

Telegram description

Telegram 1 : Default telegram

Description	Unit	Value if not available
Total Positive Active Energy (no resetable) : Ea+	kWh	0x7FFFFFFF
Total Positive Reactive Energy (no resetable) : Er +	kvarh	0x7FFFFFFF
Total Negative Active Energy (no resetable) : Ea-	kWh	0x7FFFFFFF
Tariff number in progress (1 to 2)	-	0
2 * Positive Active Energies	kWh	0x7FFFFFFF
2 * Positive Reactive Energies	kvarh	0x7FFFFFFF
Reserved	Reserved	0x7FFFFFFF
Active Power phase 1 +/- : P1	kW/100 (Signed)	0x7FFFFFFF
Reserved	Reserved	0x7FFFFFFF
Reserved	Reserved	0x7FFFFFFF
Reserved	Reserved	0x7FFF
Reserved	Reserved	0x7FFFFFFF
Reserved	Reserved	0x7FFFFFFF
Reserved	Reserved	0x7FFFFFFF
Simple voltage : V1	V/100	0x7FFFFFFF
Reserved	Reserved	0x7FFFFFFF
Reserved	Reserved	0x7FFFFFFF
Current : I1	mA	0x7FFFFFFF
Reserved	Reserved	0x7FFFFFFF
Reserved	Reserved	0x7FFFFFFF
Reserved	Reserved	0x7FFFFFFF

Telegram 2 : Energies

Description	Unit	Value if not available
Total Positive Active Energy (no resetable) : Ea+	kWh	0x7FFFFFFF
Total Positive Reactive Energy (no resetable) : Er +	kvarh	0x7FFFFFFF
Total Negative Active Energy (no resetable) : Ea-	kWh	0x7FFFFFFF
Partial Positive Active Energy: Ea+	kWh	0x7FFFFFFF
Partial Positive Reactive Energy: Er +	kvarh	0x7FFFFFFF
Partial Negative Active Energy: Ea-	kWh	0x7FFFFFFF
Tariff number in progress (1 to 2)	-	0
2 * Positive Active Energies	kWh	0x7FFFFFFF
2 * Positive Reactive Energies	kvarh	0x7FFFFFFF

Telegram 3 : Metrology

Description	Unit	Value if not available
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Reserved	Reserved	0x7FFFFFFF
Reserved	Reserved	0x7FFFFFFF
Reserved	Reserved	0x7FFFFFFF
Simple voltage : V1	V/100	0x7FFFFFFF
Reserved	Reserved	0x7FFFFFFF
Reserved	Reserved	0x7FFFFFFF
Current : I1	mA	0x7FFFFFFF
Reserved	Reserved	0x7FFFFFFF
Reserved	Reserved	0x7FFFFFFF
Reserved	Reserved	0x7FFFFFFF

Telegram 4 : Powers

Description	Unit	Value if not available
Reserved	Reserved	0x7FFFFFFF
Reserved	Reserved	0x7FFFFFFF
Reserved	Reserved	0x7FFFFFFF
Reserved	Reserved	0x7FFFFFFF
Active Power phase 1 +/- : P1	kW/100 (Signed)	0x7FFFFFFF
Reserved	Reserved	0x7FFFFFFF
Reserved	Reserved	0x7FFFFFFF
Reactive Power phase 1 +/- : Q1	kvar/100 (Signed)	0x7FFFFFFF
Reserved	Reserved	0x7FFFFFFF
Reserved	Reserved	0x7FFFFFFF
Apparent Power phase 1 : S1	kVA/100	0x7FFFFFFF
Reserved	Reserved	0x7FFFFFFF
Reserved	Reserved	0x7FFFFFFF
Power Factor phase 1 -: leading and + : lagging : PF1	0,001 (Signed)	0x7FFFFFFF
Reserved	Reserved	0x7FFFFFFF
Reserved	Reserved	0x7FFFFFFF

Telegram 6 : Advanced information

Description	Unit	Value if not available
Product order ID (Countis:100, Protection:200, Atys:300, Diris:400)		0x7FFF
Product ID (EX: 1000 ATS3)		0x7FFF
Product software version (EX: 100 Version 1.00)		0x7FFF
Serial_AA_SS	Poids fort : AA poids faible : SS	0x7FFF
Serial_SST_L	Poids fort : SST poids faible : L	0x7FFF
Serial_order		0x7FFF
Serial_Reserve		0x7FFFFFFF
Network Type : 0 : 1BL		0x7FFF
Reserved	Reserved	0x7FFF

Reserved	Reserved	0x7FFF
Reserved	Reserved	0x7FFF
Reserved	Reserved	0x7FFF
Reserved	Reserved	0x7FFF
Reserved	Reserved	0x7FFF
Reserved	Reserved	0x7FFF
Reserved	Reserved	0x7FFF
Reserved	Reserved	0x7FFF
Tariff number in progress (1 to 2)		0

Command description

Commands to send from Master to Slave to configure a slave

The commands are sent using SND_UD

Command	Description	CI Field	DIB	VIB	DATA
Reserved	Reserved	0x51	0x06	0x6D	6 bytes
Select Telegram	Set the telegram to send in answer to an REQ_UD2 command. See "Telegram description" to know the content of each telegram. Valid values are 1xh with x=Telegram number (1 to 6)	0x50	No DIF	No VIF	1 byte
Com. Board Processor RESET	Software Reset of the communication board (like power off - power on)	0x50	No DIF	No VIF	1 byte=0x90
Set baud rate to 300bps	Change the communication baud rate. A valid message must be sent in the 2 minutes after this command in order to confirm the new baud rate. If the countis is in Auto Baud mode, it will switch in manual mode.	0xB8	No DIF	No VIF	No Data
Reserved	Reserved	0xB9	No DIF	No VIF	No Data
Reserved	Reserved	0xBA	No DIF	No VIF	No Data
Set baud rate to 2400bps		0xBB	No DIF	No VIF	No Data
Reserved	Reserved	0xBC	No DIF	No VIF	No Data
Set baud rate to 9600bps		0xBD	No DIF	No VIF	No Data
Reserved	Reserved	0xBE	No DIF	No VIF	No Data
Reserved	Reserved	0xBF	No DIF	No VIF	No Data
Set primary address (0-250)	Set the primary address of the countis. Valid values are in the range 0-250. Address 0 is reserved for first installation and is the default value after manufacturing.	0x51	0x01	0x7A	1 byte
Set secondary address (Manufacturer ID)	Set the Manufacturer Id for secondary addressing of the countis. Valid values are in the range 00000000-99999999. This Id is unique for the manufacturer and should not be changed.	0x51	0x0C	0x79	8 BCD (4 bytes)
Set secondary address (Full address)	Set the Manufacturer Id, Manufacturer code, Generation and Medium codes for secondary addressing of the countis. These codes form a unique address and should not be changed.	0x51	0x07	0x79	64 bits(2)
Set current tariff (1-2)	Set the current tariff	0x51	0x02	0x7C 0x03 0x72 0x61 0x74	1 Word
Reserved	Reserved	0x51	0x14	0xAC 0x07	No data
Reset Partial energies	Reinitialize partial energies	0x51	0xC4 0x01	0x86 0x07	No data
Reserved	Reserved	0x51	0x02	0xFD 0x67	1 Word
Reserved	Reserved	0x51	0x42	0xFD 0x67	1 Word
Reserved	Reserved	0x51	0x82 0x01	0xFD 0x67	1 Word
Reserved	Reserved	0x51	0xC2 0x01	0xFD 0x67	1 Word

(2) Full Address			
Manufacturer ID	Manufacturer Code	Generation	Medium
	(not changeable)		(not changeable)
8 BCD (4 bytes)	E3h 4Dh	1 byte	1 byte=03h
Data are coded LSB first. Example: Man. ID=12345678, Man. Code=4Dh E3h, Generation=4; Medium=378h, 56h, 34h, 12h,E3h, 4Dh,04h,03h			

Frame description

Single Character
E5h

Short Frame
Start 10h
C Field
A Field
Check Sum
Stop 16h

Control Frame
Start 68h
L Field = 3
L Field = 3
Start 68h
C Field
A Field
CI Field
Check Sum
Stop 16h

Long Frame
Start 68h
L Field
L Field
Start 68h
C Field
A Field
CI Field
User Data (0-252 Byte)
Check Sum
Stop 16h

Single Character

This format consists of a single character, namely the E5h (decimal 229), and serves to acknowledge receipt of transmissions.

Short Frame

This format with a fixed length begins with the start character 10h, and besides the C and A fields includes the check sum (this is made up from the two last mentioned characters), and the stop character 16h.

Long Frame

With the long frame, after the start character 68h, the length field (L field) is first transmitted twice, followed by the start character once again. After this, there follow the function field (C field), the address field (A field) and the control information field (CI field). The L field gives the quantity of the user data inputs plus 3 (for C,A,CI). After the user data inputs, the check sum is transmitted, which is built up over the same area as the length field, and in conclusion the stop character 16h is transmitted.

Control Frame

The control sentence conforms to the long sentence without user data, with an L field from the contents of 3. The check sum is calculated at this point from the fields C, A and CI.

For a complete description of each field, refer to EN 13757-2