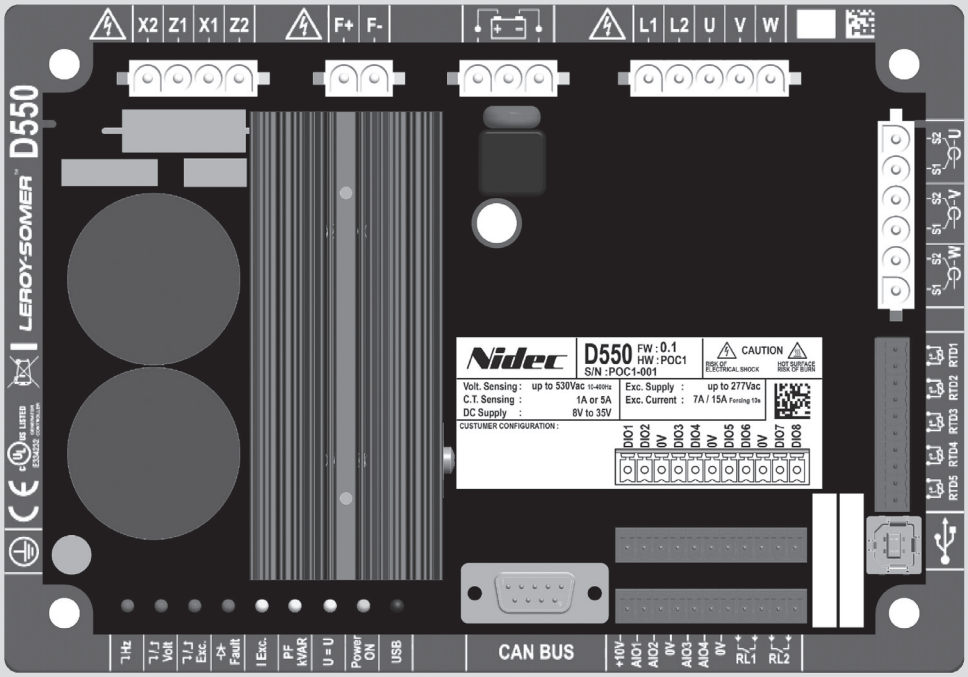

D550 CAN BUS Interface

Digital voltage regulator

Installation and maintenance

LEROY-SOMER™

Nidec

All for dreams

D550 CAN BUS Interface

This manual concerns the alternator AVR which you have just purchased.
We wish to draw your attention to the contents of this maintenance manual.

SAFETY MEASURES

Before using your machine for the first time, it is important to read the whole of this installation and maintenance manual.

All necessary operations and interventions on this machine must be performed by a qualified technician.

Our technical support service will be pleased to provide any additional information you may require.

The various operations described in this manual are accompanied by recommendations or symbols to alert the user to potential risks of accidents. It is vital that you understand and take notice of the following warning symbols.

WARNING

Warning symbol for an operation capable of damaging or destroying the machine or surrounding equipment.

Warning symbol for general danger to personnel.

Warning symbol for electrical danger to personnel.

All servicing or repair operations performed on the AVR should be undertaken by personnel trained in the commissioning, servicing and maintenance of electrical and mechanical components.

WARNING

This AVR can be incorporated in a EC-marked machine.
This manual is to be given to the end user.

D550 CAN BUS Interface

Table of contents

D550 CAN BUS Interface

1 INTRODUCTION

This notice is a complementary document which describes all CAN BUS functions integrated in the D550 digital regulator. For general information about the D550 product, please refer to the D550 manual 5744_en.

2 CAN INTERFACE:

Complementary to the USB communication, the D550 embeds a CAN BUS interface to allow permanent communication link to other equipment. This CAN BUS interface is designed to receive or send instructions which are defined with parameters. This CAN BUS is defined according to CAN specification V2.0B active.

2.1 Hardware description

The CAN BUS interface is available on the D550 on its D-SUB male connector placed near LEDs indicators. This connector drives CAN BUS lines and specific signals for D550 options which can be connected on it. A DC supply (15V 200mAmax.) is also available on this connector dedicated to supply light CAN BUS peripherals. This DC supply can be enabled or disabled by the product.

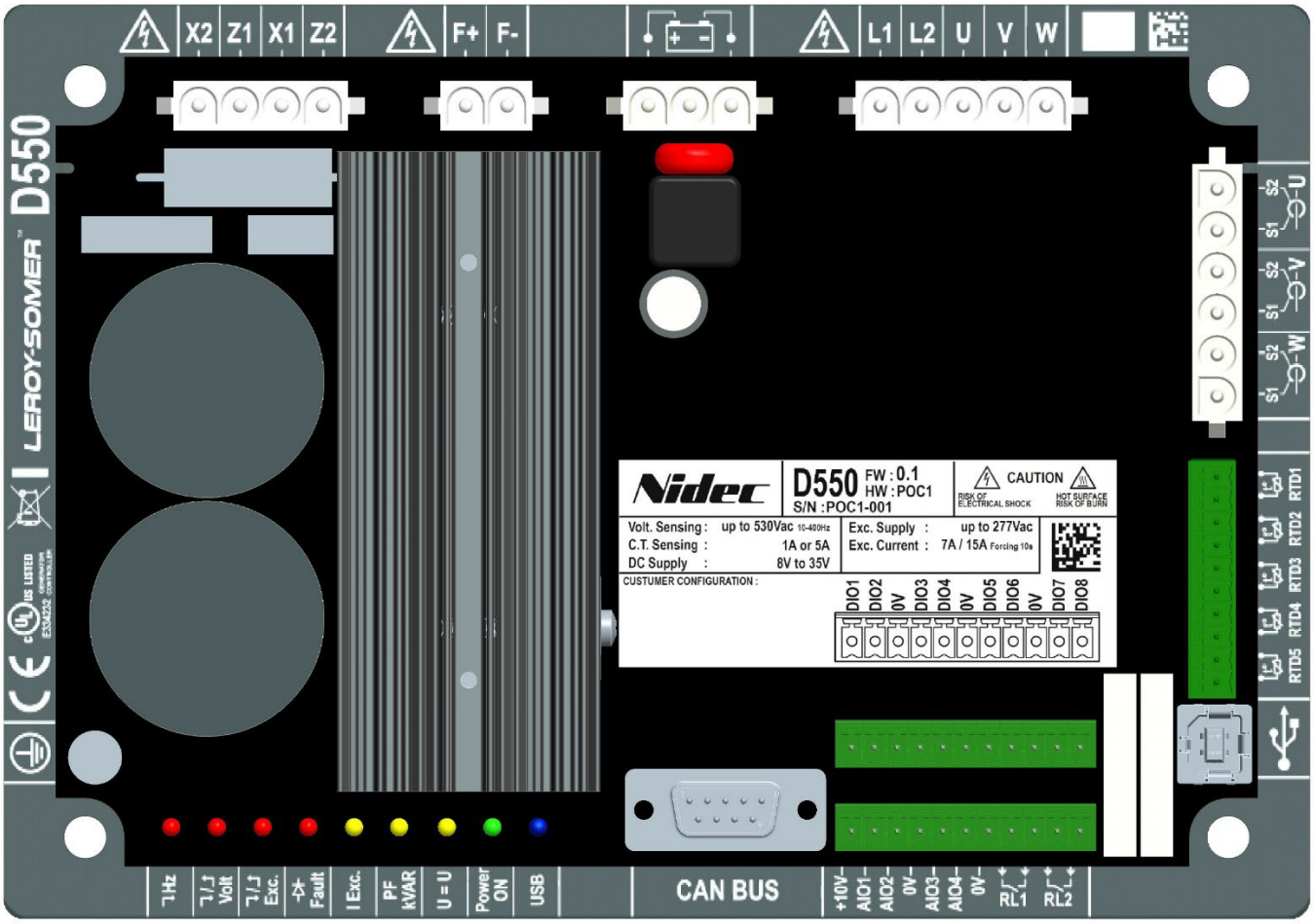

Figure 1 - D550 top view

2.2 D-sub connector pinout

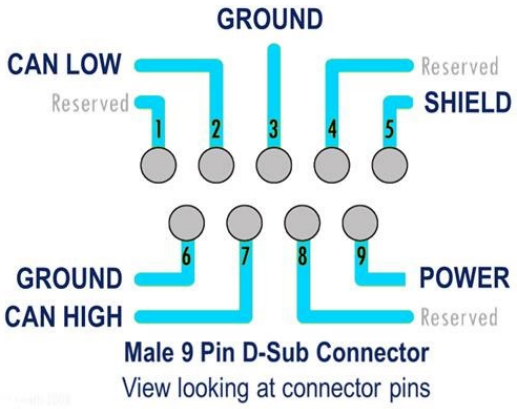

Figure 2 - CAN Pinout

***Note**: The CAN BUS interface is insulated against live voltages on the product (AC excitation power, AC voltage measurements) but is not insulated against customer signal reference 0V (I/O and temperature measurements). Please consider this constraint into your field communication wiring design.*

2.3 Limitation

The CAN BUS limitations are those defined in the ISO-11898-2 standard.
The data transfer rate must be defined according to the length of the field bus.

Baud rate (kbit/s)	Maximum length (m)
1000	30
800	50
500	100
250	250
125	500
62,5	1000
20	2500
10	5000

Table 1 – Band rate / length

According to the standard, the twisted wires must be terminated at each end with 120 ohms resistors.
To improve EMC immunity the CAN BUS cable must be shielded and connected to ground at each end

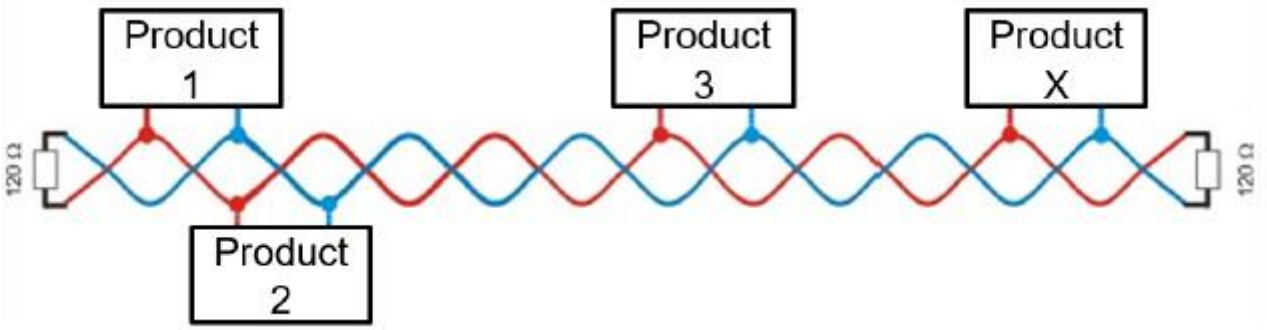

Figure 3 - Product interconnexion example

3 J1939:

The J1939 is a protocol that use CAN BUS physical layer. The D550 is defined as a generator controller in a J1939 network (See SAE J1939-75 for more details about the standard).

3.1 Broadcast

When activated, the D550 regulator can generate periodic frames: D550 PGN list.

PGN	Extend ID	Periodicity	NAME
64934	0CFDA600	100 ms (Fixe)	VREP
65021	0CFDFD00	100 ms (Fixe)	GPCAC
65024	0CFE0000	100 ms (Fixe)	GPBAC
65027	0CFE0300	100 ms (Fixe)	GPAAC
65028	0CFE0400	100 ms (Fixe)	GTACR
65029	0CFE0500	100 ms (Fixe)	GTACP
65030	0CFE0600	100 ms (Fixe)	GAAC
65281	0CFF0100	100 ms (Fixe)	PropB_01
65282	0CFF0200	100 ms (Fixe)	PropB_02
65283	0CFF0300	100 ms (Fixe)	PropB_03
65284	0CFF0400	100 ms (Fixe)	PropB_04

Table 2 – D550 PGN list

3.2 PGN Request

Complementary to PGN broadcast, the J1939 defines frames for PGNs that are not periodically broadcasted.

Note: *PGN request protocol defined in SAEJ1939-21 (PGN 59904) is used.*

3.3 Proprietary request

J1939 defines identification frames (in extend ID) that are free of use for customer specific data.
These frames are divided in 3 parts:

- Proprietary A
- Proprietary A2
- Proprietary B

In D550, all frame ranges are used:

- Proprietary A is used to encapsulate Leroy-Somer proprietary protocol (extend ID described below)
- Proprietary A2 is used to transfer Grid code data
- A part of Proprietary B range is used to periodically broadcast data that are not defined in J1939 protocol
-

Note: *Multi-packet function defined for proprietary frames A and A2 is not implemented in the software.*

3.4 How to use Proprietary A frame

ID:

The picture below explains how the extended ID is built:

J1939 FRAME FOMAT	PRIORITY			EDP	DP	PDU Format								Destination Address								Source address							
CAN 29 BIT ID POSSITION	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
	A	A	A	0	0	1	1	1	0	1	1	1	1	B	B	B	B	B	B	B	B	C	C	C	C	C	C	C	C

	Priority of message
	Destination address of message
	Sending device address

Figure 4 Proprietary A extend ID.

The polling device puts its own address in the source address field and writes the destination device address to the destination address field.

The destination device responds by inverting the destination and address zone.

Remote transmission request (RTR):

All frames are data type, the RTR bit is a dominant type.
Data length code (DLC):
Number of bytes sent in data field.

Data field:
Data field (0 to 8 bytes) encapsulates Leroy-Somer proprietary frame described in the Leroy-Somer Protocol Communication datasheet. See details in 8.2

4 PROPRIETARY CAN

4.1 Request

The Leroy-Somer proprietary CAN is used to read and write parameters in the D550. It is encapsulated in J1939 proprietary A frame (described above). The extend ID is described in 3.4 , and data field in 8.2 .

Note: *Read and write functions are the sole orders implemented in the product.*

4.2 Broadcast

The proprietary CAN allows 8 configurable broadcast frames. Four of them can be defined by the customer, and the four others are reserved for EasyLog and EasyLogPS product options. Each of these frames can contain only one parameter, identified by its unique parameter number.

4.2.1 ID

List of broadcasted extend ID:

ID HEXADÉCIMAL	PÉRIPHÉRIQUE DESTINATION	CONFIGURABLE IN D550
1CFF05XX	User	YES
1CFF06XX	User	YES
1CFF07XX	User	YES
1CFF08XX	User	YES
1CFF09XX	EasyLog / EasyLog PS	NO
1CFF0AXX	EasyLog / EasyLog PS	NO
1CFF0BXX	EasyLog / EasyLog PS	NO
1CFF0CXX	EasyLog / EasyLog PS	NO

Table 3 - List of broadcasted extend ID (Proprietary Part)

The last two bytes of the extend ID (in red) represent the D550 CAN address.

Note: *The extend ID is in J1939 proprietary B range. Both broadcast IDs (J1939 and Leroy-Somer proprietary) can be set simultaneously in a J1939 bus.*

4.2.2 Data Field

DLC	DATA [0]	DATA [1]	DATA [2]	DATA [3]	DATA [4]	DATA [5]	DATA [6]	DATA [7]
DATA LENGHT	**Data Type**	LSB	-	-	MSB			
2	0(int8_t)	X	Not Used	Not Used	Not Used	Not Used	Not Used	Not Used
2	1(int8_t)	X	Not Used	Not Used	Not Used	Not Used	Not Used	Not Used
3	2(int16_t)	X	X	Not Used	Not Used	Not Used	Not Used	Not Used
3	3(uint16_t)	X	X	Not Used	Not Used	Not Used	Not Used	Not Used
6	4(int32_t)	X	X	X	X	Comma	Not Used	Not Used
6	5(uint32_t)	X	X	X	X	Comma	Not Used	Not Used
5	6(float32_t)	X	X	X	X	Not Use	Not Used	Not Used

Table 4 Description of data fields

The data field sent by the D550 integrates:
- Type of parameter;
- Value of parameter;
- In case the parameter is a float converted in an integer, the number of digits after comma.

If the destination product cannot read “Float” values, a function to force the parameter into an integer (signed 4 byte) can be activated, in this case the number of digits after decimal point can be configurated from 1 to 5.

As explained above, float type parameters (float32) can be converted to integer type (int32_t). This function can be used if the target peripheral cannot interpret float type.

Note: *Type, minimal, maximal and default values of all parameters of the product can be extracted with EasyReg Advanced.*

5 EASYLOG

EasyLog and EasyLogPS products have an RTC (Real Time Clock). To set time and date, a specific frame needs to be sent on CAN. This frame is described below.

Identifier: 1CFF0DXX

Where XX represents the address of the D550.

Data length code (DLC):

DLC = 6

Data field:

DATA [0]	DATA [1]	DATA [2]	DATA [3]	DATA [4]	DATA [5]	DATA [6]	DATA [7]
Years	Month	Days	Hours	Minutes	Seconds	Not Used	Not Used
Example for 2018/04/09 09 :08 :35							
18	04	09	09	08	35	Not Used	Not Used

Table 5 Description of data field send when time and date are set

Note: *The extend ID used is in J1939 proprietary B.*

6 GRID CODE

6.1 Generality

A "Grid Code" event is not a common event in the “life” of an alternator but it can strongly damage it when appears. Based on this observation, this event must be managed with a very high priority in CAN BUS communication. In case of a Grid Code event, two features are managed. The first is the management of the event in the D550 (not described in this document). The second is the transfer of data recorded during the event from the D550 to the EasyLogPS product. This second part is described below.

6.2 Grid code event

At the end of the event, the D550 broadcasts a frame to report it is ready to transfer data to EasyLogPS. This frame is described below.

Identifier: 00FF0EXX

Where XX represents the D550 who sends the frame.

This frame contains no data, so the DLC is set to 0.

Data length code (DLC):

DLC = 0

Note: *This frame is emitted every 5s until it is acknowledged (to acknowledge, reset Grid Code Flag).*

Note: *The extend ID used is in J1939 proprietary B.*

6.3 Exchange of data

After the grid code event is acknowledged by EasyLog PS, an exchange of data begins between the devices.
This data is divided in two parts:

- First part, a normal exchange of parameters (Leroy-Somer proprietary CAN)
- Second, an array of points measured by the D550.

For the first step, the standard method is used (ref: 4 **Erreur ! Source du renvoi introuvable.**).
The second part is described below.

6.3.1 EasyLog PS side

Identifier: 01EFYYXX

YY Is the address of the D550 that receives the frame.
XX Is the address of the EasyLog PS that sends the frame.

Data length code (DLC):

DLC = 2

Data field:

DATA [0]	DATA [1]	DATA [2]	DATA [3]	DATA [4]	DATA [5]	DATA [6]	DATA [7]
ID (LSB)	ID (MSB)	Not Used	Not Used	Not Used	Not Used	Not Used	Not Used

Table 6 - Description of data sent by EasyLog PS for GC

ID is the array of points measured by the D550 during LVRT.

6.3.2 D550 side

Identifier: 01EFYYXX

YY Is the address of the EasyLog PS that receives the frame.
XX Is the address of the D550 that sends the frame.

Data length code (DLC):

DLC = 8

Data field:

DATA [0]	DATA [1]	DATA [2]	DATA [3]	DATA [4]	DATA [5]	DATA [6]	DATA [7]
ID (LSB)	ID (MSB)	Array [ID]	Array [ID+1]	Array [ID+2]	Array [ID+3]	Array [ID+4]	Array [ID+5]

Table 7 Description of data emit by D550 for GC

ID is the array of points measured by the D550 during LVRT.

Note: *The extend ID used is contained in J1939 Proprietary A2.*

Note: *To transmit all data as fast as possible, it is sent in raw mode.*

7 CAN BUS EXAMPLE

This paragraph describes an example of a read / writes function by CAN BUS in a D550 regulator.

7.1 Configuration

This part describes how to configure D550 to enable CAN BUS and begin simple exchange (READ and WRITE function) with EasyReg Advanced software.

7.1.1 Advanced configuration

To configure D550 CAN BUS you need to start an advanced configuration:

Figure 5 - EasyReg Advance new configuration

7.1.2 CAN BUS configuration

You can define your configuration by selecting CAN configuration page.

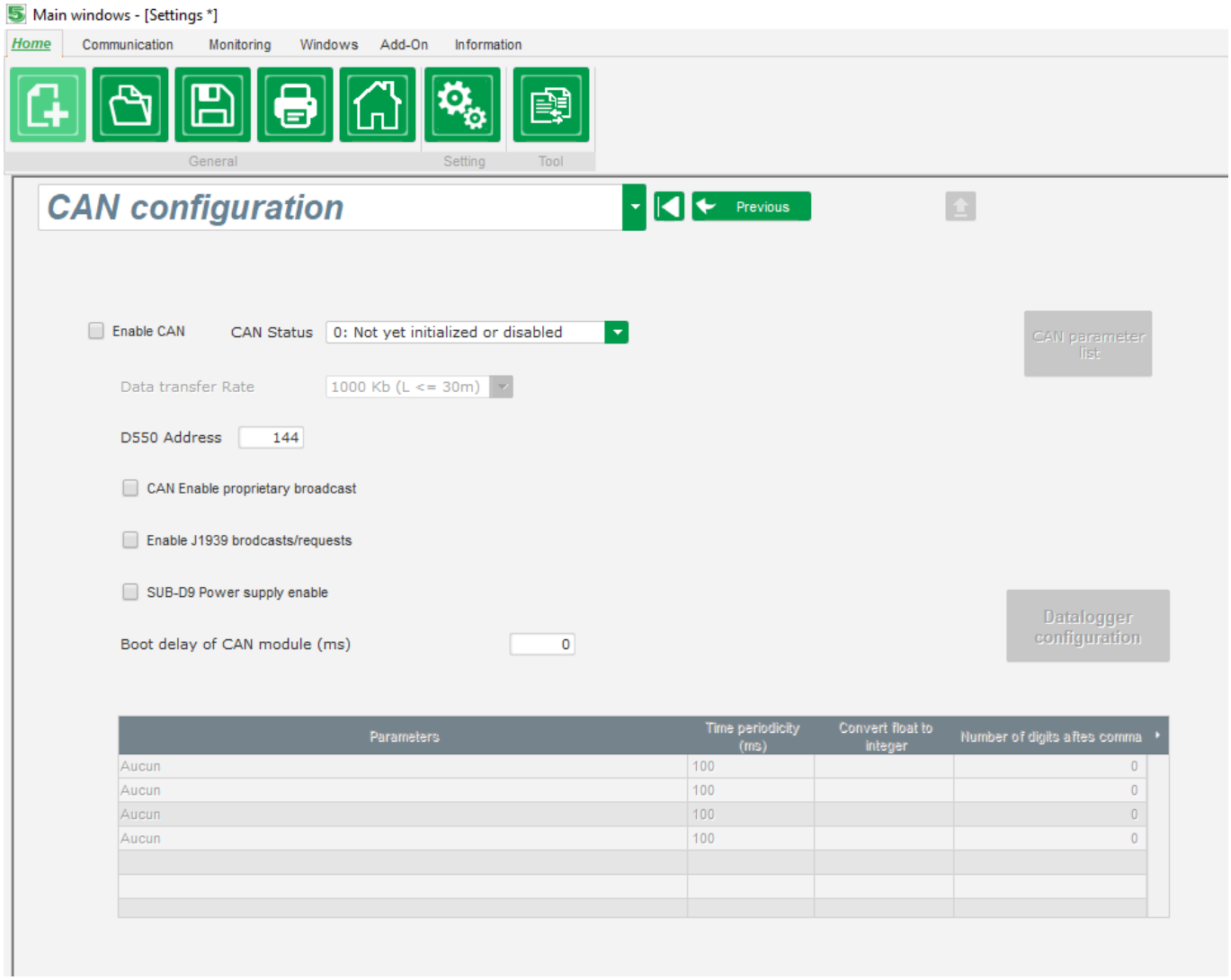

Figure 6 - EasyReg Advance CAN configuration page

7.1.3 CAN BUS Enable

Enable CAN BUS configuration, configure the rate speed, D550 address according to the CAN BUS length and other peripherals and send your configuration to the D550.

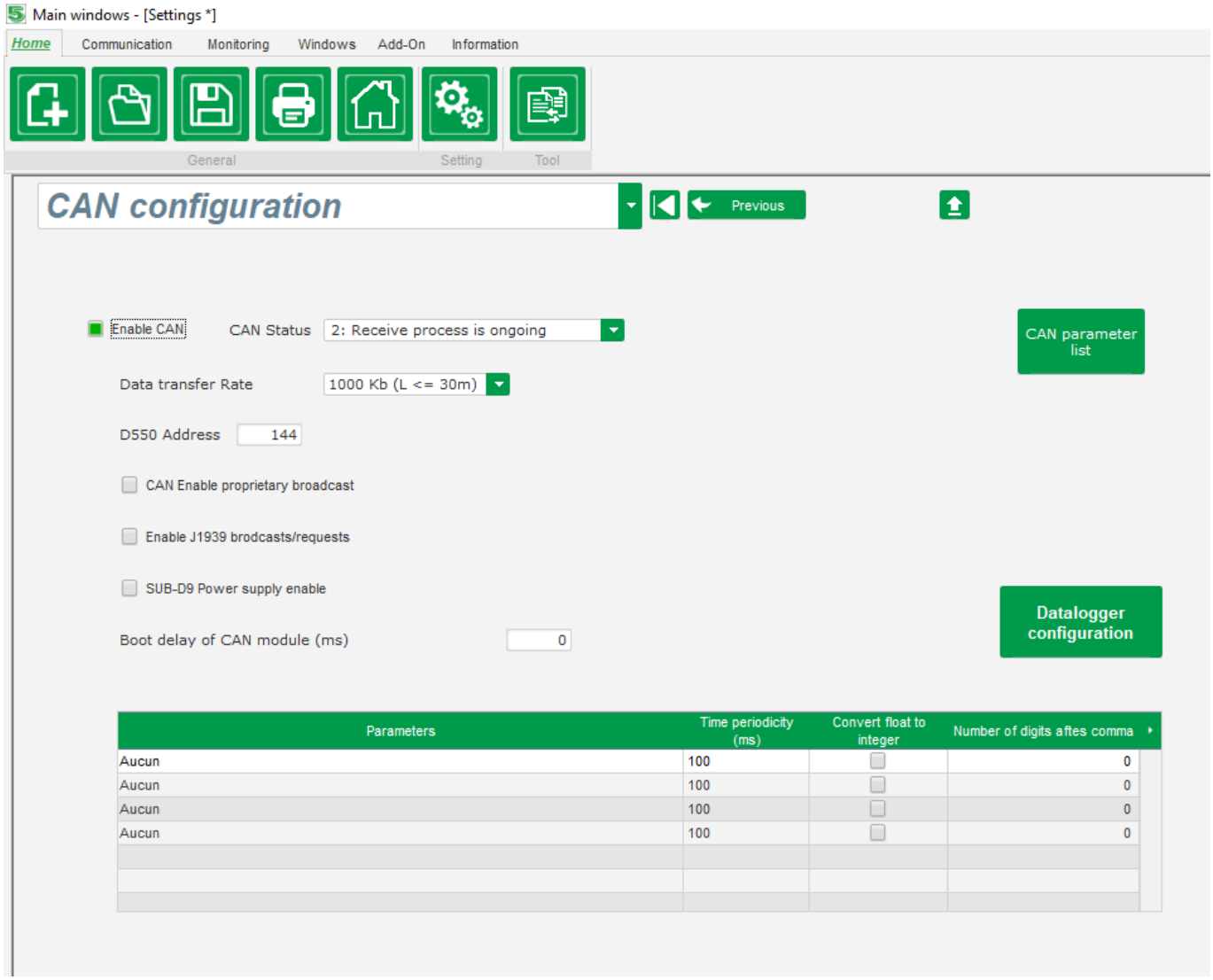

Figure 7 - EasyReg Advance CAN configuration page (Enable CAN)

Note: *If needed, add a 120 ohms termination resistor as requested in CAN BUS standard.*

7.2 Parameter list

To know the complete list of parameters, include in the D550, you can generate a table list with EasyReg advanced.

That list includes menu, parameter number and type of the parameter.

7.2.1 Generate parameter list:

To generate the list, click on button « CAN parameter list ».

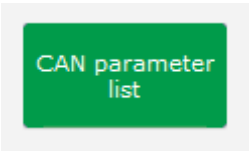

Figure 8 - Parameter list generator button

And save the file proposed, by default file is call « Table.xlsx ».

7.2.2 Understand parameter list:

Group	Menu	Parameter	Parameter name	Unit	Type	Bytes	R/W	Range
Customer Informations	000	002	UN	V	FLOAT32	4	R	From 0 to 100000
Customer Informations	000	003	VN	V	FLOAT32	4	R	From 0 to 100000
Customer Informations	000	004	WN	V	FLOAT32	4	R	From 0 to 100000
…	…	…	…	…	…	…	…	…
Gains	003	005	Current regulation proportional gain		UINT16	2	R/W	From 1 to 20000
Gains	003	006	Current regulation integral gain		UINT16	2	R/W	From 1 to 10000
Gains	003	007	Current regulation derivative gain		UINT16	2	R/W	From 0 to 10000
…	…	…	…	…	…	…	…	…
Informations	254	016	FW Grid Code Version		UINT32	4	R	From 0 to 4294967295
Informations	254	011	Application name		STRING	Depend on string length	R/W	59 characters maximum
Informations	254	008	Running hours	h.m	UINT32	4	R	From 0 to 50000000
…	…	…	…	…	…	…	…	…
ControlRegs	002	031	Start Mode Active		UINT8	1	R	Not active=0, Active=1
ControlRegs	002	032	Regulation mode		UINT8	1	R	OFF=0, Field current=1, Grid PF=2, KVAr=3, PF=4, Volt matching=5, Voltage=6, Grid support=7

Table 8 - Parameter list extract

Group:
This column contains name associate at menu, each parameter that have a correlation are group in a specific menu.

Menu:
Unique number of menu (use for LS CAN BUS protocol).

Parameter:
Unique number of parameter (use for LS CAN BUS protocol).

Parameter name:
Short description of a specific parameter.

Unit:
Unit of a specific parameter

Type:
Type of variable, this information can be used to interpret receive data.
Variable can be:

UINT8	Unsigned variable (only positive)
UINT16	Unsigned variable (only positive)
UINT32	Unsigned variable (only positive)
INT8	Signed variable (positive or negative)
INT16	Signed variable (positive or negative)
INT32	Signed variable (positive or negative)
FLOAT32	Signed variable (positive or negative) with variable precision (IEEE754)
STRING	Sequence of characters

Table 9 - Variable definition

Bytes:
Length of variable in Bytes (use for LS CAN BUS protocol)

R/W:

Read/Write possibility of a specific variable

R	Read only parameter
W	Write only parameter
R/W	Read and write parameter

Table 10 - Right of parameter

Range:

Range of variable,

For setpoint and measurement parameter, this column indicates minimum and maximum value.
For string parameter, this column indicates minimum and maximum number of characters.
For switch parameter, this column indicates all value with associate text.

7.3 Example

In this section we will explain how to create a frame of a read and a write function by CAN BUS.

We will write and read the parameter “Voltage setpoint”.

7.3.1 Read function example

For this example, the D550 CAN BUS address is defined 144 or 0x90 in hexadecimal value.

Figure 9 - EasyReg Advance CAN address configuration

Note: *D550 address changes will be considered at product start-up only.*

For this example, we have defined for our CAN BUS master address 16 or 0x10 in hexadecimal value.

This parameter must be read:

Group	Menu	Parameter	Parameter name	Unit	Type	Bytes	R/W	Range
Setpoints	004	001	Voltage setpoint	V	FLOAT32	4	R/W	From 0 to 100000

Table 11 - Parameter list line extract

So, the frame sent by CAN BUS Master is:

CAN Extend ID	LENGTH	DATA [0]	DATA [1]	DATA [2]	DATA [3]	DATA [4]	DATA [5]	DATA [6]	DATA [7]
0x00EF9010	0x03	0x01	0x04	0x01					

Table 12 - Read example: CAN Master emit

And frame received (send from D550) is:

CAN Extend ID	LENGTH	DATA [0]	DATA [1]	DATA [2]	DATA [3]	DATA [4]	DATA [5]	DATA [6]	DATA [7]
0x00EF1090	0x05	0x01	0x00	0x00	0xC8	0x43			

Table 13 - Read example: CAN D550 answer

So, the value read is 0x43C80000:

Converted in float IEEE 754: 0x43C80000 = 400.0

(weblink to a converter: https://www.h-schmidt.net/FloatConverter/IEEE754.html)

7.3.2 Write function example

For this example, the D550 CAN BUS address is defined 144 or 0x90 in hexadecimal value.

Figure 10 - EasyReg Advance CAN address configuration

Note: *D550 address changes will be considered at product start-up only.*

For this example, we have defined for our CAN BUS master address 16 or 0x10 in hexadecimal value.

This parameter must be written:

Group	Menu	Parameter	Parameter name	Unit	Type	Bytes	R/W	Range
Setpoints	004	001	Voltage setpoint	V	FLOAT32	4	R/W	From 0 to 100000

Table 14 - Parameter list line extract

With the value 450.0:
Convert in float IEEE 754: 450.0 = 0x43e10000

So, the frame sent by CAN Master is:

CAN Extend ID	LENGTH	DATA [0]	DATA [1]	DATA [2]	DATA [3]	DATA [4]	DATA [5]	DATA [6]	DATA [7]
0x00EF9010	0x07	0x03	0x04	0x01	0x00	0x00	0xE1	0x43	

Table 15 - Write example: CAN Master emit

And frame received (send from D550) is:

CAN Extend ID	LENGTH	DATA [0]	DATA [1]	DATA [2]	DATA [3]	DATA [4]	DATA [5]	DATA [6]	DATA [7]
0x00EF1090	0x01	0x03							

Table 16 - Write example: CAN D550 answer

So, the value read is ok.

The data answer can have different values:

0x03: Write value OK
0x13: Parameter write not found
0x23: Parameter in read only
0x33: Parameter value is out of range

7.3.3 Read string function example

For this example, the D550 CAN BUS address is defined at 144 (or 0x90 in hexadecimal value).

Figure 11 - EasyReg Advance CAN address configuration

Note: *D550 address change will be considered at product start-up only.*

For this example, CAN BUS master address is defined at 16 (or 0x10 in hexadecimal value) and parameter information extracted from CAN BUS Database is:

Group	Menu	Parameter	Parameter name	Unit	Type	Bytes	R/W	Range
Informations	254	011	Application name		STRING	Depend on string length	R/W	59 characters maximum

Table 17 - Parameter list line extract

During a string reading action, CAN master (or any other device who request reading this string), should continue to read string (string ID by string ID) until “NULL” character is received.

So, sequence with the value “12345678” is:

CAN Extend ID	DLC	DATA [0]	DATA [1]	DATA [2]	DATA [3]	DATA [4]	DATA [5]	DATA [6]	DATA [7]
0x00EF1090	4	0x04	0xFE	0x0B	0x00				

Table 18 - Read string example: CAN Master emit (1/2)

DATA [0]: 0x04 Read string function
DATA [1]: 0xFE Menu 254
DATA [2]: 0x0B Parameter 11
DATA [3]: 0x00 ID string 0

CAN Extend ID	DLC	DATA [0]	DATA [1]	DATA [2]	DATA [3]	DATA [4]	DATA [5]	DATA [6]	DATA [7]
0x00EF1090	8	0x04	0x00	0x31	0x32	0x33	0x34	0x35	0x36

Table 19 - Read string example: CAN D550 answer (1/2)

DATA [0]: 0x04 Read string function
DATA [1]: 0x00 ID string 0
DATA [2]: 0x31 Character “1”
DATA [3]: 0x32 Character “2”
DATA [4]: 0x33 Character “3”
DATA [5]: 0x34 Character “4”
DATA [6]: 0x35 Character “5”
DATA [7]: 0x36 Character “6”

CAN Extend ID	DLC	DATA [0]	DATA [1]	DATA [2]	DATA [3]	DATA [4]	DATA [5]	DATA [6]	DATA [7]
0x00EF9010	4	0x04	0xFE	0x0B	0x01				

Table 20 - Read string example: CAN Master emit (2/2)

DATA [0]: 0x04 Read string function
DATA [1]: 0xFE Menu 254
DATA [2]: 0x0B Parameter 11
DATA [3]: 0x01 ID string 1

CAN Extend ID	DLC	DATA [0]	DATA [1]	DATA [2]	DATA [3]	DATA [4]	DATA [5]	DATA [6]	DATA [7]
0x00EF1090	5	0x04	0x01	0x37	0x38	0x00			

Table 21 - Read string example: CAN D550 answer (2/2)

DATA [0]: 0x04 Read string function
DATA [1]: 0x01 ID string 1
DATA [2]: 0x37 Character “7”
DATA [3]: 0x38 Character “8”
DATA [4]: 0x00 Character “NULL” end of string

So, the read string is:
12345678

This is the string stored into product.

7.3.4 Write string function example

For this example, the D550 CAN BUS address is defined at 144 (or 0x90 in hexadecimal value).

Figure 12 - EasyReg Advance CAN address configuration

Note: *D550 address change will be considered at product start-up only.*

For this example, CAN BUS master address is defined at 16 (or 0x10 in hexadecimal value).

And parameter information extracted from CAN BUS Database is:

Group	Menu	Parameter	Parameter name	Unit	Type	Bytes	R/W	Range
Informations	254	011	Application name		STRING	Depend on string length	R/W	59 characters maximum

Table 22 - Parameter list line extract

The value “12345678”, must be written in this parameter.

So, sequence is:

CAN Extend ID	DLC	DATA [0]	DATA [1]	DATA [2]	DATA [3]	DATA [4]	DATA [5]	DATA [6]	DATA [7]
0x00EF1090	8	0x05	0xFE	0x0B	0x00	0x31	0x32	0x33	0x34

Table 23 - Write string example: CAN Master emit (1/3)

DATA [0]: 0x05 Write string function
DATA [1]: 0xFE Menu 254
DATA [2]: 0x0B Parameter 11
DATA [3]: 0x00 ID string 0
DATA [4]: 0x31 Character “1”
DATA [5]: 0x32 Character “2”
DATA [6]: 0x33 Character “3”
DATA [7]: 0x34 Character “4”

CAN Extend ID	DLC	DATA [0]	DATA [1]	DATA [2]	DATA [3]	DATA [4]	DATA [5]	DATA [6]	DATA [7]
0x00EF1090	1	0x05							

Table 24 - Write string example: CAN D550 answer (1/3)

DATA [0]: 0x05 Read string function

The data answer can have different values:

0x05: Write value OK
0x15: Parameter write not found
0x25: Parameter in read only

CAN Extend ID	DLC	DATA [0]	DATA [1]	DATA [2]	DATA [3]	DATA [4]	DATA [5]	DATA [6]	DATA [7]
0x00EF9010	8	0x05	0xFE	0x0B	0x01	0x35	0x36	0x37	0x38

Table 25 - Write string example: CAN Master emit (2/3)

DATA [0]: 0x05 Write string function
DATA [1]: 0xFE Menu 254
DATA [2]: 0x0B Parameter 11
DATA [3]: 0x01 ID string 1
DATA [4]: 0x31 Character “5”
DATA [5]: 0x32 Character “6”
DATA [6]: 0x33 Character “7”
DATA [7]: 0x34 Character “8”

CAN Extend ID	DLC	DATA [0]	DATA [1]	DATA [2]	DATA [3]	DATA [4]	DATA [5]	DATA [6]	DATA [7]
0x00EF1090	1	0x05							

Table 26 - Write string example: CAN D550 answer (2/3)

DATA [0]: 0x05 Read string function

The data answer can have different values:

0x05: Write value OK
0x15: Parameter write not found
0x25: Parameter in read only

CAN Extend ID	DLC	DATA [0]	DATA [1]	DATA [2]	DATA [3]	DATA [4]	DATA [5]	DATA [6]	DATA [7]
0x00EF9010	5	0x05	0xFE	0x0B	0x02	0x00			

Table 27 - Write string example: CAN Master emit (3/3)

DATA [0]: 0x05 Write string function
DATA [1]: 0xFE Menu 254
DATA [2]: 0x0B Parameter 11
DATA [3]: 0x02 ID string 2
DATA [4]: 0x00 Character “NULL” end of string

CAN Extend ID	DLC	DATA [0]	DATA [1]	DATA [2]	DATA [3]	DATA [4]	DATA [5]	DATA [6]	DATA [7]
0x00EF1090	1	0x05							

Table 28 - Write string example: CAN D550 answer (3/3)

DATA [0]: 0x05 Read string function

The data answer can have different values:

0x05: Write value OK
0x15: Parameter write not found
0x25: Parameter in read only

Note: *To modify a string stored in the product, all char should be sent to D550 again (*From 1st to the last char*)*

8 APPENDICES

8.1 PGN broadcast details

PGN	Parameter Group Label	PGN Length	Transmission Rate	Acronym	post	SPN length	SPN	Name	Description	Data Range	Operational Range	Resolution	Offset	Units
64934	Voltage Regulator Excitation Status	8	100 ms	VREP	1-2	16	3380	Generator Excitation Field Voltage	Measured signal that represents the generator excitation field voltage. Generator excitation field voltage is indicative of the amount of excitation current being supplied by the voltage regulator to the generator field.	-1606.00 to 1606.75 V		0.05 V/bit	-1606	Volts
64934	Voltage Regulator Excitation Status	8	100 ms	VREP	3-4	16	3381	Generator Excitation Field Current	Measured signal that represents the generator excitation field current.	0 to 3212.75 A		0.05 A/bit	0	Amps
64934	Voltage Regulator Excitation Status	8	100 ms	VREP	5-6	16	3382	Generator Output Voltage Bias Percentage	Measured signal that represents the voltage bias percentage of the generator output voltage being requested by external to the voltage regulator. Generator output voltage bias percentage is the amount of voltage in percent the generator output voltage will vary from the generator nominal setpoint.	-100 to 100 %	-100 to 100%	0.1 %/bit	-3212.75	%
65021	Generator Phase C Basic AC Quantities	8	100 ms	GPCAC	1-2	16	2443	Generator Phase CA Line-Line AC RMS Voltage	Line to Line RMS voltage measured at the generator phase CA output.	0 to 64,255 Volts		1 V/bit	0	Volts
65021	Generator Phase C Basic AC Quantities	8	100 ms	GPCAC	3-4	16	2447	Generator Phase C Line-Neutral AC RMS Voltage	Line to Neutral RMS voltage measured at the generator phase C output.	0 to 64,255 Volts		1 V/bit	0	Volts
65021	Generator Phase C Basic AC Quantities	8	100 ms	GPCAC	5-6	16	2439	Generator Phase C AC Frequency	AC frequency measured at the generator phase C output.	0 to 501.9921875 Hz		1/128 Hz/bit	0	Hz
65021	Generator Phase C Basic AC Quantities	8	100 ms	GPCAC	7-8	16	2451	Generator Phase C AC RMS Current	RMS current measured at the generator phase C output.	0 to 64,255 Amps		1 A/bit	0	Amps

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65024	Generator Phase B Basic AC Quantities	8	100 ms	GPBAC	1-2	16	2442	Generator Phase BC Line-Line AC RMS Voltage	Line to Line RMS voltage measured at the generator phase BC output.	0 to 64,255 Volts		1 V/bit	0	Volts
65024	Generator Phase B Basic AC Quantities	8	100 ms	GPBAC	3-4	16	2446	Generator Phase B Line-Neutral AC RMS Voltage	Line to Neutral RMS voltage measured at the generator phase B output.	0 to 64,255 Volts		1 V/bit	0	Volts
65024	Generator Phase B Basic AC Quantities	8	100 ms	GPBAC	5-6	16	2438	Generator Phase B AC Frequency	AC frequency measured at the generator phase B output.	0 to 501.9921875 Hz		1/128 Hz/bit	0	Hz
65024	Generator Phase B Basic AC Quantities	8	100 ms	GPBAC	7-8	16	2450	Generator Phase B AC RMS Current	RMS current measured at the generator phase B output.	0 to 64,255 Amps		1 A/bit	0	Amps
65027	Generator Phase A Basic AC Quantities	8	100 ms	GPAAC	1-2	16	2441	Generator Phase AB Line-Line AC RMS Voltage	Line to Line RMS voltage measured at the generator phase AB output.	0 to 64,255 Volts		1 V/bit	0	Volts
65027	Generator Phase A Basic AC Quantities	8	100 ms	GPAAC	3-4	16	2445	Generator Phase A Line-Neutral AC RMS Voltage	Line to Neutral RMS voltage measured at the generator phase A output.	0 to 64,255 Volts		1 V/bit	0	Volts
65027	Generator Phase A Basic AC Quantities	8	100 ms	GPAAC	5-6	16	2437	Generator Phase A AC Frequency	AC frequency measured at the generator phase A output.	0 to 501.9921875 Hz		1/128 Hz/bit	0	Hz
65027	Generator Phase A Basic AC Quantities	8	100 ms	GPAAC	7-8	16	2449	Generator Phase A AC RMS Current	RMS current measured at the generator phase A output.	0 to 64,255 Amps		1 A/bit	0	Amps
65028	Generator Total AC Reactive Power	8	100 ms	GTACR	7.1	2	2518	Generator Overall Power Factor Lagging	Lead/lag status for generator average power factor. 00 Leading 01 Lagging 10 Error 11 Not Available or Not Installed	0 to 3		4 states/2 bit	0	bit

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65028	Generator Total AC Reactive Power	8	100 ms	GTACR	1-4	32	2456	Generator Total Reactive Power	The total reactive power delivered by the generator	-2,000,000,000 to +2,211,081,215 VAr		1 VAr/bit	-2000000000	VAr
65028	Generator Total AC Reactive Power	8	100 ms	GTACR	5-6	16	2464	Generator Overall Power Factor	The average power factor of the generator.	-1.00000 to +2.921814	-1 to +1	1/16384 per bit	-1	
65029	Generator Total AC Power	8	100 ms	GTACP	1-4	32	2452	Generator Total Real Power	Total real power delivered by the generator.	-2,000,000,000 to +2,211,081,215 Watts		1 W/bit	-2000000000	W
65029	Generator Total AC Power	8	100 ms	GTACP	5-8	32	2460	Generator Total Apparent Power	The total apparent power delivered by the generator.	-2,000,000,000 to +2,211,081,215 VA		1 VA/bit	-2000000000	VA
65030	Generator Average Basic AC Quantities	8	100 ms	GAAC	1-2	16	2440	Generator Average Line-Line AC RMS Voltage	Average Line to Line RMS voltage measured at the generator output.	0 to 64,255 Volts		1 V/bit	0	Volts
65030	Generator Average Basic AC Quantities	8	100 ms	GAAC	3-4	16	2444	Generator Average Line-Neutral AC RMS Voltage	The average Line to Neutral AC RMS voltage measured at the Generator output.	0 to 64,255 Volts		1 V/bit	0	Volts
65030	Generator Average Basic AC Quantities	8	100 ms	GAAC	5-6	16	2436	Generator Average AC Frequency	Average AC frequency measured at the generator output.	0 to 501.9921875 Hz		1/128 Hz/bit	0	Hz
65030	Generator Average Basic AC Quantities	8	100 ms	GAAC	7-8	16	2448	Generator Average AC RMS Current	Average RMS current measured at the generator output.	0 to 64,255 Amps		1 A/bit	0	Amps
65281	Proprietary B	Variable	Per user requirements	PropB_01	1-2	16		Manufacturer Defined Usage (PropB_PDU1)	PT100-1	-128,1 to +3276,7 °C	-70 to +600	0,1°C/bit	-70	Degree Celsius
65281	Proprietary B	Variable	Per user requirements	PropB_01	3-4	16		Manufacturer Defined Usage (PropB_PDU1)	PT100-2	-128,1 to +3276,7 °C	-70 to +600	0,1°C/bit	-70	Degree Celsius
65281	Proprietary B	Variable	Per user requirements	PropB_01	5-6	16		Manufacturer Defined Usage (PropB_PDU1)	PT100-3	-128,1 to +3276,7 °C	-70 to +600	0,1°C/bit	-70	Degree Celsius

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65281	Proprietary B	Variable	Per user requirements	PropB_01	7-8	16		Manufacturer Defined Usage (PropB_PDU1)	PT100-4	-128,1 to +3276,7 °C	-70 to +600	0,1°C/bit	-70	Degree Celsius
65282	Proprietary B	Variable	Per user requirements	PropB_02	1-2	16		Manufacturer Defined Usage (PropB_PDU2)	PT100-5	-128,1 to +3276,7 °C	-70 to +600	0,1°C/bit	-70	Degree Celsius
65283	Proprietary B	100ms	Per user requirements	PropB_03	1.1	1		Manufacturer Defined Usage (PropB_PDU3)	OVER VOLTAGE Fault status	0 to 1	0 to 1	2 states/1 bit	0	bit
65283	Proprietary B	100ms	Per user requirements	PropB_03	1.2	1		Manufacturer Defined Usage (PropB_PDU3)	UNDER VOLTAGE Fault status	0 to 1	0 to 1	2 states/1 bit	0	bit
65283	Proprietary B	100ms	Per user requirements	PropB_03	1.3	1		Manufacturer Defined Usage (PropB_PDU3)	OVER FREQUENCY Fault status	0 to 1	0 to 1	2 states/1 bit	0	bit
65283	Proprietary B	100ms	Per user requirements	PropB_03	1.4	1		Manufacturer Defined Usage (PropB_PDU3)	UNDER FREQUENCY Fault status	0 to 1	0 to 1	2 states/1 bit	0	bit
65283	Proprietary B	100ms	Per user requirements	PropB_03	1.5	1		Manufacturer Defined Usage (PropB_PDU3)	OPEN DIODE Fault status	0 to 1	0 to 1	2 states/1 bit	0	bit
65283	Proprietary B	100ms	Per user requirements	PropB_03	1.6	1		Manufacturer Defined Usage (PropB_PDU3)	SHORTED DIODE Fault status	0 to 1	0 to 1	2 states/1 bit	0	bit
65283	Proprietary B	100ms	Per user requirements	PropB_03	1.7	1		Manufacturer Defined Usage (PropB_PDU3)	REVERSE KW Fault status	0 to 1	0 to 1	2 states/1 bit	0	bit
65283	Proprietary B	100ms	Per user requirements	PropB_03	1.8	1		Manufacturer Defined Usage (PropB_PDU3)	REVERSE KVAR Fault status	0 to 1	0 to 1	2 states/1 bit	0	bit
65283	Proprietary B	100ms	Per user requirements	PropB_03	2.1	1		Manufacturer Defined Usage (PropB_PDU3)	PT100 1 ALARM Status	0 to 1	0 to 1	2 states/1 bit	0	bit

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65283	Proprietary B	100ms	Per user requirements	PropB_03	2.2	1		Manufacturer Defined Usage (PropB_PDU3)	PT100 1 FAULT Status	0 to 1	0 to 1	2 states/1 bit	0	bit
65283	Proprietary B	100ms	Per user requirements	PropB_03	2.3	1		Manufacturer Defined Usage (PropB_PDU3)	PT100 2 ALARM Status	0 to 1	0 to 1	2 states/1 bit	0	bit
65283	Proprietary B	100ms	Per user requirements	PropB_03	2.4	1		Manufacturer Defined Usage (PropB_PDU3)	PT100 2 FAULT Status	0 to 1	0 to 1	2 states/1 bit	0	bit
65283	Proprietary B	100ms	Per user requirements	PropB_03	2.5	1		Manufacturer Defined Usage (PropB_PDU3)	PT100 3 ALARM Status	0 to 1	0 to 1	2 states/1 bit	0	bit
65283	Proprietary B	100ms	Per user requirements	PropB_03	2.6	1		Manufacturer Defined Usage (PropB_PDU3)	PT100 3 FAULT Status	0 to 1	0 to 1	2 states/1 bit	0	bit
65283	Proprietary B	100ms	Per user requirements	PropB_03	2.7	1		Manufacturer Defined Usage (PropB_PDU3)	PT100 4 ALARM Status	0 to 1	0 to 1	2 states/1 bit	0	bit
65283	Proprietary B	100ms	Per user requirements	PropB_03	2.8	1		Manufacturer Defined Usage (PropB_PDU3)	PT100 4 FAULT Status	0 to 1	0 to 1	2 states/1 bit	0	bit
65283	Proprietary B	100ms	Per user requirements	PropB_03	3.1	1		Manufacturer Defined Usage (PropB_PDU3)	PT100 5 ALARM Status	0 to 1	0 to 1	2 states/1 bit	0	bit
65283	Proprietary B	100ms	Per user requirements	PropB_03	3.2	1		Manufacturer Defined Usage (PropB_PDU3)	PT100 5 FAULT Status	0 to 1	0 to 1	2 states/1 bit	0	bit
65283	Proprietary B	100ms	Per user requirements	PropB_03	3.3	1		Manufacturer Defined Usage (PropB_PDU3)	CTP 1 FAULT Status	0 to 1	0 to 1	2 states/1 bit	0	bit
65283	Proprietary B	100ms	Per user requirements	PropB_03	3.4	1		Manufacturer Defined Usage (PropB_PDU3)	CTP 2 FAULT Status	0 to 1	0 to 1	2 states/1 bit	0	bit

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65283	Proprietary B	100ms	Per user requirements	PropB_03	3.5	1		Manufacturer Defined Usage (PropB_PDU3)	CTP 3 FAULT Status	0 to 1	0 to 1	2 states/1 bit	0	bit
65283	Proprietary B	100ms	Per user requirements	PropB_03	3.6	1		Manufacturer Defined Usage (PropB_PDU3)	CTP 4 FAULT Status	0 to 1	0 to 1	2 states/1 bit	0	bit
65283	Proprietary B	100ms	Per user requirements	PropB_03	3.7	1		Manufacturer Defined Usage (PropB_PDU3)	CTP 5 FAULT Status	0 to 1	0 to 1	2 states/1 bit	0	bit
65283	Proprietary B	100ms	Per user requirements	PropB_03	3.8	1		Manufacturer Defined Usage (PropB_PDU3)	LOSS OF SENSING Fault status	0 to 1	0 to 1	2 states/1 bit	0	bit
65283	Proprietary B	100ms	Per user requirements	PropB_03	4.1	1		Manufacturer Defined Usage (PropB_PDU3)	UNBALANCE VOLTAGE Fault status	0 to 1	0 to 1	2 states/1 bit	0	bit
65283	Proprietary B	100ms	Per user requirements	PropB_03	4.2	1		Manufacturer Defined Usage (PropB_PDU3)	UNBALANCE CURRENT Fault status	0 to 1	0 to 1	2 states/1 bit	0	bit
65283	Proprietary B	100ms	Per user requirements	PropB_03	4.3	1		Manufacturer Defined Usage (PropB_PDU3)	SHORT CIRCUIT Fault status	0 to 1	0 to 1	2 states/1 bit	0	bit
65283	Proprietary B	100ms	Per user requirements	PropB_03	4.4	1		Manufacturer Defined Usage (PropB_PDU3)	IGBT Fault status	0 to 1	0 to 1	2 states/1 bit	0	bit
65283	Proprietary B	100ms	Per user requirements	PropB_03	4.5	1		Manufacturer Defined Usage (PropB_PDU3)	MOTOR START Fault status	0 to 1	0 to 1	2 states/1 bit	0	bit
65283	Proprietary B	100ms	Per user requirements	PropB_03	4.6	1		Manufacturer Defined Usage (PropB_PDU3)	POWER BRIDGE OVERLOAD Fault status	0 to 1	0 to 1	2 states/1 bit	0	bit
65283	Proprietary B	100ms	Per user requirements	PropB_03	4.7	1		Manufacturer Defined Usage (PropB_PDU3)	POWER SUPPLY Fault status	0 to 1	0 to 1	2 states/1 bit	0	bit

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65283	Proprietary B	100ms	Per user requirements	PropB_03	4.8			Manufacturer Defined Usage (PropB_PDU3)	CAN SUPPLY Fault status	0 to 1	0 to 1	2 states/1 bit	0	bit
65284	Proprietary B	Variable	Per user requirements	PropB_04	1	8		Manufacturer Defined Usage (PropB_PDU4)	REGULATION MODE Status 0: OFF 1: MODE IEXC 2: MODE PF GRID 3: MODE kVAr 4: MODE PF GENERATOR 5: MODE VOLT MATCHING 6: MODE VOLTAGE 7: MODE VOLT GRIDCODE	0 to 255	0 to 7		0	bit
65284	Proprietary B	Variable	Per user requirements	PropB_04	2.1	1		Manufacturer Defined Usage (PropB_PDU4)	V/HZ LIMIT Status	0 to 1	0 to 1	2 states/1 bit	0	bit
65284	Proprietary B	Variable	Per user requirements	PropB_04	2.2	1		Manufacturer Defined Usage (PropB_PDU4)	STATOR CURRENT LIMIT Status	0 to 1	0 to 1	2 states/1 bit	0	bit
65284	Proprietary B	Variable	Per user requirements	PropB_04	2.3	1		Manufacturer Defined Usage (PropB_PDU4)	SOFT START RAMP Status	0 to 1	0 to 1	2 states/1 bit	0	bit
65284	Proprietary B	Variable	Per user requirements	PropB_04	2.4	1		Manufacturer Defined Usage (PropB_PDU4)	SETPOINT HIGH LIMIT AVR Status	0 to 1	0 to 1	2 states/1 bit	0	bit
65284	Proprietary B	Variable	Per user requirements	PropB_04	2.5	1		Manufacturer Defined Usage (PropB_PDU4)	SETPOINT LOW LIMIT AVR Status	0 to 1	0 to 1	2 states/1 bit	0	bit
65284	Proprietary B	Variable	Per user requirements	PropB_04	2.6	1		Manufacturer Defined Usage (PropB_PDU4)	SETPOINT HIGH LIMIT VOLT MATCHING Status	0 to 1	0 to 1	2 states/1 bit	0	bit
65284	Proprietary B	Variable	Per user requirements	PropB_04	2.7	1		Manufacturer Defined Usage (PropB_PDU4)	SETPOINT LOW LIMIT VOLT MATCHING Status	0 to 1	0 to 1	2 states/1 bit	0	bit

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65284	Proprietary B	Variable	Per user requirements	PropB_04	2.8	1		Manufacturer Defined Usage (PropB_PDU4)	SETPOINT HIGH LIMIT FCR Status	0 to 1	0 to 1	2 states/1 bit	0	bit
65284	Proprietary B	Variable	Per user requirements	PropB_04	3.1	1		Manufacturer Defined Usage (PropB_PDU4)	SETPOINT LOW LIMIT FCR Status	0 to 1	0 to 1	2 states/1 bit	0	bit
65284	Proprietary B	Variable	Per user requirements	PropB_04	3.2	1		Manufacturer Defined Usage (PropB_PDU4)	SETPOINT HIGH LIMIT VAR Status	0 to 1	0 to 1	2 states/1 bit	0	bit
65284	Proprietary B	Variable	Per user requirements	PropB_04	3.3	1		Manufacturer Defined Usage (PropB_PDU4)	SETPOINT LOW LIMIT VAR Status	0 to 1	0 to 1	2 states/1 bit	0	bit
65284	Proprietary B	Variable	Per user requirements	PropB_04	3.4	1		Manufacturer Defined Usage (PropB_PDU4)	SETPOINT HIGH LIMIT PF GEN Status	0 to 1	0 to 1	2 states/1 bit	0	bit
65284	Proprietary B	Variable	Per user requirements	PropB_04	3.5	1		Manufacturer Defined Usage (PropB_PDU4)	SETPOINT LOW LIMIT PF GEN Status	0 to 1	0 to 1	2 states/1 bit	0	bit
65284	Proprietary B	Variable	Per user requirements	PropB_04	3.6	1		Manufacturer Defined Usage (PropB_PDU4)	SETPOINT HIGH LIMIT PF GRID Status	0 to 1	0 to 1	2 states/1 bit	0	bit
65284	Proprietary B	Variable	Per user requirements	PropB_04	3.7	1		Manufacturer Defined Usage (PropB_PDU4)	SETPOINT LOW LIMIT PF GRID Status	0 to 1	0 to 1	2 states/1 bit	0	bit
65284	Proprietary B	Variable	Per user requirements	PropB_04	3.8	1		Manufacturer Defined Usage (PropB_PDU4)	START AND THRESHOLD Status	0 to 1	0 to 1	2 states/1 bit	0	bit
65284	Proprietary B	Variable	Per user requirements	PropB_04	4.1	1		Manufacturer Defined Usage (PropB_PDU4)	ENGINE HELP Status	0 to 1	0 to 1	2 states/1 bit	0	bit
65284	Proprietary B	Variable	Per user requirements	PropB_04	4.2	1		Manufacturer Defined Usage (PropB_PDU4)	MOTOR START Status	0 to 1	0 to 1	2 states/1 bit	0	bit

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65284	Proprietary B	Variable	Per user requirements	PropB_04	4.3 to 5.8	15		Manufacturer Defined Usage (PropB_PDU4)	NOT Used	0 to 1	0 to 1	2 states/1 bit	0	bit
65284	Proprietary B	Variable	Per user requirements	PropB_04	6.1	1		Manufacturer Defined Usage (PropB_PDU4)	ROTOR CURRENT OVERLOAD Status	0 to 1	0 to 1	2 states/1 bit	0	bit
65284	Proprietary B	Variable	Per user requirements	PropB_04	6.2	1		Manufacturer Defined Usage (PropB_PDU4)	ROTOR CURRENT OVERHEATING Status	0 to 1	0 to 1	2 states/1 bit	0	bit
65284	Proprietary B	Variable	Per user requirements	PropB_04	6.3	1		Manufacturer Defined Usage (PropB_PDU4)	STATOR CURRENT OVERLOAD Status	0 to 1	0 to 1	2 states/1 bit	0	bit
65284	Proprietary B	Variable	Per user requirements	PropB_04	6.4	1		Manufacturer Defined Usage (PropB_PDU4)	STATOR CURRENT OVERHEATING Status	0 to 1	0 to 1	2 states/1 bit	0	bit
65284	Proprietary B	Variable	Per user requirements	PropB_04	6.5	1		Manufacturer Defined Usage (PropB_PDU4)	MINIMUM IEXC LIMIT (COUPLED) Status	0 to 1	0 to 1	2 states/1 bit	0	bit
65284	Proprietary B	Variable	Per user requirements	PropB_04	6.6	1		Manufacturer Defined Usage (PropB_PDU4)	MINIMUM IEXC LIMIT (NOT COUPLED) Status	0 to 1	0 to 1	2 states/1 bit	0	bit
65284	Proprietary B	Variable	Per user requirements	PropB_04	6.7	1		Manufacturer Defined Usage (PropB_PDU4)	MINIMUM kVAr LIMIT (GRIDCODE) Status	0 to 1	0 to 1	2 states/1 bit	0	bit
65284	Proprietary B	Variable	Per user requirements	PropB_04	6.8	1		Manufacturer Defined Usage (PropB_PDU4)	MAXIMUM kVAr LIMIT (GRIDCODE) Status	0 to 1	0 to 1	2 states/1 bit	0	bit
65284	Proprietary B	Variable	Per user requirements	PropB_04	6.1 to 7.8	8		Manufacturer Defined Usage (PropB_PDU4)	NOT Used	0 to 1	0 to 1	2 states/1 bit	0	bit
65283	Proprietary B	100ms	Per user requirements	PropB_03	5.1			Manufacturer Defined Usage (PropB_PDU3)	PT100 1 Open Short Fault Status	0 to 1	0 to 1	2 states/1 bit	0	bit

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65283	Proprietary B	100ms	Per user requirements	PropB_03	5.2			Manufacturer Defined Usage (PropB_PDU3)	PT100 2 Open Short Fault Status	0 to 1	0 to 1	2 states/1 bit	0	bit
65283	Proprietary B	100ms	Per user requirements	PropB_03	5.3			Manufacturer Defined Usage (PropB_PDU3)	PT100 3 Open Short Fault Status	0 to 1	0 to 1	2 states/1 bit	0	bit
65283	Proprietary B	100ms	Per user requirements	PropB_03	5.4			Manufacturer Defined Usage (PropB_PDU3)	PT100 4 Open Short Fault Status	0 to 1	0 to 1	2 states/1 bit	0	bit
65283	Proprietary B	100ms	Per user requirements	PropB_03	5.5			Manufacturer Defined Usage (PropB_PDU3)	PT100 5 Open Short Fault Status	0 to 1	0 to 1	2 states/1 bit	0	bit
65283	Proprietary B	100ms	Per user requirements	PropB_03	5.6			Manufacturer Defined Usage (PropB_PDU3)	AIN 1 Wirebreak Fault status	0 to 1	0 to 1	2 states/1 bit	0	bit
65283	Proprietary B	100ms	Per user requirements	PropB_03	5.7			Manufacturer Defined Usage (PropB_PDU3)	AIN 2 Wirebreak Fault status	0 to 1	0 to 1	2 states/1 bit	0	bit
65283	Proprietary B	100ms	Per user requirements	PropB_03	5.8			Manufacturer Defined Usage (PropB_PDU3)	AIN 3 Wirebreak Fault status	0 to 1	0 to 1	2 states/1 bit	0	bit
65283	Proprietary B	100ms	Per user requirements	PropB_03	6.1			Manufacturer Defined Usage (PropB_PDU3)	AIN 4 Wirebreak Fault status	0 to 1	0 to 1	2 states/1 bit	0	bit
65283	Proprietary B	100ms	Per user requirements	PropB_03	6.2			Manufacturer Defined Usage (PropB_PDU3)	AOUT 1 Over load Wirebreak Fault status	0 to 1	0 to 1	2 states/1 bit	0	bit
65283	Proprietary B	100ms	Per user requirements	PropB_03	6.3			Manufacturer Defined Usage (PropB_PDU3)	AOUT 2 Over load Wirebreak Fault status	0 to 1	0 to 1	2 states/1 bit	0	bit
65283	Proprietary B	100ms	Per user requirements	PropB_03	6.4			Manufacturer Defined Usage (PropB_PDU3)	AOUT 3 Over load Wirebreak Fault status	0 to 1	0 to 1	2 states/1 bit	0	bit

65283	Proprietary B	100ms	Per user requirements	PropB_03	6.5			Manufacturer Defined Usage (PropB_PDU3)	AOUT 4 Over load Wirebreak Fault status	0 to 1	0 to 1	2 states/1 bit	0	bit
65283	Proprietary B	100ms	Per user requirements	PropB_03	6.6			Manufacturer Defined Usage (PropB_PDU3)	DOUT Over Load Fault status	0 to 1	0 to 1	2 states/1 bit	0	bit

Table 29 - List of D550 PGN

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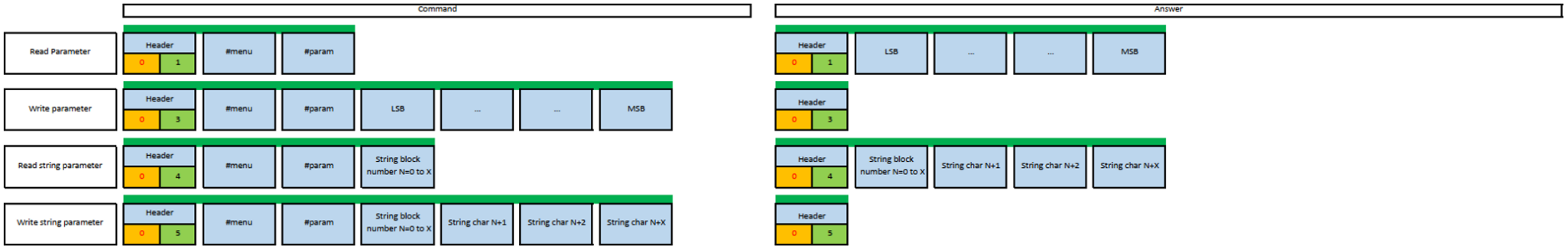
8.2 Leroy-Somer communication protocol



1 Command field (decimal value)

0 Error field (decimal value)

Error field	Comment
0	OK
1	Parameter not found
2	Parameter in read only
3	Value out of range
4	Bootloader error
5	Parameter is locked

Service & Support

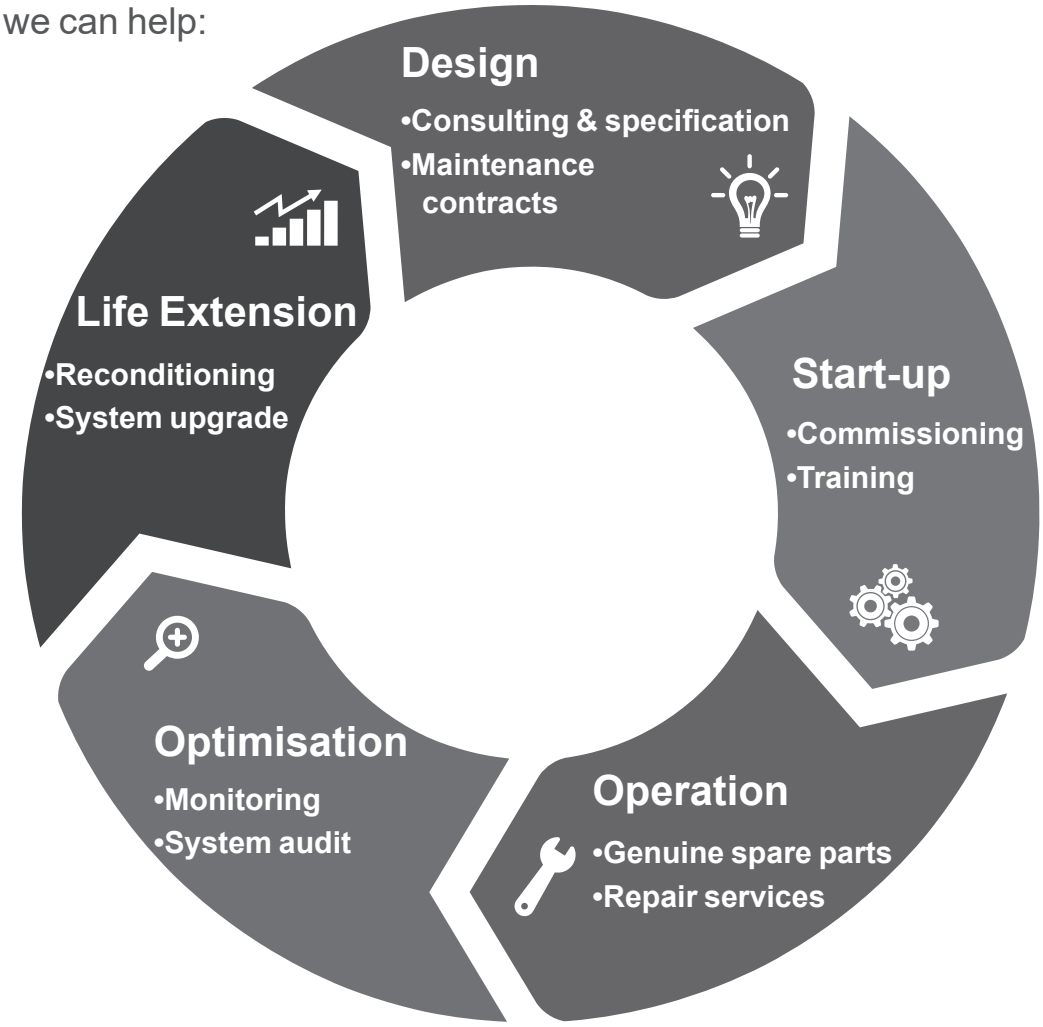
Our worldwide service network of over 80 facilities is at your service.

This local presence is our guarantee for fast and efficient repair, support and maintenance services.

Trust your alternator maintenance and support to electric power generation experts. Our field personnel are 100% qualified and fully trained to operate in all environments and on all machine types.

We have a deep understanding of alternator operation, providing the best value service to optimise your cost of ownership.

Where we can help:



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Asia Pacific: +65 6250 8488
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service.epg@leroy-somer.com

Scan the code or go to:

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