Case Study



How Piller's Uniblock Rotary 625kVA UPS provided power protection to Europe's largest ever song contest

Piller Rental provided a safeguard to ensure the power was never disrupted and the TV show could be enjoyed by hundreds of millions of viewers

THE OBJECTIVE

The 66th Eurovision Song Contest was hosted at the Pala Olimpico, Turin, Italy in May 2022.

More than 200 million TV viewers watched from all over the world.

Thirty nine countries participated in the competition and Ukraine's Kalush Orchestra emerged victorious scoring 439 points out of a possible 468.

The performance was a major success for the event organisers, the European Broadcast Union.

2022 saw online engagement skyrocketing and despite attempted cyber attacks by pro-Russian hacker group Killnet who targeted the website and voting platform users from across the globe where to access the site and vote.

Supporting the live TV broadcast Piller's power units helped maintain back up protection for the host broadcaster.

THE REQUIREMENT

Live international broadcast events that are one-off in nature have unique power and power back up requirements.

In such projects there can be nothing left to chance when it comes to ensuring that power and power quality is maintained in the run up to and especially during the live event.

National broadcasters experienced in outside broadcast set ups for large cultural, sport and entertainment events will often rely on a standard power and power back up set up. However, when the stakes rise in line with the international scale of an event, no risks to the power feed and quality are acceptable.

Ensuring power is maintained requires planning that starts months in advance when broadcasters establish specialist power teams and partnerships to deploy generators, UPS, and energy storage to provide the necessary power quality, ride through and back up.

THE SOLUTION

For one such an event Piller provided a Uniblock Rotary 625kVA UPS to support audio, video, lighting, and transmission equipment with clean conditioned power as well as adding an extra layer of power back up. For the event broadcasting live across 3 nights the power draw for the stage lighting and transmission equipment is in excess of 1.5MW.



Working with partner Aggreko, the Piller UPS was deployed at a site where power generation is composed of 6x600kVA genset units supplying the Uniblock Rotary UPS which provides the required frequency and voltage power quality to the vital production and broadcast equipment. The UPS is backed by 500kW of battery back up to provide an additional 10 minutes of reserved power on top of the existing back up in the case of a power loss emergency.

With every Piller system thoroughly inspected prior to dispatch the UBR625 UPS preparation was done by experts in Germany and transported to the venue in April 2022, six weeks prior to the live event. Piller field service engineers commissioned the unit and the UPS was in operation mode of over one month. Piller's containerized UPS rental services include transportation, offloading, installation, and the connection.

Piller UBR UPS features include:

- Redundant on-board power supplies
- Leading and lagging output power factor without derating
- Unlimited crest factor and 100% load step capability
- Inherent fault clearing ability for short circuit faults without bypass
- Very high efficiency
- Virtual unity input power factor
- Natural sine-wave output
- Highest reliability in its class

Such features are designed to provide assurances and confidence that the power quality, ride through and back up is available to support a high pressure environment requiring temporary infrastructure. This includes the variable power needs of a vast range of equipment used in a dynamic live broadcast. Every year Piller supplies temporary power back up, protection and conditioning for a host of major sporting, cultural and entertainment events.





Nothing protects quite like Piller.

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