GE Aviation

The CF34-8C5B1 is the most recent member of the CF34 engine family to be certified for Bombardier applications. The CF34-8C5B1 is a derated version of the CF34-8C5, and powers the 70-passenger Bombardier* CRJ700* Series airliner and Bombardier Challenger* 870 business aircraft. It replaces the CF34-8C1 initially delivered on over 200 CRJ700 aircraft. With minimal changes, the CF34-8C5B1 is fully interchangeable with the CF34-8C5 on either the CRJ700 or CRJ900* aircraft, providing optimum value for mixed fleet operations. The CF34-8C5A1, delivering an additional 2% NTO thrust, recently entered service on Bombardier CRJ900 aircraft. The CF34-8C5 is an advanced 14,500 pound thrust class turbofan propulsion system that powers the 90-passenger Bombardier CRJ900 Series airliner, 100passenger Bombardier CRJ1000 Series airliner and Bombardier Challenger 890 business aircraft. The engine features 50% more thrust, higher thrust to weight ratio, lower specific fuel consumption, reduced number of parts, and improved maintainability and component lives as compared to the CF34-3. The engine achieves these dramatic benefits while retaining all the reliability, performance and environmental characteristics that have earned the CF34[®] family of engines a global reputation for exceptional service on Bombardier Challenger 601, 604 and 605 corporate aircraft and 50-passenger Bombardier CRJ200* Series airliners.

CF34-8C turbofan propulsion system





CF34-8C turbofan propulsion

Applications



Bombardier CRJ700



Bombardier CRJ900



Bombardier Challenger 870



Bombardier CRJ1000



Bombardier Challenger 890

Performance Specifications

	-8C5B1	-8C5
Maximum takeoff thrust with APR ⁺	13,790 lb	14,500 lb
Bypass ratio	5:1	5:1
Overall pressure ratio	28:1	28.5:1
Thrust/weight ratio	5.7:1	6:1
Maximum diameter	52 in	52 in
Fan diameter	46.2 in	46.2 in
Length	128 in	128 in
Weight	2,400 lb	2,450 lb
Noise	Meets or surpasses ICAO C	hap. 4 requirements
Emissions	Meets or surpasses ICAO CAEP/6 requirements	
Mounting	Fuselage	Fuselage
Specific fuel consumption 35K/0.8 max cruise	.67	.68
[†] Uninstalled. Sea level flat-rated to 86°E/30°C.		

Milestones

Program launch -8C1	April 1996
First engine to test -8C1	February 1998
First Bombardier CRJ700 airliner test flight	May 1999
FAA certification -8C1	November 1999
Entry into service -8C1	February 2001
FAA certification -8C5	April 2002
Entry into service -8C5	April 2003
FAA certification -8C5B1	March 2005
Entry into service -8C5B1	May 2005
Entry into service -8C5A1	June 2006



imagination at work

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