

FAIRFORD SINGLE PHASE SOFT STARTER GIVES DOMESTIC ELEVATOR OCCUPANTS A SMOOTHER RIDE UP STEEP 125FT LONG SLOPE.



In an unusual application for a soft starter, Allard Lifts Ltd has used a Fairford HFE single- phase soft starter to control an elevator up a steep (24⁰) 125 ft long slope in a private residence at Salcombe in Devon. The starter has been installed to prevent sudden jerking or snatching when the lift control is activated, giving the occupants of the lift a much smoother ride.

The installation of the elevator was necessary to provide entry to a residence that is built on a steep slope right next to Salcombe estuary, but has no access its lower parts. According to Tony Alberici, the MD of Allard Lifts, the application was one of the most awkward encountered by the company; more difficult than a chain-driven system the company had installed some time before. Based in Brixham in Devon, Allard Lift's main business is passenger and goods elevators; however, a growing trend is that the company is increasingly being asked to provide custom elevator solutions.

The length of travel of the Salcombe elevator, the steep slope that it has to climb, and the fact that it has to carrying a motorised wheelchair weighing (400kgs), meant that its design was completely bespoke. It was developed using a Traction wheel system with intermediate bollards, and a Fairford

HFE single- phase soft starter. This unit was fitted to prevent sudden jerking or snatching when the lift control was activated, giving the occupants of the lift a smoother ride.

“I was looking for a solution to the starting problem when I read about Fairford in a magazine,” said Tony Alberici. “I rang them up and an engineer came over and showed me how to use and install them. The service was first- rate and the unit is so good, so simple and reliable: I intend to use more of them.”

The HFE single- phase soft starter is mounted outside in the cold and damp, in a coastal salt-laden climate; nevertheless, it has been operating for some time without problems, and has required no maintenance. At start-up of the elevator, the soft starter applies a reduced voltage to the single phase motor, reducing its inrush current and minimising shock loading. The starter then gradually raises the voltage, resulting in a smooth acceleration to full speed.

“The lift has been, and continues to be, 100% reliable,” said Tony Alberici. “We are proud of the control that we have achieved over such a distance. As evidence of this the lift can be stopped at any point on its travel with perfect stability. At the halfway point, the lift can even be used as a platform for removing debris from the house guttering, which shows just how steep the slope is!