

Protocol 333-E

Portable Power Bank

Test Property	Test Method	Samples	Test Principle / Requirements	Rating (Section or exec. Summary which failed items can be referenced)
LABELING				
Labeling / Packaging Review	FPLA 16 CFR 500 & 19 CFR 134	All Samples	Should be legibly marked with the following information: Distributor's name, trademark or other means of identification of the manufacturer or packer & address (City, State & Zip) Product identification Net quantity of the contents in terms of weight, measure or numerical count (Metric & US Standard) or a combination so as to give accurate information and facilitate value comparison by the consumer Country Of Origin (If Imported)	
Verify Label Claims	Visual Check	All Samples	The labeling must comply and valid with all claims.	
FCC Labeling (If Applicable)	47 CFR / FCC Part 15	All Samples	Product with digital electronic circuits with operating characteristics falling under the scope of FCC Part 15 shall meet Class B requirement and affix with the substances of the following labeling: "This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation." In addition, user manual shall contain the required FCC statement (See Table 1) Test report shall be submitted to support the claim of FCC compliance. Designs claimed to be exempt from FCC equipment authorization due to an unobvious feature (like electronic frequency), must be submitted with acceptable supporting technical documents.	
Adult Tracking Label: **If space limitations exist, contact Kohl's Quality Assurance & Product Integrity teams to discuss minimum required information: (quality.assurance@kohls.com). **	Kohl's Requirement	All Samples	Kohl's Assigned Factory Number Manufacture Date (Month/Year) UPC #	
Product Marking	Visual Check	1 Sample	The body of scale should be marked with the following: Manufacturer name, Trade mark, etc. - Model name. - Capacity - Input rating - Output rating	
Rechargeable Batteries (If Applicable)	Battery Act	All Samples	Rechargeable cell batteries must be labeled  Nickel-Cadmium Batteries Must Be Labeled "Nickel-Cadmium" or "Ni-Cd," with the phrase "BATTERY MUST BE RECYCLED OR DISPOSED OF PROPERLY." Regulated Lead-Acid Batteries Must Be Labeled "Pb" or with words "LEAD," "RETURN", and "RECYCLE" and if the regulated batteries are sealed, the phrase "BATTERY MUST BE RECYCLED." Non Removable Regulated Lead-Acid Batteries Must Be Labeled With the Phrase "CONTAINS SEALED LEAD BATTERY. BATTERY MUST BE RECYCLED."	
Lithium cells and batteries (If applicable)	49CFR. 173.185 (a)	All Samples	Each lithium cell or battery must be of the type proven to meet the criteria in Part III, sub-section 38.3 of the UN Manual of Test and Criteria. Valid test report shall be provided.	
Marking on the outside case of lithium ion battery (For rechargeable battery only, if applicable)	49CFR. 173.185 (c)	All Samples	Each lithium ion battery subject to this provision must be marked with the Watt-hour rating on the outside case.	
Standard Compliance of Li-ion Battery	General requirement	All Samples	Test report shall be provided for checking the compliance of Li-ion battery with the applicable standard, for example, UN38.3 or UL1642.	

California Energy Commission – Appliance Energy Efficiency Compliance Regulation CEC-400	Visual Check	All Samples	For products that may be sold in California: Covered products shall comply with the regulations and/or listed in the CEC Appliance Efficiency Database. Valid test report issued by authorized lab shall be provided for verifying. The products shall comply with the requirements of marking by the CEC-400 regulations. The CEC Appliances Efficiency Database: http://www.appliances.energy.ca.gov/AdvancedSearch.aspx The transformer shall be marked with : - Manufacturer name or trademark - Model no. - Date or date code of manufacturer	
DOE Requirement for Battery chargers	10 CFR § 429.39 § 430.2 § 430.23(aa) § 430.32(z) 81 FR 38266	All Samples	Battery chargers manufactured or imported into the USA on or after June 13, 2018, must have a unit energy consumption (UEC) less than or equal to the prescribed "Maximum UEC" standard when using the equations for the appropriate product class and corresponding rated battery energy See the table in 10 CFR § 430.32(z). The valid third-party energy efficiency report shall be verified Product listing shall be verified in DOE Compliance Certification Management System ("CCMS"). http://www.regulations.doe.gov/certification-data/	
External power supplies efficiency - labeling	10 CFR 430	All Samples	EPS shall be listed in DOE Compliance Certification Database: http://www.regulations.doe.gov/certification-data/ In additional, EPS shall be marked with the applicable Efficiency Level: Direct operation EPS: VI or above Indirect operation class A EPS: IV or above	
External power supplies, etc-Doc	10 CFR 430	All Samples	Efficiency and No load power use shall comply with the requirements of 10 CFR 430.32 (W). Exceptions: Direct Operation, AC-DC, Low-Voltage with nameplate output voltage less than 3 voltage and nameplate output current greater than or equal to 1,000 milliamps and charges the battery of a product that is fully or primarily motor operated An external power supply that requires Federal Food and Drug Administration (FDA) listing and approval as a medical device in accordance with section 513 of the Federal Food, Drug, and Cosmetic Act (21 U.S.C. 360(c)) An AC- to- AC external power supply with a nameplate output of 20 watts or more, that is certified to the Secretary as being designed to be connected to a security or life safety alarm or surveillance system component. In lieu of testing, test report can be submitted if dated within two years.	
*Reese's Law Supplemental Protocol	Refer to Protocol 1700	All Samples	All samples shall be reviewed against the requirements of Reese's Supplement Protocol to determine if additional testing or labeling is required	
MARKINGS AND INSTRUCTIONS				
Instructions	Visual Check	All Samples	Should be complete and accurate Should provide use, care, and maintenance information, as well as disposal of batteries information.	
Durability of Marking	Kohl's TM 50	1 Sample	Rub marking gently by hand with a damp cloth for the below defined seconds, followed by a cloth wetted slightly with petroleum spirit for another same timing. Marking shall remain legible. Tier 1: 15 sec. Tier 2: 20 sec Remark: Performs on product	
PHYSICAL CHARACTERISTICS				
Dimensions (LxWxH) (In.)	FPLA/ UPLR	1 Sample	As claimed/ measured (+3% / -0%)	
Weight (Lbs.)	Std. Measure	1 Sample	Shall conform to all claims	
Battery	Visual Check	1 Sample	Report the battery type and numbers required.	
CONSTRUCTION / WORKMANSHIP				

Kohl's Workmanship Review	Visual Check / Actual Use	1 Sample	All components shall be provided as claimed and shall not be deformed or fractured. All hardware shall be provided All welds shall be smoothly finished and free from pits and splatter All components shall not contain any burrs or sharp edges (test by touch or sight) Product shall not contain any loose components or unsecured fastening where rigidity is required	
Material Type	Visual Check	All Samples	Shall be constructed of materials suitable for the intended environment	
PERFORMANCE				
Functional Check	Actual use	1 Sample	All the major features shall match the installation and use instructions and claims made on the packaging, with no inaccurate or misleading statements about the product, or any other user-friendliness problems.	
Output voltage test	Actual use	1 Sample	The output voltage for each output port shall be measured and reported in comparison with the claims.	
Charge time	Actual use	1 Sample	When the unit drains, recharge it. Report the charge time Charge time: _____/Claimed: _____(if any)	
Overcharge Test	Actual use	1	Fully charge the product according to user instruction. Additional charge for 24 hours. No overheat; melting of parts and chemical leakage shall occur.	
Battery capacity	Actual use	1 Sample	The capacity shall be greater than or equal to the rated capacity declared by the battery manufacturer. When fully charged, the sample shall be discharged at the steady current of C/5. Record the discharge time, and calculate battery capacity.	
Plug & Unplug endurance test	Actual use	1 Sample	Plug/Unplug the USB cable attachments to/from the sample receptacles, each for 200 times. After the test, the plug of the cable and the receptacles of the unit shall function well as usual.	
Maximum surface temperature rise test	Actual use	1 Sample	When tested at lab temperature, the surface temperatures rise of the sample with the maximum load shall not exceed those specified as below. Metal surface: 86°F (30°C) Nonmetallic surface: 122°F (50°C)	
Drop test	Kohl's TM 55	1 Sample	The sample is to be dropped freely from a height of 1 m (3.28 ft) so it strikes a concrete surface in the position that is most likely to produce the adverse. Sample is to be dropped three times. The samples shall not explode or catch fire.	
Over discharge protection	Actual use	1 Sample	Li-ion battery of power bank shall be prevented from being over discharged. The compliance is checked by the following test. Discharge the unit as normal until it is fully discharged, and then discharge it for additional 8 hours. The over discharge cut-off voltage of battery shall not be less than 2.75V.	
Impact test	UL 1642 Cls. 14	1	A test sample battery is to be placed on a flat surface. A 15.8 ±0.1 mm (5/8 ±0.004 inch) diameter bar is to be placed across the center of the sample. A 9.1 ±0.46 kg (20 ± 1 pound) weight is to be dropped from a height of 610 ±25 mm (24 ±1 inch) onto the sample. The samples shall not explode or catch fire.	
Short-circuit test	UL 1642 Cls 10	1	The test sample battery is to be short-circuited by connecting the positive and negative terminals of the battery with a circuit load having a resistance load of 80 ±20 mW. The temperature of the battery case is to be recorded during the test. The battery is to discharge until a fire or explosion is obtained, or until it has reached a completely discharged state of less than 0.2 volts and the battery case temperature has returned to ±10°C (±18°F) of ambient temperature. The voltage at the end of the test may not reach 0.2 volts due to operation of protective devices in the circuit. The return to near ambient of the battery (cell) casing in an indication of ultimate results. The sample shall not explode or catch fire. The temperature of the cell or battery casing shall not exceed 150°C (302°F).	
Crush test	UL 1642, 4th Cls. 13	1	A battery is to be crushed between two flat surfaces. The force for the crushing is to be applied by a hydraulic ram or similar force mechanism. The flat surfaces are to be brought in contact with the cells and the crushing is to be continued until an applied force of 13 ±1kN (3000 ±224 pounds) is reached. Once the maximum force has been obtained it is to be released. The samples shall not explode or catch fire.	
Switch Durability	Actual use	1 Sample	Shall withstand below number of cycles without failure or loss of functionality. Tier 1: 100 Cycles Tier 2: 150 Cycles	
Effects of Humidity	Actual Use	1 Sample	No failure @ 95% RH @ 100°F (38°C) for below defined hours. Tier 1 / Tier 2 : 24 hours Tier 3: 48 hours	

Cross-cut adhesion	ASTM D3359 Method B	1 Sample	A lattice pattern with six cuts in each direction is made in the film to the substrate; pressure-sensitive tape is applied over the lattice and then removed. Client's Requirement: Tier 1: 3B; Tier 2: 4B	
ANALYTICAL				
* Lead In Scrapable Surface Coating	CPSC-CH-E1003-09	1 Sample	≤90 ppm (0.0090% by weight).	
* CA Prop 65	Refer to Protocol 1300	All Samples	All samples shall be reviewed against the requirements of California Proposition 65 to determine if additional testing or labeling is required.	

Table 1 – FCC Warning in Instruction Manual

FCC Warning

Warning: Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Protocol Version	Description of Change	Revised by / Date	Approved by / Date
333-A	Initial Release	LT Liu March 17, 2015	Elizabeth Armstrong March 17, 2015
333-B	Update the requirement of CEC, and add the test item of DOE	Elizabeth Armstrong March 15, 2016	Jeetendra Sheltakar March 15, 2016
333-C	Added lithium cells and batteries testing, markings on the case of lithium ion battery, and DOE requirement for battery chargers testing	Charlene Swanson Sept 2020	Charlene Swanson Sept 2020
333-D	Added Reese's Law Requirements	Jackie Deppisch November 2023	Jackie Deppisch November 2023