

# PERFORMANCE

THRUST RATINGS

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**PER-THR-PLP PRELIMINARY PAGES**

TABLE OF CONTENTS

**PER-THR-GEN GENERAL**

GENERAL.....	A
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**PER-THR-MTO MAXIMUM TAKEOFF**

DEFINITION.....	A
MAXIMUM TAKEOFF.....	B
MAXIMUM TAKEOFF WITH BUMP.....	C

**PER-THR-MGA MAXIMUM GO AROUND**

DEFINITION.....	A
MAXIMUM GO AROUND.....	B

**PER-THR-FLX FLEXIBLE TAKEOFF**

DEFINITION.....	A
FLEXIBLE TAKEOFF.....	B

**PER-THR-MCT MAXIMUM CONTINUOUS**

DEFINITION.....	A
MAXIMUM CONTINUOUS.....	B

**PER-THR-MCL MAXIMUM CLIMB**

DEFINITION.....	A
MAXIMUM CLIMB.....	B

**PER-THR-MCR MAXIMUM CRUISE**

DEFINITION.....	A
MAXIMUM CRUISE.....	B

**PER-THR-N1 N1 MODE THRUST CONTROL**

N1 MODE THRUST CONTROL.....	A
MAXIMUM TAKEOFF N1.....	B
MAXIMUM GO AROUND N1.....	C
MAXIMUM CONTINUOUS N1.....	D
MAXIMUM CLIMB N1.....	E
MAXIMUM CRUISE N1.....	F



**A318/A319/A320/A321**


FLIGHT CREW  
OPERATING MANUAL

## PERFORMANCE

### THRUST RATINGS

PRELIMINARY PAGES - TABLE OF CONTENTS

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<b>MEXICANA</b>  <b>A318/A319/A320/A321</b> FLIGHT CREW OPERATING MANUAL	<b>PERFORMANCE</b> <b>THRUST RATINGS</b>  GENERAL
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<b>GENERAL</b>
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Applicable to: ALL

The thrust rating charts have been established for:

- Maximum takeoff
- Maximum go around
- Flexible takeoff
- Maximum continuous
- Maximum climb
- Maximum cruise



**A318/A319/A320/A321**


FLIGHT CREW  
OPERATING MANUAL

## PERFORMANCE

### THRUST RATINGS

#### GENERAL

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<p><b>MEXICANA</b> </p> <p><b>A318/A319/A320/A321</b>          FLIGHT CREW          OPERATING MANUAL</p>	<p><b>PERFORMANCE</b></p> <p><b>THRUST RATINGS</b></p> <p>MAXIMUM TAKEOFF</p>
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<b>DEFINITION</b>
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Applicable to: ALL

It is the maximum thrust certified for takeoff and is normally limited to five minutes.  
 This time is extended to ten minutes for engine out contingency, as authorized by the approved AFM.



**A318/A319/A320/A321**  
FLIGHT CREW  
OPERATING MANUAL

## PERFORMANCE

### THRUST RATINGS

#### MAXIMUM TAKEOFF

#### MAXIMUM TAKEOFF

Applicable to: MSN 3304

CFM56-5B4				N1 CORRECTIONS FOR AIR BLEED								OAT < CORNER POINT		OAT ≥ CORNER POINT	
TAKE OFF N1 NO AIR BLEED MACH = .000												- .7		- .7	
				AIR CONDITIONING ON								0.0		- 1.6	
				ENGINE ANTI ICE ON								0.0		- 2.4	
OAT (°C)	PRESSURE ALTITUDE (FT)														
	-2000.	-1000.	0.	1000.	2000.	3000.	4000.	5000.	6000.	7000.	8000.	9000.	9200.		
-54.0	76.2	77.2	78.2	79.2	80.3	82.3	84.0	85.8	86.7	87.6	88.2	88.0	88.0		
-50.0	76.9	77.9	78.9	79.9	81.0	83.0	84.7	86.5	87.5	88.3	88.9	88.8	88.7		
-46.0	77.5	78.6	79.6	80.6	81.7	83.7	85.4	87.3	88.2	89.0	89.7	89.5	89.5		
-42.0	78.2	79.2	80.2	81.3	82.4	84.4	86.1	88.0	88.9	89.8	90.4	90.2	90.2		
-38.0	78.8	79.9	80.9	82.0	83.0	85.1	86.8	88.7	89.6	90.5	91.1	90.9	90.9		
-34.0	79.5	80.5	81.5	82.6	83.7	85.7	87.5	89.4	90.3	91.2	91.8	91.6	91.6		
-30.0	80.1	81.2	82.2	83.3	84.3	86.4	88.2	90.1	91.0	91.9	92.5	92.3	92.3		
-26.0	80.7	81.8	82.8	83.9	85.0	87.1	88.8	90.7	91.7	92.5	93.2	93.0	93.0		
-22.0	81.4	82.4	83.5	84.6	85.6	87.7	89.5	91.4	92.4	93.2	93.9	93.7	93.7		
-18.0	82.0	83.1	84.1	85.2	86.3	88.4	90.2	92.1	93.1	93.9	94.6	94.4	94.4		
-14.0	82.6	83.7	84.8	85.9	87.0	89.1	90.9	92.8	93.8	94.6	95.3	95.1	95.1		
-10.0	83.2	84.3	85.4	86.5	87.6	89.7	91.5	93.4	94.4	95.3	95.9	95.7	95.7		
-6.0	83.8	84.9	86.0	87.1	88.2	90.3	92.2	94.1	95.1	95.9	96.6	96.4	96.4		
-2.0	84.4	85.5	86.6	87.7	88.8	90.9	92.8	94.7	95.7	96.6	97.3	97.1	97.0		
2.0	85.0	86.1	87.2	88.3	89.4	91.6	93.4	95.4	96.4	97.2	97.9	97.7	97.7		
6.0	85.6	86.7	87.8	88.9	90.0	92.2	94.1	96.0	97.0	97.9	98.6	98.4	98.3		
10.0	86.2	87.3	88.4	89.5	90.7	92.8	94.7	96.7	97.7	98.5	99.2	99.0	99.0		
14.0	86.8	87.9	89.0	90.2	91.3	93.5	95.3	97.3	98.3	99.2	99.9	99.7	99.6		
18.0	87.4	88.5	89.6	90.8	91.9	94.1	95.9	97.9	98.9	99.8	100.1	99.1	98.8		
22.0	88.0	89.1	90.2	91.3	92.5	94.7	96.6	98.6	99.3	99.4	99.1	97.9	97.7		
26.0	88.5	89.7	90.7	91.9	93.1	95.3	97.2	98.3	98.5	98.5	98.0	96.8	96.6		
30.0	89.1	90.2	91.3	92.5	93.6	95.9	97.4	97.6	97.7	97.6	97.3	96.5	96.4		
34.0	89.7	90.8	91.9	93.1	94.2	96.5	96.8	97.0	97.1	97.1	97.0	96.2	96.1		
38.0	90.2	91.4	92.5	93.7	94.8	96.1	96.3	96.4	96.6	96.7	96.6				
42.0	90.8	91.9	93.1	94.2	94.9	95.6	95.7	95.8	96.0						
46.0	91.4	92.5	93.2	93.9	94.5										
50.0	91.5	92.2	92.9	93.6	94.1					OAT < CORNER POINT					
54.0	91.2	92.0	92.7							OAT ≥ CORNER POINT					





**A318/A319/A320/A321**

**FLIGHT CREW  
OPERATING MANUAL**

## PERFORMANCE

### THRUST RATINGS

#### MAXIMUM TAKEOFF

CFM56-5B4		N1 CORRECTIONS FOR AIR BLEED							OAT < CORNER POINT		OAT > CORNER POINT	
TAKE OFF												
N1		AIR CONDITIONING ON							-7		-7	
NO AIR BLEED		ENGINE ANTI-ICE ON							0.0		-1.6	
MACH=.000		ENGINE ANTI-ICE AND WING ANTI-ICE ON							0.0		-2.4	
OAT (C)	PRESSURE ALTITUDE (FT)											
	7000.	8000.	9000.	9200.	10000.	11000.	12000.	13000.	14000.	14500.		
-54.0	87.6	88.2	88.0	88.0	87.8	88.2	88.4	88.6	88.6	88.5		
-50.0	88.3	88.9	88.8	88.7	88.6	88.9	89.2	89.3	89.3	89.3		
-46.0	89.0	89.7	89.5	89.5	89.3	89.7	89.9	90.1	90.1	90.0		
-42.0	89.8	90.4	90.2	90.2	90.0	90.4	90.7	90.8	90.8	90.8		
-38.0	90.5	91.1	90.9	90.9	90.7	91.1	91.4	91.5	91.5	91.5		
-34.0	91.2	91.8	91.6	91.6	91.4	91.8	92.1	92.2	92.2	92.2		
-30.0	91.9	92.5	92.3	92.3	92.1	92.5	92.8	92.9	92.9	92.9		
-26.0	92.5	93.2	93.0	93.0	92.8	93.2	93.5	93.6	93.6	93.6		
-22.0	93.2	93.9	93.7	93.7	93.5	93.9	94.1	94.3	94.3	94.3		
-18.0	93.9	94.6	94.4	94.4	94.2	94.6	94.8	95.0	95.0	95.0		
-14.0	94.6	95.3	95.1	95.1	94.9	95.3	95.5	95.7	95.7	95.7		
-10.0	95.3	95.9	95.7	95.7	95.6	95.9	96.2	96.3	96.3	96.3		
-6.0	95.9	96.6	96.4	96.4	96.2	96.6	96.9	97.0	97.0	97.0		
-2.0	96.6	97.3	97.1	97.0	96.9	97.3	97.5	97.6	97.7	97.6		
2.0	97.2	97.9	97.7	97.7	97.5	97.9	98.2	98.3	98.3	98.3		
6.0	97.9	98.6	98.4	98.3	98.2	98.6	98.8	99.0	99.0	98.9		
10.0	98.5	99.2	99.0	99.0	98.8	99.2	99.5	99.6	99.2	98.8		
14.0	99.2	99.9	99.7	99.6	99.1	99.0	98.6	98.0	97.1	96.6		
18.0	99.8	100.1	99.1	98.8	97.9	97.6	97.0	96.1	95.7	95.6		
22.0	99.4	99.1	97.9	97.7	96.7	96.2	95.9	95.7	95.4	95.2		
26.0	98.5	98.0	96.8	96.6	96.0	95.9	95.6	95.3	95.0	94.8		
30.0	97.6	97.3	96.5	96.4	95.8	95.7	95.4					
34.0	97.1	97.0	96.2	96.1	95.6							
38.0	96.7	96.6										
42.0												
46.0												
50.0												
54.0												
							OAT < CORNER POINT					
							OAT > CORNER POINT					



## THRUST RATINGS

## MAXIMUM TAKEOFF

## MAXIMUM TAKEOFF

**Applicable to: MSN 1429-1750**[illegible]

**MEXICANA**

**A318/A319/A320/A321**

**FLIGHT CREW  
OPERATING MANUAL**

# PERFORMANCE

## THRUST RATINGS

### MAXIMUM TAKEOFF

CFM56-5B6		N1 CORRECTIONS FOR AIR BLEED								OAT < ISA + 30	OAT > ISA + 30
TAKE OFF											
N1		AIR CONDITIONING ON								-0.7	-0.7
NO AIR BLEED		NACELLE ANTI-ICE ON								0.0	-1.4
MACH = .000		NACELLE ANTI-ICE AND WING ANTI-ICE ON								0.0	-2.1
OAT (°C)	PRESSURE ALTITUDE (FT)										
	7000.	8000.	9000.	9200.	10000.	11000.	12000.	13000.	14000.	14500.	
-54.0	80.8	81.3	81.9	82.0	82.4	82.9	83.5	84.1	84.7	84.9	
-50.0	81.5	82.0	82.6	82.7	83.1	83.6	84.2	84.8	85.4	85.7	
-46.0	82.2	82.7	83.3	83.4	83.8	84.4	85.0	85.6	86.1	86.4	
-42.0	82.9	83.4	84.0	84.1	84.6	85.1	85.7	86.3	86.8	87.1	
-38.0	83.6	84.1	84.7	84.8	85.2	85.7	86.3	86.9	87.5	87.8	
-34.0	84.2	84.7	85.3	85.4	85.9	86.4	87.0	87.6	88.2	88.5	
-30.0	84.9	85.4	86.0	86.1	86.6	87.1	87.7	88.3	88.9	89.2	
-26.0	85.6	86.0	86.6	86.8	87.2	87.7	88.4	89.0	89.6	89.8	
-22.0	86.2	86.7	87.3	87.4	87.9	88.4	89.0	89.7	90.2	90.5	
-18.0	86.9	87.4	88.0	88.1	88.6	89.1	89.7	90.3	90.9	91.2	
-14.0	87.5	88.0	88.6	88.8	89.2	89.8	90.4	91.0	91.6	91.9	
-10.0	88.2	88.7	89.3	89.4	89.9	90.4	91.0	91.6	92.2	92.5	
-6.0	88.8	89.3	89.9	90.0	90.5	91.0	91.7	92.3	92.9	93.2	
-2.0	89.4	89.9	90.5	90.6	91.1	91.7	92.3	92.9	93.5	93.8	
2.0	90.0	90.5	91.2	91.3	91.8	92.3	92.9	93.6	94.2	94.5	
6.0	90.6	91.2	91.8	91.9	92.4	92.9	93.6	94.2	94.8	95.1	
10.0	91.3	91.8	92.4	92.5	93.0	93.5	94.2	94.8	95.4	95.7	
14.0	91.9	92.4	93.0	93.2	93.6	94.2	94.8	95.5	96.1	96.4	
18.0	92.5	93.0	93.6	93.8	94.2	94.8	95.4	96.1	96.4	96.4	
22.0	93.1	93.6	94.2	94.4	94.8	95.4	95.8	95.8	95.7	95.6	
26.0	93.7	94.2	94.8	94.9	95.2	95.7	95.7	95.0	94.8	94.8	
30.0	94.3	94.5	94.5	94.5	94.5	94.4	94.3				
34.0	94.0	93.9	93.9	93.9	93.8						
38.0	93.4	93.3									
42.0											
46.0											
50.0											
54.0											

OAT < ISA + 30

OAT ≥ ISA + 30



**A318/A319/A320/A321**  
FLIGHT CREW  
OPERATING MANUAL

## PERFORMANCE

### THRUST RATINGS

#### MAXIMUM TAKEOFF

#### MAXIMUM TAKEOFF

Applicable to: MSN 0164-0447

V2500-A1		TAKEOFF EPR						NO AIR BLEED				MACH=.000	
EPR CORRECTIONS FOR AIR BLEED								OAT<10 (°C)		OAT≥10 (°C)			
AIR CONDITIONING ON								-.010		-.010			
ENGINE ANTI ICE ON								0.0		-.017			
ENGINE ANTI ICE AND WING ANTI ICE ON								-.007		-.024			
OAT (°C)	PRESSURE ALTITUDE (FT)												
	-1000.	0.	1000.	2000.	3000.	4000.	5000.	6000.	7000.	8000.	8500.		
-60.0	1.380	1.397	1.412	1.428	1.443	1.458	1.474	1.484	1.494	1.504	1.509		
-40.0	1.380	1.397	1.412	1.428	1.443	1.458	1.474	1.484	1.494	1.504	1.509		
-20.0	1.380	1.397	1.412	1.428	1.443	1.458	1.474	1.484	1.494	1.504	1.509		
-10.0	1.380	1.397	1.412	1.428	1.443	1.458	1.474	1.484	1.494	1.504	1.509		
0.0	1.380	1.397	1.412	1.428	1.443	1.458	1.474	1.484	1.494	1.504	1.509		
10.0	1.380	1.397	1.412	1.428	1.443	1.458	1.474	1.484	1.494	1.504	1.509		
12.0	1.380	1.397	1.412	1.428	1.443	1.458	1.474	1.484	1.494	1.504	1.509		
14.0	1.380	1.397	1.412	1.428	1.443	1.458	1.474	1.484	1.494	1.504	1.507		
16.0	1.380	1.397	1.412	1.428	1.443	1.458	1.474	1.484	1.494	1.497	1.497		
18.0	1.380	1.397	1.412	1.428	1.443	1.458	1.474	1.484	1.487	1.487	1.487		
20.0	1.380	1.397	1.412	1.428	1.443	1.458	1.474	1.477	1.477	1.477	1.477		
22.0	1.380	1.397	1.412	1.428	1.443	1.458	1.468	1.468	1.468	1.468	1.468		
24.0	1.380	1.397	1.412	1.428	1.443	1.452	1.458	1.458	1.458	1.458	1.458		
26.0	1.380	1.397	1.412	1.428	1.437	1.443	1.448	1.448	1.448	1.448	1.448		
28.0	1.380	1.397	1.412	1.421	1.427	1.433	1.439	1.439	1.439	1.439	1.439		
30.0	1.380	1.397	1.406	1.412	1.418	1.424	1.429	1.429	1.429	1.429	1.429		
32.0	1.380	1.391	1.397	1.403	1.409	1.415	1.420	1.420	1.420	1.420	1.420		
34.0	1.380	1.382	1.389	1.395	1.400	1.406	1.411	1.411	1.411	1.411	1.411		
36.0	1.373	1.374	1.380	1.386	1.391	1.397	1.402	1.402	1.402	1.402	1.402		
38.0	1.365	1.366	1.372	1.377	1.382	1.388	1.393	1.393	1.393	1.393	1.393		
40.0	1.357	1.358	1.363	1.368	1.374	1.379	1.384	1.384	1.384	1.384	1.384		
42.0	1.349	1.349	1.355	1.360	1.365	1.370	1.375	1.375	1.375	1.375	1.375		
44.0	1.341	1.341	1.346	1.352	1.357	1.362	1.367	1.367	1.367	1.367	1.367		
46.0	1.333	1.333	1.338	1.344	1.349	1.354	1.359	1.359	1.359	1.359	1.359		
48.0	1.325	1.325	1.331	1.336	1.341	1.346	1.351	1.351	1.351	1.351	1.351		
50.0	1.317	1.318	1.323	1.328	1.333	1.338	1.343						
52.0	1.310	1.310	1.316	1.321	1.326	1.330							
54.0	1.303	1.303	1.309	1.313	1.318								
56.0	1.296	1.297	1.301	1.306									
58.0	1.290	1.290	1.294										
60.0	1.283	1.283											
62.0	1.276												
64.0													
66.0													
68.0													
DATA GIVEN ABOVE ISA +40 ARE TO BE USED FOR FLEX TAKEOFF ONLY													

DATA GIVEN ABOVE ISA+40 ARE TO BE USED FOR FLEX TAKEOFF ONLY



**A318/A319/A320/A321**

**FLIGHT CREW  
OPERATING MANUAL**

## PERFORMANCE

### THRUST RATINGS

#### MAXIMUM TAKEOFF

V2500–A1		TAKEOFF EPR										NO AIR BLEED				MACH = .000	
EPR CORRECTIONS FOR AIR BLEED												OAT<10 (°C)		OAT≥10 (°C)			
AIR CONDITIONING ON												–.015		–.015			
ENGINE ANTI ICE ON												–.021		–.021			
ENGINE ANTI ICE AND WING ANTI ICE ON												–.031		–.031			
OAT (°C)	PRESSURE ALTITUDE (FT)																
	8500.	9000.	9500.	10000.	10500.	11000.	11500.	12000.	13000.	14000.	14500.						
–60.0	1.509	1.514	1.519	1.524	1.529	1.534	1.539	1.544	1.554	1.564	1.569						
–12.0	1.509	1.514	1.519	1.524	1.529	1.534	1.539	1.544	1.554	1.564	1.569						
–10.0	1.509	1.514	1.519	1.524	1.529	1.534	1.539	1.544	1.554	1.564	1.569						
–8.0	1.509	1.514	1.519	1.524	1.529	1.534	1.539	1.544	1.554	1.564	1.569						
–6.0	1.509	1.514	1.519	1.524	1.529	1.534	1.539	1.544	1.554	1.564	1.569						
–4.0	1.509	1.514	1.519	1.524	1.529	1.534	1.539	1.544	1.554	1.564	1.569						
–2.0	1.509	1.514	1.519	1.524	1.529	1.534	1.539	1.544	1.554	1.564	1.569						
0.0	1.509	1.514	1.519	1.524	1.529	1.534	1.539	1.544	1.554	1.564	1.569						
2.0	1.509	1.514	1.519	1.524	1.529	1.534	1.539	1.544	1.554	1.564	1.568						
4.0	1.509	1.514	1.519	1.524	1.529	1.534	1.539	1.544	1.554	1.558	1.558						
6.0	1.509	1.514	1.519	1.524	1.529	1.534	1.539	1.544	1.548	1.548	1.548						
8.0	1.509	1.514	1.519	1.524	1.529	1.534	1.537	1.537	1.537	1.537	1.537						
10.0	1.509	1.514	1.519	1.524	1.527	1.527	1.527	1.527	1.527	1.527	1.527						
12.0	1.509	1.514	1.517	1.517	1.517	1.517	1.517	1.517	1.517	1.517	1.517						
14.0	1.507	1.507	1.507	1.507	1.507	1.507	1.507	1.507	1.507	1.507	1.507						
16.0	1.497	1.497	1.497	1.497	1.497	1.497	1.497	1.497	1.497	1.497	1.497						
18.0	1.487	1.487	1.487	1.487	1.487	1.487	1.487	1.487	1.487	1.487	1.487						
20.0	1.477	1.477	1.477	1.477	1.477	1.477	1.477	1.477	1.477	1.477	1.477						
22.0	1.468	1.468	1.468	1.468	1.468	1.468	1.468	1.468	1.468	1.468	1.468	1.468					
24.0	1.458	1.458	1.458	1.458	1.458	1.458	1.458	1.458	1.458	1.458	1.458	1.458					
26.0	1.448	1.448	1.448	1.448	1.448	1.448	1.448	1.448	1.448	1.448	1.448	1.448	1.448				
28.0	1.439	1.439	1.439	1.439	1.439	1.439	1.439	1.439	1.439	1.439	1.439	1.439	1.439				
30.0	1.429	1.429	1.429	1.429	1.429	1.429	1.429	1.429	1.429	1.429	1.429	1.429	1.429				
32.0	1.420	1.420	1.420	1.420	1.420	1.420	1.420	1.420	1.420	1.420	1.420	1.420	1.420				
34.0	1.411	1.411	1.411	1.411	1.411	1.411	1.411	1.411	1.411	1.411	1.411	1.411	1.411				
36.0	1.402	1.402	1.402	1.402	1.402	1.402	1.402	1.402	1.402	1.402	1.402	1.402	1.402				
38.0	1.393	1.393	1.393	1.393	1.393	1.393	1.393	1.393	1.393	1.393	1.393	1.393	1.393				
40.0	1.384	1.384	1.384	1.384	1.384	1.384	1.384	1.384	1.384	1.384	1.384	1.384	1.384				
42.0	1.375	1.375	1.375	1.375	1.375	1.375	1.375	1.375	1.375	1.375	1.375	1.375	1.375				
44.0	1.367	1.367	1.367	1.367	1.367	1.367	1.367	1.367	1.367	1.367	1.367	1.367	1.367				
DATA GIVEN ABOVE ISA +35 ARE TO BE USED FOR FLEX TAKEOFF ONLY																	



**A318/A319/A320/A321**  
FLIGHT CREW  
OPERATING MANUAL

## PERFORMANCE


### THRUST RATINGS

#### MAXIMUM TAKEOFF

#### MAXIMUM TAKEOFF WITH BUMP

Applicable to: MSN 0164-0447

V2500–A1		BUMP TAKEOFF EPR					NO AIR BLEED			MACH=.000	
EPR CORRECTIONS FOR AIR BLEED							OAT<10 (°C)		OAT≥10 (°C)		
AIR CONDITIONING ON							-.01		-.01		
ENGINE ANTI ICE ON							0.0		-.017		
ENGINE ANTI ICE AND WING ANTI ICE ON							-.007		-.024		
OAT (°C)	PRESSURE ALTITUDE (FT)										
	-1000.	0.	1000.	2000.	3000.	4000.	5000.	6000.	7000.	8000.	8500.
-60.0	1.380	1.397	1.412	1.428	1.456	1.481	1.502	1.512	1.522	1.532	1.535
-40.0	1.380	1.397	1.412	1.428	1.456	1.481	1.502	1.512	1.522	1.532	1.535
-20.0	1.380	1.397	1.412	1.428	1.456	1.481	1.502	1.512	1.522	1.532	1.535
-10.0	1.380	1.397	1.412	1.428	1.456	1.481	1.502	1.512	1.522	1.532	1.535
0.0	1.380	1.397	1.412	1.428	1.456	1.481	1.502	1.512	1.522	1.532	1.535
10.0	1.380	1.397	1.412	1.428	1.456	1.481	1.502	1.512	1.522	1.532	1.535
12.0	1.380	1.397	1.412	1.428	1.456	1.481	1.502	1.512	1.522	1.532	1.535
14.0	1.380	1.397	1.412	1.428	1.456	1.481	1.502	1.512	1.522	1.532	1.534
16.0	1.380	1.397	1.412	1.428	1.456	1.481	1.502	1.512	1.522	1.525	1.524
18.0	1.380	1.397	1.412	1.428	1.456	1.481	1.502	1.512	1.515	1.515	1.514
20.0	1.380	1.397	1.412	1.428	1.456	1.481	1.502	1.505	1.505	1.505	1.504
22.0	1.380	1.397	1.412	1.428	1.456	1.481	1.495	1.495	1.495	1.496	1.494
24.0	1.380	1.397	1.412	1.428	1.456	1.474	1.485	1.485	1.485	1.486	1.485
26.0	1.380	1.397	1.412	1.428	1.449	1.464	1.475	1.475	1.475	1.476	1.475
28.0	1.380	1.397	1.412	1.421	1.440	1.455	1.464	1.465	1.465	1.467	1.464
30.0	1.380	1.397	1.406	1.412	1.431	1.445	1.454	1.455	1.455	1.453	1.451
32.0	1.380	1.391	1.397	1.403	1.422	1.436	1.444	1.444	1.443	1.439	1.437
34.0	1.380	1.382	1.389	1.395	1.413	1.425	1.433	1.432	1.429	1.425	1.423
36.0	1.373	1.374	1.380	1.386	1.403	1.414	1.422	1.419	1.415	1.411	1.409
38.0	1.365	1.366	1.372	1.377	1.392	1.403	1.409	1.406	1.402	1.397	1.395
40.0	1.357	1.358	1.363	1.368	1.382	1.391	1.396	1.392	1.388		
42.0	1.349	1.349	1.355	1.360	1.372	1.380	1.383	1.379			
44.0	1.341	1.341	1.346	1.352	1.362	1.368	1.371				
46.0	1.333	1.333	1.338	1.344	1.353	1.357					
48.0	1.325	1.325	1.331	1.336	1.343						
50.0	1.317	1.318	1.323	1.328							
52.0	1.310	1.310	1.316								
54.0	1.303	1.303									
56.0	1.296										
58.0											

<b>MEXICANA</b>  <b>A318/A319/A320/A321</b> FLIGHT CREW OPERATING MANUAL	<b>PERFORMANCE</b> <b>THRUST RATINGS</b>  MAXIMUM GO AROUND
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<b>DEFINITION</b>
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Applicable to: ALL

It is the maximum permissible thrust during go-around.



**A318/A319/A320/A321**  
FLIGHT CREW  
OPERATING MANUAL

## PERFORMANCE

### THRUST RATINGS

#### MAXIMUM GO AROUND

#### MAXIMUM GO AROUND

Applicable to: MSN 3304

CFM56-5B4		N1 CORRECTIONS FOR AIR BLEED						OAT < CORNER POINT		OAT ≥ CORNER POINT	
GO AROUND N1		AIR CONDITIONING OFF						0.7		0.7	
AIR CONDITIONING ON		ENGINE ANTI ICE ON						0.0		-1.6	
MACH = .225		ENGINE ANTI ICE AND WING ANTI ICE ON						0.0		-2.4	
TAT (°C)	PRESSURE ALTITUDE (FT)										
	-2000.	-1000.	0.	1000.	2000.	3000.	4000.	5000.	6000.	7000.	
-54.0	77.7	78.7	79.6	80.2	80.9	82.1	83.4	84.8	86.2	86.8	
-50.0	78.4	79.4	80.3	80.9	81.6	82.8	84.2	85.5	86.9	87.6	
-46.0	79.1	80.1	81.0	81.6	82.3	83.5	84.9	86.2	87.6	88.3	
-42.0	79.8	80.7	81.7	82.3	83.0	84.2	85.6	87.0	88.4	89.0	
-38.0	80.4	81.4	82.3	83.0	83.6	84.9	86.3	87.6	89.1	89.7	
-34.0	81.1	82.0	83.0	83.6	84.3	85.5	86.9	88.3	89.7	90.4	
-30.0	81.7	82.7	83.6	84.3	85.0	86.2	87.6	89.0	90.4	91.1	
-26.0	82.4	83.3	84.3	85.0	85.6	86.9	88.3	89.7	91.1	91.8	
-22.0	83.0	84.0	84.9	85.6	86.3	87.5	89.0	90.4	91.8	92.5	
-18.0	83.7	84.6	85.6	86.3	86.9	88.2	89.6	91.1	92.5	93.2	
-14.0	84.3	85.3	86.2	86.9	87.6	88.9	90.3	91.7	93.2	93.9	
-10.0	84.9	85.9	86.8	87.5	88.2	89.5	90.9	92.4	93.8	94.5	
-6.0	85.5	86.5	87.5	88.2	88.8	90.1	91.6	93.0	94.5	95.2	
-2.0	86.1	87.1	88.1	88.8	89.5	90.8	92.2	93.7	95.1	95.8	
2.0	86.7	87.7	88.7	89.4	90.1	91.4	92.9	94.3	95.8	96.5	
6.0	87.3	88.3	89.3	90.0	90.7	92.0	93.5	94.9	96.4	97.1	
10.0	87.9	88.9	89.9	90.6	91.3	92.6	94.1	95.6	97.1	97.8	
14.0	88.5	89.6	90.5	91.3	91.9	93.3	94.8	96.2	97.7	98.4	
18.0	89.1	90.1	91.1	91.8	92.5	93.9	95.4	96.8	98.3	99.0	
22.0	89.7	90.7	91.7	92.4	93.1	94.5	96.0	97.4	99.0	99.6	
26.0	90.3	91.3	92.3	93.0	93.7	95.1	96.6	98.1	99.0	99.0	
30.0	90.8	91.9	92.9	93.6	94.3	95.7	97.2	97.7	98.5	98.4	
34.0	91.4	92.5	93.5	94.2	94.9	96.3	97.2	97.4	97.9	97.7	
38.0	92.0	93.0	94.0	94.8	95.5	96.7	96.9	96.9	97.2	97.0	
42.0	92.6	93.6	94.6	95.4	96.1	96.3	96.2	96.0	96.3	96.2	
46.0	93.1	94.2	95.2	95.7	95.7	95.5	95.3	95.2	95.4		
50.0	93.7	94.5	94.8	94.8	94.8	94.6	94.4				
54.0	93.3	93.6	93.9	94.0	93.9						
58.0	92.4	92.8	93.1								
62.0	91.6										
						OAT < CORNER POINT					
						OAT ≥ CORNER POINT					





**A318/A319/A320/A321**


**FLIGHT CREW  
OPERATING MANUAL**

## PERFORMANCE

### THRUST RATINGS

#### MAXIMUM GO AROUND

CFM56-5B4		N1 CORRECTIONS FOR AIR BLEED						OAT < CORNER POINT		OAT > CORNER POINT	
GO AROUND		AIR CONDITIONING OFF						0.7		0.7	
N1		ENGINE ANTI-ICE ON						0.0		-1.6	
AIR CONDITIONING ON		ENGINE ANTI-ICE AND WING ANTI-ICE ON						0.0		-2.4	
MACH=.225											
TAT (C)		PRESSURE ALTITUDE (FT)									
		7000.	8000.	9000.	9200.	10000.	11000.	12000.	13000.	14000.	14500.
-54.0		86.8	87.3	87.0	87.0	86.7	87.0	87.3	87.4	87.4	87.4
-50.0		87.6	88.1	87.8	87.7	87.5	87.8	88.0	88.1	88.2	88.2
-46.0		88.3	88.8	88.5	88.4	88.2	88.5	88.8	88.9	88.9	88.9
-42.0		89.0	89.6	89.2	89.2	88.9	89.3	89.5	89.6	89.7	89.6
-38.0		89.7	90.2	89.9	89.9	89.6	89.9	90.2	90.3	90.3	90.3
-34.0		90.4	90.9	90.6	90.6	90.3	90.6	90.9	91.0	91.0	91.0
-30.0		91.1	91.6	91.3	91.2	91.0	91.3	91.6	91.7	91.7	91.7
-26.0		91.8	92.3	92.0	91.9	91.7	92.0	92.3	92.4	92.4	92.4
-22.0		92.5	93.0	92.7	92.6	92.4	92.7	93.0	93.1	93.1	93.1
-18.0		93.2	93.7	93.4	93.3	93.1	93.4	93.6	93.8	93.8	93.8
-14.0		93.9	94.4	94.1	94.0	93.8	94.1	94.3	94.5	94.5	94.5
-10.0		94.5	95.1	94.7	94.7	94.4	94.7	95.0	95.1	95.2	95.1
-6.0		95.2	95.7	95.4	95.3	95.1	95.4	95.6	95.8	95.8	95.8
-2.0		95.8	96.4	96.0	96.0	95.7	96.0	96.3	96.4	96.5	96.4
2.0		96.5	97.0	96.7	96.6	96.4	96.7	96.9	97.1	97.1	97.1
6.0		97.1	97.7	97.3	97.3	97.0	97.3	97.6	97.7	97.8	97.7
10.0		97.8	98.3	98.0	97.9	97.7	98.0	98.2	98.4	98.4	98.4
14.0		98.4	99.0	98.6	98.6	98.3	98.6	98.9	98.6	98.0	97.7
18.0		99.0	99.6	99.3	99.1	98.2	98.1	97.7	97.2	96.4	95.9
22.0		99.6	99.5	98.5	98.2	97.4	97.0	96.5	95.9	95.6	95.4
26.0		99.0	98.7	97.6	97.4	96.5	96.1	95.8	95.5	95.1	94.9
30.0		98.4	97.9	96.9	96.7	95.9	95.7	95.4	95.0	94.6	
34.0		97.7	97.3	96.3	96.2	95.5	95.3	95.0			
38.0		97.0	96.6	95.8	95.6	95.1					
42.0		96.2	95.9								
46.0											
50.0											
54.0											
OAT < CORNER POINT											
OAT > CORNER POINT											

<b>MEXICANA</b>  <b>A318/A319/A320/A321</b> FLIGHT CREW OPERATING MANUAL	<b>PERFORMANCE</b>  <b>THRUST RATINGS</b>  MAXIMUM GO AROUND
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MAXIMUM GO AROUND

Applicable to: MSN 1429-1750

CFM56-5B6	N1 CORRECTIONS FOR AIR BLEED						OAT < ISA + 30		OAT ≥ ISA + 30	
GO AROUND										
N1	AIR CONDITIONING OFF						.6		.6	
AIR CONDITIONING ON	ENGINE ANTI ICE ON						0.0		-1.3	
MACH = .225	ENGINE ANTI ICE AND WING ANTI ICE ON						0.0		-1.9	
TAT (°C)	PRESSURE ALTITUDE (FT)									
	-2000.	-1000.	0.	1000.	2000.	3000.	4000.	5000.	6000.	7000.
-54.0	74.7	75.6	76.5	77.2	77.8	78.3	79.1	79.8	80.4	80.9
-50.0	75.3	76.3	77.2	77.8	78.5	79.0	79.8	80.5	81.1	81.6
-46.0	76.0	76.9	77.8	78.5	79.2	79.7	80.4	81.2	81.8	82.3
-42.0	76.6	77.6	78.5	79.2	79.9	80.4	81.1	81.8	82.5	83.0
-38.0	77.3	78.2	79.1	79.8	80.5	81.0	81.8	82.5	83.1	83.7
-34.0	77.9	78.8	79.8	80.5	81.1	81.7	82.4	83.2	83.8	84.3
-30.0	78.5	79.5	80.4	81.1	81.8	82.3	83.1	83.8	84.5	85.0
-26.0	79.1	80.1	81.1	81.7	82.4	83.0	83.7	84.5	85.1	85.7
-22.0	79.8	80.7	81.7	82.4	83.1	83.6	84.4	85.1	85.8	86.3
-18.0	80.4	81.4	82.3	83.0	83.7	84.3	85.0	85.8	86.4	87.0
-14.0	81.0	82.0	83.0	83.7	84.4	84.9	85.7	86.4	87.1	87.6
-10.0	81.6	82.6	83.6	84.3	85.0	85.5	86.3	87.0	87.7	88.3
-6.0	82.2	83.2	84.2	84.9	85.6	86.1	86.9	87.7	88.3	88.9
-2.0	82.8	83.8	84.8	85.5	86.2	86.8	87.5	88.3	88.9	89.5
2.0	83.4	84.4	85.4	86.1	86.8	87.4	88.1	88.9	89.6	90.1
6.0	83.9	85.0	86.0	86.7	87.4	88.0	88.8	89.5	90.2	90.7
10.0	84.5	85.6	86.6	87.3	88.0	88.6	89.4	90.1	90.8	91.4
14.0	85.1	86.2	87.2	87.9	88.6	89.2	90.0	90.7	91.4	92.0
18.0	85.7	86.7	87.7	88.5	89.2	89.8	90.6	91.3	92.0	92.6
22.0	86.2	87.3	88.3	89.0	89.8	90.4	91.1	91.9	92.6	93.2
26.0	86.8	87.9	88.9	89.6	90.3	90.9	91.7	92.5	93.2	93.8
30.0	87.4	88.4	89.4	90.2	90.9	91.5	92.3	93.1	93.8	94.4
34.0	87.9	89.0	90.0	90.8	91.5	92.1	92.9	93.7	94.4	95.0
38.0	88.5	89.5	90.6	91.3	92.1	92.7	93.5	94.3	94.4	94.4
42.0	89.0	90.1	91.1	91.9	92.6	93.2	93.6	93.8	93.8	93.7
46.0	89.6	90.7	91.7	92.5	92.7	92.8	93.1	93.2	93.1	
50.0	90.1	91.2	91.8	92.1	92.3	92.4	92.6			
54.0	90.2	90.7	91.3	91.6	91.8	OAT < ISA + 30 OAT ≥ ISA + 30				
58.0	89.6	90.2	90.8							
62.0	89.0									

**PERFORMANCE**
**THRUST RATINGS**
**MAXIMUM GO AROUND**

CFM56-5B6		N1 CORRECTIONS FOR AIR BLEED						OAT < ISA + 30		OAT ≥ ISA + 30	
GO AROUND								AIR CONDITIONING OFF		.6	
AIR CONDITIONING ON		ENGINE ANTI ICE ON						0.0		-1.3	
MACH=.225		ENGINE ANTI ICE AND WING ANTI ICE ON						0.0		-1.9	
TAT (°C)	PRESSURE ALTITUDE (FT)										
	7000.	8000.	9000.	9200.	10000.	11000.	12000.	13000.	14000.	14500.	
-54.0	80.9	81.5	82.0	82.1	82.5	83.0	83.6	84.1	84.6	84.8	
-50.0	81.6	82.2	82.7	82.8	83.2	83.7	84.3	84.8	85.3	85.5	
-46.0	82.3	82.9	83.4	83.5	83.9	84.5	85.0	85.5	86.0	86.3	
-42.0	83.0	83.6	84.1	84.2	84.7	85.2	85.7	86.2	86.7	87.0	
-38.0	83.7	84.2	84.8	84.9	85.3	85.8	86.4	86.9	87.4	87.7	
-34.0	84.3	84.9	85.5	85.6	86.0	86.5	87.1	87.6	88.1	88.4	
-30.0	85.0	85.6	86.1	86.2	86.7	87.2	87.7	88.3	88.8	89.0	
-26.0	85.7	86.2	86.8	86.9	87.3	87.8	88.4	88.9	89.5	89.7	
-22.0	86.3	86.9	87.5	87.6	88.0	88.5	89.1	89.6	90.1	90.4	
-18.0	87.0	87.6	88.1	88.2	88.7	89.2	89.8	90.3	90.8	91.1	
-14.0	87.6	88.2	88.8	88.9	89.3	89.9	90.4	91.0	91.5	91.8	
-10.0	88.3	88.9	89.4	89.5	90.0	90.5	91.1	91.6	92.1	92.4	
-6.0	88.9	89.5	90.0	90.2	90.6	91.1	91.7	92.3	92.8	93.0	
-2.0	89.5	90.1	90.7	90.8	91.2	91.8	92.3	92.9	93.4	93.7	
2.0	90.1	90.7	91.3	91.4	91.9	92.4	93.0	93.5	94.1	94.3	
6.0	90.7	91.4	91.9	92.0	92.5	93.0	93.6	94.2	94.7	95.0	
10.0	91.4	92.0	92.6	92.7	93.1	93.7	94.2	94.8	95.3	95.6	
14.0	92.0	92.6	93.2	93.3	93.7	94.3	94.9	95.4	96.0	96.2	
18.0	92.6	93.2	93.8	93.9	94.4	94.9	95.5	96.1	96.6	96.9	
22.0	93.2	93.8	94.4	94.5	94.9	95.5	96.1	96.7	96.6	96.5	
26.0	93.8	94.4	95.0	95.1	95.5	96.1	96.7	96.0	95.8	95.8	
30.0	94.4	95.0	95.6	95.6	95.5	95.4	95.3	95.2	95.1		
34.0	95.0	95.0	94.9	94.9	94.7	94.6	94.5				
38.0	94.4	94.2	94.1	94.1	93.9						
42.0	93.7	93.5									
46.0											
50.0											
54.0											
58.0							OAT < ISA + 30				
62.0							OAT ≥ ISA + 30				



**A318/A319/A320/A321**  
FLIGHT CREW  
OPERATING MANUAL

## PERFORMANCE

### THRUST RATINGS

#### MAXIMUM GO AROUND

#### MAXIMUM GO AROUND

Applicable to: MSN 0164-0447

V2500-A1	GO AROUND EPR					AIR COND ON				MACH=.225	
EPR CORRECTIONS FOR AIR BLEED								TAT<10 (°C)		TAT≥10 (°C)	
AIR CONDITIONING OFF								.010		.010	
ENGINE ANTI ICE ON								0.000		-.017	
ENGINE ANTI ICE AND WING ANTI ICE ON								-.007		-.024	
TAT (°C)	PRESSURE ALTITUDE (FT)										
	-1000.	0.	1000.	2000.	3000.	4000.	5000.	6000.	7000.	8000.	8500.
-60.0	1.355	1.372	1.387	1.402	1.417	1.432	1.448	1.457	1.467	1.477	1.482
-40.0	1.355	1.372	1.387	1.402	1.417	1.432	1.448	1.457	1.467	1.477	1.482
-20.0	1.355	1.372	1.387	1.402	1.417	1.432	1.448	1.457	1.467	1.477	1.482
-10.0	1.355	1.372	1.387	1.402	1.417	1.432	1.448	1.457	1.467	1.477	1.482
0.0	1.355	1.372	1.387	1.402	1.417	1.432	1.448	1.457	1.467	1.477	1.482
10.0	1.355	1.372	1.387	1.402	1.417	1.432	1.448	1.457	1.467	1.477	1.482
12.0	1.355	1.372	1.387	1.402	1.417	1.432	1.448	1.457	1.467	1.477	1.482
14.0	1.355	1.372	1.387	1.402	1.417	1.432	1.448	1.457	1.467	1.477	1.482
16.0	1.355	1.372	1.387	1.402	1.417	1.432	1.448	1.457	1.467	1.477	1.482
18.0	1.355	1.372	1.387	1.402	1.417	1.432	1.448	1.457	1.467	1.472	1.472
20.0	1.355	1.372	1.387	1.402	1.417	1.432	1.448	1.457	1.462	1.462	1.461
22.0	1.355	1.372	1.387	1.402	1.417	1.432	1.448	1.453	1.452	1.451	1.451
24.0	1.355	1.372	1.387	1.402	1.417	1.432	1.443	1.442	1.442	1.441	1.441
26.0	1.355	1.372	1.387	1.402	1.417	1.428	1.433	1.433	1.432	1.431	1.431
28.0	1.355	1.372	1.387	1.402	1.413	1.418	1.423	1.423	1.422	1.422	1.421
30.0	1.355	1.372	1.387	1.398	1.403	1.409	1.414	1.413	1.413	1.412	1.412
32.0	1.355	1.372	1.383	1.389	1.394	1.399	1.404	1.404	1.403	1.403	1.402
34.0	1.355	1.368	1.374	1.380	1.385	1.390	1.395	1.394	1.394	1.393	1.393
36.0	1.355	1.360	1.365	1.371	1.376	1.381	1.386	1.385	1.385	1.384	1.384
38.0	1.351	1.351	1.357	1.362	1.367	1.372	1.377	1.376	1.375	1.375	1.375
40.0	1.343	1.343	1.348	1.353	1.358	1.363	1.368	1.367	1.367	1.366	1.366
42.0	1.335	1.335	1.340	1.345	1.350	1.354	1.359	1.358	1.358	1.357	
44.0	1.327	1.327	1.332	1.337	1.341	1.346	1.350	1.350	1.349		
46.0	1.319	1.319	1.324	1.328	1.333	1.338	1.342	1.342			
48.0	1.311	1.311	1.316	1.320	1.325	1.330	1.334				
50.0	1.303	1.303	1.308	1.313	1.317	1.322					
52.0	1.296	1.296	1.301	1.305	1.310						
54.0	1.289	1.289	1.293	1.298							
56.0	1.282	1.282	1.286								
58.0	1.275	1.275									
60.0	1.269										
62.0											

**A318/A319/A320/A321**FLIGHT CREW  
OPERATING MANUAL**PERFORMANCE****THRUST RATINGS**

MAXIMUM GO AROUND

V2500—A1		GO AROUND EPR										AIR COND ON		MACH = .225	
CORRECTIONS FOR AIR BLEED												TAT<10 (°C)		TAT≥10 (°C)	
AIR CONDITIONING OFF												0.015		0.015	
ENGINE ANTI-ICE ON												- 0.021		- 0.021	
ENGINE ANTI-ICE AND WING ANTI-ICE ON												- 0.031		- 0.031	
TAT (°C)	PRESSURE ALTITUDE (FT)														
	5000.	6000.	7000.	8000.	9000.	10000.	11000.	12000.	13000.	14000.	14500.				
-60.0	1.448	1.457	1.467	1.477	1.487	1.497	1.507	1.516	1.526	1.536	1.541				
-40.0	1.448	1.457	1.467	1.477	1.487	1.497	1.507	1.516	1.526	1.536	1.541				
-20.0	1.448	1.457	1.467	1.477	1.487	1.497	1.507	1.516	1.526	1.536	1.541				
-10.0	1.448	1.457	1.467	1.477	1.487	1.497	1.507	1.516	1.526	1.536	1.541				
0.0	1.448	1.457	1.467	1.477	1.487	1.497	1.507	1.516	1.526	1.536	1.541				
2.0	1.448	1.457	1.467	1.477	1.487	1.497	1.507	1.516	1.526	1.536	1.541				
4.0	1.448	1.457	1.467	1.477	1.487	1.497	1.507	1.516	1.526	1.536	1.541				
6.0	1.448	1.457	1.467	1.477	1.487	1.497	1.507	1.516	1.526	1.531	1.531				
8.0	1.448	1.457	1.467	1.477	1.487	1.497	1.507	1.516	1.521	1.520	1.520				
10.0	1.448	1.457	1.467	1.477	1.487	1.497	1.507	1.511	1.510	1.509	1.509				
12.0	1.448	1.457	1.467	1.477	1.487	1.497	1.502	1.501	1.500	1.498	1.498				
14.0	1.448	1.457	1.467	1.477	1.487	1.492	1.491	1.490	1.489	1.488	1.487				
16.0	1.448	1.457	1.467	1.477	1.482	1.481	1.480	1.479	1.478	1.477	1.477				
18.0	1.448	1.457	1.467	1.472	1.471	1.471	1.470	1.469	1.468	1.467	1.466				
20.0	1.448	1.457	1.462	1.462	1.461	1.461	1.460	1.459	1.458	1.456	1.456				
22.0	1.448	1.453	1.452	1.451	1.451	1.450	1.449	1.448	1.447	1.446	1.446				
24.0	1.443	1.442	1.442	1.441	1.441	1.440	1.439	1.438	1.437	1.436	1.436				
26.0	1.433	1.433	1.432	1.431	1.431	1.430	1.429	1.428	1.427	1.426	1.426				
28.0	1.423	1.423	1.422	1.422	1.421	1.421	1.420	1.419	1.418	1.416	1.416				
30.0	1.414	1.413	1.413	1.412	1.412	1.411	1.410	1.409	1.408	1.407					
32.0	1.404	1.404	1.403	1.403	1.402	1.401	1.400	1.399	1.398						
34.0	1.395	1.394	1.394	1.393	1.393	1.392	1.391	1.390							
36.0	1.386	1.385	1.385	1.384	1.383	1.383	1.382								
38.0	1.377	1.376	1.375	1.375	1.374	1.374									
40.0	1.368	1.367	1.367	1.366	1.366										
42.0	1.359	1.358	1.358	1.357											
44.0	1.350	1.350	1.349												
46.0	1.342	1.342													
48.0	1.334														
50.0															



**A318/A319/A320/A321**


FLIGHT CREW  
OPERATING MANUAL

## PERFORMANCE

### THRUST RATINGS

#### MAXIMUM GO AROUND

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 <b>A318/A319/A320/A321</b> FLIGHT CREW OPERATING MANUAL	<b>PERFORMANCE</b>  <b>THRUST RATINGS</b>  FLEXIBLE TAKEOFF
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<b>DEFINITION</b>
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Applicable to: MSN 0164-0447

It is a reduced takeoff thrust as compared to the maximum permissible. The related EPR is calculated as a function of the flexible temperature entered in the FMGS MCDU. The flexible temperature is a function of the aircraft weight and environmental conditions. It guarantees that the regular performance requirements are met.

<b>DEFINITION</b>
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Applicable to: MSN 1429-3304

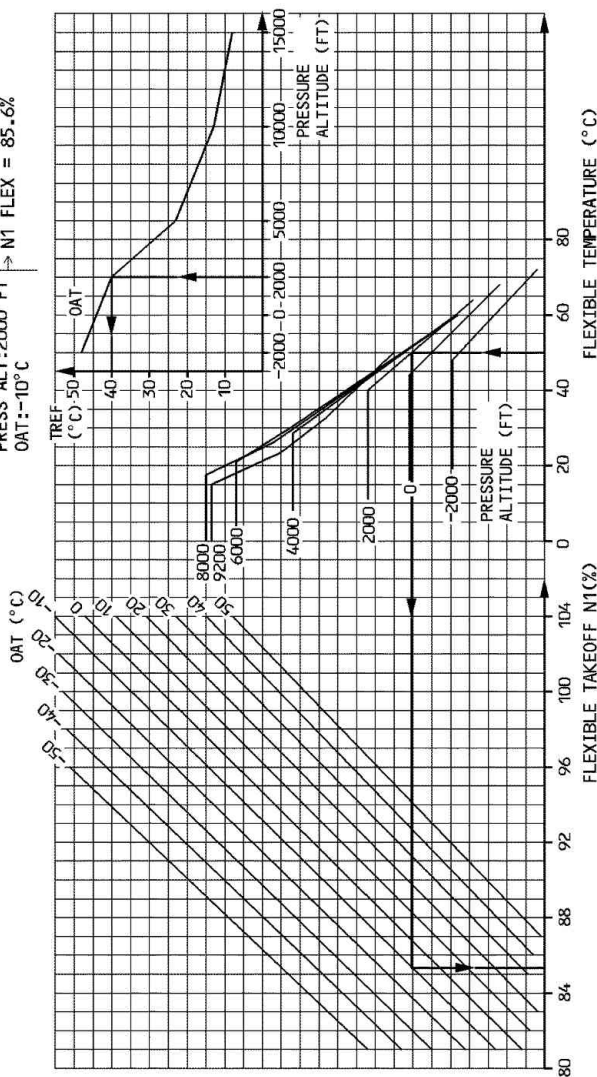
It is a reduced takeoff thrust as compared to the maximum permissible. The related N1 is calculated as a function of the flexible temperature entered in the FMGS MCDU. The flexible temperature is a function of the aircraft weight and environmental conditions. It guarantees that the regular performance requirements are met.

<div><div><b>MEXICANA</b> </div><div><b>A318/A319/A320/A321</b> FLIGHT CREW OPERATING MANUAL</div></div>	<div>PERFORMANCE</div> <div>THRUST RATINGS</div> <div>FLEXIBLE TAKEOFF</div>
FLEXIBLE TAKEOFF	
Applicable to: MSN 3304	



EXAMPLE : PRESS ALT : 2000 FT OAT=-10°C. FLX T=50°C.  
- FLX TEMP 50°C > FLAT RATING TEMP (ISA+29=40°C)

PRESS ALT:2000 FT → N1 FLEX = 85.6%



CFM56-5B4	N1 CORRECTIONS FOR AIR BLEED		
FLEX TAKEOFF N1 MACH = .000	AIR CONDITIONING ON	- .7	
	ENGINE ANTI ICE ON	0.0	
	ENGINE AND WING ANTI ICE ON	0.0	

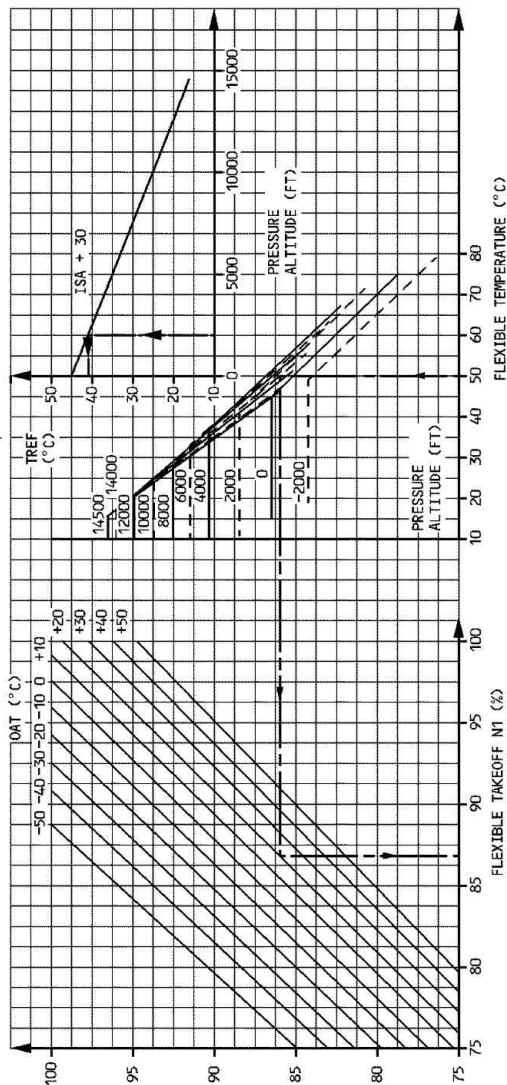


## FLEXIBLE TAKEOFF

**Applicable to: MSN 1429-1750**

EXAMPLE : PRESS ALT : 2000 FT OAT=+20°C. FLX T=50°C.  
- FLX TEMP 50°C > FLAT RATING TEMP(ISA+30=41°C)

PRESS ALT:2000 FT → N1 FLEX = 87%  
OAT: 20°C



N1 CORRECTIONS FOR AIR BLEED	
CFW56-5B6	
FLEX TAKEOFF	AIR CONDITIONING ON - 0.700
N1	ENGINE ANTI ICE ON 0.000
MACH = .000	ENGINE AND WING ANTI ICE ON 0.000



**A318/A319/A320/A321**

FLIGHT CREW  
OPERATING MANUAL

**PERFORMANCE**

**THRUST RATINGS**

**FLEXIBLE TAKEOFF**

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**A318/A319/A320/A321**  
FLIGHT CREW  
OPERATING MANUAL

**PERFORMANCE**

**THRUST RATINGS**

**MAXIMUM CONTINUOUS**

**DEFINITION**

Applicable to: ALL

It is the maximum thrust certified for continuous use. This rating should be used, at the pilot's discretion, only when required to ensure safe flight (engine failure).

**MAXIMUM CONTINUOUS**

Applicable to: MSN 3304

CFM56-5B4			N1 CORRECTIONS FOR AIR BLEED						OAT < ISA + 10		OAT ≥ ISA + 10	
MAXIMUM CONTINUOUS N1 AIR CONDITIONING ON* IAS=230 KT												
			AIR CONDITIONING OFF						0.9		0.9	
			ENGINE ANTI ICE ON						0.0		-1.4	
			ENGINE ANTI ICE AND WING ANTI ICE ON						0.0		-3.2	
TAT (°C)	PRESSURE ALTITUDE (FT)											
	-1000.	3000.	7000.	11000.	15000.	19000.	23000.	27000.	31000.	35000.	39000.	
-54.0	75.6	77.6	79.2	81.1	85.2	87.3	87.0	83.2	84.3	85.1	84.1	
-50.0	76.2	78.3	79.9	81.8	85.9	88.0	87.7	84.0	85.0	85.8	84.9	
-46.0	76.9	79.0	80.6	82.6	86.6	88.8	88.5	84.7	85.7	86.6	85.6	
-42.0	77.6	79.6	81.2	83.3	87.4	89.5	89.2	85.4	86.4	87.3	86.3	
-38.0	78.2	80.3	81.9	83.9	88.0	90.2	89.9	86.1	87.1	88.0	87.0	
-34.0	78.8	80.9	82.5	84.6	88.7	90.9	90.6	86.7	87.8	88.6	87.7	
-30.0	79.5	81.6	83.2	85.2	89.4	91.6	91.3	87.4	88.5	89.3	88.3	
-26.0	80.1	82.2	83.8	85.9	90.1	92.3	92.0	88.1	89.2	90.0	89.0	
-22.0	80.7	82.8	84.5	86.6	90.8	93.0	92.7	88.7	89.8	90.5	89.7	
-18.0	81.4	83.5	85.1	87.2	91.5	93.7	93.4	89.4	90.5	90.3	89.6	
-14.0	82.0	84.1	85.8	87.9	92.1	94.3	94.0	90.1	90.4	90.0	89.3	
-10.0	82.6	84.7	86.4	88.5	92.8	95.0	94.7	90.3	90.1	89.6	89.0	
-6.0	83.2	85.3	87.0	89.1	93.4	95.6	95.3	90.0	89.7	89.0	88.2	
-2.0	83.8	85.9	87.6	89.8	94.1	96.3	94.6	89.7	89.0	88.4	87.5	
2.0	84.4	86.5	88.3	90.4	94.7	96.3	93.9	89.0	88.4	87.7	86.9	
6.0	85.0	87.1	88.9	91.0	95.4	95.6	93.3	88.4	87.8	87.0	86.3	
10.0	85.5	87.8	89.5	91.6	94.8	94.8	92.8	87.8	87.2	86.2	85.7	
14.0	86.1	88.4	90.1	92.0	94.0	94.2	92.4	87.1	86.5			
18.0	86.7	88.9	90.7	91.5	93.3	93.6	91.9	86.5				
22.0	87.3	89.5	90.7	91.0	92.8	93.1	91.3					
26.0	87.8	90.1	90.2	90.5	92.2	92.5						
30.0	88.4	89.8	89.7	90.0	91.5	92.0						
34.0	89.0	89.3	89.5	89.4	90.9							
38.0	88.5	88.9	89.1	88.8								
42.0	88.0	88.7	88.7	88.1								
46.0	87.4	88.3	88.2									
50.0	86.8	87.9	87.7									
54.0	86.2	87.5										
OAT < ISA + 10												
OAT ≥ ISA + 10												

\* One engine inoperative – 1 pack operative on remaining engine.



**A318/A319/A320/A321**  
FLIGHT CREW  
OPERATING MANUAL

## PERFORMANCE

### THRUST RATINGS

MAXIMUM CONTINUOUS

### MAXIMUM CONTINUOUS

Applicable to: MSN 1429-1750

CFM56-5B5/B6		N1 CORRECTIONS FOR AIR BLEED							OAT < ISA + 10		OAT ≥ ISA + 10	
									.8		.8	
		AIR CONDITIONING OFF							.0		-1.1	
									ENGINE ANTI ICE ON			
ENGINE ANTI ICE AND WING ANTI ICE ON							0.0					
							TAT (°C)		PRESSURE ALTITUDE (FT)			
-1000.	3000.	7000.	11000.	15000.	19000.	23000.			27000.	31000.	35000.	39000.
-54.0	73.4	76.1	78.4	80.4	81.8	81.4	82.2	83.2	84.3	85.1	84.1	
-50.0	74.1	76.8	79.1	81.1	82.6	82.1	83.0	84.0	85.0	85.8	84.9	
-46.0	74.7	77.4	79.8	81.8	83.3	82.8	83.7	84.7	85.7	86.6	85.6	
-42.0	75.4	78.1	80.5	82.5	84.0	83.5	84.4	85.4	86.4	87.3	86.3	
-38.0	76.0	78.7	81.1	83.1	84.6	84.2	85.0	86.1	87.1	88.0	87.0	
-34.0	76.6	79.4	81.8	83.8	85.3	84.8	85.7	86.7	87.8	88.6	87.7	
-30.0	77.2	80.0	82.4	84.5	86.0	85.5	86.4	87.4	88.5	89.3	88.3	
-26.0	77.8	80.6	83.1	85.1	86.6	86.1	87.0	88.1	89.2	90.0	89.0	
-22.0	78.5	81.3	83.7	85.8	87.3	86.8	87.7	88.7	89.8	90.5	89.7	
-18.0	79.1	81.9	84.4	86.4	88.0	87.5	88.4	89.4	90.5	90.3	89.6	
-14.0	79.7	82.5	85.0	87.1	88.6	88.1	89.0	90.1	90.4	90.0	89.3	
-10.0	80.3	83.1	85.6	87.7	89.3	88.8	89.7	90.3	90.1	89.6	89.0	
-6.0	80.8	83.7	86.2	88.3	89.9	89.4	90.3	90.0	89.7	89.0	88.2	
-2.0	81.4	84.3	86.9	88.9	90.5	90.0	90.0	89.7	89.0	88.4	87.5	
2.0	82.0	84.9	87.5	89.6	91.1	90.2	89.7	89.0	88.4	87.7	86.9	
6.0	82.6	85.5	88.1	90.2	91.8	89.9	89.3	88.4	87.8	87.0	86.3	
10.0	83.2	86.1	88.7	90.8	91.5	89.5	88.6	87.8	87.2	86.2	85.7	
14.0	83.8	86.7	89.3	91.2	91.1	89.0	87.9	87.1	86.5			
18.0	84.3	87.3	89.9	90.8	90.7	88.4	87.2	86.5				
22.0	84.9	87.8	90.0	90.4	90.3	87.6	86.5					
26.0	85.4	88.4	89.7	89.9	89.5	86.8						
30.0	86.0	88.5	89.5	89.3	88.8	86.0						
34.0	86.5	88.5	89.0	88.6	88.0							
38.0	86.7	88.4	88.4	87.9								
42.0	86.9	88.1	87.8	87.2								
46.0	87.0	87.5	87.1									
50.0	86.7	86.8	86.4									
54.0	86.0	86.2										
OAT < ISA + 10												
OAT ≥ ISA + 10												

(\*) One engine inoperative - 1 pack operative on remaining engine.



**A318/A319/A320/A321**  
FLIGHT CREW  
OPERATING MANUAL

## PERFORMANCE

### THRUST RATINGS

#### MAXIMUM CONTINUOUS

#### MAXIMUM CONTINUOUS

Applicable to: MSN 0164-0447

V2500–A1	MAXIMUM CONTINUOUS EPR										AIR COND ON *	IAS=230 KT	
EPR CORRECTIONS FOR AIR BLEED													
AIR CONDITIONING OFF											.017		
ENGINE ANTI ICE ON											–.017		
ENGINE ANTI ICE AND WING ANTI ICE ON											–.037		
TAT (°C)	PRESSURE ALTITUDE (FT)												
	–1000.	3000.	7000.	11000.	15000.	19000.	23000.	27000.	31000.	35000.	39000.		
–54.0	1.278	1.311	1.364	1.426	1.470	1.464	1.439	1.469	1.493	1.509	1.494		
–50.0	1.278	1.311	1.364	1.426	1.470	1.464	1.439	1.469	1.493	1.509	1.494		
–46.0	1.278	1.311	1.364	1.426	1.470	1.464	1.439	1.469	1.493	1.509	1.494		
–42.0	1.278	1.311	1.364	1.426	1.470	1.464	1.439	1.469	1.493	1.509	1.494		
–38.0	1.278	1.311	1.364	1.426	1.470	1.464	1.439	1.469	1.493	1.509	1.494		
–34.0	1.278	1.311	1.364	1.426	1.470	1.464	1.439	1.469	1.493	1.509	1.494		
–30.0	1.278	1.311	1.364	1.426	1.470	1.464	1.439	1.469	1.493	1.509	1.494		
–26.0	1.278	1.311	1.364	1.426	1.470	1.464	1.439	1.469	1.493	1.509	1.494		
–22.0	1.278	1.311	1.364	1.426	1.470	1.464	1.439	1.469	1.493	1.505	1.494		
–18.0	1.278	1.311	1.364	1.426	1.470	1.464	1.439	1.469	1.493	1.485	1.477		
–14.0	1.278	1.311	1.364	1.426	1.470	1.464	1.439	1.469	1.473	1.463	1.454		
–10.0	1.278	1.311	1.364	1.426	1.470	1.464	1.439	1.457	1.449	1.440	1.430		
–6.0	1.278	1.311	1.364	1.426	1.470	1.464	1.439	1.433	1.424	1.416	1.406		
–2.0	1.278	1.311	1.364	1.426	1.470	1.464	1.414	1.407	1.399	1.394	1.383		
2.0	1.278	1.311	1.364	1.426	1.470	1.454	1.389	1.381	1.376	1.372	1.360		
6.0	1.278	1.311	1.364	1.426	1.470	1.430	1.364	1.357	1.353	1.349	1.338		
10.0	1.278	1.311	1.364	1.426	1.449	1.406	1.339	1.335	1.330	1.327	1.315		
14.0	1.278	1.311	1.364	1.422	1.425	1.382	1.318	1.312	1.308				
18.0	1.278	1.311	1.364	1.401	1.402	1.359	1.296	1.291					
22.0	1.278	1.311	1.357	1.381	1.378	1.337	1.276						
26.0	1.278	1.311	1.344	1.361	1.357	1.316							
30.0	1.278	1.301	1.331	1.342	1.336	1.295							
34.0	1.278	1.289	1.320	1.323	1.317								
38.0	1.264	1.278	1.305	1.305									
42.0	1.251	1.268	1.288	1.287									
46.0	1.239	1.253	1.273										
50.0	1.228	1.239	1.258										
54.0	1.215	1.226											

\* One engine inoperative – 1 pack operative on remaining engine.



**A318/A319/A320/A321**

FLIGHT CREW  
OPERATING MANUAL

## PERFORMANCE

### THRUST RATINGS

MAXIMUM CONTINUOUS

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**A318/A319/A320/A321**  
FLIGHT CREW  
OPERATING MANUAL

## PERFORMANCE

### THRUST RATINGS

#### MAXIMUM CLIMB

### DEFINITION

Applicable to: ALL

It is the maximum thrust approved for normal climb.

### MAXIMUM CLIMB

Applicable to: MSN 3304

CFM56-5B4			N1 CORRECTIONS FOR AIR BLEED						OAT < ISA + 10		OAT ≥ ISA + 10		
MAXIMUM CLIMB N1 AIR CONDITIONING ON 250/300/.78													
			AIR CONDITIONING OFF						.8		.8		
			ENGINE ANTI ICE ON						0.0		-1.3		
			ENGINE ANTI ICE AND WING ANTI ICE ON						0.0		-2.4		
TAT (°C)		PRESSURE ALTITUDE (FT)											
		-1000.	3000.	7000.	11000.	15000.	19000.	23000.	27000.	31000.	35000.	39000.	
-54.0		73.5	75.4	77.0	77.8	78.8	79.8	80.7	81.5	82.5	83.9	83.9	
-50.0		74.2	76.1	77.6	78.4	79.5	80.5	81.4	82.2	83.3	84.6	84.6	
-46.0		74.8	76.8	78.3	79.1	80.2	81.2	82.1	82.9	84.0	85.3	85.3	
-42.0		75.5	77.4	79.0	79.8	80.9	81.9	82.8	83.6	84.7	86.0	86.0	
-38.0		76.1	78.1	79.6	80.5	81.5	82.5	83.5	84.3	85.3	86.7	86.7	
-34.0		76.7	78.7	80.3	81.1	82.2	83.2	84.1	84.9	86.0	87.4	87.4	
-30.0		77.3	79.3	80.9	81.7	82.8	83.8	84.8	85.6	86.7	88.1	88.1	
-26.0		77.9	80.0	81.5	82.4	83.5	84.5	85.4	86.2	87.4	88.7	88.7	
-22.0		78.6	80.6	82.2	83.0	84.1	85.1	86.1	86.9	88.0	89.4	89.4	
-18.0		79.2	81.2	82.8	83.7	84.8	85.8	86.7	87.6	88.7	90.1	89.9	
-14.0		79.8	81.8	83.5	84.3	85.4	86.4	87.4	88.2	89.4	90.3	89.6	
-10.0		80.4	82.4	84.1	84.9	86.0	87.1	88.0	88.9	90.0	90.1	89.4	
-6.0		81.0	83.0	84.7	85.5	86.6	87.7	88.7	89.5	90.3	90.0	88.8	
-2.0		81.5	83.6	85.3	86.1	87.2	88.3	89.3	90.1	90.1	89.5	88.0	
2.0		82.1	84.2	85.9	86.7	87.9	88.9	89.9	90.1	90.0	88.8	87.4	
6.0		82.7	84.8	86.5	87.3	88.5	89.5	90.0	89.9	89.6	88.2	86.8	
10.0		83.3	85.4	87.1	87.9	89.1	89.8	89.8	89.7	89.0	87.5	86.2	
14.0		83.9	86.0	87.7	88.6	89.7	89.6	89.7	89.2	88.4	86.8	85.6	
18.0		84.4	86.6	88.2	89.1	89.4	89.3	89.2	88.6	87.7			
22.0		85.0	87.1	88.7	89.2	89.0	89.0	88.6	87.9	87.0			
26.0		85.5	87.7	88.3	88.9	88.7	88.5	88.0	87.2	86.3			
30.0		86.1	87.8	87.9	88.5	88.2	87.8	87.2	86.6				
34.0		86.6	87.4	87.3	87.8	87.5	87.1	86.5					
38.0		86.4	86.9	86.6	87.1	86.8	86.4						
42.0		85.9	86.2	85.9	86.4	86.0							
46.0		85.3	85.4	85.2	85.7	85.3							
50.0		84.5	84.7	84.4	85.0								
54.0		83.7	84.0										
												OAT < ISA + 10	
												OAT ≥ ISA + 10	



**A318/A319/A320/A321**  
FLIGHT CREW  
OPERATING MANUAL

## PERFORMANCE

### THRUST RATINGS

#### MAXIMUM CLIMB

### MAXIMUM CLIMB

Applicable to: MSN 1429-1750

CFM56-5B5/B6		N1 CORRECTIONS FOR AIR BLEED										OAT < ISA + 10		OAT ≥ ISA + 10			
												.8		.8			
		MAXIMUM CLIMB N1 AIR CONDITIONING ON 250/300/.78		AIR CONDITIONING OFF										.0		-.8	
				ENGINE ANTI ICE ON										0.0		-1.4	
TAT (°C)		PRESSURE ALTITUDE (FT)															
		-1000.	3000.	7000.	11000.	15000.	19000.	23000.	27000.	31000.	35000.	39000.					
-54.0	73.4	75.4	77.0	77.8	78.8	79.8	80.7	81.5	82.5	83.9	83.9						
-50.0	74.1	76.1	77.6	78.4	79.5	80.5	81.4	82.2	83.3	84.6	84.6						
-46.0	74.7	76.7	78.3	79.1	80.2	81.2	82.1	82.9	84.0	85.3	85.3						
-42.0	75.4	77.4	79.0	79.8	80.9	81.9	82.8	83.6	84.7	86.0	86.0						
-38.0	76.0	78.0	79.6	80.5	81.5	82.5	83.5	84.3	85.3	86.7	86.7						
-34.0	76.6	78.7	80.3	81.1	82.2	83.2	84.1	84.9	86.0	87.4	87.4						
-30.0	77.2	79.3	80.9	81.7	82.8	83.8	84.8	85.6	86.7	88.1	88.1						
-26.0	77.8	79.9	81.5	82.4	83.5	84.5	85.4	86.2	87.4	88.7	88.7						
-22.0	78.4	80.5	82.2	83.0	84.1	85.1	86.1	86.9	88.0	89.4	89.4						
-18.0	79.1	81.2	82.8	83.7	84.8	85.8	86.7	87.6	88.7	90.1	89.9						
-14.0	79.7	81.8	83.5	84.3	85.4	86.4	87.4	88.2	89.4	90.3	89.6						
-10.0	80.3	82.4	84.1	84.9	86.0	87.1	88.0	88.9	90.0	90.1	89.4						
-6.0	80.8	83.0	84.7	85.5	86.6	87.7	88.7	89.5	90.3	90.0	88.8						
-2.0	81.4	83.6	85.3	86.1	87.2	88.3	89.3	90.1	90.1	89.5	88.0						
2.0	82.0	84.2	85.9	86.7	87.9	88.9	89.9	90.1	90.0	88.8	87.4						
6.0	82.6	84.8	86.5	87.3	88.5	89.5	90.0	89.9	89.6	88.2	86.8						
10.0	83.2	85.4	87.1	87.9	89.1	89.8	89.8	89.7	89.0	87.5	86.2						
14.0	83.7	85.9	87.7	88.6	89.7	89.6	89.7	89.2	88.4	86.8	85.6						
18.0	84.3	86.5	88.2	89.1	89.4	89.3	89.2	88.6	87.7								
22.0	84.9	87.1	88.7	89.2	89.0	89.0	88.6	87.9	87.0								
26.0	85.4	87.6	88.3	88.9	88.7	88.5	88.0	87.2	86.3								
30.0	86.0	87.8	87.9	88.5	88.2	87.8	87.2	86.6									
34.0	86.5	87.3	87.3	87.8	87.5	87.1	86.5										
38.0	86.4	86.8	86.6	87.1	86.8	86.4											
42.0	85.9	86.1	85.9	86.4	86.0												
46.0	85.3	85.4	85.2	85.7	85.3												
50.0	84.5	84.7	84.4	85.0													
54.0	83.7	83.9															
												OAT < ISA + 10					
												OAT ≥ ISA + 10					



**A318/A319/A320/A321**  
FLIGHT CREW  
OPERATING MANUAL

## PERFORMANCE

### THRUST RATINGS

#### MAXIMUM CLIMB

#### MAXIMUM CLIMB

Applicable to: MSN 0164-0447

V2500-A1	MAXIMUM CLIMB EPR						AIR COND ON	250/300/.78				
CORRECTIONS FOR AIR BLEED												
AIR CONDITIONING OFF										.018		
ENGINE ANTI ICE ON										-.018		
ENGINE ANTI ICE AND WING ANTI ICE ON										-.030		
TAT (°C)	PRESSURE ALTITUDE (FT)											
	-1000.	3000.	7000.	11000.	15000.	19000.	23000.	27000.	31000.	35000.	39000.	
-54.0	1.262	1.296	1.322	1.318	1.344	1.372	1.382	1.407	1.439	1.484	1.489	
-50.0	1.262	1.296	1.322	1.318	1.344	1.372	1.382	1.407	1.439	1.484	1.489	
-46.0	1.262	1.296	1.322	1.318	1.344	1.372	1.382	1.407	1.439	1.484	1.489	
-42.0	1.262	1.296	1.322	1.318	1.344	1.372	1.382	1.407	1.439	1.484	1.489	
-38.0	1.262	1.296	1.322	1.318	1.344	1.372	1.382	1.407	1.439	1.484	1.489	
-34.0	1.262	1.296	1.322	1.318	1.344	1.372	1.382	1.407	1.439	1.484	1.489	
-30.0	1.262	1.296	1.322	1.318	1.344	1.372	1.382	1.407	1.439	1.484	1.489	
-26.0	1.262	1.296	1.322	1.318	1.344	1.372	1.382	1.407	1.439	1.484	1.489	
-22.0	1.262	1.296	1.322	1.318	1.344	1.372	1.382	1.407	1.439	1.484	1.489	
-18.0	1.262	1.296	1.322	1.318	1.344	1.372	1.382	1.407	1.439	1.484	1.484	
-14.0	1.262	1.296	1.322	1.318	1.344	1.372	1.382	1.407	1.439	1.470	1.460	
-10.0	1.262	1.296	1.322	1.318	1.344	1.372	1.382	1.407	1.439	1.445	1.436	
-6.0	1.262	1.296	1.322	1.318	1.344	1.372	1.382	1.407	1.429	1.420	1.411	
-2.0	1.262	1.296	1.322	1.318	1.344	1.372	1.382	1.407	1.404	1.395	1.386	
2.0	1.262	1.296	1.322	1.318	1.344	1.372	1.382	1.387	1.379	1.371	1.364	
6.0	1.262	1.296	1.322	1.318	1.344	1.372	1.367	1.362	1.354	1.349	1.341	
10.0	1.262	1.296	1.322	1.318	1.344	1.364	1.344	1.338	1.329	1.326	1.319	
14.0	1.262	1.296	1.322	1.318	1.344	1.341	1.321	1.314	1.308	1.304	1.297	
18.0	1.262	1.296	1.322	1.318	1.323	1.319	1.298	1.292	1.286			
22.0	1.262	1.296	1.320	1.307	1.301	1.297	1.277	1.271	1.265			
26.0	1.262	1.296	1.300	1.287	1.280	1.276	1.256	1.250	1.245			
30.0	1.262	1.288	1.281	1.267	1.259	1.256	1.236	1.230				
34.0	1.262	1.271	1.263	1.248	1.241	1.237	1.217					
38.0	1.251	1.254	1.247	1.230	1.223	1.219						
42.0	1.235	1.238	1.232	1.214	1.206							
46.0	1.220	1.223	1.218	1.199	1.191							
50.0	1.205	1.210	1.204	1.184								
54.0	1.192	1.197										



**A318/A319/A320/A321**


FLIGHT CREW  
OPERATING MANUAL

**PERFORMANCE**

**THRUST RATINGS**

**MAXIMUM CLIMB**

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 <b>A318/A319/A320/A321</b> FLIGHT CREW OPERATING MANUAL	<b>PERFORMANCE</b>  <b>THRUST RATINGS</b>  MAXIMUM CRUISE
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<b>DEFINITION</b>
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Applicable to: MSN 0164-0447

It is the maximum thrust approved for normal cruise.  
 There is no thrust lever position corresponding to this thrust rating.  
 It is not displayed to the pilot, and the EPR limit which is displayed in cruise is the maximum climb EPR.  
 The FMGS uses the maximum cruise EPR to compute the aircraft maximum speed.  
 In manual thrust setting, in cruise, the pilot should limit EPR to the maximum cruise EPR that is equal to the displayed maximum climb EPR minus 0.07.

<b>DEFINITION</b>
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Applicable to: MSN 1429-3304

It is the maximum thrust approved for normal cruise.  
 There is no thrust lever position corresponding to this thrust rating.  
 It is not displayed to the pilot, and the N1 limit which is displayed in cruise is the maximum climb N1.  
 The FMGS uses the maximum cruise N1 to compute the aircraft maximum speed.  
 In manual thrust setting, in cruise, the pilot should limit N1 to the maximum cruise N1 that is equal to the displayed maximum climb N1 minus 1.9 %.



**A318/A319/A320/A321**  
FLIGHT CREW  
OPERATING MANUAL

## PERFORMANCE

### THRUST RATINGS

#### MAXIMUM CRUISE

#### MAXIMUM CRUISE

Applicable to: MSN 0164-0447

V2500-A1	MAXIMUM CRUISE EPR					AIR COND ON			250/300/.78			
CORRECTIONS FOR AIR BLEED												
AIR CONDITIONING OFF										.018		
ENGINE ANTI ICE ON										-.018		
ENGINE ANTI ICE AND WING ANTI ICE ON										-.030		
TAT (°C)	PRESSURE ALTITUDE (FT)											
	-1000.	3000.	7000.	11000.	15000.	19000.	23000.	27000.	31000.	35000.	39000.	
-54.0	1.192	1.226	1.252	1.248	1.274	1.302	1.312	1.337	1.369	1.414	1.419	
-50.0	1.192	1.226	1.252	1.248	1.274	1.302	1.312	1.337	1.369	1.414	1.419	
-46.0	1.192	1.226	1.252	1.248	1.274	1.302	1.312	1.337	1.369	1.414	1.419	
-42.0	1.192	1.226	1.252	1.248	1.274	1.302	1.312	1.337	1.369	1.414	1.419	
-38.0	1.192	1.226	1.252	1.248	1.274	1.302	1.312	1.337	1.369	1.414	1.419	
-34.0	1.192	1.226	1.252	1.248	1.274	1.302	1.312	1.337	1.369	1.414	1.419	
-30.0	1.192	1.226	1.252	1.248	1.274	1.302	1.312	1.337	1.369	1.414	1.419	
-26.0	1.192	1.226	1.252	1.248	1.274	1.302	1.312	1.337	1.369	1.414	1.419	
-22.0	1.192	1.226	1.252	1.248	1.274	1.302	1.312	1.337	1.369	1.414	1.419	
-18.0	1.192	1.226	1.252	1.248	1.274	1.302	1.312	1.337	1.369	1.414	1.414	
-14.0	1.192	1.226	1.252	1.248	1.274	1.302	1.312	1.337	1.369	1.400	1.390	
-10.0	1.192	1.226	1.252	1.248	1.274	1.302	1.312	1.337	1.369	1.375	1.366	
-6.0	1.192	1.226	1.252	1.248	1.274	1.302	1.312	1.337	1.359	1.350	1.341	
-2.0	1.192	1.226	1.252	1.248	1.274	1.302	1.312	1.337	1.334	1.325	1.316	
2.0	1.192	1.226	1.252	1.248	1.274	1.302	1.312	1.317	1.309	1.301	1.294	
6.0	1.192	1.226	1.252	1.248	1.274	1.302	1.297	1.292	1.284	1.279	1.271	
10.0	1.192	1.226	1.252	1.248	1.274	1.294	1.274	1.268	1.259	1.256	1.249	
14.0	1.192	1.226	1.252	1.248	1.274	1.271	1.251	1.244	1.238	1.234	1.227	
18.0	1.192	1.226	1.252	1.248	1.253	1.249	1.228	1.222	1.216			
22.0	1.192	1.226	1.250	1.237	1.231	1.227	1.207	1.201	1.195			
26.0	1.192	1.226	1.230	1.217	1.210	1.206	1.186	1.180	1.175			
30.0	1.192	1.218	1.211	1.197	1.189	1.186	1.166	1.160				
34.0	1.192	1.201	1.193	1.178	1.171	1.167	1.147					
38.0	1.181	1.184	1.177	1.160	1.153	1.149						
42.0	1.165	1.168	1.162	1.144	1.136							
46.0	1.150	1.153	1.148	1.129	1.121							
50.0	1.135	1.140	1.134	1.114								
54.0	1.122	1.127										

**MAXIMUM CRUISE**

Applicable to: MSN 3304

CFM56-5B4		N1 CORRECTIONS FOR AIR BLEED							OAT < ISA +10		OAT ≥ ISA +10	
MAXIMUM CRUISE N1 AIR CONDITIONING ON 250/300/.78		AIR CONDITIONING OFF							0.8		0.8	
		NACELLE ANTI ICE ON							0.0		-1.3	
		NACELLE ANTI ICE AND WING ANTI ICE ON							0.0		-2.4	
TAT (°C)	PRESSURE ALTITUDE (FT)											
	-1000.	3000.	7000.	11000.	15000.	19000.	23000.	27000.	31000.	35000.	39000.	
-54.0	71.6	73.5	75.1	75.9	76.9	77.9	78.8	79.6	80.6	82.0	82.0	
-50.0	72.3	74.2	75.7	76.5	77.6	78.6	79.5	80.3	81.4	82.7	82.7	
-46.0	72.9	74.9	76.4	77.2	78.3	79.3	80.2	81.0	82.1	83.4	83.4	
-42.0	73.6	75.5	77.1	77.9	79.0	80.0	80.9	81.7	82.8	84.1	84.1	
-38.0	74.2	76.2	77.7	78.6	79.6	80.6	81.6	82.4	83.4	84.8	84.8	
-34.0	74.8	76.8	78.4	79.2	80.3	81.3	82.2	83.0	84.1	85.5	85.5	
-30.0	75.4	77.4	79.0	79.8	80.9	81.9	82.9	83.7	84.8	86.2	86.2	
-26.0	76.0	78.1	79.6	80.5	81.6	82.6	83.5	84.3	85.5	86.8	86.8	
-22.0	76.7	78.7	80.3	81.1	82.2	83.2	84.2	85.0	86.1	87.5	87.5	
-18.0	77.3	79.3	80.9	81.8	82.9	83.9	84.8	85.7	86.8	88.2	88.0	
-14.0	77.9	79.9	81.6	82.4	83.5	84.5	85.5	86.3	87.5	88.4	87.7	
-10.0	78.5	80.5	82.2	83.0	84.1	85.2	86.1	87.0	88.1	88.2	87.5	
-6.0	79.1	81.1	82.8	83.6	84.7	85.8	86.8	87.6	88.4	88.1	86.9	
-2.0	79.6	81.7	83.4	84.2	85.3	86.4	87.4	88.2	88.2	87.6	86.1	
2.0	80.2	82.3	84.0	84.8	86.0	87.0	88.0	88.2	88.1	86.9	85.5	
6.0	80.8	82.9	84.6	85.4	86.6	87.6	88.1	88.0	87.7	86.3	84.9	
10.0	81.4	83.5	85.2	86.0	87.2	87.9	87.9	87.8	87.1	85.6	84.3	
14.0	82.0	84.1	85.8	86.7	87.8	87.7	87.8	87.3	86.5	84.9	83.7	
18.0	82.5	84.7	86.3	87.2	87.5	87.4	87.3	86.7	85.8			
22.0	83.1	85.2	86.8	87.3	87.1	87.1	86.7	86.0	85.1			
26.0	83.6	85.8	86.4	87.0	86.8	86.6	86.1	85.3	84.4			
30.0	84.2	85.9	86.0	86.6	86.3	85.9	85.3	84.7				
34.0	84.7	85.5	85.4	85.9	85.6	85.2	84.6					
38.0	84.5	85.0	84.7	85.2	84.9	84.5						
42.0	84.0	84.3	84.0	84.5	84.1							
46.0	83.4	83.5	83.3	83.8	83.4							
50.0	82.6	82.8	82.5	83.1								
54.0	81.8	82.1										
OAT < ISA + 10												
OAT ≥ ISA + 10												



**A318/A319/A320/A321**  
FLIGHT CREW  
OPERATING MANUAL

## PERFORMANCE

### THRUST RATINGS


#### MAXIMUM CRUISE

### MAXIMUM CRUISE

Applicable to: MSN 1429-1750

CFM56-5B5/B6		N1 CORRECTIONS FOR AIR BLEED										OAT < ISA+10		OAT ≥ ISA+10	
		MAXIMUM CRUISE N1 AIR CONDITIONING ON 250/300/.78										0.8		0.8	
												0.0		-0.8	
												0.0		-1.4	
TAT (°C)		PRESSURE ALTITUDE (FT)													
		-1000.	3000.	7000.	11000.	15000.	19000.	23000.	27000.	31000.	35000.	39000.			
-54.0		71.5	73.5	75.1	75.9	76.9	77.9	78.8	79.6	80.6	82.0	82.0			
-50.0		72.2	74.2	75.7	76.5	77.6	78.6	79.5	80.3	81.4	82.7	82.7			
-46.0		72.8	74.8	76.4	77.2	78.3	79.3	80.2	81.0	82.1	83.4	83.4			
-42.0		73.5	75.5	77.1	77.9	79.0	80.0	80.9	81.7	82.8	84.1	84.1			
-38.0		74.1	76.1	77.7	78.6	79.6	80.6	81.6	82.4	83.4	84.8	84.8			
-34.0		74.7	76.8	78.4	79.2	80.3	81.3	82.2	83.0	84.1	85.5	85.5			
-30.0		75.3	77.4	79.0	79.8	80.9	81.9	82.9	83.7	84.8	86.2	86.2			
-26.0		75.9	78.0	79.6	80.5	81.6	82.6	83.5	84.3	85.5	86.8	86.8			
-22.0		76.5	78.6	80.3	81.1	82.2	83.2	84.2	85.0	86.1	87.5	87.5			
-18.0		77.2	79.3	80.9	81.8	82.9	83.9	84.8	85.7	86.8	88.2	88.0			
-14.0		77.8	79.9	81.6	82.4	83.5	84.5	85.5	86.3	87.5	88.4	87.7			
-10.0		78.4	80.5	82.2	83.0	84.1	85.2	86.1	87.0	88.1	88.2	87.5			
-6.0		78.9	81.1	82.8	83.6	84.7	85.8	86.8	87.6	88.4	88.1	86.9			
-2.0		79.5	81.7	83.4	84.2	85.3	86.4	87.4	88.2	88.2	87.6	86.1			
2.0		80.1	82.3	84.0	84.8	86.0	87.0	88.0	88.2	88.1	86.9	85.5			
6.0		80.7	82.9	84.6	85.4	86.6	87.6	88.1	88.0	87.7	86.3	84.9			
10.0		81.3	83.5	85.2	86.0	87.2	87.9	87.9	87.8	87.1	85.6	84.3			
14.0		81.8	84.0	85.8	86.7	87.8	87.7	87.8	87.3	86.5	84.9	83.7			
18.0		82.4	84.6	86.3	87.2	87.5	87.4	87.3	86.7	85.8					
22.0		83.0	85.2	86.8	87.3	87.1	87.1	86.7	86.0	85.1					
26.0		83.5	85.7	86.4	87.0	86.8	86.6	86.1	85.3	84.4					
30.0		84.1	85.9	86.0	86.6	86.3	85.9	85.3	84.7						
34.0		84.6	85.4	85.4	85.9	85.6	85.2	84.6							
38.0		84.5	84.9	84.7	85.2	84.9	84.5								
42.0		84.0	84.2	84.0	84.5	84.1									
46.0		83.4	83.5	83.3	83.8	83.4									
50.0		82.6	82.8	82.5	83.1										
54.0		81.8	82.0												
												OAT < ISA + 10			
												OAT ≥ ISA + 10			



<b>MEXICANA</b>  <b>A318/A319/A320/A321</b> FLIGHT CREW OPERATING MANUAL	<b>PERFORMANCE</b> <b>THRUST RATINGS</b>  N1 MODE THRUST CONTROL
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<b>N1 MODE THRUST CONTROL</b>
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Applicable to: MSN 0164-0447

In case of no EPR available, the thrust control automatically reverts to N1 mode (rated or unrated).  
*Refer to PRO-ABN-70-H ENG 1(2) EPR MODE FAULT.*

If the N1 rated mode is lost on both engines, refer to the power management tables given on the following pages.

The herebelow table gives the N1 to be set in cruise to maintain M 0.78.

FLIGHT LEVEL						
WEIGHT (1 000 KG)	290	310	330	350	370	390
50	79.7	79.5	79.5	79.6	80.1	81.4
52	79.9	79.8	79.8	80.0	80.6	81.9
54	80.1	80.0	80.1	80.3	81.0	82.5
56	80.3	80.3	80.4	80.6	81.5	83.1
58	80.5	80.6	80.8	81.0	82.0	83.8
60	80.7	80.9	81.1	81.4	82.5	84.5
62	81.0	81.2	81.4	81.9	83.1	85.6
64	81.2	81.4	81.8	82.3	83.7	
66	81.5	81.7	82.1	82.9	84.3	
68	81.8	82.0	82.5	83.3	85.1	
70	82.0	82.3	82.9	83.9	86	
72	82.3	82.7	83.3	84.5		
74	82.5	83.0	83.8	85.1		
76	82.9	83.4	84.4	85.9		N1 (%)

Drift Down ceilings and go around performance are affected as follows:

Drift down ceiling:

Actual Weight (1 000 Kg)	40	50	60	70
Ceiling Penalty (ft)	4 000	4 700	5 300	6 000

Go around weight:

Normal go around Weight (1 000 Kg)	40	45	50	55	60	65	70	75	80	85
Weight Penalty (1 000 Kg)	5.2	5.9	6.5	7.2	7.8	8.5	9.1	9.8	10.4	11



**A318/A319/A320/A321**  
FLIGHT CREW  
OPERATING MANUAL

## PERFORMANCE

### THRUST RATINGS

#### N1 MODE THRUST CONTROL

#### MAXIMUM TAKEOFF N1

Applicable to: MSN 0164-0447

V2500—A1		TAKEOFF N1				NO AIR BLEED				MACH=.000			
N1 CORRECTIONS FOR AIR BLEED								OAT<10 (°C)		OAT>10 (°C)			
AIR CONDITIONING ON								-4		-4			
ENGINE ANTI ICE ON								0.0		-7			
ENGINE ANTI ICE AND WING ANTI ICE ON								-3		-1.0			
OAT (°C)	PRESSURE ALTITUDE (FT)												
	-1000.	0.	1000.	2000.	3000.	4000.	5000.	6000.	7000.	8000.	8500.		
-54.0	77.5	78.3	79.0	79.7	80.4	81.2	81.9	82.4	82.8	83.3	83.6		
-50.0	78.2	79.0	79.7	80.5	81.2	81.9	82.6	83.1	83.6	84.1	84.3		
-46.0	78.9	79.7	80.4	81.2	81.9	82.6	83.4	83.8	84.3	84.8	85.1		
-42.0	79.6	80.4	81.2	81.9	82.6	83.4	84.1	84.6	85.1	85.6	85.8		
-38.0	80.3	81.1	81.9	82.6	83.3	84.1	84.8	85.3	85.8	86.3	86.6		
-34.0	81.0	81.8	82.5	83.3	84.0	84.8	85.5	86.0	86.5	87.0	87.3		
-30.0	81.6	82.5	83.2	84.0	84.7	85.5	86.3	86.7	87.2	87.8	88.0		
-26.0	82.3	83.2	83.9	84.7	85.4	86.2	87.0	87.5	88.0	88.5	88.7		
-22.0	83.0	83.8	84.6	85.4	86.1	86.9	87.7	88.2	88.7	89.2	89.5		
-18.0	83.6	84.5	85.3	86.0	86.8	87.6	88.4	88.9	89.4	89.9	90.2		
-14.0	84.3	85.2	85.9	86.7	87.5	88.3	89.1	89.6	90.1	90.6	90.9		
-10.0	84.9	85.8	86.6	87.4	88.2	88.9	89.7	90.2	90.8	91.3	91.6		
-6.0	85.6	86.5	87.2	88.0	88.8	89.6	90.4	90.9	91.5	92.0	92.3		
-2.0	86.2	87.1	87.9	88.7	89.5	90.3	91.1	91.6	92.1	92.7	93.0		
2.0	86.8	87.8	88.5	89.3	90.1	90.9	91.8	92.3	92.8	93.4	93.6		
6.0	87.5	88.4	89.2	90.0	90.8	91.6	92.4	92.9	93.5	94.0	94.3		
10.0	88.1	89.0	89.8	90.6	91.4	92.3	93.1	93.6	94.2	94.7	95.0		
14.0	88.7	89.6	90.5	91.3	92.1	92.9	93.7	94.3	94.8	95.4	95.7		
18.0	89.3	90.3	91.1	91.9	92.7	93.6	94.4	94.9	95.5	95.6	95.6		
22.0	89.9	90.9	91.7	92.5	93.4	94.2	95.0	95.2	95.2	95.2	95.2		
26.0	90.6	91.5	92.3	93.2	94.0	94.4	94.7	94.7	94.7	94.7	94.7		
30.0	91.2	92.1	92.9	93.4	93.7	94.0	94.3	94.3	94.3	94.3	94.3		
34.0	91.8	92.3	92.7	93.0	93.3	93.6	93.9	93.9	93.9	93.9	93.9		
38.0	92.0	92.0	92.3	92.7	93.0	93.2	93.5	93.5	93.5	93.5	93.5		
42.0	91.7	91.7	92.0	92.3	92.6	92.9	93.2	93.2					
46.0	91.3	91.3	91.7	92.0	92.3	92.6							
50.0	90.7	90.7	91.1	91.5									
54.0	90.1	90.2											



**A318/A319/A320/A321**  
FLIGHT CREW  
OPERATING MANUAL

## PERFORMANCE

### THRUST RATINGS

#### N1 MODE THRUST CONTROL

#### MAXIMUM GO AROUND N1

Applicable to: MSN 0164-0447

V2500-A1		GO AROUND N1						AIR COND ON		MACH=.225	
N1 CORRECTIONS FOR AIR BLEED								TAT<10 (°C)		TAT>10 (°C)	
AIR CONDITIONING OFF								.5		.5	
ENGINE ANTI ICE ON								0.0		-0.8	
ENGINE ANTI ICE AND WING ANTI ICE ON								-4		-1.2	
TAT (°C)	PRESSURE ALTITUDE (FT)										
	-1000.	0.	1000.	2000.	3000.	4000.	5000.	6000.	7000.	8000.	8500.
-60.0	76.1	76.9	77.6	78.2	78.9	79.6	80.3	80.7	81.2	81.6	81.8
-56.0	76.8	77.6	78.3	79.0	79.6	80.3	81.0	81.5	81.9	82.4	82.6
-52.0	77.5	78.3	79.0	79.7	80.4	81.1	81.8	82.2	82.7	83.1	83.4
-48.0	78.2	79.0	79.7	80.4	81.1	81.8	82.5	83.0	83.4	83.9	84.1
-44.0	78.9	79.7	80.4	81.1	81.8	82.5	83.3	83.7	84.2	84.6	84.9
-40.0	79.6	80.4	81.1	81.8	82.5	83.3	84.0	84.4	84.9	85.4	85.6
-36.0	80.3	81.1	81.8	82.5	83.2	84.0	84.7	85.1	85.6	86.1	86.3
-32.0	81.0	81.8	82.5	83.2	83.9	84.7	85.4	85.9	86.3	86.8	87.1
-28.0	81.6	82.5	83.2	83.9	84.6	85.4	86.1	86.6	87.0	87.5	87.8
-24.0	82.3	83.1	83.8	84.6	85.3	86.1	86.8	87.3	87.7	88.2	88.5
-20.0	82.9	83.8	84.5	85.3	86.0	86.7	87.5	88.0	88.4	88.9	89.2
-16.0	83.6	84.4	85.2	85.9	86.7	87.4	88.2	88.7	89.1	89.6	89.9
-12.0	84.2	85.1	85.8	86.6	87.3	88.1	88.9	89.4	89.8	90.3	90.6
-8.0	84.9	85.7	86.5	87.3	88.0	88.8	89.6	90.0	90.5	91.0	91.3
-4.0	85.5	86.4	87.1	87.9	88.7	89.4	90.2	90.7	91.2	91.7	92.0
0.0	86.2	87.0	87.8	88.6	89.3	90.1	90.9	91.4	91.9	92.4	92.6
4.0	86.8	87.7	88.4	89.2	90.0	90.8	91.6	92.0	92.5	93.1	93.3
8.0	87.4	88.3	89.1	89.8	90.6	91.4	92.2	92.7	93.2	93.7	94.0
12.0	88.0	88.9	89.7	90.5	91.3	92.1	92.9	93.4	93.9	94.4	94.7
16.0	88.6	89.5	90.3	91.1	91.9	92.7	93.5	94.0	94.5	95.1	95.2
20.0	89.3	90.2	90.9	91.7	92.5	93.4	94.2	94.7	94.8	94.7	94.7
24.0	89.9	90.8	91.6	92.4	93.2	94.0	94.4	94.4	94.3	94.3	94.3
28.0	90.5	91.4	92.2	93.0	93.4	93.7	94.0	93.9	93.9	93.9	93.9
32.0	91.1	92.0	92.4	92.7	93.0	93.3	93.6	93.5	93.5	93.5	93.5
36.0	91.7	91.7	92.1	92.4	92.6	92.9	93.2	93.1	93.1	93.1	93.1
40.0	91.4	91.4	91.7	92.0	92.3	92.5	92.8	92.7	92.7	92.7	92.7
44.0	91.0	91.0	91.4	91.6	91.9	92.2	92.4	92.4	92.4		
48.0	90.4	90.4	90.8	91.1	91.5	91.8	92.1				
52.0	89.8	89.8	90.2	90.6	90.9						
56.0	89.4	89.4	89.7								



**A318/A319/A320/A321**  
FLIGHT CREW  
OPERATING MANUAL

## PERFORMANCE

### THRUST RATINGS

#### N1 MODE THRUST CONTROL

#### MAXIMUM CONTINUOUS N1

Applicable to: MSN 0164-0447

V2500–A1	MAXIMUM CONTINUOUS N1										AIR COND ON *	IAS=230 KT
N1 CORRECTIONS FOR AIR BLEED												
AIR CONDITIONING OFF											.8	
ENGINE ANTI ICE ON											–.8	
ENGINE ANTI ICE AND WING ANTI ICE ON											–1.7	
TAT (°C)	PRESSURE ALTITUDE (FT)											
	–1000.	3000.	7000.	11000.	15000.	19000.	23000.	27000.	31000.	35000.	39000.	
–54.0	73.9	76.0	78.7	81.6	83.7	83.5	82.4	83.7	84.5	84.4	84.5	
–50.0	74.6	76.7	79.4	82.4	84.5	84.3	83.2	84.5	85.2	85.2	85.3	
–46.0	75.2	77.4	80.1	83.1	85.2	85.0	83.9	85.2	86.0	85.9	86.1	
–42.0	75.9	78.0	80.8	83.9	86.0	85.8	84.7	86.0	86.7	86.7	86.8	
–38.0	76.6	78.7	81.5	84.6	86.7	86.5	85.4	86.7	87.5	87.4	87.6	
–34.0	77.2	79.4	82.2	85.3	87.5	87.3	86.1	87.5	88.2	88.2	88.3	
–30.0	77.9	80.0	82.9	86.0	88.2	88.0	86.8	88.2	89.0	88.9	89.1	
–26.0	78.5	80.7	83.6	86.7	88.9	88.7	87.5	88.9	89.7	89.6	89.8	
–22.0	79.1	81.3	84.2	87.4	89.6	89.4	88.2	89.6	90.4	90.3	90.5	
–18.0	79.8	82.0	84.9	88.1	90.3	90.1	88.9	90.3	91.1	91.1	90.6	
–14.0	80.4	82.6	85.6	88.8	91.0	90.8	89.6	90.6	90.9	90.8	90.4	
–10.0	81.0	83.3	86.2	89.5	91.7	91.5	90.2	90.8	90.9	90.5	90.1	
–6.0	81.6	83.9	86.9	90.1	92.4	92.2	90.5	90.8	90.6	90.2	89.8	
–2.0	82.2	84.5	87.5	90.8	93.1	92.9	90.4	90.4	90.2	89.8	89.5	
2.0	82.8	85.1	88.2	91.5	93.8	92.7	90.1	90.0	89.8	89.5	89.2	
6.0	83.4	85.8	88.8	92.1	94.1	92.4	89.6	89.5	89.4	89.2	88.9	
10.0	84.0	86.4	89.4	92.8	93.8	91.9	89.2	89.1	89.0	88.9	88.5	
14.0	84.6	87.0	90.1	92.8	93.3	91.3	88.8	88.7	88.7			
18.0	85.2	87.6	90.7	92.4	92.7	90.8	88.4	88.4				
22.0	85.8	88.2	90.4	92.0	92.2	90.2	88.1					
26.0	86.4	88.7	90.1	91.6	91.7	89.7						
30.0	86.9	88.2	90.0	91.2	91.2	89.3						
34.0	87.3	88.0	89.9	90.9	90.8							
38.0	87.7	87.7	89.9	90.4								
42.0	87.3	87.7	89.7	90.0								
46.0	86.7	87.7	89.3									
50.0	86.0	87.4	89.0									
54.0	85.4	86.9										

Note : \* One engine inoperative – 1 pack operative on remaining engine.



**A318/A319/A320/A321**  
FLIGHT CREW  
OPERATING MANUAL

## PERFORMANCE

### THRUST RATINGS

#### N1 MODE THRUST CONTROL

#### MAXIMUM CLIMB N1

Applicable to: MSN 0164-0447

V2500–A1		MAXIMUM CLIMB N1										AIR COND ON	
N1 CORRECTIONS FOR AIR BLEED													
AIR CONDITIONING OFF												.8	
ENGINE ANTI ICE ON												–.8	
ENGINE ANTI ICE AND WING ANTI ICE ON												–1.3	
TAT (°C)	PRESSURE ALTITUDE (FT)												
	–1000.	3000.	7000.	11000.	15000.	19000.	23000.	27000.	31000.	35000.	39000.		
–54.	73.8	75.0	76.4	77.7	79.0	80.1	80.6	81.8	83.0	84.6	84.8		
–50.	74.5	75.7	77.1	78.4	79.7	80.8	81.4	82.6	83.7	85.4	85.6		
–46.	75.1	76.4	77.8	79.1	80.4	81.6	82.1	83.3	84.5	86.1	86.3		
–42.	75.8	77.1	78.4	79.8	81.1	82.3	82.8	84.1	85.2	86.9	87.1		
–38.	76.4	77.7	79.1	80.5	81.8	83.0	83.5	84.8	85.9	87.6	87.8		
–34.	77.1	78.4	79.8	81.1	82.5	83.7	84.2	85.5	86.7	88.4	88.6		
–30.	77.7	79.0	80.4	81.8	83.2	84.4	84.9	86.2	87.4	89.1	89.3		
–26.	78.4	79.7	81.1	82.5	83.9	85.1	85.6	86.9	88.1	89.9	90.0		
–22.	79.0	80.3	81.8	83.2	84.5	85.8	86.3	87.6	88.8	90.6	90.8		
–18.	79.6	81.0	82.4	83.8	85.2	86.4	87.0	88.3	89.5	91.3	90.9		
–14.	80.2	81.6	83.1	84.5	85.9	87.1	87.7	89.0	90.2	91.0	90.7		
–10.	80.9	82.2	83.7	85.1	86.5	87.8	88.3	89.7	90.9	90.7	90.4		
–6.	81.5	82.9	84.3	85.8	87.2	88.5	89.0	90.4	90.8	90.4	90.0		
–2.	82.1	83.5	85.0	86.4	87.8	89.1	89.7	90.5	90.4	90.0	89.7		
2.	82.7	84.1	85.6	87.0	88.5	89.8	90.1	90.1	90.0	89.7	89.4		
6.	83.3	84.7	86.2	87.7	89.1	90.4	89.7	89.7	89.6	89.4	89.1		
10.	83.9	85.3	86.8	88.3	89.8	90.1	89.3	89.3	89.2	89.1	88.8		
14.	84.5	85.9	87.4	88.9	89.8	89.7	88.9	88.9	88.9	88.8			
18.	85.0	86.5	88.0	89.5	89.3	89.3	88.6	88.6	88.5				
22.	85.6	87.1	88.6	89.1	88.9	88.9	88.2	88.2	88.2				
26.	86.2	87.7	88.8	88.7	88.5	88.6	87.9	87.9					
30.	86.8	88.3	88.4	88.3	88.2	88.2	87.6						
34.	87.3	88.1	88.0	88.0	87.9	87.9							
38.	87.8	87.7	87.7	87.7	87.5	87.5							
42.	87.4	87.3	87.2	87.2	87.0								
46.	86.8	86.6	86.7	86.7									
50.	86.1	86.1	86.3										
54.	85.5	85.6											

Note: This table is valid for all aircraft speeds.



**A318/A319/A320/A321**  
FLIGHT CREW  
OPERATING MANUAL

## PERFORMANCE

### THRUST RATINGS

#### N1 MODE THRUST CONTROL

#### MAXIMUM CRUISE N1

Applicable to: MSN 0164-0447

V2500-A1	MAXIMUM CRUISE N1											AIR COND ON
N1 CORRECTIONS FOR AIR BLEED												
AIR CONDITIONING OFF											.8	
ENGINE ANTI ICE ON											-.8	
ENGINE ANTI ICE AND WING ANTI ICE ON											-1.3	
TAT (°C)	PRESSURE ALTITUDE (FT)											
	-1000.	3000.	7000.	11000.	15000.	19000.	23000.	27000.	31000.	35000.	39000.	
-54.	69.5	71.4	73.3	74.8	76.1	77.4	78.0	79.2	80.3	81.9	82.1	
-50.	70.1	72.0	73.9	75.4	76.8	78.1	78.7	79.9	81.1	82.7	82.8	
-46.	70.7	72.7	74.6	76.1	77.5	78.8	79.4	80.6	81.8	83.4	83.6	
-42.	71.4	73.3	75.3	76.8	78.2	79.5	80.1	81.3	82.5	84.2	84.3	
-38.	72.0	73.9	75.9	77.4	78.9	80.2	80.8	82.0	83.2	84.9	85.0	
-34.	72.6	74.6	76.5	78.1	79.5	80.8	81.4	82.7	83.9	85.6	85.8	
-30.	73.2	75.2	77.2	78.7	80.2	81.5	82.1	83.4	84.6	86.3	86.5	
-26.	73.8	75.8	77.8	79.4	80.9	82.2	82.8	84.1	85.3	87.0	87.2	
-22.	74.4	76.4	78.4	80.0	81.5	82.8	83.5	84.8	86.0	87.7	87.9	
-18.	75.0	77.0	79.1	80.7	82.2	83.5	84.1	85.5	86.7	88.4	88.1	
-14.	75.6	77.6	79.7	81.3	82.8	84.2	84.8	86.1	87.4	88.2	87.8	
-10.	76.1	78.2	80.3	81.9	83.4	84.8	85.4	86.8	88.0	87.9	87.5	
-6.	76.7	78.8	80.9	82.5	84.1	85.4	86.1	87.5	87.9	87.5	87.1	
-2.	77.3	79.4	81.5	83.1	84.7	86.1	86.7	87.6	87.5	87.1	86.8	
2.	77.9	80.0	82.1	83.8	85.3	86.7	87.1	87.2	87.0	86.8	86.4	
6.	78.4	80.5	82.7	84.4	85.9	87.3	86.8	86.7	86.6	86.4	86.1	
10.	79.0	81.1	83.3	85.0	86.6	87.0	86.3	86.2	86.1	86.0	85.7	
14.	79.5	81.7	83.9	85.6	86.5	86.6	85.9	85.8	85.7	85.6		
18.	80.1	82.3	84.5	86.1	86.0	86.1	85.4	85.3	85.3			
22.	80.6	82.8	85.0	85.7	85.6	85.6	84.9	84.8	84.9			
26.	81.2	83.4	85.1	85.0	84.8	85.0	84.3	84.4				
30.	81.7	83.9	84.3	84.3	84.2	84.4	83.8					
34.	82.3	83.4	83.5	83.6	83.6	83.9						
38.	82.6	82.6	82.8	83.0	83.1	83.4						
42.	81.8	81.9	82.2	82.5	82.6							
46.	81.0	81.3	81.7	81.9								
50.	80.3	80.5	81.0									
54.	79.4	79.8										

Note: This table is valid for all aircraft speeds.