المتطلبات الإلزامية الوطنية للإفساح عن منتجات المركبات الكهربائية

بحسب قرار وزير الصناعة والتجارة والسياحة رقم (16) لسنة 2021

وزارة الصناعة والتجارة

إدارة الفحص والمقاييس

15 يوليو 2021

إجراءات تقويم المطابقة للمنتجات المستوردة للغرض التجاري في مملكة البحرين

أولا: متطلبات المركبات الكهربائية

تاريخ التطبيق 28 يوليو 2021
متطلبات الإفساح عن المعاملة الجمركية

متطلبات الإفساح عبر نظام "أفق"	• **فاتورة الشراء** • **قائمة التعبئة (إن وجدت)** • **شهادة مطابقة خليجية صالحة (لكل طراز في الفاتورة)**
المدة اللازمة للبت في المعاملة الجمركية	يوم عمل واحد
تصنيف المنتجات	المركبات الكهربائية
بنود التعرفة المشمولة	87038000

ثانياً: متطلبات شواحن المركبات الكهربائية

تاريخ التطبيق 28 يوليو 2021
متطلبات الإفساح عن المعاملة الجمركية

متطلبات الإفساح عبر نظام "أفق"	• **فاتورة الشراء** • **قائمة التعبئة (إن وجدت)** • **إقرار المصنع يفيد بمطابقة شواحن المركبات الكهربائية للمواصفات الفنية المبينة في الملحق من هذا الدليل والمنصوص عليها بالقرار الوزاري رقم 16 لسنة 2021**
المدة اللازمة للبت في المعاملة الجمركية	يوم عمل واحد
تصنيف المنتجات	شواحن المركبات الكهربائية
بنود التعرفة المشمولة	85044090

ثالثاً: متطلبات بطاريات المركبات الكهربائية

تاريخ التطبيق 28 يوليو 2021
متطلبات الإفساح عن المعاملة الجمركية

متطلبات الإفساح عبر نظام "أفق"	• **فاتورة الشراء** • **قائمة التعبئة (إن وجدت)** • **إقرار المصنع يفيد بمطابقة بطاريات المركبات الكهربائية للمواصفات الفنية المبينة في الملحق من هذا الدليل**

	والمنصوص عليها بالقرار الوزاري رقم 16 لسنة 2021
المدة اللازمة للبت في المعاملة الجمركية	يوم عمل واحد
تصنيف المنتجات	بطاريات المركبات الكهربائية
بنود التعرفة المشمولة	85076000

National mandatory requirements for releasing Electric vehicles

According to the MOIC MO No. 16 for year 2021

Ministry of Industry and Commerce

Testing and Metrology Directorate

15 July 2021

Conformity assessment procedures for imported products for commercial purpose in the Kingdom of Bahrain

First: The requirements for electric vehicles

Application date: July 28, 2021
Customs transaction disclosure requirements

Requirements for disclosure through the "Ofoq" system	• Purchase invoice • Packing List (if applicable) • A valid Gulf conformity certificate (for each model in the invoice)
The period required to decide on a customs transaction	One working day
Product classification	Electric vehicles
Tariff items included	**87038000**

Second: The requirements for electric vehicle chargers

Application date: July 28, 2021
Customs transaction disclosure requirements

Requirements for disclosure through the "Ofoq" system	• Purchase invoice • Packing List (if applicable) • The factory's declaration stating that electric vehicle chargers conform to the technical regulations shown in the appendix of this guide & stipulated in Ministerial order No. 16 of 2021
The period required to decide on a customs transaction	One working day
Product classification	Electric vehicles chargers
Tariff items included	**85044090**

Third: The requirements for electric vehicle batteries

Application date: July 28, 2021

Customs transaction disclosure requirements

Requirements for disclosure through the "Ofoq" system	• Purchase invoice • Packing List (if applicable) • The factory's declaration stating that electric vehicle chargers conform to the technical regulation shown in the appendix of this guide and stipulated in Ministerial Order No. 16 of 2021
The period required to decide on a customs transaction	One working day
Product classification	Electric vehicles batteries
Tariff items included	**85076000**

الملحق: المواصفات القياسية الخاصة بالمركبات الكهربائية

Annex: International Standards for Electrical Motor Vehicles

ISO	IEC	Technical Regulation
Electric road vehicle – Vocabulary		
ISO 8713:2005		Electric road vehicles – Vocabulary
	IEC 60417	Graphical symbols for use on equipment
	IEC 60446	Basic and safety principles for man-machine interface, marking and identification. Identification of conductors by colors or numerals.
	IEC 60529	Degrees of protection provided by enclosures (IP Code)
Batteries		
ISO 6469-1: 2009 Ed. 2		Electric road vehicles - Safety specifications - Part 1: On-board rechargeable energy storage system (RESS)
ISO/DIS 12405-1 under revision		Electrically propelled road vehicles — Test specification for lithium-ion traction battery packs and systems — Part 1: High power applications
ISO/WD 12405-2 under development		Electrically propelled road vehicles — Test specification for lithium-ion traction battery packs and systems — Part 1: High energy applications
	IEC 62619	Secondary cells and batteries containing alkaline or other non-acid electrolytes - Safety requirements for large format secondary lithium cells and batteries for use in industrial applications
	IEC 60050-482	International Electro technical Vocabulary (IEV) - Part 482: Primary and secondary cells and batteries
	IEC 60050-486	International Electro technical Vocabulary (IEV) - Chapter 486:Secondary cells and batteries
	IEC 60622	Secondary cells and batteries containing alkaline or other non-acid electrolytes Sealed nickel-cadmium prismatic rechargeable single cells
	IEC 60623	Secondary cells and batteries containing alkaline or other non-acid electrolytes Vented nickel-cadmium prismatic rechargeable single cells

ISO	IEC	Technical Regulation
	IEC 61434	Secondary cells and batteries containing alkaline or other non-acid electrolytes Guide to the designation of current in alkaline secondary cell and battery standards
	IEC 61982-1 under revision	Secondary batteries (except lithium) for the propulsion of electric road vehicles - Part 1: Performance and endurance tests
	IEC 61982-2	Secondary batteries for the propulsion of electric road vehicles - Part 2: Dynamic discharge performance test and dynamic endurance test
	IEC 61982-3	Secondary batteries for the propulsion of electric road vehicles -Part 3: Performance and life testing (traffic compatible, urban use vehicles)
	IEC 61982-4 IEC 62660-1	Secondary batteries for the propulsion of electric road vehicles – Part 1: Test parameters
	IEC 61982-5 IEC 62660-2	Secondary batteries for the propulsion of electric road vehicles –Part 5: Safety testing for lithium-ion cells and batteries
	IEC 62133	Secondary cells and batteries containing alkaline or other non-acid electrolytes - Safety requirements for portable sealed secondary cells, and for batteries made from them, for use in portable applications
	IEC/TR 62188	Secondary cells and batteries containing alkaline or other non-acid electrolytes – Design and manufacturing recommendations for portable batteries made from sealed secondary cells
	IEC 62281	Safety of primary and secondary lithium cells and batteries during transport
	IEC 62660-1	Secondary lithium-ion cells for the propulsion of electric road vehicles - Part 1: Performance testing
	IEC 62660-2	Secondary lithium-ion cells for the propulsion of electric road vehicles - Part 2: Reliability and abuse testing
	IEC 62485-2	Safety requirements for secondary batteries and battery installations – Part 2: Stationary batteries
	IEC 62485-3	Safety requirements for secondary batteries and battery installations – Part 3: Traction batteries
	IEC/TS 61438	Possible safety and health hazards in the use of alkaline secondary cells and batteries - Guide to equipment manufacturers and users
Charging systems		
	IEC 61439 series	Low-voltage switchgear and control gear assemblies

ISO	IEC	Technical Regulation
	IEC 60947-1	Low-voltage switchgear and control gear – Part 1: General rules
	IEC 60947-2	Low-voltage switchgear and control gear – Part 2 : Circuit-breakers
	IEC 60947-3	Low-voltage switchgear and control gear - Part 3: Switches, disconnections, switch- disconnections and fuse-combination units
	IEC 61851-1	Electric vehicle conductive charging system - Part 1: General requirements
	IEC 61851-21	Electric vehicle conductive charging system - Part 21: Electric vehicle requirements for conductive connection to an a.c./d.c. supply
	IEC 61851-22	Electric vehicle conductive charging system - Part 22: AC electric vehicle charging station
	IEC 61851-23	Electric vehicle conductive charging system - Part 23: d.c. electric vehicle charging station
	IEC 62196-1 under revision	Plugs, socket-outlets, vehicle couplers and vehicle inlets - Conductive charging of electric vehicles - Part 1: Charging of electric vehicles up to 250 A a.c. and 400 A d.c.
	IEC 62196-2 under development	Plugs, socket-outlets and vehicle couplers – Conductive charging of electricity vehicles – Part 2: Dimensional interchangeability requirements for a.c. pin and contact-tube accessories
Wiring, connectors, controllers, rotating machines		
ISO 6722		Road vehicles – 60 V and 600 V single-core cables – Dimensions, test methods and requirements
ISO 4141-1		Multi-core connecting cables – Part 1: Test methods and requirements for basic performance sheathed cables
ISO 4141-2		Multi-core connecting cables – Part 2: Test methods and requirements for high performance sheathed cables
ISO 4141-3		Multi-core connecting cables – Part 3: Construction, dimensions and marking of unscreened sheathed low-voltage cables
ISO 4141-4		Multi-core connecting cables – Part 4: Test methods and requirements for coiled cable assemblies
ISO 14572		Road vehicles – Round, unscreened 60 V and 600 V multicore sheathed cables – Test methods and requirements for basic and high performance cables
ISO 10924-1		Road vehicles – Circuit breakers – Part 1: Definitions and general test requirements

ISO	IEC	Technical Regulation
ISO 10924-4		Road vehicles – Circuit breakers – Part 4: Medium circuit breakers with tabs (blade type), Form CB15
	IEC 60309	(all parts) Plugs, socket-outlets and couplers for industrial purposes
	IEC 60309-1	Plugs, socket-outlets and couplers for industrial purposes – Part 1: General requirements
	IEC 60309-2	Plugs, socket-outlets and couplers for industrial purposes – Part 2: Dimensional interchangeability requirements for pin and contact-tube accessories
	IEC 60309-4	Plugs, socket-outlets and couplers for industrial purposes – Part 4: Switched socket-outlets and connectors with or without interlock
	IEC/TR 60783	Wiring and connectors for electric road vehicles
	IEC 60664-1	Insulation coordination for equipment within low-voltage systems – Part 1: Principles, requirements and tests
	IEC/TR 60783	Wiring and connectors for electric road vehicles
	IEC 60811 series	Common test methods for insulating and sheathing materials of electric cables and optical cables
	IEC 60884	Plugs and socket-outlets for household and similar purposes
	IEC/TR 62602	Conductors of insulated cables – Data for AWG and KCMIL sizes
	IEC 60481	Coupling devices for power line carrier systems
	IEC 61850 series	Communication networks and systems in substations
	IEC/PAS 62559	Intelligrid methodology for developing requirements for energy systems
Vehicle safety & personnel protection		
ISO 6469-1: 2009		Electrically propelled road vehicles -- Safety specifications -- Part 1: On-board rechargeable energy storage system (RESS)
ISO 6469-2: 2009		Electric road vehicles - Safety specifications - Part 2: Vehicle operational safety means and protection against failures
ISO 6469-3: 2001 + ISO 6469-3:2001/Cor 1:2003		Electric road vehicles - Safety specifications - Part 3: Protection of persons against electric hazards

ISO	IEC	Technical Regulation
ISO 6469-3* ed. 2 under publication		Electric road vehicles - Safety specifications - Part 3: Protection of persons against electric hazards
ISO 8820-1: 2008		Road vehicles - Fuse-links - Part 1: Definitions and general test requirements
ISO 8820-6: 2007		Road vehicles - Fuse-links - Part 6: Single- bolt fuse-links
	IEC 61140	Protection against electrical shock – Common aspects for installation and equipment
	IEC/TS 60479 series	Effects of current on human beings and livestock
	IEC 60269-1	Low-voltage fuses – Part 1 : General requirements
	IEC 62335	Circuit breakers – Switched protective earth portable residual current devices for class I and battery powered vehicle applications
	IEC 60755	General requirements for residual current operated protective devices
EMC (Electro-magnetic compatibility)		
	IEC 61000-3-2	Electromagnetic compatibility (EMC) – Part 3-2: Limits – Limits for armonic current emissions (equipment input current < 16 A per phase)
	IEC 61000-3-3	Electromagnetic compatibility (EMC) – Part 3-3: Limits – Limitation of voltage changes, voltage fluctuations and flicker in public low-voltage systems for equipment with rated current ≤ 16 A per phase and not subjected to conditional connection
	IEC 61000-3-12	Electromagnetic compatibility (EMC)--Part 3-4 Limits – Limitation of mission of harmonic currents in low-voltage power supply systems for equipment with rated current > 16 A
	IEC 61000-3-11	Electromagnetic Compatibility (EMC) – Part 3-11 – Limits – Limitation of voltage changes, voltage fluctuations and flicker in public low-voltage systems - Equipment with rated current ≤ 75 A per phase and subjected to conditional connection
	IEC 61000-3-12	Electromagnetic Compatibility (EMC) – Part 3-12 – Limits for harmonic current emissions produced by equipment connected to public low-voltage systems with input current > 16 A and ≤ 75 A per phase
	IEC 61000-4-1	Electromagnetic compatibility (EMC) – Part 4-1 – Testing and measurement techniques – Overview of IEC 61000-4 series

ISO	IEC	Technical Regulation
	IEC 61000-4-2	Electromagnetic compatibility (EMC) – Part 4-2 – Testing and measurement techniques – Electrostatic discharge immunity test
	IEC 61000-4-3	Electromagnetic compatibility (EMC) – Part 4-3 – Testing and measurement techniques – Radiated, radio-frequency, electromagnetic filed immunity test
	IEC 61000-4-4	Electromagnetic Compatibility (EMC) – Part 4-4 – Testing and measurement techniques – Electrical fast transients/burst immunity test
	IEC 61000-4-5	Electromagnetic Compatibility (EMC) – Part 4-5 – Testing and measurement techniques – Surge immunity test
	IEC 61000-4-6	Electromagnetic Compatibility (EMC) – Part 4-6 – Testing and measurement techniques – Immunity to conducted disturbances, induced by radio-frequency fields
	IEC 61000-4-7	Testing and measurement techniques – General guide on harmonics and interharmonics measurements and instrumentation, for power supply systems and equipment connected thereto
	IEC 61000-4-8	Electromagnetic Compatibility (EMC) – Part 4-8 – Testing and measurement techniques – Power frequency magnetic field immunity test
	IEC 61000-4-11	Electromagnetic compatibility (EMC) – Part 4-11: Testing and measurement techniques – Voltage dips, short interruptions and voltage variations immunity tests
	IEC 61000-4-13	Electromagnetic compatibility (EMC) - Part 4-13: Testing and measurement techniques - Harmonics and interharmonics including mains signalling at a.c. power port, low frequency immunity tests
	IEC 61000-4-15	Electromagnetic compatibility (EMC) - Part 4-15: Testing and measurement techniques – Flickermeter – Functional and design specifications
	IEC 61000-4-21	Electromagnetic compatibility (EMC) – Part 4-21: Testing and measurement techniques – Reverberation chamber test methods
	IEC 61000-6-1:2005	Electromagnetic Compatibility (EMC) – Part 6-1 – Generic standards Immunity for residential, commercial and light-industrial environments
	IEC 61000-6-2	Electromagnetic Compatibility (EMC) – Part 6-2 – Generic standards Immunity for industrial environments
	IEC 61000-6-3:2006	Electromagnetic Compatibility (EMC) – Part 6-3 – Generic standards Emission standard for residential, commercial and light-industrial environments
	IEC 61000-6-4:2006	Electromagnetic Compatibility (EMC) – Part 6-4 – Generic standards Emission standard for industrial environments

ISO	IEC	Technical Regulation
	CISPR 22	Information Technology Equipment - Radio Disturbance Characteristics - Limits and Methods of Measurement.
	CISPR 11	Industrial, Scientific and Medical (ISM) Radio-Frequency Equipment - Electromagnetic disturbance characteristics - Limits and methods of measurement.
	CISPR 16-X-X	Specification for radio disturbance and immunity measuring apparatus and methods
	CISPR 12	Vehicles, boats and internal combustion engine driven devices - Radio disturbance characteristics - Limits and methods of measurement for the protection of receivers except those installed in the vehicle/boat/device itself or in adjacent vehicles/boats/devices.
	CISPR 25	Radio disturbance characteristics for the protection of receivers used on board vehicles, boats, and on devices - Limits and methods of measurement
	IEC 61204-3	Low-Voltage Power Supplies, D.C. Output – Part 3: Electromagnetic Compatibility (EMC)
	IEC 62040-2	Uninterruptible power systems (UPS) – Part 2: Electromagnetic compatibility (EMC) requirements
	IEC 60050 (161)	International Electrotechnical Vocabulary (IEV) – Chapter 161: Electromagnetic compatibility
	IEC 60870-2-1	Telecontrol equipment and systems – Part 2: Operating conditions – Section 1: Power supply and electromagnetic compatibility
Measurements of electrical vehicle performance		
ISO 8715:2001		Electric road vehicles - Road operating characteristics
ISO 8714:2002		Electric road vehicles - Reference energy consumption and range - Test procedures for passenger cars and light commercial vehicles
ISO 8715		Electrically propelled road vehicles - Measurement of road operating ability - Part 1: Pure electric vehicles

ISO	IEC	Technical Regulation
ISO 8714		Electrically propelled road vehicles - Measurement of energy performances - Part 1: Pure electric vehicles
UNECE and FMVSS Regulations		
UNECE Regulation 100		the approval of vehicles with regard to specific requirements for the electric power train
UNECE Regulation 12		the approval of vehicles with regard to the protection of the driver against the steering mechanism in the event of impact
UNECE Regulation 121		the approval of vehicles with regard to the location and identification of hand controls, tell-tales and indicators
UNECE Regulation 94		the approval of vehicles with regard to the protection of the occupants in the event of a frontal collision
UNECE Regulation 95		the approval of vehicles with regard to the protection of the occupants in the event of a lateral collision
UNECE Regulation 32		The Approval Of Vehicles With Regard To The Behavior Of The Structure Of The Impacted Vehicle In A Rear-End Collision
FMVSS 305		Electric-Powered Vehicles: Electrolyte Spillage and Electrical Shock Protection