

# BLOCKFACTS - DOCUMENTATION OF METRICS

## General

At BlockFacts, we are all about defining and clarifying what the data we provide actually displays and how it is being calculated. Something which is standard in financial data but not always the case in crypto.

All data displayed at our Real-Time analytics platform is also consumable via our API. By signing up for the free version of our platform you have access to a free REST-API key which is limited and would allow you to consume most of the non-real-time data. See more in your account details.

Real-Time data can be consumed through our websocket API. Subscriptions start at \$99 / month and can be purchased through our website.

## Overview

**Ticker:** Since there is no universal ticker definition in digital assets, this is defined by BlockFacts. It might be different from other data providers and exchanges.

**Pair:** Pairing one base asset with a quote asset. Same denomination as in foreign exchange markets e.g. EUR-USD or BTC-USDT. The first asset is the base asset and is quoted in the second asset, the quote asset.

**Exchange:** name of the exchange. 'BlockFacts' refers to the 'BlockFacts normalised price'. Here, for select pairs we are calculating a median price every second in order to remove outlier prices. In addition, in case some exchange feeds exhibit excess latency, they are automatically removed in the relevant one second snapshot. Details as to which exchanges are included in which pairs can be fetched from the endpoint of our API. See our API documentation for details.

**Time windows:** '1day' or 'daily' refers to a time window starting at midnight UTC. We are following this approach since it is the standard of calculating returns and volumes in FX and other markets. A '1day' or 'daily' return this is calculated from midnight UTC of the previous day. '30days', '90days' etc.: these time windows are analogue to '1day' or 'daily'. We don't calculate or disseminate 24-hour rolling returns, as such our data might differ from other providers and/or exchanges.

**Heatmap:** Displays the 'daily' or '1day' returns since midnight UTC of the previous day. Returns are measured in the relevant quote asset which can be fiat (e.g. USD), a stable coin (e.g. USDT) or crypto (e.g. ETH) on the relevant exchange. Some returns may be swinging wildly if the pair is illiquid on a certain exchange.

Period movers:

As with heatmap, it displays the 'daily' or '1day',... returns since midnight UTC of the previous day. Returns are measured in the relevant quote asset. Some returns can be swinging wildly if the pair is illiquid on a certain exchange.

## Realtime

**Chart:** Plots real-time graphs of trades. In case of a liquid pair it typically covers up to 10seconds of data. If the pair is illiquid, the time-window gets larger and may display days of data.

**Trade Box:** Displays real-time information of the last six executed trades. Price = traded price. Base size = Size in terms of the base asset, for example for BTC-ETH in BTC. Quote size = Size in terms of the quote asset, for example for BTC-ETH in ETH. Data is normalised by BlockFacts in this very manner across all exchanges, even if exchanges only disseminate one volume metric.

**Technical Charts:** We worked on a full-integration of our API with the Tradingview chart library. This means that all supported exchanges and the BlockFacts normalised price can be viewed and analysed with the Tradingview library on our platform. This might even include exchanges which are not available on Tradingview directly because their raw data is not compatible and/or integrated with Tradingview.

We calculate OHLCV data ourselves directly and in real time in intervals starting from 1-minute to 1-day (24hours) based on the trade data we receive. We worked on creating one of the fastest and most robust OHLCV feeds and are confident that we do capture all data even in volatile periods.

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Still, depending on how exchanges themselves and/or other providers calculate the data it might be slightly different to ours. Also, latency on exchange feeds can cause delays in the data arriving on our end which means during volatile periods not all feeds might be displayed properly. In case you are concerned about this, display the BlockFacts normalised price which removes outliers and exchanges with excess latency.

**Exchange volume:** With many different exchanges and a data providers commingling crypto-to-fiat and crypto-to-crypto volumes, we decided to display volume data as it is: this allows you to make comparisons on market share pair by pair. It allows you to compare 'cash' volumes to volumes quoted against stablecoins, crypto-to-crypto volumes and derivatives volumes, uncovering interesting aspects!

Volumes are calculated by summing up all trades in quote volume per day with the same daily convention starting at midnight UTC. Volume data is not real-time, but displayed for the previous day (end-of-day), meaning the 24 hour interval of the previous day UTC. All volumes for derivatives are normalised in USD-terms for derivatives quoted in USD, because exchanges have different lot sizes. You can see details about the data in our API documentation.

In general: We take trades as reported by exchanges and don't make judgments on what the nature of the underlying trading activity is to generate those volumes.