

Electric drive control system of pumping unit

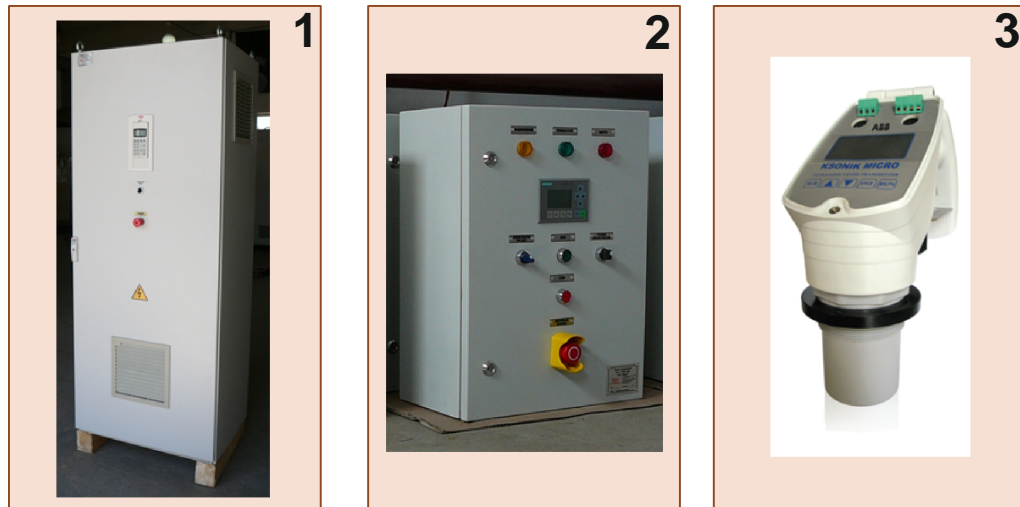


Figure 1

The main system element is frequency converter “ ACS 800”, which provides as follows:

- drive acceleration and slowing with set pace
- adjustable speed control in accordance with given value
- desired protections of electric drive and converter components



Figure 2

Regulating and control system is realized on logical modules LOGO, which allow realizing as follows:

- Automatic regulation algorithms
- Start and break algorithms
- Protection and interlock system
- Visualization of basic parameters



Figure 3

Rated characteristics

TYPE	Power (kW)	Current (A)	Size (WxHxD)
FRD-7,5/400	7,5	19	600x2000x600
FRD -11/400	11	25	600x2000x600
FRD -15/400	15	34	600x2000x600
FRD -22/400	22	44	600x2000x600
FRD -30/400	30	55	600x2000x600
FRD -37/400	37	72	600x2000x600
FRD -45/400	45	86	600x2000x600
FRD -55/400	55	103	600x2000x600
FRD -75/400	75	145	800x2000x600
FRD -90/400	90	166	800x2000x600
FRD -110/400	110	202	800x2000x600
FRD -132/400	132	260	800x2000x600
FRD -160/400	160	290	800x2000x600

“ABB” equipment:

- Frequency converters “ACS 800”
- Switching units:
 - automatic circuit breakers
 - disconnect switches
 - contactors
- Control instruments
- Light-signaling hardware



Figure 4

“SIEMENS” equipment:

- Logical module LOGO 12/24RCO
- Discrete signal I/O modules
- Analogue signal I/O modules
- Text display LOGO! TD
- Electric power supply =24V



Figure 5

«RITTAL» equipment:

- Cabinets and their components
- Climatic equipment:
 - fans
 - heaters
 - thermostats



Figure 6

Frequency converter cabinet:

Size 800x2000x600

Weight 250 kg

Protection level IP54



Figure 7

Local control pulpit:

Size 500x650x300

Weight 30 kg

Protection level IP54



Figure 8