

# Fișă tehnică produs

Specificatii



## Unitate cu viteza variabila, ATV630, 1.5kW, 2HP, 480-480V, IP21, UL tip 1

ATV630U15N4

### Principale

|                                                |                                                                                                                                                      |
|------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|
| gama de produse                                | Altivar Process ATV600                                                                                                                               |
| aplicatie specifica produsului                 | Process and utilities                                                                                                                                |
| Tip produs sau componenta                      | Variator de viteza                                                                                                                                   |
| varianta                                       | Standard version                                                                                                                                     |
| nume scurt al dispozitivului                   | ATV630                                                                                                                                               |
| mod de montare                                 | Wall mount                                                                                                                                           |
| Port protocol de comunicare                    | Modbus TCP<br>Ethernet<br>Serial Modbus                                                                                                              |
| [Us] tensiune nominala de alimentare           | 380...480 V - 15...10 %                                                                                                                              |
| [Us] tensiune de alimentare nominala           | 380...480 V                                                                                                                                          |
| Relative symmetric mains voltage tolerance     | 10 %                                                                                                                                                 |
| Relative symmetric network frequency tolerance | 5 %                                                                                                                                                  |
| curent nominal de iesire                       | 4,0 A                                                                                                                                                |
| grad de protectie IP                           | IP21                                                                                                                                                 |
| destinatie produs                              | Motoare asincrone<br>Motoare sincrone                                                                                                                |
| filtru EMC                                     | Integrat cu 50 m conformitate cu IEC 61800-3 category C2<br>Integrat cu 150 m conformitate cu IEC 61800-3 category C3                                |
| grad de protectie IP                           | IP21 conformitate cu IEC 61800-5-1<br>IP21 conformitate cu SR EN 60529                                                                               |
| grad de protectie                              | UL tip 1 conformitate cu UL 508C                                                                                                                     |
| tip de racire                                  | Convectie fortata                                                                                                                                    |
| frecventa de alimentare                        | 50...60 Hz - 5...5 %                                                                                                                                 |
| putere motor kW                                | 1,5 kW (serviciu normal)<br>0,75 kW (pentru sarcini grele)                                                                                           |
| putere motor hp                                | 2 CP serviciu normal<br>1 CP pentru sarcini grele                                                                                                    |
| curent de linie                                | 3 A la 380 V (serviciu normal)<br>2,6 A la 480 V (serviciu normal)<br>1,7 A la 380 V (pentru sarcini grele)<br>1,5 A la 480 V (pentru sarcini grele) |
| curent la iesire continuu                      | 4 A la 4 kHz pentru serviciu normal<br>2,2 A la 4 kHz pentru pentru sarcini grele                                                                    |
| frecventa de iesire a convertizorului          | 0,1...500 Hz                                                                                                                                         |
| functie siguranta                              | STO (safe torque off) SIL 3                                                                                                                          |

Declinare de responsabilitate: Această documentație nu se substituie și nu trebuie utilizată pentru stabilirea adecvării sau fiabilității acestor produse pentru aplicații utilizator

|               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| card optional | Slot A modul de comunicare, Profibus DP V1<br>Slot A modul de comunicare, PROFINET<br>Slot A modul de comunicare, DeviceNet<br>Slot A modul de comunicare, Modbus TCP/EtherNet/IP<br>Slot A modul de comunicare, rețea CANopen RJ45<br>Slot A modul de comunicare, CANopen SUB-D 9<br>Slot A modul de comunicare, CANopen screw terminals<br>Slot A/slot B digital and analog I/O extension module<br>Slot A/slot B output relay extension module<br>Slot A modul de comunicare, Ethernet IP/Modbus TCP/MD-Link<br>modul de comunicare, BACnet MS/TP<br>modul de comunicare, Ethernet Powerlink |
|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

## Suplimentare

|                                            |                                                                                                                                                                                                                                                                                                                                                                                          |
|--------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| numar intrare discreta                     | 8                                                                                                                                                                                                                                                                                                                                                                                        |
| tip de intrare discreta                    | DI7, DI8 programmable as pulse input 0...30 kHz, 24 V c.c. (<= 30 V)                                                                                                                                                                                                                                                                                                                     |
| logica de intrare discreta                 | 16 preset speeds                                                                                                                                                                                                                                                                                                                                                                         |
| numar iesire discreta                      | 0                                                                                                                                                                                                                                                                                                                                                                                        |
| tip de iesire discreta                     | Ieșiri releu R1A, R1B, R1C 250 V c.a. 3000 mA<br>Ieșiri releu R1A, R1B, R1C 30 V c.c. 3000 mA<br>Ieșiri releu R2A, R2C 250 V c.a. 5000 mA<br>Ieșiri releu R2A, R2C 30 V c.c. 5000 mA<br>Ieșiri releu R3A, R3C 250 V c.a. 5000 mA<br>Ieșiri releu R3A, R3C 30 V c.c. 5000 mA                                                                                                              |
| numarul intrarii analogice                 | 3                                                                                                                                                                                                                                                                                                                                                                                        |
| tip de intrare analogica                   | AI1, AI2, AI3 tensiune configurabilă soft 0...10 V c.c., impedanță: 31.5 kOhm, rezoluție 12 biti<br>AI1, AI2, AI3 curent configurabil soft 0...20 mA, impedanță: 250 Ohm, rezoluție 12 biti<br>AI2 tensiune de intrare analogica - 10...10 V c.c., impedanță: 31.5 kOhm, rezoluție 12 biti                                                                                               |
| numarul iesirii analogice                  | 2                                                                                                                                                                                                                                                                                                                                                                                        |
| tip iesire analogica                       | Tensiune configurabilă soft AQ1, AQ2 0...10 V c.c. 470 Ohm, rezoluție 10 bits<br>Curent configurabil soft AQ1, AQ2 0...20 mA, rezoluție 10 bits<br>Curent configurabil soft DQ-, DQ+ 30 V c.c.<br>Curent configurabil soft DQ-, DQ+ 100 mA                                                                                                                                               |
| numarul iesirii releu                      | 3                                                                                                                                                                                                                                                                                                                                                                                        |
| tip releu iesire                           | Configurable relay logic R1 releu de defect NO/NC 100000 cic<br>Configurable relay logic R2 sequence relay nu 100000 cic<br>Configurable relay logic R3 sequence relay nu 100000 cic                                                                                                                                                                                                     |
| curent maxim de comutatie                  | Relay output R1, R2, R3 pornit rezistiv sarcina, cos phi = 1 3 A la 250 V c.a.<br>Relay output R1, R2, R3 pornit rezistiv sarcina, cos phi = 1 3 A la 30 V c.c.<br>Relay output R1, R2, R3 pornit inductiv sarcina, cos phi = 0,4 si stanga/dreapta = 7 ms 2 A la 250 V c.a.<br>Relay output R1, R2, R3 pornit inductiv sarcina, cos phi = 0,4 si stanga/dreapta = 7 ms 2 A la 30 V c.c. |
| curentul minim de comutare                 | Relay output R1, R2, R3 5 mA la 24 V c.c.                                                                                                                                                                                                                                                                                                                                                |
| numar faze in retea                        | 3 faze                                                                                                                                                                                                                                                                                                                                                                                   |
| interfata fizica                           | Ethernet<br>RS 485 cu 2 fire                                                                                                                                                                                                                                                                                                                                                             |
| metoda de acces                            | Slave Modbus TCP                                                                                                                                                                                                                                                                                                                                                                         |
| rata de transmisie                         | 10, 100 Mbits<br>4800 bps, 9600 bps, 19200 bps, 38.4 Kbps                                                                                                                                                                                                                                                                                                                                |
| cadru de transmisie                        | RTU                                                                                                                                                                                                                                                                                                                                                                                      |
| tensiune de iesire                         | <= tensiunea de alimentare                                                                                                                                                                                                                                                                                                                                                               |
| crestere temporara admisibila a curentului | 1.1 x In in timpul 60 s (serviciu normal)<br>1.5 x In in timpul 60 s (pentru sarcini grele)                                                                                                                                                                                                                                                                                              |
| format date                                | 8 biti, configurabil impar, par sau fara paritate                                                                                                                                                                                                                                                                                                                                        |

|                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| tip de polarizare          | Fara impedanta                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| rezolutia frecventei       | Unitate de afisare 0.1 Hz<br>Intrare analogică 0.012/50 Hz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| conexiune electrica        | Control borne debrșabile 0.5...1.5 mm² AWG 20...AWG 16<br>Motor borna cu surub 2.5...6 mm² AWG 14...AWG 10<br>Line side borna cu surub 2.5...6 mm² AWG 14...AWG 10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| tipul conectorului         | RJ45 (on the remote graphic terminal) pentru Ethernet/Modbus TCP<br>RJ45 (on the remote graphic terminal) pentru serial Modbus                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| mod de schimb              | Half duplex, full duplex, autonegociere Ethernet/Modbus TCP                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| numar de adrese            | 1...247 pentru serial Modbus                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| alimentare                 | External supply for digital inputs 24 V c.c. (19...30 V), <1,25 mA, tip de protecție: protecție la suprasarcina si scurtcircuit<br>Sursă internă pentru potențiometrul de referință (1 la 10 kOhm) 10.5 V c.c. +/- 5 %, <10 mA, tip de protecție: protecție la suprasarcina si scurtcircuit<br>Internal supply for digital inputs and STO 24 V c.c. (21...27 V), <200 mA, tip de protecție: protecție la suprasarcina si scurtcircuit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| semnalizare locala         | 3 LEDs for local diagnostic<br>3 LEDs (dual colour) for embedded communication status<br>4 LEDs (dual colour) for communication module status<br>1 LED (rosu) for prezenta tensiune                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| compatibilitate intrare    | DI1...DI6 intrare directă nivel 1 PLC conformitate cu IEC 61131-2<br>DI5, DI6 intrare directă nivel 1 PLC conformitate cu IEC 65A-68<br>STOA, STOB intrare directă nivel 1 PLC conformitate cu IEC 61131-2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| logica de intrare discreta | Logica pozitiva (sursa) (DI1...DI8), < 5 V (stare 0), > 11 V (stare 1)<br>Logica negativa (derivatie) (DI1...DI8), > 16 V (stare 0), < 10 V (stare 1)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| perioada de esantionare    | 2 ms +/- 0.5 ms (DI1...DI4) - intrare directă<br>5 ms +/- 1 ms (DI5, DI6) - intrare directă<br>5 ms +/- 0.1 ms (AI1, AI2, AI3) - intrare analogică<br>10 ms +/- 1 ms (AO1) - ieșire analogică                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| precizie                   | +/- 0.6 % AI1, AI2, AI3 pentru o variație a temperaturii 60 °C intrare analogică<br>+/- 1 % AO1, AO2 pentru o variație a temperaturii 60 °C ieșire analogică                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| eroare de liniaritate      | AI1, AI2, AI3 +/- 0.15 % din valoarea maximă pentru intrare analogică<br>AO1, AO2 +/- 0,2 % pentru iesire analogica                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| țimp de reimprospatare     | Relay output (R1, R2, R3)5 ms (+/- 0.5 ms)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| izolatie                   | Intre alimentare si bornele de control                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| proces fabricatie          | Building - HVAC compressor centrifugal<br>Food and beverage processing other application<br>Mining mineral and metal fan<br>Mining mineral and metal pump<br>Oil and gas fan<br>Water and waste water other application<br>Building - HVAC screw compressor<br>Food and beverage processing pump<br>Food and beverage processing fan<br>Food and beverage processing atomization<br>Oil and gas electro submersible pump (ESP)<br>Oil and gas water injection pump<br>Oil and gas jet fuel pump<br>Oil and gas compressor for refinery<br>Water and waste water centrifuge pump<br>Water and waste water positive displacement pump<br>Water and waste water electro submersible pump (ESP)<br>Water and waste water screw pump<br>Water and waste water lobe compressor<br>Water and waste water screw compressor<br>Water and waste water compressor centrifugal<br>Water and waste water fan<br>Water and waste water conveyor<br>Water and waste water mixer |
| interval putere            | 1,1...2 kW la 380...440 V 3 faze<br>1,1...2 kW la 480...500 V 3 faze                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| montare dulap              | Montaj pe perete                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

|                                                         |                                                                                                               |
|---------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|
| 4 quadrant operation possible                           | Fals                                                                                                          |
| profil de control al motorului asincron                 | Constanta de cuplu standard<br>Mod de cuplu optim<br>Cuplu variabil standard                                  |
| profil de control al motorului sincron                  | Permanent magnet motor<br>Synchronous reluctance motor                                                        |
| frecventa maxima de iesire                              | 500 kHz                                                                                                       |
| rampe de accelerare si decelerare                       | Reglabil liniar separat, de la 0,01 la 9999 s                                                                 |
| compensare alunecare motor                              | Reglabil<br>Poate fi suprimat<br>Not available in permanent magnet motor law<br>Automat indiferent de sarcina |
| frecventa de comutare                                   | 2...12 kHz reglabil<br>4...12 kHz cu                                                                          |
| frecventa de comutare nominala                          | 4 kHz                                                                                                         |
| franare sau imobil                                      | Cu injectie c.c.                                                                                              |
| Brake chopper integrated                                | Fals                                                                                                          |
| Curent maxim de intrare                                 | 3,0 A                                                                                                         |
| Maximum output voltage                                  | 480,0 V                                                                                                       |
| putere aparenta                                         | 2,2 kVA la 480 V (serviciu normal)<br>1,2 kVA la 480 V (pentru sarcini grele)                                 |
| curent tranzitoriu maxim                                | 4,4 A in timpul 60 s (serviciu normal)<br>3,3 A in timpul 60 s (pentru sarcini grele)                         |
| frecventa retea electrica                               | 50...60 Hz                                                                                                    |
| curent de scurtcircuit prezumat Isc                     | 50 kA                                                                                                         |
| Base load current at high overload                      | 2,2 A                                                                                                         |
| Base load current at low overload                       | 4,0 A                                                                                                         |
| puterea disipata in W                                   | Convectie naturala 28 W la 380 V 4 kHz<br>Convectie fortata 41 W la 380 V 4 kHz                               |
| cu functia de siguranta Safely Limited Speed (SLS)      | Fals                                                                                                          |
| cu functia de siguranta Safe brake management (SBC/SBT) | Fals                                                                                                          |
| cu functia de siguranta Safe Operating Stop (SOS)       | Fals                                                                                                          |
| cu functia de siguranta Safe Position (SP)              | Fals                                                                                                          |
| cu functia de siguranta Safe programmable logic         | Fals                                                                                                          |
| cu functia de siguranta Safe Speed Monitor (SSM)        | Fals                                                                                                          |
| cu functia de siguranta Safe Stop 1 (SS1)               | Fals                                                                                                          |
| cu functia de siguranta Safe Stop 2 (SS2)               | Fals                                                                                                          |
| cu functia de siguranta Safe torque off (STO)           | Adevarat                                                                                                      |
| cu functia de siguranta Safely Limited Position (SLP)   | Fals                                                                                                          |
| cu functia de siguranta Safe Direction (SDI)            | Fals                                                                                                          |

|                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| tip de protectie | Protectie termica motor<br>Safe torque off motor<br>Înterupere fază motor motor<br>Protectie termica variator<br>Safe torque off variator<br>Suprincalzire variator<br>Supracurent între fazele de ieşire şi pământ variator<br>Overload of output voltage variator<br>Protectie la scurtcircuit variator<br>Înterupere fază motor variator<br>Supratensiuni pe magistrala de c.c. variator<br>Supratensiune în linia de alimentare variator<br>Scăderea tensiunii de alimentare variator<br>Pierdere de fază în alimentarea liniei de alimentare variator<br>Overspeed variator<br>Defectarea circuitului de comandă variator |
| Cantitate pe set | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| latime           | 144 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| inaltime         | 350 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| adancime         | 203 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| greutate neta    | 4,5 kg                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |

## Mediu

|                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|-------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| rezistenta de izolatie              | > 1 MOhm 500 V c.c. pentru 1 minut la pământ                                                                                                                                                                                                                                                                                                                                                                                                                |
| nivel de zgomot                     | 54,5 dB conformitate cu 86/188/EEC                                                                                                                                                                                                                                                                                                                                                                                                                          |
| grad de poluare                     | 2 conformitate cu IEC 61800-5-1                                                                                                                                                                                                                                                                                                                                                                                                                             |
| rezistenta la vibratii              | 1.5 mm vârf la vârf (f= 2...13 Hz) conforming to IEC 60068-2-6<br>1 gn (f= 13...200 Hz) conforming to IEC 60068-2-6                                                                                                                                                                                                                                                                                                                                         |
| rezistenta la socuri                | 15 gn pentru 11 ms conformitate cu IEC 60068-2-27                                                                                                                                                                                                                                                                                                                                                                                                           |
| umiditate relativa                  | 5...95 % fără condensare conformitate cu IEC 60068-2-3                                                                                                                                                                                                                                                                                                                                                                                                      |
| temperatura ambientala de utilizare | -15...50 °C (fără declarare)<br>50...60 °C (cu)                                                                                                                                                                                                                                                                                                                                                                                                             |
| altitudinea de functionare          | <= 1000 m fără declarare<br>1000...4800 m cu declararea curentului cu 1 % pe 100 m                                                                                                                                                                                                                                                                                                                                                                          |
| pozitie de operare                  | Vertical +/- 10 grade                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| certificari produs                  | ATEX INERIS<br>DNV-GL<br>ATEX zona 2/22<br>UL<br>CSA<br>TÜV                                                                                                                                                                                                                                                                                                                                                                                                 |
| marcaj                              | CE                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| standarde                           | UL 508C<br>IEC 61800-3<br>IEC 61800-3 environment 1 category C2<br>EN/IEC 61800-3 environment 2 category C3<br>IEC 61800-5-1<br>IEC 61000-3-12<br>IEC 60721-3<br>IEC 61508<br>IEC 13849-1                                                                                                                                                                                                                                                                   |
| THDI maxim                          | <48 % sarcină nominală conformitate cu IEC 61000-3-12                                                                                                                                                                                                                                                                                                                                                                                                       |
| compatibilitate electromagnetica    | Test de imunitate la descarcari electrostatice nivel 3 conforming to IEC 61000-4-2<br>Test de imunitate la frecventa radio radiata nivel 3 conforming to IEC 61000-4-3<br>Tranzienţi rapizi/test de imunitate la impulsuri de ionizare nivel 4 conforming to IEC 61000-4-4<br>1.2/50 µs - 8/20 µs test de imunitate la supratensiuni nivel 3 conforming to IEC 61000-4-5<br>Test de imunitate la radiofrecvenţă condusă nivel 3 conforming to IEC 61000-4-6 |

|                                                                         |                                                                                      |
|-------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| clasa de mediu (in timpul functionarii)                                 | Clasa 3C3 in conformitate cu IEC 60721-3-3-3<br>Class 3S3 according to IEC 60721-3-3 |
| acceleratia maxima in cazul unui impact de soc (in timpul functionarii) | 150 m/s² la 11 ms                                                                    |
| acceleratia maxima sub tensiune de vibratie (in timpul functionarii)    | 10 m/s² la 13...200 Hz                                                               |
| deformarea maxima sub sarcină vibratorie (in timpul functionarii)       | 1.5 mm la 2...13 Hz                                                                  |
| Permitted relative humidity (during operation)                          | Class 3K5 according to EN 60721-3                                                    |
| volumul aerului de racire                                               | 38 m3/h                                                                              |
| categorie de supratensiune                                              | III                                                                                  |
| bucla de reglare                                                        | Regulator PID reglabil                                                               |
| nivel de zgomot                                                         | 54,5 dB                                                                              |
| Grad de poluare                                                         | 2                                                                                    |
| Temperatura de transport a aerului ambiental                            | -40...70 °C                                                                          |
| temperatura ambietala pentru depozitare                                 | -40...70 °C                                                                          |

## Unitati de ambalare

|                                                      |           |
|------------------------------------------------------|-----------|
| Unitate de masura pentru prima forma de impachetare  | PCE       |
| Număr de produse în pachet                           | 1         |
| Inaltime prima forma de impachetare                  | 31,500 cm |
| Latime prima forma de impachetare                    | 19,000 cm |
| Lungime prima forma de impachetare                   | 40,500 cm |
| Greutate colet(Lbs)                                  | 5,751 kg  |
| Unitate de masura pentru a doua forma de impachetare | S06       |
| Numar unitati in a doua forma de impachetare         | 6         |
| Inaltime a doua forma de impachetare                 | 75,000 cm |
| Latime a doua forma de impachetare                   | 60,000 cm |
| Lungime a doua forma de impachetare                  | 80,000 cm |
| Greutate a doua forma de impachetare                 | 47,506 kg |

## Garanție contractuală

|          |         |
|----------|---------|
| Garantie | 18 luni |
|----------|---------|

Environmental Data

Schneider Electric isi propune sa atinga nivelul Net Zero pana in 2050 prin parteneriate la nivelul lantului de aprovizionare, materiale cu impact mai redus si circularitate, prin campania „Use Better, Use Longer, Use Again” pentru a extinde durata de viata a produselor si reciclabilitatea.

Environmental Data explicate >

Cum evaluam sustenabilitatea produselor >

| Amprenta de mediu                            |                                                  |
|----------------------------------------------|--------------------------------------------------|
| Amprenta de carbon totala pe durata de viata | 2670                                             |
| Raport de mediu                              | <a href="#">Profilul ambiental al produsului</a> |

Use Better

| Materiale si ambalare             |                                                                           |
|-----------------------------------|---------------------------------------------------------------------------|
| Pachet cu carton reciclabil       | Da                                                                        |
| Ambalaj fara plastic              | Da                                                                        |
| <a href="#">Directiva RoHS UE</a> | Conformitate proactivă (Produs în afara domeniului de aplicare a EU RoHS) |
| Numar SCIP                        | 4de62941-2f5a-4018-a63f-6ca03d378705                                      |
| Regulamentul REACH                | <a href="#">Declaratia REACH</a>                                          |

| Eficienta energetica                |     |
|-------------------------------------|-----|
| Contributiila produs a fost evitata | Yes |

Use Again

| Reambalare si refabricare              |                                                                                                                                                                                                                                                                      |
|----------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Profil circularitate                   | <a href="#">Informatii privind sfarsitul duratei de viata</a>                                                                                                                                                                                                        |
| Preluare la sfarsitul duratei de viata | Da                                                                                                                                                                                                                                                                   |
| Eticheta WEEE                          |  În Uniunea Europeana, produsele trebuie reciclate respectand sistemul specific de colectare a deseurilor si nu trebuie sa ajunga in pubelele de colectare a deseurilor menajere. |

## Dimensions

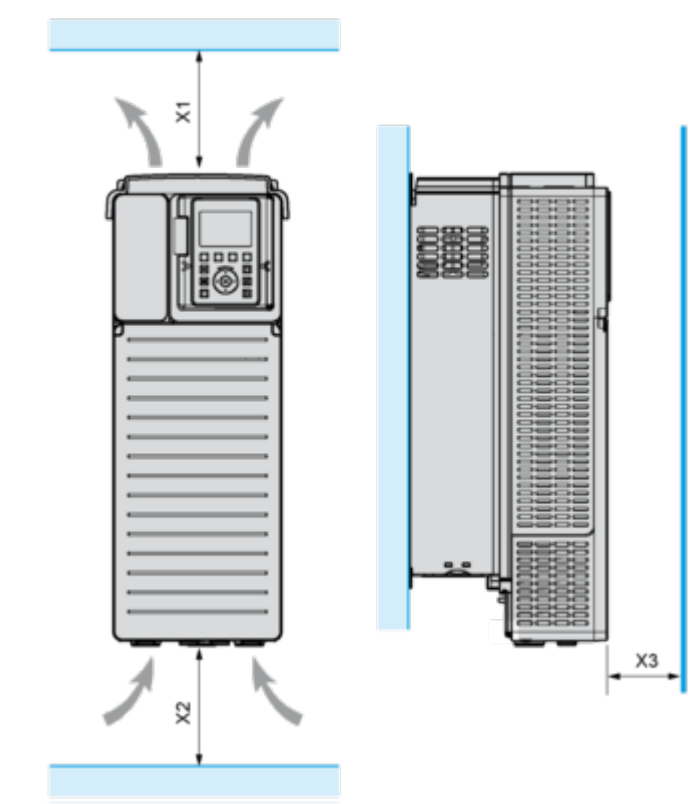
### Right and Front Views

### Left and Rear Views



Mounting and Clearance

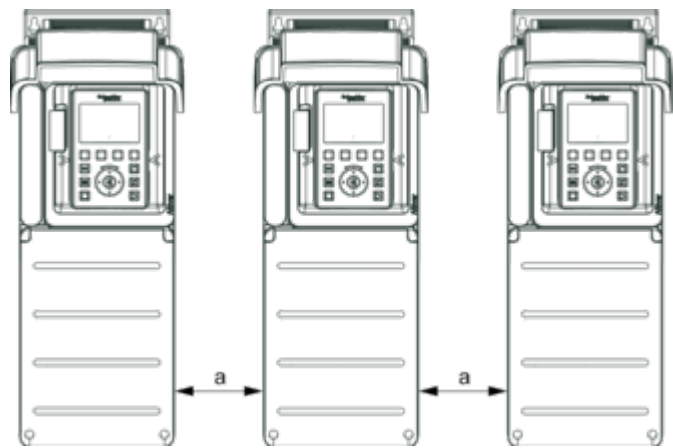
Clearances



| X1                  | X2                  | X3                 |
|---------------------|---------------------|--------------------|
| ≥ 100 mm (3.94 in.) | ≥ 100 mm (3.94 in.) | ≥ 10 mm (0.39 in.) |

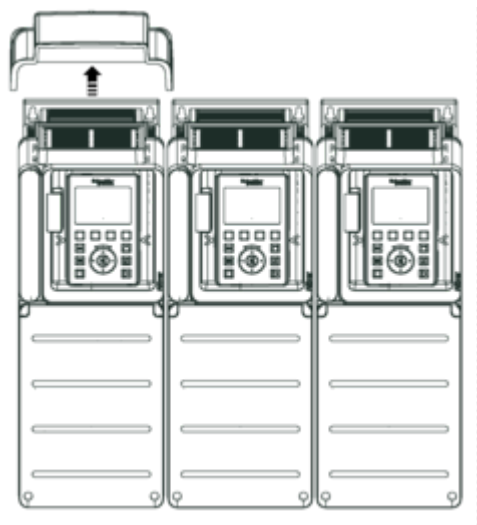
Mounting Types

Mounting Type A: Individual IP21

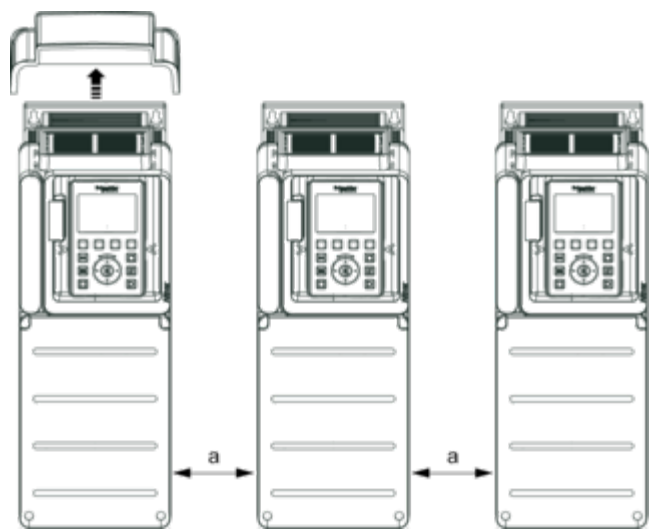


$a \geq 100 \text{ mm (3.94 in.)}$

Mounting Type B: Side by Side IP20



Mounting Type C: Individual IP20

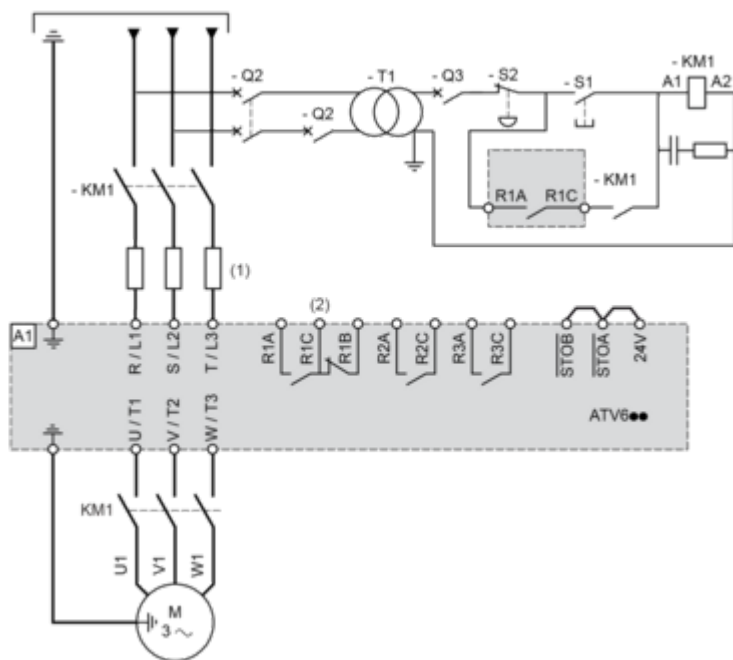


$a \geq 0$

## Connections and Schema

### Three-Phase Power Supply with Upstream Breaking via Line Contactor

Connection diagrams conforming to standards EN 954-1 category 1 and IEC/EN 61508 capacity SIL1, stopping category 0 in accordance with standard IEC/EN 60204-1



(1) Line choke if used

(2) Use relay R1 set to operating state Fault to switch Off the product once an error is detected.

**A1 : Drive**

**KM1** : Line Contactor

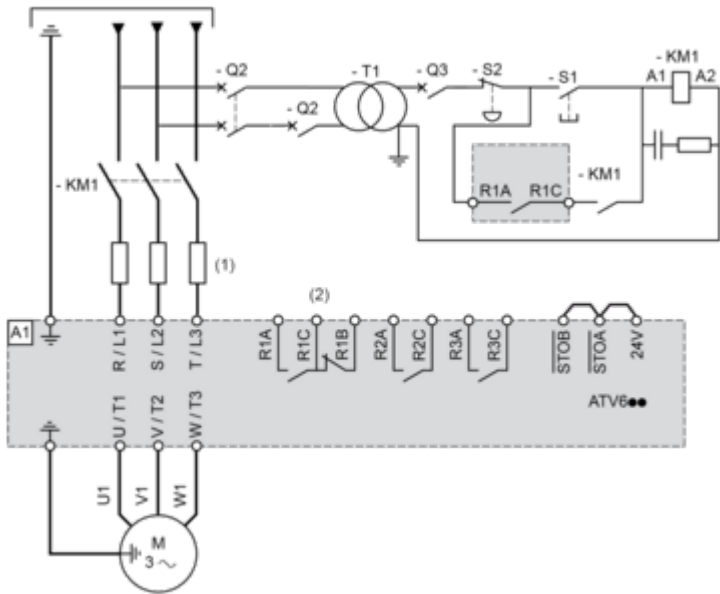
**Q2, Q3** : Circuit breakers

**S1, S2** : Pushbuttons

**T1** : Transformer for control part

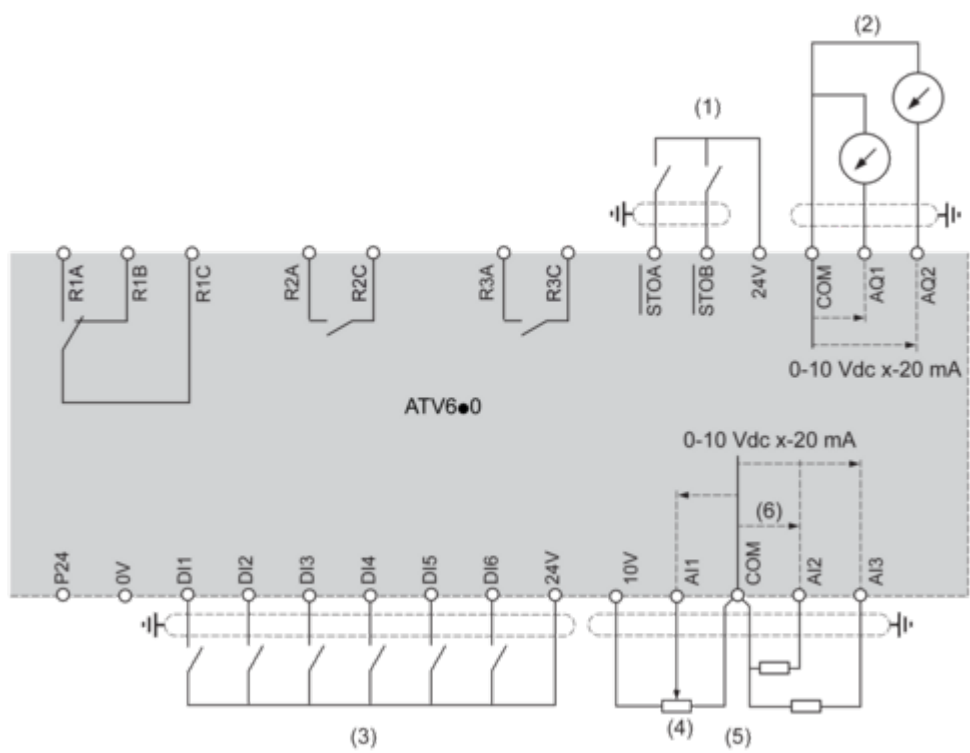
Three-Phase Power Supply with Downstream Breaking via Contactor

Connection diagrams conforming to standards EN 954-1 category 1 and IEC/EN 61508 capacity SIL1, stopping category 0 in accordance with standard IEC/EN 60204-1



- (1) Line choke if used
  - (2) Use relay R1 set to operating state Fault to switch Off the product once an error is detected.
- A1 : Drive  
KM1 : Contactor

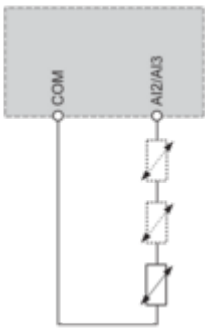
Control Block Wiring Diagram



- (1) Safe Torque Off
- (2) Analog Output
- (3) Digital Input
- (4) Reference potentiometer
- (5) Analog Input
- R1A, R1B, R1C : Fault relay
- R2A, R2C : Sequence relay
- R3A, R3C : Sequence relay

Sensor Connection

It is possible to connect either 1 or 3 sensors on terminals AI2 or AI3.

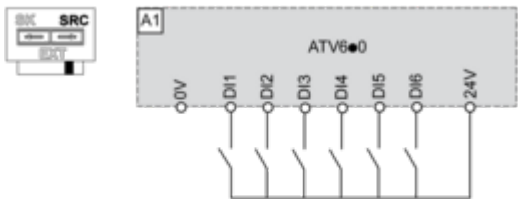


Sink / Source Switch Configuration

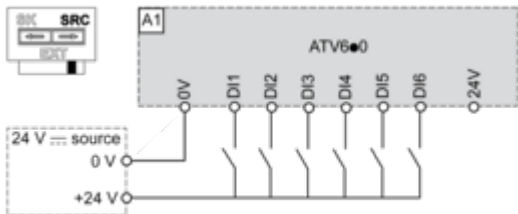
The switch is used to adapt the operation of the logic inputs to the technology of the programmable controller outputs.

- Set the switch to Source (factory setting) if using PLC outputs with PNP transistors.
- Set the switch to Ext if using PLC outputs with NPN transistors.

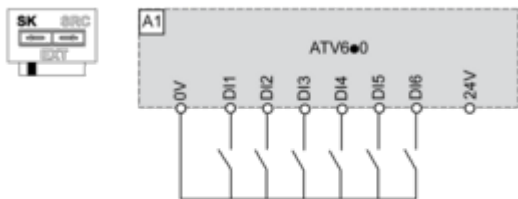
Switch Set to SRC (Source) Position Using the Output Power Supply for the Digital Inputs



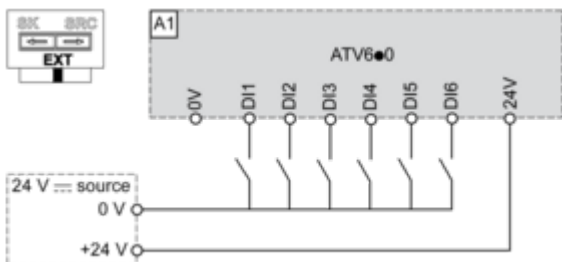
Switch Set to SRC (Source) Position and Use of an External Power Supply for the DIs



Switch Set to SK (Sink) Position Using the Output Power Supply for the Digital Inputs

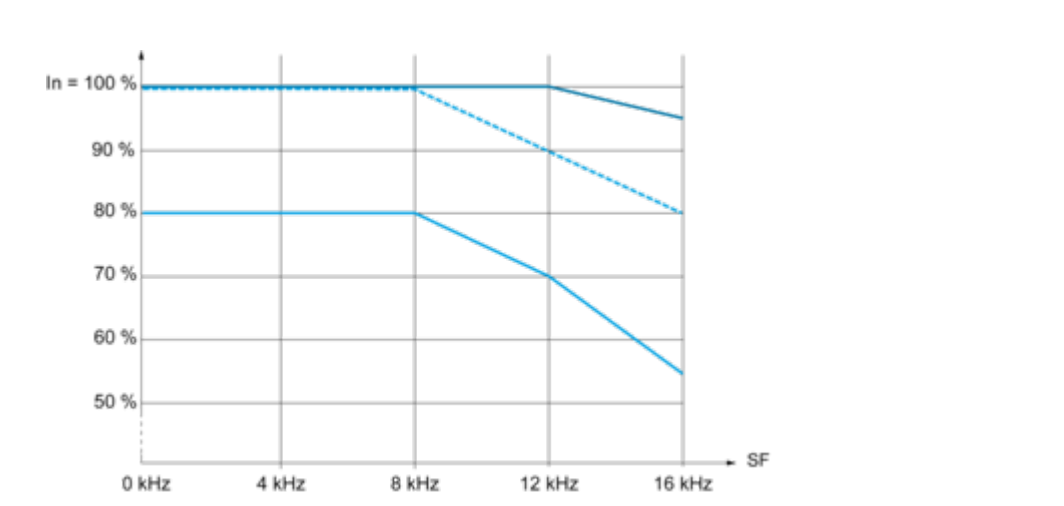


Switch Set to EXT Position Using an External Power Supply for the DIs



Performance Curves

Derating Curves



— 40 °C (104 °F) - Mounting type A, B and C  
- - - 50 °C (122 °F) - Mounting type A, B and C  
— 60 °C (140 °F) - Mounting type B and C  
 **$I_n$**  : Nominal Drive Current  
**SF** : Switching Frequency



## Technical Illustration

## Dimensions

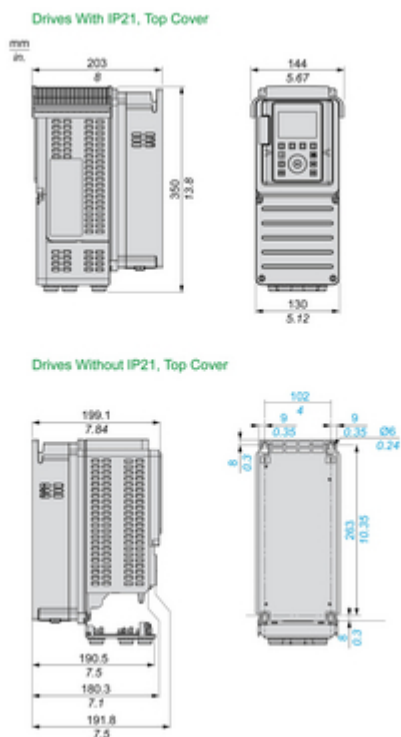


Image of product / Alternate images

Alternative

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