

Ambient Temperature

The ambient temperature of the fan is the temperature of the media it is handling. With external rotor motors it is also the same temperature as the motor is located in the air stream. With motors mounted outside the fan housing the ambient temperature for the motor is the temperature of its surroundings. Assuming the ambient temperature for the fan is the same as the applications' surroundings can be misleading as often the fan is incorporated inside the application and is subject to higher temperatures, for example it could be located after a heater and will therefore be subject to a higher temperature.

Manufacturers data sheets specify a maximum ambient temperature for the fan. However the temperature rise of the motor will change with the load from the fan that will change with different duty points. If fans are to be operated near to its recommended maximum it is wise to check the motor temperature rise in the installed position to confirm that the motor is not being thermally overloaded.