

# PROFESSIONAL REVIEW

# B3 Electric saves time, improves safety, builds reputation with Fluke Power Monitors

**Job role:** Founder and President

**Company:** B3 Electric, LLC

**Tools:** 3540 FC Three-Phase Power Monitors®, Fluke Connect® Condition Monitoring software

## Key benefits:

- Reduced troubleshooting time
- Enhanced safety
- Power savings
- New revenue sources
- Better customer service
- Enhanced reputation

B3 Electric (B3) serves primarily industrial customers in automotive-based manufacturing. John Baker, President of B3, had a clear vision of what he wanted to create when he launched the company in 2013.

“Our customers want quality, documentation, professionalism and the very best of what they can get, in a very organized way,” related Baker. “So, that’s what we try to offer.”

The company conducts electrical troubleshooting for customers where a meter is required. For example, customers face many issues, such as a variable frequency drive (VFD) for a motor operating outside normal parameters. The technician would replace the VFD, but failures would continue.

“If you don’t have a meter plugged in, you’re not going to catch that, even sitting there watching it,” Baker explains.

## A great buying experience

In the past, Baker used inexpensive, single-phase, remote meters that monitored two legs of the power stool but not with great accuracy. In mid-2017, he called his supplier’s tech support to figure out which piece of equipment would be best for B3. They put him in touch with a sales contact at Fluke.

“We talked about several different models, including the 3540 FC,” related Baker. “He sent me data on all of them and called to follow up. He pointed out key areas where one stands out and where another model excels. It was a great buying experience.”

The Fluke 3540 FC Three-Phase Power Monitor met Baker’s criteria to capture voltage, current, power factor and frequency issues.

“We could get remote notifications, develop reports, export data, make graphs and trend improvements as we made changes onsite,” Baker reported. “That’s everything we were looking for.”

## A piece of cake

Shortly after purchase, Baker received an email from Fluke instructing him to call when he received the tool. “[Hannelore] Arno walked us through setting up the asset we were going to test, how to put in the alarms and how to connect it to our Wi-Fi source,” Baker related. “It’s a piece of cake to set one of these up.”

“A lot of the factories don’t want you on their networks, so we take our own Wi-Fi hot spots, plug in our meter and hook it all up,” he continued. “It takes 2 minutes to get it all set up, and its off and running.”



“We want to be the premier electrical contractor with a reputation for quality, accuracy, knowledge and dependability. Our partnership with Fluke really helps us reach that goal.”



## Flexibility and performance

With the 3540 FC Power Monitors, Baker can set under- and over-voltage or current parameters. When the asset operates outside the predetermined parameters, he receives push notifications on his phone. He uses his two meters in different ways:

- A customer may be trying to improve efficiency with a 25-horsepower motor on a piece of equipment. He hooks one 3540 FC on the circuit that feeds the motor and one on the whole building.

"We could see that it's getting a large current spike from the motor starting, identify how it affects the rest of the system and make recommendations," explained Baker. "After we install the new equipment, we can monitor it again to show the improvements that we've made."

- B3 installed a 1,600-amp UPS system at the state data center last year. Baker connected a 3540 FC and watched the voltage. The current stepped down during equipment shutdown. As he brought the new equipment online, he watched to see that the new uninterruptible power supply was consistent and maintained the voltage.
- Baker also uses the power factor and frequency measures on the monitors and reviews the data depending on the application. He has found that the 3540 FC monitors are good for quality control as well as identifying issues and fixing them.

After 10 months of usage, he's happy with his purchase. "The 3540 FCs have performed very well," he said. "We've had a few questions and the support has been incredible. They sent out a firmware update to all of us and that was great, too."

## Fluke Connect

Baker loves the easy-to-use alarms and reports in the Fluke Connect App. He had one customer with a large piece of equipment that was causing other equipment to shut off. He hooked up a 3540 FC to send him alarms.

"I didn't have to be onsite," he said. "The [monitor] was there doing its job, and it let me know when an issue arose. It would even email me a snapshot of the graph, and I could shoot that to the customer and say, 'There's something going on now. Let's look at the conditions.'"

With Fluke Connect, Baker simply hooks up the power monitor, leaves it and watches the readings on his phone. "I've used Fluke Connect on my phone, tablet and computer," he remarked. "It's very handy."

## Reduced troubleshooting time

Baker and his employees now work more efficiently with their 3540 FC Power Monitors and Fluke Connect Condition Monitoring software. With other data collectors, you might have to leave the meter onsite for a few days, then go back to pull the data.

"The disadvantage there is that no one can recall a week later what was going on Wednesday at 2:00 pm when a big current spike was recorded," related Baker. "Having the information right now is extremely valuable. [The condition monitoring software] saves us a ton of time and cuts down on the number of onsite trips."

## Enhanced safety

Remote monitoring also increases worker safety. "It's dangerous any time you're working around electricity," cautioned Baker. "You really have to be careful. Having the remote monitoring capacity gives you the ability to put the 3540 FC in a dangerous area, but you don't have to physically be there in arc flash gear," he continued. "You just slip a [monitor] in there and watch it from somewhere else."

“Having a Fluke 3540 FC Power Monitor is like working with a knowledgeable friend who you can lean on when you need the answers. It's a great tool to have.”

**-John Baker, President, B3 Electric, LLC**

## Customer power savings

If B3 would like to conduct an energy savings project for a client, Baker can use the 3540 FC to monitor and log power factor for energy savings proposals.

"We can say, 'If you upgrade your motor controls to this, it's going to increase your efficiency this much, maybe even lower the demand factor with this utility provider,'" explained Baker. "The 3540 FC helps us find a lot of power savings for customers to justify equipment sales."

## New revenues and better service

Baker now offers revenue-generating diagnostic services that he could not before. "It opens up whole avenues of services that we can offer," he said. "We move the monitors around a lot — they don't stay on one system more than a week at a time — and we bill that as a separate service."

"The 3540 FC takes all the guesswork out and the replace-parts-and-hope-that-fixes-it mentality," he added. "Because, you're actually finding an issue and identifying [the source]."

## Enhanced image and reputation

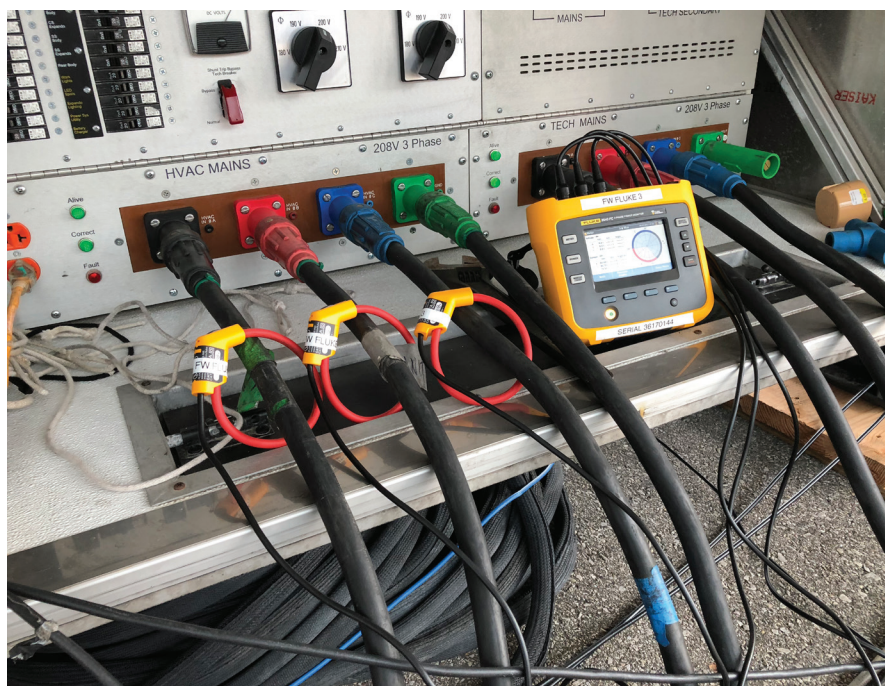
When a customer tells Baker, "We suspect that we have a power issue; what can you do to help us identify that?" he has a ready response. "I'm always very proud to say, 'I have these two really cool meters from Fluke that I'll hook up to remotely monitor your power.'"

He can monitor the environment, provide data trends, even add members of the factory's maintenance team so that they receive the push notifications. It all helps to build his business.

Baker concludes, "When you're trying to get your image across or help a potential customer understand who you are and the quality of work that you do, showing them that you have equipment like the 3540 FC really says a lot for the company."

### 3540 FC Three-Phase Power Monitor measures:

- Single or three phase loads
- Voltage, current and frequency
- Power including active power (VA), non-active power (var) and power factor (PF)
- Total harmonic distortion (%)



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