Number of documents: 10

WO200302918	Cooler for electronic devices ADVANCE ROTARY SYSTEMS ADVANCED ROTARY SYSTEMS
US20030048013	Cooler for electronic devices ADVANCED ROTARY SYSTEMS
WO200143519	Cooler for electronic devices ADVANCED ROTARY SYSTEM ADVANCED ROTARY SYSTEMS
WO200108283	Electric drive (options) ADVAMCED ROTARY SYSTEMS ADVANCED ROTARY SYSTEMS AIR CONCEPTS
US20030030348	Ring stator motor device ADVANCED ROTARY SYSTEMS
US20020175582	Electric drive ADVANCED ROTARY SYSTEMS
WO200303547	Brushless dc electric motor ADVANCED ROTARY SYSTEM ADVANCED ROTARY SYSTEMS LOW FORTIS ROYALTY DE REI
WO200116530	Heat exchanger type fan ADVANCED ROTARY SYSTEMS
WO200323289	Integrated cooler for electronic devices ADVANCED ROTARY SYSTEMS ROTYS
WO200316718	Integrated motorized pump ADVANCED ROTARY SYSTEMS ROTYS

Cooler for electronic devices
WO200302918

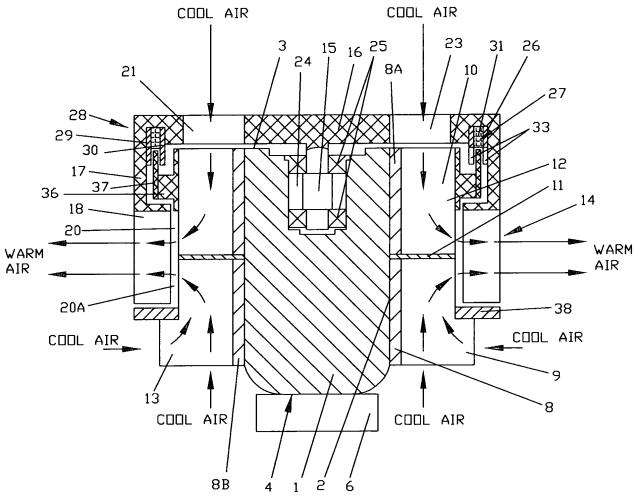
- **Patent Assignee**
  ADVANCE ROTARY SYSTEMS ADVANCED ROTARY SYSTEMS
- **Inventor**
  LOPATINSKY EDWARD L
  SHAEFER DAN K
  ROSENFELD SAVELIY T
  FEDOSEYEV LEV A
- **International Patent Classification**
  F24H-003/06 H01L-023/467
- **US Patent Classification**
  PCLO=165122000 PCLX=165080300 PCLX=165185000 PCLX=174016300 PCLX=257706000 PCLX=257722000 PCLX=257E23099 PCLX=361697000 PCLX=361704000
- **CPC Code**
  H01L-023/467; H01L-2924/0002

- **Publication Information**
  WO03002918 A2 2003-01-09 [WO200302918]
- **Priority Details**
  2001US-60301321 2001-06-27
  2002WO-US20410 2002-06-27
  2003US-10399800 2003-04-21

- **Fampat family**

WO03002918	A2	2003-01-09	[WO200302918]
AU2002316430	A1	2003-03-03	[AU2002316430]
WO03002918	A3	2003-04-10	[WO200302918]
US2004094290	A1	2004-05-20	[US20040094290]
US7044202	B2	2006-05-16	[US7044202]

- **Abstract:**
  (WO200302918)
  A cooler comprising a central core (1) having fins (9) and a radial blower (14).



Cooler for electronic devices
US20030048013

- **Patent Assignee**
  ADVANCED ROTARY SYSTEMS
- **Inventor**
  LOPATINSKY EDWARD L
  FEDOSEYEV LEV A
  SHAEFER DAN K
  ROSENFELD SAVELIY T
  FEDOSOV YURI I
  POPOV VIKTOR N
  ASKHATOV NIL N
- **International Patent Classification**
  F04D-025/06 F04D-029/58 H01L-023/467 H02K-001/27 H02K-003/26 H02K-007/14
- **US Patent Classification**
  PCLO=310063000 PCLX=257E23099 PCLX=310058000 PCLX=310060000R PCLX=310064000 PCLX=310268000 PCLX=361697000
- **CPC Code**
  F04D-025/06/53; F04D-029/58/2; H01L-023/467; H01L-2924/0002; H02K-001/27/93; H02K-003/26; H02K-007/14

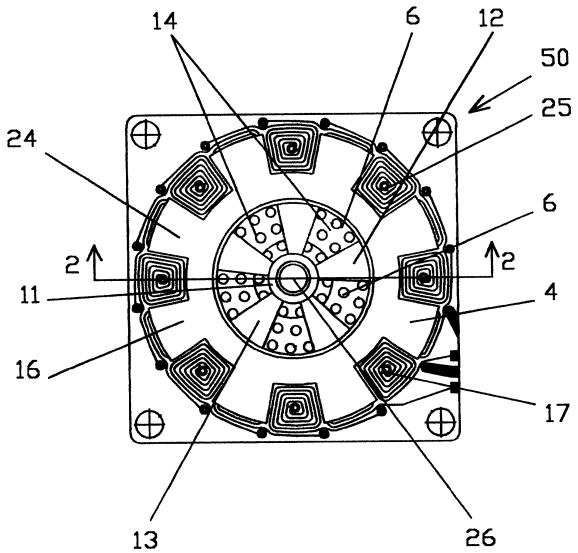
- **Publication Information**
  US2003048013 A1 2003-03-13 [US20030048013]
- **Priority Details**
  2001US-09940304 2001-08-27

- **Fampat family**

US2003048013	A1	2003-03-13	[US20030048013]
US6664673	B2	2003-12-16	[US6664673]

- **Abstract:**

(US6664673)
According to the present invention, a cooler for electronic devices comprises a heat exchange element, a blower with a radial type impeller, and an electric drive. The heat exchange element comprises heat exchanging means made on one surface of said heat exchange element while its other surface provides thermal contact with a heat-radiating means. The radial type impeller has a shroud with a flat surface from one side, a hub and brackets and a central inlet between the shroud and the hub, the brackets connect the hub with the shroud. The radial type impeller is positioned on the heat exchange element so that the heat exchanging means being surrounded by the radial type impeller and a cooling gas flows to the radial type impeller from the central inlet through the heat exchanging means. The electric drive comprises a magnetic rotor and a stator; the magnetic rotor is a flat disk-type rotor comprises a central hole inside the disk and circumferential arrayed like poles, the stator comprises circumferential arrayed coils, axis of said coils are parallel to the axis of rotation, the coils mounted around of the circumferential arrayed like poles. The magnetic rotor is placed on the shroud of the radial type impeller and connect with the shroud, the shaft of the electric drive is located inside the hub of the radial type impeller, and the central hole of the flat disk-type rotor is substantially coincided with the central inlet.



Cooler for electronic devices
WO200143519

- **Patent Assignee**
  ADVANCED ROTARY SYSTEM ADVANCED ROTARY SYSTEMS
- **Inventor**
  LOPATINSKY EDWARD
  FEDOSEYEV LEV A
  FEDOSOV YURIY IGOREVICH
  ASKHATOV NIL
- **International Patent Classification**
  H01L-023/467 H05K-007/20
- **US Patent Classification**
  PCLO=165121000 PCLX=165080300 PCLX=257E23099 PCLX=361697000
- **CPC Code**
  H01L-023/467; H01L-2924/0002

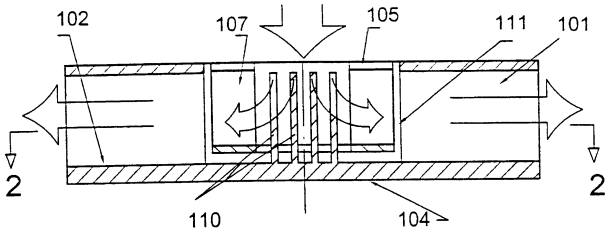
- **Publication Information**
  WO200143519 A1 2001-06-14 [WO200143519]
- **Priority Details**
  1999RU-0127326 1999-12-09
  2000RU-0111919 2000-05-05
  2000RU-0115814 2000-06-09
  2000WO-US33145 2000-12-07
  2001US-09890776 2001-08-06
  RU99127326 1999-12-09

- **Fampat family**

WO200143519	A1	2001-06-14	[WO200143519]
AU2066801	A	2001-06-18	[AU200120668]
KR20010112263	A	2001-12-20	[KR20010112263]
CN1345527	A	2002-04-17	[CN1345527]
US6659169	B1	2003-12-09	[US6659169]
TWI222344	B	2004-10-11	[TWI222344]

- **Abstract:**

(WO200143519)
A cooler includes a heat exchange element (101) on the surface of which divergent channels (103) are formed, and a centrifugal blower (105) is installed on the heat exchange element (101) in such a way that it provides for the flow of coolant through the channels (103). The centrifugal blower (105) can be a drum type, with an impeller located opposite the inlets of said heat exchanging channels (103). In accordance with a second design option, a disk-type centrifugal impeller (206) is used, which has at least one disk (207). The disk or disks (207) of the centrifugal blower are installed in such a manner that the edge of the disk surface facing the heat exchange element is located opposite the inlets to the heat exchange channels (103).



Electric drive (options)
WO200108283

- **Patent Assignee**
  ADVAMCED ROTARY SYSTEMS ADVANCED ROTARY SYSTEMS AIR CONCEPTS
- **Inventor**
  LOPATINSKY EDWARD L
  ROSENFELD SAVELIY T
  FLORIANOVICH KHIVRICH SERGEY
  MIKHAYLOVICH CHURIKOV PAVEL
  IGOREVICH FEDOSOV JURIY
  KIRILLOVICH EVSEEV RUDOLF
- **International Patent Classification**
  H02K-001/08 H02K-001/24 H02K-001/27 H02K-021/14 H02K-021/24 H02K-037/18
- **US Patent Classification**
  PCLO=310178000 PCLX=310156370 PCLX=310156640 PCLX=370268000
- **CPC Code**
  H02K-001/27/13; H02K-037/18

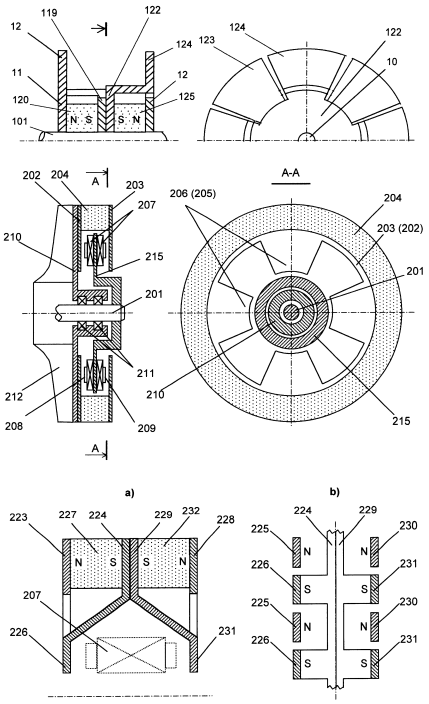
- **Publication Information**
  WO200108283 A1 2001-02-01 [WO200108283]
- **Priority Details**
  1999RU-0117913 1999-07-23
  1999RU-0127325 1999-12-09
  2000WO-US19842 2000-07-21

- **Fampat family**

WO200108283	A1	2001-02-01	[WO200108283]
CA2345040	A1	2001-02-01	[CA2345040]
AU6358800	A	2001-02-13	[AU200063588]
EP1116317	A1	2001-07-18	[EP1116317]
IL142123	A	2002-03-10	[IL-142123]
US6515390	B1	2003-02-04	[US6515390]
JP2003506005	A	2003-02-12	[JP2003506005]
EP1116317	A4	2003-04-16	[EP1116317]
TW550871	B	2003-09-01	[TW-550871]

- **Abstract:**

(EP1116317)
The invention refers to magnetoelectric machines. It can be used when manufacturing different-purpose electric drives-for instance, in fans, compressors, electromobile's wheels, and so forth. It comprises a rotor made in the form of two disks, the teeth of which on the outer or inner circumference make up rotor poles and an axially magnetized cylindrical magnet (placed between said disks). The stator (made in the form of coils that are distributed over the circumference and that are installed predominantly in the space between the rotor poles) provides for the possibility of the end face interaction with the rotor poles. The rotor could be made as a multi-sectional unit. In this case said disks have the plate-like shape, owing to which fact the poles of one disk are located between the poles of another disk in one plane, while the magnets of adjacent section are oriented towards one another with like poles. The disks could be made integral with a magnet in such a manner that they serve as magnet's poles. The design is characterized by a high degree of adaptability to streamlined manufacture of the rotor and by rotor durability. Owing to the fact that rotor poles are located in the planes perpendicular to device axis and stator poles are located in such a way that a possibility of the end face interaction with rotor poles is provided for, it becomes possible to reduce the radial size of the device. A plate-like



shape of said disks makes it possible to optimize the size of the device depending on the magnet and stator used, required power and the size of a device, in which this electric drive is supposed to be mounted. (From TW550871 B)

Ring stator motor device
US20030030348

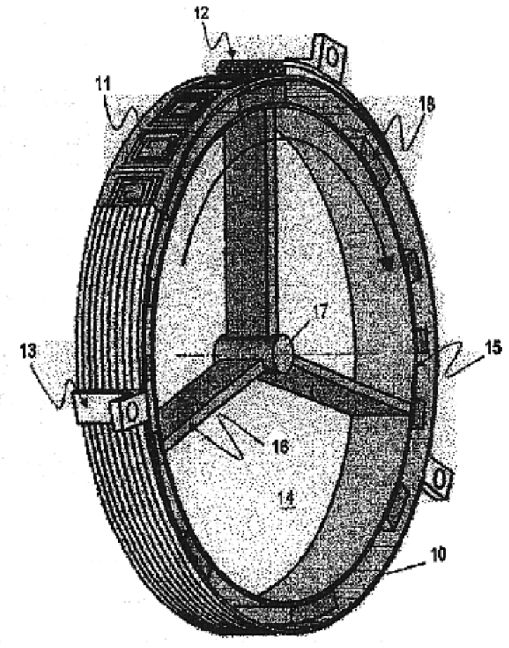
- **Patent Assignee**
  ADVANCED ROTARY SYSTEMS
- **Inventor**
  LOPATINSKY EDWARD L
  SHAEFER DAN K
  ROSENFELD SAVELIY T
  FEDOSEYEV LEV A
  EVSEEV ROUDOLF
  VICTOR POPOV
- **International Patent Classification**
  H02K-001/12 H02K-003/26 H02K-003/47 H02K-007/14
- **US Patent Classification**
  PCLO=310164000 PCLX=310216001 PCLX=310DIG006
- **CPC Code**
  H02K-001/12; H02K-003/26; H02K-003/47; H02K-007/14; Y10S -310/06

- **Publication Information**
  US2003030348 A1 2003-02-13 [US20030030348]
- **Priority Details**
  2001US-60311297 2001-08-10
  2002US-10215939 2002-08-09

- **Fampat family**

US2003030348	A1	2003-02-13	[US20030030348]
US6911757	B2	2005-06-28	[US6911757]

- **Abstract:**
  (US6911757)
  An integrated drive motor assembly is described where the functional components of a powered device are an integral part of the motor. The assembly comprises a brushless, direct current drive motor having a ring-shaped stator with flat printed circuit coil windings, a ring-shaped permanent magnet rotor, and an electronic commutator circuit. Functional embodiments of the assembly include a rotor impeller and an axial flow fan.



Electric drive
US20020175582

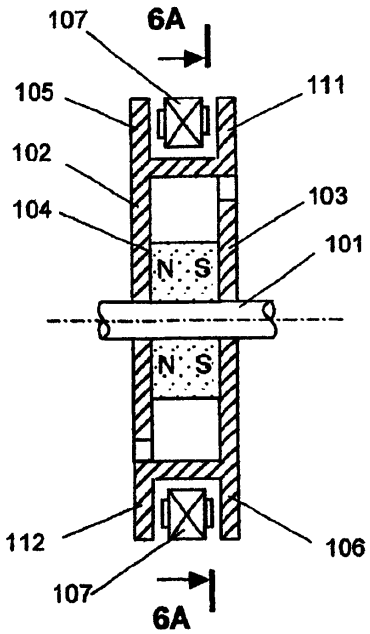
- **Patent Assignee**
  ADVANCED ROTARY SYSTEMS
- **Inventor**
  LOPATINSKY EDWARD
  FEDOSEYEV LEV
  ROSENFELD SAVELIY
  SCHAEFER DANIEL
  FEDOSOV YURIY
  YEVSEEV RUDOLF
  KHIVRICH SERGEY
- **International Patent Classification**
  H02K-007/14 H02K-021/24
- **US Patent Classification**
  PCLO=310178000 PCLX=310156370 PCLX=310156640 PCLX=310268000
- **CPC Code**
  H02K-007/14 H02K-021/24;

- **Publication Information**
  US2002175582 A1 2002-11-28 [US20020175582]
- **Priority Details**
  2000US-09621104 2000-07-21
  2002US-10187071 2002-07-01

- **Fampat family**

US2002175582	A1	2002-11-28	[US20020175582]
US6940200	B2	2005-09-06	[US6940200]

- **Abstract:**
  (US6940200)
  The invention refers to magnetoelectric machines and comprises a rotor made in the form of at least two disks, the magnetized disks have circumferential arrayed like poles and an axially magnetized polygon or cylindrical magnet placed between the disks. The stator comprises a winding selected from the group consisting of a coil winding and a wave winding coils that are distributed over the circumference and are installed predominantly in the space between the rotor poles provides for the possibility of the end face interaction with the rotor poles. Each of at least two disks could be made of a non-ferrous material with embedded magnets, and rotor further comprises ferrous metal plates, each of the plates is attached on an outer surface of each disk and comprises a ferrous metal cylinder for interconnecting a magnetic flux between ferrous metal plates. The rotor could be made as a multi-sectional unit. The disks could be made integral with a magnet in such a manner that they serve as magnet's poles. It becomes possible to reduce the radial size of the device. A plate-like shape of the disks makes it possible to optimize the size of the device depending on the magnet and stator used, required power and the size of a device, in which this electric drive is supposed to be mounted.



Brushless dc electric motor
WO200303547

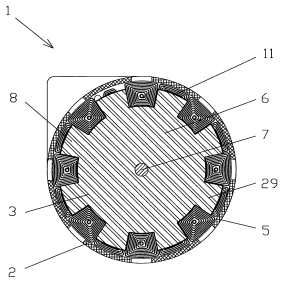
- **Patent Assignee**
  ADVANCED ROTARY SYSTEM ADVANCED ROTARY SYSTEMS LOW FORTIS ROYALTY DE REI
- **Inventor**
  LOPATINSKY EDWARD
  SCHAEFER DANIEL
  ROSENFELD SAVELY
  FEDOSEYEV LEV
- **International Patent Classification**
  H02K-001/27 H02K-003/26 H02K-007/14 H02K-021/24 H02K-029/00
- **US Patent Classification**
  PCLO=310268000 PCLX=310156320 PCLX=310184000 PCLX=310254100 PCLX=310DIG006
- **CPC Code**
  H02K-001/27/93; H02K-003/26; H02K-007/14; H02K-021/24; H02K-2211/03; Y10S-310/06

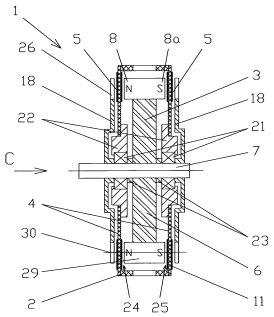
- **Publication Information**
  WO03003547 A1 2003-01-09 [WO200303547]
- **Priority Details**
  2001US-60301229 2001-06-26
  2002US-10183032 2002-06-26
  2002WO-US20224 2002-06-26

- **Fampat family**

WO03003547	A1	2003-01-09	[WO200303547]
US2003020353	A1	2003-01-30	[US20030020353]
CN1520632	A	2004-08-11	[CN1520632]
JP2005502291	A	2005-01-20	[JP2005502291]
US7112910	B2	2006-09-26	[US7112910]

- **Abstract:**
(WO200303547)
A brushless DC electric motor (Figures 1A and 3) includes a magnetic rotor (5) and a stator (1). The stator (1) has at least one circuit board (3) with circumferentially arrayed of coil windings (2) etched in circuit board metal layers.





Heat exchanger type fan
WO200116530

- **Patent Assignee**
  ADVANCED ROTARY SYSTEMS
- **Inventor**
  LOPATINSKY EDWARD
  FEDOSEYEV LEV A
  FEDOSOV YURIY IGOREVICH
  GERASIMOV OLEG MIKHAILOVICH
  POPOV VICTOR NIKITOVICH
- **International Patent Classification**
  F04D-025/16 F04D-029/58 F24F-007/007 F24F-012/00 F28D-009/00 F28D-009/04 F28F-013/12
- **US Patent Classification**
  PCLO=165088000 PCLX=165164000 PCLX=416184000
- **CPC Code**
  F04D-017/02; F04D-025/16/6; F04D-029/42/4; F04D-029/58/53; F24F-007/007; F24F-012/00/6; F28D-009/00; F28D-009/04; F28F-013/12/5; Y02B-030/563

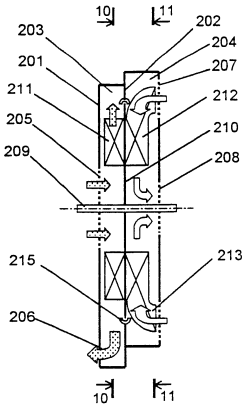
- **Publication Information**
  WO200116530 A2 2001-03-08 [WO200116530]
- **Priority Details**
  1999RU-0119121 1999-09-02
  1999RU-0119164 1999-09-02
  2000WO-US23900 2000-08-31
  2001US-09830844 2001-05-01
  2002US-10195576 2002-07-15

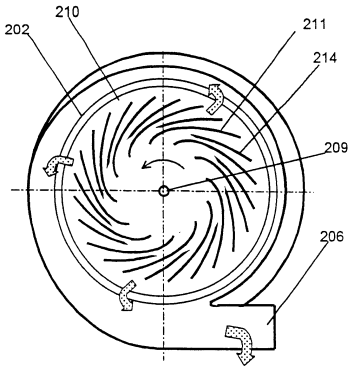
- **Fampat family**

WO200116530	A2	2001-03-08	[WO200116530]
AU7472200	A	2001-03-26	[AU200074722]
WO200116530	A3	2001-09-07	[WO200116530]
US2003034151	A1	2003-02-20	[US20030034151]
US6695038	B2	2004-02-24	[US6695038]

- **Abstract:**

(WO200116530)
The present invention refers to heat exchange devices and intended for use in ventilation and air conditioning systems where the heat carriers do not mix with one another. The invention applied comprises a casing (101) and an impeller of double-sided centrifugal fan with heat exchange taking place via said impeller. The blades (108, 109) could be made of specified curvature. In particular, blade curvature could be specified so that a constant width of the inter-blade channel is ensured, which would raise the efficiency of heat exchange. Another embodiment of the device comprises a two-sided impeller in the form of a dividing disk (107) with centrifugal fan blades (108, 109) made on one side of said impeller and centripetal fan blades (108, 109) on its other side, which arrangement would provide for the counter-flow heat exchange. Also, the impeller can be made in the form of dividing disk (107) with centrifugal fan blades (108, 109) made on one side of said impeller and centripetal turbine blades made on its other side, which arrangement would additionally provide for the two-stage heat exchange process. With that both stages are mounted co-axially with impeller shrouds (114, 115) of turbines facing one another, while the blower outlets (104, 105) of centrifugal fans of one stage are made so that they are connected to inlets (102, 103) of turbines of another stage. In this case centrifugal fan of one stage forces the stream of one of the heat carriers into the turbine of another stage. The transfer of the other heat carrier will proceed in the opposite direction.





Integrated cooler for electronic devices
WO200323289

- **Patent Assignee**
  ADVANCED ROTARY SYSTEMS ROTYS
- **Inventor**
  LOPATINSKY EDWARD L
  SHAEFER DAN K
  ROSENFELD SAVELIY T
  FEDOSEYEV LEV A
- **International Patent Classification**
  F04B-017/00 G06F-001/20 H01L-023/467 H02K-001/22 H02K-009/00 H02K-009/06 H05K-007/20
- **US Patent Classification**
  PCLO=310064000 PCLX=257E23099 PCLX=310058000 PCLX=310060000R PCLX=310062000 PCLX=310268000 PCLX=310DIG006 PCLX=417356000 PCLX=417423100 PCLX=417423700
- **CPC Code**
  F04D-017/04; F04D-025/06/06; F04D-025/06/53; G06F-001/20/3; H01L-023/467; H01L-2924/0002; Y10S-310/06

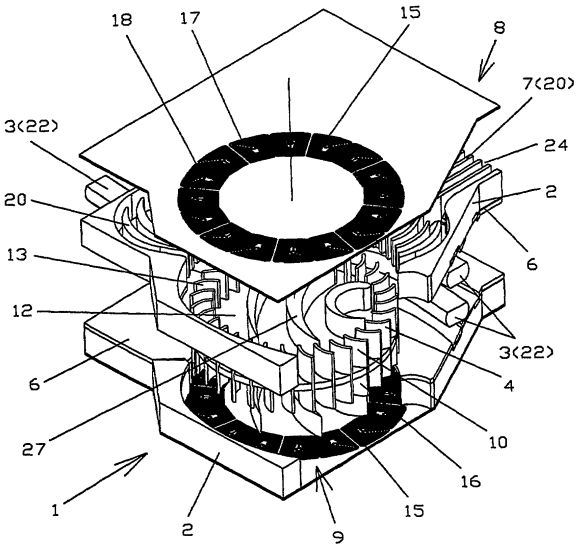
- **Publication Information**
  WO03023289 A2 2003-03-20 [WO200323289]
- **Priority Details**
  2001US-60318246 2001-09-07
  2002WO-US28409 2002-09-06
  2004US-10488797 2004-03-05

- **Fampat family**

WO03023289	A2	2003-03-20	[WO200323289]
AU2002323637	A1	2003-03-24	[AU2002323637]
WO03023289	A3	2003-05-22	[WO200323289]
US2004245866	A1	2004-12-09	[US20040245866]
US7071587	B2	2006-07-04	[US7071587]

- **Abstract:**

(WO200323289)
The integrated cooler for electronic devices (1) of this invention provides at least one heat exchange element (2), at least one heat transferring element (3), a blower (4) and an electric drive (5). The at least one heat exchange element (2) comprises a heat spreading base (6) and heat exchanging means (7) made on a surface of the base (6). The heat spreading base (6) providing thermal contact with the at least one heat transferring element (3). The blower (4) comprises a blower inlet (8) and a blower outlet (9), which are directly connected to ambient air, so that the integrated cooler for electronic devices (1) becomes a hydraulically sealed unit and a drum type radial impeller (10) that is mounted on an axle (11) and comprises at least one impeller disk (12) and blades (13) attached to the at least one impeller disk (12). The blower (4) is positioned on the heat exchange element (2) so that the heat exchanging means (7) being located at the blower outlet (9) and/or at the blower inlet (8). The electric drive comprises a rotor (14) and at least one stator (15). The rotor (14) made as drum type radial impeller (10) having circumferential arrayed magnetic means (16) magnetized in the direction parallel to said axle (11). The stator (15) comprises circumferential arrayed coils (17) etched on circuit board metal layers (18) and numbers of the coils is divisible in respect to numbers of the magnetic means, said coils (18) being spaced axially from the magnetic means of the impeller. The blower (4) is a cross flow type blower. The heat exchanging means (7) are pins (19) and/or fins (20).



Integrated motorized pump
WO200316718

- **Patent Assignee**
  ADVANCED ROTARY SYSTEMS ROTYS
- **Inventor**
  LOPATINSKY EDWARD L
  SHAEFER DAN K
  ROSENFELD SAVELIY T
  FEDOSEYEV LEV A
- **International Patent Classification**
  F04B-017/00 F04B-035/04 F04D-005/00 F04D-013/06
- **US Patent Classification**
  PCLO=417423100 PCLX=417423140
- **CPC Code**
  F02M-037/04/8; F04D-005/00/2; F04D-013/06/66

- **Publication Information**
  WO03016718 A1 2003-02-27 [WO200316718]
- **Priority Details**
  2001US-60314016 2001-08-21
  2002WO-US26711 2002-08-20
  2004US-10486873 2004-02-12

- **Fampat family**

WO03016718	A1	2003-02-27	[WO200316718]
US2004234399	A1	2004-11-25	[US20040234399]
US7232292	B2	2007-06-19	[US7232292]

- **Abstract:**

(WO200316718)
An integrated motorized pump (1) comprising an impeller (2) mounted on an axle (3), two magnetic drives (6) electromagnetically coupled to an electric motor (7), a casing (8) with a flowing space (9), an inlet channel (10) and an outlet channel (11). The impeller (2) has circumferential arrayed magnetic means (13) magnetized in the direction parallel to the axle (3). The electric motor (7) comprising said impeller (2) as a rotor, and two stator plates (20). The stator plates (20) are covered with a liquid tight coating and comprise circumferential arrayed coils (21) etched on circuit board metal layers (22). Each magnetic drive (6) comprises a stator (14) with circumferential arrayed coil windings (16) and two magnetized disks (15). The magnetized disks (15) are mounted on the axle (3) perpendicularly to it and have a circumferential array of radially extending poles (17).