

Retrofit and Upgrade Services

# Innomotics Perfect Harmony GH180 Lifecycle Services

**Increase the reliability and availability of your drive with our Innomotics Perfect Harmony Lifecycle Services. Even after many years of operation.**

Aging and wear affect the availability of your variable frequency drives. With our Perfect Harmony GH180 Lifecycle Services, you can ensure the long-term availability of your equipment, even after many years of operation.

With this range of Lifecycle Services, Innomotics offers service programs tailored to the needs of these products. In addition, you can choose to incorporate these programs into a long-term service contract, which means that they are optimally designed to meet the specific requirements of your equipment throughout the lifecycle of your plant.



## Convincing value-adds



### **Increased plant availability**

Lifecycle Services for existing medium voltage converters increase asset and plant availability and ensure safe operation for many years to come.



### **Extended lifecycle for maintenance and spare parts supply**

Minimized downtime during the analysis and implementation phases.



### **Increased uptime and reduced unplanned downtime**

Lifecycle Services for medium voltage converters increase uptime, reduce unplanned downtime, and minimize disruptive standstills during plant operation.

# INNOMOTICS

# Selected services to meet the needs of your converter throughout its lifecycle.

**Our solution is a customized service program that's designed to meet your unique requirements.**

## **Power cell refurbishment**

A power cell refurbishment consists of inspecting, cleaning, and if necessary, replacing capacitors and other components, such as IGBTs and diodes. After refurbishment, the cells are subjected to testing according to Innomotics' test specifications and are delivered to you with a full warranty.

## **NXGPro+ Control Upgrade**

When you upgrade your control system to the latest technology, you benefit from increased spare parts availability and improved performance, including digitalization options. This also minimizes downtime compared to a complete replacement.

## **Spare transformer solution**

Transformers are highly complex devices, and ordering them requires a lead time of up to several months. Innomotics offers spare transformers to ensure fast replacement, maximizing the availability of the drive.

## **Rehosing for water-cooled drives**

Aging and wear of the cooling hoses can affect the availability of your Innomotics Perfect Harmony GH180 drive. We recommend replacing all cooling hoses with new silicone hoses after eight to ten years. Optimization and testing of the hose routing and a health check of the entire system can be performed during a scheduled downtime for maintenance measures – far better than waiting for an unplanned failure of the entire drive.

## **Overvoltage protection**

Upgrading to an RC-snubber filter provides reliable protection against overvoltage. Depending on local conditions, there are three different ways to upgrade protection: A protection component installed in a medium-voltage cabinet, a protection cabinet next to the drive, and a protection component installed in the transformer cabinet.

## **Pre-magnetization upgrade**

To reduce mechanical and electrical stress during drive startup, we recommend installing a pre-magnetization upgrade that significantly reduces inrush current and gently pre-charges the power cells. This reduces maintenance costs and extends the life of the converter.



Take advantage of Lifecycle Services that help your drives to achieve outstanding performance. Explore our solutions with your local experts or online in the Innomotics Portal.

[portal.innomotics.com](https://portal.innomotics.com)

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