

Function and Operators

This page describes the list of ClustrixDB support for built in SQL functions and operators.

Supported Functions and Operators

ClustrixDB supports the following functions and operators:

- :=
- !
- !=
- *
- /
- &
- &&
- %
- ^
- +
- <
- <<
- <=
- <=>
- =
- =
- >
- >=
- >>
- |
- ||
- ~
- ABS
- ACOS
- ADDDATE
- ADDTIME
- AES_DECRYPT
- AES_ENCRYPT
- ASCII
- ASIN
- ATAN
- ATAN2
- AVG
- BETWEEN AND
 - If one of the values being compared for BETWEEN is NULL, ClustrixDB will return NULL
- BIN
- BINARY OPERATOR
- BIT_AND
- BIT_COUNT
- BIT_LENGTH
- BIT_OR
- BIT_XOR
- CASE
- CAST
- CEIL
- CEILING
- CHAR Function
- CHAR_LENGTH
- CHARACTER_LENGTH
- CHARSET
- COALESCE
- COMPRESS
- CONCAT
- CONCAT_WS
- CONNECTION_ID
- CONTAINS
- CONV
- CONVERT
- CONVERT_TZ
- COS
- COT
- COUNT
 - ClustrixDB allows multiple inputs to the COUNT() function, where some versions of MySQL and MariaDB do not
 - ClustrixDB will include trailing NULL values in the results of COUNT(), while MySQL does not
- COUNT DISTINCT
- CRC32
- CURDATE
- CURRENT_DATE
- CURRENT_ROLE

- CURRENT_TIME
- CURRENT_TIMESTAMP
- CURRENT_USER
- CURTIME
- DATABASE
- DATE FUNCTION
- DATE_ADD
- DATE_FORMAT
- DATE_SUB
- DATEDIFF
- DAY
- DAYNAME
- DAYOFMONTH
- DAYOFWEEK
- DAYOFYEAR
- DECODE
- DIV
- ELT
- ENCODE
- ENCRYPT
- EQUALS
- EXP
- EXPORT_SET
- FIELD
- FIND_IN_SET
- FLOOR
- FORMAT
- FOUND_ROWS
- FROM_BASE64
- FROM_DAYS
- FROM_UNIXTIME
- GET_FORMAT
- GET_LOCK
 - Use of GET_LOCK with Statement-based Replication is considered unsafe, though ClustrixDB does not raise an error. MySQL raises an error.
- GREATEST
- GROUP_CONCAT
 - Multiple GROUP_CONCAT statements are supported, but only one ORDER BY is allowed per select statement
- HEX
- HOUR
- IF
- IFNULL
- IN
- INSERT Function
- INSTR
- INTERVAL
- IS
- IS NOT
- IS NOT NULL
- IS NULL
- IS_FREE_LOCK
- IS_USED_LOCK
- ISNULL
- JSON_ARRAY - See the section on [JSON](#) for more information on this and other JSON functions
- JSON_CONTAINS_PATH
- JSON_DEPTH
- JSON_EXTRACT
- JSON_KEYS
- JSON_LENGTH
- JSON_OBJECT
- JSON_QUOTE
- JSON_SEARCH
- JSON_TYPE
- JSON_UNQUOTE
- JSON_VALID
- LAST_DAY
- LAST_INSERT_ID
- LAST_VALUE
- LCASE
- LEAST
- LEFT
- LENGTH
- LIKE
- LINESTRING
- LN
- LOCALTIME
- LOCALTIMESTAMP
- LOCATE
 - In ClustrixDB, LOCATE() returns NULL when position is provided as NULL. MySQL returns 0 in such instances.

- LOG
- LOG10
- LOG2
- LOWER
- LPAD
- LTRIM
- MAKE_SET
- MAKEDATE
- MAKETIME
- MAX
- MD5
- MICROSECOND
- MID
- MIN
- MINUTE
- MOD
- MONTH
- MONTHNAME
- NAME_CONST
- NEXTVAL
- NOT BETWEEN
- NOT IN
- NOT LIKE
- NOT REGEXP
- NOW
- NULLIF
- OCT
- ORD
- PASSWORD
- PERIOD_ADD
 - The results of this function do not match MySQL when year boundaries are being crossed or approached.
- PERIOD_DIFF
- PI
- POW
- POWER
- QUARTER
- QUOTE
- RADIANS
- RAND
 - Does not accept an argument as seed.
- REGEXP
- RELEASE_LOCK
- REPEAT Function
- REPLACE Function
- REVERSE
- RIGHT
- RLIKE
- ROUND
- ROW_COUNT
 - When updating a row, if the values are not being changed (e.g. (1,1) (1,1)) mysql reports 0, ClustrixDB returns 1
 - When replacing a row with an identical row, mysql reports 1, ClustrixDB returns 2
 - On ClustrixDB, ROW_COUNT does not reflect the number of rows affected by a stored procedure
 - ROW_COUNT does not match mysql behavior for DDL (e.g. CREATE TABLE then SELECT ROW_COUNT)
 - When committing an explicit transaction, ClustrixDB reports the ROW_COUNT() value for the most recent statement before the COMMIT . In other words, row_count behaves as if there was no COMMIT.
- RPAD
- RTRIM
- SCHEMA
- SEC_TO_TIME
- SECOND
- SESSION_USER
- SHA
- SHA1
- SHA2
- SIGN
- SIN
- SLEEP
- SQRT
- STD
- STDDEV
- STDDEV_POP
- STDDEV_SAMP
- STR_TO_DATE
- STRCMP
- SUBDATE
- SUBSTR
- SUBSTRING
- SUBSTRING_INDEX
- SUBTIME

- SUM
- SYSDATE
 - Does not reflect time zone settings; always returns UTC.
- SYSTEM_USER
- TAN
- TIME function
- TIME_FORMAT
- TIME_TO_SEC
- TIMEDIFF
- TIMESTAMP FUNCTION
- TIMESTAMPADD
- TIMESTAMPDIFF
- TO_BASE64
- TO_DAYS
- TO_SECONDS
- TRIM
- TRUNCATE
- UCASE
- UNCOMPRESS
- UNCOMPRESSED_LENGTH
- UNHEX
- UNIX_TIMESTAMP
- UPPER
- USER
- UTC_DATE
- UTC_TIME
- UTC_TIMESTAMP
- UUID
- UUID_SHORT
- VALUES or VALUE
- VAR_POP
- VAR_SAMP
- VARIANCE
- VERSION
- WEEK
- WEEKDAY
- WEEKOFYEAR
- XOR
- YEAR
- YEARWEEK

Unsupported Functions

ClustrixDB does not support the following functions:

- ANALYSE()
- AREA()
- AsBinary()
- AsText()
- AsWKB()
- AsWKT()
- BENCHMARK()
- BINLOG_GTID_POS()
- BOUNDARY()
- BUFFER()
- CENTROID()
- CHARSET()
- CHR()
- COERCIBILITY()
- COLLATION()
- COLUMN_ADD()
- COLUMN_CHECK()
- COLUMN_CREATE()
- COLUMN_DELETE()
- COLUMN_EXISTS()
- COLUMN_GET()
- COLUMN_JSON()
- COLUMN_LIST()
- CONVEXHULL()
- CROSSES()
- CUME_DIST()
- CURRENT_USER()
- DECODE_HISTOGRAM()
- DEFAULT()
- DEGREES()
- DENSE_RANK()
- DES_DECRYPT()
- DES_ENCRYPT()

- DIMENSION()
- DISJOINT()
- ENDPOINT()
- ENVELOPE()
- ExteriorRing()
- EXTRACT()
- EXTRACTVALUE()
- GeomCollFromText()
- GeomCollFromWKB()
- GEOMETRYCOLLECTION()
- GeometryCollectionFromText()
- GeometryCollectionFromWKB()
- GeometryFromText()
- GeometryFromWKB()
- GeometryN()
- GeometryType()
- GeomFromText()
- GeomFromWKB()
- GLENGTH()
- GET_FORMAT()
- INET_ATON(), INET_NTOA(), INET6_ATON(), INET6_NTOA()
- InteriorRingN()
- INTERSECTS()
- IS_IPV4, IS_IPV4_COMPAT (), IS_IPV4_MAPPED (), IS_IPV6 ()
- IsClosed()
- IsEmpty()
- IsRing()
- IsSimple()
- JSON_ARRAY_APPEND()
- JSON_ARRAY_INSERT()
- JSON_COMPACT()
- JSON_CONTAINS()
- JSON_DETAILED()
- JSON_EXISTS()
- JSON_INSERT()
- JSON_LOOSE()
- JSON_MERGE()
- JSON_QUERY()
- JSON_REMOVE()
- JSON_REPLACE()
- JSON_SET()
- JSON_VALUE()
- LAST_VAL()
- LineFromText()
- LineFromWKB()
- LineStringFromText()
- LineStringFromWKB()
- LOAD_FILE()
- LOCK TABLES()
- LOAD_FILE()
- MAKEDATE()
- MASTER_GTID_WAIT()
- MASTER_POS_WAIT()
- MATCH AGAINST()
- MBRContains()
- MBRDisjoint()
- MBREqual()
- MBRIntersects()
- MBROverlaps()
- MBRTouches()
- MBRWithin()
- MEDIAN()
- MLineFromText()
- MLineFromWKB()
- MPointFromText()
- MPointFromWKB()
- MPolyFromText()
- MPolyFromWKB()
- MULTILINESTRING()
- MultiLineStringFromText()
- MultiLineStringFromWKB()
- MULTIPPOINT()
- MultiPointFromText()
- MultiPointFromWKB()
- MULTIPOLYGON()
- MultiPolygonFromText()
- MultiPolygonFromWKB()
- NTILE()
- NumGeometries()

- NumInteriorRings()
- NumPoints()
- OCTET_LENGTH()
- OLD_PASSWORD()
- OVERLAPS()
- PERCENT_RANK
- PERCENTILE_CONT()
- PERCENTILE_DISC()
- POINT()
- PointFromText()
- PointFromWKB()
- PointN()
- PointOnSurface()
- PolyFromText()
- PolyFromWKB()
- POLYGON()
- PolygonFromText()
- PolygonFromWKB()
- POSITION()
- RANK()
- REGEXP_INSTR()
- REGEXP_REPLACE()
- REGEXP_SUBSTR()
- ROW_NUMBER()
- SESSION_USER()
- SETVAL()
- SOUNDEX()
- SOUNDS LIKE()
- SPACE()
- SPIDER_BG_DIRECT_SQL()
- SPIDER_COPY_TABLES()
- SPIDER_DIRECT_SQL()
- SPIDER_FLUSH_TABLE_MON_CACHE()
- SRID()
- ST_AREA()
- ST_AsBinary()
- ST_AsText()
- ST_AsWKB()
- ST_ASWKT()
- ST_BOUNDARY()
- ST_BUFFER()
- ST_CENTROID()
- ST_CONTAINS()
- ST_CONVEXHULL()
- ST_CROSSES()
- ST_DIFFERENCE()
- ST_DIMENSION()
- ST_DISJOINT()
- ST_DISTANCE()
- ST_ENDPOINT()
- ST_ENVELOPE()
- ST_EQUALS()
- ST_ExteriorRing()
- ST_GeomCollFromText()
- ST_GeomCollFromWKB()
- ST_GeometryCollectionFromText()
- ST_GeometryCollectionFromWKB()
- ST_GeometryFromText()
- ST_GeometryFromWKB()
- ST_GEOMETRYN()
- ST_GEOMETRYTYPE()
- ST_GeomFromText()
- ST_GeomFromWKB()
- ST_InteriorRingN()
- ST_INTERSECTION()
- ST_INTERSECTS()
- ST_ISCLOSED()
- ST_ISEMPTY()
- ST_IsRing()
- ST_IsSimple()
- ST_LENGTH()
- ST_LineFromText()
- ST_LineFromWKB()
- ST_LineStringFromText()
- ST_LineStringFromWKB()
- ST_NUMGEOMETRIES()
- ST_NumInteriorRings()
- ST_NUMPOINTS()
- ST_OVERLAPS()

- ST_PointFromText()
- ST_PointFromWKB()
- ST_POINTN()
- ST_POINTONSURFACE()
- ST_PolyFromText()
- ST_PolyFromWKB()
- ST_PolygonFromText()
- ST_PolygonFromWKB()
- ST_RELATE()
- ST_SRID()
- ST_STARTPOINT()
- ST_SYMDIFFERENCE()
- ST_TOUCHES()
- ST_UNION()
- ST_WITHIN()
- ST_X()
- ST_Y()
- STARTPOINT()
- TO_SECONDS()
- TOUCHES()
- UPDATEXML()
- WEIGHT_STRING()
- WITHIN()
- X()
- Y()