

API Documentation 2.0.2 NOVASOL AS

For the Brands: NOVASOL and dansommer

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1 Before you start

This documentation describes how to use the data provided by NOVASOL and dansommer via API. This is a real time communication between your servers and the NOVASOL servers with access to download full property information, search availability, verify prices, booking interaction and more.

1.1 How to work with this documentation?

- Get the latest update by contacting us at <u>partner@novasol.com</u> or visit our website <u>https://www.novasol.com/apidocumentation?pis=1</u>
- The number "1234567" has to be replaced with your agency number.
- Sales market parameter requires ISO-Code (ISO 3166-1 numeric-3).
 2 special codes are for Germany where we use the old West Germany ISO 280 and for language English and currency EUR were we use 999 (what we call international).
- Additional to this documentation we provide following helpful documents. All documents are available on request via partner@novasol.com or at https://www.novasol.com/api-documentation?pis=1
 - Data structure of our API
 - ISO Country Code List of all ISO codes used in our API
 - o Error Codes List of all errors coming from our backend system
- NOVASOL is using the terms "sales countries/sales markets" for those countries where vacation in holiday
 cottages are sold actively. In these countries or markets NOVASOL is present with its own sales office and
 provides the house data in the native language and currency.

The term "product country" is used for destinations where NOVASOL is renting out holiday cottages.

1.2 Vacation type "Holiday Cottage"

Be aware of the differences of the Holiday Cottage travel branch compared to hotel, flights or travel packages

- Each object has a fix price for the period
- On arrival the owner/housekeeper may ask for a deposit from the customer. This is generally not a part of the booking and differs from property and destination.
- There is always self-catering at a holiday cottage. Distance to restaurants or supermarkets from each house, is a part of the property data.
- The final cleaning, if not included in the rental price, is in the customer responsibility. Read more about special rules for final cleaning under Point 3.5.3.
- A NOVASOL season is equal to a calendar year. The first days of January of the following year are always bookable in connection with a Christmas / New Year's break starting in December. New seasons are released per product country. Each season has its own set of data and most calls require the parameter <Season>YYYY</Season>.

Based on the history of NOVASOL you will find more services and offers on Danish products than on other European products. The expression "For all European houses" does not include Danish houses.

1.3 Check list before you start using the API.

To be able to use the API you need:

- 1. An agency contract with NOVASOL AS in signed version.
- 2. A valid NOVASOL agency number.

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- 3. If you want to sell in different languages and different currencies, you need one agency number per language and currency.
- 4. We need to enable all your IP addresses which need to have access to our server.
- 5. You need a header key to gain access to our server. This key is provided when registering your IP address.

In case you miss one of the above please contact us at partner@novasol.com or at Novasol.helpserve.com

1.4 Does and Don'ts

In order to have a smoothly running system and a good cooperation with you we would like you to consider following guidelines.

Best practice for updates / traffic to our server

- One time update (once a night or few times a week) = download a full batch file + import of the translations using the translation request
- Once or twice during the day = batch request using parameter "LastChange"
- Every 3-4 hours = Batch request using parameter "LastChange" for "Availabilities & Prices" This will ensure up-to-date data on your system.
- Please be aware that we are running maintenance work between 4.am and 5. Am the first Wednesday of every month. It will still be possible to retrieve the batch data, however the availability call and booking call might fail during this period.

Testing (API data and data on our website)

The data in the API is the same as on our website. Both ends are using the same communication to our backend. To reduce the traffic on our websites we kindly ask you not to crawl our websites. Our system administration will blacklist IP addresses causing high traffic on domains not connected to the API.

Images

We offer the URL's to all our images in the API. Within each image tag is a time stamp of the last update. This is the indicator if the image is updated.

1.5 Support

Administrative Support

Please contact our partner support in regards to all questions regarding your contract, commission etc.: partner@novasol.com

Technical Support:

Please use our email partner@novasol.com

1.6 Brands

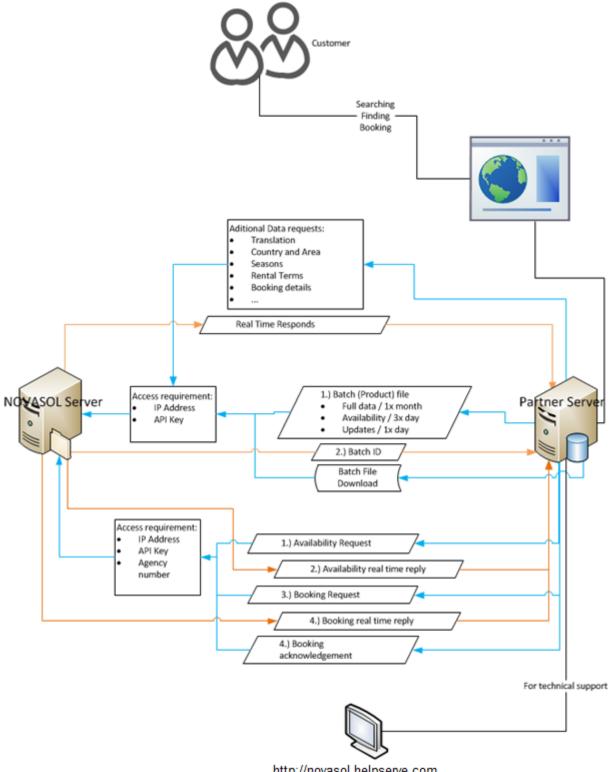
NOVASOL

Using NOVASOL as company you will get all properties sold under the brand NOVASOL. This is the main portfolio and contains all product markets. You have to use the brand NOVASOL on these properties when placing the booking. **dansommer**

dansommer is specialized in Denmark. You will get a different range of properties in Denmark than for NOVASOL. You have to use the brand dansommer on these properties when placing the booking.

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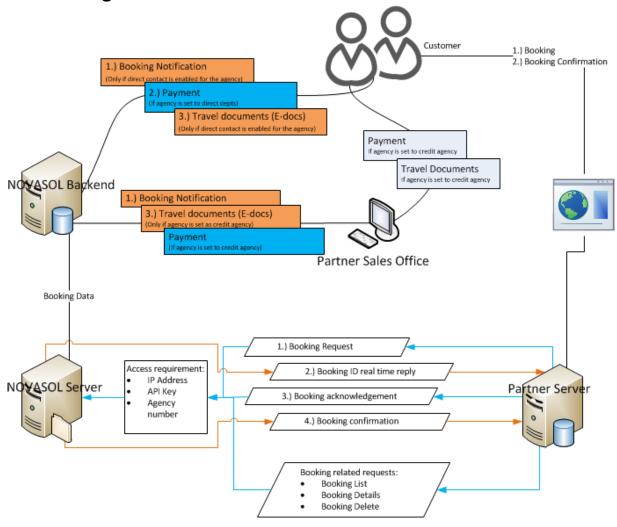
1.7 Basic Workflows of the API



http://novasol.helpserve.com

- Documentation (Downloads)
- Technical support (Submit ticket)

1.8 Booking Process of the API



2 Access to API

2.1 API

The API is located at https://partnerapi.novasol.com/api/

2.2 Character set/Encoding

The API is using UTF-8 encoding.

2.3 User-Agent

Please use an identifiable User-Agent header on all requests (this should include your company name and if possible your agency number). This helps our logging and reduces the risk of you getting banned.

Use common sense when deciding how many calls to make. For example, if you're making a web application, try not to hit the API on page load. Your account may be suspended if your application is continuously making several calls per second.

2.4 Authentication

Besides having an active agency number and us having registered your IP address you will receive a token that needs to be included in the header on each request.

2.5 Compressed response

To reduce the download time of large calls you can add the header "accept-encoding" with a value of "gzip". By doing so you will get a gzipped response back that you will then have to manually decompress. Whether or not this is worthwhile depends on the speed of your network connection.

2.6 POST

When performing POST-request please insert parameters in payload/body as for example: agency=12345678&arrival=2019507&departure=20190514....

3 API-method /products

This request asks for a list of products. A product list can focused on different search criteria's. These are listed under 3.1 Parameters. If no criteria are used, full list of properties from current season will be returned. Use GET method with "/products" request.

https://partnerapi.novasol.com/api/products

https://partnerapi.novasol.com/api/products?country=208&salesmarket=826&product=NOV

3.1 Parameters (GET)

| Parameter company | Rule optional | Format Alpha | Description NOV=novasol, DAN=dansommer Leaving this field empty return all available properties across all brands. |
|----------------------|------------------|------------------------|---|
| salesmarket | optional | ISO 3166-1 numeric-3 | |
| country | optional | ISO 3166-1 numeric-3 | destination, property location |
| season | optional | YYYY | If not set default is set to current season |
| area | optional | alpha numeric | NOVASOL area code (example: ITA for Tuscany) |
| concept | optional | alpha numeric | return properties with specific concepts (6 character codes) |
| quality | optional | Numeric | number of stars 1-5 where 5 is best |
| type | optional | Alpha | property type, either h=house or a=apartment |
| park | optional | Numeric | Properties located in a holiday house park; 5 digits park number |

| people | optional | Numeric | Number of people (adults + children) standard search is 1-30 with >30. |
|---------------|----------|---------|---|
| offer | optional | Alpha | "lastminute"=request only last minute offers |
| pets | optional | Boolean | true=pets allowed, false=pets not allowed |
| sleepingrooms | optional | Numeric | Number of sleeping rooms |
| bathrooms | optional | Numeric | Number of bathrooms |
| distwater | optional | Numeric | distance to water (not necessary beach / ocean) |
| swimmingpool | optional | Boolean | true=swimmingpool, false=no swimmingpool |
| agency | optional | Numeric | 7 digit agency number only needed when using the URL to house presentation. |

3.2 Returns

| Parameter | Format | Description |
|-----------------|-------------------------|--|
| number | alpha numberic | house number |
| country | ISO 3166-1 numeric-3 | product country code |
| area | 3 letter/digit code | area code |
| location | alpha | Name of location, place, village or city of property |
| adults | numeric | Maximum number of adults |
| children | numeric | Maximum number of children |
| quality | numeric | number of stars 1-5, 5 is best |
| petsAllowed | Y=yes, N=no | Y or N to pets |
| swimmingPool | Y=yes, N=no | Y or N to swimmingpool available |
| spa | Y=yes, N=no | Y or N to spa available |
| distanceToWater | numeric | distance to water (not necessary beach / ocean) |
| thumbnail | URL | url to thumbnail picture, size 146x90 pixel |
| url | URL | url to property presentation on consumer website (of NOVASOL or dansommer), including agency number and other needed parameters. Default sales market is set to novasol.com. |
| coordinate | wsg84 | location of property as longitude and latitude, split by ":" |

3.3 Return "error" messages

200 : OK

400 : Bad request, syntax must be wrong, please read documentation

401: Unauthorized

404: Not found, temporally error

405 : Method not allowed, use correct method instead

408: Time out

4 API-method /products/[specific]

Request information about specific product. Call "/products/[property ID]" using GET.

https://partnerapi.novasol.com/api/products/C17500?salesmarket=208&season=2019 https://partnerapi.novasol.com/api/products/A4008?salesmarket=208&season=2019 https://partnerapi.novasol.com/api/products/CIV260?salesmarket=826&season=2019

4.1 Parameters (GET)

| Parameter | Rule | Format | Description |
|-----------------------|------------------------|------------------------------|---|
| property ID | mandatory | alpha numeric | The property ID of the NOVASOL or dansommer unit |
| salesmarket season | mandatory mandatory | ISO 3166-1 numeric-3 YYYY | |
| sections | optional | Alpha | Default will return all sections. Specify one or more data sections. This could be: information, features, location, buildings, address, media. |

prices, offers, availability, services and concepts.

Split each value using ":".

showDescript option Boolean Show text descriptions with facilities, buildings

ions and services

4.2 Returns

The return contains all data of the requested property. Please look at "18 Property data" to see specific information about the data structure.

4.3 Return "error" messages

200: OK

400 : Bad request, syntax must be wrong, please read documentation

401: Unauthorized

404 : Not found, temporally error

405: Method not allowed, use correct method instead

408: Time out

5 API-method /batches

Batch is used for requesting large volumes of data, for example to import the full data package on to your server or when updating your database. We choose the batch file to give you the flexibility in requesting the data you need.

IMPORTANT: Every batch request is creating a new data file. To create a file may take up to 60 minutes depending on the size of data requested. Requests of batch files are queued. Each request fills up the queue which leads to delays in producing the batch files for you and other partner. Please avoid frequent requests on a minute basis. The batch download is done with 2 API-calls:

- 1. Creating a zip file with requested product data
- 2. Download the created zip file

https://partnerapi.novasol.com/api/batches

5.1 First request batch to create zip file

5.1.1 Parameters (POST)

| Parameter | Rule | Format | Description |
|-------------|-----------|------------------------------------|---|
| lastchange | optional | YYYYMMDD or YYYYMMDD HHMM | Date or date and time for last update of property/section; if specified only properties with updated sections after the last update date and time will be returned. |
| sections | optional | Alpha | Default will return all sections. Specify one or more data sections. This could be: information, features, location, buildings, address, media (contains pictures and text), prices, offers, availability, services and concepts. Split each value using ":". |
| company | optional | Alpha | NOV=novasol, DAN=dansommer |
| salesmarket | optional | ISO 3166-1 numeric-3 | Data for multiple sales markets can be requested. Split ISO code using ":" (Example:208:280:528) |
| season | mandatory | YYYY | If not set default is set to current season |
| country | optional | ISO 3166-1 numeric-3 | destination, property location |
| area | optional | alpha numeric | NOVASOL area code (example: ITA for Tuscany) |
| concept | optional | alpha numeric | return properties with specific concepts (6 character codes) |
| quality | optional | numeric | number of stars 1-5 where 5 is best |
| | | | |

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Ver. 1.19.4

| type park | optional optional | alpha numeric | property type, either h=house or a=apartment Properties located in a holiday house park; 5 digits park number |
|----------------------|----------------------|------------------|---|
| people | optional | numeric | Number of people (adults+children) Standard search is 1-30 with >30. |
| offer | optional | alpha | lastminute=request only lastminute offers |
| pets | optional | boolean | true=yes to pets, false=no to pets |
| sleepingrooms | optional | numeric | Number of sleeping rooms |
| bathrooms | optional | numeric | Number of bathrooms |
| distwater | optional | numeric | distance to water (not necessary beach / ocean) |
| swimmingpool | optional | boolean | true=swimmingpool, false=no swimmingpool |
| showDescriptio ns | option | Boolean | Show text descriptions with facilities, buildings and services. |
| | | | TIP : This parameter cannot be used in connection with "lastchange" parameter. |
| Replyto | mandatory | URL | URL of your server. |
| | | | When the batch file is ready to download a POST request is send to the specified URL including the batch ID. |

5.1.2 Returns

| Parameter | Format | Description |
|------------------|---------|------------------------------|
| Batchid | numeric | identification of batch file |

5.1.3 Return "error" messages

200 : OK

400 : Bad request, syntax must be wrong, please read documentation

401: Unauthorized

404 : Not found, temporally error

405 : Method not allowed, use correct method instead

408 : Time out

5.2 Second request to download zip file

The batch download is done using a GET request including batch id.

Note: It may take up to 60 minutes before the file is available for download on our server. The created batch file is automatically deleted after 24 hour after creation.

https://partnerapi.novasol.com/api/batches/28766483883

5.2.1 Parameters (GET)

| Parameter | Rule | Format | Description |
|-----------|-----------|---------|--|
| batchid | mandatory | numeric | batch identification code which is returned on the |
| | | | first request |

5.2.2 Returns

Requested zip file

5.2.3 Return "error" messages

200 : OK

400 : Bad request, syntax must be wrong, please read documentation

401: Unauthorized

404: Not found, temporally error

405 : Method not allowed, use correct method instead

408: Time out

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6 API-method /available

Request available properties based on arrival/departure and other search criteria's or verify availability for one or multiple units. For each returned property a few important information are included. Call "/available" using GET method.

https://partnerapi.novasol.com/api/available?country=280&company=nov&arrival=20190618&departure=20190625&salesmarket=280&adults=3

6.1 Parameters (GET)

| Parameter return | Rule | Format Numeric | Description |
|-------------------------|----------------------|-------------------|---|
| return | optional | (default = 20) | Number of properties to be returned with one request in the range from 1 to 40 properties. |
| next | optional | Alpha numeric | paging functionality, insert returned "next" value to request next list of properties |
| company | mandatory | Alpha | nov=novasol, dan=dansommer |
| salesmarket | mandatory | ISO 3166-1 | To specify language and currency |
| | • | numeric-3 | |
| season | optional | YYYY | If not set default is set to current season |
| country | mandatory | ISO 3166-1 | Destination, property location |
| | | numeric-3 | A |
| area | optional | Alpha numeric | Area code (example: ITA for Tuscany). Multiple area codes are possible. Split area codes using ":". See 16 for possible area codes. |
| adults | mandatory | numeric | number of adults as 1 to 30, 1 is minimum number of adults |
| children | optional | numeric | number of children as 0 to 20 |
| rooms | optional | numeric | number of sleeping rooms as 1 to 20 |
| arrival | mandatory | YYYYMMDD | Arrival date |
| departure | mandatory | YYYYMMDD | Departure date |
| flexible | optional | Y/N | flexible arrival / departure day, +/- 3 days |
| minprice | optional | numeric | minimum price in sales market currency |
| maxprice | optional | numeric | maximum price in sales market currency |
| quality | optional | numeric | number of stars as 1 to 5 where 5 is best quality |
| type | optional | Alpha | property type, either H=holiday house or A=apartment |
| pets | optional | Y/N | Y or N to pets allowed in property |
| swimmingpool indoorpool | optional optional | Y/N Y/N | Y or N to indoor or outdoor swimmingpool Y or N to indoor swimmingpool (typical properties |
| • | · | | Denmark) |
| outdoorpool | optional | Y/N | Y or N to outdoor swimmingpool (typical properties in south Europe) |
| spa | optional | Y/N | |
| | | | Y or N to spa/whirlpool |
| sauna | optional | Y/N | Y or N to sauna |
| solarium | optional | Y/N | Y or N to solarium |
| fireplace | optional | Y/N | Y or N to fireplace (mostlikly wood burning stove) |
| tv | optional | Y/N | Y or N to television (not necessary with international channels) |
| boat | optional | Y/N | Y or N to boat rentable or free of charge |
| washmachine | optional | Y/N | Y or N to washmachine |
| dishwasher | optional | Y/N | Y or N to dishwasher |
| freezer | optional | Y/N | Y or N to freezer |
| nonsmoker | optional | Y/N | Y to smoking not allowed in property |
| internet | optional | Y/N | Y or N to free or paid internet access |
| aircondition | optional | Y/N | Y or N to air condition (not necessary in the whole property) |
| distwater | optional | numeric | distance to water (not necessary beach / ocean) |
| waterpark | optional | Y/N | Y or N to free access to waterpark (only in product |
| golf | optional | Y/N | country Denmark) Y or N to nearby golf course |
| | | | |

park optional numeric Properties located in holiday house parks. 5 digit park code

6.2 Return

| Parameter | Format | Description |
|--------------|-------------------------|---|
| message | Text | Text is in the requested sales market language |
| - id | Numeric | 3 digit message ID |
| next | alpha numeric | property id of next property, used for next page request |
| property | | separator for listed properties |
| propertyid | alpha numeric | property number |
| country | ISO 3166-1 numeric-3 | product country code |
| area | alpha numeric | NOVASOL area code (example: ITA for Tuscany). See 16 for more information about area codes |
| location | alpha | name of location (place, village, city) |
| available | numeric | 1=booking, 5=on request |
| arrival | YYYYMMDD | date of arrival |
| departure | YYYYMMDD | date of departure |
| price | numeric | Rental price including all mandatory costs needed to be shown to the customer before booking. Some costs are paid on arrival. |
| discount | numeric | if discount available, amount of discount is returned here |
| currency | ISO 4217 alpha-3 | sales market currency |
| adults | numeric | maximum number of adults allowed in this property (1-30) |
| children | numeric | maximum number of children allowed in this property as add-on to the adults. (1-20) |
| quality | numeric | number of stars 1-5, 5 is best |
| pets | boolean | Pets allowed in the holiday house |
| swimmingpool | boolean | Swimming pool available |
| spa | boolean | Boolean to spa available |
| distwater | numeric | distance to water (not necessary beach / ocean) |
| thumbnail | URL | URL to thumbnail picture, size 146x90 pixel |
| url | URL | URL to property presentation on consumer website of NOVASOL or dansommer including agency number and other needed parameters |
| wsg84long | wsg84 | longitude of location of property |
| wsg84lat | wsg84 | latitude of location of property |

7 API-method /available/[specific]

Verify availability and price on a specific property. Use method GET.

Good idea when to use this method:

Use this method before starting the booking process. This will verify or return the correct price and if property is still available.

https://partnerapi.novasol.com/api/available/C17500?agency=1234567&company=nov&salesmarket=999&arrival=20190107&departure=20190108&adu

7.1 Parameters

Property ID is added as part of the URL with a "/"

| Parameter | Rule | Format | Description |
|-------------|-----------|-------------------------|----------------------------------|
| Agency | mandatory | numeric | 7 digit agency number |
| Company | mandatory | Alpha | nov=novasol, dan=dansommer |
| Salesmarket | mandatory | ISO 3166-1 numeric-3 | To specify language and currency |
| Arrival | mandatory | YYYYMMDD | Arrival date |
| Departure | mandatory | YYYYMMDD | Departure date |

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| Adults | mandatory | numeric | number of adults (1-30), 1 is minimum number of adults |
|------------------------|-----------|-----------------|--|
| Children | optional | numeric | number of children (1-20) |
| Pets | optional | Y/N | Pets allowed or not (error message if value does not match house criteria) |
| Showrentalterms | Optional | =true =false | The rental terms URL is included in the reply The rental terms URL is <u>not</u> included in the reply |
| Showservices | Optional | =true =false | The offered extraservices are included in the reply The offered extraservices are not included in the reply |
| showpaymentopt ions | Optional | =true =false | The offered payment methods at the given time. Meaning payment terms that is valid for this booking date vs arrival date |

7.2 Returns

| Parameter | Format | Description |
|------------------|------------------|---|
| Message | text | Text in language of requested sales market |
| - id | numeric | 3 digit message ID |
| Propertyid | text | ID of property |
| Available | Boolean | Information about the availability of the property |
| Request | Boolean | Information if property is on request. If true the action has to be completed manually by the local NOVASOL sales office. |
| Altarrival | Boolean | Information if the returned date is the requested or an alternative date |
| Arrival | YYYYMMDD | Arrival date (requested or alternative date) |
| Departure | YYYYMMDD | Departure date (requested or alternative date) |
| price | numeric | Rental price including all mandatory costs needed to be shown to the customer before booking. |
| bookingprice | numeric | Amount paid with the booking. The value of this parameter is used in the "price" parameter of the booking request. |
| Discount | Numeric | Amount of discount if any (is already deducted from rental price) |
| Currency | ISO 4217 alpha-3 | Currency of the price given in 3 letter code |
| SpecialOfferCode | Numeric | Value defines the kind of offer for the discounted price. Available codes: 1=Last minute |
| | | 2=Special Discount set individually on houses 7=Daily Price 8=Mini vacation |
| | | 9=Spar vacation |
| | | (NOTE: There is no description available in the data feed!) |
| paymentid | Numeric | Identifier for first or second payment. |
| paymentdate | YYYYMMDD | Due date for payment |
| amount | Numeric | Amount of payment in the same currency as the price value |
| | | |

7.3 Return "error" messages

400 : Bad request, syntax must be wrong, please read documentation 401 : Unauthorized

404 : Not found, temporally error 405 : Method not allowed, use correct method instead

408: Time out

8 API-method /bookings (new/confirm)

A booking is created in two steps

- 1.) In step one data on booking is posted to "/bookings" and a booking number is returned.
- 2.) Step two is to confirm booking by updating booking with action=acknowledge.

Note: We recommend checking the availability and the price for the property and the period selected by the customer before starting the booking process. Use the method availability/[specific] for this check.

Minimum days before arrival:

- You can book all houses until 15:59:59 CET with arrival the day after.
 - Please note if the property is on request, the period needs to be requested by our call center and therefore cannot be booked straight away.

8.1 New booking

Create a new booking or option by posting booking data to "/bookings". The booking number is returned. The booking needs to be acknowledged to complete the booking in our system. If the booking is not acknowledged, it will be deleted the next morning.

IMPORTANT: If no e-mail is sent from NOVASOL to the customer automatically, it is the agencies responsibility sending e-docs to the customer. This is depending on the contract and the settings in our backend system.

https://partnerapi.novasol.com/api/bookings?agency=1234567&type=booking&company=dan&salesmarket=208&propertyid=a4008&arrival=20190402&departure=20190409&price=3848&adults=4&children=2&title=Hr.&firstname=Ole&lastname=Hansen&street=Holstedvej&streetnumber=23&zip=3900&email=ole@hansen.dk&custcountry=208&extra=8003-1:8028-5&test=true

8.1.1 Parameters (post)

| Parameter | Rule | Format | Description |
|--------------|---|-----------------|---|
| Agency | mandatory | 7 digit numeric | agency number |
| Type | mandatory | alpha | Possible values: booking, option |
|) r - | , | | Option = 3 day option, check "optiondate" for more information |
| Company | mandatory | alpha | nov=novasol or dan=dansommer; Dansommer is only relevant |
| , , | , | ' | for properties in Denmark. |
| salesmarket | mandatory | ISO 3166-1 | Controls language and currency of this booking |
| | , | numeric-3 | o common samigrange and common y common accounty |
| Propertyid | mandatory | alpha numeric | Property number of NOVASOL or Dansommer unit. Use |
| . roportyra | manaatory | aipha mamono | capital letters in the property id. |
| Arrival | mandatory | YYYYMMDD | Arrival date |
| Departure | mandatory | YYYYMMDD | Departure date |
| Price | mandatory | | Rental price for selected period, price has to be correct, |
| | | | otherwise booking will not be created. The price includes all |
| | | | services and extra costs which are paid before arrival and to |
| | | | NOVASOL. |
| Adults | mandatory | numeric | number of adults. This parameter can have influence on the |
| 7.0.0.10 | | | price verification. |
| Children | optional | numeric | number of children. This parameter can have influence on the |
| | | | price verification. |
| Pets | optional | numeric | Amount of pets cannot be greater than the number allowed in |
| | | | the property. Check parameter <allowedpetcount> in products</allowedpetcount> |
| | | | under information. |
| Title | optional | text | customers title |
| Firstname | mandatory | text | customers first name |
| Lastname | mandatory | text | customers last name |
| Street | mandatory | text | customers street name |
| streetnumber | mandatory | numeric | customers street number max 5 digits |
| floor | optional | alpha / numeric | customer floor max 5 characters or digits |
| location | optional | text | customers location / area / address extension |
| zip | mandatory | alpha numeric | customers zip code |
| city | mandatory | text | customers city name |
| custcountry | mandatory | ISO 3166-1 | customers country, this automatically creates the country letter |
| , | , | numeric-3 | in front of the zip code. |
| | | - | |

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| phone | mandatory | numeric | customers phone number (We suggest to post the mobile as phone) |
|---------------------------------------|----------------------------------|----------------------------------|---|
| mobile | optional | numeric | customers mobile phone number (We suggest to post the mobile as phone) |
| email | mandatory | email | customers e-mail address, please note Alias emails are not accepted. |
| bankid | optional | numeric | Customers bank number. This is only for German market and can be used for payment via "Lastschrift"/ELV. |
| bankaccount | optional | numeric | Customers account number. Is only for German market and can be used for payment via "Lastschrift"/ELV. |
| ibannumber swiftnumber external | optional optional optional | alpha / numeric alpha Text | Customers IBAN number for bank transfer Customer SWIFT number for bank transfer external text for booking record (max 120 characters). Please note that this field cannot be used for dependencies. When the field is used by customers you have to make sure that the message is followed up on. A good idea would be to set the booking as option and send a notification to your booking service to have the matter cleared. |
| subgroup | optional | alpha numeric | 10 character code for use by partner to group or identify bookings. This is for agency information only. The information is only stated on the commission recipe or booking list. We suggest you to post your booking reference as subgroup |
| document | mandatory | boolean | true=electronic documents (PDF) |
| extra | optional | alpha numeric | Ordering extra services for properties located in Denmark using the value of "serviceID" and number of units separated with "-"(for example 8003-5), split multiple extra services by ":" (for example 8003-10:8023-8) Extra services can only be ordered with the booking if parameter Service Type = 0 or 1. Owner Extra Service cannot be paid or ordered with the booking. |
| test | optional | boolean | "true" will create a test booking. Using this parameter, the booking will be registered in our test system. You will get an API reply but the booking will not be visible in any other system. |

8.1.2 Returns

| Parameter | Format | Description |
|---------------|---------|--|
| message | Text | Text in language of requested sales market |
| - id | numeric | 3 digit message ID |
| bookingNumber | numeric | 7 digit booking number. No number is returned if error occurred. |

8.1.3 Return "error" messages

200 : OK

400 : Bad request, syntax must be wrong, please read documentation

401 : Unauthorized

404 : Not found, temporally error

405: Method not allowed, use correct method instead

408: Time out

8.2 Update booking

There are 2 booking update actions. First a booking can be acknowledged: this registers the transaction as a booking in the NOVASOL system. Second an option can be turned into a fixed booking.

Use method PUT.

https://partnerapi.novasol.com/api/bookings/1853623?action=acknowledge&company=dan&salesmarket=208&agency=1234567&user=RALF83&test=true

8.2.1 Parameters (PUT)

| Parameter | Rule | Format | Description |
|-------------|-----------|-------------------------|--|
| bookingid | mandatory | numeric | 7 digit booking number. The number is send on /bookings return |
| company | mandatory | alpha | nov=novasol or dan=dansommer |
| salesmarket | mandatory | ISO 3166-1 numeric-3 | |
| agency | mandatory | 7 digit number | |
| user | mandatory | alpha numeric | Agency employee's id or system id. Only shown on the |
| | | | commission receipt when a user confirmed a option |
| test | optional | boolean | Used when sending test bookings |
| action | mandatory | | To acknowledge booking or option request use "acknowledge" |
| | | | To change an option into a booking use "confirm" |

8.2.2 Returns

| Parameter | Format | Description |
|---------------|---------|--|
| message | Text | Text in language of requested sales market |
| - id | numeric | 3 digit message ID |
| bookingNumber | numeric | 7 digit booking number. No number is returned if error occurred. |

8.2.3 Return "error" messages

200: OK

400 : Bad request, syntax must be wrong, please read documentation

401: Unauthorized

404 : Not found, temporally error

405: Method not allowed, use correct method instead

408: Time out

8.3 Access E-docs

E-docs can be retrieved in 3 different ways. The documents are first available on full payment. For agencies set to credit agency the e-docs are available right away.

To get e-docs it is required to send parameter "documents=true" on booking request.

- 1) Log into NOVASOL agency login where e-docs can be downloaded from the booking list page. https://safe.novasol.com/agency?L=999
- 2) Download e-docs using URL

Insert the customer data and select L=ISO-code to retrieve the travel documents in a different language than the sales market language.

a. Route description:

 $\verb|https://edoc.novasol.com/route?H=[House ID]\&E=[customer e-mail address]\&B=[booking number]\&L=[ISO-code]|$

b. Travel voucher:

https://edoc.novasol.com//voucher?H=[House ID]&E=[customer e-mail address]&B=[booking number]&L=[ISO-code]

3) Send customer to NOVASOL MyBooking page

Without email parameter (customer must type this in manually) https://mybooking.novasol.com/[ISO of sales market]?reservationNumber=[booking number]&houseNumber=[House ID]

or

With SHA-1 hashed HEX representation of the lowercased email address

9 API-method /bookings (delete)

Delete acknowledged booking or option. Use method DELETE. It is also possible to delete test bookings.

Please notice that there can be a cancellation fee involved in deleting. To see cancellation fee before performing deletion it can be retrieved using /bookings/[specific] call.

https://partnerapi.novasol.com/api/bookings/1853623?company=dan&salesmarket=208&agency=1234567&propertyid=C17500&user=JDHL22&test=tru e

9.1 Parameters

Booking number is added as part of the URL with a "/"

| Parameter | Rule | Format | Description |
|-------------|-----------|-------------------------|----------------------------------|
| Agency | mandatory | numeric | 7 digit agency number |
| Company | mandatory | Alpha | nov=novasol, dan=dansommer |
| Salesmarket | mandatory | ISO 3166-1 numeric-3 | To specify language and currency |
| PropertyID | mandatory | Alpha | ID of property |
| User | mandatory | Alpha | User name (internal use) |
| Test | optional | Boolean | Access to delete test bookings |

9.2 Returns

| Parameter | Format | Description |
|-----------------|---------|--|
| bookingNumber | numeric | 7 digit booking ID |
| Message | Text | Text in language of requested sales market |
| - id | numeric | 3 digit message ID |
| cancellationfee | numeric | ID of property |
| - currency | Alpha | Currency ID |

10 API-method /bookings (list)

Request a list of bookings. Use method GET.

NOTE: If bookings are more than 100 per agency account, we suggest instead to use the booking batch solution at section 20.

https://partnerapi.novasol.com/api/bookings?company=NOV&salesmarket=208&agency=1234567&test=true

10.1 Parameters

| Parameter | Rule | Format | Description |
|-------------|-----------|---------------|---|
| company | mandatory | alpha | nov=novasol or dan=dansommer |
| salesmarket | mandatory | ISO 3166-1 | |
| | | numeric-3 | |
| agency | mandatory | numeric | 7 digit Agency number |
| propertyid | optional | alpha numeric | property number |
| arrival | optional | YYYYMMDD | returns bookings with specific arrival date |
| booked | optional | YYYYMMDD | returns bookings completed on a specific date |
| name | optional | alpha | search for bookings by customer name |

| | | _ | |
|--------|----------|---------|--|
| offset | optional | numeric | 7 digit booking id. To call the next set of bookings if more than |
| Ullact | UDUUITAI | HUHICHC | I GIGIL DOORING IG. TO GAIL THE HEAL SEL OF DOORINGS IF HIGHE THAT |

50 bookings are listed.

test optional boolean Used when sending test bookings

10.2 Returns

The booking list will return 50 entries at one time

| Parameter | Format | Description |
|--------------------|------------------|---|
| nextoffset | numeric | Use value for "offset" to request the next 50 bookings. |
| booking | | Separator for each booking |
| bookingid | numeric | 9 digit booking number |
| propertyid | alpha numeric | property number |
| country | alpha | Letter code (for example Denmark DK) |
| arrival | YYYYMMDD | date of arrival |
| departure | YYYYMMDD | date of departure |
| booked | YYYYMMDD | date of booking |
| optiondate | YYYYMMDD | Latest date to confirm option |
| name | alpha | full name of customer |
| people | numeric | amount of people including children |
| custcountry | alpha | Letter code (for example Denmark DK) |
| type | alpha | option, booking, reservation or cancellation |
| Company | alpha | Company in which product is booked (NOV=NOVASOL, |
| salesmarket | ISO 3166-1 | DAN=dansommer) |
| SaleSiliarket | numeric-3 | |
| CUTTO DOV | ISO 4217 alpha-3 | |
| currency | numeric | Amount of normant received by NOVASOL |
| payment commission | numeric | Amount of payment received by NOVASOL Amount of commission |
| | | |
| subgroup | alpha numeric | Shown when subgroup is defined on booking |
| username | alpha numeric | Shown when user defined on booking |
| documentElectronic | boolean | true = electronic papers ordered |
| documentAuthorized | boolean | true = electronic papers available and ready for download |

11 API-method /bookings/[specific]

Request a specific booking. Use method GET.

NOTE: If bookings are more than 100 per agency account, we suggest instead to use the booking batch solution at section 20.

https://partnerapi.novasol.com/api/bookings/1853623? agency = 1234567 & propertyid = c17500 & salesmarket = 208 & company = NOV & test = true + c17500 & salesmarket = 208 & company = C17500 & salesmarket = 208 & company = NOV & test = true + c17500 & salesmarket = 208 & company = NOV & test = true + c17500 & salesmarket = 208 & company = NOV & test = true + c17500 & salesmarket = 208 & company = NOV & test = true + c17500 & salesmarket = 208 & company = NOV & test = true + c17500 & salesmarket = 208 & company = NOV & test = true + c17500 & salesmarket = 208 & company = NOV & test = true + c17500 & salesmarket = 208 & company = NOV & test = true + c17500 & salesmarket = 208 & company = NOV & test = true + c17500 & salesmarket = 208 & & s

11.1 Parameters

| Parameter | Rule | Format | Description |
|-------------|-----------|-------------------------|---------------------------------|
| bookingid | mandatory | numeric | 7 digit booking number |
| salesmarket | mandatory | ISO 3166-1 numeric-3 | |
| | | | |
| agency | mandatory | 7 digit number | Agency number |
| propertyid | mandatory | alpha numeric | property number |
| company | mandatory | alpha | nov=novasol or dan=dansommer |
| test | optional | boolean | Used when sending test bookings |

11.2 Returns

| Parameter | Format | Description |
|------------|---------|--------------------------|
| bookingid | numeric | 7 digit booking number |
| propertyid | numeric | House number |
| custname | alpha | Customer full name |
| street | alpha | Customers address street |

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number numeric Customers address house number floor alpha numeric Customers address floor id location alpha Customers address extension alpha numeric Customers address zip code zip Customers address city city alpha

Customers address country letter (for Denmark DK) custcountry alpha

phone numeric Customers telephone number email Customers e-mail address xxx@yyy.zzz

number of persons (adults + children) persons numeric

number of children children numeric number of pets pets numeric date of arrival arrival YYYYMMDD departure YYYYMMDD date of departure season YYYY Season specification

apartment numeric Only used when the property contains more than one unit

(Example property with 5 similar apartments). This

parameter will usually return "1".

username alpha numeric Shown when subgroup is defined on booking subgroup alpha numeric Shown when user defined on booking

YYYYMMDD booked Date of booking **HHMMSS** Time of booking booktime

Date when travel documents were printed (for edocumentdate YYYYMMDD

documents=date of creation).

Company on which the property is booked NOV=NOVASOL, company alpha

DAN=Dansommer

ISO 3166-1 language

numeric-3

numeric department Sales market id number (is also mentioned on the travel

documents)

salesmarket ISO 3166-1

numeric-3

ISO 4217 Of the stated price currency

alpha-3

price numeric Rental price

payments Separator for the different payments

ID of payment in regards to first or second rate paymentid numeric

YYYYMMDD date of payment paymentdate amount Amount of payment numeric

Amount that is registered at NOVASOL as paid on this paid numeric

booking

cancellationpossible boolean True if booking can be cancelled, False if not

cancellationfee numeric Amount of cancellation fee if booking would be canceled

today

commission numeric commission for the agency on this booking

Expiry date for option optiondate alpha

type alpha Booking, option, reservation or other

document boolean True = electronic document are authorized and available

Text to customer if any is registered external alpha

Separator for the different extra services ordered by extras

customer

alpha numeric productid Extra service id

productname alpha Name of service is sales market language

quantity numeric Amount of ordered items of this extra service product

productprice numeric Total amount of this extra service product

contactAddressLines Separator

addressLine Multiple "addressLines" with different information are alpha

possible. Separator

conditionText

condition alpha Code returned indicates the information in the text

parameter (below). Possibilities are REN=Cleaning,

DEP=Deposit, FOR=Consumption costs

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| alpha | Notification of mandatory extra service |
|-------|--|
| | Separator |
| alpha | Information about key address |
| alpha | Information about key address |
| alpha | Information about key address (not necessary Zip and City) |
| alpha | Information about key address |
| alpha | Text on how to get to the key address. |
| alpha | Text including the geo coordinates to the key address. |
| | alpha alpha alpha alpha alpha alpha |

11.3 Return "error" messages

200: OK

400 : Bad request, syntax must be wrong, please read documentation

401: Unauthorized

404: Not found, temporally error

405: Method not allowed, use correct method instead

408: Time out

12 Rental Agreement

The customer needs to acknowledge and accept the general rental terms of NOVASOL or dansommer before booking.

12.1 NOVASOL Rental Terms

Our Rental terms are available as PDF documents. The documents are available for every season.

Note: We highly recommend you to provide links to your customers to these documents.

The rental terms are acquired via a URL which is supplied via the \available API call. See chapter "7.1 Parameters" for further details.

You can also get a full list of available terms by "GET" https://partnerapi.novasol.com/api/rentalterms

If the rental terms for the requested season is not yet available then the rental terms for the previous season are supplied.

Example

<rentalTerms>

<![CDATA[https://image.novasol.com/site/terms/nov/2021/terms-com.pdf]]>

</rentalTerms>

13 API-method /seasons

This is a request to check for open seasons by product country or company. The method GET is used.

https://partnerapi.novasol.com/api/seasons https://partnerapi.novasol.com/api/seasons?country=191 https://partnerapi.novasol.com/api/seasons?country=208&company=dan

NOTE: We suggest you to perform this call every week, to ensure that you have all season open for sale

13.1 Parameters

| Parameter | Rule | Format | Description |
|--------------------|----------------------|----------------------------------|------------------------------|
| company country | optional optional | Alpha ISO 3166-1 numeric-3 | NOV=NOVASOL or DAN=Dansommer |

13.2 Returns

| Parameter company name | Format alpha | Description NOV=NOVASOL or DAN=Dansommer |
|------------------------|-------------------------|---|
| country | ISO 3166-1 numeric-3 | |
| startDate endDate | YYYYMMDD YYYYMMDD | Season start date Season end date |

14 API-method /countries

Request method to get a list of product countries. Method GET is used

https://partnerapi.novasol.com/api/countries

14.1 Parameters

| Parameter | Rule | Format | Description |
|------------------|----------|------------|-----------------------|
| salesmarket | optional | ISO 3166-1 | Default is set to 999 |
| | | numeric-3 | |

14.2 Returns

| Parameter | Format | Description |
|-----------|----------------------|--|
| country | ISO 3166-1 numeric-3 | |
| name | alpha | Name of the country in requested language (default is 999) |

15 API-method /countries/[specific]

Request a list of areas in a specific product country. Each property is located in one area. Method GET is used. Add the product country ISO code separated by "/" to the URL.

https://partnerapi.novasol.com/api/countries/191

15.1 Parameters

| Parameter | Rule | Format | Description |
|-------------|----------|----------------------|-------------------------------|
| company | optional | | Default is set to nov=NOVASOL |
| salesmarket | optional | ISO 3166-1 numeric-3 | Default is set to 999 |

15.2 Returns

| Parameter country areaid areaname areaid | Format ISO 3166-1 numeric-3 apha numeric alpha apha numeric | Description country iso code area id used to search for specific areas. name of area in request language Sub area id used to search for specific areas |
|--|---|--|
| areaname | alpha | Name of the country in requested language |

16 API-method /translate

Much data is provided as codes and this method enables you to get translation of codes into many languages. The method is GET.

https://partnerapi.novasol.com/api/translate?salesmarket=280

16.1 Parameters

Parameter Rule Format Description

salesmarket mandatory ISO 3166-1 numeric-3

16.2 Returns

Parameter Description

translations

salesmarket Information about the selected file

buildingTypes Contains all types of buildings belonging to one entity

type

- id Code for building type

description Name of type of building including language code roomsTypes Contains all descriptions of the different room types

type

- id Code of room type

description Description of type of room including language code

roomFacilities Contains all descriptions of room facilities, such as type of terrace or bath room

facility

- id Code for room facility

description Description of room including language code

codeValues

- id ID of type of facility

description Description of type of facility including language code

objectTypes Contains all descriptions for type of beds

type

- id Code for bed type

description Description of type of bed including language code

concepts Contains all descriptions of concepts

concept

- id Concept code

name Concept title including language code description Concept description including language code

features Contains all descriptions of features

feature

group group id

description Description of group including language code

subgroup

- id Subgroup id

description description of subgroup including language code

Locations

location

- id Location ID

description Description of location including language code

extraServices extraService

- id Extra service ID (serviceID)

names

name Name of service

descriptions

description Description of service

ownerExtraServices ownerExtraservice

- id Owner extra service ID (serviceID)

names

name Name of owner extra service

descriptions

description Description of owner extra service

priceTypes List of priceTypes to be used with services

priceType

- code Price type code

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descriptions

description Description of price type

17 Property data

Data on properties are grouped into 12 sections. Each section will be described in detail here.

cproduct>

propertyID>

<season></season>

<salesmarkets> returns list of requested salesmarkets

<salesmarket code=""></salesmarket>

code is ISO-code for salesmarket

per salesmarket is listed which brands property is sold under

</brands>

</salesmarket>

</salesmarkets>

17.1 information

Basic information about the property.

We do not offer a parameter for total number of sleeping places. You can calculate them like this [total number of sleeping places = <adultCount> + <childrenCount> + <extraBedCount>]

<information>

<name></name> property name if available

<quality></quality> number of stars

<buildYear></buildYear> year when property were build

<modernizedYear></modernizedYear>

latest year that property were modernized

<switchDay></switchDay> normal weekday that arrival/departure takes place

<minimumDays></minimumDays>

Minimum number of nights the property can be rented. Standard is 7 which means the

property can be rented for full weeks only. Depending on the pricerules.

NOTE: Exceptions where minimum nights is 7, will be reflected at the pricerule section.

<type></type> property type; H=House, A=Apartment, B=Houseboat, M=Mobile House

<adultCount></adultCount> number of adults (sleeping places for adults)

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<childrenCount></childrenCount>

number of children (sleeping places only fit for children)

<extraBedCount></extraBedCount>

number of extra beds (temporally sleeping places)

<allowedPetCount></allowedPetCount>

number of pets that guests can bring

<kidsFreeOfCharge></kidsFreeOfCharge>

number of kids (<4 years) that are free of charge

<catalogueHouse></catalogueHouse>

Connector for parent house in case the property is part of a complex. Apartments belonging to one complex might be different in size and interior.

<catalogue id=" " page=" " type=" "></catalogue>

id references to catalogue number

page references to which page in catalogue that property is located

catalogue type H=Main catalogue

cproductNotes>

cproductNote languageiso=" " type=" " format=" ">

The text returned is relevant information for the customer considering to book the

property. The atributes specify the language.

This text needs to be shown prominent on the property description!

</information>

17.2 features

Facilities in and outside of property. If a facility is available it will be listed with group and subgroup id. There are 750+ different possible facilities. Full list of features is available using /translate method.

Some facilities may have extra data such as starting and/or ending date, size (square meters) or counter. These are listed as units with each facility.

<features>

<feature>

<group></group> group code between 000 and 999, that is the main identifier of a feature

<subgroup></subgroup> subgroup that defines are more precise feature definition

<startDate></startDate> from date where feature is available – format is YYYYMMDD

<endDate></endDate> to date when feature is no longer available – format is YYYYMMDD

<unit id="" size=""></unit> extra data about feature

Unit id can contain different values such as floors, m2, I, spaces, capacity, count, feet, hp

(horsepower) or other depending on group.

size is number or size of unit id.

</feature>

</features>

Facilities:

- 020 Swimming pool and size if available
- 021 Poolroom equipment
- 028 Free access water park
- 600 Free access water park
- 700 Leisure center
- 027 Basin
- 022 Whirlpool and number of persons
- 023 Sauna
- 024 Solarium
- 026 Activity room
- 083 Boat, length and horsepower
- 085 Fish cleaning
- 025 Exercise
- 052 Television
- 053 Channels
- 054 Stereo
- 055 Video
- 056 Phone
- 057 DVD
- 110 Electrical products
- Electrical products 111
- Satellite 112
- Exercise equipment 114
- Indoor toys, baby items 116
- 122 Indoors various
- 126 Additional data
- 127 Pool opening hours
- 650 Concept codes

About the property:

- 001 Property type
- 003 Building material
- 005 Roof
- 002 Floor
- 101 Negative code
- 102 Negative code
- 170 Located on...
- 171 Located on...
- 172 Located on...
- 173 Located on...
- 174 Located on...
- 175 Located on...
- 176 Located on...
- 177 Located on...
- 086 View
- View 2 087
- 300 Location view

Energi / heating:

- 004 Isolation
- 006 Heating
- 007 Heating secondary
- 80 Floor heating
- 058 Fireplace
- 080 Extracostsexcl
- 081 Extracostsincl
- 105 Energy costs

Amenities:

- 040 Kitchen cold/hot water041 Stove and
- number of plates
- 042 Refrigerator
- 043 Aspirator
- 044 Freezer and size liter
- 045 Coffee brewer046 Espresso
- 047 Microwave
- 048 Wash machine
- 049 Dryer
- 050 Dishwasher
- 051 Vacuum cleaner
- 115 Kitchenware
- 124 Floor heating, wet room

Outside / Grounds:

- 010 Plot type and size m2
- 011 Garden
- 012 Terrace
- 013 Garden furniture
- 014 Parking space and number of spaces
- 015 Outdoor toys
- 113 Outdoor toys
- 126 Outdoor various
- 300 Games / activities near house
- 090 Activity
- 084 Fish activity
- 309 Free activities nearby
- 310 Nearby

17.3 location

Nearby activities and facilities

```
<locations>
```

text description of property location

should be used in search results and house views as main title/location

<areaCode> property location code – use /countries/[specific] to see full area list

<pointsOfInterest>

<pointOfInterest>

<group></group> type of point of interest

see /translate under Locations for more information

<subgroup></subgroup>

sub definition of point of interest

see /translate under Locations for more information)

<distance></distance> distance to POI in meters

</pointOfInterest>

</pointsOfInterest>

</locations>

17.4 address

Property address and location as longitude/latitude coordinates.

NOTE: The address is not to be shown to the customer prior booking.

```
<address>
```

<street></street>

<streetNumber></streetNumber>

<floor></floor>

<zip></zip>

<city></city>

<countryISOCode></countryISOCode>

<country></country>

<coordinates quality=""> quality indicates how accurate longitude/latitude of property is.

0 = Unknown location

1 = Country level accuracy

2 = Region (state, province, prefecture, etc.) level accuracy 3 = Sub-region (county, municipality, etc.) level accuracy

4 = Town (city, village) level accuracy

5 = Post code (zip code) level accuracy

6 = Street level accuracy

7 = Intersection level accuracy

8 = Address level accuracy

9 = Premise (building name, property name, etc.) level accuracy Quality lower than 6 shouldn't be used for showing location online

17.5 buildings

Description of buildings, rooms and layout. Translations of types can be retrieved using /translate method.

```
<bul><buildings>
  <br/><building type=""> some properties one or two annex on site, hence multiple buildings
                             type=001 is holiday home
    <room type="" size="">
                             for each room is listed sleeping capacity and other information
                             type defines room type - see /translations under roomTypes
                             size is room floor size in square meters
      <roomFacility id="" type=""></roomFacility>
                             roomFacility id/type refers to bathroom and toilet facilities, and info about
                             terrace/balcony - see /translation under roomFacilities
      <object type="" count="" capacity="" totalCapacity=""></object>
                             type refers to bed-type in room – see /translation under objectTypes
                             count defines number of bed-type in the room
                             capacity is number of sleeping places in the bed
    </room>
  </building>
</buildings>
```

17.6 pictures

Description and location of pictures and ground plan per property.

- The standard size is 2048 x 1303 pixels – equal to 11:7. To get other sizes you need to use add a folder to the path:

```
○ 300-pixel picture = [ http://image.novasol.com/pic/300 .... ]
```

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```
    425-pixel floor = [ "http://image.novasol.com/pic/425 "... ]
    600-pixel picture = [ "http://image.novasol.com/pic/600 "... ]
    1024-pixel picture = [ "http://image.novasol.com/pic/1024 "... ]
    2048-pixel picture = [ "http://image.novasol.com/pic/2048 "... ]
```

- Model Images are shown with a camera as watermark in the image, and will be replaced once the right pictures are available, this will often be the case if it's a new build property

17.7 media

We offer property descriptions for all properties but not in all languages. The translation work load is quiet heavily and we focus on our main customer groups. These are German, Dutch, Danish, Swedish and Norwegian. We focus on main destinations for all other languages. Translations into English are only randomly done. Some properties may have videos available.

17.8 prices

Each property has different week prices depending when customers are traveling. Each week price is valid for a certain period of time and in prices-section is all periods listed with a price code/letter (A-Z) and week price for one week within the listed period. Returned prices are based on requested salesmarket(s).

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ces>

<code></code> A – Z code for price

<price> Net weekly rental Price

<salesMarket code="" currency=""></salesMarket>

code specifies salesmarket (ISO code) currency lists currency for salesmarket

</price>

<adjustedPrice> Weekly rental price (including mandatory <extraService> fix costs) for legal correct

presentation. Depending on legal rules for each sales market. Do not use as booking price

value! And we suggest you in general not to use this but only use the price for the

calculation of the price, and by adding either <extraService> & </ownerExtraService> you

will be able to get the final price that has to be displayed to the customer.

<salesMarket code="" currency=""></salesMarket>

code specifies salesmarket (ISO code) currency lists currency for salesmarket

</adjustedPrice>

<from></from> start date for price – format YYYYMMDD

<to></to> end date for price – format YYYYMMDD

</price>

</prices>

17.9 offers

Description of discounts, last minute and special price rules on property. Not all parameters will be return per offer, as different rules comply depending on offer type.

<offers>

<offer>

<fromDate></fromDate> start date for offer - format YYYYMMDD

<toDate></toDate> end date for offer – format YYYYMMDD

<code></code> type of offer:

lastminute; price/discount/salesmarket is returned and fromDate/toDate is

arrival/departure dates

specialoffer; discountPercentage is returned and arrival date have to be fromDate or later

and departure date should be at latest returned to Date

<price></price> deducted weekly price for period

<salesMarket></salesMarket>

ISO code for salesmarket

<discountPercentage></discountPercentage>

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percentage that rentalprice should be deducted by

</offer>

</offers>

17.10 availabilities

Describes when property is available or not.

Use of calendar

There are 2 dependencies for opening a new season:

- 1) The product country must be opened up for the new season. This controls all properties in one country
- 2) The last rental date must be in the beginning of the next year of the new season (usually the first or second Saturday in January, in case of winter sport accommodation first day of May). This parameter controls the individual property.

The availability calendar shows 365 days from January 1st to December 31st and does not state if the property is open for the next season. To be able to sale the new year's week, its therefore needed to import at least the availabilities for next season. So two season of availabilities has always to be imported.

<availabilities>

<availability>

<apartment></apartment>

used in case of a property containing multiple identical apartments. Usually value=1

<from></from> start date of availability list – format YYYYMMDD

<to></to> end date of availability list – format YYYYMMDD

<lastRentalDate></lastRentalDate>

Date until the property can be booked online. The property is no longer in our portfolio after

this date. And all data as to be deleted once this date has passed.

The lastRentalDate is the primary key in the case both "dates" are returned.

<lastAvailabilitvDate></lastAvailabilitvDate>

Date until the property can be booked online. The house is still in our portfolio and will be opened for sales again. Manual pre-reservation for periods after this date can be made on the property and will be confirmed as soon as the date is removed. Pre – Reservations can

only be made by contacting our customer service team.

<inactive></inactive> This indicates if the property has been registered as inactive and can no longer be booked:

true=The property is inactive false=the property is active

<days></days> One letter for each day of the year.

A=Available O=Occupied X=Occupied

R=Request (contact NOVASOL booking service)

</availability>

</availabilities>

NB: Winter rule for properties in Denmark

As per June 2020 a separate winter rule has been implemented for properties in Denmark. For detailed information please see 19.4

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17.11 services

Extra Service is for example final cleaning, linen, child chair or childbed. Depending on the product country or property are these services optional or mandatory. Depending on the sales market the extra service is calculated into the rental price or has to be paid on arrival.

Extra Services should always be listed with other price information, especially when services are compulsory. Our guests need full information about the products and prices, before the make the booking!

Services under <extraService> are offered and handled by NOVASOL or dansommer. Services under <ownerExtraService> are handled by the house owner and the payment of this has to take place on arrival only, where <extraService> can be paid upfront or at arrival. We suggest you to add as much to the booking as possible as this will create a better customer journey for the customer.

```
<services>
 <extraService>
    <serviceID></serviceID> our internal id number for the service. This is used for ordering services
                             with booking. The text description of the service can be found looking for
                             the serviceID in the translation endpoint.
    <priceUnitCode></priceUnitCode>
                             states how price is calculated:
                              1 = Daily price
                             2 = Weekly price
                             3 = Price per stay
                             4 = Price per person
                             5 = Price per unit
                             6 = Price per day and person
                             7 = Price per week and person
                             11 = Price per kWh
                             12 = Price per m3
                             13 = Price per liter
                             21 = Price for 4 hours (Not current in use)
                             22 = Price for 8 hours (Not current in use)
                             23 = Price for 5 days (Not current in use)
                             24 = Price per set
                             25 = Price per bag
    <serviceGroup></serviceGroup>
                             specification for group:
                              101=Deposit
                             201=Cleaning
                             202=Services
                             203=Insurance
                             204=Tax
                             205=Mandatory Variable consumption cost
                             301=Activities
    <salesmarket code="" currency=""></salesmarket>
                             Price for requested sales marked
    </price>
    <servicetype>
     <salesmarket code=""></salesmarket>
                              Specifies if the service is mandatory for each sales market
```

0 or not specified = optional and can be paid with the booking (using "external" parameter on booking request) or on arrival on request.

- 1 = the service is mandatory and can be paid with the booking (using "external" parameter on booking request) or on arrival
- 2 = the service is mandatory and unit price included in rental price
- 3 = the service is mandatory. The price is added to the rental and booking price and paid with booking.
- 4 = the service is mandatory; price is added to the rental price on house presentation but is not added to rental price on booking. Service is paid on arrival.
- 6 = the service is variable and mandatory. The service can not be added to the booking, but guest will get charged the cost on site or after check out. Cost will be charged according to the guest usages. Shall not be added to the rental price but stated at the house presentation and check out pages.

</servicetype>

<maxUnits></maxUnits> shows how many services that can be ordered online

if the value is "0 or minus 1" or the parameter is missing it is not possible to order the

service online.

<from></from> service is available from this date – format YYYYMMDD

<to></to> service is available until this date – format YYYYMMDD

</ExtraService>

<OwnerExtraService>

<serviceID></serviceID> our internal id number for the service. Service cannot be ordered with

booking but should be listed with other property information.

Description of service can be found looking for serviceID under /translate

<price></price>

price for extra service

<minimumPrice></minimumPrice>

specified if the service has a minimum price. Multiply <price> with amount of guests. The higher amount of minimum and price per person is taken as cleaning costs

<priceUnitCode></priceUnitCode>

states how price is calculated:

- 1 = Daily price
- 2 = Weekly price
- 3 = Price per stay
- 4 = Price per person
- 5 = Price per unit
- 6 = Price per day and person
- 7 = Price per week and person
- 11 = Price per kWh
- 12 = Price per m³
- 13 = Price per liter
- 21 = Price for 4 hours (Not current in use)
- 22 = Price for 8 hours (Not current in use)
- 23 = Price for 5 days (Not current in use)
- 24 = Price per set
- 25 = Price per bag

<serviceType></serviceType>

Specifies if the service is mandatory for each sales market

0 or not specified = optional or variable cost and paid on arrival. If optional only if requested.

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In order to retrieve the current exchange rate for onsite services, where only the local currency is displayed on our end, please use the following method. This Endpoint displays NOVASOLs current exchange rate used:

GET partnerapi.novasol.com/api/currencyRates

17.12 concepts

Describes types of concepts on a property. Concepts can be price and arrival related like Spar/longterm discount, Mini vacation and Optional arrival. Concepts can be about special features such as free access to waterpark or that property has an exceptional view. We suggest you to review the concepts and use the concepts as best as possible to indicate this property has something unique to offer. All concepts minus Spar/longterm discount, Mini vacation and Optional arrival will also be available as a feature.

```
<concepts>
<concept></concept>
</concepts>
```

17.13 legal

In this section, information about the license number of the property can be found. Furthermore, for French properties, information about the property type in terms of primary/secondary residence can be found.

```
<legal>
<registration>
type:

pri = primary residence
sec= secondary residence
lic = license
<legal>
```

18 PriceRules/LOS rules

By using the parameter sections=pricerules you will get all rules for the properties. This will inform you if the property is allowing any kind of other stays then week stays such as short-term vacation, or optional arrival. It will also give you the rules for regular week stays. It will also inform you about long-term discount. Example if customer books 14 nights, and then get a discount.

To have the full overview to be able to calculate the prices you must use following sections:

- <prices> will return the week prices for each property
- <priceRules> will return the specific rules for each property
- <offers> will return if there is any special offer or last minute deal
- <services> will return all services, mandatory services is needed to calculate the total price.

NOTE: The price rules are valid per season, and follow the normal seasonality. Its therefore important to collect all available season and the price rules.

18.1 Price rules definitions

| Return | Description | Format |
|---------------------------------------|---|---------|
| <salesmarket></salesmarket> | On which sales market the code is | Numeric |
| | valid. | |
| <from></from> | From when the rule is valid and to be used. | Numeric |
| | Equal to the first | |
| | possible check in date | |
| <to></to> | Until when the rule is | Numeric |
| | valid. Equal to the last | |
| | possible check out date. | |
| <pre><percentage></percentage></pre> | Can either be positive | Numeric |
| ~percentage>~percentage> | or negative | Numeric |
| <arrivalweekdays></arrivalweekdays> | On which week day | Numeric |
| , , | the check in rule is | |
| | valid for. | |
| <minstay></minstay> | Minimum length of | Numeric |
| | stay | |
| <maxstay></maxstay> | Maximum length of | Numeric |
| | stay | |
| <maxdaystoarrival></maxdaystoarrival> | From when the rule | Numeric |
| | can be used. Equal to | |
| | booking restrictions. If | |
| | there are more days to arrival then indicated | |
| | | |
| | in this filed, the rule | |
| | cannot yet be used. | |

18.2 Price rule calculations

How to calculate the prices based on price rules. The baseline for using our price rules are as before to calculate the day price, (week price divided by 7).

All rules has to be calculated and the cheapest price for a given period has to be used as the price.

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18.2.1 Week price, fixed arrival weekday

18.2.2 Rule calculations with percentage

```
Rule example
```

```
<priceRules>
    <rule>
    <salesMarket>999</salesMarket>
    <from>2020-01-11</from>
    <to>2021-01-09</to>
    <percentage>86.66</percentage>
    <arrivalWeekdays>1,2,3,4,5,6,7</arrivalWeekdays>
    <minStay>3</minStay>
    <maxStay>3</maxStay>
    <maxDaysToArrival>28</maxDaysToArrival>
    </rule>
```

Examples:

```
3 night stay with week price 700
```

```
700 / 7 = 100 * 3 = 300 + 86,66\% = 559,998 \sim 560
```

With overlapping of seasons prices

```
Week 1 = 700

Week 2 = 800

1 day in week 1 & 2 days in week 2

Week 1 = 700 / 7 * 1 = 100

Week 2 = 800 / 7 * 2 = 228,571

100 + 228,571 = 323,571 + 86,66% = 613,331 ~ 613
```

3 night stay with week price 700 and 30 % discount stayed in section "offer"

```
700 / 7 = 100 * 3 = 300 + 86,66\% = 559,998 - 30 \% = 392
```

NOTE: The latest check in date for above rule is: 2021.01.06 "to" date minus max stay" (Corresponds to latest check out date = 2021.01.09).

18.2.3 Rule calculations for periods of +7 days

Calculations of stays above 7 days

Rule example

```
<rule>
    <salesMarket>999</salesMarket>
    <from>2020-01-11</from>
    <to>2020-06-27</to>
    <percentage>0.00</percentage>
    <arrivalWeekdays>1,2,3,4,5,6,7</arrivalWeekdays>
    <minStay>7</minStay>
    <maxStay>84</maxStay>
```

Examples

Week price 700 stay length 10 days

```
700 / 7 = 100 * 10 = 1000
```

With overlapping season prices
Week 1 = 700
Week 2 = 1000
5 days in week 1 and 5 days in week 2
700/7=100 * 5 = 500
1000/7=142,857*5 = 714,285
Price total for 10 days 1214,286~1214
Rule Example

NOTE: The latest check in date for this rule is 2020-06-2020 (Corresponds to latest check out date = 2021-06-27). Periods can go beyond 2020-06-27 but in such case other rule has to be applied, example

```
<rule>
    <salesMarket>999</salesMarket>
    <from>2020-01-11</from>
    <to>2021-01-09</to>
    <percentage>0.00</percentage>
    <arrivalWeekdays>6</arrivalWeekdays>
    <departureWeekdays>6</departureWeekdays>
    <minStay>7</minStay>
    <maxStay>84</maxStay>
```

Example:

Check in 2020-06-18 & check out 2020-07-04 is ok Check in 2020-06-18 & check out 2020-07-03 is not ok, as no rules is valid.

18.2.4 Rule calculations for "negative" percentages

Calculation rules where discount is offered for a period:

Rule example:

Calculation example of a 14 night stay where week price is 100 100 / 7 * 14 = 1400 minus 10 % = 1260

NOTE: Discounts are only applied for each whole week that is booked within the from -to dates in the rule:

```
Calculation example of a 17 night stay where week price is 100 100 / 7 * 14 = 1400 minus 10\% = 1260 + 100 / 7 * 3 = 1560
```

Calculation example of overlapping season prices.

```
Week 1 = 700

Week 2 = 1000

7 nights in each week=

700/7=100 * 7 = 700

1000/7=142,857 *7 = 1000

Total price 1700 minus 10 % = 1530
```

NOTE: Discount percentages are only valid with in the from – to dates in the rule. Bookings can off course start before the from date and go beyond the to date, but for the stays discounts will not apply. Only for stays within the rule

Calculation example of overlapping season prices with 17 days stay:

```
First 10 days = 700 per week
Last 7 days = 1000 per week

First 10 days = 700/7 * 10 = 1000 - 10% = 900
Last 7 days = (1000/7 * 4 -10%) + 1000/7*3 = 571,4286 - 10% + 1000/7*3 = 514,29 + 428,57 = 943

Total price = 1843
```

18.4 Last minute

Referring to the parameter and value <code>lastMinute</code> in the product information under section offers. NOVASOL last minute offers are properties which have had a cancelled booking for the requested period. Prices are shown per week and need to be divided into price per day and multiplied by days of the stay if the period is not a week. Is a shorter period booked the last minute offer is only given for the booked period. A new booking for the rest of the period will be to normal conditions.

NOTE: Last minute overrules price rules and restrictions given in rules are not valid with in the last minute period.

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NOTE: The discount is applied to the 14 cheapest days within the period of 17 days.

18.5 Rounding rules

When the calculation is completed the final price must be rounded according to the general rounding rules (up/down)

Example:

10,412 = 1010,513 = 11

18.6 restrictions

To be able to inform our partners about until when a booking can be created instantly, without doing any request we have updated our price rules API with following two information.

A) <bookingOffset>

This indicate until when a property can be booked online via the API.

Example <bookingOffset>P1DT8H</bookingOffset> this means booking is possible until 16.00 CET the day before arrival

P1 = Day of arrival midnight minus 1 day

T8H=24.00 minus 8 hours

So example arrival 20.07.2021 can be booked until 16.00 CET the 19.07.2021

B) <rollingRequest>

This indicate if the property is on request and therefore can't be booked unless its requested via us.

This is also reflected at the calendar string, but know this is nice to know upfront if the property is on request xx days before arrival.

Each night a day is added to the request equal to the amount of days stated in <rollingRequest>

C) <blockedArrivalDays>

This means that arrival on the given date is not permitted

D) <blockedDepartureDays>

This means that departures on the given date is not permitted

Please note that blocked arrival days and blocked departure days often is the 24th and 31th of December.

18.7 Exceptions

As we in some destinations are having exceptions to the regular rules. This for mainly during Christmas and New-year periods. Then please ensure to integrate the exceptions to the rules.

This rule means that you can book the property for min 7 days or more with any check in date and check out date in above date range. This even the property does not offer this in other periods of the year.

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Date format: YYYY-MM-DD

NB: In case the property is offering less then 7 days stays, then this will still be bookable.

19 Special information

19.1 API weekly updates

We suggest that data is not collected in the following timeslots:

Tuesday between 03.00 & 05.30 CET

Wednesday between 05.00 & 05:30 CET

Here our system will run backups. You will get files in return but the files will not be accurate. We therefore suggest starting your jobs after this time. In general we suggest you to run batch calls after 5.30. This will ensure the best data.

19.2 Currency and sales markets

Please note that dansommer properties is only valid in following sales markets. 208.280.528.578.752 & 999.

If you have a customer from a country that is not matching any of the first 5 master sales market we suggest you to use 999 for these countries. Example Spanish or UK customers.

19.3 Discounts

The amount returned on the /available call is the discount that is offered for the requested period. The amount is already deducted from the rental price.

19.4 Winter rule destination Denmark

According to Danish law limitations apply to the rental of properties in Denmark during the winter period.

For this reason the following rules have been applied by NOVASOL:

Winter season definition

From 1st November to 29th February the following year (i.e. 1.11.2020 – 28.2.2021).

Winter rule definition

- 1) During the winter season a property must not be occupied more than 63 days in total
- 2) During the winter season a customer must not be able to create a booking with a duration of more than 28 days (28 days of stay are OK, 29 or more days of stay are not OK)

When counting the occupation <days> for the winter rule validation only O=Occupied must be counted.

It has not been implemented in the availability call since it is not fixed dates that must be blocked. However the validation of the winter rule has been implemented by NOVASOL when attempting to create a new booking (post booking). If the booking details conflict with the winter rule an error code will be returned.

19.5 Secure Payment Solution: Payment IQ

In order to improve the customer journey, NOVASOL has established a new payment solution in order to increase the level of security for sensitive data. For partners with the possibility of executing tokenization, the Payment IQ solution can be implemented, which is characterized by mapping sensitive data via a tokenization

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system. This solution will require that partners have their own payment provider integrated already. In case you wish to learn more about the Setup of the payment IQ solution, kindly reach out to NOVASOL via partner@novasol.com.

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20 Booking batch

Instead of using specific calls on booking levels or using "List" solution for keep track of the bookings, we suggest you to use booking batch. This will allow you to create a batch request per agency ID.

Method: POST

EX: https://partnerapi.novasol.com/api/bookingbatch?company=nov&agency=&salesmarket=&type=all&from=&to=&replyto=

20.1 Parameters

| Parameter | Rule | Format | Description |
|----------------------|------------------------|---------------------------------|--|
| company | mandatory | alpha ISO 3166-1 | nov=novasol or dan=dansommer |
| salesmarket | mandatory | numeric-3 | |
| agency | mandatory | numeric | 7 digit agency number |
| from | mandatory | YYYYMMDD | Arrival date from |
| to | mandatory | YYYYMMDD | Arrival date to - date must be in same calendar year as arrival from |
| type | mandatory | | All = All reservation status |
| | | | Option = Not completed booking |
| | | | Reservation = Active not yet paid |
| | | | booking = All paid and active bookings not cancelled = option, reservation & booking cancellation= all cancelled booking |
| | | | |
| replyto | mandatory | URL | When the batch file is ready to download a POST request is send to the specified URL |
| agency from to | mandatory mandatory | numeric YYYYMMDD YYYYMMDD | Arrival date from Arrival date to - date must be in same calendar year as arrival from All = All reservation status Option = Not completed booking Reservation = Active not yet paid booking = All paid and active bookings not cancelled = option, reservation & booking cancellation= all cancelled booking bookings URL of your server. When the batch file is ready to downloa |

20.1 Parameters returns

| Parameter | Format | Description |
|-----------|---------|------------------------------|
| Batchid | numeric | identification of batch file |

20.2 GET bookingbatch

Method: GET

Ex: https://partnerapi.novasol.com/api/bookingbatch/

Enter the batched after bookingbatch/

Return the most valuable information of a booking

```
<booking>
<bookingid><![CDATA[]]></bookingid>
<propertyid><![CDATA[]]></propertyid>
<arrival></arrival>
<departure></departure>
<type> </type>
<rentprice><![CDATA[]]></rentprice>
<paymentregistered><![CDATA[]]></paymentregistered>
<cancellationpossible> </cancellationpossible>
<cancelfee><![CDATA[]]></cancelfee>
<rebooked> </rebooked>
<newbooking />
<commission><![CDATA[]]></commission>
<subgroup><![CDATA[]]></subgroup>
</booking>
```

99 Document Version Control

This version includes the following changes:

| Date | Section | Changes |
|------------|--------------------|---|
| 12.9.2019 | General | The previous change log has been replaced by this Version control: |
| | General | The Cuendet brand is not used anymore |
| | General | The Duo concept is not used anymore |
| | General General | The NOVASOL support WEB site URL has changed |
| | 6.1&12.1 | Safe.novasol.com replaced with partnerapi.novasol.com The 91 day rule for properties in Denmark is not in use |
| | 7.1 | Alpine parameter is not in use |
| | 6.1 | Services and terms of rent returned with the \available API call |
| | 7.1 | Arrival details Christmas and new year changed |
| | 8. | Bookings accepted minimum number of days before arrival changed |
| | 8.1.1 | Change in parameter/post. More parameters changed to mandatory: |
| | | - Street, street number, zip code, city, phone, E-mail, document(electronic) |
| | 8.3 | Access to E-docs (URL will be returned when placing a booking status call) |
| | 12.1. 18.1. | Services and terms of rent returned with the \available API call |
| | 18.1. | The definition of rules around minimum number of days of stay have changed Pictures also supplied in 2048 pixel |
| | 18.6. | All texts supplied in type W=Web text |
| | 18.7. | Active code added for properties |
| | 18.10 | Section about cleaning updated. Section re-numbered to 20.1. |
| | 20.2 | Concept descriptions removed. Sections re-numbered. And replaced with price rules |
| | | Detailed change log removed |
| | 20.1-20.10 | Add |
| | 999 | |
| 18.12.2019 | 18.2.2 | Added how to calculate a price with an offer and a "percentages" |
| | | |
| 05.06.2020 | 10.4 | Added info about Winter rule in Denmark |
| 05.06.2020 | 19.4 | Added into about winter rule in Denmark |
| | | |
| 29.03.2021 | 20 | Bookingbatch added to documentation |
| 20.00.2021 | | 200 mily battori added to accumentation |
| | | |
| 29.03.2021 | 10 & 11 | Booking batch ref. given at the booking specific call and list call |
| | | g qui a g a mar a a a g q |
| | | |
| 19.07.2021 | 17.11 | Added information due to consumption cost being exposed |
| | | · |
| | | |
| 19.07.2021 | 18.6 | New section added about pricerules |
| | | |
| | | |
| 13.09.2021 | 17.11 | Update values in Priceunitcode for extraservices. |
| | | |
| | | |
| 13.09.2021 | Intro | URL for documentation changed from helpserve.novasol.com to own hosted URL |
| | | |
| | | |
| 27.09.2021 | 6 | Added payment methods as optional item |
| | | |
| | | |
| 04.10.21 | 17.11 | Added information that price type "2" is variable and mandatory |
| | | |
| | | |
| 14.10.21 | 18.2.4 | Added information that negative discount is only applied for each whole week |
| | | booked |
| | | |

| 14.10.21 | 18.2.2 | Added example for: 3 night stay with week price 700 and 30 % and deleted reference to helpservice which we not use anymore. | |
|------------|--------|---|--|
| 14.10.21 | 18.3 | Deleted section about calculation examples, as helpservice site is no longer supported. | |
| 21.10.21 | 18.7 | New section added with exceptions to pricerules | |
| 08.11.21 | 17.11 | Added <priceunit-code> : 25 = Price per bag</priceunit-code> | |
| 10.11.21 | 1.4 | Added information about the maintenance work. | |
| 20.01.22 | 8.1.1. | "Firstname" changed from "optional" to "mandatory" | |
| 27.01.22 | 17.11 | Added method about currency exchange endpoint partnerapi.novasol.com/api/currencyRates | |
| 16.03.2022 | 17.13 | Added information about legal section 17.13 | |
| 18.03.2022 | 19.5 | Added information about payment IQ | |
| 06.05.2022 | 12.1 | Reference for retrieving rental terms changed from 6.1. to 7.1 (specific availability call to retrieve rental terms) | |
| 04.08.2022 | 18.2.4 | Added calculation example for 17 days stay with different seasonal prices | |
| | | | |