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Extended Power Quality Data Interchange Formats

This global standard defines the formats adopted to exchange PQ measurements and events between PQI and PQMS, mainly based on extension to international standard formats (particularly PQDIF according to IEEE 1159.3).

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It is for internal Use. Each Country can provide a translation in local language but the official reference document is this GS English version.

Revision	Date	List of modifications
00	11.12.2015	First draft
01	07.03.2016	First approved edition
02	05.04.2019	Second approved edition. Updated list of HTTP REST variables. IEC 61850 introduction.


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1 ACRONYMS

- **PQ** Power Quality
- **PQI** Power Quality Instrument according to IEC 62586-1
- **RTU** Remote Terminal Unit
- **GPS** Global Positioning System
- **GPSR** GPS Receiver Time Syncro Receiver
- **PQMS** Power Quality Management System
- **DNP3** Distributed Network Protocol
- **REST** Representational State Transfer
- **COMTRADE** Common format for Transient Data Exchange for power systems
- **DNS** Domain Name System
- **DHCP** Dynamic Host Configuration Protocol
- **DHCPv6** Dynamic Host Configuration Protocol (IPv6)
- **JSON** JavaScript Object Notation
- **CSV** Comma-separated values
- **TCP** Transmission Control Protocol
- **HTTP** Hypertext Transfer Protocol
- **HTTPS** Hypertext Transfer Protocol Secure

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2 NORMATIVE REFERENCES AND BIBLIOGRAPHY

All the references are intended in the last revision or amendment.

2.1 For all countries

IEC 61000-4-30	Electromagnetic compatibility (EMC) – Part 4-30: Testing and measurement techniques – Power quality measurement methods.
IEEE 1159.3	IEEE Recommended Practice for the Transfer of Power Quality Data.
IEEE C37.111	IEEE Standard Common Format for Transient Data Exchange (COMTRADE) for Power Systems
ISO 8601:2004	Data elements and interchange formats – Information interchange – Representation of dates and times
ECMA-404 (October 2013)	The JSON Data Interchange Format
RFC 4180 (October 2005)	Common Format and MIME Type for Comma-Separated Values (CSV) Files
RFC 791	Internet Protocol, Version 4 (IPv4)
RFC 2460	Internet Protocol, Version 6 (IPv6)
Appnote,1 APPNOTE.TX	ZIP File Format Specification, PKWARE® Inc., September 2012
NMEA 0183	National Marine Electronics Association electrical signal requirements, data transmission protocol and time, and specific sentence formats for a 4800-baud serial data bus
ISO/IEC 7810	Identification cards - Physical characteristics
GSTQ003	Power Quality Management System
GSTQ001	Power Quality Instrument
IEC 60870-5-101	Telecontrol equipment and systems - Part 5-101: Transmission Protocols - companion standards especially for basic telecontrol tasks.
IEC 60870-5-104	Telecontrol equipment and systems - Part 5-104: Transmission protocols - Network access for IEC 60870-5-101 using standard transport profiles
IEC 62749	Assessment of power quality - Characteristics of electricity supplied by public networks
IEC 61850 series	Communication networks and systems for power utility automation

2.2 For EU countries

EN 50160	Voltage characteristics of electricity supplied by public distribution systems.
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2.3 For Brazil

PRODIST Módulo 8	Procedimentos de Distribuição de Energia Elétrica no Sistema Elétrico Nacional – Módulo 8 – Qualidade de Energia Elétrica Rev. 10
Procedimentos de Rede ONS– Submódulo 2.8	Gerenciamento dos indicadores de desempenho da rede básica e dos barramentos dos transformadores de fronteira, e de seus componentes

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2.4 For Italy

RSE 12004159	Specifiche tecnico-funzionali delle apparecchiature di monitoraggio della qualità della tensione per le reti MT.
RSEpubb	R. Chiumeo, M. de Nigris, L. Garbero, C. Gandolfi, L. Tenti, E. Carpaneto, "Implementation of a New Method for an Improved Voltage Dips Evaluation by the Italian Power Quality Monitoring System in Presence of VT Saturation Effects", International Conference on Renewable Energies and Power Quality (ICREPQ'10), Granada (Spain), 23rd to 25th March, 2010.
ARG/elt 198/11	Testo integrato della qualità dei servizi di distribuzione e misura dell'energia elettrica per il periodo di regolazione 2012-2015

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3 APPLICATION FIELDS

The PQ monitoring architecture can be made by central system and distributed instruments.

The PQI (according to GSTQ001) will be installed in the MV or LV distribution grid in order to measure all the relevant PQ parameters. The relevant PQ parameters are defined in IEC 61000-4-30, IEC 62749 and EN 50160.

The installation will be a substation or another indoor premise in a country where one or more utilities are under Enel control.

The PQMS is the Power Quality Management System (according to GSTQ003), including data acquisition from PQI.

The PQI must include RTU functionalities in order to allow data exchange (according to this GS) with the PQMS.

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4 EXTENDED PQDIF REQUIREMENTS

PQI and PQMS must exchange the data about the relevant PQ parameters fully compliant with PQDIF (according to IEEE 1159.3), additional requests are present in this chapter.

4.1 Main considerations

In the PQDIF, the ID_QT_MAGDURTIME is used for the management of PQ events, by a start timestamp, a duration and a characteristics value (the minimum in the case of dips/interruptions, the maximum in case of swells, etc ...); ID_QT_MAGDURTIME is defined by the tag tagQuantityTypeID in the "data source definition record" for each input channel.

So, tagQuantityTypeID = ID_QT_MAGDURTIME has three data series (see also par.4.5):

- Timestamp;
- Event duration;
- Characteristics value.

In order to identify the PQ parameter (dips, interruption, swell, flicker, thd, etc...), the tag DisturbanceCategoryID is used in the "observation records".

In the following the term "Voltage Li" (i = 1, ..., 4) identify the voltage measured by the i-th channel, which corresponds to the i-th phase-to-neutral voltage in the case of 4-wire connection, or to the phase-to-phase voltage in the case of 3-wire connection.

In the implementation of the PQDIF for event management two approach are allowed:

- To hold a definition of channels independent for the two types of connection (4 wires = phase-to-neutral or 3 wires = phase-to-phase);
- To use a single definition of channels (corresponding to the type of wiring actually in use).

In both cases the specification of the phase must be properly appropriate: this in view of the fact that voltage events are, however, recognized only for the type of wiring in use.

Although not strictly related to the measurement of the PQ parameters, the system events, related to the diagnosis of abnormal conditions of the equipment, contribute to the correct interpretation of the measurements made by the device.

Following crucial events must be approached as follow:

- NO GPS SYNCHRONIZATION;
- MEMORY FULL;
- VOLTAGE ANOMALY.

4.2 No GPS synchronization

due to a recognition of a no synchronized time base (typically on start before engaging the GPS or absence/interruption connection to GPSR) the PIMS must record an event of "time base of sync", identifying the instant of start and the duration of this condition.

If the condition of no synchronization continues for a long time (for example, for a permanent failure of the GPS receiver), in order to signal this condition, (power quality events can take place in such condition), the analyzer records the event of "NO GPS SYNCHRONIZATION" at the permanence in this condition for 4 hours, and, it reiterated this periodic registration until the restoration of the synchronism of the time base. This avoids recognize the event of "no synchronism" at the end of the abnormal condition (in the case of permanent fault to the GPS receiver could during for days), and then invalidate the elaborations on the origin of voltage dips already carried out. The organization of information "NO GPS SYNCHRONIZATION" in the format IEEE 1159.3 "PQDIF" uses the standard type of greatness ID_QT_MAGDURTIME, defined in the definition tag tagQuantityTypeID in the relative channel in the "data source definition record". At this type of channel ("System Event") are associated three series, which respectively specify the instant of occurrence (time stamp), the event duration and the amplitude (not significant and conventionally equal to 1 (one)). The series of data associated with the events in "observation records" specify the nature of the

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event through the tag tagDisturbanceCategoryID, but the standard does not provide a value applicable to this type of event, so is necessary create one specifically (ID_TIME_NO_SYNC).

4.3 Memory full

This event occurs when the internal data storage occupation overcome the 80% of filling, identifying the instant of happening. The organization of information " MEMORY FULL" in the format IEEE 1159.3 "PQDIF" uses the standard type of greatness ID_QT_MAGDURTIME, defined in the definition tag tagQuantityTypeID in the relative channel in the "data source definition record". At this type of channel ("System Event") are associated three series, which respectively specify the instant of occurrence (time stamp), the event duration and the amplitude (not significant and conventionally equal to 2 (two)). The series of data associated with the events in "observation records" specify the nature of the event through the tag tagDisturbanceCategoryID, but the standard does not provide a value applicable to this type of event, so is necessary create one specifically (ID_MEMORY_FULL).

4.4 Voltage anomaly

This event is due the persistence (at least 6 hours) of the voltage measurement in the range $\pm 10\%$ Vn for one or two channels of the PQI and the voltage measuring over the range $\pm 30\%$ Vn for the remaining channels (two or one, respectively). Identifying the instant of start and the duration of this condition. After the first recording (after 6 hours of the occurrence of the fault condition), the event is repeated at most once a day, for the duration of the fault condition. Note that the absence of voltage on all channels of the apparatus is not considered an anomaly voltage channels. Furthermore, the management of this event is significant only if the device is configured for three-phase measures, while not provided for single-phase measures. The organization of information "VOLTAGE ANOMALY" in the format IEEE 1159.3 "PQDIF" uses the standard type of greatness ID_QT_MAGDURTIME, defined in the definition tag tagQuantityTypeID in the relative channel in the "data source definition record". At this type of channel ("System Event") are associated three series, which respectively specify the instant of occurrence (time stamp), the event duration and the amplitude (not significant and conventionally equal to 3 (three)). The series of data associated with the events in "observation records" specify the nature of the event through the tag tagDisturbanceCategoryID, but the standard does not provide a value applicable to this type of event, so is necessary create one specifically (ID_VOLTAGE_ANOMALY).

4.5 Logical channels for PQ events

The following input channels are mapped in the "data source definition record":

- Voltage events: up to 4 channels (L1, L2, L3, L4) for events of dips, interruptions, swells etc.;
- Frequency events: 1 channel for under/over frequency events;
- Imbalance events: 1 channel for over-imbalance events;
- Flicker events: 3 channels (L1, L2, L3) per over- P_{fl} / P_{st} events;
- Voltage THD events: 3 channels (L1, L2, L3) for over-Thd events;
- Current events: 3 channels (L1, L2, L3, L4) for overcurrent events (L4 is needed only in case of neutral current monitoring);
- Events of digital inputs: 12 channels (one for each digital input) for event of input variation.

The following tags are defined for the channels:

- tagChannelName that is a character string;
- tagPhaseID;
- tagQuantityTypeID = ID_QT_MAGDURTIME;
- tagQuantityMeasuredID.

Three data series (tagValueTypeID) are available for each channel:

- ID_SERIES_VALUE_TYPE_TIME: timestamp event;
- ID_SERIES_VALUE_TYPE_VAL: characteristics value;
- ID_SERIES_VALUE_TYPE_DURATION: event duration.

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With reference to tagPhaseID:

- o. for the voltage events on L1, L2 and L3, tagPhaseID = ID_PHASE_AN/BN/CN in the case of 4-wire configuration, and/or tagPhaseID = ID_PHASE_AB/CB/CA in the case of 3-wire configuration;
- p. for the voltage events on L4, tagPhaseID = IID_PHASE_RES;
- q. for channels of frequency and imbalance events takes the values ID_PHASE_NONE;
- r. for channels of L1-L2-L3-L4 current events takes the values of ID_PHASE_AN/BN/CN (L4 is needed only in case of neutral current monitoring);
- s. for channels of digital inputs events takes values ID_PHASE_GENERAL_1, ..., ID_PHASE_GENERAL_12.

With reference to tagQuantityMeasuredID:

- t. for channels of events voltage, frequency, imbalance, Voltage THD events takes the value of ID_QM_VOLTAGE;
- u. for the channels of the current events takes the value of ID_QM_CURRENT;
- v. for channels of digital events takes the value of ID_QM_STATUS.

Par. 8.1 shows an example of “data source definition record” mapping with the definition of channels for event management.

4.6 Data about PQ parameters

Power quality events are stored in “observation record” as instances of the channels previously defined.

The tag tagDisturbanceCategoryID is used to qualify the nature of the event in the type of channel:

- a. ID_DISTURB_1159_SHORTDUR_INSTANT_SAG: voltage dips <500ms
- b. ID_DISTURB_1159_SHORTDUR_MOMENT_SAG: voltage dips ≥500ms and <3sec
- c. ID_DISTURB_1159_SHORTDUR_TEMP_SAG: voltage dips ≥3sec and <60sec
- d. ID_DISTURB_1159_LONGDUR_SAG: voltage dips ≥60sec
- e. ID_DISTURB_1159_SHORTDUR_MOMENT_INTERRUPT: interruption <3 sec
- f. ID_DISTURB_1159_SHORTDUR_TEMP_INTERRUPT: interruption ≥3 sec and <60 sec
- g. ID_DISTURB_1159_LONGDUR_INTERRUPT: interruption ≥60 sec
- h. ID_DISTURB_1159_SHORTDUR_INSTANT_SWELL: voltage swell <500 ms
- i. ID_DISTURB_1159_SHORTDUR_MOMENT_SWELL: voltage swell ≥500 and <3 sec
- j. ID_DISTURB_1159_SHORTDUR_TEMP_SWELL: voltage swell ≥3 sec and <60 sec
- k. ID_DISTURB_1159_LONGDUR_SWELL: voltage swell ≥60 sec
- l. ID_DISTURB_1159_SHORTDUR: rapid voltage changes
- m. ID_DISTURB_1159_POWERFREQVARIATION: over- and under-frequency events
- n. ID_DISTURB_1159_IMBALANCE: events of over-imbalance
- o. ID_DISTURB_1159_VOLTAGEFLUCTUATION: events of over-flicker Plt

The following categories of disturbance are defined (not present in the IEEE 1159.3 standard):

- p. ID_INRUSH_CURRENT (in-rush current events): static const GUID ID_INRUSH_CURRENT = { 0xdec995f, 0x2f83, 0x4302, { 0xbc, 0x62, 0x29, 0x67, 0x4c, 0x53, 0xb, 0x87 } };
- q. ID_LOW_TO_HIGH_INPUT (digital input events from logic state off to on): static const GUID ID_LOW_TO_HIGH_INPUT = { 0x1cfe23bd, 0xac40, 0x416b, { 0x84, 0xc9, 0x11, 0x64, 0x36, 0x8f, 0xdc, 0x0b } };
- r. ID_HIGH_TO_LOW_INPUT (digital input events from logic state on to off): static const GUID ID_HIGH_TO_LOW_INPUT = { 0x89f6b3cf, 0xe2f5, 0x4ac9, { 0xa2, 0x42, 0xaf, 0xe5, 0x53, 0x5f, 0xba, 0x4e } };

Par. 8.2 shows an example of recorded event as an instance of a series of type ID_QT_MAGDURTIME.

4.7 Logical channels for system events

Is defined the following logical channel "System Event" in the “data source definition record” for the management of system events, with the following tags:

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- a. tagChannelName: CHAR1: "System Event"
- b. tagPhaseID: ID_PHASE_NONE
- c. tagQuantityTypeID: ID_QT_MAGDURTIME
- d. tagQuantityMeasuredID: ID_QM_STATUS

To each channel is associated three series with the following typologies (tagValueTypeID):

- e. ID_SERIES_VALUE_TYPE_TIME: event timestamp
- f. ID_SERIES_VALUE_TYPE_VAL: conventionally set equal to 1 for "NO GPS SYNCHRONIZATION", 2 for event "MEMORY FULL", 3 for event "VOLTAGE ANOMALY"
- g. ID_SERIES_VALUE_TYPE_DURATION: event duration (seconds).

4.8 Data about system events

The system events are stored in the "observation record" as instances of the the channel previously defined. The tag tagDisturbanceCategoryID is used to qualify within the type of the channel concerned the nature of the event, by the following category of event that has been defined specifically, as not present in the standard IEEE 1159.3:

- a. ID_TIME_NO_SYNC (no GPS synchronization): static const GUID ID_TIME_NO_SYNC = {0x59402026, 0x7a96, 0x44d3, {0xb1, 0x99, 0x66, 0x9b, 0x51, 0xa5, 0xd0, 0xf4}};
- b. ID_MEMORY_FULL (memory full): static const GUID ID_MEMORY_FULL = {0x08a90717, 0x6263, 0x4119, {0xae, 0xb6, 0x1e, 0x60, 0x2d, 0x17, 0xc8, 0x13}};
- c. ID_VOLTAGE_ANOMALY (voltage anomaly): static const GUID ID_VOLTAGE_ANOMALY = {0x79678710, 0x b45e, 0x4936, {0x86, 0x6e, 0x9f, 0x5a, 0xb5, 0xd0, 0x47, 0x27}}.

Par. 8.3 shows an example of recorded event as an instance of a series of type ID_QT_MAGDURTIME.

4.9 Voltage dip monitoring according to Italian Regulation

The voltage dip validation described in [1] may give three attribute for each voltage dip:

- a. Good;
- b. Fittizio;
- c. Not Defined.

The management of this attribute is not present in IEEE 1159.3 and it is defined in this GS, by creating a dummy dip immediately after the real one just in cases b and c.

The data series of the dummy dip are:

- d. TIMESTAMP: istante di riconoscimento [1];
- e. DURATION: "Fittizio" = -1; "Not Defined" = -2;
- f. MAGNITUDE: "Fittizio" = -1; "Not Defined" = -2;
- g. PHASE: L1.

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5 REST SERVER REQUIREMENTS

According to GSTQ001, the PQ instrument may have an inbuilt REST server; this chapter defines the data exchange characteristics of such server.

The server must listen both at its IPv4 and its IPv6 address, a specific TCP port for HTTP transport and another one for HTTPS. Either HTTP or HTTPS can be disabled by configuration. Due to cybersecurity reasons HTTP will be disabled by default.

Authentication is optional for HTTP and mandatory for HTTPS. Any method based on username+password is allowed, such as:

- Basic or digest HTTP/HTTPS authentication.
- String variables “username” and “password” are added in plain-text format to any input JSON dictionary.

The server shall publish a set of URLs and methods which are described in this chapter.

5.1 URLs

The path of these URLs may be absolute or relative. For this latter case the manufacturer shall define the string to be added within each URL request, it will be unique (e.g. “/cgi-bin/rest”) and it will be added to every URL.

Next follows several valid examples:

- Absolute:
 - http://192.168.150.123/tools/recycle
 - http://192.168.150.123/data/periodic
 - ...
- Relative:
 - http://10.234.56.78/cgi-bin/rest/tools/reboot
 - http://10.234.56.78/cgi-bin/rest/data/waveform
 - https://172.29.4.56:44443/apirest/config/upload
 - https://172.29.4.56:44443/apirest/tools/reboot
 - ...

Next table shows all the functionalities (each element of the URL column needs to be prefixed at least by the “http://server:port” or “https://server:port” strings).

Table 1 – REST server URLs functionalities				
URL	method	description	input	output
tools/reboot	GET	cold restart		\$output_simple
tools/recycle	GET	hard restart		\$output_simple
config/upload	POST/PUT	JSON encoded configuration file	\$config_upload_json	\$output_simple
config/reload	GET			\$output_simple
files/list	POST	folder name in JSON format	\$input_files_list	\$output_files_list
files/download	POST	full path name in JSON format	\$input_files_download	binary file
files/delete	POST	folder or full path name in JSON format	\$input_files_delete	\$output_simple
data/periodic	POST	recorded periodic values in JSON or CSV format	\$input_data_periodic	\$output_data_periodic_json
				\$output_data_periodic_csv
data/events/list	POST	events list with associated data in JSON format	\$input_data_events	\$output_data_events
data/waveform	POST	waveform datapoints in CSV format	\$input_data_waveform	\$output_data_waveform_csv
		waveform datapoints in JSON format		\$output_data_waveform_json
		waveform datapoints in ZIP+COMTRADE format		\$output_data_waveform_zipcomtrade
data/delete	POST	delete periodic, event or waveform data	\$input_data_delete	\$output_simple
data/online	POST	online values in JSON or CSV format	\$input_data_online	\$output_data_online_json
				\$output_data_online_csv

- TOOLS/REBOOT: cold restart of the device (status is saved and devices are unmounted prior to rebooting).
- TOOLS/RECYCLE: a hard restart (power recycling) is performed without saving status nor unmounting devices.
- CONFIG/UPLOAD: a complete or partial configuration is uploaded to the PQI in JSON format.
- CONFIG/RELOAD: in case of trouble the existent configuration is reloaded.
- FILES/LIST: this is a replacement for the inbuilt SFTP server functionality, listing any folder content.
- FILES/DOWNLOAD: a single file may be downloaded.
- FILES/DELETE: a single file may be erased. For several files a complete path or filter may be used.
- DATA/PERIODIC: this is the real strength of the REST server, since it provides a fully distributed database functionality. A specific time frame and set of periodic variables are requested in JSON format. The output is made of time series vectors in JSON format or a single table in CSV.
- DATA/EVENTS/LIST: it gives a list of events for a certain time frame. If any of these events has an associated waveform, its id is also returned. Any event and waveform has a unique id, either numeric or alphanumeric.
- DATA/WAVEFORM: it returns the full time series data of any waveform given by a single id.
- DATA/DELETE: recorded data between two timestamps may be deleted. This function shall be used for keeping the internal database within certain size limits. Not mandatory although recommended.
- DATA/ONLINE: request of online measurements. Timestamp is included in the result. Not mandatory although recommended.

5.2 Variables encoding

An extensive set of variables is defined. Any PQI shall include this complete list or a subset. This list may be upgraded in the future according to the state-of-the-art.

The whole set of codes and variables are enumerated and described in par. 8.4.

API version standard (“1.0” for GSTQ002 edition 1 and “2.0” for edition 2) can be added within the JSON variable “api” (e.g. “api”: “2.0”). If not present edition 1 is assumed.

5.3 \$config_upload_json

It consists of a JSON dictionary with all or a few configuration parameters. Thus partial reconfiguration may be accomplished without resetting the PQI.

Next table shows some generic parameters.

Table 2 – REST server \$config_upload_json			
name	values	type	example
wiring	3-wire, 4-wire	text	3-wire
nominal voltage		number	230
nominal current		number	300
voltage ratio		number	100
current ratio		number	200
ipv4 address		text	192.168.1.10
netmask4			255.255.255.0
dns1			8.8.8.8
dns2			2a00:1410:4003:807::2003
dhcp	true or false		false
ipv6 address			2a00:1450:4003:807::2003
prefixlen6			16
dhcpv6	true or false		false
rtso6	true or false		false


```

{
  "wiring": "3-wire" ,
  "nominal voltage": 230 ,
  "nominal current": 300 ,
  "voltage ratio": 100 ,
  "current ratio": 200 ,

  "ipv4 address": "192.168.1.10" ,
  "netmask4": "255.255.255.0" ,
  "dns1": "8.8.8.8" ,
  "dns2": "2a00:1410:4003:807::2003" ,
  "dhcp": "false" ,

  "ipv6 address": "2a00:1450:4003:807::2003" ,
  "prefixlen6": "16" ,
  "dhcpv6": "false" ,
  "rtso6": "false"
}

```

Any configuration parameter that may be uploaded to the device by the PIMS or by SFTP, shall also be made possible by the REST server. Therefore the manufacturer shall describe how to parse any configuration parameter within the JSON request (i.e. a full list of JSON variables and their values).

5.4 \$output_simple

It gives basic success or error information just after a POST, GET or PUT request.

Next table shows the parameters.

Table 3 – REST server \$output_simple			
name	values	type	example
ok	true, false	boolean	false
error		text	not found

```

{
  "ok": "false",
  "error": "not found"
}

```

5.5 \$input_file_list

Either a path or a path and a filter may be requested for listing files from PQI's internal storage.

Next table shows the parameters.

Table 4 – REST server \$input_file_list			
name	values	type	example
folder		text	rec/waveforms
filter		text	*

```

{
  "folder": "rec/waveforms",
  "filter": "*"
}

```

5.6 \$output_file_list

A JSON vector is returned. Each vector component consists of a tuple of both filename and size in bytes. This information allows trivial remote file synchronization between the PQI and a central server.

Next table shows the parameters.

Table 5 – REST server \$output_file_list			
name	values	type	example
list	[[name, size]]	[[text, number]]	[["filename1", 212], ["filename2", 10234], ..., ["filename10", 523]]

```

{
  "list": [ [ "filename1", 212 ], [ "filename2", 10234 ], ..., [ "filename10", 523 ] ]
}

```

5.7 \$input_files_download

Complete path and filename in JSON format are requested.

Next table shows the parameters.

Table 6 – REST server \$input_files_download			
name	values	type	example
fullpathname		text	rec/waveforms/reg01.pqd
<pre>{ "fullpathname": "rec/waveforms/reg01.pqd" }</pre>			

5.8 \$input_file_delete


A single file or a set of files given by a filter may be erased.

Next table shows the parameters.

Table 7 – REST server \$input_files_delete			
name	values	type	example
path		text	rec/waveforms
filter		text	*
<pre>{ "path": "rec/waveforms" , "filter": "*" }</pre>			

5.9 \$input_data_periodic

Input parameters are the time frame for data extraction and the requested variables. Time must be written in ISO 8601 format.

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Next table shows the parameters.

Table 8 – REST server \$input_data_periodic			
name	values	type	example
start	timestamp	timestamp (ISO 8601 format)	"2015-11-16T22:20:00Z"
end	timestamp	timestamp (ISO 8601 format)	"2015-11-19T10:20:00Z"
vars	[[name]]	[[text]]	["v_AN_min", "v_BN_avg", ..., "q_AN_min"] ["*"]
format	csv or json	text	"csv" "json"


```

{
  "start":      "2015-11-16T22:20:00Z"      ,
  "end":        "2015-11-19T10:20:00Z"      ,
  "vars":       [ "v_AN_min", "v_BN_avg", ..., "q_AN_min" ] ,
  "format":     "csv"
}

{
  "start":      "2015-11-16T22:20:00Z"      ,
  "end":        "2015-11-19T10:20:00Z"      ,
  "vars":       [ "v_AN_min", "v_BN_avg", ..., "q_AN_min" ] ,
  "format":     "json"
}

{
  "start":      "2015-11-16T22:20:00Z"      ,
  "end":        "2015-11-19T10:20:00Z"      ,
  "vars":       [ "*" ]                      ,
  "format":     "json"
}

```

5.10 \$output_data_periodic_json

A JSON dictionary with single vectors for time and requested variables is returned. Start and end of each time interval are enumerated in separated vectors ("timestamps1" and "timestamps2"). Requested variables are evaluated for each time interval.

Next example shows a special case for 10-minute intervals.

Table 9 – REST server \$input_data_periodic_json			
name	values	type	example
timestamps1	[timestamps]	[timestamp (ISO 8601 format)]	["2015-11-16T22:20:00Z", "2015-11-16T22:30:00Z", ..., "2015-11-16T23:50:00Z"]
timestamps2	[timestamps]	[timestamp (ISO 8601 format)]	["2015-11-16T22:30:00Z", "2015-11-16T22:40:00Z", ..., "2015-11-17T00:00:00Z"]
"var1"	[values]	[numeric]	[231.5, 232.7, ..., 235.3]
"var2"	[values]	[numeric]	[5.12, 5.20, ..., 5.68]
...


```

{
  "timestamps1": [ "2015-11-16T22:20:00Z", "2015-11-16T22:30:00Z", ..., "2015-11-16T23:50:00Z" ] ,
  "timestamps2": [ "2015-11-16T22:30:00Z", "2015-11-16T22:40:00Z", ..., "2015-11-17T00:00:00Z" ] ,
  "v_AN_avg":    [ 231.5, 232.7, ..., 235.3 ] ,
  ...,
  "v_CN_THD_avg": [ 5.12, 5.20, ..., 5.68 ]
}

```

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5.11 \$output_data_periodic_csv

The same information is expressed in tabular form (CSV flat output).

Next table shows the parameters.

Table 10 – REST server \$output_data_periodic_csv				
t1	t2	v_AN_avg	...	v_CN_THD_avg
2015-11-16T22:20:00Z	2015-11-16T22:30:00Z	231.5	...	5.12
2015-11-16T22:30:00Z	2015-11-16T22:40:00Z	232.7	...	5.20
...
2015-11-16T23:50:00Z	2015-11-17T00:00:00Z	235.3	...	5.68

5.12 \$input_data_events

Simple JSON dictionary with start and end time request.

Next table shows the parameters.

Table 11 – REST server \$input_data_events			
name	values	type	example
start	timestamp	timestamp (ISO 8601 format)	"2015-11-16T22:20:00Z"
end	timestamp	timestamp (ISO 8601 format)	"2015-11-19T10:20:00Z"
<pre>{ "start": "2015-11-16T22:20:00Z" , "end": "2015-11-19T10:20:00Z" }</pre>			

5.13 \$output_data_events

The output is a JSON vector made of single dictionaries. Each dictionary describes an event by its unique id and additional numeric or alphanumeric information.

Next table shows the parameters.

Table 12 – REST server \$output_data_events1			
name	values	type	example
events	[{ }]	[json dictionary]	see below

```
[
  {
    "event_id": "93815260fcfa1d677847b4026cbc36c0" ,
    "start": "2015-11-15T10:23:45.015010Z" ,
    "end": "2015-11-15T10:23:45.126730Z" ,
    "waveform_id": "34e6431b6430362f8ff277c0c5b3456d" ,
    "type": "dip" ,
    "magnitude": 75.1 ,
    "phases": [ "AN", "BN", "AB" ] ,
    "info": [ "RSE good", "HV origin" ]
  },
  {
    "event_id": "5a413cbd4bedfca97045d7814202fafd" ,
    "start": "2015-11-16T09:11:35.023020Z" ,
    "end": "2015-11-16T09:11:35.030100Z" ,
    "waveform_id": "" ,
    "type": "swell" ,
    "magnitude": 115.2 ,
    "phases": [ "CA" ] ,
    "info": [ ]
  }
]
```

Type of events, affected phases and extra information are encoded according to the next tables.

RSE good/bad/unknown means that the algorithm in [1] gives good, bad or not definitive results. According to par. 4.9:

- Good = RSE good;
- Fittizio = RSE bad;
- Not Defined = RSE unknown.

Next table shows the parameters.

Table 13 – REST server \$output_data_events2		
type	phases	info
dip	AN	RSE good
swell	BN	RSE bad
overcurrent	CN	RSE unknown
undercurrent	AB	HV origin
overfrequency	BC	MV origin
underfrequency	CA	EHV origin
over_thd	AG	LV origin
over_pst	BG	...
over_unbalance	CG	
...	NG	

5.14 \$input_data_waveform

It consists of a very simple JSON dictionary with a unique waveform id and the requested output format.

Next table shows the parameters.

name	values	type	example
waveform_id	unique id	text	"93815260fcfa1d677847b4026cbc36c0"
format	csv, json or zipcomtrade	text	"csv"

<pre>{ "waveform_id": "93815260fcfa1d677847b4026cbc36c0", "format": "csv" }</pre>
<pre>{ "waveform_id": "93815260fcfa1d677847b4026cbc36c0", "format": "json" }</pre>
<pre>{ "waveform_id": "93815260fcfa1d677847b4026cbc36c0", "format": "zipcomtrade" }</pre>

5.15 \$output_data_waveform_json

Similar to the "\$output_data_periodic_json" format but with a single time vector.

Next table shows the parameters.

name	values	type	example
timestamps	[timestamps]	[timestamp (ISO 8601 format)]	["2015-11-16T22:20:00.01Z", "2015-11-16T22:20:00.02Z", ..., "2015-11-16T22:20:00.88Z"]
"var1"	[values]	[numeric]	[231.5, 232.7, ..., 235.3]
"var2"	[values]	[numeric]	[230.5, 233.1, ..., 234.1]
...

<pre>{ "timestamps": ["2015-11-16T22:20:00.01Z", "2015-11-16T22:20:00.02Z", ..., "2015-11-16T22:20:00.88Z"], "v_AN": [231.5, 232.7, ..., 235.3], "v_CA": [230.5, 233.1, ..., 234.1], ... }</pre>
--

5.16 \$output_data_waveform_csv

Similar to the "\$output_data_periodic_csv" format but with a single time vector.

Next table shows the parameters.

timestamps	v_AN	v_CA	...
2015-11-16T22:20:00.01Z	231.5	230.5	...
2015-11-16T22:20:00.02Z	232.7	233.1	...
...
2015-11-16T22:20:00.88Z	235.3	234.1	...

5.17 \$output_data_zipcomtrade

It consists of a zip-file containing standard COMTRADE files (CFG, DAT and optional HDR). COMTRADE DAT file may be encoded in binary or plain text format.

5.18 \$input_data_delete

Recorded data in PQI's internal database is deleted. Time frames and type of data are input parameters. Next table shows the parameters.

Table 17 – REST server \$input_data_delete			
name	values	type	example
start	timestamp	timestamp (ISO 8601 format)	"2015-11-16T22:20:00Z"
end	timestamp	timestamp (ISO 8601 format)	"2015-11-19T10:20:00Z"
type		text	"periodic"
			"event"
			"waveform"
			"any"


```

{
  "start":      "2015-11-16T22:20:00Z",
  "end":        "2015-11-19T10:20:00Z",
  "type":       "periodic"
}

{
  "start":      "2015-11-16T22:20:00Z",
  "end":        "2015-11-19T10:20:00Z",
  "type":       "event"
}

{
  "start":      "2015-11-16T22:20:00Z",
  "end":        "2015-11-19T10:20:00Z",
  "type":       "waveform"
}

{
  "start":      "2015-11-16T22:20:00Z",
  "end":        "2015-11-19T10:20:00Z",
  "type":       "any"
}

```

5.19 \$input_data_online

Input parameters are the requested variables:

Table 18 – REST server \$input_data_online
--

name	values	type	example
vars	[[name]]	[[text]]	["v_AN_min", "v_BN_avg", ..., "q_AN_min"]
			["*"]
format	csv or json	text	"csv"
			"json"


```

{
    "vars":      [ "v_AN_min", "v_BN_avg", ..., "q_AN_min" ] ,
    "format":    "csv"
}

```



```

{
    "vars":      [ "v_AN_min", "v_BN_avg", ..., "q_AN_min" ] ,
    "format":    "json"
}

```



```

{
    "vars":      [ "*" ] ,
    "format":    "json"
}

```

5.20 \$output_data_online_json

A JSON dictionary with a timestamp and the requested variables is returned:

Table 19 – REST server \$output_data_online_json			
name	values	type	example
timestamp	timestamp	timestamp (ISO 8601 format)	"2015-11-16T22:20:00Z"
"var1"	value	numeric	232.2
"var2"	value	numeric	12.5
...


```

{
    "timestamp":    "2015-11-16T22:20:00Z" ,
    "v_AN_avg":     232.2 ,
    ...             ... ,
    "v_CN_THD_avg": 12.5
}

```

5.21 \$output_data_online_csv

The same information is expressed in tabular form (CSV flat output).

Table 20 – REST server \$output_data_online_csv			
t	v_AN_avg	...	v_CN_THD_avg
2015-11-16T22:20:00Z	231.5	...	5.12

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6 IEC 61850 CAPABILITIES

The PQI might include basic functionalities according to IEC 61850. These features consist of basic online measurements, notification of disturbance recordings and FTP repository for fault analysis.

6.1 Online measurements

One or several logical modes from the MMXU class shall include the following measurements (variables definition according to annex 10.4):

- Total real power → p_TOTAL
- Total reactive power → q_TOTAL
- Total apparent power → s_TOTAL
- Power system frequency → freq
- Phase to phase voltages → v_AB, v_BC, v_CA
- Phase to ground voltages → v_AN, v_BN, v_CN
- Phase currents → a_AN, a_BN, a_CN
- Phase active power → p_AN, p_BN, p_CN
- Phase reactive power → q_AN, q_BN, q_CN
- Phase apparent power → s_AN, s_BN, s_CN

6.2 Notification of new disturbance recordings

A logical node from the RDRE class shall indicate the existence of a new fault recording and its alphanumeric id.

6.3 FTP repository

Fault recordings shall be supplied by an internal FTP server in COMTRADE format, either in a zip file or in a separate folder with the same alphanumeric id.


7 MISCELLANEOUS

This chapter includes further requirements, recommendations and additional information.

7.1 Amendement

Because of the earlier stage of some international standards used in this GS, Enel may derogate some prescriptions.

Possible derogations must be requested by the provider just during the procurement process.

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8 ANNEXES

This chapter include data source definition examples.

8.1 Annex A: “data source definition record” examples for PQ events

```

| +-Collection -- tag: tagOneChannelDefn (level 2)
| | +-Scalar -- tag: tagPhaseID (type: UNS_INTEGER4)
| | | value: 5 - ID_PHASE_AB
| | +-Vector -- tag: tagOtherChannelIdentifier (type: CHAR1) [ 1 ]
| | | value: ''
| | +-Scalar -- tag: tagQuantityTypeID (type: GUID)
| | | value: {67f6af8d-f753-11cf-9d890080} - ID_QT_MAGDURTIME
| | +-Vector -- tag: tagGroupName (type: CHAR1) [ 5 ]
| | | value: 'None'
| | +-Vector -- tag: tagChannelName (type: CHAR1) [ 24 ]
| | | value: 'Voltage Event Phase A-B'
| | +-Scalar -- tag: tagPrimarySeriesIdx (type: UNS_INTEGER4)
| | | value: 0
| | +-Scalar -- tag: tagQuantityMeasuredID (type: UNS_INTEGER4)
| | | value: 1 - ID_QM_VOLTAGE
| | +-Collection -- tag: tagSeriesDefns (level 3)
| | | +-Collection -- tag: tagOneSeriesDefn (level 4)
| | | | +-Scalar -- tag: tagQuantityUnitsID (type: UNS_INTEGER4)
| | | | | value: 2 - ID_QU_SECONDS
| | | | +-Scalar -- tag: tagQuantityCharacteristicID (type: GUID)
| | | | | value: {a6b31adf-b451-11d1-ae170060} - ID_QC_NONE
| | | | +-Scalar -- tag: tagValueTypeID (type: GUID)
| | | | | value: {c690e862-f755-11cf-9d890080} - ID_SERIES_VALUE_TYPE_TIME
| | | | +-Vector -- tag: tagValueTypeName (type: CHAR1) [ 5 ]
| | | | | value: 'Time'
| | | | +-Scalar -- tag: tagStorageMethodID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_SERIES_METHOD_VALUES
| | | | +-Scalar -- tag: tagHintGreekPrefixID (type: UNS_INTEGER4)
| | | | | value: 6 - ID_GREEK_NONE
| | | | +-Scalar -- tag: tagHintPreferredUnitsID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_PREFER_ENG
| | | | +-Scalar -- tag: tagHintDefaultDisplayID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_DEFAULT_MAG
| | | | +-Scalar -- tag: tagSeriesNominalQuantity (type: REAL8)
| | | | | value: 0.000000
| | | | +- (End of collection)
| | | +-Collection -- tag: tagOneSeriesDefn (level 4)
| | | | +-Scalar -- tag: tagQuantityUnitsID (type: UNS_INTEGER4)
| | | | | value: 6 - ID_QU_VOLTS
| | | | +-Scalar -- tag: tagQuantityCharacteristicID (type: GUID)
| | | | | value: {a6b31ae5-b451-11d1-ae170060} - ID_QC_RMS
| | | | +-Scalar -- tag: tagValueTypeID (type: GUID)
| | | | | value: {67f6af97-f753-11cf-9d890080} - ID_SERIES_VALUE_TYPE_VAL
| | | | +-Vector -- tag: tagValueTypeName (type: CHAR1) [ 14 ]
| | | | | value: 'Magnitude Rms'
| | | | +-Scalar -- tag: tagStorageMethodID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_SERIES_METHOD_VALUES
| | | | +-Scalar -- tag: tagHintGreekPrefixID (type: UNS_INTEGER4)
| | | | | value: 6 - ID_GREEK_NONE
| | | | +-Scalar -- tag: tagHintPreferredUnitsID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_PREFER_ENG
| | | | +-Scalar -- tag: tagHintDefaultDisplayID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_DEFAULT_MAG
| | | | +-Scalar -- tag: tagSeriesNominalQuantity (type: REAL8)
| | | | | value: 230.000000
| | | | +- (End of collection)
| | | +-Collection -- tag: tagOneSeriesDefn (level 4)


```

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```

| | | +-Scalar -- tag: tagQuantityUnitsID (type: UNS_INTEGER4)
| | | | value: 2 - ID_QU_SECONDS
| | | +-Scalar -- tag: tagQuantityCharacteristicID (type: GUID)
| | | | value: {a6b31adf-b451-11d1-ae170060} - ID_QC_NONE
| | | +-Scalar -- tag: tagValueTypeID (type: GUID)
| | | | value: {c690e863-f755-11cf-9d890080} - ID_SERIES_VALUE_TYPE_DURATION
| | | +-Vector -- tag: tagValueTypeName (type: CHAR1) [ 9 ]
| | | | value: 'Duration'
| | | +-Scalar -- tag: tagStorageMethodID (type: UNS_INTEGER4)
| | | | value: 1 - ID_SERIES_METHOD_VALUES
| | | +-Scalar -- tag: tagHintGreekPrefixID (type: UNS_INTEGER4)
| | | | value: 6 - ID_GREEK_NONE
| | | +-Scalar -- tag: tagHintPreferredUnitsID (type: UNS_INTEGER4)
| | | | value: 1 - ID_PREFER_ENG
| | | +-Scalar -- tag: tagHintDefaultDisplayID (type: UNS_INTEGER4)
| | | | value: 1 - ID_DEFAULT_MAG
| | | +-Scalar -- tag: tagSeriesNominalQuantity (type: REAL8)
| | | | value: 0.000000
| | | +- (End of collection)
| | +- (End of collection)
| +- (End of collection)
+-Collection -- tag: tagOneChannelDefn (level 2)
| +-Scalar -- tag: tagPhaseID (type: UNS_INTEGER4)
| | value: 6 - ID_PHASE_BC
| +-Vector -- tag: tagOtherChannelIdentifier (type: CHAR1) [ 1 ]
| | value: ''
| +-Scalar -- tag: tagQuantityTypeID (type: GUID)
| | value: {67f6af8d-f753-11cf-9d890080} - ID_QT_MAGDURTIME
| +-Vector -- tag: tagGroupName (type: CHAR1) [ 5 ]
| | value: 'None'
| +-Vector -- tag: tagChannelName (type: CHAR1) [ 24 ]
| | value: 'Voltage Event Phase B-C'
| +-Scalar -- tag: tagPrimarySeriesIdx (type: UNS_INTEGER4)
| | value: 0
| +-Scalar -- tag: tagQuantityMeasuredID (type: UNS_INTEGER4)
| | value: 1 - ID_QM_VOLTAGE
| +-Collection -- tag: tagSeriesDefns (level 3)
| | +-Collection -- tag: tagOneSeriesDefn (level 4)
| | | +-Scalar -- tag: tagQuantityUnitsID (type: UNS_INTEGER4)
| | | | value: 2 - ID_QU_SECONDS
| | | +-Scalar -- tag: tagQuantityCharacteristicID (type: GUID)
| | | | value: {a6b31adf-b451-11d1-ae170060} - ID_QC_NONE
| | | +-Scalar -- tag: tagValueTypeID (type: GUID)
| | | | value: {c690e862-f755-11cf-9d890080} - ID_SERIES_VALUE_TYPE_TIME
| | | +-Vector -- tag: tagValueTypeName (type: CHAR1) [ 5 ]
| | | | value: 'Time'
| | | +-Scalar -- tag: tagStorageMethodID (type: UNS_INTEGER4)
| | | | value: 1 - ID_SERIES_METHOD_VALUES
| | | +-Scalar -- tag: tagHintGreekPrefixID (type: UNS_INTEGER4)
| | | | value: 6 - ID_GREEK_NONE
| | | +-Scalar -- tag: tagHintPreferredUnitsID (type: UNS_INTEGER4)
| | | | value: 1 - ID_PREFER_ENG
| | | +-Scalar -- tag: tagHintDefaultDisplayID (type: UNS_INTEGER4)
| | | | value: 1 - ID_DEFAULT_MAG
| | | +-Scalar -- tag: tagSeriesNominalQuantity (type: REAL8)
| | | | value: 0.000000
| | | +- (End of collection)
| | +-Collection -- tag: tagOneSeriesDefn (level 4)
| | | +-Scalar -- tag: tagQuantityUnitsID (type: UNS_INTEGER4)
| | | | value: 6 - ID_QU_VOLTS
| | | +-Scalar -- tag: tagQuantityCharacteristicID (type: GUID)
| | | | value: {a6b31ae5-b451-11d1-ae170060} - ID_QC_RMS
| | | +-Scalar -- tag: tagValueTypeID (type: GUID)

```

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```

| | | | value: {67f6af97-f753-11cf-9d890080} - ID_SERIES_VALUE_TYPE_VAL
| | | | +-Vector -- tag: tagValueTypeName (type: CHAR1) [ 14 ]
| | | | | value: 'Magnitude Rms'
| | | | +-Scalar -- tag: tagStorageMethodID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_SERIES_METHOD_VALUES
| | | | +-Scalar -- tag: tagHintGreekPrefixID (type: UNS_INTEGER4)
| | | | | value: 6 - ID_GREEK_NONE
| | | | +-Scalar -- tag: tagHintPreferredUnitsID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_PREFER_ENG
| | | | +-Scalar -- tag: tagHintDefaultDisplayID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_DEFAULT_MAG
| | | | +-Scalar -- tag: tagSeriesNominalQuantity (type: REAL8)
| | | | | value: 230.000000
| | | | +- (End of collection)
| | | | +-Collection -- tag: tagOneSeriesDefn (level 4)
| | | | | +-Scalar -- tag: tagQuantityUnitsID (type: UNS_INTEGER4)
| | | | | | value: 2 - ID_QU_SECONDS
| | | | | +-Scalar -- tag: tagQuantityCharacteristicID (type: GUID)
| | | | | | value: {a6b3ladf-b451-11d1-ae170060} - ID_QC_NONE
| | | | | +-Scalar -- tag: tagValueTypeID (type: GUID)
| | | | | | value: {c690e863-f755-11cf-9d890080} - ID_SERIES_VALUE_TYPE_DURATION
| | | | | +-Vector -- tag: tagValueTypeName (type: CHAR1) [ 9 ]
| | | | | | value: 'Duration'
| | | | | +-Scalar -- tag: tagStorageMethodID (type: UNS_INTEGER4)
| | | | | | value: 1 - ID_SERIES_METHOD_VALUES
| | | | | +-Scalar -- tag: tagHintGreekPrefixID (type: UNS_INTEGER4)
| | | | | | value: 6 - ID_GREEK_NONE
| | | | | +-Scalar -- tag: tagHintPreferredUnitsID (type: UNS_INTEGER4)
| | | | | | value: 1 - ID_PREFER_ENG
| | | | | +-Scalar -- tag: tagHintDefaultDisplayID (type: UNS_INTEGER4)
| | | | | | value: 1 - ID_DEFAULT_MAG
| | | | | +-Scalar -- tag: tagSeriesNominalQuantity (type: REAL8)
| | | | | | value: 0.000000
| | | | | +- (End of collection)
| | | | +- (End of collection)
| | | +- (End of collection)
| +-Collection -- tag: tagOneChannelDefn (level 2)
| | +-Scalar -- tag: tagPhaseID (type: UNS_INTEGER4)
| | | value: 7 - ID_PHASE_CA
| | +-Vector -- tag: tagOtherChannelIdentifier (type: CHAR1) [ 1 ]
| | | value: ''
| | +-Scalar -- tag: tagQuantityTypeID (type: GUID)
| | | value: {67f6af8d-f753-11cf-9d890080} - ID_QT_MAGDURTIME
| | +-Vector -- tag: tagGroupName (type: CHAR1) [ 5 ]
| | | value: 'None'
| | +-Vector -- tag: tagChannelName (type: CHAR1) [ 24 ]
| | | value: 'Voltage Event Phase C-A'
| | +-Scalar -- tag: tagPrimarySeriesIdx (type: UNS_INTEGER4)
| | | value: 0
| | +-Scalar -- tag: tagQuantityMeasuredID (type: UNS_INTEGER4)
| | | value: 1 - ID_QM_VOLTAGE
| | +-Collection -- tag: tagSeriesDefns (level 3)
| | | +-Collection -- tag: tagOneSeriesDefn (level 4)
| | | | +-Scalar -- tag: tagQuantityUnitsID (type: UNS_INTEGER4)
| | | | | value: 2 - ID_QU_SECONDS
| | | | +-Scalar -- tag: tagQuantityCharacteristicID (type: GUID)
| | | | | value: {a6b3ladf-b451-11d1-ae170060} - ID_QC_NONE
| | | | +-Scalar -- tag: tagValueTypeID (type: GUID)
| | | | | value: {c690e862-f755-11cf-9d890080} - ID_SERIES_VALUE_TYPE_TIME
| | | | +-Vector -- tag: tagValueTypeName (type: CHAR1) [ 5 ]
| | | | | value: 'Time'
| | | | +-Scalar -- tag: tagStorageMethodID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_SERIES_METHOD_VALUES

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| | | | +-Scalar -- tag: tagHintGreekPrefixID (type: UNS_INTEGER4)
| | | | | value: 6 - ID_GREEK_NONE
| | | | +-Scalar -- tag: tagHintPreferredUnitsID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_PREFER_ENG
| | | | +-Scalar -- tag: tagHintDefaultDisplayID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_DEFAULT_MAG
| | | | +-Scalar -- tag: tagSeriesNominalQuantity (type: REAL8)
| | | | | value: 0.000000
| | | | +- (End of collection)
| | | +-Collection -- tag: tagOneSeriesDefn (level 4)
| | | | +-Scalar -- tag: tagQuantityUnitsID (type: UNS_INTEGER4)
| | | | | value: 6 - ID_QU_VOLTS
| | | | +-Scalar -- tag: tagQuantityCharacteristicID (type: GUID)
| | | | | value: {a6b31ae5-b451-11d1-ae170060} - ID_QC_RMS
| | | | +-Scalar -- tag: tagValueTypeID (type: GUID)
| | | | | value: {67f6af97-f753-11cf-9d890080} - ID_SERIES_VALUE_TYPE_VAL
| | | | +-Vector -- tag: tagValueTypeName (type: CHAR1) [ 14 ]
| | | | | value: 'Magnitude Rms'
| | | | +-Scalar -- tag: tagStorageMethodID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_SERIES_METHOD_VALUES
| | | | +-Scalar -- tag: tagHintGreekPrefixID (type: UNS_INTEGER4)
| | | | | value: 6 - ID_GREEK_NONE
| | | | +-Scalar -- tag: tagHintPreferredUnitsID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_PREFER_ENG
| | | | +-Scalar -- tag: tagHintDefaultDisplayID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_DEFAULT_MAG
| | | | +-Scalar -- tag: tagSeriesNominalQuantity (type: REAL8)
| | | | | value: 230.000000
| | | | +- (End of collection)
| | | +-Collection -- tag: tagOneSeriesDefn (level 4)
| | | | +-Scalar -- tag: tagQuantityUnitsID (type: UNS_INTEGER4)
| | | | | value: 2 - ID_QU_SECONDS
| | | | +-Scalar -- tag: tagQuantityCharacteristicID (type: GUID)
| | | | | value: {a6b31adf-b451-11d1-ae170060} - ID_QC_NONE
| | | | +-Scalar -- tag: tagValueTypeID (type: GUID)
| | | | | value: {c690e863-f755-11cf-9d890080} - ID_SERIES_VALUE_TYPE_DURATION
| | | | +-Vector -- tag: tagValueTypeName (type: CHAR1) [ 9 ]
| | | | | value: 'Duration'
| | | | +-Scalar -- tag: tagStorageMethodID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_SERIES_METHOD_VALUES
| | | | +-Scalar -- tag: tagHintGreekPrefixID (type: UNS_INTEGER4)
| | | | | value: 6 - ID_GREEK_NONE
| | | | +-Scalar -- tag: tagHintPreferredUnitsID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_PREFER_ENG
| | | | +-Scalar -- tag: tagHintDefaultDisplayID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_DEFAULT_MAG
| | | | +-Scalar -- tag: tagSeriesNominalQuantity (type: REAL8)
| | | | | value: 0.000000
| | | | +- (End of collection)
| | | +- (End of collection)
| | +- (End of collection)
| +-Collection -- tag: tagOneChannelDefn (level 2)
| | +-Scalar -- tag: tagPhaseID (type: UNS_INTEGER4)
| | | value: 8 - ID_PHASE_RES
| | +-Vector -- tag: tagOtherChannelIdentifier (type: CHAR1) [ 1 ]
| | | value: ''
| | +-Scalar -- tag: tagQuantityTypeID (type: GUID)
| | | value: {67f6af8d-f753-11cf-9d890080} - ID_QT_MAGDURTIME
| | +-Vector -- tag: tagGroupName (type: CHAR1) [ 5 ]
| | | value: 'None'
| | +-Vector -- tag: tagChannelName (type: CHAR1) [ 23 ]
| | | value: 'Voltage Event Phase L4'
| | +-Scalar -- tag: tagPrimarySeriesIdx (type: UNS_INTEGER4)
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| | | value: 0
| | +-Scalar -- tag: tagQuantityMeasuredID (type: UNS_INTEGER4)
| | | value: 1 - ID_QM_VOLTAGE
| | +-Collection -- tag: tagSeriesDefns (level 3)
| | | +-Collection -- tag: tagOneSeriesDefn (level 4)
| | | | +-Scalar -- tag: tagQuantityUnitsID (type: UNS_INTEGER4)
| | | | | value: 2 - ID_QU_SECONDS
| | | | +-Scalar -- tag: tagQuantityCharacteristicID (type: GUID)
| | | | | value: {a6b3ladf-b451-11d1-ae170060} - ID_QC_NONE
| | | | +-Scalar -- tag: tagValueTypeID (type: GUID)
| | | | | value: {c690e862-f755-11cf-9d890080} - ID_SERIES_VALUE_TYPE_TIME
| | | | +-Vector -- tag: tagValueTypeName (type: CHAR1) [ 5 ]
| | | | | value: 'Time'
| | | | +-Scalar -- tag: tagStorageMethodID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_SERIES_METHOD_VALUES
| | | | +-Scalar -- tag: tagHintGreekPrefixID (type: UNS_INTEGER4)
| | | | | value: 6 - ID_GREEK_NONE
| | | | +-Scalar -- tag: tagHintPreferredUnitsID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_PREFER_ENG
| | | | +-Scalar -- tag: tagHintDefaultDisplayID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_DEFAULT_MAG
| | | | +-Scalar -- tag: tagSeriesNominalQuantity (type: REAL8)
| | | | | value: 0.000000
| | | +--(End of collection)
| | +-Collection -- tag: tagOneSeriesDefn (level 4)
| | | +-Scalar -- tag: tagQuantityUnitsID (type: UNS_INTEGER4)
| | | | value: 6 - ID_QU_VOLTS
| | | +-Scalar -- tag: tagQuantityCharacteristicID (type: GUID)
| | | | value: {a6b3lae5-b451-11d1-ae170060} - ID_QC_RMS
| | | +-Scalar -- tag: tagValueTypeID (type: GUID)
| | | | value: {67f6af97-f753-11cf-9d890080} - ID_SERIES_VALUE_TYPE_VAL
| | | +-Vector -- tag: tagValueTypeName (type: CHAR1) [ 14 ]
| | | | value: 'Magnitude Rms'
| | | +-Scalar -- tag: tagStorageMethodID (type: UNS_INTEGER4)
| | | | value: 1 - ID_SERIES_METHOD_VALUES
| | | +-Scalar -- tag: tagHintGreekPrefixID (type: UNS_INTEGER4)
| | | | value: 6 - ID_GREEK_NONE
| | | +-Scalar -- tag: tagHintPreferredUnitsID (type: UNS_INTEGER4)
| | | | value: 1 - ID_PREFER_ENG
| | | +-Scalar -- tag: tagHintDefaultDisplayID (type: UNS_INTEGER4)
| | | | value: 1 - ID_DEFAULT_MAG
| | | +-Scalar -- tag: tagSeriesNominalQuantity (type: REAL8)
| | | | value: 230.000000
| | +--(End of collection)
| +-Collection -- tag: tagOneSeriesDefn (level 4)
| | +-Scalar -- tag: tagQuantityUnitsID (type: UNS_INTEGER4)
| | | value: 2 - ID_QU_SECONDS
| | +-Scalar -- tag: tagQuantityCharacteristicID (type: GUID)
| | | value: {a6b3ladf-b451-11d1-ae170060} - ID_QC_NONE
| | +-Scalar -- tag: tagValueTypeID (type: GUID)
| | | value: {c690e863-f755-11cf-9d890080} - ID_SERIES_VALUE_TYPE_DURATION
| | +-Vector -- tag: tagValueTypeName (type: CHAR1) [ 9 ]
| | | value: 'Duration'
| | +-Scalar -- tag: tagStorageMethodID (type: UNS_INTEGER4)
| | | value: 1 - ID_SERIES_METHOD_VALUES
| | +-Scalar -- tag: tagHintGreekPrefixID (type: UNS_INTEGER4)
| | | value: 6 - ID_GREEK_NONE
| | +-Scalar -- tag: tagHintPreferredUnitsID (type: UNS_INTEGER4)
| | | value: 1 - ID_PREFER_ENG
| | +-Scalar -- tag: tagHintDefaultDisplayID (type: UNS_INTEGER4)
| | | value: 1 - ID_DEFAULT_MAG
| | +-Scalar -- tag: tagSeriesNominalQuantity (type: REAL8)
| | | value: 0.000000

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| | | | +-(End of collection)
| | | +-(End of collection)
| | +-(End of collection)
| +-Collection -- tag: tagOneChannelDefn (level 2)
| | +-Scalar -- tag: tagPhaseID (type: UNS_INTEGER4)
| | | value: 0 - ID_PHASE_NONE
| | +-Vector -- tag: tagOtherChannelIdentifier (type: CHAR1) [ 1 ]
| | | value: ''
| | +-Scalar -- tag: tagQuantityTypeID (type: GUID)
| | | value: {67f6af8d-f753-11cf-9d890080} - ID_QT_MAGDURTIME
| | +-Vector -- tag: tagGroupName (type: CHAR1) [ 5 ]
| | | value: 'None'
| | +-Vector -- tag: tagChannelName (type: CHAR1) [ 16 ]
| | | value: 'Frequency Event'
| | +-Scalar -- tag: tagPrimarySeriesIdx (type: UNS_INTEGER4)
| | | value: 0
| | +-Scalar -- tag: tagQuantityMeasuredID (type: UNS_INTEGER4)
| | | value: 1 - ID_QM_VOLTAGE
| | +-Collection -- tag: tagSeriesDefns (level 3)
| | | +-Collection -- tag: tagOneSeriesDefn (level 4)
| | | | +-Scalar -- tag: tagQuantityUnitsID (type: UNS_INTEGER4)
| | | | | value: 2 - ID_QU_SECONDS
| | | | +-Scalar -- tag: tagQuantityCharacteristicID (type: GUID)
| | | | | value: {a6b3ladf-b451-11d1-ae170060} - ID_QC_NONE
| | | | +-Scalar -- tag: tagValueTypeID (type: GUID)
| | | | | value: {c690e862-f755-11cf-9d890080} - ID_SERIES_VALUE_TYPE_TIME
| | | | +-Vector -- tag: tagValueTypeName (type: CHAR1) [ 5 ]
| | | | | value: 'Time'
| | | | +-Scalar -- tag: tagStorageMethodID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_SERIES_METHOD_VALUES
| | | | +-Scalar -- tag: tagHintGreekPrefixID (type: UNS_INTEGER4)
| | | | | value: 6 - ID_GREEK_NONE
| | | | +-Scalar -- tag: tagHintPreferredUnitsID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_PREFER_ENG
| | | | +-Scalar -- tag: tagHintDefaultDisplayID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_DEFAULT_MAG
| | | | +-Scalar -- tag: tagSeriesNominalQuantity (type: REAL8)
| | | | | value: 0.000000
| | | | +--(End of collection)
| | | +-Collection -- tag: tagOneSeriesDefn (level 4)
| | | | +-Scalar -- tag: tagQuantityUnitsID (type: UNS_INTEGER4)
| | | | | value: 15 - ID_QU_HERTZ
| | | | +-Scalar -- tag: tagQuantityCharacteristicID (type: GUID)
| | | | | value: {07ef68af-9ff5-11d2-b30b0060} - ID_QC_FREQUENCY
| | | | +-Scalar -- tag: tagValueTypeID (type: GUID)
| | | | | value: {67f6af97-f753-11cf-9d890080} - ID_SERIES_VALUE_TYPE_VAL
| | | | +-Vector -- tag: tagValueTypeName (type: CHAR1) [ 20 ]
| | | | | value: 'Magnitude Frequency'
| | | | +-Scalar -- tag: tagStorageMethodID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_SERIES_METHOD_VALUES
| | | | +-Scalar -- tag: tagHintGreekPrefixID (type: UNS_INTEGER4)
| | | | | value: 6 - ID_GREEK_NONE
| | | | +-Scalar -- tag: tagHintPreferredUnitsID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_PREFER_ENG
| | | | +-Scalar -- tag: tagHintDefaultDisplayID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_DEFAULT_MAG
| | | | +-Scalar -- tag: tagSeriesNominalQuantity (type: REAL8)
| | | | | value: 50.000000
| | | | +--(End of collection)
| | | +-Collection -- tag: tagOneSeriesDefn (level 4)
| | | | +-Scalar -- tag: tagQuantityUnitsID (type: UNS_INTEGER4)
| | | | | value: 2 - ID_QU_SECONDS
| | | | +-Scalar -- tag: tagQuantityCharacteristicID (type: GUID)

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| | | | value: {a6b31adf-b451-11d1-ae170060} - ID_QC_NONE
| | | | +-Scalar -- tag: tagValueTypeID (type: GUID)
| | | | | value: {c690e863-f755-11cf-9d890080} - ID_SERIES_VALUE_TYPE_DURATION
| | | | +-Vector -- tag: tagValueTypeName (type: CHAR1) [ 9 ]
| | | | | value: 'Duration'
| | | | +-Scalar -- tag: tagStorageMethodID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_SERIES_METHOD_VALUES
| | | | +-Scalar -- tag: tagHintGreekPrefixID (type: UNS_INTEGER4)
| | | | | value: 6 - ID_GREEK_NONE
| | | | +-Scalar -- tag: tagHintPreferredUnitsID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_PREFER_ENG
| | | | +-Scalar -- tag: tagHintDefaultDisplayID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_DEFAULT_MAG
| | | | +-Scalar -- tag: tagSeriesNominalQuantity (type: REAL8)
| | | | | value: 0.000000
| | | | +- (End of collection)
| | | +- (End of collection)
| | +- (End of collection)
| +-Collection -- tag: tagOneChannelDefn (level 2)
| | +-Scalar -- tag: tagPhaseID (type: UNS_INTEGER4)
| | | value: 0 - ID_PHASE_NONE
| | +-Vector -- tag: tagOtherChannelIdentifier (type: CHAR1) [ 1 ]
| | | value: ''
| | +-Scalar -- tag: tagQuantityTypeID (type: GUID)
| | | value: {67f6af8d-f753-11cf-9d890080} - ID_QT_MAGDURTIME
| | +-Vector -- tag: tagGroupName (type: CHAR1) [ 5 ]
| | | value: 'None'
| | +-Vector -- tag: tagChannelName (type: CHAR1) [ 16 ]
| | | value: 'Unbalance Event'
| | +-Scalar -- tag: tagPrimarySeriesIdx (type: UNS_INTEGER4)
| | | value: 0
| | +-Scalar -- tag: tagQuantityMeasuredID (type: UNS_INTEGER4)
| | | value: 1 - ID_QM_VOLTAGE
| | +-Collection -- tag: tagSeriesDefns (level 3)
| | | +-Collection -- tag: tagOneSeriesDefn (level 4)
| | | | +-Scalar -- tag: tagQuantityUnitsID (type: UNS_INTEGER4)
| | | | | value: 2 - ID_QU_SECONDS
| | | | +-Scalar -- tag: tagQuantityCharacteristicID (type: GUID)
| | | | | value: {a6b31adf-b451-11d1-ae170060} - ID_QC_NONE
| | | | +-Scalar -- tag: tagValueTypeID (type: GUID)
| | | | | value: {c690e862-f755-11cf-9d890080} - ID_SERIES_VALUE_TYPE_TIME
| | | | +-Vector -- tag: tagValueTypeName (type: CHAR1) [ 5 ]
| | | | | value: 'Time'
| | | | +-Scalar -- tag: tagStorageMethodID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_SERIES_METHOD_VALUES
| | | | +-Scalar -- tag: tagHintGreekPrefixID (type: UNS_INTEGER4)
| | | | | value: 6 - ID_GREEK_NONE
| | | | +-Scalar -- tag: tagHintPreferredUnitsID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_PREFER_ENG
| | | | +-Scalar -- tag: tagHintDefaultDisplayID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_DEFAULT_MAG
| | | | +-Scalar -- tag: tagSeriesNominalQuantity (type: REAL8)
| | | | | value: 0.000000
| | | | +- (End of collection)
| | | +-Collection -- tag: tagOneSeriesDefn (level 4)
| | | | +-Scalar -- tag: tagQuantityUnitsID (type: UNS_INTEGER4)
| | | | | value: 19 - ID_QU_PERCENT
| | | | +-Scalar -- tag: tagQuantityCharacteristicID (type: GUID)
| | | | | value: {07ef68af-9ff5-11d2-b30b0060} - ID_QC_FREQUENCY
| | | | +-Scalar -- tag: tagValueTypeID (type: GUID)
| | | | | value: {67f6af97-f753-11cf-9d890080} - ID_SERIES_VALUE_TYPE_VAL
| | | | +-Vector -- tag: tagValueTypeName (type: CHAR1) [ 20 ]
| | | | | value: 'Magnitude Unbalance'

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| | | +-Scalar -- tag: tagStorageMethodID (type: UNS_INTEGER4)
| | | | value: 1 - ID_SERIES_METHOD_VALUES
| | | +-Scalar -- tag: tagHintGreekPrefixID (type: UNS_INTEGER4)
| | | | value: 6 - ID_GREEK_NONE
| | | +-Scalar -- tag: tagHintPreferredUnitsID (type: UNS_INTEGER4)
| | | | value: 1 - ID_PREFER_ENG
| | | +-Scalar -- tag: tagHintDefaultDisplayID (type: UNS_INTEGER4)
| | | | value: 1 - ID_DEFAULT_MAG
| | | +-Scalar -- tag: tagSeriesNominalQuantity (type: REAL8)
| | | | value: 0.000000
| | | | +- (End of collection)
| | | +-Collection -- tag: tagOneSeriesDefn (level 4)
| | | | +-Scalar -- tag: tagQuantityUnitsID (type: UNS_INTEGER4)
| | | | | value: 2 - ID_QU_SECONDS
| | | | +-Scalar -- tag: tagQuantityCharacteristicID (type: GUID)
| | | | | value: {a6b31adf-b451-11d1-ae170060} - ID_QC_NONE
| | | | +-Scalar -- tag: tagValueTypeID (type: GUID)
| | | | | value: {c690e863-f755-11cf-9d890080} - ID_SERIES_VALUE_TYPE_DURATION
| | | | +-Vector -- tag: tagValueTypeName (type: CHAR1) [ 9 ]
| | | | | value: 'Duration'
| | | | +-Scalar -- tag: tagStorageMethodID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_SERIES_METHOD_VALUES
| | | | +-Scalar -- tag: tagHintGreekPrefixID (type: UNS_INTEGER4)
| | | | | value: 6 - ID_GREEK_NONE
| | | | +-Scalar -- tag: tagHintPreferredUnitsID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_PREFER_ENG
| | | | +-Scalar -- tag: tagHintDefaultDisplayID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_DEFAULT_MAG
| | | | +-Scalar -- tag: tagSeriesNominalQuantity (type: REAL8)
| | | | | value: 0.000000
| | | | +- (End of collection)
| | | +- (End of collection)
| | +- (End of collection)
| +-Collection -- tag: tagOneChannelDefn (level 2)
| | +-Scalar -- tag: tagPhaseID (type: UNS_INTEGER4)
| | | value: 5 - ID_PHASE_AB
| | +-Vector -- tag: tagOtherChannelIdentifier (type: CHAR1) [ 1 ]
| | | value: ''
| | +-Scalar -- tag: tagQuantityTypeID (type: GUID)
| | | value: {67f6af8d-f753-11cf-9d890080} - ID_QT_MAGDURTIME
| | +-Vector -- tag: tagGroupName (type: CHAR1) [ 5 ]
| | | value: 'None'
| | +-Vector -- tag: tagChannelName (type: CHAR1) [ 20 ]
| | | value: 'Plt Event Phase A-B'
| | +-Scalar -- tag: tagPrimarySeriesIdx (type: UNS_INTEGER4)
| | | value: 0
| | +-Scalar -- tag: tagQuantityMeasuredID (type: UNS_INTEGER4)
| | | value: 1 - ID_QM_VOLTAGE
| | +-Collection -- tag: tagSeriesDefns (level 3)
| | | +-Collection -- tag: tagOneSeriesDefn (level 4)
| | | | +-Scalar -- tag: tagQuantityUnitsID (type: UNS_INTEGER4)
| | | | | value: 2 - ID_QU_SECONDS
| | | | +-Scalar -- tag: tagQuantityCharacteristicID (type: GUID)
| | | | | value: {a6b31adf-b451-11d1-ae170060} - ID_QC_NONE
| | | | +-Scalar -- tag: tagValueTypeID (type: GUID)
| | | | | value: {c690e862-f755-11cf-9d890080} - ID_SERIES_VALUE_TYPE_TIME
| | | | +-Vector -- tag: tagValueTypeName (type: CHAR1) [ 5 ]
| | | | | value: 'Time'
| | | | +-Scalar -- tag: tagStorageMethodID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_SERIES_METHOD_VALUES
| | | | +-Scalar -- tag: tagHintGreekPrefixID (type: UNS_INTEGER4)
| | | | | value: 6 - ID_GREEK_NONE
| | | | +-Scalar -- tag: tagHintPreferredUnitsID (type: UNS_INTEGER4)
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| | | | value: 1 - ID_PREFER_ENG
| | | | +-Scalar -- tag: tagHintDefaultDisplayID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_DEFAULT_MAG
| | | | +-Scalar -- tag: tagSeriesNominalQuantity (type: REAL8)
| | | | | value: 0.000000
| | | | +-(End of collection)
| | | +-Collection -- tag: tagOneSeriesDefn (level 4)
| | | | +-Scalar -- tag: tagQuantityUnitsID (type: UNS_INTEGER4)
| | | | | value: 20 - ID_QU_PERUNIT
| | | | +-Scalar -- tag: tagQuantityCharacteristicID (type: GUID)
| | | | | value: {515bf321-71ca-11d4-a4b34445} - ID_QC_FLKR_PLT
| | | | +-Scalar -- tag: tagValueTypeID (type: GUID)
| | | | | value: {67f6af97-f753-11cf-9d890080} - ID_SERIES_VALUE_TYPE_VAL
| | | | +-Vector -- tag: tagValueTypeName (type: CHAR1) [ 14 ]
| | | | | value: 'Magnitude Plt'
| | | | +-Scalar -- tag: tagStorageMethodID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_SERIES_METHOD_VALUES
| | | | +-Scalar -- tag: tagHintGreekPrefixID (type: UNS_INTEGER4)
| | | | | value: 6 - ID_GREEK_NONE
| | | | +-Scalar -- tag: tagHintPreferredUnitsID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_PREFER_ENG
| | | | +-Scalar -- tag: tagHintDefaultDisplayID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_DEFAULT_MAG
| | | | +-Scalar -- tag: tagSeriesNominalQuantity (type: REAL8)
| | | | | value: 230.000000
| | | | +-(End of collection)
| | | +-Collection -- tag: tagOneSeriesDefn (level 4)
| | | | +-Scalar -- tag: tagQuantityUnitsID (type: UNS_INTEGER4)
| | | | | value: 2 - ID_QU_SECONDS
| | | | +-Scalar -- tag: tagQuantityCharacteristicID (type: GUID)
| | | | | value: {a6b3ladf-b451-11d1-ae170060} - ID_QC_NONE
| | | | +-Scalar -- tag: tagValueTypeID (type: GUID)
| | | | | value: {c690e863-f755-11cf-9d890080} - ID_SERIES_VALUE_TYPE_DURATION
| | | | +-Vector -- tag: tagValueTypeName (type: CHAR1) [ 9 ]
| | | | | value: 'Duration'
| | | | +-Scalar -- tag: tagStorageMethodID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_SERIES_METHOD_VALUES
| | | | +-Scalar -- tag: tagHintGreekPrefixID (type: UNS_INTEGER4)
| | | | | value: 6 - ID_GREEK_NONE
| | | | +-Scalar -- tag: tagHintPreferredUnitsID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_PREFER_ENG
| | | | +-Scalar -- tag: tagHintDefaultDisplayID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_DEFAULT_MAG
| | | | +-Scalar -- tag: tagSeriesNominalQuantity (type: REAL8)
| | | | | value: 0.000000
| | | | +-(End of collection)
| | | +-(End of collection)
| | +-Collection -- tag: tagOneChannelDefn (level 2)
| | | +-Scalar -- tag: tagPhaseID (type: UNS_INTEGER4)
| | | | value: 6 - ID_PHASE_BC
| | | +-Vector -- tag: tagOtherChannelIdentifier (type: CHAR1) [ 1 ]
| | | | value: ''
| | | +-Scalar -- tag: tagQuantityTypeID (type: GUID)
| | | | value: {67f6af8d-f753-11cf-9d890080} - ID_QT_MAGDURTIME
| | | +-Vector -- tag: tagGroupName (type: CHAR1) [ 5 ]
| | | | value: 'None'
| | | +-Vector -- tag: tagChannelName (type: CHAR1) [ 20 ]
| | | | value: 'Plt Event Phase B-C'
| | | +-Scalar -- tag: tagPrimarySeriesIdx (type: UNS_INTEGER4)
| | | | value: 0
| | | +-Scalar -- tag: tagQuantityMeasuredID (type: UNS_INTEGER4)
| | | | value: 1 - ID_QM_VOLTAGE

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| | +-Collection -- tag: tagSeriesDefns (level 3)
| | | +-Collection -- tag: tagOneSeriesDefn (level 4)
| | | | +-Scalar -- tag: tagQuantityUnitsID (type: UNS_INTEGER4)
| | | | | value: 2 - ID_QU_SECONDS
| | | | +-Scalar -- tag: tagQuantityCharacteristicID (type: GUID)
| | | | | value: {a6b3ladf-b451-11d1-ae170060} - ID_QC_NONE
| | | | +-Scalar -- tag: tagValueTypeID (type: GUID)
| | | | | value: {c690e862-f755-11cf-9d890080} - ID_SERIES_VALUE_TYPE_TIME
| | | | +-Vector -- tag: tagValueTypeName (type: CHAR1) [ 5 ]
| | | | | value: 'Time'
| | | | +-Scalar -- tag: tagStorageMethodID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_SERIES_METHOD_VALUES
| | | | +-Scalar -- tag: tagHintGreekPrefixID (type: UNS_INTEGER4)
| | | | | value: 6 - ID_GREEK_NONE
| | | | +-Scalar -- tag: tagHintPreferredUnitsID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_PREFER_ENG
| | | | +-Scalar -- tag: tagHintDefaultDisplayID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_DEFAULT_MAG
| | | | +-Scalar -- tag: tagSeriesNominalQuantity (type: REAL8)
| | | | | value: 0.000000
| | | | +- (End of collection)
| | | +-Collection -- tag: tagOneSeriesDefn (level 4)
| | | | +-Scalar -- tag: tagQuantityUnitsID (type: UNS_INTEGER4)
| | | | | value: 20 - ID_QU_PERUNIT
| | | | +-Scalar -- tag: tagQuantityCharacteristicID (type: GUID)
| | | | | value: {515bf321-71ca-11d4-a4b34445} - ID_QC_FLKR_PLT
| | | | +-Scalar -- tag: tagValueTypeID (type: GUID)
| | | | | value: {67f6af97-f753-11cf-9d890080} - ID_SERIES_VALUE_TYPE_VAL
| | | | +-Vector -- tag: tagValueTypeName (type: CHAR1) [ 14 ]
| | | | | value: 'Magnitude Plt'
| | | | +-Scalar -- tag: tagStorageMethodID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_SERIES_METHOD_VALUES
| | | | +-Scalar -- tag: tagHintGreekPrefixID (type: UNS_INTEGER4)
| | | | | value: 6 - ID_GREEK_NONE
| | | | +-Scalar -- tag: tagHintPreferredUnitsID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_PREFER_ENG
| | | | +-Scalar -- tag: tagHintDefaultDisplayID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_DEFAULT_MAG
| | | | +-Scalar -- tag: tagSeriesNominalQuantity (type: REAL8)
| | | | | value: 230.000000
| | | | +- (End of collection)
| | | +-Collection -- tag: tagOneSeriesDefn (level 4)
| | | | +-Scalar -- tag: tagQuantityUnitsID (type: UNS_INTEGER4)
| | | | | value: 2 - ID_QU_SECONDS
| | | | +-Scalar -- tag: tagQuantityCharacteristicID (type: GUID)
| | | | | value: {a6b3ladf-b451-11d1-ae170060} - ID_QC_NONE
| | | | +-Scalar -- tag: tagValueTypeID (type: GUID)
| | | | | value: {c690e863-f755-11cf-9d890080} - ID_SERIES_VALUE_TYPE_DURATION
| | | | +-Vector -- tag: tagValueTypeName (type: CHAR1) [ 9 ]
| | | | | value: 'Duration'
| | | | +-Scalar -- tag: tagStorageMethodID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_SERIES_METHOD_VALUES
| | | | +-Scalar -- tag: tagHintGreekPrefixID (type: UNS_INTEGER4)
| | | | | value: 6 - ID_GREEK_NONE
| | | | +-Scalar -- tag: tagHintPreferredUnitsID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_PREFER_ENG
| | | | +-Scalar -- tag: tagHintDefaultDisplayID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_DEFAULT_MAG
| | | | +-Scalar -- tag: tagSeriesNominalQuantity (type: REAL8)
| | | | | value: 0.000000
| | | | +- (End of collection)
| | | +- (End of collection)
| | +- (End of collection)
| +- (End of collection)

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|--Collection -- tag: tagOneChannelDefn (level 2)
| | |--Scalar -- tag: tagPhaseID (type: UNS_INTEGER4)
| | | value: 7 - ID_PHASE_CA
| | |--Vector -- tag: tagOtherChannelIdentifier (type: CHAR1) [ 1 ]
| | | value: ''
| | |--Scalar -- tag: tagQuantityTypeID (type: GUID)
| | | value: {67f6af8d-f753-11cf-9d890080} - ID_QT_MAGDURTIME
| | |--Vector -- tag: tagGroupName (type: CHAR1) [ 5 ]
| | | value: 'None'
| | |--Vector -- tag: tagChannelName (type: CHAR1) [ 20 ]
| | | value: 'Plt Event Phase C-A'
| | |--Scalar -- tag: tagPrimarySeriesIdx (type: UNS_INTEGER4)
| | | value: 0
| | |--Scalar -- tag: tagQuantityMeasuredID (type: UNS_INTEGER4)
| | | value: 1 - ID_QM_VOLTAGE
| | |--Collection -- tag: tagSeriesDefns (level 3)
| | | |--Collection -- tag: tagOneSeriesDefn (level 4)
| | | | |--Scalar -- tag: tagQuantityUnitsID (type: UNS_INTEGER4)
| | | | | value: 2 - ID_QU_SECONDS
| | | | |--Scalar -- tag: tagQuantityCharacteristicID (type: GUID)
| | | | | value: {a6b3ladf-b451-11d1-ae170060} - ID_QC_NONE
| | | | |--Scalar -- tag: tagValueTypeID (type: GUID)
| | | | | value: {c690e862-f755-11cf-9d890080} - ID_SERIES_VALUE_TYPE_TIME
| | | | |--Vector -- tag: tagValueTypeName (type: CHAR1) [ 5 ]
| | | | | value: 'Time'
| | | | |--Scalar -- tag: tagStorageMethodID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_SERIES_METHOD_VALUES
| | | | |--Scalar -- tag: tagHintGreekPrefixID (type: UNS_INTEGER4)
| | | | | value: 6 - ID_GREEK_NONE
| | | | |--Scalar -- tag: tagHintPreferredUnitsID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_PREFER_ENG
| | | | |--Scalar -- tag: tagHintDefaultDisplayID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_DEFAULT_MAG
| | | | |--Scalar -- tag: tagSeriesNominalQuantity (type: REAL8)
| | | | | value: 0.000000
| | | | |--(End of collection)
| | | |--Collection -- tag: tagOneSeriesDefn (level 4)
| | | | |--Scalar -- tag: tagQuantityUnitsID (type: UNS_INTEGER4)
| | | | | value: 20 - ID_QU_PERUNIT
| | | | |--Scalar -- tag: tagQuantityCharacteristicID (type: GUID)
| | | | | value: {515bf321-71ca-11d4-a4b34445} - ID_QC_FLKR_PLT
| | | | |--Scalar -- tag: tagValueTypeID (type: GUID)
| | | | | value: {67f6af97-f753-11cf-9d890080} - ID_SERIES_VALUE_TYPE_VAL
| | | | |--Vector -- tag: tagValueTypeName (type: CHAR1) [ 14 ]
| | | | | value: 'Magnitude Plt'
| | | | |--Scalar -- tag: tagStorageMethodID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_SERIES_METHOD_VALUES
| | | | |--Scalar -- tag: tagHintGreekPrefixID (type: UNS_INTEGER4)
| | | | | value: 6 - ID_GREEK_NONE
| | | | |--Scalar -- tag: tagHintPreferredUnitsID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_PREFER_ENG
| | | | |--Scalar -- tag: tagHintDefaultDisplayID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_DEFAULT_MAG
| | | | |--Scalar -- tag: tagSeriesNominalQuantity (type: REAL8)
| | | | | value: 230.000000
| | | | |--(End of collection)
| | |--Collection -- tag: tagOneSeriesDefn (level 4)
| | | |--Scalar -- tag: tagQuantityUnitsID (type: UNS_INTEGER4)
| | | | value: 2 - ID_QU_SECONDS
| | | |--Scalar -- tag: tagQuantityCharacteristicID (type: GUID)
| | | | value: {a6b3ladf-b451-11d1-ae170060} - ID_QC_NONE
| | | |--Scalar -- tag: tagValueTypeID (type: GUID)
| | | | value: {c690e863-f755-11cf-9d890080} - ID_SERIES_VALUE_TYPE_DURATION


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| | | +-Vector -- tag: tagValueTypeName (type: CHAR1) [ 9 ]
| | | | value: 'Duration'
| | | +-Scalar -- tag: tagStorageMethodID (type: UNS_INTEGER4)
| | | | value: 1 - ID_SERIES_METHOD_VALUES
| | | +-Scalar -- tag: tagHintGreekPrefixID (type: UNS_INTEGER4)
| | | | value: 6 - ID_GREEK_NONE
| | | +-Scalar -- tag: tagHintPreferredUnitsID (type: UNS_INTEGER4)
| | | | value: 1 - ID_PREFER_ENG
| | | +-Scalar -- tag: tagHintDefaultDisplayID (type: UNS_INTEGER4)
| | | | value: 1 - ID_DEFAULT_MAG
| | | +-Scalar -- tag: tagSeriesNominalQuantity (type: REAL8)
| | | | value: 0.000000
| | | +- (End of collection)
| | | +- (End of collection)
| | | +- (End of collection)
| +-Collection -- tag: tagOneChannelDefn (level 2)
| | +-Scalar -- tag: tagPhaseID (type: UNS_INTEGER4)
| | | value: 5 - ID_PHASE_AB
| | +-Vector -- tag: tagOtherChannelIdentifier (type: CHAR1) [ 1 ]
| | | value: ''
| | +-Scalar -- tag: tagQuantityTypeID (type: GUID)
| | | value: {67f6af8d-f753-11cf-9d890080} - ID_QT_MAGDURTIME
| | +-Vector -- tag: tagGroupName (type: CHAR1) [ 5 ]
| | | value: 'None'
| | +-Vector -- tag: tagChannelName (type: CHAR1) [ 21 ]
| | | value: 'ThdV Event Phase A-B'
| | +-Scalar -- tag: tagPrimarySeriesIdx (type: UNS_INTEGER4)
| | | value: 0
| | +-Scalar -- tag: tagQuantityMeasuredID (type: UNS_INTEGER4)
| | | value: 1 - ID_QM_VOLTAGE
| | +-Collection -- tag: tagSeriesDefns (level 3)
| | | +-Collection -- tag: tagOneSeriesDefn (level 4)
| | | | +-Scalar -- tag: tagQuantityUnitsID (type: UNS_INTEGER4)
| | | | | value: 2 - ID_QU_SECONDS
| | | | +-Scalar -- tag: tagQuantityCharacteristicID (type: GUID)
| | | | | value: {a6b31adf-b451-11d1-ae170060} - ID_QC_NONE
| | | | +-Scalar -- tag: tagValueTypeID (type: GUID)
| | | | | value: {c690e862-f755-11cf-9d890080} - ID_SERIES_VALUE_TYPE_TIME
| | | | +-Vector -- tag: tagValueTypeName (type: CHAR1) [ 5 ]
| | | | | value: 'Time'
| | | | +-Scalar -- tag: tagStorageMethodID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_SERIES_METHOD_VALUES
| | | | +-Scalar -- tag: tagHintGreekPrefixID (type: UNS_INTEGER4)
| | | | | value: 6 - ID_GREEK_NONE
| | | | +-Scalar -- tag: tagHintPreferredUnitsID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_PREFER_ENG
| | | | +-Scalar -- tag: tagHintDefaultDisplayID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_DEFAULT_MAG
| | | | +-Scalar -- tag: tagSeriesNominalQuantity (type: REAL8)
| | | | | value: 0.000000
| | | | +- (End of collection)
| | | +-Collection -- tag: tagOneSeriesDefn (level 4)
| | | | +-Scalar -- tag: tagQuantityUnitsID (type: UNS_INTEGER4)
| | | | | value: 19 - ID_QU_PERCENT
| | | | +-Scalar -- tag: tagQuantityCharacteristicID (type: GUID)
| | | | | value: {a6b31aec-b451-11d1-ae170060} - ID_QC_TOTAL_THD
| | | | +-Scalar -- tag: tagValueTypeID (type: GUID)
| | | | | value: {67f6af97-f753-11cf-9d890080} - ID_SERIES_VALUE_TYPE_VAL
| | | | +-Vector -- tag: tagValueTypeName (type: CHAR1) [ 15 ]
| | | | | value: 'Magnitude ThdV'
| | | | +-Scalar -- tag: tagStorageMethodID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_SERIES_METHOD_VALUES
| | | | +-Scalar -- tag: tagHintGreekPrefixID (type: UNS_INTEGER4)

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| | | | value: 6 - ID_GREEK_NONE
| | | | +-Scalar -- tag: tagHintPreferredUnitsID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_PREFER_ENG
| | | | +-Scalar -- tag: tagHintDefaultDisplayID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_DEFAULT_MAG
| | | | +-Scalar -- tag: tagSeriesNominalQuantity (type: REAL8)
| | | | | value: 230.000000
| | | | +-(End of collection)
| | | +-Collection -- tag: tagOneSeriesDefn (level 4)
| | | | +-Scalar -- tag: tagQuantityUnitsID (type: UNS_INTEGER4)
| | | | | value: 2 - ID_QU_SECONDS
| | | | +-Scalar -- tag: tagQuantityCharacteristicID (type: GUID)
| | | | | value: {a6b31adf-b451-11d1-ae170060} - ID_QC_NONE
| | | | +-Scalar -- tag: tagValueTypeID (type: GUID)
| | | | | value: {c690e863-f755-11cf-9d890080} - ID_SERIES_VALUE_TYPE_DURATION
| | | | +-Vector -- tag: tagValueTypeName (type: CHAR1) [ 9 ]
| | | | | value: 'Duration'
| | | | +-Scalar -- tag: tagStorageMethodID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_SERIES_METHOD_VALUES
| | | | +-Scalar -- tag: tagHintGreekPrefixID (type: UNS_INTEGER4)
| | | | | value: 6 - ID_GREEK_NONE
| | | | +-Scalar -- tag: tagHintPreferredUnitsID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_PREFER_ENG
| | | | +-Scalar -- tag: tagHintDefaultDisplayID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_DEFAULT_MAG
| | | | +-Scalar -- tag: tagSeriesNominalQuantity (type: REAL8)
| | | | | value: 0.000000
| | | | +-(End of collection)
| | | +-(End of collection)
| | +-Collection -- tag: tagOneChannelDefn (level 2)
| | | +-Scalar -- tag: tagPhaseID (type: UNS_INTEGER4)
| | | | value: 6 - ID_PHASE_BC
| | | +-Vector -- tag: tagOtherChannelIdentifier (type: CHAR1) [ 1 ]
| | | | value: ''
| | | +-Scalar -- tag: tagQuantityTypeID (type: GUID)
| | | | value: {67f6af8d-f753-11cf-9d890080} - ID_QT_MAGDURTIME
| | | +-Vector -- tag: tagGroupName (type: CHAR1) [ 5 ]
| | | | value: 'None'
| | | +-Vector -- tag: tagChannelName (type: CHAR1) [ 21 ]
| | | | value: 'ThdV Event Phase B-C'
| | | +-Scalar -- tag: tagPrimarySeriesIdx (type: UNS_INTEGER4)
| | | | value: 0
| | | +-Scalar -- tag: tagQuantityMeasuredID (type: UNS_INTEGER4)
| | | | value: 1 - ID_QM_VOLTAGE
| | | +-Collection -- tag: tagSeriesDefns (level 3)
| | | | +-Collection -- tag: tagOneSeriesDefn (level 4)
| | | | | +-Scalar -- tag: tagQuantityUnitsID (type: UNS_INTEGER4)
| | | | | | value: 2 - ID_QU_SECONDS
| | | | | +-Scalar -- tag: tagQuantityCharacteristicID (type: GUID)
| | | | | | value: {a6b31adf-b451-11d1-ae170060} - ID_QC_NONE
| | | | | +-Scalar -- tag: tagValueTypeID (type: GUID)
| | | | | | value: {c690e862-f755-11cf-9d890080} - ID_SERIES_VALUE_TYPE_TIME
| | | | | +-Vector -- tag: tagValueTypeName (type: CHAR1) [ 5 ]
| | | | | | value: 'Time'
| | | | | +-Scalar -- tag: tagStorageMethodID (type: UNS_INTEGER4)
| | | | | | value: 1 - ID_SERIES_METHOD_VALUES
| | | | | +-Scalar -- tag: tagHintGreekPrefixID (type: UNS_INTEGER4)
| | | | | | value: 6 - ID_GREEK_NONE
| | | | | +-Scalar -- tag: tagHintPreferredUnitsID (type: UNS_INTEGER4)
| | | | | | value: 1 - ID_PREFER_ENG
| | | | | +-Scalar -- tag: tagHintDefaultDisplayID (type: UNS_INTEGER4)
| | | | | | value: 1 - ID_DEFAULT_MAG

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| | | | +-Scalar -- tag: tagSeriesNominalQuantity (type: REAL8)
| | | | | value: 0.000000
| | | | +- (End of collection)
| | | +-Collection -- tag: tagOneSeriesDefn (level 4)
| | | | +-Scalar -- tag: tagQuantityUnitsID (type: UNS_INTEGER4)
| | | | | value: 19 - ID_QU_PERCENT
| | | | +-Scalar -- tag: tagQuantityCharacteristicID (type: GUID)
| | | | | value: {a6b31aec-b451-11d1-ae170060} - ID_QC_TOTAL_THD
| | | | +-Scalar -- tag: tagValueTypeID (type: GUID)
| | | | | value: {67f6af97-f753-11cf-9d890080} - ID_SERIES_VALUE_TYPE_VAL
| | | | +-Vector -- tag: tagValueTypeName (type: CHAR1) [ 15 ]
| | | | | value: 'Magnitude ThdV'
| | | | +-Scalar -- tag: tagStorageMethodID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_SERIES_METHOD_VALUES
| | | | +-Scalar -- tag: tagHintGreekPrefixID (type: UNS_INTEGER4)
| | | | | value: 6 - ID_GREEK_NONE
| | | | +-Scalar -- tag: tagHintPreferredUnitsID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_PREFER_ENG
| | | | +-Scalar -- tag: tagHintDefaultDisplayID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_DEFAULT_MAG
| | | | +-Scalar -- tag: tagSeriesNominalQuantity (type: REAL8)
| | | | | value: 230.000000
| | | | +- (End of collection)
| | | +-Collection -- tag: tagOneSeriesDefn (level 4)
| | | | +-Scalar -- tag: tagQuantityUnitsID (type: UNS_INTEGER4)
| | | | | value: 2 - ID_QU_SECONDS
| | | | +-Scalar -- tag: tagQuantityCharacteristicID (type: GUID)
| | | | | value: {a6b31adf-b451-11d1-ae170060} - ID_QC_NONE
| | | | +-Scalar -- tag: tagValueTypeID (type: GUID)
| | | | | value: {c690e863-f755-11cf-9d890080} - ID_SERIES_VALUE_TYPE_DURATION
| | | | +-Vector -- tag: tagValueTypeName (type: CHAR1) [ 9 ]
| | | | | value: 'Duration'
| | | | +-Scalar -- tag: tagStorageMethodID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_SERIES_METHOD_VALUES
| | | | +-Scalar -- tag: tagHintGreekPrefixID (type: UNS_INTEGER4)
| | | | | value: 6 - ID_GREEK_NONE
| | | | +-Scalar -- tag: tagHintPreferredUnitsID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_PREFER_ENG
| | | | +-Scalar -- tag: tagHintDefaultDisplayID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_DEFAULT_MAG
| | | | +-Scalar -- tag: tagSeriesNominalQuantity (type: REAL8)
| | | | | value: 0.000000
| | | | +- (End of collection)
| | | +- (End of collection)
| | +- (End of collection)
| +-Collection -- tag: tagOneChannelDefn (level 2)
| | +-Scalar -- tag: tagPhaseID (type: UNS_INTEGER4)
| | | value: 7 - ID_PHASE_CA
| | +-Vector -- tag: tagOtherChannelIdentifier (type: CHAR1) [ 1 ]
| | | value: ''
| | +-Scalar -- tag: tagQuantityTypeID (type: GUID)
| | | value: {67f6af8d-f753-11cf-9d890080} - ID_QT_MAGDURTIME
| | +-Vector -- tag: tagGroupName (type: CHAR1) [ 5 ]
| | | value: 'None'
| | +-Vector -- tag: tagChannelName (type: CHAR1) [ 21 ]
| | | value: 'ThdV Event Phase C-A'
| | +-Scalar -- tag: tagPrimarySeriesIdx (type: UNS_INTEGER4)
| | | value: 0
| | +-Scalar -- tag: tagQuantityMeasuredID (type: UNS_INTEGER4)
| | | value: 1 - ID_QM_VOLTAGE
| | +-Collection -- tag: tagSeriesDefns (level 3)
| | | +-Collection -- tag: tagOneSeriesDefn (level 4)
| | | | +-Scalar -- tag: tagQuantityUnitsID (type: UNS_INTEGER4)

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| | | | value: 2 - ID_QU_SECONDS
| | | | +-Scalar -- tag: tagQuantityCharacteristicID (type: GUID)
| | | | | value: {a6b3ladf-b451-11d1-ae170060} - ID_QC_NONE
| | | | +-Scalar -- tag: tagValueTypeID (type: GUID)
| | | | | value: {c690e862-f755-11cf-9d890080} - ID_SERIES_VALUE_TYPE_TIME
| | | | +-Vector -- tag: tagValueTypeName (type: CHAR1) [ 5 ]
| | | | | value: 'Time'
| | | | +-Scalar -- tag: tagStorageMethodID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_SERIES_METHOD_VALUES
| | | | +-Scalar -- tag: tagHintGreekPrefixID (type: UNS_INTEGER4)
| | | | | value: 6 - ID_GREEK_NONE
| | | | +-Scalar -- tag: tagHintPreferredUnitsID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_PREFER_ENG
| | | | +-Scalar -- tag: tagHintDefaultDisplayID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_DEFAULT_MAG
| | | | +-Scalar -- tag: tagSeriesNominalQuantity (type: REAL8)
| | | | | value: 0.000000
| | | | +- (End of collection)
| | | +-Collection -- tag: tagOneSeriesDefn (level 4)
| | | | +-Scalar -- tag: tagQuantityUnitsID (type: UNS_INTEGER4)
| | | | | value: 19 - ID_QU_PERCENT
| | | | +-Scalar -- tag: tagQuantityCharacteristicID (type: GUID)
| | | | | value: {a6b3laec-b451-11d1-ae170060} - ID_QC_TOTAL_THD
| | | | +-Scalar -- tag: tagValueTypeID (type: GUID)
| | | | | value: {67f6af97-f753-11cf-9d890080} - ID_SERIES_VALUE_TYPE_VAL
| | | | +-Vector -- tag: tagValueTypeName (type: CHAR1) [ 15 ]
| | | | | value: 'Magnitude ThdV'
| | | | +-Scalar -- tag: tagStorageMethodID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_SERIES_METHOD_VALUES
| | | | +-Scalar -- tag: tagHintGreekPrefixID (type: UNS_INTEGER4)
| | | | | value: 6 - ID_GREEK_NONE
| | | | +-Scalar -- tag: tagHintPreferredUnitsID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_PREFER_ENG
| | | | +-Scalar -- tag: tagHintDefaultDisplayID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_DEFAULT_MAG
| | | | +-Scalar -- tag: tagSeriesNominalQuantity (type: REAL8)
| | | | | value: 230.000000
| | | | +- (End of collection)
| | | +-Collection -- tag: tagOneSeriesDefn (level 4)
| | | | +-Scalar -- tag: tagQuantityUnitsID (type: UNS_INTEGER4)
| | | | | value: 2 - ID_QU_SECONDS
| | | | +-Scalar -- tag: tagQuantityCharacteristicID (type: GUID)
| | | | | value: {a6b3ladf-b451-11d1-ae170060} - ID_QC_NONE
| | | | +-Scalar -- tag: tagValueTypeID (type: GUID)
| | | | | value: {c690e863-f755-11cf-9d890080} - ID_SERIES_VALUE_TYPE_DURATION
| | | | +-Vector -- tag: tagValueTypeName (type: CHAR1) [ 9 ]
| | | | | value: 'Duration'
| | | | +-Scalar -- tag: tagStorageMethodID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_SERIES_METHOD_VALUES
| | | | +-Scalar -- tag: tagHintGreekPrefixID (type: UNS_INTEGER4)
| | | | | value: 6 - ID_GREEK_NONE
| | | | +-Scalar -- tag: tagHintPreferredUnitsID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_PREFER_ENG
| | | | +-Scalar -- tag: tagHintDefaultDisplayID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_DEFAULT_MAG
| | | | +-Scalar -- tag: tagSeriesNominalQuantity (type: REAL8)
| | | | | value: 0.000000
| | | | +- (End of collection)
| | | +- (End of collection)
| | +- (End of collection)
| +-Collection -- tag: tagOneChannelDefn (level 2)
| | +-Scalar -- tag: tagPhaseID (type: UNS_INTEGER4)
| | | value: 1 - ID_PHASE_AN
```


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| | +-Vector -- tag: tagOtherChannelIdentifier (type: CHAR1) [ 1 ]
| | | value: ''
| | +-Scalar -- tag: tagQuantityTypeID (type: GUID)
| | | value: {67f6af8d-f753-11cf-9d890080} - ID_QT_MAGDURTIME
| | +-Vector -- tag: tagGroupName (type: CHAR1) [ 5 ]
| | | value: 'None'
| | +-Vector -- tag: tagChannelName (type: CHAR1) [ 22 ]
| | | value: 'Current Event Phase A'
| | +-Scalar -- tag: tagPrimarySeriesIdx (type: UNS_INTEGER4)
| | | value: 0
| | +-Scalar -- tag: tagQuantityMeasuredID (type: UNS_INTEGER4)
| | | value: 2 - ID_QM_CURRENT
| | +-Collection -- tag: tagSeriesDefns (level 3)
| | | +-Collection -- tag: tagOneSeriesDefn (level 4)
| | | | +-Scalar -- tag: tagQuantityUnitsID (type: UNS_INTEGER4)
| | | | | value: 2 - ID_QU_SECONDS
| | | | +-Scalar -- tag: tagQuantityCharacteristicID (type: GUID)
| | | | | value: {a6b3ladf-b451-11d1-ae170060} - ID_QC_NONE
| | | | +-Scalar -- tag: tagValueTypeID (type: GUID)
| | | | | value: {c690e862-f755-11cf-9d890080} - ID_SERIES_VALUE_TYPE_TIME
| | | | +-Vector -- tag: tagValueTypeName (type: CHAR1) [ 5 ]
| | | | | value: 'Time'
| | | | +-Scalar -- tag: tagStorageMethodID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_SERIES_METHOD_VALUES
| | | | +-Scalar -- tag: tagHintGreekPrefixID (type: UNS_INTEGER4)
| | | | | value: 6 - ID_GREEK_NONE
| | | | +-Scalar -- tag: tagHintPreferredUnitsID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_PREFER_ENG
| | | | +-Scalar -- tag: tagHintDefaultDisplayID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_DEFAULT_MAG
| | | | +-Scalar -- tag: tagSeriesNominalQuantity (type: REAL8)
| | | | | value: 0.000000
| | | | +- (End of collection)
| | | +-Collection -- tag: tagOneSeriesDefn (level 4)
| | | | +-Scalar -- tag: tagQuantityUnitsID (type: UNS_INTEGER4)
| | | | | value: 7 - ID_QU_AMPS
| | | | +-Scalar -- tag: tagQuantityCharacteristicID (type: GUID)
| | | | | value: {a6b3lae5-b451-11d1-ae170060} - ID_QC_RMS
| | | | +-Scalar -- tag: tagValueTypeID (type: GUID)
| | | | | value: {67f6af97-f753-11cf-9d890080} - ID_SERIES_VALUE_TYPE_VAL
| | | | +-Vector -- tag: tagValueTypeName (type: CHAR1) [ 14 ]
| | | | | value: 'Magnitude Rms'
| | | | +-Scalar -- tag: tagStorageMethodID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_SERIES_METHOD_VALUES
| | | | +-Scalar -- tag: tagHintGreekPrefixID (type: UNS_INTEGER4)
| | | | | value: 6 - ID_GREEK_NONE
| | | | +-Scalar -- tag: tagHintPreferredUnitsID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_PREFER_ENG
| | | | +-Scalar -- tag: tagHintDefaultDisplayID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_DEFAULT_MAG
| | | | +-Scalar -- tag: tagSeriesNominalQuantity (type: REAL8)
| | | | | value: 230.000000
| | | | +- (End of collection)
| | | +-Collection -- tag: tagOneSeriesDefn (level 4)
| | | | +-Scalar -- tag: tagQuantityUnitsID (type: UNS_INTEGER4)
| | | | | value: 2 - ID_QU_SECONDS
| | | | +-Scalar -- tag: tagQuantityCharacteristicID (type: GUID)
| | | | | value: {a6b3ladf-b451-11d1-ae170060} - ID_QC_NONE
| | | | +-Scalar -- tag: tagValueTypeID (type: GUID)
| | | | | value: {c690e863-f755-11cf-9d890080} - ID_SERIES_VALUE_TYPE_DURATION
| | | | +-Vector -- tag: tagValueTypeName (type: CHAR1) [ 9 ]
| | | | | value: 'Duration'
| | | +-Scalar -- tag: tagStorageMethodID (type: UNS_INTEGER4)

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| | | | value: 1 - ID_SERIES_METHOD_VALUES
| | | | +-Scalar -- tag: tagHintGreekPrefixID (type: UNS_INTEGER4)
| | | | | value: 6 - ID_GREEK_NONE
| | | | +-Scalar -- tag: tagHintPreferredUnitsID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_PREFER_ENG
| | | | +-Scalar -- tag: tagHintDefaultDisplayID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_DEFAULT_MAG
| | | | +-Scalar -- tag: tagSeriesNominalQuantity (type: REAL8)
| | | | | value: 0.000000
| | | | +- (End of collection)
| | | +- (End of collection)
| | +- (End of collection)
| +-Collection -- tag: tagOneChannelDefn (level 2)
| | +-Scalar -- tag: tagPhaseID (type: UNS_INTEGER4)
| | | value: 2 - ID_PHASE_BN
| | +-Vector -- tag: tagOtherChannelIdentifier (type: CHAR1) [ 1 ]
| | | value: ''
| | +-Scalar -- tag: tagQuantityTypeID (type: GUID)
| | | value: {67f6af8d-f753-11cf-9d890080} - ID_QT_MAGDURTIME
| | +-Vector -- tag: tagGroupName (type: CHAR1) [ 5 ]
| | | value: 'None'
| | +-Vector -- tag: tagChannelName (type: CHAR1) [ 22 ]
| | | value: 'Current Event Phase B'
| | +-Scalar -- tag: tagPrimarySeriesIdx (type: UNS_INTEGER4)
| | | value: 0
| | +-Scalar -- tag: tagQuantityMeasuredID (type: UNS_INTEGER4)
| | | value: 2 - ID_QM_CURRENT
| | +-Collection -- tag: tagSeriesDefns (level 3)
| | | +-Collection -- tag: tagOneSeriesDefn (level 4)
| | | | +-Scalar -- tag: tagQuantityUnitsID (type: UNS_INTEGER4)
| | | | | value: 2 - ID_QU_SECONDS
| | | | +-Scalar -- tag: tagQuantityCharacteristicID (type: GUID)
| | | | | value: {a6b31adf-b451-11d1-ae170060} - ID_QC_NONE
| | | | +-Scalar -- tag: tagValueTypeID (type: GUID)
| | | | | value: {c690e862-f755-11cf-9d890080} - ID_SERIES_VALUE_TYPE_TIME
| | | | +-Vector -- tag: tagValueTypeName (type: CHAR1) [ 5 ]
| | | | | value: 'Time'
| | | | +-Scalar -- tag: tagStorageMethodID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_SERIES_METHOD_VALUES
| | | | +-Scalar -- tag: tagHintGreekPrefixID (type: UNS_INTEGER4)
| | | | | value: 6 - ID_GREEK_NONE
| | | | +-Scalar -- tag: tagHintPreferredUnitsID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_PREFER_ENG
| | | | +-Scalar -- tag: tagHintDefaultDisplayID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_DEFAULT_MAG
| | | | +-Scalar -- tag: tagSeriesNominalQuantity (type: REAL8)
| | | | | value: 0.000000
| | | | +- (End of collection)
| | | +-Collection -- tag: tagOneSeriesDefn (level 4)
| | | | +-Scalar -- tag: tagQuantityUnitsID (type: UNS_INTEGER4)
| | | | | value: 7 - ID_QU_AMPS
| | | | +-Scalar -- tag: tagQuantityCharacteristicID (type: GUID)
| | | | | value: {a6b31ae5-b451-11d1-ae170060} - ID_QC_RMS
| | | | +-Scalar -- tag: tagValueTypeID (type: GUID)
| | | | | value: {67f6af97-f753-11cf-9d890080} - ID_SERIES_VALUE_TYPE_VAL
| | | | +-Vector -- tag: tagValueTypeName (type: CHAR1) [ 14 ]
| | | | | value: 'Magnitude Rms'
| | | | +-Scalar -- tag: tagStorageMethodID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_SERIES_METHOD_VALUES
| | | | +-Scalar -- tag: tagHintGreekPrefixID (type: UNS_INTEGER4)
| | | | | value: 6 - ID_GREEK_NONE
| | | | +-Scalar -- tag: tagHintPreferredUnitsID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_PREFER_ENG

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| | | | +-Scalar -- tag: tagHintDefaultDisplayID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_DEFAULT_MAG
| | | | +-Scalar -- tag: tagSeriesNominalQuantity (type: REAL8)
| | | | | value: 230.000000
| | | | +- (End of collection)
| | | +-Collection -- tag: tagOneSeriesDefn (level 4)
| | | | +-Scalar -- tag: tagQuantityUnitsID (type: UNS_INTEGER4)
| | | | | value: 2 - ID_QU_SECONDS
| | | | +-Scalar -- tag: tagQuantityCharacteristicID (type: GUID)
| | | | | value: {a6b31adf-b451-11d1-ae170060} - ID_QC_NONE
| | | | +-Scalar -- tag: tagValueTypeID (type: GUID)
| | | | | value: {c690e863-f755-11cf-9d890080} - ID_SERIES_VALUE_TYPE_DURATION
| | | | +-Vector -- tag: tagValueTypeName (type: CHAR1) [ 9 ]
| | | | | value: 'Duration'
| | | | +-Scalar -- tag: tagStorageMethodID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_SERIES_METHOD_VALUES
| | | | +-Scalar -- tag: tagHintGreekPrefixID (type: UNS_INTEGER4)
| | | | | value: 6 - ID_GREEK_NONE
| | | | +-Scalar -- tag: tagHintPreferredUnitsID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_PREFER_ENG
| | | | +-Scalar -- tag: tagHintDefaultDisplayID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_DEFAULT_MAG
| | | | +-Scalar -- tag: tagSeriesNominalQuantity (type: REAL8)
| | | | | value: 0.000000
| | | | +- (End of collection)
| | | +- (End of collection)
| | +- (End of collection)
| +-Collection -- tag: tagOneChannelDefn (level 2)
| | +-Scalar -- tag: tagPhaseID (type: UNS_INTEGER4)
| | | value: 3 - ID_PHASE_CN
| | +-Vector -- tag: tagOtherChannelIdentifier (type: CHAR1) [ 1 ]
| | | value: ''
| | +-Scalar -- tag: tagQuantityTypeID (type: GUID)
| | | value: {67f6af8d-f753-11cf-9d890080} - ID_QT_MAGDURTIME
| | +-Vector -- tag: tagGroupName (type: CHAR1) [ 5 ]
| | | value: 'None'
| | +-Vector -- tag: tagChannelName (type: CHAR1) [ 22 ]
| | | value: 'Current Event Phase C'
| | +-Scalar -- tag: tagPrimarySeriesIdx (type: UNS_INTEGER4)
| | | value: 0
| | +-Scalar -- tag: tagQuantityMeasuredID (type: UNS_INTEGER4)
| | | value: 2 - ID_QM_CURRENT
| | +-Collection -- tag: tagSeriesDefns (level 3)
| | | +-Collection -- tag: tagOneSeriesDefn (level 4)
| | | | +-Scalar -- tag: tagQuantityUnitsID (type: UNS_INTEGER4)
| | | | | value: 2 - ID_QU_SECONDS
| | | | +-Scalar -- tag: tagQuantityCharacteristicID (type: GUID)
| | | | | value: {a6b31adf-b451-11d1-ae170060} - ID_QC_NONE
| | | | +-Scalar -- tag: tagValueTypeID (type: GUID)
| | | | | value: {c690e862-f755-11cf-9d890080} - ID_SERIES_VALUE_TYPE_TIME
| | | | +-Vector -- tag: tagValueTypeName (type: CHAR1) [ 5 ]
| | | | | value: 'Time'
| | | | +-Scalar -- tag: tagStorageMethodID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_SERIES_METHOD_VALUES
| | | | +-Scalar -- tag: tagHintGreekPrefixID (type: UNS_INTEGER4)
| | | | | value: 6 - ID_GREEK_NONE
| | | | +-Scalar -- tag: tagHintPreferredUnitsID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_PREFER_ENG
| | | | +-Scalar -- tag: tagHintDefaultDisplayID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_DEFAULT_MAG
| | | | +-Scalar -- tag: tagSeriesNominalQuantity (type: REAL8)
| | | | | value: 0.000000
| | | | +- (End of collection)

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| | | +-Collection -- tag: tagOneSeriesDefn (level 4)
| | | | +-Scalar -- tag: tagQuantityUnitsID (type: UNS_INTEGER4)
| | | | | value: 7 - ID_QU_AMPS
| | | | +-Scalar -- tag: tagQuantityCharacteristicID (type: GUID)
| | | | | value: {a6b31ae5-b451-11d1-ae170060} - ID_QC_RMS
| | | | +-Scalar -- tag: tagValueTypeID (type: GUID)
| | | | | value: {67f6af97-f753-11cf-9d890080} - ID_SERIES_VALUE_TYPE_VAL
| | | | +-Vector -- tag: tagValueTypeName (type: CHAR1) [ 14 ]
| | | | | value: 'Magnitude Rms'
| | | | +-Scalar -- tag: tagStorageMethodID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_SERIES_METHOD_VALUES
| | | | +-Scalar -- tag: tagHintGreekPrefixID (type: UNS_INTEGER4)
| | | | | value: 6 - ID_GREEK_NONE
| | | | +-Scalar -- tag: tagHintPreferredUnitsID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_PREFER_ENG
| | | | +-Scalar -- tag: tagHintDefaultDisplayID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_DEFAULT_MAG
| | | | +-Scalar -- tag: tagSeriesNominalQuantity (type: REAL8)
| | | | | value: 230.000000
| | | | +- (End of collection)
| | | +-Collection -- tag: tagOneSeriesDefn (level 4)
| | | | +-Scalar -- tag: tagQuantityUnitsID (type: UNS_INTEGER4)
| | | | | value: 2 - ID_QU_SECONDS
| | | | +-Scalar -- tag: tagQuantityCharacteristicID (type: GUID)
| | | | | value: {a6b31adf-b451-11d1-ae170060} - ID_QC_NONE
| | | | +-Scalar -- tag: tagValueTypeID (type: GUID)
| | | | | value: {c690e863-f755-11cf-9d890080} - ID_SERIES_VALUE_TYPE_DURATION
| | | | +-Vector -- tag: tagValueTypeName (type: CHAR1) [ 9 ]
| | | | | value: 'Duration'
| | | | +-Scalar -- tag: tagStorageMethodID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_SERIES_METHOD_VALUES
| | | | +-Scalar -- tag: tagHintGreekPrefixID (type: UNS_INTEGER4)
| | | | | value: 6 - ID_GREEK_NONE
| | | | +-Scalar -- tag: tagHintPreferredUnitsID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_PREFER_ENG
| | | | +-Scalar -- tag: tagHintDefaultDisplayID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_DEFAULT_MAG
| | | | +-Scalar -- tag: tagSeriesNominalQuantity (type: REAL8)
| | | | | value: 0.000000
| | | | +- (End of collection)
| | | +- (End of collection)
| | +- (End of collection)
| +-Collection -- tag: tagOneChannelDefn (level 2)
| | +-Scalar -- tag: tagPhaseID (type: UNS_INTEGER4)
| | | value: 19 - ID_PHASE_GENERAL_1
| | +-Vector -- tag: tagOtherChannelIdentifier (type: CHAR1) [ 1 ]
| | | value: ''
| | +-Scalar -- tag: tagQuantityTypeID (type: GUID)
| | | value: {67f6af8d-f753-11cf-9d890080} - ID_QT_MAGDURTIME
| | +-Vector -- tag: tagGroupName (type: CHAR1) [ 5 ]
| | | value: 'None'
| | +-Vector -- tag: tagChannelName (type: CHAR1) [ 25 ]
| | | value: 'Digital Input Event N. 1'
| | +-Scalar -- tag: tagPrimarySeriesIdx (type: UNS_INTEGER4)
| | | value: 0
| | +-Scalar -- tag: tagQuantityMeasuredID (type: UNS_INTEGER4)
| | | value: 17 - ID_QM_STATUS
| | +-Collection -- tag: tagSeriesDefns (level 3)
| | | +-Collection -- tag: tagOneSeriesDefn (level 4)
| | | | +-Scalar -- tag: tagQuantityUnitsID (type: UNS_INTEGER4)
| | | | | value: 2 - ID_QU_SECONDS
| | | | +-Scalar -- tag: tagQuantityCharacteristicID (type: GUID)
| | | | | value: {a6b31adf-b451-11d1-ae170060} - ID_QC_NONE
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| | | | +-Scalar -- tag: tagValueTypeID (type: GUID)
| | | | | value: {c690e862-f755-11cf-9d890080} - ID_SERIES_VALUE_TYPE_TIME
| | | | +-Vector -- tag: tagValueTypeName (type: CHAR1) [ 5 ]
| | | | | value: 'Time'
| | | | +-Scalar -- tag: tagStorageMethodID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_SERIES_METHOD_VALUES
| | | | +-Scalar -- tag: tagHintGreekPrefixID (type: UNS_INTEGER4)
| | | | | value: 6 - ID_GREEK_NONE
| | | | +-Scalar -- tag: tagHintPreferredUnitsID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_PREFER_ENG
| | | | +-Scalar -- tag: tagHintDefaultDisplayID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_DEFAULT_MAG
| | | | +-Scalar -- tag: tagSeriesNominalQuantity (type: REAL8)
| | | | | value: 0.000000
| | | | +- (End of collection)
| | | +-Collection -- tag: tagOneSeriesDefn (level 4)
| | | | +-Scalar -- tag: tagQuantityUnitsID (type: UNS_INTEGER4)
| | | | | value: 0 - ID_QU_NONE
| | | | +-Scalar -- tag: tagQuantityCharacteristicID (type: GUID)
| | | | | value: {b82b5c83-55c7-11d5-a4b34445} - ID_QC_STATUS
| | | | +-Scalar -- tag: tagValueTypeID (type: GUID)
| | | | | value: {67f6af97-f753-11cf-9d890080} - ID_SERIES_VALUE_TYPE_VAL
| | | | +-Vector -- tag: tagValueTypeName (type: CHAR1) [ 12 ]
| | | | | value: 'Logic State'
| | | | +-Scalar -- tag: tagStorageMethodID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_SERIES_METHOD_VALUES
| | | | +-Scalar -- tag: tagHintGreekPrefixID (type: UNS_INTEGER4)
| | | | | value: 6 - ID_GREEK_NONE
| | | | +-Scalar -- tag: tagHintPreferredUnitsID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_PREFER_ENG
| | | | +-Scalar -- tag: tagHintDefaultDisplayID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_DEFAULT_MAG
| | | | +-Scalar -- tag: tagSeriesNominalQuantity (type: REAL8)
| | | | | value: 1.000000
| | | | +- (End of collection)
| | | +-Collection -- tag: tagOneSeriesDefn (level 4)
| | | | +-Scalar -- tag: tagQuantityUnitsID (type: UNS_INTEGER4)
| | | | | value: 2 - ID_QU_SECONDS
| | | | +-Scalar -- tag: tagQuantityCharacteristicID (type: GUID)
| | | | | value: {a6b3ladf-b451-11d1-ae170060} - ID_QC_NONE
| | | | +-Scalar -- tag: tagValueTypeID (type: GUID)
| | | | | value: {c690e863-f755-11cf-9d890080} - ID_SERIES_VALUE_TYPE_DURATION
| | | | +-Vector -- tag: tagValueTypeName (type: CHAR1) [ 9 ]
| | | | | value: 'Duration'
| | | | +-Scalar -- tag: tagStorageMethodID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_SERIES_METHOD_VALUES
| | | | +-Scalar -- tag: tagHintGreekPrefixID (type: UNS_INTEGER4)
| | | | | value: 6 - ID_GREEK_NONE
| | | | +-Scalar -- tag: tagHintPreferredUnitsID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_PREFER_ENG
| | | | +-Scalar -- tag: tagHintDefaultDisplayID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_DEFAULT_MAG
| | | | +-Scalar -- tag: tagSeriesNominalQuantity (type: REAL8)
| | | | | value: 0.000000
| | | | +- (End of collection)
| | | +- (End of collection)
| | +- (End of collection)
| +-Collection -- tag: tagOneChannelDefn (level 2)
| | +-Scalar -- tag: tagPhaseID (type: UNS_INTEGER4)
| | | value: 20 - ID_PHASE_GENERAL_2
| | +-Vector -- tag: tagOtherChannelIdentifier (type: CHAR1) [ 1 ]
| | | value: ''
| | +-Scalar -- tag: tagQuantityTypeID (type: GUID)

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| | | value: {67f6af8d-f753-11cf-9d890080} - ID_QT_MAGDURTIME
| | +-Vector -- tag: tagGroupName (type: CHAR1) [ 5 ]
| | | value: 'None'
| | +-Vector -- tag: tagChannelName (type: CHAR1) [ 25 ]
| | | value: 'Digital Input Event N. 2'
| | +-Scalar -- tag: tagPrimarySeriesIdx (type: UNS_INTEGER4)
| | | value: 0
| | +-Scalar -- tag: tagQuantityMeasuredID (type: UNS_INTEGER4)
| | | value: 17 - ID_QM_STATUS
| | +-Collection -- tag: tagSeriesDefns (level 3)
| | | +-Collection -- tag: tagOneSeriesDefn (level 4)
| | | | +-Scalar -- tag: tagQuantityUnitsID (type: UNS_INTEGER4)
| | | | | value: 2 - ID_QU_SECONDS
| | | | +-Scalar -- tag: tagQuantityCharacteristicID (type: GUID)
| | | | | value: {a6b3ladf-b451-11d1-ae170060} - ID_QC_NONE
| | | | +-Scalar -- tag: tagValueTypeID (type: GUID)
| | | | | value: {c690e862-f755-11cf-9d890080} - ID_SERIES_VALUE_TYPE_TIME
| | | | +-Vector -- tag: tagValueTypeName (type: CHAR1) [ 5 ]
| | | | | value: 'Time'
| | | | +-Scalar -- tag: tagStorageMethodID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_SERIES_METHOD_VALUES
| | | | +-Scalar -- tag: tagHintGreekPrefixID (type: UNS_INTEGER4)
| | | | | value: 6 - ID_GREEK_NONE
| | | | +-Scalar -- tag: tagHintPreferredUnitsID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_PREFER_ENG
| | | | +-Scalar -- tag: tagHintDefaultDisplayID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_DEFAULT_MAG
| | | | +-Scalar -- tag: tagSeriesNominalQuantity (type: REAL8)
| | | | | value: 0.000000
| | | | +- (End of collection)
| | | +-Collection -- tag: tagOneSeriesDefn (level 4)
| | | | +-Scalar -- tag: tagQuantityUnitsID (type: UNS_INTEGER4)
| | | | | value: 0 - ID_QU_NONE
| | | | +-Scalar -- tag: tagQuantityCharacteristicID (type: GUID)
| | | | | value: {b82b5c83-55c7-11d5-a4b34445} - ID_QC_STATUS
| | | | +-Scalar -- tag: tagValueTypeID (type: GUID)
| | | | | value: {67f6af97-f753-11cf-9d890080} - ID_SERIES_VALUE_TYPE_VAL
| | | | +-Vector -- tag: tagValueTypeName (type: CHAR1) [ 12 ]
| | | | | value: 'Logic State'
| | | | +-Scalar -- tag: tagStorageMethodID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_SERIES_METHOD_VALUES
| | | | +-Scalar -- tag: tagHintGreekPrefixID (type: UNS_INTEGER4)
| | | | | value: 6 - ID_GREEK_NONE
| | | | +-Scalar -- tag: tagHintPreferredUnitsID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_PREFER_ENG
| | | | +-Scalar -- tag: tagHintDefaultDisplayID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_DEFAULT_MAG
| | | | +-Scalar -- tag: tagSeriesNominalQuantity (type: REAL8)
| | | | | value: 1.000000
| | | | +- (End of collection)
| | | +-Collection -- tag: tagOneSeriesDefn (level 4)
| | | | +-Scalar -- tag: tagQuantityUnitsID (type: UNS_INTEGER4)
| | | | | value: 2 - ID_QU_SECONDS
| | | | +-Scalar -- tag: tagQuantityCharacteristicID (type: GUID)
| | | | | value: {a6b3ladf-b451-11d1-ae170060} - ID_QC_NONE
| | | | +-Scalar -- tag: tagValueTypeID (type: GUID)
| | | | | value: {c690e863-f755-11cf-9d890080} - ID_SERIES_VALUE_TYPE_DURATION
| | | | +-Vector -- tag: tagValueTypeName (type: CHAR1) [ 9 ]
| | | | | value: 'Duration'
| | | | +-Scalar -- tag: tagStorageMethodID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_SERIES_METHOD_VALUES
| | | | +-Scalar -- tag: tagHintGreekPrefixID (type: UNS_INTEGER4)
| | | | | value: 6 - ID_GREEK_NONE


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| | | | +-Scalar -- tag: tagHintPreferredUnitsID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_PREFER_ENG
| | | | +-Scalar -- tag: tagHintDefaultDisplayID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_DEFAULT_MAG
| | | | +-Scalar -- tag: tagSeriesNominalQuantity (type: REAL8)
| | | | | value: 0.000000
| | | | +-(End of collection)
| | | | +-(End of collection)
| | | | +-(End of collection)
| +-Collection -- tag: tagOneChannelDefn (level 2)
| | +-Scalar -- tag: tagPhaseID (type: UNS_INTEGER4)
| | | value: 21 - ID_PHASE_GENERAL_3
| | +-Vector -- tag: tagOtherChannelIdentifier (type: CHAR1) [ 1 ]
| | | value: ''
| | +-Scalar -- tag: tagQuantityTypeID (type: GUID)
| | | value: {67f6af8d-f753-11cf-9d890080} - ID_QT_MAGDURTIME
| | +-Vector -- tag: tagGroupName (type: CHAR1) [ 5 ]
| | | value: 'None'
| | +-Vector -- tag: tagChannelName (type: CHAR1) [ 25 ]
| | | value: 'Digital Input Event N. 3'
| | +-Scalar -- tag: tagPrimarySeriesIdx (type: UNS_INTEGER4)
| | | value: 0
| | +-Scalar -- tag: tagQuantityMeasuredID (type: UNS_INTEGER4)
| | | value: 17 - ID_QM_STATUS
| | +-Collection -- tag: tagSeriesDefns (level 3)
| | | +-Collection -- tag: tagOneSeriesDefn (level 4)
| | | | +-Scalar -- tag: tagQuantityUnitsID (type: UNS_INTEGER4)
| | | | | value: 2 - ID_QU_SECONDS
| | | | +-Scalar -- tag: tagQuantityCharacteristicID (type: GUID)
| | | | | value: {a6b3ladf-b451-11d1-ae170060} - ID_QC_NONE
| | | | +-Scalar -- tag: tagValueTypeID (type: GUID)
| | | | | value: {c690e862-f755-11cf-9d890080} - ID_SERIES_VALUE_TYPE_TIME
| | | | +-Vector -- tag: tagValueTypeName (type: CHAR1) [ 5 ]
| | | | | value: 'Time'
| | | | +-Scalar -- tag: tagStorageMethodID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_SERIES_METHOD_VALUES
| | | | +-Scalar -- tag: tagHintGreekPrefixID (type: UNS_INTEGER4)
| | | | | value: 6 - ID_GREEK_NONE
| | | | +-Scalar -- tag: tagHintPreferredUnitsID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_PREFER_ENG
| | | | +-Scalar -- tag: tagHintDefaultDisplayID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_DEFAULT_MAG
| | | | +-Scalar -- tag: tagSeriesNominalQuantity (type: REAL8)
| | | | | value: 0.000000
| | | | +-(End of collection)
| | | +-Collection -- tag: tagOneSeriesDefn (level 4)
| | | | +-Scalar -- tag: tagQuantityUnitsID (type: UNS_INTEGER4)
| | | | | value: 0 - ID_QU_NONE
| | | | +-Scalar -- tag: tagQuantityCharacteristicID (type: GUID)
| | | | | value: {b82b5c83-55c7-11d5-a4b34445} - ID_QC_STATUS
| | | | +-Scalar -- tag: tagValueTypeID (type: GUID)
| | | | | value: {67f6af97-f753-11cf-9d890080} - ID_SERIES_VALUE_TYPE_VAL
| | | | +-Vector -- tag: tagValueTypeName (type: CHAR1) [ 12 ]
| | | | | value: 'Logic State'
| | | | +-Scalar -- tag: tagStorageMethodID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_SERIES_METHOD_VALUES
| | | | +-Scalar -- tag: tagHintGreekPrefixID (type: UNS_INTEGER4)
| | | | | value: 6 - ID_GREEK_NONE
| | | | +-Scalar -- tag: tagHintPreferredUnitsID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_PREFER_ENG
| | | | +-Scalar -- tag: tagHintDefaultDisplayID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_DEFAULT_MAG
| | | | +-Scalar -- tag: tagSeriesNominalQuantity (type: REAL8)

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| | | | value: 1.000000
| | | | +-(End of collection)
| | | +-Collection -- tag: tagOneSeriesDefn (level 4)
| | | | +-Scalar -- tag: tagQuantityUnitsID (type: UNS_INTEGER4)
| | | | | value: 2 - ID_QU_SECONDS
| | | | +-Scalar -- tag: tagQuantityCharacteristicID (type: GUID)
| | | | | value: {a6b31adf-b451-11d1-ae170060} - ID_QC_NONE
| | | | +-Scalar -- tag: tagValueTypeID (type: GUID)
| | | | | value: {c690e863-f755-11cf-9d890080} - ID_SERIES_VALUE_TYPE_DURATION
| | | | +-Vector -- tag: tagValueTypeName (type: CHAR1) [ 9 ]
| | | | | value: 'Duration'
| | | | +-Scalar -- tag: tagStorageMethodID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_SERIES_METHOD_VALUES
| | | | +-Scalar -- tag: tagHintGreekPrefixID (type: UNS_INTEGER4)
| | | | | value: 6 - ID_GREEK_NONE
| | | | +-Scalar -- tag: tagHintPreferredUnitsID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_PREFER_ENG
| | | | +-Scalar -- tag: tagHintDefaultDisplayID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_DEFAULT_MAG
| | | | +-Scalar -- tag: tagSeriesNominalQuantity (type: REAL8)
| | | | | value: 0.000000
| | | | +-(End of collection)
| | | +--(End of collection)
| | +--(End of collection)
| +-Collection -- tag: tagOneChannelDefn (level 2)
| | +-Scalar -- tag: tagPhaseID (type: UNS_INTEGER4)
| | | value: 22 - ID_PHASE_GENERAL_4
| | +-Vector -- tag: tagOtherChannelIdentifier (type: CHAR1) [ 1 ]
| | | value: ''
| | +-Scalar -- tag: tagQuantityTypeID (type: GUID)
| | | value: {67f6af8d-f753-11cf-9d890080} - ID_QT_MAGDURTIME
| | +-Vector -- tag: tagGroupName (type: CHAR1) [ 5 ]
| | | value: 'None'
| | +-Vector -- tag: tagChannelName (type: CHAR1) [ 25 ]
| | | value: 'Digital Input Event N. 4'
| | +-Scalar -- tag: tagPrimarySeriesIdx (type: UNS_INTEGER4)
| | | value: 0
| | +-Scalar -- tag: tagQuantityMeasuredID (type: UNS_INTEGER4)
| | | value: 17 - ID_QM_STATUS
| | +-Collection -- tag: tagSeriesDefns (level 3)
| | | +-Collection -- tag: tagOneSeriesDefn (level 4)
| | | | +-Scalar -- tag: tagQuantityUnitsID (type: UNS_INTEGER4)
| | | | | value: 2 - ID_QU_SECONDS
| | | | +-Scalar -- tag: tagQuantityCharacteristicID (type: GUID)
| | | | | value: {a6b31adf-b451-11d1-ae170060} - ID_QC_NONE
| | | | +-Scalar -- tag: tagValueTypeID (type: GUID)
| | | | | value: {c690e862-f755-11cf-9d890080} - ID_SERIES_VALUE_TYPE_TIME
| | | | +-Vector -- tag: tagValueTypeName (type: CHAR1) [ 5 ]
| | | | | value: 'Time'
| | | | +-Scalar -- tag: tagStorageMethodID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_SERIES_METHOD_VALUES
| | | | +-Scalar -- tag: tagHintGreekPrefixID (type: UNS_INTEGER4)
| | | | | value: 6 - ID_GREEK_NONE
| | | | +-Scalar -- tag: tagHintPreferredUnitsID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_PREFER_ENG
| | | | +-Scalar -- tag: tagHintDefaultDisplayID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_DEFAULT_MAG
| | | | +-Scalar -- tag: tagSeriesNominalQuantity (type: REAL8)
| | | | | value: 0.000000
| | | | +-(End of collection)
| | | +-Collection -- tag: tagOneSeriesDefn (level 4)
| | | | +-Scalar -- tag: tagQuantityUnitsID (type: UNS_INTEGER4)
| | | | | value: 0 - ID_QU_NONE

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| | | +-Scalar -- tag: tagQuantityCharacteristicID (type: GUID)
| | | | value: {b82b5c83-55c7-11d5-a4b34445} - ID_QC_STATUS
| | | +-Scalar -- tag: tagValueTypeID (type: GUID)
| | | | value: {67f6af97-f753-11cf-9d890080} - ID_SERIES_VALUE_TYPE_VAL
| | | +-Vector -- tag: tagValueTypeName (type: CHAR1) [ 12 ]
| | | | value: 'Logic State'
| | | +-Scalar -- tag: tagStorageMethodID (type: UNS_INTEGER4)
| | | | value: 1 - ID_SERIES_METHOD_VALUES
| | | +-Scalar -- tag: tagHintGreekPrefixID (type: UNS_INTEGER4)
| | | | value: 6 - ID_GREEK_NONE
| | | +-Scalar -- tag: tagHintPreferredUnitsID (type: UNS_INTEGER4)
| | | | value: 1 - ID_PREFER_ENG
| | | +-Scalar -- tag: tagHintDefaultDisplayID (type: UNS_INTEGER4)
| | | | value: 1 - ID_DEFAULT_MAG
| | | +-Scalar -- tag: tagSeriesNominalQuantity (type: REAL8)
| | | | value: 1.000000
| | | | +- (End of collection)
| | | +-Collection -- tag: tagOneSeriesDefn (level 4)
| | | | +-Scalar -- tag: tagQuantityUnitsID (type: UNS_INTEGER4)
| | | | | value: 2 - ID_QU_SECONDS
| | | | +-Scalar -- tag: tagQuantityCharacteristicID (type: GUID)
| | | | | value: {a6b3ladf-b451-11d1-ae170060} - ID_QC_NONE
| | | | +-Scalar -- tag: tagValueTypeID (type: GUID)
| | | | | value: {c690e863-f755-11cf-9d890080} - ID_SERIES_VALUE_TYPE_DURATION
| | | | +-Vector -- tag: tagValueTypeName (type: CHAR1) [ 9 ]
| | | | | value: 'Duration'
| | | | +-Scalar -- tag: tagStorageMethodID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_SERIES_METHOD_VALUES
| | | | +-Scalar -- tag: tagHintGreekPrefixID (type: UNS_INTEGER4)
| | | | | value: 6 - ID_GREEK_NONE
| | | | +-Scalar -- tag: tagHintPreferredUnitsID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_PREFER_ENG
| | | | +-Scalar -- tag: tagHintDefaultDisplayID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_DEFAULT_MAG
| | | | +-Scalar -- tag: tagSeriesNominalQuantity (type: REAL8)
| | | | | value: 0.000000
| | | | +- (End of collection)
| | | +- (End of collection)
| | | +- (End of collection)
| +-Collection -- tag: tagOneChannelDefn (level 2)
| | +-Scalar -- tag: tagPhaseID (type: UNS_INTEGER4)
| | | value: 23 - ID_PHASE_GENERAL_5
| | +-Vector -- tag: tagOtherChannelIdentifier (type: CHAR1) [ 1 ]
| | | value: ''
| | +-Scalar -- tag: tagQuantityTypeID (type: GUID)
| | | value: {67f6af8d-f753-11cf-9d890080} - ID_QT_MAGDURTIME
| | +-Vector -- tag: tagGroupName (type: CHAR1) [ 5 ]
| | | value: 'None'
| | +-Vector -- tag: tagChannelName (type: CHAR1) [ 25 ]
| | | value: 'Digital Input Event N. 5'
| | +-Scalar -- tag: tagPrimarySeriesIdx (type: UNS_INTEGER4)
| | | value: 0
| | +-Scalar -- tag: tagQuantityMeasuredID (type: UNS_INTEGER4)
| | | value: 17 - ID_QM_STATUS
| | +-Collection -- tag: tagSeriesDefns (level 3)
| | | +-Collection -- tag: tagOneSeriesDefn (level 4)
| | | | +-Scalar -- tag: tagQuantityUnitsID (type: UNS_INTEGER4)
| | | | | value: 2 - ID_QU_SECONDS
| | | | +-Scalar -- tag: tagQuantityCharacteristicID (type: GUID)
| | | | | value: {a6b3ladf-b451-11d1-ae170060} - ID_QC_NONE
| | | | +-Scalar -- tag: tagValueTypeID (type: GUID)
| | | | | value: {c690e862-f755-11cf-9d890080} - ID_SERIES_VALUE_TYPE_TIME
| | | | +-Vector -- tag: tagValueTypeName (type: CHAR1) [ 5 ]

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| | | | value: 'Time'
| | | | +-Scalar -- tag: tagStorageMethodID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_SERIES_METHOD_VALUES
| | | | +-Scalar -- tag: tagHintGreekPrefixID (type: UNS_INTEGER4)
| | | | | value: 6 - ID_GREEK_NONE
| | | | +-Scalar -- tag: tagHintPreferredUnitsID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_PREFER_ENG
| | | | +-Scalar -- tag: tagHintDefaultDisplayID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_DEFAULT_MAG
| | | | +-Scalar -- tag: tagSeriesNominalQuantity (type: REAL8)
| | | | | value: 0.000000
| | | | +- (End of collection)
| | | +-Collection -- tag: tagOneSeriesDefn (level 4)
| | | | +-Scalar -- tag: tagQuantityUnitsID (type: UNS_INTEGER4)
| | | | | value: 0 - ID_QU_NONE
| | | | +-Scalar -- tag: tagQuantityCharacteristicID (type: GUID)
| | | | | value: {b82b5c83-55c7-11d5-a4b34445} - ID_QC_STATUS
| | | | +-Scalar -- tag: tagValueTypeID (type: GUID)
| | | | | value: {67f6af97-f753-11cf-9d890080} - ID_SERIES_VALUE_TYPE_VAL
| | | | +-Vector -- tag: tagValueTypeName (type: CHAR1) [ 12 ]
| | | | | value: 'Logic State'
| | | | +-Scalar -- tag: tagStorageMethodID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_SERIES_METHOD_VALUES
| | | | +-Scalar -- tag: tagHintGreekPrefixID (type: UNS_INTEGER4)
| | | | | value: 6 - ID_GREEK_NONE
| | | | +-Scalar -- tag: tagHintPreferredUnitsID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_PREFER_ENG
| | | | +-Scalar -- tag: tagHintDefaultDisplayID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_DEFAULT_MAG
| | | | +-Scalar -- tag: tagSeriesNominalQuantity (type: REAL8)
| | | | | value: 1.000000
| | | | +- (End of collection)
| | | +-Collection -- tag: tagOneSeriesDefn (level 4)
| | | | +-Scalar -- tag: tagQuantityUnitsID (type: UNS_INTEGER4)
| | | | | value: 2 - ID_QU_SECONDS
| | | | +-Scalar -- tag: tagQuantityCharacteristicID (type: GUID)
| | | | | value: {a6b31adf-b451-11d1-ae170060} - ID_QC_NONE
| | | | +-Scalar -- tag: tagValueTypeID (type: GUID)
| | | | | value: {c690e863-f755-11cf-9d890080} - ID_SERIES_VALUE_TYPE_DURATION
| | | | +-Vector -- tag: tagValueTypeName (type: CHAR1) [ 9 ]
| | | | | value: 'Duration'
| | | | +-Scalar -- tag: tagStorageMethodID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_SERIES_METHOD_VALUES
| | | | +-Scalar -- tag: tagHintGreekPrefixID (type: UNS_INTEGER4)
| | | | | value: 6 - ID_GREEK_NONE
| | | | +-Scalar -- tag: tagHintPreferredUnitsID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_PREFER_ENG
| | | | +-Scalar -- tag: tagHintDefaultDisplayID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_DEFAULT_MAG
| | | | +-Scalar -- tag: tagSeriesNominalQuantity (type: REAL8)
| | | | | value: 0.000000
| | | | +- (End of collection)
| | | +- (End of collection)
| | +- (End of collection)
| +-Collection -- tag: tagOneChannelDefn (level 2)
| | +-Scalar -- tag: tagPhaseID (type: UNS_INTEGER4)
| | | value: 24 - ID_PHASE_GENERAL_6
| | +-Vector -- tag: tagOtherChannelIdentifier (type: CHAR1) [ 1 ]
| | | value: ''
| | +-Scalar -- tag: tagQuantityTypeID (type: GUID)
| | | value: {67f6af8d-f753-11cf-9d890080} - ID_QT_MAGDURTIME
| | +-Vector -- tag: tagGroupName (type: CHAR1) [ 5 ]
| | | value: 'None'

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| | +-Vector -- tag: tagChannelName (type: CHAR1) [ 25 ]
| | | value: 'Digital Input Event N. 6'
| | +-Scalar -- tag: tagPrimarySeriesIdx (type: UNS_INTEGER4)
| | | value: 0
| | +-Scalar -- tag: tagQuantityMeasuredID (type: UNS_INTEGER4)
| | | value: 17 - ID_QM_STATUS
| | +-Collection -- tag: tagSeriesDefns (level 3)
| | | +-Collection -- tag: tagOneSeriesDefn (level 4)
| | | | +-Scalar -- tag: tagQuantityUnitsID (type: UNS_INTEGER4)
| | | | | value: 2 - ID_QU_SECONDS
| | | | +-Scalar -- tag: tagQuantityCharacteristicID (type: GUID)
| | | | | value: {a6b3ladf-b451-11d1-ae170060} - ID_QC_NONE
| | | | +-Scalar -- tag: tagValueTypeID (type: GUID)
| | | | | value: {c690e862-f755-11cf-9d890080} - ID_SERIES_VALUE_TYPE_TIME
| | | | +-Vector -- tag: tagValueTypeName (type: CHAR1) [ 5 ]
| | | | | value: 'Time'
| | | | +-Scalar -- tag: tagStorageMethodID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_SERIES_METHOD_VALUES
| | | | +-Scalar -- tag: tagHintGreekPrefixID (type: UNS_INTEGER4)
| | | | | value: 6 - ID_GREEK_NONE
| | | | +-Scalar -- tag: tagHintPreferredUnitsID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_PREFER_ENG
| | | | +-Scalar -- tag: tagHintDefaultDisplayID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_DEFAULT_MAG
| | | | +-Scalar -- tag: tagSeriesNominalQuantity (type: REAL8)
| | | | | value: 0.000000
| | | | +- (End of collection)
| | | +-Collection -- tag: tagOneSeriesDefn (level 4)
| | | | +-Scalar -- tag: tagQuantityUnitsID (type: UNS_INTEGER4)
| | | | | value: 0 - ID_QU_NONE
| | | | +-Scalar -- tag: tagQuantityCharacteristicID (type: GUID)
| | | | | value: {b82b5c83-55c7-11d5-a4b34445} - ID_QC_STATUS
| | | | +-Scalar -- tag: tagValueTypeID (type: GUID)
| | | | | value: {67f6af97-f753-11cf-9d890080} - ID_SERIES_VALUE_TYPE_VAL
| | | | +-Vector -- tag: tagValueTypeName (type: CHAR1) [ 12 ]
| | | | | value: 'Logic State'
| | | | +-Scalar -- tag: tagStorageMethodID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_SERIES_METHOD_VALUES
| | | | +-Scalar -- tag: tagHintGreekPrefixID (type: UNS_INTEGER4)
| | | | | value: 6 - ID_GREEK_NONE
| | | | +-Scalar -- tag: tagHintPreferredUnitsID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_PREFER_ENG
| | | | +-Scalar -- tag: tagHintDefaultDisplayID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_DEFAULT_MAG
| | | | +-Scalar -- tag: tagSeriesNominalQuantity (type: REAL8)
| | | | | value: 1.000000
| | | | +- (End of collection)
| | | +-Collection -- tag: tagOneSeriesDefn (level 4)
| | | | +-Scalar -- tag: tagQuantityUnitsID (type: UNS_INTEGER4)
| | | | | value: 2 - ID_QU_SECONDS
| | | | +-Scalar -- tag: tagQuantityCharacteristicID (type: GUID)
| | | | | value: {a6b3ladf-b451-11d1-ae170060} - ID_QC_NONE
| | | | +-Scalar -- tag: tagValueTypeID (type: GUID)
| | | | | value: {c690e863-f755-11cf-9d890080} - ID_SERIES_VALUE_TYPE_DURATION
| | | | +-Vector -- tag: tagValueTypeName (type: CHAR1) [ 9 ]
| | | | | value: 'Duration'
| | | | +-Scalar -- tag: tagStorageMethodID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_SERIES_METHOD_VALUES
| | | | +-Scalar -- tag: tagHintGreekPrefixID (type: UNS_INTEGER4)
| | | | | value: 6 - ID_GREEK_NONE
| | | | +-Scalar -- tag: tagHintPreferredUnitsID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_PREFER_ENG
| | | | +-Scalar -- tag: tagHintDefaultDisplayID (type: UNS_INTEGER4)

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| | | | value: 1 - ID_DEFAULT_MAG
| | | | +-Scalar -- tag: tagSeriesNominalQuantity (type: REAL8)
| | | | | value: 0.000000
| | | | +- (End of collection)
| | | +- (End of collection)
| | +- (End of collection)
| +-Collection -- tag: tagOneChannelDefn (level 2)
| | +-Scalar -- tag: tagPhaseID (type: UNS_INTEGER4)
| | | value: 25 - ID_PHASE_GENERAL_7
| | +-Vector -- tag: tagOtherChannelIdentifier (type: CHAR1) [ 1 ]
| | | value: ''
| | +-Scalar -- tag: tagQuantityTypeID (type: GUID)
| | | value: {67f6af8d-f753-11cf-9d890080} - ID_QT_MAGDURTIME
| | +-Vector -- tag: tagGroupName (type: CHAR1) [ 5 ]
| | | value: 'None'
| | +-Vector -- tag: tagChannelName (type: CHAR1) [ 25 ]
| | | value: 'Digital Input Event N. 7'
| | +-Scalar -- tag: tagPrimarySeriesIdx (type: UNS_INTEGER4)
| | | value: 0
| | +-Scalar -- tag: tagQuantityMeasuredID (type: UNS_INTEGER4)
| | | value: 17 - ID_QM_STATUS
| | +-Collection -- tag: tagSeriesDefns (level 3)
| | | +-Collection -- tag: tagOneSeriesDefn (level 4)
| | | | +-Scalar -- tag: tagQuantityUnitsID (type: UNS_INTEGER4)
| | | | | value: 2 - ID_QU_SECONDS
| | | | +-Scalar -- tag: tagQuantityCharacteristicID (type: GUID)
| | | | | value: {a6b3ladf-b451-11d1-ae170060} - ID_QC_NONE
| | | | +-Scalar -- tag: tagValueTypeID (type: GUID)
| | | | | value: {c690e862-f755-11cf-9d890080} - ID_SERIES_VALUE_TYPE_TIME
| | | | +-Vector -- tag: tagValueTypeName (type: CHAR1) [ 5 ]
| | | | | value: 'Time'
| | | | +-Scalar -- tag: tagStorageMethodID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_SERIES_METHOD_VALUES
| | | | +-Scalar -- tag: tagHintGreekPrefixID (type: UNS_INTEGER4)
| | | | | value: 6 - ID_GREEK_NONE
| | | | +-Scalar -- tag: tagHintPreferredUnitsID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_PREFER_ENG
| | | | +-Scalar -- tag: tagHintDefaultDisplayID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_DEFAULT_MAG
| | | | +-Scalar -- tag: tagSeriesNominalQuantity (type: REAL8)
| | | | | value: 0.000000
| | | | +- (End of collection)
| | | +-Collection -- tag: tagOneSeriesDefn (level 4)
| | | | +-Scalar -- tag: tagQuantityUnitsID (type: UNS_INTEGER4)
| | | | | value: 0 - ID_QU_NONE
| | | | +-Scalar -- tag: tagQuantityCharacteristicID (type: GUID)
| | | | | value: {b82b5c83-55c7-11d5-a4b34445} - ID_QC_STATUS
| | | | +-Scalar -- tag: tagValueTypeID (type: GUID)
| | | | | value: {67f6af97-f753-11cf-9d890080} - ID_SERIES_VALUE_TYPE_VAL
| | | | +-Vector -- tag: tagValueTypeName (type: CHAR1) [ 12 ]
| | | | | value: 'Logic State'
| | | | +-Scalar -- tag: tagStorageMethodID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_SERIES_METHOD_VALUES
| | | | +-Scalar -- tag: tagHintGreekPrefixID (type: UNS_INTEGER4)
| | | | | value: 6 - ID_GREEK_NONE
| | | | +-Scalar -- tag: tagHintPreferredUnitsID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_PREFER_ENG
| | | | +-Scalar -- tag: tagHintDefaultDisplayID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_DEFAULT_MAG
| | | | +-Scalar -- tag: tagSeriesNominalQuantity (type: REAL8)
| | | | | value: 1.000000
| | | | +- (End of collection)
| | +-Collection -- tag: tagOneSeriesDefn (level 4)

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| | | | +-Scalar -- tag: tagQuantityUnitsID (type: UNS_INTEGER4)
| | | | | value: 2 - ID_QU_SECONDS
| | | | +-Scalar -- tag: tagQuantityCharacteristicID (type: GUID)
| | | | | value: {a6b31adf-b451-11d1-ae170060} - ID_QC_NONE
| | | | +-Scalar -- tag: tagValueTypeID (type: GUID)
| | | | | value: {c690e863-f755-11cf-9d890080} - ID_SERIES_VALUE_TYPE_DURATION
| | | | +-Vector -- tag: tagValueTypeName (type: CHAR1) [ 9 ]
| | | | | value: 'Duration'
| | | | +-Scalar -- tag: tagStorageMethodID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_SERIES_METHOD_VALUES
| | | | +-Scalar -- tag: tagHintGreekPrefixID (type: UNS_INTEGER4)
| | | | | value: 6 - ID_GREEK_NONE
| | | | +-Scalar -- tag: tagHintPreferredUnitsID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_PREFER_ENG
| | | | +-Scalar -- tag: tagHintDefaultDisplayID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_DEFAULT_MAG
| | | | +-Scalar -- tag: tagSeriesNominalQuantity (type: REAL8)
| | | | | value: 0.000000
| | | | +- (End of collection)
| | | +- (End of collection)
| | +- (End of collection)
| +-Collection -- tag: tagOneChannelDefn (level 2)
| | +-Scalar -- tag: tagPhaseID (type: UNS_INTEGER4)
| | | value: 26 - ID_PHASE_GENERAL_8
| | +-Vector -- tag: tagOtherChannelIdentifier (type: CHAR1) [ 1 ]
| | | value: ''
| | +-Scalar -- tag: tagQuantityTypeID (type: GUID)
| | | value: {67f6af8d-f753-11cf-9d890080} - ID_QT_MAGDURTIME
| | +-Vector -- tag: tagGroupName (type: CHAR1) [ 5 ]
| | | value: 'None'
| | +-Vector -- tag: tagChannelName (type: CHAR1) [ 25 ]
| | | value: 'Digital Input Event N. 8'
| | +-Scalar -- tag: tagPrimarySeriesIdx (type: UNS_INTEGER4)
| | | value: 0
| | +-Scalar -- tag: tagQuantityMeasuredID (type: UNS_INTEGER4)
| | | value: 17 - ID_QM_STATUS
| | +-Collection -- tag: tagSeriesDefns (level 3)
| | | +-Collection -- tag: tagOneSeriesDefn (level 4)
| | | | +-Scalar -- tag: tagQuantityUnitsID (type: UNS_INTEGER4)
| | | | | value: 2 - ID_QU_SECONDS
| | | | +-Scalar -- tag: tagQuantityCharacteristicID (type: GUID)
| | | | | value: {a6b31adf-b451-11d1-ae170060} - ID_QC_NONE
| | | | +-Scalar -- tag: tagValueTypeID (type: GUID)
| | | | | value: {c690e862-f755-11cf-9d890080} - ID_SERIES_VALUE_TYPE_TIME
| | | | +-Vector -- tag: tagValueTypeName (type: CHAR1) [ 5 ]
| | | | | value: 'Time'
| | | | +-Scalar -- tag: tagStorageMethodID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_SERIES_METHOD_VALUES
| | | | +-Scalar -- tag: tagHintGreekPrefixID (type: UNS_INTEGER4)
| | | | | value: 6 - ID_GREEK_NONE
| | | | +-Scalar -- tag: tagHintPreferredUnitsID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_PREFER_ENG
| | | | +-Scalar -- tag: tagHintDefaultDisplayID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_DEFAULT_MAG
| | | | +-Scalar -- tag: tagSeriesNominalQuantity (type: REAL8)
| | | | | value: 0.000000
| | | | +- (End of collection)
| | | +-Collection -- tag: tagOneSeriesDefn (level 4)
| | | | +-Scalar -- tag: tagQuantityUnitsID (type: UNS_INTEGER4)
| | | | | value: 0 - ID_QU_NONE
| | | | +-Scalar -- tag: tagQuantityCharacteristicID (type: GUID)
| | | | | value: {b82b5c83-55c7-11d5-a4b34445} - ID_QC_STATUS
| | | | +-Scalar -- tag: tagValueTypeID (type: GUID)

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| | | | value: {67f6af97-f753-11cf-9d890080} - ID_SERIES_VALUE_TYPE_VAL
| | | | +-Vector -- tag: tagValueTypeName (type: CHAR1) [ 12 ]
| | | | | value: 'Logic State'
| | | | +-Scalar -- tag: tagStorageMethodID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_SERIES_METHOD_VALUES
| | | | +-Scalar -- tag: tagHintGreekPrefixID (type: UNS_INTEGER4)
| | | | | value: 6 - ID_GREEK_NONE
| | | | +-Scalar -- tag: tagHintPreferredUnitsID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_PREFER_ENG
| | | | +-Scalar -- tag: tagHintDefaultDisplayID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_DEFAULT_MAG
| | | | +-Scalar -- tag: tagSeriesNominalQuantity (type: REAL8)
| | | | | value: 1.000000
| | | | +- (End of collection)
| | | | +-Collection -- tag: tagOneSeriesDefn (level 4)
| | | | | +-Scalar -- tag: tagQuantityUnitsID (type: UNS_INTEGER4)
| | | | | | value: 2 - ID_QU_SECONDS
| | | | | +-Scalar -- tag: tagQuantityCharacteristicID (type: GUID)
| | | | | | value: {a6b31adf-b451-11d1-ae170060} - ID_QC_NONE
| | | | | +-Scalar -- tag: tagValueTypeID (type: GUID)
| | | | | | value: {c690e863-f755-11cf-9d890080} - ID_SERIES_VALUE_TYPE_DURATION
| | | | | +-Vector -- tag: tagValueTypeName (type: CHAR1) [ 9 ]
| | | | | | value: 'Duration'
| | | | | +-Scalar -- tag: tagStorageMethodID (type: UNS_INTEGER4)
| | | | | | value: 1 - ID_SERIES_METHOD_VALUES
| | | | | +-Scalar -- tag: tagHintGreekPrefixID (type: UNS_INTEGER4)
| | | | | | value: 6 - ID_GREEK_NONE
| | | | | +-Scalar -- tag: tagHintPreferredUnitsID (type: UNS_INTEGER4)
| | | | | | value: 1 - ID_PREFER_ENG
| | | | | +-Scalar -- tag: tagHintDefaultDisplayID (type: UNS_INTEGER4)
| | | | | | value: 1 - ID_DEFAULT_MAG
| | | | | +-Scalar -- tag: tagSeriesNominalQuantity (type: REAL8)
| | | | | | value: 0.000000
| | | | | +- (End of collection)
| | | | +- (End of collection)
| | | | +- (End of collection)
| | | | +-Collection -- tag: tagOneChannelDefn (level 2)
| | | | | +-Scalar -- tag: tagPhaseID (type: UNS_INTEGER4)
| | | | | | value: 27 - ID_PHASE_GENERAL_9
| | | | | +-Vector -- tag: tagOtherChannelIdentifier (type: CHAR1) [ 1 ]
| | | | | | value: ''
| | | | | +-Scalar -- tag: tagQuantityTypeID (type: GUID)
| | | | | | value: {67f6af8d-f753-11cf-9d890080} - ID_QT_MAGDURTIME
| | | | | +-Vector -- tag: tagGroupName (type: CHAR1) [ 5 ]
| | | | | | value: 'None'
| | | | | +-Vector -- tag: tagChannelName (type: CHAR1) [ 25 ]
| | | | | | value: 'Digital Input Event N. 9'
| | | | | +-Scalar -- tag: tagPrimarySeriesIdx (type: UNS_INTEGER4)
| | | | | | value: 0
| | | | | +-Scalar -- tag: tagQuantityMeasuredID (type: UNS_INTEGER4)
| | | | | | value: 17 - ID_QM_STATUS
| | | | | +-Collection -- tag: tagSeriesDefns (level 3)
| | | | | | +-Collection -- tag: tagOneSeriesDefn (level 4)
| | | | | | | +-Scalar -- tag: tagQuantityUnitsID (type: UNS_INTEGER4)
| | | | | | | | value: 2 - ID_QU_SECONDS
| | | | | | | +-Scalar -- tag: tagQuantityCharacteristicID (type: GUID)
| | | | | | | | value: {a6b31adf-b451-11d1-ae170060} - ID_QC_NONE
| | | | | | | +-Scalar -- tag: tagValueTypeID (type: GUID)
| | | | | | | | value: {c690e862-f755-11cf-9d890080} - ID_SERIES_VALUE_TYPE_TIME
| | | | | | | +-Vector -- tag: tagValueTypeName (type: CHAR1) [ 5 ]
| | | | | | | | value: 'Time'
| | | | | | | +-Scalar -- tag: tagStorageMethodID (type: UNS_INTEGER4)
| | | | | | | | value: 1 - ID_SERIES_METHOD_VALUES
```



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| | | | +-Scalar -- tag: tagHintGreekPrefixID (type: UNS_INTEGER4)
| | | | | value: 6 - ID_GREEK_NONE
| | | | +-Scalar -- tag: tagHintPreferredUnitsID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_PREFER_ENG
| | | | +-Scalar -- tag: tagHintDefaultDisplayID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_DEFAULT_MAG
| | | | +-Scalar -- tag: tagSeriesNominalQuantity (type: REAL8)
| | | | | value: 0.000000
| | | | | +- (End of collection)
| | | +-Collection -- tag: tagOneSeriesDefn (level 4)
| | | | +-Scalar -- tag: tagQuantityUnitsID (type: UNS_INTEGER4)
| | | | | value: 0 - ID_QU_NONE
| | | | +-Scalar -- tag: tagQuantityCharacteristicID (type: GUID)
| | | | | value: {b82b5c83-55c7-11d5-a4b34445} - ID_QC_STATUS
| | | | +-Scalar -- tag: tagValueTypeID (type: GUID)
| | | | | value: {67f6af97-f753-11cf-9d890080} - ID_SERIES_VALUE_TYPE_VAL
| | | | +-Vector -- tag: tagValueTypeName (type: CHAR1) [ 12 ]
| | | | | value: 'Logic State'
| | | | +-Scalar -- tag: tagStorageMethodID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_SERIES_METHOD_VALUES
| | | | +-Scalar -- tag: tagHintGreekPrefixID (type: UNS_INTEGER4)
| | | | | value: 6 - ID_GREEK_NONE
| | | | +-Scalar -- tag: tagHintPreferredUnitsID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_PREFER_ENG
| | | | +-Scalar -- tag: tagHintDefaultDisplayID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_DEFAULT_MAG
| | | | +-Scalar -- tag: tagSeriesNominalQuantity (type: REAL8)
| | | | | value: 1.000000
| | | | | +- (End of collection)
| | | +-Collection -- tag: tagOneSeriesDefn (level 4)
| | | | +-Scalar -- tag: tagQuantityUnitsID (type: UNS_INTEGER4)
| | | | | value: 2 - ID_QU_SECONDS
| | | | +-Scalar -- tag: tagQuantityCharacteristicID (type: GUID)
| | | | | value: {a6b3ladf-b451-11d1-ae170060} - ID_QC_NONE
| | | | +-Scalar -- tag: tagValueTypeID (type: GUID)
| | | | | value: {c690e863-f755-11cf-9d890080} - ID_SERIES_VALUE_TYPE_DURATION
| | | | +-Vector -- tag: tagValueTypeName (type: CHAR1) [ 9 ]
| | | | | value: 'Duration'
| | | | +-Scalar -- tag: tagStorageMethodID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_SERIES_METHOD_VALUES
| | | | +-Scalar -- tag: tagHintGreekPrefixID (type: UNS_INTEGER4)
| | | | | value: 6 - ID_GREEK_NONE
| | | | +-Scalar -- tag: tagHintPreferredUnitsID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_PREFER_ENG
| | | | +-Scalar -- tag: tagHintDefaultDisplayID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_DEFAULT_MAG
| | | | +-Scalar -- tag: tagSeriesNominalQuantity (type: REAL8)
| | | | | value: 0.000000
| | | | | +- (End of collection)
| | | | +- (End of collection)
| | | +- (End of collection)
| +-Collection -- tag: tagOneChannelDefn (level 2)
| | +-Scalar -- tag: tagPhaseID (type: UNS_INTEGER4)
| | | value: 28 - ID_PHASE_GENERAL_10
| | +-Vector -- tag: tagOtherChannelIdentifier (type: CHAR1) [ 1 ]
| | | value: ''
| | +-Scalar -- tag: tagQuantityTypeID (type: GUID)
| | | value: {67f6af8d-f753-11cf-9d890080} - ID_QT_MAGDURTIME
| | +-Vector -- tag: tagGroupName (type: CHAR1) [ 5 ]
| | | value: 'None'
| | +-Vector -- tag: tagChannelName (type: CHAR1) [ 26 ]
| | | value: 'Digital Input Event N. 10'
| | +-Scalar -- tag: tagPrimarySeriesIdx (type: UNS_INTEGER4)
```


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| | | value: 0
| | +-Scalar -- tag: tagQuantityMeasuredID (type: UNS_INTEGER4)
| | | value: 17 - ID_QM_STATUS
| | +-Collection -- tag: tagSeriesDefns (level 3)
| | | +-Collection -- tag: tagOneSeriesDefn (level 4)
| | | | +-Scalar -- tag: tagQuantityUnitsID (type: UNS_INTEGER4)
| | | | | value: 2 - ID_QU_SECONDS
| | | | +-Scalar -- tag: tagQuantityCharacteristicID (type: GUID)
| | | | | value: {a6b3ladf-b451-11d1-ae170060} - ID_QC_NONE
| | | | +-Scalar -- tag: tagValueTypeID (type: GUID)
| | | | | value: {c690e862-f755-11cf-9d890080} - ID_SERIES_VALUE_TYPE_TIME
| | | | +-Vector -- tag: tagValueTypeName (type: CHAR1) [ 5 ]
| | | | | value: 'Time'
| | | | +-Scalar -- tag: tagStorageMethodID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_SERIES_METHOD_VALUES
| | | | +-Scalar -- tag: tagHintGreekPrefixID (type: UNS_INTEGER4)
| | | | | value: 6 - ID_GREEK_NONE
| | | | +-Scalar -- tag: tagHintPreferredUnitsID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_PREFER_ENG
| | | | +-Scalar -- tag: tagHintDefaultDisplayID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_DEFAULT_MAG
| | | | +-Scalar -- tag: tagSeriesNominalQuantity (type: REAL8)
| | | | | value: 0.000000
| | | +--(End of collection)
| | +-Collection -- tag: tagOneSeriesDefn (level 4)
| | | +-Scalar -- tag: tagQuantityUnitsID (type: UNS_INTEGER4)
| | | | value: 0 - ID_QU_NONE
| | | +-Scalar -- tag: tagQuantityCharacteristicID (type: GUID)
| | | | value: {b82b5c83-55c7-11d5-a4b34445} - ID_QC_STATUS
| | | +-Scalar -- tag: tagValueTypeID (type: GUID)
| | | | value: {67f6af97-f753-11cf-9d890080} - ID_SERIES_VALUE_TYPE_VAL
| | | +-Vector -- tag: tagValueTypeName (type: CHAR1) [ 12 ]
| | | | value: 'Logic State'
| | | +-Scalar -- tag: tagStorageMethodID (type: UNS_INTEGER4)
| | | | value: 1 - ID_SERIES_METHOD_VALUES
| | | +-Scalar -- tag: tagHintGreekPrefixID (type: UNS_INTEGER4)
| | | | value: 6 - ID_GREEK_NONE
| | | +-Scalar -- tag: tagHintPreferredUnitsID (type: UNS_INTEGER4)
| | | | value: 1 - ID_PREFER_ENG
| | | +-Scalar -- tag: tagHintDefaultDisplayID (type: UNS_INTEGER4)
| | | | value: 1 - ID_DEFAULT_MAG
| | | +-Scalar -- tag: tagSeriesNominalQuantity (type: REAL8)
| | | | value: 1.000000
| | | +--(End of collection)
| | +-Collection -- tag: tagOneSeriesDefn (level 4)
| | | +-Scalar -- tag: tagQuantityUnitsID (type: UNS_INTEGER4)
| | | | value: 2 - ID_QU_SECONDS
| | | +-Scalar -- tag: tagQuantityCharacteristicID (type: GUID)
| | | | value: {a6b3ladf-b451-11d1-ae170060} - ID_QC_NONE
| | | +-Scalar -- tag: tagValueTypeID (type: GUID)
| | | | value: {c690e863-f755-11cf-9d890080} - ID_SERIES_VALUE_TYPE_DURATION
| | | +-Vector -- tag: tagValueTypeName (type: CHAR1) [ 9 ]
| | | | value: 'Duration'
| | | +-Scalar -- tag: tagStorageMethodID (type: UNS_INTEGER4)
| | | | value: 1 - ID_SERIES_METHOD_VALUES
| | | +-Scalar -- tag: tagHintGreekPrefixID (type: UNS_INTEGER4)
| | | | value: 6 - ID_GREEK_NONE
| | | +-Scalar -- tag: tagHintPreferredUnitsID (type: UNS_INTEGER4)
| | | | value: 1 - ID_PREFER_ENG
| | | +-Scalar -- tag: tagHintDefaultDisplayID (type: UNS_INTEGER4)
| | | | value: 1 - ID_DEFAULT_MAG
| | | +-Scalar -- tag: tagSeriesNominalQuantity (type: REAL8)
| | | | value: 0.000000

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| | | | +-(End of collection)
| | | +-(End of collection)
| | +-(End of collection)
| +-Collection -- tag: tagOneChannelDefn (level 2)
| | +-Scalar -- tag: tagPhaseID (type: UNS_INTEGER4)
| | | value: 29 - ID_PHASE_GENERAL_11
| | +-Vector -- tag: tagOtherChannelIdentifier (type: CHAR1) [ 1 ]
| | | value: ''
| | +-Scalar -- tag: tagQuantityTypeID (type: GUID)
| | | value: {67f6af8d-f753-11cf-9d890080} - ID_QT_MAGDURTIME
| | +-Vector -- tag: tagGroupName (type: CHAR1) [ 5 ]
| | | value: 'None'
| | +-Vector -- tag: tagChannelName (type: CHAR1) [ 26 ]
| | | value: 'Digital Input Event N. 11'
| | +-Scalar -- tag: tagPrimarySeriesIdx (type: UNS_INTEGER4)
| | | value: 0
| | +-Scalar -- tag: tagQuantityMeasuredID (type: UNS_INTEGER4)
| | | value: 17 - ID_QM_STATUS
| | +-Collection -- tag: tagSeriesDefns (level 3)
| | | +-Collection -- tag: tagOneSeriesDefn (level 4)
| | | | +-Scalar -- tag: tagQuantityUnitsID (type: UNS_INTEGER4)
| | | | | value: 2 - ID_QU_SECONDS
| | | | +-Scalar -- tag: tagQuantityCharacteristicID (type: GUID)
| | | | | value: {a6b3ladf-b451-11d1-ae170060} - ID_QC_NONE
| | | | +-Scalar -- tag: tagValueTypeID (type: GUID)
| | | | | value: {c690e862-f755-11cf-9d890080} - ID_SERIES_VALUE_TYPE_TIME
| | | | +-Vector -- tag: tagValueTypeName (type: CHAR1) [ 5 ]
| | | | | value: 'Time'
| | | | +-Scalar -- tag: tagStorageMethodID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_SERIES_METHOD_VALUES
| | | | +-Scalar -- tag: tagHintGreekPrefixID (type: UNS_INTEGER4)
| | | | | value: 6 - ID_GREEK_NONE
| | | | +-Scalar -- tag: tagHintPreferredUnitsID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_PREFER_ENG
| | | | +-Scalar -- tag: tagHintDefaultDisplayID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_DEFAULT_MAG
| | | | +-Scalar -- tag: tagSeriesNominalQuantity (type: REAL8)
| | | | | value: 0.000000
| | | | +--(End of collection)
| | | +-Collection -- tag: tagOneSeriesDefn (level 4)
| | | | +-Scalar -- tag: tagQuantityUnitsID (type: UNS_INTEGER4)
| | | | | value: 0 - ID_QU_NONE
| | | | +-Scalar -- tag: tagQuantityCharacteristicID (type: GUID)
| | | | | value: {b82b5c83-55c7-11d5-a4b34445} - ID_QC_STATUS
| | | | +-Scalar -- tag: tagValueTypeID (type: GUID)
| | | | | value: {67f6af97-f753-11cf-9d890080} - ID_SERIES_VALUE_TYPE_VAL
| | | | +-Vector -- tag: tagValueTypeName (type: CHAR1) [ 12 ]
| | | | | value: 'Logic State'
| | | | +-Scalar -- tag: tagStorageMethodID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_SERIES_METHOD_VALUES
| | | | +-Scalar -- tag: tagHintGreekPrefixID (type: UNS_INTEGER4)
| | | | | value: 6 - ID_GREEK_NONE
| | | | +-Scalar -- tag: tagHintPreferredUnitsID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_PREFER_ENG
| | | | +-Scalar -- tag: tagHintDefaultDisplayID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_DEFAULT_MAG
| | | | +-Scalar -- tag: tagSeriesNominalQuantity (type: REAL8)
| | | | | value: 1.000000
| | | | +--(End of collection)
| | | +-Collection -- tag: tagOneSeriesDefn (level 4)
| | | | +-Scalar -- tag: tagQuantityUnitsID (type: UNS_INTEGER4)
| | | | | value: 2 - ID_QU_SECONDS
| | | | +-Scalar -- tag: tagQuantityCharacteristicID (type: GUID)

```

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```

| | | | value: {a6b31adf-b451-11d1-ae170060} - ID_QC_NONE
| | | | +-Scalar -- tag: tagValueTypeID (type: GUID)
| | | | | value: {c690e863-f755-11cf-9d890080} - ID_SERIES_VALUE_TYPE_DURATION
| | | | +-Vector -- tag: tagValueTypeName (type: CHAR1) [ 9 ]
| | | | | value: 'Duration'
| | | | +-Scalar -- tag: tagStorageMethodID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_SERIES_METHOD_VALUES
| | | | +-Scalar -- tag: tagHintGreekPrefixID (type: UNS_INTEGER4)
| | | | | value: 6 - ID_GREEK_NONE
| | | | +-Scalar -- tag: tagHintPreferredUnitsID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_PREFER_ENG
| | | | +-Scalar -- tag: tagHintDefaultDisplayID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_DEFAULT_MAG
| | | | +-Scalar -- tag: tagSeriesNominalQuantity (type: REAL8)
| | | | | value: 0.000000
| | | | +- (End of collection)
| | | +- (End of collection)
| | +- (End of collection)
| +-Collection -- tag: tagOneChannelDefn (level 2)
| | +-Scalar -- tag: tagPhaseID (type: UNS_INTEGER4)
| | | value: 30 - ID_PHASE_GENERAL_12
| | +-Vector -- tag: tagOtherChannelIdentifier (type: CHAR1) [ 1 ]
| | | value: ''
| | +-Scalar -- tag: tagQuantityTypeID (type: GUID)
| | | value: {67f6af8d-f753-11cf-9d890080} - ID_QT_MAGDURTIME
| | +-Vector -- tag: tagGroupName (type: CHAR1) [ 5 ]
| | | value: 'None'
| | +-Vector -- tag: tagChannelName (type: CHAR1) [ 26 ]
| | | value: 'Digital Input Event N. 12'
| | +-Scalar -- tag: tagPrimarySeriesIdx (type: UNS_INTEGER4)
| | | value: 0
| | +-Scalar -- tag: tagQuantityMeasuredID (type: UNS_INTEGER4)
| | | value: 17 - ID_QM_STATUS
| | +-Collection -- tag: tagSeriesDefns (level 3)
| | | +-Collection -- tag: tagOneSeriesDefn (level 4)
| | | | +-Scalar -- tag: tagQuantityUnitsID (type: UNS_INTEGER4)
| | | | | value: 2 - ID_QU_SECONDS
| | | | +-Scalar -- tag: tagQuantityCharacteristicID (type: GUID)
| | | | | value: {a6b31adf-b451-11d1-ae170060} - ID_QC_NONE
| | | | +-Scalar -- tag: tagValueTypeID (type: GUID)
| | | | | value: {c690e862-f755-11cf-9d890080} - ID_SERIES_VALUE_TYPE_TIME
| | | | +-Vector -- tag: tagValueTypeName (type: CHAR1) [ 5 ]
| | | | | value: 'Time'
| | | | +-Scalar -- tag: tagStorageMethodID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_SERIES_METHOD_VALUES
| | | | +-Scalar -- tag: tagHintGreekPrefixID (type: UNS_INTEGER4)
| | | | | value: 6 - ID_GREEK_NONE
| | | | +-Scalar -- tag: tagHintPreferredUnitsID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_PREFER_ENG
| | | | +-Scalar -- tag: tagHintDefaultDisplayID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_DEFAULT_MAG
| | | | +-Scalar -- tag: tagSeriesNominalQuantity (type: REAL8)
| | | | | value: 0.000000
| | | | +- (End of collection)
| | | +-Collection -- tag: tagOneSeriesDefn (level 4)
| | | | +-Scalar -- tag: tagQuantityUnitsID (type: UNS_INTEGER4)
| | | | | value: 0 - ID_QU_NONE
| | | | +-Scalar -- tag: tagQuantityCharacteristicID (type: GUID)
| | | | | value: {b82b5c83-55c7-11d5-a4b34445} - ID_QC_STATUS
| | | | +-Scalar -- tag: tagValueTypeID (type: GUID)
| | | | | value: {67f6af97-f753-11cf-9d890080} - ID_SERIES_VALUE_TYPE_VAL
| | | | +-Vector -- tag: tagValueTypeName (type: CHAR1) [ 12 ]
| | | | | value: 'Logic State'

```

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```

| | | +-Scalar -- tag: tagStorageMethodID (type: UNS_INTEGER4)
| | | | value: 1 - ID_SERIES_METHOD_VALUES
| | | +-Scalar -- tag: tagHintGreekPrefixID (type: UNS_INTEGER4)
| | | | value: 6 - ID_GREEK_NONE
| | | +-Scalar -- tag: tagHintPreferredUnitsID (type: UNS_INTEGER4)
| | | | value: 1 - ID_PREFER_ENG
| | | +-Scalar -- tag: tagHintDefaultDisplayID (type: UNS_INTEGER4)
| | | | value: 1 - ID_DEFAULT_MAG
| | | +-Scalar -- tag: tagSeriesNominalQuantity (type: REAL8)
| | | | value: 1.000000
| | | | +- (End of collection)
| | | +-Collection -- tag: tagOneSeriesDefn (level 4)
| | | | +-Scalar -- tag: tagQuantityUnitsID (type: UNS_INTEGER4)
| | | | | value: 2 - ID_QU_SECONDS
| | | | +-Scalar -- tag: tagQuantityCharacteristicID (type: GUID)
| | | | | value: {a6b31adf-b451-11d1-ae170060} - ID_QC_NONE
| | | | +-Scalar -- tag: tagValueTypeID (type: GUID)
| | | | | value: {c690e863-f755-11cf-9d890080} - ID_SERIES_VALUE_TYPE_DURATION
| | | | +-Vector -- tag: tagValueTypeName (type: CHAR1) [ 9 ]
| | | | | value: 'Duration'
| | | | +-Scalar -- tag: tagStorageMethodID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_SERIES_METHOD_VALUES
| | | | +-Scalar -- tag: tagHintGreekPrefixID (type: UNS_INTEGER4)
| | | | | value: 6 - ID_GREEK_NONE
| | | | +-Scalar -- tag: tagHintPreferredUnitsID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_PREFER_ENG
| | | | +-Scalar -- tag: tagHintDefaultDisplayID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_DEFAULT_MAG
| | | | +-Scalar -- tag: tagSeriesNominalQuantity (type: REAL8)
| | | | | value: 0.000000
| | | | +- (End of collection)
| | | +- (End of collection)
| | +- (End of collection)
| +- (End of collection)

```

8.2 Annex B: “observation record” examples

```

-Collection -- tag: tagRecObservation (level 0)
| The checksum for this record is correct.
+-Vector -- tag: tagObservationName (type: CHAR1) [ 18 ]
| value: 'Swell Observation'
+-Scalar -- tag: tagTimeCreate (type: TIMESTAMPPQDIF)
| value: 3/15/2013 15:43:3.000000000
+-Scalar -- tag: tagTimeStart (type: TIMESTAMPPQDIF)
| value: 3/15/2013 13:3:27.190000000
+-Scalar -- tag: tagTriggerMethodID (type: UNS_INTEGER4)
| value: 1 - ID_TRIGGER METH_CHANNEL
+-Scalar -- tag: tagTimeTriggered (type: TIMESTAMPPQDIF)
| value: 3/15/2013 13:3:27.190000000
+-Vector -- tag: tagChannelTriggerIdx (type: UNS_INTEGER4) [ 1 ]
| values: 41
+-Scalar -- tag: tagObservationSerial (type: UNS_INTEGER4)
| value: 0
+-Scalar -- tag: tagDisturbanceCategoryID (type: GUID)
| value: {dd56ef73-7edd-11d2-b30a0060} - ID_DISTURB_1159_SHORTDUR_TEMP_SWELL
+-Collection -- tag: tagChannelInstances (level 1)
| +-Collection -- tag: tagOneChannelInst (level 2)
| | +-Scalar -- tag: tagChannelDefnIdx (type: UNS_INTEGER4)
| | | value: 41
| | +-Scalar -- tag: tagCharactMagnitude (type: REAL8)
| | | value: 263.146439
| | +-Collection -- tag: tagSeriesInstances (level 3)
| | | +-Collection -- tag: tagOneSeriesInstance (level 4)
| | | | +-Scalar -- tag: tagSeriesBaseQuantity (type: REAL8)

```

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```

| | | | value: 100.000000
| | | | +-Scalar -- tag: tagSeriesScale (type: REAL8)
| | | | | value: 1.000000
| | | | +-Scalar -- tag: tagSeriesOffset (type: REAL8)
| | | | | value: 0.000000
| | | | +-Vector -- tag: tagSeriesValues (type: TIMESTAMPPQDIF) [ 1 ]
| | | | +- (End of collection)
| | | +-Collection -- tag: tagOneSeriesInstance (level 4)
| | | | +-Scalar -- tag: tagSeriesBaseQuantity (type: REAL8)
| | | | | value: 230.000000
| | | | +-Scalar -- tag: tagSeriesScale (type: REAL8)
| | | | | value: 1.000000
| | | | +-Scalar -- tag: tagSeriesOffset (type: REAL8)
| | | | | value: 0.000000
| | | | +-Vector -- tag: tagSeriesValues (type: REAL8) [ 1 ]
| | | | | values: 263.146439
| | | | +- (End of collection)
| | | +-Collection -- tag: tagOneSeriesInstance (level 4)
| | | | +-Scalar -- tag: tagSeriesBaseQuantity (type: REAL8)
| | | | | value: 100.000000
| | | | +-Scalar -- tag: tagSeriesScale (type: REAL8)
| | | | | value: 1.000000
| | | | +-Scalar -- tag: tagSeriesOffset (type: REAL8)
| | | | | value: 0.000000
| | | | +-Vector -- tag: tagSeriesValues (type: REAL8) [ 1 ]
| | | | | values: 9.940000
| | | | +- (End of collection)
| | | +- (End of collection)
| | +- (End of collection)
| +-Scalar -- tag: tagCharactDuration (type: REAL8)
| | value: 9.940000
| +- (End of collection)
+- (End of collection)
+---- Record information
| Size on disk: 333
| The record was compressed; size after decompression: 964
+- (End of record)

```

8.3 Annex C: “data source definition record” examples for system events

```

| +-Collection -- tag: tagOneChannelDefn (level 2)
| +-Collection -- tag: tagOneChannelDefn (level 2)
| | +-Scalar -- tag: tagPhaseID (type: UNS_INTEGER4)
| | | value: 30 - ID_PHASE_NONE
| | +-Vector -- tag: tagOtherChannelIdentifier (type: CHAR1) [ 1 ]
| | | value: ''
| | +-Scalar -- tag: tagQuantityTypeID (type: GUID)
| | | value: {67f6af8d-f753-11cf-9d890080} - ID_QT_MAGDURTIME
| | +-Vector -- tag: tagGroupName (type: CHAR1) [ 5 ]
| | | value: 'None'
| | +-Vector -- tag: tagChannelName (type: CHAR1) [ 26 ]
| | | value: 'System Event'
| | +-Scalar -- tag: tagPrimarySeriesIdx (type: UNS_INTEGER4)
| | | value: 0
| | +-Scalar -- tag: tagQuantityMeasuredID (type: UNS_INTEGER4)
| | | value: 17 - ID_QM_STATUS
| | +-Collection -- tag: tagSeriesDefns (level 3)
| | | +-Collection -- tag: tagOneSeriesDefn (level 4)
| | | | +-Scalar -- tag: tagQuantityUnitsID (type: UNS_INTEGER4)
| | | | | value: 2 - ID_QU_SECONDS
| | | | +-Scalar -- tag: tagQuantityCharacteristicID (type: GUID)
| | | | | value: {a6b3ladf-b451-11d1-ae170060} - ID_QC_NONE
| | | | +-Scalar -- tag: tagValueTypeID (type: GUID)

```

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```

| | | | value: {c690e862-f755-11cf-9d890080} - ID_SERIES_VALUE_TYPE_TIME
| | | | +-Vector -- tag: tagValueTypeName (type: CHAR1) [ 5 ]
| | | | | value: 'Time'
| | | | +-Scalar -- tag: tagStorageMethodID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_SERIES_METHOD_VALUES
| | | | +-Scalar -- tag: tagHintGreekPrefixID (type: UNS_INTEGER4)
| | | | | value: 6 - ID_GREEK_NONE
| | | | +-Scalar -- tag: tagHintPreferredUnitsID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_PREFER_ENG
| | | | +-Scalar -- tag: tagHintDefaultDisplayID (type: UNS_INTEGER4)
| | | | | value: 1 - ID_DEFAULT_MAG
| | | | +-Scalar -- tag: tagSeriesNominalQuantity (type: REAL8)
| | | | | value: 0.000000
| | | | +- (End of collection)
| | | | +-Collection -- tag: tagOneSeriesDefn (level 4)
| | | | | +-Scalar -- tag: tagQuantityUnitsID (type: UNS_INTEGER4)
| | | | | | value: 0 - ID_QU_NONE
| | | | | +-Scalar -- tag: tagQuantityCharacteristicID (type: GUID)
| | | | | | value: {b82b5c83-55c7-11d5-a4b34445} - ID_QC_STATUS
| | | | | +-Scalar -- tag: tagValueTypeID (type: GUID)
| | | | | | value: {67f6af97-f753-11cf-9d890080} - ID_SERIES_VALUE_TYPE_VAL
| | | | | +-Vector -- tag: tagValueTypeName (type: CHAR1) [ 12 ]
| | | | | | value: 'Logic State'
| | | | | +-Scalar -- tag: tagStorageMethodID (type: UNS_INTEGER4)
| | | | | | value: 1 - ID_SERIES_METHOD_VALUES
| | | | | +-Scalar -- tag: tagHintGreekPrefixID (type: UNS_INTEGER4)
| | | | | | value: 6 - ID_GREEK_NONE
| | | | | +-Scalar -- tag: tagHintPreferredUnitsID (type: UNS_INTEGER4)
| | | | | | value: 1 - ID_PREFER_ENG
| | | | | +-Scalar -- tag: tagHintDefaultDisplayID (type: UNS_INTEGER4)
| | | | | | value: 1 - ID_DEFAULT_MAG
| | | | | +-Scalar -- tag: tagSeriesNominalQuantity (type: REAL8)
| | | | | | value: 1.000000
| | | | | +- (End of collection)
| | | | +-Collection -- tag: tagOneSeriesDefn (level 4)
| | | | | +-Scalar -- tag: tagQuantityUnitsID (type: UNS_INTEGER4)
| | | | | | value: 2 - ID_QU_SECONDS
| | | | | +-Scalar -- tag: tagQuantityCharacteristicID (type: GUID)
| | | | | | value: {a6b31adf-b451-11d1-ae170060} - ID_QC_NONE
| | | | | +-Scalar -- tag: tagValueTypeID (type: GUID)
| | | | | | value: {c690e863-f755-11cf-9d890080} - ID_SERIES_VALUE_TYPE_DURATION
| | | | | +-Vector -- tag: tagValueTypeName (type: CHAR1) [ 9 ]
| | | | | | value: 'Duration'
| | | | | +-Scalar -- tag: tagStorageMethodID (type: UNS_INTEGER4)
| | | | | | value: 1 - ID_SERIES_METHOD_VALUES
| | | | | +-Scalar -- tag: tagHintGreekPrefixID (type: UNS_INTEGER4)
| | | | | | value: 6 - ID_GREEK_NONE
| | | | | +-Scalar -- tag: tagHintPreferredUnitsID (type: UNS_INTEGER4)
| | | | | | value: 1 - ID_PREFER_ENG
| | | | | +-Scalar -- tag: tagHintDefaultDisplayID (type: UNS_INTEGER4)
| | | | | | value: 1 - ID_DEFAULT_MAG
| | | | | +-Scalar -- tag: tagSeriesNominalQuantity (type: REAL8)
| | | | | | value: 0.000000
| | | | | +- (End of collection)
| | | | +- (End of collection)
| | | +- (End of collection)
| +- (End of collection)


```

8.4 Annex D: List of variables

Table 18 summarizes the variables that the PQI and PQMS must be able to exchange.

According to IEC 61000-4-30, the 10/12 cycle values are aggregated over 3 additional intervals:

- 150/180 cycle interval (150 cycles for 50 Hz nominal or 180 cycles for 60 Hz nominal);

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- 10 min interval;
- 2 hour interval for P_{lf} flicker.

A different aggregation interval might be necessary for measuring compliance with some national or international standards.

Only when the device is able to measure DC and interharmonics, their associated variables will be requested. In case of harmonics measurement above order 50, add and name variables accordingly.

code	description	units	typical aggregation [s]
v_AN_min	RMS voltage, between phase A and NEUTRAL, minimum of 10/12-cycle intervals	V	600
v_BN_min	RMS voltage, between phase B and NEUTRAL, minimum of 10/12-cycle intervals	V	600
v_CN_min	RMS voltage, between phase C and NEUTRAL, minimum of 10/12-cycle intervals	V	600
v_AB_min	RMS voltage, between phase A and B, minimum of 10/12-cycle intervals	V	600
v_BC_min	RMS voltage, between phase B and C, minimum of 10/12-cycle intervals	V	600
v_CA_min	RMS voltage, between phase C and A, minimum of 10/12-cycle intervals	V	600
a_AN_min	RMS current, phase A, minimum of 10/12-cycle intervals	A	600
a_BN_min	RMS current, phase B, minimum of 10/12-cycle intervals	A	600
a_CN_min	RMS current, phase C, minimum of 10/12-cycle intervals	A	600
p_AN_min	Active power, phase A, minimum of 10/12-cycle intervals	W	600
p_BN_min	Active power, phase B, minimum of 10/12-cycle intervals	W	600
p_CN_min	Active power, phase C, minimum of 10/12-cycle intervals	W	600
p_TOTAL_min	Active power, total, minimum of 10/12-cycle intervals	W	600
q_AN_min	Reactive power, phase A, minimum of 10/12-cycle intervals	VAr	600
q_BN_min	Reactive power, phase B, minimum of 10/12-cycle intervals	VAr	600
q_CN_min	Reactive power, phase C, minimum of 10/12-cycle intervals	VAr	600
q_TOTAL_min	Reactive power, total, minimum of 10/12-cycle intervals	VAr	600
v_AN_harm_0_min	RMS voltage, between phase A and N, harmonic component DC, minimum of 10/12-cycle intervals	V	600
v_AN_harm_1_min	RMS voltage, between phase A and N, harmonic component #1, minimum of 10/12-cycle intervals	V	600
v_AN_harm_2_min	RMS voltage, between phase A and N, harmonic component #2, minimum of 10/12-cycle intervals	V	600
v_AN_harm_3_min	RMS voltage, between phase A and N, harmonic component #3, minimum of 10/12-cycle intervals	V	600
v_AN_harm_4_min	RMS voltage, between phase A and N, harmonic component #4, minimum of 10/12-cycle intervals	V	600
v_AN_harm_5_min	RMS voltage, between phase A and N, harmonic component #5, minimum of 10/12-cycle intervals	V	600
v_AN_harm_6_min	RMS voltage, between phase A and N, harmonic component #6, minimum of 10/12-cycle intervals	V	600
v_AN_harm_7_min	RMS voltage, between phase A and N, harmonic component #7, minimum of 10/12-cycle intervals	V	600
v_AN_harm_8_min	RMS voltage, between phase A and N, harmonic component #8, minimum of 10/12-cycle intervals	V	600
v_AN_harm_9_min	RMS voltage, between phase A and N, harmonic component #9, minimum of 10/12-cycle intervals	V	600
v_AN_harm_10_min	RMS voltage, between phase A and N, harmonic component #10, minimum of 10/12-cycle intervals	V	600
v_AN_harm_11_min	RMS voltage, between phase A and N, harmonic component #11, minimum of 10/12-cycle intervals	V	600
v_AN_harm_12_min	RMS voltage, between phase A and N, harmonic component #12, minimum of 10/12-cycle intervals	V	600
v_AN_harm_13_min	RMS voltage, between phase A and N, harmonic component #13, minimum of 10/12-cycle intervals	V	600
v_AN_harm_14_min	RMS voltage, between phase A and N, harmonic component #14, minimum of 10/12-cycle intervals	V	600

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]


[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

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code	description	units	typical aggregation [s]
a_CN_harm_36_min	RMS current, between phase C and N, harmonic component #36, minimum of 10/12-cycle intervals	A	600
a_CN_harm_37_min	RMS current, between phase C and N, harmonic component #37, minimum of 10/12-cycle intervals	A	600
a_CN_harm_38_min	RMS current, between phase C and N, harmonic component #38, minimum of 10/12-cycle intervals	A	600
a_CN_harm_39_min	RMS current, between phase C and N, harmonic component #39, minimum of 10/12-cycle intervals	A	600
a_CN_harm_40_min	RMS current, between phase C and N, harmonic component #40, minimum of 10/12-cycle intervals	A	600
a_CN_harm_41_min	RMS current, between phase C and N, harmonic component #41, minimum of 10/12-cycle intervals	A	600
a_CN_harm_42_min	RMS current, between phase C and N, harmonic component #42, minimum of 10/12-cycle intervals	A	600
a_CN_harm_43_min	RMS current, between phase C and N, harmonic component #43, minimum of 10/12-cycle intervals	A	600
a_CN_harm_44_min	RMS current, between phase C and N, harmonic component #44, minimum of 10/12-cycle intervals	A	600
a_CN_harm_45_min	RMS current, between phase C and N, harmonic component #45, minimum of 10/12-cycle intervals	A	600
a_CN_harm_46_min	RMS current, between phase C and N, harmonic component #46, minimum of 10/12-cycle intervals	A	600
a_CN_harm_47_min	RMS current, between phase C and N, harmonic component #47, minimum of 10/12-cycle intervals	A	600
a_CN_harm_48_min	RMS current, between phase C and N, harmonic component #48, minimum of 10/12-cycle intervals	A	600
a_CN_harm_49_min	RMS current, between phase C and N, harmonic component #49, minimum of 10/12-cycle intervals	A	600
a_CN_harm_50_min	RMS current, between phase C and N, harmonic component #50, minimum of 10/12-cycle intervals	A	600
v_AN_THD_min	RMS voltage, between phase A and N, total harmonic distortion, minimum of 10/12-cycle intervals	%	600
v_BN_THD_min	RMS voltage, between phase B and N, total harmonic distortion, minimum of 10/12-cycle intervals	%	600
v_CN_THD_min	RMS voltage, between phase C and N, total harmonic distortion, minimum of 10/12-cycle intervals	%	600
v_AB_THD_min	RMS voltage, between phase A and B, total harmonic distortion, minimum of 10/12-cycle intervals	%	600
v_BC_THD_min	RMS voltage, between phase B and C, total harmonic distortion, minimum of 10/12-cycle intervals	%	600
v_CA_THD_min	RMS voltage, between phase C and A, total harmonic distortion, minimum of 10/12-cycle intervals	%	600
a_AN_THD_min	RMS current, between phase A and N, total harmonic distortion, minimum of 10/12-cycle intervals	%	600
a_BN_THD_min	RMS current, between phase B and N, total harmonic distortion, minimum of 10/12-cycle intervals	%	600
a_CN_THD_min	RMS current, between phase C and N, total harmonic distortion, minimum of 10/12-cycle intervals	%	600
a_AN_TDD_min	RMS current, between phase A and N, total demand distortion, minimum of 10/12-cycle intervals	%	600
a_BN_TDD_min	RMS current, between phase B and N, total demand distortion, minimum of 10/12-cycle intervals	%	600
a_CN_TDD_min	RMS current, between phase C and N, total demand distortion, minimum of 10/12-cycle intervals	%	600
v_p2p_pos_min	RMS phase-to-phase voltage, positive sequence component, minimum of 10/12-cycle intervals	V	600
v_p2p_neg_min	RMS phase-to-phase voltage, negative sequence component, minimum of 10/12-cycle intervals	V	600
unbal_p2p_min	Phase-to-phase negative sequence voltage unbalance, minimum of 10/12-cycle intervals	%	600
v_p2n_pos_min	RMS line voltage, positive sequence component, minimum of 10/12-cycle intervals	V	600
v_p2n_neg_min	RMS line voltage, negative sequence component, minimum of 10/12-cycle intervals	V	600
v_p2n_zero_min	RMS line voltage, zero sequence component, minimum of 10/12-cycle intervals	V	600
unbal_p2n_min	Phase-to-neutral negative sequence voltage unbalance, minimum of 10/12-cycle intervals	%	600
freq_min	frequency, minimum of 10/12-cycle intervals	Hz	600
v_AN_avg	RMS voltage, between phase A and NEUTRAL, average of 10/12-cycle intervals	V	600
v_BN_avg	RMS voltage, between phase B and NEUTRAL, average of 10/12-cycle intervals	V	600
v_CN_avg	RMS voltage, between phase C and NEUTRAL, average of 10/12-cycle intervals	V	600
v_AB_avg	RMS voltage, between phase A and B, average of 10/12-cycle intervals	V	600

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code	description	units	typical aggregation [s]
v_BC_avg	RMS voltage, between phase B and C, average of 10/12-cycle intervals	V	600
v_CA_avg	RMS voltage, between phase C and A, average of 10/12-cycle intervals	V	600
a_AN_avg	RMS current, phase A, average of 10/12-cycle intervals	A	600
a_BN_avg	RMS current, phase B, average of 10/12-cycle intervals	A	600
a_CN_avg	RMS current, phase C, average of 10/12-cycle intervals	A	600
p_AN_avg	Active power, phase A, average of 10/12-cycle intervals	W	600
p_BN_avg	Active power, phase B, average of 10/12-cycle intervals	W	600
p_CN_avg	Active power, phase C, average of 10/12-cycle intervals	W	600
p_TOTAL_avg	Active power, total, average of 10/12-cycle intervals	W	600
q_AN_avg	Reactive power, phase A, average of 10/12-cycle intervals	VAr	600
q_BN_avg	Reactive power, phase B, average of 10/12-cycle intervals	VAr	600
q_CN_avg	Reactive power, phase C, average of 10/12-cycle intervals	VAr	600
q_TOTAL_avg	Reactive power, total, average of 10/12-cycle intervals	VAr	600
v_AN_harm_0_avg	RMS voltage, between phase A and N, harmonic component DC, average of 10/12-cycle intervals	V	600
v_AN_harm_1_avg	RMS voltage, between phase A and N, harmonic component #1, average of 10/12-cycle intervals	V	600
v_AN_harm_2_avg	RMS voltage, between phase A and N, harmonic component #2, average of 10/12-cycle intervals	V	600
v_AN_harm_3_avg	RMS voltage, between phase A and N, harmonic component #3, average of 10/12-cycle intervals	V	600
v_AN_harm_4_avg	RMS voltage, between phase A and N, harmonic component #4, average of 10/12-cycle intervals	V	600
v_AN_harm_5_avg	RMS voltage, between phase A and N, harmonic component #5, average of 10/12-cycle intervals	V	600
v_AN_harm_6_avg	RMS voltage, between phase A and N, harmonic component #6, average of 10/12-cycle intervals	V	600
v_AN_harm_7_avg	RMS voltage, between phase A and N, harmonic component #7, average of 10/12-cycle intervals	V	600
v_AN_harm_8_avg	RMS voltage, between phase A and N, harmonic component #8, average of 10/12-cycle intervals	V	600
v_AN_harm_9_avg	RMS voltage, between phase A and N, harmonic component #9, average of 10/12-cycle intervals	V	600
v_AN_harm_10_avg	RMS voltage, between phase A and N, harmonic component #10, average of 10/12-cycle intervals	V	600
v_AN_harm_11_avg	RMS voltage, between phase A and N, harmonic component #11, average of 10/12-cycle intervals	V	600
v_AN_harm_12_avg	RMS voltage, between phase A and N, harmonic component #12, average of 10/12-cycle intervals	V	600
v_AN_harm_13_avg	RMS voltage, between phase A and N, harmonic component #13, average of 10/12-cycle intervals	V	600
v_AN_harm_14_avg	RMS voltage, between phase A and N, harmonic component #14, average of 10/12-cycle intervals	V	600
v_AN_harm_15_avg	RMS voltage, between phase A and N, harmonic component #15, average of 10/12-cycle intervals	V	600
v_AN_harm_16_avg	RMS voltage, between phase A and N, harmonic component #16, average of 10/12-cycle intervals	V	600
v_AN_harm_17_avg	RMS voltage, between phase A and N, harmonic component #17, average of 10/12-cycle intervals	V	600
v_AN_harm_18_avg	RMS voltage, between phase A and N, harmonic component #18, average of 10/12-cycle intervals	V	600
v_AN_harm_19_avg	RMS voltage, between phase A and N, harmonic component #19, average of 10/12-cycle intervals	V	600
v_AN_harm_20_avg	RMS voltage, between phase A and N, harmonic component #20, average of 10/12-cycle intervals	V	600
v_AN_harm_21_avg	RMS voltage, between phase A and N, harmonic component #21, average of 10/12-cycle intervals	V	600
v_AN_harm_22_avg	RMS voltage, between phase A and N, harmonic component #22, average of 10/12-cycle intervals	V	600
v_AN_harm_23_avg	RMS voltage, between phase A and N, harmonic component #23, average of 10/12-cycle intervals	V	600
v_AN_harm_24_avg	RMS voltage, between phase A and N, harmonic component #24, average of 10/12-cycle intervals	V	600
v_AN_harm_25_avg	RMS voltage, between phase A and N, harmonic component #25, average of 10/12-cycle intervals	V	600

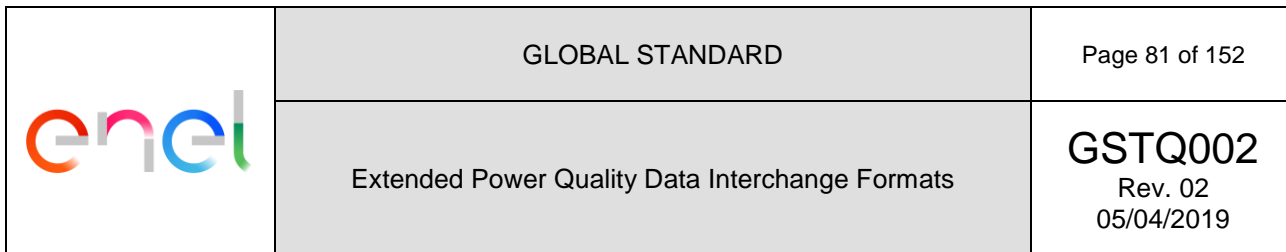
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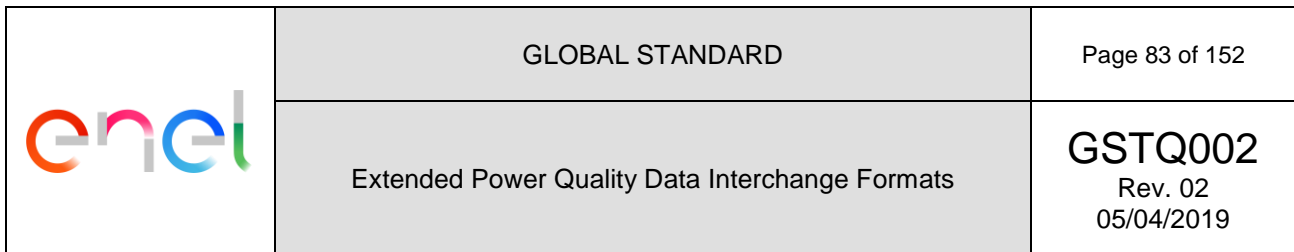
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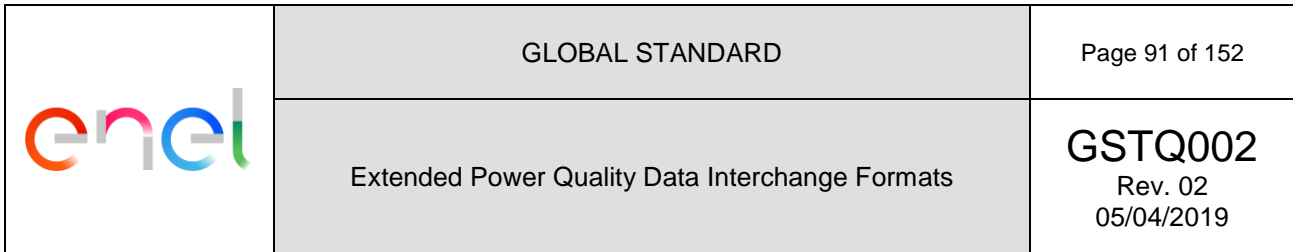
code	description	units	typical aggregation [s]
a_CN_harm_47_avg	RMS current, between phase C and N, harmonic component #47, average of 10/12-cycle intervals	A	600
a_CN_harm_48_avg	RMS current, between phase C and N, harmonic component #48, average of 10/12-cycle intervals	A	600
a_CN_harm_49_avg	RMS current, between phase C and N, harmonic component #49, average of 10/12-cycle intervals	A	600
a_CN_harm_50_avg	RMS current, between phase C and N, harmonic component #50, average of 10/12-cycle intervals	A	600
v_AN_THD_avg	RMS voltage, between phase A and N, total harmonic distortion, average of 10/12-cycle intervals	%	600
v_BN_THD_avg	RMS voltage, between phase B and N, total harmonic distortion, average of 10/12-cycle intervals	%	600
v_CN_THD_avg	RMS voltage, between phase C and N, total harmonic distortion, average of 10/12-cycle intervals	%	600
v_AB_THD_avg	RMS voltage, between phase A and B, total harmonic distortion, average of 10/12-cycle intervals	%	600
v_BC_THD_avg	RMS voltage, between phase B and C, total harmonic distortion, average of 10/12-cycle intervals	%	600
v_CA_THD_avg	RMS voltage, between phase C and A, total harmonic distortion, average of 10/12-cycle intervals	%	600
a_AN_THD_avg	RMS current, between phase A and N, total harmonic distortion, average of 10/12-cycle intervals	%	600
a_BN_THD_avg	RMS current, between phase B and N, total harmonic distortion, average of 10/12-cycle intervals	%	600
a_CN_THD_avg	RMS current, between phase C and N, total harmonic distortion, average of 10/12-cycle intervals	%	600
a_AN_TDD_avg	RMS current, between phase A and N, total demand distortion, average of 10/12-cycle intervals	%	600
a_BN_TDD_avg	RMS current, between phase B and N, total demand distortion, average of 10/12-cycle intervals	%	600
a_CN_TDD_avg	RMS current, between phase C and N, total demand distortion, average of 10/12-cycle intervals	%	600
v_p2p_pos_avg	RMS phase-to-phase voltage, positive sequence component, average of 10/12-cycle intervals	V	600
v_p2p_neg_avg	RMS phase-to-phase voltage, negative sequence component, average of 10/12-cycle intervals	V	600
unbal_p2p_avg	Phase-to-phase negative sequence voltage unbalance, average of 10/12-cycle intervals	%	600
v_p2n_pos_avg	RMS line voltage, positive sequence component, average of 10/12-cycle intervals	V	600
v_p2n_neg_avg	RMS line voltage, negative sequence component, average of 10/12-cycle intervals	V	600
v_p2n_zero_avg	RMS line voltage, zero sequence component, average of 10/12-cycle intervals	V	600
unbal_p2n_avg	Phase-to-neutral negative sequence voltage unbalance, average of 10/12-cycle intervals	%	600
freq_avg	frequency, average of 10/12-cycle intervals	Hz	600
v_AN_pst	RMS voltage, between phase A and NEUTRAL, short term flicker	None	600
v_BN_pst	RMS voltage, between phase B and NEUTRAL, short term flicker	None	600
v_CN_pst	RMS voltage, between phase C and NEUTRAL, short term flicker	None	600
v_AN_plt	RMS voltage, between phase A and NEUTRAL, long term flicker	None	7200
v_BN_plt	RMS voltage, between phase B and NEUTRAL, long term flicker	None	7200
v_CN_plt	RMS voltage, between phase C and NEUTRAL, long term flicker	None	7200
v_AN_max	RMS voltage, between phase A and NEUTRAL, maximum of 10/12-cycle intervals	V	600
v_BN_max	RMS voltage, between phase B and NEUTRAL, maximum of 10/12-cycle intervals	V	600
v_CN_max	RMS voltage, between phase C and NEUTRAL, maximum of 10/12-cycle intervals	V	600
v_AB_max	RMS voltage, between phase A and B, maximum of 10/12-cycle intervals	V	600
v_BC_max	RMS voltage, between phase B and C, maximum of 10/12-cycle intervals	V	600
v_CA_max	RMS voltage, between phase C and A, maximum of 10/12-cycle intervals	V	600
a_AN_max	RMS current, phase A, maximum of 10/12-cycle intervals	A	600
a_BN_max	RMS current, phase B, maximum of 10/12-cycle intervals	A	600
a_CN_max	RMS current, phase C, maximum of 10/12-cycle intervals	A	600

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code	description	units	typical aggregation [s]
p_AN_max	Active power, phase A, maximum of 10/12-cycle intervals	W	600
p_BN_max	Active power, phase B, maximum of 10/12-cycle intervals	W	600
p_CN_max	Active power, phase C, maximum of 10/12-cycle intervals	W	600
p_TOTAL_max	Active power, total, maximum of 10/12-cycle intervals	W	600
q_AN_max	Reactive power, phase A, maximum of 10/12-cycle intervals	VAr	600
q_BN_max	Reactive power, phase B, maximum of 10/12-cycle intervals	VAr	600
q_CN_max	Reactive power, phase C, maximum of 10/12-cycle intervals	VAr	600
q_TOTAL_max	Reactive power, total, maximum of 10/12-cycle intervals	VAr	600
v_AN_harm_0_max	RMS voltage, between phase A and N, harmonic component DC, maximum of 10/12-cycle intervals	V	600
v_AN_harm_1_max	RMS voltage, between phase A and N, harmonic component #1, maximum of 10/12-cycle intervals	V	600
v_AN_harm_2_max	RMS voltage, between phase A and N, harmonic component #2, maximum of 10/12-cycle intervals	V	600
v_AN_harm_3_max	RMS voltage, between phase A and N, harmonic component #3, maximum of 10/12-cycle intervals	V	600
v_AN_harm_4_max	RMS voltage, between phase A and N, harmonic component #4, maximum of 10/12-cycle intervals	V	600
v_AN_harm_5_max	RMS voltage, between phase A and N, harmonic component #5, maximum of 10/12-cycle intervals	V	600
v_AN_harm_6_max	RMS voltage, between phase A and N, harmonic component #6, maximum of 10/12-cycle intervals	V	600
v_AN_harm_7_max	RMS voltage, between phase A and N, harmonic component #7, maximum of 10/12-cycle intervals	V	600
v_AN_harm_8_max	RMS voltage, between phase A and N, harmonic component #8, maximum of 10/12-cycle intervals	V	600
v_AN_harm_9_max	RMS voltage, between phase A and N, harmonic component #9, maximum of 10/12-cycle intervals	V	600
v_AN_harm_10_max	RMS voltage, between phase A and N, harmonic component #10, maximum of 10/12-cycle intervals	V	600
v_AN_harm_11_max	RMS voltage, between phase A and N, harmonic component #11, maximum of 10/12-cycle intervals	V	600
v_AN_harm_12_max	RMS voltage, between phase A and N, harmonic component #12, maximum of 10/12-cycle intervals	V	600
v_AN_harm_13_max	RMS voltage, between phase A and N, harmonic component #13, maximum of 10/12-cycle intervals	V	600
v_AN_harm_14_max	RMS voltage, between phase A and N, harmonic component #14, maximum of 10/12-cycle intervals	V	600
v_AN_harm_15_max	RMS voltage, between phase A and N, harmonic component #15, maximum of 10/12-cycle intervals	V	600
v_AN_harm_16_max	RMS voltage, between phase A and N, harmonic component #16, maximum of 10/12-cycle intervals	V	600
v_AN_harm_17_max	RMS voltage, between phase A and N, harmonic component #17, maximum of 10/12-cycle intervals	V	600
v_AN_harm_18_max	RMS voltage, between phase A and N, harmonic component #18, maximum of 10/12-cycle intervals	V	600
v_AN_harm_19_max	RMS voltage, between phase A and N, harmonic component #19, maximum of 10/12-cycle intervals	V	600
v_AN_harm_20_max	RMS voltage, between phase A and N, harmonic component #20, maximum of 10/12-cycle intervals	V	600
v_AN_harm_21_max	RMS voltage, between phase A and N, harmonic component #21, maximum of 10/12-cycle intervals	V	600
v_AN_harm_22_max	RMS voltage, between phase A and N, harmonic component #22, maximum of 10/12-cycle intervals	V	600
v_AN_harm_23_max	RMS voltage, between phase A and N, harmonic component #23, maximum of 10/12-cycle intervals	V	600
v_AN_harm_24_max	RMS voltage, between phase A and N, harmonic component #24, maximum of 10/12-cycle intervals	V	600
v_AN_harm_25_max	RMS voltage, between phase A and N, harmonic component #25, maximum of 10/12-cycle intervals	V	600
v_AN_harm_26_max	RMS voltage, between phase A and N, harmonic component #26, maximum of 10/12-cycle intervals	V	600
v_AN_harm_27_max	RMS voltage, between phase A and N, harmonic component #27, maximum of 10/12-cycle intervals	V	600
v_AN_harm_28_max	RMS voltage, between phase A and N, harmonic component #28, maximum of 10/12-cycle intervals	V	600
v_AN_harm_29_max	RMS voltage, between phase A and N, harmonic component #29, maximum of 10/12-cycle intervals	V	600
v_AN_harm_30_max	RMS voltage, between phase A and N, harmonic component #30, maximum of 10/12-cycle intervals	V	600

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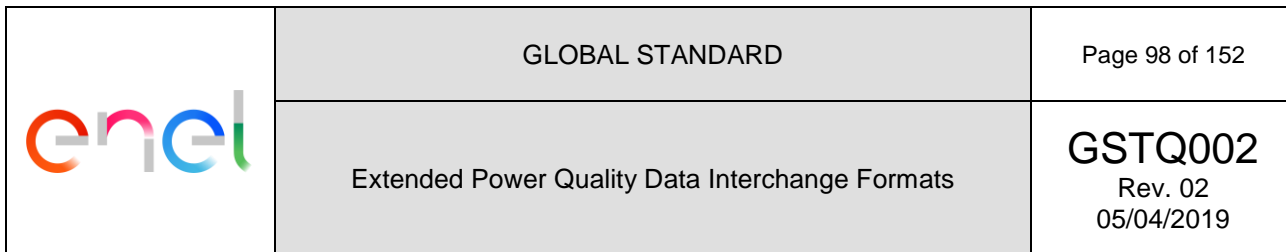
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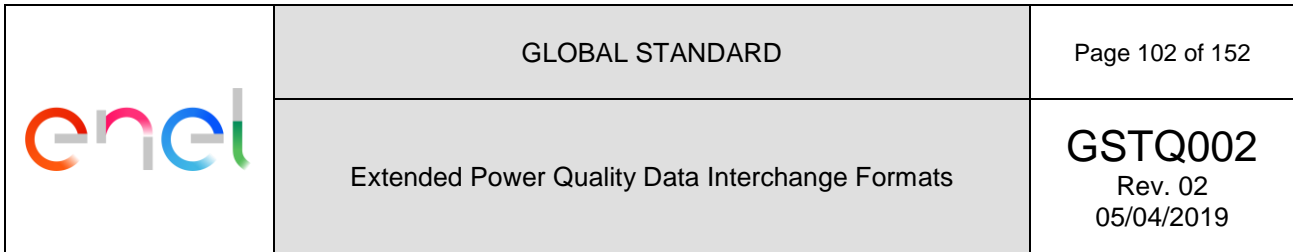
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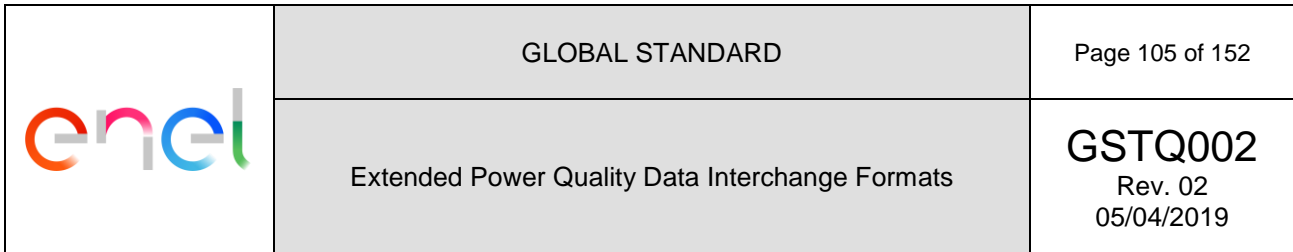
code	description	units	typical aggregation [s]
v_BN_THD_max	RMS voltage, between phase B and N, total harmonic distortion, maximum of 10/12-cycle intervals	%	600
v_CN_THD_max	RMS voltage, between phase C and N, total harmonic distortion, maximum of 10/12-cycle intervals	%	600
v_AB_THD_max	RMS voltage, between phase A and B, total harmonic distortion, maximum of 10/12-cycle intervals	%	600
v_BC_THD_max	RMS voltage, between phase B and C, total harmonic distortion, maximum of 10/12-cycle intervals	%	600
v_CA_THD_max	RMS voltage, between phase C and A, total harmonic distortion, maximum of 10/12-cycle intervals	%	600
a_AN_THD_max	RMS current, between phase A and N, total harmonic distortion, maximum of 10/12-cycle intervals	%	600
a_BN_THD_max	RMS current, between phase B and N, total harmonic distortion, maximum of 10/12-cycle intervals	%	600
a_CN_THD_max	RMS current, between phase C and N, total harmonic distortion, maximum of 10/12-cycle intervals	%	600
a_AN_TDD_max	RMS current, between phase A and N, total demand distortion, maximum of 10/12-cycle intervals	%	600
a_BN_TDD_max	RMS current, between phase B and N, total demand distortion, maximum of 10/12-cycle intervals	%	600
a_CN_TDD_max	RMS current, between phase C and N, total demand distortion, maximum of 10/12-cycle intervals	%	600
v_zero_max	RMS voltage, zero sequence component, maximum of 10/12-cycle intervals	V	600
v_neg_max	RMS voltage, negative sequence component, maximum of 10/12-cycle intervals	V	600
freq_max	frequency, maximum of 10/12-cycle intervals	Hz	600
v_AN	RMS voltage, between A and NEUTRAL, instantaneous (10/12 cycle window)	V	not applicable
v_BN	RMS voltage, between B and NEUTRAL, instantaneous (10/12 cycle window)	V	not applicable
v_CN	RMS voltage, between C and NEUTRAL, instantaneous (10/12 cycle window)	V	not applicable
v_AB	RMS voltage, between A and B, instantaneous (10/12 cycle window)	V	not applicable
v_BC	RMS voltage, between B and C, instantaneous (10/12 cycle window)	V	not applicable
v_CA	RMS voltage, between C and A, instantaneous (10/12 cycle window)	V	not applicable
a_AN	RMS current, phase A, instantaneous (10/12 cycle window)	A	not applicable
a_BN	RMS current, phase B, instantaneous (10/12 cycle window)	A	not applicable
a_CN	RMS current, phase C, instantaneous (10/12 cycle window)	A	not applicable
p_AN	active power, between phase A and NEUTRAL, instantaneous (10/12 cycle window)	W	not applicable
p_BN	active power, between phase B and NEUTRAL, instantaneous (10/12 cycle window)	W	not applicable
p_CN	active power, between phase C and NEUTRAL, instantaneous (10/12 cycle window)	W	not applicable
p_TOTAL	active power, total, instantaneous (10/12 cycle window)	W	not applicable
q_AN	reactive power, between phase A and NEUTRAL, instantaneous (10/12 cycle window)	VAr	not applicable
q_BN	reactive power, between phase B and NEUTRAL, instantaneous (10/12 cycle window)	VAr	not applicable
q_CN	reactive power, between phase C and NEUTRAL, instantaneous (10/12 cycle window)	VAr	not applicable
q_TOTAL	reactive power, total, instantaneous (10/12 cycle window)	VAr	not applicable
s_AN	apparent power, between phase A and NEUTRAL, instantaneous (10/12 cycle window)	VA	not applicable
s_BN	apparent power, between phase B and NEUTRAL, instantaneous (10/12 cycle window)	VA	not applicable
s_CN	apparent power, between phase C and NEUTRAL, instantaneous (10/12 cycle window)	VA	not applicable
s_TOTAL	apparent power, total, instantaneous (10/12 cycle window)	VA	not applicable
freq	frequency, instantaneous value (moving averaging window)	Hz	not applicable
v_AN_iharm_0_min	RMS voltage, between phase A and N, interharmonic component #0, minimum of 10/12-cycle intervals	V	600
v_AN_iharm_1_min	RMS voltage, between phase A and N, interharmonic component #1, minimum of 10/12-cycle intervals	V	600
v_AN_iharm_2_min	RMS voltage, between phase A and N, interharmonic component #2, minimum of 10/12-cycle intervals	V	600

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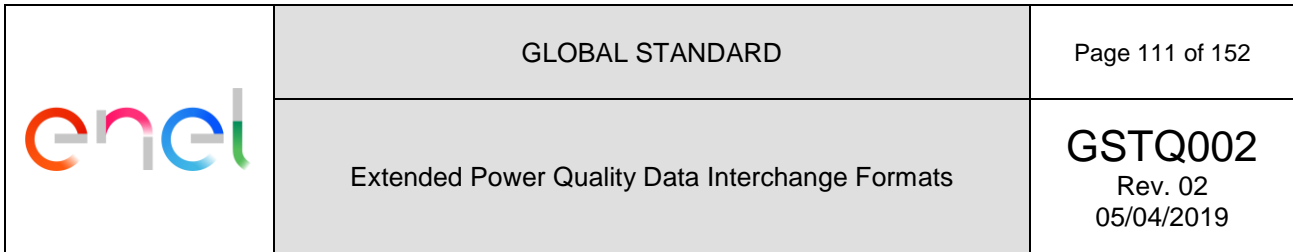
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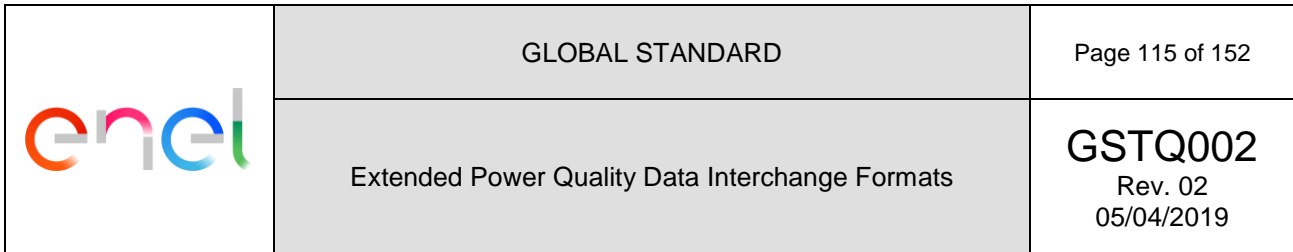
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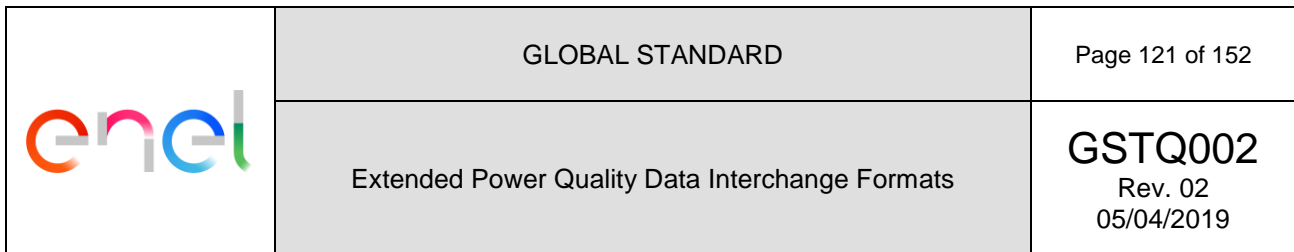
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code	description	units	typical aggregation [s]
a_CN_iharm_33_avg	RMS current, between phase C and N, interharmonic component #33, average of 10/12-cycle intervals	A	600
a_CN_iharm_34_avg	RMS current, between phase C and N, interharmonic component #34, average of 10/12-cycle intervals	A	600
a_CN_iharm_35_avg	RMS current, between phase C and N, interharmonic component #35, average of 10/12-cycle intervals	A	600
a_CN_iharm_36_avg	RMS current, between phase C and N, interharmonic component #36, average of 10/12-cycle intervals	A	600
a_CN_iharm_37_avg	RMS current, between phase C and N, interharmonic component #37, average of 10/12-cycle intervals	A	600
a_CN_iharm_38_avg	RMS current, between phase C and N, interharmonic component #38, average of 10/12-cycle intervals	A	600
a_CN_iharm_39_avg	RMS current, between phase C and N, interharmonic component #39, average of 10/12-cycle intervals	A	600
a_CN_iharm_40_avg	RMS current, between phase C and N, interharmonic component #40, average of 10/12-cycle intervals	A	600
a_CN_iharm_41_avg	RMS current, between phase C and N, interharmonic component #41, average of 10/12-cycle intervals	A	600
a_CN_iharm_42_avg	RMS current, between phase C and N, interharmonic component #42, average of 10/12-cycle intervals	A	600
a_CN_iharm_43_avg	RMS current, between phase C and N, interharmonic component #43, average of 10/12-cycle intervals	A	600
a_CN_iharm_44_avg	RMS current, between phase C and N, interharmonic component #44, average of 10/12-cycle intervals	A	600
a_CN_iharm_45_avg	RMS current, between phase C and N, interharmonic component #45, average of 10/12-cycle intervals	A	600
a_CN_iharm_46_avg	RMS current, between phase C and N, interharmonic component #46, average of 10/12-cycle intervals	A	600
a_CN_iharm_47_avg	RMS current, between phase C and N, interharmonic component #47, average of 10/12-cycle intervals	A	600
a_CN_iharm_48_avg	RMS current, between phase C and N, interharmonic component #48, average of 10/12-cycle intervals	A	600
a_CN_iharm_49_avg	RMS current, between phase C and N, interharmonic component #49, average of 10/12-cycle intervals	A	600
a_CN_iharm_50_avg	RMS current, between phase C and N, interharmonic component #50, average of 10/12-cycle intervals	A	600
v_AN_iharm_0_max	RMS voltage, between phase A and N, interharmonic component #0, maximum of 10/12-cycle intervals	V	600
v_AN_iharm_1_max	RMS voltage, between phase A and N, interharmonic component #1, maximum of 10/12-cycle intervals	V	600
v_AN_iharm_2_max	RMS voltage, between phase A and N, interharmonic component #2, maximum of 10/12-cycle intervals	V	600
v_AN_iharm_3_max	RMS voltage, between phase A and N, interharmonic component #3, maximum of 10/12-cycle intervals	V	600
v_AN_iharm_4_max	RMS voltage, between phase A and N, interharmonic component #4, maximum of 10/12-cycle intervals	V	600
v_AN_iharm_5_max	RMS voltage, between phase A and N, interharmonic component #5, maximum of 10/12-cycle intervals	V	600
v_AN_iharm_6_max	RMS voltage, between phase A and N, interharmonic component #6, maximum of 10/12-cycle intervals	V	600
v_AN_iharm_7_max	RMS voltage, between phase A and N, interharmonic component #7, maximum of 10/12-cycle intervals	V	600
v_AN_iharm_8_max	RMS voltage, between phase A and N, interharmonic component #8, maximum of 10/12-cycle intervals	V	600
v_AN_iharm_9_max	RMS voltage, between phase A and N, interharmonic component #9, maximum of 10/12-cycle intervals	V	600
v_AN_iharm_10_max	RMS voltage, between phase A and N, interharmonic component #10, maximum of 10/12-cycle intervals	V	600
v_AN_iharm_11_max	RMS voltage, between phase A and N, interharmonic component #11, maximum of 10/12-cycle intervals	V	600
v_AN_iharm_12_max	RMS voltage, between phase A and N, interharmonic component #12, maximum of 10/12-cycle intervals	V	600
v_AN_iharm_13_max	RMS voltage, between phase A and N, interharmonic component #13, maximum of 10/12-cycle intervals	V	600
v_AN_iharm_14_max	RMS voltage, between phase A and N, interharmonic component #14, maximum of 10/12-cycle intervals	V	600
v_AN_iharm_15_max	RMS voltage, between phase A and N, interharmonic component #15, maximum of 10/12-cycle intervals	V	600
v_AN_iharm_16_max	RMS voltage, between phase A and N, interharmonic component #16, maximum of 10/12-cycle intervals	V	600
v_AN_iharm_17_max	RMS voltage, between phase A and N, interharmonic component #17, maximum of 10/12-cycle intervals	V	600
v_AN_iharm_18_max	RMS voltage, between phase A and N, interharmonic component #18, maximum of 10/12-cycle intervals	V	600
v_AN_iharm_19_max	RMS voltage, between phase A and N, interharmonic component #19, maximum of 10/12-cycle intervals	V	600
v_AN_iharm_20_max	RMS voltage, between phase A and N, interharmonic component #20, maximum of 10/12-cycle intervals	V	600

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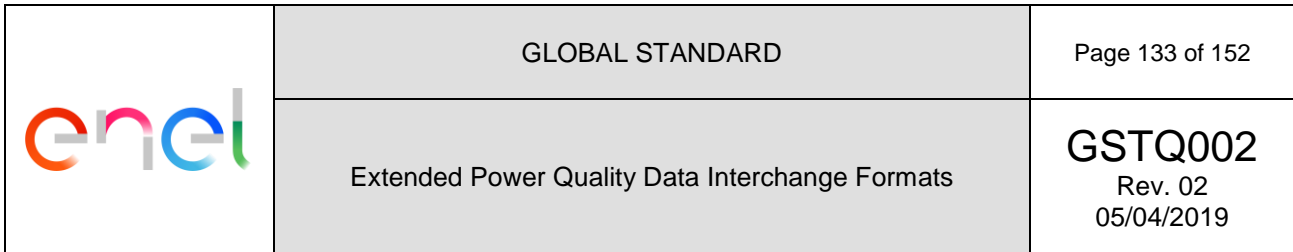
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code	description	units	typical aggregation [s]
v_CA_iharm_39_max	RMS voltage, between phase C and A, interharmonic component #39, maximum of 10/12-cycle intervals	V	600
v_CA_iharm_40_max	RMS voltage, between phase C and A, interharmonic component #40, maximum of 10/12-cycle intervals	V	600
v_CA_iharm_41_max	RMS voltage, between phase C and A, interharmonic component #41, maximum of 10/12-cycle intervals	V	600
v_CA_iharm_42_max	RMS voltage, between phase C and A, interharmonic component #42, maximum of 10/12-cycle intervals	V	600
v_CA_iharm_43_max	RMS voltage, between phase C and A, interharmonic component #43, maximum of 10/12-cycle intervals	V	600
v_CA_iharm_44_max	RMS voltage, between phase C and A, interharmonic component #44, maximum of 10/12-cycle intervals	V	600
v_CA_iharm_45_max	RMS voltage, between phase C and A, interharmonic component #45, maximum of 10/12-cycle intervals	V	600
v_CA_iharm_46_max	RMS voltage, between phase C and A, interharmonic component #46, maximum of 10/12-cycle intervals	V	600
v_CA_iharm_47_max	RMS voltage, between phase C and A, interharmonic component #47, maximum of 10/12-cycle intervals	V	600
v_CA_iharm_48_max	RMS voltage, between phase C and A, interharmonic component #48, maximum of 10/12-cycle intervals	V	600
v_CA_iharm_49_max	RMS voltage, between phase C and A, interharmonic component #49, maximum of 10/12-cycle intervals	V	600
v_CA_iharm_50_max	RMS voltage, between phase C and A, interharmonic component #50, maximum of 10/12-cycle intervals	V	600
a_AN_iharm_0_max	RMS current, between phase A and N, interharmonic component #0, maximum of 10/12-cycle intervals	A	600
a_AN_iharm_1_max	RMS current, between phase A and N, interharmonic component #1, maximum of 10/12-cycle intervals	A	600
a_AN_iharm_2_max	RMS current, between phase A and N, interharmonic component #2, maximum of 10/12-cycle intervals	A	600
a_AN_iharm_3_max	RMS current, between phase A and N, interharmonic component #3, maximum of 10/12-cycle intervals	A	600
a_AN_iharm_4_max	RMS current, between phase A and N, interharmonic component #4, maximum of 10/12-cycle intervals	A	600
a_AN_iharm_5_max	RMS current, between phase A and N, interharmonic component #5, maximum of 10/12-cycle intervals	A	600
a_AN_iharm_6_max	RMS current, between phase A and N, interharmonic component #6, maximum of 10/12-cycle intervals	A	600
a_AN_iharm_7_max	RMS current, between phase A and N, interharmonic component #7, maximum of 10/12-cycle intervals	A	600
a_AN_iharm_8_max	RMS current, between phase A and N, interharmonic component #8, maximum of 10/12-cycle intervals	A	600
a_AN_iharm_9_max	RMS current, between phase A and N, interharmonic component #9, maximum of 10/12-cycle intervals	A	600
a_AN_iharm_10_max	RMS current, between phase A and N, interharmonic component #10, maximum of 10/12-cycle intervals	A	600
a_AN_iharm_11_max	RMS current, between phase A and N, interharmonic component #11, maximum of 10/12-cycle intervals	A	600
a_AN_iharm_12_max	RMS current, between phase A and N, interharmonic component #12, maximum of 10/12-cycle intervals	A	600
a_AN_iharm_13_max	RMS current, between phase A and N, interharmonic component #13, maximum of 10/12-cycle intervals	A	600
a_AN_iharm_14_max	RMS current, between phase A and N, interharmonic component #14, maximum of 10/12-cycle intervals	A	600
a_AN_iharm_15_max	RMS current, between phase A and N, interharmonic component #15, maximum of 10/12-cycle intervals	A	600
a_AN_iharm_16_max	RMS current, between phase A and N, interharmonic component #16, maximum of 10/12-cycle intervals	A	600
a_AN_iharm_17_max	RMS current, between phase A and N, interharmonic component #17, maximum of 10/12-cycle intervals	A	600
a_AN_iharm_18_max	RMS current, between phase A and N, interharmonic component #18, maximum of 10/12-cycle intervals	A	600
a_AN_iharm_19_max	RMS current, between phase A and N, interharmonic component #19, maximum of 10/12-cycle intervals	A	600
a_AN_iharm_20_max	RMS current, between phase A and N, interharmonic component #20, maximum of 10/12-cycle intervals	A	600
a_AN_iharm_21_max	RMS current, between phase A and N, interharmonic component #21, maximum of 10/12-cycle intervals	A	600
a_AN_iharm_22_max	RMS current, between phase A and N, interharmonic component #22, maximum of 10/12-cycle intervals	A	600
a_AN_iharm_23_max	RMS current, between phase A and N, interharmonic component #23, maximum of 10/12-cycle intervals	A	600
a_AN_iharm_24_max	RMS current, between phase A and N, interharmonic component #24, maximum of 10/12-cycle intervals	A	600
a_AN_iharm_25_max	RMS current, between phase A and N, interharmonic component #25, maximum of 10/12-cycle intervals	A	600
a_AN_iharm_26_max	RMS current, between phase A and N, interharmonic component #26, maximum of 10/12-cycle intervals	A	600

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code	description	units	typical aggregation [s]
a_CN_iharm_42_max	RMS current, between phase C and N, interharmonic component #42, maximum of 10/12-cycle intervals	A	600
a_CN_iharm_43_max	RMS current, between phase C and N, interharmonic component #43, maximum of 10/12-cycle intervals	A	600
a_CN_iharm_44_max	RMS current, between phase C and N, interharmonic component #44, maximum of 10/12-cycle intervals	A	600
a_CN_iharm_45_max	RMS current, between phase C and N, interharmonic component #45, maximum of 10/12-cycle intervals	A	600
a_CN_iharm_46_max	RMS current, between phase C and N, interharmonic component #46, maximum of 10/12-cycle intervals	A	600
a_CN_iharm_47_max	RMS current, between phase C and N, interharmonic component #47, maximum of 10/12-cycle intervals	A	600
a_CN_iharm_48_max	RMS current, between phase C and N, interharmonic component #48, maximum of 10/12-cycle intervals	A	600
a_CN_iharm_49_max	RMS current, between phase C and N, interharmonic component #49, maximum of 10/12-cycle intervals	A	600
a_CN_iharm_50_max	RMS current, between phase C and N, interharmonic component #50, maximum of 10/12-cycle intervals	A	600
v_AB_pst	RMS voltage, between phase A and B, short term flicker	None	600
v_BC_pst	RMS voltage, between phase B and C, short term flicker	None	600
v_CA_pst	RMS voltage, between phase C and A, short term flicker	None	600
v_AB_plt	RMS voltage, between phase A and B, long term flicker	None	7200
v_BC_plt	RMS voltage, between phase B and C, long term flicker	None	7200
v_CA_plt	RMS voltage, between phase C and A, long term flicker	None	7200
v_NG_min	RMS voltage, between NEUTRAL and GROUND, minimum of 10/12-cycle intervals	V	600
a_NG_min	RMS current, NEUTRAL, minimum of 10/12-cycle intervals	A	600
v_NG_harm_0_min	RMS voltage, between N and G, harmonic component DC, minimum of 10/12-cycle intervals	V	600
v_NG_harm_1_min	RMS voltage, between N and G, harmonic component #1, minimum of 10/12-cycle intervals	V	600
v_NG_harm_2_min	RMS voltage, between N and G, harmonic component #2, minimum of 10/12-cycle intervals	V	600
v_NG_harm_3_min	RMS voltage, between N and G, harmonic component #3, minimum of 10/12-cycle intervals	V	600
v_NG_harm_4_min	RMS voltage, between N and G, harmonic component #4, minimum of 10/12-cycle intervals	V	600
v_NG_harm_5_min	RMS voltage, between N and G, harmonic component #5, minimum of 10/12-cycle intervals	V	600
v_NG_harm_6_min	RMS voltage, between N and G, harmonic component #6, minimum of 10/12-cycle intervals	V	600
v_NG_harm_7_min	RMS voltage, between N and G, harmonic component #7, minimum of 10/12-cycle intervals	V	600
v_NG_harm_8_min	RMS voltage, between N and G, harmonic component #8, minimum of 10/12-cycle intervals	V	600
v_NG_harm_9_min	RMS voltage, between N and G, harmonic component #9, minimum of 10/12-cycle intervals	V	600
v_NG_harm_10_min	RMS voltage, between N and G, harmonic component #10, minimum of 10/12-cycle intervals	V	600
v_NG_harm_11_min	RMS voltage, between N and G, harmonic component #11, minimum of 10/12-cycle intervals	V	600
v_NG_harm_12_min	RMS voltage, between N and G, harmonic component #12, minimum of 10/12-cycle intervals	V	600
v_NG_harm_13_min	RMS voltage, between N and G, harmonic component #13, minimum of 10/12-cycle intervals	V	600
v_NG_harm_14_min	RMS voltage, between N and G, harmonic component #14, minimum of 10/12-cycle intervals	V	600
v_NG_harm_15_min	RMS voltage, between N and G, harmonic component #15, minimum of 10/12-cycle intervals	V	600
v_NG_harm_16_min	RMS voltage, between N and G, harmonic component #16, minimum of 10/12-cycle intervals	V	600
v_NG_harm_17_min	RMS voltage, between N and G, harmonic component #17, minimum of 10/12-cycle intervals	V	600
v_NG_harm_18_min	RMS voltage, between N and G, harmonic component #18, minimum of 10/12-cycle intervals	V	600
v_NG_harm_19_min	RMS voltage, between N and G, harmonic component #19, minimum of 10/12-cycle intervals	V	600
v_NG_harm_20_min	RMS voltage, between N and G, harmonic component #20, minimum of 10/12-cycle intervals	V	600
v_NG_harm_21_min	RMS voltage, between N and G, harmonic component #21, minimum of 10/12-cycle intervals	V	600

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code	description	units	typical aggregation [s]
v_NG_harm_22_min	RMS voltage, between N and G, harmonic component #22, minimum of 10/12-cycle intervals	V	600
v_NG_harm_23_min	RMS voltage, between N and G, harmonic component #23, minimum of 10/12-cycle intervals	V	600
v_NG_harm_24_min	RMS voltage, between N and G, harmonic component #24, minimum of 10/12-cycle intervals	V	600
v_NG_harm_25_min	RMS voltage, between N and G, harmonic component #25, minimum of 10/12-cycle intervals	V	600
v_NG_harm_26_min	RMS voltage, between N and G, harmonic component #26, minimum of 10/12-cycle intervals	V	600
v_NG_harm_27_min	RMS voltage, between N and G, harmonic component #27, minimum of 10/12-cycle intervals	V	600
v_NG_harm_28_min	RMS voltage, between N and G, harmonic component #28, minimum of 10/12-cycle intervals	V	600
v_NG_harm_29_min	RMS voltage, between N and G, harmonic component #29, minimum of 10/12-cycle intervals	V	600
v_NG_harm_30_min	RMS voltage, between N and G, harmonic component #30, minimum of 10/12-cycle intervals	V	600
v_NG_harm_31_min	RMS voltage, between N and G, harmonic component #31, minimum of 10/12-cycle intervals	V	600
v_NG_harm_32_min	RMS voltage, between N and G, harmonic component #32, minimum of 10/12-cycle intervals	V	600
v_NG_harm_33_min	RMS voltage, between N and G, harmonic component #33, minimum of 10/12-cycle intervals	V	600
v_NG_harm_34_min	RMS voltage, between N and G, harmonic component #34, minimum of 10/12-cycle intervals	V	600
v_NG_harm_35_min	RMS voltage, between N and G, harmonic component #35, minimum of 10/12-cycle intervals	V	600
v_NG_harm_36_min	RMS voltage, between N and G, harmonic component #36, minimum of 10/12-cycle intervals	V	600
v_NG_harm_37_min	RMS voltage, between N and G, harmonic component #37, minimum of 10/12-cycle intervals	V	600
v_NG_harm_38_min	RMS voltage, between N and G, harmonic component #38, minimum of 10/12-cycle intervals	V	600
v_NG_harm_39_min	RMS voltage, between N and G, harmonic component #39, minimum of 10/12-cycle intervals	V	600
v_NG_harm_40_min	RMS voltage, between N and G, harmonic component #40, minimum of 10/12-cycle intervals	V	600
v_NG_harm_41_min	RMS voltage, between N and G, harmonic component #41, minimum of 10/12-cycle intervals	V	600
v_NG_harm_42_min	RMS voltage, between N and G, harmonic component #42, minimum of 10/12-cycle intervals	V	600
v_NG_harm_43_min	RMS voltage, between N and G, harmonic component #43, minimum of 10/12-cycle intervals	V	600
v_NG_harm_44_min	RMS voltage, between N and G, harmonic component #44, minimum of 10/12-cycle intervals	V	600
v_NG_harm_45_min	RMS voltage, between N and G, harmonic component #45, minimum of 10/12-cycle intervals	V	600
v_NG_harm_46_min	RMS voltage, between N and G, harmonic component #46, minimum of 10/12-cycle intervals	V	600
v_NG_harm_47_min	RMS voltage, between N and G, harmonic component #47, minimum of 10/12-cycle intervals	V	600
v_NG_harm_48_min	RMS voltage, between N and G, harmonic component #48, minimum of 10/12-cycle intervals	V	600
v_NG_harm_49_min	RMS voltage, between N and G, harmonic component #49, minimum of 10/12-cycle intervals	V	600
v_NG_harm_50_min	RMS voltage, between N and G, harmonic component #50, minimum of 10/12-cycle intervals	V	600
a_NG_harm_0_min	RMS current, between N and G, harmonic component DC, minimum of 10/12-cycle intervals	A	600
a_NG_harm_1_min	RMS current, between N and G, harmonic component #1, minimum of 10/12-cycle intervals	A	600
a_NG_harm_2_min	RMS current, between N and G, harmonic component #2, minimum of 10/12-cycle intervals	A	600
a_NG_harm_3_min	RMS current, between N and G, harmonic component #3, minimum of 10/12-cycle intervals	A	600
a_NG_harm_4_min	RMS current, between N and G, harmonic component #4, minimum of 10/12-cycle intervals	A	600
a_NG_harm_5_min	RMS current, between N and G, harmonic component #5, minimum of 10/12-cycle intervals	A	600
a_NG_harm_6_min	RMS current, between N and G, harmonic component #6, minimum of 10/12-cycle intervals	A	600
a_NG_harm_7_min	RMS current, between N and G, harmonic component #7, minimum of 10/12-cycle intervals	A	600
a_NG_harm_8_min	RMS current, between N and G, harmonic component #8, minimum of 10/12-cycle intervals	A	600
a_NG_harm_9_min	RMS current, between N and G, harmonic component #9, minimum of 10/12-cycle intervals	A	600

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code	description	units	typical aggregation [s]
a_NG_harm_49_min	RMS current, between N and G, harmonic component #49, minimum of 10/12-cycle intervals	A	600
a_NG_harm_50_min	RMS current, between N and G, harmonic component #50, minimum of 10/12-cycle intervals	A	600
v_NG_THD_min	RMS voltage, between N and G, total harmonic distortion, minimum of 10/12-cycle intervals	%	600
a_NG_THD_min	RMS current, between N and G, total harmonic distortion, minimum of 10/12-cycle intervals	%	600
v_NG_avg	RMS voltage, between NEUTRAL and GROUND, average of 10/12-cycle intervals	V	600
a_NG_avg	RMS current, NEUTRAL, average of 10/12-cycle intervals	A	600
v_NG_harm_0_avg	RMS voltage, between N and G, harmonic component DC, average of 10/12-cycle intervals	V	600
v_NG_harm_1_avg	RMS voltage, between N and G, harmonic component #1, average of 10/12-cycle intervals	V	600
v_NG_harm_2_avg	RMS voltage, between N and G, harmonic component #2, average of 10/12-cycle intervals	V	600
v_NG_harm_3_avg	RMS voltage, between N and G, harmonic component #3, average of 10/12-cycle intervals	V	600
v_NG_harm_4_avg	RMS voltage, between N and G, harmonic component #4, average of 10/12-cycle intervals	V	600
v_NG_harm_5_avg	RMS voltage, between N and G, harmonic component #5, average of 10/12-cycle intervals	V	600
v_NG_harm_6_avg	RMS voltage, between N and G, harmonic component #6, average of 10/12-cycle intervals	V	600
v_NG_harm_7_avg	RMS voltage, between N and G, harmonic component #7, average of 10/12-cycle intervals	V	600
v_NG_harm_8_avg	RMS voltage, between N and G, harmonic component #8, average of 10/12-cycle intervals	V	600
v_NG_harm_9_avg	RMS voltage, between N and G, harmonic component #9, average of 10/12-cycle intervals	V	600
v_NG_harm_10_avg	RMS voltage, between N and G, harmonic component #10, average of 10/12-cycle intervals	V	600
v_NG_harm_11_avg	RMS voltage, between N and G, harmonic component #11, average of 10/12-cycle intervals	V	600
v_NG_harm_12_avg	RMS voltage, between N and G, harmonic component #12, average of 10/12-cycle intervals	V	600
v_NG_harm_13_avg	RMS voltage, between N and G, harmonic component #13, average of 10/12-cycle intervals	V	600
v_NG_harm_14_avg	RMS voltage, between N and G, harmonic component #14, average of 10/12-cycle intervals	V	600
v_NG_harm_15_avg	RMS voltage, between N and G, harmonic component #15, average of 10/12-cycle intervals	V	600
v_NG_harm_16_avg	RMS voltage, between N and G, harmonic component #16, average of 10/12-cycle intervals	V	600
v_NG_harm_17_avg	RMS voltage, between N and G, harmonic component #17, average of 10/12-cycle intervals	V	600
v_NG_harm_18_avg	RMS voltage, between N and G, harmonic component #18, average of 10/12-cycle intervals	V	600
v_NG_harm_19_avg	RMS voltage, between N and G, harmonic component #19, average of 10/12-cycle intervals	V	600
v_NG_harm_20_avg	RMS voltage, between N and G, harmonic component #20, average of 10/12-cycle intervals	V	600
v_NG_harm_21_avg	RMS voltage, between N and G, harmonic component #21, average of 10/12-cycle intervals	V	600
v_NG_harm_22_avg	RMS voltage, between N and G, harmonic component #22, average of 10/12-cycle intervals	V	600
v_NG_harm_23_avg	RMS voltage, between N and G, harmonic component #23, average of 10/12-cycle intervals	V	600
v_NG_harm_24_avg	RMS voltage, between N and G, harmonic component #24, average of 10/12-cycle intervals	V	600
v_NG_harm_25_avg	RMS voltage, between N and G, harmonic component #25, average of 10/12-cycle intervals	V	600
v_NG_harm_26_avg	RMS voltage, between N and G, harmonic component #26, average of 10/12-cycle intervals	V	600
v_NG_harm_27_avg	RMS voltage, between N and G, harmonic component #27, average of 10/12-cycle intervals	V	600
v_NG_harm_28_avg	RMS voltage, between N and G, harmonic component #28, average of 10/12-cycle intervals	V	600
v_NG_harm_29_avg	RMS voltage, between N and G, harmonic component #29, average of 10/12-cycle intervals	V	600
v_NG_harm_30_avg	RMS voltage, between N and G, harmonic component #30, average of 10/12-cycle intervals	V	600
v_NG_harm_31_avg	RMS voltage, between N and G, harmonic component #31, average of 10/12-cycle intervals	V	600
v_NG_harm_32_avg	RMS voltage, between N and G, harmonic component #32, average of 10/12-cycle intervals	V	600

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code	description	units	typical aggregation [s]
v_NG_harm_33_avg	RMS voltage, between N and G, harmonic component #33, average of 10/12-cycle intervals	V	600
v_NG_harm_34_avg	RMS voltage, between N and G, harmonic component #34, average of 10/12-cycle intervals	V	600
v_NG_harm_35_avg	RMS voltage, between N and G, harmonic component #35, average of 10/12-cycle intervals	V	600
v_NG_harm_36_avg	RMS voltage, between N and G, harmonic component #36, average of 10/12-cycle intervals	V	600
v_NG_harm_37_avg	RMS voltage, between N and G, harmonic component #37, average of 10/12-cycle intervals	V	600
v_NG_harm_38_avg	RMS voltage, between N and G, harmonic component #38, average of 10/12-cycle intervals	V	600
v_NG_harm_39_avg	RMS voltage, between N and G, harmonic component #39, average of 10/12-cycle intervals	V	600
v_NG_harm_40_avg	RMS voltage, between N and G, harmonic component #40, average of 10/12-cycle intervals	V	600
v_NG_harm_41_avg	RMS voltage, between N and G, harmonic component #41, average of 10/12-cycle intervals	V	600
v_NG_harm_42_avg	RMS voltage, between N and G, harmonic component #42, average of 10/12-cycle intervals	V	600
v_NG_harm_43_avg	RMS voltage, between N and G, harmonic component #43, average of 10/12-cycle intervals	V	600
v_NG_harm_44_avg	RMS voltage, between N and G, harmonic component #44, average of 10/12-cycle intervals	V	600
v_NG_harm_45_avg	RMS voltage, between N and G, harmonic component #45, average of 10/12-cycle intervals	V	600
v_NG_harm_46_avg	RMS voltage, between N and G, harmonic component #46, average of 10/12-cycle intervals	V	600
v_NG_harm_47_avg	RMS voltage, between N and G, harmonic component #47, average of 10/12-cycle intervals	V	600
v_NG_harm_48_avg	RMS voltage, between N and G, harmonic component #48, average of 10/12-cycle intervals	V	600
v_NG_harm_49_avg	RMS voltage, between N and G, harmonic component #49, average of 10/12-cycle intervals	V	600
v_NG_harm_50_avg	RMS voltage, between N and G, harmonic component #50, average of 10/12-cycle intervals	V	600
a_NG_harm_0_avg	RMS current, between N and G, harmonic component DC, average of 10/12-cycle intervals	A	600
a_NG_harm_1_avg	RMS current, between N and G, harmonic component #1, average of 10/12-cycle intervals	A	600
a_NG_harm_2_avg	RMS current, between N and G, harmonic component #2, average of 10/12-cycle intervals	A	600
a_NG_harm_3_avg	RMS current, between N and G, harmonic component #3, average of 10/12-cycle intervals	A	600
a_NG_harm_4_avg	RMS current, between N and G, harmonic component #4, average of 10/12-cycle intervals	A	600
a_NG_harm_5_avg	RMS current, between N and G, harmonic component #5, average of 10/12-cycle intervals	A	600
a_NG_harm_6_avg	RMS current, between N and G, harmonic component #6, average of 10/12-cycle intervals	A	600
a_NG_harm_7_avg	RMS current, between N and G, harmonic component #7, average of 10/12-cycle intervals	A	600
a_NG_harm_8_avg	RMS current, between N and G, harmonic component #8, average of 10/12-cycle intervals	A	600
a_NG_harm_9_avg	RMS current, between N and G, harmonic component #9, average of 10/12-cycle intervals	A	600
a_NG_harm_10_avg	RMS current, between N and G, harmonic component #10, average of 10/12-cycle intervals	A	600
a_NG_harm_11_avg	RMS current, between N and G, harmonic component #11, average of 10/12-cycle intervals	A	600
a_NG_harm_12_avg	RMS current, between N and G, harmonic component #12, average of 10/12-cycle intervals	A	600
a_NG_harm_13_avg	RMS current, between N and G, harmonic component #13, average of 10/12-cycle intervals	A	600
a_NG_harm_14_avg	RMS current, between N and G, harmonic component #14, average of 10/12-cycle intervals	A	600
a_NG_harm_15_avg	RMS current, between N and G, harmonic component #15, average of 10/12-cycle intervals	A	600
a_NG_harm_16_avg	RMS current, between N and G, harmonic component #16, average of 10/12-cycle intervals	A	600
a_NG_harm_17_avg	RMS current, between N and G, harmonic component #17, average of 10/12-cycle intervals	A	600
a_NG_harm_18_avg	RMS current, between N and G, harmonic component #18, average of 10/12-cycle intervals	A	600
a_NG_harm_19_avg	RMS current, between N and G, harmonic component #19, average of 10/12-cycle intervals	A	600
a_NG_harm_20_avg	RMS current, between N and G, harmonic component #20, average of 10/12-cycle intervals	A	600

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code	description	units	typical aggregation [s]
a_NG_harm_21_avg	RMS current, between N and G, harmonic component #21, average of 10/12-cycle intervals	A	600
a_NG_harm_22_avg	RMS current, between N and G, harmonic component #22, average of 10/12-cycle intervals	A	600
a_NG_harm_23_avg	RMS current, between N and G, harmonic component #23, average of 10/12-cycle intervals	A	600
a_NG_harm_24_avg	RMS current, between N and G, harmonic component #24, average of 10/12-cycle intervals	A	600
a_NG_harm_25_avg	RMS current, between N and G, harmonic component #25, average of 10/12-cycle intervals	A	600
a_NG_harm_26_avg	RMS current, between N and G, harmonic component #26, average of 10/12-cycle intervals	A	600
a_NG_harm_27_avg	RMS current, between N and G, harmonic component #27, average of 10/12-cycle intervals	A	600
a_NG_harm_28_avg	RMS current, between N and G, harmonic component #28, average of 10/12-cycle intervals	A	600
a_NG_harm_29_avg	RMS current, between N and G, harmonic component #29, average of 10/12-cycle intervals	A	600
a_NG_harm_30_avg	RMS current, between N and G, harmonic component #30, average of 10/12-cycle intervals	A	600
a_NG_harm_31_avg	RMS current, between N and G, harmonic component #31, average of 10/12-cycle intervals	A	600
a_NG_harm_32_avg	RMS current, between N and G, harmonic component #32, average of 10/12-cycle intervals	A	600
a_NG_harm_33_avg	RMS current, between N and G, harmonic component #33, average of 10/12-cycle intervals	A	600
a_NG_harm_34_avg	RMS current, between N and G, harmonic component #34, average of 10/12-cycle intervals	A	600
a_NG_harm_35_avg	RMS current, between N and G, harmonic component #35, average of 10/12-cycle intervals	A	600
a_NG_harm_36_avg	RMS current, between N and G, harmonic component #36, average of 10/12-cycle intervals	A	600
a_NG_harm_37_avg	RMS current, between N and G, harmonic component #37, average of 10/12-cycle intervals	A	600
a_NG_harm_38_avg	RMS current, between N and G, harmonic component #38, average of 10/12-cycle intervals	A	600
a_NG_harm_39_avg	RMS current, between N and G, harmonic component #39, average of 10/12-cycle intervals	A	600
a_NG_harm_40_avg	RMS current, between N and G, harmonic component #40, average of 10/12-cycle intervals	A	600
a_NG_harm_41_avg	RMS current, between N and G, harmonic component #41, average of 10/12-cycle intervals	A	600
a_NG_harm_42_avg	RMS current, between N and G, harmonic component #42, average of 10/12-cycle intervals	A	600
a_NG_harm_43_avg	RMS current, between N and G, harmonic component #43, average of 10/12-cycle intervals	A	600
a_NG_harm_44_avg	RMS current, between N and G, harmonic component #44, average of 10/12-cycle intervals	A	600
a_NG_harm_45_avg	RMS current, between N and G, harmonic component #45, average of 10/12-cycle intervals	A	600
a_NG_harm_46_avg	RMS current, between N and G, harmonic component #46, average of 10/12-cycle intervals	A	600
a_NG_harm_47_avg	RMS current, between N and G, harmonic component #47, average of 10/12-cycle intervals	A	600
a_NG_harm_48_avg	RMS current, between N and G, harmonic component #48, average of 10/12-cycle intervals	A	600
a_NG_harm_49_avg	RMS current, between N and G, harmonic component #49, average of 10/12-cycle intervals	A	600
a_NG_harm_50_avg	RMS current, between N and G, harmonic component #50, average of 10/12-cycle intervals	A	600
v_NG_THD_avg	RMS voltage, between N and G, total harmonic distortion, average of 10/12-cycle intervals	%	600
a_NG_THD_avg	RMS current, between N and G, total harmonic distortion, average of 10/12-cycle intervals	%	600
v_NG_max	RMS voltage, between NEUTRAL and GROUND, maximum of 10/12-cycle intervals	V	600
a_NG_max	RMS current, NEUTRAL, maximum of 10/12-cycle intervals	A	600
v_NG_harm_0_max	RMS voltage, between N and G, harmonic component DC, maximum of 10/12-cycle intervals	V	600
v_NG_harm_1_max	RMS voltage, between N and G, harmonic component #1, maximum of 10/12-cycle intervals	V	600
v_NG_harm_2_max	RMS voltage, between N and G, harmonic component #2, maximum of 10/12-cycle intervals	V	600
v_NG_harm_3_max	RMS voltage, between N and G, harmonic component #3, maximum of 10/12-cycle intervals	V	600
v_NG_harm_4_max	RMS voltage, between N and G, harmonic component #4, maximum of 10/12-cycle intervals	V	600

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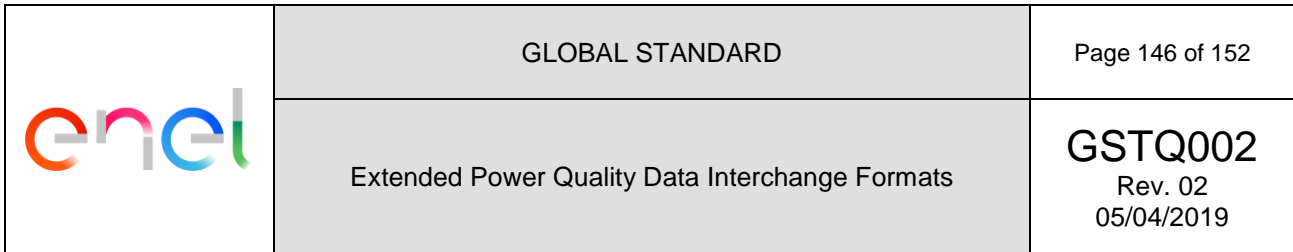
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code	description	units	typical aggregation [s]
v_NG_harm_44_max	RMS voltage, between N and G, harmonic component #44, maximum of 10/12-cycle intervals	V	600
v_NG_harm_45_max	RMS voltage, between N and G, harmonic component #45, maximum of 10/12-cycle intervals	V	600
v_NG_harm_46_max	RMS voltage, between N and G, harmonic component #46, maximum of 10/12-cycle intervals	V	600
v_NG_harm_47_max	RMS voltage, between N and G, harmonic component #47, maximum of 10/12-cycle intervals	V	600
v_NG_harm_48_max	RMS voltage, between N and G, harmonic component #48, maximum of 10/12-cycle intervals	V	600
v_NG_harm_49_max	RMS voltage, between N and G, harmonic component #49, maximum of 10/12-cycle intervals	V	600
v_NG_harm_50_max	RMS voltage, between N and G, harmonic component #50, maximum of 10/12-cycle intervals	V	600
a_NG_harm_0_max	RMS current, between N and G, harmonic component DC, maximum of 10/12-cycle intervals	A	600
a_NG_harm_1_max	RMS current, between N and G, harmonic component #1, maximum of 10/12-cycle intervals	A	600
a_NG_harm_2_max	RMS current, between N and G, harmonic component #2, maximum of 10/12-cycle intervals	A	600
a_NG_harm_3_max	RMS current, between N and G, harmonic component #3, maximum of 10/12-cycle intervals	A	600
a_NG_harm_4_max	RMS current, between N and G, harmonic component #4, maximum of 10/12-cycle intervals	A	600
a_NG_harm_5_max	RMS current, between N and G, harmonic component #5, maximum of 10/12-cycle intervals	A	600
a_NG_harm_6_max	RMS current, between N and G, harmonic component #6, maximum of 10/12-cycle intervals	A	600
a_NG_harm_7_max	RMS current, between N and G, harmonic component #7, maximum of 10/12-cycle intervals	A	600
a_NG_harm_8_max	RMS current, between N and G, harmonic component #8, maximum of 10/12-cycle intervals	A	600
a_NG_harm_9_max	RMS current, between N and G, harmonic component #9, maximum of 10/12-cycle intervals	A	600
a_NG_harm_10_max	RMS current, between N and G, harmonic component #10, maximum of 10/12-cycle intervals	A	600
a_NG_harm_11_max	RMS current, between N and G, harmonic component #11, maximum of 10/12-cycle intervals	A	600
a_NG_harm_12_max	RMS current, between N and G, harmonic component #12, maximum of 10/12-cycle intervals	A	600
a_NG_harm_13_max	RMS current, between N and G, harmonic component #13, maximum of 10/12-cycle intervals	A	600
a_NG_harm_14_max	RMS current, between N and G, harmonic component #14, maximum of 10/12-cycle intervals	A	600
a_NG_harm_15_max	RMS current, between N and G, harmonic component #15, maximum of 10/12-cycle intervals	A	600
a_NG_harm_16_max	RMS current, between N and G, harmonic component #16, maximum of 10/12-cycle intervals	A	600
a_NG_harm_17_max	RMS current, between N and G, harmonic component #17, maximum of 10/12-cycle intervals	A	600
a_NG_harm_18_max	RMS current, between N and G, harmonic component #18, maximum of 10/12-cycle intervals	A	600
a_NG_harm_19_max	RMS current, between N and G, harmonic component #19, maximum of 10/12-cycle intervals	A	600
a_NG_harm_20_max	RMS current, between N and G, harmonic component #20, maximum of 10/12-cycle intervals	A	600
a_NG_harm_21_max	RMS current, between N and G, harmonic component #21, maximum of 10/12-cycle intervals	A	600
a_NG_harm_22_max	RMS current, between N and G, harmonic component #22, maximum of 10/12-cycle intervals	A	600
a_NG_harm_23_max	RMS current, between N and G, harmonic component #23, maximum of 10/12-cycle intervals	A	600
a_NG_harm_24_max	RMS current, between N and G, harmonic component #24, maximum of 10/12-cycle intervals	A	600
a_NG_harm_25_max	RMS current, between N and G, harmonic component #25, maximum of 10/12-cycle intervals	A	600
a_NG_harm_26_max	RMS current, between N and G, harmonic component #26, maximum of 10/12-cycle intervals	A	600
a_NG_harm_27_max	RMS current, between N and G, harmonic component #27, maximum of 10/12-cycle intervals	A	600
a_NG_harm_28_max	RMS current, between N and G, harmonic component #28, maximum of 10/12-cycle intervals	A	600
a_NG_harm_29_max	RMS current, between N and G, harmonic component #29, maximum of 10/12-cycle intervals	A	600
a_NG_harm_30_max	RMS current, between N and G, harmonic component #30, maximum of 10/12-cycle intervals	A	600
a_NG_harm_31_max	RMS current, between N and G, harmonic component #31, maximum of 10/12-cycle intervals	A	600

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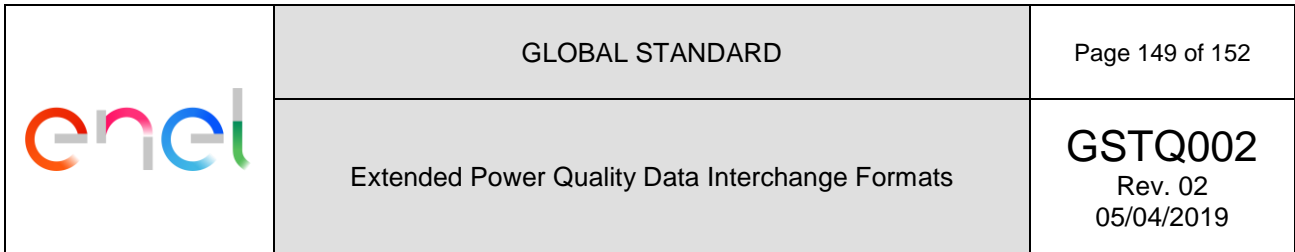
code	description	units	typical aggregation [s]
a_NG_harm_32_max	RMS current, between N and G, harmonic component #32, maximum of 10/12-cycle intervals	A	600
a_NG_harm_33_max	RMS current, between N and G, harmonic component #33, maximum of 10/12-cycle intervals	A	600
a_NG_harm_34_max	RMS current, between N and G, harmonic component #34, maximum of 10/12-cycle intervals	A	600
a_NG_harm_35_max	RMS current, between N and G, harmonic component #35, maximum of 10/12-cycle intervals	A	600
a_NG_harm_36_max	RMS current, between N and G, harmonic component #36, maximum of 10/12-cycle intervals	A	600
a_NG_harm_37_max	RMS current, between N and G, harmonic component #37, maximum of 10/12-cycle intervals	A	600
a_NG_harm_38_max	RMS current, between N and G, harmonic component #38, maximum of 10/12-cycle intervals	A	600
a_NG_harm_39_max	RMS current, between N and G, harmonic component #39, maximum of 10/12-cycle intervals	A	600
a_NG_harm_40_max	RMS current, between N and G, harmonic component #40, maximum of 10/12-cycle intervals	A	600
a_NG_harm_41_max	RMS current, between N and G, harmonic component #41, maximum of 10/12-cycle intervals	A	600
a_NG_harm_42_max	RMS current, between N and G, harmonic component #42, maximum of 10/12-cycle intervals	A	600
a_NG_harm_43_max	RMS current, between N and G, harmonic component #43, maximum of 10/12-cycle intervals	A	600
a_NG_harm_44_max	RMS current, between N and G, harmonic component #44, maximum of 10/12-cycle intervals	A	600
a_NG_harm_45_max	RMS current, between N and G, harmonic component #45, maximum of 10/12-cycle intervals	A	600
a_NG_harm_46_max	RMS current, between N and G, harmonic component #46, maximum of 10/12-cycle intervals	A	600
a_NG_harm_47_max	RMS current, between N and G, harmonic component #47, maximum of 10/12-cycle intervals	A	600
a_NG_harm_48_max	RMS current, between N and G, harmonic component #48, maximum of 10/12-cycle intervals	A	600
a_NG_harm_49_max	RMS current, between N and G, harmonic component #49, maximum of 10/12-cycle intervals	A	600
a_NG_harm_50_max	RMS current, between N and G, harmonic component #50, maximum of 10/12-cycle intervals	A	600
v_NG_THD_max	RMS voltage, between N and G, total harmonic distortion, maximum of 10/12-cycle intervals	%	600
a_NG_THD_max	RMS current, between N and G, total harmonic distortion, maximum of 10/12-cycle intervals	%	600
v_NG_iharm_0_min	RMS voltage, between N and G, interharmonic component #0, minimum of 10/12-cycle intervals	V	600
v_NG_iharm_1_min	RMS voltage, between N and G, interharmonic component #1, minimum of 10/12-cycle intervals	V	600
v_NG_iharm_2_min	RMS voltage, between N and G, interharmonic component #2, minimum of 10/12-cycle intervals	V	600
v_NG_iharm_3_min	RMS voltage, between N and G, interharmonic component #3, minimum of 10/12-cycle intervals	V	600
v_NG_iharm_4_min	RMS voltage, between N and G, interharmonic component #4, minimum of 10/12-cycle intervals	V	600
v_NG_iharm_5_min	RMS voltage, between N and G, interharmonic component #5, minimum of 10/12-cycle intervals	V	600
v_NG_iharm_6_min	RMS voltage, between N and G, interharmonic component #6, minimum of 10/12-cycle intervals	V	600
v_NG_iharm_7_min	RMS voltage, between N and G, interharmonic component #7, minimum of 10/12-cycle intervals	V	600
v_NG_iharm_8_min	RMS voltage, between N and G, interharmonic component #8, minimum of 10/12-cycle intervals	V	600
v_NG_iharm_9_min	RMS voltage, between N and G, interharmonic component #9, minimum of 10/12-cycle intervals	V	600
v_NG_iharm_10_min	RMS voltage, between N and G, interharmonic component #10, minimum of 10/12-cycle intervals	V	600
v_NG_iharm_11_min	RMS voltage, between N and G, interharmonic component #11, minimum of 10/12-cycle intervals	V	600
v_NG_iharm_12_min	RMS voltage, between N and G, interharmonic component #12, minimum of 10/12-cycle intervals	V	600
v_NG_iharm_13_min	RMS voltage, between N and G, interharmonic component #13, minimum of 10/12-cycle intervals	V	600
v_NG_iharm_14_min	RMS voltage, between N and G, interharmonic component #14, minimum of 10/12-cycle intervals	V	600
v_NG_iharm_15_min	RMS voltage, between N and G, interharmonic component #15, minimum of 10/12-cycle intervals	V	600
v_NG_iharm_16_min	RMS voltage, between N and G, interharmonic component #16, minimum of 10/12-cycle intervals	V	600
v_NG_iharm_17_min	RMS voltage, between N and G, interharmonic component #17, minimum of 10/12-cycle intervals	V	600

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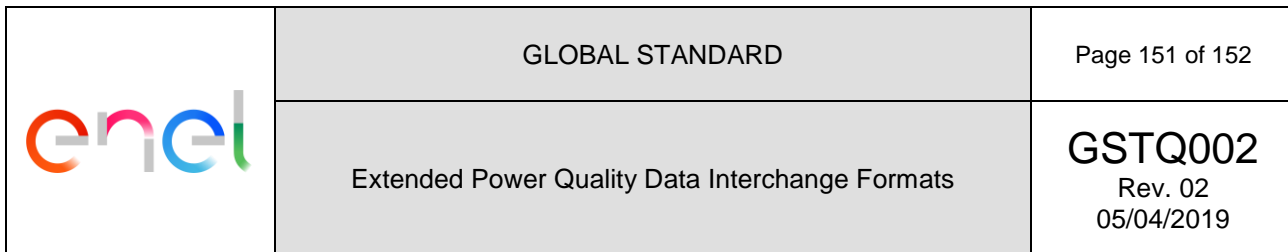
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code	description	units	typical aggregation [s]
a_NG_iharm_36_max	RMS current, between N and G, interharmonic component #36, maximum of 10/12-cycle intervals	A	600
a_NG_iharm_37_max	RMS current, between N and G, interharmonic component #37, maximum of 10/12-cycle intervals	A	600
a_NG_iharm_38_max	RMS current, between N and G, interharmonic component #38, maximum of 10/12-cycle intervals	A	600
a_NG_iharm_39_max	RMS current, between N and G, interharmonic component #39, maximum of 10/12-cycle intervals	A	600
a_NG_iharm_40_max	RMS current, between N and G, interharmonic component #40, maximum of 10/12-cycle intervals	A	600
a_NG_iharm_41_max	RMS current, between N and G, interharmonic component #41, maximum of 10/12-cycle intervals	A	600
a_NG_iharm_42_max	RMS current, between N and G, interharmonic component #42, maximum of 10/12-cycle intervals	A	600
a_NG_iharm_43_max	RMS current, between N and G, interharmonic component #43, maximum of 10/12-cycle intervals	A	600
a_NG_iharm_44_max	RMS current, between N and G, interharmonic component #44, maximum of 10/12-cycle intervals	A	600
a_NG_iharm_45_max	RMS current, between N and G, interharmonic component #45, maximum of 10/12-cycle intervals	A	600
a_NG_iharm_46_max	RMS current, between N and G, interharmonic component #46, maximum of 10/12-cycle intervals	A	600
a_NG_iharm_47_max	RMS current, between N and G, interharmonic component #47, maximum of 10/12-cycle intervals	A	600
a_NG_iharm_48_max	RMS current, between N and G, interharmonic component #48, maximum of 10/12-cycle intervals	A	600
a_NG_iharm_49_max	RMS current, between N and G, interharmonic component #49, maximum of 10/12-cycle intervals	A	600
a_NG_iharm_50_max	RMS current, between N and G, interharmonic component #50, maximum of 10/12-cycle intervals	A	600
Active_Energy[kWh]	Consumed active energy	kWh	600
Delivered_Active_Energy[kWh]	Delivered active energy	kWh	600
Q1_Reactive_Energy[kVar]	Reactive energy in quadrant Q1	kVarh	600
Q2_Reactive_Energy[kVar]	Reactive energy in quadrant Q2	kVarh	600
Q3_Reactive_Energy[kVar]	Reactive energy in quadrant Q3	kVarh	600
Q4_Reactive_Energy[kVar]	Reactive energy in quadrant Q4	kVarh	600
Apparent_Energy[kVA]	Overall apparent energy	kVAh	600