

型号认可证数据单

THE VALIDATION DATA SHEET

编号/No: VTC0143E
版次/Revision: 4
型号/Type: CF34-8 Series
型别/Model:
CF34-8C1
CF34-8C5
CF34-8C5A1
CF34-8C5B1
CF34-8C5A2
CF34-8C5A3
CF34-8E2
CF34-8E2A1
CF34-8E5A1
CF34-8E5
CF34-8E5A2
CF34-8E6
CF34-8E6A1

批准人/Approved By:



职务/Title: Deputy Director General

日期/Date: 2025-05-19

本数据单是型号认可证（编号：VTC0143E）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状态和限制。

This data sheet, which is part of Validation of Type Certificate (No:VTC0143E), prescribes condition and limitation 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
1000 Western Avenue
Lynn, Massachusetts 01910

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.VTC0143E, 版次4, 2025年5月19日颁发 No.VTC0143E; Revision 4, May 19, 2025	No. E00063EN, 版本: 9, 2024年7月9日颁发 No. E00063EN,Revision 9, July9, 2024
历史 History	No.VTC143E, 版次3, 2023年12月08日颁发 No.VTC143E; Revision 3; December 08, 2023	No. E00063EN, 版本: 8, 2016年11月22日颁发 No. E00063EN,Revision 8, November 22, 2016
	No.VTC0143E, 版次2, 2017年3月31日颁发 No.VTC0143E; Revision 2; March 31, 2017	No. E00063EN, 版本: 8, 2016年11月22日颁发 No. E00063EN,Revision 8, November 22, 2016
	No.VTC0143E, 版次1, 2017年2月14日颁发 No.VTC0143E; Revision 1; February 14, 2017	No. E00063EN, 版本: 7, 2014年8月8日颁发 No. E00063EN,Revision 7, August 8, 2014
	No.VTC143E, 版次0, 2003年10月9日颁发 No.VTC143E; Revision 0; October 9, 2003	No. E00063EN, 版本: 3, 2002年7月2日颁发 No. E00063EN,Revision 3, July 2, 2002

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4/Rev 4	1.针对所有发动机型别更新了环保审定基础。 Update the environment certificate basis for all of engine models. 2. 更正之前版本中的笔误。 Correct typos in the previous version.	

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
1000 Western Avenue
Lynn, Massachusetts 01910

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5. 双发延程飞行/ETOPS: 不适用/NA
6. CAAC专用要求/CAAC 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部分数据单

SECTION 2 DATA SHEET

I. 型别/MODELS	CF34-8C1	CF34-8C5	CF34-8C5A1	CF34-8C5B1	CF34-8C5A2	CF34-8C5A3
类型/TYPE CF34-8系列发动机是双转子、轴流、高涵道比涡轮风扇发动机。该发动机有单级风扇，10级高压压气机，环形燃烧室，2级高压涡轮，4级低压涡轮，反推装置（仅CF34-8E有），后核心罩（仅CF34-8E有），尾喷口，排气锥，起动机，和全数字式发动机控制(FADEC)。 Dual rotor, axial flow, high bypass ratio turbofan; single stage fan, ten stage axial compressor, annular combustion chamber, two stage high pressure turbine, four stage low pressure turbine, a thrust reverser (CF34-8E models only), aft core cowl (CF34-8E models only), exhaust nozzle, exhaust centerbody, starter, and a Full Authority Digital Engine Control (FADEC).						
额定值（见注5） RATINGS (See NOTE 5) 海平面静推力，磅 Sea level static thrust, lb 最大起飞推力（5分钟） （见注13，15，18） Maximum takeoff (5 min) (See NOTE 13, 15 and 18) 正常起飞推力（5分钟） （见注13，15） Normal takeoff (5 min) (See NOTE 13 and 15) 最大连续推力（见注13） Maximum continuous (See NOTE 13)	13790	14510	--	13790	14510	--
	12670	13360	13630	12670	14050	14510
	13277	13680	--	13280	13680	--
	注：1.‘--’表示与之前的型别相同； 2.‘---’表示不适用。					

I. 型别/MODELS	CF34-8C1	CF34-8C5	CF34-8C5A1	CF34-8C5B1	CF34-8C5A2	CF34-8C5A3
控制系统部件 CONTROL SYSTEM COMPONENT						
燃油控制 Fuel Control, Woodward Governor	4120T01	--	--	--	--	--
全数字式发动机控制 Full Authority Digital Engine Control (FADEC), Lockheed/Martin	4120T00	--	--	--	--	--
点火系统 Ignition System						
2个点火激励器, 2 Ignition Exciters, Unison	9238M66	--	--	--	--	--
2个火花塞, 2 Ignition Plugs, Federal Mogul/Champion	4096T33	--	--	--	--	--
燃油泵 Fuel Pump, Argotech	4120T04	--	--	--	--	--
燃油 FUEL	满足GE燃油规范D50TF2的最新版本的要求, 适用于所有型别。具体已批准的符合规范要求的燃油牌号参见手册GEK 105094 (CF34-8C1/8C5), 和GEK112034 (CF34-8E各型别), 操作指导部分。 Fuel conforming to GE Jet Fuel Specification No. D50TF2, current revision, is applicable for all models. See GEK 105094 (CF34-8C1/8C5 models), 和 GEK 112034 (CF34-8E models), Operating Instructions, for specific fuels approved per the subject specifications.					

I. 型别/MODELS	CF34-8C1	CF34-8C5	CF34-8C5A1	CF34-8C5B1	CF34-8C5A2	CF34-8C5A3
润滑油 OIL	润滑油需满足GE规范D50TF1的最新版本的要求，适用于所有型别。具体已批准的符合规范要求的润滑油牌号参见手册GEK 105094 (CF34-8C1/8C5) , GEK 112034 (CF34-8E各型别)，操作指导部分。 Oil conforming to GE Specification No. D50TF1, current revision, is applicable for all models. See GEK 105094 (CF34-8C1/8C5 models), GEK 112034 (CF34-8E models), Operating Instructions, for specific oils approved per the subject specifications.					
主要尺寸 PRINCIPAL DIMENSIONS AND MEASUREMENTS	(指可拆卸发动机组件并有极少量液体，参见安装手册GEK 105093) (Demountable Assembly less fluids to fill; see Installation Manual GEK 105093)	--	--	--	--	--
长度，英寸 Length, inches	152.28	151.57	--	--	--	--
最大直径，英寸 Maximum diameter, inches	60.66	60.66	--	--	--	--
重量，磅 (包括残留的燃油和滑油) Weight, pounds (include residual fuel and oil)	2704	2780	--	--	--	--
重心位置，英寸 Center of Gravity Location, inches						

I. 型别/MODELS	CF34-8C1	CF34-8C5	CF34-8C5A1	CF34-8C5B1	CF34-8C5A2	CF34-8C5A3
发动机站位（纵向） Engine Station	173.2	173.9	--	--	--	--
纵剖线 Butt Line	99.6	99.78	--	--	--	--
水平线 Water Line	99.1	99.35	--	--	--	--

II. 型别/MODELS					CF34-8E2
类型/TYPE	CF34-8系列发动机是双转子、轴流、高涵道比涡轮风扇发动机。该发动机有单级风扇，10级高压压气机，环形燃烧室，2级高压涡轮，4级低压涡轮，反推装置（仅CF34-E8有），后核心罩（仅CF34-8E有），尾喷口，排气锥，起动机，和全数字式发动机控制(FADEC)。 Dual rotor, axial flow, high bypass ratio turbofan; single stage fan, ten stage axial compressor, annular combustion chamber, two stage high pressure turbine, four stage low pressure turbine, a thrust reverser (CF34–8E models only), aft core cowl (CF34–8E models only), exhaust nozzle, exhaust centerbody, starter, and a Full Authority Digital Engine Control (FADEC).				
额定值（见注5） RATINGS (See NOTE 5) 海平面静推力，磅 Sea level static thrust, lb 最大起飞推力（5分钟） （见注13，15，18） Maximum takeoff (5 min) (See NOTE 13, 15 and 18) 正常起飞推力（5分钟） （见注13，15） Normal takeoff (5 min) (See NOTE 13 and 15) 最大连续推力（见注13） Maximum continuous (See NOTE 13)			-		13300 12410 12540

II. 型别/MODELS					CF34-8E2
控制系统部件 CONTROL SYSTEM COMPONENT 燃油控制 Fuel Control, Woodward Governor 全数字式发动机控制 Full Authority Digital Engine Control (FADEC), Lockheed/Martin 点火系统 Ignition System 2个点火激励器, 2 Ignition Exciters, Unison 2个火花塞, 2 Ignition Plugs, Federal Mogul/Champion 燃油泵 Fuel Pump, Argotech					4120T01 4120T00 9238M66 4096T33 4120T04
燃油 FUEL	满足GE燃油规范D50TF2的最新版本的要求，适用于所有型别。具体已批准的符合规范要求的燃油牌号参见手册GEK 105094 (CF34-8C1/8C5) , 和GEK112034 (CF34-8E各型别)，操作指导部分。 Fuel conforming to GE Jet Fuel Specification No. D50TF2, current revision, is applicable for all models. See GEK 105094 (CF34-8C1/8C5 models), 和GEK 112034 (CF34-8E models), Operating Instructions, for specific fuels approved per the subject specifications.				

II. 型别/MODELS					CF34-8E2
润滑油 OIL	润滑油需满足GE规范D50TF1的最新版本的要求，适用于所有型别。具体已批准的符合规范要求的润滑油牌号参见手册GEK 105094 (CF34-8C1/8C5) , GEK 112034 (CF34-8E各型别)，操作指导部分。 Oil conforming to GE Specification No. D50TF1, current revision, is applicable for all models. See GEK 105094 (CF34-8C1/8C5 models), GEK 112034 (CF34-8E models), Operating Instructions, for specific oils approved per the subject specifications.				
主要尺寸 PRINCIPAL DIMENSIONS AND MEASUREMENTS 长度，英寸 Length, inches 最大直径，英寸 Maximum diameter, inches 重量，磅 (包括残留的燃油和滑油) Weight, pounds (include residual fuel and oil) 重心位置 Center of Gravity Location, inches 发动机站位 (纵向) Engine Station					14 CFR33部动力系统；见安装手册 GEK 112033 / 14 CR Part 33 Propulsion System; see Installation Manual GEK (112033) 121.18 62.65 3147.6 175.01

II. 型别/MODELS					CF34-8E2
纵剖线 Butt Line					99.43
水平线 Water Line					100.07

III. 型号/MODELS	CF34-8E2A1	CF34-8E5	CF34-8E5A1	CF34-8E5A2	CF34-8E6	CF34-8E6A1
类型/TYPE CF34-8系列发动机是双转子、轴流、高涵道比涡轮风扇发动机。该发动机有单级风扇，10级高压压气机，环形燃烧室，2级高压涡轮，4级低压涡轮，反推装置（仅CF34-8E有），后核心罩（仅CF34-8E有），尾喷口，尾喷中心体，起动机，全数字式发动机控制(FADEC)。	Dual rotor, axial flow, high bypass ratio turbofan; single stage fan, ten stage axial compressor, annular combustion chamber, two stage high pressure turbine, four stage low pressure turbine, a thrust reverser (CF34-8E models only), aft core cowl (CF34-8E models only), exhaust nozzle, exhaust centerbody, starter, and a Full Authority Digital Engine Control (FADEC).					
额定值（见注5） RATINGS (See NOTE 5) 海平面静推力，磅 Sea level static thrust, lb 最大起飞推力（5分钟） （见注13，15，18） Maximum takeoff (5 min) (See NOTE 13, 15 and 18) 正常起飞推力（5分钟） （见注13，15） Normal takeoff (5 min) (See NOTE 13 and 15) 最大连续推力（见注13） Maximum continuous (See NOTE 13)	13300	14510	--	--	14050	--
	13300	13420	14050	14510	13420	14050
	12540	13520	--	--	--	--

III. 型别/MODELS	CF34-8E2A1	CF34-8E5	CF34-8E5A1	CF34-8E5A2	CF34-8E6	CF34-8E6A1
控制系统部件 CONTROL SYSTEM COMPONENT 燃油控制 Fuel Control, Woodward Governor	4120T01	--	--	--	--	--
全数字式发动机控制 Full Authority Digital Engine Control (FADEC), Lockheed/Martin	4120T00	--	--	--	--	--
点火系统 Ignition System 2个点火激励器, 2 Ignition Exciters, Unison	9238M66	--	--	--	--	--
2个火花塞, 2 Ignition Plugs, Federal Mogul/Champion	4096T33	--	--	--	--	--
燃油泵 Fuel Pump, Argotech	4120T04	--	--	--	--	--
燃油 FUEL	满足GE燃油规范D50TF2的最新版本的要求，适用于所有型别。具体已批准的符合规范要求的燃油牌号参见手册GEK 105094 (CF34-8C1/8C5)，和GEK112034 (CF34-8E各型别)，操作指导部分。 Fuel conforming to GE Jet Fuel Specification No. D50TF2, current revision, is applicable for all models. See GEK 105094 (CF34-8C1/8C5 models), 和 GEK 112034 (CF34-8E models), Operating Instructions, for specific fuels approved per the subject specifications.					

III. 型别/MODELS	CF34-8E2A1	CF34-8E5	CF34-8E5A1	CF34-8E5A2	CF34-8E6	CF34-8E6A1
润滑油 OIL	润滑油需满足GE规范D50TF1的最新版本的要求，适用于所有型别。具体已批准的符合规范要求的润滑油牌号参见手册GEK 105094 (CF34-8C1/8C5) , GEK 112034 (CF34-8E各型别)，操作指导部分。 Oil conforming to GE Specification No. D50TF1, current revision, is applicable for all models. See GEK 105094 (CF34-8C1/8C5 models), GEK 112034 (CF34-8E models), Operating Instructions, for specific oils approved per the subject specifications.					
主要尺寸 PRINCIPAL DIMENSIONS AND MEASUREMENTS	14 CFR33部 动力系统： 见安装手册 GEK 112033 (14 CR Part 33 Propulsion System; see Installation Manual GEK (112033)	--	--	--	--	--
长度，英寸 Length, inches	121.18	--	--	--	--	--
最大直径，英寸 Maximum diameter, inches	62.65	--	--	--	--	--
重量，磅 (包括残留的燃油和滑油) Weight, pounds (include residual fuel and oil)	3147.6	--	--	--	--	--
重心位置 Center of Gravity Location, inches						
发动机站位 (纵向) Engine Station	175.01	--	--	--	--	--

III. 型别/MODELS	CF34- 8E2A1	CF34- 8E5	CF34- 8E5A1	CF34- 8E5A2	CF34- 8E6	CF34- 8E6A1
纵剖线 Butt Line	99.43	--	--	--	--	--
水平线 Water Line	100.07	--	--	--	--	--

审定基础/
CERTIFICATION BASIS

1)CF34-8C1按照1965年2月1日生效的14 CFR 33部取证，包含修正案33-1至33-19，并加上等效安全8040-ELOS-97-NE-01。 /CF34-8C1 14 CFR Part 33, effective February 1, 1965, as amended by amendments 33-1through 33-19, and Equivalent Level of Safety 8040-ELOS-97-NE-01.

2) CF34-8C5（所有型别）和CF34-8E（所有型别）按照1965年2月1日生效的14 CFR 33部取证，包含修正案33-1至33-20。 /CF34-8C5 (All Models) and CF34-8E (All Models) - 14 CFR Part 33, effective February 1, 1965, including Amendments 33-1 through 33-20.

3) 所有型别按照2024年5月24日生效的14 CFR 34部第7A次修正案取证，燃油排泄和排气排出物的审定综述详见注释26。 /All Engine models- 14 CFR Part 34, Amendment 7A, effective May 24, 2024. See NOTE 26 for detailed summary of the certification basis for fuel venting and exhaust emissions.

型别 MODEL	申请日期 APPLICATION DATE	TC颁发/修订日期 TYPE CERTIFICATE ISSUED/AMENDED
CF34-8C1	May 1, 1997	November 30, 1999
CF34-8C5	May 31, 2000	April 12, 2002
CF34-8C5A1	May 31, 2000	April 12, 2002
CF34-8C5B1	May 31, 2000	April 12, 2002
CF34-8C5A2	May 31, 2000	April 12, 2002
CF34-8C5A3	May 31, 2000	April 12, 2002
CF34-8E2	May 31, 2000	April 12, 2002
CF34-8E2A1	May 31, 2000	April 12, 2002
CF34-8E5		
CF34-8E5A1		
CF34-8E5A2		
CF34-8E6		
CF34-8E6A1		

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, 详见注释26a

Fuel venting and exhaust emissions requirements CCAR-34-R1, See NOTE 26a

注释/ NOTE 注释1~26a根据所注对所有型别有效。 /Note 1 through 26a applicable to models as specified.

注1/NOTE 1 最大许用发动机转子转速 /

Maximum permissible engine operating speeds for the engine rotors are as follows:

	CF34-8C1	CF34-8C5 (all models)	CF34-8E (all models)
低压轴转速(N1)/ /Low pressure rotor (N1), rpm			
最大起飞 /Maximum takeoff	7360	7360	7360
正常起飞 /Normal takeoff	7247	7360	7360
最大连续 /Maximum continuous	7360	7360	7360
高压轴转速(N2) /High pressure rotor (N2), rpm			
最大起飞 /Maximum takeoff	17710	17710	17710
正常起飞 /Normal takeoff	17515	17710	17710
最大连续 /Maximum continuous	17437	17470	17470

当转速超过限制时, 参见GE发动机手册GEK 105901 (CF34-8C1/8C5), GEK112031 (CF34-8E)以及其他手册或检查要求。 /Refer to GE Engine Manual GEK 105901 (CF34-8C1/8C5 models), GEK112031 (CF34-8E models) and other manual or inspection requirement when limits are exceeded.

100%的N1轴转速是7,400 rpm, 100%的N2轴转速是17,820 rpm。 /100 percent N1 rotor speed is 7,400 rpm, 100 percent N2 rotor speed is 17,820 rpm.

注2/NOTE 2 最大许用温度见下: / Maximum permissible temperatures are as follows:

涡轮间温度(T45) 华氏度 (摄氏度) /Interturbine temperature (T45)*, F(C)

	<u>CF34-8C1</u>	<u>CF34-8C5</u>	<u>CF34-8C5A1</u>	<u>CF34-8C5B1</u>	<u>CF34-8C5A2</u>
最大起飞 (5分钟), 见注18 Maximum takeoff (5 min) See Note 18	1760 (960)**	1814 (990)	--	--	--
最大起飞 (总共5分钟内的2分钟)	1794 (979)**	1843 (1006)	--	--	--

Maximum takeoff (2 min, out of a total of 5 minutes) ***					
正常起飞/Normal takeoff (5 min)	1689 (920) **	1736 (947)	1754 (957)	1738 (948)	1783 (973)
正常起飞 (总共5分钟内的2分钟) Normal takeoff (2 min, out of a total of 5 minutes) ***	1723 (939) **	1765 (963)	1783 (973)	1767 (964)	1812 (989)
最大连续/Maximum continuous	1701 (927) **	1760 (960)	--	--	--
最大起飞 (5分钟), 见注18 Maximum takeoff (5 min) See Note 18	<u>CF34-8C5A3</u> 1814 (990)				
最大起飞 (总共5分钟内的2分钟) Maximum takeoff (2 min, out of a total of 5 minutes) ***	1843 (1006)				
正常起飞/Normal takeoff (5 min)	1814 (990)				
正常起飞 (总共5分钟内的2分钟) Normal takeoff (2 min, out of a total of 5 minutes) ***	1843 (1006)				
最大连续/Maximum continuous	1760 (960)				
最大起飞 (5分钟), 见注18 Maximum takeoff (5 min) See Note 18	<u>CF34-8E2</u> 1814 (990)	<u>CF34-8E2A1</u> --	<u>CF34-8E5</u> --	<u>CF34-8E5A1</u> --	<u>CF34-8E5A2</u> --
最大起飞 (总共5分钟内的2分钟) Maximum takeoff (2 min, out of a total of 5 minutes) ***	1843 (1006)	--	--	--	--
正常起飞/Normal takeoff (5 min)	1755 (957)	1814 (990)	1740 (949)	1783 (973)	1814 (990)
正常起飞 (总共5分钟内的2分钟) Normal takeoff (2 min, out of a total of 5 minutes) ***	1784 (973)	1843 (1006)	1769 (965)	1812 (989)	1843 (1006)
最大连续/Maximum continuous	1760 (960)	--	--		
最大起飞 (5分钟), 见注18 Maximum takeoff (5 min) See Note 18	<u>CF34-8E6</u> 1814 (990)	<u>CF34-8E6A1</u> --			
最大起飞 (总共5分钟内的2分钟) Maximum takeoff (2 min, out of a total of 5 minutes) ***	1843 (1006)	--			
正常起飞/Normal takeoff (5 min)	1771 (966)	1814 (990)			
正常起飞 (总共5分钟内的2分钟) Normal takeoff (2 min, out of a total of 5 minutes) ***	1800 (982)	1843 (1006)			
最大连续/Maximum continuous	1760 (960)	--			

*涡轮间温度是通过安装在低压涡轮机匣上的5个温度探头（5个热电偶）或10个温度探头（20个热电偶）测量的。/ The interturbine temperature is measured by either 5 probes (5 thermocouples) or 10 probes (20 thermocouples) mounted in the low pressure turbine casing.

** 对于CF34-8C1发动机的最大起飞，正常起飞和最大连续状态，由于OBV阀工作的原因，允许T45短时间超限，如果T45超过1869 ℉ (1021 ℃) 不超过30秒，且在接下来的温度段1869 ℉ (1021 ℃) 到1794 ℉ (979 ℃)不超过30秒。这些定义见GE操作手册GEK 105094。由于OBV阀工作的原因，允许T45超过1794 ℉ (979 ℃)的次数最多为10次，定义见GE发动机手册GEK105091。/For the CF34-8C1 engine model, maximum takeoff, normal takeoff and maximum continuous T45 limits may be exceeded transiently as a result of OBV activation provided T45 does not exceed 1869 ℉ (1021 ℃) for 30 seconds, and does not exceed a temperature limit that ramps from 1869 ℉ (1021 ℃) to 1794 ℉ (979 ℃) over the next 30 seconds, as defined in GE Operating Instructions GEK 105094. The total number of transient occurrences as a result of OBV activation above a T45 of 1794 ℉ (979 ℃) is limited to a maximum of 10 occurrences as defined in GE Engine Manual GEK 105091.

*** 2分钟涡轮间温度T45限制（总共5分钟起飞时间中的2分钟）是针对定推力起飞时发动机稳定过程中出现的温度超调特性。/The 2-minute interturbine temperature (T4.5) limits (2 minutes out of 5 minutes takeoff time) are intended to cover engine T4.5 overshoot characteristics which occur during engine stabilization at constant Takeoff thrust.

对于CF34-8C1发动机启动的瞬时温度限制和时间限制见GE操作手册GEK 105094。

/For the CF34-8C1 engine model, additional transient temperature and time limits for starting are defined in GE Operating Instructions GEK 105094.

关于超过限制后的检查要求参见GE发动机手册GEK 105091 (CF34-8C1/8C5), 和GEK 112031 (CF34-8E)。 /Refer to GE Engine Manual GEK 105091 (CF34-8C1/8C5 models), GEK 112031 (CF34-8E models) for inspection requirements when limits are exceeded.

润滑油箱温度 /Oil tank temperatures****, ℉ (℃)

所有型别 / ALL MODELS

连续工作 /Continuous operation 311 (155)

瞬时工作 /Transient operation 325 (163)

****瞬间工作超过311 ℉ (155 ℃) 限于15分钟。/ Transient operation above 311 ℉ (155 ℃) is limited to 15 minutes.

燃油进口温度（发动机燃油过滤器入口） / Fuel inlet temperature (at engine fuel filter inlet), ℉ (℃)

所有型别 / ALL MODELS

连续工作 /Continuous operation

Jet A, Jet A1, Jet B	250 (121)
JP8	250 (121)
JP5	250 (121)
JP4, JP4/JP5 混合/mixture	250 (121)
地面操作/Ground Operation	250 (121)

注3/NOTE 3

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

燃油/ Fuel:

发动机燃油泵进口处 /At engine pump inlet:

在燃油蒸汽/液体比为0且飞机低压泵可用的情况下最小压力为高于真实蒸发压5PSID。

工作范围为5 - 50 PSIG。 /minimum pressure of 5 PSID above the true vapor pressure of the fuel with a vapor/liquid ratio of zero with aircraft boost operative. Operating range 5 PSIG to 50 PSIG.

发动机燃油动力流出口 /At engine motive flow discharge:

在发动机慢车及以上状态最小压力为150 PSIG。工作范围为150 – 800 PSIG。其他限制参见GE 安装手册GEK 105093 (CF34-8C1/8C5) 和 GEK 112033 (CF34-8E)。 / minimum pressure of 150 PSIG at idle or above. Operating range is 150 PSIG to 800 PSIG. See GE Installation Manual GEK 105093 (CF34-8C1/8C5 models) and GEK 112033 (CF34-8E models) for additional limits.

滑油 /Oil:

地面慢车时滑油最小压力限制是25 PSID，起飞时最小压力是45 PSID。正常工作范围25 – 90 PSID。其他限制参见GE 安装手册GEK 105093 (CF34-8C1/8C5) 和 GEK 112033 (CF34-8E)。

At idle on the ground the oil pressure limit is 25 PSID minimum. At takeoff, 45 PSID minimum. Normal operating range, 25 PSID to 95 PSID. See GE Installation Manual GEK 105093 (CF34-8C1/8C5 models) and GEK 112033 (CF34-8E models) for additional limits.

注4/NOTE 4

附件驱动特性（所有型别）/

ACCESSORY DRIVE PROVISIONS (ALL MODELS)

附件 Accessory	AGB轴上的 位置 Location on AGB Axis	转速 Speed (rpm)	马力 (额定) HP (Rated)	面对AGB旋 转方向 Direction of rotation	扭矩 (磅-英寸) 静态/连续/超载 Torque (lb-in) Static/Cont/ Overload	最大加速 重量 (磅) Max Acc Wt. (lb)	最大弯矩 (磅-英 寸) Overhung Moment	剪矩 (磅-英 寸) Shear Torque
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				facing AGB			(lb-in)	(lb-in)
滑油泵 Lube/Scav Oil Pump	Axis-C Fwd	7898	6	CCW	300/48/NA (1)	10.3	33	750-850
发电机 IDG	Axis-C Aft	7898	74.8 (2)	CW	675 (1)/597/ 1129 (5 min) (4) 1160 (5 sec) (4)	81.2 (6)	720 Maximum	3144 - 3648
空气起动机 Air Turbine Starter	Axis-D Aft	12234	N/A	CW	2112, 4200 (3) /NA / NA	27.7	113	6300 - 7500
液压泵 Hydraulic Pump	Axis-G Fwd	4825	30	CW	573 (1) (5) / 392/ 670	14.7 Dry	43.5	2004 max
交流发电机 Alternator	Axis-E Aft	8103	4	CCW	NA / NA / NA	3.0	2.6	N/A
燃油泵 Fuel Pump	Axis-E Aft	8319	40	CW	180 (1) / 303/ NA	2.3	113	1255 - 1380

CW – 顺时针/ Clockwise CCW – 逆时针/ Counter Clockwise

附件转速是基于发动机核心转速 /Accessory Speeds are based on Core Speed: 17000 rpm

(1) -40 ℉ SLS

(2) 由于效率变化，马力数会连续高于正常工作范围并有轻微变化。功率提取在7898 rpm（座转速）时是74.8 HP，在4618 rpm（座转速）时是73.5 HP。5分钟的超载值是82.7 HP，5秒钟的超载值是117.6 HP。/HP is constant over the operating range with slight variations due to changes in efficiency. HP extraction is 74.8 HP at 7898 rpm (pad speed) and 73.5 HP at 4618 rpm (pad speed). The 5 minute overload rating is 82.7 HP and the 5 second overload rating is 117.6 HP.

(3) 2112 in-lbs at 59 ℉ SLS, 4200 in-lbs at -40 ℉ SLS

(4) 在4618 rpm（座转速）时的超载值。/Overload at 4618 rpm (pad speed)

(5) 在626 rpm（座转速）时为573磅-英寸。/573 in-lbs at 626 rpm (pad speed)

(6) 包括滑油和V型连接件。/Includes oil and V band coupling

注5/NOTE 5 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. 标准海平面静止状态，59 ℉ 和 29.92 英寸汞柱。/Static sea level standard conditions of 59 °F and 29.92 inches Hg
2. 无飞机端引气和功率提取 /No aircraft accessory loads or air extraction
3. 无防冰，无进气道扭曲，无进气道损失，100%冲压恢复。/No anti-icing; no inlet distortion; no inlet screen losses; and 100% ram recovery
4. Bellmouth 进气道和整流罩描述见 GE 安装手册 GEK 105093 (CF34-8C1/8C5) 和 GEK 112033 (CF34-8E)。/Inlet bellmouth and cowl system as described in GE Installation Manual GEK 105093 (CF34-8C1/8C5 models) and

GEK 112033 (CF34-8E models).

5. 特定燃油平均低热值 18,500 BTU/lb (CF34-8C1/C5), 和 18,550 BTU/lb (CF34-8E); 特定润滑油。 / Specified fuel having an average lower heating value of 18,500 BTU/lb (CF34-8C1/-8C5 models); 18,550 BTU/lb (CF34 -8E models); specified lube oil.

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

引气提取-最大客户端引气提取定义如下: 客户端可以在发动机慢车及以上状态下从压气机第6级或第10级(压气机出口)引气。(慢车以下状态不允许引气)。客户端在低推力状态下从第10级引气, 在高推力状态下切换至第6级引气, 见GE安装手册GEK 105093 (CF34-8C1/8C5), 和GEK 112033 (CF34-8E)。

Air Bleed Extraction - maximum customer air bleed extraction is as follows: Customer bleed air is available from either stages 6 or 10 (compressor discharge) of the compressor at all operating conditions at or above idle. (No compressor bleed is permitted below idle.). Customer bleed is scheduled to switch from stage 10 bleed at low power operation to stage 6 bleed at high power operation as described in GE Installation Manual GEK 105093 (CF34-8C1/8C5 models),and GEK 112033 (CF34-8E models).

部位	最大引气量 (%压气机总流量)		
<u>Location</u>	<u>Maximum Demonstrated Bleed Air (% of Total Compressor Airflow)</u>		
	CF34-8C1	CF34-8C5 (all models)	CF34-8E5 (all models)
第6级压气机 /Compressor Stage 6	8	8	8
第10级压气机 (压气机出口)	12.75	12.75	12.0
Compressor Stage 10 (Compressor Discharge)			
最大允许引气量 /Maximum Allowable Bleed	---	12.75	12.0

注 7/NOTE 7 发动机核心机 (N2) 必须保持最低转速以保证在结冰条件下发动机的运行。

FADEC推力管理系统控制核心机转速在地面和空中慢车状态时都高于最低转速, 此最低转速是根据14 CFR 33.68 进气系统结冰的规定得来的。在外界环境低温下, 根据FADEC推力管理规则, 最低允许转速在地面和空中慢车时都是不可调的, 为 N2 = 58.47% (9,940 rpm)。当环境温度增加时, FADEC推力管理系统会根据N2和PS3的读数来调整最低核心机转速。

A minimum core speed (N2) must be maintained to ensure engine operation in icing conditions. The FADEC Power Management controls ground and flight idle core speeds

above the minimum speed demonstrated for 14 CFR 33.68, Induction System Icing. At low ambient temperatures, the minimum permissible ground and flight idle speeds correspond to $N_2=58.47\%$ (9,940 rpm) which is a non-adjustable limit, preset in the FADEC Power Management schedules. As ambient temperatures increase, the minimum permissible core speed increases as scheduled by the FADEC Power Management based upon N_2 or PS3 control schedules.

注8/NOTE 8 进气道最大允许变形量见GE安装手册GEK 105093 (CF34-8C1/8C5), 和GEK 112033 (CF34-8E)。

The maximum permissible inlet distortion for these engines is specified in GE Installation Manual GEK 105093 (CF34-8C1/8C5 models) and GEK 112033 (CF34-8E models).

注9/NOTE 9 对于CF34-8E系列型别, 发动机制造商提供短舱系统。下面的后核心罩和反推系统, 作为短舱系统的一部分, 已按照FAR-33部取证。FAR-33部取证的发动机型号定义如下:

For the CF34-8E model series, the engine manufacturer supplies the Nacelle System. The following Aft Core Cowl and Thrust Reverser systems, which are a part of this Nacelle system, have been certified for the listed engine models under this type certificate in accordance with Federal Aviation Regulation (FAR), Part 33. The FAR 33 engine type design definition is provided by

发动机型别清单 ENGINE MODEL LIST	后核心罩部件号清单 AFT CORE COWL PARTS LIST	反推部件号清单 THRUST REVERSER PARTS LIST
CF34-8E2	15F0001	15G0001
CF34-8E2A1	15F0001	15G0001
CF34-8E5	15F0001	15G0001
CF34-8E5A1	15F0001	15G0001
CF34-8E5A2	15F0001	15G0001
CF34-8E6	15F0001	15G0001
CF34-8E6A1	15F0001	15G0001

注10/NOTE 10 关键部件的寿命限制见FAA批准的GE发动机手册GEK 105091 (CF34-8C1/8C5) 和GEK 112031 (CF34-8E)。

Life limits, established for critical components, are published in FAA approved GE Engine Manual GEK 105091 (CF34-8C1/8C5 models) and GEK 112031 (CF34-8E models)

注11/NOTE 11 推荐的维修检查间隔见GE发动机手册GEK 105091 (CF34-8C1/8C5) 和GEK 112031 (CF34-8E)。

Recommended maintenance inspection intervals are published in GE Engine Manual GEK 105091 (CF34-8C1/8C5 models) and GEK 112031 (CF34-8E models)

注12/NOTE 12 特定部件和附件的操作温度限制见GE安装手册GEK 105093 (CF34-8C1/8C5) 和GEK 112033 (CF34-8E)，安装发动机时必须参照。

The operating temperature limit for specific components and accessories specified in GE Installation Manual GEK 105093 (CF34-8C1/8C5 models) and GEK 112033 (CF34-8E models) must be observed when installing the engine.

注13/NOTE 13 对于发动机CF34-8C1, CF34-8C5（所有型别）和CF34-8E（所有型别），正常起飞和最大起飞静推力是在海平面和环境温度86 ℉和以下测定的，最大连续推力是在巡航高度和环境温度77 ℉和以下测定的。计算发动机推力的计算机性能平台定义如下：

For CF34-8C1, CF34-8C5 (all models) and CF34-8E (all models), static thrusts at sea level are rated at 86 ℉ ambient temperature and below for normal takeoff and maximum takeoff. Maximum Continuous thrust is rated at 77 ℉ and below at cruise altitudes. The computer performance decks for calculating engine performance are as follows:

发动机型别 Engine Model	计算机性能平台编号 Computer Deck No.
CF34-8C1	L0073A
CF34-8C5	G0175C
CF34-8C5A1	G0175C
CF34-8C5B1	L0073A
CF34-8C5A2	G0175C
CF34-8C5A3	G0175C
CF34-8E2	G0175D
CF34-8E2A1	G0175D
CF34-8E5	G0175D
CF34-8E5A1	G0175D
CF34-8E5A2	G0175D

CF34-8E6	G0175D
CF34-8E6A1	G0175D

注14/NOTE 14 发动机CF34-8C1, CF34-8C5（所有型别）和CF34-8E（所有型别）的燃油通风和排放都符合1999年2月3日生效的34部第3修正案的要求。

CF34-8C1, CF34-8C5 (all models) and CF34-8E (all models), engines comply with the applicable fuel venting and exhaust emission requirements of Part 34, Amendment 3, effective February 3, 1999

注15/NOTE 15 正常起飞推力的时间限制是5分钟，指时间累积高于正常起飞推力的时间累积。

The time limit at the normal takeoff rating is five minutes and shall include any time accumulated above the normal takeoff rating

注16/NOTE 16 限时派遣标准 /TIME LIMITED DISPATCH CRITERIA

发动机控制系统的放行标准和维修要求见发动机手册的适航部分，GEK105091 (CF34-8C1/8C5) 和GEK 112041 (CF34-8E)，对不同构型规定了相应的最大使用间隔。

Criteria pertaining to the dispatch and maintenance requirements for the engine control systems are specified in the airworthiness section of the Engine Manuals, GEK 105091 (CF34-8C1/8C5 models) and GEK 112041 (CF34-8E models), which define the various configurations and maximum operating intervals

注17/NOTE 17 发动机CF34-8C1, CF34-8C5（所有型别）和CF34-8E（所有型别）的大修，所有部件只能按批准的部件手册进行维修。

Overhaul of the CF34-8C1, CF34-8C5 (all models) and CF34-8E (all models), component is only authorized via approved component manuals.

注18/NOTE 18 对于多发飞机其中一台发动机不工作的情况，允许最大起飞时间限制从5分钟延长到10分钟。

The 5 minute maximum takeoff time limit may be extended to 10 minutes for one engine inoperative operation in multi-engine aircraft.

注19/NOTE 19 发动机暖机程序见发动机操作指导手册GEK105094 (CF34-8C1/8C5) 和GEK 112034

(CF34-8E)。

Refer to Operating Instructions GEK 105094 (CF34-8C1/8C5 models) and GEK 112034 (CF34-8E models) for engine warm-up procedure.

注20/NOTE 20 反推系统操作见发动机操作指导手册GEK105094 (CF34-8C1/8C5) 和GEK 112034 (CF34-8E)。

Refer to Operating Instructions GEK 105094 (CF34-8C1/8C5 models) and GEK 112034 (CF34-8E models) for thrust reverser operation.

注21/NOTE 21 对于发动机CF34-8C1, CF34-8C5（所有型别）和CF34-8E（所有型别），制定正常起飞涡轮间温度（T45）限制时，要保证对于一台性能完全衰减的发动机在正常起飞时能达到最大起飞推力而不超过T45的限制。

The CF34-8C1, CF34-8C5 (all models), and CF34-8E (all models), engine normal takeoff interturbine temperature (T45) limit has been established to assure that a fully degraded engine at the normal takeoff rating will achieve the maximum takeoff rated thrust without exceeding the maximum takeoff T45 limit.

注22/NOTE 22 上述型别具有以下特性 /The above models incorporate the following characteristics:

型别 /Model	特性 / Characteristics
CF34-8C1	基本型 /Basic Model
CF34-8C5	CF34-8C1的改型；侧面安装；增大T45和额定推力 /Derivative of CF34-8C1; side mounted; increased T45 and thrust rating
CF34-8C5A1	CF34-8C1的改型；侧面安装；增大T45和额定推力 /Derivative of CF34-8C1; side mounted; increased T45 and thrust rating
CF34-8C5B1	CF34-8C1的改型；侧面安装；增大T45 /Derivative of CF34-8C1; side mounted; increased T45
CF34-8C5A2	CF34-8C1的改型；侧面安装；增大T45和额定推力 /Derivative of CF34-8C1; side mounted; increased T45 and thrust rating
CF34-8C5A3	CF34-8C1的改型；侧面安装；增大T45和额定推力 /Derivative of CF34-8C1; side mounted; increased T45 and thrust rating
CF34-8E2	CF34-8C1的改型；顶部安装；增大T45；包含反推和后核心罩 /Derivative of CF34-8C1; top mounted; increased T45; includes thrust reverser and aft core cowl
CF34-8E2A1	CF34-8C1的改型；顶部安装；增大T45；包含反推和后核心罩 /Derivative of CF34-8C1; top mounted; increased T45; includes thrust reverser and aft core cowl

CF34-8E5	CF34-8C1的改型；顶部安装；增大T45和额定推力；包含反推和后核心罩 /Derivative of CF34-8C1; top mounted; increased T45 and thrust rating; includes thrust reverser and aft core cowl
CF34-8E5A1	CF34-8C1的改型；顶部安装；增大T45和额定推力；包含反推和后核心罩 /Derivative of CF34-8C1; top mounted; increased T45 and thrust rating; includes thrust reverser and aft core cowl
CF34-8E5A2	CF34-8C1的改型；顶部安装；增大T45和额定推力；包含反推和后核心罩 /Derivative of CF34-8C1; top mounted; increased T45 and thrust rating; includes thrust reverser and aft core cowl
CF34-8E6	CF34-8C1的改型；顶部安装；增大T45和额定推力；包含反推和后核心罩 /Derivative of CF34-8C1; top mounted; increased T45 and thrust rating; includes thrust reverser and aft core cowl
CF34-8E6A1	CF34-8C1的改型；顶部安装；增大T45和额定推力；包含反推和后核心罩 /Derivative of CF34-8C1; top mounted; increased T45 and thrust rating; includes thrust reverser and aft core cowl

注23/NOTE 23 此发动机具有针对起飞时一台发动机不工作的情况下自动推力增加（APR）的功能。在正常起飞状态下（NTO），当APR功能启用的时候，不工作的发动机的控制系统会发信号给工作的发动机。当收到这个信号后，发动机的推力会自动增加，从正常起飞推力增加到预先设定的最大起飞推力（MTO）。另外如果一台发动机不工作，飞行员可以在任何时间通过油门杆把推力打到最大起飞推力。

The engine is equipped with an Automatic Power Reserve (APR) function for takeoff operation with one engine inoperative. During normal takeoff (NTO), when the automatic power reserve function is activated, the engine control of the inoperative engine sends an input signal to the engine control of the operating engine. Upon receiving this signal, the engine thrust of the operating engine automatically increases from normal takeoff or lower thrust to the corresponding, pre-determined maximum takeoff (MTO) thrust. If one engine is inoperable full MTO thrust is available to the pilot at any time by throttle selection.

发动机控制系统的设计能保证一台性能完全下降的发动机在正常起飞状态或低推力时，当自动推力增加功能启动时可以在不超过发动机操作限制的情况下达到最大起飞推力(MTO)。

The engine control system also incorporates schedules that assure a fully degraded engine, during operation, at the NTO or lower thrust, will achieve the specified MTO thrust without exceeding the engine operating limits when the automatic power reserve function is activated.

注24/NOTE 24 CF34-8基本型的标牌上的发动机型别后面可以加后缀以识别发动机构型，安装部件或是飞机方要求的微小区别，例如，CF34-8C5/M

A suffix may be added to CF34-8 basic engine model numbers on the engine nameplate to identify minor variations in the engine configuration, installation components, or differences specific to aircraft requirements, for example, CF34-8C5/M.

服务通告（SB）72-0235描述了从基本型到微小改型的改装（用 /M 来表示），而服务通告（SB）72-0244描述了从该微小改型回到基本型的改装。只能使用下表中列出的转变符号和意图。同时服务通告（SB）的号码必须也附在发动机标牌上。

Service Bulletin (SB) 72-0235 describes the conversion of the base model to a minor model (with /M designation) and Service Bulletin (SB) 72-0244 describes the conversion from the minor model back to the base model. Only those designations and purposes listed below may be used. The SB number must be appended to the engine nameplate.

针对 /M 改型的重要部件的寿命限制，见FAA批准的GE发动机手册GEK105091 (CF34-8C1/8C5)

Life limits for the /M minor model designation, established for critical components, are published in FAA approved GE Engine Manual GEK 105091 (CF34-8C1/8C5 models).

允许使用的后缀符号 /Allowable suffix designations:

后缀符 /Designation:	意图 /Purpose:
CF34-8C5/M	表示根据相应适航限制部分的寿命限制，具有重复使用最大起飞推力(MTO)的能力。 /Indicates the capability for frequent or repetitive use of the max takeoff (MTO) rating with associated airworthiness limitations section life limits.
CF34-8C5A1/M	表示根据相应适航限制部分的寿命限制，具有重复使用最大起飞推力(MTO)的能力。 /Indicates the capability for frequent or repetitive use of the max takeoff (MTO) rating with associated airworthiness limitations section life limits.
CF34-8C5A2/M	表示根据相应适航限制部分的寿命限制，具有重复使用最大起飞推力(MTO)的能力。 /Indicates the capability for frequent or repetitive use of the max takeoff (MTO) rating with associated airworthiness limitations section life limits.

注25/NOTE 25 CF34-8基本型的标牌上的发动机型别后面可以加后缀以识别发动机构型，安装部件或是飞机方要求的微小区别，例如，CF34-8C5/B,

A suffix may be added to CF34-8 basic engine model numbers on the engine nameplate to identify minor variations in the engine configuration, installation components, or differences specific to aircraft requirements, for example, CF34-8C5/B.

服务通告（SB）72-A0237描述了从基本型到微小改型的改装（用 /B来表示），而服务通告（SB）72-A0243描述了从该微小改型回到基本型的改装。只能使用下表中列出的转变符号和意图。同时服务通告（SB）的号码必须也附在发动机标牌上。

Service Bulletin (SB) 72-A0237 describes the conversion of the base model to a minor model (with /B designation) and Service Bulletin (SB) 72-A0243 describes the conversion from the minor model back to the base model. Only those designations and purposes listed below may be used. The SB number must be appended to the engine nameplate.

针对 /B改型的重要部件的寿命限制，见FAA批准的GE发动机手册GEK 105091 (CF34-8C1/8C5)

Life limits for the /B minor model designation, established for critical components, are published in FAA approved GE Engine Manual GEK 105091 (CF34-8C1/8C5 models).。

允许使用的后缀符号 /Allowable suffix designations:

后缀符 /Designation:	意图/Purpose:
CF34-8C5/B	表示根据相应适航限制部分的寿命限制，将发动机用于另 类任务定义的飞机。 /Indicates use of the engine in an Alternate Mission application, with associated Airworthiness limitations section life limits
CF34-8C5B1/B	表示根据相应适航限制部分的寿命限制，将发动机用于另 类任务定义的飞机。 /Indicates use of the engine in an Alternate Mission application, with associated Airworthiness limitations section life limits
CF34-8C5A1/B	表示根据相应适航限制部分的寿命限制，将发动机用于另 类任务定义的飞机。 /Indicates use of the engine in an Alternate Mission application, with associated Airworthiness limitations section life limits
CF34-8C5A2/B	表示根据相应适航限制部分的寿命限制，将发动机用于另 类任务定义的飞机。 /Indicates use of the engine in an Alternate Mission application, with associated Airworthiness

	limitations section life limits
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注26/NOTE 26 CF34-8C1, CF34-8C5, CF34-8C5A1, CF34-8C5B1, CF34-8C5A2, CF34-8C5A3, CF34-8E2, CF34-8E2A1, CF34-8E5, CF34-8E5A1, CF34-8E5A2, CF34-8E6, CF34-8E6A1发动机能满足以下排放的标准要求, 这些标准来自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:

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: CF34-8C1, CF34-8C5, CF34-8C5A1, CF34-8C5B1, CF34-8C5A2, CF34-8C5A3, CF34-8E2, CF34-8E2A1, CF34-8E5, CF34-8E5A1, CF34-8E5A2, CF34-8E6, CF34-8E6A1.

燃油排泄标准: /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 (NO_x) 排放标准: /Oxides of Nitrogen (NO_x) Emission Standards: 14 CFR 34.23(b)(1); in addition, 40 CFR 1031.60(e)(5) (等同于新型号发动机满足Tier8的排放标准 /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) (等同于发动机满足Tier10的排放标准 /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) (等同于生产中的发动机满足Tier11的排放标准/also known as Tier 11 in-production)

除了型号合格证数据单No. E00063EN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.e部分, 关于氮氧化物 (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. E00063EN, 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26a/NOTE
26a**

以下发动机型别 (CF34-8C1, CF34-8C5, CF34-8C5A1, CF34-8C5B1, CF34-8C5A2, CF34-8C5A3, CF34-8E2, CF34-8E2A1, CF34-8E5, CF34-8E5A1, CF34-8E5A2, CF34-8E6, CF34-8E6A1) 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-34-R1) (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-34-R1, effective January 1st, 2023, have been complied with for: CF34-8C1, CF34-8C5, CF34-8C5A1, CF34-8C5B1, CF34-8C5A2, CF34-8C5A3, CF34-8E2, CF34-8E2A1, CF34-8E5, CF34-8E5A1, CF34-8E5A2, CF34-8E6, CF34-8E6A1:

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

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