

Explanatory sheet about safety of product for transportation
(Safety Data Sheet for transportation)

1. Basic item

Product name : Lithium ion battery
("Lithium ion battery includes lithium polymer battery in this document")

UN number : 3480

Product code : Refer to Table1.

Product model name : Refer to Table1.

Manufacturer : Panasonic Corporation

Address : 1-10-12 Yagumo-higashi-machi, Moriguchi City, Osaka, Japan

Department in charge : Hardware Development Department
Mobile Solutions Business Division

Emergency Contact : Outside the United States +1-703-527-3887
(call CHEMTREC) in the United States 1-800-424-9300

2. Product information

Basic composition of the product

This product is a battery which consists of such main component as core battery pack assembled with some Lithium ion cells. And it consists of any combination of plastic casing, tube casing, protection circuit boards, safety devices and interface terminals.

3. Safety Information

- Panasonic certifies the battery has passed and satisfied the UN Manual of Tests and Criteria Part III, sub-section 38.3 testing in Panasonic shipping.
- Panasonic manufactured the battery under the quality management program required in UN Model regulations 2.9.4(e).

3-1) Component cell

The Watt-hour rating of the component Lithium ion cells is not more than 20Wh.

Refer to Appendix "SDS (SDS-IBT-00030)".

3-2) Battery pack

1. The Watt-hour rating of the battery is not more than 100Wh.
2. Packages of the battery satisfy the following conditions when Panasonic ships.
 - (1) The package has passed the drop test from the height of 1.2m.
 - (2) The package net weight is not more than 10kg.
3. The battery is not defective for safety reasons, not damaged. It is not collected battery for recycling or disposal.
4. The battery is not subject to the fully regulated requirements for Dangerous Goods in ocean and ground transportation.
5. The battery should be transported by Cargo aircraft as UN3480, Class 9 Dangerous Goods, and state of charge not exceeding 30%, according to requirement of the Packing Instruction 965 Section IB stated in ICAOs' and IATA's dangerous goods regulations.

Hardware Development Department
Mobile Solutions Business Division
Connected Solutions Company
Panasonic Corporation

Table 1. Applied Model Name

| Model Information | | | Cell | | | Battery Pack | | | | | | Product code |
|--------------------------------|---|--|------------|---------------------|-------------------------|---------------------|---------------------------|-------------------------|------------------|-------------|-------------------------------|--|
| Panasonic Toughbook Model Name | Battery Pack Model Name | Product Model Name | Cell Name | Nominal Voltage (V) | Rated Capacity Min.(Ah) | Nominal Voltage (V) | Nominal Capacity Typ.(Ah) | Rated Capacity Min.(Ah) | Watt-hour Rating | Cell number | Lithium equivalent content(g) | |
| AL-N2 | AL-NFBL020J | CGR-B/303B | CGR18650 | 3.6 | 1.2 | 10.8 | 1.2 | 1.2 | 13 | 3 | 1.08 | CGR-B/303B |
| CF-07 | CF-VZSU21 CF-VZSU21JS CF-VZSU21W | 2UF103450P-MDS-07 2UF103450P-B002A | UF103450P | 3.7 | 1.7 | 7.4 | 1.7 | 1.7 | 13 | 2 | 1.02 | N4HULPA00009 N4HULPA00013 |
| CF-08 | CF-VZSU44 CF-VZSU44U | 2UR18650F-2-MDS-08 2UR18650F-2-MDS-13 | UR18650F | 3.7 | 2.5 | 7.4 | 5.2 | 5 | 37 | 4 | 3.00 | N4HULSA00007 N4HULSA00012 |
| CF-08 | CF-VZSU44CJS | 2UR18650F-2-MDS-14 | UR18650F | 3.7 | 2.5 | 7.4 | 5.2 | 5 | 37 | 4 | 3.00 | N4HULSA00010 |
| CF-18 | CF-VZSU36 | CGR-B/6B4B | CGR18650CA | 3.7 | 2.04 | 7.4 | 6.6 | 6.12 | 46 | 6 | 3.67 | CGR-B/6B4B |
| CF-18 | CF-VZSU30 CF-VZSU30U | CGR-B/6B2A | CGR18650CA | 3.7 | 2.04 | 7.4 | 6.6 | 6.12 | 46 | 6 | 3.67 | CGR-B/6B2A |
| CF-18 | CF-VZSU30A CF-VZSU30AU | CGR-B/6C2A | CGR18650D | 3.7 | 2.22 | 7.4 | 7.05 | 6.66 | 50 | 6 | 4.00 | CGR-B/6C2A |
| CF-18 | CF-VZSU30B CF-VZSU30BU | CGR-B/6D8H CGR-B/6D8M CGR-B/6D8T 2CGR18650E3-B005A | CGR18650E | 3.7 | 2.42 | 7.4 | 7.65 | 7.26 | 54 | 6 | 4.36 | CGR-B/6D8H CGR-B/6D8M CGR-B/6D8T N4HULTA00025 |
| CF-18 | CF-VZSU30BR | CGR-B/6D8J CGR-B/6D8L CGR-B/6D8N CGR-B/6D8R | CGR18650E | 3.7 | 2.42 | 7.4 | 7.65 | 7.26 | 54 | 6 | 4.36 | CGR-B/6D8J CGR-B/6D8L CGR-B/6D8N CGR-B/6D8R |
| CF-18 | CF-VZSU30BR2 | CGR-B/6D8K CGR-B/6D8P | CGR18650E | 3.7 | 2.42 | 7.4 | 7.65 | 7.26 | 54 | 6 | 4.36 | CGR-B/6D8K CGR-B/6D8P |
| CF-19 | CF-VZSU48 CF-VZSU48U | NCR-B/603E NCR-B/603K 3NCR18650T2-B00MA BJ-A330074CA BJ-A330074DA | NCR18650 | 3.55 | 2.7 | 10.65 | 5.7 | 5.4 | 58 | 6 | 4.86 | NCR-B/603E NCR-B/603K N4HUNSA00030 N4HUNSA00061 N4HUNSA00077 |
| CF-19 | CF-VZSU48R | NCR-B/603F 3NCR18650T2-B007A 3NCR18650T2-B00ME BJ-A330078AB BJ-A330078BB BJ-A330078DA | NCR18650 | 3.55 | 2.7 | 10.65 | 5.7 | 5.4 | 58 | 6 | 4.86 | NCR-B/603F N4HUNSA00021 N4HUNSA00034 N4HUNSA00042 N4HUNSA00053 N4HUNSA00078 |
| CF-19 | CF-VZSU48R2 | NCR-B/603G 3NCR18650T2-B00MB | NCR18650 | 3.55 | 2.7 | 10.65 | 5.7 | 5.4 | 58 | 6 | 4.86 | NCR-B/603G N4HUNSA00031 |
| CF-19 | CF-VZSU48K | NCR-B/603H 3NCR18650T2-B00MC BJ-A330076CA | NCR18650 | 3.55 | 2.7 | 10.65 | 5.7 | 5.4 | 58 | 6 | 4.86 | NCR-B/603H N4HUNSA00032 N4HUNSA00079 |
| CF-19 | CF-VZSU50 CF-VZSU50W | NCR-B/607C NCR-B/607D 3NCR18650T2-B00MF BJ-A330080BA BJ-A330080CA | NCR18650 | 3.55 | 2.7 | 10.65 | 5.7 | 5.4 | 58 | 6 | 4.86 | NCR-B/607C NCR-B/607D N4HUNSA00035 N4HUNSA00062 N4HUNSA00081 |
| CF-19 | CF-VZSU58U | 3UR18650ZT-2-MDS19 3UR18650ZT-2-MDS-4 | UR18650ZT | 3.7 | 2.65 | 11.1 | 5.6 | 5.3 | 59 | 6 | 4.77 | N4HUNSA00012 N4HUNSA00018 |
| CF-19A/B/X/1/2/3 (JP) | CF-VZSU48CJS | NCR-B/699A 3NCR18650T2-B00MD BJ-A330077BA | NCR18650 | 3.55 | 2.7 | 10.65 | 5.7 | 5.4 | 58 | 6 | 4.86 | NCR-B/699A N4HUNSA00033 N4HUNSA00080 |
| CF-19 | CF-VZSU87E | 3NCR18650F2-B00EA 3NCR18650F2-B00NA BJ-A330079BA BJ-A330079CA | NCR18650F | 3.55 | 2.7 | 10.65 | 5.7 | 5.4 | 58 | 6 | 4.86 | N4HUNSA00025 N4HUNSA00036 N4HUNSA00063 N4HUNSA00082 |
| CF-19 | CF-VZSU87R | 3NCR18650F2-B00NB BJ-A330148BA BJ-A330148CA | NCR18650F | 3.55 | 2.7 | 10.65 | 5.7 | 5.4 | 58 | 6 | 4.86 | N4HUNSA00041 N4HUNSA00056 N4HUNSA00083 |
| CF-20 FZ-A2 | CF-VZSU0QW | BJ-HM30001AA BJ-HM30001GA | UF515761ST | 3.8 | 2.6 | 11.4 | 2.72 | 2.6 | 30 | 3 | 2.34 | N4HUNQA00010 N4HUNQA00026 |
| CF-20 FZ-A2 | CF-VZSU0QJS | BJ-HM30001BA BJ-HM30001HA | UF515761ST | 3.8 | 2.6 | 11.4 | 2.72 | 2.6 | 30 | 3 | 2.34 | N4HUNQA00012 N4HUNQA00025 |
| CF-20 FZ-A2 | CF-VZSU0QR | BJ-HM30001DA BJ-HM30001JA | UF515761ST | 3.8 | 2.6 | 11.4 | 2.72 | 2.6 | 30 | 3 | 2.34 | N4HUNQA00018 N4HUNQA00027 |
| CF-20 FZ-A2 | CF-VZSU0QQ | BJ-HM30001EA BJ-HM30001KA | UF515761ST | 3.8 | 2.6 | 11.4 | 2.72 | 2.6 | 30 | 3 | 2.34 | N4HUNQA00023 N4HUNQA00028 |
| CF-20 FZ-A2 | CF-VZSU0QK | BJ-HM30001FA BJ-HM30001LA | UF515761ST | 3.8 | 2.6 | 11.4 | 2.72 | 2.6 | 30 | 3 | 2.34 | N4HUNQA00024 N4HUNQA00029 |
| CF-28/48/50 | CF-VZSU18B CF-VZSU18BU | 3UR18650F-3-MDS-50 3UR18650F-3-MDS-12 | UR18650F | 3.7 | 2.1 | 11.1 | 6.6 | 6.3 | 70 | 9 | 5.67 | N4HUNSA00009 N4HUNSA00019 |
| CF-28/48/50 | CF-VZSU18 CF-VZSU18U | 3UR18650P-3-MDS-48 | UR18650P | 3.7 | 1.7 | 11.1 | 5.4 | 5.1 | 57 | 9 | 4.59 | N4HUNSA00010 |
| CF-25 | CF-VZS251 CF-VZS251AJ CF-VZS251AW | CGR-B/607C | CGR18650 | 3.6 | 1.225 | 10.8 | 2.45 | 2.45 | 27 | 6 | 2.21 | CGR-B/607C |
| CF-29 | CF-VZSU29 CF-VZSU29U | CGR-B/957A | CGR18650CA | 3.7 | 2.04 | 11.1 | 6.6 | 6.12 | 68 | 9 | 5.51 | CGR-B/957A |
| CF-29 | CF-VZS29R | CGR-B/957B | CGR18650CA | 3.7 | 2.04 | 11.1 | 6.6 | 6.12 | 68 | 9 | 5.51 | CGR-B/957B |
| CF-29 | CF-VZSU29A CF-VZSU29AU | CGR-B/982D | CGR18650E | 3.7 | 2.42 | 11.1 | 7.65 | 7.26 | 81 | 9 | 6.53 | CGR-B/982D |
| CF-29 | CF-VZSU29AR | CGR-B/982E | CGR18650E | 3.7 | 2.42 | 11.1 | 7.65 | 7.26 | 81 | 9 | 6.53 | CGR-B/982E |
| CF-29/51/52 | CF-VZSU29AS CF-VZSU29ASU | 3UR18650F-3-MDS-52 3UR18650F-3-MDS52F 3UR18650F-3-MDS-14 3UR18650F3-B006A BJ-A130301BA | UR18650F | 3.7 | 2.5 | 11.1 | 7.8 | 7.5 | 84 | 9 | 6.75 | N4HUNTA00006 N4HUNTA00010 N4HUNTA00011 N4HUNTA00025 N4HUNTA00052 |
| CF-29/51/52 | CF-VZSU29ASR | 3UR18650F-3-MDS52C | UR18650F | 3.7 | 2.5 | 11.1 | 7.8 | 7.5 | 84 | 9 | 6.75 | N4HUNTA00008 |
| CF-29/51/52 | CF-VZSU29ASK | 3UR18650F-3-MDS52K 3UR18650F3-B003A | UR18650F | 3.7 | 2.5 | 11.1 | 7.8 | 7.5 | 84 | 9 | 6.75 | N4HUNTA00009 N4HUNTA00015 |

| Model Information | | | Cell | | | Battery Pack | | | | | | Product code |
|--------------------------------|-----------------------------|---|------------|---------------------|-------------------------|---------------------|---------------------------|-------------------------|------------------|-------------|-------------------------------|---|
| Panasonic Toughbook Model Name | Battery Pack Model Name | Product Model Name | Cell Name | Nominal Voltage (V) | Rated Capacity Min.(Ah) | Nominal Voltage (V) | Nominal Capacity Typ.(Ah) | Rated Capacity Min.(Ah) | Watt-hour Rating | Cell number | Lithium equivalent content(g) | |
| CF-30 | CF-VZSU46 CF-VZSU46U | NCR-B/901D NCR-B/901K 3NCR18650T3-B009B BJ-A330121BA BJ-A330121FA | NCR18650 | 3.55 | 2.7 | 10.65 | 8.55 | 8.1 | 87 | 9 | 7.29 | NCR-B/901D NCR-B/901K N4HUNTA00022 N4HUNTA00032 N4HUNTA00066 |
| CF-30 | CF-VZSU46R | NCR-B/901E NCR-B/922RE NCR-B/922SE NCR-B/922VE NCR-B/922YE BJ-A330248AA | NCR18650 | 3.55 | 2.7 | 10.65 | 8.55 | 8.1 | 87 | 9 | 7.29 | NCR-B/901E NCR-B/922RE NCR-B/922SE N4HUNTA00034 N4HUNTA00040 N4HUNTA00062 |
| CF-30 | CF-VZSU46T | NCR-B/901F NCR-B/901H NCR-B/901JE NCR-B/901L NCR-B/901ME 3NCR18650T3-B009C | NCR18650 | 3.55 | 2.7 | 10.65 | 8.55 | 8.1 | 87 | 9 | 7.29 | NCR-B/901F NCR-B/901H NCR-B/901JE NCR-B/901L NCR-B/901ME N4HUNTA00023 |
| CF-31/53 | CF-VZSU46AU CF-VZSU46AUB | NCR-B/916A NCR-B/916BE 3NCR18650T3-B002A 3NCR18650T3-B002B NCR-B/922AE NCR-B/922BE 3NCR18650T3-B009A NCR-B/922UE BJ-A330120BA BJ-A330120EA BJ-A330120KA BJ-A330120NA | NCR18650 | 3.55 | 2.7 | 10.65 | 8.55 | 8.1 | 87 | 9 | 7.29 | NCR-B/916A NCR-B/916BE N4HUNTA00013 N4HUNTA00017 NCR-B/922AE NCR-B/922BE N4HUNTA00021 N4HUNTA00035 N4HUNTA00036 N4HUNTA00045 N4HUNTA00060 N4HUNTA00064 |
| CF-31/53 | CF-VZSU46AT | NCR-B/922HE NCR-B/922JE NCR-B/922TE NCR-B/922WE NCR-B/922ZE BJ-A330120DA BJ-A330120FA BJ-A330120GA BJ-A330120MA | NCR18650 | 3.55 | 2.7 | 10.65 | 8.55 | 8.1 | 87 | 9 | 7.29 | NCR-B/922HE NCR-B/922JE N4HUNTA00030 N4HUNTA00038 N4HUNTA00043 N4HUNTA00044 N4HUNTA00046 N4HUNTA00047 N4HUNTA00063 |
| CF-31 | CF-VZSU86E | 3NCR18650F3-B003A BJ-A390004BA BJ-A390004CA BJ-A390004DA | NCR18650F | 3.55 | 2.7 | 10.65 | 8.55 | 8.1 | 87 | 9 | 7.29 | N4HUNTA00016 N4HUNTA00037 N4HUNTA00048 N4HUNTA00065 |
| CF-33 | CF-VZSU1AW | BJ-F630041AA BJ-F630041DA | UF653864S | 3.7 | 2.04 | 11.1 | 2.05 | 1.99 | 22 | 3 | 1.79 | N4HUNPA00001 N4HUNPA00004 |
| CF-33 | CF-VZSU1AJS | BJ-F630041BA | UF653864S | 3.7 | 2.04 | 11.1 | 2.05 | 1.99 | 22 | 3 | 1.79 | N4HUNPA00002 |
| CF-33 | CF-VZSU1AR | BJ-F630041CA | UF653864S | 3.7 | 2.04 | 11.1 | 2.05 | 1.99 | 22 | 3 | 1.79 | N4HUNPA00003 |
| CF-33 | CF-VZSU1BW | BJ-A130423AA BJ-A130423DA | UR18650A | 3.6 | 2.1 | 10.8 | 4.42 | 4.12 | 45 | 6 | 3.71 | N4HUNRA00063 N4HUNRA00080 |
| CF-33 | CF-VZSU1BJS | BJ-A130423BA | UR18650A | 3.6 | 2.1 | 10.8 | 4.42 | 4.12 | 45 | 6 | 3.71 | N4HUNRA00065 |
| CF-33 | CF-VZSU1BR | BJ-A130423CA | UR18650A | 3.6 | 2.1 | 10.8 | 4.42 | 4.12 | 45 | 6 | 3.71 | N4HUNRA00066 |
| CF-52/31 | CF-VZSU65AU | 3UR18650F-2-MDS31V 3UR18650F-2-MDS-5 BJ-A130015BA BJ-A130407CA | UR18650F | 3.7 | 2.5 | 11.1 | 5.2 | 5 | 56 | 6 | 4.50 | N4HUNSA00014 N4HUNSA00017 N4HUNSA00048 N4HUNSA00070 |
| CF-52 | CF-VZSU65U | 3UR18650F-2-MDS52V 3UR18650F-2-MDS-3 | UR18650F | 3.7 | 2.5 | 11.1 | 5.2 | 5 | 56 | 6 | 4.50 | N4HUNSA00013 N4HUNSA00016 |
| CF-52/53 | CF-VZSU71U | CGR-B/9A7AE CGR-B/9A7CE | CGR18650CG | 3.6 | 2.1 | 10.8 | 6.75 | 6.3 | 69 | 9 | 5.67 | CGR-B/9A7AE CGR-B/9A7CE N4HUNSA00026 N4HUNSA00027 N4HUNSA00043 N4HUNSA00049 N4HUNSA00066 N4HUNSA00072 |
| | | 3UR18650A3-B004A 3UR18650A3-B005A BJ-A130227AB BJ-A130227BA BJ-A130227DA BJ-A130228BA | UR18650A | 3.6 | 2.1 | 10.8 | 6.75 | 6.3 | 69 | 9 | 5.67 | |
| CF-53 | CF-VZSU71R | CGR-B/9A7BE CGR-B/9A7DE | CGR18650CG | 3.6 | 2.1 | 10.8 | 6.75 | 6.3 | 69 | 9 | 5.67 | CGR-B/9A7BE CGR-B/9A7DE N4HUNSA00028 N4HUNSA00050 N4HUNSA00054 |
| | | 3UR18650A3-B004B BJ-A130229BA BJ-A130229CA | UR18650A | 3.6 | 2.1 | 10.8 | 6.75 | 6.3 | 69 | 9 | 5.67 | |
| CF-53/31 | CF-VZSU72U | CGR-B/6T5AE CGR-B/6T5CE | CGR18650CG | 3.6 | 2.1 | 10.8 | 4.5 | 4.2 | 46 | 6 | 3.78 | CGR-B/6T5AE CGR-B/6T5CE N4HUNRA00012 N4HUNRA00013 N4HUNRA00033 N4HUNRA00030 N4HUNRA00031 N4HUNRA00047 N4HUNRA00054 N4HUNRA00055 N4HUNRA00083 |
| | | 3UR18650A2-B00JA BJ-A130225CA BJ-A130224EA 3UR18650A2-B00KA BJ-A130224CA BJ-A130224BA BJ-A130225BA BJ-A130224DA BJ-A130224FA | UR18650A | 3.6 | 2.1 | 10.8 | 4.5 | 4.2 | 46 | 6 | 3.78 | |
| CF-53 | CF-VZSU72R | CGR-B/6T5BE CGR-B/6T5DE | CGR18650CG | 3.6 | 2.1 | 10.8 | 4.5 | 4.2 | 46 | 6 | 3.78 | CGR-B/6T5BE CGR-B/6T5DE N4HUNRA00014 |
| CF-54 | CF-VZSU0GW | BJ-F930011AA | NCA653864 | 3.6 | 2.05 | 10.8 | 4.4 | 4.1 | 45 | 6 | 3.69 | N4HUNRA00028 |
| CF-54 | CF-VZSU0GJS | BJ-F930011BA | NCA653864 | 3.6 | 2.05 | 10.8 | 4.4 | 4.1 | 45 | 6 | 3.69 | N4HUNRA00032 |
| CF-54 | CF-VZSU0KW | BJ-CA30001AA BJ-CA30001CA BJ-CA30001EA | UF703450F | 3.7 | 1.43 | 11.1 | 2.96 | 2.86 | 32 | 6 | 2.57 | N4HUNQA00006 N4HUNQA00015 N4HUNQA00019 |
| CF-54 | CF-VZSU0KJS | BJ-CA30001BA BJ-CA30001FA | UF703450F | 3.7 | 1.43 | 11.1 | 2.96 | 2.86 | 32 | 6 | 2.57 | N4HUNQA00008 N4HUNQA00020 |
| CF-54 | CF-VZSU0KR | BJ-CA30001DA BJ-CA30001GA | UF703450F | 3.7 | 1.43 | 11.1 | 2.96 | 2.86 | 32 | 6 | 2.57 | N4HUNQA00013 N4HUNQA00021 |

| Model Information | | | Cell | | | Battery Pack | | | | | | | Product code |
|--------------------------------|--|--|------------|---------------------|-------------------------|---------------------|---------------------------|-------------------------|------------------|-------------|-------------------------------|--|--------------|
| Panasonic Toughbook Model Name | Battery Pack Model Name | Product Model Name | Cell Name | Nominal Voltage (V) | Rated Capacity Min.(Ah) | Nominal Voltage (V) | Nominal Capacity Typ.(Ah) | Rated Capacity Min.(Ah) | Watt-hour Rating | Cell number | Lithium equivalent content(g) | | |
| CF-54 | CF-VZSU0LW | BJ-CG30001AA BJ-CG30001CA BJ-CG30001EA | NCA903864A | 3.6 | 3.05 | 10.8 | 3.22 | 3.05 | 33 | 3 | 2.75 | N4HUNQA00009 N4HUNQA00016 N4HUNQA00022 | |
| CF-54 | CF-VZSU0PW | BJ-F630010AA BJ-F630010FA BJ-F630010GA | UF653864S | 3.7 | 2.04 | 11.1 | 4.2 | 4.08 | 46 | 6 | 3.67 | N4HUNRA00034 N4HUNRA00049 N4HUNRA00058 | |
| CF-54 | CF-VZSU0PJS | BJ-F630010AB BJ-F630010HA | UF653864S | 3.7 | 2.04 | 11.1 | 4.2 | 4.08 | 46 | 6 | 3.67 | N4HUNRA00035 N4HUNRA00059 | |
| CF-54 | CF-VZSU0PR | BJ-F630010CA BJ-F630010JA | UF653864S | 3.7 | 2.04 | 11.1 | 4.2 | 4.08 | 46 | 6 | 3.67 | N4HUNRA00037 N4HUNRA00060 | |
| CF-54 | CF-VZSU0PK | BJ-F630010DA BJ-F630010KA | UF653864S | 3.7 | 2.04 | 11.1 | 4.2 | 4.08 | 46 | 6 | 3.67 | N4HUNRA00038 N4HUNRA00061 | |
| CF-71 | CF-VZSU09 | CGR-B/935B | CGR18650HC | 3.6 | 1.5 | 10.8 | 4.5 | 4.5 | 49 | 9 | 4.05 | CGR-B/935B | |
| CF-73 | CF-VZSU26 CF-VZSU26U | 3UF103450P-2-MDS73 3UF103450P2-B002A | UF103450P | 3.7 | 1.8 | 11.1 | 3.8 | 3.6 | 40 | 6 | 3.24 | N4HUNRA00007 N4HUNRA00010 | |
| CF-74 | CF-VZSU43A CF-VZSU43AU | 3UR18650F-3-MDS74A 3UR18650F-3-MDS-13 | UR18650F | 3.7 | 2.5 | 11.1 | 7.8 | 7.5 | 84 | 9 | 6.75 | N4HUNTA00007 N4HUNTA00012 | |
| CF-A1 | CF-VZSU12 CF-VZSU12J | CGR-B/315B | CGR18650HG | 3.6 | 1.7 | 10.8 | 1.7 | 1.7 | 19 | 3 | 1.53 | CGR-B/315B | |
| CF-A1 | CF-VZSU13 CF-VZSU13J | CGR-B/943A | CGR18650HG | 3.6 | 1.7 | 10.8 | 5.1 | 5.1 | 55 | 9 | 4.59 | CGR-B/943A | |
| CF-A2/A3 | CF-VZSU20 CF-VZSU20J CF-VZSU20JS | CGR-B/653C | CGR18650A | 3.7 | 1.9 | 11.1 | 4 | 3.8 | 43 | 6 | 3.42 | CGR-B/653C | |
| CF-AX2/AX3 | CF-VZSU81JS | 2NCA653864-2-B001A BJ-EC20002CA | NCA653864 | 3.6 | 2.05 | 7.2 | 4.4 | 4.1 | 30 | 4 | 2.46 | N4HULRA00012 N4HULRA00031 | |
| CF-AX2/AX3 | CF-VZSU81TJS | BJ-EC20002DA | NCA653864 | 3.6 | 2.05 | 7.2 | 4.4 | 4.1 | 30 | 4 | 2.46 | N4HULRA00035 | |
| CF-AX2/AX3 | CF-VZSU81EA | 2NCA653864-2-B001B 2NCA653864-2-B001C BJ-F920004CA BJ-F920004DA BJ-F920004EA | NCA653864 | 3.6 | 2.05 | 7.2 | 4.4 | 4.1 | 30 | 4 | 2.46 | N4HULRA00014 N4HULRA00015 N4HULRA00019 N4HULRA00023 N4HULRA00032 | |
| CF-AX2/AX3 | CF-VZSU81R | 2NCA653864-2-B001D BJ-F920005BA BJ-F920005CA | NCA653864 | 3.6 | 2.05 | 7.2 | 4.4 | 4.1 | 30 | 4 | 2.46 | N4HULRA00016 N4HULRA00021 N4HULRA00033 | |
| CF-AX2/AX3 | CF-VZSU85JS | 2NCA653864-2-B002A BJ-EC20007CA | NCA653864 | 3.6 | 2.05 | 7.2 | 4.4 | 4.1 | 30 | 4 | 2.46 | N4HULRA00013 N4HULPA00034 | |
| CF-AX2/AX3 | 2-653864-B001 | 2NCA653864-B001A | NCA653864 | 3.6 | 2.05 | 7.2 | 2.2 | 2.05 | 15 | 2 | 1.23 | N4HULPA00015 | |
| CF-AX2/AX3 | 2-653864-B01B | 2NCA653864-B001B BJ-F620001BA BJ-F620001CA | NCA653864 | 3.6 | 2.05 | 7.2 | 2.2 | 2.05 | 15 | 2 | 1.23 | N4HULPA00016 N4HULPA00019 N4HULPA00024 | |
| CF-AX2/AX3 | 2-653864-B01C | 2NCA653864-B001C BJ-F920006BA | NCA653864 | 3.6 | 2.05 | 7.2 | 2.2 | 2.05 | 15 | 2 | 1.23 | N4HULPA00017 N4HULPA00021 | |
| CF-AX2/AX3 | 2-622944-B001 | 2NCA622944-B001A | NCA622944 | 3.6 | 1.03 | 7.2 | 1.09 | 1.03 | 7.5 | 2 | 0.62 | N4HULNA00001 | |
| CF-AX2/AX3 | 2-622944-B01B | 2NCA622944-B001B BJ-F920001BA | NCA622944 | 3.6 | 1.03 | 7.2 | 1.09 | 1.03 | 7.5 | 2 | 0.62 | N4HULNA00002 N4HULNA00004 | |
| CF-B10/B11 | CF-VZSU69JS | 3UR18650A-2-MDS BJ-A130346AA | UR18650A | 3.6 | 2.1 | 10.8 | 4.5 | 4.2 | 46 | 6 | 3.78 | N4HUNRA00008 N4HUNRA00029 | |
| CF-B10/B11 | CF-VZSU70JS | 3UR18650A-MDS-2 BJ-A130345AA | UR18650A | 3.6 | 2.1 | 10.8 | 2.25 | 2.1 | 23 | 3 | 1.89 | N4HUNQA00001 N4HUNQA00007 | |
| CF-B10/B11 | CF-VZSU77JS | 3UR18650ZTA-2-MDS2 BJ-A130347AA | UR18650ZTA | 3.7 | 2.85 | 11.1 | 7 | 5.7 | 64 | 6 | 5.13 | N4HUNSA00015 N4HUNSA00052 | |
| CF-C1 | CF-VZSU66U | 2UR18650ZT-2-MDSC1 2UR18650Z2-B002A BJ-A120042BA | UR18650ZTA | 3.7 | 2.85 | 7.4 | 6 | 5.7 | 43 | 4 | 3.42 | N4HULSA00008 N4HULSA00014 N4HULSA00029 | |
| CF-C2 | CF-VZSU80U | 3NCR18650B2-B006A 3NCR18650B2-B006B BJ-A330082CA BJ-A330082DA | NCR18650B | 3.6 | 3.2 | 10.8 | 6.8 | 6.4 | 70 | 6 | 5.76 | N4HUNSA00024 N4HUNSA00029 N4HUNSA00069 N4HUNSA00075 | |
| CF-C2 | CF-VZSU82U | 3NCR18650B-B001A 3NCR18650B-B001B BJ-A330083BA BJ-A330083CA | NCR18650B | 3.6 | 3.2 | 10.8 | 3.4 | 3.2 | 35 | 3 | 2.88 | N4HUNQA00002 N4HUNQA00003 N4HUNQA00014 N4HUNQA00030 | |
| CF-C2 | CF-VZSU83U | 3NCR18650A3-B001A 3NCR18650A3-B001B BJ-A330081BA | NCR18650A | 3.6 | 2.9 | 10.8 | 9.3 | 8.7 | 94 | 9 | 7.83 | N4HUNTA00014 N4HUNTA00018 N4HUNTA00049 | |
| CF-D1 | CF-VZSU73U | NCR-B/693AE NCR-B/693CE NCR-B/693EE NCR-B/693JE | NCR18650A | 3.6 | 2.9 | 10.8 | 6.2 | 5.8 | 63 | 6 | 5.22 | NCR-B/693AE NCR-B/693CE N4HUNSA00044 N4HUNSA00058 | |
| CF-D1 | CF-VZSU73R | NCR-B/693BE NCR-B/693DE NCR-B/693FE NCR-B/693GE NCR-B/693KE | NCR18650A | 3.6 | 2.9 | 10.8 | 6.2 | 5.8 | 63 | 6 | 5.22 | NCR-B/693BE NCR-B/693DE N4HUNSA00051 N4HUNSA00055 N4HUNSA00059 | |
| CF-D1 | CF-VZSU73SP | 3NCR18650A2-B001A BJ-A330022AB BJ-A330022BB NCR-B/693LE | NCR18650A | 3.6 | 2.9 | 10.8 | 6.2 | 5.8 | 63 | 6 | 5.22 | N4HUNSA00020 N4HUNSA00045 N4HUNSA00057 N4HUNSA00060 | |
| CF-F8 CF-F9 (US/EU) | CF-VZSU56U | NCR-B/617A 3NCR18650T2-B009A 3NCR18650T2-B009B NCR-B/617D NCR-B/617E | NCR18650 | 3.6 | 2.7 | 10.8 | 5.8 | 5.4 | 59 | 6 | 4.86 | NCR-B/617A N4HUNSA00023 N4HUNSA00038 N4HUNSA00047 N4HUNSA00064 | |
| CF-F9/F10 (JP) | CF-VZSU56AJS | NCR-B/666A | NCR18650A | 3.6 | 2.9 | 10.8 | 6.2 | 5.8 | 63 | 6 | 5.22 | NCR-B/666A | |
| CF-F9/F10 (CN) | CF-VZSU56AR | NCR-B/666B | NCR18650A | 3.6 | 2.9 | 10.8 | 6.2 | 5.8 | 63 | 6 | 5.22 | N4HUNSA00071 | |
| CF-J9/J10 | CF-VZSU67JS | NCR-B/429A | NCR18650A | 3.6 | 2.9 | 7.2 | 6.2 | 5.8 | 42 | 4 | 3.48 | NCR-B/429A | |
| CF-J9/J10 | CF-VZSU67R | NCR-B/429B | NCR18650A | 3.6 | 2.9 | 7.2 | 6.2 | 5.8 | 42 | 4 | 3.48 | N4HULSA00056 | |
| CF-J9/J10 | CF-VZSU68JS | NCR-B/673A | NCR18650A | 3.6 | 2.9 | 7.2 | 9.3 | 8.7 | 63 | 6 | 5.22 | NCR-B/673A | |
| CF-J9/J10 | CF-VZSU68R | NCR-B/673B | NCR18650A | 3.6 | 2.9 | 7.2 | 9.3 | 8.7 | 63 | 6 | 5.22 | N4HULTA00045 | |
| CF-L2 | CF-VZSU19 CF-VZSU19JS | 3UF103450P-2-MDSL2 | UF103450P | 3.7 | 1.7 | 11.1 | 3.6 | 3.4 | 38 | 6 | 3.06 | N4HUNRA00006 | |

| Model Information | | | Cell | | | Battery Pack | | | | | | Product code |
|--------------------------------|--|--|------------|---------------------|-------------------------|---------------------|---------------------------|-------------------------|------------------|-------------|-------------------------------|--|
| Panasonic Toughbook Model Name | Battery Pack Model Name | Product Model Name | Cell Name | Nominal Voltage (V) | Rated Capacity Min.(Ah) | Nominal Voltage (V) | Nominal Capacity Typ.(Ah) | Rated Capacity Min.(Ah) | Watt-hour Rating | Cell number | Lithium equivalent content(g) | |
| CF-LX3/LX4/LX5/LX6 | CF-VZSU90JS | 3NCR18650G2-B00UA BJ-A330131CA BJ-A330131KB | NCR18650G | 3.6 | 3.4 | 10.8 | 7.1 | 6.8 | 74 | 6 | 6.12 | N4HUNTA00020 N4HUNTA00053 N4HUNTA00069 |
| CF-LX3/LX4/LX5/LX6 | CF-VZSU90Y | BJ-A330131BA BJ-A330131BB BJ-A330131FB BJ-A330131LB | NCR18650G | 3.6 | 3.4 | 10.8 | 7.1 | 6.8 | 74 | 6 | 6.12 | N4HUNTA00027 N4HUNTA00031 N4HUNTA00054 N4HUNTA00071 |
| CF-LX3/LX4/LX5/LX6 | CF-VZSU90R | BJ-A330131CB BJ-A330131EB BJ-A330131GB BJ-A330131MB | NCR18650G | 3.6 | 3.4 | 10.8 | 7.1 | 6.8 | 74 | 6 | 6.12 | N4HUNTA00029 N4HUNTA00041 N4HUNTA00055 N4HUNTA00072 |
| CF-LX3/LX4/LX5/LX6 | CF-VZSU90E | BJ-A330131DB BJ-A330131HB BJ-A330131NB | NCR18650G | 3.6 | 3.4 | 10.8 | 7.1 | 6.8 | 74 | 6 | 6.12 | N4HUNTA00033 N4HUNTA00056 N4HUNTA00073 |
| CF-LX3/LX4/LX5/LX6 | CF-VZSU91JS | 3NCR18650G-B003A BJ-A330095DA BJ-A330095FB | NCR18650G | 3.6 | 3.4 | 10.8 | 3.55 | 3.4 | 37 | 3 | 3.06 | N4HUNRA00015 N4HUNRA00050 N4HUNRA00091 |
| CF-LX3/LX4/LX5/LX6 | CF-VZSU91Y | BJ-A330095BA BJ-A330095BB BJ-A330095DB BJ-A330095GB | NCR18650G | 3.6 | 3.4 | 10.8 | 3.55 | 3.4 | 37 | 3 | 3.06 | N4HUNRA00021 N4HUNRA00026 N4HUNRA00051 N4HUNRA00093 |
| CF-LX3/LX4/LX5/LX6 | CF-VZSU91R | BJ-A330095CB BJ-A330095EB BJ-A330095HB | NCR18650G | 3.6 | 3.4 | 10.8 | 3.55 | 3.4 | 37 | 3 | 3.06 | N4HUNRA00024 N4HUNRA00052 N4HUNRA00094 |
| CF-LX3/LX4/LX5/LX6 | CF-VZSU0CJS | BJ-A330158AA BJ-A330158BA BJ-A330158CB | NCR18650G | 3.6 | 3.4 | 10.8 | 7.1 | 6.8 | 74 | 6 | 6.12 | N4HUNTA00028 N4HUNTA00057 N4HUNTA00070 |
| CF-LX3/LX4/LX5/LX6 | CF-VZSU0DJS | BJ-A330159AA BJ-A330159BA BJ-A330159CB | NCR18650G | 3.6 | 3.4 | 10.8 | 3.55 | 3.4 | 37 | 3 | 3.06 | N4HUNRA00023 N4HUNRA00053 N4HUNRA00092 |
| CF-M34 | CF-VZSU15A CF-VZSU15AJS | CGR-B/664F | CGR18650A | 3.7 | 1.9 | 11.1 | 4 | 3.8 | 43 | 6 | 3.42 | CGR-B/664F |
| CF-M34 | CF-VZSU15A CF-VZSU15AW | CGR-B/664G | CGR18650A | 3.7 | 1.9 | 11.1 | 4 | 3.8 | 43 | 6 | 3.42 | CGR-B/664G |
| CF-MX3/MX4/MX5 | CF-VZSU92JS | 2NCA653864A2-B004A BJ-F920007BA | NCA653864A | 3.6 | 2.28 | 7.2 | 4.8 | 4.56 | 33 | 4 | 2.74 | N4HULRA00017 N4HULRA00025 |
| CF-MX3/MX4/MX5 | CF-VZSU92E | BJ-F920011AA BJ-F920011CA | NCA653864A | 3.6 | 2.28 | 7.2 | 4.8 | 4.56 | 33 | 4 | 2.74 | N4HULRA00020 N4HULRA00026 |
| CF-MX3/MX4/MX5 | CF-VZSU92R | BJ-F920013AA BJ-F920013BA | NCA653864A | 3.6 | 2.28 | 7.2 | 4.8 | 4.56 | 33 | 4 | 2.74 | N4HULRA00022 N4HULRA00027 |
| CF-MX3/MX4/MX5 | CF-VZSU93JS | 2NCA653864A2-B005A BJ-F920008BA | NCA653864A | 3.6 | 2.28 | 7.2 | 4.8 | 4.56 | 33 | 4 | 2.74 | N4HULRA00018 N4HULRA00028 |
| CF-MX3/MX4/MX5 | 2-644553-B001 | 2UF644553F-B001A BJ-F220001BA | UF644553FT | 3.8 | 2 | 7.6 | 2.06 | 2 | 16 | 2 | 1.20 | N4HULPA00018 N4HULPA00023 |
| CF-MX3/MX4/MX5 | 2-644553-B002 | BJ-F220002AA BJ-F220002CA | UF644553FT | 3.8 | 2 | 7.6 | 2.06 | 2 | 16 | 2 | 1.20 | N4HULPA00020 N4HULPA00026 |
| CF-MX3/MX4/MX5 | 2-644553-B003 | BJ-F220003AA BJ-F220003BA | UF644553FT | 3.8 | 2 | 7.6 | 2.06 | 2 | 16 | 2 | 1.20 | N4HULPA00022 N4HULPA00027 |
| CF-P1 | CF-VZSU22 CF-VZSU22JS CF-VZSU22W | 2UR18650-MDS-6 | UR18650P | 3.7 | 1.7 | 7.4 | 1.7 | 1.7 | 13 | 2 | 1.02 | N4HULPA00007 |
| CF-P1 | CF-VZSU28 CF-VZSU28JS | 2UR18650F-MSD-P1R1 2UR18650F-MDS-7 | UR18650F | 3.7 | 2.1 | 7.4 | 2.1 | 2.1 | 16 | 2 | 1.26 | N4HULPA00010 N4HULPA00012 |
| CF-P1 | CF-VZSU28 CF-VZSU28W | 2UR18650F-MSD-P1R2 2UR18650F-B002A | UR18650F | 3.7 | 2.1 | 7.4 | 2.1 | 2.1 | 16 | 2 | 1.26 | N4HULPA00011 N4HULPA00014 |
| CF-P2 | CF-VZSU33 | CGA-E/109BA | CGA103450A | 3.6 | 1.85 | 3.6 | 1.95 | 1.85 | 6.7 | 1 | 0.56 | CGA-E/109BA |
| CF-R1/T1/R2/T2 | CF-VZSU24A CF-VZSU24AU | 2UR18650F-2-MDS-T2 | UR18650F | 3.7 | 2.1 | 7.4 | 4.4 | 4.2 | 32 | 4 | 2.52 | N4HULRA00009 |
| CF-R1/T1/R2/T2 | CF-VZSU24AR | 2UR18650F-2-MDST2C | UR18650F | 3.7 | 2.1 | 7.4 | 4.4 | 4.2 | 32 | 4 | 2.52 | N4HULRA00010 |
| CF-R1/T1/R2/T2 | CF-VZSU24B CF-VZSU24BU | 2UR18650F-2-MDST2R 2UR18650F-2-MDS-12 | UR18650F | 3.7 | 2.3 | 7.4 | 4.8 | 4.6 | 35 | 6 | 2.76 | N4HULSA00006 N4HULSA00011 |
| CF-R3 | CF-VZSU32 CF-VZSU32U | 2UR18650F-3-MDS-R3 2UR18650F-3-MDS-6 | UR18650F | 3.7 | 2.3 | 7.4 | 7.2 | 6.9 | 52 | 6 | 4.14 | N4HULTA00014 N4HULTA00020 |
| CF-R3 | CF-VZSU32R | 2UR18650F-3-MDSR3C | UR18650F | 3.7 | 2.3 | 7.4 | 7.2 | 6.9 | 52 | 6 | 4.14 | N4HULTA00017 |
| CF-R4/R5 | CF-VZSU42 CF-VZSU42U | 2UR18650F-3-MDS-R4 2UR18650F-3-MDS-8 | UR18650F | 3.7 | 2.3 | 7.4 | 7.8 | 7.5 | 56 | 6 | 4.50 | N4HULTA00016 N4HULTA00022 |
| CF-R4/R5 | CF-VZSU42R | 2UR18650F-3-MDSR4C | UR18650F | 3.7 | 2.3 | 7.4 | 7.8 | 7.5 | 56 | 6 | 4.50 | N4HULTA00018 |
| CF-R6/R7/R8 | CF-VZSU49 CF-VZSU49U | NCR-B/402B | NCR18650 | 3.6 | 2.7 | 7.2 | 5.8 | 5.4 | 39 | 4 | 3.24 | NCR-B/402B |
| CF-R6/R7/R8 | CF-VZSU54U | NCR-B/404B | NCR18650 | 3.6 | 2.7 | 7.2 | 5.8 | 5.4 | 39 | 4 | 3.24 | NCR-B/404B |
| CF-R9 | CF-VZSU49AJS | NCR-B/426A NCR-B/426B | NCR18650A | 3.6 | 2.9 | 7.2 | 6.2 | 5.8 | 42 | 4 | 3.48 | NCR-B/426A NCR-B/426B |
| CF-R9 | CF-VZSU54AJS | NCR-B/427A NCR-B/427B | NCR18650A | 3.6 | 2.9 | 7.2 | 6.2 | 5.8 | 42 | 4 | 3.48 | NCR-B/427A NCR-B/427B |
| CF-RZ4/RZ5/RZ6/RZ8 | CF-VZSU0EJS | BJ-F520001AA BJ-F520005AA BJ-F520005BA BJ-F520005CA | UF604462SW | 3.8 | 2.37 | 7.6 | 4.86 | 4.74 | 36 | 4 | 2.84 | N4HULSA00023 N4HULSA00042 N4HULSA00050 N4HULSA00076 |
| CF-RZ4/RZ5/RZ6/RZ8 | CF-VZSU0FJS | BJ-F520002AA BJ-F520006AA BJ-F520006BA BJ-F520006CA | UF604462SW | 3.8 | 2.37 | 7.6 | 4.86 | 4.74 | 36 | 4 | 2.84 | N4HULSA00024 N4HULSA00041 N4HULSA00051 N4HULSA00077 |
| CF-RZ5/RZ6/RZ8 | CF-VZSU0TJS | BJ-F520010AA BJ-F520010BA | UF604462SW | 3.8 | 2.37 | 7.6 | 4.86 | 4.74 | 36 | 4 | 2.84 | N4HULSA00054 N4HULSA00078 |
| CF-S8/N8/S9/N9/S10/N10 | CF-VZSU59U | NCR-B/807A | NCR18650A | 3.6 | 2.9 | 7.2 | 12.4 | 11.6 | 84 | 8 | 6.96 | NCR-B/807A |
| CF-S8/N8/S9/N9/S10/N10 | CF-VZSU60U | NCR-B/806A | NCR18650A | 3.6 | 2.9 | 7.2 | 12.4 | 11.6 | 84 | 8 | 6.96 | NCR-B/806A |
| CF-S8/N8/S9/N9/S10/N10 | CF-VZSU61U | NCR-B/805A NCR-B/805C NCR-B/805D | NCR18650A | 3.6 | 2.9 | 7.2 | 12.4 | 11.6 | 84 | 8 | 6.96 | NCR-B/805A N4HUNSA00065 N4HUNSA00046 |
| CF-S8/N8/S9/N9/S10/N10 | CF-VZSU61UR | NCR-B/805E | NCR18650A | 3.6 | 2.9 | 7.2 | 12.4 | 11.6 | 84 | 8 | 6.96 | N4HULUA00017 |
| CF-S8/N8/S9/N9/S10/N10 | CF-VZSU62U | NCR-B/420A | NCR18650A | 3.6 | 2.9 | 7.2 | 6.2 | 5.8 | 42 | 4 | 3.48 | NCR-B/420A |

| Model Information | | | Cell | | | Battery Pack | | | | | | Product code |
|--|---|---|------------|---------------------|-------------------------|---------------------|---------------------------|-------------------------|------------------|-------------|-------------------------------|--|
| Panasonic Toughbook Model Name | Battery Pack Model Name | Product Model Name | Cell Name | Nominal Voltage (V) | Rated Capacity Min.(Ah) | Nominal Voltage (V) | Nominal Capacity Typ.(Ah) | Rated Capacity Min.(Ah) | Watt-hour Rating | Cell number | Lithium equivalent content(g) | |
| CF-S8/N8/S9/N9/S10/N10 | CF-VZSU64U | NCR-B/418A NCR-B/418B | NCR18650A | 3.6 | 2.9 | 7.2 | 6.2 | 5.8 | 42 | 4 | 3.48 | NCR-B/418A N4HULSA00048 |
| CF-S8/N8/S9/N9/S10/N10 | CF-VZSU64JS | NCR-B/418C | NCR18650A | 3.6 | 2.9 | 7.2 | 6.2 | 5.8 | 42 | 4 | 3.48 | N4HULSA00047 |
| CF-S8/N8/S9/N9/S10/N10 | CF-VZSU64R | NCR-B/418D | NCR18650A | 3.6 | 2.9 | 7.2 | 6.2 | 5.8 | 42 | 4 | 3.48 | N4HULSA00055 |
| CF-S10/N10 (JP) | CF-VZSU60AJS | NCR-B/821A NCR-B/821E | NCR18650B | 3.6 | 3.2 | 7.2 | 13.6 | 12.8 | 93 | 8 | 7.68 | NCR-B/821A N4HULUA00026 |
| CF-S10/N10 (JP) | CF-VZSU61AJS | NCR-B/820A NCR-B/820E | NCR18650B | 3.6 | 3.2 | 7.2 | 13.6 | 12.8 | 93 | 8 | 7.68 | NCR-B/820A N4HULUA00025 |
| CF-S10/N10 (JP) | CF-VZSU61TJS | NCR-B/820F | NCR18650B | 3.6 | 3.2 | 7.2 | 13.6 | 12.8 | 93 | 8 | 7.68 | N4HULUA00033 |
| CF-S10/N10 (JP) | CF-VZSU64AJS | NCR-B/434A NCR-B/434E | NCR18650B | 3.6 | 3.2 | 7.2 | 6.8 | 6.4 | 47 | 4 | 3.84 | NCR-B/434A N4HULSA00084 |
| CF-S10/N10 (JP) | CF-VZSU64TJS | NCR-B/434F | NCR18650B | 3.6 | 3.2 | 7.2 | 6.8 | 6.4 | 47 | 4 | 3.84 | N4HULSA00086 |
| CF-S10/N10 (CN) | CF-VZSU60AR | NCR-B/821B | NCR18650B | 3.6 | 3.2 | 7.2 | 13.6 | 12.8 | 93 | 8 | 7.68 | N4HULUA00007 |
| CF-S10/N10 (CN) | CF-VZSU61AR | NCR-B/820B | NCR18650B | 3.6 | 3.2 | 7.2 | 13.6 | 12.8 | 93 | 8 | 7.68 | N4HULUA00006 |
| CF-S10/N10 (CN) | CF-VZSU64AR | NCR-B/434B | NCR18650B | 3.6 | 3.2 | 7.2 | 6.8 | 6.4 | 47 | 4 | 3.84 | N4HULSA00026 |
| CF-S10/N10 (TW) | CF-VZSU60AQ | NCR-B/821C | NCR18650B | 3.6 | 3.2 | 7.2 | 13.6 | 12.8 | 93 | 8 | 7.68 | N4HULUA00012 |
| CF-S10/N10 (TW) | CF-VZSU61AQ | NCR-B/820C | NCR18650B | 3.6 | 3.2 | 7.2 | 13.6 | 12.8 | 93 | 8 | 7.68 | N4HULUA00013 |
| CF-S10/N10 (TW) | CF-VZSU64AQ | NCR-B/434C | NCR18650B | 3.6 | 3.2 | 7.2 | 6.8 | 6.4 | 47 | 4 | 3.84 | N4HULSA00038 |
| CF-S21/S22/S23 | CF-VZSU01 CF-VZSU01J | CGP-E/605 | CGP345010 | 3.6 | 1.3 | 10.8 | 2.6 | 2.6 | 28 | 6 | 2.34 | CGP-E/605 |
| CF-SV7/LV7/SV8/LV8 | CF-VZSU1CJS | BJ-A320085AA BJ-A320085CA | NCR18650BF | 3.6 | 3.2 | 7.2 | 6.2 | 5.9 | 43 | 4 | 3.54 | N4HULSA00068 N4HULSA00095 |
| CF-SV7/LV7/SV8/LV8 | CF-VZSU1DJS | BJ-A330246AA BJ-A330246CA | NCR18650BF | 3.6 | 3.2 | 10.8 | 6.6 | 6.3 | 68 | 6 | 5.67 | N4HUNSA00073 N4HUNSA00085 |
| CF-SV7/LV7/SV8/LV8 | CF-VZSU1EJS | BJ-A320089AA BJ-A320089BA | NCR18650BF | 3.6 | 3.2 | 7.2 | 6.2 | 5.9 | 43 | 4 | 3.54 | N4HULSA00070 N4HULSA00096 |
| CF-SV7/LV7/SV8/LV8 | CF-VZSU1FJS | BJ-A330247AA BJ-A330247BA | NCR18650BF | 3.6 | 3.2 | 10.8 | 6.6 | 6.3 | 68 | 6 | 5.67 | N4HUNSA00074 N4HUNSA00086 |
| CF-SX1/NX1/SX2/NX2 /SX3/NX3/SX4/NX4 | CF-VZSU75JS | NCR-B/440AE | NCR18650B | 3.6 | 3.2 | 7.2 | 6.8 | 6.4 | 47 | 4 | 3.84 | NCR-B/440AE |
| | | BJ-A320043AA BJ-A320043EA BJ-A320043FA BJ-A320043GA | NCR18650BF | 3.6 | 3.2 | 7.2 | 6.8 | 6.4 | 47 | 4 | 3.84 | N4HULSA00027 N4HULSA00057 N4HULSA00071 N4HULSA00079 |
| CF-SX1/NX1/SX2/NX2 /SX3/NX3/SX4/NX4 | CF-VZSU75TJS | BJ-A320043HA | NCR18650BF | 3.6 | 3.2 | 7.2 | 6.8 | 6.4 | 47 | 4 | 3.84 | N4HULSA00085 |
| CF-SX1/NX1/SX2/NX2 /SX3/NX3/SX4/NX4 | CF-VZSU75W | 2NCR18650B2-B002A BJ-A3200012BA BJ-A320012CA | NCR18650B | 3.6 | 3.2 | 7.2 | 6.8 | 6.4 | 47 | 4 | 3.84 | N4HULSA00013 N4HULSA00049 N4HULSA00081 |
| CF-SX1/NX1/SX2/NX2 /SX3/NX3/SX4/NX4 | CF-VZSU75R CF-VZSU75RR CF-VZSU75RT CF-VZSU75RS | 2NCR18650B2-B002B BJ-A340020AB BJ-A340020BB BJ-A340020CB BJ-A340020DB | NCR18650B | 3.6 | 3.2 | 7.2 | 6.8 | 6.4 | 47 | 4 | 3.84 | N4HULSA00015 N4HULSA00022 N4HULSA00032 N4HULSA00058 N4HULSA00082 |
| | | NCR-B/824AE | NCR18650B | 3.6 | 3.2 | 7.2 | 13.6 | 12.8 | 93 | 8 | 7.68 | NCR-B/824AE |
| CF-SX1/NX1/SX2/NX2 /SX3/NX3/SX4/NX4 | CF-VZSU76JS | BJ-A320041AA BJ-A320041EA BJ-A320041FA BJ-A320041GA | NCR18650BF | 3.6 | 3.2 | 7.2 | 13.6 | 12.8 | 93 | 8 | 7.68 | N4HULUA00008 N4HULUA00020 N4HULUA00023 N4HULUA00028 |
| CF-SX1/NX1/SX2/NX2 /SX3/NX3/SX4/NX4 | CF-VZSU76TJS | BJ-A320041HA | NCR18650BF | 3.6 | 3.2 | 7.2 | 13.6 | 12.8 | 93 | 8 | 7.68 | N4HULUA00032 |
| CF-SX1/NX1/SX2/NX2 /SX3/NX3/SX4/NX4 | CF-VZSU76W | 2NCR18650B4-B001A BJ-A320014BA BJ-A320014CA | NCR18650B | 3.6 | 3.2 | 7.2 | 13.6 | 12.8 | 93 | 8 | 7.68 | N4HULUA00001 N4HULUA00018 N4HULUA00030 |
| CF-SX1/NX1/SX2/NX2 /SX3/NX3/SX4/NX4 | CF-VZSU76R CF-VZSU76RR CF-VZSU76RT CF-VZSU76RS | 2NCR18650B4-B001B BJ-A380002AB BJ-A380002BB BJ-A380002CB BJ-A380002DB | NCR18650B | 3.6 | 3.2 | 7.2 | 13.6 | 12.8 | 93 | 8 | 7.68 | N4HULUA00002 N4HULUA00005 N4HULUA00011 N4HULUA00019 N4HULUA00031 |
| | | NCR-B/441AE | NCR18650B | 3.6 | 3.2 | 7.2 | 6.8 | 6.4 | 47 | 4 | 3.84 | NCR-B/441AE |
| CF-SX1/NX1/SX2/NX2 /SX3/NX3/SX4/NX4 | CF-VZSU78JS | BJ-A320044AA BJ-A320044DA BJ-A320044EA BJ-A320044FA | NCR18650BF | 3.6 | 3.2 | 7.2 | 6.8 | 6.4 | 47 | 4 | 3.84 | N4HULSA00028 N4HULSA00059 N4HULSA00072 N4HULSA00080 |
| CF-SX1/NX1/SX2/NX2 /SX3/NX3/SX4/NX4 | CF-VZSU78R | BJ-A320052AA BJ-A320044CA | NCR18650B | 3.6 | 3.2 | 7.2 | 6.8 | 6.4 | 47 | 4 | 3.84 | N4HULSA00030 N4HULSA00039 |
| CF-SX1/NX1/SX2/NX2 /SX3/NX3/SX4/NX4 | CF-VZSU79JS | NCR-B/825AE | NCR18650B | 3.6 | 3.2 | 7.2 | 13.6 | 12.8 | 93 | 8 | 7.68 | NCR-B/825AE |
| | | BJ-A320042AA BJ-A320042DA BJ-A320042EA BJ-A320042FA | NCR18650BF | 3.6 | 3.2 | 7.2 | 13.6 | 12.8 | 93 | 8 | 7.68 | N4HULUA00009 N4HULUA00021 N4HULUA00024 N4HULUA00029 |
| CF-SX1/NX1/SX2/NX2 /SX3/NX3/SX4/NX4 | CF-VZSU79R | BJ-A320053AA BJ-A320042CA | NCR18650B | 3.6 | 3.2 | 7.2 | 13.6 | 12.8 | 93 | 8 | 7.68 | N4HULUA00010 N4HULUA00014 |
| CF-SX3/NX3 | CF-VZSU98JS | BJ-A320033AA | NCR18650A | 3.6 | 2.9 | 7.2 | 6.2 | 5.8 | 42 | 4 | 3.48 | N4HULSA00018 |
| CF-SX3/NX3 | CF-VZSU99JS | BJ-A320032AA | NCR18650A | 3.6 | 2.9 | 7.2 | 12.4 | 11.6 | 84 | 8 | 6.96 | N4HULUA00003 |
| CF-SX3/NX3 | CF-VZSU0AJS | BJ-A320035AA | NCR18650A | 3.6 | 2.9 | 7.2 | 6.2 | 5.8 | 42 | 4 | 3.48 | N4HULSA00019 |
| CF-SX3/NX3 | CF-VZSU0BJS | BJ-A320034AA | NCR18650A | 3.6 | 2.9 | 7.2 | 12.4 | 11.6 | 84 | 8 | 6.96 | N4HULUA00004 |
| CF-SZ5/SZ6 | CF-VZSU0MJS | BJ-A320056AA BJ-A320056CA | NCR18650BF | 3.6 | 3.2 | 7.2 | 6.8 | 6.4 | 47 | 4 | 3.84 | N4HULSA00031 N4HULSA00052 |
| | | BJ-A320056DA BJ-A320056FA | NCR18650BF | 3.6 | 3.2 | 7.2 | 6.8 | 6.4 | 47 | 4 | 3.84 | N4HULSA00065 N4HULSA00069 |
| CF-SZ5/SZ6 | CF-VZSU0NJS | BJ-A320055AA BJ-A320055CA | NCR18650BF | 3.6 | 3.2 | 7.2 | 10.2 | 9.6 | 70 | 6 | 5.76 | N4HULTA00030 N4HULTA00043 |
| CF-SZ5/SZ6 | CF-VZSU0NR | BJ-A320055DA | NCR18650BF | 3.6 | 3.2 | 7.2 | 10.2 | 9.6 | 70 | 6 | 5.76 | N4HULTA00049 |
| CF-SZ5/SZ6 | CF-VZSU0RJS | BJ-A320063AA BJ-A320063CA | NCR18650BF | 3.6 | 3.2 | 7.2 | 6.8 | 6.4 | 47 | 4 | 3.84 | N4HULSA00033 N4HULSA00053 |
| CF-SZ5/SZ6 | CF-VZSU0SJS | BJ-A320062AA BJ-A320062CA | NCR18650BF | 3.6 | 3.2 | 7.2 | 10.2 | 9.6 | 70 | 6 | 5.76 | N4HULTA00032 N4HULTA00044 |
| CF-T4/T5 | CF-VZSU39 CF-VZSU39U | CGR-B/437C CGR-B/437D | CGR18650E | 3.7 | 2.42 | 7.4 | 5.1 | 4.84 | 36 | 4 | 2.90 | CGR-B/437C CGR-B/437D |
| CF-T4/T5 | CF-VZSU37 CF-VZSU37U | CGR-B/979C CGR-B/979D 3CGR18650E3-B001A | CGR18650E | 3.7 | 2.42 | 11.1 | 7.65 | 7.26 | 81 | 9 | 6.53 | CGR-B/979C CGR-B/979D N4HUNTA00024 |

| Model Information | | | Cell | | | Battery Pack | | | | | | Product code |
|---|---------------------------|---|------------|---------------------|-------------------------|---------------------|---------------------------|-------------------------|------------------|-------------|-------------------------------|---|
| Panasonic Toughbook Model Name | Battery Pack Model Name | Product Model Name | Cell Name | Nominal Voltage (V) | Rated Capacity Min.(Ah) | Nominal Voltage (V) | Nominal Capacity Typ.(Ah) | Rated Capacity Min.(Ah) | Watt-hour Rating | Cell number | Lithium equivalent content(g) | |
| CF-T7/T8/W7/W8/T9/W9 | CF-VZSU52JS | NCR-B/304C | NCR18650 | 3.6 | 2.7 | 10.8 | 2.9 | 2.7 | 30 | 3 | 2.43 | NCR-B/304C |
| CF-T7/T8/W7/W8/T9/W9 | CF-VZSU52AJS | NCR-B/304G NCR-B/304J | NCR18650 | 3.6 | 2.7 | 10.8 | 2.9 | 2.7 | 30 | 3 | 2.43 | NCR-B/304G NCR-B/304J |
| CF-T7/T8/W7/W8/T9/W9 | CF-VZSU52CJS | NCR-B/304K | NCR18650 | 3.6 | 2.7 | 10.8 | 2.9 | 2.7 | 30 | 3 | 2.43 | NCR-B/304K |
| CF-T7/T8/W7/W8/T9/W9 | CF-VZSU52W | NCR-B/304H | NCR18650 | 3.6 | 2.7 | 10.8 | 2.9 | 2.7 | 30 | 3 | 2.43 | NCR-B/304H |
| CF-T7/T8/W7/W8/T9/W9 | CF-VZSU51JS | NCR-B/609C | NCR18650 | 3.6 | 2.7 | 10.8 | 5.8 | 5.4 | 59 | 6 | 4.86 | NCR-B/609C |
| CF-T7/T8/W7/W8/T9/W9 | CF-VZSU51AJS | NCR-B/609H NCR-B/609L | NCR18650 | 3.6 | 2.7 | 10.8 | 5.8 | 5.4 | 59 | 6 | 4.86 | NCR-B/609H NCR-B/609L |
| CF-T7/T8/W7/W8/T9/W9 | CF-VZSU51CJS | NCR-B/609M | NCR18650 | 3.6 | 2.7 | 10.8 | 5.8 | 5.4 | 59 | 6 | 4.86 | NCR-B/609M |
| CF-T7/T8/W7/W8/T9/W9 | CF-VZSU51W | NCR-B/609J 3NCR18650T2-B008A 3NCR18650T2-B008B | NCR18650 | 3.6 | 2.7 | 10.8 | 5.8 | 5.4 | 59 | 6 | 4.86 | NCR-B/609J N4HUNSA00022 N4HUNSA00037 |
| CF-T7/T8/W7/W8/T9/W9 | CF-VZSU51R | NCR-B/609K | NCR18650 | 3.6 | 2.7 | 10.8 | 5.8 | 5.4 | 59 | 6 | 4.86 | NCR-B/609K |
| CF-T7/T8/W7/W8/T9/W9 | CF-VZSU57JS | NCR-B/616B NCR-B/616C | NCR18650 | 3.6 | 2.7 | 10.8 | 5.8 | 5.4 | 59 | 6 | 4.86 | NCR-B/616B NCR-B/616C |
| CF-U1/H1 | CF-VZSU53W | NCR-B/202A NCR-B/202B NCR-B/202BA 2NCR18650T-B00CA NCR-B/202H NCR-B/202K | NCR18650 | 3.6 | 2.75 | 7.2 | 2.9 | 2.75 | 20 | 2 | 1.65 | NCR-B/202A NCR-B/202B NCR-B/202BA N4HULQA00007 N4HULQA00016 N4HULQA00033 |
| CF-U1/H1 | CF-VZSU53JS | NCR-B/202C NCR-B/202J | NCR18650 | 3.6 | 2.7 | 7.2 | 2.9 | 2.7 | 20 | 2 | 1.62 | NCR-B/202C N4HULQA00017 |
| CF-U1/H1 | CF-VZSU53R | NCR-B/202D | NCR18650 | 3.6 | 2.7 | 7.2 | 2.9 | 2.7 | 20 | 2 | 1.62 | NCR-B/202D |
| CF-U1/H1 | CF-VZSU53Q | NCR-B/202F | NCR18650 | 3.6 | 2.7 | 7.2 | 2.9 | 2.7 | 20 | 2 | 1.62 | NCR-B/202F |
| CF-H2 | CF-VZSU53AW | NCR-B/206A NCR-B/206F NCR-B/206J | NCR18650B | 3.6 | 3.2 | 7.2 | 3.4 | 3.2 | 23 | 2 | 1.92 | NCR-B/206A N4HULQA00018 N4HULQA00031 |
| CF-H2 | CF-VZSU53AJS | NCR-B/206B NCR-B/206G | NCR18650B | 3.6 | 3.2 | 7.2 | 3.4 | 3.2 | 23 | 2 | 1.92 | NCR-B/206B N4HULQA00019 |
| CF-H2 | CF-VZSU53AR | NCR-B/206C NCR-B/206H | NCR18650B | 3.6 | 3.2 | 7.2 | 3.4 | 3.2 | 23 | 2 | 1.92 | NCR-B/206C N4HULQA00020 |
| CF-H2 | CF-VZSU53AQ | 2NCR18650B-B009A NCR-B/206E | NCR18650B | 3.6 | 3.2 | 7.2 | 3.4 | 3.2 | 23 | 2 | 1.92 | N4HULQA00006 N4HULQA00014 |
| CF-VZSU1428W/JS CF-VZSU1473U | CF-VZSU14B | CGA-E/608D | CGA103450A | 3.7 | 1.7 | 11.1 | 3.6 | 3.4 | 38 | 6 | 3.06 | CGA-E/608D |
| CF-VZSU1430U | CF-VZSU14C | CGA-E/621C | CGA103450A | 3.7 | 1.85 | 11.1 | 3.9 | 3.7 | 42 | 6 | 3.33 | CGA-E/621C |
| CF-VZSU1431U | CF-VZSU14D | CGA-E/621D BJ-C130006BA BJ-C130006CA | CGA103450A | 3.7 | 1.85 | 11.1 | 3.9 | 3.7 | 42 | 6 | 3.33 | CGA-E/621D N4HUNRA00046 N4HUNRA00084 |
| CF-W2/Y2 | CF-VZSU27A CF-VZSU27AU | CGR-B/6A6EA CGR-B/6A6GA 2CGR18650D3-B004A | CGR18650D | 3.7 | 2.22 | 7.4 | 7.05 | 6.66 | 50 | 6 | 4.00 | CGR-B/6A6EA CGR-B/6A6GA N4HULTA00024 |
| CF-W4 | CF-VZSU40A CF-VZSU40AU | 2UR18650F-3-MDS-W4 2UR18650F-3-MDS-7 2UR18650F3-B001A | UR18650F | 3.7 | 2.5 | 7.4 | 7.8 | 7.5 | 56 | 6 | 4.50 | N4HULTA00015 N4HULTA00021 N4HULTA00026 |
| CF-W4 | CF-VZSU40AR | 2UR18650F3-MDSW4C | UR18650F | 3.7 | 2.5 | 7.4 | 7.8 | 7.5 | 56 | 6 | 4.50 | N4HULTA00019 |
| CF-W5 | CF-VZSU47 CF-VZSU47AU | NCR-B/602D NCR-B/602F 3NCR18650T2-B00YA | NCR18650 | 3.55 | 2.7 | 10.65 | 5.7 | 5.4 | 58 | 6 | 4.86 | NCR-B/602D NCR-B/602F N4HUNSA00040 |
| CF-W5 | CF-VZSU47R | NCR-B/602E | NCR18650 | 3.55 | 2.7 | 10.65 | 5.7 | 5.4 | 58 | 6 | 4.86 | NCR-B/602E |
| CF-XZ6 | 2-424866S-B01 | BJ-MB20001AA BJ-MB20001BA | UF424866ST | 3.8 | 1.77 | 7.6 | 1.88 | 1.77 | 14 | 2 | 1.06 | N4HULPA00028 N4HULPA00029 |
| CF-XZ6 | 2-424866S2-B01 | BJ-MB20002AA BJ-MB20002BA | UF424866ST | 3.8 | 1.77 | 7.6 | 3.76 | 3.54 | 27 | 4 | 2.12 | N4HULRA00029 N4HULRA00030 |
| CF-XZ6 | CF-VZSU0WU | BJ-HM20001AA BJ-HM20001BA | UF515761ST | 3.8 | 2.6 | 7.6 | 2.72 | 2.6 | 20 | 2 | 1.56 | N4HULQA00035 N4HULQA00047 |
| CF-XZ6 | CF-VZSU0XU | BJ-HM20002AA BJ-HM20002BA | UF515761ST | 3.8 | 2.6 | 7.6 | 5.44 | 5.2 | 40 | 4 | 3.12 | N4HULSA00060 N4HULSA00074 |
| CF-XZ6 | CF-VZSU0YU | BJ-HM20003AA BJ-HM20003BA | UF515761ST | 3.8 | 2.6 | 7.6 | 2.72 | 2.6 | 20 | 2 | 1.56 | N4HULQA00037 N4HULQA00048 |
| CF-XZ6 | CF-VZSU0ZU | BJ-HM20004AA BJ-HM20004BA | UF515761ST | 3.8 | 2.6 | 7.6 | 5.44 | 5.2 | 40 | 4 | 3.12 | N4HULSA00063 N4HULSA00075 |
| CF-Y4 | CF-VZSU41 CF-VZSU41U | CGR-B/6D2E CGR-B/6D2G | CGR18650E | 3.7 | 2.42 | 7.4 | 7.65 | 7.26 | 54 | 6 | 4.36 | CGR-B/6D2E CGR-B/6D2G |
| CF-Y4 | CF-VZSU41R | CGR-B/6D2F | CGR18650E | 3.7 | 2.42 | 7.4 | 7.65 | 7.26 | 54 | 6 | 4.36 | CGR-B/6D2F |
| CF-Y5/Y7/Y8/Y9 | CF-VZSU45 CF-VZSU45U | NCR-B/601D NCR-B/601F 3NCR18650T2-B00XA | NCR18650 | 3.55 | 2.7 | 10.65 | 5.7 | 5.4 | 58 | 6 | 4.86 | NCR-B/601D NCR-B/601F N4HUNSA00039 |
| CF-Y5/Y7/Y8/Y9 | CF-VZSU45R | NCR-B/601E | NCR18650 | 3.55 | 2.7 | 10.65 | 5.7 | 5.4 | 58 | 6 | 4.86 | NCR-B/601E |
| DFWW95F0021 | CF-VZSU66U | 2UR18650Z2-B002A | UR18650ZTA | 3.7 | 2.85 | 7.4 | 6 | 5.7 | 43 | 4 | 3.42 | N4HULSA00014 |
| DFWW95F0040 | CF-VZSU48 | 3NCR18650T2-B00MA | NCR18650 | 3.55 | 2.7 | 10.65 | 5.7 | 5.4 | 58 | 6 | 4.86 | N4HUNSA00030 |
| DFWW95F0042 | CF-VZSU72U | 3UR18650A2-B00KA | UR18650A | 3.6 | 2.1 | 10.8 | 4.5 | 4.2 | 46 | 6 | 3.78 | N4HUNRA00013 |
| DFWW95F0051 | CF-VZSU46AU | NCR-B/922BE | NCR18650 | 3.55 | 2.7 | 10.65 | 8.55 | 8.1 | 87 | 9 | 7.29 | NCR-B/922BE |
| DFWW95F0063 DFWW95G0031 DFWW95G0032 | FZ-VZSU74U | 2UF484462-3-T0775 | UF484462S | 3.7 | 1.53 | 7.4 | 4.77 | 4.59 | 35 | 6 | 2.75 | - |
| DFWW95G0034 | FZ-VZSU84AU | BJ-F630036AA | UF653864S | 3.7 | 2.04 | 11.1 | 4.2 | 4.08 | 46 | 6 | 3.67 | N4HUNRA00040 |
| DFWW95G0035 | FZ-VZSU84AU | BJ-F630036AA BJ-F630036DA | UF653864S | 3.7 | 2.04 | 11.1 | 4.2 | 4.08 | 46 | 6 | 3.67 | N4HUNRA00040 N4HUNRA00068 |
| DFWW95G0036 | FZ-VZSU84AU | BJ-F630036DA | UF653864S | 3.7 | 2.04 | 11.1 | 4.2 | 4.08 | 46 | 6 | 3.67 | N4HUNRA00068 |
| DFWW95G0037 | FZ-VZSU84A2U | BJ-F630036GA | UF653864S | 3.7 | 2.04 | 11.1 | 4.2 | 4.08 | 46 | 6 | 3.67 | N4HUNRA00074 |
| DFWW95G0038 | FZ-VZSU84A2R | BJ-F630036JA | UF653864S | 3.7 | 2.04 | 11.1 | 4.2 | 4.08 | 46 | 6 | 3.67 | N4HUNRA00075 |
| DFWW95G0039 | FZ-VZSU84A2K | BJ-F630036HA | UF653864S | 3.7 | 2.04 | 11.1 | 4.2 | 4.08 | 46 | 6 | 3.67 | N4HUNRA00076 |
| DFWW95G0040 | FZ-VZSU89A2U | BJ-F630039CA | UF653864S | 3.7 | 2.04 | 11.1 | 4.2 | 4.08 | 46 | 6 | 3.67 | N4HUNRA00077 |
| DFWW95G0041 | FZ-VZSU96A2U | BJ-F630038CA | UF653864S | 3.7 | 2.04 | 11.1 | 4.2 | 4.08 | 46 | 6 | 3.67 | N4HUNRA00078 |
| DFWW95G0042 | FZ-VZSU97A2U | BJ-F630040CA | UF653864S | 3.7 | 2.04 | 11.1 | 4.2 | 4.08 | 46 | 6 | 3.67 | N4HUNRA00079 |
| DFWW95G0044 | CF-VZSU80U | BJ-A330082DA | NCR18650B | 3.6 | 3.2 | 10.8 | 6.8 | 6.4 | 70 | 6 | 5.76 | N4HUNSA00075 |
| FZ-55 | FZ-VZSU1HU | EK.32912.001 | NCR18650BF | 3.6 | 3.2 | 10.8 | 6.6 | 6.3 | 68 | 6 | 5.67 | N4HUNSA00084 |
| FZ-A1 | FZ-VZSU74U | 2UF484462-3-T0775 | UF484462S | 3.7 | 1.53 | 7.4 | 4.77 | 4.59 | 35 | 6 | 2.75 | - |
| FZ-G1 | FZ-VZSU84U | 3NCA653864-2-B001A BJ-F930003DA | NCA653864 | 3.6 | 2.05 | 10.8 | 4.4 | 4.1 | 45 | 6 | 3.69 | N4HUNRA00011 N4HUNRA00056 |

| Model Information | | | Cell | | | Battery Pack | | | | | | Product code |
|--------------------------------|---|--|------------|---------------------|-------------------------|---------------------|---------------------------|-------------------------|------------------|-------------|-------------------------------|--|
| Panasonic Toughbook Model Name | Battery Pack Model Name | Product Model Name | Cell Name | Nominal Voltage (V) | Rated Capacity Min.(Ah) | Nominal Voltage (V) | Nominal Capacity Typ.(Ah) | Rated Capacity Min.(Ah) | Watt-hour Rating | Cell number | Lithium equivalent content(g) | |
| FZ-G1 | FZ-VZSU84R | 3NCA653864-2-B001B BJ-F930006AA | NCA653864 | 3.6 | 2.05 | 10.8 | 4.4 | 4.1 | 45 | 6 | 3.69 | N4HUNRA00016 N4HUNRA00036 |
| FZ-G1 | FZ-VZSU84K | 3NCA653864-2-B001C BJ-F930008BA | NCA653864 | 3.6 | 2.05 | 10.8 | 4.4 | 4.1 | 45 | 6 | 3.69 | N4HUNRA00018 N4HUNRA00025 |
| FZ-G1 | FZ-VZSU84AU FZ-VZSU84A2U FZ-VZSU84AU7 FZ-VZSU84AUZ | BJ-F630036AA BJ-F630036DA BJ-F630036GA BJ-F630036KA BJ-F630036LA | UF653864S | 3.7 | 2.04 | 11.1 | 4.2 | 4.08 | 46 | 6 | 3.67 | N4HUNRA00040 N4HUNRA00068 N4HUNRA00074 N4HUNRA00081 N4HUNRA00085 |
| FZ-G1 | FZ-VZSU84AR FZ-VZSU84A2R | BJ-F630036CA BJ-F630036FA BJ-F630036JA BJ-F630036MA | UF653864S | 3.7 | 2.04 | 11.1 | 4.2 | 4.08 | 46 | 6 | 3.67 | N4HUNRA00041 N4HUNRA00069 N4HUNRA00075 N4HUNRA00086 |
| FZ-G1 | FZ-VZSU84AK FZ-VZSU84A2K | BJ-F630036BA BJ-F630036EA BJ-F630036HA BJ-F630036NA | UF653864S | 3.7 | 2.04 | 11.1 | 4.2 | 4.08 | 46 | 6 | 3.67 | N4HUNRA00042 N4HUNRA00073 N4HUNRA00076 N4HUNRA00087 |
| FZ-G1 | FZ-VZSU88U FZ-VZSU88U2 | 3NCR18650A3-B004A BJ-A330061CA BJ-A330061GA BJ-A330061JA | NCR18650A | 3.6 | 2.9 | 10.8 | 9.3 | 8.7 | 94 | 9 | 7.83 | N4HUNTA00019 N4HUNTA00039 N4HUNTA00058 N4HUNTA00067 |
| FZ-G1 | FZ-VZSU88R | BJ-A330061DA BJ-A330061HA BJ-A330061KA | NCR18650A | 3.6 | 2.9 | 10.8 | 9.3 | 8.7 | 94 | 9 | 7.83 | N4HUNTA00042 N4HUNTA00059 N4HUNTA00068 |
| FZ-G1 | FZ-VZSU89U | 3NCA653864-2-B002A | NCA653864 | 3.6 | 2.05 | 10.8 | 4.4 | 4.1 | 45 | 6 | 3.69 | N4HUNRA00017 |
| FZ-G1 | FZ-VZSU89AU FZ-VZSU89A2U | BJ-F630039AA BJ-F630039BA BJ-F630039CA BJ-F630039DA | UF653864S | 3.7 | 2.04 | 11.1 | 4.2 | 4.08 | 46 | 6 | 3.67 | N4HUNRA00043 N4HUNRA00071 N4HUNRA00077 N4HUNRA00089 |
| FZ-G1 | FZ-VZSU96U | BJ-F930003BA | NCA653864 | 3.6 | 2.05 | 10.8 | 4.4 | 4.1 | 45 | 6 | 3.69 | N4HUNRA00022 |
| FZ-G1 | FZ-VZSU96AU FZ-VZSU96A2U | BJ-F630038AA BJ-F630038BA BJ-F630038CA BJ-F630038DA BJ-F630038EA | UF653864S | 3.7 | 2.04 | 11.1 | 4.2 | 4.08 | 46 | 6 | 3.67 | N4HUNRA00044 N4HUNRA00070 N4HUNRA00078 N4HUNRA00082 N4HUNRA00088 |
| FZ-G1 | FZ-VZSU97U | BJ-F930012AA BJ-F930016AA BJ-F930016BA | NCA653864 | 3.6 | 2.05 | 10.8 | 4.4 | 4.1 | 45 | 6 | 3.69 | N4HUNRA00027 N4HUNRA00039 N4HUNRA00062 |
| FZ-G1 | FZ-VZSU97AU FZ-VZSU97A2U | BJ-F630040AA BJ-F630040BA BJ-F630040CA BJ-F630040DA | UF653864S | 3.7 | 2.04 | 11.1 | 4.2 | 4.08 | 46 | 6 | 3.67 | N4HUNRA00045 N4HUNRA00072 N4HUNRA00079 N4HUNRA00090 |
| FZ-G1 | 2-622944-B01C | BJ-EM20001BA BJ-EM20001CA | NCA622944 | 3.6 | 1.03 | 7.2 | 1.09 | 1.03 | 7.5 | 2 | 0.62 | N4HULNA00003 N4HULNA00005 |
| FZ-M1/B2/R1 | FZ-VZSU94W | BJ-CG20001AA BJ-CG20001HA BJ-CG20001GA BJ-CG20001MA | NCA903864A | 3.6 | 3.05 | 7.2 | 3.22 | 3.05 | 22 | 2 | 1.83 | N4HULQA00012 N4HULQA00028 N4HULQA00032 N4HULQA00041 |
| FZ-M1/B2/R1 | FZ-VZSU94JS | BJ-CG20001BA BJ-CG20001JA BJ-CG20001NA | NCA903864A | 3.6 | 3.05 | 7.2 | 3.22 | 3.05 | 22 | 2 | 1.83 | N4HULQA00013 N4HULQA00029 N4HULQA00042 |
| FZ-M1/B2/R1 | FZ-VZSU94R | BJ-CG20001CA BJ-CG20001EA BJ-CG20001KA BJ-CG20001PA | NCA903864A | 3.6 | 3.05 | 7.2 | 3.22 | 3.05 | 22 | 2 | 1.83 | N4HULQA00015 N4HULQA00022 N4HULQA00030 N4HULQA00043 |
| FZ-M1/B2/R1 | FZ-VZSU94Q | BJ-CG20001DA BJ-CG20001QA | NCA903864A | 3.6 | 3.05 | 7.2 | 3.22 | 3.05 | 22 | 2 | 1.83 | N4HULQA00023 N4HULQA00044 |
| FZ-M1/B2/R1 | FZ-VZSU94K | BJ-CG20001LA BJ-CG20001RA | NCA903864A | 3.6 | 3.05 | 7.2 | 3.22 | 3.05 | 22 | 2 | 1.83 | N4HULQA00036 N4HULQA00045 |
| FZ-M1/B2/R1 | FZ-VZSU95W | BJ-A320036AA BJ-A320036EA BJ-A320036DA BJ-A320036JA | NCR18650G | 3.6 | 3.4 | 7.2 | 7.1 | 6.8 | 49 | 4 | 4.08 | N4HULTA00027 N4HULTA00037 N4HULTA00041 N4HULTA00050 |
| FZ-M1/B2/R1 | FZ-VZSU95JS | BJ-A320036BA BJ-A320036FA BJ-A320036KA | NCR18650G | 3.6 | 3.4 | 7.2 | 7.1 | 6.8 | 49 | 4 | 4.08 | N4HULTA00028 N4HULTA00038 N4HULTA00051 |
| FZ-M1/B2/R1 | FZ-VZSU95R | BJ-A320058CA BJ-A320036GA BJ-A320036LA | NCR18650G | 3.6 | 3.4 | 7.2 | 7.1 | 6.8 | 49 | 4 | 4.08 | N4HULTA00031 N4HULTA00039 N4HULTA00052 |
| FZ-M1/B2/R1 | FZ-VZSU95Q | BJ-A320036HA BJ-A320036MA | NCR18650G | 3.6 | 3.4 | 7.2 | 7.1 | 6.8 | 49 | 4 | 4.08 | N4HULTA00048 N4HULTA00053 |
| FZ-M1/B2/R1 | FZ-VZSU0HW | BJ-CG20003AA BJ-CG20003BA | NCA903864 | 3.6 | 3.05 | 7.2 | 3.22 | 3.05 | 22 | 2 | 1.83 | N4HULQA00021 N4HULQA00046 |
| FZ-M1/B2/R1 | FZ-VZSU0JW | BJ-A320045AA BJ-A320045CA BJ-A320045BA BJ-A320045DA | NCR18650G | 3.6 | 3.4 | 7.2 | 7.1 | 6.8 | 49 | 4 | 4.08 | N4HULTA00029 N4HULTA00040 N4HULTA00042 N4HULTA00054 |
| FZ-M1/B2/R1 | FZ-VZSU0JJS | BJ-A320045EA | NCR18650G | 3.6 | 3.4 | 7.2 | 7.1 | 6.8 | 49 | 4 | 4.08 | N4HULTA00055 |
| FZ-Q1/Q2 | 2-604462S2-B04 | BJ-F520009AA | UF604462SW | 3.8 | 2.37 | 7.6 | 4.86 | 4.74 | 36 | 4 | 2.84 | N4HULSA00040 |
| FZ-X1/E1 | FZ-VZSUX100J FZ-VZSUX100I | 1UF575673S2-B001B 1UF575673S2-B001C 1UF575673S2-B001D | UF575673SX | 3.8 | 3.1 | 3.8 | 6.4 | 6.2 | 24 | 2 | 1.86 | PGLT1011ZA/J1 PGLT1011ZB/J1 PGLT1011ZC/J1 |
| FZ-N1/F1 | FZ-VZSUN110U | 1UF575673S-B007A 1UF575673S-B007B 1UF575673S-B007D 1UF575673S-B007E | UF575673SX | 3.8 | 3.1 | 3.8 | 3.2 | 3.1 | 12 | 1 | 0.93 | DHLT1002ZA/J1 DHLT1002ZB/J1 DHLT1002ZD/J1 DHLT1003ZA/J1 |
| FZ-N1/F1 | FZ-VZSUN110R | 1UF575673S-B007F | UF575673SX | 3.8 | 3.1 | 3.8 | 3.2 | 3.1 | 12 | 1 | 0.93 | DHLT1004ZA/J1 |
| FZ-N1/F1 | FZ-VZSUN120U FZ-VZSUN120W | 1UF575673S2-B001B 1UF575673S2-B001C 1UF575673S2-B001D | UF575673SX | 3.8 | 3.1 | 3.8 | 6.4 | 6.2 | 24 | 2 | 1.86 | PGLT1011ZA/J1 PGLT1011ZB/J1 PGLT1011ZC/J1 |
| FZ-T1/L1 FZ-T1 | FZ-VZSUT10U FZ-VZSUT10J | 1UF575673S-B006C 1UF575673S-B006E | UF575673SX | 3.8 | 3.1 | 3.8 | 3.2 | 3.1 | 12 | 1 | 0.93 | DHLT1007ZA/J1 DHLT1006ZA/J1 |

| Model Information | | | Cell | | | Battery Pack | | | | | | Product code |
|--------------------------------|-------------------------|--|-----------|---------------------|-------------------------|---------------------|---------------------------|-------------------------|------------------|-------------|-------------------------------|--|
| Panasonic Toughbook Model Name | Battery Pack Model Name | Product Model Name | Cell Name | Nominal Voltage (V) | Rated Capacity Min.(Ah) | Nominal Voltage (V) | Nominal Capacity Typ.(Ah) | Rated Capacity Min.(Ah) | Watt-hour Rating | Cell number | Lithium equivalent content(g) | |
| JT-B1 | JT-B1-BT000U | 1UF703450F4-B001A 1UF703450F4-B002A BJ-CA10031AA BJ-CA10030AA BJ-CA10007EB BJ-CA10007KB | UF703450F | 3.7 | 1.43 | 3.7 | 5.72 | 5.72 | 22 | 4 | 1.72 | PGLT1002ZA/J1 PGLT1003ZA/J1 PGLT1002ZC/J1 PGLT1003ZD/J1 PGLT1002YA/J1 PGLT1003YA/J1 |
| JT-B1 | JT-B1-BT000J | BJ-CA10007CB BJ-CA10007JB | UF703450F | 3.7 | 1.43 | 3.7 | 5.72 | 5.72 | 22 | 4 | 1.72 | PGLT1004YA/J1 PGLT1005YA/J1 |
| JT-B1 | JT-B1-BT000Q | BJ-CA10007NB BJ-CA10007PB | UF703450F | 3.7 | 1.43 | 3.7 | 5.72 | 5.72 | 22 | 4 | 1.72 | PGLT1008XA/J1 PGLT1009YA/J1 |
| JT-B1 | JT-B1-BT000R | BJ-CA10007GB | UF703450F | 3.7 | 1.43 | 3.7 | 5.72 | 5.72 | 22 | 4 | 1.72 | PGLT1006YA/J1 |
| JT-H580 | JT-H580BT-00 | 1UF424261F-3-PNC | UF424261F | 3.7 | 1.3 | 3.7 | 3.9 | 3.9 | 15 | 3 | 1.17 | PGLZ1016ZA/J1 |
| JT-H581 | JT-H581BT-00 | 1UF464462F4-N001O | UF464462F | 3.7 | 1.46 | 3.7 | 5.84 | 5.84 | 22 | 4 | 1.75 | PGLZ1029ZB/J1 |
| UT-MB5 FZ-Y1 | 3UF484462S2 | 3UF484462S2-B001A BJ-L730001AC | UF484462S | 3.7 | 1.53 | 11.1 | 3.18 | 3.06 | 34 | 6 | 2.75 | N4HUNQA00004 N4HUNQA00017 |
| UT-MA6 FZ-Y1 | 3UF484462S3 | 3UF484462S3-B001A BJ-L710011AC BJ-L710011AD | UF484462S | 3.7 | 1.53 | 11.1 | 4.77 | 4.59 | 51 | 9 | 4.13 | N4HUNRA00020 N4HUNRA00057 N4HUNRA00067 |

Last 2 digits XX in model number "CF-VZSUxxxXX" means the destination, where

- "R": Taiwan, China
- "R2": HongKong, China
- "Q": Taiwan
- "K": Korea
- "E": Europe
- "J", "JS": Japan
- "W": Universal except Japan or China
- "U", or " ": Universal except China
- "Y": Asia
- "Z": Thailand
- "7": India

INITIAL BATTERY CHARGE LEVEL

We hereby certify that all Lithium-ion batteries of our products we ship are at a state of charge below 30%.



Toru Wanibuchi
Chief Engineer
Hardware Development Department
Mobile Solutions Business Division
Connected Solutions Company
Panasonic Corporation

Safety data sheet for product

1. PRODUCT AND COMPANY IDENTIFICATION

- Product name: Lithium ion rechargeable battery cell
- Product code: None
(All models Sanyo manufactured and whose capacity is less than or equal to 5.4Ah, including the cell branded as Panasonic, excluding the cell whose shape is prismatic and two or more short / middle / long side excess 12mm/85mm/110mm.)
- Company name: Sanyo Electric Co., Ltd., Panasonic group
- Address: 222-1 , Kaminaizen, Sumoto City, Hyogo, Japan
- Telephone number: +81-799-24-4111
- Fax number: +81-799-23-2879
- Emergency telephone number: [Daytime of business day] +81-799-23-3931
[Night and holiday] +81-799-24-4131

2. HAZARDS IDENTIFICATION

For the battery cell, chemical materials are stored in a hermetically sealed metal or metal laminated plastic case, designed to withstand temperatures and pressures encountered during normal use. As a result, during normal use, there are no physical hazards such as ignition, explosion and chemical hazards due to leakage of battery contents.

However, if exposed to a fire, added mechanical shocks, decomposed, added electric stress by miss-use, the gas release vent will be operated. The battery cell case will be breached at the extreme, hazardous materials may be released.

Also, if it is heated strongly by surrounding fires or the like, there is a possibility that irritating or harmful gas may be generated.

- GHS classification: Not available
(This product is outside the scope of GHS system since it's considered as an "article".)
- Most important hazard and effects
Human health effects:
Inhalation: The steam of the electrolyte has an anesthesia action and stimulates a respiratory tract.
Skin contact: The steam of the electrolyte stimulates a skin. The electrolyte skin contact causes a sore and stimulation on the skin.
Eye contact: The steam of the electrolyte stimulates eyes. The electrolyte eye contact causes a sore and stimulation on the eye. Especially, substance that causes a strong inflammation of the eyes is contained.
Environmental effects: Since a battery cell remains in the environment, do not throw out it into the environment.
- Specific hazards:
If the electrolyte contacts with water, it will generate detrimental hydrogen fluoride.
Since the leaked electrolyte is inflammable liquid, do not bring close to fire.

3. COMPOSITION / INFORMATION ON INGREDIENTS

- Substance or preparation: Preparation
- Information about the chemical nature of product: *1

| Portion | Material name | CAS No. | Concentration range (wt %) |
|---------------------------|--|--|----------------------------|
| Positive electrode | Lithium transition metal oxidate (Li[M] _m [O] _n *2) | 12190-79-3 12031-65-1 12057-17-9 182442-95-1 207803-51-8 | 20~60 |
| Positive electrode's base | Aluminum | 7429-90-5 | 1~10 |
| Negative electrode | Carbon | 7782-42-5 7440-44-0 | 10~30 |
| Negative electrode's base | Copper | 7440-50-8 | 1~15 |
| Electrolyte | Ethyl methyl carbonate Diethyl carbonate Ethylene carbonate Lithium hexafluorophosphate | 623-53-0 105-58-8 96-49-1 21324-40-3 | 5~25 |
| Outer case | Aluminum, iron, aluminum laminated plastic | 7429-90-5 7439-89-6 | 1~30 |

*1 Not every product includes all of these materials.

*2 The letter M means transition metal and candidates of M are Co, Mn, Ni and Al. One compound includes one or more of these metals and one product includes one or more of the compounds. The letter m and n means the number of atoms.

4. FIRST-AID MEASURES**Spilled internal cell materials**

- Inhalation:
Make the victim blow his/her nose, gargle. Seek medical attention if necessary.
- Skin contact:
Remove contaminated clothes and shoes immediately. Wash extraneous matter or contact region with soap and plenty of water immediately.
- Eye contact:
Do not rub one's eyes. Immediately flush eyes with water continuously for at least 15 minutes. Seek medical attention immediately.

A battery cell and spilled internal cell materials

- Ingestion:
Wash out mouth thoroughly. Do not make the victim vomit, unless instructed by medical personnel. Seek medical attention immediately.

5. FIRE-FIGHTING MEASURES

- Suitable extinguishing media: Plenty of water, carbon dioxide gas, nitrogen gas, chemical powder fire extinguishing medium and fire foam.
- Specific hazards: Corrosive gas may be emitted during fire.
- Specific methods of fire-fighting: When the battery burns with other combustibles simultaneously, take fire-extinguishing method which correspond to the combustibles. Extinguish a fire from the windward as much as possible.
- Special protective equipment for firefighters: Refer to Section 8-EXPOSURE CONTROLS / PERSONAL PROTECTION (WHEN THE ELECTROLYTE LEAKS)

6. ACCIDENTAL RELEASE MEASURES

Spilled internal cell materials, such as electrolyte leaked from a battery cell, are carefully dealt with according to the followings.

- Precautions for human body:
Remove spilled materials with protective equipment (refer to Section 8-EXPOSURE CONTROLS / PERSONAL PROTECTION (WHEN THE ELECTROLYTE LEAKS)). Do not inhale the gas as much as possible. Moreover, avoid touching with as much as possible.
- Environmental precautions: Do not throw out into the environment.
- Method of cleaning up: The spilled solids are put into a container. The leaked place is wiped off with dry cloth.
- Prevention of secondary hazards: Avoid re-scattering. Do not bring the collected materials close to fire.

7. HANDLING AND STORAGE

- Handling suggestions
 - Do not connect the positive terminal to the negative terminal with electrical wire or chain.
 - Avoid polarity reverse connection when installing the battery to an instrument.
 - Do not wet the battery with water, seawater, drink or acid; or expose to strong oxidizer.
 - Do not damage or remove the external tube.
 - Keep the battery away from heat and fire.
 - Do not disassemble or reconstruct the battery; or solder the battery directly.
 - Do not give a mechanical shock or deform.
 - Do not use unauthorized charger or other charging method. Terminate charging when the charging process doesn't end within specified time.
- Storage
 - Do not store the battery with metalware, water, seawater, strong acid or strong oxidizer.
 - Make the charge amount less than or equal to 50% then store at -20~40 degree C in a dry (humidity: 45~85%) place.
Since deterioration will be faster in the high temperature range than in the low temperature range, so do not keep it in the high temperature range beyond the period that is specified by the seller or owner.
 - Use insulative and adequately strong packaging material to prevent short circuit between positive and negative terminal when the packaging breaks during normal handling. Do not use conductive or easy to break packaging material.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION (WHEN THE ELECTROLYTE LEAKS)

- Control parameters
ACGIH has not been mentioned control parameter of electrolyte.
- Personal protective equipment
 - Respiratory protection: Respirator with air cylinder, dust mask
 - Hand protection: Protective gloves
 - Eye protection: Goggles or protective glasses designed to protect against liquid splashes
 - Skin and body protection: Working clothes with long sleeve and long trousers

9. PHYSICAL AND CHEMICAL PROPERTIES

- Appearance
 - Physical state: Solid
 - Form: Cylindrical or Prismatic or Pouch (laminated)
 - Color: Metallic color or black (without tube if it has tube)
 - Odor: No odor

10. STABILITY AND REACTIVITY

- Stability: Normally stable unless a strong shock is applied or heated strongly
- Possibility of hazardous reactions: Damage to the container may cause leakage of contents. Contents may leak or ignite due to temperature rise.
- Conditions to avoid: Crushing or deformation, use and storage at 80 degree C or higher or at high humidity. Usage at a voltage or a current outside the rating and external short circuit.
- Incompatible materials: Conductive material such as water or metal pieces. Oxidizing agent such as bleach.
- Hazardous decomposition products: Acrid or harmful gas is emitted during leakage or fire.

11. TOXICOLOGICAL INFORMATION

Organic Electrolyte

- Acute toxicity:
LD₅₀, oral - Rat 2,000mg/kg or more
- Irritating nature: Irritative to skin and eye

12. ECOLOGICAL INFORMATION

- Persistence/degradability:
Since a battery cell and the internal materials remain in the environment, do not bury or throw out into the environment.

13. DISPOSAL CONSIDERATIONS

- Recommended methods for safe and environmentally preferred disposal:

Product (waste from residues)

Specified collection or disposal of lithium ion battery is required by the law like as "battery control law" in several nations. Collection or recycle of the battery is mainly imposed on battery's manufacturer or importer in the nations recycle is required.

Contaminated packaging

Neither a container nor packing is contaminated during normal use. When internal materials leaked from a battery cell contaminates, dispose as industrial wastes subject to special control.

14. TRANSPORT INFORMATION

In the case of transportation, avoid exposure to high temperature and prevent the formation of any condensation. Take in a cargo of them without falling, dropping and breakage. Prevent collapse of cargo piles and wet by rain. The container must be handled carefully. Do not give shocks that result in a mark of hitting on a cell. Please refer to Section 7-HANDLING AND STORAGE also.

UN regulation

- UN number: 3480 (3481 when the battery is contained in equipment or packed with equipment)
- Proper shipping name:
Lithium ion batteries (“lithium ion batteries contained in equipment” or “lithium ion batteries packed with equipment”)
- Class: 9 *

** Although this product meets the criteria of “dangerous goods” and are classified as “lithium ion batteries”, depending on the battery’s total capacity in the packaging, etc., they may not be subject to the fully regulated provisions.*

Regulation depends on region and transportation mode

- Worldwide - Air transportation:
ICAO TI/IATA-DGR [packing instruction 965 section IB or II]
(When shipping batteries “packed with” or “contained in” equipment, use packing instruction 966 or 967 as appropriate.)
- Worldwide - Ocean transportation:
IMO-IMDG Code [special provision 188]
- Europe - Ground transportation:
ADR [special provision 188]

** Instructions or provisions in the box brackets are conditions to make the battery cell exempted from full regulation.*

15. REGULATORY INFORMATION

- Regulations specifically applicable to the product:
Wastes Disposal and Public Cleaning Law [Japan]
Law for Promotion of Effective Utilization of resources [Japan]
US Department of Transportation 49 Code of Federal Regulations [USA]

** About overlapping regulations, please refer to Section 14-TRANSPORT INFORMATION.*

16. OTHER INFORMATION

- This safety data sheet is offered an agency who handles this product to handle it safely.
- The agency should utilize this safety data sheet effectively (put it up, educate person in charge) and take proper measures.
- **The information contained in this Safety data sheet is based on the present state of knowledge and current legislation.**
- This safety data sheet provides guidance on health, safety and environmental aspects of the product and should not be construed as any guarantee of technical performance or suitability for particular applications.

Reference

Dangerous Goods Regulations – 60th Edition Effective 1 January 2019: International Air Transport Association (IATA)
IMDG Code – 2018 Edition: International Maritime Organization (IMO)
The European Agreement concerning the International Carriage of Dangerous Goods by Road – 2019:
The United Nations Economic Commission for Europe (UNECE)

First edition: Apr. 28, 2010
Prepared and approved by: Battery Pack Engineering Department
Energy Solutions Business Division
Sanyo Electric Co., Ltd.
Panasonic group