

Electric Fan

Vehicles with M62TU, S62 and M73 engines feature a viscous fan as well as an electric fan. The electric fan cuts in when the cooling capacity of the viscous fan is no longer sufficient.

The electric fan is activated by means of a power output stage directly on the fan motor. The motor control unit activates this power output stage by means of a square-wave signal with duty factors (variable pulse width) between 10 % and 90 % thus controlling the various speeds of the electric fan. Pulse duty factors less than 5 % and greater than 95 % do not trigger activation but rather they are used for fault detection purposes. The power output stage features its own positive and ground supply.

The fan speed is influenced by the coolant temperature at the radiator outlet and the pressure in the air conditioning system. The fan speed is reduced as the vehicle speed increases.

If a fault occurs during operation a corresponding fault code will be stored in the fault code memory of the DME control unit.

For the purpose of checking operation and troubleshooting, the diagnostic program offers the option of activating the electric fan directly via the DIS tester/MoDiC.