

Clean and Compact MV Drive

Fan, pump, compressor, conveyor applications

Altivar 1200

Medium-voltage variable speed drive,
from 315 to 16,200 kVA



Schneider
 **Electric™**



Easy integration into existing or new installations

High reliability and performance

Reduced energy consumption

Lower maintenance costs

Complete range of services



Mining, Minerals
& Metals



Oil & Gas



Power



Water & Wastewater

Benefit from uncompromised MV technology

Altivar 1200 extends the wide range of electrical distribution, motor control, and control systems from Schneider Electric.

Designed for industry and utility applications, this simple and high-performance MV drive will optimize the performance of applications such as fans, pumps, compressors, and conveyors.



Mining, Minerals & Metals

- Cement
- Coal mine
- Metallurgy
- Kiln head exhaust fan



Oil & Gas

- Petroleum and petrifaction
- Kiln head exhaust fan
- Air compressor
- Submersible pump



Power

- Boiler induced draught fan
- Boiler forced draught fan
- Primary fan
- Condensate pump
- Sewage pump



Water & Wastewater

- Water suction pump
- Water supply pump
- Primary suction pump
- Secondary clean water pump

Compact design and enhanced safety

All-in-one cabinet

Easy maintenance

- Front access transformer and control

Efficient cooling

- Separated air flow
- No additional fans to maintain
- Washable filters

Fully equipped

- UPS (30 mins)
- 10" HMI touch screen
- Indoor cabinet lights
- Audible alarm
- Free I/O
- Limit switch



Advanced IP31 enclosure

Separate access to MV area

- Interlock system
- Special door-opening tool required
- Handle lock
- DC bus power-off signal

Robust design

- 2mm panel thickness
- IP41 and IP42 (option)

Optimized power cell cabinet

Compact design

- Modular power cell design
- Easy to replace

Checking window

- 4 peepholes on each door of the power cell cabinet

Proven technology for performance and reliability

Control reliability

Easy access and compactness

- Integrated high speed control
- Customizable interface and control

Uninterrupted power supply

- 30 mins continuous operation after power supply loss
- Protection against supply instability (voltage drop)

Integrated transformer

Compactness

- Fewer cables and simpler commissioning

Clean power

- 18-54 pulse operation
- Clean sinusoidal wave

Air duct system

- Improved drive efficiency
- No hotspots



High-performance inverter

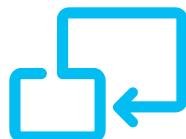
Inverter efficiency

- 98.5% efficiency

Motor-friendly

- Up to 19 levels of pulse-width modulation (PWM) for minimal switching surges
- Insignificant harmonics
- Up to 2km motor cable length without output filter

Compact and environmentally friendly



Compact size: Up to
1.5 MVA per meter
of enclosure
(drive only)

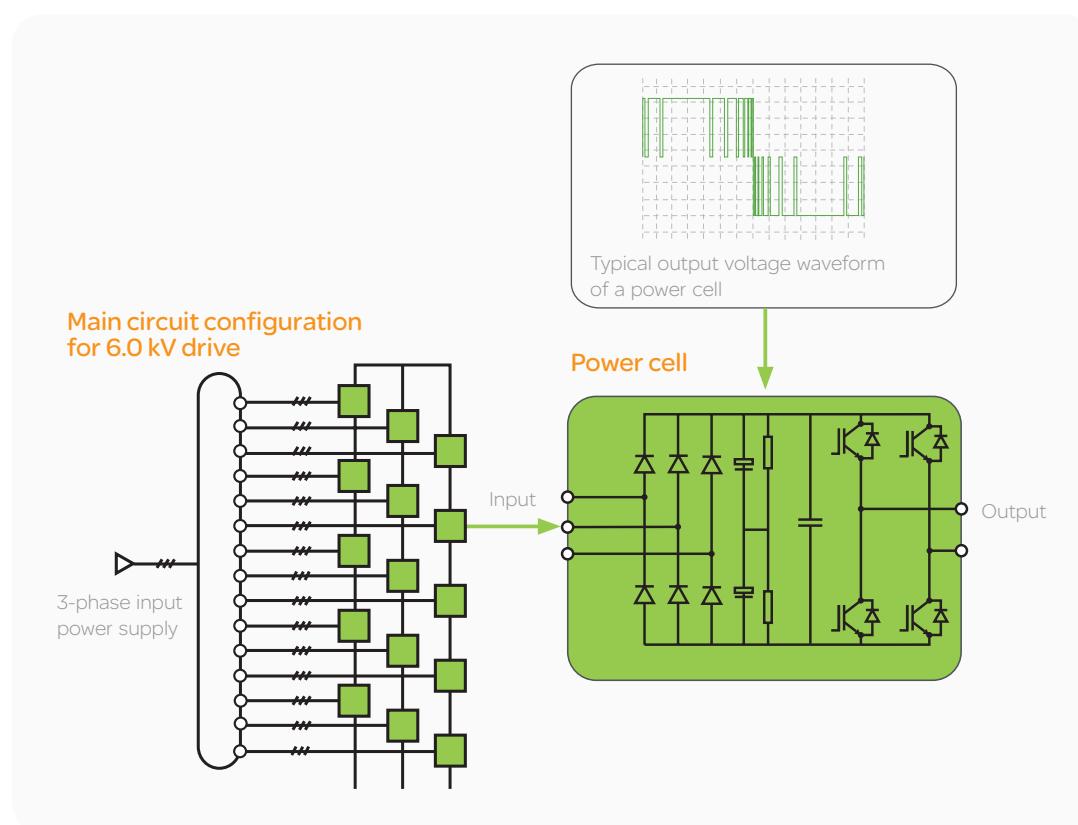
≥96.5%*

Efficiency including
transformer
*Depends on transformer

Clean power

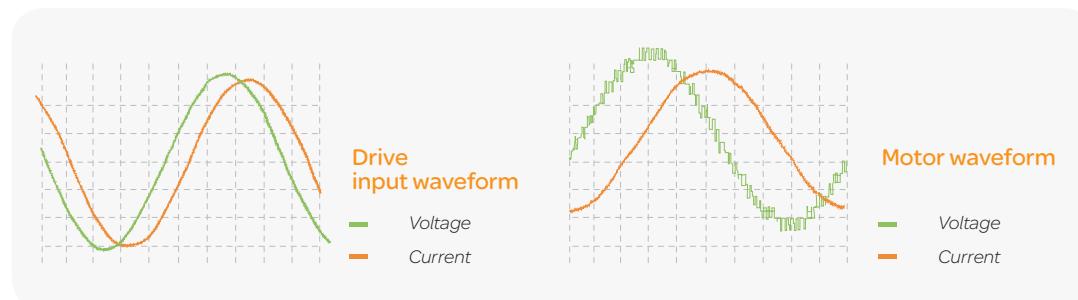
The multi-level topology shown below, featuring a 30-pulse diode rectifier, is associated with the kind of low-voltage IGBTs that have proven successful in practice and are found in a wide range of applications. It also features:

- Harmonics-free input current with high power factor
- No pulse torque
- Quasi sinusoidal wave for motors and supply currents (negligible harmonic current contents)
- Current switched off instantaneously
- Minimum losses since the IGBT does not need a snubber and requires little switching power



> 50,000 h

MTBF: more than
5.5 years



Benefit from innovation in your medium-voltage applications

Improved technology → Optimized results

Optimized cabinet

- Compact design with input transformer integrated in the drive enclosure
- Easy front access to control and transformer cabinet
- Certified IP31, IP41 and IP42 cabinet
- Small footprint

Maximized return on investments

- Reduced installation costs
- Quick commissioning
- Lower production and maintenance costs

Fully equipped drive

- Interlock system*, special door-opening tool required, the door is needed, power-off signal, handlelock
- Large 10" HMI, easy software configuration, internal lighting, free I/O
- UPS
- CE marking

Increased effectiveness

- Enhanced reliability
- Improved operation continuity
- Advanced protection of people and equipment
- User friendly
- International compliance

Multi-level technology

- Clean sinusoidal wave output current
- Lower harmonics, no motor stress
- Operate also with directly connected existing motors

No motor disturbance

- Improved motor durability
- Compatibility with new or existing motors
- Extended cable length to motor
- Motor friendly (no mechanical stress)

Improved OPEX and CAPEX

- Low harmonics THDI<3% (input & output)
- No specific motor insulation
- Long motor cable without additional components
- No special motor cable required
- Low dv/dt and voltage steps

Seamless integration with motor and line supply

- Optimized return on investment
- Reduced energy losses
- Insignificant interference with the electrical network

Efficient cooling system

- Innovative system without bottom transformer fans
- Reduced energy consumption
- Air duct system (no air conditioning needed)

Lower energy consumption

- Improved total drive efficiency

Simple and proven design

Inverter

- Modular architecture
- Proven low-voltage IGBT

Simple operation

- Time saving
- Easy maintenance
- Increased drive reliability

Separate air flow in control cabinet

- No additional fans inside the cabinet.

*according to customers' requirements

Flexibility and reliability



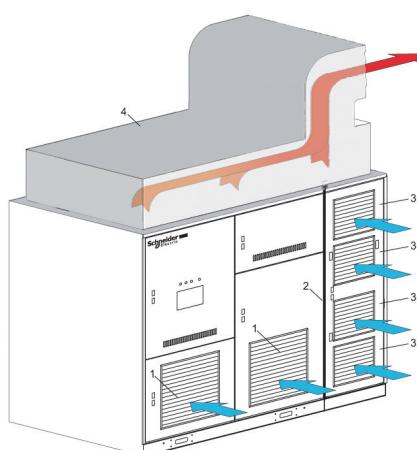
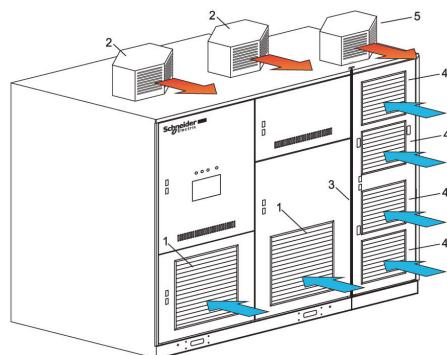
Optimized modular architecture

The inverter of the drive is based on a proven, modular low-voltage IGBT architecture for added reliability.

- Easy maintenance with module power cells that can be replaced in just a few minutes
- Simple multi-level architecture for cost-saving maintenance
- Fewer spare parts thanks to just one power cell design

A dedicated CPU compartment close to the power cells requires only short cables and simplifies the installation on site. Cabinets can be shipped separately.

- Space-optimized dimensions without squeezing the components and avoiding hot spots inside the system
- Easy access to control panel allows you to install additional components according to your needs



Drive with air duct channel

Efficient cooling system

Innovative transformer design with no need for additional bottom blowers.

- Up to 0.3% total drive efficiency

Separate air flow in the control cabinet

- Efficient air flow in the control cabinet thanks to the Altivar 1200 design. No additional fans needed inside the cabinet.
- No maintenance required.

Cooling through air duct channel (option)

The Altivar 1200 can be equipped with an air duct system to exhaust heated air outside the electrical room. For optimized air conditioning, clean air has to be provided in the drive air inlets.

- Air inlet grid for transformer cabinet
- Guided air flow to avoid internal air short-circuit between transformer and powercell cabinet
- Air inlet grid for powercell cabinet
- Air duct channel

User-friendly interface with several control features



Easy-to-use 10-inch color LCD touch-screen with operation data at your fingertips.

- Multiple languages
- Consistent menus within the Altivar ranges
- Parameter and operation records
- Dedicated multi-level menu to guide you with different access levels for service and commissioning engineers (operator, manager, administrator)

Control features

- **Motor control mode:** V/f control, sensorless flux vector control, closed loop
- **Integrated protection:** Overcurrent, overvoltage, undervoltage, controller shutdown, cooling fan stop, overload, overtemperature, communication interruption, ground fault, phase loss
- **Communication:** Modbus, Modbus TCP, Ethernet IP, Profibus or DeviceNet
- **HMI screen:**
 - Output: frequency, voltage, current, power
 - Input: voltage, current, power,
 - Power factor, parameter setting, voltage and current waveform, transformer temperature, drive status and records
- 1Q or 2Q operation, PID function
- I/O function
- Local / remote mode
- **Frequency setting:** manual, analogue, digital

Key functions

- Soft start function (including synchronization and bypass)
- Multi motor control
- Catch on the fly
- Simulation mode for commissioning
- Master slave function up to 3 drives (1 master, 2 slaves)
- Speed synchronized control (load sharing)
- Motor autotuning
- Auto restart (after input voltage drop)

The screenshots show the following interface details:

- Main Panel:** Displays system status (Local mode checked, Running, PLC normal), supply inputs (29.25 A, 0.0 kV, 0 °C), drive outputs (0 A, 0.0 kHz), and motor parameters (Input 0 A, Motor 10 rpm, Running 0.5 Hz, Pressure 0 Mpa). It includes buttons for Emergency stop, Stop, Start, Accelerate, Decelerate, and Reset.
- Parameter:** Shows a grid of parameter settings:

| Parameter name | Value | Unit |
|------------------------------|-------|------|
| Starting frequency | 0.5 | Hz |
| Min frequency | 0.5 | Hz |
| Max frequency | 60. | Hz |
| Reference voltage | 4160. | V |
| Reference frequency | 60. | Hz |
| Torque boost | 0. | |
| Skip-frequency 1 lower limit | 0. | Hz |
| Skip-frequency 1 upper limit | 0. | Hz |
| Skip-frequency 2 lower limit | 0. | Hz |
| Skip-frequency 2 upper limit | 0. | Hz |
| Frequency point 1 | 50. | Hz |

Buttons include OK and Cancel.
- Speed parameter:** Shows a table of speed parameters:

| Parameter name | Value | Unit |
|------------------------------|-------|------|
| Starting frequency | 0.5 | Hz |
| Min frequency | 0.5 | Hz |
| Max frequency | 60. | Hz |
| Reference voltage | 4160. | V |
| Reference frequency | 60. | Hz |
| Torque boost | 0. | |
| Skip-frequency 1 lower limit | 0. | Hz |
| Skip-frequency 1 upper limit | 0. | Hz |
| Skip-frequency 2 lower limit | 0. | Hz |
| Skip-frequency 2 upper limit | 0. | Hz |
| Frequency point 1 | 50. | Hz |

Buttons include OK and Cancel.

Make your life easier with complete solutions

Complete solution by Schneider Electric

The Altivar 1200 is open to most networks and can be integrated in any medium-voltage architecture.



With the Altivar 1200, Schneider Electric has created a comprehensive and consistent solution for:

- Controlling and supplying equipment
- Improving performance

Schneider Electric, a world leader in electrical distribution and control systems, presents a range of products, solutions and services for:

- Transforming and routing energy
- Automating machines and processes

The Altivar 1200 solution is based on a transformer, drive and medium-voltage electric motor assembly.

Schneider Electric can provide a turnkey solution complete with drive and associated equipment (electrical distribution, control systems).

For more information, please contact our project teams.

Build a competitive advantage with the help from our industry experts

By applying our industrialization skills to our services, we can help to ensure your success.

Schneider Electric's expertise

Service experts are on hand to help you:

- Get maximum return on your investments
- Optimize the value of your installations throughout their life cycle

A wide range of associated services

Audit and consultancy:

- Line supply consultancy (compensation, filtering, harmonics, etc.)
- Shaft line study (torsional analysis, etc.)
- Energy efficiency, enabling an optimized drive solution

Installation and startup with:

- Assistance and troubleshooting
- Specific maintenance contract (with optional remote access and reconditioning)

Turnkey solution

- Schneider Electric can provide a complete turnkey solution with drive and associated equipment (electrical distribution, control systems)

Factory tests

- Deliver factory acceptance test (FAT)
- Test at maximum power with or without motor

Customized training

- On user site or in Schneider Electric training center
- Official qualification for medium-voltage drive operations

Bespoke project management

Rapid, flexible service provision



Rapid return on investment
(generally less than 24 months)



Altivar 1200 medium-voltage speed drives are built to suit your needs!

With our complete range of personalized and fully-equipped drives we have made it easy for you to find the one that fits your application perfectly.

Altivar 1200 general technical specification

Standard features

| | |
|--|---|
| Input | 18-54 pulse diode rectifier bridge |
| Output | Multilevel PWM with 2 level low-voltage IGBT inverter cells |
| Input voltage | <ul style="list-style-type: none"> • 2.4kV, 3.0kV, 3.3kV, 4.16kV, 5.5kV, 6.0kV, 6.3kV, 6.6kV, 6.9kV, 10kV, 11kV, 13.8 kV • Variation: standard ±10% |
| Allowable voltage fluctuation | The drive is subject to de-rating operation when the voltage drop of power supply is within -25% |
| Input frequency | 50/60 Hz +/-5% |
| Acceleration deceleration time | 0-3200 s |
| Overload capability | <ul style="list-style-type: none"> • Standard overload 120% 60s/10 min and 150% 3s/10 min, instant trip threshold 200% • High overload 150% 60s/10 min, 185% 3s/10 min, instant trip threshold 250% |
| Total harmonics THDI | Comply with the requirements of power quality standard of IEEE519-1992 |
| Frequency resolution | 0.01 HZ |
| Trigger signal transmission | Fiber optic transmission |
| Input Power factor | ≥ 0.96 from 20 % to 100 % of speed |
| Efficiency at rated power | The efficiency of the drive including input transformer 96% or over 96.5% depending on product Inverter efficiency without transformer is 98.5% |
| Type of motor | Asynchronous motor, synchronous motor |
| Three-phase output voltage for motor connection | 0...2400V - 0...3000V - 0...3300V - 0...4160V - 0...5500V - 0...6000V 0...6300V - 0...6600V - 0...6900V - 0...10000V - 0...11000V |
| Output frequency | 120Hz for V/f, 70Hz for Vector Control |
| Input transformer | Indoor type integrated in the frequency variable device, the dry phase-shifting transformer can be supplied with 18 – 54 pulse rectifier |
| Control power supply | 220 VAC, capacity 3 kVA, with UPS 30 min autonomy, other voltage on request |
| Protection class | <ul style="list-style-type: none"> • Standard: IP31 • Option: IP41, IP42 |
| Cooling | Forced air ventilation |
| Paint | RAL 7032 |
| Reference standard | IEC EN 61800-3, IEC EN 61800-4, IEC EN 61800-5-1, IEC EN 60204-11, IEC EN 60529, IEEE 519 and other optional ones |

Environment

| | |
|----------------------------|--|
| Storage temperature | -10°C to 60°C |
| Working temperature | 0-40°C, up to 50°C possible with derating |
| Relative humidity | 90% (without condensate), Optional: maximum up to 95% |
| Altitude | ≤ 1000 m without derating. With derating of 0.6% every 100m up to 2000 meters, can be customized for high altitude |
| Vibration | Acceleration: 4.9 m/s ² acceptable (10-50 Hz) |
| Noise level | ≤ 80 dB (A) (including the noise of the cooling fan on the cabinet top) |

Identification code

| | | | | | | | |
|----------------|--------------|--------------|---------------|----------------|---------------|----------|-----------------------|
| ATV1200 | A | X X X | ■ | 66 | ■ | ■ | ■ |
| Serial Name | Cooling type | Drive (kVA) | Input voltage | Output voltage | Style | IP | Drive efficiency |
| A→Air Cooled | | | 24→2.4kV | 42→4.16kV | S→Sync. | 3→IP31 | S→Standard Efficiency |
| | | | 33→3.3kV | 60→6kV | Motor Control | 4→IP41 | H→High Efficiency |
| | | | 55→5.5kV | 66→6.6kV | A→Async. | 5→IP42 | |
| | | | 63→6.3kV | 11→11kV | Motor Control | | |
| | | | 10→10kV | | | | |

Example

ATV1200 - A 5600 - 66 60 A 3 H

The capacity of Altivar 1200 series of medium-voltage Drive is 5600 kVA, air cooled, input voltage is 6.6 kV, output voltage is 6kV, asynchronous motor control, IP31 and with high efficiency input transformer.

Altivar 1200 power specifications voltage class 3.3 kV

| Model | Nominal continuous current(A) | | Typical motor power (kW) | Type rating (kVA) | Dimension (W*D*H) mm | Approximate weight (kg) |
|-----------------------|-------------------------------|--------------------|--------------------------|-------------------|----------------------|-------------------------|
| | Standard overload 120% | High overload 150% | | | | |
| ATV1200-A370-3333... | 65 | 52 | 309 | 370 | 2460x1400x2520 | 2200 |
| ATV1200-A470-3333... | 82 | 66 | 393 | 470 | 2460x1400x2520 | 2400 |
| ATV1200-A570-3333... | 100 | 80 | 477 | 570 | 2460x1400x2520 | 2600 |
| ATV1200-A660-3333... | 116 | 93 | 552 | 660 | 2760x1400x2520 | 3200 |
| ATV1200-A770-3333... | 135 | 108 | 644 | 770 | 2760x1400x2520 | 3200 |
| ATV1200-A860-3333... | 150 | 120 | 719 | 860 | 2760x1400x2590 | 3400 |
| ATV1200-A1000-3333... | 175 | 140 | 836 | 1000 | 3560x1400x2670 | 4300 |
| ATV1200-A1140-3333... | 200 | 160 | 953 | 1140 | 3560x1400x2670 | 4600 |
| ATV1200-A1250-3333... | 220 | 176 | 1045 | 1250 | 3560x1400x2670 | 4700 |
| ATV1200-A1400-3333... | 245 | 196 | 1170 | 1400 | 3560x1400x2820 | 5000 |
| ATV1200-A1600-3333... | 280 | 224 | 1338 | 1600 | 3560x1500x2820 | 5400 |
| ATV1200-A1830-3333... | 320 | 256 | 1530 | 1830 | 4560x1500x2670 | 6400 |
| ATV1200-A2000-3333... | 350 | 280 | 1672 | 2000 | 4560x1500x2670 | 6500 |
| ATV1200-A2340-3333... | 410 | 328 | 1956 | 2340 | 4560x1600x2670 | 7100 |
| ATV1200-A2800-3333... | 490 | 392 | 2341 | 2800 | 4560x1600x2820 | 7800 |
| ATV1200-A3150-3333... | 550 | 440 | 2633 | 3150 | 5870x1700x2740 | 9800 |
| ATV1200-A3500-3333... | 612 | 490 | 2926 | 3500 | 5870x1700x2740 | 10200 |
| ATV1200-A3780-3333... | 661 | 529 | 3160 | 3780 | 5870x1700x2740 | 10600 |
| ATV1200-A4120-3333... | 720 | 576 | 3444 | 4120 | 5870x1700x2740 | 11100 |
| ATV1200-A4460-3333... | 780 | 624 | 3729 | 4460 | 5870x1700x2740 | 11800 |
| ATV1200-A4860-3333... | 850 | 680 | 4063 | 4860 | 5870x1700x2740 | 12400 |

- 1) ... Please contact Schneider Electric for other combinations of input and output voltage.
- 2) ... For higher drive capacity please contact Schneider Electric.
- 3) ... Values are calculated with motor power factor of 0.88 and efficiency of 95%. The real value must be calculated on the basis of the equipment used.
- 4) ... Values valid only for standard efficiency.

Altivar 1200 power specifications voltage class 4.16 kV

| Model | Nominal continuous current(A) | | Typical motor power (kW) | Type rating (kVA) | Dimension (W*D*H) mm | Approximate weight (kg) |
|-----------------------|-------------------------------|--------------------|--------------------------|-------------------|----------------------|-------------------------|
| | Standard overload 120% | High overload 150% | | | | |
| ATV1200-A350-4242... | 49 | 39 | 293 | 350 | 2660x1400x2520 | 2400 |
| ATV1200-A470-4242... | 65 | 52 | 393 | 470 | 2660x1400x2520 | 2600 |
| ATV1200-A560-4242... | 78 | 62 | 468 | 560 | 2660x1400x2520 | 2800 |
| ATV1200-A720-4242... | 100 | 80 | 602 | 720 | 2660x1400x2520 | 3100 |
| ATV1200-A790-4242... | 109 | 87 | 660 | 790 | 3060x1400x2520 | 3800 |
| ATV1200-A940-4242... | 130 | 104 | 786 | 940 | 3060x1400x2520 | 4000 |
| ATV1200-A1080-4242... | 150 | 120 | 903 | 1080 | 3660x1400x2670 | 4400 |
| ATV1200-A1190-4242... | 165 | 132 | 995 | 1190 | 4060x1400x2670 | 5000 |
| ATV1200-A1450-4242... | 200 | 160 | 1212 | 1450 | 4060x1400x2670 | 5300 |
| ATV1200-A1585-4242... | 220 | 176 | 1325 | 1585 | 4060x1500x2670 | 5600 |
| ATV1200-A1750-4242... | 243 | 194 | 1463 | 1750 | 4060x1500x2740 | 5800 |
| ATV1200-A2020-4242... | 280 | 224 | 1689 | 2020 | 4360x1500x2740 | 6300 |
| ATV1200-A2310-4242... | 320 | 256 | 1931 | 2310 | 5170x1500x2670 | 7700 |
| ATV1200-A2500-4242... | 347 | 278 | 2090 | 2500 | 5170x1500x2670 | 7900 |
| ATV1200-A2960-4242... | 410 | 328 | 2475 | 2960 | 5170x1600x2670 | 8500 |
| ATV1200-A3130-4242... | 434 | 347 | 2617 | 3130 | 5170x1600x2670 | 8800 |
| ATV1200-A3530-4242... | 490 | 392 | 2951 | 3530 | 5470x1700x2820 | 9600 |
| ATV1200-A4000-4242... | 550 | 440 | 3344 | 4000 | 6670x1800x2740 | 12100 |
| ATV1200-A4400-4242... | 611 | 489 | 3678 | 4400 | 6670x1800x2740 | 12500 |
| ATV1200-A4760-4242... | 661 | 529 | 3979 | 4760 | 6670x1800x2740 | 13000 |
| ATV1200-A5200-4242... | 720 | 576 | 4347 | 5200 | 6670x1800x2740 | 13800 |
| ATV1200-A5650-4242... | 784 | 627 | 4723 | 5650 | 6670x1800x2740 | 14200 |
| ATV1200-A6150-4242... | 850 | 680 | 5141 | 6150 | 6970x1800x3040 | 14700 |

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- 2) ... For higher drive capacity please contact Schneider Electric.
- 3) ... Values are calculated with motor power factor of 0.88 and efficiency of 95%. The real value must be calculated on the basis of the equipment used.
- 4) ... Values valid only for standard efficiency.

Altivar 1200 power specifications voltage class 5.5 kV

| Power specifications | | | | | | |
|-----------------------|-------------------------------|--------------------|--------------------------|-------------------|----------------------|-------------------------|
| Model | Nominal continuous current(A) | | Typical motor power (kW) | Type rating (kVA) | Dimension (W*D*H) mm | Approximate weight (kg) |
| | Standard overload 120% | High overload 150% | | | | |
| ATV1200-A430-5555... | 45 | 36 | 359 | 430 | 2860x1400x2590 | 2400 |
| ATV1200-A520-5555... | 55 | 44 | 435 | 520 | 2860x1400x2590 | 2600 |
| ATV1200-A620-5555... | 65 | 52 | 518 | 620 | 2860x1400x2590 | 2800 |
| ATV1200-A730-5555... | 76 | 61 | 610 | 730 | 2860x1400x2590 | 3100 |
| ATV1200-A860-5555... | 90 | 72 | 719 | 860 | 2860x1400x2590 | 3800 |
| ATV1200-A960-5555... | 100 | 80 | 803 | 960 | 3160x1400x2590 | 4000 |
| ATV1200-A1090-5555... | 114 | 91 | 911 | 1090 | 3660x1400x2520 | 4400 |
| ATV1200-A1290-5555... | 135 | 108 | 1078 | 1290 | 3660x1500x2670 | 5000 |
| ATV1200-A1430-5555... | 150 | 120 | 1195 | 1430 | 3660x1500x2820 | 5300 |
| ATV1200-A1610-5555... | 168 | 135 | 1346 | 1610 | 4360x1500x2670 | 5600 |
| ATV1200-A1910-5555... | 200 | 160 | 1597 | 1910 | 4660x1500x2670 | 5800 |
| ATV1200-A2100-5555... | 220 | 176 | 1756 | 2100 | 4660x1600x2670 | 6300 |
| ATV1200-A2300-5555... | 241 | 192 | 1923 | 2300 | 4660x1600x2670 | 7700 |
| ATV1200-A2670-5555... | 280 | 224 | 2232 | 2670 | 4660x1600x2820 | 7900 |
| ATV1200-A2870-5555... | 301 | 241 | 2399 | 2870 | 5770x1600x2670 | 8500 |
| ATV1200-A3050-5555... | 320 | 256 | 2550 | 3050 | 5770x1600x2670 | 8800 |
| ATV1200-A3210-5555... | 337 | 269 | 2684 | 3210 | 6070x1700x2670 | 9600 |
| ATV1200-A3610-5555... | 379 | 303 | 3018 | 3610 | 6070x1700x2670 | 10900 |
| ATV1200-A3910-5555... | 410 | 328 | 3269 | 3910 | 6070x1700x2740 | 11100 |
| ATV1200-A4100-5555... | 430 | 344 | 3428 | 4100 | 6070x1700x2740 | 11300 |
| ATV1200-A4680-5555... | 490 | 392 | 3912 | 4680 | 6070x1700x2820 | 12500 |
| ATV1200-A5250-5555... | 550 | 440 | 4389 | 5250 | 7770x1800x3040 | 15300 |
| ATV1200-A5810-5555... | 611 | 489 | 4857 | 5810 | 7770x1800x3040 | 15600 |
| ATV1200-A6300-5555... | 660 | 528 | 5267 | 6300 | 8670x1600x3040 | 16500 |
| ATV1200-A6900-5555... | 720 | 576 | 5768 | 6900 | 8970x1700x3040 | 18400 |
| ATV1200-A7450-5555... | 780 | 624 | 6228 | 7450 | 8970x1700x3040 | 19900 |
| ATV1200-A8100-5555... | 850 | 680 | 6772 | 8100 | 8970x1700x3040 | 20300 |

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- 3) ... Values are calculated with motor power factor of 0.88 and efficiency of 95%. The real value must be calculated on the basis of the equipment used.
- 4) ... Values valid only for standard efficiency.

Altivar 1200 power specifications voltage class 6.0 kV

| Model | Nominal continuous current(A) | | Typical motor power (kW) | Type rating (kVA) | Dimension (W*D*H) mm | Approximate weight (kg) |
|-----------------------|-------------------------------|--------------------|--------------------------|-------------------|----------------------|-------------------------|
| | Standard overload 120% | High overload 150% | | | | |
| ATV1200-A470-6060... | 45 | 36 | 393 | 470 | 2860x1400x2590 | 2400 |
| ATV1200-A570-6060... | 55 | 44 | 477 | 570 | 2860x1400x2590 | 2600 |
| ATV1200-A670-6060... | 65 | 52 | 560 | 670 | 2860x1400x2590 | 2800 |
| ATV1200-A790-6060... | 76 | 61 | 660 | 790 | 2860x1400x2590 | 3100 |
| ATV1200-A940-6060... | 90 | 72 | 786 | 940 | 2860x1400x2590 | 3800 |
| ATV1200-A1040-6060... | 100 | 80 | 869 | 1040 | 3160x1400x2590 | 4000 |
| ATV1200-A1190-6060... | 114 | 91 | 995 | 1190 | 3660x1400x2520 | 4400 |
| ATV1200-A1400-6060... | 135 | 108 | 1170 | 1400 | 3660x1500x2670 | 5000 |
| ATV1200-A1560-6060... | 150 | 120 | 1304 | 1560 | 3660x1500x2820 | 5300 |
| ATV1200-A1750-6060... | 168 | 135 | 1463 | 1750 | 4360x1500x2670 | 5600 |
| ATV1200-A2080-6060... | 200 | 160 | 1739 | 2080 | 4660x1500x2670 | 5800 |
| ATV1200-A2290-6060... | 220 | 176 | 1914 | 2290 | 4660x1600x2670 | 6300 |
| ATV1200-A2500-6060... | 241 | 192 | 2090 | 2500 | 4660x1600x2670 | 7700 |
| ATV1200-A2910-6060... | 280 | 224 | 2433 | 2910 | 4660x1600x2820 | 7900 |
| ATV1200-A3130-6060... | 301 | 241 | 2617 | 3130 | 5770x1600x2670 | 8500 |
| ATV1200-A3325-6060... | 320 | 256 | 2780 | 3325 | 5770x1600x2670 | 8800 |
| ATV1200-A3500-6060... | 337 | 269 | 2926 | 3500 | 6070x1700x2670 | 9600 |
| ATV1200-A3940-6060... | 379 | 303 | 3294 | 3940 | 6070x1700x2670 | 10900 |
| ATV1200-A4260-6060... | 410 | 328 | 3561 | 4260 | 6070x1700x2740 | 11100 |
| ATV1200-A4470-6060... | 430 | 344 | 3737 | 4470 | 6070x1700x2740 | 11300 |
| ATV1200-A5100-6060... | 490 | 392 | 4264 | 5100 | 6070x1700x2820 | 12500 |
| ATV1200-A5720-6060... | 550 | 440 | 4782 | 5720 | 7770x1800x3040 | 15300 |
| ATV1200-A6350-6060... | 611 | 489 | 5309 | 6350 | 7770x1800x3040 | 15600 |
| ATV1200-A6860-6060... | 660 | 528 | 5735 | 6860 | 8670x1600x3040 | 16500 |
| ATV1200-A7500-6060... | 720 | 576 | 6270 | 7500 | 8970x1700x3040 | 18400 |
| ATV1200-A8110-6060... | 780 | 624 | 6780 | 8110 | 8970x1700x3040 | 19900 |
| ATV1200-A8840-6060... | 850 | 680 | 7390 | 8840 | 8970x1700x3040 | 20300 |

1) ... Please contact Schneider Electric for other combinations of input and output voltage.

2) ... For higher drive capacity please contact Schneider Electric

3) ... Values are calculated with motor power factor of 0.88 and efficiency of 95%. The real value must be calculated on the basis of the equipment used.

4) ... Values valid only for standard efficiency.

Altivar 1200 power specifications voltage class 6.3 kV

| Power specifications | | | | | | |
|-----------------------|-------------------------------|--------------------|--------------------------|-------------------|----------------------|-------------------------|
| Model | Nominal continuous current(A) | | Typical motor power (kW) | Type rating (kVA) | Dimension (W*D*H) mm | Approximate weight (kg) |
| | Standard overload 120% | High overload 150% | | | | |
| ATV1200-A450-6363... | 41 | 33 | 376 | 450 | 3060x1400x2520 | 3100 |
| ATV1200-A530-6363... | 49 | 39 | 443 | 530 | 3060x1400x2520 | 3300 |
| ATV1200-A720-6363... | 65 | 52 | 602 | 720 | 3060x1400x2520 | 3500 |
| ATV1200-A820-6363... | 75 | 60 | 686 | 820 | 3060x1400x2520 | 3600 |
| ATV1200-A900-6363... | 82 | 66 | 752 | 900 | 3060x1400x2520 | 3800 |
| ATV1200-A1020-6363... | 94 | 75 | 853 | 1020 | 3360x1400x2520 | 4100 |
| ATV1200-A1100-6363... | 100 | 80 | 920 | 1100 | 3360x1400x2520 | 4200 |
| ATV1200-A1190-6363... | 109 | 87 | 995 | 1190 | 3960x1500x2670 | 5000 |
| ATV1200-A1480-6363... | 135 | 108 | 1237 | 1480 | 3960x1500x2670 | 5500 |
| ATV1200-A1640-6363... | 150 | 120 | 1371 | 1640 | 3960x1500x2740 | 5800 |
| ATV1200-A1970-6363... | 180 | 144 | 1647 | 1970 | 5170x1600x2670 | 7200 |
| ATV1200-A2190-6363... | 200 | 160 | 1831 | 2190 | 5170x1600x2670 | 7500 |
| ATV1200-A2400-6363... | 220 | 176 | 2006 | 2400 | 5170x1700x2670 | 7800 |
| ATV1200-A2670-6363... | 245 | 196 | 2232 | 2670 | 5170x1700x2740 | 8300 |
| ATV1200-A3050-6363... | 280 | 224 | 2550 | 3050 | 5170x1700x2740 | 8700 |
| ATV1200-A3490-6363... | 320 | 256 | 2918 | 3490 | 6670x1700x2670 | 11200 |
| ATV1200-A3760-6363... | 345 | 276 | 3143 | 3760 | 6670x1700x2670 | 11800 |
| ATV1200-A4240-6363... | 388 | 311 | 3545 | 4240 | 6670x1700x2740 | 12400 |
| ATV1200-A4470-6363... | 410 | 328 | 3737 | 4470 | 6670x1700x2740 | 12400 |
| ATV1200-A4770-6363... | 437 | 350 | 3988 | 4770 | 6670x1800x2740 | 13300 |
| ATV1200-A5350-6363... | 490 | 392 | 4473 | 5350 | 6670x1800x2820 | 13800 |
| ATV1200-A6000-6363... | 550 | 440 | 5016 | 6000 | 8570x1800x3040 | 16700 |
| ATV1200-A6660-6363... | 612 | 490 | 5568 | 6660 | 9470x1600x3040 | 18300 |
| ATV1200-A7200-6363... | 660 | 528 | 6019 | 7200 | 9470x1600x3040 | 19000 |
| ATV1200-A7860-6363... | 720 | 576 | 6571 | 7860 | 9770x1700x3040 | 20800 |
| ATV1200-A8550-6363... | 783 | 626 | 7148 | 8550 | 9770x1600x3040 | 21400 |
| ATV1200-A9300-6363... | 850 | 680 | 7775 | 9300 | 9770x1700x3340 | 22300 |

1) ... Please contact Schneider Electric for other combinations of input and output voltage.

2) ... For higher drive capacity please contact Schneider Electric

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4) ... Values valid only for standard efficiency.

Altivar 1200 power specifications voltage class 6.6 kV

| Model | Nominal continuous current(A) | | Typical motor power (kW) | Type rating (kVA) | Dimension (W*D*H) mm | Approximate weight (kg) |
|------------------------|-------------------------------|--------------------|--------------------------|-------------------|----------------------|-------------------------|
| | Standard overload 120% | High overload 150% | | | | |
| ATV1200-A 470-6666... | 41 | 33 | 393 | 470 | 3060x1400x2520 | 3100 |
| ATV1200-A 560-6666... | 49 | 39 | 468 | 560 | 3060x1400x2520 | 3300 |
| ATV1200-A 750-6666... | 65 | 52 | 627 | 750 | 3060x1400x2520 | 3500 |
| ATV1200-A 860-6666... | 75 | 60 | 719 | 860 | 3060x1400x2520 | 3600 |
| ATV1200-A 940-6666... | 82 | 66 | 786 | 940 | 3060x1400x2520 | 3800 |
| ATV1200-A 1070-6666... | 94 | 75 | 895 | 1070 | 3360x1400x2520 | 4100 |
| ATV1200-A 1150-6666... | 100 | 80 | 961 | 1150 | 3360x1400x2520 | 4200 |
| ATV1200-A 1250-6666... | 109 | 87 | 1045 | 1250 | 3960x1500x2670 | 5000 |
| ATV1200-A 1550-6666... | 135 | 108 | 1296 | 1550 | 3960x1500x2670 | 5500 |
| ATV1200-A 1715-6666... | 150 | 120 | 1434 | 1715 | 3960x1500x2740 | 5800 |
| ATV1200-A 2060-6666... | 180 | 144 | 1722 | 2060 | 5170x1600x2670 | 7200 |
| ATV1200-A 2290-6666... | 200 | 160 | 1914 | 2290 | 5170x1600x2670 | 7500 |
| ATV1200-A 2515-6666... | 220 | 176 | 2103 | 2515 | 5170x1700x2670 | 7800 |
| ATV1200-A 2800-6666... | 245 | 196 | 2341 | 2800 | 5170x1700x2740 | 8300 |
| ATV1200-A 3200-6666... | 280 | 224 | 2675 | 3200 | 5170x1700x2740 | 8700 |
| ATV1200-A 3660-6666... | 320 | 256 | 3060 | 3660 | 6670x1700x2670 | 11200 |
| ATV1200-A 3940-6666... | 345 | 276 | 3294 | 3940 | 6670x1700x2670 | 11800 |
| ATV1200-A 4440-6666... | 388 | 311 | 3712 | 4440 | 6670x1700x2740 | 12400 |
| ATV1200-A 4685-6666... | 410 | 328 | 3917 | 4685 | 6670x1700x2740 | 12400 |
| ATV1200-A 5000-6666... | 437 | 350 | 4180 | 5000 | 6670x1800x2740 | 13300 |
| ATV1200-A 5600-6666... | 490 | 392 | 4682 | 5600 | 6670x1800x2820 | 13800 |
| ATV1200-A 6300-6666... | 550 | 440 | 5267 | 6300 | 8570x1800x3040 | 16700 |
| ATV1200-A 7000-6666... | 612 | 490 | 5852 | 7000 | 9470x1600x3040 | 18300 |
| ATV1200-A 7550-6666... | 660 | 528 | 6312 | 7550 | 9470x1600x3040 | 19000 |
| ATV1200-A 8250-6666... | 720 | 576 | 6897 | 8250 | 9770x1700x3040 | 20800 |
| ATV1200-A 8950-6666... | 783 | 626 | 7482 | 8950 | 9770x1700x3040 | 21400 |
| ATV1200-A 9750-6666... | 850 | 680 | 8151 | 9750 | 9770x1700x3340 | 22300 |

- 1) ... Please contact Schneider Electric for other combinations of input and output voltage.
- 2) ... For higher drive capacity please contact Schneider Electric
- 3) ... Values are calculated with motor power factor of 0.88 and efficiency of 95%. The real value must be calculated on the basis of the equipment used.
- 4) ... Values valid only for standard efficiency.

Altivar 1200 power specifications voltage class 10 kV

| Power specifications | | | | | | |
|------------------------|-------------------------------|--------------------|--------------------------|-------------------|----------------------|-------------------------|
| Model | Nominal continuous current(A) | | Typical motor power (kW) | Type rating (kVA) | Dimension (W*D*H) mm | Approximate weight (kg) |
| | Standard overload 120% | High overload 150% | | | | |
| ATV1200-A470-1010... | 27 | 22 | 393 | 470 | 3960x1600x2670 | 4100 |
| ATV1200-A610-1010... | 35 | 28 | 510 | 610 | 3960x1600x2670 | 4300 |
| ATV1200-A700-1010... | 40 | 32 | 585 | 700 | 3960x1600x2670 | 4400 |
| ATV1200-A790-1010... | 46 | 36 | 660 | 790 | 3960x1600x2670 | 4500 |
| ATV1200-A940-1010... | 54 | 43 | 786 | 940 | 4260x1600x2670 | 4700 |
| ATV1200-A1070-1010... | 62 | 49 | 895 | 1070 | 4260x1600x2670 | 4900 |
| ATV1200-A1130-1010... | 65 | 52 | 945 | 1130 | 4260x1600x2670 | 5000 |
| ATV1200-A1250-1010... | 72 | 58 | 1045 | 1250 | 4260x1700x2670 | 5100 |
| ATV1200-A1570-1010... | 91 | 73 | 1313 | 1570 | 4260x1700x2670 | 5500 |
| ATV1200-A1730-1010... | 100 | 80 | 1446 | 1730 | 4260x1700x2670 | 5700 |
| ATV1200-A2000-1010... | 115 | 92 | 1672 | 2000 | 5160x1700x2670 | 6900 |
| ATV1200-A2340-1010... | 135 | 108 | 1956 | 2340 | 5160x1700x2670 | 7300 |
| ATV1200-A2600-1010... | 150 | 120 | 2174 | 2600 | 6060x1500x2740 | 7900 |
| ATV1200-A2800-1010... | 162 | 129 | 2341 | 2800 | 6870x1500x2670 | 9100 |
| ATV1200-A3130-1010... | 181 | 145 | 2617 | 3130 | 6870x1500x2670 | 9400 |
| ATV1200-A3470-1010... | 200 | 160 | 2901 | 3470 | 6870x1500x2670 | 9900 |
| ATV1200-A3810-1010... | 220 | 176 | 3185 | 3810 | 6870x1500x2670 | 10300 |
| ATV1200-A4440-1010... | 256 | 205 | 3712 | 4440 | 7170x1600x3040 | 11500 |
| ATV1200-A4850-1010... | 280 | 224 | 4055 | 4850 | 7170x1600x3040 | 12000 |
| ATV1200-A5000-1010... | 289 | 231 | 4180 | 5000 | 9070x1600x3040 | 14800 |
| ATV1200-A5540-1010... | 320 | 256 | 4631 | 5540 | 9070x1600x3040 | 15200 |
| ATV1200-A6250-1010... | 361 | 289 | 5225 | 6250 | 9070x1600x3040 | 16700 |
| ATV1200-A7100-1010... | 410 | 328 | 5936 | 7100 | 9370x1700x3040 | 18300 |
| ATV1200-A7900-1010... | 456 | 365 | 6604 | 7900 | 9370x1700x3040 | 20100 |
| ATV1200-A8500-1010... | 490 | 392 | 7106 | 8500 | 9370x1700x3040 | 20100 |
| ATV1200-A9530-1010... | 550 | 440 | 7967 | 9530 | 14480x1600x3040 | 26200 |
| ATV1200-A10600-1010... | 612 | 490 | 8862 | 10600 | 14480x1600x3040 | 26700 |
| ATV1200-A11500-1010... | 664 | 531 | 9614 | 11500 | 15080x1600x3040 | 28400 |
| ATV1200-A12500-1010... | 720 | 576 | 10450 | 12500 | 15080x1600x3040 | 30400 |
| ATV1200-A13500-1010... | 779 | 624 | 11286 | 13500 | 15680x1700x3040 | 32000 |
| ATV1200-A14750-1010... | 850 | 680 | 12331 | 14750 | 15680x1700x3040 | 37400 |

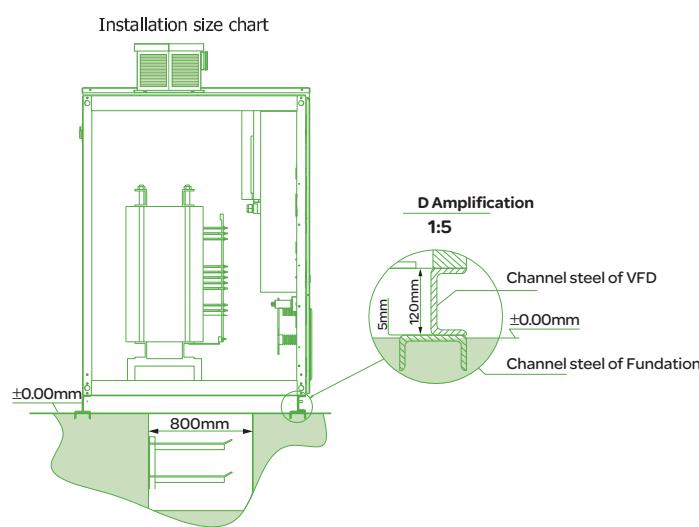
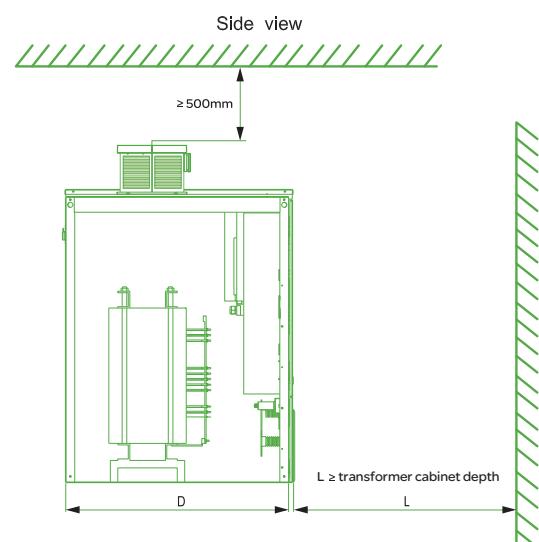
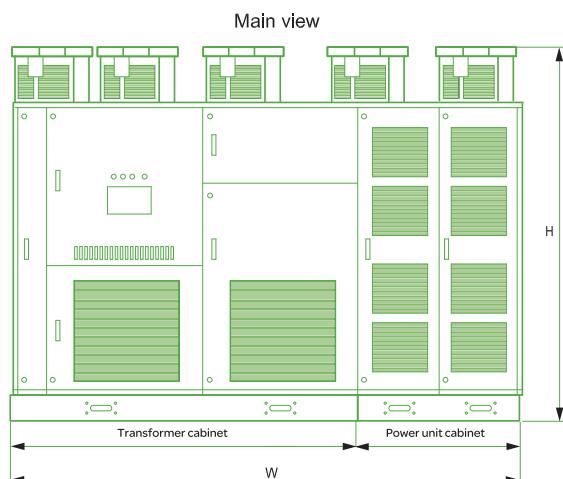
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4) ... Values valid only for standard efficiency.

Altivar 1200: Basic guidelines on installation and maintenance





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| | | | | | | | |
|----------------------------|---|--|--|--|---|---|--------------------------------|
| Date | Name | | | Phone | | | |
| Company | Position/Organization | | | E-mail | | | |
| Project name | Country | | | | | | |
| Market segment | <input type="checkbox"/> Water & Wastewater | <input type="checkbox"/> Oil & Gas | <input type="checkbox"/> Power generation | <input type="checkbox"/> Mining, Minerals & Metals | | | |
| | <input type="checkbox"/> Other | | | | | | |
| Application | <input type="checkbox"/> Pump | <input type="checkbox"/> Fan | <input type="checkbox"/> Compressor | <input type="checkbox"/> Extruder | <input type="checkbox"/> Other | | |
| End user | EPC | OEM | SI | | | | |
| Standards & Certifications | <input type="checkbox"/> IEC | <input type="checkbox"/> ANSI | <input type="checkbox"/> IEE | <input type="checkbox"/> UL | <input type="checkbox"/> Other | | |
| Customer specifications | | | | | | | |
| Project status | <input type="checkbox"/> Budget estimate | <input type="checkbox"/> RFQ phase | | | | | |
| Purchasing time frame | <input type="checkbox"/> less than 6 months | <input type="checkbox"/> between 6 & 12 months | <input type="checkbox"/> between 12 & 18 months | <input type="checkbox"/> more than 18 months | | | |
| Other information | | | | | | | |
| Scope of supply | | | | | | | |
| Quantity of MV drives | | | | | | | |
| Scope of supply | <input type="checkbox"/> Drive | <input type="checkbox"/> Input transformer | | | | | |
| | <input type="checkbox"/> Input switch/breaker | <input type="checkbox"/> Output switch/breaker | | | <input type="checkbox"/> By-pass | | |
| | <input type="checkbox"/> Motor | <input type="checkbox"/> Other | | | | | |
| Supply data | | | | | | | |
| Power supply | Voltage | kV ± % | Frequency | Hz ± % | | | |
| | Short circuit power | (MVA) max: | min: | HV cable length | | | |
| Auxiliary supply | Voltage | V ± % | Frequency | Hz ± % | | | |
| Control supply | UPS (Y/N) | No. of phases | V | Hz | | | |
| Motor parameters | | | | | | | |
| Type of motor | <input type="checkbox"/> Induction | <input type="checkbox"/> Synchronous | <input type="checkbox"/> New | <input type="checkbox"/> Existing (retrofit) | | | |
| | | kW | hp | Number of poles | | | |
| | Maximum power | kW | hp | | | | |
| | Rated speed | rpm | Maximum speed | rpm | | | |
| | Rated frequency | Hz | Efficiency % | Power factor | pu | | |
| | Rated current | A | DOL starting current | A | | | |
| | Maximum torque | % | Inertia J (GD ² /4) | kNm ² | | | |
| | Excitation current | A | Excitation voltage | V | | | |
| | Ventilation | <input type="checkbox"/> Self-ventilated | <input type="checkbox"/> Force-ventilated | | | | |
| Load parameters | | | | | | | |
| Type of load | <input type="checkbox"/> Variable torque | <input type="checkbox"/> Constant torque | <input type="checkbox"/> Constant power | <input type="checkbox"/> Other | | | |
| | Breakaway torque (at 0 rpm) | | | kNm | pu | | |
| Gear | Reduction ratio | Inertia J (GD ² /4) | kNm ² | | | | |
| | Starting time | | | | | | |
| | Overtorque | <input type="checkbox"/> 120% 60 s every 10 min. | <input type="checkbox"/> 150% 60 s every 10 min. | <input type="checkbox"/> Other | | | |
| | Acceleration time | | Deceleration time | | | | |
| Braking | <input type="checkbox"/> Regenerative | <input type="checkbox"/> Resistance | Braking power | kW | Cycle | | |
| | <input type="checkbox"/> Reverse speed | | | | | | |
| Installation | | | | | | | |
| Temperature (°C) | Indoor: | min. | max. | Outdoor: | min. | max. | |
| Relative humidity | Altitude | <input type="checkbox"/> less than 1000 m | | <input type="checkbox"/> Other | | | |
| Drive | <input type="checkbox"/> Indoor | <input type="checkbox"/> Outdoor | <input type="checkbox"/> Inside container | Rectifier | <input type="checkbox"/> 12-pulse input | <input type="checkbox"/> 24-pulse input | <input type="checkbox"/> Other |
| | <input type="checkbox"/> Air cooling | <input type="checkbox"/> Water cooling | | | | | |
| Input transformer | <input type="checkbox"/> Dry type | <input type="checkbox"/> Oil filled | <input type="checkbox"/> Indoor | <input type="checkbox"/> Outdoor | <input type="checkbox"/> IP 00 | <input type="checkbox"/> IP54 | <input type="checkbox"/> Other |
| Distance | Transformer to drive | | | Drive to motor | | | |
| Interface | | | | | | | |
| No. of analog inputs | 24 VDC | 4~20mA | | No. of analog outputs | 24V VDC | 4~20mA | |
| No. of digital inputs | No. of digital outputs | | | Dry contact | | | |
| Communication | <input type="checkbox"/> Ethernet | <input type="checkbox"/> Modbus | <input type="checkbox"/> Profibus | <input type="checkbox"/> DeviceNet | <input type="checkbox"/> Other | | |

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Schneider Electric

Schneider Electric, global specialist in energy management, that acquired Leader Harvest Power Technologies, one of the leading players in medium voltage drives, offers products and solutions that provide energy efficiency to its key targeted segments.

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