Tesla reported a record quarter on Wednesday, and investors responded with a sell-off.

The automaker said it delivered 63,150 Model 3 sedans in the fourth quarter, 13 percent more than in the third quarter. But even that gain fell short of some analysts’ expectations.

The growth rate was also well off that of the third quarter, when Model 3 sales more than doubled amid a rush of initial orders as Tesla began high-volume production of the car, on which it has staked its future.

And even while the fourth quarter brought overall sales of 90,000 for the first time, the company said Wednesday that it was cutting prices of all models by $2,000 per car. It said the move was meant to partly absorb the reduction of a federal electric-vehicle tax credit for Tesla buyers. But it could also signal that Tesla is trying to insulate itself against softer demand now that it has satisfied the early orders for the Model 3, its first mass-market offering.

“The debate is where U.S. demand will be after the initial wave” of buyers, said Brian Johnson, an auto analyst at Barclays Capital. “We have been expecting a lull in the first quarter, or maybe even the first half.”

Tesla shares ended trading nearly 7 percent lower.

The sales figures were a report card on a year in which its chief executive, Elon Musk, said, “We’ve gone from production hell to delivery logistics hell.” For the first six months of 2018, Tesla struggled to work the kinks out of its Model 3 production lines, and at times was unable to make more than a handful per day.

Mr. Musk acknowledged the production system relied too much on automated machinery that was ill suited to certain precision tasks and had to be removed and replaced by human workers. The company also set up a third assembly line in a giant tent outside its factory in Fremont, Calif. Finally, in the second half of 2018, its average weekly production rose to more than 4,000 cars a week, although that was still below its target of 5,000.

Tesla ran into trouble delivering the thousands of cars that were rolling off its assembly lines, leaving hundreds of new Model 3s parked in inventory lots in California and other states as the company scrambled to match cars with customers and ship them across the country. Mr. Musk
said at one point that Tesla was beginning to make its own auto-hauling trailers to speed deliveries, and later asserted that the company had acquired three trucking companies, although Tesla has not released their names or any details of the transactions.

Despite the difficulties, deliveries soared in the third quarter, and the company reported a profit of $312 million, easing concerns about its finances. And even with the decline in Tesla’s shares Wednesday, investors still give the company a higher market value than any of Detroit’s established automakers.

In the fourth quarter, Tesla rushed to ship as many cars as possible to ensure that customers could take advantage of the $7,500 federal tax credit for electric cars that was available to Tesla buyers. Under the rules of the program, the credit begins to phase out two quarters after a manufacturer's cumulative sales reach 200,000 electric vehicles. Since Tesla crossed that threshold in July, the tax credit available to Tesla buyers fell to $3,750 on Jan. 1. It falls again on July 1, to $1,875, and ends on Jan. 1, 2020.

General Motors is also about to see the credit scaled back for its customers. G.M.’s cumulative sales of electrified vehicles rose in December to more than 200,000, according to a person briefed on the matter. As a result, buyers of the battery-powered Chevrolet Bolt and hybrid Chevy Volt will qualify for the full tax credit only until March 31.

Analysts will be watching closely to see if the halving of the federal tax credit slows the growth rate of Model 3 sales further in the first quarter. They said the fourth-quarter growth rate was modest, given Tesla's rush to deliver cars before end of the year, and the incentives it offered to entice buyers.

The company reported that only 1,010 Model 3s were in transit to customers at the end of the quarter, down from more than 8,000 on Sept. 30. At the same time, deliveries of Tesla's other two cars — the Model S luxury sedan and the Model X sport-utility vehicle — were flat in the fourth quarter, raising questions about demand for those vehicles.

“Sustainability of Model 3 demand is likely to emerge as key investor question,” Toni Sacconaghi, of Sanford C. Bernstein & Company, wrote in a note to clients.

Over all, Tesla delivered 90,700 cars in the fourth quarter, up 9 percent from the third quarter. Production rose 8 percent to 86,555 vehicles, including 61,394 Model 3s. For the full year, Tesla sold 245,240 cars, an increase of about 100,000 from 2017.