Adaptability with one relay as network conditions change

AQ-ONE is flexibly packaged and optimized for power systems up to 150 kV, while also offering a powerful and reliable solution for higher voltage grids depending on the application.

One software

Every AQ-ONE relay operates on the same firmware and follows the same operating principles. This ensures a uniform user experience, no matter which hardware size you choose.

- Same logic and behavior in every device
- Extensive function packages that include everything typically needed for each application
- The relay's functionality can be expanded at any time by adding optional function packages

All AQ-ONE relays are configured, set, and commissioned using a single tool — AQtivate — ensuring a consistent engineering workflow and reducing training needs for maintenance staff.

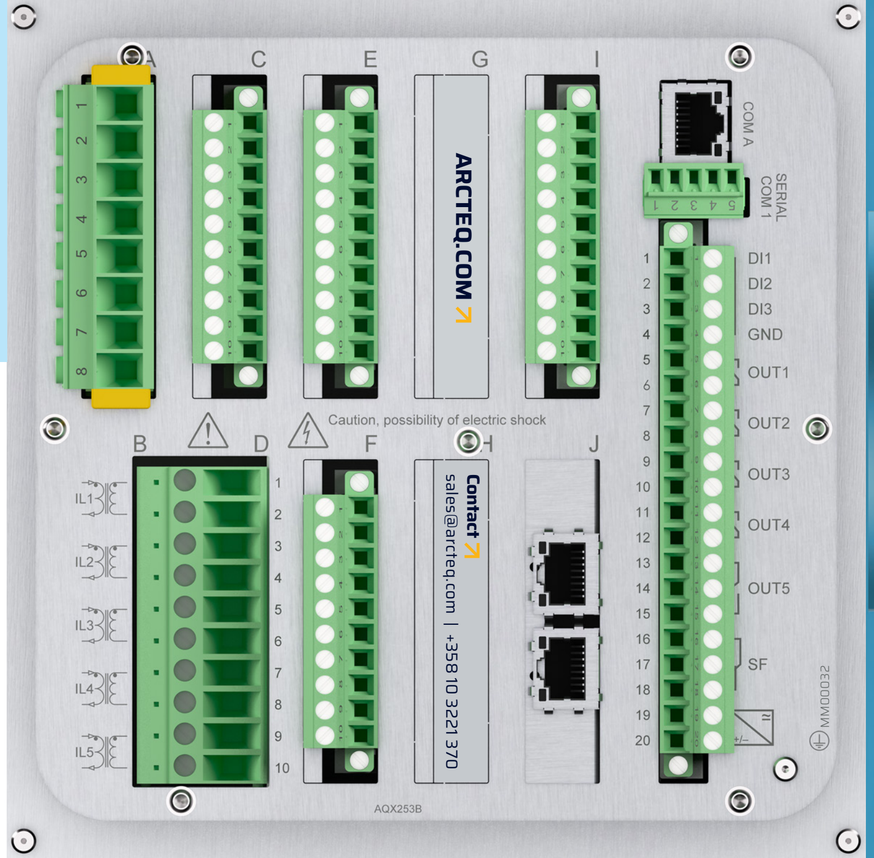
One hardware – three sizes

AQ-ONE is built on a single hardware concept and available in three mechanical relay sizes.

- This lets you choose the relay size that fits your space and I/O needs, ensuring you only pay for what you use
- With AQ-ONE you always have the right spare parts in stock. The cards are fully compatible between the hardware variants

A UNIFIED CONCEPT WITH TRUE SCALABILITY

READ MORE
arcteq.com/AQ-ONE



AQ-ONE is everything in one

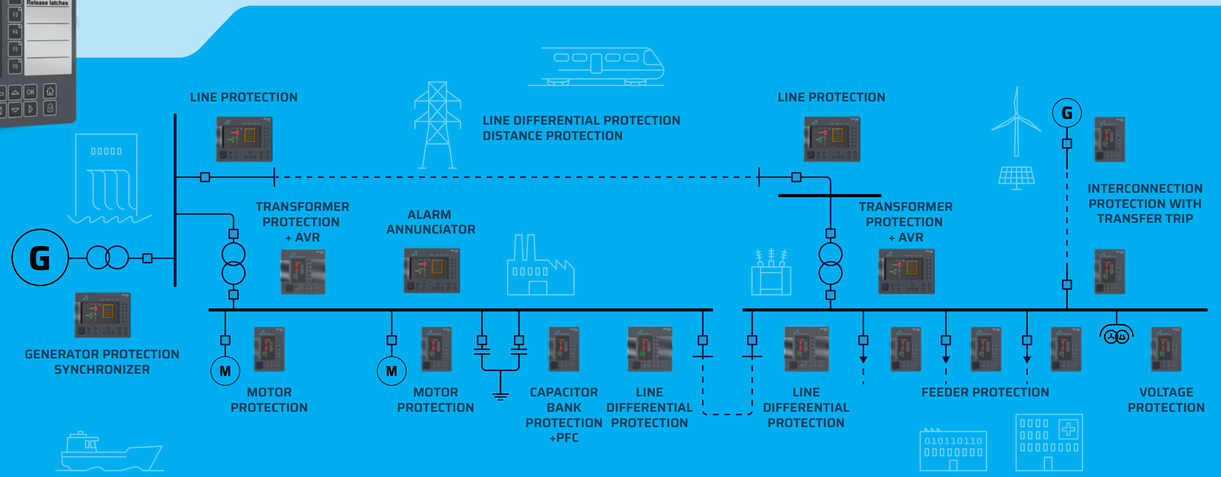
AQ-ONE is the one product designed to meet your every protection and control need — a unified concept with true scalability. One software environment defines functionality and configuration, while a single hardware platform — available in three mechanical sizes — enables cost optimization and ensures a perfect fit for any installation.

Unlimited applications

AQ-ONE offers function packages for a wide range of protection applications, including line differential and distance protection. Each package can be tailored to deliver the exact functionality your application requires. And as needs evolve, you can upgrade or switch function packages at any time to meet your new requirements.

AQ-ONE protection and control relay is both new and proven. Built on the foundations of the AQ 200 series, it carries forward the same strengths.

- Inherited accuracy of power and energy measurement with up to 0.2% inaccuracy, throughout the frequency swipe of 6-75Hz. This makes AQ-ONE the most accurate protection relay in the world
- Extensive selection of communication protocols always included
- Built-in cyber security in compliance with IEC 62443-4-2 Security Level 1



PROTECTION FUNCTION PACKAGES

Feeder protection	50/51 (I>) • 50N/51N (IO>) • 46/46R/46L (I2>) • 50H/51H/68H (Ih>) • 50BF/52BF (CBFP) • 87N (Iod>) • 49F (TF>) • 79 (AR) • 50TF • CLPU
Transformer protection	50/51 (I>) • 50N/51N (IO>) • 46/46R/46L (I2>) • 50H/51H/68H (Ih>) • 50BF/52BF (CBFP) • 87N (Iod>) • 49T (TT>)
Line protection	50/51 (I>) • 50N/51N (IO>) • 46/46R/46L (I2>) • 50H/51H/68H (Ih>) • 50BF/52BF (CBFP) • 87N (Iod>) • 85 (Teleprotection) • 49F (TF>) • 79 (AR) • 50TF • CLPU
Line differential protection	87L (IdL>)
Distance protection	21 (Z<) • 78 (OOS) • 68 (PSB)
Capacitor bank protection	50/51 (I>) • 50N/51N (IO>) • 46/46R/46L (I2>) • 50H/51H/68H (Ih>) • 50BF/52BF (CBFP) • 87N (Iod>) • 49OL (Icol>) • 50UB (Cnu>) • 46C (Iuc>)
Voltage protection	59N (UO>) • 59 (U>) • 27 (U<) • 27T (LVRT) • 47/27P/59PN (U1/U2>/<) • 810/81U (f>/<)• 81R (df/dt>/<) • 81LSH (UFLS) • 79N (UO RECL) • 25 (ΔV/Δa/Δf) (Synchrocheck) • 78 (Δ) Pole slip • 78 (Δ) Vector jump • 24 (V/Hz)
Directional protection	67 (Idir>) • 67N/32N (IOdir>) • 67NT (IOint>) • 59N (UO>) • 32 (P,Q,S>/<) • 21FL
Generator protection	50/51 (I>) • 50N/51N (IO>) • 46/46R/46L (I2>) • 50H/51H/68H (Ih>) • 50BF/52BF (CBFP) • 87N (Iod>) • 67 (Idir>) • 67N/32N (IOdir>) • 67NT (IOint>) • 59N (UO>) • 32 (P,Q,S>/<) • 59 (U>) • 27 (U<) • 27T (LVRT) • 47/27P/59PN (U1/U2>/<) • 810/81U (f>/<) • 81R (df/dt>/<) • 81LSH (UFLS) • 79N (UO RECL) • 25 (ΔV/Δa/Δf) (Synchrocheck) • 78 (Δ) Pole slip • 78 (Δ) Vector jump • 24 (V/Hz) • 64S (UO3rd<) • 40 (Q<) • 21U (Z<) • 40 (X<) • 51V (Iv>) • 50/27 (I>U<I.A.E) • 55 (PF<) • 49M (TM>)
Machine differential protection	87T/87G/87M/87N (Idx>)
Motor protection	50/51 (I>) • 50N/51N (IO>) • 46/46R/46L (I2>) • 50H/51H/68H (Ih>) • 50BF/52BF (CBFP) • 87N (Iod>) • 49M (TM>) • 48/14 (Ist>) • 66 (N>) • 37 (I<) • 51M (Im>)
Synchronous motor protection	40 (Q<) • 21U (Z<) • 40 (X<) • 51V (Iv>) • 50/27 (I>U<I.A.E) • 55 (PF<)
Single phase tripping	Single-phase 50/51 (IPW>)

CONTROL FUNCTION PACKAGES

Power measurement	Power and energy measurement; 99 (PSx>/<) (programmable stages)
Automatic voltage regulator	90 (Transformer AVR for up to 4 parallel transformers)
Power factor controller	55 (Power factor controller)
Synchronizer	25 (ΔV/Δa/Δf) (Synchronizer)
Alarm annunciator	Alarm Annunciation with up to 128 programmable alarm windows
Bay control	10 additional indicator objects • 25 (ΔV/Δa/Δf) (Synchrocheck) • 79 (AR)