



# ICAO ENGINE EXHAUST EMISSIONS DATA SHEET

## SUBSONIC ENGINES

ENGINE IDENTIFICATION: CF34-8C5B1, CF34-8C5B1/B  
UNIQUE ID NUMBER: 07P27GE223  
COMBUSTOR: LEC  
ENGINE TYPE: TF  
BYPASS RATIO: 4.9  
PRESSURE RATIO ( $\pi_{o/o}$ ): 22.4  
RATED THRUST ( $F_{o/o}$ ) (kN): 56.4

### REGULATORY DATA

| CHARACTERISTIC VALUE:                         | HC  | CO   | NO <sub>x</sub> | SMOKE NUMBER |
|---|-----|------|-----------------|--------------|
| D <sub>p</sub> /F <sub>o/o</sub> (g/kN) or SN | 0.5 | 62.0 | 39.1            | 5.8          |
| AS % OF ORIGINAL LIMIT                        | 2.7 | 52.6 | 46.1            | 20.8         |
| AS % OF CAEP/2 LIMIT (NO <sub>x</sub> )       |     |      | 57.6            |              |
| AS % OF CAEP/4 LIMIT (NO <sub>x</sub> )       |     |      | 63.4            |              |
| AS % OF CAEP/6 LIMIT (NO <sub>x</sub> )       |     |      | 66.8            |              |
| AS % OF CAEP/8 LIMIT (NO <sub>x</sub> )       |     |      | 74.4            |              |

For non-volatile particulate matter (nvPM) emissions, please refer to the ICAO Engine nvPM Emissions Data Sheet.

### DATA STATUS

- PRE-REGULATION  
x CERTIFICATION  
- REVISED (SEE REMARKS)

### TEST ENGINE STATUS

x NEWLY MANUFACTURED ENGINES  
- DEDICATED ENGINES TO PRODUCTION STANDARD  
- OTHER (SEE REMARKS)

### EMISSIONS STATUS

x DATA CORRECTED TO REFERENCE  
(ANNEX 16 VOLUME II)

### CURRENT ENGINE STATUS

(IN PRODUCTION, IN SERVICE UNLESS OTHERWISE NOTED)  
- OUT OF PRODUCTION (DATE: - )  
- OUT OF SERVICE (DATE: - )

### MEASURED DATA

| MODE  | POWER SETTING (%F <sub>o/o</sub> ) | TIME (minutes) | FUEL FLOW (kg/s) | EMISSIONS INDICES (g/kg) |            |                 | SMOKE NUMBER |
|---|------------------------------------|----------------|------------------|--------------------------|------------|-----------------|--------------|
|   |                                    |                |                  | HC                       | CO         | NO <sub>x</sub> |              |
| TAKE-OFF  | 100                                | 0.7            | 0.614            | 0.01                     | 0.85       | 13.23           | 4.5          |
| CLIMB OUT   | 85                                 | 2.2            | 0.503            | 0.01                     | 0.82       | 11.30           | 0.5          |
| APPROACH  | 30                                 | 4.0            | 0.170            | 0.04                     | 4.90       | 9.55            | 0.2          |
| IDLE  | 7                                  | 26.0           | 0.064            | 0.17                     | 25.77      | 4.19            | 0.5          |
| LTO TOTAL FUEL (kg) or EMISSIONS (g)                                |                                    |                | 233              | 19                       | 2849       | 1900            | -            |
| NUMBER OF ENGINES   |                                    |                |                  | 1                        | 1          | 1               | 1            |
| NUMBER OF TESTS   |                                    |                |                  | 3                        | 3          | 3               | 3            |
| AVERAGE D <sub>p</sub> /F <sub>o/o</sub> (g/kN) or AVERAGE SN (MAX) |                                    |                |                  | 0.3                      | 50.5       | 33.7            | 4.5          |
| SIGMA (D <sub>p</sub> /F <sub>o/o</sub> in g/kN, or SN)             |                                    |                |                  | 0.1                      | 1.0        | 0.4             | 0.7          |
| RANGE (D <sub>p</sub> /F <sub>o/o</sub> in g/kN, or SN)             |                                    |                |                  | 0.27-0.4                 | 49.7-51.72 | 33.26-34.15     | 3.65-5.04    |

### ACCESSORY LOADS

POWER EXTRACTION 0 (kW)  
STAGE BLEED 0 (% CORE FLOW)

AT - POWER SETTINGS  
AT - POWER SETTINGS

### ATMOSPHERIC CONDITIONS

|                      |               |
|----------------------|---------------|
| BAROMETER (kPa)      | 98.2-99.1     |
| TEMPERATURE (K)      | 279.5-287.7   |
| ABS HUMIDITY (kg/kg) | 0.0017-0.0029 |

### FUEL

|          |       |
|----------|-------|
| SPEC     | Jet A |
| H/C      | 1.92  |
| AROM (%) | 20.6  |

MANUFACTURER: General Electric Company  
TEST ORGANIZATION: GE Aviation  
TEST LOCATION: PTO, Ohio, USA  
TEST DATES: 16/12/2023-21/12/2023

### NO<sub>x</sub> REGULATION PARAGRAPH

|   |                   |
|---|-------------------|
|   | 2.3.2 c) (CAEP/4) |
|   | 2.3.2 d) (CAEP/6) |
| x | 2.3.2 e) (CAEP/8) |

### REMARKS

- Engine S/N 908-337/1
- Ref. GE Report R2023AE234/Rev.0

Compliance with Fuel Venting requirements:

x ('x' if complies, 'PR' if pre-regulation, '-' if information is not available)