

Faster safer Universal LV frame from Hiko

Installing low voltage frames on transformers is now quicker and safer with Hiko Power Engineering's new Universal Tank Mount Frame. Designed to be installed safely in less than 30 minutes, the new Universal frame incorporates advanced safety features for installers and operators while improving handling and access.

Hiko Power Engineering's general manager, Geoffrey Sullivan says they have called the new frame 'Universal' because it will fit typical transformers including 100 to 500 kVA Etel Minipads, 200 to 500 kVA ABB/Hitachi Mini Subs as well as the 300 and 500 kVA Tyree transformers now approved by Vector.

Key to installing the new frame and its universal fit is the two-rail system devised by the Hiko engineering team. These stainless steel rails are simply bolted to the mounting bosses on the transformer and the Universal Tank Mount Frame is then lifted onto the rails where the open clamps on the frame make positioning easy. The frame is then secured in place with a long nut driver tightening the spring-loaded clamp bolts.

Sullivan says regardless of the type of transformer delivered to a network contractor's yard, the factory-tested Universal Tank Mount Frame will do the job with no fuss and in record time.

Hiko development and engineering manager, John Spence, says the new Universal frame has been developed after a lot of engineering work on dimensions and materials as well as onsite discussions with network engineers and operators.

"We've added lifting eyes to the frame and two lifting handles on each side to make installation easier. Now you can install the Universal frame in the workshop and it won't shake loose in transport when you pre-mount it on the transformer."

The new Universal frame supersedes the original Hamer tank mount frame with many new features and is standardised on two widths: 800 mm and 900 mm. Its feet are



The new Universal frame can be easily lifted and mounted onto rails bolted to the transformer or bolted to the pad using the detachable legs

both adjustable and removable.

Because of the tank-mounting, there is no need to drill the concrete pad. This speeds up installation, but it can be bolted to the concrete if required.

Spence says the Universal frame is also easier to work on now with the new optional configuration of having the earth and neutral bars separated.

"We've moved the earth to the right-hand side close to the neutral bushing and earth stud, making it easier to connect the earth. This frees up access to the neutral bar for testing and a quicker install.

"We can design the neutral bar to any customer requirement and there are neutral and earth connections available as standard for the installation of accessories. The dis-

connects can be pre-installed with internal CTs and an LV monitoring device."

The new design also provides clearer access to the drain tap for changing the oil. The Universal Tank Mount Frame is available with variants for MEN or PEN networks.

Spence says comprehensive installation instructions with exploded views and animation are available online and can be accessed via a QR code on the Universal frame.

Driving these changes is Hiko Power Engineering's focus on safety. Geoffrey Sullivan says innovations include touch protection, arc flash minimisation, covered bushings and insulated busbars.

"We also carefully calculate busbar current ratings and customer overload requirements to ensure that each product is optimised for its intended use. These features ensure the best possible thermal performance, help prevent accidents and ensure that the equipment is safe to operate.

"This is all part of the Hiko service to make sure you've got everything you need on the pallet when it arrives. We ship the new Universal Tank Mount Frame with all the necessary fittings and bushing cable tails so it is as plug and play as we can make it."

Sullivan says the company appreciates the engagement and feedback from customers during the design process.

"We have used LV cubicle modelling and some 3D prototyping to test and measure a range of indicators and options to help solve customer problems and produce the best result. Launched at the EEA Conference, the new Universal Tank Mount Frame is now available for networks looking to reduce their total cost of transformer ownership." ■

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