

UNITED STATES DISTRICT COURT  
EASTERN DISTRICT OF MISSOURI  
EASTERN DIVISION

**NIDEC MOTOR CORPORATION**

Plaintiff,

v.

**BROAD OCEAN MOTOR LLC,  
BROAD OCEAN TECHNOLOGIES,  
LLC, and  
ZHONGSHAN BROAD OCEAN  
MOTOR CO., LTD.**

Defendants.

§  
§  
§  
§  
§  
§  
§  
§

CASE NO. : \_\_\_\_\_

**JURY TRIAL DEMANDED**

**ORIGINAL COMPLAINT**

Plaintiff Nidec Motor Corporation (“Nidec Motor”), through its attorneys, files this complaint against Defendants, Broad Ocean Motor LLC, Broad Ocean Technologies, LLC, and Zhongshan Broad Ocean Motor Co., Ltd. (collectively, “Broad Ocean”) and hereby alleges as follows:

**PARTIES**

1. Plaintiff Nidec Motor is a corporation organized and existing under the laws of the state of Delaware, with a principal place of business in this judicial district at 8050 W. Florissant Avenue, St. Louis, Missouri 63136.
2. Upon information and belief, Defendant, Broad Ocean Motor LLC is a corporation organized and existing under the laws of the state of Delaware, with an office at 201 E 5th Street, Washington, Missouri 63090.
3. Upon information and belief, Defendant, Broad Ocean Technologies, LLC is a corporation organized and existing under the laws of the state of Michigan, with a principal place

of business at 29615 Hudson Drive, Novi, Michigan 48377. Broad Ocean Technologies, LLC is registered to do business in the State of Missouri.

4. Upon information and belief, Defendant, Zhongshan Broad Ocean Motor Co., Ltd. is a corporation organized and existing under the laws of China, with a principal place of business at No. 3 Shalang Industrial Zone, West District, Zhongshan, 528411, China.

#### **JURISDICTION AND VENUE**

5. This is an action for infringement of United States patents, and arises under the patent laws of the United States, 35 U.S.C. § 271, *et. seq.* This Court has exclusive subject matter jurisdiction of such action under 28 U.S.C. §§ 1331 and 1338(a).

6. This Court has personal jurisdiction over Defendants by virtue of Defendants' regular commercial and business activities within and/or directed to the State of Missouri.

7. This Court has general jurisdiction over Defendants because Defendants have continuous and systematic contacts with this forum through their making, using, selling, offering to sell, and/or importing blower motors for an HVAC system in or into the State of Missouri. In addition, this Court has specific jurisdiction over Defendants because Defendants purposefully directed their activities at residents of this forum and this patent infringement action arises out of or relates to their making, using, selling, offering to sell, and/or importing blower motors for an HVAC system in or into the State of Missouri.

8. Defendant, Broad Ocean Motor LLC is doing business in Missouri, has purposefully availed itself of the privilege of conducting business with residents of Missouri, *inter alia*, by having an office in this judicial district, and as such, has established sufficient minimum contacts with the State of Missouri.

9. Defendant, Broad Ocean Technologies, LLC is doing business in Missouri, has purposefully availed itself of the privilege of conducting business with residents of Missouri, *inter alia*, by registering with the State of Missouri to do business in Missouri, and as such, has established sufficient minimum contacts with the State of Missouri.

10. Defendant, Zhongshan Broad Ocean Motor Co., Ltd. is doing business in Missouri, has purposefully availed itself of the privilege of conducting business with residents of Missouri, *inter alia*, by supplying, distributing, selling, using, making, offering to sell, and/or importing blower motors for an HVAC system in or into the State of Missouri, and as such, has established sufficient minimum contacts with the State of Missouri.

11. Venue is proper before this Court pursuant to 28 U.S.C. § 1391(b) and (c) and 28 U.S.C. § 1400(b).

**COUNT I:  
INFRINGEMENT OF U.S. PATENT NO. 7,208,895**

12. On April 24, 2007, United States Patent No. 7,208,895 (“the ‘895 patent”) was duly and legally issued for “Control Systems and Methods for Permanent Magnet Rotating Machines.” A true and correct copy of the ‘895 patent is attached hereto as Exhibit A and made a part hereof.

13. Nidec Motor is the assignee and owner of all rights and title to the ‘895 patent, with the right to enforce the patent against infringers and to sue for and collect damages for all relevant times, including the right to assert the present cause of action.

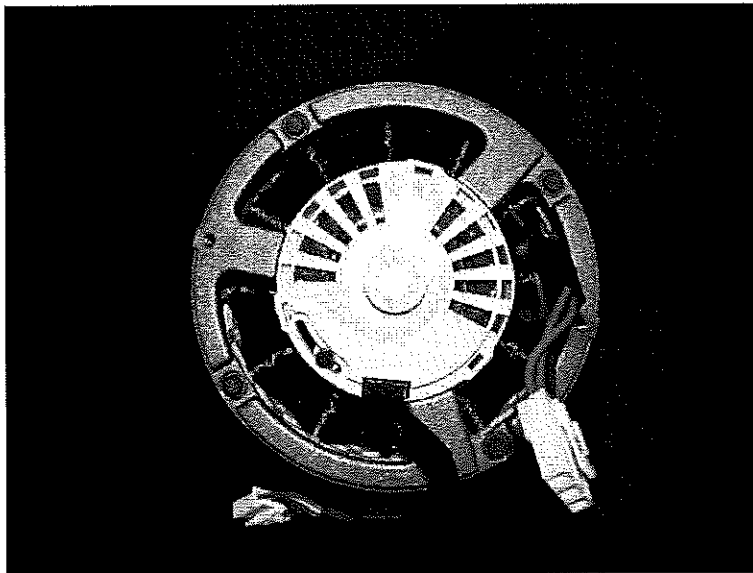
14. Defendants manufacture, make, have made, use, practice, import, provide, supply, distribute, sell and/or offer for sale products in or into the United States, including but not limited to blower motors for HVAC systems, that infringe one or more claims of the ‘895 patent in violation of one or more subsections of 35 U.S.C. § 271.

15. Defendants' products that infringe the '895 patent include but are not limited to "1HP 115~120V Unit" BO Part Number ZWK702E0750501 ("the HP Broad Ocean Motor").

16. As one example of Defendants' infringement of the '895 Patent, the HP Broad Ocean Motor infringes at least claims 9 and 21 of the '895 Patent. Details of this infringement are set forth below:

17. Claim 9 recites "[a] permanent magnet rotating machine and controller assembly configured to perform the method of claim 1." The HP Broad Ocean Motor includes a motor controller that controls a permanent magnet rotating machine that performs the method of claim 1.

18. As recited in claim 1, the permanent magnet rotating machine of the HP Broad Ocean Motor includes "a stator and a rotor situated to rotate relative to the stator, the stator having a plurality of energizable phase windings situated therein." A photograph of the HP Broad Ocean Motor having a permanent magnet rotating machine having the recited elements of claim 1 is provided below:



19. As further recited in claim 1 of the '895 Patent, the HP Broad Ocean Motor is configured for "receiving a rotor torque demand." As shown in the table below, the HP Broad Ocean Motor exhibits substantially constant rotor torque (between 24.4 lb-in and 25.0 lb-in) over a range of rotor speeds (between 600 RPMs to around 1200 RPMs). Upon information and belief, the motor controller for such product must rely on a rotor torque demand to achieve such calibration of torque output over a range of speeds.

| Time       | Torque Demand |       | Magtrol Dyn |                | Power Meter Data       |                        |                     |                      |                       |                       |                    |                     |                 |
|------------|---------------|-------|-------------|----------------|------------------------|------------------------|---------------------|----------------------|-----------------------|-----------------------|--------------------|---------------------|-----------------|
|            | mm:ss         | lb-in | Speed (rpm) | Torque (lb-in) | V <sub>ac</sub> (Vrms) | I <sub>ac</sub> (Arms) | P <sub>ac</sub> (W) | F <sub>ac</sub> (Hz) | V <sub>m</sub> (Vrms) | I <sub>m</sub> (Arms) | P <sub>m</sub> (W) | F <sub>m</sub> (Hz) | Shaft Power (W) |
| 8:51:32 AM |               |       | 0.0         | 0.0            | 238.2                  | 0.17                   | 0.8                 | 60.0                 | 0.0                   | 0                     | 0.0                | 0.0                 | 0               |
| 8:52:16 AM |               |       | 299.3       | 33.2           | 238.0                  | 1.70                   | 234.4               | 60.0                 | 63.0                  | 2.77                  | 234.4              | 0.0                 | 117             |
| 8:53:38 AM |               |       | 400.0       | 34.8           | 237.7                  | 2.12                   | 296.5               | 60.0                 | 78.3                  | 2.78                  | 266.7              | 33.1                | 164             |
| 8:55:40 AM |               |       | 500.0       | 35.3           | 237.8                  | 2.58                   | 364.3               | 60.0                 | 94.7                  | 2.88                  | 326.5              | 41.9                | 215             |
| 8:56:43 AM |               |       | 600.0       | 24.4           | 237.9                  | 1.74                   | 239.3               | 60.0                 | 97.0                  | 1.8                   | 220.5              | 49.6                | 173             |
| 8:58:10 AM |               |       | 700.0       | 24.8           | 237.8                  | 1.96                   | 272.3               | 60.0                 | 111.7                 | 1.78                  | 252.2              | 58.8                | 205             |
| 8:58:58 AM |               |       | 799.8       | 25.0           | 237.8                  | 2.24                   | 313.3               | 60.0                 | 123.7                 | 1.79                  | 291.0              | 66.7                | 237             |
| 8:59:37 AM |               |       | 900.5       | 24.8           | 237.7                  | 2.44                   | 341.2               | 60.0                 | 134.8                 | 1.75                  | 321.0              | 74.5                | 285             |
| 9:00:10 AM |               |       | 999.8       | 24.8           | 237.7                  | 2.68                   | 377.9               | 60.0                 | 143.0                 | 1.77                  | 354.0              | 84.5                | 293             |
| 9:00:45 AM |               |       | 1099.5      | 24.8           | 237.6                  | 2.81                   | 397.9               | 60.0                 | 152.2                 | 1.73                  | 377.9              | 90.7                | 322             |
| 9:01:19 AM |               |       | 1200.3      | 24.4           | 237.7                  | 2.96                   | 419.6               | 60.0                 | 158.9                 | 1.7                   | 399.5              | 101.2               | 346             |
|            |               |       |             |                |                        |                        |                     |                      |                       |                       |                    |                     | 0               |
|            |               |       |             |                |                        |                        |                     |                      |                       |                       |                    |                     | 0               |
|            |               |       |             |                |                        |                        |                     |                      |                       |                       |                    |                     | 0               |
|            |               |       |             |                |                        |                        |                     |                      |                       |                       |                    |                     | 0               |
|            |               |       |             |                |                        |                        |                     |                      |                       |                       |                    |                     | 0               |
|            |               |       |             |                |                        |                        |                     |                      |                       |                       |                    |                     | 0               |

20. As still further recited in claim 1 of the '895 Patent, the HP Broad Ocean Motor is configured for "calculating a scaled torque demand from the received torque demand as a function of a speed of the machine to obtain a substantially constant rotor torque over a range of rotor speeds." As stated in paragraph 19, the HP Broad Ocean Motor exhibits substantially constant rotor torque (between 24.4 lb-in and 25.0 lb-in) over a range of rotor speeds (between 600 RPMs to around 1200 RPMs). Upon information and belief, the motor controller of the HP Broad Ocean Motor must scale the torque demand to produce such constant rotor torque from an input rotor torque demand.

21. Furthermore, the HP Broad Ocean Motor includes a speed sensor. Upon information and belief, the HP Broad Ocean Motor uses the speed of the motor as sensed by the speed sensor as the feedback element to control how the torque demand is scaled in order to achieve the result of

# Explore Litigation Insights

Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

## Real-Time Litigation Alerts



Keep your litigation team up-to-date with **real-time alerts** and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

## Advanced Docket Research



With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

## Analytics At Your Fingertips



Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

## API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

## LAW FIRMS

Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

## FINANCIAL INSTITUTIONS

Litigation and bankruptcy checks for companies and debtors.

## E-DISCOVERY AND LEGAL VENDORS

Sync your system to PACER to automate legal marketing.