

ISO 13063-3:2022-07 (E)

Electrically propelled mopeds and motorcycles - Safety specifications - Part 3: Electrical safety

Contents		Page
FOREWORD		v
1	Scope	1
2	Normative references	1
3	Terms and definitions	1
4	Abbreviated terms	7
5	Voltage classes	7
6	General requirements	8
6.1	Environmental and operational conditions	8
6.2	Marking	8
6.2.1	Marking of voltage class B electric components	8
6.2.2	Marking of voltage class B wiring	8
7	Requirements for protection against electric shock	8
7.1	General requirements	8
7.1.1	General requirements for connected sections of a circuit	8
7.1.2	General requirements for voltage class B	9
7.1.3	Requirements for voltage class A	9
7.1.4	Requirements of voltage class A power cables and conduits	10
7.2	Basic protection	10
7.3	Fault protection and additional measures	10
7.3.1	Equipotential bonding	10
7.3.2	Isolation resistance	11
7.3.3	Provisions for capacitive coupling and capacitive discharge	12
7.3.4	Alternative electrical or mechanical measures	12
7.3.5	De-energization	13
7.3.6	Provision for chassis-connected voltage class B circuit	13
7.4	General requirements for protective provisions	13
7.4.1	General	13
7.4.2	Requirements for insulation of voltage class B	13
7.4.3	Requirements of protective barrier and protective enclosures of voltage class B electric components	14
7.5	Requirements for connectors	14
7.6	Insulation coordination	15
7.7	Alternative approach for protection against electric shock	15
8	Protection against thermal incidents	15
8.1	Overload protection	15
8.2	Short-circuit protection	15
9	Requirements for vehicle power supply circuit	15
10	Owner's guide manual	15
11	Test procedures	16
11.1	General	16
11.2	Continuity test for equipotential bonding	16
11.3	Isolation resistance measurements for voltage class B electric circuits	16
11.3.1	Preconditioning and conditioning	16
11.3.2	Isolation resistance measurements of the balance of electric circuits	16

11.3.3	Isolation resistance measurement of the voltage class B electric power sources	17
11.3.4	Isolation resistance measurement of entire electric circuits.....	19
11.4	Test for isolation resistance monitoring system.....	19
11.5	Touch current.....	19
11.6	Withstand voltage test	20
11.6.1	General	20
11.6.2	Preconditioning and conditioning.....	20
11.6.3	Test procedure.....	21
11.6.4	Test criteria.....	21
11.7	Test method of voltage class A wiring.....	21
11.7.1	Test method for the movable part of the voltage class A wiring.....	21
11.7.2	Test method for withstand voltage.....	21
Bibliography.....		23