V-speed designator	Description
V_1	Maximum speed during takeoff at which a pilot can safely stop the aircraft without leaving the runway. This is also the minimum speed that allows the pilot to safely continue (to V2 takeoff) even if a critical engine failure occurs (between V1 and V2).–
V_2	Takeoff safety speed.–
V_{2min}	Minimum takeoff safety speed.–
V_A	Design maneuvering speed, also known as the "Speed for maximum control deflection." This is the speed at which it is unwise to make an abrupt application of any single flight control as it may generate a force greater than the aircraft's structural limitations.–
V_B	Design speed for maximum gust intensity.–
V_C	Design cruising speed, also known as the optimum cruise speed, is the most efficient speed in terms of distance, speed and fuel usage.–
V_D	Design diving speed.–
V_{DF}	Demonstrated flight diving speed.–
V_{EF}	The speed at which the critical engine is assumed to fail during takeoff.
V_F	Designed flap speed.–
V_{FC}	Maximum speed for stability characteristics.
V_{FTO}	Final takeoff speed.
V_H	Maximum speed in level flight at maximum continuous power.
V_{LE}	Maximum landing gear extended speed. This is the maximum speed at which it is safe to fly a retractable gear aircraft with the landing gear extended.
V_{LO}	Maximum landing gear operating speed. This is the maximum speed at which it is safe to extend or retract the landing gear on a retractable gear aircraft.
V_{LOF}	Lift-off speed.
V_{MC}	Minimum control speed with Critical engine inoperative.
V_{MO}	Maximum operating limit speed.
V_{MU}	Minimum unstick speed.
V_{NE}	Never exceed speed.
V_{NO}	Maximum structural cruising speed.
V_R	Rotation speed. The speed at which the airplane's nosewheel leaves the ground.

V_{Ref}	Landing reference speed.
V_S	Stall speed or minimum steady flight speed for which the aircraft is still controllable in the landing configuration.
V_{S0}	Stall speed or minimum flight speed in landing configuration.
V_{S1}	Stall speed or minimum steady flight speed for which the aircraft is still controllable in a specific configuration.
V_{SR}	Reference stall speed.
V_{SR0}	Reference stall speed in landing configuration.
V_{SR1}	Reference stall speed in a specific configuration.
V_{SW}	Speed at which the stall warning will occur.
V_{TOSS}	Category A rotorcraft takeoff speed.
V_X	Speed that will allow for best angle of climb.
V_Y	Speed that will allow for the best rate of climb.

Other V-speeds

Some of these V-speeds are specific to particular types of aircraft and are not defined by government regulations.

V-speed designator	Description
V_{mbe}	Maximum brake energy speed
V_{md}	Minimum drag
V_{mca}	Minimum control speed, air – the minimum flight speed at which the aircraft is directionally controllable. Aircraft certification conditions include the most critical engine becoming inoperative and windmilling (propeller unfeathered), not more than a 5 degree bank towards the operative engine, takeoff power on the operative engine, landing gear up, flaps in takeoff position, and most unfavorable center of gravity. Defined by FAR Part 25.149, in the United States.
V_{mcg}	Minimum control speed, ground, with nose wheel steering assumed inoperative
V_{mcl}	Minimum control speed, approach and landing
V_{me}	Max endurance
V_{mini}	Minimum IFR speed for helicopters
V_{mp}	Minimum power

V_{mr}	Max range
V_{nd}	Max structural cruising speed
V_{p}	Aquaplaning speed
V_{ra}	Rough air speed
V_{s1g}	One g tall speed
V_{sse}	Safe single engine speed
Vt	Threshold speed
V_{tmax}	Max threshold speed