

MEDIUM VOLTAGE AC DRIVES

# The MV drive platform for your performance needs

## ACS8080, 300 to 6700 kW / 400 to 9000 HP



### Medium voltage. Maximum reliability.

Designed for peace of mind. Built for trouble-free operations. ACS8080 is a next-generation MV drive platform designed for simplicity in configuring, monitoring, and servicing your drive in industrial applications.

### Strong performance to support your business

- **Flexibility to meet your application requirements**  
ACS8080 is a modular platform designed with flexibility to customize the drive to meet your specific process, application, system, and environmental requirements.
- **Advanced digital features to support current and future needs**  
Built-in advanced sensing solution and digital capabilities for visibility into performance, maintenance, safety, and other vital aspects of your application, regardless of equipment location or digital preferences.
- **Reliability through proven technology and extensive testing**  
ACS8080 utilizes a known topology with an MP3C control platform and established components from a global ABB portfolio.
- **Safety options to protect your people and equipment**  
Advanced safety systems for personnel and equipment protection, mitigating and managing risks effectively.
- **Increased availability from commissioning to daily use**  
User-friendly and easily maintained with front access to all components, reduced part count, and advanced but simplified troubleshooting for a short Mean Time to Repair (MTTR).
- ACS8080 offers precise and reliable motor control technology for improved efficiency, increased lifetime, and availability.



## Technical data

Input	
Input configuration	12- or 24-pulse diode rectifier
Input voltage	Up to 13.8 kV
Input voltage variation	± 10% (+15/-30% optional)
Input frequency	50/60 Hz
Input frequency variation	+/- 2%
Input power factor	> 0.95
Input harmonics	Complies with IEC 61000-2-, GB/T 14549 and IEEE 519
Auxiliary voltage	110 V DC, 220 V DC 110 to 240 V AC 50/60 Hz, 1-phase 380 to 690 V AC 50/60 Hz, 3-phase Internal supply
Output	
Output power	400 to 6000 HP / 300 to 4475 kW
Output voltage	3.3 to 4.16 kV
Output frequency	0 to 66 Hz
Motor type	Induction
Efficiency of converter	> 98%, external transformer or > 96%, integrated transformer
Motor harmonics	< 5% THDi, compatible with standard DOL motors
Mechanical	
Enclosure	NEMA Type 1 NEMA Type 1 filtered
Cable entry	Top/bottom
Environmental	
Altitude above sea level	Up to 1000 m (3281 ft) without derating. 1000 to 5000 m (3281 to 16404 ft) with derating
Ambient air temperature	5 to +40 °C, (41 to 104 °F) air-cooled (higher with derating)
Noise level	< 85 dB(A)
Cooling method	Air
Standards	UL, cUL

## Drive features



Best-in-class sensing solution



Secure wireless connection and cloud data storage



Easy connectivity to any infrastructure



Predictability of powertrain health



One click to professional support for fast troubleshooting

## Product highlights

### Design flexibility for smooth integration

- Grid connection versatility
- Supports induction motor
- Precise and reliable motor control technology – Model Predictive Pulse Pattern Control (MP<sup>3</sup>C)

### High reliability and availability

- Robust design, meeting high enclosure requirements
- Easy management with ABB digital solutions
- Low part count using medium voltage components

### Functional safety for your people and equipment

- Integrated earthing device
- Certified active and passive arc protection
- Functional safety features, including E-off, E-stop, Safe Stop 1, STO

### Extensive range of options available

- Extended I/O for supervision functions
- Synchronous bypass incl. MCC (Packaged solution)
- Input/output disconnect switch (Packaged solution)
- Smart cooling solutions (Packaged solution)
- Easy plug and play connectivity to wide range fieldbus protocols

Some options and variants under development – consult ABB for detail clarification.

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

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