BREEAM 2018 rating system

Ene 06 Energy efficient transportation systems

Ideal Lifts Ltd range of traction drive passenger lifts can help your project to achieve a BREEAM rating by achieving Two BREEAM credits, by providing energy efficient lifts demonstrating compliance to the following:

This issue is split into two parts:

- Energy consumption (one credit)
- Energy efficient features (two credits)

One credit – Energy consumption

1. For specified lifts, escalators or moving walks (transportation types):

a) Analyse the transportation demand and usage patterns for the building to determine the optimum number and size of lifts, escalators or moving walks. (To be provided by client/design team)

b) Calculate the energy consumption in accordance with BS EN ISO 25745 Part 2(132) or Part 3(133) for one of the following:

i. At least two options for each transportation type (e.g., for lifts, hydraulic, traction or machine room less (MRL). **OR**

ii. At least two options considering different system arrangements and control strategies.

c) Consider the use of regenerative drives, subject to the requirements in **Regenerative drives**** detailed below.

d) Specify the transportation system with the lowest energy consumption.

Up to two credits – Energy efficient features

2. Achieve criterion 1 above.

One credit – Lifts

3. Specify the following three energy efficient features for each lift:

a) The lift car lighting and display lighting provides an average luminous efficacy across all fittings in the car of > 70 luminaire lumens per circuit Watt

b) Use of a drive controller capable of variable speed, variable-voltage, and variable-frequency (VVVF) control of the drive motor.

c) Specify regenerative drives where their use is demonstrated to save energy**.

Ideal Lifts specification includes energy efficient features a), b) and c). Therefore, of the 2 credits available, 1 credit is already assumed.

Transport analysis

The transport analysis (criterion 1.a) can be in the form of a written statement justifying the lift selection for the following conditions:

- where a single lift is provided in a low rise building for the purpose of providing disabled access only
- or where a goods lift is selected based on the size of the goods it is intended to carry.

Regenerative drives**

A regenerative drive should only be considered where it produces an energy saving greater than the additional
standby energy used to support the drives. Regenerative drives will typically be appropriate for lifts with high travel and high intensity use.

What about Machinery Directive lifts?

The BREEAM criteria does not apply to platform lifts, which fall under the Machinery Directive. However, any lifting device that has a speed greater than 0.15m/s must be assessed by BREEAM, this is inclusive of goods and escalators/ passenger lifts.