



IRZ-200 SWITCHBOARD FOR ESP

Intended use: control, parameters monitoring and protection of motors with power capacity from 3 to 250 kW.



Ensures:

- manual or automatic control mode;
- continuous monitoring of electric circuit parameters, 3-phase currents and insulation resistance in the "transformer - power cable - motor" system, defining of voltage and current unbalance, power factor, load factor, energy consumption, and runtime;
- connecting to surface readout units made by various manufacturers;
- record of monitored parameters and causes of motor shutdowns in real time and saving the logs even in case of power interruptions;
- equipment protection in emergencies caused by failures in power system and downhole motor system;
- automatic restart when parameters return to the operating range.

The drive allows connecting:

- of units to the 220V 10A socket on the switchboard operator's panel;
- to well pad telemechanics (normally closed or open contacts);
- to a SCADA-system via RS-232 or RS-485 interfaces, Modbus RTU protocol;
- of a GPRS-modem with option for data output in the Internet;

Advantages:

- small size and weight; the drive can be transported in a light vehicle or carried by two persons.



Specification	Value
Supply voltage	190-520 V
Power of the connected motor	3-250 kW
Range of motor operation current (measured on the transformer primary winding and recalculated into motor actual operating current)	0-2000 A
Range of monitoring insulation resistance of the "transformer-cable-motor" system	0-10000 kOhm
Range of monitoring backspin frequency	1-50 Hz
Error of measuring current, resistance, rotation frequency, and accuracy of time settings	2 %
Error of monitoring insulation resistance	5 %
Operating temperatures	-60...+50 °C
Enclosure	IP43 (or IP54)

- easy operation and maintenance;
- easy connection;
- graphic liquid-crystal display;
- data logs download on a USB-drive;
- software updating without motor shutdown;
- compliance with requirements of oil companies and GOST R 51321.1;
- bus-type design of the power part of the drive for drives with current from 250 A;
- option to install a power meter registered in the National Register of Measuring Instruments.

Models	Rated current	Overall dimensions	Weight
IRZ-200-25*	25 A	1755 x 795 x 635 mm	180 kg*
IRZ-201-160**	160 A	1215 x 540 x 365 mm	60 kg
IRZ-201-250	250 A	1680 x 780 x 630 mm	150 kg
IRZ-202-400	400 A	1680 x 780 x 630 mm	155 kg
IRZ-202-400**	400 A	950 x 585 x 370 mm	75 kg
IRZ-203-630	630 A	1680 x 780 x 630 mm	245 kg

* Drives with built-in output isolation transformer to monitor and control a membrane pump unit

** Portable switchboard