



LX321

Parameter list
Product version V2.2.1.0

PARAMETER LIST I

| Software settings | | | | | |
|--|-----------------------------|------------------|-----------------|---|------------|
| Parameter | | Default settings | Custom settings | Min. value | Max. value |
| <i>Stability & Buildup</i> | <i>Build-up Gain</i> | 2x | | 0.1x | 14x |
| | <i>Loop Gain</i> | 0.100x | | 0.022 | 1.000 |
| | <i>Initial voltage</i> | 15% | | 0 % | 67.5 % |
| | <i>Build-up Time</i> | 5 Sec | | 1 Sec | 60 Sec |
| <i>Protections</i> | <i>Excitation loss</i> | ON | | Off | On |
| | <i>Phase loss</i> | ON | | Off | On |
| | <i>Current loss</i> | ON | | Off | On |
| | <i>Stop at fault</i> | OFF | | Off | On |
| <i>Analog Input/output</i> | <i>Analog in</i> | OFF | | Options: Off VM PF VM & PF | |
| | <i>Analog Out</i> | OFF | | Options: Off PI Ctrl Gen. Voltage Gen. Current PF Gen. Freq Exc. current Voltage SP PF SP General SP | |
| <i>Regulation mode</i> | <i>INV mode</i> | OFF | | Off | On |
| | <i>VPH mode</i> | OFF | | Off | On |
| | <i>Min. Excitation mode</i> | OFF | | Off | On |
| | <i>Reset to defaults?</i> | NO | | No | Yes |
| <p>⁽¹⁾ AVR Assistant required. Other settings can also be changed with AVR, see advanced settings (page 5,6,7).</p> <p>⁽²⁾ Do not use. (Only manufacturer)</p> <p>⁽³⁾ Only available in OEM access level. (Contact manufacturer for more information)</p> | | | | | |

PARAMETER LIST I I

| Software settings | | | | | | |
|----------------------|---|------------------|-----------------|------------|------------|--|
| Parameter | | Default settings | Custom settings | Min. value | Max. value | |
| Calibration (1/2) | ⁽³⁾ Exc Offset ⁽¹⁾ | 0 | | -127 | 127 | |
| | Exc Gain ⁽¹⁾ | 0 | | -127 | 127 | |
| | U Offset ⁽¹⁾ | 0 | | -127 | 127 | |
| | U Gain ⁽¹⁾ | 0 | | -127 | 127 | |
| Calibration (2/2) | ⁽³⁾ I(u) Offset ⁽¹⁾ | 0 | | -127 | 127 | |
| | I(u) Gain ⁽¹⁾ | 0 | | -127 | 127 | |
| | Analog Gain ⁽¹⁾ | -1 | | -127 | 127 | |
| | Analog Offset ⁽¹⁾ | -1 | | -127 | 127 | |
| | PF offset ⁽¹⁾ | 0 | | -127 | 127 | |

⁽¹⁾ AVR Assistant required. Other settings can also be changed with AVR, see advanced settings (page 5,6,7).

⁽²⁾ Do not use. (Only manufacturer)

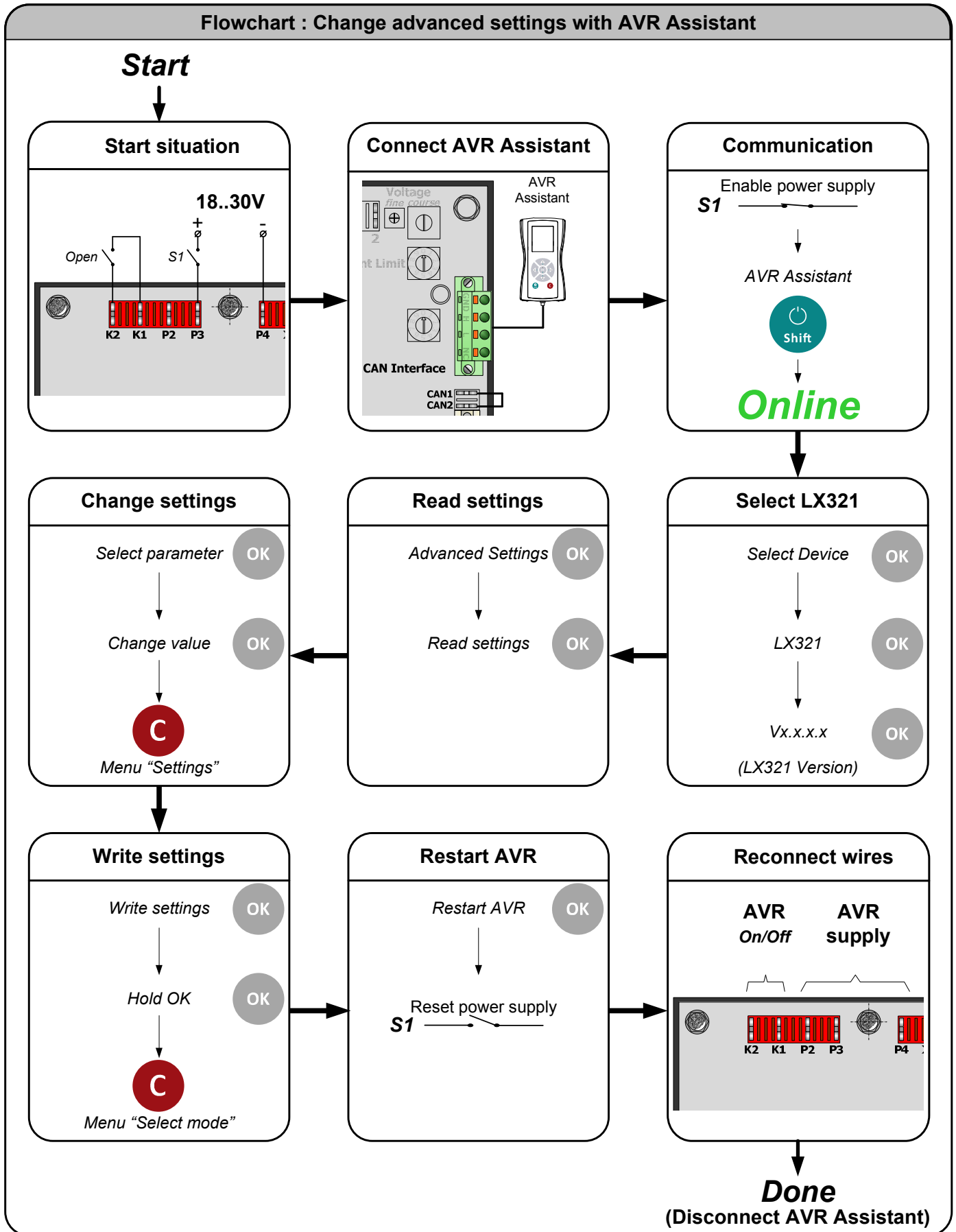
⁽³⁾ Only available in OEM access level. (Contact manufacturer for more information)

PARAMETER LIST I I I

| Hardware settings | | |
|---|--|--------------------------------------|
| Parameter | Default settings | Custom settings |
| <i>Rotary switch</i> | <i>UFRO</i> | <i>Position : 0</i> |
| | <i>Current Limit</i> | <i>Position : 9</i> |
| <i>Potentiometer</i> | <i>Voltage coarse</i> | <i>+/- 50% (adjusted: 200V/50Hz)</i> |
| | <i>Voltage fine</i> | <i>50 %</i> |
| | <i>Prop. gain</i> | <i>50 %</i> |
| | <i>Int. time</i> | <i>50 %</i> |
| | <i>Droop</i> | <i>0 %</i> |
| | <i>Exc. Trip</i> | <i>100 %</i> |
| | <i>Cosphi Steepness</i> ⁽⁴⁾ | <i>50%</i> |
| <i>Terminals</i> | <i>K1-K2</i> | <i>Linked</i> |
| | <i>1-2</i> | <i>Linked</i> |
| | <i>CAN1-CAN2</i> | <i>Linked</i> |
| | <i>TH1-TH2</i> | <i>Linked</i> |
| | <i>PF1-PF2</i> ⁽⁴⁾ | <i>Open</i> |
| | | |
| ⁽⁴⁾ <i>Function can be changed with software settings.</i> | | |

ADVANCED SETTINGS I

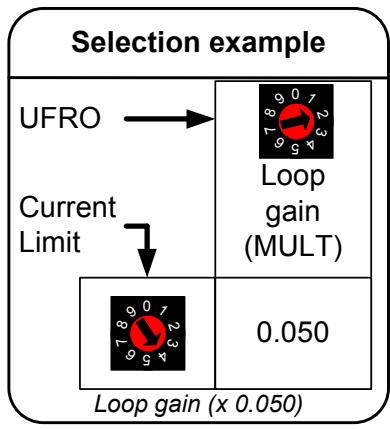
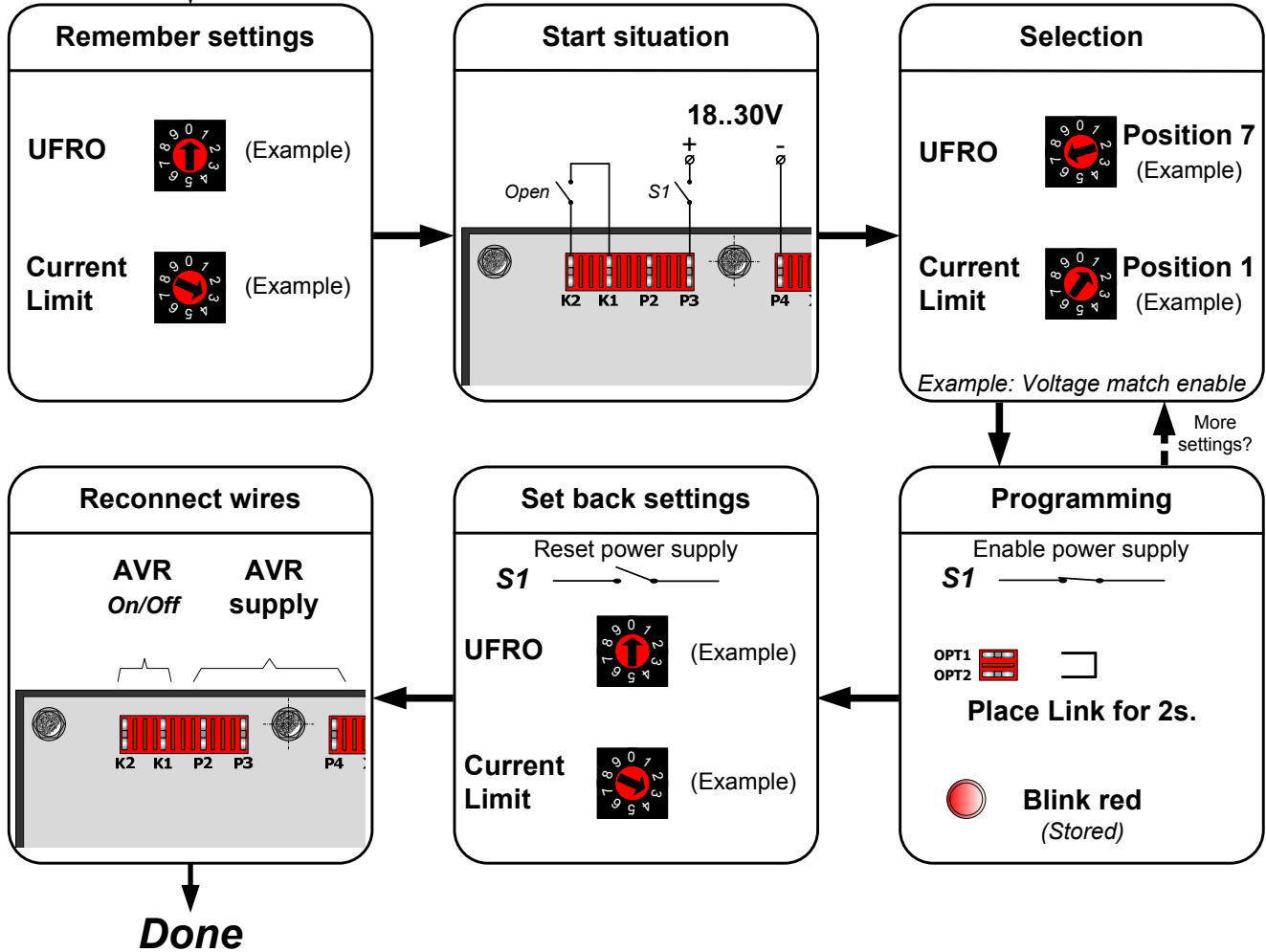
Flowchart : Change advanced settings with AVR Assistant



ADVANCED SETTINGS I I

Flowchart : Change advanced settings with rotary switches

Begin (Generator stopped !)





















Note

Change of setting only take effect after restart

Advanced settings can be adjusted according the flowchart.
Advanced settings are available with firmware version 3.0, 5.0 and higher than 5.0.

ADVANCED SETTINGS I I I

Table : Change advanced settings with rotary switches

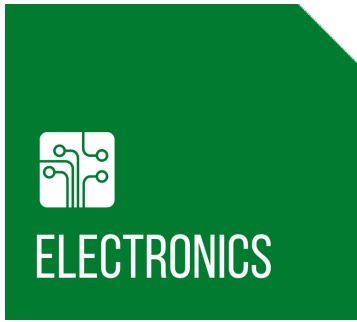
| UFRO | | | | | | | | | |
|---|--|---|--|--|---|--|--|--|---|
| |  Buildup gain (MULT) |  Loop gain (MULT) |  Initial voltage, SE Mode. |  Protections |  Buildup time @ startup |  Option output |  Accessory input modes |  Operation modes | |
| Current Limit | | | | | | | | | |
|  | 0.1 (slowest) | 1.000 (fastest) | 0% | Excitation loss disabled | 1 sec. | Do not use * | Voltage match disabled | Inverted output disabled | |
|  | 0.2 | 0.200 | 10% | Excitation loss enabled | 3 sec. | | Voltage match ** enabled | Inverted output enabled | |
|  | 0.5 | 0.100 | 15% | Phase loss disabled | 5 sec. | | Cosphi setpoint disabled | Do not use * | |
|  | 1 | 0.066 | 22.5% | Phase loss enabled | 7 sec. | | Cosphi setpoint enabled | | |
|  | 2 | 0.050 | 30% | Current loss disabled | 10 sec. | | Do not use * | VPH Mode disabled | |
|  | 4 | 0.040 | 37.5% | Current loss enabled | 20 sec. | | | VPH Mode enabled | |
|  | 6 | 0.033 | 45% | Do not use * | 30 sec. | | | Min. Exc. at Cosphi disabled | |
|  | 8 | 0.028 | 52.5% | Do not use * | 45 sec. | | | Min. Exc. at Cosphi enabled | |
|  | 10 | 0.025 | 60% | Exc. stop after error disabled | 60 sec. | | | Do not use * | |
|  | 14 (fastest) | 0.022 (slowest) | 67.5% | Exc. stop after error enabled | Cosphi setpoint 0..255 sec. | | | | |
| Description | Extra multiplication factor for proportional gain. Only applied during field flash. | Extra multiplication factor for proportional gain. | Initial setpoint from which the AVR ramps up after field flash. Setpoint in % of Unom. | Enable or disable the required protections. | The speed by which the AVR ramps from the minimum setpoint to the nominal setpoint. | Special application | | Enable or disable the required modes of operation | Enable or disable the required modes of operation |

* Do not use. (Only manufacturer)

** LX_VMA unit required.

Default factory settings are highlighted in table. By setting both UFRO and Current Limit at position 9 and placing the programming jumper, will reset the AVR to **default factory settings**.

CONTACT



EMRI Electronics B.V.
Morsestraat 10
6716 AH, Ede, Netherlands
Tel: +31 (0)318 620 427
Website: www.emri.nl
E-mail: info@emri.nl

Manufacturer



CANARY ISLANDS, Las Palmas
Zamakona Yards
Tel: +34 928467521
Fax: +34 928461233
Website: www.zamakonayards.com/
E-mail: jbetancor@zamakonayards.com

CHILE, Santiago
Lucio Vicencio y CIA.LTDA
Tel: +1-281-334-2904
Fax: +1-832-221-5642
Website: www.luciovicencio.cl
E-mail: luciovincenciolt@gmail.com

GREECE, Piraeus
Stavros Kassidiaris S.A.
Tel: +30 210 4636000
Fax: +30 210 4624471
Website: www.kassidiaris.gr
E-mail: info@kassidiaris.gr

ICELAND, Hafnarfjordur
Rafeining ehf
Tel: +354 565 3049
Fax: +354 565 3048
Website: www.rafeining.is
E-mail: rafeining@rafeining.is

INDIA, Faridabad
Power Solutions
Tel: +91 9868907903
Fax: +91 129 2431216
Website: www.psolindia.com
E-mail: ramesh.powersolutions@gmail.com

NORWAY, Bergen
Frydenbø Electric A/S
Tel: +47 55 34 91 00
Fax: +47 55 34 91 10
Website: www.frydenbo.no
E-mail: firma.fel@frydenboe.no

POLAND, Gdynia
An-Elec Sp. z o.o.
Tel: +48 58 668 44 00
Fax: +48 58 668 44 66
Website: <http://an-elec.pl>
E-mail: info@an-elec.pl

POLAND, Szczecin
MARCONTROL
Tel: +48 91 4 888 474
Fax: +48 91 4 888 475
Website: www.marcontrol.com
E-mail: emri@marcontrol.com

POLAND, Szczecin-Mierzyn
Marel Serwis
Tel: +48 91 48 58 388
Fax: +48 91 48 79 948
Website: www.marel.szczecin.pl
E-mail: handel@marel.szczecin.pl

REPUBLIC OF PANAMA, Panama
PASRAS S.A.
Tel: +507 3140095
Fax: +507 3140094
Website: www.pasras.com
E-mail: info@pasras.com

ROMANIA, Constanta
SAMTEC SRL
Tel: +40 241 517 047
Fax: +40 241 517 047
Website: www.samtec.ro
E-mail: samtec_srl@yahoo.com

SINGAPORE, Singapore
Cyclelect Electrical Engineering
Tel: +65 6868 6013
Fax: +65 6863 6260
Website: www.cyclelect.com.sg
E-mail: heng.p@cyclelect.com.sg

SOUTH AFRICA, Roodepoort
Yneldo Electronics
Tel: +27(0)117637053
Fax: +27(0)117634212
Website: www.yneldo.com
E-mail: yneldo@yneldo.com

SWEDEN, Kungälv
Elektrisk Drivteknik EDT AB
Tel: +46-705-28 20 60
Tel: +46-709-50 47 90
Website: www.edtab.se
E-mail: info@edtab.se

THAILAND, Bang Lamung
Semtec Maritime/Genetech Co.Ltd
Tel: +66 38301262
Fax: +1-832-221-5642
Website: semtecmaritime.com/
Email: ron@northstarusa.co

TURKEY, Izmir
INTEGRAL
Tel: +90 (555) 211 55 75
Email: ozgur@integralguc.com

UNITED ARAB EMIRATES, Sharjah
KDU Technical Services
Tel: +971-6-5575480
Fax: +971-6-5575490
Website: www.kdutech.ae
E-mail: kdutech@kdutech.ae

UNITED KINGDOM, Stockton on Tees
MJR Controls
Tel: +44 1642 762 151
Fax: +44 1642 762 502
Website: www.mjrcontrols.com
Email: chris.milner@mjrcontrols.com

UNITED KINGDOM, Cheadle Hulme
TGS Total Generator Solutions Ltd
Tel: +44161 8188720
Fax: +447754677963
Website: <http://totalgeneratorsolutions.com>
Email: sales@totalgeneratorsolutions.com

UNITED STATES, Kemah - Texas
Ramtec Marine Systems LLC
Tel: +1-281-334-2904
Fax: +1-832-221-5642
Website: www.ramtec-marine.com
Email: waling@ramtec-marine.com