24V	3b +200V	IV	A 1 hour
12V (*)	4 -12V	IV	A 1 pulse
24V	5a 350ms +173V R _L =0.5Ω	IV	C 5 pulses

(*) 12V test specifications have greater severity than 24V