

Instruction for changing settings for South Africa Values acc. To NRS 097-2-1:2017 Edition 2

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Default settings and firmware version, NRS 097-2-1:2017

When changing programs, all parameters are reset to the default settings.

			Settings for South Africa 		Users Data
Menu	Parameter / Unit		3 AC 230 V / N (With neutral)	AC 400 V / N (Without neutral)	
			Pr5	Pr6	
U ⁻⁻⁻	U ⁻⁻⁻	Alarm on/off	on	on	
	U ⁻⁻⁻	Overvoltage	V 264 > 276 / (120 %)	458 > 478 / (120 %)	
	H ⁻⁻⁻	Hysteresis	V 3.0	3.0	
	dRL	Response time	s 0.10 > 0.16	0.10 > 0.16	
	doF	OFF-delay	s 60	60	
U ⁻	U ⁻	Alarm on/off	on	on	
	U ⁻	Overvoltage	V 249 > 253 / (110 %)	430 > 438 / (110 %)	
	H ⁻	Hysteresis	V 3.0	3.0	
	dRL	Response time	s 60.00 > 2.0	60.00 > 2.0	
	doF	OFF-delay	s 60	60	
UN	UN	Alarm on/off	oFF	oFF	
	UN	Overvoltage	V 253	438	
	HN	Hysteresis	V 3.0	3.0	
	dRL	Response time	s 0.10	0.10	
	doF	OFF-delay	s 60	60	
U ₋	U ₋	Alarm on/off	on	on	
	U ₋	Undervoltage	V 404 > 196 / (85 %)	348 > 339 / (85 %)	
	H ₋	Hysteresis	V 3.0	3.0	
	dRL	Response time	s 2.70 > 10.0	2.70 > 10.0	
	doF	OFF-delay	s 60	60	
U ₋₋	U ₋₋	Alarm on/off	on	on	
	U ₋₋	Undervoltage	V 404 > 115 / (50 %)	400 > 199 / (50 %)	
	H ₋₋	Hysteresis	V 2.0	2.0	
	dRL	Response time	s 0.3 > 0.2	0.3 > 0.2	
	doF	OFF-delay	s 60	60	
F ⁻⁻⁻	F ⁻⁻⁻	Alarm on/off	oFF	oFF	
	F ⁻⁻⁻	Overfrequency	Hz 51.50	51.50	
	H ⁻⁻⁻	Hysteresis	Hz 1.45	1.45	
	dRL	Response time	s 0.10	0.10	
	doF	OFF-delay	s 60	60	
F ⁻	F ⁻	Alarm on/off	on	on	
	F ⁻	Overfrequency	Hz 54.50 > 52.00	54.50 > 52.00	
	H ⁻	Hysteresis	Hz 1.45	1.45	
	dRL	Response time	s 0.10 > 4.0	0.10 > 4.0	
	U ⁻⁻⁻	Alarm on/off	s 60	60	
F ₋	F ₋	Alarm on/off	on	on	
	F ₋	Underfrequency	Hz 47.50 > 47.0	47.50 > 47.0	
	H ₋	Hysteresis	Hz 1.00	1.00	
	dRL	Response time	s 0.10 > 0.2	0.10 > 0.2	
	doF	OFF-delay	s 60	60	
F ₋₋	F ₋₋	Alarm on/off	oFF	oFF	
	F ₋₋	Underfrequency	Hz 47.50	47.50	
	H ₋₋	Hysteresis	Hz 1.00	1.00	
	dRL	Response time	s 0.10	0.10	
	doF	OFF-delay	s 60	60	


			Settings for South Africa 		Users Data
Menu	Parameter / Unit		3 AC 230 V / N (With neutral)	3 AC 400 V / N (Without neutral)	
			Pr5	Pr6	
UonF	UonF	on/off	oFF	oFF	
	UonF	voltage V	46.0	46.0	
u5r	u5r	Alarm on/off	5t6y	5t6y	
	u5r	Vector shift	10.0	10.0	
	doF	OFF-delay s	3	3	
	dEon	Suppression time s	3	3	
	u5r	Number of phases	3Ph	3Ph	
rocF	rocF	Alarm on/off	oFF	oFF	
	dFdt	delta f / delta t Hz /s	0.800	0.80	
	PEr	periods	20	20	
	dRL	Response time s	0.10	0.10	
	doF	OFF-delay s	60	60	
rEL	trEL	Response time Yx s	oFF	oFF	
	doFA	Mode	i nd	i nd	
	doFA	Off-delay all s	0	0	
ddi	ddi	Display delay s	0.5	0.5	
	di t	Display duration 5[n] s	3.5	3.5	
Si	U	Voltage V	230	400	
	F	Frequency Hz	50.00	50.00	
	u5r	Vector shift °	0.0	0.0	
codE	Pin	Pincode	504	504	
Info	Fnr	Firmware version	0-08	0-08	
	Snr	Serial number	xxxx	xxxx	
	h	Operating hours h	xxxx	xxxx	
	Err	Error counter	xxx	xxx	
	Pr	Program	5	6	

Display of the program: Info → Pr or when switching on
 Display of the firmware version: Info → Fnr

Commissioning


Program setup

The suitable program must be set on the UFR1001E in accordance with the application. If the UFR1001E is sealed/locked (red LED illuminated), the sealing has to be deactivated first.

Pr	Connection	Threshold Values	Voltage	Country / Standard
5	3/2/1 AC with N	<u>Medium voltage</u> 2x over voltage, 2x under voltage 2x over frequency, 2x under frequency	230V	 NRS 097-2-1
6	3 AC without N	10min mean value, 1x vector shift 1x ROCOF	400V	

Adjustment process:

If present, remove seal (only authorised person)

<ul style="list-style-type: none"> • Apply control supply voltage at A1-A2
<ul style="list-style-type: none"> • Slightly lift the key cover and turn 180°
<ul style="list-style-type: none"> • Actuate the small blue button by firmly pressing the button cover (LED starts flashing) until the green LED  is illuminated.

Sealing is deactivated

<ul style="list-style-type: none"> • Press ▲ button 1x → display l nF.
<ul style="list-style-type: none"> • Press ▶ button 5x → display Pr l.
<ul style="list-style-type: none"> • Set program Pr5 or Pr6 with the buttons ▲ ▼
<ul style="list-style-type: none"> • Press ▶ button 1x → display no.
<ul style="list-style-type: none"> • Press ▼ button 1x → display YES.
<ul style="list-style-type: none"> • Press ▶ button
⇒ Device resets and starts with the newly selected program

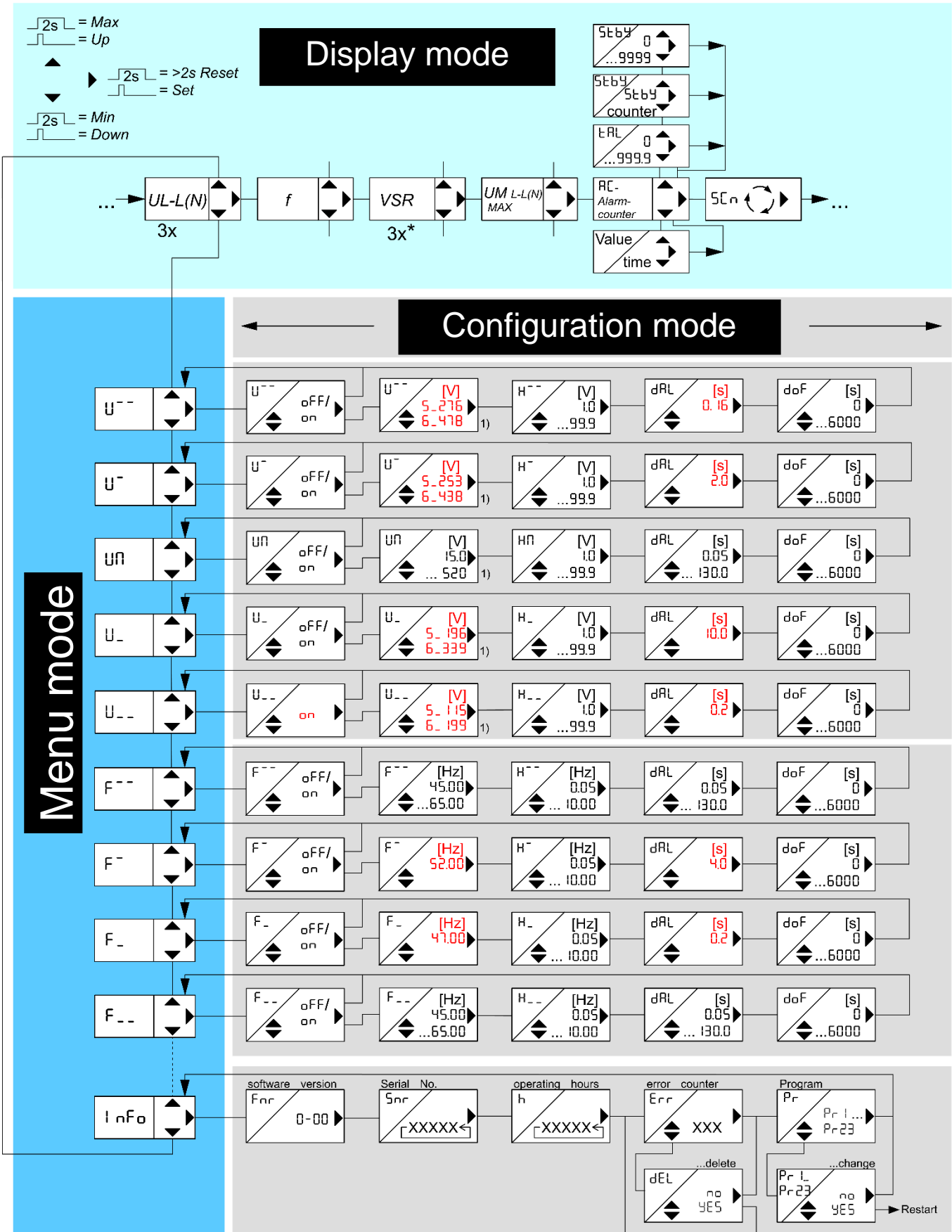
Hint: When changing programs, all parameters of the selected program are reset to “default settings“ (see table „Default settings“). **Only change the parameters after having selected the correct program.**

Settings to be changed for South Africa



Pr	Connection
5	3/2/1 AC + N
6	3 AC

Red = to be changed





Certificate of compliance

Applicant: ZIEHL industrie-elektronik GmbH+Co KG
Daimlerstrasse 13,
74523 Schwäbisch Hall
Germany

Product: Voltage and Frequency Relay

Model: UFR1001E

Use in accordance with regulations:

Automatic disconnection device with three-phase mains surveillance in accordance with IEC 61727:2004 for systems with a parallel coupling via an inverter in the public mains supply. This serves as a replacement for the disconnection device with insulating function which the distribution network provider can access at any time.

Applied rules and standards:

NRS 097-2-1:2017 Edition 2

Grid interconnection of embedded generation, Part 2: Small-scale embedded generation, Section 1: Utility interface

IEC 61727:2004 Edition 2

Photovoltaic (PV) systems – Characteristics of the utility interface

VDE AR-N 4105:2011-08 (A.6 General requirements, single-fault tolerance)

Power generation systems connected to the low-voltage distribution network

At the time of issue of this certificate the safety concept of an aforementioned representative product corresponds to the valid safety specifications for the specified use in accordance with regulations.

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Certification body

Holger Schaffer

Certification body of Bureau Veritas Consumer Products Services Germany GmbH
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