
python-amazon-paapi

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CONTENTS

1	Reference	3
1.1	AmazonApi Module	3
1.2	Exceptions Module	6
1.3	Tools Module	7
2	Usage guide	9
2.1	Installation	9
2.2	Usage guide	9
3	Migration guide	11
3.1	Migration guide from 3.x to 4.x	11
3.2	Migration guide from 4.x to 5.x	13
	Python Module Index	15
	Index	17

A simple Python wrapper for the last version of the Amazon Product Advertising API. This module allows interacting with Amazon using the official API in an easier way.

REFERENCE

1.1 AmazonApi Module

This is the main class that provides authentication and methods for accessing the Amazon Product Advertising API. Instance it with your credentials and configuration.

class `amazon_paapi.api.AmazonApi`(*key, secret, tag, country, throttling=1, **kwargs*)

Bases: `object`

Provides methods to get information from Amazon using your API credentials.

Parameters

- **key** (`str`) – Your API key.
- **secret** (`str`) – Your API secret.
- **tag** (`str`) – Your affiliate tracking id, used to create the affiliate link.
- **country** (`models.Country`) – Country code for your affiliate account.
- **throttling** (`float`, optional) – Wait time in seconds between API calls. Use it to avoid reaching Amazon limits. Defaults to 1 second.

Raises `InvalidArgumentException` –

get_browse_nodes(*browse_node_ids, languages_of_preference=None, **kwargs*)

Returns the specified browse node's information like name, children and ancestors.

Parameters

- **browse_node_ids** (`list[str]`) – List of browse node ids. A browse node id is a unique ID assigned by Amazon that identifies a product category/sub-category.
- **languages_of_preference** (`list[str]`, optional) – Languages in order of preference in which the item information should be returned.
- **kwargs** (`dict`, optional) – Other arguments to be passed to the Amazon API.

Returns A list of browse nodes.

Return type `list[models.BrowseNode]`

Raises

- `InvalidArgumentException` –
- `MalformedRequestException` –
- `ApiRequestException` –
- `ItemsNotFoundException` –

get_items(*items*, *condition=None*, *merchant=None*, *currency_of_preference=None*,
languages_of_preference=None, *include_unavailable=False*, ***kwargs*)

Get items information from Amazon.

Parameters

- **items** (str | list[str]) – One or more items, using ASIN or product URL. Items in string format should be separated by commas.
- **condition** (models.Condition, optional) – Filters offers by condition type. Defaults to Any.
- **merchant** (models.Merchant, optional) – Filters search results to return items having at least an offer sold by target merchant. Defaults to All.
- **currency_of_preference** (str, optional) – Currency of preference in which the prices information should be returned. Expected currency code format is ISO 4217.
- **languages_of_preference** (list[str], optional) – Languages in order of preference in which the item information should be returned.
- **include_unavailable** (bool, optional) – The returned list includes not available items. Not available items have the ASIN and item_info equals None. Defaults to False.
- **kwargs** (dict, optional) – Other arguments to be passed to the Amazon API.

Returns A list of items with Amazon information.

Return type list[models.Item]

Raises

- **InvalidArgumentException** –
- **MalformedRequestException** –
- **ApiRequestException** –
- **ItemsNotFoundException** –

get_variations(*asin*, *variation_count=None*, *variation_page=None*, *condition=None*,
currency_of_preference=None, *languages_of_preference=None*, *merchant=None*,
***kwargs*)

Returns a set of items that are the same product, but differ according to a consistent theme, for example size and color. A variation is a child ASIN.

Parameters

- **asin** (str) – One item, using ASIN or product URL.
- **variation_count** (int, optional) – Number of items returned. Should be between 1 and 10. Defaults to 10.
- **variation_page** (int, optional) – The specific page of items to be returned from the available results. Should be between 1 and 10. Defaults to 1.
- **condition** (models.Condition, optional) – Filters offers by condition type. Defaults to Any.
- **currency_of_preference** (str, optional) – Currency of preference in which the prices information should be returned. Expected currency code format is ISO 4217.
- **languages_of_preference** (list[str], optional) – Languages in order of preference in which the item information should be returned.

- **merchant** (`models.Merchant`, optional) – Filters search results to return items having at least an offer sold by target merchant. Defaults to All.
- **kwargs** (dict, optional) – Other arguments to be passed to the Amazon API.

Returns Variations result containing the items list.

Return type `models.VariationsResult`

Raises

- **InvalidArgumentException** –
- **MalformedRequestException** –
- **ApiRequestException** –
- **ItemsNotFoundException** –

search_items(*item_count=None, item_page=None, actor=None, artist=None, author=None, brand=None, keywords=None, title=None, availability=None, browse_node_id=None, condition=None, currency_of_preference=None, delivery_flags=None, languages_of_preference=None, merchant=None, max_price=None, min_price=None, min_saving_percent=None, min_reviews_rating=None, search_index=None, sort_by=None, **kwargs*)

Searches for items on Amazon based on a search query. At least one of the following parameters should be specified: `keywords`, `actor`, `artist`, `author`, `brand`, `title`, `browse_node_id` or `search_index`.

Parameters

- **item_count** (int, optional) – Number of items returned. Should be between 1 and 10. Defaults to 10.
- **item_page** (int, optional) – The specific page of items to be returned from the available results. Should be between 1 and 10. Defaults to 1.
- **actor** (str, optional) – Actor name associated with the item.
- **artist** (str, optional) – Artist name associated with the item.
- **author** (str, optional) – Author name associated with the item.
- **brand** (str, optional) – Brand name associated with the item.
- **keywords** (str, optional) – A word or phrase that describes an item.
- **title** (str, optional) – Title associated with the item.
- **availability** (`models.Availability`, optional) – Filters available items on Amazon. Defaults to Available.
- **browse_node_id** (str, optional) – A unique ID assigned by Amazon that identifies a product category or subcategory.
- **condition** (`models.Condition`, optional) – Filters offers by condition type. Defaults to Any.
- **currency_of_preference** (str, optional) – Currency of preference in which the prices information should be returned. Expected currency code format is ISO 4217.
- **delivery_flags** (list[str]) – Filters items which satisfy a certain delivery program.
- **languages_of_preference** (list[str], optional) – Languages in order of preference in which the item information should be returned.
- **merchant** (`models.Merchant`, optional) – Filters search results to return items having at least an offer sold by target merchant. Defaults to All.

- **max_price** (int, optional) – Filters search results to items with at least one offer price below the specified value. Prices appear in lowest currency denomination. For example, \$31.41 should be passed as 3141 or 28.00€ should be 2800.
- **min_price** (int, optional) – Filters search results to items with at least one offer price above the specified value. Prices appear in lowest currency denomination. For example, \$31.41 should be passed as 3141 or 28.00€ should be 2800.
- **min_saving_percent** (int, optional) – Filters search results to items with at least one offer having saving percentage above the specified value. Value should be positive integer less than 100.
- **min_reviews_rating** (int, optional) – Filters search results to items with customer review ratings above specified value. Value should be positive integer less than 5.
- **search_index** (str, optional) – Indicates the product category to search. Defaults to All.
- **sort_by** (models.SortBy, optional) – The way in which items are sorted.
- **kwargs** (dict, optional) – Other arguments to be passed to the Amazon API.

Returns The search result containing the list of items.

Return type models.SearchResult

Raises

- **InvalidArgumentException** –
- **MalformedRequestException** –
- **ApiRequestException** –
- **ItemsNotFoundException** –

1.2 Exceptions Module

Custom exceptions module

exception amazon_paapi.errors.exceptions.**AmazonError**(*reason*)

Bases: Exception

Common base class for all Amazon API exceptions.

exception amazon_paapi.errors.exceptions.**AsinNotFound**(*reason*)

Bases: [amazon_paapi.errors.exceptions.AmazonError](#)

Raised if the ASIN for an item is not found.

exception amazon_paapi.errors.exceptions.**AssociateValidationError**(*reason*)

Bases: [amazon_paapi.errors.exceptions.AmazonError](#)

Raised when credentials are not valid for the selected country.

exception amazon_paapi.errors.exceptions.**InvalidArgument**(*reason*)

Bases: [amazon_paapi.errors.exceptions.AmazonError](#)

Raised when arguments are not correct.

exception amazon_paapi.errors.exceptions.**InvalidPartnerTag**(*reason*)

Bases: [amazon_paapi.errors.exceptions.AmazonError](#)

Raised if the partner tag is not present or invalid.

exception `amazon_paapi.errors.exceptions.ItemsNotFound(reason)`

Bases: `amazon_paapi.errors.exceptions.AmazonError`

Raised if no items are found.

exception `amazon_paapi.errors.exceptions.MalformedRequest(reason)`

Bases: `amazon_paapi.errors.exceptions.AmazonError`

Raised if the request for Amazon API is not correctly formed.

exception `amazon_paapi.errors.exceptions.RequestError(reason)`

Bases: `amazon_paapi.errors.exceptions.AmazonError`

Raised if the request to Amazon API fails.

exception `amazon_paapi.errors.exceptions.TooManyRequests(reason)`

Bases: `amazon_paapi.errors.exceptions.AmazonError`

Raised when requests limit is reached.

1.3 Tools Module

Some useful tools.

`amazon_paapi.tools.asin.get_asin(text)`

Returns the ASIN from a given text. Raises `AsinNotFoundException` on fail.

USAGE GUIDE

2.1 Installation

You can install or upgrade the module with:

```
pip install python-amazon-paapi --upgrade
```

2.2 Usage guide

Basic usage:

```
from amazon_paapi import AmazonApi
amazon = AmazonApi(KEY, SECRET, TAG, COUNTRY)
item = amazon.get_items('B01N5IB20Q')[0]
print(item.item_info.title.display_value) # Item title
```

Get multiple items information:

```
items = amazon.get_items(['B01N5IB20Q', 'B01F9G43WU'])
for item in items:
    print(item.images.primary.large.url) # Primary image url
    print(item.offers.listings[0].price.amount) # Current price
```

Use URL insted of ASIN:

```
item = amazon.get_items('https://www.amazon.com/dp/B01N5IB20Q')
```

Get item variations:

```
variations = amazon.get_variations('B01N5IB20Q')
for item in variations.items:
    print(item.detail_page_url) # Affiliate url
```

Search items:

```
search_result = amazon.search_items(keywords='nintendo')
for item in search_result.items:
    print(item.item_info.product_info.color) # Item color
```

Get browse node information:

```
browse_nodes = amazon.get_browse_nodes(['667049031', '599385031'])
for browse_node in browse_nodes:
    print(browse_node.display_name) # The name of the node
```

Get the ASIN from URL:

```
from amazon_paapi import get_asin
asin = get_asin('https://www.amazon.com/dp/B01N5IB20Q')
```

Throttling:

Throttling value represents the wait time in seconds between API calls, being the default value 1 second. Use it to avoid reaching Amazon request limits.

```
amazon = AmazonApi(KEY, SECRET, TAG, COUNTRY, throttling=4) # Makes 1 request every 4
↳seconds
amazon = AmazonApi(KEY, SECRET, TAG, COUNTRY, throttling=0) # No wait time between
↳requests
```

MIGRATION GUIDE

If you are still using version 4.x or lower, it is highly recommended upgrading to the latest version.

3.1 Migration guide from 3.x to 4.x

This guide explains how to proceed with the migration from version 3.x to version 4.x of your current code. If you are still using the old version, it is highly recommended to update, since you won't get any future updates nor new features.

3.1.1 Changelog summary

- Added type hinting to help you code.
- Added compatibility with all arguments from the official API.
- Now the full information from the API is returned, instead of a trimmed version.
- Added custom exceptions to help with error handling.
- Added models for some attributes.
- Adjusted all methods and models to meet Amazon API standards.
- Changed module name from `amazon` to `amazon_paapi` to avoid module clashes.
- Compatibility with Python 3.6 or later.

3.1.2 How to upgrade?

Upgrading to the last version of this module is as easy as running this pip command:

```
pip install python-amazon-paapi --upgrade
```

3.1.3 What should I change in my current code?

Imports

First of all, you should change your import of the AmazonApi class:

```
from amazon.paapi import AmazonApi  -> from amazon_paapi import AmazonApi
from amazon.tools import get_asin    -> from amazon_paapi import get_asin
```

Methods

Some of the methods has been renamed and the parameters has changed to follow the official Amazon API standards. So in order to adapt your code, you should first update your methods as follow:

```
get_product()      -> get_items()
get_products()     -> get_items()
search_products()  -> search_items()
get_browsenodes() -> get_browse_nodes()
```

As you can check, `get_product` has been deprecated and now `get_items` is also used for getting only one result. So if you were using this method, you should keep in mind that the new method will return an array containing the result. An easy way of handling this could be:

```
result = get_product(asin) -> result = get_items(asin)[0]
```

Regarding parameters, you can check the [AmazonApi documentation](#) for the complete reference.

Results

Results has been changed from previous version, so you will need to adapt how you process them. This change follows the official Amazon Product Advertising API documentation, so you can [check it](#) for reference. Just note that documentation uses CamelCase names, but this module uses snake_case:

```
ItemInfo.ContentInfo  -> item_info.content_info
Offers.Listings.Price  -> offers.listings.price
```

Type hints has been added to the new version, so it is highly recommended to use an IDE that includes code completion features, like [Visual Studio Code](#).

Throttling

Throttling parameter now represents the seconds to wait between API calls instead of the frequency. So make sure to adapt the value to your needs.

```
amazon = AmazonApi(KEY, SECRET, TAG, COUNTRY, throttling=4) # Makes 1 request every 4
↳seconds
amazon = AmazonApi(KEY, SECRET, TAG, COUNTRY, throttling=0) # No wait time between
↳requests
```

Serializer for Django

The serializer for Django is not available for this new version. If you want to help with the migration, send a pull request and will be added on future updates.

I need more help

You can always ask for help in our [Telegram group](#) or raise an issue on [Github](#) for help. If you find that this guide could be improved somehow, feel free to send a pull request with your changes.

3.2 Migration guide from 4.x to 5.x

This guide explains how to proceed with the migration from version 4.x to version 5.x of your current code. If you are still using the old version, it is highly recommended to update, since you won't get any future updates nor new features.

3.2.1 Changelog summary

- Removed old amazon module, check [this migration guide](#) if still using it.
- Updated custom exceptions names.

3.2.2 How to upgrade?

Upgrading to the last version of this module is as easy as running this pip command:

```
pip install python-amazon-paapi --upgrade
```

3.2.3 What should I change in my current code?

Exceptions

Exceptions names have changed, removing the Exception part of the name or replacing it with Error. They should be adjusted as below:

AmazonException	->	AmazonError
AsinNotFoundException	->	AsinNotFound
AssociateValidationException	->	AssociateValidationError
InvalidArgumentException	->	InvalidArgument
InvalidPartnerTagException	->	InvalidPartnerTag
ItemsNotFoundException	->	ItemsNotFound
MalformedRequestException	->	MalformedRequest
ApiRequestException	->	RequestError
TooManyRequestsException	->	TooManyRequests

I need more help

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PYTHON MODULE INDEX

a

`amazon_paapi.errors.exceptions`, [6](#)

`amazon_paapi.tools.asin`, [7](#)

INDEX

A

`amazon_paapi.errors.exceptions`
 module, 6
`amazon_paapi.tools.asin`
 module, 7
`AmazonApi` (class in `amazon_paapi.api`), 3
`AmazonError`, 6
`AsinNotFound`, 6
`AssociateValidationError`, 6

G

`get_asin()` (in module `amazon_paapi.tools.asin`), 7
`get_browse_nodes()` (`amazon_paapi.api.AmazonApi`
 method), 3
`get_items()` (`amazon_paapi.api.AmazonApi` method), 4
`get_variations()` (`amazon_paapi.api.AmazonApi`
 method), 4

I

`InvalidArgument`, 6
`InvalidPartnerTag`, 6
`ItemsNotFound`, 6

M

`MalformedRequest`, 7
module
 `amazon_paapi.errors.exceptions`, 6
 `amazon_paapi.tools.asin`, 7

R

`RequestError`, 7

S

`search_items()` (`amazon_paapi.api.AmazonApi`
 method), 5

T

`TooManyRequests`, 7