

Pumps & Pumping Systems

**Fast
Facts**

Market Applications



Pumps and Pumping Systems Applications for SSAC Products

ABB Group offers a wide assortment of products to control and monitor pumps and pumping systems. ABB's SSAC, family of products, provide solutions that control the operation of pumps, detect leaks in submersible pump seals and others that protect pump motors and other sensitive components from adverse 3 phase voltages. SSAC has over 30 years experience designing and manufacturing



controls and electronic relays for the equipment manufacturers that supply products and systems for this industry.

Advantages of partnering with ABB SSAC:

- Over 30 years of experience designing & manufacturing controls
- OEM liquid level monitors and controls designed for the pumping industry
- Encapsulated modules are suited to outdoor applications or in control panels
- Totally solid state designs are rated for 100 million operations
- 10 Year product warranty
- Rush delivery capability
- RoHS manufacturing means 100% lead free compatibility
- ISO 9000 Quality Management System
- LEAN manufacturing approach allows attractive cost structure
- Full staff of application engineers that understand the needs of pumping equipment manufacturers.



ABB Group offers the power of a world wide organization with strong local support to ensure your customers get fast, reliable support and customer service.

PUMPS

SSAC

ABB

Application Benefits:

3 Phase Voltage Monitoring Protection:

Phase Loss Protection (single phasing)

- Prevents motor failure caused by single phasing

Unbalanced Voltage Protection

- Prevents winding overheating and insulation failure caused by unbalanced voltages

Under & Over Voltage Protection

(not surge or transient protection)

- Prevents winding overheating and insulation failure when the voltages are outside of the normal operating range

- Prevents contact chatter caused by low voltages



PLMU

Phase Reversal Protection:

- Prevents reverse rotation of impeller pumps and other rotation specific pumps.

Backspin Timer: (HLMU only)



- Onboard adjustable time delay allows the column of water in a deep well to drain before the pump is restarted. This prevents a broken shaft or damage to the drive components.

HLMU

Random Restart Protection: (HLMU only)

- After a power outage, automatically delays the operation of pumps and other sensitive motors until the voltage returns to an acceptable range.

Alternating Relays:

- Equalize the running time of two pumps
- Switches at the end of a cycle
- Duplexing allows both pumps to run simultaneously
- Duplexing improves the energy efficiency of the system



KRPS



ARP

Gain efficiency and reliability by sharing run time between two pumps. Pumps can be sized for half the required maximum load (2x10 Hp pumps instead of 1x20 Hp pump) and the alternating relay insures shared run time. Lower

horsepower pumps are more efficiently matched to average loads, and backup is always available. During peak demand, an optional lag input energizes both pumps.

Backspin Timers with Random Restart Protection:



TDU with Accurate Switch Adjustment

- Time delay ensures a minimum OFF time
- Time delay allows the column of water to drain before the pump is restarted
- Prevents short cycling caused by momentary power outages or chattering control contacts

- After a power outage, delays restarting of pumps until other loads are on and voltage is stable

Leak Seal Detection:

- Detects a leak in the water seal of a submersible pump
- Prevents premature pump failure
- Allows scheduled maintenance not emergency replacement



LLC4

Dual Level Control:

- Dual probe level control for conductive liquids to 100k ohms
- Automatically maintain liquid between a selected upper and lower level
- Isolated 12 AC voltage on the probes limits electrolysis
- Fill or drain operation available



LLC5

Dual Level Control with Alarm Contacts:

- Dual probe level control for conductive liquids to 100k ohms
- Automatically maintain liquid between a selected upper and lower level
- Has separate output contacts for low level and overflow alarm indication



CM_ENN

Note: CM-ENN is not RoHS compliant and is covered by a 1 year factory warranty

Alarm Flashers:

- Flash an alarm lamp
- Sound and alarm horn

FS126



FSU1000

