

ABB Drives for Agricultural and Farms

Single Phase Converters from ABB



ACS550 - Wall Mounted indoor Phase Converter / VFD



ACS550 - Outdoor Rated Phase Converter / VFD, with Power Disconnect Switch w/ fuses

Single phase commercial power is very common in rural areas. This creates an obstacle for today's modern farmers. Single phase AC motors 10 Hp and greater are very expensive to purchase and operate when compared to their three phase counterparts. Rotary phase converters as an alternative are inefficient and expensive. The best solution for single phase power systems is to utilize Variable Frequency Drives (VFDs) that are designed to be powered from single phase power sources which then create three phase power for control of three phase motors.

As the world's number one supplier of AC Variable Frequency Drives, ABB's products bring superior process control along with savings in energy consumption as well as in operational and maintenance costs. ABB has the solution for single phase applications within the agricultural industry, such as grain handling, grain drying, and grain storage. Designed and tested to operate in simple to harsh environmental applications that require single phase input ("open delta" system) for the agriculture market. ABB VFD Phase Converters help you protect your investment by safeguarding your system and enabling it to run efficiently to provide the value and dependability you demand.

ABB VFD / Phase Converter Product Solution

Wall Mounted Single Phase Converter

- **UL Type 1 (IP20) NEMA 1**
General Purpose, indoor use. Provides a degree of protection against human contact with electrically-charged, live parts and against ingress of solid foreign objects such as falling dirt.
- **UL Type 12 (IP54) NEMA 12**
General purpose, indoor use. Protects against falling dirt and circulating dust, lint and fibers. Protects against ingress of dripping and splashing water

Enclosed Single Phase Converter

- **NEMA 3R (Outdoor rated, NEMA 3R / UL certified enclosure)**
 - Outdoor protection against falling rain, sleet, snow, and external ice formation
 - Mounting feet available for free-standing installation.

ABB VFD / Single Phase Converter Capability

- Motor Protection built-in (saves the life of your motor)
- Soft-start capabilities (eliminates in-rush current during motor start-up)
- Simple installation and start-up
- Easy to understand programmability (full English programming display included)
- Built-in line reactor to reduce electrical interference on your electrical network
- Various enclosure options (dust proof, water drip proof, indoor duty, outdoor duty)
- UL Rated
- Remote monitoring capability (via internet)
- Overall cost benefits vs. inefficient rotary converter

Power and productivity
for a better world™



ACS550 Single Phase Converter VFD, 230V, UL Rated

VFD Product Codes and Ratings			
UL Type 1 (IP20) NEMA 1	Frame Size	Output Current	UL Type 12 (IP54) NEMA 12
ACS550-U1-04A6-2	R1	2.3	ACS550-U1-04A6-2+B055
ACS550-U1-06A6-2	R1	3.2	ACS550-U1-06A6-2+B055
ACS550-U1-07A5-2	R1	4.2	ACS550-U1-07A5-2+B055
ACS550-U1-012A-2	R1	6	ACS550-U1-012A-2+B055
ACS550-U1-017A-2	R1	6.8	ACS550-U1-017A-2+B055
ACS550-U1-024A-2	R2	9.6	ACS550-U1-024A-2+B055
ACS550-U1-031A-2	R2	15.2	ACS550-U1-031A-2+B055
ACS550-U1-046A-2	R3	22	ACS550-U1-046A-2+B055
ACS550-U1-059A-2	R3	28	ACS550-U1-059A-2+B055
ACS550-U1-088A-2	R4	44	ACS550-U1-088A-2+B055
ACS550-U1-114A-2	R4	57	ACS550-U1-114A-2+B055
ACS550-U1-143A-2	R6	70.1	ACS550-U1-143A-2+B055
ACS550-U1-178A-2	R6	68	ACS550-U1-178A-2+B055
ACS550-U1-221A-2	R6	110.5	ACS550-U1-221A-2+B055
ACS550-U1-248A-2	R6	124	ACS550-U1-248A-2+B055

Agriculture / Farm Duty Motors

We offer a full line of three phase Farm Duty motors for use in a wide variety of agricultural and industrial applications. These motors have been specifically designed to perform in applications such as crop drying, grain stirring, barn cleaners, aeration fans, augers, irrigation towers, vacuum pumps and dairy applications.



General Farm Duty Motor



Grain Dryer / Centrifugal Fan Motor



Grain Dryer / Vane Axial Fan Motor

Motor Features

Baldor NEMA Premium efficient motors come standard with sealed bearings and high temperature moisture resistant grease. The drive end has a lip seal and V-ring slinger. These features minimize the potential for contaminants to enter the bearings. Condensation drains, gasketed cast iron conduit boxes and epoxy paint protect the motor from harsh environments. For more information on the motor offering; please visit: <http://www.baldor.com/mvc/DownloadCenter/Files/BR424>



Local VFD & Motor Benefits

ABB ACS550 Variable Frequency Drives are assembled & manufactured in the U.S.A. Built in New Berlin, WI (near Milwaukee, WI) providing quick delivery and technical support (24/7/365). With local stock and technical support available from your ABB Authorized Distributors. These UL rated drives have been designed and tested for single phase input / three phase output, farm / agriculture type applications.

The motors are manufactured in Fort Smith, Arkansas. With stock ratings starting at 1/3 HP through 100 HP. These motors are housed in local warehouses around the United States to provide short lead times off the shelf. If the stock motor does not meet the application requirements, a custom motor can be designed and built to meet specific applications.

Please contact your local ABB/ Baldor sales office for more information on single phase converter solutions for your agriculture applications. <http://new.abb.com/drives/low-voltage-ac>