

MAR715



NETWORK POWER ANALYZER

- VOLTAGE
- CURRENT
- ACTIVE POWER
- REACTIVE POWER
- COS
- ENERGY
- "V" AND "A" HARMONICS
- FLICKER
- DISTURBANCES AND
QUALITY OF THE
DISTRIBUTION SYSTEM
- REAL-TIME CLOCK
- AVERAGE, MAX. AND MIN.
VALUES OF ALL
PARAMETERS

The MAR-715 network power analyzer is fully programmable measuring instrument that measure and record in memory all the electrical parameters from any electric power system. This instrument is equipped with three voltage channels and other three current channels to carry out the measurement of any parameter from either balanced or unbalanced three-phase power systems.

Instantaneous readouts are displayed by a 160 x 160 pixels graphic screen, and, simultaneously, these results can be saved in an internal memory according to preset file types. That way, records can include average, maximum and minimum values of voltages, currents and powers, but also wave form snapshots, values of accumulated energy, disturbances, etc.).

The MAR-715 is also a re-programmable instrument, so that, by means of an external cartridge connected to the built-in communication output, diverse operation programs can be loaded or updated in order to accomplish any analysis involving the control of electric power or the quality of distribution systems.

Several operation programs are presently available the MAR-715, which can be indistinctly selected when the instrument is turn on. Each program permits a periodical record in memory of some parameters, just continuously along the time or by predefined trigger conditions. All the setting process is done by means of intuitive menus shown on the instrument screen.

STANDARD OPERATION PROGRAM, ENERGY:

Basic program that permits to measure voltages, currents, powers and energies to save in memory the results over regularly recording periods at user-defined time intervals of data files, that contain average values, maximum and minimum values, etc. These files can be further managed in a PC by means of the VISUAL software.

When the MAR-715 is loaded with this program, the analyzer permits to effectuate detailed analysis on power factor correction, electric power consumption; and to obtain graphs of average, maximum and minimum values of 20 discrete basic electrical parameters.

MAR 715 - TECHNICAL SPECIFICATIONS

MEASURING RANGE / AMMETER CLAMP IN USE

20 ... 2000 A~ (scale 2000A) / CP-2000-200
2 ... 200 A~ (scale 200A) / CP-2000-200
10 ... 1000 A~ / CPR-1000
5 ... 500 A~ / CPR-500
2 ... 200 A~ / CP-200
1 ... 100 A~ / CP-100
50mA to 5A~ / CP-5
5A ... 20 kA~ / C-Flex
Crest factor: 1,75

POWER SUPPLY VOLTAGE

230V~

VOLTAGE TOLERANCE

± 15 %

INTERNAL POWER SUPPLY

Battery: 12 V

OPERATION AUTONOMY WITH BATTERY

Max.: 8h

FREQUENCY

45...65 Hz

CONSUMPTION

8 VA

VOLTAGE MEASUREMENT (TRUE R.M.S.)

Line-to-neutral measuring range: 20 to 500V~
Line-to-line measuring range: 20 to 866V~
Crest factor: 1,41

ANALYZER FUNCTIONS

Program: energy
Optional: harmonics, flicker, disturbances, check meter and fast check

BASIC MEASURABLE PARAMETERS

Voltage, current, active power, reactive power, energy, V and A harmonics, flicker, disturbances and quality of the distribution system, real-time clock, average, max. and min. values of all parameters.

ACCURACY (5 °C TO 45 °C)

Voltage: 0,5 % of scale
Current: 0,5 % of scale
Powers: 1 % of scale
(Error due to ammeter clamps, not included)

DISPLAY

Graphic 160x160 pixels / Auto-OFF for inner battery saving

RECORD AND DATA RETRIEVAL FROM PC

Data storage capacity: 1 Mbyte
Recording period:
Programmable
5 s ... 4 h (harmonics)
1 s ... 4 h (energy)
Optional trigger conditions by limit values

Technical modifications reserved.

SOFTWARE FOR PC

Power-VISUAL

ENVIRONMENTAL CONDITIONS

Limit temperatures: 0 °C / ± 50 °C
Relative humidity: Max. 85 % no condensation

STANDARDS

EN 61010 cat. III (Safety), IEC 60664, VDE 0110, UL 94,
EN 60801, EN 50081-1, EN 50082-1, EN 61000-4-15.

ACCESSORIES

Cables, Power supply set, Software Power-Vision and RS-232 interface

AMMETERS CLAMPS AVAILABLE

CP-2000/200 Clamp 2000/200A
CPR-1000 Clamp 1000A
CPR-500 Clamp 500A
CP-100 (M1-u) Clamp 100A
CP-5 Clamp 5A
CP-FLEX2000/200-45. single-phase (Length 45 cm)
CP-FLEX 2000/200-80. single-phase (Length 80 cm)
CP-FLEX 10k/1k-120. single-phase (Length 120 cm)

PROGRAMS

ENERGY: Basic program that permits to measure voltages, currents, powers and energies from any phase and to save in memory the results over regularly recording periods.

HARMONIC (OPTIONAL): The program for harmonic measurement includes all the functions that the standard program offers, but also these functions related to the harmonic measurement according to the harmonized standards IEC 61000-4-7.

FLICKER (OPTIONAL): The program for Flicker measurement includes all the functions that the standard program offers, but also these functions related to the measurement of voltage fluctuations, so delivering Pst and Plt, values required according to the harmonized Standard IEC-61.000-4-15.

DISTURBANCES (OPTIONAL): The program for disturbances measurement program permits to detect and record short or longtime voltage changes in form of spikes, dips, short-interruptions, sags, ... in dependence on preset limits.

FAST CHECK (OPTIONAL): This program has been designed for to make easy the capture of the short duration transients (starting motors and so on) obtaining registers of all of the cycles or averages from some of them.

CHECK METER (OPTIONAL): This program is specially designed to permit checking actions over energy counters, either for active or reactive energy.



MEGABRAS INDÚSTRIA ELETRÔNICA LTDA.
Rua Gibraltar, 172 - Santo Amaro - CEP 04755.070 - São Paulo - SP - Brazil
Tel. +55 11 5641-8111 - Fax +55 11 5641-9755
e-mail: megabras@megabras.com - Internet: www.megabras.com