

# Surge Protective Devices OVR NE12 Series - Enclosed SPD Mining and Aggregates

## OVR NE12 Enclosed SPD

Electrical surges can be a real downer. Sherwood Construction's stone quarry in Tulsa, Oklahoma found this out the hard way.

Upstream load switching by the utility was causing surges on the electrical network, having a direct impact on the power quality reaching the quarry. The surges were damaging the crusher, conveyor, motors and drives, causing downtime, loss of revenue and expense to replace the damaged equipment. The quarry manager estimates lost revenue and expenses in excess of \$100,000.

The quarry produces 1.2 million tons of construction aggregate per year, and uptime is the most critical element of the operation. Unplanned downtime creates operational and safety issues as customer trucks back up on site, haul trucks are required to load material from stockpiles and maintenance crews work to bring the operation back online.

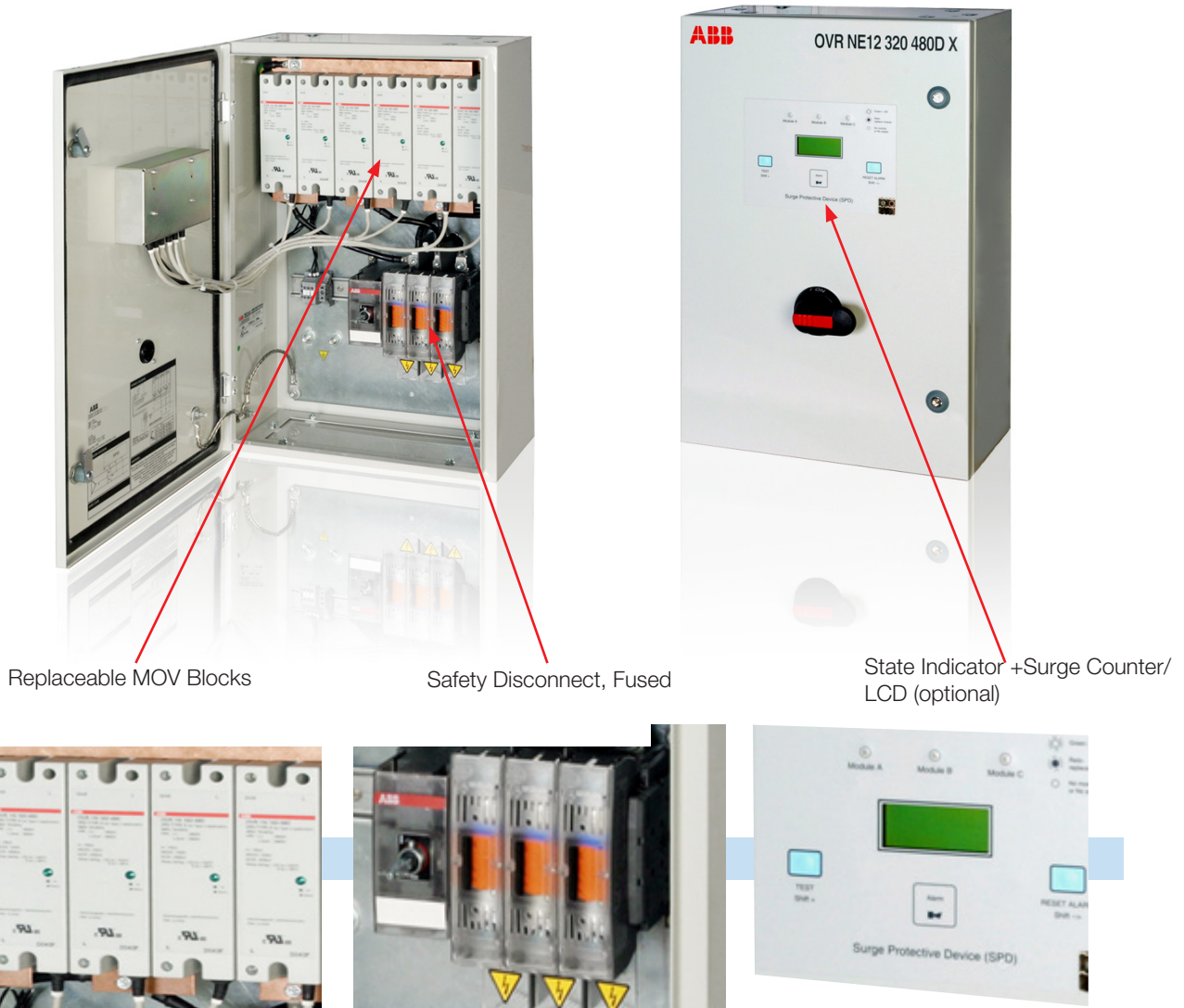
A solution was needed to ensure no further damage and downtime would result from electrical surges. Rep Tech Controls, Inc., the area independent ABB sales rep, and Advanced Industrial Devices, the local distributor, had a relationship with Sherwood Construction, providing the quarry with ABB products such as softstarters, contactors and overloads. They suggested ABB's new surge protective device, the OVR NE12 enclosed SPD. The OVR NE12 was developed to compliment ABB's existing DIN rail line of surge protective devices. It is designed for installation at the service entrance, protecting the entire facility or operation from external surges.

The model selected was the OVRNE12320480DX, to work with the 480V Delta 3-phase network, provide 320kA protection per phase, and come equipped with a surge counter/diagnostic screen. Since the installation of the OVR NE12 unit in mid 2010, the unit surge counter has recorded seven surge events and the quarry has experienced no surge related issues.

The manager of the quarry is happy with the protection the OVR NE12 provides and recommends this type of device to others who require surge protection. "If this piece of equipment (OVR NE12 enclosed SPD) can keep us up and running, and help us produce more material in a given day, then it is successful and helps us reach our goals and be more productive."



# OVR NE12 Enclosed Surge Protective Devices - Type 2



## Protect your investment

Extensive damage and expensive repairs can result from transient surges if surge protection is not present. ABB recommends the installation of the OVR NE12 enclosed SPD wherever uptime is a critical element of a facility or operation.

## OVR NE12 Enclosed SPD

Description	Catalog number	Service voltage	Surge capacity/ Phase (Imax)
OVR NE12 Enclosed SPD, 480V Delta, 320kA, w/ Surge Counter	OVRNE12320480DX	480V Delta	320kA
OVR NE12 Enclosed SPD, 480V Delta, 320kA	OVRNE12320480D	480V Delta	320kA
OVR NE12 Enclosed SPD, 480Y/277V, 320kA, w/ Surge Counter	OVRNE12320277YX	480Y/277V	320kA
OVR NE12 Enclosed SPD, 480Y/277V, 320kA	OVRNE12320277Y	480Y/277V	320kA
OVR NE12 Enclosed SPD, 240/120V Split Phase, 320kA, w/ Surge Counter	OVRNE12320120SPX	240/120V Split Phase	320kA
OVR NE12 Enclosed SPD, 240/120V Split Phase, 320kA	OVRNE12320120SP	240/120V Split Phase	320kA
OVR NE12 Enclosed SPD, 480V Delta, 160kA, w/ Surge Counter	OVRNE12160480DX	480V Delta	160kA
OVR NE12 Enclosed SPD, 480V Delta, 160kA	OVRNE12160480D	480V Delta	160kA
OVR NE12 Enclosed SPD, 480Y/277V, 160kA, w/ Surge Counter	OVRNE12160277YX	480Y/277V	160kA
OVR NE12 Enclosed SPD, 480Y/277V, 160kA	OVRNE12160277Y	480Y/277V	160kA
OVR NE12 Enclosed SPD, 240/120V Split Phase, 160kA, w/ Surge Counter	OVRNE12160120SPX	240/120V Split Phase	160kA
OVR NE12 Enclosed SPD, 240/120V Split Phase, 160kA	OVRNE12160120SP	240/120V Split Phase	160kA

## Features & Benefits

The OVR NE12 is a multistage protector with fast acting varistor (MOV) and EMI/RFI noise attenuation filter to limit overvoltage to values compatible with the sensitive equipment connected to the network. In addition to the OVR NE12, ABB recommends adding OVR DIN rail SPDs at branch panels and equipment, creating a multi-level approach to protection.

## General

- NEMA 12 enclosure
- All mode production (L-L/L-N/L-G/N-G)

## MOV Technology

- 160 or 320kA per phase protection
- Replaceable MOV blocks
- Visual and audible MOV replacement indication

## Surge Counter/Diagnostic LCD Display (optional)

- Count of surges 2kA and higher with time and date
- Percent protection level

## Applications

The OVR NE12 is suitable for protection for all manner of facilities and operations. Here are some examples of operations that would benefit from an OVR NE12 enclosed SPD:

- Critical power (hospitals, data centers, etc)
- Renewable energy
- Water/wastewater
- Communications
- Manufacturing
- Commercial

## Specifications

- Type 2 Surge Protective Device
- UL 1449, 3rd Edition Listed
- NEMA 12 enclosure
- Three service voltages (AC): 240/120V Split Phase, 480V Delta and 480/277V Wye
- 160kA or 320kA per phase protection ( $I_{max}$ )
- Short circuit current rating (SCCR): 200kA
- Nominal discharge current ( $I_n$ ): 10kA
- Dimensions H x W x D (approx.): 24" x 16" x 8"
- Weight (approx.): 40 lbs



# Contact us

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