



Leading Provider of VFDs

# Medium Voltage Drive Catalogue



# Midea Group

The Midea Group, with the vision of “bringing great innovations to life” , has upheld the philosophy of creating a better life through technology since its establishment. Based on 55 years’ of development, Midea has evolved into an international tech-leading company which specializes in five major businesses including Smart Home Business, Industrial Technologies, Building Technologies, Robotics &Automation, and Digital Innovation Business.

**190k**  
Number of Employees

**A/A3/A**  
S&P/Moody's/Fitch Credit Ratings

**500**  
million Customers

**200+**  
Countries & Regions

**#278**  
2023 Fortune Global 500

**#199**  
2023 Forbes Global 2000

**#198**  
Brand Finance 2023  
Top 500 Most Valuable Brands

**#36**  
Brand Finance 2023  
Top 100 Most Valuable Tech Brands

# Business Group

Midea's Industrial Technology Business Group is one of the five business segments of Midea Group. It aggregates core scientific and technological strengths in four major fields: intelligent transportation, industrial automation, green energy, and consumer appliances.

Its product range includes high-precision core components such as compressors, motors, chips, automotive components, electronic expansion valves, inverters, servo and motion control systems, gearboxes, and heat dissipation components.



Intelligent transportation

Industrial automation

Green energy

Consumer appliances

## Our brand

GMCC

Welling



MSCT

TOSHIBA

Welling 汽车部件

MOTINOVA

SERVOTRONIX

DORMA

HICONICS

RYE



27  
R&D & testing centers



5600+  
Licensed Patents



51%  
Research talents



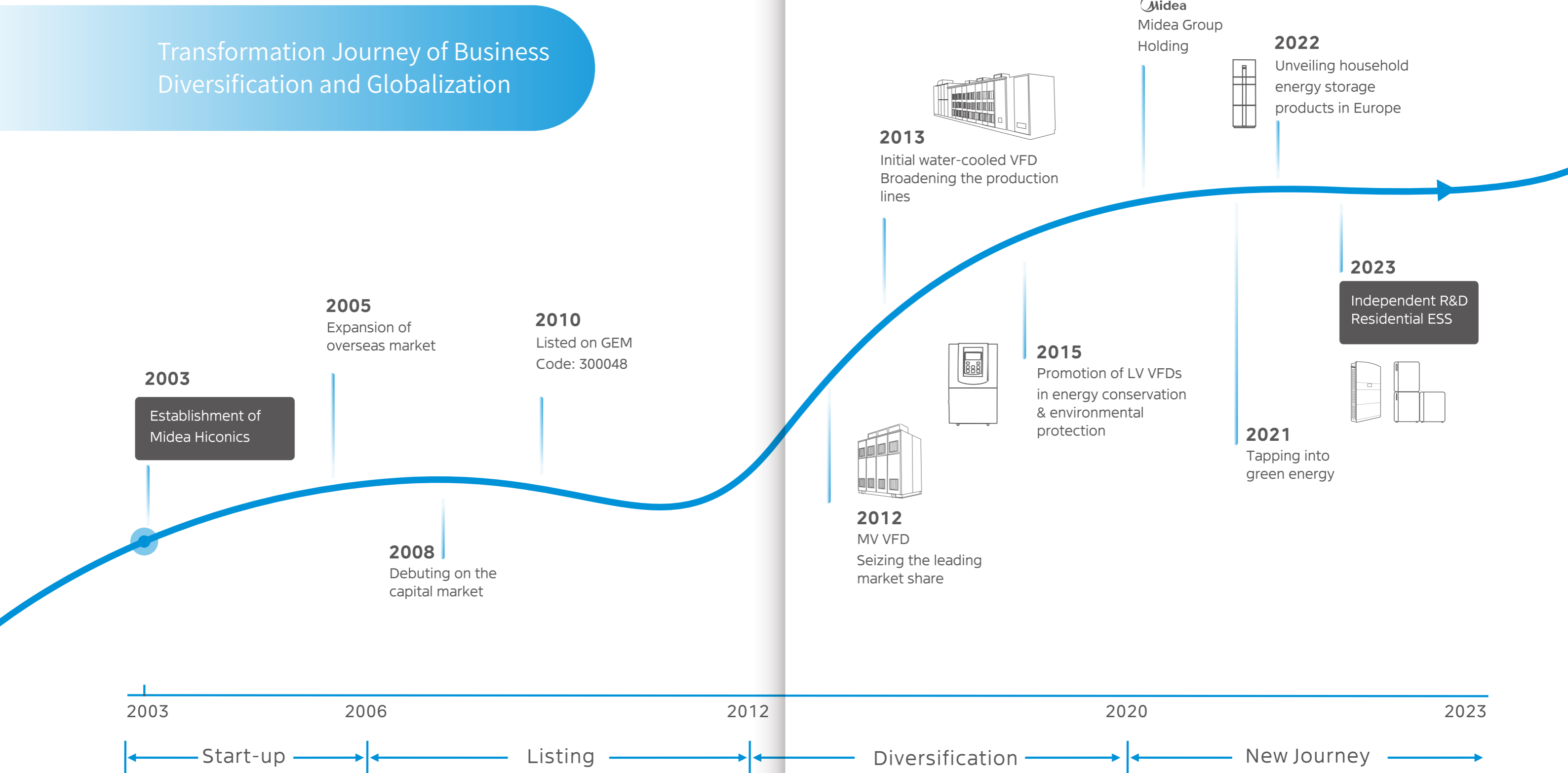
70  
Drafted & participated  
in the release of standards

Its products benefit nearly 3 billion consumers worldwide, with 70% of its business focused on green and sustainable products.



# Milestone

## Transformation Journey of Business Diversification and Globalization



# R&D-Driven Innovation



40	33	100	200+	50+	4
Production Center	R&D Center	million R&D investment	authorized patents	Core Laboratory	Research Institute

**2+4+N Layout of global R&D net work**



**NO.1**

in the industry to conduct  
the mechanical back-to-back test  
Real load testing



**10+10**

Test platform and ageing platform



**Advanced  
technology**

High-performance external  
water circulation



**45 days**

Shortest lead time



**100,000 level**

Dust free plant

## Manufacturing Quality



## Products at a Glance



### Power

Powder Discharge Fans, Condensate pump, Compressor, etc.



### Mining

Mud pumps, belt conveyors, counter cyclones, etc.



### Municipal

Hot water circulation pumps, sewage pumps, gas fans, etc.



### Metallurgy

Dedusters, Blast Furnace Blowers, Slagging Pumps, Oxygen compressors, etc.



### Petrochemical

Pressurized fans, feed pumps, oil transfer pumps, compressors, etc.



### Cement

Kiln induced draft fan, dedusting fan, rotary kiln drive coal mills, etc.



### Light Industry

Soft water pumps, cleaning pumps, pulverisers, beaters, etc.



### Other Industry



# Air-Cooled VFD Solution



## Naming rules




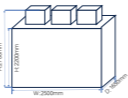
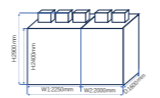
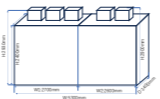
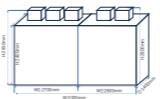
① <b>HC: Hiconics VFD</b>	② <b>Series Number</b> 1000: General VFD (H-bridge) 2000: Low Voltage IGBT Four-quadrant VFD 3000: Three-level VFD 4000: GCT/HV-IGBT H-bridge
③ <b>Output Voltage</b> 060: 6kV 100: 10kV	④ <b>Rated Capacity</b> 00200: 200kVA 02250: 2250kVA...



# Air-Cooled VFD Solution

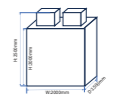
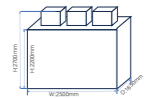
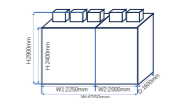
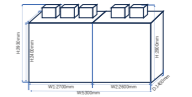
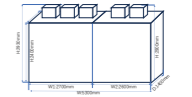
## 5th Generation Double Side Operation

6kV

	Power	Capacity	Model	Weight (kg)	Dimensionn (W x D x H (mm))
MA1.1	200	250	HC1000-060/00250	1919	
	250	315	HC1000-060/00315	1969	
	315	400	HC1000-060/00400	2094	
	400	500	HC1000-060/00500	2154	
	450	560	HC1000-060/00560	2269	
	500	630	HC1000-060/00630	2349	
	560	700	HC1000-060/00700	2424	
	630	800	HC1000-060/00800	2464	
MA2.1	710	900	HC1000-060/00900	3550	
	800	1000	HC1000-060/01000	3678	
	900	1150	HC1000-060/01150	3758	
	1000	1250	HC1000-060/01250	3880	
	1120	1400	HC1000-060/01400	4084	
MA3.1	1250	1600	HC1000-060/01600	4396	
	1400	1800	HC1000-060/01800	5595	
	1600	2000	HC1000-060/02000	5755	
	1800	2250	HC1000-060/02250	5975	
MA4.1	2000	2500	HC1000-060/02500	6140	
	2250	2800	HC1000-060/02800	8358	
	2500	3200	HC1000-060/03200	8958	
MA4.1	2800	3500	HC1000-060/03500	9858	
	3150	4000	HC1000-060/04000	10758	

## 5th Generation Double Side Operation

10kV

	Power	Capacity	Model	Weight (kg)	Dimensionn (W x D x H (mm))
ML1.1	220	275	HC1000-100/00275	2240	
	250	320	HC1000-100/00320	2260	
	280	350	HC1000-100/00350	2286	
	315	400	HC1000-100/00400	2316	
	355	450	HC1000-100/00450	2346	
	400	500	HC1000-100/00500	2383	
	450	560	HC1000-100/00560	2433	
	500	630	HC1000-100/00630	2483	
	560	700	HC1000-100/00700	2593	
	630	800	HC1000-100/00800	2719	
	710	900	HC1000-100/00900	2875	
	800	1000	HC1000-100/01000	3062	
ML2.1	900	1150	HC1000-100/01150	3192	
	1000	1250	HC1000-100/01250	3258	
	1120	1400	HC1000-100/01400	3409	
	1250	1600	HC1000-100/01600	4390	
	1400	1800	HC1000-100/01800	4648	
	1600	2000	HC1000-100/02000	4948	
	1800	2250	HC1000-100/02250	5270	
ML3.1	2000	2500	HC1000-100/02500	5604	
	2250	2800	HC1000-100/02800	5916	
	2500	3150	HC1000-100/03150	7678	
	2800	3500	HC1000-100/03500	8188	
ML4.1	3150	4000	HC1000-100/04000	8958	
	3550	4500	HC1000-100/04500	9308	
	4000	5000	HC1000-100/05000	11358	
	4500	5650	HC1000-100/05650	11958	
ML4.1	5000	6300	HC1000-100/06300	12858	
	5600	7000	HC1000-100/07000	13758	

# Air-Cooled VFD Solution

## 5th Generation Front Side Operation

10kV

	Power	Capacity	Model	Weight (kg)	Dimensionn (W x D x H (mm))
ML1.1S	220	275	HC1000-100/00275	3263	
	250	320	HC1000-100/00320	3313	
	280	350	HC1000-100/00350	3363	
	315	400	HC1000-100/00400	3413	
	355	450	HC1000-100/00450	3463	
	400	500	HC1000-100/00500	3513	
	450	560	HC1000-100/00560	3563	
	500	630	HC1000-100/00630	3663	
	560	700	HC1000-100/00700	3713	
	630	800	HC1000-100/00800	3813	
	710	900	HC1000-100/00900	3913	
	800	1000	HC1000-100/01000	4013	
	900	1150	HC1000-100/01150	4163	
1000	1250	HC1000-100/01250	4313		
1120	1400	HC1000-100/01400	4513		
ML2.1S	1250	1600	HC1000-100/01600	4923	
	1400	1800	HC1000-100/01800	5033	
	1600	2000	HC1000-100/02000	5352	
	1800	2250	HC1000-100/02250	5662	
	2000	2500	HC1000-100/02500	5986	
	2250	2800	HC1000-100/02800	6291	
	2500	3150	HC1000-100/03150	7513	
ML3.1S	2800	3500	HC1000-100/03500	7913	
	3150	4000	HC1000-100/04000	8413	
	3550	4500	HC1000-100/04500	8913	

## 5th Generation Front Side Operation

11kV

	Power	Capacity	Model	Weight (kg)	Dimensionn (W x D x H (mm))
MB1.1S	540	670	HC1000-110/00670	3639	
	690	860	HC1000-110/00860-	3839	
	830	1030	HC1000-110/01030	4089	
	950	1190	HC1000-110/01190	4239	
	1100	1380	HC1000-110/01380	4539	
MB2.1S	1240	1550	HC1000-110/01550	4689	
	1390	1740	HC1000-110/01740	5024	
	1640	2040	HC1000-110/02040	5274	
	1770	2220	HC1000-110/02220	5445	
	2060	2580	HC1000-110/02580	5806	
MB3.1S	2340	2920	HC1000-110/02920	6198	
	2750	3430	HC1000-110/03430	7866	
	3080	3850	HC1000-110/03850	8266	
	3510	4390	HC1000-110/04390	8916	
	3700	4650	HC1000-110/04650	9166	

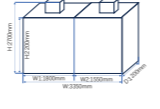
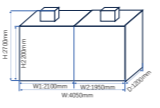
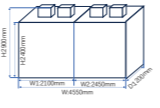
6kV

	Power	Capacity	Model	Weight (kg)	Dimensionn (W x D x H (mm))
MA1.1S	200	250	HC1000-060/00250	2567	
	250	315	HC1000-060/00315	2667	
	315	400	HC1000-060/00400	2767	
	400	500	HC1000-060/00500	2867	
	450	560	HC1000-060/00560	2917	
	500	630	HC1000-060/00630	3067	
	560	700	HC1000-060/00700	3117	
MA2.1S	630	800	HC1000-060/00800	3217	
	710	900	HC1000-060/00900	3611	
	800	1000	HC1000-060/01000	3713	
	900	1150	HC1000-060/01150	3917	
	1000	1250	HC1000-060/01250	4019	
	1120	1400	HC1000-060/01400	4219	
	1250	1600	HC1000-060/01600	4424	
MA3.1S	1400	1800	HC1000-060/01800	4880	
	1600	2000	HC1000-060/02000	5080	
	1800	2250	HC1000-060/02250	5280	
	2000	2500	HC1000-060/02500	5580	

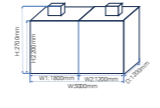
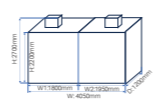
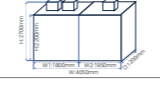

# Air-Cooled VFD Solution

## 5th Generation Front Side Operation

6.6kV

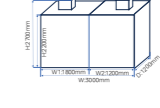
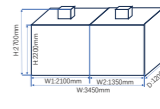
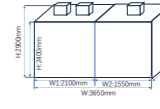
	Power	Capacity	Model	Weight (kg)	Dimensionn (W x D x H (mm))
MC1.1S	330	410	HC1000-066/00410	2792	
	420	520	HC1000-066/00520	2892	
	500	620	HC1000-066/00620	3042	
	570	710	HC1000-066/00710	3142	
	660	830	HC1000-066/00830	3192	
	750	930	HC1000-066/00930	3292	
MC2.1S	840	1050	HC1000-066/01050	3508	
	980	1230	HC1000-066/01230	3861	
	1070	1330	HC1000-066/01330	3915	
	1240	1550	HC1000-066/01550	4018	
	1400	1750	HC1000-066/01750	4224	
	1500	1870	HC1000-066/01870	4425	
MC3.1S	1650	2060	HC1000-066/02060	5280	
	1850	2310	HC1000-066/02310	5580	
	2110	2630	HC1000-066/02630	5940	
	2250	2800	HC1000-066/02800	5991	

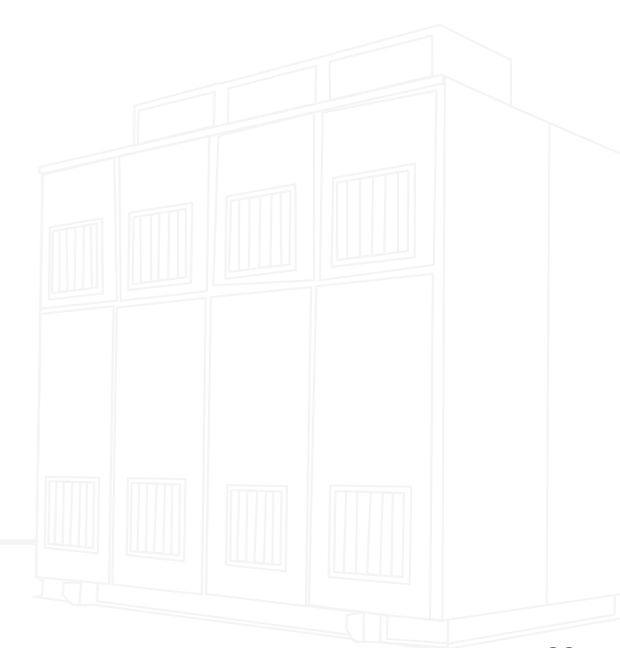
4.16kV

	Power	Capacity	Model	Weight (kg)	Dimensionn (W x D x H (mm))
MJ1.1S	210	260	HC1000-416/00260	2331	
	260	330	HC1000-416/00330	2411	
	320	390	HC1000-416/00390	2511	
	360	450	HC1000-416/00450	2581	
	420	520	HC1000-416/00520	2611	
	470	590	HC1000-416/00590	2661	
MJ2.1S	530	660	HC1000-416/00660	2952	
	620	780	HC1000-416/00780	3084	
	670	840	HC1000-416/00840	3187	
	780	980	HC1000-416/00980	3228	
	890	1110	HC1000-416/01110	3392	
MJ3.1S	940	1180	HC1000-416/01180	3493	
	1040	1300	HC1000-416/01300	4080	
	1170	1460	HC1000-416/01460	4280	
	1330	1660	HC1000-416/01660	4430	
	1490	1860	HC1000-416/01860	4630	

## 5th Generation Front Side Operation

3.3kV

	Power	Capacity	Model	Weight (kg)	Dimensionn (W x D x H (mm))
MD1.1S	170	210	HC1000-033/00210	2236	
	210	260	HC1000-033/00260	2286	
	250	310	HC1000-033/00310	2386	
	290	360	HC1000-033/00360	2456	
	330	420	HC1000-033/00420	2486	
	380	470	HC1000-033/00470	2556	
MD2.1S	420	530	HC1000-033/00530	3114	
	490	620	HC1000-033/00620	3186	
	540	670	HC1000-033/00670	3228	
	620	780	HC1000-033/00780	3439	
	700	880	HC1000-033/00880	3472	
	750	940	HC1000-033/00940	3543	
MD3.1S	830	1030	HC1000-033/01030	3580	
	930	1160	HC1000-033/01160	3730	
	1060	1320	HC1000-033/01320	3930	
	1180	1480	HC1000-033/01480	3980	



# Water-cooled VFD Solution



## More compact in size

- unit size is 30% smaller



## Less environmental constraints

Operable in dusty and particular environments without being affected by room temperature



## More cost-effective

- lower maintenance costs
- reduced risk of failure
- significant energy savings



Cooling fan  
Transformer cabinet  
Air-to-water heat exchanger  
Cooling water inlet  
Cooling water outlet

### Fully enclosed air-to-water heat exchange dry-type transformer

- IP Rate: IP42
- Maintenance-free
- Fully enclosed air-to-water heat exchange unaffected by environmental temperature or onsite dust



Water-cooled radiator  
Quick connect for cooling water  
Flexible rubber hose for unit connection  
Stainless steel cooling water pipes

### Power unit cabinet

- Parallel connection for unit cooling water ensures even flow distribution.
- Independent cooling air duct for unit electrolytic capacitors, ensuring low operating temperatures and extended lifespan.
- Power unit cooling water connectors use a double stop quick plug-in connection, allowing unit replacement without drainage and preventing leaks.

### Power unit

- Water-cooled radiator uses vacuum welding technology capable of operating at water pressures up to 12 bar.
- Utilize a stacked busbar design for minimal parasitic inductance and a compact unit structure.



### Control room

Feature centralized control for convenience and speed, including:

- Temperature control of transformers
- Protection and control of the variable frequency drive in the water-cooled cabinet



Buffer tank  
Cold water circulation pump  
Plate heat exchanger  
Deionization resin

### Recirculating pure water-cooled unit

- All components in the pipeline loop are made of stainless steel.
- Independent deionized water treatment bypass device.
- Secondary cooling uses a water-to-water method, offering high heat exchange efficiency.
- Independent PLC monitoring system for remote control capabilities.

# Water-cooled VFD Solution

## 4th Generation Double Side Operation

6kV

	Power	Capacity	Model	Weight	Dimension
LAW5.1	3600	4500	HIVERT-Y/T 06/425W	15000	9300×1600×2400/2800
	4000	5000	HIVERT-Y/T 06/500W	15500	
	5000	6300	HIVERT-Y/T 06/600W	17050	
LAW6.1	5600	7000	HIVERT-Y/T 06/660W	17400	9500×1600×2400
	6300	7900	HIVERT-Y/T 06/750W	18270	
	6600	8250	HIVERT-Y/T 06/800W	18600	
LAW7.2	8000	10000	HIVERT-Y/T 06/1000W	30250	Pending
LAW8.1	10000	12500	HIVERT-Y/T 06/1250W	Pending	Pending
LAW9.1	12500	16000	HIVERT-Y/T 06/1540W	Pending	Pending
LAW10.1	14500	18000	HIVERT-Y/T 06/1800W	Pending	Pending

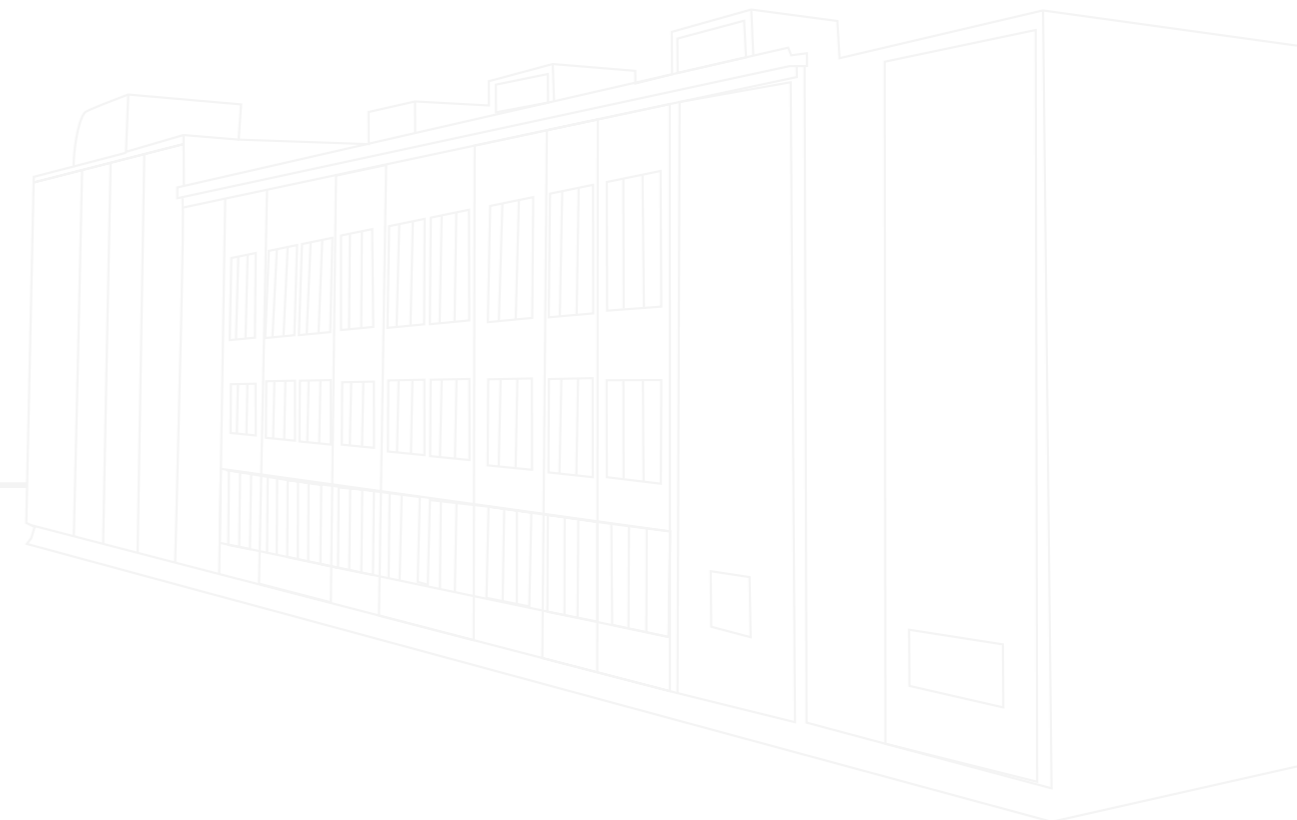
6kV

	Power	Capacity	Model	Weight	Dimension
LCW5.1	3600	4500	HIVERT-Y/T 06/425W	15240	9700×1600×2400/2800
	4000	5000	HIVERT-Y/T 06/500W	15790	
	5000	6300	HIVERT-Y/T 06/600W	17290	
LCW6.1	5600	7000	HIVERT-Y/T 06/660W	17800	10000×1600×2400
	6300	7900	HIVERT-Y/T 06/750W	18670	
	6600	8250	HIVERT-Y/T 06/800W	19000	
LCW7.2	8000	10000	HIVERT-Y/T 06/1000W	27000	16500x1600x2400
LCW8.1	10000	12500	HIVERT-Y/T 06/1250W	29000	16500x1600x2400
LCW9.2	12500	16000	HIVERT-Y/T 06/1540W	35100	16500x1800x2800/2400
LCW10.1	14500	18000	HIVERT-Y/T 06/1800W	37500	16500x1800x2800/2400

10kV

	Power	Capacity	Model	Weight	Dimension
LBW5.1	6300	8900	HIVERT-Y/T 10/462W	20010	11350×1600×2400/2800
	7100	9000	HIVERT-Y/T 10/500W	21010	
	8000	10000	HIVERT-Y/T 10/600W	23100	
LBW6.1	10000	12500	HIVERT-Y/T 10/800W	Pending	Pending
LBW7.1	12500	16000	HIVERT-Y/T 10/1000W	Pending	Pending
LBW8.1	16000	20000	HIVERT-Y/T 10/1250W	Pending	Pending
LBW9.1	20000	25000	HIVERT-Y/T 10/1540W	Pending	Pending
LBW10.1	24000	30000	HIVERT-Y/T 10/1800W	Pending	Pending

	Power	Capacity	Model	Weight	Dimension
LLW7.2	12500	16000	HIVERT-Y/T 10/1000W	33500	18400x1600*2400
LLW8.1	16000	20000	HIVERT-Y/T 10/1250W	38000	18400x1600*2400
LLW9.2	20000	25000	HIVERT-Y/T 10/1540W	44000	18400x1800*2800/2400
LLW10.1	24000	30000	HIVERT-Y/T 10/1800W	48500	18400x1800*2800/2400





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