



TYPE CERTIFICATE DATA SHEET Nº EB-2021T07

Type Certificate Holder:

Pasha Ballons Üretimi Anonim Şirketi
 Bahçelievier Mh. Atatürk Cd. No. 18
 50650 Ortahisar-Ürgüp/Nevşehir
TURKIE

EB-2021T07-00
 Sheet 01
 Pasha Balloons
 Pasha Series ;
 02 March 2022

This data sheet, which is part of Type Certificate No. **EB-2021T07**, prescribes conditions and limitations under which the product, for which the Type Certificate was issued, meets the airworthiness requirements of the Brazilian Aeronautical Regulations.

I – Model PH, Manned Hot Air Balloon, Approved 02 March 2022.

| MODEL TYPE | PH-60 | PH-65S | PH-70 | PH-75S | PH-80 | PH-90 | PH-105 | PH-120 | PH-135 |
|---|--|----------|----------|----------|----------|----------|----------|----------|----------|
| BALLOON TYPE: | Manned Hot Air Balloon | | | | | | | | |
| ENVELOPE SHAPE | Natural | | | | | | | | |
| VOLUME (M³) | 1 700 | 1 850 | 1 985 | 2 125 | 2 270 | 2 550 | 2 975 | 3 400 | 3 825 |
| NUMBER OF GOSES | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 |
| DISPOSITION | Vertical | Vertical | Vertical | Vertical | Vertical | Vertical | Vertical | Vertical | Vertical |
| NUMBER OF LOADTAPES | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 |
| ROTATION VENT. | Optional | Optional | Optional | Optional | Optional | Optional | Optional | Optional | Optional |
| MAX. DIAMETER (M) | 15.8 | 15 | 16.3 | 15.8 | 17.1 | 17.7 | 18.5 | 19.6 | 20.2 |
| TOTAL HEIGHT (M) | 19 | 22.2 | 19.8 | 21.2 | 20.7 | 21.4 | 22.6 | 21.2 | 24.2 |
| MAXIMUM TAKE OFF MASS MTOM (KG) | 500 | 600 | 600 | 700 | 700 | 800 | 925 | 1 126 | 1 150 |
| MINIMUM LANDING MASS MLM (KG) | 282 | 306 | 328 | 350 | 376 | 422 | 492 | 561 | 633 |
| COMPATIBLE BURNER TYPES AND MODELS | See Compatibility of Envelopes and Burners Table | | | | | | | | |

| | | | | | | | | | |
|---|--|-------------------|------------------|-------------------|------------------|------------------|-------------------|-------------------|-------------------|
| COMPATIBLE BASKET TYPES AND MODELS | See Compatibility of Envelopes and Baskets Table | | | | | | | | |
| DRAWING NUMBER | K60-0001 | K65S-0001 | K70-0001 | K75S-0001 | K80-0001 | K90-0001 | K105-0001 | K120-0001 | K135-0001 |
| MINIMUM FLIGHT CREW | 1 Pilot | | | | | | | | |
| NUMBER OF MAXIMUM PASSENGER | See Compatibility of Envelopes and Baskets Table | | | | | | | | |
| MAX. ENVELOPE OPERATIONAL TEMPERATURE (°C) | 120 | | | | | | | | |
| MAXIMUM ALTITUDE (M) | 3 000 (above mean sea level – AMSL) | | | | | | | | |
| TETHERED FLIGHT CAPABILITY | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| NUMBER OF CONTROL CHORDS | 1 x Parachute 1 (optional) x FDS (Fast Deflection System) 2 (optional) x Rotation | | | | | | | | |
| FUEL | Propane, Butane or LPG | | | | | | | | |
| EQUIPMENT | 1 Altimeter with rate of climb indicator and envelope temperature sensor 1 remaining fuel quantity indicator for each fuel cell 1 Fuel pressure gauge for each burner Kit for tethered flight (mooring rape with two karabiners and an anemometer) Alternative means for burner ignition (pilot lighter or similar) 1 Fire extinguisher 1 Envelope limit temperature flag 1 Temperature indicator stitched to envelope fabric | | | | | | | | |
| OTHER LIMITATIONS | Day VFR only | | | | | | | | |
| SERIAL NUMBERS ELIGIBLE | PH-60/001 and on | PH-65S/001 and on | PH-70/001 and on | PH-75S/001 and on | PH-80/001 and on | PH-90/001 and on | PH-105/001 and on | PH-120/001 and on | PH-135/001 and on |

| | | | | | | | | | |
|-------------------------------|------------------------|----------|----------|----------|----------|----------|----------|----------|----------|
| MODEL TYPE | PH-150 | PH-165 | PH-180 | PH-210 | PH-240 | PH-270 | PH-300 | PH-335 | PH-370 |
| BALLOON TYPE: | Manned Hot Air Balloon | | | | | | | | |
| ENVELOPE SHAPE | Natural | | | | | | | | |
| VOLUME (M³) | 4 250 | 4 675 | 5 100 | 5 950 | 6 800 | 7 650 | 8 495 | 9 490 | 10 480 |
| NUMBER OF GORES | 24 | 24 | 24 | 24 | 28 | 28 | 28 | 28 | 28 |
| DISPOSITION | Vertical | Vertical | Vertical | Vertical | Vertical | Vertical | Vertical | Vertical | Vertical |
| NUMBER OF LOADTAPES | 24 | 24 | 24 | 24 | 28 | 28 | 28 | 28 | 28 |
| ROTATION VENT. | Optional | Optional | Optional | Optional | Optional | Optional | Optional | Optional | Optional |
| MAX. DIAMETER (M) | 21.3 | 21.6 | 22.4 | 23.7 | 24.6 | 25.6 | 26.6 | 27.6 | 28.8 |

| | | | | | | | | | |
|---|--|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| TOTAL HEIGHT (M) | 24.6 | 24.9 | 25.8 | 27.4 | 26.2 | 27.3 | 28.5 | 29.5 | 32.4 |
| MAXIMUM TAKE OFF MASS MTOM (KG) | 1 300 | 1 500 | 1 550 | 1 971 | 2 250 | 2 530 | 2 810 | 3 140 | 3 591 |
| MINIMUM LANDING MASS MLM (KG) | 704 | 774 | 845 | 952 | 1 215 | 1 366 | 1 515 | 1 695 | 1 700 |
| COMPATIBLE BURNER TYPES AND MODELS | See Compatibility of Envelopes and Burners Table | | | | | | | | |
| COMPATIBLE BASKET TYPES AND MODELS | See Compatibility of Envelopes and Baskets Table | | | | | | | | |
| DRAWING NUMBER | K150-0001 | K165-0001 | K180-0001 | K210-0001 | K240-0001 | K270-0001 | K300-0001 | K335-0001 | K370-0001 |
| MINIMUM FLIGHT CREW | 1 Pilot | | | | | | | | |
| NUMBER OF MAXIMUM PASSENGER | See Compatibility of Envelopes and Baskets Table | | | | | | | | |
| MAX. ENVELOPE OPERATIONAL TEMPERATURE (°C) | 120 | | | | | | | | |
| MAXIMUM ALTITUDE (M) | 3 000 (above mean sea level – AMSL) | | | | | | | | |
| TETHERED FLIGHT CAPABILITY | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| NUMBER OF CONTROL CHORDS | 1 x Parachute 1 (optional) x FDS (Fast Deflection System) 2 (optional) x Rotation | | | | | | | | |
| FUEL | Propane, Butane or LPG | | | | | | | | |
| EQUIPMENT | 1 Altimeter with rate of climb indicator and envelope temperature sensor 1 remaining fuel quantity indicator for each fuel cell 1 Fuel pressure gauge for each burner Kit for tethered flight (mooring rape with two karabiners and an anemometer) Alternative means for burner ignition (pilot lighter or similar) 1 Fire extinguisher 1 Envelope limit temperature flag 1 Temperature indicator stitched to envelope fabric | | | | | | | | |
| OTHER LIMITATIONS | Day VFR only | | | | | | | | |
| SERIAL NUMBERS ELIGIBLE | PH-150/001 and on | PH-165/001 and on | PH-180/001 and on | PH-210/001 and on | PH-240/001 and on | PH-270/001 and on | PH-300/001 and on | PH-335/001 and on | PH-370/001 and on |

| MODEL TYPE | PH-425 | PH-460 | PH-500 | PH-525 | | | | | |
|---|--|-----------|-----------|-----------|--|--|--|--|--|
| BALLOON TYPE: | Manned Hot Air Balloon | | | | | | | | |
| ENVELOPE SHAPE | Natural | | | | | | | | |
| VOLUME (M³) | 12 050 | 13 025 | 14 160 | 14 870 | | | | | |
| NUMBER OF GORES | 28 | 32 | 32 | 32 | | | | | |
| DISPOSITION | Vertical | Vertical | Vertical | Vertical | | | | | |
| NUMBER OF LOADTAPES | 28 | 32 | 32 | 32 | | | | | |
| ROTATION VENT. | Optional | Optional | Optional | Optional | | | | | |
| MAX. DIAMETER (M) | 29.6 | 30.2 | 31.2 | 31.8 | | | | | |
| TOTAL HEIGHT (M) | 33.4 | 31.9 | 35 | 33.3 | | | | | |
| MAXIMUM TAKE OFF MASS MTOM (KG) | 3 992 | 4 315 | 4 691 | 4 925 | | | | | |
| MINIMUM LANDING MASS MLM (KG) | 1 830 | 2 050 | 2 120 | 2 650 | | | | | |
| COMPATIBLE BURNER TYPES AND MODELS | See Compatibility of Envelopes and Burners Table | | | | | | | | |
| COMPATIBLE BASKET TYPES AND MODELS | See Compatibility of Envelopes and Baskets Table | | | | | | | | |
| DRAWING NUMBER | K425-0001 | K460-0001 | K500-0001 | K525-0001 | | | | | |
| MINIMUM FLIGHT CREW | 1 Pilot | | | | | | | | |
| NUMBER OF MAXIMUM PASSENGER | See Compatibility of Envelopes and Baskets Table | | | | | | | | |
| MAX. ENVELOPE OPERATIONAL TEMPERATURE (°C) | 120 | | | | | | | | |
| MAXIMUM ALTITUDE (M) | 3 000 (above mean sea level – AMSL) | | | | | | | | |
| TETHERED FLIGHT CAPABILITY | Yes | Yes | Yes | Yes | | | | | |
| NUMBER OF CONTROL CHORDS | 1 x Parachute 1 (optional) x FDS (Fast Deflection System) 2 (optional) x Rotation | | | | | | | | |
| FUEL | Propane, Butane or LPG | | | | | | | | |
| EQUIPMENT | 1 Altimeter with rate of climb indicator and envelope temperature sensor 1 remaining fuel quantity indicator for each fuel cell | | | | | | | | |

Compatibility of Envelope and Basket Table (cont.)

| MODEL | S-26W | S-30N | S-30W | S-34 | S-38 | S-42 | S-48 | S-54 | S-58 |
|------------------------------|--------------|----------------|----------------|---------------|---------------|---------------|---------------|---------------|---------------|
| DIMENSIONS (M) | 2.6x1.6 | 3.0x1.5 | 3.0x1.6 | 3.4x1.6 | 3.8x1.7 | 4.2x1.7 | 4.8x1.7 | 5.4x1.7 | 5.8x1.8 |
| DRAWING | S26W-001 | S30N-001 | S30W-001 | S34-001 | S38-001 | S42-001 | S48-001 | S54-001 | S58-001 |
| MAXIMUM PAYLOAD (KG) | 1 240 | 1 850 | 1 850 | 1 920 | 2 480 | 2 260 | 2 600 | 2 940 | 3 280 |
| NUMBER OF CYLINDERS | 2 or 3 (8+2) | 2 or 8 (12+2) | 2 or 8 (12+2) | 2 to 6 (16+2) | 2 to 6 (16+2) | 2 to 6 (20+2) | 2 to 6 (24+2) | 2 to 6 (28+2) | 2 to 6 (32+2) |
| (NUMBER OF OCCUPANTS) | 4 to 6 (8+1) | 9 to 11 (12+1) | 9 to 11 (12+1) | | | | | | |
| PH-180 | | | | | | | | | |
| PH-210 | | | | | | | | | |
| PH-240 | | | | | | | | | |
| PH-270 | | | | | | | | | |
| PH-300 | | | | | | | | | |
| PH-335 | | | | | | | | | |
| PH-370 | | | | | | | | | |
| PH-425 | | | | | | | | | |
| PH-460 | | | | | | | | | |
| PH-500 | | | | | | | | | |
| PH-525 | | | | | | | | | |

Compatibility of Envelope and Burnner Table

| MODEL | Double | Triple | Quadruple |
|-----------------------|-------------|-------------|-------------|
| DIMENSIONS (M) | 0.2x0.5x0.5 | 0.5x0.5x0.5 | 0.5x0.5x0.5 |
| DRAWING | B2-001 | B3-001 | B4-001 |
| WEIGHT (KG) | 14 | 21 | 26 |
| PH-60 | | | |
| PH-65S | | | |
| PH-70 | | | |
| PH-75S | | | |
| PH-80 | | | |
| PH-90 | | | |
| PH-105 | | | |
| PH-120 | | | |
| PH-135 | | | |
| PH-150 | | | |
| PH-165 | | | |
| PH-180 | | | |
| PH-210 | | | |
| PH-240 | | | |
| PH-270 | | | |
| PH-300 | | | |
| PH-335 | | | |
| PH-370 | | | |
| PH-425 | | | |
| PH-460 | | | |
| PH-500 | | | |
| PH-525 | | | |

IMPORT ELIGIBILITY

A Brazilian Certificate of Airworthiness may be issued on the basis of an DGCA Export Certificate on Airworthiness (or a third country Export Certificate on Airworthiness, in case of used aircraft imported from such country), including the following statement:

“The aircraft covered by this certificate has been inspected, tested and found to be in conformity with the Brazilian approved type design as defined by the ANAC Type Certificate no. 2021T07 and in condition of safe operation”.

CERTIFICATION BASIS

The certification basis for the aircraft model is RBAC 21 Section 21.29, Brazilian Aeronautical Certification Regulations, including the following Brazilian Aeronautical Certification Regulations:

– RBAC 31, which endorses the 14 CFR Part 31 effective July 1st, 1964 including amdt 31-1 through 31-7;

For the PH Serie Balloons the compliance was verified through equivalency finding to EASA CS-31HB amdt.1 dated 05 December 2011.

Special Conditions:

None

Equivalent Level of Safety:

None

Exemptions:

None

OPERATING AND SERVICE INSTRUCTIONS

- Pasha Balloons Flight Manual – Issue 4, Rev. 0 or latest approved revision.

- SUPPLEMENT 1. OTHER MANUFACTURERS PARTS – Issue 2 Rev. 0 or latest approved revision

- Pasha Balloons Maintenance Manual – Ed.4 Rev. 0 or latest revision

NOTES:

- NOTE 1** Compatibility with approved parts of other manufactures: See latest version of the approved Flight Manual and supplement. Only listed approved configurations shall be used
- NOTE 2** Maintenance schedule: Annual or 100 hours inspections – whichever applies earlier – are carried out according to the latest version of the approved Flight Manual and Maintenance Manual corresponding to the specific balloon configuration.
- NOTE 3** All necessary inspection and maintenance actions will be performed as per latest version of approved Flight Manual and Maintenance Manual and Supplements
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NOTE 4 The Inspections and Maintenance actions of the approved parts of other manufacturers will be performed in accordance with its latest version of maintenance Manual and supplements

CHANGE RECORD

| Revision | Application Date | Changes | TC issue/reissue |
|-----------------|-----------------------------|----------------|-------------------------|
|-----------------|-----------------------------|----------------|-------------------------|

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This TCDS is available at ANAC website:

<https://sistemas.anac.gov.br/certificacao/Produtos/EspecificacaoOrgE.asp>

SEI: 6640651
