

# Air travel with Li-Ion batteries for B1 and B1X



## General information

The general restrictions for travelling by air with batteries is set by IATA dangerous goods regulations (IATA-DGR). The restrictions for passengers carrying a rechargeable Lithium-ion onboard depends on the Watt-hour (Wh) rating of the battery. Different restrictions also apply depending if the battery is installed in

the equipment or brought as spare (extra) battery. A general requirement for allowing a Lithium-ion battery onboard is that it is tested and certified for air transport in accordance with Part III, Sub-section 38.3 of the UN Manual of Tests and Criteria.

## Lithium-Ion battery for B1 and B1X



Type label for Type: PCA5287-0000



Type label for Model#: 100399

Profoto Li-Ion battery for B1 (Type: PCA5287-0000) and Profoto Li-Ion battery MkII for B1 and B1X (Model#: 100399) are tested and certified for air transport in accordance with Part III, Sub-section 38.3 of the UN Manual of Tests and Criteria (see separate UN transportation certificate).

The Type number of the B1 battery can be found on the battery type label (see examples to the left).

Both batteries are rated less than 100Wh (44.4 and 67.7 Wh).

To the right you will find an extract of the IATA provisions for Li-Ion batteries rated less than 100Wh carried by passenger or crew for personal use.

## Batteries installed in equipment

Approval of the operator is required	No
Permitted in or as checked baggage	Yes
Permitted in or as carry-on baggage	Yes
The pilot-in-command must be informed of the location	No

## Spare batteries

Approval of the operator is required	No
Permitted in or as checked baggage	No
Permitted in or as carry-on baggage	Yes
The pilot-in-command must be informed of the location	No

## Additional notes

If the battery is installed in equipment this must be packaged so it won't accidentally turn on during the flight.

Spare batteries should be packed individually or battery terminals taped to prevent short circuit of batteries during the flight.

## Important notice

### Damaged batteries

Batteries that are damaged or defect or batteries that are suspected to be damaged or defect, are strictly forbidden to transport by air. Such batteries can only be transported by road or sea and only in full compliance with applicable dangerous goods regulations. (Special Provision A154, IATA-DGR & ICAO-TI)

### Links to more information

<http://www.iata.org/whatwedo/cargo/dgr/Pages/dgr-guidance.aspx>

<http://www.iata.org/whatwedo/cargo/dgr/Documents/passengerprovisions-table-23A-en.pdf>

<http://www.iata.org/whatwedo/cargo/dgr/Documents/passengerlithium-battery.pdf>

### UN transportation certificates

Transportation certificate for Type PCA5287-0000 on page 2 in this document. Transportation certificate for Model#100399 on page 3 in this document.

# TRANSPORTATION CERTIFICATE

This is to certify that the Celltech Abatel battery pack, described below has successfully passed the prevailing transportation tests, as per the test procedures of Part III, Sub-section 38.3 of the UN Manual of Tests and Criteria.

## Product description:

Battery type:	Lithium Ion Rechargeable Battery
Brand label:	Profoto
Profoto type no:	PCA5287-0000
Celltech Abatel type no:	365-6680 AB42H B1
Nominal voltage:	14.8V
Rated Capacity:	Cell capacity 1.5Ah, pack capacity 3.0Ah
Energy density:	Cell energy density 316Wh/L, pack energy density 44.4Wh

## Test item and conclusion:

- |    |                         |      |
|----|-------------------------|------|
| 1. | Altitude simulation:    | PASS |
| 2. | Thermal test:           | PASS |
| 3. | Vibration:              | PASS |
| 4. | Shock:                  | PASS |
| 5. | External short circuit: | PASS |
| 6. | Impact:                 | PASS |
| 7. | Overcharge:             | PASS |
| 8. | Forced discharge:       | PASS |

Celltech Abatel internal reference test report # H08303015621D-1, H08303015721D-1

All test records are maintained on file at Celltech Abatel AB, Sweden and can be submitted on specific request.

Sincerely,

City and date

Stockholm, 7th June 2016

Authorized signature



Jesper Björkén

Title, position

Managing Director

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## Product description

Battery type:	Lithium Ion Rechargeable Battery
Brand Label:	Profoto
Profoto model #:	100399
Celltech type no:	365-6683
Nominal voltage:	14.4V
Rated Capacity:	Cell capacity 2.5Ah, pack capacity 4,7Ah (4S2P) nominal
Energy density:	67,7 Wh

## Test item and conclusion

1. Altitude simulation:	PASS
2. Thermal test:	PASS
3. Vibration:	PASS
4. Shock:	PASS
5. External short circuit:	PASS
6. Impact:	PASS
7. Overcharge:	PASS
8. Forced discharge:	PASS

Test reports from South China national center of metrology Guangdong Institute of metrology DW2017-02087, 02088 and -02089.

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Sincerely,

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Authorized signature

Title, position

Stockholm, 23<sup>rd</sup> of May 2017



Jesper Björkén

Managing Director

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