



LXCOS

Parameter list
Product version V1.4.5.2

PARAMETER LIST I

Software settings				
Parameter	Default settings	Custom settings	Min. value	Max. value
Stability (1/2)	Buildup gain	1x		0.1x 14x
	Global loop gain	0.100x		0.022x 1.000x
	Derivative gain ⁽¹⁾	25.0%		0% 100.0%
Stability (2/2)	FCR loop gain ⁽¹⁾	2.000x		0.100x 2.000x
	AVR loop gain ⁽¹⁾	0.500x		0.080x 1.000x
	SR2 loop gain ⁽¹⁾	0.200x		0.025x 1.000x
	QPF/kVAr loop gain ⁽¹⁾	0.013x		0.010x 0.125x
	Transit loop gain ⁽¹⁾	0.125x		0.02.0x 0.500x
Buildup (1/1)	Initial voltage	37.5%		0 % 112.5 %
	Buildup Time	5 Sec		0 Sec 255 Sec
Input config (1/1)	PF1,PF2	QPF		Options: QPF SR2 UF FCR ⁽¹⁾ kVAr ⁽¹⁾
	TH1,TH2 ⁽¹⁾	50/60Hz		Options: Rst R/L KTY 50/60Hz CUN OEL+UEL UEL OEL kVAr FCR UF SR2 QPF2
	A1,A2	M-Select		Options: M-Select M-Select R/L Volt. Match QPF/kVAr ⁽¹⁾ QPF/kVAr R/L ⁽¹⁾ FCR1 ⁽¹⁾ FCR1 R/L ⁽¹⁾ FCR2 ⁽¹⁾ FCR2 R/L ⁽¹⁾ Full R/L ⁽¹⁾

⁽¹⁾ AVR Assistant required. Other settings can also be changed with AVR, see manual "Advanced settings IV".

⁽²⁾ Do not use. (Only manufacturer)

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

PARAMETER LIST I I

Software settings					
Parameter	Default settings	Custom settings	Min. value	Max. value	
Output config (1/1)	D1,D2 <small>(1) (2)</small>	OFF			Options: OFF PID Output UVW (V) I-v (A) Cosphi Freq. (Hz) I-Exc. (A) UVW SP(V) Cosphi SP General SP 5Vdc 10Vdc I-Exc SP(A) I-v SP(A) kVAr SP kVAr (VAr) kVAr+ (VAr) kVAr share Cos share
Protections (1/1)	Excitation loss	ON		OFF	ON
	Phase loss	ON		OFF	ON
	Current loss	ON		OFF	ON
	Stop at fault	OFF		OFF	ON
Setpoints (1/1)	Cosphi 2 <small>(1)</small>	1.000		0.8 cap.	0.6 ind.
	OEL <small>(1)</small>	8.00 Adc		1.00A	13.50A
	UEL <small>(1)</small>	0 mAdc		0mA	4000mA
	Acc. range <small>(1)</small>	0.0%		0.0%	100.0%
	UnderFreq. (+/-) <small>(1)</small>	0.0 Hz		-12.7 Hz	12.7 Hz
<p><small>(1)</small> AVR Assistant required. Other settings can also be changed with AVR, see manual "Advanced settings IV".</p> <p><small>(2)</small> Do not use. (Only manufacturer)</p> <p><small>(3)</small> Only available in OEM access level. (Contact manufacturer for more information)</p>					

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Software settings					
	<i>Parameter</i>	<i>Default settings</i>	<i>Custom settings</i>	<i>Min. value</i>	<i>Max. value</i>
<i>Options (1/1)</i>	<i>UEL mode</i> ⁽¹⁾	<i>OFF</i>		<i>OFF</i>	<i>ON</i>
	<i>AFD mode</i>	<i>OFF</i>		<i>OFF</i>	<i>ON</i>
	<i>Inverted mode</i>	<i>OFF</i>		<i>OFF</i>	<i>ON</i>
	<i>Inverted start</i> ⁽¹⁾	<i>LOW</i>		<i>LOW</i>	<i>HIGH</i>
<i>IO calibrate (1/1)</i>	<i>Analog Out-Zero</i> ⁽¹⁾	<i>0 mV</i>		<i>-1270mV</i>	<i>1270mV</i>
	<i>Analog Out-Span</i> ⁽¹⁾	<i>0.0 %</i>		<i>-12.7 %</i>	<i>12.7 %</i>
	<i>Analog In-Zero</i> ⁽¹⁾	<i>0 mV</i>		<i>-1270mV</i>	<i>1270mV</i>
	<i>Analog In-Span</i> ⁽¹⁾	<i>0.0 %</i>		<i>-12.7 %</i>	<i>12.7 %</i>
<i>Potmeter lock (1/1)</i>	<i>Pot. lock</i> ⁽³⁾	<i>Unlocked</i> ⁽¹⁾		<i>Unlocked</i>	<i>Locked</i>
<i>Defaults (1/2)</i>	<i>Reset to defaults?</i> ⁽¹⁾	<i>NO</i>		<i>NO</i>	<i>YES</i>

⁽¹⁾ AVR Assistant required. Other settings can also be changed with AVR, see manual "Advanced settings IV".

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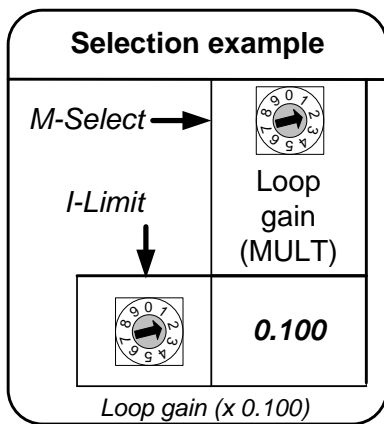
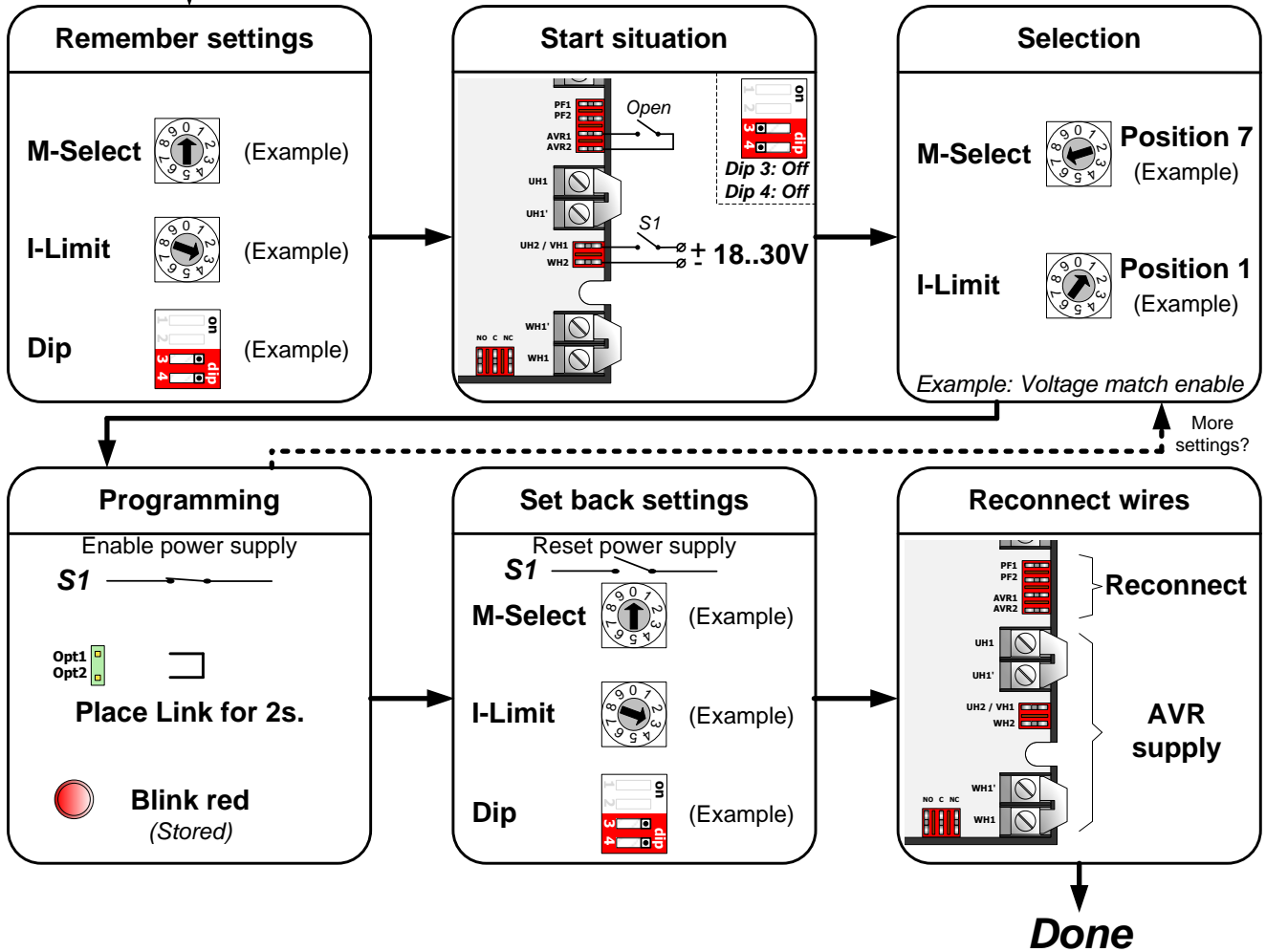
PARAMETER LIST IV

Hardware settings		
<i>Parameter</i>	<i>Default settings</i>	<i>Custom settings</i>
<i>Dipswitch</i>	<i>Dip 1</i>	<i>ON</i>
	<i>Dip 2</i>	<i>ON</i>
	<i>Dip 3</i>	<i>OFF</i>
	<i>Dip 4</i>	<i>OFF</i>
<i>Rotary switch</i>	<i>M-Select</i>	<i>Position : 0</i>
	<i>I-Limit</i>	<i>Position : 9</i>
<i>Potentiometer</i>	<i>Voltage coarse</i>	<i>+/- 50% (adjusted: 400V/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>P1</i> <i>Default: Acc. range</i>	<i>0%</i>
	<i>P2</i> <i>Default: OEL</i>	<i>50%</i>
<i>P3</i> <i>Default: Cosphi 1</i>	<i>50%</i>	
<i>Terminals</i>	<i>AVR1-AVR2</i>	<i>Linked</i>
	<i>s-t</i>	<i>Linked</i>
	<i>CAN1-CAN2</i>	<i>Linked</i>
	<i>TH1-TH2</i> ⁽⁴⁾	<i>Linked</i>
	<i>PF1-PF2</i> ⁽⁴⁾	<i>Open</i>
	<i>I1-I1'</i>	<i>Linked</i>
	<i>K1-K1'</i>	<i>Linked</i>
	<i>UH1-UH1'</i>	<i>Linked</i>
	<i>WH1-WH1'</i>	<i>Linked</i>
<p>⁽⁴⁾ <i>Potentiometer and terminal function are defined by the mode of control. (See manual : Advanced settings I & II)</i></p>		

ADVANCED SETTINGS 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 1.0 and higher.

ADVANCED SETTINGS I I

Table: Change advanced settings with rotary switches

M-Select								
								
	Buildup gain	Global loop gain	Umin (Initial Voltage)	Protections	Buildup time (@ startup)	Option output	Accessory input modes	Operation modes
I-Limit								
	0.1 (slowest)	1.000 (fastest)	0%	Excitation loss OFF	1 sec.	Do not use *	Voltage match OFF	Inverted output OFF
	0.2	0.200	7.5%	Excitation loss ON	3 sec.		Voltage match ** ON	Inverted output ON
	0.5	0.100	15%	Phase loss OFF	5 sec.		QPF/kVAr setpoint OFF	SR2 mode OFF
	1	0.066	22.5%	Phase loss ON	7 sec.		QPF/kVAr setpoint ON	SR2 mode ON ****
	2	0.050	30%	Current loss OFF	10 sec.		Raise/lower setpoint OFF	UF mode OFF
	4	0.040	37.5%	Current loss ON	20 sec.		Raise/lower setpoint ON	UF mode ON ****
	6	0.033	45%	Do not use *	30 sec.		FCR1 sepoint OFF	FCR mode OFF
	8	0.028	52.5%	Do not use *	45 sec.		FCR1 setpoint ON	FCR mode ON ****
	10	0.025	60%	Stop after fault OFF	60 sec.		FCR2 setpoint OFF	AFD mode OFF
	14 (fastest)	0.022 (slowest)	67.5%	Stop after fault ON	60 sec.		FCR2 setpoint ON	AFD mode ON ***
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 desired protections.	The speed by which the AVR ramps from the minimum setpoint to the nominal setpoint.	Special application	Enable or disable the desired modes of operation.	Enable or disable the desired modes of operation.

* Used only by manufacturer. Contact for more information. ** LX_VMA unit required. *** AFD unit required.

**** SR2 , UF or FCR mode selectable at input PF1-PF2. (AVR assistant required to select two modes.)

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

ADVANCED SETTINGS I I I

Flowchart : Change advanced settings with AVR Assistant

