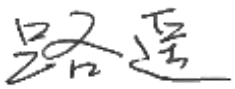
型号认可证数据单

THE VALIDATION DATA SHEET

编号/No.： VTC0271E
版次/Revision： 9
型号/Type： GEnx series
型别/Model：
GEnx-1B54, GEnx-1B58, GEnx-1B64, GEnx-1B67, GEnx-1B70,
GEnx-1B54/P1, GEnx-1B58/P1, GEnx-1B64/P1, GEnx-1B67/P1, GEnx-1B70/P1, GEnx-1B70/72/P1, GEnx-1B70/75/P1, GEnx-1B74/75/P1，GEnx-1B75/P1,
GEnx-1B54/P2, GEnx-1B58/P2, GEnx-1B64/P2, GEnx-1B67/P2, GEnx-1B70/P2, GEnx-1B70/72/P2, GEnx-1B70/75/P2, GEnx-1B74/75/P2, GEnx-1B75/P2, GEnx-1B76/P2, GEnx-1B76A/P2, GEnx-1B78/P2
GEnx-2B67, GEnx-2B67B, GEnx-2B67/P
批准人/Approved by：



职务/Title: Deputy Director General
日期/Date： 2026-08-04

本数据单是型号认可证（编号：VTC0271E）的组成部分，它规定了符合中国民用航空局的适航要求所颁发此型号认可证的产品的状态和限制。

This data sheet, which is a part of Validation Type Certificate (No: VTC0271E), prescribes conditions and limitations under which the product for which the Type Certificate was issued meets the airworthiness requirements of the Chinese Civil Aviation Regulation.

型号认可证持有人/Validation of Type Certificate Holder：

General Electric Company
GE Aviation
1 Neumann Way
Cincinnati, Ohio, 45215 USA

第1部分　概述

SECTION 1　GENERAL

1. CAAC认可数据单和型号合格证数据单/CAAC Validation Data Sheet and Type Certificate Data Sheet

	中国民用航空局认可数据单号、版次和颁发日期 CAAC Validation Data Sheet Number, Revision and issuance date	型号合格证数据单号、版次和颁发日期 Type Certificate Data Sheet Number, Revision and issuance date
当前 Current	No.VTC0271E，版次 9，2026 年 8 月 4 日 No.VTC0271E; Revision 9 ; August 4, 2026	No. E00078NE，版本：19，2025 年 4 月 17 日 No. E00078NE, Revision 19, April 17, 2025
历史 History	No.VTC0271E，版次 8，2025 年 8 月 12 日 No.VTC0271E; Revision 8 ; August 12, 2025	No. E00078NE，版本：18，2024 年 6 月 5 日 No. E00078NE, Revision 18, June 5, 2024
	No.VTC0271E，版次 7，2024 年 5 月 6 日 No.VTC0271E; Revision 7 ; May 6, 2024	No. E00078NE，版本：17，2020 年 12 月 21 日 No. E00078NE, Revision 17, December 21, 2020
	No.VTC0271E，版次 6，2024 年 2 月 23 日 No.VTC0271E; Revision 6 ; February 23,2024	No. E00078NE，版本：15，2018 年 1 月 10 日 No. E00078NE, Revision 15, January 10, 2018
	No.VTC0271E，版次 5，2018 年 5 月 7 日 No.VTC0271E; Revision 5 ; May 7, 2018	No. E00078NE，版本：15，2018 年 1 月 10 日 No. E00078NE, Revision 15, January 10, 2018
	No.VTC0271E，版次 4，2016 年 5 月 27 日 No.VTC0271E; Revision 4; May 27, 2016	No. E00078NE，版本：13，2016 年 4 月 29 日 No. E00078NE, Revision 13, April 29, 2016
	No.VTC0271E，版次 3，2014 年 8 月 13 日 No.VTC0271E; Revision 3; August 13, 2014	No. E00078NE，版本：10，2014 年 4 月 24 日 No. E00078NE, Revision 10, April 24, 2014
	No.VTC0271E，版次 2，2014 年 2 月 26 日 No.VTC0271E; Revision 2; February 26, 2014	No. E00078NE，版本：8，2013 年 4 月 12 日 No. E00078NE, Revision 8, April 12, 2013
	No.VTC0271E，版次 1，2013 年 5 月 14 日 No.VTC0271E; Revision 1; May 14, 2013	No. E00078NE，版本：7，2012 年 6 月 14 日 No. E00078NE, Revision 7, June 14, 2012
	No.VTC0271E，版次 0，2012 年 11 月 30 日 No.VTC0271E; Revision 0; November 30, 2012	No. E00078NE，版本：6，2012 年 3 月 2 日 No. E00078NE, Revision 6, March 2, 2012

注：上表中出口国局方型号合格证数据单信息仅供参考

Note: Above TCDS information of Certification Authority is only for reference

CAAC 认可数据单修订情况说明 / CAAC VTCDS Change Record

CAAC 认可数据单版次/ CAAC VTCDS Revision	相对上一版次的修订情况/ CAAC VTCDS Change Record	备注 Remark
版次 9/Rev 9	1.更新燃油规范的注释 7。 Updated the Note 7 for the Fuel Specifications.	
版次 8/Rev 8	1.更新 GEnx-1B54/P2, GEnx-1B58/P2, GEnx-1B64/P2, GEnx-1B67/P2, GEnx-1B70/P2, GEnx-1B70/72/P2, GEnx-1B70/75/P2, GEnx-1B74/75/P2, GEnx-1B75/P2, GEnx-1B76/P2, GEnx-1B76A/P2, GEnx-1B78/P2, GEnx-2B67/P 发动机型别的环保审定基础。 Update the environment certificate basis for	

	GEnx-1B54/P2, GEnx-1B58/P2, GEnx-1B64/P2, GEnx-1B67/P2, GEnx-1B70/P2, GEnx-1B70/72/P2, GEnx-1B70/75/P2, GEnx-1B74/75/P2, GEnx-1B75/P2, GEnx-1B76/P2, GEnx-1B76A/P2, GEnx-1B78/P2, GEnx-2B67/P engine model. 2. 增加了第 3 部分管理信息。 Add Section 3 ADMINISTRATIVE INFORMATION.	
版次 7/Rev 7	1. 删除了 NOTE 19。 Delete the NOTE 19. 2.针对 GEnx-1B/P2 型号额定功率为 GEnx-1B67/P2 型号及之下的环保审定基础更改为34 部，5A 修正案。 Changed Certification Basis for all GEnx-1B/P2 ratings to 14 CFR Part 34, Amend 5A for ratings GEnx-1B67/P2 and below. 3. 更改 GEnx-2B67/P 的环保审定基础。 Changed Certification Basis for GEnx-2B67/P 4. 更改了 GEnx-2B67, -2B67B 型号的等效安全表述。 change the ELOS expression of GEnx-2B67, -2B67B. 5. 注释 4 中更改了 GEnx-2B67, -2B67B, and -2B67/P 发动机核心转子转动的相关参数。 Change the CORE TURN parameter of GEnx-2B67, -2B67B, and -2B67/P engine in NOTE 4. 6.更改了注释 16。 Change the NOTE 16.	
版次 6/Rev 6	1. 增加 CAAC 专用要求：燃油排泄和排气排出物 CCAR-34-R1 Add CAAC Special Requirements: fuel venting and exhaust emissions requirements CCAR-34-R1 2.更改 CAAC 关于 3 号燃油专用要求表述 Changes of description of CAAC Special Requirements about “No.3 Jet Fuel”	本版本认可数据单对应的FAA数据单版本与版次5对应的FAA数据单版本一致 VTCDS Rev 6 corresponds to the same as FAA TCDS Rev 5

2. **类别/Category:** 航空发动机/Aeroengine

3. **认可当局/Validation Authority:** 中国民用航空局/CAAC
   审定当局/Certifying Authority: 美国联邦航空局/FAA

4. **型号合格证持有人/Type Certificate Holder:** General Electric Company
   GE Aviation
   1 Neumann Way
   Cincinnati, OH, US 45215-6310

5. **ETOPS:** 330 分钟 ETOPS 资格 /330minutes ETOPS eligibility

6. **CAAC 专用要求/Special Requirements:**

(1) 中华人民共和国国家标准“3 号喷气燃料”（GB 6537）

National Standard of the People’s Republic of China “No.3 Jet Fuel”（GB 6537）

(2) 燃油排泄和排气排出物规定 CCAR-34-R1

Fuel venting and exhaust emissions requirements CCAR-34-R1

第2部分

SECTION 2

I. 型别/MODELS	GEnx-1B54	GEnx-1B58	GEnx-1B64	GEnx-1B67	GEnx-1B70
类型/TYPE	GEnx-1B 系列发动机是双转子、轴流、高涵道比涡轮风扇发动机。该发动机的 10 级高压压气机由 2 级高压涡轮驱动顺时针转向（从后向前看）；1 级风扇和 4 级低压压气机由 7 级低压涡轮驱动逆时针转向；发动机控制系统包含与航空器进行数字通信的 FADEC；EMU 为航空器提供发动机振动状态数据。 The GEnx-1B engine is a dual rotor, axial flow, high bypass ratio turbofan. The 10-stage high pressure compressor is driven clockwise (Aft Looking Forward) by a 2-stage high pressure turbine. The single stage fan and 4-stage low pressure compressor are driven counterclockwise (Aft Looking Forward) by a 7-stage low pressure turbine. The engine control system includes a Full Authority Digital Engine Control (FADEC), which has an aircraft connection for digital communication. An engine monitoring unit (EMU) provides vibration level signals to the aircraft. GEnx-2B 系列发动机是双转子、轴流、高涵道比涡轮风扇发动机。该发动机的 10 级高压压气机由 2 级高压涡轮驱动顺时针转向（从后向前看）；1 级风扇和 3 级低压压气机由 6 级低压涡轮驱动逆时针转向；发动机控制系统包含与航空器进行数字通信的 FADEC；EMU 为航空器提供发动机振动状态数据。 The GEnx-2B engine is a dual rotor, axial flow, high bypass ratio turbofan. The 10-stage high pressure compressor is driven clockwise (Aft Looking Forward) by a 2-stage high pressure turbine. The single stage fan and 3-stage low pressure compressor are driven counterclockwise (Aft Looking Forward) by a 6-stage low pressure turbine. The engine control system includes a Full Authority Digital Engine Control (FADEC), which has an aircraft connection for digital communication. An engine monitoring unit (EMU) provides vibration level signals to the aircraft.				

I. 型别/MODELS	GEnx-1B54	GEnx-1B58	GEnx-1B64	GEnx-1B67	GEnx-1B70
额定值（见注 5） RATINGS (See NOTE 5)					
最大连续，海平面， Maximum continuous, at sea level,					
静态推力，磅 static thrust, lb	56,300	- -	61,500	- -	66,500
风扇转速，转每分钟 fan speed, rpm	2,166	- -	2,247	- -	2,319
起飞（5 分钟，见注 12），海平面， Takeoff (5 min. see NOTE 12), at sea level,					
静态推力，磅 static thrust, lb	57,400	61,000	67,000	69,400	72,300
风扇转速，转每分钟 fan speed, rpm	2,184	2,239	2,326	2,360	2,401
平台额定环境温度值/Flat rating ambient temperature					
起飞/Takeoff	86ºF/30ºC	- -	- -	- -	- -
最大连续/Maximum continuous	77ºF/25ºC	- -	- -	- -	- -
	注：‘--’表示与前述型别相同/ ”--” INDICATES “SAME AS PRECEDING MODEL”； ‘-’ 表示不适用/ ”-” NOT APPLICABLE。				

I. 型别/MODELS	GEnx-1B54	GEnx-1B58	GEnx-1B64	GEnx-1B67	GEnx-1B70
型别清单/MODEL LIST	GEnx1B54G01	GEnx1B58G01	GEnx1B64G01	GEnx1B67G01	GEnx1B70G01
(发动机构型)(见注16)	GEnx1B54G02	GEnx1B58G02	GEnx1B64G02	GEnx1B67G02	GEnx1B70G02
(Engine Configuration)	GEnx1B54G03	GEnx1B58G03	GEnx1B64G03	GEnx1B67G03	GEnx1B70G03
(see NOTE 16)	GEnx1B54G04	GEnx1B58G04	GEnx1B64G04	GEnx1B67G04	GEnx1B70G04
	GEnx1B54G05	GEnx1B58G05	GEnx1B64G05	GEnx1B67G05	GEnx1B70G05
组件（GE P/Ns）					
COMPONENTS (GE P/Ns)					
燃油计量装置	2122M20	- -	- -	- -	- -
Fuel Metering Unit					
FADEC 硬件	2121M82	- -	- -	- -	- -
FADEC Hardware	2447M85	- -	- -	- -	- -
FADEC 软件	2124M23P13	- -	- -	- -	- -
FADEC Software	(G03-G05 Model List)				
构型外盒发动机构型	787-8 2400M60P03	- -	- -	- -	- -
Configuration Box Engine	787-9 2400M60P11	- -	- -	- -	- -
Configuration	(G03 Model List)				
	787-8 2400M60P06	- -	- -	- -	- -
	787-9 2400M60P12	- -	- -	- -	- -
	(G04/G05 Model List)				
FADEC额定值销	2125M31P62	2125M31P08	2125M31P68	2125M31P20	2125M31P74
FADEC Rating Plug					
燃油泵	2122M22	- -	- -	- -	- -
Fuel Pump					
点火系统/					
IGNITION SYSTEM					
两个点火激励器GE P/N	2121M94	- -	- -	- -	- -
Two igniter exciters GE P/N					
两个点火塞GE P/N	1754M84	- -	- -	- -	- -
Two igniter plugs GE P/N					

I. 型别/MODELS	GEnx-1B54	GEnx-1B58	GEnx-1B64	GEnx-1B67	GEnx-1B70
主要尺寸 **PRINCIPAL DIMENSIONS (in)** 长度（风扇机匣前法兰到低压涡轮后法兰） Length (fan case forward flange to LPT frame aft flange)	194.9 in	- -	- -	- -	- -
宽度（最大外壳） Width (maximum envelope)	139.1 in	- -	- -	- -	- -
高度(风扇机匣前法兰外径） Height (fan case forward flange outer diameter)	137.2 in	- -	- -	- -	- -
重量（干重） **WEIGHT (dry)** 包括发动机本体，基本发动机附件和在发动机制造商规范中列出的选装设备 Includes basic engine, basic engine accessories, and optional equipment as listed in the manufacturer's engine specifications.	13,505 lb (G01-G03 Model List)	- -	- -	- -	- -
	13,552 lb (G04/G05 Model List)	- -	- -	- -	- -
重心位置（英寸），仅发动机 CENTER OF GRAVITY LOCATIONS (in); Engine only	216.1 in (G01-G03 Model List)	- -	- -	- -	- -
站位（轴向） Station (axial)	216.6 in (G04/G05 Model List)	- -	- -	- -	- -
水平线 Waterline	99.9 in	- -	- -	- -	- -
纵剖线 Buttline	100.7 in	- -	- -	- -	- -

I. 型别/MODELS	GEnx-1B54/P1	GEnx-1B58/P1	GEnx-1B64/P1	GEnx-1B67/P1	GEnx-1B70/P1
额定值（见注 5） RATINGS (See NOTE 5)					
最大连续，海平面，Maximum continuous, at sea level,					
静态推力，磅 static thrust, lb	56,300	- -	61,500	- -	66,500
风扇转速，转每分钟 fan speed, rpm	2,166	- -	2,247	- -	2,319
起飞（5 分钟，见注 12），海平面，Takeoff (5 min. see NOTE 12), at sea level,					
静态推力，磅 static thrust, lb	57,400	61,000	67,000	69,400	72,300
风扇转速，转每分钟 fan speed, rpm	2,184	2,239	2,326	2,360	2,401
平台额定环境温度值 Flat rating ambient temperature					
起飞/Takeoff	86ºF/30ºC	- -	- -	- -	- -
最大连续/Maximum continuous	77ºF/25ºC	- -	- -	- -	- -

I. 型别/MODELS	GEnx-1B54/P1	GEnx-1B58/P1	GEnx-1B64/P1	GEnx-1B67/P1	GEnx-1B70/P1
型别清单（发动机构型）（见注16） **MODEL LIST** (Engine Configuration) (see NOTE 16)	GEnx-1B54/P1G01	GEnx-1B58/P1G01	GEnx-1B64/P1G01	GEnx-1B67/P1G01	GEnx-1B70/P1G01
COMPONENTS (GE P/Ns) **组件（GE P/Ns）**					
燃油计量装置 Fuel Metering Unit	2122M20	- -	- -	- -	- -
FADEC 硬件 FADEC Hardware	2121M82 2447M85	- - - -	- - - -	- - - -	- - - -
FADEC 软件 FADEC Software	2124M23P13	- -	- -	- -	- -
构型外盒发动机构型 Configuration Box Engine Configuration	787-8 2400M60P10 787-9 2400M60P13	- -	- -	- -	- -
FADEC额定值销 FADEC Rating Plug	2125M31P62	2125M31P08	2125M31P68	2125M31P20	2125M31P74
燃油泵 Fuel Pump	2122M22	- -	- -	- -	- -
点火系统/ **IGNITION SYSTEM**					
两个点火激励器GE P/N Two igniter exciters GE P/N	2121M94	- -	- -	- -	- -
两个点火塞GE P/N Two igniter plugs GE P/N	1754M84	- -	- -	- -	- -

I. 型别/MODELS	GEnx-1B54/P1	GEnx-1B58/P1	GEnx-1B64/P1	GEnx-1B67/P1	GEnx-1B70/P1
主要尺寸 **PRINCIPAL DIMENSIONS (in)**					
长度（风扇机匣前法兰到低压涡轮后法兰）/ Length (fan case forward flange to LPT frame aft flange)	194.9 in	- -	- -	- -	- -
宽度（最大外壳）/ Width (maximum envelope)	139.1 in	- -	- -	- -	- -
高度（风扇机匣前法兰外径）/Height (fan case forward flange outer diameter)	137.2 in	- -	- -	- -	- -
重量（干重） **WEIGHT (dry)** 包括发动机本体，基本发动机附件和在发动机制造商规范中列出的选装设备 Includes basic engine, basic engine accessories, and optional equipment as listed in the manufacturer's engine specifications.	13,552 lb	- -	- -	- -	- -
重心位置（英寸），仅发动机 CENTER OF GRAVITY LOCATIONS (in); Engine only					
站位（轴向） Station (axial)	216.6 in	- -	- -	- -	- -
水平线 Waterline	99.9 in	- -	- -	- -	- -
纵剖线 Buttline	100.7 in	- -	- -	- -	- -

I．型别/MODELS	GEnx-1B70/72/P1	GEnx-1B70/75/P1	GEnx-1B74/75/P1	GEnx-1B75/P1
额定值（见注 5）				
RATINGS (See NOTE 5)				
最大连续，海平面，				
Maximum continuous, at sea level,				
静态推力，磅	66,500	- -	68,600	68,800
static thrust, lb				
风扇转速，转每分钟	2,319	- -	2,375	2,378
fan speed, rpm				
起飞（5 分钟，见注 12），海平面，				
Takeoff (5 min. see NOTE 12), at sea level,				
静态推力，磅	72,300	- -	76,700	77,600
static thrust, lb				
风扇转速，转每分钟	2,401	- -	2,496	2,510
fan speed, rpm				
平台额定环境温度值/Flat rating ambient temperature				
起飞/Takeoff	93.4ºF/34.1ºC	101.8ºF/38.8ºC	89ºF/31.7ºC	86ºF/30ºC
最大连续/Maximum continuous	77ºF/25ºC	- -	- -	- -

I. 型别/MODELS	GEnx-1B70/72/P1	GEnx-1B70/75/P1	GEnx-1B74/75/P1	GEnx-1B75/P1
型别清单（发动机构型）（见注16） **MODEL LIST** (Engine Configuration) (see NOTE 16)	GEnx-1B70/72/P1G01	GEnx-1B70/75/P1G01	GEnx-1B74/75/P1G01	GEnx-1B75/P1G01
COMPONENTS (GE P/Ns) **组件（GE P/Ns）**				
燃油计量装置 Fuel Metering Unit	2122M20	- -	- -	- -
FADEC 硬件 FADEC Hardware	2121M82 2447M85	- - - -	- - - -	- - - -
FADEC 软件 FADEC Software	2124M23P13	- -	- -	- -
构型外盒发动机构型 Configuration Box Engine Configuration	787-8 2400M60P10 787-9 2400M60P13	- -	- -	- -
FADEC额定值销 FADEC Rating Plug	2125M31P32	2125M31P80	2125M31P44	2125M31P50
燃油泵 Fuel Pump	2122M22	- -	- -	- -
点火系统/ **IGNITION SYSTEM**				
两个点火激励器GE P/N Two igniter exciters GE P/N	2121M94	- -	- -	- -
两个点火塞GE P/N Two igniter plugs GE P/N	1754M84	- -	- -	- -

I. 型别/MODELS	GEnx-1B70/72/P1	GEnx-1B70/75/P1	GEnx-1B74/75/P1	GEnx-1B75/P1
主要尺寸 **PRINCIPAL DIMENSIONS (in)**				
长度（风扇机匣前法兰到低压涡轮后法兰）/ Length (fan case forward flange to LPT frame aft flange)	194.9 in	- -	- -	- -
宽度（最大外壳）/ Width (maximum envelope)	139.1 in	- -	- -	- -
高度（风扇机匣前法兰外径）/Height (fan case forward flange outer diameter)	137.2 in	- -	- -	- -
重量（干重） **WEIGHT (dry)** 包括发动机本体，基本发动机附件和在发动机制造商规范中列出的选装设备 Includes basic engine, basic engine accessories, and optional equipment as listed in the manufacturer's engine specifications.	13,552 lb	- -	- -	- -
重心位置（英寸），仅发动机 CENTER OF GRAVITY LOCATIONS (in); Engine only				
站位（轴向） Station (axial)	216.6 in	- -	- -	- -
水平线 Waterline	99.9 in	- -	- -	- -
纵剖线 Buttline	100.7 in	- -	- -	- -

I. 型别/MODELS	GEnx-1B54/P2	GEnx-1B58/P2	GEnx-1B64/P2	GEnx-1B67/P2	GEnx-1B70/P2
额定值（见注 5） RATINGS (See NOTE 5)					
最大连续，海平面，Maximum continuous, at sea level,					
静态推力，磅 static thrust, lb	56,300	- -	61,500	- -	66,500
风扇转速，转每分钟 fan speed, rpm	2,166	- -	2,247	- -	2,319
起飞（5 分钟，见注 12），海平面，Takeoff (5 min. see NOTE 12), at sea level,					
静态推力，磅 static thrust, lb	57,400	61,000	67,000	69,400	72,300
风扇转速，转每分钟 fan speed, rpm	2,184	2,239	2,326	2,360	2,401
平台额定环境温度值/Flat rating ambient temperature					
起飞/Takeoff	86ºF/30ºC	- -	- -	- -	- -
最大连续/Maximum continuous	77ºF/25ºC	- -	- -	- -	- -

I. 型别/MODELS	GEnx-1B54/P2	GEnx-1B58/P2	GEnx-1B64/P2	GEnx-1B67/P2	GEnx-1B70/P2
型别清单（发动机构型）（见注16） **MODEL LIST** (Engine Configuration) (see NOTE 16)	GEnx-1B54/P2G01 GEnx-1B54/P2G02	GEnx-1B58/P2G01 GEnx-1B58/P2G02	GEnx-1B64/P2G01 GEnx-1B64/P2G02	GEnx-1B67/P2G01 GEnx-1B67/P2G02	GEnx-1B70/P2G01 GEnx-1B70/P2G02
COMPONENTS (GE P/Ns) **组件（GE P/Ns）**					
燃油计量装置 Fuel Metering Unit	2459M17 2122M20	- - - -	- - - -	- - - -	- - - -
FADEC 硬件 FADEC Hardware	2447M85	- - - -	- - - -	- - - -	- - - -
FADEC 软件（最早的部件号显示） FADEC Software (earliest part number shown)	2124M23P15	- -	- -	- -	- -
构型外盒发动机构型 Configuration Box Engine Configuration	2400M60P07	- -	- -	- -	- -
FADEC额定值销 FADEC Rating Plug	2125M31P62	2125M31P08	2125M31P68	2125M31P20	2125M31P74
燃油泵 Fuel Pump	2122M22	- -	- -	- -	- -
点火系统/ **IGNITION SYSTEM**					
两个点火激励器GE P/N Two igniter exciters GE P/N	2121M94	- -	- -	- -	- -
两个点火塞GE P/N Two igniter plugs GE P/N	1754M84	- -	- -	- -	- -

I. 型别/MODELS	GEnx-1B54/P2	GEnx-1B58/P2	GEnx-1B64/P2	GEnx-1B67/P2	GEnx-1B70/P2
主要尺寸 PRINCIPAL DIMENSIONS (in)					
长度（风扇机匣前法兰到低压涡轮后法兰）/ Length (fan case forward flange to LPT frame aft flange)	194.9 in	- -	- -	- -	- -
宽度（最大外壳）/ Width (maximum envelope)	139.1 in	- -	- -	- -	- -
高度（风扇机匣前法兰外径）/Height (fan case forward flange outer diameter)	137.2 in	- -	- -	- -	- -
重量（干重） WEIGHT (dry) 包括发动机本体，基本发动机附件和在发动机制造商规范中列出的选装设备 Includes basic engine, basic engine accessories, and optional equipment as listed in the manufacturer's engine specifications.	13,552 lb	- -	- -	- -	- -
重心位置（英寸），仅发动机 CENTER OF GRAVITY LOCATIONS (in); Engine only					
站位（轴向） Station (axial)	216.6 in	- -	- -	- -	- -
水平线 Waterline	99.9 in	- -	- -	- -	- -
纵剖线 Buttline	100.7 in	- -	- -	- -	- -

I．型别/MODELS	GEnx-1B70/72/P2	GEnx-1B70/75/P2	GEnx-1B74/75/P2	GEnx-1B75/P2	GEnx-1B78/P2
额定值（见注 5） RATINGS (See NOTE 5)					
最大连续，海平面，Maximum continuous, at sea level,					
静态推力，磅 static thrust, lb	66,500	- -	68,600	68,800	68,600
风扇转速，转每分钟 fan speed, rpm	2,319	- -	2,375	2,378	2,375
起飞（5 分钟，见注 12），海平面，Takeoff (5 min. see NOTE 12), at sea level,					
静态推力，磅 static thrust, lb	72,300	- -	76,700	77,600	80,400
风扇转速，转每分钟 fan speed, rpm	2,401	- -	2,496	2,510	2,586
平台额定环境温度值 Flat rating ambient temperture					
起飞/Takeoff	93.4ºF/34.1ºC	101.8ºF/38.8ºC	89ºF/31.7ºC	86ºF/30ºC	86ºF/30ºC
最大连续/Maximum continuous	77ºF/25ºC	- -	- -	- -	- -

I．型别/MODELS	GEnx-1B70/72/P2	GEnx-1B70/75/P2	GEnx-1B74/75/P2	GEnx-1B75/P2	GEnx-1B78/P2
型别清单（发动机构型）（见注16） **MODEL LIST** (Engine Configuration) (see NOTE 16)	GEnx-1B70/72/P2G01 GEnx-1B70/72/P2G02	GEnx-1B70/75/P2G01 GEnx-1B70/75/P2G02	GEnx-1B74/75/P2G01 GEnx-1B74/75/P2G02	GEnx-1B75/P2G01 GEnx-1B75/P2G02	GEnx-1B78/P2G01 GEnx-1B78/P2G02
COMPONENTS (GE P/Ns) **组件（GE P/Ns）**					
燃油计量装置 Fuel Metering Unit	2459M17 2122M20	- - - -	- - - -	- - - -	- - - -
FADEC 硬件 FADEC Hardware	2447M85	- - - -	- - - -	- - - -	- - - -
FADEC 软件 FADEC Software	2124M23P15	- -	- -	- -	- -
构型外盒发动机构型 Configuration Box Engine Configuration	2400M60P07	- -	- -	- -	- -
FADEC额定值销 FADEC Rating Plug	2125M31P32	2125M31P80	2125M31P44	2125M31P50	2125M31P86
燃油泵 Fuel Pump	2122M22	- -	- -	- -	- -
点火系统/ **IGNITION SYSTEM**					
两个点火激励器GE P/N Two igniter exciters GE P/N	2121M94	- -	- -	- -	- -
两个点火塞GE P/N Two igniter plugs GE P/N	1754M84	- -	- -	- -	- -

I．型别/MODELS	GEnx-1B70/72/P2	GEnx-1B70/75/P2	GEnx-1B74/75/P2	GEnx-1B75/P2	GEnx-1B78/P2
主要尺寸 **PRINCIPAL DIMENSIONS (in)**					
长度（风扇机匣前法兰到低压涡轮后法兰）/ Length (fan case forward flange to LPT frame aft flange)	194.9 in	- -	- -	- -	- -
宽度（最大外壳）/ Width (maximum envelope)	139.1 in	- -	- -	- -	- -
高度（风扇机匣前法兰外径）/Height (fan case forward flange outer diameter)	137.2 in	- -	- -	- -	- -
重量（干重） **WEIGHT (dry)** 包括发动机本体，基本发动机附件和在发动机制造商规范中列出的选装设备 Includes basic engine, basic engine accessories, and optional equipment as listed in the manufacturer's engine specifications.	13,552 lb	- -	- -	- -	- -
重心位置（英寸），仅发动机 CENTER OF GRAVITY LOCATIONS (in); Engine only					
站位（轴向） Station (axial)	216.6 in	- -	- -	- -	- -
水平线 Waterline	99.9 in	- -	- -	- -	- -
纵剖线 Buttline	100.7 in	- -	- -	- -	- -

I．型别/MODELS	GEnx-1B76/P2	GEnx-1B76A/P2	GEnx-2B67	GEnx-2B67B	GEnx-2B67/P
额定值（见注 5） RATINGS (See NOTE 5)					
最大连续，海平面， Maximum continuous, at sea level,					
静态推力，磅 static thrust, lb	68,600	- -	58,500	- -	- -
风扇转速，转每分钟 fan speed, rpm	2,375	- -	2,604	- -	- -
起飞（5 分钟，见注 12），海平面， Takeoff (5 min. see NOTE 12), at sea level,					
静态推力，磅 static thrust, lb	78,500	- -	67,400	- -	- -
风扇转速，转每分钟 fan speed, rpm	2,521	- -	2,806	- -	- -
平台额定环境温度值/Flat rating ambient temperature					
起飞/Takeoff					
最大连续/Maximum	86ºF/30ºC	91ºF/32.8ºC	86ºF/30ºC	- -	- -
continuous	77ºF/25ºC	- -	- -	- -	- -

I. 型别/MODELS	GEnx-1B76/P2	GEnx-1B76A/P2	GEnx-2B67	GEnx-2B67B	GEnx-2B67/P
型别清单（发动机构型）（见注16） **MODEL LIST** (Engine Configuration) (see NOTE 16)	GEnx-1B76/P2G01 GEnx-1B76/P2G02	GEnx-1B76A/P2G01 GEnx-1B76A/P2G02	GEnx-2B67G01 GEnx-2B67G02	GEnx-2B67BG01 GEnx-2B67BG02	GEnx-2B67/PG01 GEnx-2B67/PG02
COMPONENTS (GE P/Ns) **组件（GE P/Ns）**					
燃油计量装置 Fuel Metering Unit	2459M17 2122M20	- - - -	2122M20	- -	2459M17 2122M20
FADEC 硬件 FADEC Hardware	2447M85	- -	2124M70	- -	- -
FADEC 软件 FADEC Software	2124M23P22	- -	2124M22P02	2124M22P06	2124M22P10
构型外盒发动机构型 Configuration Box Engine Configuration	2400M60P07	- -	2400M60P04	2400M60P08	2400M60P09
FADEC额定值销 FADEC Rating Plug	2125M31P56	2125M31P92	2125M31P20	- -	- -
燃油泵 Fuel Pump	2122M22	- -	- -	- -	- -
点火系统/ **IGNITION SYSTEM**					
两个点火激励器GE P/N Two igniter exciters GE P/N	2121M94	- -	2139M52	- -	- -
两个点火塞GE P/N Two igniter plugs GE P/N	1754M84	- -	- -	- -	- -

I. 型别/MODELS	GEnx-1B76/P2	GEnx-1B76A/P2	GEnx-2B67	GEnx-2B67B	GEnx-2B67/P
主要尺寸 **PRINCIPAL DIMENSIONS (in)**					
长度（风扇机匣前法兰到低压涡轮后法兰）/ Length (fan case forward flange to LPT frame aft flange)	194.9 in	- -	185.0 in	- -	- -
宽度（最大外壳）/ Width (maximum envelope)	139.1 in	- -	126.0 in	- -	- -
高度（风扇机匣前法兰外径）/Height (fan case forward flange outer diameter)	137.2 in	- -	127.3 in	- -	- -
重量（干重） **WEIGHT (dry)** 包括发动机本体，基本发动机附件和在发动机制造商规范中列出的选装设备 Includes basic engine, basic engine accessories, and optional equipment as listed in the manufacturer's engine specifications.	13,552 lbs	- -	12,397 lbs	- -	- -
重心位置（英寸），仅发动机 CENTER OF GRAVITY LOCATIONS (in); Engine only					
站位（轴向） Station (axial)	216.6 in	- -	218.7 in	- -	- -
水平线 Waterline	99.9 in	- -	98.4 in	- -	- -
纵剖线 Buttline	100.7 in	- -	99.9 in	- -	- -

I. 型别 MODELS	所有/All
燃油/FUEL **滑油/OIL**	见注释 7 已批准的燃油。 See NOTE 7 for approved fuels. 2 类滑油的相关信息参见最新修订的 GEnx-1B 服务通告 SB79-0001 和 GEnx-2B 服务通告 SB79-0001。该服务通告包含了批准的符合 GE 规范 D50TF1 或最新修订版本的滑油。 Refer to GEnx-1B Service Bulletin 79-0001 and GEnx-2B Service Bulletin 79-0001 and its latest revision for detailed information pertaining to Type 2 oils. These Service Bulletins cover the approved oils conforming to General Electric Specification D50TF1 or the latest revisions that are authorized.

审定基础/
CERTIFICATION BASIS

GEnx-1B54, -1B58, -1B64,-1B67, -1B70

1965 年 2 月 1 日生效的 14 CFR 第 33 部，第 1 到 21 修正案并包括 23 修正案的 33.76。/ 14 CFR Part 33, effective February 1, 1965, as amended by 33-1 through 33-21 and amendment 33-23 section 33.76.

2012 年 12 月 31 日生效的 14 CFR 第 34 部，第 5 修正案，（2013 年 10 月 23 日生效的 14 CFR 第 34 部，第 5A 修正案适用于 GEnx-1B70 的审定基础）详细的燃油排放和排气污染的审定基础总结见注 16。/ 14 CFR part 34, amendment 5, effective December 31, 2012. (14 CFR part 34, amendment 5A, effective October 23, 2013 for the GEnx-1B70) See NOTE 16 for detailed summary of the certification basis for fuel venting and exhaust emissions.

GEnx-1B 风扇叶片专用条件(33-006-SC) / GEnx-1B Fan Blade Special Condition (33-006-SC)

等效安全判定：/ Equivalent Level of Safety (ELOS) Findings:

ELOS No. 8040-ELOS-08-NE02，14 CFR §33.87(a) & (b)等效安全
ELOS No. 8040-ELOS-08-NE02 to 14 CFR §33.87(a) & (b)

- 适用于高压涡轮一级叶片件号为 2305M26P03 和/或燃烧室燃油喷嘴件号为 2255M88P09, 2255M88P10, 和 2256M66P10 的发动机 / Applicable to engines with high pressure turbine stage 1 blade part number 2305M26P03 and/or combustor fuel nozzle part numbers 2255M88P09, 2255M88P10, and 2256M66P10

ELOS No. 8040-ELOS-08-NE03, 14 CFR §33.27(c)等效安全
ELOS No. 8040-ELOS-08-NE03 to 14 CFR §33.27(c)

ELOS No. 8040-ELOS-08-NE04, 14 CFR §33.90 等效安全
ELOS No. 8040-ELOS-08-NE04 to 14 CFR §33.90

- 适用于燃烧室件号为 2257M40G03/G04 的发动机 / Applicable to engines with combustor chamber part numbers 2257M40G03/G04

ELOS No. 8040-ELOS-08-NE05, 14 CFR §33.77 等效安全
ELOS No. 8040-ELOS-08-NE05 to 14 CFR §33.77

ELOS No. 8040-ELOS-10-NE03, 14 CFR §33.68(a)等效安全
ELOS No. 8040-ELOS-10-NE03 to 14 CFR §33.68(a)

ELOS No. AT03359EN-E-P-1, 14 CFR 33.83(d)等效安全

ELOS No. AT03359EN-E-P-1 to 14 CFR 33.83(d)

ELOS No. TC2191EN-E-P1, 14 CFR 33.27(c)(2)(v)等效安全

ELOS No. TC2191EN-E-P1 to 14 CFR 33.27(c)(2)(v)

GEnx-1B54/P1, -1B58/P1, -1B64/P1, -1B67/P1, -1B70/P1, -1B70/72/P1, -1B70/75/P1, -1B74/75/P1, -1B75/P1

1965 年 2 月 1 日生效的 14 CFR 第 33 部，第 1 到 21 修正案并包括 23 修正案的 33.76。/ 14 CFR Part 33, effective February 1, 1965, as amended by 33-1 through 33-21 and amendment 33-23 section 33.76.

2012 年 12 月 31 日生效的 14 CFR 第 34 部，第 5 修正案（2013 年 10 月 23 日生效的 14 CFR 第 34 部，第 5A 修正案适用于 GEnx-1B70/P1, -1B70/72/P1, -1B70/75/P1, -1B74/75/P1, -1B75/P1），详细的燃油排放和排气污染的审定基础总结见注 16。/ 14 CFR part 34, amendment 5, effective December 31, 2012. (14 CFR part 34, amendment 5A, effective October 23, 2013 for the GEnx-1B70/P1, -1B70/72/P1, -1B70/75/P1, -1B74/75/P1, -1B75/P1) See NOTE 16 for detailed summary of the certification basis for fuel venting and exhaust emissions.

GEnx-1B 风扇叶片专用条件(33-006-SC) / GEnx-1B Fan Blade Special Condition (33-006-SC)

等效安全判定：/ Equivalent Level of Safety (ELOS) Findings:

ELOS No. 8040-ELOS-08-NE05, 14 CFR §33.77 等效安全

ELOS No. 8040-ELOS-08-NE05 to 14 CFR §33.77

ELOS No. 8040-ELOS-12-NE01Rev. 1 , 14 CFR §33.27(c)等效安全

ELOS No. 8040-ELOS-12-NE01 Rev. 1 to 14 CFR §33.27(c)

ELOS No. 8040-ELOS-12-NE02, 14 CFR §33.68(a)等效安全

ELOS No. 8040-ELOS-12-NE02 to 14 CFR §33.68(a)

ELOS No. 8040-ELOS-12-NE03, 14 CFR §33.87(a)和(b)，与 §33.93(a) 等效安全

ELOS No. 8040-ELOS-12-NE03 to 14 CFR §33.87(a) and (b), and §33.93(a)

ELOS No. AT03359EN-E-P-1, 14 CFR 33.83(d) 等效安全

ELOS No. AT03359EN-E-P-1 to 14 CFR 33.83(d)

ELOS No. TC2191EN-E-P1, 14 CFR 33.27(c)(2)(v) 等效安全

ELOS No. TC2191EN-E-P1 to 14 CFR 33.27(c)(2)(v)

GEnx-1B54/P2, -1B58/P2, -1B64/P2, -1B67/P2, -1B70/P2, -1B70/72/P2, -1B70/75/P2, -1B74/75/P2, -1B75/P2, -1B76/P2, -1B76A/P2, -1B78/P2

1965 年 2 月 1 日生效的 14 CFR 第 33 部，第 1 到 21 修正案并包括 23 修正案的 33.76。/14 CFR Part 33, effective February 1, 1965, as amended by 33-1 through 33-21 and amendment 33-23 section 33.76.

2024 年 5 月 24 日生效的 14 CFR 第 34 部，第 7A 修正案，详细的燃油排放和排气污染的审定基础总结见注 16。/14 CFR part 34, amendment 7A, effective May 24, 2024. See NOTE 16 for detailed summary of the certification basis for fuel venting and exhaust emissions.

GEnx-1B 风扇叶片专用条件(33-006-SC) / GEnx-1B Fan Blade Special Condition (33-006-SC)

等效安全判定：/ Equivalent Level of Safety (ELOS) Findings:

ELOS No. AT3129EN-E-P-1 , 14 CFR §33.27(c)等效安全

ELOS No. AT3129EN-E-P-1 to 14 CFR §33.27(c)

ELOS No. 8040-ELOS-08-NE05, 14 CFR §33.77 等效安全

ELOS No. 8040-ELOS-08-NE05 to 14 CFR §33.77

ELOS No. TC2191EN-E-P1, 14 CFR 33.27(c)(2)(v) 等效安全

ELOS No. TC2191EN-E-P1 to 14 CFR 33.27(c)(2)(v)

GEnx-2B67, -2B67B

1965 年 2 月 1 日生效的 14 CFR 第 33 部，第 1 到 21 修正案并包括 23 修正案的 33.76。/14 CFR Part 33, effective February 1, 1965, as amended by 33-1 through 33-21 and amendment 33-23 section 33.76.

2012 年 12 月 31 日生效的 14 CFR 第 34 部，第 5 修正案，详细的燃油排放和排气污染的审定基础总结见注 16。/ 14 CFR part 34, amendment 5, effective December 31, 2012. See NOTE 16 for detailed summary of the certification basis for fuel venting and exhaust emissions.

GEnx-2B 风扇叶片专用条件(33-007-SC) / GEnx-2B Fan Blade Special Condition (33-007-SC)

等效安全判定：/ Equivalent Level of Safety (ELOS) Findings:

ELOS No. 8040-ELOS-09-NE01, 14 CFR §33.27(c)等效安全

ELOS No. 8040-ELOS-09-NE01 to 14 CFR §33.27(c)

ELOS No. 8040-ELOS-09-NE02, 14 CFR §33.77(c)和(e)等效安全

ELOS No. 8040-ELOS-09-NE02 to 14 CFR §33.77(c) and (e)

ELOS No. AT2432EN-E8040 等效安全

ELOS No. AT2432EN-E8040

ELOS-10-NE02, 14 CFR §33.78 等效安全

ELOS-10-NE02 to 14 CFR §33.78

ELOS No. AT03382EN-E-P-1 to 14 CFR 33.83(d) 等效安全

ELOS No. AT03382EN-E-P-1 to 14 CFR 33.83(d)

ELOS No. TC2191EN-E-P1, 14 CFR 33.27(c)(2)(v) 等效安全

ELOS No. TC2191EN-E-P1 to 14 CFR 33.27(c)(2)(v)

GEnx-2B67/P

1965 年 2 月 1 日生效的 14 CFR 第 33 部，第 1 到 21 修正案并包括 23 修正案的 33.76。/14 CFR Part 33, effective February 1, 1965, as amended by 33-1 through 33-21 and amendment 33-23 section 33.76.

2024 年 5 月 24 日生效的 14 CFR 第 34 部，第 7A 修正案，详细的燃油排放和排气污染的审定基础总结见注 16。/ 14 CFR part 34, amendment 7A, effective May 24, 2024. See NOTE 16 for detailed summary of the certification basis for fuel venting and exhaust emissions.

GEnx-2B 风扇叶片专用条件(33-007-SC) / GEnx-2B Fan Blade Special Condition (33-007-SC)

等效安全判定：/ Equivalent Level of Safety (ELOS) Findings:

ELOS No. AT3138EN-E-P-1, 14 CFR §33.27(c)等效安全

ELOS No. AT3138EN-E-P-1 to 14 CFR §33.27(c)

ELOS No. AT3138EN-E-P-2, 14 CFR §33.87(a)和(b),及§33.93 等效安全

ELOS No. AT3138EN-E-P-2 to 14 CFR §33.87(a) and (b), and §33.93

ELOS No. AT3138EN-E-P-3, 14 CFR §33.77(c)和(e)等效安全

ELOS No. AT3138EN-E-P-3 to 14 CFR §33.77(c) and (e)

ELOS No. AT3138EN-E-P-5, 14 CFR §33.78 等效安全

ELOS No. AT3138EN-E-P-5 to 14 CFR §33.78

ELOS No. AT03382EN-E-P-1, 14 CFR 33.83(d) 等效安全

ELOS No. AT03382EN-E-P-1 to 14 CFR 33.83(d)

ELOS No. TC2191EN-E-P1, 14 CFR 33.27(c)(2)(v) 等效安全

ELOS No. TC2191EN-E-P1 to 14 CFR 33.27(c)(2)(v)

型号合格证 E00078NE / TYPE CERTIFICATE E00078NE

型别/ MODEL	申请日期/APPLICATION DATE	颁发 / 修订 ISSUED/AMENDED
GEnx-1B54	2004年12月13日	2008年3月31日
	December 13, 2004	March 31, 2008
GEnx-1B58	2005年5月24日	2008年3月31日
	May 24, 2005	March 31, 2008
GEnx-1B64	2004年12月13日	2008年3月31日
	December13, 2004	March 31, 2008
GEnx-1B67	2005年5月24日	2008年3月31日
	May 24, 2005	March 31, 2008
GEnx-1B70	2004年5月24日	2008年3月31日
	December13, 2004	March 31, 2008
GEnx-1B54/P1	2010年9月21日	2012年6月14日
	September 21, 2010	June 14, 2012
GEnx-1B58/P1	2010年9月21日	2012年6月14日
	September 21, 2010	June 14, 2012
GEnx-1B64/P1	2010年9月21日	2012年6月14日
	September 21, 2010	June 14, 2012
GEnx-1B67/P1	2010年9月21日	2012年6月14日
	September 21, 2010	June 14, 2012
GEnx-1B70/P1	2010年9月21日	2012年6月14日
	September 21, 2010	June 14, 2012
GEnx-1B70/72/P1	2010年9月21日	2012年6月14日
	September 21, 2010	June 14, 2012
GEnx-1B70/75/P1	2010年9月21日	2012年6月14日
	September 21, 2010	June 14, 2012
GEnx-1B74/57/P1	2010年9月21日	2012年6月14日
	September 21, 2010	June 14, 2012
GEnx-1B75/P1	2010年9月21日	2012年6月14日
	September 21, 2010	June 14, 2012
GEnx-1B54/P2	2010年10月6日	2013年4月12日
	October 6, 2010	April 12, 2013
GEnx-1B58/P2	2010年10月6日	2013年4月12日
	October 6, 2010	April 12, 2013

GEnx-1B64/P2	2010年10月6日 October 6, 2010	2013年4月12日 April 12, 2013
GEnx-1B67/P2	2010年10月6日 October 6, 2010	2013年4月12日 April 12, 2013
GEnx-1B70/P2	2010年10月6日 October 6, 2010	2013年4月12日 April 12, 2013
GEnx-1B70/72/P2	2010年10月6日 October 6, 2010	2013年4月12日 April 12, 2013
GEnx-1B70/75/P2	2010年10月6日 October 6, 2010	2013年4月12日 April 12, 2013
GEnx-1B74/57/P2	2010年10月6日 October 6, 2010	2013年4月12日 April 12, 2013
GEnx-1B75/P2	2010年10月6日 October 6, 2010	2013年4月12日 April 12, 2013
GEnx-1B78/P2	2010年10月6日 October 6, 2010	2013年4月12日 April 12, 2013
GEnx-2B67	2006年2月28日 February 28, 2006	2010年7月22日 July 22, 2010
GEnx-2B67B	2010年10月15日 October 15, 2010	2011年9月12日 September 12, 2011
GEnx-2B67/P	2010年10月15日 October 15, 2010	2013年11月22日 November 22, 2013
GEnx-1B76/P2	2016年3月24日 March 24, 2016	2016年6月20日 June 20, 2016
GEnx-1B76A/P2	2016年3月24日 March 24, 2016	2016年6月20日 June 20, 2016

CAAC 认可审定基础/ CAAC VALIDATION BASIS

接受 FAA 的审定基础作为认可审定基础。
Accept FAA certification basis as validation basis.

附加技术条件/Additional Technical Requirement:
(1) 中华人民共和国国家标准“3 号喷气燃料”（GB 6537）
National Standard of the People’s Republic of China“No.3 Jet Fuel”（GB 6537）
(2) 燃油排泄和排气排出物规定 CCAR-34-R1，见注 16a
Fuel venting and exhaust emissions requirements CCAR-34-R1，See NOTE 16a

生产依据/ PRODUCTION BASIS

生产合格证 No. 108。
Production Certificate No. 108

注释/NOTES

注 1/NOTE 1 最大许用发动机转子转速 /MAXIMUM PERMISSIBLE ENGINE ROTOR SPEEDS

GEnx-lB54, -1B58, -1B64, -1B67, -lB70

低压转子/Low pressure rotor (N1): 2,726 RPM

高压转子/High pressure rotor (N2) : 13,425 RPM

注/NOTES:

A) 100%的 N1 转速是/100 percent N1 is: 2,560 RPM

B) 100%的 N2 转速是/100 percent N2 is: 11,377 RPM

GEnx-lB54/P1，-1B58/P1，-1B64/P1，-1B67/P1，-lB70/P1，-lB70/72/P1，-lB70/75/P1，-lB74/75/P1, -lB75/P1

低压转子/Low pressure rotor (N1): 2,778 RPM

高压转子/High pressure rotor (N2) : 13,539 RPM

注/NOTES:

A) 100%的 N1 转速是/100 percent N1 is: 2,560 RPM

B) 100%的 N2 转速是/100 percent N2 is: 11,377 RPM

GEnx-lB54/P2，-1B58/P2，-1B64/P2，-1B67/P2，-lB70/P2，-lB70/72/P2，-lB70/75/P2，-lB74/75/P2, -lB75/P2, -1B76/P2, -1B76A/P2, -lB78/P2

低压转子/Low pressure rotor (N1): 2,778 RPM

高压转子/High pressure rotor (N2) : 13,368RPM

注/NOTES:

A) 100%的 N1 转速是/100 percent N1 is: 2,560 RPM

B) 100%的 N2 转速是/100 percent N2 is: 11,377 RPM

GEnx-2B67, -2B67B

低压转子/Low pressure rotor (N1): 3,026 RPM

高压转子/High pressure rotor (N2) : 13,425 RPM

注/NOTES:

A) 100%的 N1 转速是/100 percent N1 is: 2,835 RPM

B) 100%的 N2 转速是/100 percent N2 is: 11,377 RPM

GEnx-2B67/P

低压转子/Low pressure rotor (N1): 3,026 RPM

高压转子/High pressure rotor (N2) : 13,368 RPM

注/NOTES:

A) 100%的 N1 转速是/100 percent N1 is: 2,835 RPM

B) 100%的 N2 转速是/100 percent N2 is: 11,377 RPM

注 2/NOTE 2 最大许用温度/MAXIMUM PERMISSIBLE TEMPERATURES

GEnx-1B54, -1B58, -1B64 , -1B67, -1B70

指示的涡轮排气温度（T495）（见注 5）

Indicated turbine exhaust gas temperature (T49) (See NOTE 5)

起飞 5 分钟（见注 12）/ Takeoff 5 minutes (see NOTE 12)	1,895°F (1,035°C)
30 秒最大瞬时/ 30 seconds Maximum Transient	1,904°F (1,040°C)
最大连续 Maximum Continuous	1,841°F (1,005°C)
地面起动（手动或自动）/ Ground starts (manual or auto)	1,382°F (750°C)
空中起动（手动或自动）/ Inflight starts (manual or auto)	1,607°F (875°C)
空中起动（高功率断油）/ Inflight starts (high power fuel cut)	1,787°F (975°C)

滑油温度限制/Oil temperature limits

连续/Continuous	320°F (160°C)
瞬时/Transient (15 minutes)	350°F (177°C)

GEnx-lB54/P1, -1B58/P1, -1B64/P1, -1B67/P1, -lB70/P1, -lB70/72/P1, -lB70/75/P1, -lB74/75/P1, -lB75/P1

指示的涡轮排气温度（T495）（见注 5）

Indicated turbine exhaust gas temperature (T49) (See NOTE 5)

起飞 5 分钟（见注 12）/ Takeoff 5 minutes (see NOTE 12)	1,940°F (1,060°C)
30 秒最大瞬时/ 30 seconds Maximum Transient	1,949°F (1,065°C)
最大连续 Maximum Continuous	1,886°F (1,030°C)
地面起动（手动或自动）/ Ground starts (manual or auto)	1,382°F (750°C)
空中起动（手动或自动）/ Inflight starts (manual or auto)	1,607°F (875°C)
空中起动（高功率断油）/	1,787°F (975°C)

Inflight starts (high power fuel cut)

滑油温度限制/Oil temperature limits

连续/Continuous	320°F (160°C)
瞬时/Transient (15 minutes)	350°F (177°C)

GEnx-lB54/P2，-1B58/P2，-1B64/P2，-1B67/P2，-lB70/P2，-lB70/72/P2，-lB70/75/P2，-lB74/75/P2, -lB75/P2, -1B76/P2, -1B76A/P2, -lB78/P2

指示的涡轮排气温度（T495）（见注 5）

Indicated turbine exhaust gas temperature (T49) (See NOTE 5)

起飞 5 分钟（见注 12）/ Takeoff 5 minutes (see NOTE 12)	1,949°F (1,065°C)
30 秒最大瞬时/ 30 seconds Maximum Transient	1,958°F (1,070°C)
最大连续 Maximum Continuous	1,886°F (1,030°C)
地面起动（手动或自动）/ Ground starts (manual or auto)	1,382°F (750°C)
空中起动（手动或自动）/ Inflight starts (manual or auto)	1,607°F (875°C)
空中起动（高功率断油）/ Inflight starts (high power fuel cut)	1,787°F (975°C)

滑油温度限制/Oil temperature limits

连续/Continuous	320°F (160°C)
瞬时/Transient (15 minutes)	350°F (177°C)

GEnx-2B67, -2B67B, -2B67/P

指示的涡轮排气温度（T495）（见注 5）

Indicated turbine exhaust gas temperature (T49) (See NOTE 5)

起飞 5 分钟（见注 12）/ Takeoff 5 minutes (see NOTE 12)	1,940°F (1,060°C)
30 秒最大瞬时/ 30 seconds Maximum Transient	1,949°F (1,065°C)
最大连续 Maximum Continuous	1,886°F (1,030°C)
地面起动（手动或自动）/ Ground starts (manual or auto)	1,382°F (750°C)
空中起动（手动或自动）/ Inflight starts (manual or auto)	1,607°F (875°C)
空中起动（高功率断油）/ Inflight starts (high power fuel cut)	1,787°F (975°C)

滑油温度限制/Oil temperature limits

连续/Continuous	320°F (160°C)
瞬时/Transient (15 minutes)	350°F (177°C)

注 3/NOTE 3 燃油和滑油压力限制/FUEL AND OIL PRESSURE LIMITS

发动机燃油泵进口处燃油压力限制/FUEL PRESSURE LIMITS AT THE ENGINE PUMP INLET

从最低燃油压力(不低于真实蒸汽压力+5.0psi 和环境+5.0psi 中较大者)至最大 70 psig。/The limit is from minimum fuel pressures of not less than the greater of true vapor pressure plus 5.0 psi or ambient plus 5.0 psi to a maximum of 70 psig.

对于安装于波音 B787 飞机上的 GEnx-1B 发动机，最低燃油压力限制延伸至最大 60 分钟最低燃油压力 3.5 psia 和最大气液比（v/l）0.45，以及最大 600 分钟最小燃油压力 3.5 psia 和最大气液比（v/l）0.28. /For the GEnx-1B, on the Boeing B787 aircraft, the minimum fuel pressure limit is extended down to minimum fuel pressure of 3.5 psia and maximum vapor-to-liquid ratio (v/l) of 0.45 for up to 60 minutes followed by up to 600 minutes with minimum fuel pressure of 3.5 psia and a maximum vapor-to-liquid ratio (v/l) of 0.28.

滑油压力限制/OIL PRESSURE LIMITS

最低和最高滑油压力见 GEnx-1B 使用说明书 GEK 112857 和 GEnx-2B 使用说明书 GEK 114113 的图 8-1. /See Figure 8-1 of GEnx-1B Operating Instructions GEK 112857 and GEnx-2B Operating Instructions GEK 114113 for definition of minimum and maximum oil pressures.

注 4/NOTE 4 GEnx 附件驱动特性

GEnx ACCESSORY DRIVE CHARACTERISTICS

GEnx-1B54, -1B58, -1B64, -1B67, -1B70

附件 Accessory	定义 Defined By	转向（注释 A） Rotation (See Comment A)	齿轮/核心转子比 Gear Ratio to Core Rotor	驱动轴（转/分钟） Drive Shaft (RPM)	最大重量 磅（公斤） Maximum Weight LB (KG)	最大悬臂力矩 英寸-磅（牛·米） Maximum Overhung Moment IN-LB (N·m)	剪切力矩 英寸-磅（牛·米） Shear Torque IN-LB (N·m)	连续额定值 马力（空中-共两个 VFSG） Continuous Pad Rating HP (Inflight –total for both VFSG's)	过载（马力） Overload (HP)
VFSG 1	ICNR-GE -BE059	CCW	1.1331	12,891.30	234.4 (106.3) 湿重/WET	1,718 (194.4)	19,596-20,220 (2,214-2,285)	692 (两台发动机/Dual Engine) 790 (一台发动	见注释C See Comment C

								机/Single Engine)	
VFSG 2	ICNR-GE -BE060	CCW	1.1331	12,891.30	234.4 (106.3) 湿重/WET	1,718 (194.4)	19,596-20,220 (2,214-2,285)	692 (两台发动机/Dual Engine) 790 (一台发动机/Single Engine)	见注释C See Comment C
液压泵/ Hydraulic Pump	ICNR-GE -BE057	CCW	0.4438	5,049.10	30.3 (13.74) 湿重/WET	140 (15.81) 湿重/WET	2,625-3,715 (297-420)	62	85 [5 sec]
核心转子转动 Core Turn	0.5 Square Drive/ Dwg-2305M71	CCW	0.6773	7,705.60	N. A.	N. A.	N. A.	N. A.	N. A.

注释/ Comment：

A. 转向定义为面向驱动座/Rotation is defined facing the pad.

B. 100%的发动机核心转速为11,377转每分钟/100 percent engine core speed is 11,377rpm.

C. 双驱动座在飞行慢车达到1秒钟时过载为1,021马力，其中任意一个不超过528马力（单发动机）。/ 1,021 HP total both drive pads at flight idle, with no more than 528 HP on any one drive pad for up to 1 second [single engine].
双驱动座在飞行慢车达到5分钟时过载为866马力，其中任意一个不超过471马力（双发动机）。/ 866 HP total both drive pads at flight idle, with no more than 471 HP on any one drive pad for up to 5 minutes [dual engine].

GEnx-lB54/P1, -1B58/P1, -1B64/P1, -1B67/P1, -lB70/P1, -lB70/72/P1, -lB70/75/P1, -lB74/75/P1, -lB75/P1

附件 Accessory	定义 Defined By	转向（注释 A） Rotation (See Comment A)	齿轮/核心转子比 Gear Ratio to Core Rotor	驱动轴（转/分钟） Drive Shaft (RPM)	最大重量 磅（公斤） Maximum Weight LB (KG)	最大悬臂力矩 英寸-磅（牛·米） Maximum Overhung Moment IN-LB (N·m)	剪切力矩 英寸-磅（牛·米） Shear Torque IN-LB (N·m)	连续额定值 马力（空中-共两个 VFSG） Continuous Pad Rating HP (Inflight –total for both VFSG's)	过载（马力） Overload (HP)
VFSG 1	ICNR-GE -BE059	CCW	1.1331	12,891.30	234.4 (106.3) 湿重/WET	1,718 (194.4)	19,596-20,220 (2,214-2,285)	676 (两台发动机/Dual Engine) 720 (一台发动机/Single	见注释C See Comment C

								Engine)	
VFSG 2	ICNR-GE -BE060	CCW	1.1331	12,891.30	234.4 (106.3) 湿重/WET	1,718 (194.4)	19,596-20,220 (2,214-2,285)	676 (两台发动机/Dual Engine) 720 (一台发动机/Single Engine)	见注释C See Comment C
液压泵/ Hydraulic Pump	ICNR-GE -BE057	CCW	0.4438	5,049.10	30.3 (13.74) 湿重/WET	140 (15.81) 湿重/WET	2,625-3,715 (297-420)	62	85 [5 sec]
核心转子转动 Core Turn	0.5 Square Drive/ Dwg-2305M71	CCW	0.6773	7,705.60	N. A.	N. A.	N. A.	N. A.	N. A.

注释/ Comment：

A. 转向定义为面向驱动座/Rotation is defined facing the pad.

B. 100%的发动机核心转速为11,377转每分钟/100 percent engine core speed is 11,377rpm.

C. 双驱动座在飞行慢车达到1秒钟时过载为1,021马力，其中任意一个不超过528马力（单发动机）。/ 1,021 HP total both drive pads at flight idle, with no more than 528 HP on any one drive pad for up to 1 second [single engine].
双驱动座在飞行慢车达到5分钟时过载为866马力，其中任意一个不超过471马力（双发动机）。/ 866 HP total both drive pads at flight idle, with no more than 471 HP on any one drive pad for up to 5 minutes [dual engine].

GEnx-lB54/P2, -1B58/P2, -1B64/P2, -1B67/P2, -lB70/P2, -lB70/72/P2, -lB70/75/P2, -lB74/75/P2, -lB75/P2, -1B76/P2, -1B76A/P2, -lB78/P2

附件 Accessory	定义 Defined By	转向（注释 A） Rotation (See Comment A)	齿轮/核心转子比 Gear Ratio to Core Rotor	驱动轴（转/分钟） Drive Shaft (RPM)	最大重量 磅（公斤） Maximum Weight LB (KG)	最大悬臂力矩 英寸-磅（牛·米） Maximum Overhung Moment IN-LB (N·m)	剪切力矩 英寸-磅（牛·米） Shear Torque IN-LB (N·m)	连续额定值 马力（空中-共两个VFSG） Continuous Pad Rating HP (Inflight –total for both VFSG's)	过载（马力） Overload (HP)
VFSG 1	ICNR-GE -BE059	CCW	1.1331	12,891.30	234.4 (106.3) 湿重/WET	1,718 (194.4)	19,596-20,220 (2,214-2,285)	676 (两台发动机/Dual Engine) 720 (一台发动	见注释C See Comment C

								机/Single Engine)	
VFSG 2	ICNR-GE -BE060	CCW	1.1331	12,891.30	234.4 (106.3) 湿重/WET	1,718 (194.4)	19,596-20,220 (2,214-2,285)	676 (两台发动机/Dual Engine) 720 (一台发动机/Single Engine)	见注释C See Comment C
液压泵/ Hydraulic Pump	ICNR-GE -BE057	CCW	0.4438	5,049.10	30.3 (13.74) 湿重/WET	140 (15.81) 湿重/WET	2,625-3,715 (297-420)	59	85 [5 sec]
核心转子转动 Core Turn	0.5 Square Drive/ Dwg-2305M71	CCW	0.6773	7,705.60	N. A.	N. A.	N. A.	N. A.	N. A.

注释/ Comment：

A. 转向定义为面向驱动座/Rotation is defined facing the pad.

B. 100%的发动机核心转速为11,377转每分钟/100 percent engine core speed is 11,377rpm.

C. 双驱动座在飞行慢车达到1秒钟时过载为1,021马力，其中任意一个不超过528马力（单发动机）。/ 1,021 HP total both drive pads at flight idle, with no more than 528 HP on any one drive pad for up to 1 second [single engine].
双驱动座在飞行慢车达到5分钟时过载为866马力，其中任意一个不超过471马力（双发动机）。/ 866 HP total both drive pads at flight idle, with no more than 471 HP on any one drive pad for up to 5 minutes [dual engine].

GEnx-2B67, -2B67B, -2B67/P

附件 Accessory	定义 Defined By	转向（注释 A） Rotation (See Comment A)	齿轮/核心转子比 Gear Ratio to Core Rotor	驱动轴（转/分钟） Drive Shaft (RPM)	静态重量 磅（公斤） Static Weight LB (KG)	最大悬臂力矩 英寸-磅 Maximum Overhung Moment IN-LB	剪切力矩 Shear Torque	扭矩 Torque
整体驱动发电机/ IDG	波音747-8的发动机规范/ 747-8 Boeing engine specification	CCW	0.6696	4654至8989（注释C） 4654 to 8989（See Comment C）	整体驱动发电 126.8/ IDG 126.8 快卸装置 5.6/ QAD 5.6	900	9000 + 400 英寸-磅/ in-lb	(英寸-磅) / (in-lb) 2245 –连续/ CONTINUOUS 3575 –过渡（注释D）/ TRANSIENT (See Comment D) 5250 –瞬时（注释E）/ MOMENTARY (See Comment E)

液压泵/ HYDRAULIC PUMP	波音747-8的发动机规范/ 747-8 Boeing engine specification	CCW	0.3157	2194 to 4238	40.1 干重/DRY	261 湿重/WET	4550 + 300 英寸-磅/ in-lb	(英寸-磅) / (in-lb) 1103 –连续/ CONTINUOUS 1790 –过渡（注释F）/ TRANSIENT (See Comment F) 4250 –失效（注释G）/ FAILURE (See Comment G)
空气涡轮起动机/ AIR TURBINE STARTER	M50TF4062	CCW	1.1331	58.4 % N2 (5863 RPM) 最大切断转速 / MAX CUT OUT	49.38	300	1685 英尺-磅 /ft-lb	(英尺-磅) / (ft-lb) 冷天 / Cold Day 辅助动力装置起动/ APU Start 617 交输引气起动 / XBL Start 820
核心转子转动 / Core Turn	0.5 Square Drive	CCW	0.6012	6839.9	N. A.	N. A.	N. A.	N. A.

注释/ Comment：

A. 转向定义为面向驱动座/Rotation is defined facing the pad.

B. 100%的发动机核心转速为11,377转每分钟/100 percent engine core speed is 11,377rpm.

C. 整体驱动发电机工作速度：4,600转每分钟。当输入转速保持4,450转每分钟或低于150+ 50毫秒时载荷移除/ IDG online speed: 4,600 rpm. Load is removed when input remains 4,450 RPM or less for 150 + 50 ms.

D. 每1,000发动机工作小时1次/ Once every 1,000 engine operating hours.

E. 每5,000发动机工作小时1次/ Once every 5,000 engine operating hours.

F. 在发动机起动和同时发生襟翼和齿轮作动时的峰值工作扭矩（起飞条件）/ Peak running torque at engine start and at maximum flow for simultaneous flap and gear operation (takeoff condition).

G. 输入轴剪切事件发生时产生的扭矩/ Torque experienced during an input shaft shear event.

注 5/NOTE 5 发动机额定值 /ENGINE RATINGS

发动机额定值是基于下列条件下的校准台架性能：/Engine ratings are based on calibrated test stand performance under the following conditions:

1. 海平面静止状态，标准压力(14.696 psia)，59 °F /Sea level static, standard pressure (14.696 psia), 59 °F
2. 无客户端引气和功率提取 /No customer bleed or customer horsepower extraction
3. 理想进气，100%冲压恢复 /Ideal inlet, 100% ram recovery
4. 生产型飞机飞行整流罩 /Production aircraft flight cowling
5. 生产型传感设备 /Production instrumentation
6. 燃油低热值 18,400 BTU/lb /Fuel lower heating value of 18,400 BTU/lb

注6/NOTE 6 最大许用引气提取 /MAXIMUM PERMISSABLE BLEED AIR EXTRACTION

GEnx-lB54, -lB58, -1B64, -1B67, and -1B70

（适用于未装有增压防冰系统的发动机）/（applicable to engines not equipped with booster anti-ice system）

	7级-W25的百分比 /Stage 7 - Percent W25
任意功率设置 /Any Power Setting	3.3%

GEnx-lB54, -lB58, -1B64, -1B67, -1B70, -lB54/P1, -1B58/P1, -1B64/P1, -1B67/P1, -lB70/P1, -lB70/72/P1, -lB70/75/P1, -lB74/75/P1, and -lB75/P1, -lB54/P2, -1B58/P2, -1B64/P2, -1B67/P2, -lB70/P2, -lB70/72/P2, -lB70/75/P2, -lB74/75/P2, -lB75/P2, -1B76/P2, -1B76A/P2 and -lB78/P2

（适用于装有增压防冰系统的发动机）/（applicable to engines equipped with a booster anti-ice system）

风扇修正转速的百分比（N1K） Percent Corrected Fan Speed (N1K)	7级-W25的百分比 Stage 7 - Percent W25
0 to 31.3	5.0%
31.3 to 66.4 > 66.4	4.7% 3.3%

注释 /Comments:

A. 100%发动机风扇转速为2,560转每分钟 /100% engine fan speed is 2,560 RPM

B. 任意功率设置下，发动机进气道防冰系统供气最大流量为3.3% W25 /3.3% W25 is the maximum flow delivered to the engine inlet anti-ice system at any power setting.

GEnx-2B67, -2B67B

百分比 %N1K	压气机出口引气W25百分比 CDP Bleed Percent W25	
	T2 > 67ºF	T2 < 67ºF
0	13	13
81.1	13	13
81.1	8	10
88.2	8	10
88.2	8	8.5
91.7	8	8.5
91.7	8	8
120.0	8	8

注：100%风扇转速为2,835转每分钟/

NOTE: 100% engine fan speed is 2,835 RPM

百分比 %N1K	压气机4级引气W25百分比 S4 Bleed Percent W25
0	7.28%
15.9	7.28%
21.2	7.28%
50.0	7.28%
50.0	7.85%
75.8	7.85%
75.8	7.65%
81.1	7.65%
84.7	7.85%
91.7	7.85%
108.6	6.00%
108.6	5.00%
120.0	5.00%

GEnx-2B67/P

百分比 %N1K	压气机出口引气W25百分比 CDP Bleed Percent W25	
	T2 > 67ºF	T2 < 67ºF
0	13	13
81.1	13	13
81.1	8	10
88.2	8	10
88.2	8	8.5
91.7	8	8.5
91.7	8	8
120.0	8	8

注：100%风扇转速为2,835转每分钟/

NOTE: 100% engine fan speed is 2,835 RPM

百分比 %N1K	压气机4级引气 W25百分比 S4 Bleed Percent W25
0	7.28%
15.9	7.28%
21.2	7.28%
50.0	7.28%
50.0	7.85%
64.6	7.85%
64.6	7.60%
77.8	7.60%
77.8	7.39%
95.9	7.39%
108.6	6.00%
108.6	5.00%
120.0	5.00%

注7/NOTE 7 燃油/FUEL

关于GEnx-1B的燃油和添加剂详细信息参见服务通告73-0001和安装手册GEK 112856。该服务通告包含符合GE航空规范D50TF2的燃油清单。适用的燃油等级为：/Refer to GEnx-1B Service Bulletin 73-0001 and Installation Manual GEK 112856 for detailed information pertaining to fuels and additives. These Service Bulletins cover the eligible fuels listed per GE Aviation Specification D50TF2. Eligible fuel classifications are:

A类-航空煤油 /Class A – Aviation Kerosene

C类-低凝固点煤油 /Class C – Low Freeze Kerosene

D类-高闪点煤油 /Class D – High Flash Kerosene

E类-低闪点煤油 /Class E – Low Flash Kerosene

注：B类-（(Jet B, JP4）禁用 /NOTE: Class B – (Jet B, JP4) is prohibited

Kathon TM fp 1.5 燃油生物灭杀剂禁用 /Kathon TM fp 1.5 Fuel Biocide is prohibited

关于GEnx-2B的燃油和添加剂详细信息参见服务通告73-0001。该服务通告包含符合GE航空规范D50TF2的燃油清单。适用的燃油等级为：/Refer to GEnx-2B Service Bulletin 73-0001for detailed information pertaining to fuels and additives. These Service Bulletins cover the eligible fuels listed per GE Aviation Specification D50TF2. Eligible fuel classifications are:

A类-航空煤油 /Class A – Aviation Kerosene

C类-低凝固点煤油 /Class C – Low Freeze Kerosene

D类-高闪点煤油 /Class D – High Flash Kerosene

E类-低闪点煤油 /Class E – Low Flash Kerosene

注：B类-（(Jet B, JP4）禁用 /NOTE: Class B – (Jet B, JP4) is prohibited

注 8/NOTE 8 寿命限制 /LIFE LIMITS

GEnx-1B54, -1B58, -1B64, -1B67, -1B70, -1B54/P1,-1B58/P1, -1B64/P1, -1B67/P1, -1B70/P1, -1B70/72/P1, -1B70/75/P1, -1B74/75/P1和-1B75/P1, -lB54/P2, -1B58/P2, -1B64/P2, -1B67/P2, -lB70/P2, -lB70/72/P2, -lB70/75/P2, -lB74/75/P2, -lB75/P2，-1B76/P2, -1B76A/P2和-lB78/P2关键转动件的寿命限制在GEnx发动机手册GEK 112851第5章公布。/Life limits for critical rotating components for the GEnx-1B54, -1B58, -1B64, -1B67, -1B70 -1B54/P1, -1B58/P1, -1B64/P1, -1B67/P1, -1B70/P1, -1B70/72/P1, -1B70/75/P1, -1B74/75/P1 -1B75/P1, -lB54/P2, -1B58/P2, -1B64/P2, -1B67/P2, -lB70/P2, -lB70/72/P2, -lB70/75/P2, -lB74/75/P2, -lB75/P2，-1B76/P2, -1B76A/P2 and-lB78/P2 are published in Chapter 5 of the GEnx Engine Manual, GEK 112851.

The GEnx-2B67, -2B67B, and -2B67/P 循环寿命限制在GEnx发动机手册GEK 114119第5章公布 / The GEnx-2B67, -2B67B, and -2B67/P cyclic life limits are published in Chapter 5 of the GEnx Engine Manual GEK 114119.

GEnx-1B和GEnx-2B循环寿命限制基于商业任务循环，包括起动、起飞、爬升、巡航、下降和着陆。着陆过程中使用（或不使用）风扇反推装置来减速都不影响循环计数。下面任何一种都可作为一个循环： /The GEnx-1B and GEnx-2B cyclic life limits are based on a commercial mission cycle, which consists of a start, takeoff, climb, cruise, descent, and landing. Use (or non-use) of a fan reverser for braking during landing does not affect cycle counts. Each of the following constitutes one cycle:
(1) 一次包括起飞和着陆的飞行， /a flight consisting of a takeoff and landing,
(2) 一次接地-复飞着陆或者模拟接地-复飞着陆（无轮载）的飞行员培训。 /a touch-and-go landing or simulated touch-and-go landing (no weight on wheels) for pilot training.

注 9/NOTE 9 推力设置参数 /THRUST SETTING PARAMETER

所有运行的功率设置，功率检查和发动机推力输出控制都是基于风扇转速（N1）。为此，转速传感器包括在发动机组件中。/Power setting, power checks, and control of engine thrust output in all operations are based on Fan Speed (N1). Speed sensors are included in the engine assembly for this purpose.

注 10/NOTE 10 结冰条件 /ICING CONDITIONS

在结冰条件下地面运转的要求、限制和注释在以下文件中规定：/ Requirements and limitations for ground operation in icing conditions are specified in:

GEnx-1B54, -1B58, -1B64, -1B67, -1B70 -1B54/P1, -1B58/P1, -1B64/P1, -1B67/P1, -1B70/P1, -1B70/72/P1, -1B70/75/P1, -1B74/75/P1 ,-1B75/P1,-lB54/P2, -1B58/P2, -1B64/P2, -1B67/P2, -lB70/P2, -lB70/72/P2, -lB70/75/P2, -lB74/75/P2, -lB75/P2, -1B76/P2, -1B76A/P2和-lB78/P2在使用说明手册GEK 112857中。/ Operating Instructions Manual GEK 112857 for the GEnx-1B54, -1B58, -1B64, -1B67, -1B70 -1B54/P1, -1B58/P1, -1B64/P1, -1B67/P1, -1B70/P1, -1B70/72/P1, -1B70/75/P1, -1B74/75/P1，-1B75/P1，-lB54/P2, -1B58/P2, -1B64/P2, -1B67/P2, -lB70/P2, -lB70/72/P2, -lB70/75/P2, -lB74/75/P2, -lB75/P2, -1B76/P2, -1B76A/P2 and-lB78/P2

GEnx-2B67, -2B67B, and -2B67/P在使用说明手册GEK 114113中。/ Operating Instructions GEK 114113 for the GEnx-2B67, -2B67B, and -2B67/P.

注 11/NOTE 11 负加速度运行 /NEGATIVE G OPERATION

仅在“负-G”运行时，允许在最低滑油压力以下最多工作15秒，在以下文件中规定：/ During "negative-G" operation only, it is permissible to operate below minimum oil pressure for a maximum of 15 seconds, as specified in:

GEnx-1B54, -1B58, -1B64, -1B67, -1B70 -1B54/P1, -1B58/P1, -1B64/P1, -1B67/P1, -1B70/P1, -1B70/72/P1, -1B70/75/P1, -1B74/75/P1，1B75/P1，-lB54/P2, -1B58/P2, -1B64/P2, -1B67/P2, -lB70/P2, -lB70/72/P2, -lB70/75/P2, -lB74/75/P2, -lB75/P2, -1B76/P2, -1B76A/P2和-lB78/P2最低滑油压力定义见GEnx使用说明手册GEK 112857，第8节。/ GEnx Operating Instructions, GEnx-1B54, -1B58, -1B64, -1B67, -1B70 -1B54/P1, -1B58/P1, -1B64/P1, -1B67/P1, -1B70/P1, -1B70/72/P1, -1B70/75/P1, -1B74/75/P1, -1B75/P1, -lB54/P2, -1B58/P2, -1B64/P2, -1B67/P2, -lB70/P2, -lB70/72/P2, -lB70/75/P2, -lB74/75/P2, -lB75/P2, -1B76/P2, -1B76A/P2 and-lB78/P2 minimum oil pressure definition.

GEnx-2B67, -2B67B, and -2B67/P最低滑油压力定义见GEnx使用说明手册GEK 114113，第8节。/ GEnx Operating Instructions, GEK 114113, Section 8, for the GEnx-2B67, -2B67B, and -2B67/P minimum oil pressure definition.

注 12/NOTE 12 起飞时间限制 /TAKEOFF TIME LIMIT

一台发动机停车的意外情况下正常5分钟起飞额定值可以延长至10分钟。
The normal 5 minute takeoff rating may be extended to 10 minutes for engine out contingency.

注 13/NOTE 13 时间限制派遣准则 /TIME LIMITED DISPATCH CRITERIA

关于发动机控制系统时间限制派遣准则和维护要求在以下文件中规定：/Criteria pertaining to the engine control systems’ dispatch and maintenance requirements are specified in:
对于GEnx-1B54, -1B58, -1B64, -1B67, -1B70 -1B54/P1, -1B58/P1, -1B64/P1, -1B67/P1, -1B70/P1, -1B70/72/P1, -1B70/75/P1, -1B74/75/P1，-1B75/P1，-lB54/P2, -1B58/P2, -1B64/P2, -1B67/P2, -lB70/P2, -lB70/72/P2, -lB70/75/P2, -lB74/75/P2, -lB75/P2, -1B76/P2, -1B76A/P2和-lB78/P2发动机型别：GE全权限数字控制系统时间限制派遣总结文件 GEK 112858和GEnx发动机手册GEK 112851适航限制章节，定义了各种构型和最大运行间隔。/For the GEnx-1B54, -1B58, -1B64, -1B67, -1B70 -1B54/P1, -1B58/P1, -1B64/P1, -1B67/P1, -1B70/P1, -1B70/72/P1, -1B70/75/P1, -1B74/75/P1，-1B75/P1，-lB54/P2, -1B58/P2, -1B64/P2, -1B67/P2, -lB70/P2, -lB70/72/P2, -lB70/75/P2, -lB74/75/P2, -lB75/P2, -1B76/P2, -1B76A/P2and-lB78/P2 engine models: General Electric FADEC Control System Time Limited Dispatch Summary Document, GEK 112858, and the Airworthiness Limitations Section of the GEnx Engine Manual, GEK 112851, which define the various configurations and maximum operating intervals.

对于GEnx-2B67, -2B67B, and -2B67/P发动机型别：GE全权限数字控制系统时间限制派遣总结文件

GEK 114112和GEnx发动机手册GEK 114119适航限制章节，定义了各种构型和最大运行间隔。/ For the GEnx-2B67, -2B67B, and -2B67/P engine models: General Electric FADEC Control System Time Limited Dispatch Summary Document, GEK 114112, and the Airworthiness Limitations Section of the GEnx Engine Manual, GEK 114119, which define the various configurations and maximum operating intervals.

注 14/NOTE 14 删除。/Deleted.

注 15/NOTE 15 风扇叶片修理 /FAN BLADE REPAIR

风扇叶片根部区到内环气流通道复合材料修理的批准必须与FAA发动机审定办公室协调。修理必须表明符合GEnx-1B专用条件33-006-SC或GEnx-2B专用条件33-007-SC。/Approval of repairs of the fan blade composite material in the root section of the fan blade up to the inner annulus flow path line must be coordinated with the FAA Engine Certification Office. Substantiation of the repairs must show that compliance to GEnx-1B Special Condition No. 33-006-SC or GEnx-2B Special Condition No. 33-007-SC is maintained.

注 16/NOTE 16 排气排出物和燃油排泄 / EXHAUST EMISSIONS AND FUEL VENTING

GEnx-1B54, -1B58, -1B64, -1B67, -1B54/P1, -1B58/P1, -1B64/P1, -1B67/P1,以及 GEnx 2B67, -2B67B 已符合了 2012 年 12 月 31 日生效的 14 CFR 第 34 部，第 5 修正案和 2012 年 7 月 18 日生效的 40 CFR 第 87 部中的排放标准。/ The following emissions standards promulgated in 14 CFR Part 34, Amendment 5, effective December 31, 2012, and 40 CFR Part 87, effective July 18, 2012, have been complied with for: GEnx-1B54, -1B58, -1B64, -1B67, -1B54/P1, -1B58/P1, -1B64/P1, -1B67/P1 as well as GEnx 2B67, and -2B67B.

燃油排泄标准: / Fuel Venting Emission Standards: 14 CFR 34.10(a) and 34. 11 ; in addition, 40 CFR 87.10(a) and 87.11.
发烟指数（SN）排放标准：/ Smoke Number (SN) Emission Standards: 14 CFR 34.21 (e)(2); in addition, 40 CFR 87 .23(c)(l).

一氧化碳（CO）排放标准：/ Carbon Monoxide (CO) Emission Standards: 14 CFR 34.21(d)(l)(ii); in addition, 40 CFR 87.23(c)(l).

碳氢化合物（HC）排放标准：/ Hydrocarbons (HC) Emission Standards: 14 CFR 34.21(d)(1)(i); in addition, 40 CFR 87.23(c)(l).

氮氧化合物（NOx）排放标准：/ Oxides of Nitrogen (NOx) Emission Standards: 14 CFR 34.23(b)(l); in addition, 40 CFR 87.23(c)(3).

GEnx-1B70, -1B70/P1, -B70/72/P1, -1B70/75/P1, -1B74/75/P1, -1B75/P1已符合了2013年10月23日生效的14 CFR第 34部，第5A修正案和2012年7月18日生效的40 CFR第 87部中的排放标准。/The following emissions standards promulgated in 14 CFR part 34, amendment 5A, effective October 23, 2013, and 40 CFR part 87, effective July 18, 2012, have been complied with for: GEnx-1B70, -1B70/P1,

-B70/72/P1, -1B70/75/P1, -1B74/75/P1, -1B75/P1.

燃油排泄标准: /Fuel Venting Emission Standards: 14 CFR 34.10(a) and 34.11; in addition, 40 CFR 87.10(a) and 87.11.

发烟指数（SN）排放标准：/Smoke Number (SN) Emission Standards: 14 CFR 34.21(e)(2); in addition, 40 CFR 87.23(c)(l).

一氧化碳（CO）排放标准：/Carbon Monoxide (CO) Emission Standards: 14 CFR 34.21(d)(l)(ii); in addition, 40 CFR 87.23(c)(l).

碳氢化合物（HC）排放标准：/Hydrocarbons (HC) Emission Standards: 14 CFR 34.21(d)(1)(i); in addition, 40 CFR 87.23(c)(l).

氮氧化合物（NOx）排放标准：/ Oxides of Nitrogen (NOx) Emission Standards: 14 CFR 34.23(b)(l); in addition, 40 CFR 87.23(c)(3).

除了型号合格证数据单No. E00078NE确定的审定要求的符合性之外，发动机制造商声明已证明符合国际民航组织附件16第二卷第三版第三部分第二章，2.2.2节发烟指数、2.3.2节一氧化碳和碳氢化合物、2.3.2.e.3 氮氧化合物（也称为CAEP/8）的排放标准，并且符合第二部分第二章燃油排泄要求。/ In addition to the finding of compliance based on the certification requirements defined in TCDS No. E00078NE, the engine manufacturer has declared that the ICAO emissions standards identified in Annex 16, Volume II , Third Edition, Part Ill, Chapter 2, Section 2.2.2 for SN, Section 2.3 .2 for CO and HC, Section 2.3.2.e.3 for NOx (also known as CAEP/8), and Part II Chapter 2 for fuel venting have also been demonstrated.

安装发动机型别 GEnx-1B54, -1B58, -1B64, -1B67 和-1B70（在 G01 和 G02 型别清单中有定义）的 B787-8 飞机和安装发动机型别 GEnx-2B67（在 GEnx-2B67G01 和 GEnx-2B67G02 型别清单中有定义）的 B747-8 飞机将不支持安装油流分离阀式燃油收集系统。燃油收集系统的安装是为了消除发动机关车后间歇性的燃油释放和可观察到的燃油蒸汽。/ The GEnx-1B54, -1B58, -1B64, -1B67, and -1B70 engine models (defined by the G01 and G02 model lists) for the B787-8 aircraft, and The GEnx-2B67 (defined by the GEnx-2B67G01 and GEnx-2B67G02 model lists) for the B747-8 aircraft will not support the installation of the flow split valve fuel accumulator system. Fuel accumulator system installation is required in order to eliminate post-engine shutdown intermittent fuel releases and observed vapors.

GEnx-1B54/P2, -1B58/P2, -1B64/P2, -1B67/P2,-1B70/P2, -1B70/72/P2, -1B70/75/P2, -1B74/75/P2, -1B75/P2, -1B76/P2, -1B76A/P2, -1B78/P2和-2B67/P已符合了2024年5月24日生效的14 CFR第 34 部，第7A修正案和2022年12月23日生效的40 CFR第1031部中的排放标准。/ The following emissions standards promulgated in 14 CFR part 34, amendment 7A, effective May 24, 2024, and 40 CFR part 1031, effective December 23, 2022, have been complied with for: GEnx-1B54/P2, -1B58/P2, -1B64/P2, -1B67/P2, -1B70/P2, -1B70/72/P2, -1B70/75/P2, -1B74/75/P2, -1B75/P2, -1B76/P2, -1B76A/P2, -1B78/P2 and -2B67/P.

燃油排泄标准：/Fuel Venting Emission Standards: 14 CFR 34.11; in addition, 40 CFR 1031.30(b)
发烟指数（SN）排放标准：/Smoke Number (SN) Emission Standards: 14 CFR 34.21(e); in addition, 40 CFR 1031.60(a)(5)
碳氢化合物（HC）排放标准：/Hydrocarbons (HC) Emission Standards: 14 CFR 34.21(d)(1)(i); in addition, 40 CFR 1031.60(c)
一氧化碳（CO）排放标准：/Carbon Monoxide (CO) Emission Standards: 14 CFR 34.21(d)(1)(ii); in addition, 40 CFR 1031.60(d)
氮氧化合物（NOx）排放标准：/Oxides of Nitrogen (NOx) Emission Standards: 14 CFR 34.23(b)(1); in addition, 40 CFR 1031.60(e)(5) (also known as Tier 8 new type)
非挥发性颗粒物（nvPM）质量浓度排放标准：/non-volatile Particulate Matter (nvPM) Mass Concentration Emission Standards: 14 CFR 34.25(a)(1); in addition, 40 CFR 1031.60(a)(6) (also known as Tier 10)
非挥发性颗粒物（nvPM）质量和数量排放标准：/nvPM Mass and Number Emission Standards: 14 CFR 34.25(a)(2); in addition, 40 CFR 1031.60(b)(2) (also known as Tier 11 in-production)

除了型号合格证数据单No. E00078NE确定的审定要求的符合性之外，发动机制造商声明已证明符合国际民航组织(ICAO)2020年7月20日生效的附件16第二卷第四版，第10修正案的相关要求：
- 第II部分，第二章，关于燃油排泄
- 第III部分，第二章，2.2.2部分，关于发烟指数
- 第III部分，第二章，2.3.2部分，关于一氧化碳（CO）和 碳氢化合物（HC）
- 第III部分，第二章，2.3.2. d 部分，关于氮氧化合物（NOX）（CAEP/8）
- 第III部分，第四章，4.2.2.1部分，关于nvPM质量浓度 (CAEP/10) 以及
- 第III部分，第四章，4.2.2.2部分，关于nvPM质量和数量 (CAEP/11)

In addition to the finding of compliance based on the certification requirements defined in TCDS No. E00078NE, the engine manufacturer has declared that the ICAO emissions standards identified in Annex 16, Volume II, Fourth Edition, Amendment 10, effective July 20, 2020, have also been demonstrated for the following:
- Part II, Chapter 2 for Fuel Venting
- Part III, Chapter 2, Section 2.2.2 for Smoke number,
- Part III, Chapter 2, Section 2.3.2 for Carbon monoxide and Hydrocarbons,
- Part III, Chapter 2, Section 2.3.2.e for Oxides of Nitrogen (also known as CAEP/8),
- Part III, Chapter 4, Section 4.2.2.1 for nvPM Mass Concentration (also known as CAEP/10), and
- Part III, Chapter 4, Section 4.2.2.2 for nvPM Mass and Number (also known as CAEP/11)

注 16a/NOTE 16a 以下发动机型别（GEnx-1B54, GEnx-1B58, GEnx-1B64, GEnx-1B67,GEnx-1B70, GEnx-1B54/P1,GEnx-1B58/P1, GEnx-1B64/P1,GEnx-1B67/P1, GEnx-1B70/P1, GEnx-1B70/72/P1, GEnx-1B70/75/P1, GEnx-1B74/75/P1，GEnx-1B75/P1,GEnx-1B54/P2, GEnx-1B58/P2, GEnx-1B64/P2,GEnx-1B67/P2, GEnx-1B70/P2, GEnx-1B70/72/P2, GEnx-1B70/75/P2, GEnx-1B74/75/P2,GEnx-1B75/P2, GEnx-1B76/P2, GEnx-1B76A/P2, GEnx-1B78/P2GEnx-2B67, GEnx-2B67B, GEnx-2B67/P）满足中国民航规章《涡轮发动机飞机燃油排泄和排气排出物规定》（CCAR-34R1）（2023年1月1日生效）的下列标准：
- 非挥发性颗粒物排放标准：CCAR 34.21(e)款（CAEP/10与CAEP/11）

The following emissions standards promulgated in CAAC regulation CCAR-34R1, effective January 1st,

2023, have been complied with for GEnx-1B54, GEnx-1B58, GEnx-1B64, GEnx-1B67,GEnx-1B70, GEnx-1B54/P1,GEnx-1B58/P1, GEnx-1B64/P1,GEnx-1B67/P1, GEnx-1B70/P1, GEnx-1B70/72/P1, GEnx-1B70/75/P1, GEnx-1B74/75/P1，GEnx-1B75/P1,GEnx-1B54/P2, GEnx-1B58/P2, GEnx-1B64/P2,GEnx-1B67/P2, GEnx-1B70/P2, GEnx-1B70/72/P2, GEnx-1B70/75/P2, GEnx-1B74/75/P2,GEnx-1B75/P2, GEnx-1B76/P2, GEnx-1B76A/P2, GEnx-1B78/P2GEnx-2B67, GEnx-2B67B, GEnx-2B67/P：

• Non-volatile Particulate Matter emission standards: CCAR 34.21(e) (CAEP/10 and CAEP/11)

注 17/NOTE 17 进气系统结冰 /INDUCTION SYSTEM ICING

对于14 CFR Part 33中33.68进气系统结冰的符合性验证，是专门针对安装于波音B787-8型飞机的GEnx-1B54, -1B58, -1B64, -1B67, -1B70 ,-1B54/P1, -1B58/P1, -1B64/P1, -1B67/P1, -1B70/P1, -1B70/72/P1, -1B70/75/P1, -1B74/75/P1,-1B75/P1, -lB54/P2, -1B58/P2, -1B64/P2, -1B67/P2, -lB70/P2, -lB70/72/P2, -lB70/75/P2, -lB74/75/P2, -lB75/P2，-1B76/P2, -1B76A/P2和-lB78/P2型别发动机以及安装于波音747-8飞机的GEnx-2B67, -2B67B, 和-2B67/P型别发动机。这些型别发动机安装于其他不同的飞机型别或型号需要单独评估和判定对33.68的符合性。/Demonstration of compliance to 14 CFR Part 33 Section 33.68, Induction System Icing, is installation specific to the Boeing B787 -8 model aircraft for the GEnx-1B54, -1B58, -1B64, -1B67, -1B70, -1B54/P1, -1B58/P1, -1B64/P1, -1B67/P1, -1B70/P1, -1B70/72/P1, -1B70/75/P1, -1B74/75/P1, -1B75/P1, -lB54/P2, -1B58/P2, -1B64/P2, -1B67/P2, -lB70/P2, -lB70/72/P2, -lB70/75/P2, -lB74/75/P2, -lB75/P2，-1B76/P2, -1B76A/P2 and-lB78/P2 engine models, and B747-8 for the GEnx-2B67, -2B67B, and -2B67/P engine model. Installation of these engine models on different airplane models or type will require a separate evaluation and finding of compliance to Section 33.68.

注 18/NOTE 18 删除。/Deleted.

注 19/NOTE 19 删除。/Deleted.

注 20/NOTE 20 删除。/Deleted.

注 21/NOTE 21 双发延程运行(ETOPS) /EXTENDED TWIN ENGINE OPERATIONS (ETOPS)

GEnx-1B54, -1B58, -1B64, -1B67, 和–1B70型别发动机（G03、G04和G05型别清单）, -1B54/P1, -1B58/P1, -1B64/P1, -1B67/P1, -1B70/P1, -1B70/72/P1, -1B70/75/P1, -1B74/75/P1, -1B75/P1, -lB54/P2, -1B58/P2, -1B64/P2, -1B67/P2, -lB70/P2, -lB70/72/P2, -lB70/75/P2, -lB74/75/P2, -lB75/P2，-1B76/P2, -1B76A/P2 and-lB78/P2发动机型别以及GEnx-2B67, -2B67B和-2B67/P发动机型别符合14 CFR Part 33中33.4，附录A中A33.3(c), 33.71(c)(4), 和 33.201，因此有资格安装于ETOPS和早期ETOPS批准的飞机上。验证的改航时间为最大连续功率330分钟加上15分钟等待和复飞功率时间。ETOPS资格不构成进行EOTPS飞行必要的飞机或运行批准。/ The GEnx-1B54, -1B58, -1B64, -1B67, and -1B70 engine models (defined by the G03, G04, and G05 model lists), the GEnx-1B54/P1, -1B58/P1, -1B64/P1, -1B67/P1, -1B70/P1, -1B70/72/P1, -1B70/75/P1, -1B74/75/P1, -1B75/P1, -lB54/P2, -1B58/P2, -1B64/P2, -1B67/P2, -lB70/P2, -lB70/72/P2, -lB70/75/P2, -lB74/75/P2, -lB75/P2，-1B76/P2, -1B76A/P2 and-lB78/P2 engine models, and the GEnx-2B67, -2B67B, and -2B67/P engine models comply with the requirements of 14 CFR Part 33, sections 33.4, Appendix A, A33.3(c),

33.71(c)(4), and 33.201, and are therefore eligible for installation on ETOPS and Early ETOPS approved airplanes. The demonstrated diversion time is 330 minutes at maximum continuous power plus 15 minutes at hold and go-around power. ETOPS eligibility does not constitute airplane or operational level approvals necessary to conduct ETOPS flights.

对于安装于B787飞机上的GEnx-1B54, -1B58, -1B64, -1B67, -1B70, -1B54/P1, -1B58/P1, -1B64/P1, -1B67/P1, -1B70/P1, -1B70/72/P1, -1B70/75/P1, -1B74/75/P1, and -1B75/P1, -1B54/P2, -1B58/P2, -1B64/P2, -1B67/P2, -1B70/P2, -1B70/72/P2, -1B70/75/P2, -1B74/75/P2, -1B75/P2, -1B76/P2, -1B76A/P2 and -1B78/P2型别发动机，任何持续超过30分钟的单一吸力供油事件发生后，必须在下一次EOTPS飞行前更换发动机燃油泵。吸力供油运行定义为发动机燃油泵进口燃油压力低于以下二者取较大者：真实燃油蒸汽压力+5.0 psi或环境+ 5.0 psi。/ For the GEnx-1B54, -1B58, -1B64, -1B67, -1B70, -1B54/P1, -1B58/P1, -1B64/P1, -1B67/P1, -1B70/P1, -1B70/72/P1, -1B70/75/P1, -1B74/75/P1, and -1B75/P1, -1B54/P2, -1B58/P2, -1B64/P2, -1B67/P2, -1B70/P2, -1B70/72/P2, -1B70/75/P2, -1B74/75/P2, -1B75/P2, -1B76/P2, -1B76A/P2 and -1B78/P2 engine models installed on B787 aircraft, the engine fuel pump must be replaced prior to the next ETOPS flight after any single suction feed operation event of duration greater than 30 minutes. Suction feed operation is defined by engine pump inlet fuel pressure less than the greater of true vapor pressure plus 5.0 psi or ambient plus 5.0 psi.

注 22/NOTE 22 删除。/Deleted.

第3部分 管理信息

Section 3 ADMINISTRATIVE INFORMATION

1. 型号认可证持有人记录/ Validation of Type Certificate Holder Record

序号 /No.	时间/Time	持证人名称/Name of Validation of Type Certificate Holder
1	2012年11月30日之后/ After November 30 2012	GE公司/ General Electric Company

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