PARAMETERS MENU and DESCRIPTION

This charter describes a description of the DB1 parameters, their means and the range of value they can have.
Those parameters are divided in different pages: *User Parameters, Advanced Parameters, Manager Register*.
In case of a CANOpen drive there are two mores pages: *Can Parameters, Position Parameters*.

User Parameters

Page of the User Parameters, changeable to personalize the drive by the User.

Title	**SPEED LOOP: *Speed loop proportional gain***
Parameter	**GPS**
Description	Sets the speed loop proportional gain. It's a direct inertia function. Having a perfect speed motor control this value must be set.
Min. Value	0
Max. Value	255
Default	40

Title	**SPEED LOOP: *Speed loop integral gain***
Parameter	**GIS**
Description	Sets the speed loop integral gain.
Min. Value	0
Max. Value	255
Default	128

Title	**Offset on speed set-point**
Parameter	**Offset**
Description	Sets the offset on the speed set-point. With a value of 128 there is no offset adjust
Min. Value	0
Max. Value	255
Default	128

Title	**Adjust Speed**
Parameter	**adj Speed**
Description	Sets the maximum speed ±12,5%
Min. Value	0
Max. Value	255
Default	128

Title	**Motor rated speed**
Parameter	**Speed Nom**
Description	Sets the rated speed motor.
Min. Value	0
Max. Value	255
Default	255
Note	Sets the rated speed motor from 100% to 0%. By SPEEDn =255 the rated speed is the standard referred to the maximum set_point of 10V.

Title	**Input set point filter**
Parameter	**Ft speed**
Description	Sets the input set point filter.
Min. Value	0
Max. Value	255
Default	128
Note	The value represents the filter frequency l valore rappresenta la frequenza del filtro passa basso, ex.: if Speed Filter =255 , frequency of the cut is 400Hz.

Title	**Acceleration maximum Ramp**
Parameter	**Acc. Ramp.**
Description	Sets the acceleration ramp based on a speed ref. step.
Min. Value	50 ms
Max. Value	5000 ms
Default	0
Note	If Ramp=0, NO Ramps. If Ramp=5000 the Ramp decrease from max. speed to 0 (zero) in 5sec.

Title	**Deceleration maximum Ramp**
Parameter	**Dec. Ramp.**
Description	Sets the deceleration ramp based on a speed ref. step.
Min. Value	50 ms
Max. Value	5000 ms
Default	0
Note	If Ramp=0, NO Ramps. If Ramp=5000 the Ramp decrease from max. speed to 0 (zero) in 5sec.

Title	**Emergency Maximum Ramp**
Parameter	**Em. Ramp.**
Description	Sets an Emergency Maximum Ramp on a speed ref. step.
Min. Value	50 ms
Max. Value	5000 ms
Default	0
Note	If Ramp=0, NO Ramp. If Ramp=5000 the Ramp decrease from max. speed to 0 (zero) in 5sec.

Title	**Torque set on continuous duty (Tsc)**
Parameter	**Tsc**
Description	Sets the motor torque on continuous duty.
Min. Value	0
Max. Value	225
Default	255
Note	By Tsc=255 rated motor torque is available on Δθavv=65°. By Tsc<255 motor torque is decreased. In case of hot/dangerous environments this derating mode is suggested.

Title	**Peak torque set (Tp)**
Parameter	**Tp**
Description	Sets the motor peak torque.
Min. Value	0
Max. Value	225
Default	225
Note	By Tp=225 standard peak is available (see the tab.).

Title	**Derating Set-Up**
Parameter	**I2t**
Description	This parameter sets up the derate factor. I^2T function increase the rated current value in a defined cycle. It depends to the motor driven.
Min. Value	50 ms
Max. Value	12750 ms
Default	5000 ms
Note	The value represents the time (in ms) for which is possible to give the peak torque before it gets declassed to nominal to prevent the motor.

Title	**Reference**
Parameter	**Set point**
Description	Individualizes the refence used.
Min. Value	0
Max. Value	3
Default	0
Note	Set point = 0: Reference of analogical speed range [-10V,10V] Set point = 1: Reserved Set point = 2: Reserved Set point = 3: Reference of speed by registers Set point = 4: Reference of analogical speed range [0V,10V] Set point = 5: Reference of analogical speed range [-7.5V,7.5V]

Title	**Motor direction**
Parameter	**Direction**
Description	Shows the rotation verse.
Min. Value	0
Max. Value	1
Default	0
Note	CW is on direction=0 for default, hourly rotation of the motor with positive signal.

Advanced Parameters

Set in base to the motor, sensor of position and drive used. The modification of such parameters is dissuaded from the consumer.

Title	**Motor Selection**
Parameter	**MOTOR**
Description	This parameter selects the motor drive (see the tab.).
Min. Value	0
Max. Value	20
Default	This parameter is on default depending on the joining drive-motor.

Title	**Loop motor control**
Parameter	**Control**
Description	Sets the loop mode.
Min. Value	0
Max. Value	1
Default	0 (speed loop control)
Note	Control=0 on default, speed control Control = 0: speed loop Control = 1: current loop

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Title	**CANopen Net block number**
Parameter	**Node_Id**
Description	Sets the number of the CANopen.
Min. Value	1
Max. Value	127
Default	127
Note	It's the Id drive linked to a CAN net. (Nr. 0 code is reserved to the Master).

Title	**Type of transducer of position used**
Parameter	**Feedback**
Description	Sets the transducer of position.
Min. Value	0
Max. Value	1
Default	1
Note	Feedback = 0: Encoder Tamagawa Less Wiring Feedback = 1: Encoder Tamagawa Standard

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Title	**Number of Encoder channels**
Parameter	**Encoder Resolution**
Description	Sets the encoder resolution.
Min. Value	0
Max. Value	1
Default	0
Note	Encoder Resolution = 0: 1024 channels Encoder Resolution = 1: 2048 channels

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Manager Registers

Page of management of the registers.

Title	**Register**
Parameter	**Register$_x$**
Description	List of the usable registers to plan references of speed selected through digital entries.
Min. Value	0
Max. Value	6000
Default	0
Note	Represents the value of speed of reference in rpm

Can Parameters

Parameters for the configuration of the CANOpen, only in the drives that manage the net CANOpen.

Title	**CAN Open Baude rate net**
Parameter	**CAN BaudRate**
Description	Sets the boundrate net.
Min. Value	1
Max. Value	9
Default	5
Note	The CAN baud rate is set with the following value: CAN BaudRate = 1 : 10k CAN BaudRate = 2 : 20k CAN BaudRate = 3 : 50k CAN BaudRate = 4 : 100k CAN BaudRate = 5 : 125k CAN BaudRate = 6 : 250k CAN BaudRate = 7 : 500k CAN BaudRate = 8 : 800K CAN BaudRate = 9 : 1M

Position Parameters

Parameters for the configuration of the positioning, only in the drives that manage the net CANOpen.

Title	**Setting time cycle of the positioning**
Parameter	**Position Internal Cycle**
Descrizione	Sets the time cycle of the positioning
Valore Min	1
Valore Max	4
Default	2
Note	Set with the following values: Tck = 1 : 1ms Tck = 2 : 2ms Tck = 3 : Reserved Tck = 4 : 4ms

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