

RELIABLE PERFORMANCE PAIRING FOR EXTRUDER OEMS

# ACS880 VFDs and RPM AC motors







# Matched performance motors and drives

## Better together

Whether your customers are extruding plastics or rubber materials for film, pipes, cables, or other products, you need drives and motors that maximize reliability and output quality. ABB supplies a broad portfolio of drives and motors that provide best-in-class energy efficiency, enable fast machine setup and deliver high torque right down to zero speed.

### You expect the best

As the leader for motors and drives, ABB provides:

- A robust, high-performance ACS880 drive and RPM AC motor package:
  - Motor and drive matched performance based on R&D testing
  - A footprint that fits your needs
  - Designed to withstand high temperatures
  - Flexible, customized solutions to fit your specific needs
- Regional and factory application engineers with extruder expertise to assist with your design, including:
  - Application reviews
  - Training
  - Troubleshooting
  - Grounding techniques
- One vendor that stands behind their motor and drive package
- Customizable service packages and technical support

### Because your customers expect the best

Enable your customers to manufacture the highest quality end product as a result of the products you incorporate.

- Provide them with a highly reliable and sustainable extruder application
  - Leverage trusted brands from a company that stands behind their motor and drive products
  - Give them matched performance based on factory testing

Achieve the highest system efficiency possible.

- Utilize comprehensive service packages, local technical support, and extended warranty options



## Better together



Power  
matched



Optimized  
performance



Accurate  
motor  
control



One  
vendor



Quick ship motors  
and drives



# Flexibility. Dependability. Efficiency.

## Everything counts.

### Reliable starting

To overcome the friction of the material, high torque from zero speed is needed during start-up. Baldor-Reliance® RPM AC motors can deliver full torque from zero when paired with ABB ACS880 drives with Direct Torque Control (DTC) technology.



### Non-stop operation

Your customers can depend on ABB drives and motors to keep their extruder running, day after day.

- The ACS880 features variable speed cooling fans and conformal coated boards to increase reliability.
- RPM AC Extruder Duty motors, with standard grounding brushes and insulated bearings (400 frames and larger) provide long bearing life due to shaft current mitigation.
- Standard RTDs provide temperature monitoring to avoid overheating.



### High quality extruding

ABB's DTC technology provides highly accurate speed control in either open or closed loop. This ensures that constant speed and torque can be maintained under changing torque conditions. In addition, the RPM AC is a low inertia motor, which means it responds quickly to changes.



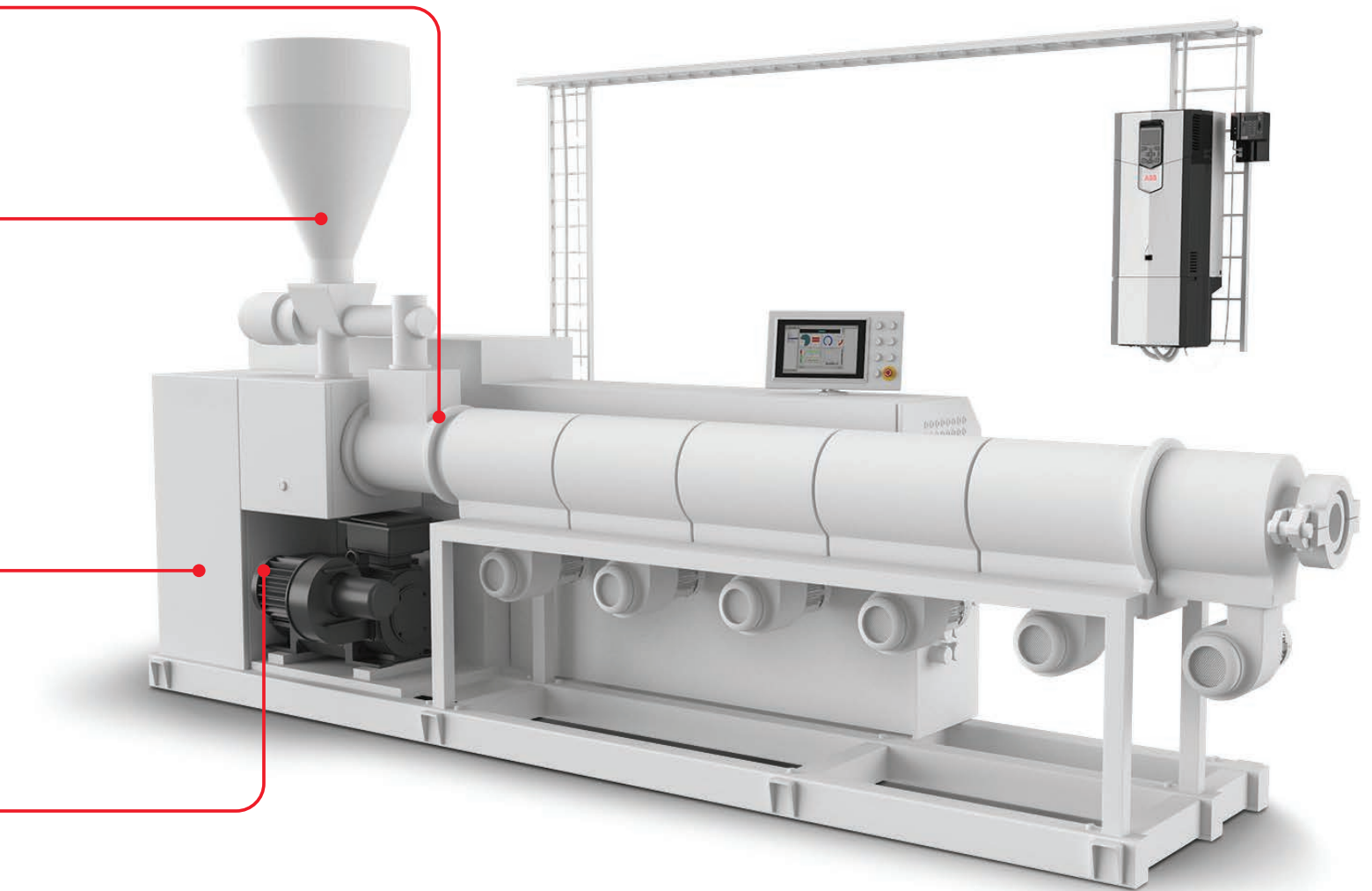
### High efficiency

The combination of ABB motor technology with variable speed drive control offers the highest package efficiency over the whole speed range. Compared to a conventional AC motor and drive, you can achieve a 2-4% reduction in energy consumption. As a result, the payback time for the RPM AC/ACS880 solution could be less than a year.



### We have a portfolio of services to meet your needs

No matter where your extruders are installed or used, our wide channel partner network and global service is always local. You and your customers choose the services that fit your needs, from classroom training to customized service contracts.



# Simplify. Improve. Reduce cost.

ABB has done the hard work of ensuring that our motors and drives work together to make your life easier.

## Baldor-Reliance RPM AC laminated frame Inverter Duty AC motors

RPM AC 3 – 1750 Hp, FL1838 thru RL5035/FL5832

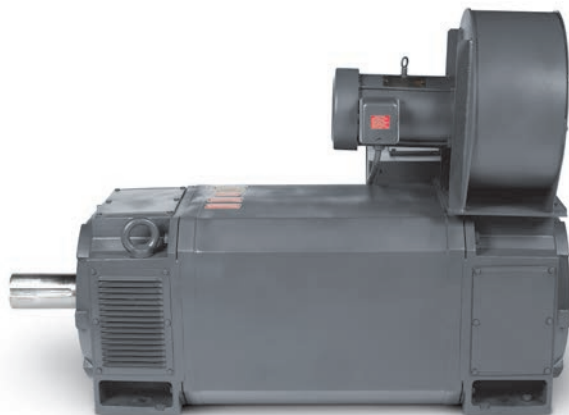
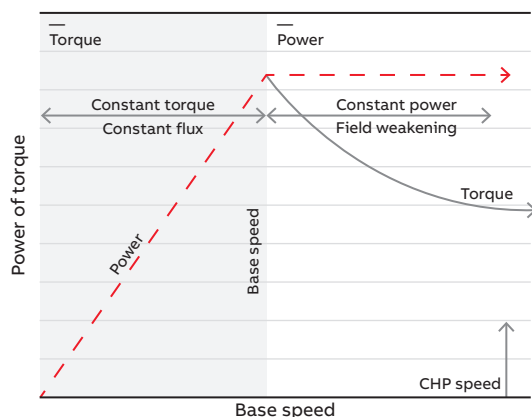
- Power dense: up to 3 frame sizes smaller than standard NEMA frame
- With our easy-to-use customer available tools, custom designs can be created at nearly any base and top/constant power speeds
- Premium Class H insulation system
- PLS (Positive Lubrication System) bearings for cooler operation and longer life
- 200% maximum overload torque from zero to base speed for 1 minute
- Encoder mounting provisions

- Insulated ODE bearing standard on 440 and larger frames
- Numerous modifications available including flanges, brakes, and encoders

## RPM AC Extruder Duty

25 – 1750 Hp, FL1844 thru RL5035

- RPM AC motor series that is specifically designed to provide features that are important for extruder applications.
- Quick ship program is available that includes insulated bearings, shaft grounding brush, winding RTDs, and extruder duty nameplate as standard offerings.



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Simplicity and compatibility for all your industrial drive needs

ABB ACS880 drives are built on a common platform for precision control in extruder applications.

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## Better together

- Accurate motor and speed control while maintaining superior safety and reliability. No need to further test for certification of motor drive combination.
- One vendor that stands behind their motor and drive package.
- Optimized performance. No need to oversize. Designed to eliminate overheating concerns.
- ABB software tools make selecting product combinations easy.

### ACS880 wall-mount and cabinet drives

1-350 HP wall-mount and up to 3300 HP via cabinet

- Intuitive control panel, PC tool and Bluetooth app for startup and troubleshooting
- Direct Torque Control (DTC) enables full motor torque over the whole speed range down to zero – no need for encoders or other feedback devices
- Wide range of fieldbus adapters enables connectivity with all major automation networks
- Bluetooth capability and mobile app to connect and control drives that are difficult to access
- SIL 3 integrated safety including safe torque off (STO) as standard, plus optional plug-in module providing additional safety features
- Compact design for easy installation, commissioning, and maintenance





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