

ABB irrigation drive package

ACS580 3R irrigation drives, 10 to 200 hp



Easy-to-use drives that provide reliable pump control are vital to the health of your crops and your bottom line. ABB drives help you protect your investment by safeguarding your system and enabling it to run efficiently to provide the value and dependability you demand.

Who you choose matters.

Rugged reliability for remote areas

It's critical to your livelihood to have water when and where you need it. That's why it's imperative to use equipment that can stand up to the elements. ABB's outdoor NEMA/UL Type 3R rated enclosure eliminates the need for solar shielding, includes a thermostatically controlled heater to protect against condensation and a surge suppressor to defend against transient lightning strikes. A totally enclosed control area maintains a clean environment for the drive and low voltage control components to safeguard them from particles and ensure reliability.

The right fit

ABB irrigation drives deliver solutions for the challenges rural users routinely face. They are Service Entrance rated. Single-phase ratings are also available to provide simplified conversion of single-phase source power to control three-phase motors.

Protecting your crops

In the event of a pump system failure, minimizing downtime is imperative. ABB manufactures drives in the U.S., stocks them locally for efficient delivery and provides 24/7 technical support – because protecting your investment is our priority too.

When the drive is commissioned by an ABB Certified Start Up technician, you also benefit from an extend drive warranty.

Easy, efficient, and pump-prepared

ACS580 variable frequency drives bring the quality, reliability, ease of use, and energy savings you expect from ABB. Factory programming simplifies start-up and whether it's through an optional Bluetooth enabled keypad, any of the major communication protocols or a SCADA system, connectivity and diagnostics are at your fingertips. The ACS580 also contains built-in, pump-specific features that ensure optimal operation of your pumping system.

- Built-in choke for harmonic mitigation
- Incorporated EMC C2 filter allows first environment installation
- Motor and PID primary settings for simple system set-up
- PFC control for easy, optimized pump control
- Embedded pump software features:
 - Pump supervision and protection functions
 - Multiple ramp sets for submersible pump control
 - Motor heating mode to prevent motor condensation
 - Process PID controller (two different primary settings), external PID controller and PID sleep / boost to ensure reliable output and balance



Standard Product Highlights

- Outdoor rated, NEMA 3R/UL certified enclosure
 - Protection against falling rain, sleet, snow and external ice formation
 - Separate drive/control and cooling/air flow sections enhance reliability
- Available from 10 to 200 hp
 - Single-phase 230 VAC, 10 to 50 hp
 - Three-phase 208/230 VAC, 25 to 100 hp
 - Three-phase 460 VAC, 40 to 200 hp
- 460V units are stocked at ABB
- Padlockable disconnect and enclosure doors
- 100 kAIC SCCR rated
- Ambient temperature -20 to 40°C with heater, to 50°C with derate
- ABB ACS580 drive with advanced drive keypad
- Service Entrance rated for three phase four wire system
- Surge/lightening protection
- Condensation heater
- Quick installation and set-up
- Wall mounting
- Designed and assembled to UL508A

Additional Options

- Hand/Off/Auto selector switch
- Speed Potentiometer
- Upgraded control power transformer with an extra 100 VA for customer use
- 12" floor mounting kit*
- Additional control panel options; including Bluetooth enabled*
- Connectivity option for any major protocol*
- I/O extension modules*

*Field installed item.

Type code UL type 3R (NEMA 3R)	Normal ratings		Weight
	I_N A	P_N HP	lb
Single phase supply voltage 230V. The power ratings are valid at nominal output 230V 60Hz			
ACS580-0P-075A-2+C192	28	10	252
ACS580-0P-088A-2+C192	42	15	266
ACS580-0P-114A-2+C192	54	20	266
ACS580-0P-143A-2+C192	68	25	312
ACS580-0P-169A-2+C192	80	30	341
ACS580-0P-211A-2+C192	104	40	341
ACS580-0P-273A-2+C192	130	50	376

I_N Continuous current, no overloadability
 P_N Typical motor power with no overload

Type code UL type 3R (NEMA 3R)	Normal ratings		Weight
	I_N A	P_N HP	lb
Three phase supply voltage 208/230V. Power ratings are valid at nominal output 208/230V 60Hz			
ACS580-0P-075A-2+C192	74.8	25	252
ACS580-0P-088A-2+C192	88	30	266
ACS580-0P-114A-2+C192	114	40	266
ACS580-0P-143A-2+C192	143	50	312
ACS580-0P-169A-2+C192	169	60	341
ACS580-0P-221A-2+C192	211	75	341
ACS580-0P-273A-2+C192	273	100	376

Type code UL type 3R (NEMA 3R)	Normal ratings		Weight
	I_N A	P_N HP	lb
Three phase supply voltage 460 or 480 V. The power ratings are valid at nominal voltage, 480 V			
ACS580-0P-052A-4+C192	52	40	258
ACS580-0P-065A-4+C192	65	50	258
ACS580-0P-077A-4+C192	77	60	258
ACS580-0P-096A-4+C192	96	75	264
ACS580-0P-124A-4+C192	124	100	312
ACS580-0P-156A-4+C192	156	125	341
ACS580-0P-180A-4+C192	180	150	341
ACS580-0P-240A-4+C192	240	200	376

I_{Lo} Continuous rms output current allowing 10% overload for 1 minute every 5 minutes
 P_{Lo} Typical motor power in light-overload for 1 minute every 5 minutes

