

R&W TECH MF inverter control units

Technical specifications



Product image

R&W TECH · AKWA Technic Water-cooled inverter family: 450-1,200 A per module, Master-Slave systems up to 4,800 A.

Product features

- Water-cooled inverter family: 450-1,200 A per module, Master-Slave systems up to 4,800 A.
- IGBT inverter: Selectable frequency: 1-10 kHz. Water cooling; single or Master-Slave modules.
- Programs and live adjustment: 500 programs with 32-character IDs; changes take effect at the next weld without stopping production.
- Six control modes: Constant time, current, power, voltage and energy, plus adaptive compensation.
- Process quality: Graphical electrical and electrode-displacement monitoring; WARNING/BAD limits on current, voltage, power, energy, resistance, thickness, force, pressure and temperature.
- Transformers and electrodes: Up to 8 transformers at different frequencies, 8 position sensors and 16 electrode campaign counters. Wear compensation with 16 incremental laws for time, current and force.
- Pneumatic control: 2 proportional valves, with counter-pressure control during approach; 6 protected 24 Vdc solenoid outputs.
- Connectivity and records: Web programming and diagnostics; Profinet, EtherCAT, Ethernet/IP and Modbus TCP options. USB backup, restore, firmware updates and log export.

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Optional equipment

- -VIO · Pneumatic and proportional valve control board
- NI000001 · HMS Profinet interface
- NI000002 · HMS EtherCAT interface
- NI000003 · HMS Ethernet/IP interface
- NI000004 · HMS Modbus TCP interface
- PS000001 · Linear position sensor: 150 mm stroke, 0.002 mm resolution
- CS000001 · Secondary current transducer
- CS000002 · Dual secondary current transducer for parallel transformer secondaries
- HMI-724CG1 · Panel-mount operator interface
- CP000001 · Direct control of up to 4 nut feeders
- CP000004 · DOCERAM ModulMaster centring-pin pneumatic control; requires CP000001
- CP000005 · DOCERAM ModulMaster centring-pin pneumatic control without CP000001
- CP000006 · Nut insertion detection via ModulMaster position sensor; requires CP000004 or CP000005

MF-RWC-4000-AP4 / MF-RWC-4000-AP6 / MF-RWC-4000-AP9 / MF-RWC-4000-AP9H / MF-RWC-4000-AP12 / MF-RWM-1200-AP6 / MF-RWM-1800-AP9 / MF-RWM-1800-AP6 / MF-RWM-2400-AP12 / MF-RWM-2700-AP9 / MF-RWM-3600-AP12 / MF-RWM-4800-AP12

Values vary by model and application.

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Technical specifications	MF-RWC-4000-AP4	MF-RWC-4000-AP6	MF-RWC-4000-AP9	MF-RWC-4000-AP9H	MF-RWC-4000-AP12
PRIMARY CURRENT	450 A	600 A	900 A	900 A	1200 A
Modules	1	1	1	1	1
Module composition	-	-	-	-	-
Cooling	Water cooled	Water cooled	Water cooled	Water cooled	Water cooled
Operating frequency	1-10 kHz	1-10 kHz	1-10 kHz	1-10 kHz	1-10 kHz
Program memories	500	500	500	500	500
Transformer management	8	8	8	8	8
Electrode campaign counters	16	16	16	16	16
Duty class	-	-	-	Heavy duty	-

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Technical specifications	MF-RWM-1200-AP6	MF-RWM-1800-AP9	MF-RWM-1800-AP6	MF-RWM-2400-AP12	MF-RWM-2700-AP9
PRIMARY CURRENT	1200 A A	1800 A A	1800 A A	2400 A A	2700 A A
Modules	2	2	3	2	3
Module composition	MF-RWC-4000-AM6 + MF-RWC-4000-AS6	MF-RWC-4000-AM9 + MF-RWC-4000-AS9	MF-RWC-4000-AM6 + 2×MF-RWC-4000-AS6	MF-RWC-4000-AM12 + MF-RWC-4000-AS12	MF-RWC-4000-AM9 + 2×MF-RWC-4000-AS9
Cooling	Water cooled	Water cooled	Water cooled	Water cooled	Water cooled
Operating frequency	1-10 kHz	1-10 kHz	1-10 kHz	1-10 kHz	1-10 kHz
Program memories	500	500	500	500	500
Transformer management	8	8	8	8	8
Electrode campaign counters	16	16	16	16	16

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Technical specifications	MF-RWM-3600-AP12	MF-RWM-4800-AP12
PRIMARY CURRENT	3600 A A	4800 A A
Modules	3	4
Module composition	MF-RWC-4000-AM12 + 2×MF-RWC-4000-AS12	MF-RWC-4000-AM12 + 3×MF-RWC-4000-AS12
Cooling	Water cooled	Water cooled
Operating frequency	1-10 kHz	1-10 kHz
Program memories	500	500
Transformer management	8	8
Electrode campaign counters	16	16