

CATALOG 2017



CISAR®

POWER FACTOR CORRECTION AND HARMONICS, SINCE 1979

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CONDENSADORES INDUSTRIALES, S.L.

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“CRL” POWER FACTOR CONTROLLER

“CRL” POWER FACTOR CONTROLLER

control and automatic power factor regulation in capacitor bank systems

Technical Characteristics in 03_p.5



series	dimens. (mm)	code
CRL 3	96 x 96 x 62	40000003
CRL 5	96 x 96 x 62	40000005
CRL 7	96 x 96 x 62	40000007
CRL 8	144 x 144 x 62	40000008

CRL
Multi-function reading
Reprogrammable
Incidence notice
Thermostat
1-phase current reading
Steps extension
Modbus insertable
Ethernet insertable

“CRL” POWER FACTOR CONTROLLER

2/2

TECNICAL FEATURES

- aux. voltage service : 380 V up to 415 Vac (230 Vac on request)
- 50 / 60 Hz
- input current: 5 Amp.

FACEPLATE

- alphanumeric display
- function keyboard

MEASUREMENT

- instant $\cos \varphi$
- instant power factor value
- mean pwer factor value (weekly)
- instant RMS_Un / In
- peak values RMS_Un / In
- electric network KVAR
- KVAR to achieve the set point value
- harmonics overload (%)
- (instant and max.)
- indoor temperature value
- prefixed set point $\cos \varphi$
- up to 0,80 IND or 0,80 CAP
- T.C. "S1-S2" value, without polarity
- RS232 output
- 4 quadrants electr. power reading

ALARMS

by display :

- under compensation
- over compensation
- maximum current value
- minimum current value
- capacitors overload
- high temperature
- micro-breaks

by output relay :

- last two steps
- N/A _ N/C

OTHER BENEFITS (on request)

- control by thyristors
- makes available an external input
- "master/slave" power controllers connection
- single phase programm.

STANDARDS

IEC/EN 61010-1 IEC/EN 61000-6-2,
ENV 50204, CISPR 11/EN 55011,
IEC/EN 61000-3-3, IEC/EN 60068-2-61,
IEC/EN 60068-2-27, IEC/EN 60068-2-6,
UL508, CSA C22.2 n° 14



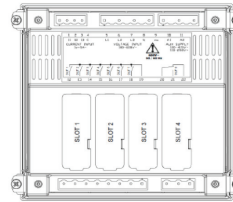
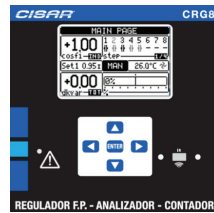
“CRG8” POWER FACTOR CONTROLLER

“CRG8” POWER FACTOR CONTROLLER

1/2

TRES FUNCIONES INTEGRADAS:
 REGULADOR de ENERGÍA REACTIVA
 ANALIZADOR de RED
 CONTADOR de ENERGÍA

Características Técnicas en 03_p.8



CRG8					P.R.P.	
n. of steps	8				CRG8	TO CONSULT
dimens. (mm) H x A x P	144*144*62				EXP10 00	
kg	0,98				EXP10 01	
code	4000008G				EXP10 02	
expandibilidad máxima CRG8					EXP10 03	
CRG8	EXP10 06	EXP10 01	steps		EXP10 04	
steps	modules	modules	standard	static	EXP10 05	
8	1 (2 steps)	–	10	–	EXP10 06	
8	1 (2 steps)	1 (4steps)	10	4	EXP10 08	
8	2 (4 steps)	–	12	–	EXP10 11	
8	2 (4 steps)	1 (4 steps)	12	4	EXP10 12	
8	3 (6 steps)	–	14	–	EXP10 13	
8	4 (8 steps)	–	16	–	EXP10 15	
8	–	–	8	–	EXP10 30	
8	–	1 (4 steps)	8	4	CX 01	
8	–	2 (8 steps)	8	8	CX 02	
					CX 03	

EXP. MODULES

EXP10 00	4 isolated digital inputs	EXP10 06	2 outputs to add capacitor steps
EXP10 01	44 isolated outputs to add static cap. steps	EXP10 08	2digital isolated inputs+2 relais outputs
EXP10 02	2 digital inputs + 2 isolated static outputs	EXP10 11	isolated RS232
EXP10 03	2 relay outputs 5A 250VAC	EXP10 12	isolated RS485
EXP10 04	2 analog isolated inputs	EXP10 13	isolated Ethernet with webservice fonction
	0/4 ...20mA 0...10V 0...+/-5V		
EXP10 05	2 analog isolated outputs	EXP10 30	data memory clock + calendar
	0...10V 0...+/-5V		

ACCESSORIES

CX 01	PC connect. cable and optical USB
CX 02	PC wi-fi connection
CX 03	antenna quad-band (800/900/1800/1900 MHz)_mod. EXP10 15

OTHER POSSIBILITIES

EXP10 15	GPRS-GSM without antenna
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settings, configuration and diagnostics can be managed with a "smartphone" without opening the electrical panel

03_p.7

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POWER FACTOR CORRECTION AND HARMONICS, SINCE 1979

“CRG8” POWER FACTOR CONTROLLER

2/2

POWER FACTOR CONTROLLER

- measurement in one or three phases (3 current inputs)
- measurement range : 100_690 Vac
- voltage service : 380 V up to 415 Vac
- expandability up to 16 relays in a controller
- suitable in dynamic applications (fast response)
- ability to work in “master/slave” mode
- medium voltage allows reading
- allows connections in analog and digital
- ability to send alarms through communication
- event log (online)
- allows backup and restore parameters

POWER ANALYZER

- Recorded parameters :
 - Volts
 - Amp.
 - Reactive power (Q)
 - Active power (S)
 - ThdI% up to 31 harmonic value
 - ThdU% up to 31 harmonic value
- harmonic analysis with bar graphs

POWER ANALYZER

- kWh (insant. and maximum values)
- kVArh (insant. and maximum values)
- kVAh (insant. and maximum values)
- records data from other existing counters

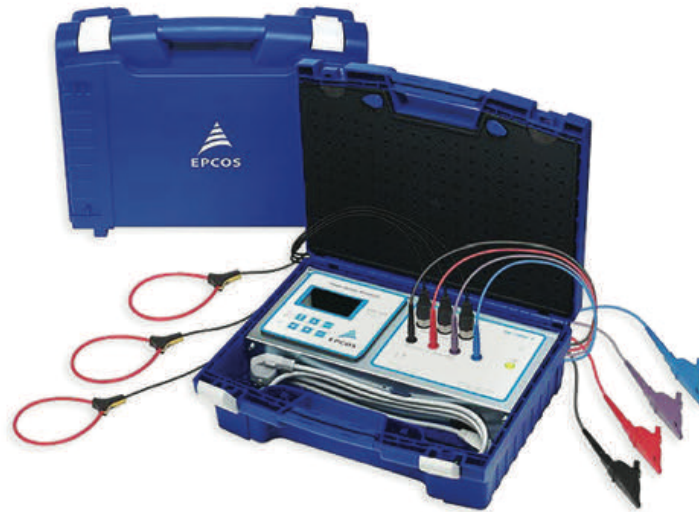


“MC7000-3” PORTABLE POWER ANALYZER

“MC7000-3” PORTABLE POWER ANALYZER

1/2

Technical Characteristics in 03_p.11



	code	P.R.P.
MC7000-3 analyzer	B44066M7777E230	TO CONSULT
complet kit "miniflex" current clamps (3 un.)	B44066M1303E230	
1 "miniflex" current clamp	B44066M1301E230	

“MC7000-3” PORTABLE POWER ANALYZER

2/2

TECHNICAL CHARACTERISTICS

- data storage with SD card (TXT)
- measurement, display and storage (3 phases) of :
 - voltage
 - current
 - frequency
 - active and reactive power
 - power factor
 - active, reactive and apparent energy
 - voltage and current harmonics up to 51 harm. value
 - ThdI% y ThdU%
 - temperature

- easy programming and data recording
- special display for harmonics
- “windows” operating system software included
- pre/re-configured graphical display
- mathematical evaluation of measured values
- power factor recommendations

- operating voltage : 110_230 Vac +/-15%
- power consumption <5 VA
- frequency : 50/60 Hz
- max. measuring voltage (3 phases) :
 - 3 x 30_440 Vac (L-N), 50/60 Hz
 - 3 x 50_760 Vac (L-L), 50/60 Hz
- measuring current : 30, 300, 3000 Amp.
- “miniflex” flexible current clamps
- illuminated graphic display screen (128x64 dots)
- languages: german/english/spanish/russian/turkish
- operation temperature range : -10/50°C
- storage temperature range : -20/60°C
- pollution degree n.2
- overvoltage class : CAT III
- IP40, according Standard IEC60529
- Neutral wire mandatory connection (Phase/Earth in option)
- (according IEC61010-1:2001 / EN61010-1:2001)

- accessories included in MC7000-3 :
 - 3 safety volt. measuring cables/phase (2 m.) 1000 CAT IV
 - 1 safety volt. measuring cables (2 m.), blue colour, 1000 CAT III
 - 4 “dolphin” clips 1000 V CAT III
 - CD “windows” software
 - low power device connectors
- accessory mandatory, in order separately :
 - 3 flexible current clamps 600 Vrms CAT IV/1000 Vrms CAT III
 - (max. 3000 Amp_ sensor 400 mm.)

- weight : 4 kg
- dimensions : 390x310x147 mm.



CURRENT TRANSFORMERS

CURRENT TRANSFORMERS

2/2

for network current signal to the regulator capacitor bank

CLOSED CORE

Amp.	dim. (mm) ext.	bus bar section	Ø	code	P.R.P.
50/5	44 x 99 x 430	–	Ø 22 mm.	50050000C	TO CONSULT
100/5	44 x 99 x 430	30 x 10 mm.	Ø 23 mm.	50100000C	
150/5	52 x 66 x 28	30 x 10 mm.	Ø 23 mm.	50150000C	
200/5	71 x 82 x 45	40 x 10 mm.	Ø 30 mm.	50200000C	
250/5	71 x 82 x 45	40 x 10 mm.	Ø 30 mm.	50250000C	
400/5	71 x 82 x 45	40 x 10 mm.	Ø 30 mm.	50400000C	
500/5	71 x 82 x 45	40 x 10 mm.	Ø 30 mm.	50500000C	
800/5	140 x 155 x 53	30 x 100 mm.	Ø 86 mm.	50800000C	
1000/5	140 x 155 x 53	30 x 100 mm.	Ø 86 mm.	51000000C	
1500/5	140 x 155 x 53	30 x 100 mm.	Ø 86 mm.	51500000C	
2000/5	140 x 155 x 53	30 x 100 mm.	Ø 86 mm.	52000000C	
2500/5	140 x 155 x 53	30 x 100 mm.	Ø 86 mm.	52500000C	



SPLIT CORE

Amp.	dim. (mm) ext.	dim. (mm) interior	code	P.V.P. P.R.P.
100/5	100 x 90 x 34 mm.	30 x 20 mm.	50100100A	TO CONSULT
150/5	100 x 90 x 34 mm.	30 x 20 mm.	50150100A	
250/5	90 x 105 x 35 mm.	30 x 20 mm.	50250100A	
400/5	120 x 150 x 35 mm.	80 x 50 mm.	50400100A	
500/5	120 x 150 x 35 mm.	80 x 50 mm.	50500100A	
800/5	150 x 120 x 39 mm.	80 x 50 mm.	50800100A	
1000/5	172 x 150 x 34 mm.	100 x 80 mm.	51000100A	
1500/5	172 x 150 x 34 mm.	100 x 80 mm.	51500100A	
2000/5	172 x 150 x 34 mm.	100 x 80 mm.	52000100A	



CURRENT ADDING TRANSF.

Amp.	dim. (mm)	code	P.R.P.
5+5/5	90 x 127 x 27	50055500	ATO CONSULT
5+5+5/5	90 x 127 x 27	50055550	

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SPECIAL CAPACITOR CONTACTORS

SPECIAL CAPACITOR CONTACTORS

2/2

KVar	according Un			code	P.R.P.
	230 Vac	400 Vac	440 Vac		
12,5	5 kvar	12,5 kvar	15 kvar	82120220E	TO CONSULT
20	10 kvar	20 kvar	25 kvar	82200220E	
25	15 kvar	25 kvar	30 kvar	82250220E	
50	20 kvar	50 kvar	60 kvar	82500220E	

KVar / 400 Vac			
12,5	20	25	50
aux. Un			
220 V	220 V	220 V	220 V
U max.			
690 V	690 V	690 V	690 V
conections* h			
120	120	120	120
endurance			
0,25	0,15	0,15	0,15
rigid permiss. cable			
1,5_6 mm ²	2,5_25 mm ²	2,5_25 mm ²	25 mm ²
flexible permiss. wire			
1,5_4 mm ²	2,5_16 mm ²	2,5_16 mm ²	25 mm ²
cables par terminal			
2	1	1	1
I th - 40°C			
16	10	10	10
I th - 60°C			
12	6	6	6
cont. aux. NC			
1/0	1/0	1/0	1/0
Standards			
IEC947-4-1, IEC947-5-1, EN60947-4-1, EN60947-5-1, VDE0660			



AC6b series
UL Cert.
dumping resistors to limit the inrush current
reduced ohmic losses
easy and safe cables connection

03_p.15

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“CONDICIONES GENERALES DE VENTA” “GENERAL TERMS OF SALE”

GENERAL TERMS OF SALE

PRICES

- Prices will be negotiated with each specific client.
- Transport costs will be indicated on an invoice-proforma with the price of materials.
- Products are packed up for ground transport. Maritime or air packaging has to be consulted.
- CONDENSADORES INDUSTRIALES, S.L. reserves to himself the right to modify the characteristics of its products whenever it deems appropriate. All the modifications will be based on justifiable technical reasons.

PAYMENT FORM

- It has to be dealt with the Customer.
- Interests and bank charges, due to delays in payment, have to be paid by the Customer.

GUARANTEE

- Our products are guaranteed against manufacturing defects for two years since invoice date.
- The guarantee conditions and exclusions are described in technical manual. Use and maintenance tips are also describe there.
- CONDENSADORES INDUSTRIALES, S.L. does not take responsibility for personal or material damages arising from a misuse or an incorrect installation.
- If there is any incident during the transport or the unloading of the product, the Customer must report to CONDENSADORES INDUSTRIALES, S.L. the problems in writing within 24 hours after incident. It must be attached photographs in this report.

RETURNS POLICY

- Returns are not accepted without a prior communication and authorization to/from CONDENSADORES INDUSTRIALES, S.L.
- If there is any payment for the returned material it will be determined after being examined in our workshop.
- Special products cannot be returned.
- Shipping costs to CONDENSADORES INDUSTRIALES, S.L. will always be paid by the Customer.
- Any product return must be communicate within 15 days of the date of receipt. Returns are not accepted after this period.
- Any product returned have a demerit of 10% of the invoiced amount, regardless of their state of use.
- For defective materials, our liability is limited to the replacement or repair thereof in the established product warranty terms.

PROPERTY SECURE

- Materials submitted are property of CONDENSADORES INDUSTRIALES, S.L. until the Customer has paid the full amount of them.
- CONDENSADORES INDUSTRIALES, S.L. reserves to himself the right to recover the material in case of Customer's non-payment.
- Any conflict or divergence that might arise, shall be settled by the Courts of L'Hospitalet de Llobregat (Barcelona-Spain).



AUTOMATIC CAPACITOR BANKS

POWER FACTOR CAPACITORS

HARMONICS FILTERING

POWER FACTOR CONTROLLERS

HARMONICS ANALYZERS (fixed and hand-held)

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