

## Standard File (STD)

The standard file (STD) is used to store all those parameters that are periodically recorded. The structure of the STD file is as follows:

Length of the Heading <sup>1</sup>	Heading 1		
		Char (10)	Equipment series no. (ASCII)
		Char (6)	Program version (ASCII)
		Int	Type of Control (CRC, Checksum,...)*
		Int	Length of heading (No. of bytes)**
		Int	Length of the recording (No. of bytes)
		Int	No. of heading variables (n1)
		Int (n1)	Heading variables code
		Int	No. of recording variables (n2)
		Int (n2)	Recording variables code.
Heading Recording			
	Int/Long/Char/String (n1)	Variables Data	
	Char (n)	Not used	
	char/int/long	Checksum, CRC ...	

Recording length	Recording	
		Int/Long/Char/String (n2)
		Char/int/long

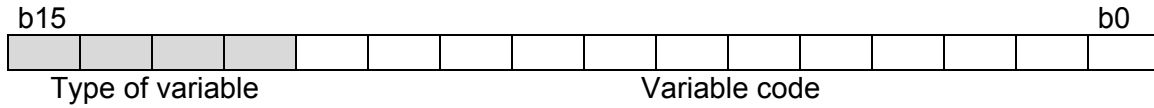
Type of control: To define the control of the recording integrity, the type of control to be made will be indicated in the recording.

Definition of Types of field control		
Code	Control type	Control Size
0	Checksum	Char
1	CRC 16 bytes	Int
2	CRC 32 bytes	Long

This checksum is applied to both the heading and the recordings

<sup>1</sup> Both the length of the heading and that of the recordings must always be an even number. Any variable must be coded as not used to ensure that the length is always an even number.

\*\*The definition of the variables will be:



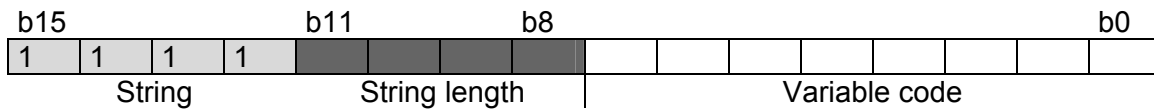
4 bits for defining the different types of variables will be used. (Int, long, char, string..)

The rest will be used to identify the variable.

Definition of Types of Variables				
0	0	0	0	Long
0	0	0	1	Unsigned Long
0	0	1	0	char
0	0	1	1	unsigned char
0	1	0	0	Int
0	1	0	1	unsigned int
0	1	1	0	Float
0	1	1	1	Double
1	0	0	0	Energy (2-long) Units / thousandths
.....	.....	.....	.....	.....
1	1	1	0	Samples
1	1	1	1	String

Therefore: the same variable may appear as an integer, long... without having to change the variable code even though the 4 first bits change.

An exception is the String. The variable code will identify the length of the String.

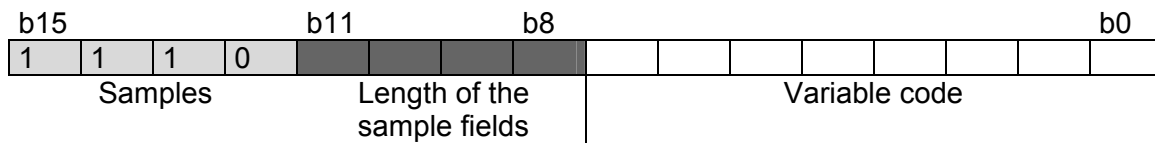


The length of the String will be defined as a power of 2. This way the length of the String will be defined according to the following table:

b11			b8	
0	0	0	0	1 byte
0	0	0	1	2 bytes
0	0	1	0	4 bytes
0	0	1	1	8 bytes
0	1	0	0	16 bytes

0	1	0	1	32 bytes
0	1	1	0	64 bytes
....	....	....	....	....
1	1	1	1	32768 bytes

Another exception is the samples. Here the wave form can be defined.



The length of the field for the samples will be defined as a power of 2. This way the possible lengths will be defined according to the following table:

b11			b8	
0	0	0	0	1 byte
0	0	0	1	2 bytes
0	0	1	0	4 bytes
0	0	1	1	8 bytes
0	1	0	0	16 bytes
0	1	0	1	32 bytes
0	1	1	0	64 bytes
....	....	....	....	....
1	1	1	1	32768 bytes

If the samples are Int, to store 64 samples, they will have to be defined as having a length of 128 bytes.

One of the typical heading variables will be the date offset. The starting date for the dates given by the equipment.

**Events file (EVQ)**

Heading length: 162 bytes

Recording length 32 bytes

**Heading variables for the quality events file:**

VARIABLE	TYPE	CODE	nBYTES
voltage primary ratio	0x00	316	4
secondary voltage ratio	0x00	317	4
nominal effective voltage	0x04	301	2
overvoltage threshold % *	0x04	338	2
dip threshold % *	0x04	340	2
break threshold % *	0x04	341	2
overvoltage hysteresis % *	0x04	359	2
dip hysteresis % *	0x04	360	2
break hysteresis % *	0x04	361	2
star/triangle	0x04	324	2
file name	0xF4	0	16
measuring point name	0xF3	9	8
comment	0xF4	10	16
year of origin	0x00	300	4
vnomquax32 L1 **	0x00	363	4
vnomquax32 L2 **	0x00	364	4
vnomquax32 L3 **	0x00	365	4
voltage unit	0x02	320	1

\* value x 10

\*\* Value of the nominal voltage in points for each of the phases.  
To calculate voltage percentages (maximum, minimum, average and previous).

**Recording variables for the quality events file:**

VARIABLE	TYPE	CODE	nBYTES
recording start date	0x00	313	4
ms from start date	0x04	362	2
type of EVENT **	0x04	342	2
signal frequency (x10)	0x04	343	2
length of EVENT ***	0x00	344	4
maximum voltage in the EVENT *	0x00	345	4
minimum voltage in the EVENT *	0x00	346	4
average voltage in the EVENT *	0x00	347	4
voltage prior to the EVENT *	0x00	348	4

\*  
Expressed in points.

\*\*

bit15	bit12	bit 8	bit4
bit0			

phase	Following event	Previous event	Current event
-------	-----------------	----------------	---------------

Types of EVENT:  
0.....Break  
1.....Dip  
2.....OK  
3.....Overvoltage  
4.....Quick variation

\*\*\*  
Number of semicycles the EVENT lasted

## Events file (EVE)

This file records incidents produced in the equipment, i.e. set up changes, equipment time changes, memory formats, etc.

These incidents are recorded together with the time when they happened.

The length of the recordings stored in this file is 6 bytes.

1	2	3	4	5	6
---	---	---	---	---	---

(1-4) Date

(5) Event code

(6) Checksum

## Harmonics statistics file (H24)

All **maximum values** of all **effective values** ( $C_{nvs}$ ) **obtained** are stored for successive intervals of **3s** included in an interval of 24hrs.

cvsm<sub>1</sub>[2] . . cvsm<sub>1</sub>[40] (2 bytes x 39)

cvsm<sub>2</sub>[2] . . cvsm<sub>2</sub>[40] (2 bytes x 39)

cvsm<sub>3</sub>[2] . . cvsm<sub>3</sub>[40] (2 bytes x 39)

All **maximum values** of all **effective values** ( $C_{nsh}$ ) **obtained** in the successive interval of **10 mins** included in an interval of 24 hrs.

cshtm<sub>1</sub>[2] . . cshtm<sub>1</sub>[40] (2 bytes x 39)

cshtm<sub>2</sub>[2] . . cshtm<sub>2</sub>[40] (2 bytes x 39)

cshtm<sub>3</sub>[2] . . cshtm<sub>3</sub>[40] (2 bytes x 39)

Recording structure (H24 file)	
Heading (same as .STD file)	(1014 bytes)
Start date	4 bytes
cvsmax1[2] . . cvsmax1[40]	(2 bytes x 39)
cvsmax2[2] . . cvsmax2[40]	(2 bytes x 39)
cvsmax3[2] . . cvsmax3[40]	(2 bytes x 39)
cshmax1[2] . . cshmax1[40]	(2 bytes x 39)
cshmax2[2] . . cshmax2[40]	(2 bytes x 39)
cshmax3[2] . . cshmax3[40]	(2 bytes x 39)
bufcvs1[2]	(2 bytes x 32)
pasharm1[2]	(1 byte)
...	
bufcvs1[40]	(2 bytes x 32)
pasharm1[40]	(1 byte)
	((2 bytes x 32)+(1 bytes)) x 39
bufcvs2[2]	(2 bytes x 32)
pasharm2[2]	(1 byte)
..	
bufcvs2[40]	(2 bytes x 32)
pasharm2[40]	(1 byte)
	((2 bytes x 32)+(1 bytes)) x 39
bufcvs3[2]	(2 bytes x 32)
pasharm3[2]	(1 byte)
..	
bufcvs3[40]	(2 bytes x 32)
pasharm3[40]	(1 byte)
	((2 bytes x 32)+(1 byte)) x 39
checksum	(1 byte)
<b>Total size of recording (8078 bytes)</b>	

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Where  $cv_{smax}[n]$  is the maximum value of all the rms values of the n harmonic obtained every 150/180 cycles (3 seconds) for each phase \*.

Where  $cs_{hmax}[n]$  is the maximum value of all the rms values integrated every 150/180 cycles of the n harmonic obtained every recording period for each phase \*.

$buf_{cvs}[n]$  is the classification buffer for the accumulative probability of the n harmonic every 150/180 cycles for each phase\*. These buffers are in 32 categories and the value of each category is variable in order to offer maximum accuracy in each case. The  $p_{sharm}[n]$  variable is the factor (x10) by which the buffer categories have to be multiplied to find their rms value to which it corresponds.

The contents of each category are the number of times that a n harmonic has a determined value  $C_{nvs}$ .



- **Events codes**

Code	Event
0	Battery On (Referring to the battery)
1	Battery OFF (Referring to the battery)
2	Voltage On (Measuring)
3	Voltage Off
4	Clear Energy
5	Clear Maximums/Minimums
6	Clear Maximum Demand
7	Set-up modified
8	Trigger On
9	Trigger Off
10	Communications error
11	Phone call Received
12	Phone call Sent
13	Transformer ratio change
14	Calibration change
15	Changing communications parameters
16	Memory format (Deleting from the memory)
17	Delete File
18	Change of password
19	File reading
20	Loss of Set-up
21	Changing the time
22	Voltage ON L1
23	Voltage ON L2
24	Voltage ON L3
25	Voltage OFF L1
26	Voltage OFF L2
27	Voltage OFF L3
28	Formatting the memory
29	Stop recording
30	Restart recording
31	Stop .EVQ recording
32	Restart .EVQ recording
33	Stop .EVQ recording through RS file request
34	Restart .EVQ recording through RS file request
35	Stop STD recording through RS file request
36	Restart .STD recording through RS file request
37	Stop .EVE recording. Through RS file request
38	Restart .EVE recording through RS file request



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<b>39</b>	<b>Power On (Power supply voltage return)</b>
<b>40</b>	<b>Power Off (No power supply voltage)</b>

• Variable codes

Variable code	Variable	Type	Variable code	Variable	Type	Variable code	Variable	Type
0	Vp-p L1-L2	Inst. (Vprim)	100	Vp-p L1-L2	Max. (Vprim)	200	Vp-p L1-L2	Min. (Vprim)
1	Vp-p L2-L3	Inst. (Vprim)	101	Vp-p L2-L3	Max. (Vprim)	201	Vp-p L2-L3	Min. (Vprim)
2	Vp-p L3-L1	Inst. (Vprim)	102	Vp-p L3-L1	Max. (Vprim)	202	Vp-p L3-L1	Min. (Vprim)
3	Vp-p III	Inst. (Vprim)	103	Vp-p III	Max. (Vprim)	203	Vp-p III	Min. (Vprim)
4	Vp-n L1	Inst. (Vprim)	104	Vp-n L1	Max. (Vprim)	204	Vp-n L1	Min. (Vprim)
5	Vp-n L2	Inst. (Vprim)	105	Vp-n L2	Max. (Vprim)	205	Vp-n L2	Min. (Vprim)
6	Vp-n L3	Inst. (Vprim)	106	Vp-n L3	Max. (Vprim)	206	Vp-n L3	Min. (Vprim)
7	Vp-n III	Inst. (Vprim)	107	Vp-n III	Max. (Vprim)	207	Vp-n III	Min. (Vprim)
8	A L1	Inst.	108	A L1	Max.	208	A L1	Min.
9	A L2	Inst.	109	A L2	Max.	209	A L2	Min.
10	A L3	Inst.	110	A L3	Max.	210	A L3	Min.
11	A III	Inst.	111	A III	Max.	211	A III	Min.
12	kW + L1	Inst.	112	kW + L1	Max.	212	kW + L1	Min.
13	kW - L1	Inst.	113	kW - L1	Max.	213	kW - L1	Min.
14	kW + L2	Inst.	114	kW + L2	Max.	214	kW + L2	Min.
15	kW - L2	Inst.	115	kW - L2	Max.	215	kW - L2	Min.
16	kW + L3	Inst.	116	kW + L3	Max.	216	kW + L3	Min.
17	kW - L3	Inst.	117	kW - L3	Max.	217	kW - L3	Min.
18	kW + III	Inst.	118	kW + III	Max.	218	kW + III	Min.
19	kW - III	Inst.	119	kW - III	Max.	219	kW - III	Min.
20	kvarL + L1	Inst.	120	kvarL + L1	Max.	220	kvarL + L1	Min.
21	kvarL - L1	Inst.	121	kvarL - L1	Max.	221	kvarL - L1	Min.
22	kvarL + L2	Inst.	122	kvarL + L2	Max.	222	kvarL + L2	Min.
23	kvarL - L2	Inst.	123	kvarL - L2	Max.	223	kvarL - L2	Min.
24	kvarL + L3	Inst.	124	kvarL + L3	Max.	224	kvarL + L3	Min.
25	kvarL - L3	Inst.	125	kvarL - L3	Max.	225	kvarL - L3	Min.
26	kvarL + III	Inst.	126	kvarL + III	Max.	226	kvarL + III	Min.
27	kvarL - III	Inst.	127	kvarL - III	Max.	227	kvarL - III	Min.
28	kvarC + L1	Inst.	128	kvarC + L1	Max.	228	kvarC + L1	Min.
29	kvarC - L1	Inst.	129	kvarC - L1	Max.	229	kvarC - L1	Min.
30	kvarC + L2	Inst.	130	kvarC + L2	Max.	230	kvarC + L2	Min.

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31	kvarC – L2	Inst.	131	kvarC – L2	Max.	231	kvarC – L2	Min.
32	kvarC + L3	Inst.	132	kvarC + L3	Max.	232	kvarC + L3	Min.
33	kvarC – L3	Inst.	133	kvarC – L3	Max.	233	kvarC – L3	Min.
34	kvarC + III	Inst.	134	kvarC + III	Max.	234	kvarC + III	Min.
35	kvarC – III	Inst.	135	kvarC – III	Max.	235	kvarC – III	Min.
36	PF + L1	Inst.	136	PF + L1	Max.	236	PF + L1	Min.
37	PF – L1	Inst.	137	PF – L1	Max.	237	PF – L1	Min.
38	PF + L2	Inst.	138	PF + L2	Max.	238	PF + L2	Min.
39	PF – L2	Inst.	139	PF – L2	Max.	239	PF – L2	Min.
40	PF + L3	Inst.	140	PF + L3	Max.	240	PF + L3	Min.
41	PF – L3	Inst.	141	PF – L3	Max.	241	PF – L3	Min.
42	PF + III	Inst.	142	PF + III	Max.	242	PF + III	Min.
43	PF – III	Inst.	143	PF – III	Max.	243	PF – III	Min.
44	Hz	Inst. (x10)	144	Hz.	Max. (x10)	244	Hz.	Min. (x10)
45	KVA III		145	KVA III	Max.	245	KVA III	Min.
46	Kwh + III	Tariff 1	146	Kwh + III	Tariff 2	246	Kwh + III	Tariff 3
47	Kwh - III	Tariff 1	147	Kwh - III	Tariff 2	247	Kwh - III	Tariff 3
48	KvarhL + III	Tariff 1	148	KvarhL + III	Tariff 2	248	KvarhL + III	Tariff 3
49	KvarhL - III	Tariff 1	149	KvarhL - III	Tariff 2	249	KvarhL - III	Tariff 3
50	KvarhC+ III	Tariff 1	150	KvarhC+ III	Tariff 2	250	KvarhC+ III	Tariff 3
51	KvarhC - III	Tariff 1	151	KvarhC - III	Tariff 2	251	KvarhC - III	Tariff 3
52	THD or D L1	inst. (x10)	152	THD or D L1	Max. (x10)	252	THD or D L1	Min. (x10)
53	THD or D L2	inst. (x10)	153	THD or D L2	Max. (x10)	253	THD or D L2	Min. (x10)
54	THD or D L3	inst. (x10)	154	THD or D L3	Max. (x10)	254	THD or D L3	Min. (x10)
55	Hz Integrated	Inst. (x10)	155	Hz Integrated	Max. (x10)	255	Hz Integrated	Min. (x10)
56	V L1	Inst. (Vsecondary)	156	V L1	Max. (Vsecond)	256	V L1	Min. (Vsecond)
57	V L2	Inst. (Vsecondary)	157	V L2	Max. (Vsecond)	257	V L2	Min. (Vsecond)
58	V L3	Inst. (Vsecondary)	158	V L3	Max. (Vsecond)	258	V L3	Min. (Vsecond)

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59	Neutral Current		159	Neutral Current (max)		259	Neutral Current (min)	
60	Vp-n L1	Flicker	182	WA L1	Max. Flicker (x10)			
61	Vp-n L2	Flicker	183	WA L2	Max. Flicker (x10)			
62	Vp-n L3	Flicker	184	WA L3	Max. Flicker (x10)			
63	Pst L1	Flicker (x100)						
64	Pst L2	Flicker (x100)						
65	Pst L3	Flicker (x100)						
66	P0,1 L1	Flicker (x100)						
67	P0,1 L2	Flicker (x100)						
68	P0,1 L3	Flicker (x100)						
69	P1 L1	Flicker (x100)						
70	P1 L2	Flicker (x100)						
71	P1 L3	Flicker (x100)						
72	P3 L1	Flicker (x100)						
73	P3 L2	Flicker (x100)						
74	P3 L3	Flicker (x100)						
75	P10 L1	Flicker (x100)						
76	P10 L2	Flicker (x100)						
77	P10 L3	Flicker (x100)						
78	P50 L1	Flicker (x100)						

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<b>79</b>	P50 L2	Flicker (x100)
<b>80</b>	P50 L3	Flicker (x100)
<b>81</b>	Kwh III	Flicker
<b>85</b>	Sag semicycles L1	Quality
<b>86</b>	Sag semicycles L2	Quality
<b>87</b>	Sag semicycles L3	Quality
<b>88</b>	Sag periods L1	Quality
<b>89</b>	Sag periods L2	Quality
<b>90</b>	Sag periods L3	Quality
<b>91</b>	Power off cycles L1	Quality
<b>92</b>	Power off cycles L2	Quality
<b>93</b>	Power off cycles L3	Quality
<b>94</b>	Power off periods L1	Quality
<b>95</b>	Power off periods L2	Quality
<b>96</b>	Power off periods L3	Quality
<b>97</b>	Quality percentage L1	Quality (x10)
<b>98</b>	Quality percentage L2	Quality (x10)
<b>99</b>	Quality percentage L3	Quality (x10)

Variable code	Magnitude	Value
300	Offset date when expressed in long format	
301	Nominal effective voltage	(Referring to the secondary)
302	Nominal frequency	
303	Time constant, frequency integration	
304	Voltage threshold. +-%V	
305	Quality threshold % semicycles within threshold	
306	Sag threshold	
307	Distortion type selection (THD/D)	
308	Time trigger (start)	
309	Time trigger (Fin)	
310	Time of recording	
311	Time constant, voltage integration	
312	Code bell	
313	Recording date	
314	Number of totals of the recording.	
315	Time constant, current integration.	
316	Rel. Voltage primary	
317	Rel. Voltage secondary	
318	Rel. Current primary	
319	Rel. Current secondary	
320	Voltage units (Volt)	Power of 10
321	Current units (A)	Power of 10
322	Power and Energies units (W,W,Var,Wh,Varh)	Power of 10
323	Current input (0-Three phase, 1-Aron)	
324	Type of circuit (0-Triangle, 1 Star)	
325	Sigma-delta frequency percentage	
326	Recording trigger code	
327	Recording maximum trigger	
328	Recording minimum trigger	
329	+%Voltage OK by high / low V	
330	-% Voltage OK by high / low V	
331	V seconds OK L1	
332	V seconds OK L2	
333	V seconds OK L3	
334	Rolling demand period V	
335	Rolling demand period 60 Hz	
336	%Voltage for POWER OFF	
337	n Seconds for POWER OFF	
338	overvoltage threshold %	x10
339	low % variations threshold	x10
340	dip threshold	x10
341	break threshold	x10
342	type of EVENT (bit de month pes = unfinished	Int

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	event) b15-b14-b13 -b12 -> phase b11-> Forced finish b3-b2-b1-b0 -> Type of event	0-> Interruption 1-> Dip 3-> Overvoltage
343	sampling time	
344	length of EVENT	
345	maximum voltage in the EVENT	Points^2 x 32
346	minimum voltage in the EVENT	Points^2 x 32
347	average voltage in the EVENT	Points^2 x 32
348	voltage prior to the EVENT	Points^2 x 32
349	.STD file capacity in K num	
350	.EVE file capacity in K num	
351	.EVQ file capacity in K num	
352	Trigger Level (Amperes)	-1 = None
353	Trigger Type (Averages, maximums, minimums)	0, 1, 2
354	Reserved file capacity	
355	Reserved file capacity	
356	Reserved file capacity	
357	Reserved file capacity	
358	Reserved file capacity	
359	overvoltage hysteresis %	x10
360	dip hysteresis %	x10
361	break hysteresis %	x10
362	ms from recording start date	
363	nominal voltage quadrant x 32 L1	Points^2 x 32
364	nominal voltage quadrant x 32 L2	Points^2 x 32
365	nominal voltage quadrant x 32 L3	Points^2 x 32
366	Event Notification in Recording.	
367	VL1 Gain star	
368	VL2 Gain star	
369	VL3 Gain star	
370	VL1 date triangle	
371	VL2 date triangle	
372	VL3 date triangle	
373	IL1 Gain	
374	IL2 Gain	
375	IL3 Gain	
376	IL2 Aron Gain	
377	Voltage secondary	x10
378	For the STD recording calculation (All QNA-413 variables less voltage) take into account those periods in which an EVQ has occurred.	0 – No 1 – Yes
379	For calculating the voltage for the STD recording those periods in which a Voltage outside the limits have been taken into account.	0 – No 1 – Yes



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380	Lower limit for voltage outside limit	% Vn x 10
381	Upper limit for voltage outside limit	% Vn x 10
382	Maximum EVQ voltage in points	Points
383	Minimum EVQ voltage in points	Points
384	Average EVQ voltage in points	Points
385	Previous EVQ voltage in points	Points
386	Nominal voltage in points L1	Points
387	Nominal voltage in points L2	Points
388	Nominal voltage in points L3	Points
389	Recording date start/finish indicator	0-Start 1-Finish
390	For calculating voltage in the STD file those periods in which an EVQ has occurred have been taken into account.	
391	Variable used for calculating maximum demand (stored in variables 817-818-819-820) the same units as the calculation variable.	
392	Date expressed in UTC format (Universal Time Co-ordinate) Date of the Windows regional configuration.	If the variable does not exist → is in normal format Yes is 0 → is in normal format Yes is 1 → is in UTC format
393	Neutral Current Units (A)	Power of 10
394	Meter units 1	Power of 10
395	Meter units 2	Power of 10
396	Meter units 3	Power of 10
397	Meter units 4	Power of 10
398	Meter units 5	Power of 10
399	Meter units 6	Power of 10
400	Meter units 7	Power of 10
401	Meter units 8	Power of 10
402	Meter units 9	Power of 10
403	Meter units 10	Power of 10
404	Meter units 11	Power of 10
405	Meter units 12	Power of 10
406	Meter units 13	Power of 10
407	Meter units 14	Power of 10
408	Meter units 15	Power of 10
409	Meter units 16	Power of 10
410	Meter units 17	Power of 10
411	Meter units 18	Power of 10
412	Meter units 19	Power of 10
413	Meter units 20	Power of 10
414	Meter units 21	Power of 10
415	Meter units 22	Power of 10
416	Meter units 23	Power of 10
417	Meter units 24	Power of 10
418	Analogue input units 1	Power of 10
419	Analogue input units 2	Power of 10

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420	Analogue input units 3	Power of 10
421	Analogue input units 4	Power of 10
422	Analogue input units 5	Power of 10
423	Analogue input units 6	Power of 10
424	Analogue input units 7	Power of 10
425	Analogue input units 8	Power of 10
426	Number of samples if the variable code is E0	Value
427	V1 alarm	Inst (V*10)
428	V2 alarm	Inst (V*10)
429	V3 alarm	Inst (V*10)
430	V (any of the above three)	Inst (V*10)
431	I1 alarm	Inst (mA)
432	I2 alarm	Inst (mA)
433	I3 alarm	Inst (mA)
434	I (any of the above three)	Inst (mA)
435	W1 alarm	Inst (W)
436	W2 alarm	Inst (W)
437	W3 alarm	Inst (W)
438	W (any of the above three)	Inst (W)
439	varL1 alarm	Inst (W)
440	varL2 alarm	Inst (W)
441	varL3 alarm	Inst (W)
442	varL (any of the above three)	Inst (W)
443	varC1 alarm	Inst (W)
444	varC2 alarm	Inst (W)
445	varC3 alarm	Inst (W)
446	varC (any of the above three)	Inst (W)
447	PF1 alarm	Inst
448	PF2 alarm	Inst
449	PF3 alarm	Inst
450	PF alarm (any of the above three)	Inst
451	Vthd1 alarm	Inst (V*10)
452	Vthd2 alarm	Inst (V*10)
453	Vthd3 alarm	Inst (V*10)
454	Vthd alarm (any of the above three)	Inst (V*10)
455	Ithd1 alarm	Inst
456	Ithd2 alarm	Inst
457	Ithd3 alarm	Inst
458	Ithd alarm (any of the above three)	Inst
459	Unbalance alarm	(V*10)
460	Symmetry alarm	(V*10)
461	Frequency alarm	(Hz*10)
462	No. of evq1 to set off an alarm	
463	No. of evq2 to set off an alarm	
464	No. of evq3 to set off an alarm	
465	No. of evq of any of the above three to set off an alarm	

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<b>466</b>	Neutral voltage units	
<b>467</b>	Multiplying factor of the gain V	Power of 10
<b>468</b>	Multiplying factor of the gain I	Power of 10
<b>469</b>	Multiplying factor of the gain In	Power of 10
<b>470</b>	In gain	

Variable code	Variable	Type	Variable code	Variable	Type	Variable code	Variable	Type
<b>650</b>	IL1 Fundamenta l	x10	<b>700</b>	IL2 Fundamenta l	x10	<b>750</b>	IL3 Fundamental	x10
<b>651</b>	IL1 Harmonic 2	x10	<b>701</b>	IL2 Harmonic 2	x10	<b>751</b>	IL3 Harmonic 2	x10
<b>652</b>	IL1 Harmonic 3	x10	<b>702</b>	IL2 Harmonic 3	x10	<b>752</b>	IL3 Harmonic 3	x10
<b>653</b>	IL1 Harmonic 4	x10	<b>703</b>	IL2 Harmonic 4	x10	<b>753</b>	IL3 Harmonic 4	x10
<b>654</b>	IL1 Harmonic 5	x10	<b>704</b>	IL2 Harmonic 5	x10	<b>754</b>	IL3 Harmonic 5	x10
<b>655</b>	IL1 Harmonic 6	x10	<b>705</b>	IL2 Harmonic 6	x10	<b>755</b>	IL3 Harmonic 6	x10
<b>656</b>	IL1 Harmonic 7	x10	<b>706</b>	IL2 Harmonic 7	x10	<b>756</b>	IL3 Harmonic 7	x10
<b>657</b>	IL1 Harmonic 8	x10	<b>707</b>	IL2 Harmonic 8	x10	<b>757</b>	IL3 Harmonic 8	x10
<b>658</b>	IL1 Harmonic 9	x10	<b>708</b>	IL2 Harmonic 9	x10	<b>758</b>	IL3 Harmonic 9	x10
<b>659</b>	IL1 Harmonic 10	x10	<b>709</b>	IL2 Harmonic 10	x10	<b>759</b>	IL3 Harmonic 10	x10
<b>660</b>	IL1 Harmonic 11	x10	<b>710</b>	IL2 Harmonic 11	x10	<b>760</b>	IL3 Harmonic 11	x10
<b>661</b>	IL1 Harmonic 12	x10	<b>711</b>	IL2 Harmonic 12	x10	<b>761</b>	IL3 Harmonic 12	x10
<b>662</b>	IL1 Harmonic 13	x10	<b>712</b>	IL2 Harmonic 13	x10	<b>762</b>	IL3 Harmonic 13	x10
<b>663</b>	IL1 Harmonic 14	x10	<b>713</b>	IL2 Harmonic 14	x10	<b>763</b>	IL3 Harmonic 14	x10
<b>664</b>	IL1 Harmonic 15	x10	<b>714</b>	IL2 Harmonic 15	x10	<b>764</b>	IL3 Harmonic 15	x10
<b>665</b>	IL1 Harmonic 16	x10	<b>715</b>	IL2 Harmonic 16	x10	<b>765</b>	IL3 Harmonic 16	x10
<b>666</b>	IL1 Harmonic 17	x10	<b>716</b>	IL2 Harmonic 17	x10	<b>766</b>	IL3 Harmonic 17	x10
<b>667</b>	IL1 Harmonic 18	x10	<b>717</b>	IL2 Harmonic 18	x10	<b>767</b>	IL3 Harmonic 18	x10
<b>668</b>	IL1 Harmonic 19	x10	<b>718</b>	IL2 Harmonic 19	x10	<b>768</b>	IL3 Harmonic 19	x10

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<b>669</b>	IL1 Harmonic 20	x10	<b>719</b>	IL2 Harmonic 20	x10	<b>769</b>	IL3 Harmonic 20	x10
<b>670</b>	IL1 Harmonic 21	x10	<b>720</b>	IL2 Harmonic 21	x10	<b>770</b>	IL3 Harmonic 21	x10
<b>671</b>	IL1 Harmonic 22	x10	<b>721</b>	IL2 Harmonic 22	x10	<b>771</b>	IL3 Harmonic 22	x10
<b>672</b>	IL1 Harmonic 23	x10	<b>722</b>	IL2 Harmonic 23	x10	<b>772</b>	IL3 Harmonic 23	x10
<b>673</b>	IL1 Harmonic 24	x10	<b>723</b>	IL2 Harmonic 24	x10	<b>773</b>	IL3 Harmonic 24	x10
<b>674</b>	IL1 Harmonic 25	x10	<b>724</b>	IL2 Harmonic 25	x10	<b>774</b>	IL3 Harmonic 25	x10
<b>675</b>	IL1 Harmonic 26	x10	<b>725</b>	IL2 Harmonic 26	x10	<b>775</b>	IL3 Harmonic 26	x10
<b>676</b>	IL1 Harmonic 27	x10	<b>726</b>	IL2 Harmonic 27	x10	<b>776</b>	IL3 Harmonic 27	x10
<b>677</b>	IL1 Harmonic 28	x10	<b>727</b>	IL2 Harmonic 28	x10	<b>777</b>	IL3 Harmonic 28	x10
<b>678</b>	IL1 Harmonic 29	x10	<b>728</b>	IL2 Harmonic 29	x10	<b>778</b>	IL3 Harmonic 29	x10
<b>679</b>	IL1 Harmonic 30	x10	<b>729</b>	IL2 Harmonic 30	x10	<b>779</b>	IL3 Harmonic 30	x10
<b>680</b>	IL1 Harmonic 31	x10	<b>730</b>	IL2 Harmonic 31	x10	<b>780</b>	IL3 Harmonic 31	x10
<b>681</b>	IL1 Harmonic 32	x10	<b>731</b>	IL2 Harmonic 32	x10	<b>781</b>	IL3 Harmonic 32	x10
<b>682</b>	IL1 Harmonic 33	x10	<b>732</b>	IL2 Harmonic 33	x10	<b>782</b>	IL3 Harmonic 33	x10
<b>683</b>	IL1 Harmonic 34	x10	<b>733</b>	IL2 Harmonic 34	x10	<b>783</b>	IL3 Harmonic 34	x10
<b>684</b>	IL1 Harmonic 35	x10	<b>734</b>	IL2 Harmonic 35	x10	<b>784</b>	IL3 Harmonic 35	x10
<b>685</b>	IL1 Harmonic 36	x10	<b>735</b>	IL2 Harmonic 36	x10	<b>785</b>	IL3 Harmonic 36	x10
<b>686</b>	IL1 Harmonic 37	x10	<b>736</b>	IL2 Harmonic 37	x10	<b>786</b>	IL3 Harmonic 37	x10
<b>687</b>	IL1 Harmonic 38	x10	<b>737</b>	IL2 Harmonic 38	x10	<b>787</b>	IL3 Harmonic 38	x10
<b>688</b>	IL1 Harmonic 39	x10	<b>738</b>	IL2 Harmonic 39	x10	<b>788</b>	IL3 Harmonic 39	x10
<b>689</b>	IL1 Harmonic 40	x10	<b>739</b>	IL2 Harmonic 40	x10	<b>789</b>	IL3 Harmonic 40	x10
<b>690</b>	IL1 Harmonic 41	x10	<b>740</b>	IL2 Harmonic 41	x10	<b>790</b>	IL3 Harmonic 41	x10
<b>691</b>	IL1 Harmonic 42	x10	<b>741</b>	IL2 Harmonic 42	x10	<b>791</b>	IL3 Harmonic 42	x10
<b>692</b>	IL1 Harmonic 43	x10	<b>742</b>	IL2 Harmonic 43	x10	<b>792</b>	IL3 Harmonic 43	x10
<b>693</b>	IL1	x10	<b>743</b>	IL2	x10	<b>793</b>	IL3 Harmonic	x10

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	Harmonic 44			Harmonic 44			44	
<b>694</b>	IL1 Harmonic 45	x10	<b>744</b>	IL2 Harmonic 45	x10	<b>794</b>	IL3 Harmonic 45	x10
<b>695</b>	IL1 Harmonic 46	x10	<b>745</b>	IL2 Harmonic 46	x10	<b>795</b>	IL3 Harmonic 46	x10
<b>696</b>	IL1 Harmonic 47	x10	<b>746</b>	IL2 Harmonic 47	x10	<b>796</b>	IL3 Harmonic 47	x10
<b>697</b>	IL1 Harmonic 48	x10	<b>747</b>	IL2 Harmonic 48	x10	<b>797</b>	IL3 Harmonic 48	x10
<b>698</b>	IL1 Harmonic 49	x10	<b>748</b>	IL2 Harmonic 49	x10	<b>798</b>	IL3 Harmonic 49	x10
<b>699</b>	IL1 Harmonic 50	x10	<b>749</b>	IL2 Harmonic 50	x10	<b>799</b>	IL3 Harmonic 50	x10

Variable code	Magnitude	Value
<b>800</b>	Vd (Direct voltage)	
<b>801</b>	Vi (Inverse voltage)	
<b>802</b>	Vh (Homopolar voltage)	
<b>803</b>	No. of phase 1 10 cycle block meter blocks with evq	
<b>804</b>	No. of phase 2 10 cycle block meter blocks with evq	
<b>805</b>	No. of phase 3 10 cycle block meter blocks with evq	
<b>806</b>	No. of phase 1 10 cycle block meter blocks with voltage outside limits	
<b>807</b>	No. of phase 2 10 cycle block meter blocks with voltage outside limits	
<b>808</b>	No. of phase 3 10 cycle block meter blocks with voltage outside limits	
<b>809</b>	150 cycle, phase 1 integrations meter for all STD parameters except voltage	
<b>810</b>	150 cycle, phase 2 integrations meter for all STD parameters except voltage	
<b>811</b>	150 cycle, phase 3 integrations meter for all STD parameters except voltage	
<b>812</b>	150 cycle, phase 1 voltage integrations	
<b>813</b>	150 cycle, phase 2 voltage integrations	
<b>814</b>	150 cycle, phase 3 voltage integrations	
<b>815</b>	Nothing (used to tally recordings)	
<b>816</b>	Transformer primary for Neutral Current	
<b>817</b>	Power demand L1 (Period)	Variable 391
<b>818</b>	Power demand L2 (Period)	Variable 391
<b>819</b>	Power demand L3 (Period)	Variable 391
<b>820</b>	Power demand III (Period)	Variable 391
<b>821</b>	Power demand Tariff 1 (Period)	Variable 391

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<b>822</b>	Power demand Tariff 2 (Period)	Variable 391
<b>823</b>	Power demand Tariff 3 (Period)	Variable 391
<b>824</b>	Transformer secondary for In	

Variable code	Variable	Type
<b>1000</b>	DC-1	Inst.
<b>1001</b>	DC-2	Inst.
<b>1002</b>	Data/Time Pd	Tariff 1
<b>1003</b>	PD Active power	Tariff 1
<b>1004</b>	PD Apparent power	Tariff 1
<b>1005</b>	PD Current	Tariff 1
<b>1006</b>	VL1-L2	Inst (Vsec)
<b>1007</b>	VL2-L3	Inst (Vsec)
<b>1008</b>	VL3-L1	Inst (Vsec)
<b>1009</b>	kVA L1 (inst)	
<b>1010</b>	kVA L2 (inst)	
<b>1011</b>	kVA L3 (inst)	
<b>1012</b>	THD IL1 (inst)	
<b>1013</b>	THD IL2 (inst)	
<b>1014</b>	THD IL3 (inst)	
<b>1015</b>	Vneutral (inst)	

Variable code	Variable	Type
<b>1100</b>	DC-1	Max.
<b>1101</b>	DC-2	Max.
<b>1102</b>	Data/Time Pd	Tariff 2
<b>1103</b>	PD Active Power	Tariff 2
<b>1104</b>	PD Apparent Power	Tariff 2
<b>1105</b>	PD Current	Tariff 2
<b>1106</b>	VL1-L2	Max (Vsec)
<b>1107</b>	VL2-L3	Max (Vsec)
<b>1108</b>	VL3-L1	Max (Vsec)
<b>1109</b>	kVA L1 (max)	
<b>1110</b>	kVA L2 (max)	
<b>1111</b>	kVA L3 (max)	
<b>1112</b>	THD IL1 (max)	
<b>1113</b>	THD IL2 (max)	
<b>1114</b>	THD IL3 (max)	
<b>1115</b>	Vneutral (max)	

Variable code	Variable	Type
<b>1200</b>	DC-1	Min.
<b>1201</b>	DC-2	Min.
<b>1202</b>	Data/Time Pd	Tariff 3
<b>1203</b>	PD Active power	Tariff 3
<b>1204</b>	PD Apparent power	Tariff 3
<b>1205</b>	PD Current	Tariff 3
<b>1206</b>	VL1-L2 (Min)	Min (Vsec)
<b>1207</b>	VL2-L3 (Min)	Min (Vsec)
<b>1208</b>	VL3-L1 (Min)	Min (Vsec)
<b>1209</b>	kVA L1 (min)	
<b>1210</b>	kVA L2 (min)	
<b>1211</b>	kVA L3 (min)	
<b>1212</b>	THD IL1 (min)	
<b>1213</b>	THD IL2 (min)	
<b>1214</b>	THD IL3 (min)	
<b>1215</b>	Vneutral (min)	

Variable code	Variable	Type
<b>1300</b>	Maximum VL1 harmonic 2	Inst.

Variable code	Variable	Type
<b>1350</b>	Maximum VL2 harmonic 2	Inst.

Variable code	Variable	Type
<b>1400</b>	Maximum VL3 harmonic 2	Inst.

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	for each 150 cycles within a period			for each 150 cycles within a period			for each 150 cycles within a period	
<b>1301</b>	Maximum VL1 harmonic 3 for each 150 cycles within a period	Inst.	<b>1351</b>	Maximum VL2 harmonic 3 for each 150 cycles within a period	Inst.	<b>1401</b>	Maximum VL3 harmonic 3 for each 150 cycles within a period	Inst.
<b>1302</b>	Maximum VL1 harmonic 4 for each 150 cycles within a period	Inst.	<b>1352</b>	Maximum VL2 harmonic 4 for each 150 cycles within a period	Inst.	<b>1402</b>	Maximum VL3 harmonic 4 for each 150 cycles within a period	Inst.
<b>1303</b>	Maximum VL1 harmonic 5 for each 150 cycles within a period	Inst.	<b>1353</b>	Maximum VL2 harmonic 5 for each 150 cycles within a period	Inst.	<b>1403</b>	Maximum VL3 harmonic 5 for each 150 cycles within a period	Inst.
<b>1304</b>	Maximum VL1 harmonic 6 for each 150 cycles within a period	Inst.	<b>1354</b>	Maximum VL2 harmonic 6 for each 150 cycles within a period	Inst.	<b>1404</b>	Maximum VL3 harmonic 6 for each 150 cycles within a period	Inst.
<b>1305</b>	Maximum VL1 harmonic 7 for each 150 cycles within a period	Inst.	<b>1355</b>	Maximum VL2 harmonic 7 for each 150 cycles within a period	Inst.	<b>1405</b>	Maximum VL3 harmonic 7 for each 150 cycles within a period	Inst.
<b>1306</b>	Maximum VL1 harmonic 8 for each 150 cycles within a period	Inst.	<b>1356</b>	Maximum VL2 harmonic 8 for each 150 cycles within a period	Inst.	<b>1406</b>	Maximum VL3 harmonic 8 for each 150 cycles within a period	Inst.
<b>1307</b>	Maximum VL1 harmonic 9 for each 150 cycles within a period	Inst.	<b>1357</b>	Maximum VL2 harmonic 9 for each 150 cycles within a period	Inst.	<b>1407</b>	Maximum VL3 harmonic 9 for each 150 cycles within a period	Inst.
<b>1308</b>	Maximum VL1 harmonic 10 for each 150 cycles within	Inst.	<b>1358</b>	Maximum VL2 harmonic 10 for each 150 cycles within	Inst.	<b>1408</b>	Maximum VL3 harmonic 10 for each 150 cycles within	Inst.

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	a period			a period			a period	
<b>1309</b>	Maximum VL1 harmonic 11 for each 150 cycles within a period	Inst.	<b>1359</b>	Maximum VL2 harmonic 11 for each 150 cycles within a period	Inst.	<b>1409</b>	Maximum VL3 harmonic 11 for each 150 cycles within a period	Inst.
<b>1310</b>	Maximum VL1 harmonic 12 for each 150 cycles within a period	Inst.	<b>1360</b>	Maximum VL2 harmonic 12 for each 150 cycles within a period	Inst.	<b>1410</b>	Maximum VL3 harmonic 12 for each 150 cycles within a period	Inst.
<b>1311</b>	Maximum VL1 harmonic 13 for each 150 cycles within a period	Inst.	<b>1361</b>	Maximum VL2 harmonic 13 for each 150 cycles within a period	Inst.	<b>1411</b>	Maximum VL3 harmonic 13 for each 150 cycles within a period	Inst.
<b>1312</b>	Maximum VL1 harmonic 14 for each 150 cycles within a period	Inst.	<b>1362</b>	Maximum VL2 harmonic 14 for each 150 cycles within a period	Inst.	<b>1412</b>	Maximum VL3 harmonic 14 for each 150 cycles within a period	Inst.
<b>1313</b>	Maximum VL1 harmonic 15 for each 150 cycles within a period	Inst.	<b>1363</b>	Maximum VL2 harmonic 15 for each 150 cycles within a period	Inst.	<b>1413</b>	Maximum VL3 harmonic 15 for each 150 cycles within a period	Inst.
<b>1314</b>	Maximum VL1 harmonic 16 for each 150 cycles within a period	Inst.	<b>1364</b>	Maximum VL2 harmonic 16 for each 150 cycles within a period	Inst.	<b>1414</b>	Maximum VL3 harmonic 16 for each 150 cycles within a period	Inst.
<b>1315</b>	Maximum VL1 harmonic 17 for each 150 cycles within a period	Inst.	<b>1365</b>	Maximum VL2 harmonic 17 for each 150 cycles within a period	Inst.	<b>1415</b>	Maximum VL3 harmonic 17 for each 150 cycles within a period	Inst.
<b>1316</b>	Maximum VL1 harmonic 18 for each 150 cycles within a period	Inst.	<b>1366</b>	Maximum VL2 harmonic 18 for each 150 cycles within a period	Inst.	<b>1416</b>	Maximum VL3 harmonic 18 for each 150 cycles within a period	Inst.
<b>1317</b>	Maximum	Inst.	<b>1367</b>	Maximum	Inst.	<b>1417</b>	Maximum	Inst.



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	VL1 harmonic 19 for each 150 cycles within a period			VL2 harmonic 19 for each 150 cycles within a period			VL3 harmonic 19 for each 150 cycles within a period	
<b>1318</b>	Maximum VL1 harmonic 20 for each 150 cycles within a period	Inst.		<b>1368</b>	Maximum VL2 harmonic 20 for each 150 cycles within a period	Inst.	<b>1418</b>	Maximum VL3 harmonic 20 for each 150 cycles within a period
<b>1319</b>	Maximum VL1 harmonic 21 for each 150 cycles within a period	Inst.		<b>1369</b>	Maximum VL2 harmonic 21 for each 150 cycles within a period	Inst.	<b>1419</b>	Maximum VL3 harmonic 21 for each 150 cycles within a period
<b>1320</b>	Maximum VL1 harmonic 22 for each 150 cycles within a period	Inst.		<b>1370</b>	Maximum VL2 harmonic 22 for each 150 cycles within a period	Inst.	<b>1420</b>	Maximum VL3 harmonic 22 for each 150 cycles within a period
<b>1321</b>	Maximum VL1 harmonic 23 for each 150 cycles within a period	Inst.		<b>1371</b>	Maximum VL2 harmonic 23 for each 150 cycles within a period	Inst.	<b>1421</b>	Maximum VL3 harmonic 23 for each 150 cycles within a period
<b>1322</b>	Maximum VL1 harmonic 24 for each 150 cycles within a period	Inst.		<b>1372</b>	Maximum VL2 harmonic 24 for each 150 cycles within a period	Inst.	<b>1422</b>	Maximum VL3 harmonic 24 for each 150 cycles within a period
<b>1323</b>	Maximum VL1 harmonic 25 for each 150 cycles within a period	Inst.		<b>1373</b>	Maximum VL2 harmonic 25 for each 150 cycles within a period	Inst.	<b>1423</b>	Maximum VL3 harmonic 25 for each 150 cycles within a period
<b>1324</b>	Maximum VL1 harmonic 26 for each 150 cycles within a period	Inst.		<b>1374</b>	Maximum VL2 harmonic 26 for each 150 cycles within a period	Inst.	<b>1424</b>	Maximum VL3 harmonic 26 for each 150 cycles within a period
<b>1325</b>	Maximum VL1 harmonic 27	Inst.		<b>1375</b>	Maximum VL2 harmonic 27	Inst.	<b>1425</b>	Maximum VL3 harmonic 27

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	for each 150 cycles within a period			for each 150 cycles within a period			for each 150 cycles within a period	
<b>1326</b>	Maximum VL1 harmonic 28 for each 150 cycles within a period	Inst.	<b>1376</b>	Maximum VL2 harmonic 28 for each 150 cycles within a period	Inst.	<b>1426</b>	Maximum VL3 harmonic 28 for each 150 cycles within a period	Inst.
<b>1327</b>	Maximum VL1 harmonic 29 for each 150 cycles within a period	Inst.	<b>1377</b>	Maximum VL2 harmonic 29 for each 150 cycles within a period	Inst.	<b>1427</b>	Maximum VL3 harmonic 29 for each 150 cycles within a period	Inst.
<b>1328</b>	Maximum VL1 harmonic 30 for each 150 cycles within a period	Inst.	<b>1378</b>	Maximum VL2 harmonic 30 for each 150 cycles within a period	Inst.	<b>1428</b>	Maximum VL3 harmonic 30 for each 150 cycles within a period	Inst.
<b>1329</b>	Maximum VL1 harmonic 31 for each 150 cycles within a period	Inst.	<b>1379</b>	Maximum VL2 harmonic 31 for each 150 cycles within a period	Inst.	<b>1429</b>	Maximum VL3 harmonic 31 for each 150 cycles within a period	Inst.
<b>1330</b>	Maximum VL1 harmonic 32 for each 150 cycles within a period	Inst.	<b>1380</b>	Maximum VL2 harmonic 32 for each 150 cycles within a period	Inst.	<b>1430</b>	Maximum VL3 harmonic 32 for each 150 cycles within a period	Inst.
<b>1331</b>	Maximum VL1 harmonic 33 for each 150 cycles within a period	Inst.	<b>1381</b>	Maximum VL2 harmonic 33 for each 150 cycles within a period	Inst.	<b>1431</b>	Maximum VL3 harmonic 33 for each 150 cycles within a period	Inst.
<b>1332</b>	Maximum VL1 harmonic 34 for each 150 cycles within a period	Inst.	<b>1382</b>	Maximum VL2 harmonic 34 for each 150 cycles within a period	Inst.	<b>1432</b>	Maximum VL3 harmonic 34 for each 150 cycles within a period	Inst.
<b>1333</b>	Maximum VL1 harmonic 35 for each 150 cycles within	Inst.	<b>1383</b>	Maximum VL2 harmonic 35 for each 150 cycles within	Inst.	<b>1433</b>	Maximum VL3 harmonic 35 for each 150 cycles within	Inst.

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	a period			a period			a period	
<b>1334</b>	Maximum VL1 harmonic 36 for each 150 cycles within a period	Inst.	<b>1384</b>	Maximum VL2 harmonic 36 for each 150 cycles within a period	Inst.	<b>1434</b>	Maximum VL3 harmonic 36 for each 150 cycles within a period	Inst.
<b>1335</b>	Maximum VL1 harmonic 37 for each 150 cycles within a period	Inst.	<b>1385</b>	Maximum VL2 harmonic 37 for each 150 cycles within a period	Inst.	<b>1435</b>	Maximum VL3 harmonic 37 for each 150 cycles within a period	Inst.
<b>1336</b>	Maximum VL1 harmonic 38 for each 150 cycles within a period	Inst.	<b>1386</b>	Maximum VL2 harmonic 38 for each 150 cycles within a period	Inst.	<b>1436</b>	Maximum VL3 harmonic 38 for each 150 cycles within a period	Inst.
<b>1337</b>	Maximum VL1 harmonic 39 for each 150 cycles within a period	Inst.	<b>1387</b>	Maximum VL2 harmonic 39 for each 150 cycles within a period	Inst.	<b>1437</b>	Maximum VL3 harmonic 39 for each 150 cycles within a period	Inst.
<b>1338</b>	Maximum VL1 harmonic 40 for each 150 cycles within a period	Inst.	<b>1388</b>	Maximum VL2 harmonic 40 for each 150 cycles within a period	Inst.	<b>1438</b>	Maximum VL3 harmonic 40 for each 150 cycles within a period	Inst.
<b>1339</b>	Maximum VL1 harmonic 41 for each 150 cycles within a period	Inst.	<b>1389</b>	Maximum VL2 harmonic 41 for each 150 cycles within a period	Inst.	<b>1439</b>	Maximum VL3 harmonic 41 for each 150 cycles within a period	Inst.
<b>1340</b>	Maximum VL1 harmonic 42 for each 150 cycles within a period	Inst.	<b>1390</b>	Maximum VL2 harmonic 42 for each 150 cycles within a period	Inst.	<b>1440</b>	Maximum VL3 harmonic 42 for each 150 cycles within a period	Inst.
<b>1341</b>	Maximum VL1 harmonic 43 for each 150 cycles within a period	Inst.	<b>1391</b>	Maximum VL2 harmonic 43 for each 150 cycles within a period	Inst.	<b>1441</b>	Maximum VL3 harmonic 43 for each 150 cycles within a period	Inst.
<b>1342</b>	Maximum	Inst.	<b>1392</b>	Maximum	Inst.	<b>1442</b>	Maximum	Inst.

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	VL1 harmonic 44 for each 150 cycles within a period			VL2 harmonic 44 for each 150 cycles within a period			VL3 harmonic 44 for each 150 cycles within a period	
<b>1343</b>	Maximum VL1 harmonic 45 for each 150 cycles within a period	Inst.		<b>1393</b>	Maximum VL2 harmonic 45 for each 150 cycles within a period	Inst.	<b>1443</b>	Maximum VL3 harmonic 45 for each 150 cycles within a period
<b>1344</b>	Maximum VL1 harmonic 46 for each 150 cycles within a period	Inst.		<b>1394</b>	Maximum VL2 harmonic 46 for each 150 cycles within a period	Inst.	<b>1444</b>	Maximum VL3 harmonic 46 for each 150 cycles within a period
<b>1345</b>	Maximum VL1 harmonic 47 for each 150 cycles within a period	Inst.		<b>1395</b>	Maximum VL2 harmonic 47 for each 150 cycles within a period	Inst.	<b>1445</b>	Maximum VL3 harmonic 47 for each 150 cycles within a period
<b>1346</b>	Maximum VL1 harmonic 48 for each 150 cycles within a period	Inst.		<b>1396</b>	Maximum VL2 harmonic 48 for each 150 cycles within a period	Inst.	<b>1446</b>	Maximum VL3 harmonic 48 for each 150 cycles within a period
<b>1347</b>	Maximum VL1 harmonic 49 for each 150 cycles within a period	Inst.		<b>1397</b>	Maximum VL2 harmonic 49 for each 150 cycles within a period	Inst.	<b>1447</b>	Maximum VL3 harmonic 49 for each 150 cycles within a period
<b>1348</b>	Maximum VL1 harmonic 50 for each 150 cycles within a period	Inst.		<b>1398</b>	Maximum VL2 harmonic 50 for each 150 cycles within a period	Inst.	<b>1448</b>	Maximum VL3 harmonic 50 for each 150 cycles within a period
<b>1450</b>	Maximum VL1 harmonic 2 within a period	Inst.		<b>1500</b>	Maximum VL2 harmonic 2 within a period	Inst.	<b>1550</b>	Maximum VL3 harmonic 2 within a period
<b>1451</b>	Maximum VL1 harmonic 3 within a	Inst.		<b>1501</b>	Maximum VL2 harmonic 3 within a	Inst.	<b>1551</b>	Maximum VL3 harmonic 3 within a

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	period			period			period			
<b>1452</b>	Maximum VL1 harmonic 4 within a period	Inst.		<b>1502</b>	Maximum VL2 harmonic 4 within a period	Inst.		<b>1552</b>	Maximum VL3 harmonic 4 within a period	Inst.
<b>1453</b>	Maximum VL1 harmonic 5 within a period	Inst.		<b>1503</b>	Maximum VL2 harmonic 5 within a period	Inst.		<b>1553</b>	Maximum VL3 harmonic 5 within a period	Inst.
<b>1454</b>	Maximum VL1 harmonic 6 within a period	Inst.		<b>1504</b>	Maximum VL2 harmonic 6 within a period	Inst.		<b>1554</b>	Maximum VL3 harmonic 6 within a period	Inst.
<b>1455</b>	Maximum VL1 harmonic 7 within a period	Inst.		<b>1505</b>	Maximum VL2 harmonic 7 within a period	Inst.		<b>1555</b>	Maximum VL3 harmonic 7 within a period	Inst.
<b>1456</b>	Maximum VL1 harmonic 8 within a period	Inst.		<b>1506</b>	Maximum VL2 harmonic 8 within a period	Inst.		<b>1556</b>	Maximum VL3 harmonic 8 within a period	Inst.
<b>1457</b>	Maximum VL1 harmonic 9 within a period	Inst.		<b>1507</b>	Maximum VL2 harmonic 9 within a period	Inst.		<b>1557</b>	Maximum VL3 harmonic 9 within a period	Inst.
<b>1458</b>	Maximum VL1 harmonic 10 within a period	Inst.		<b>1508</b>	Maximum VL2 harmonic 10 within a period	Inst.		<b>1558</b>	Maximum VL3 harmonic 10 within a period	Inst.
<b>1459</b>	Maximum VL1 harmonic 11 within a period	Inst.		<b>1509</b>	Maximum VL2 harmonic 11 within a period	Inst.		<b>1559</b>	Maximum VL3 harmonic 11 within a period	Inst.
<b>1460</b>	Maximum VL1 harmonic 12 within a period	Inst.		<b>1510</b>	Maximum VL2 harmonic 12 within a period	Inst.		<b>1560</b>	Maximum VL3 harmonic 12 within a period	Inst.
<b>1461</b>	Maximum VL1 harmonic 13 within a	Inst.		<b>1511</b>	Maximum VL2 harmonic 13 within a	Inst.		<b>1561</b>	Maximum VL3 harmonic 13 within a	Inst.

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	period			period			period	
<b>1462</b>	Maximum VL1 harmonic 14 within a period	Inst.	<b>1512</b>	Maximum VL2 harmonic 14 within a period	Inst.	<b>1562</b>	Maximum VL3 harmonic 14 within a period	Inst.
<b>1463</b>	Maximum VL1 harmonic 15 within a period	Inst.	<b>1513</b>	Maximum VL2 harmonic 15 within a period	Inst.	<b>1563</b>	Maximum VL3 harmonic 15 within a period	Inst.
<b>1464</b>	Maximum VL1 harmonic 16 within a period	Inst.	<b>1514</b>	Maximum VL2 harmonic 16 within a period	Inst.	<b>1564</b>	Maximum VL3 harmonic 16 within a period	Inst.
<b>1465</b>	Maximum VL1 harmonic 17 within a period	Inst.	<b>1515</b>	Maximum VL2 harmonic 17 within a period	Inst.	<b>1565</b>	Maximum VL3 harmonic 17 within a period	Inst.
<b>1466</b>	Maximum VL1 harmonic 18 within a period	Inst.	<b>1516</b>	Maximum VL2 harmonic 18 within a period	Inst.	<b>1566</b>	Maximum VL3 harmonic 18 within a period	Inst.
<b>1467</b>	Maximum VL1 harmonic 19 within a period	Inst.	<b>1517</b>	Maximum VL2 harmonic 19 within a period	Inst.	<b>1567</b>	Maximum VL3 harmonic 19 within a period	Inst.
<b>1468</b>	Maximum VL1 harmonic 20 within a period	Inst.	<b>1518</b>	Maximum VL2 harmonic 20 within a period	Inst.	<b>1568</b>	Maximum VL3 harmonic 20 within a period	Inst.
<b>1469</b>	Maximum VL1 harmonic 21 within a period	Inst.	<b>1519</b>	Maximum VL2 harmonic 21 within a period	Inst.	<b>1569</b>	Maximum VL3 harmonic 21 within a period	Inst.
<b>1470</b>	Maximum VL1 harmonic 22 within a period	Inst.	<b>1520</b>	Maximum VL2 harmonic 22 within a period	Inst.	<b>1570</b>	Maximum VL3 harmonic 22 within a period	Inst.
<b>1471</b>	Maximum VL1 harmonic 23 within a	Inst.	<b>1521</b>	Maximum VL2 harmonic 23 within a	Inst.	<b>1571</b>	Maximum VL3 harmonic 23 within a	Inst.

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	period			period			period	
1472	Maximum VL1 harmonic 24 within a period	Inst.	1522	Maximum VL2 harmonic 24 within a period	Inst.	1572	Maximum VL3 harmonic 24 within a period	Inst.
1473	Maximum VL1 harmonic 25 within a period	Inst.	1523	Maximum VL2 harmonic 25 within a period	Inst.	1573	Maximum VL3 harmonic 25 within a period	Inst.
1474	Maximum VL1 harmonic 26 within a period	Inst.	1524	Maximum VL2 harmonic 26 within a period	Inst.	1574	Maximum VL3 harmonic 26 within a period	Inst.
1475	Maximum VL1 harmonic 27 within a period	Inst.	1525	Maximum VL2 harmonic 27 within a period	Inst.	1575	Maximum VL3 harmonic 27 within a period	Inst.
1476	Maximum VL1 harmonic 28 within a period	Inst.	1526	Maximum VL2 harmonic 28 within a period	Inst.	1576	Maximum VL3 harmonic 28 within a period	Inst.
1477	Maximum VL1 harmonic 29 within a period	Inst.	1527	Maximum VL2 harmonic 29 within a period	Inst.	1577	Maximum VL3 harmonic 29 within a period	Inst.
1478	Maximum VL1 harmonic 30 within a period	Inst.	1528	Maximum VL2 harmonic 30 within a period	Inst.	1578	Maximum VL3 harmonic 30 within a period	Inst.
1479	Maximum VL1 harmonic 31 within a period	Inst.	1529	Maximum VL2 harmonic 31 within a period	Inst.	1579	Maximum VL3 harmonic 31 within a period	Inst.
1480	Maximum VL1 harmonic 32 within a period	Inst.	1530	Maximum VL2 harmonic 32 within a period	Inst.	1580	Maximum VL3 harmonic 32 within a period	Inst.
1481	Maximum VL1 harmonic 33 within a	Inst.	1531	Maximum VL2 harmonic 33 within a	Inst.	1581	Maximum VL3 harmonic 33 within a	Inst.

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	period			period			period	
<b>1482</b>	Maximum VL1 harmonic 34 within a period	Inst.	<b>1532</b>	Maximum VL2 harmonic 34 within a period	Inst.	<b>1582</b>	Maximum VL3 harmonic 34 within a period	Inst.
<b>1483</b>	Maximum VL1 harmonic 35 within a period	Inst.	<b>1533</b>	Maximum VL2 harmonic 35 within a period	Inst.	<b>1583</b>	Maximum VL3 harmonic 35 within a period	Inst.
<b>1484</b>	Maximum VL1 harmonic 36 within a period	Inst.	<b>1534</b>	Maximum VL2 harmonic 36 within a period	Inst.	<b>1584</b>	Maximum VL3 harmonic 36 within a period	Inst.
<b>1485</b>	Maximum VL1 harmonic 37 within a period	Inst.	<b>1535</b>	Maximum VL2 harmonic 37 within a period	Inst.	<b>1585</b>	Maximum VL3 harmonic 37 within a period	Inst.
<b>1486</b>	Maximum VL1 harmonic 38 within a period	Inst.	<b>1536</b>	Maximum VL2 harmonic 38 within a period	Inst.	<b>1586</b>	Maximum VL3 harmonic 38 within a period	Inst.
<b>1487</b>	Maximum VL1 harmonic 39 within a period	Inst.	<b>1537</b>	Maximum VL2 harmonic 39 within a period	Inst.	<b>1587</b>	Maximum VL3 harmonic 39 within a period	Inst.
<b>1488</b>	Maximum VL1 harmonic 40 within a period	Inst.	<b>1538</b>	Maximum VL2 harmonic 40 within a period	Inst.	<b>1588</b>	Maximum VL3 harmonic 40 within a period	Inst.
<b>1489</b>	Maximum VL1 harmonic 41 within a period	Inst.	<b>1539</b>	Maximum VL2 harmonic 41 within a period	Inst.	<b>1589</b>	Maximum VL3 harmonic 41 within a period	Inst.
<b>1490</b>	Maximum VL1 harmonic 42 within a period	Inst.	<b>1540</b>	Maximum VL2 harmonic 42 within a period	Inst.	<b>1590</b>	Maximum VL3 harmonic 42 within a period	Inst.
<b>1491</b>	Maximum VL1 harmonic 43 within a	Inst.	<b>1541</b>	Maximum VL2 harmonic 43 within a	Inst.	<b>1591</b>	Maximum VL3 harmonic 43 within a	Inst.



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	period			period			period	
1492	Maximum VL1 harmonic 44 within a period	Inst.	1542	Maximum VL2 harmonic 44 within a period	Inst.	1592	Maximum VL3 harmonic 44 within a period	Inst.
1493	Maximum VL1 harmonic 45 within a period	Inst.	1543	Maximum VL2 harmonic 45 within a period	Inst.	1593	Maximum VL3 harmonic 45 within a period	Inst.
1494	Maximum VL1 harmonic 46 within a period	Inst.	1544	Maximum VL2 harmonic 46 within a period	Inst.	1594	Maximum VL3 harmonic 46 within a period	Inst.
1495	Maximum VL1 harmonic 47 within a period	Inst.	1545	Maximum VL2 harmonic 47 within a period	Inst.	1595	Maximum VL3 harmonic 47 within a period	Inst.
1496	Maximum VL1 harmonic 48 within a period	Inst.	1546	Maximum VL2 harmonic 48 within a period	Inst.	1596	Maximum VL3 harmonic 48 within a period	Inst.
1497	Maximum VL1 harmonic 49 within a period	Inst.	1547	Maximum VL2 harmonic 49 within a period	Inst.	1597	Maximum VL3 harmonic 49 within a period	Inst.
1498	Maximum VL1 harmonic 50 within a period	Inst.	1548	Maximum VL2 harmonic 50 within a period	Inst.	1598	Maximum VL3 harmonic 50 within a period	Inst.
1600	Accuracy of the statistical classification of the VL1 harmonic 2	Inst.	1650	Accuracy of the statistical classification of the VL2 harmonic 2	Inst.	1700	Accuracy of the statistical classification of the VL3 harmonic 2	Inst.
1601	Accuracy of the statistical classification of the VL1 harmonic 3	Inst.	1651	Accuracy of the statistical classification of the VL2 harmonic 3	Inst.	1701	Accuracy of the statistical classification of the VL3 harmonic 3	Inst.
1602	Accuracy of the	Inst.	1652	Accuracy of the	Inst.	1702	Accuracy of the	Inst.

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	statistical classification of the VL1 harmonic 4			statistical classification of the VL2 harmonic 4			statistical classification of the VL3 harmonic 4	
<b>1603</b>	Accuracy of the statistical classification of the VL1 harmonic 5	Inst.		<b>1653</b>	Accuracy of the statistical classification of the VL2 harmonic 5	Inst.	<b>1703</b>	Accuracy of the statistical classification of the VL3 harmonic 5
<b>1604</b>	Accuracy of the statistical classification of the VL1 harmonic 6	Inst.		<b>1654</b>	Accuracy of the statistical classification of the VL2 harmonic 6	Inst.	<b>1704</b>	Accuracy of the statistical classification of the VL3 harmonic 6
<b>1605</b>	Accuracy of the statistical classification of the VL1 harmonic 7	Inst.		<b>1655</b>	Accuracy of the statistical classification of the VL2 harmonic 7	Inst.	<b>1705</b>	Accuracy of the statistical classification of the VL3 harmonic 7
<b>1606</b>	Accuracy of the statistical classification of the VL1 harmonic 8	Inst.		<b>1656</b>	Accuracy of the statistical classification of the VL2 harmonic 8	Inst.	<b>1706</b>	Accuracy of the statistical classification of the VL3 harmonic 8
<b>1607</b>	Accuracy of the statistical classification of the VL1 harmonic 9	Inst.		<b>1657</b>	Accuracy of the statistical classification of the VL2 harmonic 9	Inst.	<b>1707</b>	Accuracy of the statistical classification of the VL3 harmonic 9
<b>1608</b>	Accuracy of the statistical classification of the VL1 harmonic 10	Inst.		<b>1658</b>	Accuracy of the statistical classification of the VL2 harmonic 10	Inst.	<b>1708</b>	Accuracy of the statistical classification of the VL3 harmonic 10
<b>1609</b>	Accuracy of the statistical classification of the VL1 harmonic 11	Inst.		<b>1659</b>	Accuracy of the statistical classification of the VL2 harmonic 11	Inst.	<b>1709</b>	Accuracy of the statistical classification of the VL3 harmonic 11
<b>1610</b>	Accuracy of the statistical classificatio	Inst.		<b>1660</b>	Accuracy of the statistical classificatio	Inst.	<b>1710</b>	Accuracy of the statistical classificatio

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	n of the VL1 harmonic 12			n of the VL2 harmonic 12			n of the VL3 harmonic 12	
<b>1611</b>	Accuracy of the statistical classification of the VL1 harmonic 13	Inst.	<b>1661</b>	Accuracy of the statistical classification of the VL2 harmonic 13	Inst.	<b>1711</b>	Accuracy of the statistical classification of the VL3 harmonic 13	Inst.
<b>1612</b>	Accuracy of the statistical classification of the VL1 harmonic 14	Inst.	<b>1662</b>	Accuracy of the statistical classification of the VL2 harmonic 14	Inst.	<b>1712</b>	Accuracy of the statistical classification of the VL3 harmonic 14	Inst.
<b>1613</b>	Accuracy of the statistical classification of the VL1 harmonic 15	Inst.	<b>1663</b>	Accuracy of the statistical classification of the VL2 harmonic 15	Inst.	<b>1713</b>	Accuracy of the statistical classification of the VL3 harmonic 15	Inst.
<b>1614</b>	Accuracy of the statistical classification of the VL1 harmonic 16	Inst.	<b>1664</b>	Accuracy of the statistical classification of the VL2 harmonic 16	Inst.	<b>1714</b>	Accuracy of the statistical classification of the VL3 harmonic 16	Inst.
<b>1615</b>	Accuracy of the statistical classification of the VL1 harmonic 17	Inst.	<b>1665</b>	Accuracy of the statistical classification of the VL2 harmonic 17	Inst.	<b>1715</b>	Accuracy of the statistical classification of the VL3 harmonic 17	Inst.
<b>1616</b>	Accuracy of the statistical classification of the VL1 harmonic 18	Inst.	<b>1666</b>	Accuracy of the statistical classification of the VL2 harmonic 18	Inst.	<b>1716</b>	Accuracy of the statistical classification of the VL3 harmonic 18	Inst.
<b>1617</b>	Accuracy of the statistical classification of the VL1 harmonic 19	Inst.	<b>1667</b>	Accuracy of the statistical classification of the VL2 harmonic 19	Inst.	<b>1717</b>	Accuracy of the statistical classification of the VL3 harmonic 19	Inst.
<b>1618</b>	Accuracy of the statistical classification of the VL1 harmonic 20	Inst.	<b>1668</b>	Accuracy of the statistical classification of the VL2 harmonic 20	Inst.	<b>1718</b>	Accuracy of the statistical classification of the VL3 harmonic 20	Inst.

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<b>1619</b>	Accuracy of the statistical classification of the VL1 harmonic 21	Inst.	<b>1669</b>	Accuracy of the statistical classification of the VL2 harmonic 21	Inst.	<b>1719</b>	Accuracy of the statistical classification of the VL3 harmonic 21	Inst.
<b>1620</b>	Accuracy of the statistical classification of the VL1 harmonic 22	Inst.	<b>1670</b>	Accuracy of the statistical classification of the VL2 harmonic 22	Inst.	<b>1720</b>	Accuracy of the statistical classification of the VL3 harmonic 22	Inst.
<b>1621</b>	Accuracy of the statistical classification of the VL1 harmonic 23	Inst.	<b>1671</b>	Accuracy of the statistical classification of the VL2 harmonic 23	Inst.	<b>1721</b>	Accuracy of the statistical classification of the VL3 harmonic 23	Inst.
<b>1622</b>	Accuracy of the statistical classification of the VL1 harmonic 24	Inst.	<b>1672</b>	Accuracy of the statistical classification of the VL2 harmonic 24	Inst.	<b>1722</b>	Accuracy of the statistical classification of the VL3 harmonic 24	Inst.
<b>1623</b>	Accuracy of the statistical classification of the VL1 harmonic 25	Inst.	<b>1673</b>	Accuracy of the statistical classification of the VL2 harmonic 25	Inst.	<b>1723</b>	Accuracy of the statistical classification of the VL3 harmonic 25	Inst.
<b>1624</b>	Accuracy of the statistical classification of the VL1 harmonic 26	Inst.	<b>1674</b>	Accuracy of the statistical classification of the VL2 harmonic 26	Inst.	<b>1724</b>	Accuracy of the statistical classification of the VL3 harmonic 26	Inst.
<b>1625</b>	Accuracy of the statistical classification of the VL1 harmonic 27	Inst.	<b>1675</b>	Accuracy of the statistical classification of the VL2 harmonic 27	Inst.	<b>1725</b>	Accuracy of the statistical classification of the VL3 harmonic 27	Inst.
<b>1626</b>	Accuracy of the statistical classification of the VL1 harmonic 28	Inst.	<b>1676</b>	Accuracy of the statistical classification of the VL2 harmonic 28	Inst.	<b>1726</b>	Accuracy of the statistical classification of the VL3 harmonic 28	Inst.
<b>1627</b>	Accuracy of the	Inst.	<b>1677</b>	Accuracy of the	Inst.	<b>1727</b>	Accuracy of the	Inst.

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	statistical classification of the VL1 harmonic 29			statistical classification of the VL2 harmonic 29			statistical classification of the VL3 harmonic 29	
<b>1628</b>	Accuracy of the statistical classification of the VL1 harmonic 30	Inst.	<b>1678</b>	Accuracy of the statistical classification of the VL2 harmonic 30	Inst.	<b>1728</b>	Accuracy of the statistical classification of the VL3 harmonic 30	Inst.
<b>1629</b>	Accuracy of the statistical classification of the VL1 harmonic 31	Inst.	<b>1679</b>	Accuracy of the statistical classification of the VL2 harmonic 31	Inst.	<b>1729</b>	Accuracy of the statistical classification of the VL3 harmonic 31	Inst.
<b>1630</b>	Accuracy of the statistical classification of the VL1 harmonic 32	Inst.	<b>1680</b>	Accuracy of the statistical classification of the VL2 harmonic 32	Inst.	<b>1730</b>	Accuracy of the statistical classification of the VL3 harmonic 32	Inst.
<b>1631</b>	Accuracy of the statistical classification of the VL1 harmonic 33	Inst.	<b>1681</b>	Accuracy of the statistical classification of the VL2 harmonic 33	Inst.	<b>1731</b>	Accuracy of the statistical classification of the VL3 harmonic 33	Inst.
<b>1632</b>	Accuracy of the statistical classification of the VL1 harmonic 34	Inst.	<b>1682</b>	Accuracy of the statistical classification of the VL2 harmonic 34	Inst.	<b>1732</b>	Accuracy of the statistical classification of the VL3 harmonic 34	Inst.
<b>1633</b>	Accuracy of the statistical classification of the VL1 harmonic 35	Inst.	<b>1683</b>	Accuracy of the statistical classification of the VL2 harmonic 35	Inst.	<b>1733</b>	Accuracy of the statistical classification of the VL3 harmonic 35	Inst.
<b>1634</b>	Accuracy of the statistical classification of the VL1 harmonic 36	Inst.	<b>1684</b>	Accuracy of the statistical classification of the VL2 harmonic 36	Inst.	<b>1734</b>	Accuracy of the statistical classification of the VL3 harmonic 36	Inst.
<b>1635</b>	Accuracy of the statistical classificatio	Inst.	<b>1685</b>	Accuracy of the statistical classificatio	Inst.	<b>1735</b>	Accuracy of the statistical classificatio	Inst.

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	n of the VL1 harmonic 37			n of the VL2 harmonic 37			n of the VL3 harmonic 37	
<b>1636</b>	Accuracy of the statistical classification of the VL1 harmonic 38	Inst.	<b>1686</b>	Accuracy of the statistical classification of the VL2 harmonic 38	Inst.	<b>1736</b>	Accuracy of the statistical classification of the VL3 harmonic 38	Inst.
<b>1637</b>	Accuracy of the statistical classification of the VL1 harmonic 39	Inst.	<b>1687</b>	Accuracy of the statistical classification of the VL2 harmonic 39	Inst.	<b>1737</b>	Accuracy of the statistical classification of the VL3 harmonic 39	Inst.
<b>1638</b>	Accuracy of the statistical classification of the VL1 harmonic 40	Inst.	<b>1688</b>	Accuracy of the statistical classification of the VL2 harmonic 40	Inst.	<b>1738</b>	Accuracy of the statistical classification of the VL3 harmonic 40	Inst.
<b>1639</b>	Accuracy of the statistical classification of the VL1 harmonic 41	Inst.	<b>1689</b>	Accuracy of the statistical classification of the VL2 harmonic 41	Inst.	<b>1739</b>	Accuracy of the statistical classification of the VL3 harmonic 41	Inst.
<b>1640</b>	Accuracy of the statistical classification of the VL1 harmonic 42	Inst.	<b>1690</b>	Accuracy of the statistical classification of the VL2 harmonic 42	Inst.	<b>1740</b>	Accuracy of the statistical classification of the VL3 harmonic 42	Inst.
<b>1641</b>	Accuracy of the statistical classification of the VL1 harmonic 43	Inst.	<b>1691</b>	Accuracy of the statistical classification of the VL2 harmonic 43	Inst.	<b>1741</b>	Accuracy of the statistical classification of the VL3 harmonic 43	Inst.
<b>1642</b>	Accuracy of the statistical classification of the VL1 harmonic 44	Inst.	<b>1692</b>	Accuracy of the statistical classification of the VL2 harmonic 44	Inst.	<b>1742</b>	Accuracy of the statistical classification of the VL3 harmonic 44	Inst.
<b>1643</b>	Accuracy of the statistical classification of the VL1 harmonic 45	Inst.	<b>1693</b>	Accuracy of the statistical classification of the VL2 harmonic 45	Inst.	<b>1743</b>	Accuracy of the statistical classification of the VL3 harmonic 45	Inst.

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<b>1644</b>	Accuracy of the statistical classification of the VL1 harmonic 46	Inst.	<b>1694</b>	Accuracy of the statistical classification of the VL2 harmonic 46	Inst.	<b>1744</b>	Accuracy of the statistical classification of the VL3 harmonic 46	Inst.
<b>1645</b>	Accuracy of the statistical classification of the VL1 harmonic 47	Inst.	<b>1695</b>	Accuracy of the statistical classification of the VL2 harmonic 47	Inst.	<b>1745</b>	Accuracy of the statistical classification of the VL3 harmonic 47	Inst.
<b>1646</b>	Accuracy of the statistical classification of the VL1 harmonic 48	Inst.	<b>1696</b>	Accuracy of the statistical classification of the VL2 harmonic 48	Inst.	<b>1746</b>	Accuracy of the statistical classification of the VL3 harmonic 48	Inst.
<b>1647</b>	Accuracy of the statistical classification of the VL1 harmonic 49	Inst.	<b>1697</b>	Accuracy of the statistical classification of the VL2 harmonic 49	Inst.	<b>1747</b>	Accuracy of the statistical classification of the VL3 harmonic 49	Inst.
<b>1648</b>	Accuracy of the statistical classification of the VL1 harmonic 50	Inst.	<b>1698</b>	Accuracy of the statistical classification of the VL2 harmonic 50	Inst.	<b>1748</b>	Accuracy of the statistical classification of the VL3 harmonic 50	Inst.
<b>1750</b>	Meter 1	Inst.	<b>1800</b>	Meter 1	Max.	<b>1850</b>	Meter 1	Min.
<b>1751</b>	Meter 2	Inst.	<b>1801</b>	Meter 2	Max.	<b>1851</b>	Meter 2	Min.
<b>1752</b>	Meter 3	Inst.	<b>1802</b>	Meter 3	Max.	<b>1852</b>	Meter 3	Min.
<b>1753</b>	Meter 4	Inst.	<b>1803</b>	Meter 4	Max.	<b>1853</b>	Meter 4	Min.
<b>1754</b>	Meter 5	Inst.	<b>1804</b>	Meter 5	Max.	<b>1854</b>	Meter 5	Min.
<b>1755</b>	Meter 6	Inst.	<b>1805</b>	Meter 6	Max.	<b>1855</b>	Meter 6	Min.
<b>1756</b>	Meter 7	Inst.	<b>1806</b>	Meter 7	Max.	<b>1856</b>	Meter 7	Min.
<b>1757</b>	Meter 8	Inst.	<b>1807</b>	Meter 8	Max.	<b>1857</b>	Meter 8	Min.
<b>1758</b>	Meter 9	Inst.	<b>1808</b>	Meter 9	Max.	<b>1858</b>	Meter 9	Min.
<b>1759</b>	Meter 10	Inst.	<b>1809</b>	Meter 10	Max.	<b>1859</b>	Meter 10	Min.
<b>1760</b>	Meter 11	Inst.	<b>1810</b>	Meter 11	Max.	<b>1860</b>	Meter 11	Min.
<b>1761</b>	Meter 12	Inst.	<b>1811</b>	Meter 12	Max.	<b>1861</b>	Meter 12	Min.
<b>1762</b>	Meter 13	Inst.	<b>1812</b>	Meter 13	Max.	<b>1862</b>	Meter 13	Min.
<b>1763</b>	Meter 14	Inst.	<b>1813</b>	Meter 14	Max.	<b>1863</b>	Meter 14	Min.
<b>1764</b>	Meter 15	Inst.	<b>1814</b>	Meter 15	Max.	<b>1864</b>	Meter 15	Min.
<b>1765</b>	Meter 16	Inst.	<b>1815</b>	Meter 16	Max.	<b>1865</b>	Meter 16	Min.
<b>1766</b>	Meter 17	Inst.	<b>1816</b>	Meter 17	Max.	<b>1866</b>	Meter 17	Min.
<b>1767</b>	Meter 18	Inst.	<b>1817</b>	Meter 18	Max.	<b>1867</b>	Meter 18	Min.
<b>1768</b>	Meter 19	Inst.	<b>1818</b>	Meter 19	Max.	<b>1868</b>	Meter 19	Min.

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<b>1769</b>	Meter 20	Inst.	<b>1819</b>	Meter 20	Max.	<b>1869</b>	Meter 20	Min.
<b>1770</b>	Meter 21	Inst.	<b>1820</b>	Meter 21	Max.	<b>1870</b>	Meter 21	Min.
<b>1771</b>	Meter 22	Inst.	<b>1821</b>	Meter 22	Max.	<b>1871</b>	Meter 22	Min.
<b>1772</b>	Meter 23	Inst.	<b>1822</b>	Meter 23	Max.	<b>1872</b>	Meter 23	Min.
<b>1773</b>	Meter 24	Inst.	<b>1823</b>	Meter 24	Max.	<b>1873</b>	Meter 24	Min.
<b>1774</b>	Ent. An. 1	Inst.	<b>1824</b>	Ent. An. 1	Max.	<b>1874</b>	Ent. An. 1	Min.
<b>1775</b>	Ent. An. 2	Inst.	<b>1825</b>	Ent. An. 2	Max.	<b>1875</b>	Ent. An. 2	Min.
<b>1776</b>	Ent. An. 3	Inst.	<b>1826</b>	Ent. An. 3	Max.	<b>1876</b>	Ent. An. 3	Min.
<b>1777</b>	Ent. An. 4	Inst.	<b>1827</b>	Ent. An. 4	Max.	<b>1877</b>	Ent. An. 4	Min.
<b>1778</b>	Ent. An. 5	Inst.	<b>1828</b>	Ent. An. 5	Max.	<b>1878</b>	Ent. An. 5	Min.
<b>1779</b>	Ent. An. 6	Inst.	<b>1829</b>	Ent. An. 6	Max.	<b>1879</b>	Ent. An. 6	Min.
<b>1780</b>	Ent. An. 7	Inst.	<b>1830</b>	Ent. An. 7	Max.	<b>1880</b>	Ent. An. 7	Min.
<b>1781</b>	Ent. An. 8	Inst.	<b>1831</b>	Ent. An. 8	Max.	<b>1881</b>	Ent. An. 8	Min.

**Note:** Power Factor is given a value between 0 and 200, with the following meaning:

[0,100)	Positive values (the nearer to 100 the better, i.e. it will be closer to 1)
100	Value 1 (optimum)
(100,200]	Negative values (the nearer to 100 the better, i.e. it will be closer to 1)