Industrial Motors

Commercial & Appliance Motors

Automation & Systems

Energy

Transmission & Distribution

Coatings

MVW01 – Medium Voltage Variable Speed Drive

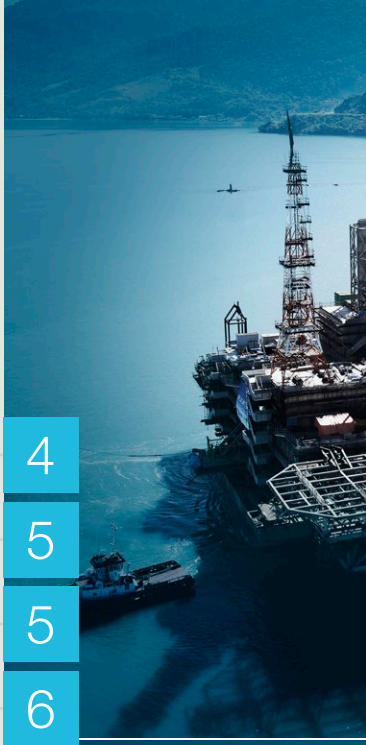
Efficient, reliable and safe motor control for a wide range of industrial applications



Driving efficiency and sustainability

SUMMARY

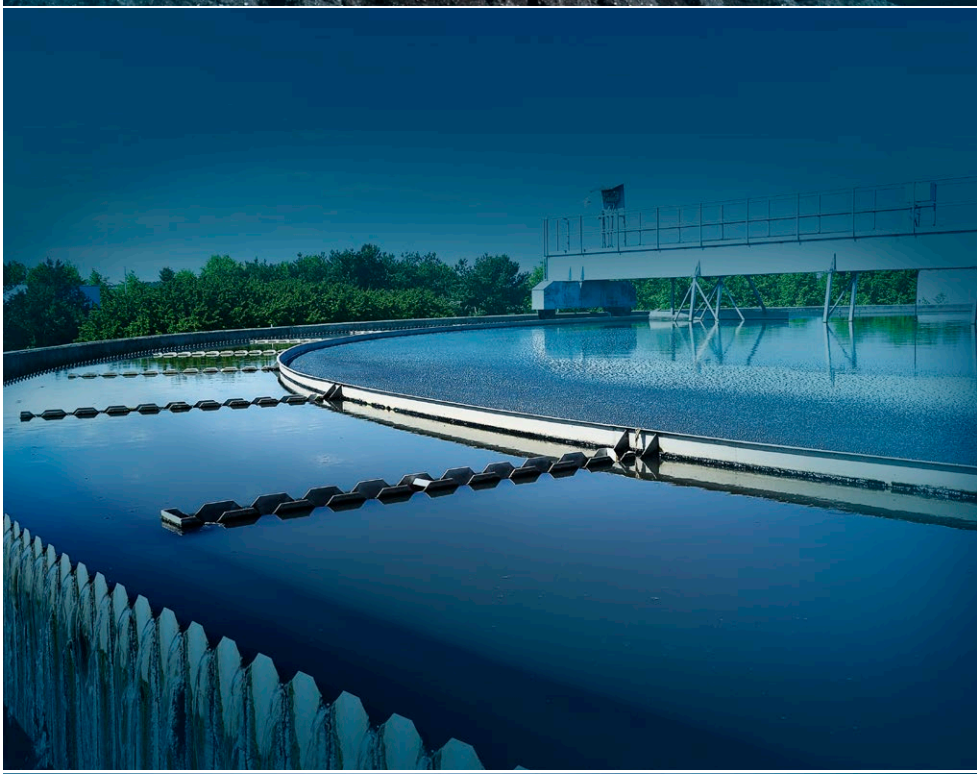
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Efficient, reliable and safe motor control for a wide range of industrial applications

WEG introduces the new **MVW01 G4** medium voltage variable speed drive, combining efficiency, safety, and connectivity for industrial applications requiring speed variation, such as compressors, pumps, fans, conveyors, and mills.

The **MVW01 G4** features an intuitive graphical HMI, user-friendly programming similar to the low-voltage line, enhanced processing capacity, WPS software for advanced functions, and high connectivity with modern protocols, including Modbus-RTU, Modbus-TCP, EtherNet/IP, and MQTT (IoT Ready).

Ideal for both new installations and retrofits, it delivers energy savings, reduced maintenance costs, and simplified asset management, while being fully compatible with the WEG Motion Fleet Management platform.

The **MVW01 G4** uses medium-voltage transistor technology, operating as a voltage source inverter (VSI) with NPC topology. It offers flexible air- or water-cooling systems to better suit the application. Safety is ensured for both operators and critical environments, with optional certified arc-resistant versions available.



Energy efficiency



Process control



Reduced operating costs



Sustainability



High efficiency | Connectivity | High reliability | High safety | Robustness

Main characteristics

- Voltage Source Inverter (VSI) with NPC topology
- Latest generation power semiconductors, including 6.5 kV IGBTs
- Optimized number of power and control components, resulting in the most efficient design on the market
- High power factor across the entire speed range
- Power[1]: 500 to 55,520 HP (400 kW to 41.4 MW)
- Voltage: 2.3 kV to 6.9 kV
- Output frequency[1]: up to 120 Hz
- Air- or water-cooled versions
- Optional arc-resistant version

Note: 1) Higher power and frequency under request.

Certifications

CE | cULus | UKCA

Applications



Downhole pumps, pipeline pumps, gas compressors, water injection pumps, blowers

Petrochemicals



Fans and pumps, grinders, chippers, yankee blowers, winders, refiners

Pulp & Paper



Slurry pumps, conveyors, crushers and mills

Mining



Kiln and baghouse fans, cooler exhaust, forced draft and induced draft fans, crushers and mills

Cement



Fresh water pumps, sewage and effluent pumps

Water/ Waste



Pumps, compressors, extruders

Chemicals



Banbury mixers

Plastic & Rubber



Pumps, compressors

Infrastructure



Forced draft and induced draft fans, boiler feed pumps, recirculating pumps

Power Generation



Descaling pumps, cooling pumps and fans

Metals



Propulsion, thrusters, off-load pumps

Marine



Sugarcane mills, fans, blowers, centrifuges

Sugar & Ethanol

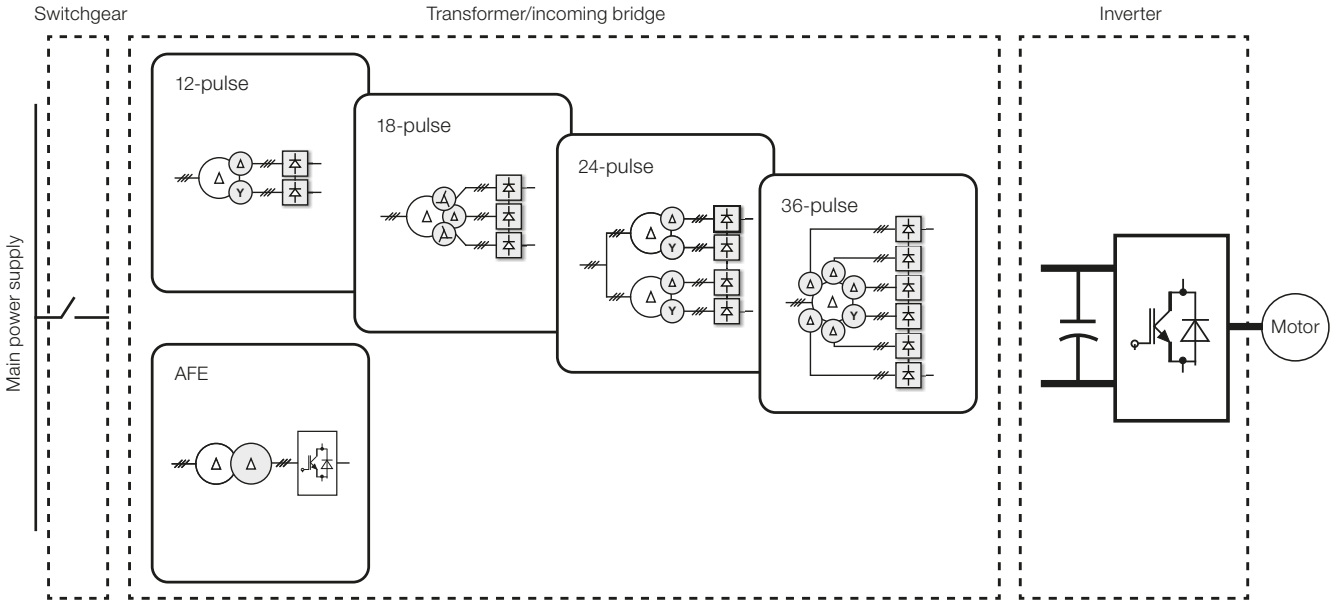
MV components





Topology with reduced quantity of power semiconductors that increases the efficiency and reliability.

- Voltage Source Inverter (VSI) technology with Neutral Point Clamped (NPC) multilevel topology, featuring optimized number of components, with 6.5 kV HV IGBTs
- Phase shifting transformer: 12, 18, 24, 36
- Option to active front end (4 Q)
- Optimum Pulse Pattern (OPP™) PWM control to minimize current harmonics in the motor circuit
- Long life plastic film capacitors for DC link voltage source (manufactured by WEG)
- DC link voltage balance using transistor (IGBT) switching states
- Floating DC link circuit to minimize voltage stress on motor insulation
- Arc sensor for each power module
- Fuseless *design* for improved reliability
- Draw-out style power modules with clamp power connections that eliminates connecting or disconnecting of power cables for easy and fast servicing



Benefits

Ten good reasons why you should consider WEG for your complete MV VSD system solution

1. WEG team delivers an aptly engineered and manufactured VSD system that provides the best solution, while its customers are free to pursue bigger business opportunities.

2. VSDs are built with standard safety features such as mechanical interlocking system, line of sight protection for louvered filter covers and arc flash detection via light sensors.

3. Helps reduce operational costs by optimizing processes, with high-quality input power featuring low harmonic distortion levels and an output waveform to the motor that is very close to sinusoidal. With the option of output filters, it enables the use of existing motors with older insulation systems, maintaining motor longevity.

4. Phase shifting transformer can be installed outside electrical room to save significantly on HVAC equipment and maintenance.

5. License free PC application available for download, enabling paperless parameter and event logging, along with a 10” touchscreen that simplifies parameterization, operation, and reading of the VSD variables.

6. Complete system testing including MV Switchgear, Phase-Shifting Transformer, MV VSD, and MV Motor under full-load conditions using a dynamometer, at the largest motors & drives facility in South America.

7. Factory specialists can provide customers total assistance with quick response time when necessary and actively provide support via authorized service centers.

8. Quality Control: ISO 9001 and ISO 14000 certified factory with strict QA procedures mandate functional tests for all control boards and two hour load testing for each VSD shipped.

9. WEG R&D team dedicated exclusively for the MV VSD, helps in developing state of the art hardware and software functions.

10. High-tech solution ensuring maximum energy efficiency, reducing energy consumption and carbon emissions, integrating technological innovation with a commitment to environmental sustainability.

Benefits

Input switchgear

- System input protection
- Mechanically and electrically interlocked with VSD
- Metallic switchgear with circuit breaker or switch-disconnector + vacuum contactor + MV fuses
- Opens under VSD command in less than 100ms
- Existing switchgear can also be used with basic open/close/trip signals and feedback

Phase-shifting transformer

- Provides complete system isolation for common-mode voltage stress mitigation on the motor
- Natural harmonic reduction on the power supply
- Fault current limitation
- Capability for different input and motor voltages
- Flexibility of installation with dry type or oil type
- Installation can be indoor or outdoor
- Isolates the system from supply side grounding and in case of ground fault, VSD generates alarm while keeping motor operation under control or can be programmed for safe trip

MVW01 MV variable speed drive

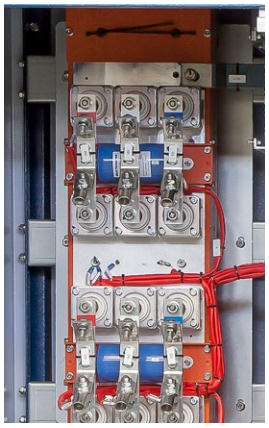
- Latest generation 6.5 kV power transistors (IGBTs)
- Rectifier with multipulse topology (12P, 18P, 24P or 36P)
- Long life plastic film capacitors for DC link voltage
- PWM modulation with Optimum Pulse Pattern (OPP™) PWM control to minimize voltage harmonics in the motor circuit
- Draw-out style power modules
- Optimized for inverter duty motors
- Customizable with optional filters for standard motors, plus additional optional features and customization possibilities
- Air or water cooling options
- Arc-resistant panel option

WEG MV motor

- Control of synchronous, induction or permanent magnet motors
- Standard motor voltages: 2.3 kV, 3.3 kV, 4.16 kV, 5.5 kV, 6.6 kV, 6.9 kV
- System optimization with inverter duty motors
- Possibility of working with non inverter duty motors or old motors (retrofitting)



Features



Input: 12, 18, 24, 36 rectifier bridge or AFE (Active Front End) option

- High power factor (>0.95)
- High power quality
- IEEE 519 compliance



Air-cooling

- Redundant fans
- Low heat dissipation
- Low noise level
- No maintenance hassle of water cooled systems

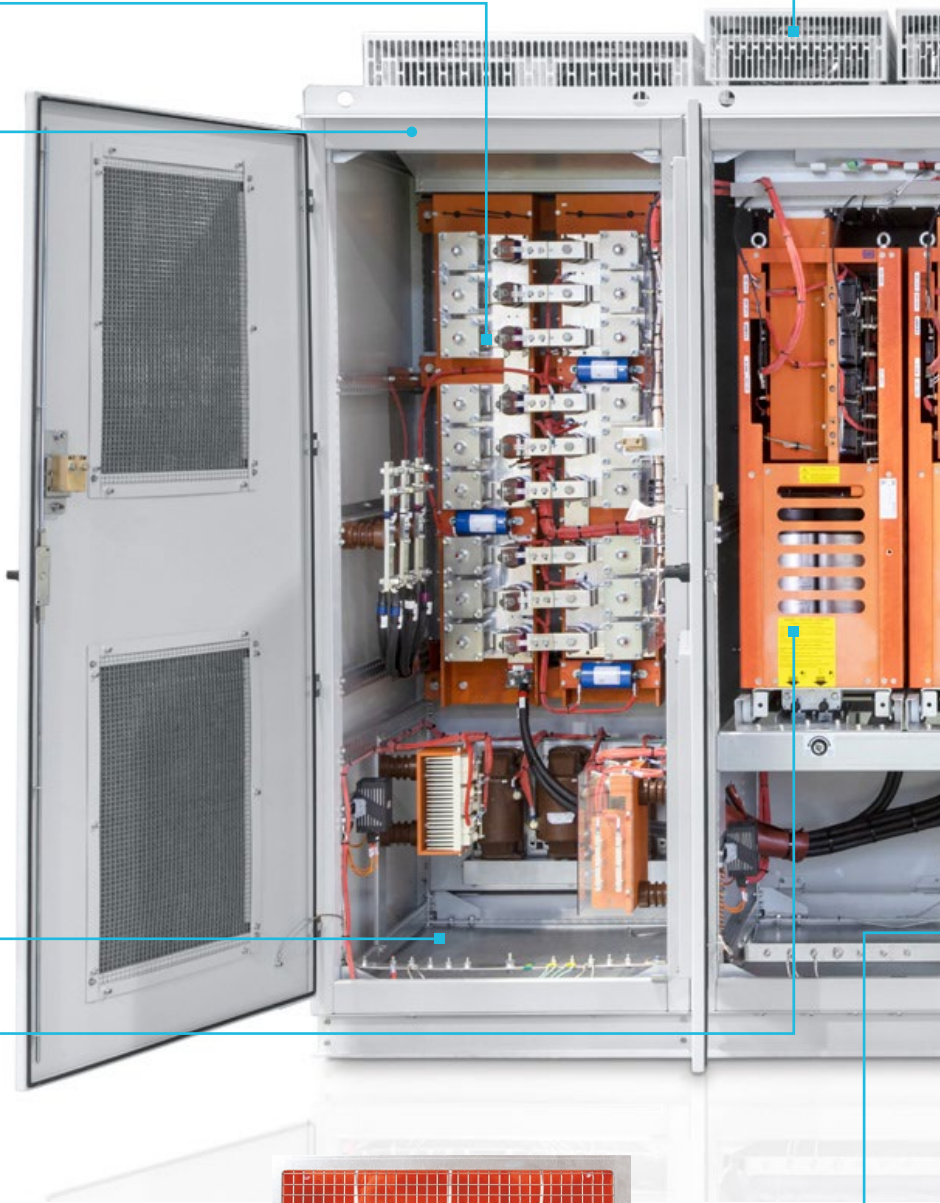
Cable connections

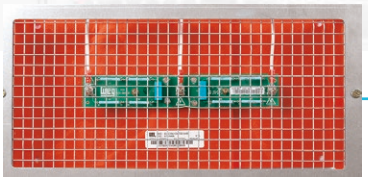
- Bottom cables (power and control) entry or top cables (power or control) entry

Power arms

- Latest generation of power semiconductors and capacitors
- Simplified interface between power and control via fiber optics
- Draw-out style power modules with stab power connections that eliminates connecting or disconnecting of power cables allowing easy and fast servicing





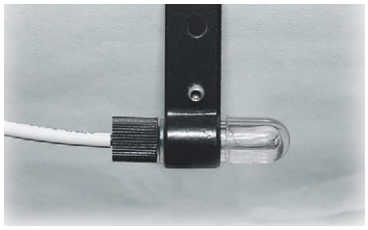


DC link voltage monitoring

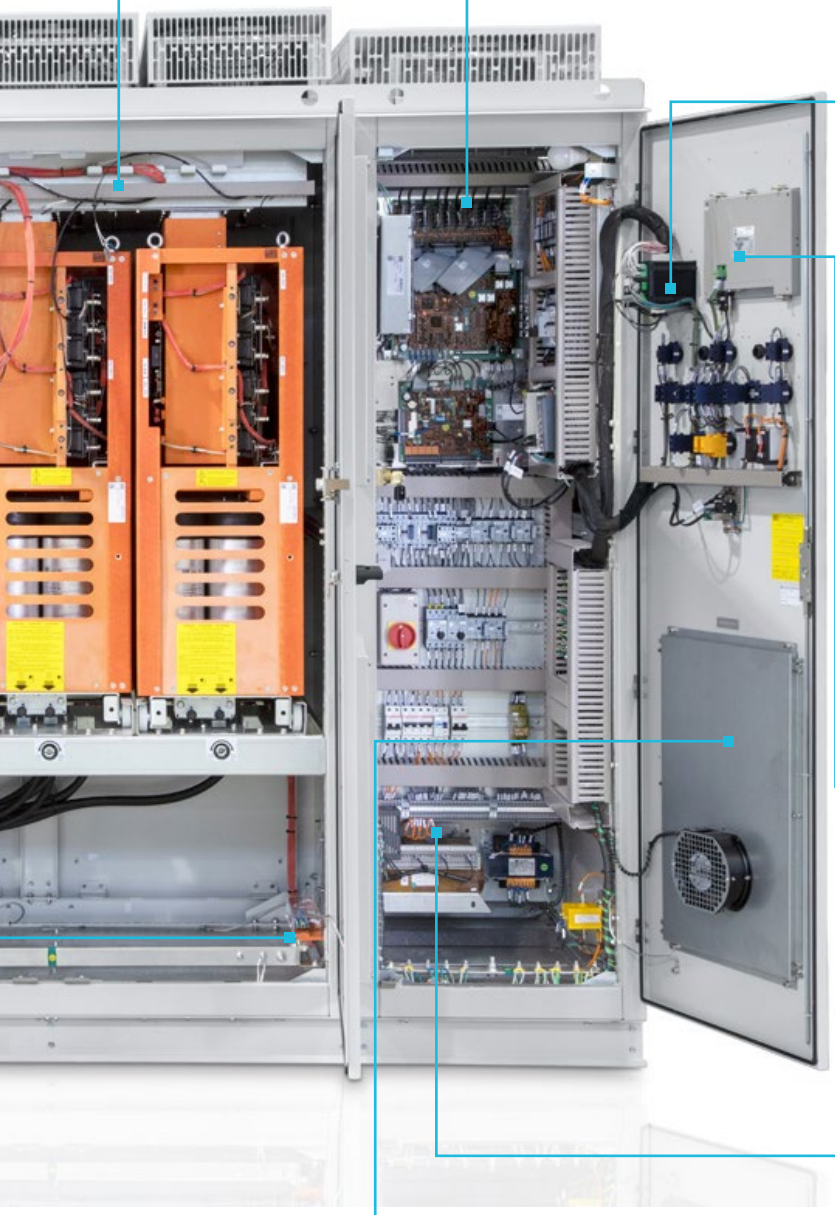
- Visual indication of presence of voltage on the DC link for additional personnel safety

Monitoring and protections

- Arc sensors
- Real time temperature monitoring
- Real-time airflow monitoring









Thermal protection

- Pt-100 individual monitoring for motor thermal protection (bearings and windings)



Fiber optic interface

- Noise immunity
- Isolation between the control and power section
- Gate drivers, temperature monitoring, feedbacks, etc.



HMI touch screen 10”

- Graphic display
- Full operation, navigation, programming and monitoring
- Complete parameters instructions and fault descriptions
- Numerical and/or bars display

Mechanical lock safety

- Safety operation with mechanical lock for the power sections
- Electro-mechanical interlocking with the main input breaker to prevent access to MV section when the main breaker is closed



Air inlet filters

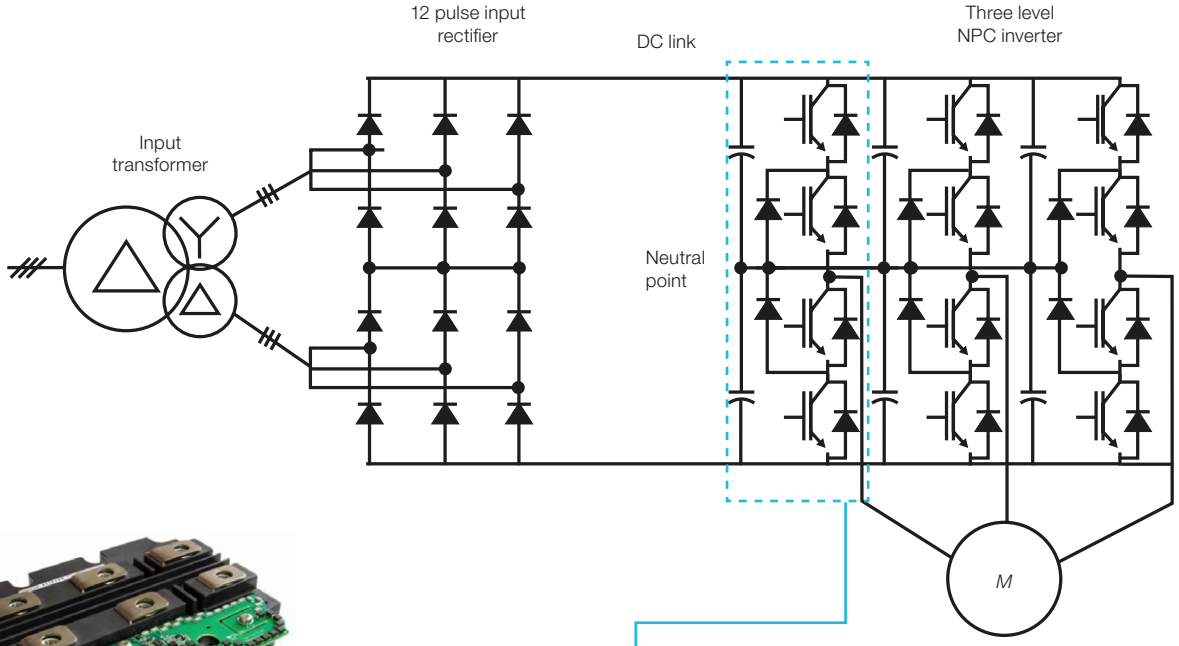
- Washable and replaceable from the front without disturbing the normal operation

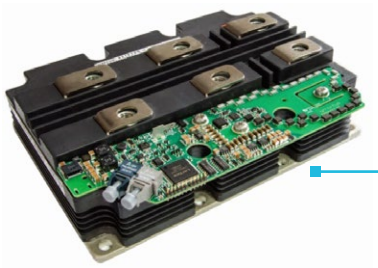


Features

Topology

The MVW01 G4 is a VSI (Voltage Source Inverter) medium voltage frequency converter NPC topology in 3/5 level (2.3 kV to 4.16 kV) or HNPC 5/9 levels (5.5 to 6.9 kV) that offers high reliability and robustness. Designed with state-of-the-art technology to control induction or synchronous motors, it has a minimum number of power semiconductors, which allows us to have a highly efficient and reliable product.





Latest generation of
6.5 kV HV IGBTs

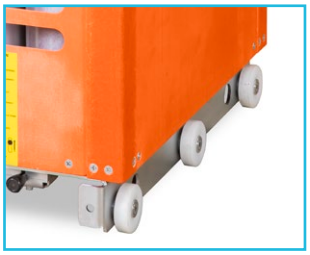
Inverter power arm



Optimized sandwich
bus-bars to provide a
high insulation and small
partial discharge levels



Long life plastic film capacitors for DC link
voltage source manufactured by WEG
(same capacitors used by the aero-space
industry in satellites)



Draw-out style power
modules allowing easy and
fast servicing

Features

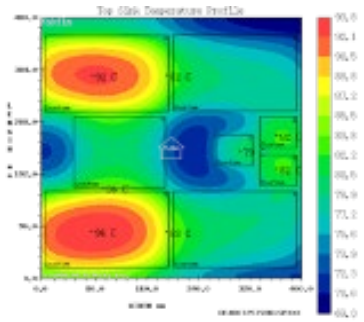
Technology

The power semiconductors devices are the most important components of the Medium Voltage Variable Speed Drive and in conjunction with the electronic control circuits, it is possible to determine the efficiency and reliability of the product. Taking these characteristics into account, WEG use the latest generation of HV IGBTs available on the market in MVW01 G4, which allows the application of a low quantity of semiconductors at the power stage and allows the use of a robust and low-power electronic control circuit.

High-voltage IGBT characteristics

- Natural protection against short circuits and overcurrent
- Simplified GATE-drive circuit
- Simpler for parallel configuration
- Isolated base module (easy and fast maintenance)
- Fewer components, increasing reliability





WEG maintains an extensive Research and Development (R&D) structure with advanced laboratories supporting the development of innovative and highly reliable solutions. This infrastructure enables continuous product mprovement and rigorous testing, ensuring maximum efficiency of the inverter and electric motor system.



Características gerais

RT

Ride through

The MVW01 VSD is designed and manufactured to take intelligent remedial action to prevent transient supply faults or overload conditions from tripping the VSD.

FS

Flying start

The MVW01 VSD is capable of restarting and taking control of a motor attached to a spinning load in the forward or reverse direction.

AR

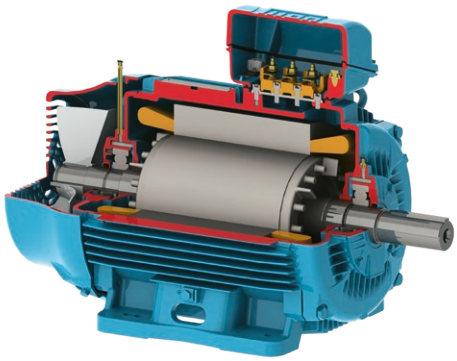
Auto-restart capability

The MVW01 VSD is capable of automatically restarting in the event of a momentary loss of power, or a clearing of a drive trip.

GF

Ground fault protection

In the event of a ground fault, the MVW01 is capable of annunciating the ground fault condition, safely operating and, by user selection, either trip or continue operation.



Optimal Pulse Pattern (OPP™)

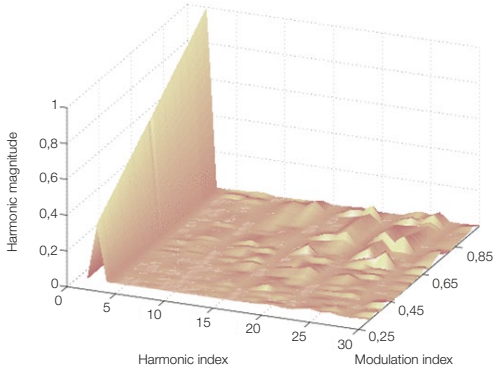
Optimum synchronous PWM control minimizes voltage harmonics in the motor circuit and provides the capability to adjust PWM frequency to an optimal use at every speed for every type of application.



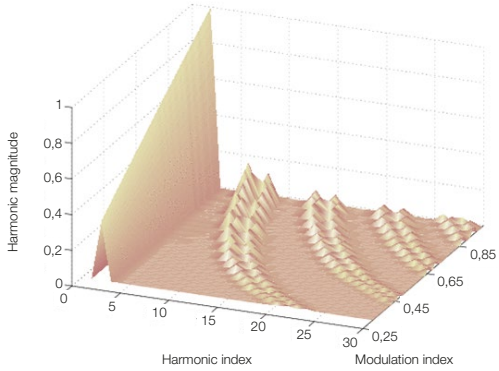
Main benefits of WEG OPP™

- Low commutation losses
- Low motor current THD
- Operation at very low frequency with full torque
- Low noise and vibration on the motor

Output harmonics with OPP™ modulation MVW 01



Output harmonics with standard SVM modulation



Note: additional interfaces and features are available in the General technical features chapter.

System customized solutions



WEG customized solutions are based on standard VSD *designs* and experience gained through the supplying of a demanding a variety of applications.

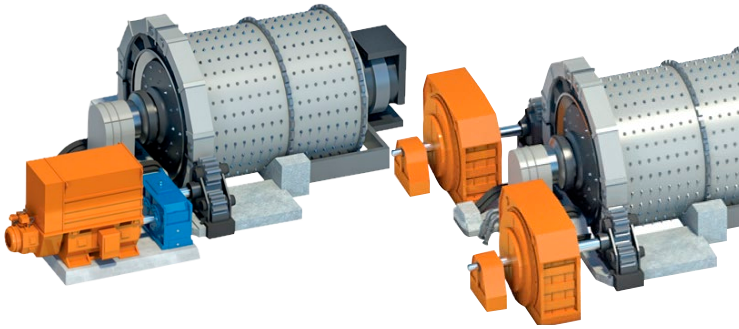


- MVW01 AFE/REGENERATIVE/4Q Version
- MVW01 with 2,300 V output voltage
- MVW01 with output earth switch (ground switch)
- MVW01 with output filters (reactors, dv/dt and sine)
- MVW01 with internal UPS for control power backup
- MVW01 with special painting
- MVW01 with air duct for external venting of exhaust airflow
- Input switchgear
- Phase-shifting transformer
- Columns for rheostatic braking
- Additional column for cable connection (input and output)
- Safe stop functions (STO/SS1)
- MVW01 with redundant ventilation
- MVW01 with field excitation for MV Synchronous Motor
- MVW01 with external bypass system to be connected the MV MOTOR direct to power grid
- MVW01 with special application software: *Frozen charge* function, *Load sharing* function, *Synchronous multimotor transfer* function to power grid line, *Gearless mill* function, etc.

Gearless mill drive function

Load sharing function

Frozen charge function



WEG Programming Suite (WPS)



WPS

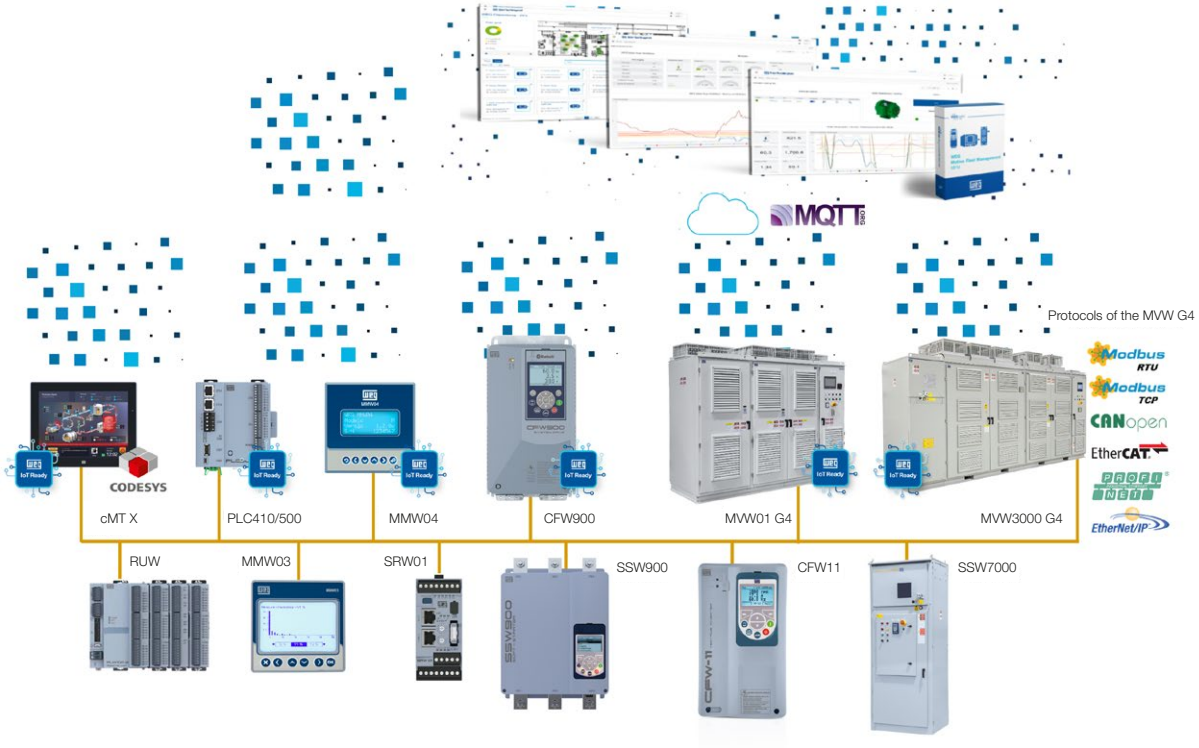
License free software for control and diagnostic monitoring of the MVW01 G4.

- Quick diagnosis and copying of parameter configuration to PC
- SoftPLC for specific logics and applications
- Transfer, monitoring of programming, quantities and online diagnostics
- Ladder language in compliance with IEC 61131-3 standard
- Simplified access via Ethernet or RS485 serial ports
- Online and offline programming
- Graphical monitoring of VSD parameters
- Available at *www.weg.net*



Communication

The MVW01 G4 supports multiple communication protocols, including native in the standard product: Modbus-RTU, Modbus-TCP, EtherNet/IP, or MQTT, and various options through optional expansion modules: CANopen, DeviceNet, EtherCAT, Profibus-DP, PROFINET IRT, enabling complete process monitoring, control, and full system integration.



Intuitive HMI

Touchscreen HMI

The 10-inch touchscreen HMI offers operators great flexibility, enabling full real-time access to the MVW01 G4 operational data. This allows users to interact with and monitor variables, program the inverter, check operational status, and create graphical representations of variables.

The highly intuitive HMI provides operators with easy interaction for programming the VSD, accessing and reading parameters, configuring display settings (font size, languages, colors, etc.), creating graphs, and viewing text messages such as alarms, trips, error logs, and help information through pop-up windows.

It supports multiple languages and various levels of protection against unauthorized access.

- High flexibility for the operator
- Intuitive operation
- Multiple language options
- Graphical and plotting functions
- Multiple levels of protection against unauthorized access



WEG MOTION FLEET MANAGEMENT

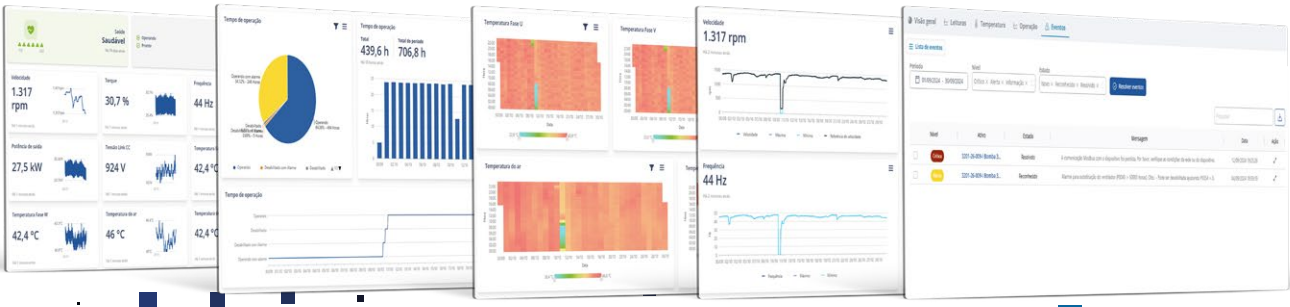
Technology for online monitoring and intelligent asset management

Developed to bring more practicality and agility to operations, maintenance, and plant management, WEG Motion Fleet Management is the ideal solution for monitoring and enhancing the availability of equipment and asset fleets.
Based on cloud computing technology, monitoring of multiple assets can be tracked at any time and from anywhere in the world, while observing the most important aspects of cybersecurity.

With this technological solution, it is possible to monitor a wide range of assets and equipment online, thereby reducing the need for inspection routes and measurements for maintenance evaluations and related reliability procedures. For example, frequency inverters, low-and medium-voltage soft-starters, smart relays, low-and medium-voltage motors and generators, as well as gearboxes, gearmotors, pumps, compressors, fans, exhaust fans, conveyor belts, mills, planetary gearboxes, bearings in general, and other assets in any type of industry or installation. Through periodic data collection, valuable insights are generated to increase the performance and availability of the equipment fleet on the shop floor. Thus, it is possible to establish and schedule predictive maintenance plans, significantly reducing the number of unplanned production stoppages.

Key features, advantages and benefits of the WEG MFM solution

- Monitoring of various types of equipment, assets, and plants in a single environment with both technical and managerial views.
- Ecosystem in constant development, both in hardware and software.
- Integrated solution with WEGscan, a dedicated and robust hardware for data acquisition from applications.
- Data processing at the edge and in the cloud, enabling advanced diagnostics.
- Ready-to-use solution, suitable for a wide variety of equipment and assets—just register the WEGscan in the application and start using it.
- Enables maintenance management based on the operational condition of assets.
- Flexible solution available for service providers.
- Enables reduction of the plant Total Cost of Ownership (TCO).
- Multi-language solution available globally.
- Module for vibration signal analysis.
- Specialist modules with Analytics and Artificial Intelligence.
- Exchange modules for integration with third-party platforms via APIs.



To learn more, see the catalog or click here

To learn more, watch the video or click here

Output filter

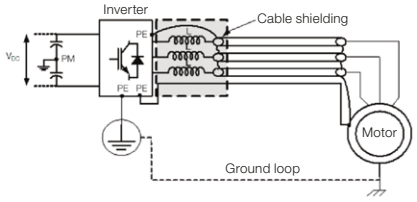
Depending on the installation conditions, it may be necessary to add an output filter. For drives with cables between 100 and 200 m, it is recommended to use type 1 output filter on the motor phases.
For drives with long cables between 200 and 500 m, it is recommended to use type 2 filter.
For drives with long cables above 500 m or for motors not able to operate with PWM modulation (retrofitting applications), it is recommended to use type 3 filter.
The available filter models follow the voltage and current values informed in the table below.

Recommended filter type

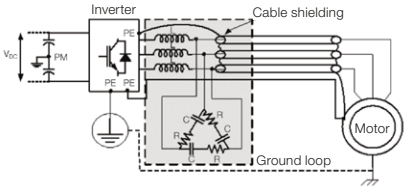
Rated motor voltage	Power arms configuration	Output cable length (d)			
		d < 100 m	100 m < d ≤ 200 m	200 m < d ≤ 500 m	d > 500 m
2.3 to 4.16 kV	3C/3/3H	None	Type 1	Type 2	Type 3
	3(EV)[1]/6/6H/9/12	None	None	Type 2	Type 3
6 to 6.9 kV	6C/6/12	None	Type 1	Type 2	Type 3
	> 12	None	None	Type 2	Type 3
Motor not prepared for VSD / retrofitted		Type 3 (consult WEG)			

Note: 1) 3(EV) refer to 3 power arms cooling type evaporative.

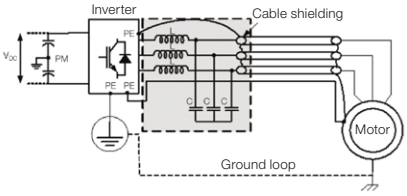
Ilustration of filter types



Filter type 1



Filter type 2



Filter type 3

Coding[1)3)]

1	2	3	4	5	6	7
MVW01	G4	A0260	V041	T6A	041	D24

8	9	10	11	12	13	14
AC	I	42	ST	SI	F0	CE

1 - Product line

2 - Generation

3 - Rated output current[2)]

AC Version (AIR)							
54 A	A0054	212 A	A0212	627 A	A0627	1,852 A	A1852
58 A	A0058	216 A	A0216	650 A	A0650	1,900 A	A1900
67 A	A0067	237 A	A0237	690 A	A0690	2,137 A	A2137
73 A	A0073	241 A	A0241	720 A	A0720	2,185 A	A2185
78 A	A0078	251 A	A0251	740 A	A0740	2,280 A	A2280
86 A	A0086	260 A	A0260	750 A	A0750	2,470 A	A2470
91 A	A0091	276 A	A0276	760 A	A0760	2,622 A	A2622
92 A	A0092	283 A	A0283	779 A	A0779	2,736 A	A2736
96 A	A0096	294 A	A0294	855 A	A0855	2,850 A	A2850
108 A	A0108	295 A	A0295	874 A	A0874	3,040 A	A3040
109 A	A0109	322 A	A0322	912 A	A0912	3,192 A	A3192
113 A	A0113	330 A	A0330	950 A	A0950	3,278 A	A3278
114 A	A0114	332 A	A0332	1,064 A	A1064	3,420 A	A3420
128 A	A0128	348 A	A0348	1,093 A	A1093	3,705 A	A3705
131 A	A0131	376 A	A0376	1,140 A	A1140	3,800 A	A3800
139 A	A0139	390 A	A0390	1,235 A	A1235	3,933 A	A3933
144 A	A0144	400 A	A0400	1,311 A	A1311	4,104 A	A4104
151 A	A0151	410 A	A0410	1,368 A	A1368	4,275 A	A4275
152 A	A0152	450 A	A0450	1,425 A	A1425	4,560 A	A4560
176 A	A0176	460 A	A0460	1,480 A	A1480	4,940 A	A4940
177 A	A0177	480 A	A0480	1,520 A	A1520	5,700 A	A5700
180 A	A0180	500 A	A0500	1,558 A	A1558	6,412 A	A6412
181 A	A0181	560 A	A0560	1,596 A	A1596	7,410 A	A7410
204 A	A0204	575 A	A0575	1,748 A	A1748	8,550 A	A8550
205 A	A0205	600 A	A0600	1,824 A	A1824		

WC Version (WATER)							
235 A	A0235	598 A	A0598	1,387 A	A1387	3,260 A	A3260
265 A	A0265	624 A	A0624	1,444 A	A1444	3,408 A	A3408
267 A	A0267	642 A	A0642	1,568 A	A1568	3,699 A	A3699
276 A	A0276	649 A	A0649	1,630 A	A1630	3,859 A	A3859
281 A	A0281	677 A	A0677	1,704 A	A1704	3,870 A	A3870
308 A	A0308	679 A	A0679	1,748 A	A1748	3,990 A	A3990
312 A	A0312	700 A	A0700	1,824 A	A1824	4,161 A	A4161
313 A	A0313	730 A	A0730	1,935 A	A1935	4,180 A	A4180
326 A	A0326	760 A	A0760	2,090 A	A2090	4,332 A	A4332
338 A	A0338	815 A	A0815	2,166 A	A2166	4,704 A	A4704
359 A	A0359	874 A	A0874	2,272 A	A2272	5,160 A	A5160
368 A	A0368	912 A	A0912	2,371 A	A2371	5,776 A	A5776
384 A	A0384	1,045 A	A1045	2,445 A	A2445	5,781 A	A5781
419 A	A0419	1,136 A	A1136	2,466 A	A2466	6,270 A	A6270
429 A	A0429	1,186 A	A1186	2,573 A	A2573	6,498 A	A6498
432 A	A0432	1,223 A	A1223	2,580 A	A2580	7,740 A	A7740
452 A	A0452	1,233 A	A1233	2,660 A	A2660	8,664 A	A8664
460 A	A0460	1,286 A	A1286	2,774 A	A2774		
480 A	A0480	1,290 A	A1290	2,888 A	A2888		
550 A	A0550	1,330 A	A1330	3,136 A	A3136		

4 - Rated output voltage

2,300 V	V023	6,300 V	V063
3,300 V	V033	6,900 V	V069
4,160 V	V041		

5 - Input transformer

Without	TTT	Cu 50 Hz	T5C
Al 50 Hz	T5A	Cu 60 Hz	T6C
Al 60 Hz	T6A		

6 - Transformer rated input voltage

Without	000	6,300 V	063
3,300 V	033	6,900 V	069
4,160 V	041		

7 - Rectifier type and number of pulses

12-pulse diode	D12	36-pulse diode	D36
18-pulse diode	D18	Regenerative	AFE
24-pulse diode	D24		

8 - Cooling

Air	AC
Evaporative	EV
Water	WC

9 - Installation type

Indoor	I
Outdoor	O

10 - Protection rating

IP21	21
IP41	41
IP42	42

11 - Electric flash protection

Standard (without)	ST
Arc-resistant	RS

12 - Input protection

Not included	SN
Included	SI

13 - Output filter type

Without	F0
Type 1	F1
Type 2	F2
Type 3	F3

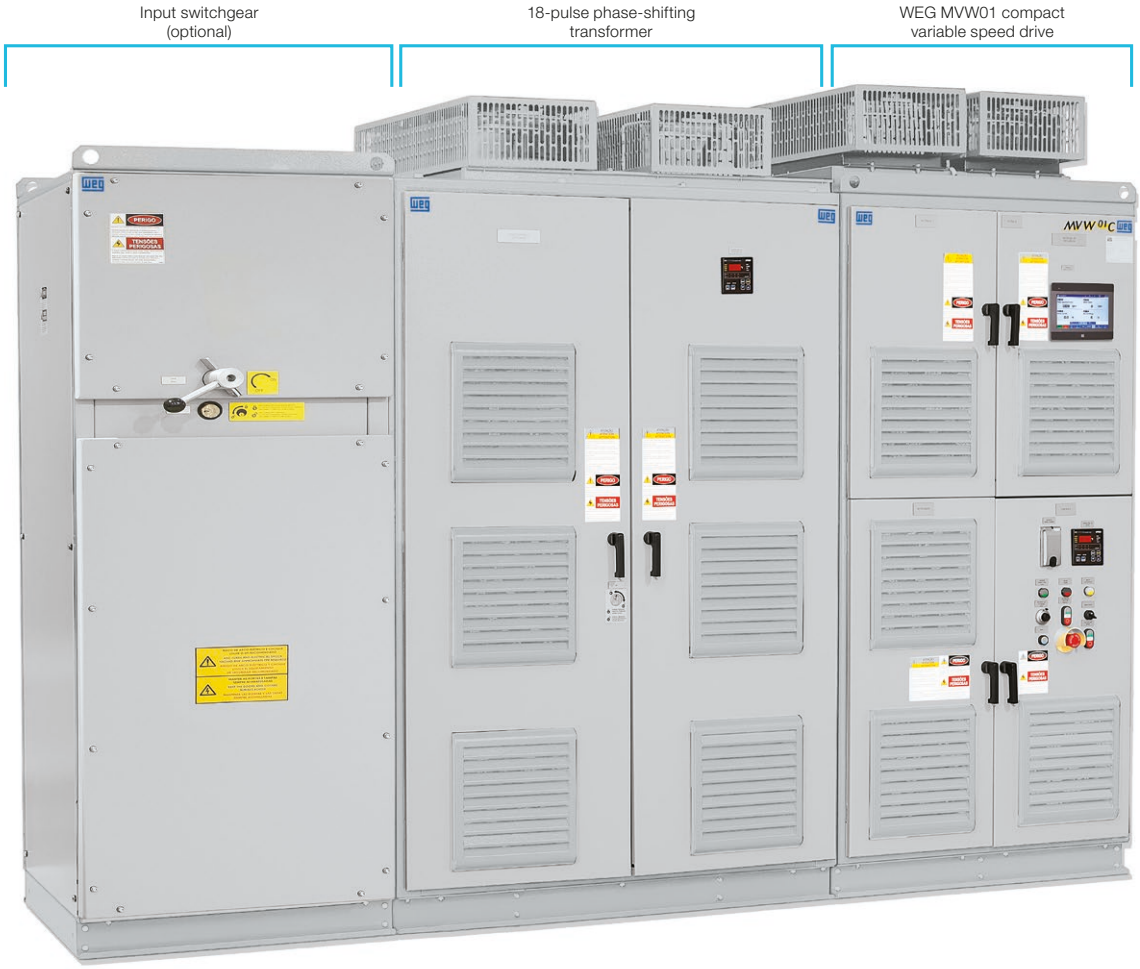
14 - Certification

CE
UL

Notes: 1) Other configurations available on request.
2) Overload capacity: ND = Normal Duty: 115% for 60 seconds, every 10 minutes.
3) Table with standard references assembled in section MVW3000 G4 – standard versions.

MVW01i G4 - Integrated medium voltage variable speed drive with built-in air-cooled transformer

The MVW01 integrated drive system includes all components required for a standard medium voltage variable speed drive system design within a compact installation footprint.



Features of the integrated version

Input switchgear (optional)

- Switch-disconnector + fuse + vacuum contactor — up to 6.9 kV, 3-phase, 60 Hz
- Mechanical interlock to prevent access to the high voltage section until the switch is in the off position
- Top or bottom cable entry

Multipulse phase-shifting transformer as standard

- With surge suppressor on the high voltage side
- Impedance according to the secondary windings to minimize harmonics on the grid side and reduce losses
- Winding temperature monitoring (Pt-100 on windings) available via eight-channel temperature monitor

MVW01C compact VSD

- Greater drive compactness in control and power compartments while maintaining a high level of safety
- Voltages: 2.3 to 4.16 kV
- Power: 620 to 2,670 HP (460 kW to 1,990 kW)
- Other power ratings on request

Assembly characteristics

- Cable connection arrangement with top or bottom entry and exit
- Mechanical interlocking system for switchgear, dry phase shift transformer and MV variable speed drive

MVW01i G4 - Integrated medium voltage variable speed drive with built-in air-cooled transformer

Standard integrated air-cooled versions, with compact drive and built-in transformer

Motor voltage 3,300 V 50/60 Hz									
Normal Duty (ND)[1]			Heavy Duty (HD)[2]			VW01i G4 – CE VSD models Integrated Version (transformer and inverter)[5][6]	Transformer power rating	Standard rectifier No. of pulses	Dimensions W x H x D (mm)
Rated output current (A)[4]	Power (HP)[3]	Power (kW)[3]	Rated output current (A)[4]	Power (HP)[3]	Power (kW)[3]				
96	620	460	85	550	410	MVW01G4 A0096 V033 TxA 033 D18 AC I21 ST SN F0 CE	550 kVA	18	2,600 x 2,300 x 1,000
113	720	540	99	630	470	MVW01G4 A0113 V033 TxA 033 D18 AC I21 ST SN F0 CE	650 kVA	18	2,600 x 2,300 x 1,000
131	850	630	115	740	550	MVW01G4 A0131 V033 TxA 033 D18 AC I21 ST SN F0 CE	750 kVA	18	2,600 x 2,300 x 1,000
152	980	730	134	860	640	MVW01G4 A0152 V033 TxA 033 D18 AC I21 ST SN F0 CE	900 kVA	18	2,600 x 2,300 x 1,000
176	1,130	840	155	990	740	MVW01G4 A0176 V033 TxA 033 D18 AC I21 ST SN F0 CE	1,000 kVA	18	3,000 x 2,300 x 1,000
204	1,300	970	180	1,150	860	MVW01G4 A0204 V033 TxA 033 D18 AC I21 ST SN F0 CE	1,200 kVA	18	4,480 x 2,300 x 1,000
237	1,520	1,130	208	1,330	990	MVW01G4 A0237 V033 TxA 033 D18 AC I21 ST SN F0 CE	1,350 kVA	18	4,480 x 2,300 x 1,000
276	1,770	1,320	242	1,560	1,160	MVW01G4 A0276 V033 TxA 033 D18 AC I21 ST SN F0 CE	1,600 kVA	18	4,480 x 2,300 x 1,000
322	2,070	1,540	280	1,800	1,340	MVW01G4 A0322 V033 TxA 033 D18 AC I21 ST SN F0 CE	1,850 kVA	18	4,480 x 2,300 x 1,000
376	2,400	1,790	325	2,080	1,550	MVW01G4 A0376 V033 TxA 033 D18 AC I21 ST SN F0 CE	2,150 kVA	18	4,480 x 2,300 x 1,000

Motor voltage 4.160 V 50/60 Hz									
Normal Duty (ND)[1]			Heavy Duty (HD)[2]			VW01i G4 – CE VSD models Integrated Version (transformer and inverter)[5][6]	Transformer power rating	Standard rectifier No. of pulses	Dimensions W x H x D (mm)
Rated output current (A)[4]	Power (HP)[3]	Power (kW)[3]	Rated output current (A)[4]	Power (HP)[3]	Power (kW)[3]				
78	630	470	70	560	420	MVW01G4 C078 V041 TxA 041 D18 AC I21 ST SN F0 CE	600 kVA	18	2,600 x 2,300 x 1,000
92	740	550	83	670	500	MVW01G4 C092 V041 TxA 041 D18 AC I21 ST SN F0 CE	700 kVA	18	2,600 x 2,300 x 1,000
108	870	650	98	790	590	MVW01G4 C108 V041 TxA 041 D18 AC I21 ST SN F0 CE	800 kVA	18	2,600 x 2,300 x 1,000
128	1,030	770	115	930	690	MVW01G4 C128 V041 TxA 041 D18 AC I21 ST SN F0 CE	950 kVA	18	2,600 x 2,300 x 1,000
151	1,220	910	135	1,090	810	MVW01G4 C151 V041 TxA 041 D18 AC I21 ST SN F0 CE	1,100 kVA	18	3,000 x 2,300 x 1,000
181	1,460	1,090	162	1,300	970	MVW01G4 A0181 V041 TxA 041 D18 AC I21 ST SN F0 CE	1,300 kVA	18	4,480 x 2,300 x 1,000
216	1,740	1,300	195	1,570	1,170	MVW01G4 A0216 V041 TxA 041 D18 AC I21 ST SN F0 CE	1,550 kVA	18	4,480 x 2,300 x 1,000
260	2,090	1,560	235	1,890	1,410	MVW01G4 A0260 V041 TxA 041 D18 AC I21 ST SN F0 CE	1,900 kVA	18	4,480 x 2,300 x 1,000
294	2,380	1,770	265	2,130	1,590	MVW01G4 A0294 V041 TxA 041 D18 AC I21 ST SN F0 CE	2,150 kVA	18	4,480 x 2,300 x 1,000
330	2,670	1,990	300	2,430	1,810	MVW01G4 A0330 V041 TxA 041 D18 AC I21 ST SN F0 CE	2,400 kVA	18	4,480 x 2,300 x 1,000

Notes: 1) ND = Normal Duty overload capacity: maximum current/power with 115% overload for 60 seconds every 10 minutes. Consult the factory for applications requiring higher overload capacity.
2) HD = Heavy Duty overload capacity: maximum current/power with 150% overload for 60 seconds every 10 minutes. Consult the factory for applications requiring higher overload capacity.
3) Motor power is for reference only, based on a 4-pole motor with PF = 0.87 and 96% efficiency at full load.
4) The ratings apply at 40 °C ambient temperature and up to 1,000 meters above sea level. See derating information in the section "Technical Data, Environmental Conditions."
5) The compact integrated MVW01 is suitable for controlling WEG VSD-duty motors with cable lengths up to 100 meters between the drive and the motor, and motor rated voltages up to 4.16 kV. See the section "Optional Filters" for longer cable lengths and the "Coding" section for general options.
6) The models above refer to the VSD and aluminum phase-shifting transformer, rated up to 7.2 kV, without switchgear. The input switchgear must be added in the coding. Dimensions refer to the drive and transformer only, without switchgear.
x = Check the frequency: replace "x" with "5" = 50 Hz or "6" = 60 Hz.

MVW01-AC G4 - Air-cooled medium voltage variable speed drive

The air-cooled version of the MVW01 is ideal for various installations where heat exchange can be carried out without restrictions, using the drive's airflow with the ambient air of the installation site. It is recommended for environments without restrictions, featuring a simple and conventional cooling system with simplified maintenance.

Characteristics

- Voltages: 2.3 to 6.9 kV
- Power ratings: 620 to 54,790 HP (460 kW to 40.8 MW)
- Other power ratings on request



MVW01-AC G4 - Air-cooled medium voltage variable speed drive

Standard air-cooled versions

Motor voltage 3,300 V 50/60 Hz												
Normal Duty (ND)[1]			Heavy Duty (HD)[2]			Maximum continuous capacity[3]			MVW01 G4 – CE & UL VSD models[6][7] AC (air-cooled) version	Standard rectifier No. of pulses	Number of power arms[8]	Dimensions W x H x D (mm)
Rated output current (A)[5]	Power (HP)[4]	Power (kW)[4]	Rated output current (A)[5]	Power (HP)[4]	Power (kW)[4]	Max. continuous current (A)[5]	Power (HP)[4]	Power (kW)[4]				
96	620	460	85	550	410	98	630	470	MVW01G4 A0096 V033 TTT000 D18 AC I21 ST SN F0 ♦	18	3C	1,000 x 2,316 x 1,000
113	720	540	99	630	470	116	740	550	MVW01G4 A0113 V033 TTT000 D18 AC I21 ST SN F0 ♦	18	3C	1,000 x 2,316 x 1,000
131	850	630	115	740	550	134	860	640	MVW01G4 A0131 V033 TTT000 D18 AC I21 ST SN F0 ♦	18	3C	1,000 x 2,316 x 1,000
152	980	730	134	860	640	155	990	740	MVW01G4 A0152 V033 TTT000 D18 AC I21 ST SN F0 ♦	18	3C	1,000 x 2,316 x 1,000
176	1,130	840	155	990	740	180	1,150	860	MVW01G4 A0176 V033 TTT000 D18 AC I21 ST SN F0 ♦	18	3C	1,000 x 2,316 x 1,000
204	1,300	970	180	1,150	860	214	1,370	1,020	MVW01G4 A0204 V033 TTT000 D12 AC I21 ST SN F0 ♦	12	3	2,480 x 2,226 x 980
237	1,520	1,130	208	1,330	990	249	1,600	1,190	MVW01G4 A0237 V033 TTT000 D12 AC I21 ST SN F0 ♦	12	3	2,480 x 2,226 x 980
276	1,770	1,320	242	1,560	1,160	290	1,860	1,380	MVW01G4 A0276 V033 TTT000 D12 AC I21 ST SN F0 ♦	12	3	2,480 x 2,226 x 980
322	2,070	1,540	280	1,800	1,340	338	2,170	1,610	MVW01G4 A0322 V033 TTT000 D12 AC I21 ST SN F0 ♦	12	3	2,480 x 2,226 x 980
376	2,400	1,790	325	2,080	1,550	395	2,530	1,890	MVW01G4 A0376 V033 TTT000 D12 AC I21 ST SN F0 ♦	12	3	2,480 x 2,226 x 980
450	2,890	2,150	390	2,500	1,860	460	2,950	2,200	MVW01G4 A0450 V033 TTT000 D12 AC I21 ST SN F0 CE	12	3	2,680 x 2,226 x 980
560	3,580	2,670	490	3,140	2,340	590	3,780	2,820	MVW01G4 A0560 V033 TTT000 D12 AC I21 ST SN F0 CE	12	3	2,680 x 2,226 x 980
650	4,160	3,100	590	3,780	2,820	676	4,330	3,230	MVW01G4 A0650 V033 TTT000 D12 AC I21 ST SN F0 CE	12	3	2,680 x 2,226 x 980
750	4,810	3,580	680	4,360	3,250	780	5,000	3,720	MVW01G4 A0750 V033 TTT000 D12 AC I21 ST SN F0 CE	12	3	2,680 x 2,226 x 980
855	5,480	4,080	741	4,750	3,540	874	5,600	4,170	MVW01G4 A0855 V033 TTT000 D12 AC I21 ST SN F0 CE	12	6	4,160 x 2,226 x 980
1,064	6,820	5,080	931	5,960	4,440	1,121	7,180	5,350	MVW01G4 A1064 V033 TTT000 D12 AC I21 ST SN F0 CE	12	6	4,160 x 2,226 x 980
1,235	7,910	5,900	1,121	7,180	5,350	1,284	8,230	6,130	MVW01G4 A1235 V033 TTT000 D12 AC I21 ST SN F0 CE	12	6	4,640 x 2,635 x 1,300
1,425	9,130	6,800	1,292	8,280	6,170	1,482	9,500	7,070	MVW01G4 A1425 V033 TTT000 D12 AC I21 ST SN F0 CE	12	6	4,640 x 2,635 x 1,300
1,596	10,230	7,620	1,396	8,950	6,670	1,682	10,780	8,030	MVW01G4 A1596 V033 TTT000 D12 AC I21 ST SN F0 CE	12	9	5,920 x 2,226 x 1,000
1,852	11,870	8,840	1,682	10,770	8,030	1,927	12,350	9,200	MVW01G4 A1853 V033 TTT000 D12 AC I21 ST SN F0 CE	12	9	5,920 x 2,635 x 1,300
2,137	13,700	10,200	1,938	12,420	9,250	2,223	14,240	10,610	MVW01G4 A2138 V033 TTT000 D12 AC I21 ST SN F0 CE	12	9	5,920 x 2,635 x 1,300
2,470	15,830	11,790	2,242	14,370	10,700	2,569	16,460	12,260	MVW01G4 A2470 V033 TTT000 D12 AC I21 ST SN F0 CE	12	12	8,480 x 2,635 x 1,300
2,850	18,260	13,600	2,584	16,560	12,340	2,964	18,990	14,150	MVW01G4 A2850 V033 TTT000 D12 AC I21 ST SN F0 CE	12	12	8,480 x 2,635 x 1,300
3,192	20,450	15,240	2,792	17,900	13,330	3,364	21,560	16,060	MVW01G4 A3192 V033 TTT000 D24 AC I21 ST SN F0 CE	2x12 (**)	2x9	11,840 x 2,226 x 1,000
3,705	23,740	17,690	3,363	21,550	16,050	3,854	24,690	18,400	MVW01G4 A3705 V033 TTT000 D24 AC I21 ST SN F0 CE	2x12 (**)	2x9	11,840 x 2,635 x 1,300
4,275	27,390	20,410	3,876	24,840	18,500	4,446	28,490	21,220	MVW01G4 A4275 V033 TTT000 D24 AC I21 ST SN F0 CE	2x12 (**)	2x9	11,840 x 2,635 x 1,300
4,940	31,650	23,580	4,484	28,730	21,410	5,138	32,920	24,530	MVW01G4 A4940 V033 TTT000 D24 AC I21 ST SN F0 CE	2x12 (**)	2x12	16,960 x 2,635 x 1,300
5,700	36,520	27,210	5,168	33,110	24,670	5,928	37,980	28,300	MVW01G4 A5700 V033 TTT000 D24 AC I21 ST SN F0 CE	2x12 (**)	2x12	16,960 x 2,635 x 1,300
6,412	41,090	30,610	5,814	37,250	27,750	6,669	42,730	31,840	MVW01G4 A6413 V033 TTT000 D36 AC I21 ST SN F0 CE	3x12 (***)	3x9	17,760 x 2,635 x 1,300
7,410	47,480	35,370	6,726	43,100	32,110	7,707	49,380	36,790	MVW01G4 A7410 V033 TTT000 D36 AC I21 ST SN F0 CE	3x12 (***)	3x12	21,600 x 2,635 x 1,300
8,550	54,790	40,810	7,752	49,670	37,010	8,892	56,980	42,450	MVW01G4 A8550 V033 TTT000 D36 AC I21 ST SN F0 CE	3x12 (***)	3x12	21,600 x 2,635 x 1,300

Notes: 1) ND = Normal Duty overload capacity: maximum current/power with 115% overload for 60 seconds every 10 minutes. Consult the factory for applications requiring higher overload capacity.

2) HD = Heavy Duty overload capacity: maximum current/power with 150% overload for 60 seconds every 10 minutes. Consult the factory for applications requiring higher overload capacity.

3) Maximum current or power without overload.

4) Motor power is for reference only, based on a 4-pole motor with PF = 0.87 and 96% efficiency at full load.

5) The ratings apply at 40 °C ambient temperature and up to 1,000 meters above sea level. See derating information in the section "Technical Data, Environmental Conditions."

6) The standard MVW01 is suitable for controlling VSD-duty motors, with cable lengths up to 100 meters between the drive and the motor for models up to 4.16 kV with 3 arms and for 6 to 6.9 kV models with up to 12 arms, or 200 meters for models up to 4.16 kV with 6 arms or more, and for 6 to 6.9 kV models with more than 12 power arms. See the section "Optional Filters" for longer cable lengths and the "Coding" section for general options.

7) The models above refer to the variable speed drive. The input switchgear and the phase-shifting transformer must be added in the coding. VSD dimensions only.

8) Power arms: 3C stands for 3x compact power arms. 3, 6, 9, 12 stands for standard power arms.

TTT = Check the phase-shifting transformer: "TTT000" = without transformer; replace with the options available in the coding section.

♦ = Check certification: replace "♦" with "CE" or "UL". For versions already marked with CE, check the possibility of UL on demand.

(**) = The use of an independent phase-shifting transformer with 2x 12 pulses for up to 4.16 kV and 2x 36 pulses for 6 to 6.9 kV should be considered. A single transformer cannot be used.

(***) = The use of an independent phase-shifting transformer with 3x 12 pulses for up to 4.16 kV and 3x 36 pulses for 6 to 6.9 kV should be considered. A single transformer cannot be used.

MVW01-AC G4 - Air-cooled medium voltage variable speed drive

Standard air-cooled versions

Motor voltage 4,160 V 50/60 Hz												
Normal Duty (ND)[1]			Heavy Duty (HD)[2]			Maximum continuous capacity[3]			MVW01 G4 – CE & UL VSD models[6][7] AC (air-cooled) version	Standard rectifier No. of pulses	Number of power arms[8]	Dimensions W x H x D (mm)
Rated output current (A)[5]	Power (HP)[4]	Power (kW)[4]	Rated output current (A)[5]	Power (HP)[4]	Power (kW)[4]	Max. continuous current (A)[5]	Power (HP)[4]	Power (kW)[4]				
78	630	470	70	560	420	85	690	510	MVW01G4 A0078 V041 TTT000 D18 AC I21 ST SN F0 ♦	18	3C	1,000 x 2,316 x 1,000
92	740	550	83	670	500	101	820	610	MVW01G4 A0092 V041 TTT000 D18 AC I21 ST SN F0 ♦	18	3C	1,000 x 2,316 x 1,000
108	870	650	98	790	590	118	950	710	MVW01G4 A0108 V041 TTT000 D18 AC I21 ST SN F0 ♦	18	3C	1,000 x 2,316 x 1,000
128	1,030	770	115	930	690	140	1,130	840	MVW01G4 A0128 V041 TTT000 D18 AC I21 ST SN F0 ♦	18	3C	1,000 x 2,316 x 1,000
151	1,220	910	135	1,090	810	165	1,330	990	MVW01G4 A0151 V041 TTT000 D18 AC I21 ST SN F0 ♦	18	3C	1,000 x 2,316 x 1,000
181	1,460	1,090	162	1,300	970	195	1,580	1,170	MVW01G4 A0181 V041 TTT000 D12 AC I21 ST SN F0 ♦	12	3	2,480 x 2,226 x 980
216	1,740	1,300	195	1,570	1,170	233	1,880	1,400	MVW01G4 A0216 V041 TTT000 D12 AC I21 ST SN F0 ♦	12	3	2,480 x 2,226 x 980
260	2,090	1,560	235	1,890	1,410	280	2,260	1,680	MVW01G4 A0260 V041 TTT000 D12 AC I21 ST SN F0 ♦	12	3	2,480 x 2,226 x 980
294	2,380	1,770	265	2,130	1,590	312	2,520	1,880	MVW01G4 A0294 V041 TTT000 D12 AC I21 ST SN F0 ♦	12	3	2,480 x 2,226 x 980
330	2,670	1,990	290	2,350	1,750	350	2,830	2,110	MVW01G4 A0330 V041 TTT000 D12 AC I21 ST SN F0 ♦	12	3	2,480 x 2,226 x 980
400	3,230	2,410	360	2,910	2,170	430	3,470	2,590	MVW01G4 A0400 V041 TTT000 D12 AC I21 ST SN F0 CE	12	3	2,680 x 2,226 x 980
500	4,040	3,010	480	3,880	2,890	530	4,280	3,190	MVW01G4 A0500 V041 TTT000 D12 AC I21 ST SN F0 CE	12	3	2,680 x 2,226 x 980
627	5,060	3,770	551	4,460	3,320	665	5,370	4,000	MVW01G4 A0627 V041 TTT000 D12 AC I21 ST SN F0 CE	12	6	4,160 x 2,226 x 980
760	6,130	4,570	684	5,530	4,120	817	6,600	4,920	MVW01G4 A0750 V041 TTT000 D12 AC I21 ST SN F0 CE	12	6	4,160 x 2,226 x 980
950	7,680	5,720	912	7,370	5,490	1,007	8,130	6,060	MVW01G4 A0950 V041 TTT000 D12 AC I21 ST SN F0 CE	12	6	4,160 x 2,226 x 980
1,140	9,210	6,860	1,026	8,280	6,170	1,226	9,900	7,380	MVW01G4 A1140 V041 TTT000 D12 AC I21 ST SN F0 CE	12	9	5,920 x 2,226 x 1,000
1,425	11,520	8,580	1,368	11,050	8,230	1,511	12,210	9,090	MVW01G4 A1425 V041 TTT000 D12 AC I21 ST SN F0 CE	12	9	5,920 x 2,226 x 1,000
1,520	12,280	9,150	1,378	11,130	8,290	1,634	13,200	9,830	MVW01G4 A1520 V041 TTT000 D12 AC I21 ST SN F0 CE	12	12	7,200 x 2,226 x 1,000
1,900	15,340	11,430	1,824	14,740	10,980	2,014	16,270	12,120	MVW01G4 A1900 V041 TTT000 D12 AC I21 ST SN F0 CE	12	12	7,200 x 2,226 x 1,000
2,280	18,420	13,720	2,052	16,580	12,350	2,452	19,810	14,760	MVW01G4 A2280 V041 TTT000 D24 AC I21 ST SN F0 CE	2x12 (**)	2x9	11,840 x 2,226 x 1,000
2,850	23,020	17,150	2,736	22,090	16,460	3,020	24,390	18,170	MVW01G4 A2850 V041 TTT000 D24 AC I21 ST SN F0 CE	2x12 (**)	2x9	11,840 x 2,226 x 1,000
3,040	24,550	18,290	2,756	22,260	16,580	3,268	26,400	19,670	MVW01G4 A3040 V041 TTT000 D24 AC I21 ST SN F0 CE	2x12 (**)	2x12	14,400 x 2,226 x 1,000
3,800	30,700	22,870	3,648	29,460	21,950	4,028	32,540	24,240	MVW01G4 A3800 V041 TTT000 D24 AC I21 ST SN F0 CE	2x12 (**)	2x12	14,400 x 2,226 x 1,000
4,275	34,540	25,730	4,104	33,150	24,700	4,533	36,620	27,280	MVW01G4 A4275 V041 TTT000 D36 AC I21 ST SN F0 CE	3x12 (***)	3x9	17,760 x 2,226 x 1,000
4,560	36,830	27,440	4,134	33,400	24,880	4,902	39,600	29,500	MVW01G4 A4560 V041 TTT000 D36 AC I21 ST SN F0 CE	3x12 (***)	3x12	21,600 x 2,226 x 1,000
5,700	46,040	34,300	5,472	44,200	32,930	6,042	48,800	36,360	MVW01G4 A5700 V041 TTT000 D36 AC I21 ST SN F0 CE	3x12 (***)	3x12	21,600 x 2,226 x 1,000

Notes: 1) ND = Normal Duty overload capacity: maximum current/power with 115% overload for 60 seconds every 10 minutes. Consult the factory for applications requiring higher overload capacity.

2) HD = Heavy Duty overload capacity: maximum current/power with 150% overload for 60 seconds every 10 minutes. Consult the factory for applications requiring higher overload capacity.

3) Maximum current or power without overload.

4) Motor power is for reference only, based on a 4-pole motor with PF = 0.87 and 96% efficiency at full load.

5) The ratings apply at 40 °C ambient temperature and up to 1,000 meters above sea level. See derating information in the section "Technical Data, Environmental Conditions."

6) The standard MVW01 is suitable for controlling VSD-duty motors, with cable lengths up to 100 meters between the drive and the motor for models up to 4.16 kV with 3 arms and for 6 to 6.9 kV models with up to 12 arms, or 200 meters for models up to 4.16 kV with 6 arms or more, and for 6 to 6.9 kV models with more than 12 power arms. See the section "Optional Filters" for longer cable lengths and the "Coding" section for general options.

7) The models above refer to the variable speed drive. The input switchgear and the phase-shifting transformer must be added in the coding. VSD dimensions only.

8) Power arms: 3C stands for 3x compact power arms. 3, 6, 9, 12 stands for standard power arms.

TTT = Check the phase-shifting transformer: "TTT000" = without transformer; replace with the options available in the coding section.

♦ = Check certification: replace "♦" with "CE" or "UL". For versions already marked with CE, check the possibility of UL on demand.

(**) = The use of an independent phase-shifting transformer with 2x 12 pulses for up to 4.16 kV and 2x 36 pulses for 6 to 6.9 kV should be considered. A single transformer cannot be used.

(***) = The use of an independent phase-shifting transformer with 3x 12 pulses for up to 4.16 kV and 3x 36 pulses for 6 to 6.9 kV should be considered. A single transformer cannot be used.

MVW01-AC G4 - Air-cooled medium voltage variable speed drive

Standard air-cooled versions

Motor voltage 6,000 to 6,300 V 50/60 Hz												
Normal Duty (ND)[1]			Heavy Duty (HD)[2]			Maximum continuous capacity[3]			MVW01 G4 – CE & UL VSD models[6][7] AC (air-cooled) version	Standard rectifier No. of pulses	Number of power arms[8]	Dimensions W x H x D (mm)
Rated output current (A)[5]	Power (HP)[4]	Power (kW)[4]	Rated output current (A)[5]	Power (HP)[4]	Power (kW)[4]	Max. continuous current (A)[5]	Power (HP)[4]	Power (kW)[4]				
58	680	500	55	640	480	62	720	540	MVW01G4 A0058 V063 TTT000 D36 AC I21 ST SN F0 CE	36	6C	1,800 x 2,306 x 1,200
73	850	630	69	800	600	78	910	680	MVW01G4 A0073 V063 TTT000 D36 AC I21 ST SN F0 CE	36	6C	1,800 x 2,306 x 1,200
91	1,060	790	86	1,000	750	97	1,130	840	MVW01G4 A0091 V063 TTT000 D36 AC I21 ST SN F0 CE	36	6C	1,800 x 2,306 x 1,200
114	1,330	990	108	1,260	940	122	1,420	1,060	MVW01G4 A0114 V063 TTT000 D36 AC I21 ST SN F0 CE	36	6C	1,800 x 2,306 x 1,200
144	1,680	1,250	136	1,580	1,180	154	1,790	1,340	MVW01G4 A0144 V063 TTT000 D36 AC I21 ST SN F0 CE	36	6C	1,800 x 2,306 x 1,200
180	2,100	1,560	170	1,980	1,480	181	2,110	1,570	MVW01G4 A0180 V063 TTT000 D36 AC I21 ST SN F0 CE	36	6C	1,800 x 2,306 x 1,200
212	2,470	1,840	198	2,310	1,720	228	2,660	1,980	MVW01G4 A0212 V063 TTT000 D36 AC I21 ST SN F0 CE	36	6	3,300 x 2,225 x 1,000
251	2,920	2,180	230	2,680	2,000	269	3,130	2,330	MVW01G4 A0251 V063 TTT000 D36 AC I21 ST SN F0 CE	36	6	3,300 x 2,225 x 1,000
295	3,440	2,560	267	3,110	2,320	317	3,690	2,750	MVW01G4 A0295 V063 TTT000 D36 AC I21 ST SN F0 CE	36	6	3,300 x 2,225 x 1,000
348	4,050	3,020	310	3,610	2,690	373	4,350	3,240	MVW01G4 A0348 V063 TTT000 D36 AC I21 ST SN F0 CE	36	6	3,300 x 2,225 x 1,000
410	4,780	3,560	360	4,190	3,120	440	5,130	3,820	MVW01G4 A0410 V063 TTT000 D36 AC I21 ST SN F0 CE	36	6	3,300 x 2,225 x 1,000
480	5,590	4,170	430	5,010	3,730	500	5,830	4,340	MVW01G4 A0480 V063 TTT000 D36 AC I21 ST SN F0 CE	36	6	3,300 x 2,225 x 1,000
600	6,990	5,210	535	6,230	4,640	625	7,280	5,420	MVW01G4 A0600 V063 TTT000 D36 AC I21 ST SN F0 CE	36	6	4,580 x 2,225 x 1,000
720	8,390	6,250	640	7,460	5,550	750	8,740	6,510	MVW01G4 A0720 V063 TTT000 D36 AC I21 ST SN F0 CE	36	6	4,580 x 2,225 x 1,000
779	9,080	6,760	684	7,970	5,940	836	9,740	7,260	MVW01G4 A0779 V063 TTT000 D36 AC I21 ST SN F0 CE	36	12	7,480 x 2,225 x 1,000
912	10,620	7,920	817	9,520	7,090	950	11,070	8,250	MVW01G4 A0912 V063 TTT000 D36 AC I21 ST SN F0 CE	36	12	7,480 x 2,225 x 1,000
1,140	13,280	9,890	1,017	11,840	8,820	1,188	13,830	10,310	MVW01G4 A1140 V063 TTT000 D36 AC I21 ST SN F0 CE	36	12	8,600 x 2,225 x 1,500
1,368	15,940	11,870	1,216	14,170	10,550	1,425	16,600	12,370	MVW01G4 A1368 V063 TTT000 D36 AC I21 ST SN F0 CE	36	12	8,600 x 2,225 x 1,500
1,558	18,150	13,520	1,368	15,940	11,870	1,672	19,480	14,510	MVW01G4 A1558 V063 TTT000 D36 AC I21 ST SN F0 CE	2x36 (**)	2x12	14,960 x 2,225 x 1,000
1,824	21,250	15,830	1,634	19,040	14,180	1,900	22,140	16,490	MVW01G4 A1824 V063 TTT000 D36 AC I21 ST SN F0 CE	2x36 (**)	2x12	14,960 x 2,225 x 1,000
2,280	26,560	19,790	2,033	23,680	17,650	2,375	27,670	20,610	MVW01G4 A2280 V063 TTT000 D36 AC I21 ST SN F0 CE	2x36 (**)	2x12	17,200 x 2,225 x 1,500
2,736	31,870	23,750	2,432	28,330	21,110	2,850	33,200	24,740	MVW01G4 A2736 V063 TTT000 D36 AC I21 ST SN F0 CE	2x36 (**)	2x12	17,200 x 2,225 x 1,500
3,420	39,840	29,680	3,050	35,530	26,470	3,563	41,500	30,920	MVW01G4 A3420 V063 TTT000 D36 AC I21 ST SN F0 CE	3x36 (***)	3x12	25,800 x 2,225 x 1,500
4,104	47,810	35,620	3,648	42,500	31,660	4,275	49,800	37,100	MVW01G4 A4104 V063 TTT000 D36 AC I21 ST SN F0 CE	3x36 (***)	3x12	25,800 x 2,225 x 1,500

Notes: 1) ND = Normal Duty overload capacity: maximum current/power with 115% overload for 60 seconds every 10 minutes. Consult the factory for applications requiring higher overload capacity.

2) HD = Heavy Duty overload capacity: maximum current/power with 150% overload for 60 seconds every 10 minutes. Consult the factory for applications requiring higher overload capacity.

3) Maximum current or power without overload.

4) Motor power is for reference only, based on a 4-pole motor with PF = 0.87 and 96% efficiency at full load.

5) The ratings apply at 40 °C ambient temperature and up to 1,000 meters above sea level. See derating information in the section "Technical Data, Environmental Conditions."

6) The standard MVW01 is suitable for controlling VSD-duty motors, with cable lengths up to 100 meters between the drive and the motor for models up to 4.16 kV with 3 arms and for 6 to 6.9 kV models with up to 12 arms, or 200 meters for models up to 4.16 kV with 6 arms or more, and for 6 to 6.9 kV models with more than 12 power arms. See the section "Optional Filters" for longer cable lengths and the "Coding" section for general options.

7) The models above refer to the variable speed drive. The input switchgear and the phase-shifting transformer must be added in the coding. VSD dimensions only.

8) Power arms: 3C stands for 3x compact power arms. 3, 6, 9, 12 stands for standard power arms.

TTT = Check the phase-shifting transformer: "TTT000" = without transformer; replace with the options available in the coding section.

♦ = Check certification: replace "♦" with "CE" or "UL". For versions already marked with CE, check the possibility of UL on demand.

(**) = The use of an independent phase-shifting transformer with 2x 12 pulses for up to 4.16 kV and 2x 36 pulses for 6 to 6.9 kV should be considered. A single transformer cannot be used.

(***) = The use of an independent phase-shifting transformer with 3x 12 pulses for up to 4.16 kV and 3x 36 pulses for 6 to 6.9 kV should be considered. A single transformer cannot be used.

MVW01-AC G4 - Air-cooled medium voltage variable speed drive

Standard air-cooled versions

Motor voltage 6,600 to 6,900 V 50/60 Hz												
Normal Duty (ND)[1]			Heavy Duty (HD)[2]			Maximum continuous capacity[3]			MVW01 G4 – CE & UL VSD models[6][7] AC (air-cooled) version	Standard rectifier No. of pulses	Number of power arms[8]	Dimensions W x H x D (mm)
Rated output current (A)[5]	Power (HP)[4]	Power (kW)[4]	Rated output current (A)[5]	Power (HP)[4]	Power (kW)[4]	Max. continuous current (A)[5]	Power (HP)[4]	Power (kW)[4]				
54	690	520	50	640	480	58	740	550	MVW01G4 A0054 V069 TTT000 D36 AC I21 ST SN F0 CE	36	6C	1,800 x 2,306 x 1,200
67	860	640	63	810	600	72	920	690	MVW01G4 A0067 V069 TTT000 D36 AC I21 ST SN F0 CE	36	6C	1,800 x 2,306 x 1,200
86	1,100	820	81	1,040	770	92	1,180	880	MVW01G4 A0086 V069 TTT000 D36 AC I21 ST SN F0 CE	36	6C	1,800 x 2,306 x 1,200
109	1,400	1,040	102	1,310	970	117	1,500	1,120	MVW01G4 A0109 V069 TTT000 D36 AC I21 ST SN F0 CE	36	6C	1,800 x 2,306 x 1,200
139	1,780	1,330	130	1,670	1,240	149	1,910	1,420	MVW01G4 A0139 V069 TTT000 D36 AC I21 ST SN F0 CE	36	6C	1,800 x 2,306 x 1,200
177	2,270	1,690	165	2,110	1,580	178	2,280	1,700	MVW01G4 A0177 V069 TTT000 D36 AC I21 ST SN F0 CE	36	6C	1,800 x 2,306 x 1,200
205	2,630	1,960	192	2,460	1,830	221	2,830	2,110	MVW01G4 A0205 V069 TTT000 D36 AC I21 ST SN F0 CE	36	6	3,300 x 2,225 x 1,000
241	3,090	2,300	223	2,860	2,130	260	3,330	2,480	MVW01G4 A0241 V069 TTT000 D36 AC I21 ST SN F0 CE	36	6	3,300 x 2,225 x 1,000
283	3,630	2,700	259	3,320	2,470	305	3,910	2,910	MVW01G4 A0283 V069 TTT000 D36 AC I21 ST SN F0 CE	36	6	3,300 x 2,225 x 1,000
332	4,250	3,170	301	3,860	2,870	358	4,590	3,420	MVW01G4 A0332 V069 TTT000 D36 AC I21 ST SN F0 CE	36	6	3,300 x 2,225 x 1,000
390	5,000	3,720	350	4,490	3,340	420	5,380	4,010	MVW01G4 A0390 V069 TTT000 D36 AC I21 ST SN F0 CE	36	6	3,300 x 2,225 x 1,000
460	5,900	4,390	404	5,180	3,860	480	6,150	4,580	MVW01G4 A0460 V069 TTT000 D36 AC I21 ST SN F0 CE	36	6	3,300 x 2,225 x 1,000
575	7,370	5,490	517	6,630	4,940	600	7,690	5,730	MVW01G4 A0575 V069 TTT000 D36 AC I21 ST SN F0 CE	36	6	4,580 x 2,225 x 1,000
690	8,840	6,590	630	8,070	6,010	720	9,230	6,870	MVW01G4 A0690 V069 TTT000 D36 AC I21 ST SN F0 CE	36	6	4,580 x 2,225 x 1,000
740	9,500	7,070	665	8,520	6,350	798	10,230	7,620	MVW01G4 A0740 V069 TTT000 D36 AC I21 ST SN F0 CE	36	12	7,480 x 2,225 x 1,000
874	11,200	8,340	768	9,840	7,330	912	11,690	8,710	MVW01G4 A0874 V069 TTT000 D36 AC I21 ST SN F0 CE	36	12	7,480 x 2,225 x 1,000
1,093	14,000	10,430	982	12,590	9,380	1,140	14,610	10,880	MVW01G4 A1093 V069 TTT000 D36 AC I21 ST SN F0 CE	36	12	8,600 x 2,225 x 1,500
1,311	16,800	12,520	1,197	15,340	11,430	1,368	17,530	13,060	MVW01G4 A1311 V069 TTT000 D36 AC I21 ST SN F0 CE	36	12	8,600 x 2,225 x 1,500
1,480	18,990	14,150	1,330	17,040	12,700	1,596	20,450	15,240	MVW01G4 A1480 V069 TTT000 D36 AC I21 ST SN F0 CE	2x36 (**)	2x12	14,960 x 2,225 x 1,000
1,748	22,400	16,690	1,535	19,670	14,660	1,824	23,370	17,410	MVW01G4 A1748 V069 TTT000 D36 AC I21 ST SN F0 CE	2x36 (**)	2x12	14,960 x 2,225 x 1,000
2,185	28,000	20,860	1,965	25,180	18,760	2,280	29,220	21,770	MVW01G4 A2185 V069 TTT000 D36 AC I21 ST SN F0 CE	2x36 (**)	2x12	17,200 x 2,225 x 1,500
2,622	33,600	25,030	2,394	30,680	22,860	2,736	35,060	26,120	MVW01G4 A2622 V069 TTT000 D36 AC I21 ST SN F0 CE	2x36 (**)	2x12	17,200 x 2,225 x 1,500
3,278	42,000	31,290	2,947	37,770	28,140	3,420	43,830	32,650	MVW01G4 A3278 V069 TTT000 D36 AC I21 ST SN F0 CE	3x36 (***)	3x12	25,800 x 2,225 x 1,500
3,933	50,400	37,550	3,591	46,020	34,280	4,104	52,590	39,180	MVW01G4 A3933 V069 TTT000 D36 AC I21 ST SN F0 CE	3x36 (***)	3x12	25,800 x 2,225 x 1,500

Notes: 1) ND = Normal Duty overload capacity: maximum current/power with 115% overload for 60 seconds every 10 minutes. Consult the factory for applications requiring higher overload capacity.

2) HD = Heavy Duty overload capacity: maximum current/power with 150% overload for 60 seconds every 10 minutes. Consult the factory for applications requiring higher overload capacity.

3) Maximum current or power without overload.

4) Motor power is for reference only, based on a 4-pole motor with PF = 0.87 and 96% efficiency at full load.

5) The ratings apply at 40 °C ambient temperature and up to 1,000 meters above sea level. See derating information in the section "Technical Data, Environmental Conditions."

6) The standard MVW01 is suitable for controlling VSD-duty motors, with cable lengths up to 100 meters between the drive and the motor for models up to 4.16 kV with 3 arms and for 6 to 6.9 kV models with up to 12 arms, or 200 meters for models up to 4.16 kV with 6 arms or more, and for 6 to 6.9 kV models with more than 12 power arms. See the section "Optional Filters" for longer cable lengths and the "Coding" section for general options.

7) The models above refer to the variable speed drive. The input switchgear and the phase-shifting transformer must be added in the coding. VSD dimensions only.

8) Power arms: 3C stands for 3x compact power arms. 3, 6, 9, 12 stands for standard power arms.

TTT = Check the phase-shifting transformer: "TTT000" = without transformer; replace with the options available in the coding section.

♦ = Check certification: replace "♦" with "CE" or "UL". For versions already marked with CE, check the possibility of UL on demand.

(**) = The use of an independent phase-shifting transformer with 2x 12 pulses for up to 4.16 kV and 2x 36 pulses for 6 to 6.9 kV should be considered. A single transformer cannot be used.

(***) = The use of an independent phase-shifting transformer with 3x 12 pulses for up to 4.16 kV and 3x 36 pulses for 6 to 6.9 kV should be considered. A single transformer cannot be used.

MVW01-WC G4 - Water-cooled medium voltage variable speed drive

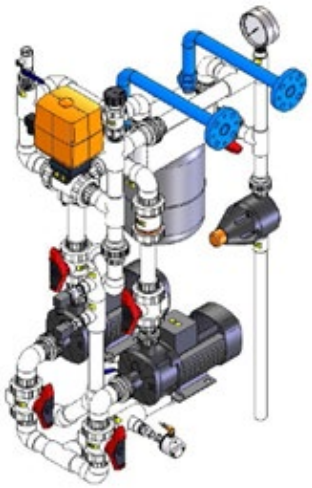
The water-cooled version of the MVW01 is perfect for high-power and demanding applications, such as environments with harsh conditions. It is also the ideal solution when hot air cannot be dissipated, and air conditioning is not a commercially viable option.
Double independent water circuit consisting of internal closed loop, an internal water-to-water heat exchanger, and an external water circuit, provides the MVW01 with a highly efficient cooling system to dissipate losses from the electrical room.
Reliable water circuits using quick release water connectors with retention avoids undesirable water drops inside the panel even in case of maintenances and redundant pumps to guarantee the continuous operation of the cooling system.
No special treatment for the external water is required.

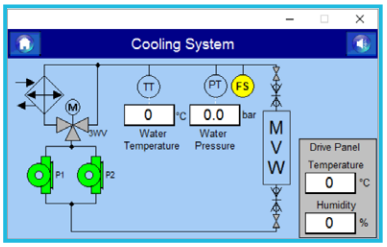
Characteristics

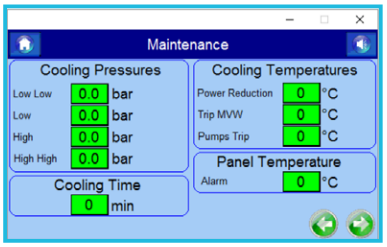
- Voltages: 2.3 to 6.9 kV
- Power: 1,700 to 55,520 HP (1.2 MW to 41.4 MW)
- Other power ratings on request













MVW01-WC G4 - Water-cooled medium voltage variable speed drive

Standard water-cooled versions

Motor voltage 3,300 V 50/60 Hz									
Normal Duty (ND)[1]			Heavy Duty (HD)[2]			MVW01 G4 – CE VSD models[5][6] WC (water-cooled) version[7]	Standard rectifier No. of pulses	Number of power arms[8]	Dimensions W x H x D (mm)
Rated output current (A)[4]	Power (HP)[3]	Power (kW)[3]	Rated output current (A)[4]	Power (HP)[3]	Power (kW)[3]				
265	1,700	1,270	234	1,500	1,120	MVW01G4 A0265 V033 TTT000 D12 WC I21 ST SN F0 CE	12	3	3,200 x 2,200 x 1,020
308	1,970	1,470	270	1,730	1,290	MVW01G4 A0308 V033 TTT000 D12 WC I21 ST SN F0 CE	12	3	3,200 x 2,200 x 1,020
359	2,300	1,710	315	2,020	1,500	MVW01G4 A0359 V033 TTT000 D12 WC I21 ST SN F0 CE	12	3	3,200 x 2,200 x 1,020
419	2,680	2,000	364	2,330	1,740	MVW01G4 A0419 V033 TTT000 D12 WC I21 ST SN F0 CE	12	3	3,200 x 2,200 x 1,020
460	2,950	2,200	423	2,710	2,020	MVW01G4 A0460 V033 TTT000 D12 WC I21 ST SN F0 CE	12	3	3,200 x 2,200 x 1,020
598	3,830	2,850	533	3,420	2,540	MVW01G4 A0598 V033 TTT000 D12 WC I21 ST SN F0 CE	12	3	3,200 x 2,200 x 1,020
679	4,350	3,240	597	3,830	2,850	MVW01G4 A0679 V033 TTT000 D12 WC I21 ST SN F0 CE	12	3	3,200 x 2,200 x 1,020
760	4,870	3,630	690	4,420	3,290	MVW01G4 A0750 V033 TTT000 D12 WC I21 ST SN F0 CE	12	3	3,200 x 2,200 x 1,020
874	5,600	4,170	804	5,150	3,840	MVW01G4 A0874 V033 TTT000 D12 WC I21 ST SN F0 CE	12	6	6,200 x 2,200 x 1,020
1,136	7,280	5,420	1,013	6,490	4,840	MVW01G4 A1136 V033 TTT000 D12 WC I21 ST SN F0 CE	12	6	6,200 x 2,200 x 1,020
1,290	8,270	6,160	1,134	7,270	5,410	MVW01G4 A1273 V033 TTT000 D12 WC I21 ST SN F0 CE	12	6	6,200 x 2,200 x 1,020
1,444	9,250	6,890	1,311	8,400	6,260	MVW01G4 A1444 V033 TTT000 D12 WC I21 ST SN F0 CE	12	6	6,200 x 2,200 x 1,020
1,704	10,920	8,130	1,519	9,730	7,250	MVW01G4 A1704 V033 TTT000 D12 WC I21 ST SN F0 CE	12	9	8,200 x 2,200 x 1,020
1,935	12,400	9,240	1,701	10,900	8,120	MVW01G4 A1910 V033 TTT000 D12 WC I21 ST SN F0 CE	12	9	8,200 x 2,200 x 1,020
2,166	13,880	10,340	1,967	12,600	9,390	MVW01G4 A2166 V033 TTT000 D12 WC I21 ST SN F0 CE	12	9	8,200 x 2,200 x 1,020
2,580	16,530	12,320	2,269	14,540	10,830	MVW01G4 A2546 V033 TTT000 D12 WC I21 ST SN F0 CE	12	12	10,000 x 2,200 x 1,020
2,888	18,510	13,790	2,622	16,800	12,520	MVW01G4 A2888 V033 TTT000 D12 WC I21 ST SN F0 CE	12	12	10,000 x 2,200 x 1,020
3,408	21,840	16,270	3,038	19,470	14,500	MVW01G4 A3409 V033 TTT000 D24 WC I21 ST SN F0 CE	2x12 (**)	2x9	16,400 x 2,200 x 1,020
3,870	24,800	18,470	3,402	21,800	16,240	MVW01G4 A3819 V033 TTT000 D24 WC I21 ST SN F0 CE	2x12 (**)	2x9	16,400 x 2,200 x 1,020
4,332	27,760	20,680	3,934	25,210	18,780	MVW01G4 A4332 V033 TTT000 D24 WC I21 ST SN F0 CE	2x12 (**)	2x9	16,400 x 2,200 x 1,020
5,160	33,060	24,630	4,538	29,080	21,660	MVW01G4 A5092 V033 TTT000 D24 WC I21 ST SN F0 CE	2x12 (**)	2x12	20,000 x 2,200 x 1,020
5,776	37,010	27,570	5,244	33,600	25,030	MVW01G4 A5776 V033 TTT000 D24 WC I21 ST SN F0 CE	2x12 (**)	2x12	20,000 x 2,200 x 1,020
6,498	41,640	31,020	5,901	37,810	28,170	MVW01G4 A6498 V033 TTT000 D36 WC I21 ST SN F0 CE	3x12 (***)	3x9	24,600 x 2,200 x 1,020
7,740	49,590	36,950	6,807	43,620	32,490	MVW01G4 A7638 V033 TTT000 D36 WC I21 ST SN F0 CE	3x12 (***)	3x12	30,000 x 2,200 x 1,020
8,664	55,520	41,360	7,866	50,400	37,550	MVW01G4 A8664 V033 TTT000 D36 WC I21 ST SN F0 CE	3x12 (***)	3x12	30,000 x 2,200 x 1,020

Notes: 1) ND = Normal Duty overload capacity: maximum current/power with 115% overload for 60 seconds every 10 minutes. Consult the factory for applications requiring higher overload capacity.

2) HD = Heavy Duty overload capacity: maximum current/power with 150% overload for 60 seconds every 10 minutes. Consult the factory for applications requiring higher overload capacity.

3) Motor power is for reference only, based on a 4-pole motor with PF = 0.87 and 96% efficiency at full load.

4) The ratings apply at 50 °C ambient temperature and up to 4,000 meters above sea level. See derating information in the section "Technical Data, Environmental Conditions."

5) The standard MVW01 is suitable for controlling VSD-duty motors, with cable lengths up to 100 meters between the drive and the motor for models up to 4.16 kV with 3 arms and for 6 to 6.9 kV models with up to 12 arms, or 200 meters for models up to 4.16 kV with 6 arms or more, and for 6 to 6.9 kV models with more than 12 power arms. See the section "Optional Filters" for longer cable lengths and the "Coding" section for general options.

6) The models above refer to the variable speed drive. The input switchgear and the phase-shifting transformer must be added in the coding. VSD dimensions only.

7) The internal cooling system uses DEMINERALIZED water for voltages up to 4.16 kV. Due to the 6 to 6.9 kV topology design, the internal cooling system uses DEIONIZED water. The DEMINERALIZED water option is not available.

8) Power arms: 3, 6, 9, 12 stand for standard power arms.

TTT = Check the phase-shifting transformer: "TTT000" = without transformer; replace with the options available in the coding section.

CE = Check the certification: For versions already marked with CE, check the possibility of UL on demand.

(**) = The use of an independent phase-shifting transformer with 2x 12 pulses for up to 4.16 kV and 2x 36 pulses for 6 to 6.9 kV should be considered. A single transformer cannot be used.

(***) = The use of an independent phase-shifting transformer with 3x 12 pulses for up to 4.16 kV and 3x 36 pulses for 6 to 6.9 kV should be considered. A single transformer cannot be used.

MVW01-WC G4 - Water-cooled medium voltage variable speed drive

Standard water-cooled versions

Motor voltage 4,160 V 50/60 Hz									
Normal Duty (ND)[1]			Heavy Duty (HD)[2]			MVW01 G4 – CE VSD models[5][6] WC (water-cooled) version[7]	Standard rectifier No. of pulses	Number of power arms[8]	Dimensions W x H x D (mm)
Rated output current (A)[4]	Power (HP)[3]	Power (kW)[3]	Rated output current (A)[4]	Power (HP)[3]	Power (kW)[3]				
235	1,890	1,410	211	1,700	1,270	MVW01G4 A0235 V041 TTT000 D12 WC I21 ST SN F0 CE	12	3	3,200 x 2,200 x 1,020
281	2,270	1,690	254	2,050	1,530	MVW01G4 A0281 V041 TTT000 D12 WC I21 ST SN F0 CE	12	3	3,200 x 2,200 x 1,020
312	2,520	1,880	285	2,310	1,720	MVW01G4 A0312 V041 TTT000 D12 WC I21 ST SN F0 CE	12	3	3,200 x 2,200 x 1,020
338	2,720	2,030	306	2,470	1,840	MVW01G4 A0338 V041 TTT000 D12 WC I21 ST SN F0 CE	12	3	3,200 x 2,200 x 1,020
429	3,460	2,580	390	3,150	2,350	MVW01G4 A0429 V041 TTT000 D12 WC I21 ST SN F0 CE	12	3	3,200 x 2,200 x 1,020
550	4,440	3,310	495	4,000	2,980	MVW01G4 A0550 V041 TTT000 D12 WC I21 ST SN F0 CE	12	3	3,200 x 2,200 x 1,020
642	5,180	3,860	581	4,700	3,500	MVW01G4 A0642 V041 TTT000 D12 WC I21 ST SN F0 CE	12	6	6,200 x 2,200 x 1,020
815	6,580	4,900	741	5,990	4,460	MVW01G4 A0815 V041 TTT000 D12 WC I21 ST SN F0 CE	12	6	6,200 x 2,200 x 1,020
1,045	8,440	6,290	945	7,640	5,690	MVW01G4 A1045 V041 TTT000 D12 WC I21 ST SN F0 CE	12	6	6,200 x 2,200 x 1,020
1,223	9,880	7,360	1,112	8,980	6,690	MVW01G4 A1223 V041 TTT000 D12 WC I21 ST SN F0 CE	12	9	8,200 x 2,200 x 1,020
1,568	12,670	9,440	1,424	11,500	8,570	MVW01G4 A1568 V041 TTT000 D12 WC I21 ST SN F0 CE	12	9	8,200 x 2,200 x 1,020
1,630	13,170	9,810	1,482	11,970	8,920	MVW01G4 A1630 V041 TTT000 D12 WC I21 ST SN F0 CE	12	12	10,000 x 2,200 x 1,020
2,090	16,890	12,580	1,899	15,340	11,430	MVW01G4 A2090 V041 TTT000 D12 WC I21 ST SN F0 CE	12	12	10,000 x 2,200 x 1,020
2,445	19,740	14,710	2,223	17,960	13,380	MVW01G4 A2445 V041 TTT000 D24 WC I21 ST SN F0 CE	2x12 (**)	2x9	16,400 x 2,200 x 1,020
3,136	25,330	18,870	2,851	23,030	17,160	MVW01G4 A3136 V041 TTT000 D24 WC I21 ST SN F0 CE	2x12 (**)	2x9	16,400 x 2,200 x 1,020
3,260	26,340	19,620	2,964	23,950	17,840	MVW01G4 A3260 V041 TTT000 D24 WC I21 ST SN F0 CE	2x12 (**)	2x12	20,000 x 2,200 x 1,020
4,180	33,760	25,150	3,800	30,700	22,870	MVW01G4 A4180 V041 TTT000 D24 WC I21 ST SN F0 CE	2x12 (**)	2x12	20,000 x 2,200 x 1,020
4,704	38,000	28,310	4,272	34,510	25,710	MVW01G4 A4704 V041 TTT000 D36 WC I21 ST SN F0 CE	3x12 (***)	3x9	24,600 x 2,200 x 1,020
5,781	46,700	34,790	5,226	42,210	31,450	MVW01G4 A5781 V041 TTT000 D36 WC I21 ST SN F0 CE	3x12 (***)	3x12	30,000 x 2,200 x 1,020
6,270	50,640	37,730	5,697	46,010	34,280	MVW01G4 A6270 V041 TTT000 D36 WC I21 ST SN F0 CE	3x12 (***)	3x12	30,000 x 2,200 x 1,020

Notes: 1) ND = Normal Duty overload capacity: maximum current/power with 115% overload for 60 seconds every 10 minutes. Consult the factory for applications requiring higher overload capacity.

2) HD = Heavy Duty overload capacity: maximum current/power with 150% overload for 60 seconds every 10 minutes. Consult the factory for applications requiring higher overload capacity.

3) Motor power is for reference only, based on a 4-pole motor with PF = 0.87 and 96% efficiency at full load.

4) The ratings apply at 50 °C ambient temperature and up to 4,000 meters above sea level. See derating information in the section "Technical Data, Environmental Conditions."

5) The standard MVW01 is suitable for controlling VSD-duty motors, with cable lengths up to 100 meters between the drive and the motor for models up to 4.16 kV with 3 arms and for 6 to 6.9 kV models with up to 12 arms, or 200 meters for models up to 4.16 kV with 6 arms or more, and for 6 to 6.9 kV models with more than 12 power arms. See the section "Optional Filters" for longer cable lengths and the "Coding" section for general options.

6) The models above refer to the variable speed drive. The input switchgear and the phase-shifting transformer must be added in the coding. VSD dimensions only.

7) The internal cooling system uses DEMINERALIZED water for voltages up to 4.16 kV. Due to the 6 to 6.9 kV topology design, the internal cooling system uses DEIONIZED water. The DEMINERALIZED water option is not available.

8) Power arms: 3, 6, 9, 12 stand for standard power arms.

TTT = Check the phase-shifting transformer: "TTT000" = without transformer; replace with the options available in the coding section.

CE = Check the certification: For versions already marked with CE, check the possibility of UL on demand.

(**) = The use of an independent phase-shifting transformer with 2x 12 pulses for up to 4.16 kV and 2x 36 pulses for 6 to 6.9 kV should be considered. A single transformer cannot be used.

(***) = The use of an independent phase-shifting transformer with 3x 12 pulses for up to 4.16 kV and 3x 36 pulses for 6 to 6.9 kV should be considered. A single transformer cannot be used.

MVW01-WC G4 - Water-cooled medium voltage variable speed drive

Standard water-cooled versions

Motor voltage 6,000 to 6,300 V 50/60 Hz									
Normal Duty (ND)[1]			Heavy Duty (HD)[2]			MVW01 G4 – CE VSD models[5][6] WC (water-cooled) version[7]	Standard rectifier No. of pulses	Number of power arms[8]	Dimensions W x H x D (mm)
Rated output current (A)[4]	Power (HP)[3]	Power (kW)[3]	Rated output current (A)[4]	Power (HP)[3]	Power (kW)[3]				
276	3,220	2,400	257	2,990	2,230	MVW01G4 A0276 V063 TTT000 D36 WC I21 ST SN F0 CE	36	6	6,060 x 2,200 x 1,020
326	3,800	2,830	299	3,480	2,600	MVW01G4 A0326 V063 TTT000 D36 WC I21 ST SN F0 CE	36	6	6,060 x 2,200 x 1,020
384	4,470	3,330	347	4,040	3,010	MVW01G4 A0384 V063 TTT000 D36 WC I21 ST SN F0 CE	36	6	6,060 x 2,200 x 1,020
452	5,270	3,920	403	4,700	3,500	MVW01G4 A0452 V063 TTT000 D36 WC I21 ST SN F0 CE	36	6	6,060 x 2,200 x 1,020
480	5,590	4,170	468	5,450	4,060	MVW01G4 A0480 V063 TTT000 D36 WC I21 ST SN F0 CE	36	6	6,060 x 2,200 x 1,020
624	7,270	5,420	559	6,510	4,850	MVW01G4 A0624 V063 TTT000 D36 WC I21 ST SN F0 CE	36	6	6,060 x 2,200 x 1,020
677	7,890	5,880	605	7,050	5,250	MVW01G4 A0677 V063 TTT000 D36 WC I21 ST SN F0 CE	36	6	6,060 x 2,200 x 1,020
730	8,500	6,340	650	7,570	5,640	MVW01G4 A0730 V063 TTT000 D36 WC I21 ST SN F0 CE	36	6	6,060 x 2,200 x 1,020
912	10,620	7,920	766	8,920	6,650	MVW01G4 A0912 V063 TTT000 D36 WC I21 ST SN F0 CE	36	12	8,760 x 2,200 x 1,020
1,186	13,810	10,290	1,062	12,370	9,220	MVW01G4 A1186 V063 TTT000 D36 WC I21 ST SN F0 CE	36	12	8,760 x 2,200 x 1,020
1,286	14,990	11,160	1,150	13,390	9,980	MVW01G4 A1286 V063 TTT000 D36 WC I21 ST SN F0 CE	36	12	8,760 x 2,200 x 1,020
1,387	16,160	12,040	1,235	14,390	10,720	MVW01G4 A1387 V063 TTT000 D36 WC I21 ST SN F0 CE	36	12	8,760 x 2,200 x 1,020
1,824	21,250	15,830	1,531	17,840	13,290	MVW01G4 A1718 V063 TTT000 D36 WC I21 ST SN F0 CE	2x36 (**)	2x12	17,520 x 2,200 x 1,020
2,371	27,620	20,580	2,124	24,750	18,440	MVW01G4 A2371 V063 TTT000 D36 WC I21 ST SN F0 CE	2x36 (**)	2x12	17,520 x 2,200 x 1,020
2,573	29,970	22,330	2,299	26,780	19,950	MVW01G4 A2573 V063 TTT000 D36 WC I21 ST SN F0 CE	2x36 (**)	2x12	17,520 x 2,200 x 1,020
2,774	32,320	24,080	2,470	28,780	21,440	MVW01G4 A2774 V063 TTT000D36 WC I21 ST SN F0 CE	2x36 (**)	2x12	17,520 x 2,200 x 1,020
3,859	44,960	33,490	3,449	40,180	29,930	MVW01G4 A3859 V063 TTT000D36 WC I21 ST SN F0 CE	3x36 (***)	3x12	26,280 x 2,200 x 1,020
4,161	48,480	36,110	3,705	43,160	32,160	MVW01G4 A4161 V063 TTT000 D36 WC I21 ST SN F0 CE	3x36 (***)	3x12	26,280 x 2,200 x 1,020

Notes: 1) ND = Normal Duty overload capacity: maximum current/power with 115% overload for 60 seconds every 10 minutes. Consult the factory for applications requiring higher overload capacity.

2) HD = Heavy Duty overload capacity: maximum current/power with 150% overload for 60 seconds every 10 minutes. Consult the factory for applications requiring higher overload capacity.

3) Motor power is for reference only, based on a 4-pole motor with PF = 0.87 and 96% efficiency at full load.

4) The ratings apply at 50 °C ambient temperature and up to 4,000 meters above sea level. See derating information in the section "Technical Data, Environmental Conditions."

5) The standard MVW01 is suitable for controlling VSD-duty motors, with cable lengths up to 100 meters between the drive and the motor for models up to 4.16 kV with 3 arms and for 6 to 6.9 kV models with up to 12 arms, or 200 meters for models up to 4.16 kV with 6 arms or more, and for 6 to 6.9 kV models with more than 12 power arms. See the section "Optional Filters" for longer cable lengths and the "Coding" section for general options.

6) The models above refer to the variable speed drive. The input switchgear and the phase-shifting transformer must be added in the coding. VSD dimensions only.

7) The internal cooling system uses DEMINERALIZED water for voltages up to 4.16 kV. Due to the 6 to 6.9 kV topology design, the internal cooling system uses DEIONIZED water. The DEMINERALIZED water option is not available.

8) Power arms: 3, 6, 9, 12 stand for standard power arms.

TTT = Check the phase-shifting transformer: "TTT000" = without transformer; replace with the options available in the coding section.

CE = Check the certification: For versions already marked with CE, check the possibility of UL on demand.

(**) = The use of an independent phase-shifting transformer with 2x 12 pulses for up to 4.16 kV and 2x 36 pulses for 6 to 6.9 kV should be considered. A single transformer cannot be used.

(***) = The use of an independent phase-shifting transformer with 3x 12 pulses for up to 4.16 kV and 3x 36 pulses for 6 to 6.9 kV should be considered. A single transformer cannot be used.

MVW01-WC G4 - Water-cooled medium voltage variable speed drive

Standard water-cooled versions

Motor voltage 6,600 to 6,900 V 50/60 Hz									
Normal Duty (ND)[1]			Heavy Duty (HD)[2]			MVW01 G4 – CE VSD models[5][6] WC (water-cooled) version[7]	Standard rectifier No. of pulses	Number of power arms[8]	Dimensions W x H x D (mm)
Rated output current (A)[4]	Power (HP)[3]	Power (kW)[3]	Rated output current (A)[4]	Power (HP)[3]	Power (kW)[3]				
267	3,420	2,550	250	3,200	2,390	MVW01G4 A0267 V069 TTT000 D36 WC I21 ST SN F0 CE	36	6	6,060 x 2,200 x 1,020
313	4,010	2,990	290	3,720	2,770	MVW01G4 A0313 V069 TTT000 D36 WC I21 ST SN F0 CE	36	6	6,060 x 2,200 x 1,020
368	4,720	3,510	337	4,320	3,220	MVW01G4 A0368 V069 TTT000 D36 WC I21 ST SN F0 CE	36	6	6,060 x 2,200 x 1,020
432	5,540	4,120	391	5,010	3,730	MVW01G4 A0432 V069 TTT000 D36 WC I21 ST SN F0 CE	36	6	6,060 x 2,200 x 1,020
460	5,900	4,390	423	5,420	4,040	MVW01G4 A0460 V069 TTT000 D36 WC I21 ST SN F0 CE	36	6	6,060 x 2,200 x 1,020
598	7,660	5,710	525	6,730	5,010	MVW01G4 A0598 V069 TTT000 D36 WC I21 ST SN F0 CE	36	6	6,060 x 2,200 x 1,020
649	8,320	6,200	582	7,460	5,560	MVW01G4 A0649 V069 TTT000 D36 WC I21 ST SN F0 CE	36	6	6,060 x 2,200 x 1,020
700	8,970	6,680	640	8,200	6,110	MVW01G4 A0700 V069 TTT000 D36 WC I21 ST SN F0 CE	36	6	6,060 x 2,200 x 1,020
874	11,200	8,340	804	10,300	7,670	MVW01G4 A0874 V069 TTT000 D36 WC I21 ST SN F0 CE	36	12	8,760 x 2,200 x 1,020
1,136	14,560	10,850	998	12,780	9,520	MVW01G4 A1136 V069 TTT000 D36 WC I21 ST SN F0 CE	36	12	8,760 x 2,200 x 1,020
1,233	15,800	11,770	1,106	14,170	10,560	MVW01G4 A1233 V069 TTT000 D36 WC I21 ST SN F0 CE	36	12	8,760 x 2,200 x 1,020
1,330	17,040	12,700	1,216	15,580	11,610	MVW01G4 A1330 V069 TTT000 D36 WC I21 ST SN F0 CE	36	12	8,760 x 2,200 x 1,020
1,748	22,400	16,690	1,607	20,600	15,350	MVW01G4 A1748 V069 TTT000 D36 WC I21 ST SN F0 CE	2x36 (**)	2x12	17,520 x 2,200 x 1,020
2,272	29,120	21,700	1,995	25,570	19,050	MVW01G4 A2272 V069 TTT000 D36 WC I21 ST SN F0 CE	2x36 (**)	2x12	17,520 x 2,200 x 1,020
2,466	31,600	23,550	2,212	28,340	21,110	MVW01G4 A2466 V069 TTT000 D36 WC I21 ST SN F0 CE	2x36 (**)	2x12	17,520 x 2,200 x 1,020
2,660	34,090	25,400	2,432	31,170	23,220	MVW01G4 A2660 V069 TTT000 D36 WC I21 ST SN F0 CE	2x36 (**)	2x12	17,520 x 2,200 x 1,020
3,699	47,410	35,320	3,317	42,510	31,670	MVW01G4 A3699 V069 TTT000 D36 WC I21 ST SN F0 CE	3x36 (***)	3x12	26,280 x 2,200 x 1,020
3,990	51,130	38,090	3,648	46,750	34,830	MVW01G4 A3990 V069 TTT000 D36 WC I21 ST SN F0 CE	3x36 (***)	3x12	26,280 x 2,200 x 1,020

Notes: 1) ND = Normal Duty overload capacity: maximum current/power with 115% overload for 60 seconds every 10 minutes. Consult the factory for applications requiring higher overload capacity.

2) HD = Heavy Duty overload capacity: maximum current/power with 150% overload for 60 seconds every 10 minutes. Consult the factory for applications requiring higher overload capacity.

3) Motor power is for reference only, based on a 4-pole motor with PF = 0.87 and 96% efficiency at full load.

4) The ratings apply at 50 °C ambient temperature and up to 4,000 meters above sea level. See derating information in the section "Technical Data, Environmental Conditions."

5) The standard MVW01 is suitable for controlling VSD-duty motors, with cable lengths up to 100 meters between the drive and the motor for models up to 4.16 kV with 3 arms and for 6 to 6.9 kV models with up to 12 arms, or 200 meters for models up to 4.16 kV with 6 arms or more, and for 6 to 6.9 kV models with more than 12 power arms. See the section "Optional Filters" for longer cable lengths and the "Coding" section for general options.

6) The models above refer to the variable speed drive. The input switchgear and the phase-shifting transformer must be added in the coding. VSD dimensions only.

7) The internal cooling system uses DEMINERALIZED water for voltages up to 4.16 kV. Due to the 6 to 6.9 kV topology design, the internal cooling system uses DEIONIZED water. The DEMINERALIZED water option is not available.

8) Power arms: 3, 6, 9, 12 stand for standard power arms.

TTT = Check the phase-shifting transformer: "TTT000" = without transformer; replace with the options available in the coding section.

CE = Check the certification: For versions already marked with CE, check the possibility of UL on demand.

(**) = The use of an independent phase-shifting transformer with 2x 12 pulses for up to 4.16 kV and 2x 36 pulses for 6 to 6.9 kV should be considered. A single transformer cannot be used.

(***) = The use of an independent phase-shifting transformer with 3x 12 pulses for up to 4.16 kV and 3x 36 pulses for 6 to 6.9 kV should be considered. A single transformer cannot be used.

MVW01-ARC G4 - Arc-resistant medium voltage variable speed drive

The MVW01, equipped with an arc-resistant system, is designed to maximize safety and protection in medium-voltage environments, particularly in critical applications. With advanced detection, robust containment, and automatic shutdown and isolation procedures, the MVW01 provides a reliable and safe solution, compliant with industry standards and offering significant benefits in terms of safety and maintenance.



Arc-resistance requirements for MV VSDs are based on three key aspects addressed in the solution: detection, containment, and redirection:

- High-speed fiber optic sensors continuously monitor electrical parameters, detecting abnormal patterns that indicate the presence of an electric arc.
- Arc-resistant enclosures and barriers are engineered to withstand thermal and mechanical stresses, preventing the arc from spreading.
- Arc redirection and ventilation systems to channel the arc energy away from critical components.

Benefits

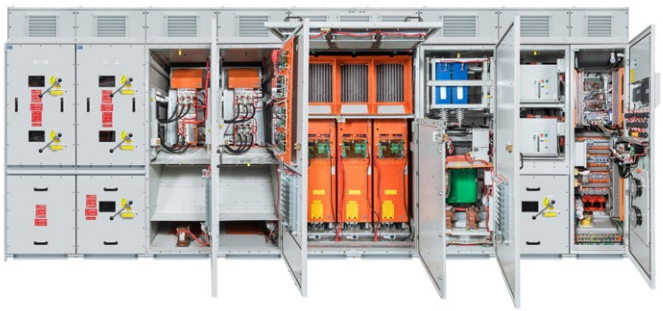


- Automatic shutdown and isolation procedures to minimize fault propagation.
- Precisely engineered air-cooled cabinet for internal parts maintains the system integrity.
- Successfully tested in rigorous functional and thermal type tests, ensuring high performance.
- Reduced risk to personnel and injury prevention through effective arc containment and redirection.
- Fully compliant with the Oil & Gas industry requirements, ensuring safe and reliable operation.
- Modular design allows for easy modifications and expansions, enhancing flexibility and maintenance.
- Fast detection and preventive action minimize arc duration and intensity, reducing fault impacts.

Characteristics

- Complies with IEC 62271-200 and IEC 62477-2 standards, ensuring arc resistance and safety for medium-voltage applications.
- Accessibility: A.
- Classification: F, L, R (front, lateral, and rear).
- Current level and duration: 20 kA for 0.5 s.
- Voltages: 2.3 to 6.9 kV.
- Power ratings: 1,300 to 54,790 HP (970 kW to 40.8 MW).
- Other power ratings on request.





MVW01-ARC G4 - Arc-resistant medium voltage variable speed drive

Standard arc-resistant versions

Motor voltage 3,300 V 50/60 Hz												
Normal Duty (ND)[1]			Heavy Duty (HD)[2]			Maximum continuous capacity[3]			MVW01 G4 – CE VSD models[6][7] EV (evaporative) version	Standard rectifier No. of pulses	Number of power arms[8]	Dimensions W x H x D (mm)
Rated output current (A)[5]	Power (HP)[4]	Power (kW)[4]	Rated output current (A)[5]	Power (HP)[4]	Power (kW)[4]	Max. continuous current (A)[5]	Power (HP)[4]	Power (kW)[4]				
204	1,300	970	180	1,150	860	214	1,370	1,020	MVW01G4 A0204 V033 TTT000 D12 EV I21 RS SN F0 CE	12	3H	3,300 x 2,660 x 1,550
237	1,520	1,130	208	1,330	990	249	1,600	1,190	MVW01G4 A0237 V033 TTT000 D12 EV I21 RS SN F0 CE	12	3H	3,300 x 2,660 x 1,550
276	1,770	1,320	242	1,560	1,160	290	1,860	1,380	MVW01G4 A0276 V033 TTT000 D12 EV I21 RS SN F0 CE	12	3H	3,300 x 2,660 x 1,550
322	2,070	1,540	280	1,800	1,340	338	2,170	1,610	MVW01G4 A0322 V033 TTT000 D12 EV I21 RS SN F0 CE	12	3H	3,300 x 2,660 x 1,550
376	2,400	1,790	325	2,080	1,550	395	2,530	1,890	MVW01G4 A0376 V033 TTT000 D12 EV I21 RS SN F0 CE	12	3H	3,300 x 2,660 x 1,550
450	2,890	2,150	390	2,500	1,860	460	2,950	2,200	MVW01G4 A0450 V033 TTT000 D12 EV I21 RS SN F0 CE	12	3H	3,300 x 2,660 x 1,550
560	3,580	2,670	490	3,140	2,340	590	3,780	2,820	MVW01G4 A0560 V033 TTT000 D12 EV I21 RS SN F0 CE	12	3H	3,300 x 2,660 x 1,550
650	4,160	3,100	590	3,780	2,820	676	4,330	3,230	MVW01G4 A0650 V033 TTT000 D12 EV I21 RS SN F0 CE	12	3H	3,300 x 2,660 x 1,550
750	4,810	3,580	680	4,360	3,250	780	5,000	3,720	MVW01G4 A0750 V033 TTT000 D12 EV I21 RS SN F0 CE	12	3H	3,300 x 2,660 x 1,550
855	5,480	4,080	741	4,750	3,540	874	5,600	4,170	MVW01G4 A0855 V033 TTT000 D12 EV I21 RS SN F0 CE	12	3	4,900 x 2,660 x 1,550
1,064	6,820	5,080	931	5,960	4,440	1,121	7,180	5,350	MVW01G4 A1064 V033 TTT000 D12 EV I21 RS SN F0 CE	12	3	4,900 x 2,660 x 1,550
1,235	7,910	5,900	1,121	7,180	5,350	1,284	8,230	6,130	MVW01G4 A1235 V033 TTT000 D12 EV I21 RS SN F0 CE	12	3	4,900 x 2,660 x 1,550
1,425	9,130	6,800	1,292	8,280	6,170	1,482	9,500	7,070	MVW01G4 A1425 V033 TTT000 D12 EV I21 RS SN F0 CE	12	3	4,900 x 2,660 x 1,550
1,596	10,230	7,620	1,396	8,950	6,670	1,682	10,780	8,030	MVW01G4 A1596 V033 TTT000 D12 EV I21 RS SN F0 CE	12	6H	7,000 x 2,660 x 1,550
1,852	11,870	8,840	1,681.5	10,770	8,030	1,927	12,350	9,200	MVW01G4 A1853 V033 TTT000 D12 EV I21 RS SN F0 CE	12	6H	7,000 x 2,660 x 1,550
2,137	13,700	10,200	1,938	12,420	9,250	2,223	14,240	10,610	MVW01G4 A2138 V033 TTT000 D12 EV I21 RS SN F0 CE	12	6H	7,000 x 2,660 x 1,550
2,470	15,830	11,790	2,242	14,370	10,700	2,569	16,460	12,260	MVW01G4 A2470 V033 TTT000 D12 EV I21 RS SN F0 CE	12	6	7,800 x 2,660 x 1,550
2,850	18,260	13,600	2,584	16,560	12,340	2,964	18,990	14,150	MVW01G4 A2850 V033 TTT000 D12 EV I21 RS SN F0 CE	12	6	7,800 x 2,660 x 1,550
3,192	20,450	15,240	2,792	17,900	13,330	3,364	21,560	16,060	MVW01G4 A3192 V033 TTT000 D24 EV I21 RS SN F0 CE	2x12 (**)	2x6H	13,400 x 2,660 x 1,550
3,705	23,740	17,690	3,363	21,550	16,050	3,854	24,690	18,400	MVW01G4 A3705 V033 TTT000 D24 EV I21 RS SN F0 CE	2x12 (**)	2x6H	13,400 x 2,660 x 1,550
4,275	27,390	20,410	3,876	24,840	18,500	4,446	28,490	21,220	MVW01G4 A4275 V033 TTT000 D24 EV I21 RS SN F0 CE	2x12 (**)	2x6H	13,400 x 2,660 x 1,550
4,940	31,650	23,580	4,484	28,730	21,410	5,138	32,920	24,530	MVW01G4 A4940 V033 TTT000 D24 EV I21 RS SN F0 CE	2x12 (**)	2x6	15,000 x 2,660 x 1,550
5,700	36,520	27,210	5,168	33,110	24,670	5,928	37,980	28,300	MVW01G4 A5700 V033 TTT000 D24 EV I21 RS SN F0 CE	2x12 (**)	2x6	15,000 x 2,660 x 1,550
6,412	41,090	30,610	5,814	37,250	27,750	6,669	42,730	31,840	MVW01G4 A6413 V033 TTT000 D36 EV I21 RS SN F0 CE	3x12 (***)	3x6H	19,800 x 2,660 x 1,550
7,410	47,480	35,370	6,726	43,100	32,110	7,707	49,380	36,790	MVW01G4 A7410 V033 TTT000 D36 EV I21 RS SN F0 CE	3x12 (***)	3x6	22,200 x 2,660 x 1,550
8,550	54,790	40,810	7,752	49,670	37,010	8,892	56,980	42,450	MVW01G4 A8550 V033 TTT000 D36 EV I21 RS SN F0 CE	3x12 (***)	3x6	22,200 x 2,660 x 1,550

Notes: 1) ND = Normal Duty overload capacity: maximum current/power with 115% overload for 60 seconds every 10 minutes. Consult the factory for applications requiring higher overload capacity.

2) HD = Heavy Duty overload capacity: maximum current/power with 150% overload for 60 seconds every 10 minutes. Consult the factory for applications requiring higher overload capacity.

3) Maximum current or power without overload.

4) Motor power is for reference only, based on a 4-pole motor with PF = 0.87 and 96% efficiency at full load.

5) The ratings apply at 40 °C ambient temperature and up to 1,000 meters above sea level. See derating information in the section "Technical Data, Environmental Conditions."

6) The standard MVW01 is suitable for controlling VSD-duty motors, with cable lengths up to 100 meters between the drive and the motor for models up to 4.16 kV with 3H arms and for 6 to 6.9 kV models with up to 12 arms, or 200 meters for models up to 4.16 kV with 3 arms or more, and for 6 to 6.9 kV models with more than 12 power arms. See the section "Optional Filters" for longer cable lengths and the "Coding" section for general options.

7) The models above refer to the variable speed drive. The input switchgear and the phase-shifting transformer must be added in the coding. VSD dimensions only.

8) Power arms: 3H stands for 3x "half" power arm. 3, 6 stand for standard power arms. 6H stands for 3H + 3 standard, power arms.

TTT = Check the phase-shifting transformer: "TTT000" = without transformer; replace with the options available in the coding section.

CE = Check certification: For versions already marked with CE, check the possibility of UL on demand.

(**) = The use of an independent phase-shifting transformer with 2x 12 pulses for up to 4.16 kV and 2x 36 pulses for 6 to 6.9 kV should be considered. A single transformer cannot be used.

(***) = The use of an independent phase-shifting transformer with 3x 12 pulses for up to 4.16 kV and 3x 36 pulses for 6 to 6.9 kV should be considered. A single transformer cannot be used.

MVW01-ARC G4 - Arc-resistant medium voltage variable speed drive

Standard arc-resistant versions

Motor voltage 4,160 V 50/60 Hz												
Normal Duty (ND)[1]			Heavy Duty (HD)[2]			Maximum continuous capacity[3]			MVW01 G4 – CE VSD models[6][7] EV (evaporative) version	Standard rectifier No. of pulses	Number of power arms[8]	Dimensions W x H x D (mm)
Rated output current (A)[5]	Power (HP)[4]	Power (kW)[4]	Rated output current (A)[5]	Power (HP)[4]	Power (kW)[4]	Max. continuous current (A)[5]	Power (HP)[4]	Power (kW)[4]				
181	1,460	1,090	162	1,300	970	195	1,580	1,170	MVW01G4 A0181 V041 TTT000 D12 EV I21 RS SN F0 CE	12	3H	3,300 x 2,660 x 1,550
216	1,740	1,300	195	1,570	1,170	233	1,880	1,400	MVW01G4 A0216 V041 TTT000 D12 EV I21 RS SN F0 CE	12	3H	3,300 x 2,660 x 1,550
260	2,090	1,560	235	1,890	1,410	280	2,260	1,680	MVW01G4 A0260 V041 TTT000 D12 EV I21 RS SN F0 CE	12	3H	3,300 x 2,660 x 1,550
294	2,380	1,770	265	2,130	1,590	312	2,520	1,880	MVW01G4 A0294 V041 TTT000 D12 EV I21 RS SN F0 CE	12	3H	3,300 x 2,660 x 1,550
330	2,670	1,990	290	2,350	1,750	350	2,830	2,110	MVW01G4 A0330 V041 TTT000 D12 EV I21 RS SN F0 CE	12	3H	3,300 x 2,660 x 1,550
400	3,230	2,410	360	2,910	2,170	430	3,470	2,590	MVW01G4 A0400 V041 TTT000 D12 EV I21 RS SN F0 CE	12	3H	3,300 x 2,660 x 1,550
500	4,040	3,010	480	3,880	2,890	530	4,280	3,190	MVW01G4 A0500 V041 TTT000 D12 EV I21 RS SN F0 CE	12	3H	3,300 x 2,660 x 1,550
627	5,060	3,770	551	4,460	3,320	665	5,370	4,000	MVW01G4 A0627 V041 TTT000 D12 EV I21 RS SN F0 CE	12	3	4,900 x 2,660 x 1,550
760	6,130	4,570	684	5,530	4,120	817	6,600	4,920	MVW01G4 A0750 V041 TTT000 D12 EV I21 RS SN F0 CE	12	3	4,900 x 2,660 x 1,550
950	7,680	5,720	912	7,370	5,490	1,007	8,130	6,060	MVW01G4 A0950 V041 TTT000 D12 EV I21 RS SN F0 CE	12	3	4,900 x 2,660 x 1,550
1,140	9,210	6,860	1,026	8,280	6,170	1,226	9,900	7,380	MVW01G4 A1140 V041 TTT000 D12 EV I21 RS SN F0 CE	12	6H	7,000 x 2,660 x 1,550
1,425	11,520	8,580	1,368	11,050	8,230	1,511	12,210	9,090	MVW01G4 A1425 V041 TTT000 D12 EV I21 RS SN F0 CE	12	6H	7,000 x 2,660 x 1,550
1,520	12,280	9,150	1,378	11,130	8,290	1,634	13,200	9,830	MVW01G4 A1520 V041 TTT000 D12 EV I21 RS SN F0 CE	12	6	7,800 x 2,660 x 1,550
1,900	15,340	11,430	1,824	14,740	10,980	2,014	16,270	12,120	MVW01G4 A1900 V041 TTT000 D12 EV I21 RS SN F0 CE	12	6	7,800 x 2,660 x 1,550
2,280	18,420	13,720	2,052	16,580	12,350	2,452	19,810	14,760	MVW01G4 A2280 V041 TTT000 D24 EV I21 RS SN F0 CE	2x12 (**)	2x6H	13,400 x 2,660 x 1,550
2,850	23,020	17,150	2,736	22,090	16,460	3,020	24,390	18,170	MVW01G4 A2850 V041 TTT000 D24 EV I21 RS SN F0 CE	2x12 (**)	2x6H	13,400 x 2,660 x 1,550
3,040	24,550	18,290	2,756	22,260	16,580	3,268	26,400	19,670	MVW01G4 A3040 V041 TTT000 D24 EV I21 RS SN F0 CE	2x12 (**)	2x6	15,000 x 2,660 x 1,550
3,800	30,700	22,870	3,648	29,460	21,950	4,028	32,540	24,240	MVW01G4 A3800 V041 TTT000 D24 EV I21 RS SN F0 CE	2x12 (**)	2x6	15,000 x 2,660 x 1,550
4,275	34,540	25,730	4,104	33,150	24,700	4,533	36,620	27,280	MVW01G4 A4275 V041 TTT000 D36 EV I21 RS SN F0 CE	3x12 (***)	3x6H	19,800 x 2,660 x 1,550
4,560	36,830	27,440	4,134	33,400	24,880	4,902	39,600	29,500	MVW01G4 A4560 V041 TTT000 D36 EV I21 RS SN F0 CE	3x12 (***)	3x6	22,200 x 2,660 x 1,550
5,700	46,040	34,300	5,472	44,200	32,930	6,042	48,800	36,360	MVW01G4 A5700 V041 TTT000 D36 EV I21 RS SN F0 CE	3x12 (***)	3x6	22,200 x 2,660 x 1,550

Notes: 1) ND = Normal Duty overload capacity: maximum current/power with 115% overload for 60 seconds every 10 minutes. Consult the factory for applications requiring higher overload capacity.

2) HD = Heavy Duty overload capacity: maximum current/power with 150% overload for 60 seconds every 10 minutes. Consult the factory for applications requiring higher overload capacity.

3) Maximum current or power without overload.

4) Motor power is for reference only, based on a 4-pole motor with PF = 0.87 and 96% efficiency at full load.

5) The ratings apply at 40 °C ambient temperature and up to 1,000 meters above sea level. See derating information in the section "Technical Data, Environmental Conditions."

6) The standard MVW01 is suitable for controlling VSD-duty motors, with cable lengths up to 100 meters between the drive and the motor for models up to 4.16 kV with 3H arms and for 6 to 6.9 kV models with up to 12 arms, or 200 meters for models up to 4.16 kV with 3 arms or more, and for 6 to 6.9 kV models with more than 12 power arms. See the section "Optional Filters" for longer cable lengths and the "Coding" section for general options.

7) The models above refer to the variable speed drive. The input switchgear and the phase-shifting transformer must be added in the coding. VSD dimensions only.

8) Power arms: 3H stands for 3x "half" power arm. 3, 6 stand for standard power arms. 6H stands for 3H + 3 standard, power arms.

TTT = Check the phase-shifting transformer: "TTT000" = without transformer; replace with the options available in the coding section.

CE = Check certification: For versions already marked with CE, check the possibility of UL on demand.

(**) = The use of an independent phase-shifting transformer with 2x 12 pulses for up to 4.16 kV and 2x 36 pulses for 6 to 6.9 kV should be considered. A single transformer cannot be used.

(***) = The use of an independent phase-shifting transformer with 3x 12 pulses for up to 4.16 kV and 3x 36 pulses for 6 to 6.9 kV should be considered. A single transformer cannot be used.

MVW01-ARC G4 - Arc-resistant medium voltage variable speed drive

Standard arc-resistant versions

Motor voltage 6,000 to 6,300 V 50/60 Hz												
Normal Duty (ND)[1]			Heavy Duty (HD)[2]			Maximum continuous capacity[3]			MVW01 G4 – CE VSD models[6][7] EV (evaporative) version	Standard rectifier No. of pulses	Number of power arms[8]	Dimensions W x H x D (mm)
Rated output current (A)[5]	Power (HP)[4]	Power (kW)[4]	Rated output current (A)[5]	Power (HP)[4]	Power (kW)[4]	Max. continuous current (A)[5]	Power (HP)[4]	Power (kW)[4]				
212	2,470	1,840	198	2,310	1,720	228	2,660	1,980	MVW01G4 A0212 V063 TTT000 D36 EV I21 RS SN F0 CE	36	3	4,800 x 2,660 x 1,550
251	2,920	2,180	230	2,680	2,000	269	3,130	2,330	MVW01G4 A0251 V063 TTT000 D36 EV I21 RS SN F0 CE	36	3	4,800 x 2,660 x 1,550
295	3,440	2,560	267	3,110	2,320	317	3,690	2,750	MVW01G4 A0295 V063 TTT000 D36 EV I21 RS SN F0 CE	36	3	4,800 x 2,660 x 1,550
348	4,050	3,020	310	3,610	2,690	373	4,350	3,240	MVW01G4 A0348 V063 TTT000 D36 EV I21 RS SN F0 CE	36	3	4,800 x 2,660 x 1,550
410	4,780	3,560	360	4,190	3,120	440	5,130	3,820	MVW01G4 A0410 V063 TTT000 D36 EV I21 RS SN F0 CE	36	3	4,800 x 2,660 x 1,550
480	5,590	4,170	430	5,010	3,730	500	5,830	4,340	MVW01G4 A0480 V063 TTT000 D36 EV I21 RS SN F0 CE	36	3	4,800 x 2,660 x 1,550
600	6,990	5,210	535	6,230	4,640	625	7,280	5,420	MVW01G4 A0600 V063 TTT000 D36 EV I21 RS SN F0 CE	36	3	4,800 x 2,660 x 1,550
720	8,390	6,250	640	7,460	5,550	750	8,740	6,510	MVW01G4 A0720 V063 TTT000 D36 EV I21 RS SN F0 CE	36	3	4,800 x 2,660 x 1,550
779	9,080	6,760	684	7,970	5,940	836	9,740	7,260	MVW01G4 A0779 V063 TTT000 D36 EV I21 RS SN F0 CE	36	6	6,900 x 2,660 x 1,550
912	10,620	7,920	817	9,520	7,090	950	11,070	8,250	MVW01G4 A0912 V063 TTT000 D36 EV I21 RS SN F0 CE	36	6	6,900 x 2,660 x 1,550
1,140	13,280	9,890	1,017	11,840	8,820	1,188	13,830	10,310	MVW01G4 A1140 V063 TTT000 D36 EV I21 RS SN F0 CE	36	6	6,900 x 2,660 x 1,550
1,368	15,940	11,870	1,216	14,170	10,550	1,425	16,600	12,370	MVW01G4 A1368 V063 TTT000 D36 EV I21 RS SN F0 CE	36	6	6,900 x 2,660 x 1,550
1,558	18,150	13,520	1,368	15,940	11,870	1,672	19,480	14,510	MVW01G4 A1558 V063 TTT000 D36 EV I21 RS SN F0 CE	2x36 (**)	2x6	13,200 x 2,660 x 1,550
1,824	21,250	15,830	1,634	19,040	14,180	1,900	22,140	16,490	MVW01G4 A1824 V063 TTT000 D36 EV I21 RS SN F0 CE	2x36 (**)	2x6	13,200 x 2,660 x 1,550
2,280	26,560	19,790	2,033	23,680	17,650	2,375	27,670	20,610	MVW01G4 A2280 V063 TTT000 D36 EV I21 RS SN F0 CE	2x36 (**)	2x6	13,200 x 2,660 x 1,550
2,736	31,870	23,750	2,432	28,330	21,110	2,850	33,200	24,740	MVW01G4 A2736 V063 TTT000 D36 EV I21 RS SN F0 CE	2x36 (**)	2x6	13,200 x 2,660 x 1,550
3,420	39,840	29,680	3,050	35,530	26,470	3,562.5	41,500	30,920	MVW01G4 A3420 V063 TTT000 D36 EV I21 RS SN F0 CE	3x36 (***)	3x6	19,500 x 2,660 x 1,550
4,104	47,810	35,620	3,648	42,500	31,660	4,275	49,800	37,100	MVW01G4 A4104 V063 TTT000 D36 EV I21 RS SN F0 CE	3x36 (***)	3x6	19,500 x 2,660 x 1,550

Notes: 1) ND = Normal Duty overload capacity: maximum current/power with 115% overload for 60 seconds every 10 minutes. Consult the factory for applications requiring higher overload capacity.

2) HD = Heavy Duty overload capacity: maximum current/power with 150% overload for 60 seconds every 10 minutes. Consult the factory for applications requiring higher overload capacity.

3) Maximum current or power without overload.

4) Motor power is for reference only, based on a 4-pole motor with PF = 0.87 and 96% efficiency at full load.

5) The ratings apply at 40 °C ambient temperature and up to 1,000 meters above sea level. See derating information in the section "Technical Data, Environmental Conditions."

6) The standard MVW01 is suitable for controlling VSD-duty motors, with cable lengths up to 100 meters between the drive and the motor for models up to 4.16 kV with 3H arms and for 6 to 6.9 kV models with up to 12 arms, or 200 meters for models up to 4.16 kV with 3 arms or more, and for 6 to 6.9 kV models with more than 12 power arms. See the section "Optional Filters" for longer cable lengths and the "Coding" section for general options.

7) The models above refer to the variable speed drive. The input switchgear and the phase-shifting transformer must be added in the coding. VSD dimensions only.

8) Power arms: 3H stands for 3x "half" power arm. 3, 6 stand for standard power arms. 6H stands for 3H + 3 standard, power arms.

TTT = Check the phase-shifting transformer: "TTT000" = without transformer; replace with the options available in the coding section.

CE = Check certification: For versions already marked with CE, check the possibility of UL on demand.

(**) = The use of an independent phase-shifting transformer with 2x 12 pulses for up to 4.16 kV and 2x 36 pulses for 6 to 6.9 kV should be considered. A single transformer cannot be used.

(***) = The use of an independent phase-shifting transformer with 3x 12 pulses for up to 4.16 kV and 3x 36 pulses for 6 to 6.9 kV should be considered. A single transformer cannot be used.

MVW01-ARC G4 - Arc-resistant medium voltage variable speed drive

Standard arc-resistant versions

Motor voltage 6,600 to 6,900 V 50/60 Hz												
Normal Duty (ND)[1]			Heavy Duty (HD)[2]			Maximum continuous capacity[3]			MVW01 G4 – CE VSD models[6][7] EV (evaporative) version	Standard rectifier No. of pulses	Number of power arms[8]	Dimensions W x H x D (mm)
Rated output current (A)[5]	Power (HP)[4]	Power (kW)[4]	Rated output current (A)[5]	Power (HP)[4]	Power (kW)[4]	Max. continuous current (A)[5]	Power (HP)[4]	Power (kW)[4]				
205	2,630	1,960	192	2,460	1,830	221	2,830	2,110	MVW01G4 A0205 V069 TTT000 D36 EV I21 RS SN F0 CE	36	3	4,800 x 2,660 x 1,550
241	3,090	2,300	223	2,860	2,130	260	3,330	2,480	MVW01G4 A0241 V069 TTT000 D36 EV I21 RS SN F0 CE	36	3	4,800 x 2,660 x 1,550
283	3,630	2,700	259	3,320	2,470	305	3,910	2,910	MVW01G4 A0283 V069 TTT000 D36 EV I21 RS SN F0 CE	36	3	4,800 x 2,660 x 1,550
332	4,250	3,170	301	3,860	2,870	358	4,590	3,420	MVW01G4 A0332 V069 TTT000 D36 EV I21 RS SN F0 CE	36	3	4,800 x 2,660 x 1,550
390	5,000	3,720	350	4,490	3,340	420	5,380	4,010	MVW01G4 A0390 V069 TTT000 D36 EV I21 RS SN F0 CE	36	3	4,800 x 2,660 x 1,550
460	5,900	4,390	404	5,180	3,860	480	6,150	4,580	MVW01G4 A0460 V069 TTT000 D36 EV I21 RS SN F0 CE	36	3	4,800 x 2,660 x 1,550
575	7,370	5,490	517	6,630	4,940	600	7,690	5,730	MVW01G4 A0575 V069 TTT000 D36 EV I21 RS SN F0 CE	36	3	4,800 x 2,660 x 1,550
690	8,840	6,590	630	8,070	6,010	720	9,230	6,870	MVW01G4 A0690 V069 TTT000 D36 EV I21 RS SN F0 CE	36	3	4,800 x 2,660 x 1,550
740	9,500	7,070	665	8,520	6,350	798	10,230	7,620	MVW01G4 A0740 V069 TTT000 D36 EV I21 RS SN F0 CE	36	6	6,900 x 2,660 x 1,550
874	11,200	8,340	768	9,840	7,330	912	11,690	8,710	MVW01G4 A0874 V069 TTT000 D36 EV I21 RS SN F0 CE	36	6	6,900 x 2,660 x 1,550
1,093	14,000	10,430	982	12,590	9,380	1,140	14,610	10,880	MVW01G4 A1093 V069 TTT000 D36 EV I21 RS SN F0 CE	36	6	6,900 x 2,660 x 1,550
1,311	16,800	12,520	1,197	15,340	11,430	1,368	17,530	13,060	MVW01G4 A1311 V069 TTT000 D36 EV I21 RS SN F0 CE	36	6	6,900 x 2,660 x 1,550
1,480	18,990	14,150	1,330	17,040	12,700	1,596	20,450	15,240	MVW01G4 A1480 V069 TTT000 D36 EV I21 RS SN F0 CE	2x36 (**)	2x6	13,200 x 2,660 x 1,550
1,748	22,400	16,690	1,535	19,670	14,660	1,824	23,370	17,410	MVW01G4 A1748 V069 TTT000 D36 EV I21 RS SN F0 CE	2x36 (**)	2x6	13,200 x 2,660 x 1,550
2,185	28,000	20,860	1,965	25,180	18,760	2,280	29,220	21,770	MVW01G4 A2185 V069 TTT000 D36 EV I21 RS SN F0 CE	2x36 (**)	2x6	13,200 x 2,660 x 1,550
2,622	33,600	25,030	2,394	30,680	22,860	2,736	35,060	26,120	MVW01G4 A2622 V069 TTT000 D36 EV I21 RS SN F0 CE	2x36 (**)	2x6	13,200 x 2,660 x 1,550
3,278	42,000	31,290	2,947	37,770	28,140	3,420	43,830	32,650	MVW01G4 A3278 V069 TTT000 D36 EV I21 RS SN F0 CE	3x36 (***)	3x6	19,500 x 2,660 x 1,550
3,933	50,400	37,550	3,591	46,020	34,280	4,104	52,590	39,180	MVW01G4 A3933 V069 TTT000 D36 EV I21 RS SN F0 CE	3x36 (***)	3x6	19,500 x 2,660 x 1,550

Notes: 1) ND = Normal Duty overload capacity: maximum current/power with 115% overload for 60 seconds every 10 minutes. Consult the factory for applications requiring higher overload capacity.

2) HD = Heavy Duty overload capacity: maximum current/power with 150% overload for 60 seconds every 10 minutes. Consult the factory for applications requiring higher overload capacity.

3) Maximum current or power without overload.

4) Motor power is for reference only, based on a 4-pole motor with PF = 0.87 and 96% efficiency at full load.

5) The ratings apply at 40 °C ambient temperature and up to 1,000 meters above sea level. See derating information in the section "Technical Data, Environmental Conditions."

6) The standard MVW01 is suitable for controlling VSD-duty motors, with cable lengths up to 100 meters between the drive and the motor for models up to 4.16 kV with 3H arms and for 6 to 6.9 kV models with up to 12 arms, or 200 meters for models up to 4.16 kV with 3 arms or more, and for 6 to 6.9 kV models with more than 12 power arms. See the section "Optional Filters" for longer cable lengths and the "Coding" section for general options.

7) The models above refer to the variable speed drive. The input switchgear and the phase-shifting transformer must be added in the coding. VSD dimensions only.

8) Power arms: 3H stands for 3x "half" power arm. 3, 6 stand for standard power arms. 6H stands for 3H + 3 standard, power arms.

TTT = Check the phase-shifting transformer: "TTT000" = without transformer; replace with the options available in the coding section.

CE = Check certification: For versions already marked with CE, check the possibility of UL on demand.

(**) = The use of an independent phase-shifting transformer with 2x 12 pulses for up to 4.16 kV and 2x 36 pulses for 6 to 6.9 kV should be considered. A single transformer cannot be used.

(***) = The use of an independent phase-shifting transformer with 3x 12 pulses for up to 4.16 kV and 3x 36 pulses for 6 to 6.9 kV should be considered. A single transformer cannot be used.

General technical characteristics

Power supply	Input voltages	Power transformer up to 36 kV	
	Frequency	50 or 60 Hz ±3%	
	Voltage unbalance between phases	<3%	
	Cos Φ	>0.97	
	Overvoltage category	Category III	
	Oil or dry-type phase-shifting transformer (optional)	12, 18, 24 and 36 pulses	
		With surge protectors on the high-voltage primary side	
		Impedance combined with secondary windings to minimize grid-side harmonics and reduce losses	
		Transformer winding temperature monitoring (Pt-100 on windings) via 8-channel temperature monitor	
	Input switchgear (optional)	Switch-disconnector with fuses and vacuum contactor up to 6.9 kV	
		Metal-clad switchgear up to 36 kV (MTW series)	
		Mechanical interlock to prevent access to the HV part when the switch is in the ON position	
		Top or bottom cable entry	
Auxiliary power supply	Voltages	Three-phase: 110, 220, 380, 400, 415, 440, 460, 480 and 690 V	
	Frequency	50 or 60 Hz (±3%)	
	Voltage unbalance between phases	<3%	
Enclosure	Protection rating	IP21 (NEMA1, IP41, IP42, IP54(WC) optional)	
	Color	RAL 7035	
	Painting scheme	WAU 05: 80 µm epoxy powder coating	
	Cable entry/exit options	Top or bottom cable entry	
Operating environmental conditions	Cooling system	AC / EV	WC
	Temperature	0 to 40 °C (104 °F) and up to 50 °C (122 °F) with 2.5% output current derating / °C)	0 to 50 °C (122º F)
	Humidity	5% to 90% non-condensing	5 to 90% non-condensing
	Altitude	0 to 1,000 m (up to 4,000 m (13,100 ft) with 10% derating / 1,000 m)	0 to 4,000 m (13,100 ft)
	Pollution degree	2	2
Power output	Motor voltage	2.3 kV to 6.9 kV	
	Topology	High-voltage IGBT (HV-IGBT)	
	Frequency range	0 ... 120 Hz (above, on request)	
	Overload capacity	115% for 60 seconds, every 10 minutes (1.15 x I nominal in ND)	
		150% for 60 seconds, every 10 minutes (1.50 x I nominal in HD)	
Control	Microprocessor	32 bits	
	Control method	SVM (Space Vector Modulation) and OPP™ (Synchronous Optimal Pulse Patterns)	
	Control type	Scalar (V/F), sensorless vector control, and closed-loop vector control	
	IGBT switching frequency	500 Hz	
Performance	Efficiency (typical values)	>96.0% (transformer with aluminum windings)	
		>96.5% (transformer with copper windings)	
	Speed control	V/f induction motor	- Regulation: 1% of the rated speed (with slip compensation) - Resolution: 1 rpm (reference via HMI)
		VVW PM motor	
		VVW synchronous machine, with sensor to assist starting (with optional RSSI board)	
		With sensor	Regulation: - With optional ACCE-ENC1 for incremental encoder: ±0.01% of the rated speed with digital reference (keypad, serial, Fieldbus, electronic potentiometer, multispeed) - With optional RSSI for absolute encoder: ±0.1% of rated speed with 10-bit analog input
		Sensorless	Regulation: 0.5% of rated speed
			Speed variation range: 1:100
Input, output, storage and communication interfaces	Inputs	Analog (standard interface)	2 differential analog inputs
			Isolated from the power circuits
			Levels: -10/0 to 10 V (11 bits + signal), 0/4 to 20 mA (10 bits)
			Maximum voltage: 30 V
			Maximum current: 25 mA
			Impedance: 400 kΩ (voltage mode), 250 Ω (current mode)
			Maximum common mode voltage: 10 V

General technical characteristics

Input, output, storage and communication interfaces	Inputs	Digital (standard interface)	6 digital inputs (total), being: - DI1 to DI4: 4 isolated digital inputs Low level: V_{DC} -3 V to 5 V, I<1.5 mA High level: V_{DC} > 11 V, I>2 mA Current: 8 mA @ 24 V (típico) Maximum voltage: 30 V_{DC} Maximum current: 11 mA @ 30 V_{DC} - DI5 and DI6: 2 isolated digital inputs Low level: V_{DC} -3 V to 5 V, I<0.5 mA High level: V_{DC} > 15 V, I>2 mA Current: 10 mA @ 24 V (típico) Maximum voltage: 30 V_{DC} Maximum current: 13 mA @ 30 V_{DC} Maximum frequency: 32 kHz Frequency speed reference
	Outputs	Analog (standard interface)	2 analog outputs
			Isolated from the power circuits
			Levels: 0 to 10 V (12 bits), 0/4 to 20 mA (12 bits)
			Load: RL 1 kΩ (voltage mode), RL 600 Ω (current mode)
		Digital (standard interface)	2 digital transistor outputs (NPN)
			Isolated from the power circuits
			Maximum current: 40 mA
			Protected against short circuit to the GND
			Maximum voltage: 24 V_{DC}
			With freewheel diode for 24 V_{DC} power supply
			Maximum frequency: 32 kHz
		Relay (standard interface with CFW900-REL-01 module)	3 relay outputs (total), being: - 2 relay outputs with NO contact - 1 relay output with NO/NC contact
			Maximum voltage: 30 V_{DC}, 250 V_{AC}, OVC III
			Maximum current: 2 A
			Minimum current: 10 mA@5 V_{DC}
			400 V TVS between contacts
	MicroSD[1] card slot	Characteristics	Card requirements: maximum size 32 GB
			Industrial temperature (-40 °C to 85 °C)
			FAT32 file system
	Communication	RS485 (standard interface)	Isolated RS485 interface
			Modbus-RTU protocol
		Dual port Ethernet network (RJ45) (standard interface)	Two RJ45 Ethernet connectors
			10/100 Mbps data rate with built-in dual port switch
			Available protocols: MQTT, Modbus-TCP, EtherNet/IP
		Fieldbus (optional)	CANopen; DeviceNet; EtherCAT; Profibus-DP; PROFINET IRT
Optional interfaces	Optional modules	Optional accessories for slot installation (backplane with 6 slots available for modules)	
		CFW900-CCAN-W	CAN interface module (CANopen/DeviceNet)
		CFW900-IOAI-01	Module with 3 analog inputs and 2 isolated analog outputs
		CFW900-IOD-01	Module with 8 isolated digital inputs and 8 isolated digital outputs
		CFW900-REL-01	Module with 3 digital relay outputs (1 unit provided as standard)
		CFW900-TEMP-01	Module with 6 isolated inputs for PTC/Pt-100/Pt-1000 sensors
		CFW900-CECAT-N	EtherCAT[2] interface module
		CFW900-CPN-IRT-N	PROFINET IRT[2] interface module
		CFW900-CPDP-N	Profibus-DP[2] interface module
	Optional boards	Optional accessories that do not occupy slots	
		ACCE-ENC	Incremental encoder module (installed on the CCE board)
		RSSI	Absolute encoder module
		Temperature protection and monitoring relays	Motor and transformer thermal protection and monitoring
		MicroSD slot	
		CFW900-SDC	8 GB industrial temperature microSD card

General technical characteristics

Software	Local configuration, programming and monitoring software	WEG Programming Suite (WPS) – download at *www.weg.net*	
	Asset management platform	Compatible with WEG Motion Fleet Management (WMFM)	
		Limited-time onboard license – check if available and activate the product	
		IoT Ready product with MQTT protocol	
Safety	Protections (record of the last 10 faults and 10 alarms, both with date and time)	DC link overvoltage	Output short circuit
		DC link undervoltage	Output ground fault
		Variable speed drive and motor overheating	External fault
		Output overcurrent	Self-diagnosis of faults and programming errors
		Motor overload (I xt)	Serial communication fault
		Dynamic braking resistor overload	Phase loss in the power supply
		CPU/EPROM error (Watchdog)	
HMI	Commands	Start/stop, programming of general functions	
		Increase/decrease speed	
		JOG, H/AH and local/remote	
	Monitoring (record of the last 10 faults and 10 alarms, both with date and time)	Speed reference (rpm)	Output current (A)
		Motor speed (rpm)	Output voltage (V)
		Proportional speed value (Ex: ft/min)	Drive status
		Output frequency (HZ)	Digital input status
		DC link voltage (V)	Digital output status
		Motor torque (%)	Relay output status
		Output power (kW)	Value of the analog inputs
		Motor running time (h)	Fault/alarm messages
		VSD running time (h)	
	Characteristics	10-inch color TFT LCD touch HMI	
		Password to protect the drive programming	
		LCD display language selection: English, Spanish, French, German and Portuguese	
Control characteristics	Standard	Fault self-diagnosis and auto-reset	
		Parameter reset to factory or user default values	
		Slip compensation (V/Hz mode)	
		Manual torque boost - I x R (V/Hz mode)	
		Adjustable V/Hz curve (V/Hz mode)	
		Minimum and maximum setpoints for speed, current, and voltage on the DC link	
		Adjustable motor overload protection	
		Adjustable digital gain and offset for analog inputs	
		Adjustable digital gain for analog outputs	
		JOG +/JOG - function (momentary speed increase/decrease)	
		Copy-paste/backup function (drive ↔ HMI)	
		Comparison functions for digital outputs: N1) > Nx; N > Nx; N < Nx ; N = 0; N = N1); Is > Ix ; Is < Ix; T > Tx e T < Tx[3)]	
		Linear and "S-type" ramps and double ramp	
		Independent acceleration and deceleration ramps	
		Multispeed function (up to 8 speed presets)	
		Special indicators (hour meter and wattmeter)	
		Superimposed PID controller (for automatic control of level, flow, pressure, and weight)	
		Rotation direction selection (CW/CCW)	
		Local/remote operation selection	
		FLYING START function (restart with a spinning load)	
		Critical speed rejection (up to 3 speeds)	
		RIDE-THROUGH function (operation during momentary power loss)	

General technical characteristics

Compliance / standards	Electromagnetic compatibility	2014/30/EU – EMC Directive
		EN 61800-3 standard (EMC – emission and immunity)
	CEI – IEC 61800	Adjustable Speed Electrical Power Drive System
		Part 4 - General Requirements
		Part 5 - Safety Requirements
	RoHS	2011/65/EU
		2015/863/EU
	Underwriters Laboratories	UL 347, UL 347A
Certifications	CE / EAC / UKCA / UL	

Notes: 1) MicroSD card not included.
2) Only 1 of the modules can be added to the drive at a time. For additional features, see the accessory manual on the WEG website.
3) N = Motor speed; N1) = Speed reference; Is = Output current and T = Motor torque.

Testing facilities

Every equipment manufactured is tested in our labs. This guarantees the performance and saves time during commissioning and start-up.
The tests of WEG MV VSD will be conducted in accordance with the following standards: IEC 60146-1, 61800-3, 61800-4 and 61800-5.

- Routine tests: visual inspection, insulation, dielectric voltage-withstand, light load, checking of auxiliary devices, checking the control equipment properties and checking the protective devices.
- Type tests: paint plan, rated load, temperature rise and efficiency / power losses.
- Special tests: power factor, overload / overcurrent capability, harmonic distortion and ground fault test.

Routine tests, type tests and combined/string tests (VSD + Motor) can be performed in the same manufacturing plant.
Please consult WEG for further information.



WEG Laboratories – Load tests in our facilities



Combined test (MV Incoming Switchgear + Phase-shifting Transformer + MV VSD + MV Motor)



Environmental policy

Efficiency for us is to create sustainable solutions!

As global market keeps growing every day, as energy demands grow together. Be part of sustainable economy is our responsibility, this way WEG supplies smart and efficient solutions.

Medium voltage loads are commonly part of the largest consumers inside industries, the use of medium voltage VSDs for these applications most of the times can dramatically decrease the use of energy and power consumption, consequently reducing CO_2 and other emissions.

Guarantee **the lowest environmental impact** of **our products** and manufacturing processes by:

- Being in compliance with the applicable **environmental legislation**
- Improving continuously by establishing **environmental goals** and **targets**
- Acting preventively with the aim of **protecting the environment**
- **Ecoefficient** processes and products, saving **natural resources**

Certifications
ISO 50001:2011
ISO 14001:2014
ISO 9001:2008

Notes

Notes



Global presence is essential, as much as understanding your needs.

Global Presence

With more than 49,000 employees worldwide, WEG is one of the largest electric motors, electronic equipments and systems manufacturers. We are constantly expanding our portfolio of products and services with expertise and market knowledge. We create integrated and customized solutions ranging from innovative products to complete after-sales service.

WEG's know-how guarantees our ***MVW01 – Medium Voltage Variable Speed Drive*** are the right choice for your application and business, assuring safety, efficiency and reliability.

- **Availability** is to have a global support network
- **Partnership** is to create solutions that suits your needs
- **Competitive edge** is to unite technology and inovation





Learn More

High performance and reliable products to improve your production process.

MV Switchgears

MV Soft-Starter



Dry Phase Shifting Transformer

Oil Phase Shifting Transformer

Excellence is to provide a whole solution in industrial automation that improves our customers productivity.

Visit: **www.weg.net**

youtube.com/wegvideos

The scope of WEG Group solutions
is not limited to products and solutions
presented in this catalogue.
To see our portfolio, contact us.

For WEG's worldwide
operations visit our website

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The values shown are subject to change without prior notice.
The information contained is reference values.