

How to Install Uptime Kuma in Docker with MariaDB on the Host?

written by sysadmin | 10 January 2026

[The previous article](#) explained how to install the Kuma uptime application using Docker and using the MariaDB database which also runs on Docker. This article will explain about installing the Kuma uptime application using Docker but using MariaDB on the host.

Problem

How to install uptime kuma in docker with MariaDB on the host?

Solution

Here are the steps to install the kuma uptime application using docker but using MariaDB on the host:

1. Configure MariaDB

Make sure you have installed the MariaDB database on your server and then change the file `/etc/mysql/mariadb.conf.d/50-server.cnf` in the **bind-address** section to be as below:

```
bind-address          = 0.0.0.0
```

Next, restart MariaDB using the command:

```
sudo systemctl restart mariadb
```

After that, access to MariaDB and run the command below:

```
CREATE DATABASE uptime_kuma;  
CREATE USER 'kuma-user'@'%' IDENTIFIED BY 'kumapass123';
```

```
GRANT ALL PRIVILEGES ON uptime_kuma.* TO 'kuma-user'@'%';
FLUSH PRIVILEGES;
\q
```

2. Create a docker compose file

Create a compose folder in the /opt folder using the command below:

```
sudo mkdir -p /opt/compose/uptime-kuma/
cd /opt/compose/uptime-kuma/
```

After that, create a **docker-compose.yaml** file and copy the script below:

```
services:
  uptime-kuma:
    image: louislam/uptime-kuma:2
    container_name: uptime-kuma
    restart: unless-stopped
    ports:
      - "3001:3001"
    extra_hosts:
      - "host.docker.internal:host-gateway"
    environment:
      UPTIME_KUMA_DB_TYPE: mariadb
      UPTIME_KUMA_DB_HOSTNAME: host.docker.internal
      UPTIME_KUMA_DB_PORT: 3306
      UPTIME_KUMA_DB_NAME: ${MARIADB_DATABASE}
      UPTIME_KUMA_DB_USERNAME: ${MARIADB_USER}
      UPTIME_KUMA_DB_PASSWORD: ${MARIADB_PASSWORD}
    volumes:
      - kuma-data:/app/data

volumes:
  kuma-data:
```

After that, create a **.env** file like the below script (The value must be the same as the value you ran the query in MariaDB):

```
MARIADB_DATABASE=uptime_kuma
MARIADB_USER=kuma-user
MARIADB_PASSWORD=kumapass123
```

```
MARIADB_ROOT_PASSWORD=qwerty
```

Run the below command to turn on the docker compose:

```
docker compose up -d
```

To check if the containers are running or not, use the command below:

```
docker ps
```

After you type the commands, your screen will show up similar to the one below:

```
sysadmin@docker:~$ docker compose up -d
[+] up 3/3
 ✓ Network sysadmin_default Created 0.5s
 ✓ Volume sysadmin_kuma-data Created 0.0s
 ✓ Container uptime-kuma Created 0.6s
sysadmin@docker:~$ docker ps
CONTAINER ID   IMAGE          COMMAND                  CREATED         STATUS          PORTS                               NAMES
4bd48bf06585   louislam/uptime-kuma:2   "/usr/bin/dumb-init ..." 7 seconds ago   Up 6 seconds (health: starting)   0.0.0.0:3001->3001/tcp, [::]:3001->3001/tcp   uptime-kuma
```

Check the running container

3. Configure webserver

If you use Apache, create a file at **/etc/apache2/sites-available/kuma.conf** and copy the script below to the file:

```
<VirtualHost *:80>
ServerName yourdomain.com
DocumentRoot /var/www/html/

ProxyPass / http://localhost:3001/
RewriteEngine on
RewriteCond %{HTTP:Upgrade} websocket [NC]
RewriteCond %{HTTP:Connection} upgrade [NC]
RewriteRule ^/?(.*) "ws://localhost:3001/$1" [P,L]

ErrorLog ${APACHE_LOG_DIR}/error.log
CustomLog ${APACHE_LOG_DIR}/access.log combined

</VirtualHost>
```

then run the command below:

```
sudo a2enmod rewrite
sudo a2enmod proxy
sudo a2enmod proxy_http
sudo a2ensite kuma.conf
```

Check if there is an error in Apache and if there is no error, reload Apache using the command below:

```
apachectl -t
sudo systemctl reload apache2
```

INFO

If your server is running an nginx webserver, then in the file `/etc/nginx/conf.d/uptime-kuma.conf` insert the script below:

```
server {
    listen 80;
    server_name uptime-kuma.yourdomainname.com;

    location / {
        proxy_pass          http://localhost:3001;
        proxy_http_version  1.1;
        proxy_set_header    Upgrade $http_upgrade;
        proxy_set_header    Connection "upgrade";
        proxy_set_header    Host $host;
        proxy_set_header    X-Real-IP $remote_addr;
        proxy_set_header    X-Forwarded-For $proxy_add_x_forwarded_for;
        proxy_set_header    X-Forwarded-Proto $scheme;

        # Added WebSocket support
        proxy_set_header    Sec-WebSocket-Key $http_sec_websocket_key;
        proxy_set_header    Sec-WebSocket-Version $http_sec_websocket_version;
        proxy_set_header    Sec-WebSocket-Extensions
$http_sec_websocket_extensions;

        # Improve performance of this reverse proxy
        proxy_buffering    off;
    }

    # Redirect HTTP to HTTPS if needed for encryption
    # Uncomment the following lines if you have SSL enabled
    # return 301 https://$host$request_uri;
}
```

Use the command below to check if there is an error in the

nginx configuration and then reload nginx:

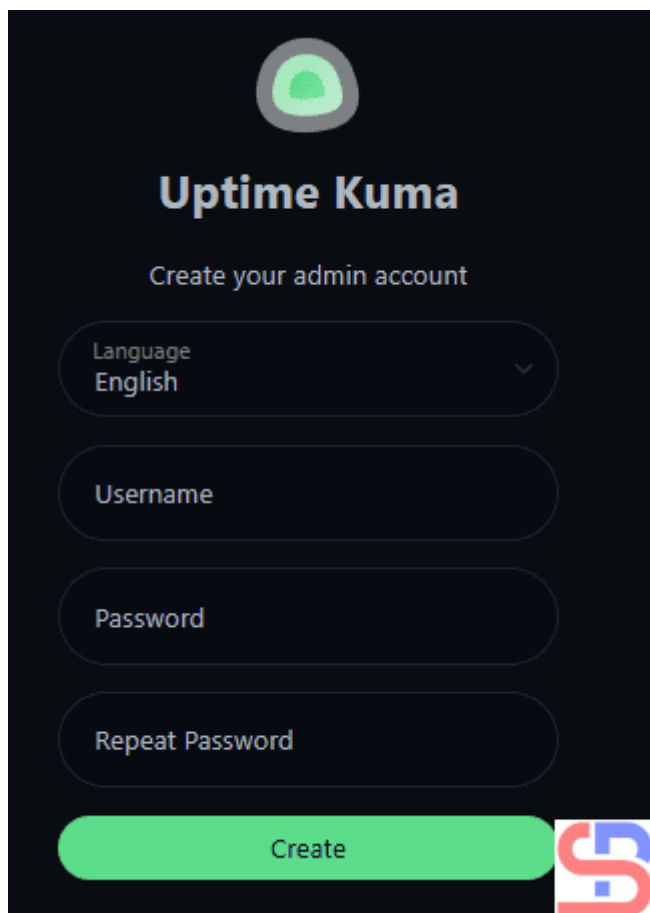
```
sudo nginx -t  
sudo systemctl reload nginx
```

4. Access uptime kuma

Open your browser, and type:

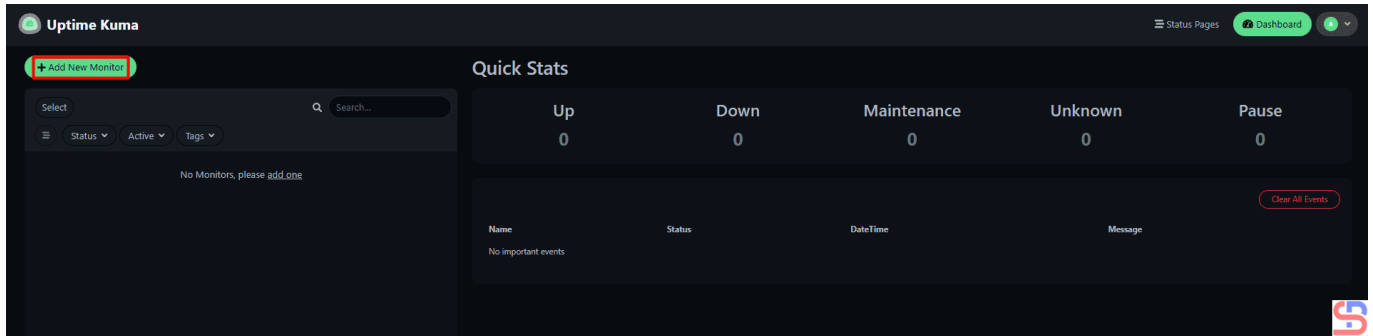
`http://ip_server:3001`

then there will be a display like below:



Fill in the columns for the admin account

Enter in the columns above the value you want and press the **Create** button then a display will appear similar to the image provided below:



Display of uptime kuma

If you want to make sure uptime kuma use MariaDB database, run the command below:

```
docker logs uptime-kuma | grep DB
```

Your screen will appear similar to the picture shown below:

```
sysadmin@docker:~$ docker logs uptime-kuma
Welcome to Uptime Kuma
Your Node.js version: 20.19.5
2025-12-26T08:18:58Z [SERVER] INFO: Env: production
2025-12-26T08:19:01Z [SERVER] INFO: Uptime Kuma Version: 2.0.2
2025-12-26T08:19:01Z [SERVER] INFO: Loading modules
2025-12-26T08:19:05Z [SERVER] INFO: Creating express and socket.io instance
2025-12-26T08:19:05Z [SERVER] INFO: Server Type: HTTP
2025-12-26T08:19:05Z [SERVER] INFO: Data Dir: ./data/
2025-12-26T08:19:05Z [SETUP-DATABASE] INFO: db-config.json is not found or invalid: ENOENT: no such file or directory, open 'data/db-config.json'
2025-12-26T08:19:05Z [DB] INFO: Database Type: mariadb
2025-12-26T08:19:06Z [MARIADB] INFO: Creating basic tables for MariaDB
2025-12-26T08:19:15Z [MARIADB] INFO: Created basic tables for MariaDB
2025-12-26T08:19:15Z [SERVER] INFO: Connected to the database
sysadmin@docker:~$
```

Check the running database

If you want to monitor the website, click the **Add New Monitor** button at the top left, an image similar to the one shown will appear:

Add New Monitor

General

Monitor Type:

Friendly Name:

URL:

Heartbeat Interval (Check every 60 seconds):
1 minute

Retries:
Maximum retries before the service is marked as down and a notification is sent

Heartbeat Retry Interval (Retry every 60 seconds):

Request Timeout (Timeout after 48 seconds):

Resend Notification if Down X times consecutively (Resend disabled):

Advanced

Notifications

Not available, please set up.

Proxy

Not available, please set up.

HTTP Options

Method:

Body Encoding:

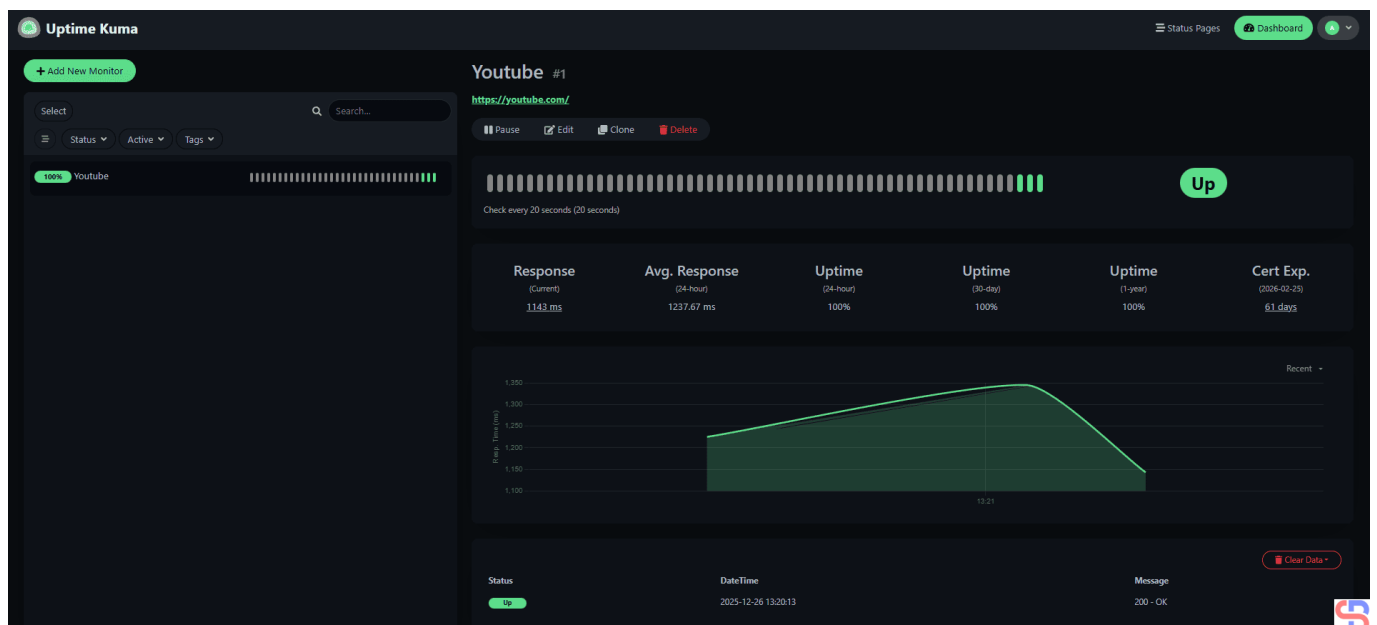
Body:

```
Example:
{
  "key": "value"
}
```

Headers:

Create a new host or a website to monitor in uptime kuma

Fill in the required fields (at least fill in the **Monitor Type**, **Friendly Name**, and **URL** columns) and press the **Save** button, then the host you have filled in will look like in the image below:



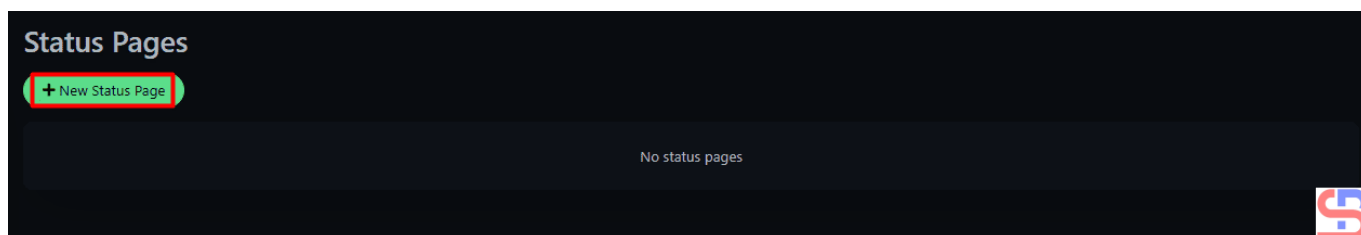
Monitor the host or the website

If you just want to display the status without displaying many attributes then you can click the **Status Pages** button at the top right of the site like the image below:



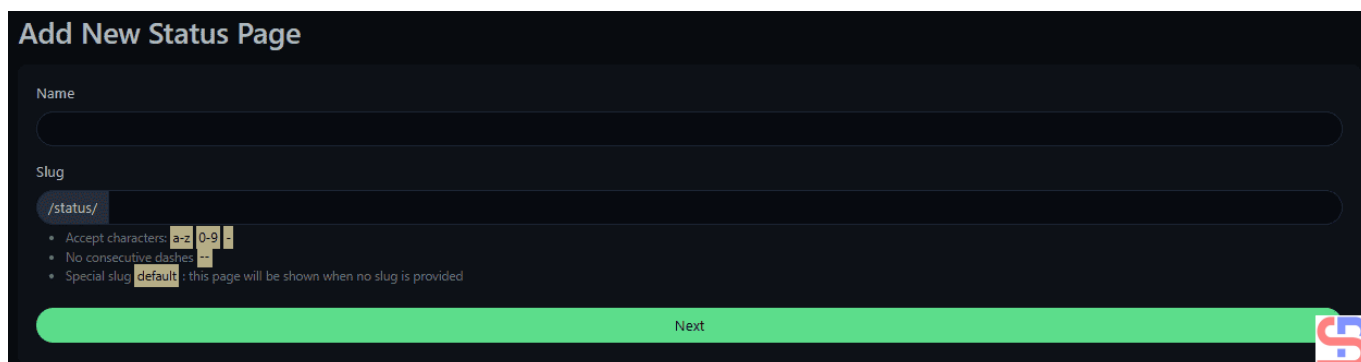
Click the Status Page button

After you press the Status Page button, the following image will appear:



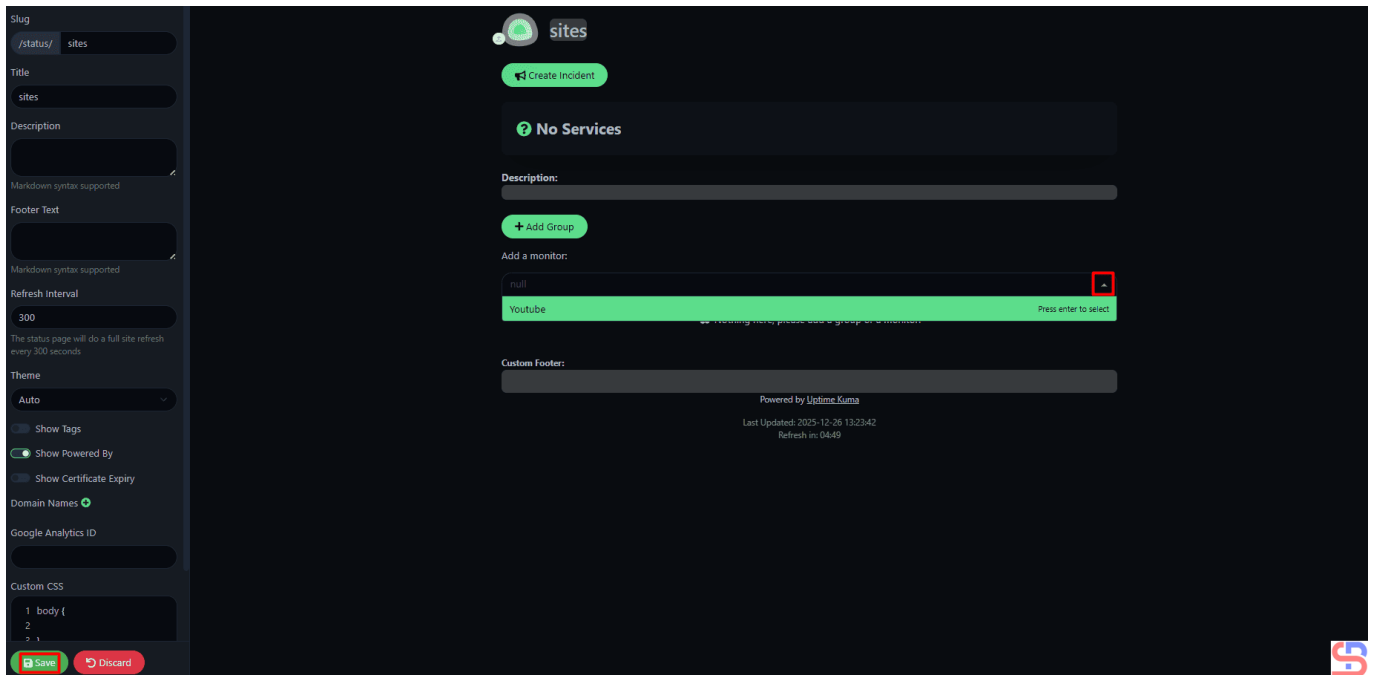
Create the Status Page page

Click the **New Status Page** button, and an image will appear similar to the one shown below:



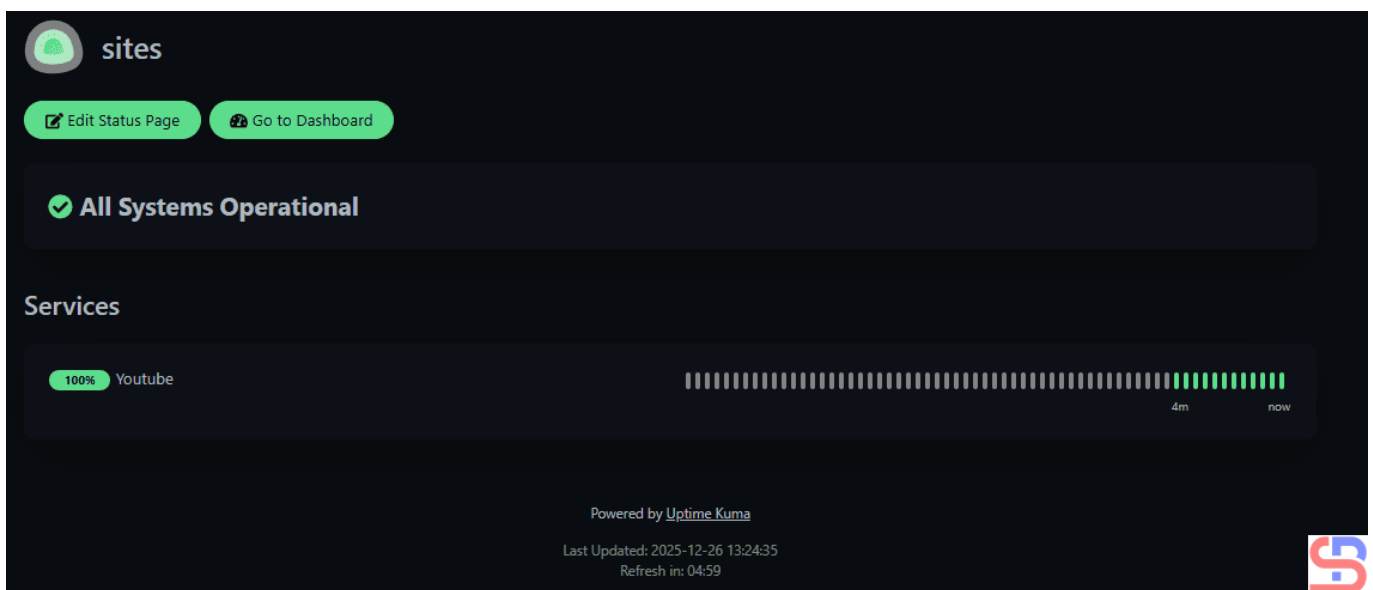
Create the Status Page page

Enter the name and slug you want (I wrote the sites for the name and slug), then press the Next button, then there will be a display as below:



Insert the host or the monitor in the Status Page

Enter the host you want to display on the Status Page, after that click the Save button, then there will be a display as below:



Display of Status Page

You can see that the hosts to be monitored look simpler and you can give the URL to other parties to also monitor these hosts.

Note

Go to [this page](#) if you want to backup the MariaDB database and for how to restore the database, you can go to [this page](#).

References

sysadminpedia.com

magnus919.com

uptimekuma.org