

ABB MEDIUM VOLTAGE DRIVES FOR OUTDOOR APPLICATIONS

## ACS1000 NEMA 3R drives

315 to 2000 kW



Designed specifically for outdoor use, the environmental extension of the ACS1000 medium voltage drive provides reliable operation even in remote locations and in installations where no fixed facilities are present.

### Solution for harsh outdoor environments

#### Enclosure rated for outdoor use

ABB's outdoor NEMA/UL Type 3R-rated drive provides reliable and continuous process control, regardless of the installation location. It is protected against harsh weather conditions and is suitable for various industries, such as oil and gas, as well as mining.

#### Automated cooling system

The drive has a fully automated cooling system and a controlled heater to protect against condensation. With indoor solutions, cooling the electrical room becomes a major expense. With outdoor applications, the need for additional cooling is eliminated, resulting in reduced operating cost.

#### Simple installation

As the drive comes in one complete package, its installation is simple, and there is no need to add extra equipment like solar shielding. Electrical connections to the supply and motor are designed to be simple and quick: three cables in, three cables out.

#### Reliable operation even at low temperatures

Temperature is adjusted by controlling the airflow through the enclosure with an air control flap. When the drive is not running, the flap is closed and space heaters maintain a minimum temperature to ensure that it is possible to continue operating even at low temperatures.



## Technical data

<b>Input</b>	
Input configuration	24-pulse diode rectifier
Input voltage	2.3 kV, 3.3 kV, 4.16 kV, 6 to 6.9 kV and 10 to 11 kV*
Input voltage variation	±10%
Input frequency	50/60 Hz
Input frequency variation	<5%
Input power factor	>0.95
Input harmonics	Complies with IEC 61000-2-4 and IEEE 519
Auxiliary voltage	110 V DC, 220 V DC 110 to 240 V AC 50/60 Hz 380 to 690 V AC 50/60 Hz, 3-phase
<b>Output</b>	
Output power	315 to 2000 kW
Output voltage	3.3 kV, 4.0 kV, 4.16 kV
Output frequency	0 to 82.5 Hz (higher on request)
Motor type	Induction
Efficiency of converter	>96%
Motor harmonics	<2% THDi
<b>Mechanical</b>	
Enclosure	NEMA 3R
Cable entry	Bottom
<b>Environmental</b>	
Altitude	3000 m
Ambient air temperature	-5 to +50 °C
Noise	<80 dB(A)
Cooling type	Air
Standards	EN, IEC, CE and UL

\*Not all supply voltage and frequency combinations are possible

## Product highlights

- Based on ABB's ACS1000 medium voltage drive, which has been proven reliable in numerous installations worldwide
- Wide power range and several output voltage variants: 315 to 2000 kW, 3300/4000/4160 V output
- Enclosure designed for harsh outdoor environments
  - High enclosure class, NEMA/UL Type 3R, which provides protection against falling rain, sleet, snow and external ice formation
  - Robust and durable enclosure made out of 2.5 mm zinc-coated sheet metal
- Lockable enclosure construction
- Operates at temperatures from -5 up to +50 °C
- Wide range of options
- Possibility for remote connectivity, which enables easy asset management and remote assistance

## Rugged. Robust. Reliable.

### ACS1000 NEMA/UL type 3R drive package includes

- ABB ACS1000 air-cooled drive with integrated supply transformer
- Optional integrated medium voltage service entrance rated disconnect with fuses
- Surge/lightning protection
- Heater to protect against condensation
- Control interface with control panel and pilot lights for drive ready, running and fault

For more information please contact your local ABB representative or visit:

[www.abb.com/drives](http://www.abb.com/drives)  
[www.abb.com/drivespartners](http://www.abb.com/drivespartners)

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