



# PRE-EMPTIVE PROTECTION SCHEME

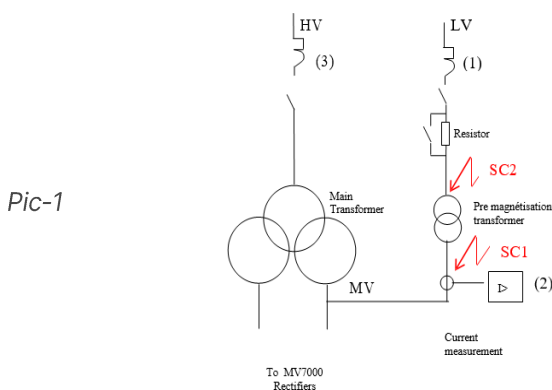
A vigilant formula to safeguard your pre-magnetizing transformer before breakdown.

## Initiation of a wellbeing solution

Pre-charging circuit is one of the vital circuits of MV7 drive system. It contains a pre-magnetizing transformer to limit high inrush currents while starting your drives. Power Conversion & Storage (PCS) – a GE Vernova's business – presents a pro-active safety scheme to protect your pre-magnetizing transformer covering failures occurring in its environment such as leakage current from main transformer, short-circuit on pre-magnetizing transformer LV side, failure in the coil of the pre-magnetizing transformer. These types of failures initiate continuous heat loss thus reduces the lifespan of pre-magnetizing transformer. Hence GE suggests its new safety scheme to safeguard your pre-magnetizing transformer.

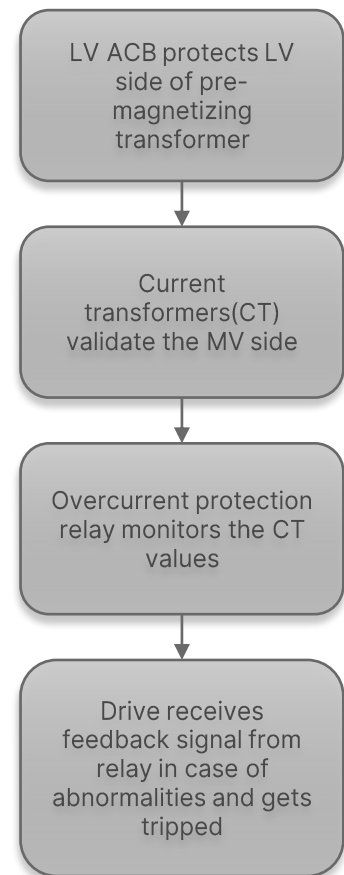
## Protection scheme

The pre-charging circuit gets the supply first, this is called pre-charge cycle, and it comes to offline once the MV drive gets started. In case of any malfunction in MV side, leakage current will flow through pre-magnetizing transformer. To avoid this, a pair of current transformers will be introduced in the MV side and the same is depicted in Pic-1. Let's see the operation through this flow chart.



*During Pre-Charge Cycle*

*After Pre-Charge Cycle*



## Benefits

- Proactive solution helps to detect the leakage currents and prevent your pre-magnetizing transformer from continuous heat loss.
- Aids to enhance your pre-magnetizing transformer's lifespan
- Delivers ease of maintenance by reducing unexpected blackouts.
- Easy to incorporate in your existing drives as it is an add-on solution.

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## The PCS advantage

- Necessary components will be supplied and connected in your existing MV7 drive.
- Required software developments for drive and HMI will be taken care.
- Documentation and schematic updates will be supported after service

## PCS's services for a lifetime

PCS offers bespoke service support in the form of spares and replacement parts, onsite and remote technical support, maintenance services, upgrades, customized trainings and service agreements aimed at supporting customers based on their unique needs.

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