

型号认可证数据单 THE VALIDATION DATA SHEET

编号/No.: VTC0077E

版次/Revision: 2

型号/Type:

CFM56-7B20 CFM56-7B22

CFM56-7B24 CFM56-7B26

CFM56-7B27 CFM56-7B20/3

CFM56-7B22/3 CFM56-7B24/3

CFM56-7B26/3 CFM56-7B27/3

CFM56-7B26/B2 CFM56-7B26/3B2

CFM56-7B26/3B2F

批准人/Approved by:

徐超群

日期/Date: 2010-2-1

本数据单是型号认可证（编号 VTC0077E）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 a part of Validation Type Certificate (No: VTC0077E), 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:

CFM International, S.A.

2 Boulevard du General Martial Valin

75015 Paris, France

有效页清单/List of effective pages :

页数/ Pages	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
版次/Revision	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
页数/ Pages	16	17	18	19	20	21	22	23	24	25	26	27			
版次/Revision	2	2	2	2	2	2	2	2	2	2	2	2			

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. VTC0077E, 版次 2 2010 年 2 月 1 日	FAA TCDS No. E00055EN, E00056EN Revision 7, Oct. 17, 2008
历史 History	No. VTC077E, 版次 1 2007 年 10 月 16 日	FAA TCDS No. E00055EN, E00056EN Revision 6, Jun. 14, 2006
	No. VTC077E, 版次 0 1998 年 03 月 05 日	FAA TCDS No. E00055EN, E00056EN Revision 7, Oct. 17, 2008

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: CFM International, S.A.
2 Boulevard du General Martial Valin
75015 Paris, France
6. ETOPS: 不适用/NA
7. CAAC 专用要求/Special Requirements: 无/NONE

第2部分

SECTION 2

I. 型号/MODELS	CFM56-7B20	CFM56-7B22	CFM56-7B24	
类型/TYPE 高涵道比涡轮风扇，多级低压涡轮驱动同轴前置风扇/增压器，1 级高压涡轮驱动多级压气机 CFM56-7B 系列：单环形燃烧室 CFM56-7B/3 系列：改进排放的单环形燃烧室 High bypass turbofan; coaxial front fan/booster driven by multi-stage low pressure turbine, multi-stage compressor with one-stage high pressure turbine CFM56-7B series: single annular combustor CFM56-7B/3 series: improved emissions single annular combustor				
额定值（见注 4） RATINGS (See NOTE 4) 起飞（5 分钟，见注 13）， 海平面，静态推力，磅/ Takeoff (5 min. see NOTE 13), sea level, static thrust, lb.	20,600/ 9,163 daN	22,700/ 10,097 daN	24,200/ 10,765 daN	
最大连续，海平面，静态 推力，磅/ Maximum continuous, sea level static thrust, lb.	19,400/ 8,630 daN	22,300/ 9,920 daN	22,800/ 10,142 daN	
平台额定值 Flat rating 起飞/ Takeoff 最大连续/Maximum continuous	环境温度/AMBIENT TEMPERATURE			
	86°F/30°C	--	--	
	77°F/25°C	--	--	
燃油系统/FUEL SYSTEM 燃油泵/ SNECMA 件号 （组合增压和单级齿轮泵） Fuel pump / SNECMA part number (P/N) (Combined boost and single element gear-type pump)	经批准的燃油见注 7/See NOTE 7 for approved fuels.			
	340-402-104	--	--	
	340-402-105	--	--	
液压机械组件/GE 件号 Hydromechanical unit / GE P/N	1853M56	--	--	

电子控制组件/GE 件号 Electronic control unit / GE P/N				
- Hardware	1851M50	--	--	
	1853M33	--	--	
	2042M67	--	--	
	2044M16	--	--	
- Software	1853M78	--	--	
	2044M25	--	--	
识别插钉/SNECMA 件号 Identification plugs / SNECMA P/N	340-131-712	340-131-721	340-131-732	
	340-131-717	340-131-726	340-131-737	
	340-203-201	340-203-301	340-203-401	
	340-198-850	340-199-250	340-200-050	
	340-198-950	340-199-350	340-200-150	
滑油/OIL	合成型，符合GE规范D50TF1，类型 I 和类型 II CFMI服务通告CFM56-7B 79-001列出经批准的滑油品牌 Synthetic type conforming to GE Specification D50TF1, Type I and Type II. CFMI Service Bulletin CFM56-7B 79-001 list approved brand oils.			
点火系统/ IGNITION SYSTEM	GE 件号/ GE P/N			
双点火组件 Two ignition units				
Unison	9238M66	--	--	
Simmonds	1538M69	--	--	
Two igniter plugs				
Unison	1374M12	--	--	
Champion	1374M13	--	--	
主要尺寸/ PRINCIPAL DIMENSIONS	英寸/毫米 INCHES / MILLIMETERS			
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)	98.7/2507.5	--	--	
宽度（最大外壳）/ Width (maximum envelope)	83.4/2118.0	--	--	
高度（风扇机匣前法兰外 径）/ Height (fan case forward flange outer diameter)	72.0/1829.0	--	--	

重量（干重） /
WEIGHT (dry)

磅/Pounds
千克/Kilograms

重心位置/
**CENTER OF GRAVITY
LOCATIONS**

英尺/Inches
毫米/Millimeters

包含厂家发动机规范中列出的基本发动机附件和选装设备，包括发动机状态监控仪表的安装部分。

Includes basic engine accessories and optional equipment as listed in manufacturer's engine specification, including engine mounted portions of the condition monitoring instrumentation.

5260.0	--	--	
2385.9	--	--	
站位，仅发动机（参考安装图纸） STATION, ENGINE ONLY (REFER TO INSTALLATION DRAWING)			
207.4±1.0	--	--	
5269±25	--	--	

II. 型号/MODELS	CFM56-7B26	CFM56-7B27			
类型/TYPE	高涵道比涡轮风扇，多级低压涡轮驱动同轴前置风扇/增压器，1级高压涡轮驱动多级压气机 CFM56-7B 系列：单环形燃烧室 CFM56-7B/3 系列：改进排放的单环形燃烧室 High bypass turbofan; coaxial front fan/booster driven by multi-stage low pressure turbine, multi-stage compressor with one-stage high pressure turbine CFM56-7B series: single annular combustor CFM56-7B/3 series: improved emissions single annular combustor				
额定值（见注 4） RATINGS (See NOTE 4) 起飞（5 分钟，见注 13）， 海平面，静态推力，磅/ Takeoff (5 min. see NOTE 13), sea level, static thrust, lb.	26,300/ 11,699 daN	27,300/ 12,143 daN			
最大连续，海平面，静态 推力，磅/ Maximum continuous, sea level static thrust, lb.	25,900/ 11,521 daN	25,900/ 11,521 daN			
平台额定值 Flat rating 起飞/ Takeoff 最大连续/Maximum continuous	环境温度/AMBIENT TEMPERATURE				
	86°F/30°C	--			
	77°F/25°C	--			
燃油系统/FUEL SYSTEM	经批准的燃油见注 7/See NOTE 7 for approved fuels.				

燃油泵/SNECMA件号 (组合增压和单级齿轮泵) Fuel pump / SNECMA part number (P/N) (Combined boost and single element gear-type pump)	340-402-104 340-402-105	-- --			
液压机械组件/GE件号 Hydromechanical unit / GE P/N	1853M56	--			
电子控制组件/GE 件号 Electronic control unit / GE P/N					
- Hardware	1851M50 1853M33 2042M67 2044M16	-- -- -- --			
- Software	1853M78 2044M25	-- --			
识别插钉/SNECMA 件号 Identification plugs / SNECMA P/N	340-131-742 340-131-747 340-203-501 340-200-850 340-200-950	340-131-752 340-131-757 340-203-601 340-201-450 340-201-550			
滑油/OIL	合成型, 符合GE规范D50TF1, 类型 I 和类型 II CFMI服务通告CFM56-7B 79-001列出经批准的滑油品牌 Synthetic type conforming to GE Specification D50TF1, Type I and Type II. CFMI Service Bulletin CFM56-7B 79-001 list approved brand oils.				
点火系统/ IGNITION SYSTEM	GE 件号/ GE P/N				
双点火组件 Two ignition units					
Unison	9238M66	--			
Simmonds	1538M69	--			
Two igniter plugs					
Unison	1374M12	--			
Champion	1374M13	--			
主要尺寸/ PRINCIPAL DIMENSIONS	英寸/毫米 INCHES / MILLIMETERS				

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)	98.7/2507.5	--			
宽度（最大外包）/ Width (maximum envelope)	83.4/2118.0	--			
高度（风扇机匣前法兰外 径）/ Height (fan case forward flange outer diameter)	72.0/1829.0	--			
重量（干重）/ WEIGHT (dry)	包含厂家发动机规范中列出的基本发动机附件和选装设备，包括发动机状态 监控仪表的安装部分。 Includes basic engine accessories and optional equipment as listed in manufacturer's engine specification, including engine mounted portions of the condition monitoring instrumentation.				
磅/Pounds	5260	--			
千克/Kilograms	2385.9	--			
重心位置/ CENTER OF GRAVITY LOCATIONS	站位，仅发动机（参考安装图纸） STATION, ENGINE ONLY (REFER TO INSTALLATION DRAWING)				
英尺/Inches	207.4±1.0	--			
毫米/Millimeters	5269±25	--			

V. 型号/MODELS	CFM56-7B26/B2	CFM56-7B26/3B2		
类型/TYPE	高涵道比涡轮风扇，多级低压涡轮驱动同轴前置风扇/增压器，1级高压涡轮驱动多级压气机 CFM56-7B 系列：单环形燃烧室 CFM56-7B/3 系列：改进排放的单环形燃烧室 High bypass turbofan; coaxial front fan/booster driven by multi-stage low pressure turbine, multi-stage compressor with one-stage high pressure turbine CFM56-7B series: single annular combustor CFM56-7B/3 series: improved emissions single annular combustor			

额定值（见注 4）

RATINGS (See NOTE 4)

起飞（5 分钟，见注 13），
海平面，静态推力，磅/
Takeoff (5 min. see NOTE
13), sea level, static thrust,
lb.

最大连续，海平面，静态
推力，磅/
Maximum continuous, sea
level static thrust, lb.

平台额定值 Flat rating

起飞/ Takeoff

最大连续/Maximum
continuous

燃油系统/FUEL SYSTEM

燃油泵/ SNECMA 件号

（组合增压和单级齿轮泵）

Fuel pump / SNECMA part
number (P/N)

(Combined boost and single
element gear-type pump)

液压机械组件/GE 件号

Hydromechanical unit / GE
P/N

电子控制组件/GE 件号

Electronic control unit / GE
P/N

- Hardware

- Software

识别插钉/SNECMA 件号

Identification plugs /

SNECMA P/N

26,300/ 11,699 daN	26,300/ 11,699 daN		
22,800/ 10,142 daN	22,800/ 10,142 daN		
环境温度/AMBIENT TEMPERATURE			
95°F / 35°C	--		
77°F / 25°C	--		
经批准的燃油见注 7/See NOTE 7 for approved fuels.			
340-402-104	--		
340-402-105	--		
1853M56	--		
1851M50	--		
1853M33	--		
2042M67	--		
2044M16	--		
1853M78	--		
2044M25	--		
340-203-521	340-203-521		

滑油/OIL

合成型，符合GE规范D50TF1，类型 I 和类型 II
 CFMI服务通告CFM56-7B 79-001列出经批准的滑油品牌
 Synthetic type conforming to GE Specification D50TF1, Type I and Type II.
 CFMI Service Bulletin CFM56-7B 79-001 list approved brand oils.

点火系统/**IGNITION SYSTEM****双点火组件**

Two ignition units

Unison

Simmonds

GE 件号/

GE P/N

9238M66

--

1538M69

--

Two igniter plugs

Unison

Champion

1374M12

--

1374M13

--

主要尺寸/**PRINCIPAL DIMENSIONS**

英寸/毫米

INCHES / MILLIMETERS

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)

98.7/2507.5

--

宽度（最大外壳）/

Width (maximum envelope)

83.4/2118.0

--

高度（风扇机匣前法兰外
径）/Height (fan case forward
flange outer diameter)

72.0/1829.0

--

重量（干重）/

WEIGHT (dry)

包含厂家发动机规范中列出的基本发动机附件和选装设备，包括发动机状态监控仪表的安装部分。

Includes basic engine accessories and optional equipment as listed in manufacturer's engine specification, including engine mounted portions of the condition monitoring instrumentation.

磅/Pounds

千克/Kilograms

5260

--

2385.9

--

重心位置/**CENTER OF GRAVITY
LOCATIONS**

站位，仅发动机（参考安装图纸）

STATION, ENGINE ONLY (REFER TO INSTALLATION DRAWING)

英尺/Inches

毫米/Millimeters

207.4±1.0

--

5269±25

--

VI. 型号/MODELS**CFM56-7B20/3****CFM56-7B22/3****CFM56-7B24/3**

类型/TYPE	高涵道比涡轮风扇，多级低压涡轮驱动同轴前置风扇/增压器，1 级高压涡轮驱动多级压气机 CFM56-7B 系列：单环形燃烧室 CFM56-7B/3 系列：改进排放的单环形燃烧室 High bypass turbofan; coaxial front fan/booster driven by multi-stage low pressure turbine, multi-stage compressor with one-stage high pressure turbine CFM56-7B series: single annular combustor CFM56-7B/3 series: improved emissions single annular combustor			
额定值（见注 4） RATINGS (See NOTE 4) 起飞（5 分钟，见注 13）， 海平面，静态推力，磅/ Takeoff (5 min. see NOTE 13), sea level, static thrust, lb. 最大连续，海平面，静态 推力，磅/ Maximum continuous, sea level static thrust, lb.	20,600/ 9,163 daN	22,700/ 10,097 daN	24,200/ 10,765 daN	
	19,400/ 8,630 daN	22,300/ 9,920 daN	22,800/ 10,142 daN	
平台额定值 Flat rating	环境温度/AMBIENT TEMPERATURE			
起飞/ Takeoff	86°F/30°C	--	--	
最大连续/Maximum continuous	77°F/25°C	--	--	
燃油系统/FUEL SYSTEM	经批准的燃油见注 7/See NOTE 7 for approved fuels.			
燃油泵/ SNECMA 件号 （组合增压和单级齿轮泵） Fuel pump / SNECMA part number (P/N) (Combined boost and single element gear-type pump)	340-402-105	--	--	
液压机械组件/GE 件号 Hydromechnical unit / GE P/N	1853M56	--	--	

电子控制组件/GE 件号 Electronic control unit / GE P/N				
- Hardware	1851M50	--	--	
	1853M33	--	--	
	2042M67	--	--	
	2044M16	--	--	
- Software	1853M78	--	--	
	2044M25	--	--	
识别插钉/SNECMA 件号 Identification plugs / SNECMA P/N	340-203-201	340-203-301	340-203-401	
滑油/OIL	合成型，符合GE规范D50TF1，类型 I 和类型 II CFMI服务通告CFM56-7B 79-001列出经批准的滑油品牌 Synthetic type conforming to GE Specification D50TF1, Type I and Type II. CFMI Service Bulletin CFM56-7B 79-001 list approved brand oils.			
点火系统/ IGNITION SYSTEM	GE 件号/ GE P/N			
双点火组件 Two ignition units				
Unison	9238M66	--	--	
Simmonds	1538M69	--	--	
Two igniter plugs				
Unison	1374M12	--	--	
Champion	1374M13	--	--	
主要尺寸/ PRINCIPAL DIMENSIONS	英寸/毫米 INCHES / MILLIMETERS			
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)	98.7/2507.5	--	--	
宽度（最大外壳）/ Width (maximum envelope)	83.4/2118.0	--	--	
高度（风扇机匣前法兰外 径）/ Height (fan case forward flange outer diameter)	72.0/1829.0	--	--	

重量（干重）/
WEIGHT (dry)

磅/Pounds
千克/Kilograms

重心位置/
**CENTER OF GRAVITY
LOCATIONS**

英尺/Inches
毫米/Millimeters

包含厂家发动机规范中列出的基本发动机附件和选装设备，包括发动机状态监控仪表的安装部分。

Includes basic engine accessories and optional equipment as listed in manufacturer's engine specification, including engine mounted portions of the condition monitoring instrumentation.

5260	--	--	
2385.9	--	--	
站位，仅发动机（参考安装图纸） STATION, ENGINE ONLY (REFER TO INSTALLATION DRAWING)			
207.4±1.0	--	--	
5269±25	--	--	

VII. 型号/MODELS	CFM56-7B26/3	CFM56-7B27/3		
类型/ TYPE	高涵道比涡轮风扇，多级低压涡轮驱动同轴前置风扇/增压器，1级高压涡轮驱动多级压气机 CFM56-7B 系列：单环形燃烧室 CFM56-7B/3 系列：改进排放的单环形燃烧室 High bypass turbofan; coaxial front fan/booster driven by multi-stage low pressure turbine, multi-stage compressor with one-stage high pressure turbine CFM56-7B series: single annular combustor CFM56-7B/3 series: improved emissions single annular combustor			
额定值（见注 4） RATINGS (See NOTE 4)				
起飞（5 分钟，见注 13）， 海平面，静态推力，磅/ Takeoff (5 min. see NOTE 13), sea level, static thrust, lb.	26,300/ 11,699 daN	27,300/ 12,143 daN		
最大连续，海平面，静态 推力，磅/ Maximum continuous, sea level static thrust, lb.	25,900/ 11,521 daN	25,900/ 11,521 daN		
平台额定值 Flat rating	环境温度/AMBIENT TEMPERATURE			
起飞/ Takeoff	86°F/30°C	--		
最大连续/Maximum continuous	77°F/25°C	--		
燃油系统/ FUEL SYSTEM	经批准的燃油见注 7/See NOTE 7 for approved fuels.			

燃油泵/ SNECMA件号 (组合增压和单级齿轮泵) Fuel pump / SNECMA part number (P/N) (Combined boost and single element gear-type pump)	340-402-105	--		
液压机械组件/GE件号 Hydromechanical unit / GE P/N	1853M56	--		
电子控制组件/GE 件号 Electronic control unit / GE P/N				
- Hardware	1851M50	--		
	1853M33	--		
	2042M67	--		
	2044M16	--		
- Software	1853M78	--		
	2044M25	--		
识别插钉/SNECMA 件号 Identification plugs / SNECMA P/N	340-203-501	340-203-601		
滑油/OIL	合成型,符合GE规范D50TF1, 类型 I 和类型 II CFMI服务通告CFM56-7B 79-001列出经批准的滑油品牌 Synthetic type conforming to GE Specification D50TF1, Type I and Type II. CFMI Service Bulletin CFM56-7B 79-001 list approved brand oils.			
点火系统/ IGNITION SYSTEM	GE 件号/ GE P/N			
双点火组件 Two ignition units				
Unison	9238M66	--		
Simmonds	1538M69	--		
Two igniter plugs				
Unison	1374M12	--		
Champion	1374M13	--		
主要尺寸/ PRINCIPAL DIMENSIONS	英寸/毫米 INCHES / MILLIMETERS			

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)	98.7/2507.5	--		
宽度（最大外壳）/ Width (maximum envelope)	83.4/2118.0	--		
高度（风扇机匣前法兰外 径）/ Height (fan case forward flange outer diameter)	72.0/1829.0	--		
重量（干重）/ WEIGHT (dry)	包含厂家发动机规范中列出的基本发动机附件和选装设备，包括发动机状态监控仪表的安装部分。 Includes basic engine accessories and optional equipment as listed in manufacturer's engine specification, including engine mounted portions of the condition monitoring instrumentation.			
磅/Pounds	5260	--		
千克/Kilograms	2385.9	--		
重心位置/ CENTER OF GRAVITY LOCATIONS	站位，仅发动机（参考安装图纸） STATION, ENGINE ONLY (REFER TO INSTALLATION DRAWING)			
英尺/Inches	207.4±1.0	--		
毫米/Millimeters	5269±25	--		

VIII. 型号/MODELS	CFM56-7B26/3B2F		
类型/TYPE	高涵道比涡轮风扇，多级低压涡轮驱动同轴前置风扇/增压器，1 级高压涡轮驱动多级压气机 CFM56-7B 系列：单环形燃烧室 CFM56-7B/3 系列：改进排放的单环形燃烧室 High bypass turbofan; coaxial front fan/booster driven by multi-stage low pressure turbine, multi-stage compressor with one-stage high pressure turbine CFM56-7B series: single annular combustor CFM56-7B/3 series: improved emissions single annular combustor		

额定值（见注 4）

RATINGS (See NOTE 4)

起飞（5 分钟，见注 13），
海平面，静态推力，磅/
Takeoff (5 min. see NOTE
13), sea level, static thrust,
lb.

最大连续，海平面，静态
推力，磅/

Maximum continuous, sea
level static thrust, lb.

平台额定值 Flat rating

起飞/ Takeoff

最大连续/Maximum
continuous

燃油系统/FUEL SYSTEM

燃油泵/ SNECMA 件号
（组合增压和单级齿轮泵）

Fuel pump / SNECMA part
number (P/N)

(Combined boost and single
element gear-type pump)

液压机械组件/GE 件号

Hydromechanical unit / GE
P/N

电子控制组件/GE 件号

Electronic control unit / GE
P/N

- Hardware

- Software

识别插钉/SNECMA 件号

Identification plugs /
SNECMA P/N

26,300/ 11,699 daN			
25,900/ 11,521 daN			
环境温度/AMBIENT TEMPERATURE			
86°F/30°C 77°F/25°C			
经批准的燃油见注 7/See NOTE 7 for approved fuels.			
340-402-105			
1853M56			
1851M50 1853M33 2042M67 2044M16			
1853M78 2044M25			
340-205-111			

滑油/OIL

合成型，符合GE规范D50TF1，类型 I 和类型 II
 CFMI服务通告CFM56-7B 79-001列出经批准的滑油品牌
 Synthetic type conforming to GE Specification D50TF1, Type I and Type II.
 CFMI Service Bulletin CFM56-7B 79-001 list approved brand oils.

点火系统/**IGNITION SYSTEM**

双点火组件

Two ignition units

Unison

Simmonds

Two igniter plugs

Unison

Champion

主要尺寸/

PRINCIPAL DIMENSIONS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)

宽度（最大外壳）/

Width (maximum envelope)

高度（风扇机匣前法兰外
径）/Height (fan case forward
flange outer diameter)

重量（干重）/

WEIGHT (dry)

磅/Pounds

千克/Kilograms

重心位置/

**CENTER OF GRAVITY
LOCATIONS**

英尺/Inches

毫米/Millimeters

GE 件号/

GE P/N

9238M66

1538M69

1374M12

1374M13

英寸/毫米

INCHES / MILLIMETERS

98.7/2507.5

83.4/2118.0

72.0/1829.0

包含厂家发动机规范中列出的基本发动机附件和选装设备，包括发动机状态监控仪表的安装部分。

Includes basic engine accessories and optional equipment as listed in manufacturer's engine specification, including engine mounted portions of the condition monitoring instrumentation.

5260

2385.9

站位，仅发动机（参考安装图纸）

STATION, ENGINE ONLY (REFER TO INSTALLATION DRAWING)

207.4±1.0

5269±25

审定基础/

**CERTIFICATION
BASIS**

1. 1965 年 2 月 1 日生效的 14 CFR 第 33 部，第 1 到 15 修正案。
14 CFR Part 33 effective February 1, 1965, with Amendments 33-1 through 33-15 thereto.
2. 排放审定基础见注 22.

See NOTE 22 for emissions certification basis.

型号/ MODEL	申请日期 APPLICATION DATE	TC 颁发/修订 TYPE CERTIFICATE ISSUED/AMENDED	TC 撤消/TYPE CERTIFICATE WITHDRAWN
CFM56-7B18	NOV 28, 1995	DEC 17, 1996	OCT 17, 2008 (*)
CFM56-7B20	NOV 28, 1995	DEC 17, 1996	
CFM56-7B22	NOV 28, 1995	DEC 17, 1996	
CFM56-7B24	NOV 28, 1995	DEC 17, 1996	
CFM56-7B26	NOV 28, 1995	DEC 17, 1996	
CFM56-7B27	NOV 28, 1995	DEC 17, 1996	
CFM56-7B18/3	APR 23, 2004	JUN 14, 2006	OCT 17, 2008 (*)
CFM56-7B20/3	APR 23, 2004	JUN 14, 2006	
CFM56-7B22/3	APR 23, 2004	JUN 14, 2006	
CFM56-7B24/3	APR 23, 2004	JUN 14, 2006	
CFM56-7B26/3	APR 23, 2004	JUN 14, 2006	
CFM56-7B27/3	APR 23, 2004	JUN 14, 2006	
CFM56-7B26/B2	AUG 20, 2001	APR 25, 2003	
CFM56-7B26/3B2	APR 23, 2004	JUN 14, 2006	
CFM56-7B26/3B2F	DEC 15, 2005	JUN 14, 2006	

(*) 2008年10月17日生效，按厂家的要求撤销CFM56-7B18, CFM56-7B22/B2, CFM56-7B18/3, CFM56-7B22/3B2。这些型号没有进入市场。

Effective October 17, 2008 the models designation CFM56-7B18, CFM56-7B22/B2, CFM56-7B18/3, CFM56-7B22/3B2 were withdrawn at the request of the manufacturer. None of these models were released to revenue service.

**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.

**生产基础/
PRODUCTION BASIS** 生产合格证 No. 108, GE 根据 CFMI S.A 的许可证在美国生产 (见注 10)。
Production Certificate No. 108 for engines produced in the United States by General Electric under license from CFM International, S.A. (See NOTE 10).

**进口要求/
IMPORT REQUIREMENTS** 见注 10
See NOTE 10

注 1/NOTE 1

涡轮排气温度 (T495) (见注 14)
TURBINE EXHAUST
GAS (T495) (See NOTE 14)
起飞/Takeoff (5 min.)

最大许用温度 (所有型号) MAXIMUM PERMISSIBLE TEMPERATURES (ALL MODELS)	
由位于第二级低压涡轮静子叶片处的 8 个热电偶测量: As measured by a harness of eight thermocouples located at the second stage low pressure turbine vane:	
	950°C

最大连续/ Maximum continuous	925°C
启动/Starting	725°C
时间温度包线 参考型号S.O.I.	CFMI-TP.01.14
Time temperature envelope Refer to model's S.O.I.	
燃油泵进口/ FUEL PUMP INLET	参考适当的安装手册。 REFER TO THE APPROPRIATE INSTALLATION MANUAL.
滑油供应（见注18）/ OIL SUPPLY (See NOTE 18)	
连续运行/ Continuous operation	140°C /284°F
瞬时（45分钟）/ Transient (45 minutes)	155°C /311°F

注 2/NOTE 2

燃油限制
Fuel limits

燃油和滑油压力限制 FUEL AND OIL PRESSURE LIMITS	
燃油系统压力限制要求满足所有发动机运行条件，从不小于高于真实燃油蒸气压力 5psia（0.35 巴绝对压力）到所有条件下的 148 psia（10.2 巴绝对压力）最大燃油压力（燃油气/液比<0.45）。特定的安装限制见安装手册 CFM7B01，A 章，第 5 节，图 A2 和 A3。 Fuel system pressure limits required to meet all engine operating conditions extend from a minimum fuel pressure of not less than 5 psia (0.35 bar absolute) above the true fuel vapor pressure to a maximum fuel pressure of 148 psia (10.2 bar absolute) with a fuel vapor/liquid ratio < 0.45 at all conditions. For specific installation limits, see Installation Manual, CFM7B01, Part A, Section 5, Figures A2 and A3.	
滑油限制 Oil limits	
最小压力限制为 13psid（90kPa 压差）。冷启动时最大压力限制为 305psid（2102kPa 压差），由卸压活门限制。见注 12。 The minimum pressure limit is 13 psid (90 kPa differential). The maximum pressure limit during cold starts is, limited by a pressure-relief valve. See NOTE 12.	

注 3/NOTE 3

电机/ELECTRICAL

转向/Rotation (1)

与核心机的速比/

Speed ratio to core (2)

额定值/Pad Rating (kW)

剪切力矩(英寸-磅)/

附件驱动规定和滑油压力限制 ACCESSORY DRIVE PROVISIONSFUEL AND OIL PRESSURE LIMITS	
所有型号，除了-7B27A 和-7B27A/3	-7B27A 和-7B27A/3 *(3)
CW	CW
0.565	.565
135	239.4*(3)
9,000	17,500

Shear Torque (in-lb) 最大悬臂力矩(英寸-磅)/ Maximum overhung moment (in-lb)	950	1,540
HYDRAULIC PUMP 转向/Rotation (1) 与核心机的速比/ Speed ratio to core (2) 额定值/Pad Rating (in-lb) 剪切力矩(英寸-磅)/ Shear Torque (in-lb) 最大悬臂力矩(英寸-磅)/ Maximum overhung moment (in-lb)	CW 0.256 1,550 4,400 500	CW 0.256 1,550 4,400 500
(1) CW=顺时针/CCW=逆时针, 面向驱动座 CW = CLOCKWISE FACING PAD / CCW = COUNTERCLOCKWISE FACING PAD (2) 100%核心机转速=14,460 RPM 100% CORE ENGINE SPEED = 14,460 RPM *(3) 对于7B27A和7B27A/3, 在某些确定的引气条件下, 不能达到最大驱动额定值。这些条件下最大允许提取载荷见安装手册CFM-7B01。 FOR 7B27A & 7B27A/3, UNDER CERTAIN BLEED CONDITIONS, MAXMUM PAD RATING IS NOT AVAILABLE. REFER TO INSTALLATION MANUAL CFM-7B01 FOR MAX PERMISSIBLE EXTRACTION LOADS UNDER THESE CONDITIONS.		

注 4/NOTE 4

发动机额定值是基于下列条件下的校准台架性能（海平面）： Engine ratings are based on calibrated stand performance (sea level static) under the following conditions: 起飞推力名义上与环境温度（平台额定值）无关，直到以下环境温度： Takeoff thrust is nominally independent of ambient temperature (flat rated) up to ambient temperature of: - 标准+15°C (30°C, 86°F), 除 7B22/B1 和 7B24/B1 外所有型号 Std + 15°C (30°C, 86°F) for all models except 7B22/B1 and 7B24/B1 - 标准+21°C (36°C, 96.8°F), 对于 7B22/B1 和 7B22/3B1 Std + 21°C (36°C, 96.8°F) for 7B22/B1 and 7B22/3B1 - 标准+26°C (41°C, 105.8°F), 对于 7B24/B1 和 7B24/3B1 Std + 26°C (41°C, 105.8°F) for 7B24/B1 and 7B24/3B1 - 标准+20°C (35°C, 95°F), 对于 7B26/B2 和 7B26/3B2 Std + 20°C (35°C, 95°F) for 7B26/B2 and 7B26/3B2 - 标准+35°C (50°C, 122°F), 对于 7B22/B2 和 7B22/3B2 Std + 35°C (50°C, 122°F) for 7B22/B2 and 7B22/3B2 对于所有型号，最大连续名义上与环境温度（平台额定值）无关，直到环

境温度为标准+10°C (25°C, 77°F)。

Maximum continuous is nominally independent of ambient temperature (flat rated) up to ambient temperature of Std. + 10°C (25°C, 77°F) for all models.

0 消耗引气和功率提取。

Zero customer bleed and horsepower extraction.

100%进口恢复

100% inlet recovery.

基于产品飞行排气系统。

Based on the production flight exhaust system.

注 5/NOTE 5

低压转子 (N1)
Low pressure rotor (N1)
高压转子 (N2)
High pressure rotor (N2)

最大允许发动机转子转速 (所有型号)

MAXIMUM PERMISSIBLE ENGINE ROTOR SPEEDS (ALL MODELS)

RPM	%
5,382	104
15,183	105
100% N1 = 5,175 RPM, 100% N2= 14,460 RPM	

注 6/NOTE 6

位置/LOCATION

风扇出口/
Fan Discharge

5级高压压气机/
HPC Stage 5 only

压气机出口/
Compressor discharge only

5级HPC和压气机出口组合/
HPC Stage 5 and
compressor discharge
combined

最大允许引气 (所有型号) *

MAXIMUM PERMISSIBLE AIR BLEED EXTRACTION (ALL MODELS)*

风扇修正转速/ FAN CORRECTED SPEED	流量限制/ FLOW LIMIT
高于最小慢车的所有转速/ All speeds above minimum idle	2%风扇气流/ 2% fan airflow
高于最小慢车的所有转速/ All speeds above minimum idle	10%核心气流 10% core airflow
最小慢车到61%N1K Minimum idle to 61% N1K 61%到82.5% N1K 61% to 82.5% N1K 高于82.5% N1K Above 82.5% N1K	12%核心气流 12% core airflow 从12%到7%核心气流线性变化 Linear variation from 12% to 7% core airflow 7%核心气流 7% core airflow
最小慢车到61%N1K Minimum idle to 61% N1K 61%到82.5% N1K 61% to 82.5% N1K	13%核心气流 13% core airflow 从13%到10%核心气流线性变化 Linear variation from 13% to 10%

	高于82.5% N1K Above 82.5% N1K	core airflow 10%核心气流 10% core airflow
* 对于7B27A和7B27A/3发动机, 在某些齿轮箱载荷条件下, 不能获得这些引气计划。这些条件下允许的引气计划见CFM56-7B发动机安装手册CFM7B01。 FOR THE 7B27A & 7B27A/3 ENGINES, UNDER CERTAIN GEARBOX LOAD CONDITIONS, THIS BLEED SCHEDULE WILL NOT BE AVAILABLE. FOR PERMITTED BLEED SCHEDULES UNDER THESE CONDITIONS, REFER TO CFM56-7B INSTALLATION MANUAL CFM7B01.		

注 7/NOTE 7

经批准的燃油满足国标 GB6537-2006 燃油牌号的要求。
 Approved fuel compliance with requirement of GB6537-2006.

其余燃油型号符合 GE 的规范 D50TF2。MIL-T-5624, JP-4 或 JP-5 级, ASTM D 1655, Jet A、A1 和 B 与 GE 的规范一致。主要的燃油是 Jet A, 其他列出的燃油作为备选。当由主要燃油换成备选燃油时, 无需进行燃油控制调整。航空汽油的适用未经授权。添加剂的使用参考特殊运行说明 CFMI-TP.01.14 第 3 节。

The remaining fuel types conforming to GE Specification D50TF2. MIL-T-5624, Grades JP-4 or JP-5, ASTM D 1655, Jet A, A1 and B are consistent with this GE Specification. Primary fuel is Jet A, with other fuels listed being acceptable alternates. No fuel control adjustment is required when changing from primary to alternate fuels. Use of aviation gasoline is not authorized. Consult Specific Operating Instructions, CFMI-TP.01.14, Section 3, for additive usage.

注 8/NOTE 8

关键转动件的寿命限制在 CFM56-7B 发动机进厂修理手册 CFM-TP.SM.10 第 5 章公布。

Life limits established for critical rotating components are published in Chapter 5 of the CFM56-7B Engine Shop Manual, CFM-TP.SM.10.

注 9/NOTE 9

发动机所有运行状况下推力输出的功率设定、功率检查和控制基于相对于风扇转速的 CFM 发动机图表。因此, 风扇转速传感器包含在发动机集成中。

Power setting, power checks and control of engine thrust output in all operations is to be based on CFM engine charts referring to fan speed. Fan speed sensors are included in the engine assembly for this purpose.

注 10/NOTE 10

型号合格证持有人—CFMI, S.A., 是由法国国营发动机生产联合体 (SNECMA) 和通用电气 (GE) 公司共同建立并拥有的公司, 负责CFM56 系列发动机的认证、销售和支援。关于用于生产的型号合格证利益, GE 和SNECMA根据CFMI S.A.的协议共同行使。

The type certificate holder, CFM International, S.A., is a company established and jointly owned by Societe Nationale l'Etude et de Construction de Moteurs d'Aviation (SNECMA) of France and the General Electric Company for the

certification, sale, and support of CFM56 series engines. With respect to the benefits of type certification for production, General Electric and SNECMA function as licensees of CFM International, S.A.

本型号合格证仅用于在美国根据型号合格证No. E00055EN生产的发动机，与在法国按照TC No. E00056EN生产的相同命名的发动机完全相同并可互换。同样，法国生产的模块、组件或零件适用于按本型号合格证生产的发动机，只要SNECMA在EASA生产合格证No. FR.21G.0007授权下颁发的适航批准挂签（EASA表1—授权放行许可或JAA表1）附于每个产品上或产品运输的发票上（参见14 CFR § 21.502）。

This type certificate applies only to engines produced in the United States under Type Certificate No. E00055EN. Engines of the same model designation produced in France under Type Certificate No. E00056EN are identical to and fully interchangeable with engines produced under this type certificate. Similarly, modules, assemblies, or parts produced in France are eligible for use in engines produced under this type certificate provided an airworthiness approval tag, (EASA Form 1 – Authorized Release Certificate or JAA Form 1), issued by SNECMA under authority of the European Aviation Safety Agency (EASA) Production Certificate No. FR.21G.0007 attached to each item or invoice covering a shipment of similar items (Ref. 14 CFR § 21.502).

由GE生产的发动机，通过偶数序列号前缀来识别（即“874”，“876”，“888”，“890”，“892”，“654”，“362”）。

These engines, when produced by General Electric, are identified by an even numbered serial number prefix (i.e., “874”, “876”, “888”, “890”, “892”, “654”, “362”).

奇数序列号前缀的发动机（即“875”，“877”，“889”，“891”，“893”，“655”，“363”）是由SNECMA生产的。

All engines identified by an odd numbered prefix (i.e., “875”, “877”, “889”, “891”, “893”, “655”, “363”) will be produced by SNECMA.

注 11/NOTE 11

低于25°F，空中最小许用慢车相应于N2=64.7%（9,350 rpm）。在25°F（-3.8°C）和40°F（4.4°C）之间，慢车转速从64.7%（9,350 rpm）到58.8%（8,500 rpm）变化。高于40°F（4.4°C），最小许用慢车转速是58.8%（8,500 rpm）。其他EEC计划表限制，如最小燃油流量和最小PS3（包括7B27A和7B27A/3的马赫数偏差）可能导致空中N2转速限制高于以上N2限制。所有的限制不可调，并且预置在EEC计划表中。

The minimum permissible idle in flight corresponds to N2=64.7% (9,350 rpm) below 25°F. Between 25°F (-3.8°C) and 40°F (4.4°C), the idle speed varies from 64.7% (9,350 rpm) to 58.8% (8,500 rpm). Above 40°F (4.4°C), the minimum permissible idle speed is 58.8% (8,500 rpm). Other EEC schedule limitations, such as minimum fuel flow and minimum PS3 (including Mach

No. bias for 7B27A & 7B27A/3), may result in minimum N2 speed limitations in flight that are higher than the N2 limits listed above. All limits are non-adjustable and are preset into the EEC schedules.

注 12/NOTE 12

仅在负加速度运行情况下，允许低于 13psid 的最低滑油压力运行最多 10 秒钟。参见特殊运行说明 CFMI-TP.01.14 第 6 节。

During negative-g operation only, it is permissible to operate below minimum oil pressure (13psid) for a maximum of 10 seconds. See Specific Operating Instructions, CFMI-TP.01.14, Section 6.

注 13/NOTE 13

发动机意外情况下正常 5 分钟起飞额定值可能延长至 10 分钟。

The normal 5 minute takeoff rating may be extended to 10 minutes for engine out contingency.

注 14(a)/NOTE 14(a)

显示的最大许用起飞排气温度（EGT）为 950°C。这些显示的起飞 EGT 红线是通过 EGT 转换完成的，ECU 软件对 EGT 的调整在以下注明。

The indicated maximum permissible takeoff exhaust gas temperature (EGT) is 950°C. These indicated takeoff EGT redlines are accomplished via an EGT shunt and an EGT trim in the ECU software as noted below.

显示 950°C 起飞 EGT 红线值对每个型号的影响总结如下：

The effect on EGT (units °C) with respect to the indicated takeoff EGT redline value of 950°C for each of the models is summarized below:

型号/ Model	实际测量起飞红 线值/ Actual Measured Takeoff Redline Value	显示的起飞EGT水 平，仅30°C转换/ Indicated Takeoff EGT level with 30°C Shunt Only*	最大 EGT 调整水 平/ Maximum EGT Trim Level**	显示的起飞EGT 红线/ Indicated Takeoff EGT Redline
7B20, 7B20/3	884	914	36	950
7B22, 7B22/3	886	916	34	950
7B24, 7B24/3	908	938	12	950
7B26, 7B26/B2, 7B26/3B2, 7B26/3	920	950	0	950
7B27, 7B27/3	920	950	0	950
7B26/3B2F	940	950	0	950

* CFM56-7B 和 7B/3 系列发动机的 EGT 转换是在实际测量的发动机 EGT 上加 30°C 提供一个 EGT 的显示水平，CFM56-7B/3F 系列发动机是加 10 °C，CFM56-7B/2 系列发动机是加 20°C。所有 CFM56 系列发动机，当核心机转速超过 8,500 RPM 时，这个转换被触发。

EGT shunt adds 30°C to actual measured engine EGT on CFM56-7B and 7B/3 series engines, 10°C to actual measured engine EGT on CFM56-7B/3F series engines, and 20°C to the actual measured engine EGT on CFM56-7B/2

series engines to provide an indicated EGT level. This EGT shunt is triggered above 8,500 RPM core speed for all CFM56 series engines.

** EGT 的调整功能将增加上述数值达到显示 EGT 水平。这个调整只在马赫数从 0 到 0.40, 并且核心机转速大于 11,200 RPM 时被触发。这个功能只适用于所指出的型号。

The EGT trim function adds the values noted above to the indicated EGT levels. This EGT trim is only triggered at mach numbers from 0 to 0.40 and when the core speed is greater than 11,200 RPM. This function is only applicable for the engine models indicated.

注 14(b)/NOTE 14(b)

CFM56-7B和7B/3系列发动机显示的最大允许最大连续EGT是925°C, 相应的实际测量EGT为895°C, 7B/3F系列为915°C, CFM56-7B/2系列为905°C。CFM56-7B和7B/3系列发动机的EGT转换是在实际测量的发动机EGT上加30°C提供一个EGT的显示水平, CFM56-7B/3F系列发动机是加10°C, CFM56-7B/2系列发动机是加20°C。所有CFM56系列发动机, 当核心机转速超过8,500 RPM时, 这个转换被触发。

The indicated maximum permissible maximum continuous EGT is 925°C corresponding to an actual measured EGT of 895°C on CFM56-7B and 7B/3 series engines, 915°C on 7B/3F series engines, and 905°C on CFM56-7B/2 series engines. EGT shunt adds 30°C to actual measured engine EGT on CFM56-7B series engines, 10°C to actual measured engine EGT on CFM56-7B/3F series engines, and 20°C to the actual measured engine EGT on CFM56-7B/2 series engines to provide an indicated EGT level. This EGT shunt is triggered above 8,500 RPM core speed for all CFM56 series engines.

注 14(c)/NOTE 14(c)

所有 CFM56-7B, -7B/2, -7B/3 和-7B/3F 系列发动机被审定为 20 秒 960°C 的显示的最大许用起飞 EGT, 这等于高出 950°C 最大许用显示值 10°C。All CFM56-7B, -7B/2, -7B/3, and -7B/3F series engines are certified with an indicated maximum permissible takeoff EGT transient allowance of 960°C for 20 seconds. This equates to a 10°C increase above the maximum permissible indicated value of 950°C.

注 15/NOTE 15

CFM56-7B27A和CFM56-7B27A/3仅对军用设计, 序列号包括654, 655, 362或363, 取决于最后组装的地点。FAA审定军用发动机不必按照FAA的规章运行和维护。用于商用的CFM56-7B27A和CFM56-7B27A/3发动机, 以及使用过的CFM56-7B27A和CFM56-7B27A/3发动机的零件装于其他CFM56-7B发动机, 要得到FAA的事先批准(发动机审定办公室, ANE-140) The CFM56-7B27A and CFM56-7B27A/3 variants are designed for military application only. The engine serial number of these variants includes 654, 655, 362 or 363 depending on final assembly location. FAA certified engines used in military service are not necessarily operated or maintained in accordance with FAA regulations. Commercial service use of the CFM56-7B27A and CFM56-7B27A/3 variants, and the installation of used CFM56-7B27A and CFM57-7B27A/3 parts in another CFM56-7B variant, are

subject to prior approval of the FAA (Engine Certification Office, ANE-140).

注 16/NOTE 16

删除/Note deleted.

注 17/NOTE 17

发动机控制系统的签派和维护相关标准在 CFM56-7B 发动机进厂手册 (CFM-TP.SM.10) 的适航限制部分中规定, 定义了不同的构型和最大运行间隔。

Criteria pertaining to the dispatch and maintenance requirements for the engine control systems are specified in the airworthiness limitation section of the CFM56-7B Engine Shop Manual (CFM-TP.SM.10), which defines the various configurations and maximum operating intervals.

注 18/NOTE 18

启动和慢车的实际最大允许滑油温度, 连续运行时比相应的显示温度高 10°C, 短时运行时高 5°C。

The actual maximum permissible oil temperature for starting and idle conditions is 10°C higher for continuous operation and 5°C higher for transient operation than the corresponding indicated oil temperatures.

连续运行时显示滑油温度 140°C (284°F), 相应的实际滑油温度为 150°C (302°F)。

An indicated oil temperature for continuous operation of 140°C (284°F) corresponds to an actual oil temperature of 150°C (302°F).

短时运行时显示滑油温度 155°C (311°F), 相应的实际滑油温度为 160°C (320°F)。

An indicated oil temperature for transient operation of 155°C (311°F) corresponds to an actual oil temperature of 160°C (320°F).

注 19/NOTE 19

CFM56-7B系列发动机包括: CFM56-7B20, -7B22, -7B22/B1, -7B24, -7B24/B1, -7B26, -7B26/B2, -7B27, -7B27A, -7B26/B1, -7B27/B1, -7B27/B3 和-7B27A/3

CFM56-7B series includes: CFM56-7B20, -7B22, -7B22/B1, -7B24, -7B24/B1, -7B26, -7B26/B2, -7B27, -7B27A, -7B26/B1, -7B27/B1, -7B27/B3 and -7B27A/3

CFM56-7B/2系列发动机包括: CFM56-7B20/2, -7B22/2, -7B24/2, -7B26/2 和-7B27/2

CFM56-7B/2 series includes: CFM56-7B20/2, -7B22/2, -7B24/2, -7B26/2, and -7B27/2

CFM56-7B/3系列发动机包括: CFM56-7B20/3, -7B22/3, -7B22/3B1, -7B22/3B2, -7B24/3, -7B24/3B1, -7B26/3, -7B26/3B1, -7B26/3B2, -7B27/3, -7B27/3B1和-7B27/3B3

CFM56-7B/3 series includes: CFM56-7B20/3, -7B22/3, -7B22/3B1,

-7B22/3B2, -7B24/3, -7B24/3B1, -7B26/3, -7B26/3B1, -7B26/3B2, -7B27/3, -7B27/3B1, and -7B27/3B3

CFM56-7B/3F系列发动机包括: CFM56-7B26/3F, -7B26/3B2F, -7B27/3F和-7B27/3B1F

CFM56-7B/3F series includes: CFM56-7B26/3F, -7B26/3B2F, -7B27/3F, and -7B27/3B1F.

注 20/NOTE 20

The models shown on this TCDS have the following general characteristics:

MODEL	CHARACTERISTICS
CFM56-7B18	基本型（不再可用） Base model. (No longer available)
CFM56-7B20	除提高推力额定值外，与 CFM56-7B18 相同 Same as CFM56-7B18 except for increased thrust ratings.
CFM56-7B22	除提高推力额定值外，与 CFM56-7B18 相同 Same as CFM56-7B18 except for increased thrust ratings.
CFM56-7B24	除提高推力额定值外，与 CFM56-7B18 相同 Same as CFM56-7B18 except for increased thrust ratings.
CFM56-7B26	除提高推力额定值外，与 CFM56-7B18 相同 Same as CFM56-7B18 except for increased thrust ratings.
CFM56-7B27	除提高推力额定值外，与 CFM56-7B18 相同 Same as CFM56-7B18 except for increased thrust ratings.
CFM56-7B20/3	采用低排放燃烧室，重新设计压气机和高压涡轮转子，其余与 CFM56-7B20 相同 Same as CFM56-7B20 except for low emissions combustor and redesigned compressor and HPT rotor.
CFM56-7B26/3	提高了推力，采用低排放燃烧室，重新设计压气机和高压涡轮转子，其余与 CFM56-7B20 相同 Same as CFM56-7B20 except for increased thrust, low emissions combustor and redesigned compressor and HPT rotor.
CFM56-7B27/3	提高了推力，采用低排放燃烧室，重新设计压气机和高压涡轮转子，其余与 CFM56-7B20 相同 Same as CFM56-7B20 except for increased thrust, low emissions combustor and redesigned compressor and HPT rotor.
CFM56-7B26/B2	扩展了高海拔高度和温度额定值，其余与 CFM56-7B26 相同 Same as CFM56-7B26, except CFM56-7B26/B2 has

	an extended high altitude and temperature rating above corner point takeoff.
CFM56-7B26/3B2	采用低排放燃烧室，重新设计压气机和高压涡轮转子，其余与 CFM56-7B26/B2 相同 Same as CFM56-7B26/B2 except for low emissions combustor and redesigned compressor and HPT rotor.
CFM56-7B26/3B2F	提高了 EGT 限制，其余与 CFM56-7B26/3B2 相同 Same as CFM56-7B26/3B2 except for increased EGT limits.

注 21/NOTE 21

声明经 EASA 批准，或按 DOA No. EASA.21J.086 授权，或在 2003 年 9 月 28 日以前经 DGAC 批准的安装手册、特殊运行说明、服务通告、大修和维护手册、修理手册、供应商手册和设计更改，被 FAA 所接受，并认为经过 FAA 的批准。修理数据和相关说明被认为经 FAA 按适用性批准或接受。这些批准仅针对型号设计。

Installation Manuals, Specific Operating Instructions, Service Bulletins, Overhaul and Maintenance Manuals, Repair Manuals, Vendor Manuals, and Design Changes which contain a statement that the document is EASA approved or approved under authority of DOA No. EASA.21J.086 or for approvals made before September 28, 2003 by DGAC are accepted by the FAA and considered FAA approved. Repair data and related instructions are considered FAA approved or accepted as applicable. These approvals pertain to the type design only.

注 22/NOTE 22

所有型号发动机均符合 1990 年 9 月 10 日生效的 14 CFR 34 部 1-3 修正案的排放要求。另外，CFM56-7B/3 和 -7B/3F 系列发动机符合 2005 年 9 月 19 日生效的 40 CFR 87 部，当时的 14 CFR 34 部已经修订包括了这些要求。All engine models are in compliance with the emissions requirements in 14 CFR Part 34, effective September 10, 1990, as amended by 34-1 through 34-3. In addition the CFM56-7B/3 and -7B/3F series engines are in compliance with 40 CFR Part 87, effective December 19, 2005 until such time as 14 CFR Part 34 is amended to include such requirements.

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----END----

型号认可证数据单 THE VALIDATION DATA SHEET

编号/No.: VTC077E
 版次/Revision: 2
 型号/Type:
 CFM56-7B20 CFM56-7B22
 CFM56-7B24 CFM56-7B26
 CFM56-7B27 CFM56-7B20/3
 CFM56-7B22/3 CFM56-7B24/3
 CFM56-7B26/3 CFM56-7B27/3
 CFM56-7B26/B2 CFM56-7B26/3B2
 CFM56-7B26/3B2F
 批准人/Approved by:

 日期/Date:

本数据单是型号认可证（编号 VTC077E）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 a part of Validation Type Certificate (No: VTC077E), 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:

CFM International, S.A.
 2 Boulevard du General Martial Valin
 75015 Paris, France

有效页清单/List of effective pages :

页数/ Pages	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
版次/Revision	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
页数/ Pages	16	17	18	19	20	21	22	23	24	25	26	27			
版次/Revision	2	2	2	2	2	2	2	2	2	2	2	2			

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. VTC077E, 版次 2 2010 年 1 月 29 日	FAA TCDS No. E00055EN, E00056EN Revision 7, Oct. 17, 2008
历史 History	No. VTC077E, 版次 1 2007 年 10 月 16 日	FAA TCDS No. E00055EN, E00056EN Revision 6, Jun. 14, 2006
	No. VTC077E, 版次 0 1998 年 03 月 05 日	FAA TCDS No. E00055EN, E00056EN Revision 7, Oct. 17, 2008

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: CFM International, S.A.
2 Boulevard du General Martial Valin
75015 Paris, France
6. ETOPS: 不适用/NA
7. CAAC 专用要求/Special Requirements: 无/NONE

第2部分

SECTION 2

I. 型号/MODELS	CFM56-7B20	CFM56-7B22	CFM56-7B24	
类型/TYPE 高涵道比涡轮风扇，多级低压涡轮驱动同轴前置风扇/增压器，1 级高压涡轮驱动多级压气机 CFM56-7B 系列：单环形燃烧室 CFM56-7B/3 系列：改进排放的单环形燃烧室 High bypass turbofan; coaxial front fan/booster driven by multi-stage low pressure turbine, multi-stage compressor with one-stage high pressure turbine CFM56-7B series: single annular combustor CFM56-7B/3 series: improved emissions single annular combustor				
额定值（见注 4） RATINGS (See NOTE 4) 起飞（5 分钟，见注 13）， 海平面，静态推力，磅/ Takeoff (5 min. see NOTE 13), sea level, static thrust, lb. 最大连续，海平面，静态 推力，磅/ Maximum continuous, sea level static thrust, lb.	20,600/ 9,163 daN	22,700/ 10,097 daN	24,200/ 10,765 daN	
	19,400/ 8,630 daN	22,300/ 9,920 daN	22,800/ 10,142 daN	
平台额定值 Flat rating 起飞/Takeoff 最大连续/Maximum continuous	环境温度/AMBIENT TEMPERATURE			
	86°F/30°C 77°F/25°C	-- --	-- --	
燃油系统/FUEL SYSTEM 燃油泵/ SNECMA 件号 （组合增压和单级齿轮泵） Fuel pump / SNECMA part number (P/N) (Combined boost and single element gear-type pump)	经批准的燃油见注 7/See NOTE 7 for approved fuels.			
	340-402-104 340-402-105	-- --	-- --	
液压机械组件/GE 件号 Hydromechanical unit / GE P/N	1853M56	--	--	

电子控制组件/GE 件号 Electronic control unit / GE P/N				
- Hardware	1851M50	--	--	
	1853M33	--	--	
	2042M67	--	--	
	2044M16	--	--	
- Software	1853M78	--	--	
	2044M25	--	--	
识别插钉/SNECMA 件号 Identification plugs / SNECMA P/N	340-131-712	340-131-721	340-131-732	
	340-131-717	340-131-726	340-131-737	
	340-203-201	340-203-301	340-203-401	
	340-198-850	340-199-250	340-200-050	
	340-198-950	340-199-350	340-200-150	
滑油/OIL	合成型，符合GE规范D50TF1，类型 I 和类型 II CFMI服务通告CFM56-7B 79-001列出经批准的滑油品牌 Synthetic type conforming to GE Specification D50TF1, Type I and Type II. CFMI Service Bulletin CFM56-7B 79-001 list approved brand oils.			
点火系统/ IGNITION SYSTEM	GE 件号/ GE P/N			
双点火组件 Two ignition units				
Unison	9238M66	--	--	
Simmonds	1538M69	--	--	
Two igniter plugs				
Unison	1374M12	--	--	
Champion	1374M13	--	--	
主要尺寸/ PRINCIPAL DIMENSIONS	英寸/毫米 INCHES / MILLIMETERS			
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)	98.7/2507.5	--	--	
宽度（最大外壳）/ Width (maximum envelope)	83.4/2118.0	--	--	
高度（风扇机匣前法兰外 径）/ Height (fan case forward flange outer diameter)	72.0/1829.0	--	--	

重量 (干重) /
WEIGHT (dry)

包含厂家发动机规范中列出的基本发动机附件和选装设备, 包括发动机状态监控仪表的安装部分。

Includes basic engine accessories and optional equipment as listed in manufacturer's engine specification, including engine mounted portions of the condition monitoring instrumentation.

磅/Pounds

5260.0

--

--

千克/Kilograms

2385.9

--

--

重心位置/

**CENTER OF GRAVITY
LOCATIONS**

站位, 仅发动机 (参考安装图纸)

STATION, ENGINE ONLY (REFER TO INSTALLATION DRAWING)

英尺/Inches

207.4±1.0

--

--

毫米/Millimeters

5269±25

--

--

II. 型号/MODELS	CFM56-7B26	CFM56-7B27			
类型/TYPE	高涵道比涡轮风扇, 多级低压涡轮驱动同轴前置风扇/增压器, 1 级高压涡轮驱动多级压气机 CFM56-7B 系列: 单环形燃烧室 CFM56-7B/3 系列: 改进排放的单环形燃烧室 High bypass turbofan; coaxial front fan/booster driven by multi-stage low pressure turbine, multi-stage compressor with one-stage high pressure turbine CFM56-7B series: single annular combustor CFM56-7B/3 series: improved emissions single annular combustor				
额定值 (见注 4) RATINGS (See NOTE 4) 起飞 (5 分钟, 见注 13), 海平面, 静态推力, 磅/ Takeoff (5 min. see NOTE 13), sea level, static thrust, lb.	26,300/ 11,699 daN	27,300/ 12,143 daN			
最大连续, 海平面, 静态 推力, 磅/ Maximum continuous, sea level static thrust, lb.	25,900/ 11,521 daN	25,900/ 11,521 daN			
平台额定值 Flat rating	环境温度/AMBIENT TEMPERATURE				
起飞/Takeoff	86°F/30°C	--			
最大连续/Maximum continuous	77°F/25°C	--			
燃油系统/FUEL SYSTEM	经批准的燃油见注 7/See NOTE 7 for approved fuels.				

燃油泵/ SNECMA 件号 (组合增压和单级齿轮泵) Fuel pump / SNECMA part number (P/N) (Combined boost and single element gear-type pump)	340-402-104 340-402-105	-- --			
液压机械组件/GE 件号 Hydromechanical unit / GE P/N	1853M56	--			
电子控制组件/GE 件号 Electronic control unit / GE P/N					
- Hardware	1851M50 1853M33 2042M67 2044M16	-- -- -- --			
- Software	1853M78 2044M25	-- --			
识别插钉/SNECMA 件号 Identification plugs / SNECMA P/N	340-131-742 340-131-747 340-203-501 340-200-850 340-200-950	340-131-752 340-131-757 340-203-601 340-201-450 340-201-550			
滑油/OIL	合成型, 符合GE规范D50TF1, 类型 I 和类型 II CFMI服务通告CFM56-7B 79-001列出经批准的滑油品牌 Synthetic type conforming to GE Specification D50TF1, Type I and Type II. CFMI Service Bulletin CFM56-7B 79-001 list approved brand oils.				
点火系统/ IGNITION SYSTEM	GE 件号/ GE P/N				
双点火组件 Two ignition units					
Unison	9238M66	--			
Simmonds	1538M69	--			
Two igniter plugs					
Unison	1374M12	--			
Champion	1374M13	--			
主要尺寸/ PRINCIPAL DIMENSIONS	英寸/毫米 INCHES / MILLIMETERS				

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)	98.7/2507.5	--			
宽度（最大外包）/ Width (maximum envelope)	83.4/2118.0	--			
高度（风扇机匣前法兰外 径）/ Height (fan case forward flange outer diameter)	72.0/1829.0	--			
重量（干重）/ WEIGHT (dry)	包含厂家发动机规范中列出的基本发动机附件和选装设备，包括发动机状态 监控仪表的安装部分。 Includes basic engine accessories and optional equipment as listed in manufacturer's engine specification, including engine mounted portions of the condition monitoring instrumentation.				
磅/Pounds	5260	--			
千克/Kilograms	2385.9	--			
重心位置/ CENTER OF GRAVITY LOCATIONS	站位，仅发动机（参考安装图纸） STATION, ENGINE ONLY (REFER TO INSTALLATION DRAWING)				
英尺/Inches	207.4±1.0	--			
毫米/Millimeters	5269±25	--			

V. 型号/MODELS	CFM56-7B26/B2	CFM56-7B26/3B2		
类型/TYPE	高涵道比涡轮风扇，多级低压涡轮驱动同轴前置风扇/增压器，1级高压涡轮驱动多级压气机 CFM56-7B 系列：单环形燃烧室 CFM56-7B/3 系列：改进排放的单环形燃烧室 High bypass turbofan; coaxial front fan/booster driven by multi-stage low pressure turbine, multi-stage compressor with one-stage high pressure turbine CFM56-7B series: single annular combustor CFM56-7B/3 series: improved emissions single annular combustor			

额定值 (见注 4) RATINGS (See NOTE 4) 起飞 (5 分钟, 见注 13), 海平面, 静态推力, 磅/ Takeoff (5 min. see NOTE 13). sea level, static thrust, lb. 最大连续, 海平面, 静态 推力, 磅/ Maximum continuous, sea level static thrust, lb.	26,300/ 11,699 daN 22,800/ 10,142 daN	26,300/ 11,699 daN 22,800/ 10,142 daN		
平台额定值 Flat rating	环境温度/AMBIENT TEMPERATURE			
起飞/Takeoff	95° F / 35° C	--		
最大连续/Maximum continuous	77° F / 25° C	--		
燃油系统/FUEL SYSTEM	经批准的燃油见注 7/See NOTE 7 for approved fuels.			
燃油泵/ SNECMA 件号 (组合增压和单级齿轮泵) Fuel pump / SNECMA part number (P/N) (Combined boost and single element gear-type pump)	340-402-104 340-402-105	-- --		
液压机械组件/GE 件号 Hydromechanical unit / GE P/N	1853M56	--		
电子控制组件/GE 件号 Electronic control unit / GE P/N				
- Hardware	1851M50 1853M33 2042M67 2044M16	-- -- -- --		
- Software	1853M78 2044M25	-- --		
识别插钉/SNECMA 件号 Identification plugs / SNECMA P/N	340-203-521	340-203-521		

滑油/OIL

合成型，符合GE规范D50TF1，类型 I 和类型 II
 CFMI服务通告CFM56-7B 79-001列出经批准的滑油品牌
 Synthetic type conforming to GE Specification D50TF1. Type I and Type II.
 CFMI Service Bulletin CFM56-7B 79-001 list approved brand oils.

点火系统/**IGNITION SYSTEM**

双点火组件

Two ignition units

Unison

Simmonds

Two igniter plugs

Unison

Champion

主要尺寸/**PRINCIPAL DIMENSIONS**

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)

宽度（最大外壳）/

Width (maximum envelope)

高度（风扇机匣前法兰外
 径）/

Height (fan case forward
 flange outer diameter)

重量（干重）/

WEIGHT (dry)

磅/Pounds

千克/Kilograms

重心位置/

**CENTER OF GRAVITY
LOCATIONS**

英尺/Inches

毫米/Millimeters

GE 件号/

GE P/N

9238M66

--

1538M69

--

1374M12

--

1374M13

--

英寸/毫米

INCHES / MILLIMETERS

98.7/2507.5

--

83.4/2118.0

--

72.0/1829.0

--

包含厂家发动机规范中列出的基本发动机附件和选装设备，包括发动机状态监控仪表的安装部分。

Includes basic engine accessories and optional equipment as listed in manufacturer's engine specification, including engine mounted portions of the condition monitoring instrumentation.

5260

--

2385.9

--

站位，仅发动机（参考安装图纸）

STATION, ENGINE ONLY (REFER TO INSTALLATION DRAWING)

207.4±1.0

--

5269±25

--

VI. 型号/MODELS**CFM56-7B20/3****CFM56-7B22/3****CFM56-7B24/3**

类型/TYPE	高涵道比涡轮风扇，多级低压涡轮驱动同轴前置风扇/增压器，1 级高压涡轮驱动多级压气机 CFM56-7B 系列：单环形燃烧室 CFM56-7B/3 系列：改进排放的单环形燃烧室 High bypass turbofan; coaxial front fan/booster driven by multi-stage low pressure turbine, multi-stage compressor with one-stage high pressure turbine CFM56-7B series: single annular combustor CFM56-7B/3 series: improved emissions single annular combustor			
额定值（见注 4） RATINGS (See NOTE 4) 起飞（5 分钟，见注 13）， 海平面，静态推力，磅/ Takeoff (5 min. see NOTE 13), sea level, static thrust, lb. 最大连续，海平面，静态 推力，磅/ Maximum continuous, sea level static thrust, lb.	20,600/ 9,163 daN	22,700/ 10,097 daN	24,200/ 10,765 daN	
	19,400/ 8,630 daN	22,300/ 9,920 daN	22,800/ 10,142 daN	
平台额定值 Flat rating	环境温度/AMBIENT TEMPERATURE			
起飞/Takeoff	86°F/30°C	--	--	
最大连续/Maximum continuous	77°F/25°C	--	--	
燃油系统/FUEL SYSTEM	经批准的燃油见注 7/See NOTE 7 for approved fuels.			
燃油泵/ SNECMA 件号 （组合增压和单级齿轮泵） Fuel pump / SNECMA part number (P/N) (Combined boost and single element gear-type pump)	340-402-105	--	--	
液压机械组件/GE 件号 Hydromechanical unit / GE P/N	1853M56	--	--	

电子控制组件/GE 件号 Electronic control unit / GE P/N				
- Hardware	1851M50	--	--	
	1853M33	--	--	
	2042M67	--	--	
	2044M16	--	--	
- Software	1853M78	--	--	
	2044M25	--	--	
识别插钉/SNECMA 件号 Identification plugs / SNECMA P/N	340-203-201	340-203-301	340-203-401	
滑油/OIL	合成型，符合GE规范D50TF1，类型 I 和类型 II CFMI服务通告CFM56-7B 79-001列出经批准的滑油品牌 Synthetic type conforming to GE Specification D50TF1, Type I and Type II. CFMI Service Bulletin CFM56-7B 79-001 list approved brand oils.			
点火系统/ IGNITION SYSTEM	GE 件号/ GE P/N			
双点火组件 Two ignition units				
Unison	9238M66	--	--	
Simmonds	1538M69	--	--	
Two igniter plugs				
Unison	1374M12	--	--	
Champion	1374M13	--	--	
主要尺寸/ PRINCIPAL DIMENSIONS	英寸/毫米 INCHES / MILLIMETERS			
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)	98.7/2507.5	--	--	
宽度（最大外壳）/ Width (maximum envelope)	83.4/2118.0	--	--	
高度（风扇机匣前法兰外 径）/ Height (fan case forward flange outer diameter)	72.0/1829.0	--	--	

重量 (干重) / WEIGHT (dry)	包含厂家发动机规范中列出的基本发动机附件和选装设备, 包括发动机状态监控仪表的安装部分。 Includes basic engine accessories and optional equipment as listed in manufacturer's engine specification, including engine mounted portions of the condition monitoring instrumentation.			
磅/Pounds	5260	--	--	
千克/Kilograms	2385.9	--	--	
重心位置/ CENTER OF GRAVITY LOCATIONS	站位, 仅发动机 (参考安装图纸) STATION, ENGINE ONLY (REFER TO INSTALLATION DRAWING)			
英尺/Inches	207.4±1.0	--	--	
毫米/Millimeters	5269±25	--	--	

VII. 型号/MODELS	CFM56-7B26/3	CFM56-7B27/3		
类型/TYPE	高涵道比涡轮风扇, 多级低压涡轮驱动同轴前置风扇/增压器, 1 级高压涡轮驱动多级压气机 CFM56-7B 系列: 单环形燃烧室 CFM56-7B/3 系列: 改进排放的单环形燃烧室 High bypass turbofan; coaxial front fan/booster driven by multi-stage low pressure turbine, multi-stage compressor with one-stage high pressure turbine CFM56-7B series: single annular combustor CFM56-7B/3 series: improved emissions single annular combustor			
额定值 (见注 4) RATINGS (See NOTE 4) 起飞 (5 分钟, 见注 13), 海平面, 静态推力, 磅/ Takeoff (5 min. see NOTE 13). sea level, static thrust, lb.	26,300/ 11,699 daN	27,300/ 12,143 daN		
最大连续, 海平面, 静态 推力, 磅/ Maximum continuous, sea level static thrust, lb.	25,900/ 11,521 daN	25,900/ 11,521 daN		
平台额定值 Flat rating	环境温度/AMBIENT TEMPERATURE			
起飞/Takeoff	86°F/30°C	--		
最大连续/Maximum continuous	77°F/25°C	--		
燃油系统/FUEL SYSTEM	经批准的燃油见注 7/See NOTE 7 for approved fuels.			

燃油泵/SNECMA 件号 (组合增压和单级齿轮泵) Fuel pump / SNECMA part number (P/N) (Combined boost and single element gear-type pump)	340-402-105	--		
液压机械组件/GE 件号 Hydromechanical unit / GE P/N	1853M56	--		
电子控制组件/GE 件号 Electronic control unit / GE P/N				
- Hardware	1851M50	--		
	1853M33	--		
	2042M67	--		
	2044M16	--		
- Software	1853M78	--		
	2044M25	--		
识别插钉/SNECMA 件号 Identification plugs / SNECMA P/N	340-203-501	340-203-601		
滑油/OIL	合成型,符合GE规范D50TF1, 类型 I 和类型 II CFMI服务通告CFM56-7B 79-001列出经批准的滑油品牌 Synthetic type conforming to GE Specification D50TF1, Type I and Type II. CFMI Service Bulletin CFM56-7B 79-001 list approved brand oils.			
点火系统/ IGNITION SYSTEM	GE 件号/ GE P/N			
双点火组件 Two ignition units				
Unison	9238M66	--		
Simmonds	1538M69	--		
Two igniter plugs				
Unison	1374M12	--		
Champion	1374M13	--		
主要尺寸/ PRINCIPAL DIMENSIONS	英寸/毫米 INCHES / MILLIMETERS			

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)	98.7/2507.5	--		
宽度（最大外壳）/ Width (maximum envelope)	83.4/2118.0	--		
高度（风扇机匣前法兰外 径）/ Height (fan case forward flange outer diameter)	72.0/1829.0	--		
重量（干重）/ WEIGHT (dry)	包含厂家发动机规范中列出的基本发动机附件和选装设备，包括发动机状态监控仪表的安装部分。 Includes basic engine accessories and optional equipment as listed in manufacturer's engine specification, including engine mounted portions of the condition monitoring instrumentation.			
磅/Pounds	5260	--		
千克/Kilograms	2385.9	--		
重心位置/ CENTER OF GRAVITY LOCATIONS	站位，仅发动机（参考安装图纸） STATION, ENGINE ONLY (REFER TO INSTALLATION DRAWING)			
英尺/Inches	207.4±1.0	--		
毫米/Millimeters	5269±25	--		

VIII. 型号/MODELS	CFM56-7B26/3B2F			
类型/TYPE	高涵道比涡轮风扇，多级低压涡轮驱动同轴前置风扇/增压器，1级高压涡轮驱动多级压气机 CFM56-7B 系列：单环形燃烧室 CFM56-7B/3 系列：改进排放的单环形燃烧室 High bypass turbofan; coaxial front fan/booster driven by multi-stage low pressure turbine, multi-stage compressor with one-stage high pressure turbine CFM56-7B series: single annular combustor CFM56-7B/3 series: improved emissions single annular combustor			

额定值 (见注 4)

RATINGS (See NOTE 4)

起飞 (5 分钟, 见注 13),
海平面, 静态推力, 磅/
Takeoff (5 min. see NOTE
13), sea level, static thrust,
lb.

最大连续, 海平面, 静态
推力, 磅/

Maximum continuous, sea
level static thrust, lb.

平台额定值 Flat rating

起飞/Takeoff

最大连续/Maximum
continuous

燃油系统/FUEL SYSTEM

燃油泵/ SNECMA 件号
(组合增压和单级齿轮泵)

Fuel pump / SNECMA part
number (P/N)

(Combined boost and single
element gear-type pump)

液压机械组件/GE 件号

Hydromechanical unit / GE
P/N

电子控制组件/GE 件号

Electronic control unit / GE
P/N

- Hardware

- Software

识别插钉/SNECMA 件号

Identification plugs /
SNECMA P/N

26,300/ 11,699 daN			
25,900/ 11,521 daN			
环境温度/AMBIENT TEMPERATURE			
86°F/30°C			
77°F/25°C			
经批准的燃油见注 7/See NOTE 7 for approved fuels.			
340-402-105			
1853M56			
1851M50			
1853M33			
2042M67			
2044M16			
1853M78			
2044M25			
340-205-111			

滑油/OIL

合成型，符合GE规范D50TF1，类型 I 和类型 II
CFMI服务通告CFM56-7B 79-001列出经批准的滑油品牌
Synthetic type conforming to GE Specification D50TF1, Type I and Type II.
CFMI Service Bulletin CFM56-7B 79-001 list approved brand oils.

点火系统/**IGNITION SYSTEM**

双点火组件

Two ignition units

Unison

Simmonds

Two igniter plugs

Unison

Champion

主要尺寸/**PRINCIPAL DIMENSIONS**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)

宽度（最大外壳）/

Width (maximum envelope)

高度（风扇机匣前法兰外
径）/Height (fan case forward
flange outer diameter)

重量（干重）/

WEIGHT (dry)

磅/Pounds

千克/Kilograms

重心位置/

**CENTER OF GRAVITY
LOCATIONS**

英尺/Inches

毫米/Millimeters

GE 件号/

GE P/N

9238M66

1538M69

1374M12

1374M13

英寸/毫米

INCHES / MILLIMETERS

98.7/2507.5

83.4/2118.0

72.0/1829.0

包含厂家发动机规范中列出的基本发动机附件和选装设备，包括发动机状态监控仪表的安装部分。

Includes basic engine accessories and optional equipment as listed in manufacturer's engine specification, including engine mounted portions of the condition monitoring instrumentation.

5260

2385.9

站位，仅发动机（参考安装图纸）

STATION, ENGINE ONLY (REFER TO INSTALLATION DRAWING)

207.4±1.0

5269±25

审定基础/

**CERTIFICATION
BASIS**

1. 1965 年 2 月 1 日生效的 14 CFR 第 33 部，第 1 到 15 修正案。

14 CFR Part 33 effective February 1, 1965, with Amendments 33-1 through 33-15 thereto.

2. 排放审定基础见注 22.

See NOTE 22 for emissions certification basis.

型号/ MODEL	申请日期 APPLICATION DATE	TC 颁发/修订 TYPE CERTIFICATE ISSUED/AMENDED	TC 撤消/ TYPE CERTIFICATE WITHDRAWN
CFM56-7B18	NOV 28, 1995	DEC 17, 1996	OCT 17, 2008 (*)
CFM56-7B20	NOV 28, 1995	DEC 17, 1996	
CFM56-7B22	NOV 28, 1995	DEC 17, 1996	
CFM56-7B24	NOV 28, 1995	DEC 17, 1996	
CFM56-7B26	NOV 28, 1995	DEC 17, 1996	
CFM56-7B27	NOV 28, 1995	DEC 17, 1996	
CFM56-7B18/3	APR 23, 2004	JUN 14, 2006	OCT 17, 2008 (*)
CFM56-7B20/3	APR 23, 2004	JUN 14, 2006	
CFM56-7B22/3	APR 23, 2004	JUN 14, 2006	
CFM56-7B24/3	APR 23, 2004	JUN 14, 2006	
CFM56-7B26/3	APR 23, 2004	JUN 14, 2006	
CFM56-7B27/3	APR 23, 2004	JUN 14, 2006	
CFM56-7B26/B2	AUG 20, 2001	APR 25, 2003	
CFM56-7B26/3B2	APR 23, 2004	JUN 14, 2006	
CFM56-7B26/3B2F	DEC 15, 2005	JUN 14, 2006	

(*) 2008年10月17日生效，按厂家的要求撤销CFM56-7B18, CFM56-7B22/B2, CFM56-7B18/3,

CFM56-7B22/3B2。这些型号没有进入市场。

Effective October 17, 2008 the models designation CFM56-7B18, CFM56-7B22/B2, CFM56-7B18/3,

CFM56-7B22/3B2 were withdrawn at the request of the manufacturer. None of these models were released to revenue service.

**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.

**生产基础/
PRODUCTION BASIS**

生产合格证 No. 108, GE 根据 CFMI S.A 的许可证在美国生产 (见注 10)。
Production Certificate No. 108 for engines produced in the United States by General Electric under license from CFM International, S.A. (See NOTE 10).

**进口要求/
IMPORT REQUIREMENTS**

见注 10

See NOTE 10

注 1/NOTE 1

涡轮排气温度 (T495) (见注 14)
TURBINE EXHAUST GAS (T495) (See NOTE 14)

起飞/Takeoff (5 min.)

最大许用温度 (所有型号) MAXIMUM PERMISSIBLE TEMPERATURES (ALL MODELS)
由位于第二级低压涡轮静子叶片处的 8 个热电偶测量: As measured by a harness of eight thermocouples located at the second stage low pressure turbine vane:
950°C

最大连续/
Maximum continuous
启动/Starting
时间温度包线
参考型号S.O.I.
Time temperature envelope
Refer to model's S.O.I.
燃油泵进口/
FUEL PUMP INLET
滑油供应（见注18）/
OIL SUPPLY (See NOTE
18)
连续运行/
Continuous operation
瞬时（45分钟）/
Transient (45 minutes)

925°C
725°C
CFMI-TP.01.14
参考适当的安装手册。 REFER TO THE APPROPRIATE INSTALLATION MANUAL.
140°C /284°F
155°C /311°F

注 2/NOTE 2

燃油限制
Fuel limits

燃油和滑油压力限制

FUEL AND OIL PRESSURE LIMITS

燃油系统压力限制要求满足所有发动机运行条件，从不小于高于真实燃油蒸气压力 5psia (0.35 巴绝对压力) 到所有条件下的 148 psia (10.2 巴绝对压力) 最大燃油压力（燃油气/液比<0.45）。特定的安装限制见安装手册 CFM7B01，A 章，第 5 节，图 A2 和 A3。

Fuel system pressure limits required to meet all engine operating conditions extend from a minimum fuel pressure of not less than 5 psia (0.35 bar absolute) above the true fuel vapor pressure to a maximum fuel pressure of 148 psia (10.2 bar absolute) with a fuel vapor/liquid ratio < 0.45 at all conditions. For specific installation limits, see Installation Manual, CFM7B01, Part A, Section 5, Figures A2 and A3.

滑油限制
Oil limits

最小压力限制为 13psid (90kPa 压差)。冷启动时最大压力限制为 305psid (2102kPa 压差)，由卸压活门限制。见注 12。

The minimum pressure limit is 13 psid (90 kPa differential). The maximum pressure limit during cold starts is, limited by a pressure-relief valve. See NOTE 12.

注 3/NOTE 3

电机/ELECTRICAL
转向/Rotation (1)
与核心机的速比/
Speed ratio to core (2)
额定值/Pad Rating (kW)
剪切力矩(英寸-磅)/

附件驱动规定和滑油压力限制 ACCESSORY DRIVE PROVISIONSFUEL AND OIL PRESSURE LIMITS	
所有型号，除了-7B27A 和-7B27A/3	-7B27A 和-7B27A/3 *(3)
CW	CW
0.565	.565
135	239.4*(3)
9,000	17,500

Shear Torque (in-lb)
最大悬臂力矩(英寸-磅)/
Maximum overhung
moment (in-lb)

HYDRAULIC PUMP

转向/Rotation (1)
与核心机的速比/
Speed ratio to core (2)
额定值/Pad Rating (in-lb)
剪切力矩(英寸-磅)/
Shear Torque (in-lb)
最大悬臂力矩(英寸-磅)/
Maximum overhung
moment (in-lb)

950	1.540
CW 0.256	CW 0.256
1.550 4,400	1.550 4,400
500	500
(1) CW = 顺时针/CCW = 逆时针, 面向驱动座 CW = CLOCKWISE FACING PAD / CCW = COUNTERCLOCKWISE FACING PAD (2) 100%核心机转速 = 14,460 RPM 100% CORE ENGINE SPEED = 14,460 RPM * (3) 对于7B27A和7B27A/3, 在某些确定的引气条件下, 不能达到最大驱动额定值。这些条件下最大允许提取载荷见安装手册CFM-7B01。 FOR 7B27A & 7B27A/3, UNDER CERTAIN BLEED CONDITIONS, MAXMUM PAD RATING IS NOT AVAILABLE. REFER TO INSTALLATION MANUAL CFM-7B01 FOR MAX PERMISSIBLE EXTRACTION LOADS UNDER THESE CONDITIONS.	

注 4/NOTE 4

发动机额定值是基于下列条件下的校准台架性能（海平面）：
Engine ratings are based on calibrated stand performance (sea level static) under the following conditions:

起飞推力名义上与环境温度（平台额定值）无关，直到以下环境温度：
Takeoff thrust is nominally independent of ambient temperature (flat rated) up to ambient temperature of:

- 标准+15°C (30°C, 86°F), 除 7B22/B1 和 7B24/B1 外所有型号
Std + 15°C (30°C, 86°F) for all models except 7B22/B1 and 7B24/B1
- 标准+21°C (36°C, 96.8°F), 对于 7B22/B1 和 7B22/3B1
Std + 21°C (36°C, 96.8°F) for 7B22/B1 and 7B22/3B1
- 标准+26°C (41°C, 105.8°F), 对于 7B24/B1 和 7B24/3B1
Std + 26°C (41°C, 105.8°F) for 7B24/B1 and 7B24/3B1
- 标准+20°C (35°C, 95°F), 对于 7B26/B2 和 7B26/3B2
Std + 20°C (35°C, 95°F) for 7B26/B2 and 7B26/3B2
- 标准+35°C (50°C, 122°F), 对于 7B22/B2 和 7B22/3B2
Std + 35°C (50°C, 122°F) for 7B22/B2 and 7B22/3B2

对于所有型号, 最大连续名义上与环境温度（平台额定值）无关，直到环

境温度为标准+10°C (25°C, 77°F)。 Maximum continuous is nominally independent of ambient temperature (flat rated) up to ambient temperature of Std. + 10°C (25°C, 77°F) for all models. 0 消耗引气和功率提取。 Zero customer bleed and horsepower extraction. 100%进口恢复 100% inlet recovery. 基于产品飞行排气系统。 Based on the production flight exhaust system.
--

注 5/NOTE 5

低压转子 (N1)
Low pressure rotor (N1)
高压转子 (N2)
High pressure rotor (N2)

最大允许发动机转子转速 (所有型号) MAXIMUM PERMISSIBLE ENGINE ROTOR SPEEDS (ALL MODELS)	
RPM	%
5,382	104
15,183	105
100% N1 = 5,175 RPM, 100% N2= 14,460 RPM	

注 6/NOTE 6

位置/LOCATION

风扇出口/
Fan Discharge

5级高压压气机/
HPC Stage 5 only

压气机出口/
Compressor discharge only

5级HPC和压气机出口组合/
HPC Stage 5 and
compressor discharge
combined

最大允许引气 (所有型号) * MAXIMUM PERMISSIBLE AIR BLEED EXTRACTION (ALL MODELS)*	
风扇修正转速/ FAN CORRECTED SPEED	流量限制/ FLOW LIMIT
高于最小慢车的所有转速/ All speeds above minimum idle	2%风扇气流/ 2% fan airflow
高于最小慢车的所有转速/ All speeds above minimum idle	10%核心气流 10% core airflow
最小慢车到61% N1K Minimum idle to 61% N1K 61%到82.5% N1K 61% to 82.5% N1K	12%核心气流 12% core airflow 从12%到7%核心气流线性变化 Linear variation from 12% to 7% core airflow
高于82.5% N1K Above 82.5% N1K	7%核心气流 7% core airflow
最小慢车到61% N1K Minimum idle to 61% N1K 61%到82.5% N1K 61% to 82.5% N1K	13%核心气流 13% core airflow 从13%到10%核心气流线性变化 Linear variation from 13% to 10%

	高于82.5% N1K Above 82.5% N1K	core airflow 10%核心气流 10% core airflow
* 对于7B27A和7B27A/3发动机, 在某些齿轮箱载荷条件下, 不能获得这些引气计划。这些条件下允许的引气计划见CFM56-7B发动机安装手册CFM7B01。 FOR THE 7B27A & 7B27A/3 ENGINES, UNDER CERTAIN GEARBOX LOAD CONDITIONS, THIS BLEED SCHEDULE WILL NOT BE AVAILABLE. FOR PERMITTED BLEED SCHEDULES UNDER THESE CONDITIONS, REFER TO CFM56-7B INSTALLATION MANUAL CFM7B01.		

注 7/NOTE 7

经批准的燃油满足国标 GB6537-2006 燃油牌号的要求。
 Approved fuel compliance with requirement of GB6537-2006.

其余燃油型号符合 GE 的规范 D50TF2。MIL-T-5624, JP-4 或 JP-5 级, ASTM D 1655, Jet A、A1 和 B 与 GE 的规范一致。主要的燃油是 Jet A, 其他列出的燃油作为备选。当由主要燃油换成备选燃油时, 无需进行燃油控制调整。航空汽油的适用未经授权。添加剂的使用参考特殊运行说明 CFMI-TP.01.14 第 3 节。

The remaining fuel types conforming to GE Specification D50TF2. MIL-T-5624, Grades JP-4 or JP-5, ASTM D 1655, Jet A, A1 and B are consistent with this GE Specification. Primary fuel is Jet A, with other fuels listed being acceptable alternates. No fuel control adjustment is required when changing from primary to alternate fuels. Use of aviation gasoline is not authorized. Consult Specific Operating Instructions, CFMI-TP.01.14, Section 3, for additive usage.

注 8/NOTE 8

关键转动件的寿命限制在 CFM56-7B 发动机进厂修理手册 CFM-TP.SM.10 第 5 章公布。

Life limits established for critical rotating components are published in Chapter 5 of the CFM56-7B Engine Shop Manual, CFM-TP.SM.10.

注 9/NOTE 9

发动机所有运行状况下推力输出的功率设定、功率检查和控制基于相对于风扇转速的 CFM 发动机图表。因此, 风扇转速传感器包含在发动机集成中。

Power setting, power checks and control of engine thrust output in all operations is to be based on CFM engine charts referring to fan speed. Fan speed sensors are included in the engine assembly for this purpose.

注 10/NOTE 10

型号合格证持有人—CFMI, S.A., 是由法国国营发动机生产联合体 (SNECMA) 和通用电气 (GE) 公司共同建立并拥有的公司, 负责CFM56 系列发动机的认证、销售和支援。关于用于生产的型号合格证利益, GE 和SNECMA根据CFMI S.A.的协议共同行使。

The type certificate holder, CFM International, S.A., is a company established and jointly owned by Societe Nationale l'Etude et de Construction de Moteurs d'Aviation (SNECMA) of France and the General Electric Company for the

certification, sale, and support of CFM56 series engines. With respect to the benefits of type certification for production, General Electric and SNECMA function as licensees of CFM International, S.A.

本型号合格证仅用于在美国根据型号合格证No. E00055EN生产的发动机，与在法国按照TC No. E00056EN生产的相同命名的发动机完全相同并可互换。同样，法国生产的模块、组件或零件适用于按本型号合格证生产的发动机，只要SNECMA在EASA生产合格证No. FR.21G.0007授权下颁发的适航批准挂签（EASA表1—授权放行许可或JAA表1）附于每个产品上或产品运输的发票上（参见14 CFR § 21.502）。

This type certificate applies only to engines produced in the United States under Type Certificate No. E00055EN. Engines of the same model designation produced in France under Type Certificate No. E00056EN are identical to and fully interchangeable with engines produced under this type certificate. Similarly, modules, assemblies, or parts produced in France are eligible for use in engines produced under this type certificate provided an airworthiness approval tag, (EASA Form 1 – Authorized Release Certificate or JAA Form 1), issued by SNECMA under authority of the European Aviation Safety Agency (EASA) Production Certificate No. FR.21G.0007 attached to each item or invoice covering a shipment of similar items (Ref. 14 CFR § 21.502).

由GE生产的发动机，通过偶数序列号前缀来识别（即“874”，“876”，“888”，“890”，“892”，“654”，“362”）。

These engines, when produced by General Electric, are identified by an even numbered serial number prefix (i.e., “874”, “876”, “888”, “890”, “892”, “654”, “362”).

奇数序列号前缀的发动机（即“875”，“877”，“889”，“891”，“893”，“655”，“363”）是由SNECMA生产的。

All engines identified by an odd numbered prefix (i.e., “875”, “877”, “889”, “891”, “893”, “655”, “363”) will be produced by SNECMA.

注 11/NOTE 11

低于25°F，空中最小许用慢车相应于N2=64.7%（9,350 rpm）。在25°F（-3.8°C）和40°F（4.4°C）之间，慢车转速从64.7%（9,350 rpm）到58.8%（8,500 rpm）变化。高于40°F（4.4°C），最小许用慢车转速是58.8%（8,500 rpm）。其他EEC计划表限制，如最小燃油流量和最小PS3（包括7B27A和7B27A/3的马赫数偏差）可能导致空中N2转速限制高于以上N2限制。所有的限制不可调，并且预置在EEC计划表中。

The minimum permissible idle in flight corresponds to N2=64.7% (9,350 rpm) below 25°F. Between 25°F (-3.8°C) and 40°F (4.4°C), the idle speed varies from 64.7% (9,350 rpm) to 58.8% (8,500 rpm). Above 40°F (4.4°C), the minimum permissible idle speed is 58.8% (8,500 rpm). Other EEC schedule limitations, such as minimum fuel flow and minimum PS3 (including Mach

No. bias for 7B27A & 7B27A/3), may result in minimum N2 speed limitations in flight that are higher than the N2 limits listed above. All limits are non-adjustable and are preset into the EEC schedules.

注 12/NOTE 12

仅在负加速度运行情况下，允许低于 13psid 的最低滑油压力运行最多 10 秒钟。参见特殊运行说明 CFMI-TP.01.14 第 6 节。

During negative-g operation only, it is permissible to operate below minimum oil pressure (13psid) for a maximum of 10 seconds. See Specific Operating Instructions, CFMI-TP.01.14, Section 6.

注 13/NOTE 13

发动机意外情况下正常 5 分钟起飞额定值可能延长至 10 分钟。

The normal 5 minute takeoff rating may be extended to 10 minutes for engine out contingency.

注 14(a)/NOTE 14(a)

显示的最大许用起飞排气温度（EGT）为 950°C。这些显示的起飞 EGT 红线是通过 EGT 转换完成的，ECU 软件对 EGT 的调整在以下注明。

The indicated maximum permissible takeoff exhaust gas temperature (EGT) is 950°C. These indicated takeoff EGT redlines are accomplished via an EGT shunt and an EGT trim in the ECU software as noted below.

显示 950°C 起飞 EGT 红线值对每个型号的影响总结如下：

The effect on EGT (units °C) with respect to the indicated takeoff EGT redline value of 950°C for each of the models is summarized below:

型号/ Model	实际测量起飞红 线值/ Actual Measured Takeoff Redline Value	显示的起飞EGT水 平，仅30°C转换/ Indicated Takeoff EGT level with 30°C Shunt Only*	最大 EGT 调整水 平/ Maximum EGT Trim Level**	显示的起飞EGT 红线/ Indicated Takeoff EGT Redline
7B20, 7B20/3	884	914	36	950
7B22, 7B22/3	886	916	34	950
7B24, 7B24/3	908	938	12	950
7B26, 7B26/B2, 7B26/3B2, 7B26/3	920	950	0	950
7B27, 7B27/3	920	950	0	950
7B26/3B2F	940	950	0	950

* CFM56-7B 和 7B/3 系列发动机的 EGT 转换是在实际测量的发动机 EGT 上加 30°C 提供一个 EGT 的显示水平，CFM56-7B/3F 系列发动机是加 10 °C，CFM56-7B/2 系列发动机是加 20°C。所有 CFM56 系列发动机，当核心机转速超过 8,500 RPM 时，这个转换被触发。

EGT shunt adds 30°C to actual measured engine EGT on CFM56-7B and 7B/3 series engines, 10°C to actual measured engine EGT on CFM56-7B/3F series engines, and 20°C to the actual measured engine EGT on CFM56-7B/2

series engines to provide an indicated EGT level. This EGT shunt is triggered above 8,500 RPM core speed for all CFM56 series engines.

** EGT 的调整功能将增加上述数值达到显示 EGT 水平。这个调整只在马赫数从 0 到 0.40，并且核心机转速大于 11,200 RPM 时被触发。这个功能只适用于所指出的型号。

The EGT trim function adds the values noted above to the indicated EGT levels. This EGT trim is only triggered at mach numbers from 0 to 0.40 and when the core speed is greater than 11,200 RPM. This function is only applicable for the engine models indicated.

注 14(b)/NOTE 14(b)

CFM56-7B和7B/3系列发动机显示的最大允许最大连续EGT是925°C，相应的实际测量EGT为895°C，7B/3F系列为915°C，CFM56-7B/2系列为905°C。CFM56-7B和7B/3系列发动机的EGT转换是在实际测量的发动机EGT上加30°C提供一个EGT的显示水平，CFM56-7B/3F系列发动机是加10°C，CFM56-7B/2系列发动机是加20°C。所有CFM56系列发动机，当核心机转速超过8,500 RPM时，这个转换被触发。

The indicated maximum permissible maximum continuous EGT is 925°C corresponding to an actual measured EGT of 895°C on CFM56-7B and 7B/3 series engines, 915°C on 7B/3F series engines, and 905°C on CFM56-7B/2 series engines. EGT shunt adds 30°C to actual measured engine EGT on CFM56-7B series engines, 10°C to actual measured engine EGT on CFM56-7B/3F series engines, and 20°C to the actual measured engine EGT on CFM56-7B/2 series engines to provide an indicated EGT level. This EGT shunt is triggered above 8,500 RPM core speed for all CFM56 series engines.

注 14(c)/NOTE 14(c)

所有 CFM56-7B, -7B/2, -7B/3 和-7B/3F 系列发动机被审定 20 秒 960°C 的显示的最大许用起飞 EGT，这等于高出 950°C 最大许用显示值 10°C。All CFM56-7B, -7B/2, -7B/3, and -7B/3F series engines are certified with an indicated maximum permissible takeoff EGT transient allowance of 960°C for 20 seconds. This equates to a 10°C increase above the maximum permissible indicated value of 950°C.

注 15/NOTE 15

CFM56-7B27A和CFM56-7B27A/3仅对军用设计，序列号包括654，655，362或363，取决于最后组装的地点。FAA审定军用发动机不必按照FAA的规章运行和维护。用于商用的CFM56-7B27A和CFM56-7B27A/3发动机，以及使用过的CFM56-7B27A和CFM56-7B27A/3发动机的零件装于其他CFM56-7B发动机，要得到FAA的事先批准(发动机审定办公室，ANE-140) The CFM56-7B27A and CFM56-7B27A/3 variants are designed for military application only. The engine serial number of these variants includes 654, 655, 362 or 363 depending on final assembly location. FAA certified engines used in military service are not necessarily operated or maintained in accordance with FAA regulations. Commercial service use of the CFM56-7B27A and CFM56-7B27A/3 variants, and the installation of used CFM56-7B27A and CFM57-7B27A/3 parts in another CFM56-7B variant, are

subject to prior approval of the FAA (Engine Certification Office, ANE-140).

注 16/NOTE 16

删除/Note deleted.

注 17/NOTE 17

发动机控制系统的签派和维护相关标准在 CFM56-7B 发动机进厂手册 (CFM-TP.SM.10) 的适航限制部分中规定, 定义了不同的构型和最大运行间隔。

Criteria pertaining to the dispatch and maintenance requirements for the engine control systems are specified in the airworthiness limitation section of the CFM56-7B Engine Shop Manual (CFM-TP.SM.10), which defines the various configurations and maximum operating intervals.

注 18/NOTE 18

启动和慢车的实际最大允许滑油温度, 连续运行时比相应的显示温度高 10°C, 短时运行时高 5°C。

The actual maximum permissible oil temperature for starting and idle conditions is 10°C higher for continuous operation and 5°C higher for transient operation than the corresponding indicated oil temperatures.

连续运行时显示滑油温度 140°C (284°F), 相应的实际滑油温度为 150°C (302°F)。

An indicated oil temperature for continuous operation of 140°C (284°F) corresponds to an actual oil temperature of 150°C (302°F).

短时运行时显示滑油温度 155°C (311°F), 相应的实际滑油温度为 160°C (320°F)。

An indicated oil temperature for transient operation of 155°C (311°F) corresponds to an actual oil temperature of 160°C (320°F).

注 19/NOTE 19

CFM56-7B 系列发动机包括: CFM56-7B20, -7B22, -7B22/B1, -7B24, -7B24/B1, -7B26, -7B26/B2, -7B27, -7B27A, -7B26/B1, -7B27/B1, -7B27/B3 和 -7B27A/3

CFM56-7B series includes: CFM56-7B20, -7B22, -7B22/B1, -7B24, -7B24/B1, -7B26, -7B26/B2, -7B27, -7B27A, -7B26/B1, -7B27/B1, -7B27/B3 and -7B27A/3

CFM56-7B/2 系列发动机包括: CFM56-7B20/2, -7B22/2, -7B24/2, -7B26/2 和 -7B27/2

CFM56-7B/2 series includes: CFM56-7B20/2, -7B22/2, -7B24/2, -7B26/2, and -7B27/2

CFM56-7B/3 系列发动机包括: CFM56-7B20/3, -7B22/3, -7B22/3B1, -7B22/3B2, -7B24/3, -7B24/3B1, -7B26/3, -7B26/3B1, -7B26/3B2, -7B27/3, -7B27/3B1 和 -7B27/3B3

CFM56-7B/3 series includes: CFM56-7B20/3, -7B22/3, -7B22/3B1,

-7B22/3B2, -7B24/3, -7B24/3B1, -7B26/3, -7B26/3B1, -7B26/3B2, -7B27/3, -7B27/3B1, and -7B27/3B3

CFM56-7B/3F系列发动机包括: CFM56-7B26/3F, -7B26/3B2F, -7B27/3F和-7B27/3B1F

CFM56-7B/3F series includes: CFM56-7B26/3F, -7B26/3B2F, -7B27/3F, and -7B27/3B1F.

注 20/NOTE 20

The models shown on this TCDS have the following general characteristics:

MODEL	CHARACTERISTICS
CFM56-7B18	基本型（不再可用） Base model. (No longer available)
CFM56-7B20	除提高推力额定值外，与 CFM56-7B18 相同 Same as CFM56-7B18 except for increased thrust ratings.
CFM56-7B22	除提高推力额定值外，与 CFM56-7B18 相同 Same as CFM56-7B18 except for increased thrust ratings.
CFM56-7B24	除提高推力额定值外，与 CFM56-7B18 相同 Same as CFM56-7B18 except for increased thrust ratings.
CFM56-7B26	除提高推力额定值外，与 CFM56-7B18 相同 Same as CFM56-7B18 except for increased thrust ratings.
CFM56-7B27	除提高推力额定值外，与 CFM56-7B18 相同 Same as CFM56-7B18 except for increased thrust ratings.
CFM56-7B20/3	采用低排放燃烧室，重新设计压气机和高压涡轮转子，其余与 CFM56-7B20 相同 Same as CFM56-7B20 except for low emissions combustor and redesigned compressor and HPT rotor.
CFM56-7B26/3	提高了推力，采用低排放燃烧室，重新设计压气机和高压涡轮转子，其余与 CFM56-7B20 相同 Same as CFM56-7B20 except for increased thrust, low emissions combustor and redesigned compressor and HPT rotor.
CFM56-7B27/3	提高了推力，采用低排放燃烧室，重新设计压气机和高压涡轮转子，其余与 CFM56-7B20 相同 Same as CFM56-7B20 except for increased thrust, low emissions combustor and redesigned compressor and HPT rotor.
CFM56-7B26/B2	扩展了高海拔高度和温度额定值，其余与 CFM56-7B26 相同 Same as CFM56-7B26, except CFM56-7B26/B2 has

	an extended high altitude and temperature rating above corner point takeoff.
CFM56-7B26/3B2	采用低排放燃烧室，重新设计压气机和高压涡轮转子，其余与 CFM56-7B26/B2 相同 Same as CFM56-7B26/B2 except for low emissions combustor and redesigned compressor and HPT rotor.
CFM56-7B26/3B2F	提高了 EGT 限制，其余与 CFM56-7B26/3B2 相同 Same as CFM56-7B26/3B2 except for increased EGT limits.

注 21/NOTE 21

声明经 EASA 批准，或按 DOA No. EASA.21J.086 授权，或在 2003 年 9 月 28 日以前经 DGAC 批准的安裝手册、特殊运行说明、服务通告、大修和维护手册、修理手册、供应商手册和设计更改，被 FAA 所接受，并认为经过 FAA 的批准。修理数据和相关说明被认为经 FAA 按适用性批准或接受。这些批准仅针对型号设计。

Installation Manuals, Specific Operating Instructions, Service Bulletins, Overhaul and Maintenance Manuals, Repair Manuals, Vendor Manuals, and Design Changes which contain a statement that the document is EASA approved or approved under authority of DOA No. EASA.21J.086 or for approvals made before September 28, 2003 by DGAC are accepted by the FAA and considered FAA approved. Repair data and related instructions are considered FAA approved or accepted as applicable. These approvals pertain to the type design only.

注 22/NOTE 22

所有型号发动机均符合 1990 年 9 月 10 日生效的 14 CFR 34 部 1-3 修正案的排放要求。另外，CFM56-7B/3 和 -7B/3F 系列发动机符合 2005 年 9 月 19 日生效的 40 CFR 87 部，当时的 14 CFR 34 部已经修订包括了这些要求。All engine models are in compliance with the emissions requirements in 14 CFR Part 34, effective September 10, 1990, as amended by 34-1 through 34-3. In addition the CFM56-7B/3 and -7B/3F series engines are in compliance with 40 CFR Part 87, effective December 19, 2005 until such time as 14 CFR Part 34 is amended to include such requirements.

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