

Documentation of dataset: “btc_numeric_data”

Variable Name	Source	Interval	I*	Description
btc_price_close	CryptoCompare	timepoint	1	BTC market value in EUR calculated with the CCCAGG method (weighted average of EUR prices of 301 exchanges / weighted by exchange volume and time since last trade)
btc_total_volume	CoinGecko	24h	1	Total value in EUR of BTC that has been bought and sold on the spot market on 639 exchanges
btc_twitter_followers	Twitter	timepoint	2	Count of followers of the twitter account @Bitcoin
btc_news_bart_mnli_bullish_score	Google News / Own calculation	24h	0	Average BART MNLI bullish score of news
btc_tweets_bart_mnli_bullish_score	Twitter / Own calculation	24h	0	Average BART MNLI bullish score of Twitter posts
btc_reddit_bart_mnli_bullish_score	Reddit / Own calculation	24h	0	Average BART MNLI bullish score of Reddit posts
btc_news_twitter_roberta_pretrained_score	Google News / Own calculation	24h	0	Average Twitter-RoBERTa sentiment score of news
btc_tweets_twitter_roberta_pretrained_score	Twitter / Own calculation	24h	0	Average Twitter-RoBERTa sentiment score of Twitter posts
btc_reddit_twitter_roberta_pretrained_score	Reddit / Own calculation	24h	0	Average Twitter-RoBERTa sentiment score of Reddit posts
btc_news_roberta_finetuned_score	Google News / Own calculation	24h	0	Average Finetuned RoBERTa score of news
btc_tweets_roberta_finetuned_score	Twitter / Own calculation	24h	0	Average Finetuned RoBERTa score of Twitter posts
btc_reddit_roberta_finetuned_score	Reddit / Own calculation	24h	0	Average Finetuned RoBERTa score of Reddit posts
btc_news_count	Google News	24h	1	Number of considered news articles
btc_tweet_count	Twitter	24h	1	Number of considered Twitter posts
btc_reddit_count	Reddit	24h	1	Number of considered Reddit posts
btc_reddit_subscribers	Reddit	timepoint	2	Count of subscribers to the subreddit r/Bitcoin
btc_reddit_accounts_active_48h	Reddit	48h	1	Count of reddit accounts active on the subreddit r/Bitcoin
btc_forks	GitHub	timepoint	2	Number of forks on the bitcoin/bitcoin GitHub repository
btc_stars	GitHub	timepoint	2	Number of stars on the bitcoin/bitcoin GitHub repository
btc_subscribers	GitHub	timepoint	2	Number of watchers of the bitcoin/bitcoin GitHub repository
btc_total_issues	GitHub	timepoint	2	Number of open and closed issues of the bitcoin/bitcoin GitHub repository
btc_closed_issues	GitHub	timepoint	2	Number of closed issues of the bitcoin/bitcoin GitHub repository
btc_pull_requests_merged	GitHub	timepoint	2	Number of merged pull requests of the bitcoin/bitcoin GitHub repository
btc_pull_request_contributors	GitHub	timepoint	2	Number of pull request contributors of the bitcoin/bitcoin GitHub repository

btc_additions	GitHub	24h	1	Number of additions on the bitcoin/bitcoin GitHub repository
btc_deletions	GitHub	24h	1	Number of deletions on the bitcoin/bitcoin GitHub repository
btc_commit_count_4_weeks	GitHub	4 weeks	1	Number of commits in the past 4 weeks on the bitcoin/bitcoin GitHub repository
btc_ETH_volumefrom	CryptoCompare	24h	1	Volume of transactions from ETH to BTC across 301 exchanges
btc_ETH_volumeto	CryptoCompare	24h	1	Volume of transactions from BTC to ETH across 301 exchanges
btc_USD_volumefrom	CryptoCompare	24h	1	Volume of transactions from USD to BTC across 301 exchanges
btc_USD_volumeto	CryptoCompare	24h	1	Volume of transactions from BTC to USD across 301 exchanges
btc_EUR_volumefrom	CryptoCompare	24h	1	Volume of transactions from EUR to BTC across 301 exchanges
btc_EUR_volumeto	CryptoCompare	24h	1	Volume of transactions from BTC to EUR across 301 exchanges
btc_exchange_Bitfinex_volumeto	CryptoCompare	24h	1	Inflow of BTC on Bitfinex exchange
btc_exchange_Bitfinex_volumefrom	CryptoCompare	24h	1	Outflow of BTC on Bitfinex exchange
btc_exchange_Bitfinex_volumetotal	CryptoCompare	24h	1	Total BTC cashflows on Bitfinex exchange
btc_exchange_Kraken_volumeto	CryptoCompare	24h	1	Inflow of BTC on Kraken exchange
btc_exchange_Kraken_volumefrom	CryptoCompare	24h	1	Outflow of BTC on Kraken exchange
btc_exchange_Kraken_volumetotal	CryptoCompare	24h	1	Total BTC cashflows on Kraken exchange
btc_exchange_Coinbase_volumeto	CryptoCompare	24h	1	Inflow of BTC on Coinbase exchange
btc_exchange_Coinbase_volumefrom	CryptoCompare	24h	1	Outflow of BTC on Coinbase exchange
btc_exchange_Coinbase_volumetotal	CryptoCompare	24h	1	Total BTC cashflows on Coinbase exchange
btc_exchange_BTSE_volumeto	CryptoCompare	24h	1	Inflow of BTC on BTSE exchange
btc_exchange_BTSE_volumefrom	CryptoCompare	24h	1	Outflow of BTC on BTSE exchange
btc_exchange_BTSE_volumetotal	CryptoCompare	24h	1	Total BTC cashflows on BTSE exchange
btc_exchange_Binance_volumeto	CryptoCompare	24h	1	Inflow of BTC on Binance exchange
btc_exchange_Binance_volumefrom	CryptoCompare	24h	1	Outflow of BTC on Binance exchange
btc_exchange_Binance_volumetotal	CryptoCompare	24h	1	Total BTC cashflows on Binance exchange
btc_zero_balance_addresses_all_time	IntoTheBlock	timepoint	2	Amount of BTC addresses that have always had zero balance since inception
btc_unique_addresses_all_time	IntoTheBlock	timepoint	2	Amount of BTC addresses that executed at least one transaction since inception
btc_new_addresses	IntoTheBlock	24h	1	Amount of new BTC addresses created
btc_active_addresses	IntoTheBlock	24h	1	Amount of BTC addresses that executed at least one transaction
btc_transaction_count	IntoTheBlock	24h	1	Number of valid transactions on the BTC blockchain

btc_large_transaction_count	IntoTheBlock	24h	1	Number of valid transactions greater than 100,000 USD on the BTC blockchain
btc_average_transaction_value	IntoTheBlock	24h	1	Average transaction value on the BTC blockchain in BTC
btc_hashrate	IntoTheBlock	24h	1	Number of terahashes per second the BTC network is performing
btc_difficulty	IntoTheBlock	24h	1	Mean difficulty of finding a hash that meets the protocol-designated requirement (difficulty is adjusted every 2016 blocks so that the average time between each block remains ~10 minutes)
btc_block_time	IntoTheBlock	24h	1	Average time in seconds it takes miners to verify transactions within one block on the BTC network
btc_block_size	IntoTheBlock	24h	1	Average block size in bytes on the BTC blockchain
btc_current_supply	IntoTheBlock	timepoint	2	Sum of all BTC issued on the BTC ledger
btc_balance_distribution_from_0.0_totalVolume	IntoTheBlock	timepoint	1	Total amount of BTC held by addresses with a balance between 0 and 0.001 BTC
btc_balance_distribution_from_0.001_totalVolume	IntoTheBlock	timepoint	1	Total amount of BTC held by addresses with a balance between 0.001 and 0.01 BTC
btc_balance_distribution_from_0.01_totalVolume	IntoTheBlock	timepoint	1	Total amount of BTC held by addresses with a balance between 0.01 and 0.1 BTC
btc_balance_distribution_from_0.1_totalVolume	IntoTheBlock	timepoint	1	Total amount of BTC held by addresses with a balance between 0.1 and 1 BTC
btc_balance_distribution_from_1.0_totalVolume	IntoTheBlock	timepoint	1	Total amount of BTC held by addresses with a balance between 1 and 10 BTC
btc_balance_distribution_from_10.0_totalVolume	IntoTheBlock	timepoint	1	Total amount of BTC held by addresses with a balance between 10 and 100 BTC
btc_balance_distribution_from_100.0_totalVolume	IntoTheBlock	timepoint	1	Total amount of BTC held by addresses with a balance between 100 and 1000 BTC
btc_balance_distribution_from_1000.0_totalVolume	IntoTheBlock	timepoint	1	Total amount of addresses with a balance between 1000 and 10000 BTC
btc_balance_distribution_from_10000.0_totalVolume	IntoTheBlock	timepoint	1	Total amount of addresses with a balance between 10000 and 100000 BTC
btc_balance_distribution_from_100000.0_totalVolume	IntoTheBlock	timepoint	1	Total amount of addresses with a balance above 100000 BTC
btc_balance_distribution_from_0.0_addressesCount	IntoTheBlock	timepoint	1	Total amount of addresses with a balance between 0 and 0.001 BTC
btc_balance_distribution_from_0.001_addressesCount	IntoTheBlock	timepoint	1	Total amount of addresses with a balance between 0.001 and 0.01 BTC
btc_balance_distribution_from_0.01_addressesCount	IntoTheBlock	timepoint	1	Total amount of addresses with a balance between 0.01 and 0.1 BTC
btc_balance_distribution_from_0.1_addressesCount	IntoTheBlock	timepoint	1	Total amount of addresses with a balance between 0.1 and 1 BTC
btc_balance_distribution_from_1.0_addressesCount	IntoTheBlock	timepoint	1	Total amount of addresses with a balance between 1 and 10 BTC
btc_balance_distribution_from_10.0_addressesCount	IntoTheBlock	timepoint	1	Total amount of addresses with a balance between 10 and 100 BTC
btc_balance_distribution_from_100.0_addressesCount	IntoTheBlock	timepoint	1	Total amount of addresses with a balance between 100 and 1000 BTC
btc_balance_distribution_from_1000.0_addressesCount	IntoTheBlock	timepoint	1	Total amount of addresses with a balance between 1000 and 10000 BTC

btc_balance_distribution_from_10000.0_addressesCount	IntoTheBlock	timepoint	1	Total amount of addresses with a balance between 10000 and 100000 BTC
btc_balance_distribution_from_100000.0_addressesCount	IntoTheBlock	timepoint	1	Total amount of addresses with a balance above 100000 BTC
index_MVDA_close	CryptoCompare	timepoint	1	Close value of the MarketVector Digital Assets 100 (MVDA) index tracking the 100 largest digital assets
index_BVIN_close	CryptoCompare	timepoint	1	Close value of the CryptoCompare Bitcoin Volatility (BVIN) index tracking BTC implied volatility using options data from Deribit
gtrends_bitcoin_relative_change	Google Trends	24h	1	Percentage change in amount of Google searches of the keyword "bitcoin"
gtrends_cryptocurrency_relative_change	Google Trends	24h	1	Percentage change in amount of Google searches of the keyword "cryptocurrency"
gtrends_blockchain_relative_change	Google Trends	24h	1	Percentage change in amount of Google searches of the keyword "blockchain"
gtrends_investing_relative_change	Google Trends	24h	1	Percentage change in amount of Google searches of the keyword "investing"
sp500_price	Yahoo Finance	timepoint	1	Close value of the S&P 500 index
sp500_volume	Yahoo Finance	24h	1	Volume of the S&P 500 index
vix	Yahoo Finance	timepoint	1	Close value of the CBOE Volatility Index (VIX) tracking the S&P 500 implied volatility
gold_usd_price	Yahoo Finance	timepoint	1	Close value of the COMEX gold future (GC)
btc_indicator_AO	Own calculation	timepoint	1	Awesome Oscillator (AO) - Measures market momentum to capture the potential change in trend
btc_indicator_KAMA	Own calculation	timepoint	1	Kaufman's Adaptive Moving Average (KAMA) - A moving average that adjusts its length based on market volatility
btc_indicator_PPO	Own calculation	timepoint	1	Percentage Price Oscillator (PPO) - Measures the difference between two moving averages as a percentage of the larger moving average
btc_indicator_PVO	Own calculation	timepoint	1	Percentage Volume Oscillator (PVO) - Like PPO but for volume, it measures the difference between two volume moving averages
btc_indicator_ROC	Own calculation	timepoint	1	Rate of Change (ROC) - Measures the percentage change in price from one period to the next
btc_indicator_RSI	Own calculation	timepoint	1	Relative Strength Index (RSI) - Measures the speed and change of price movements and indicates overbought or oversold conditions
btc_indicator_Stoch_RSI	Own calculation	timepoint	1	Stochastic RSI - Combines stochastic oscillator and RSI to measure the RSI relative to its high-low range
btc_indicator_Stoch	Own calculation	timepoint	1	Stochastic Oscillator - Compares a closing price to its price range over a specific time period
btc_indicator_TSI	Own calculation	timepoint	1	True Strength Index (TSI) - Measures the momentum of price movements
btc_indicator_ultimate	Own calculation	timepoint	1	Ultimate Oscillator - Combines short, medium, and long-term price action into one oscillator to avoid false divergences
btc_indicator_WilliamsR	Own calculation	timepoint	1	Williams %R - A momentum indicator that measures overbought/oversold levels

btc_indicator_ADI	Own calculation	timepoint	1	Accumulation/Distribution Index (ADI) - Measures the cumulative flow of money into and out of a security
btc_indicator_CMF	Own calculation	timepoint	1	Chaikin Money Flow (CMF) - Measures the amount of Money Flow Volume over a specific period
btc_indicator_EMV	Own calculation	timepoint	1	Ease of Movement (EMV) - Relates volume and price change to show how much volume is needed to move prices
btc_indicator_FI	Own calculation	timepoint	1	Force Index (FI) - Measures the buying or selling pressure over a specific period
btc_indicator_MFI	Own calculation	timepoint	1	Money Flow Index (MFI) - A volume-weighted version of RSI that shows price strength
btc_indicator_NVI	Own calculation	timepoint	1	Negative Volume Index (NVI) - Focuses on days where the volume decreases from the previous day
btc_indicator_OBV	Own calculation	timepoint	1	On-Balance Volume (OBV) - Relates volume to price change
btc_indicator_VPT	Own calculation	timepoint	1	Volume Price Trend (VPT) - Combines price and volume to show the direction of price trend
btc_indicator_VWAP	Own calculation	timepoint	1	Volume Weighted Average Price (VWAP) - The average price weighted by volume
btc_indicator_BBM	Own calculation	timepoint	1	Bollinger Middle Band - The middle band in the Bollinger Bands, which is a simple moving average
btc_indicator_BBW	Own calculation	timepoint	1	Bollinger Bandwidth - The width of the Bollinger Bands
btc_indicator_DCM	Own calculation	timepoint	1	Donchian Channel Middle Band - The average of the Donchian high and low bands
btc_indicator_DCW	Own calculation	timepoint	1	Donchian Channel Width - The width of the Donchian Bands
btc_indicator_KCM	Own calculation	timepoint	1	Keltner Channel Middle Band - The average of the Keltner high and low bands
btc_indicator_KCW	Own calculation	timepoint	1	Keltner Channel Width - The width of the Keltner Bands
btc_indicator_UI	Own calculation	timepoint	1	Ulcer Index (UI) - Measures downside risk in terms of price declines
btc_indicator_Aroon_down	Own calculation	timepoint	1	Aroon Down - Identifies the number of days since a 25-day low
btc_indicator_Aroon_up	Own calculation	timepoint	1	Aroon Up - Identifies the number of days since a 25-day high
btc_indicator_CCI	Own calculation	timepoint	1	Commodity Channel Index (CCI) - Measures the difference between a security's price change and its average price change.
btc_indicator_DPO	Own calculation	timepoint	1	Detrended Price Oscillator (DPO) - Removes trend from price.
btc_indicator_EMA	Own calculation	timepoint	1	Exponential Moving Average (EMA) - A moving average that gives more weight to recent prices.
btc_indicator_Ichimoku_A	Own calculation	timepoint	1	Ichimoku Cloud - A collection of technical indicators that show support and resistance levels, as well as momentum and trend direction
btc_indicator_Ichimoku_B	Own calculation	timepoint	1	-
btc_indicator_Ichimoku_Base	Own calculation	timepoint	1	-

btc_indicator_Ichimoku_Conversion	Own calculation	timepoint	1	-
btc_indicator_KST	Own calculation	timepoint	1	Know Sure Thing (KST) - A momentum oscillator based on the smoothed rate-of-change for four different timeframes
btc_indicator_MACD	Own calculation	timepoint	1	Moving Average Convergence Divergence (MACD) - Shows the relationship between two moving averages of a security's price
btc_indicator_MACD_Signal	Own calculation	timepoint	1	MACD Signal - A signal line for the MACD
btc_indicator_MI	Own calculation	timepoint	1	Mass Index (MI) - Measures the volatility of price changes
btc_indicator_TRIX	Own calculation	timepoint	1	TRIX - Shows the percent rate of change of a triple exponentially smoothed moving average
btc_indicator_Vortex_down	Own calculation	timepoint	1	Vortex Indicator - Identifies the start of a new trend or the continuation of a current trend
btc_indicator_Vortex_up	Own calculation	timepoint	1	Vortex Indicator - Identifies the start of a new trend or the continuation of a current trend
btc_indicator_WMA	Own calculation	timepoint	1	Weighted Moving Average (WMA) - A moving average where more recent prices are given more weight
btc_indicator_CR	Own calculation	timepoint	1	Cumulative Return (CR) - Measures the total return of a stock over a set period
btc_indicator_PSAR_down	Own calculation	timepoint	0	Parabolic SAR Down - Provides exit points
btc_indicator_PSAR_up	Own calculation	timepoint	0	Parabolic SAR Up - Provides entry points

* Order of integration (number of times the time series had to be differenced to become stationary)