



This review will be in two parts. In the first part, I focus on explaining the products in detail and provide some background information pertaining to some of my personal experiences and in part 2, I will report my listening impressions. If you are in a hurry, you can skip to part 2



GigaWatt LC-Y EVO 3X4 In-Wall Cable

The LC-Y EVO 3X4 is a proprietary GigaWatt design made up of three solid core 99,997% pure copper (OFHC C10100) conductors with a 4mm² cross-section each. The conductors are subdued by an annealing process, which allows them to gain a uniform structure and better conductivity.

The conductor insulation material PK90AT28 has a very low dielectric constant. Covering these is another layer of insulation made of a transparent TPV56 polymer with very good damping properties. The twisted wires are protected by a static shield, made from aluminum-polyester foil with an internal, tin covered copper flow wire. The tight construction of the static shield covers 100% of the surface of the cable, perfectly protecting against all kinds of EMI and RFI external interference. In addition, the shield prevents the receptibility to and spread of internal interferences. The cable is finally covered with a flexible, but very durable protective GA 70AT03 insulating sheath.

The cable is designed to be used in concealed and surface mount installations in dry and wet rooms as well as directly on concrete. The cable is also approved for usage in external installations, under the condition that it will not be exposed to direct sunlight or is placed inside cable channels.



GigaWatt G-C16A 2P Circuit Breaker

The GigaWatt G-C16A 2P is a 2-pole circuit breaker manufactured in the USA by Carling Technologies according to GigaWatt specifications. The 2-P version under review here has contact pins for phase and neutral which are both switched. The circuit breakers are specially designed to handle instantaneous starting current (Hi-Inrush). When a big amplifier is turned on, the in-rush current can be up to 10-20 times higher than the current consumption during normal operation. This high inrush current often causes the contacts in fuses and circuit breakers to burn over time and consequently be damaged.

Gigawatt comments that the fine copper or silver wire inside an old-fashioned melt-wire fuse (“smeltzekering” in Dutch) supposes a resistance to the current flow, which is something that does not happen with the GigaWatt circuit breaker. It is certainly true that this type of fuse always contains a very thin wire, irrespective of the material that it is made of. In addition, such fuses are said to heat up in use which makes them especially sensitive to the aforementioned instantaneous peak current and this can cause the fuse wire to deteriorate over time. Regular automatic circuit breakers, on the other hand, are negatively noted due to their poor contacts which can cause micro arcing.

The casing is made from high rigidity-black phenol-formaldehyde resin, which in the old days was used as the basis for bakelite, to prevent deformation and thus ensure that the contacts remain flat and in perfect contact with each other. The unit is fireproof, melt-proof, antistatic and has a low electric and heat conductivity. The main contact elements are made from silver with a large contact surface. The other supporting conductive components are made from

copper and have a large cross-section. The coil itself is made from thick, copper wire, which does not cause any throttling or losses.

How it works

The GigaWatt hydraulic-magnetic switch contains an induction coil that generates a magnetic field proportional to the current flowing through it. After exceeding a certain current value, the magnetic field causes the switch to disconnect precisely at the right time. The coil system contains a core moving in a non-magnetic tube filled with a special, oily fluid with a specific density which allows for precise regulation of the delay characteristic and thus the switching-off process. The switch is designed to ignore swift, peak load changes, which would trigger standard protection, and activates only when safe values are exceeded.

The Circuit Breaker can be mounted on a standard DIN rail, and it can be connected with bare wire or spade connectors.

GigaWatt G-044 Schuko Wall Socket



The G-044 Schuko is a high-quality in-wall power socket with an internal chassis made for GigaWatt by German company Merten. The installation wire inlets are silver-plated. The internal contact materials are made from brass and their surface is protected against oxidation (with what seems like a Nickel-plating). A powerful contact and large connection surface with a width of 10mm guarantee a perfect connection with the schuko plug pins. Additionally, the connectors are cryogenically treated and de-magnetized. The faceplate is made from solid, anodized aluminum with a 6mm thickness. The G-044 Schuko socket as pictured above is also available in a dual-version which is the one that I will test here.

Earlier experiences

Before moving on to the listening part, I want to share some of my recent experiments with the power section of my system which will set the stage for what's to come with the GigaWatt products.

Until recently, the audio equipment in my current apartment was fed from the regular wall socket rather than via a separate audio group. This was done because past experiences in a different apartment some 10 years ago using XMVK 2,5mm solid-core double-isolated outdoor installation cable lead to a sound that I found to be dynamic and powerful and with great solidity but overall too dull and too dark, after which I returned to using the apartment's standard wiring and basic outlets. While this sacrificed a considerable portion of solidity, at least the sound remained open, communicative and airy.

It wasn't until now that I gave this a second thought. As part of this GigaWatt review, I have dug up the very same cable as I used back then to give it another run in the context of this review.



Left: old-fashioned wire nuts, Right: modern snap-in connectors

For Dutch mains installations, the power from the main access point in the utility box is distributed over the apartment via the ceiling and from there wired down to the wall outlets. Additionally, the cables are interrupted in each of the light fixture outlets that the cable passes along the way. After noticing that these connections were all done using modern “snap-in” connectors I decided to replace the ones of the nearest ceiling light fixture point for old-fashioned wire nuts (“lasdoppen” in Dutch).

This made a large difference: more solidity and a more powerful and dynamic sound, more sonorous bass and a less nervous midrange and treble. This was quite surprising given that the

cables of this group were still powering pretty much everything else in the apartment, including a mix of several halogen- and LED lights.



Inside the snap-in connector: notice the small contact area? Additionally, the cable end is clamped to the conductor with only very moderate pressure and it stays in place only because the clamp is made such that it cuts slightly into the copper. This allows the wire to rotate freely but not flip back out.



After this unexpected initial success, I proceeded to do the same for every other ceiling light fixture point that was in between the audio system's outlet and the origin in the utility box. This did lead to further improvements but of decreasing magnitude.

After this, I decided that I should install a separate cable without any interruptions. In order to make this more interesting, I ran a separate and uninterrupted length of the exact same cable type as was inside my ceiling and walls as well as a newly-purchased uninterrupted length of the XMVK double-isolated outdoor installation cable that I used 10 years ago in the previous apartment and did not like at that time. This way, I could check if the differences heard then were due to the separate groups or the cables themselves.

Getting to the point

This finally takes us to the point of this review, the GigaWatt products. As should be very clear by now, bad connections are clearly audible even if they occur many meters away from the system. And given that I have taken it as far as I could using standard materials finally sets the perfect stage for assessing the GigaWatt cable and accessories.

The Setup

In order to allow individual and repeated comparisons over a longer period of time, I installed all the GigaWatt products completely independently and separately from the existing infrastructure. The GigaWatt Circuit Breaker was installed in a vacant slot in the apartment's standard utility box, fed internally by the exact same 2,5mm² solid-core cable that feeds the standard Circuit Breakers. Similarly, the GigaWatt cable In-Wall was installed in parallel with the other audio groups, not inside the wall, but for this test, simply over the floor.

As an extra, I installed (also over the floor) a run of XMVK double-isolated 2,5 mm² solid-core outdoor installation wire which is the same brand and type of cable that I used 10 years ago in the previous apartment and did not like at that time, just to see how it would behave now.

Along with the pre-existing uninterrupted run of regular 2,5 mm solid-core installation wire that I installed earlier (partially inside walls and partially inside cable trays) I normally use for the audio group, this leads to three different cables to compare, all in parallel and using individual, same-type, standard schuko socket outlets, in addition to the apartment's standard in-wall cabling.



For all comparisons in this review, all the components in the audio system are powered from two fairly standard aluminum-case extension blocks which are connected to the audio group's double schuko outlet via individual runs of regular 2,5 mm² solid-core installation wire terminated with two Bals Schuko connectors.

To recap, installed in parallel are the following:

- Pre-existing, in-wall apartment wiring, 2,5 mm² solid-core, interrupted in 3 places but connected with proper wire nuts.
- 14m of uninterrupted 2,5 mm² regular solid-core installation wire (same type as above, partially in-wall, partially in cable trays)
- 14m of uninterrupted XMVK double-isolated 2,5 mm² solid-core outdoor installation wire (over the floor)
- 14m of uninterrupted GigaWatt LC-Y EVO 3X4 cable (over the floor)

Kick-off

I will be kicking off the GigaWatt review by comparing the LC-Y-EVO cable to 3 other cables, starting at the apartment's default in-wall cabling. For this first part of the test, the GigaWatt

G-C16A 2P Circuit Breaker and G-044 Schuko outlet are not yet used. Instead, the above cables are used one by one using the apartment's default automatic circuit breaker and basic schuko outlets.

For assessing the cables, I used various audio components in different combinations. The main components are the [Antipodes CX+EX](#) Music Servers, [Jay's Audio CDT-2 MkII](#) and Aqua La Diva CD transports, [CH Precision L1](#) preamp, [CH Precision C1](#) and [Aqua Formula xHD](#) DACs and Magico S1 MkII and [Martin Logan ESL15A](#) loudspeakers.



From top to bottom: GigaWatt LC-Y-EVO in-Wall cable, XMVK double-isolated 2,5 mm² solid-core installation wire and 2,5 mm² regular solid-core installation wire



The cables were compared using identical standard outlets

2,5 mm² solid-core installation wire

As I explained in part 1, after having replaced the snap-in connectors in all the ceiling light fixture points of the current apartment's existing wiring with proper wire nuts, the sound had become more solid and more powerful with more sonorous bass and a cleaner and less nervous midrange and treble. It would stand to reason that the separate uninterrupted 14 meter-cable would have doubled down on the aforementioned effects but the changes actually occurred in different areas. It was not any more impactful or more dynamic but the definition had certainly improved. What I heard most was a certain cleanness and calmness and a lack of subtle grunge that made soft sounds and subtle decays stand out more.

Since the uninterrupted cable is exactly the same type as the apartment's standard in-wall cable and the wire nuts allow the cables to connect directly rather than via a strip of metal, I would assume that the major causes for the observed differences are the various LED- and Halogen transformers as well as all the other equipment in the apartment that is connected directly along the way of the very same cable. In the case of the uninterrupted separate cable run these sources are of course ultimately still connected in the utility box but via a detour of over 30 meters and, apparently, that makes quite a difference.

XMVK double-isolated 2,5 mm² solid-core outdoor installation wire

Before finally getting to the GigaWatt cable I have the XMVK double-isolated 2,5 mm² solid-core outdoor installation wire another shot. If you recall, this is the cable that I found not to work well in my previous apartment. As it turns out in this setup as well, this cable sounds very dull. It's slow, dark and thick and dynamically restrained. Worse, it is the antithesis of lyrical. Maybe it would work relatively well in a very aggressive system but I would definitely not want

to use it for a well-balanced system. So, as it turns out, the issue back then was not with the separate audio groups but with the cable that I used!

Of course, one can question why this cable can sound so dire, if its core conductors are very similar, maybe even identical, to those of the standard in-wall wiring. Well, personal experience shows that insulation materials have a huge effect on how a conductor sounds. This cable uses three layers of low-grade plastic of which the outer two are very thick and very likely of the sort that stores energy and returns it with a delay. It is not a coincidence that fast-sounding cables often use PE or Teflon or similar higher-grade plastics.



GigaWatt LC-Y EVO 3X4 In-Wall cable

The GigaWatt cable has an earth, a shield and a drain wire. As per normal connection methods I connected the earth on both ends but the drain wire and shield only on the source end in the utility box.

Having changed from the in-wall cable to the separate uninterrupted run of standard installation cable was certainly audible but relatively subtle. The change to the GigaWatt cable, however, was *far from subtle*! Tonally, the cable is very well-balanced, the antithesis of dry and relatively rich-sounding but not at all soft or smeared. The sound had become slightly more relaxed than with the standard installation wire but it was so much more refined and so much more involving, it's uncanny. It's as if the sun had suddenly started shining during a previously sober day. The entire delivery is sweeter, lusher and airier, much more organic and incredibly lyrical.

While richer and more relaxed and more organic, the sound remains dynamic. Soft sounds are soft and gentle and clearly articulated and loud sounds come across with full force yet never in an in-your-face manner. The treble is considerably more refined with lots of subtlety and air. It's not smoothed, there is actually still very good percussive definition but now also seemingly eternal decay. The bass, however, is slightly more voluptuous and therefore also slightly less

spritely and articulate than with the standard cable but here, too, the GigaWatt cable remains well-balanced, providing the extra fullness without becoming ill-defined or slow. Vocals gained an increase in focus and localization and feel close without being in your face. Finally, the soundstage now extends much more backward behind the speakers as a large bubble with much more clearly defined, more palpable and better-separated sounds within it.

Going back to the uninterrupted 2,5 mm² solid-core run of standard installation wire made for a sobering moment as the sound had suddenly lost its organic nature and most of the rich and vivid tonality to make for a comparatively scanty, dry and gray sound. The resolution was not diminished and it was actually tighter and more articulate but *a lot* less refined. Vocals were less well-focused and appeared flatter in the depth plane. Piano still had its characteristic percussive quality but it was like it had lost some of its virtuosity as if the player was feeling a little off.

Wow. There are no two ways about this, is there? Well, despite the overwhelming goodness that the cable brings, as with all cables, it remains a matter of system synergy. Based on my comparisons using various sources and compared to standard in-wall solid-core cable, I'd position the GigaWatt cable on the slightly full-bodied and relaxed side of neutral. And, as it follows, some system matches will be more ideal than others.



The GigaWatt cable turned out to be an absolute blessing when combined with the two relatively lean-sounding Aqua components and the CH Precision L1 preamplifier, either with the Logans or the Magicos. If this were my main system then the GigaWatt cable would have been the single missing link. It's perhaps a little heretical, but in some ways, with the GigaWatt cable in place, I now preferred the 14K-Aqua DAC via the L1 preamp to the 40K-C1 DAC by itself via the standard power cable. Go figure!

When using the relatively fuller-sounding CH Precision C1 DAC (with any source) and the Martin Logans (which is my default system), however, I found that the GigaWatt's more voluptuous sound did not pair ideally. While absolutely more organic and incredible in terms of imaging and emotional involvement, I found myself missing some of the tension and expression that the standard cable provided especially with more upbeat music.

When keeping the system unchanged and swapping from the Magicos to the Logans then the GigaWatt cable was a better match but also with these speakers, ultimately, I found the combination to be less synergistically as with the Aqua combo. However, at this point, the standard cable with its dry and matter-of-fact sound also did not really please me anymore. Now, what to do? Fortunately, GigaWatt would come to the rescue with another product.

Subsequent comparisons

After the above tests, I left all the cables in position and swapped between them over the course of over two weeks and during that time I found that all my observations remained exactly as they were. If any running-in or bedding-in occurred then I did not notice it.



G-C16A 2P Circuit Breaker

Now it was time to listen to the GigaWatt Circuit Breaker. It was installed in the utility box in parallel to the existing Circuit Breakers, fed by the same cables, allowing me to switch the 14-meter cables between the Circuit Breakers.

To prevent mixing up the results I started with the uninterrupted 2,5 mm² solid-core installation wire, not the GigaWatt cable. After having first listened to the system using the apartment's basic automatic breaker and switching to the GigaWatt breaker using the same cable my jaw fell to the floor.

The difference was so much more profound than I had anticipated that I had to switch back immediately just to make sure I had heard it correctly the first time. Yup, I did. Wow! What this unassuming unit did for the sound was bordering on the ridiculous. I mean, from my aforementioned experiments with the ceiling light fixture points I knew that tweaks further away yielded ever-smaller improvements but, somehow, the G-C16A 2P Circuit Breaker did it anyway.



The new audio group is powered not from the adjacent earth leakage circuit breaker but from the second one below it (not visible in this photo) that powers fewer parts of the apartment. The GigaWatt switch may seem large when you unpack it but it fits standard installations after which only a small part of it is visible.

With the GigaWatt Circuit Breaker, the music had more pronounced acceleration and deceleration whereas the default circuit breaker seemed to maintain more of a robotic metronome-like constant tempo. The music was now living and breathing with fuller bass, richer colors and lyricism that had no bounds. The beauty is that there seemed to be absolutely no downsides to the effect as slow tracks were still pleasantly seductive yet fast tracks were speedy and exhilarating. Guitars and all other acoustical instruments were now more realistic and vocals had more breath. No matter what I played the increased “joie de vivre” was always evident.



To a not inconsiderable extent, the G-C16A 2P Circuit Breaker had restored the balance. No, it is not a full substitute for the GigaWatt cable as using the two products combined quickly demonstrates but the Circuit Breaker does offer similar improvements. It provides precisely the right amount of color, fullness and organic texture while retaining an utterly neutral balance. And importantly, the Circuit Breaker turned out to be beneficial in all circumstances and without introducing any drawbacks, no matter the system that was used.

As with the cable, I left the unit powering the system for 2 weeks, just to see if its effect would change over time.

Two weeks in

After having used the Circuit Breaker for 2 weeks I switched back to the regular Circuit Breaker. Well, that certainly settled it! The regular unit was *considerably* grayer and more restrained. Also, dynamically, the regular Circuit Breaker was now decidedly unimpressive. Everything sounded smaller in scale and harmonically-deprived. Subtle sounds were buried in the mix instead of leaping out but worst was that the gray timbre and the dynamic restraint made everything less real and therefore less involving. Yup, that settled it. The G-C16A 2P Circuit Breaker was *definitely* going to stay.



G-044 Schuko Wall Socket

This comparison was done by splitting the audio group's main cables into two spurs (using proper wire nuts) of which one fed my regular wall outlet and the other the GigaWatt G-044 outlet. This way, I could simply swap the two Schuko connectors that lead to my system's two power extension blocks.



Honestly, at first, I was pretty skeptical about the Circuit Breaker, but it totally took me by surprise. Yet, even after having heard how much the G-C16A 2P improved the sound of my system, I was still afraid that the improvements with the Wall Socket, if any, might be too small to warrant the cost.

My regular outlet is an old-fashioned model but specially selected for still having screw-contacts rather than snap-in contacts. Having heard the negative impact of the snap-in contacts in the ceiling light fixture points, I definitely wanted to avoid outlets that use these. Sadly, everything available at the hardware store these days has snap-in connectors, hence the old outlet. But as the GigaWatt socket quickly illustrated, having solid wire connectors is only part of the story.





As with the circuit breaker, the sound became more involving by being more deliberate and better-textured. There was more “life” in the musical presentation but with a tonally full delivery.

The resolution of detail had also improved but without making the delivery analytical or introducing a feeling of artificiality.

There was definitely no edge or hardness but neither was the sound overly polished and certainly not dynamically compacted or less exciting, as can happen with certain high-end connectors and outlets. For instance, the Rhodium-plated and Gold-plated Furutech outlets that I used in the past provided a highly refined and polished sound but at the cost of a measure of propulsion, expression and dynamic impact.

Actually, the bass with the GigaWatt socket had become more incisive and impactful and the pacing more upbeat than with the standard outlet while retaining a very neutral “earthy” and sonorous quality, contrasting strongly with most Japanese specialist high-end brands.



The Schuko Socket is not meant for on-wall fixation but with the help of universal accessories, this is entirely possible.

While the impact of upgrading from a standard outlet to the GigaWatt outlet is not as profound as the difference between a standard circuit breaker and the GigaWatt version, the difference is unmistakable. Perhaps not day and night but definitely the difference between a sunny day and a gray day.

Conclusion

There will always be skeptics who claim that circuit breakers, outlets and power cables could never have any meaningful impact considering the kilometers of standard cable that precedes our installations at home. While that may make sense on a logical level, all my experiments keep showing that everything you do to the electrical system actually does have an audible impact. Sometimes at the level of nuances but oftentimes quite profound.

The reality is that it is impossible for an audio component to make up for the losses that occur upstream in the power delivery. Yes, one could argue that a well-designed device should be able to work perfectly as long as it receives sufficiently low-impedance power with a voltage within its design limits. Some even go as far to boldly claim that any audio component that sounds different depending on the power cable or -connector surely must be badly designed. Well, if that were the case then all the components that I have reviewed over the last 10+ years must have been badly designed.

Nope, take it from me: good power connections do matter. A LOT! And as GigaWatt will gladly admit, that does not mean that one needs to resort to exotic materials with ridiculous price tags. Yes, GigaWatt products are more expensive than standard cables, circuit breakers and outlets but that's only fair as they are custom-produced on a much smaller scale. Ultimately, what matters most is that these products do indeed also provide superior results. Best of all, even the

smallest upgrade will already yield audible improvements meaning that you can start with the Circuit Breaker and work your way up as your budget allows, further improving the performance with every step that you take.

For me, there was no way that I would go back to the old situation and so I proceeded to make the Circuit Breaker and Schuko Wall socket a permanent part of my system.