



### Teknisk informasjon

Produktspekter	Altivar Machine ATV340
Produkt eller type komponent	Frekvensomformer
Produktspesifikk applikasjon	Machine
Variant	Standard versjon
Monteringsmetode	Cabinet mount
Kommunikasjonsprotokoll	Modbus serial Modbus TCP EtherNet/IP
Funksjonskort	Kommunikasjons modul, Profinet Kommunikasjons modul, DeviceNet Kommunikasjons modul, CANopen Kommunikasjons modul, EtherCAT
Antall faser i nettverket	3 faser
Nettfrekvens	50...60 Hz +/- 5 %
[Us] matespenning	380...480 V - 15...10 %
Nominell utgangsstrøm	7,2 A
Motoreffekt kW	4 kW for normal duty 3 kW for heavy duty
Motoreffekt hk	3 Hp for heavy duty 5 hp for normal duty
EMC filter	Class C3 EMC filter integrated
IP grad av beskyttelse	IP20

### Komplementær

Discrete input number	5
Discrete input type	PTI programmerbar puls inngang: 0...30 kHz, 24 V DC ( 30 V) DI1...DI5 sikkert utkoblet moment, 24 V DC ( 30 V), impedans: 3.5 kOhm programerbar
Number of preset speeds	16 forhåndsinnstilte hastigheter
Discrete output number	2,0
Digitale utganger	Programmable output DQ1, DQ2 30 V DC 100 mA
Antall analoge innganger	2
Analoge input type	AI1 software-configurable current: 0...20 mA, impedance: 250 Ohm, resolution 12 bits AI1 software-configurable temperature probe or water level sensor AI1 software-configurable voltage: 0...10 V DC, impedance: 31.5 kOhm, resolution 12 bits AI2 software-configurable voltage: - 10...10 V DC, impedance: 31.5 kOhm, resolution 12 bits
Analog utgangsnummer	2
Analog utgangstype	Programvare-konfigurerbar spenning AQ1: 0...10 V DC impedans 470 Ohm, oppløsning 10 bits Software-configurable current AQ1: 0...20 mA impedance 500 Ohm, resolution 10 bits
Relé utgang nummer	2
Utgangsspenning	<= strømforsyningsspenning
Reléutgangstype	Relay outputs R1A Relay outputs R1C electrical durability 100000 cycles Relay outputs R2A Relay outputs R2C electrical durability 100000 cycles

Maximum svitsjestrøm	Relay output R1C on resistive load, cos phi = 1: 3 A at 250 V AC Relay output R1C on resistive load, cos phi = 1: 3 A at 30 V DC Relay output R1C on inductive load, cos phi = 0.4 and L/R = 7 ms: 2 A at 250 V AC Relay output R1C on inductive load, cos phi = 0.4 and L/R = 7 ms: 2 A at 30 V DC Relay output R2C on resistive load, cos phi = 1: 5 A at 250 V AC Relay output R2C on resistive load, cos phi = 1: 5 A at 30 V DC Relay output R2C on inductive load, cos phi = 0.4 and L/R = 7 ms: 2 A at 250 V AC Relay output R2C on inductive load, cos phi = 0.4 and L/R = 7 ms: 2 A at 30 V DC
Minimum brytestrøm	Relay output R1B: 5 mA at 24 V DC Relay output R2C: 5 mA at 24 V DC
Fysisk interface	2-tråds RS 485
Tilkoblingstype	3 RJ45
Tilgangsmetode	Slave Modbus RTU Slave Modbus TCP
Overføringshastighet	4.8 kbit/s 9.6 kbit/s 19.2 kbit/s 38.4 kbit/s
Ramme for overføring	RTU
Antall adresser	1...247
Datoformat	8 bits, konfigurert Odd, selv eller ingen paritet
Polarisasjonstype	Ingen impedans
4 quadrant operation possible	True
Motorkontroll metode	Optimalisert dreiemoment-modus Variabelt dreiemoment standard Konstant dreiemoment standard
Synchronous motor control profile	Reluctance motor Permanent magnet motor
Forurensninggrad	2 i samsvar med EN/IEC 61800-5-1
Maximum output frequency	0,599 kHz
Akselerasjons- og retardasjonsramper	S, U eller tilpasset Linear adjustable separately from 0.01...9999 s
Motor slip kompensasjon	Justrbar Not available in permanent magnet motor law Can be suppressed Automatic whatever the load
Switching frequency	2...16 kHz Justrbar 7...16 kHz with derating factor
Nominell svitsjefrekvens	4 kHz
Bremsing til stillstand	Ved DC-bremsing
Brake chopper integrated	True
Nettstrøm	8.6 A at 380 V (normal duty) 6.8 A at 480 V (normal duty) 10.7 A at 380 V (heavy duty) 8.5 A at 480 V (heavy duty)
Nettstrøm	10.7 A at 380 V without line choke (heavy duty) 8.5 A at 480 V without line choke (heavy duty) 8.6 A at 380 V with external line choke (normal duty) 6.8 A at 480 V with external line choke (normal duty) 6.6 A at 380 V with external line choke (heavy duty) 5.3 A at 480 V with external line choke (heavy duty)
Maximum input current	10,7 A
Maximum output voltage	480 V
Tilsynelatende effekt	6.7 KVA at 480 V (normal duty) 7.1 kVA at 480 V (heavy duty)
Maksimale transient strøm	10.2 A during 60 s (normal duty) 12.6 A during 2 s (normal duty) 13 A during 2 s (heavy duty) 11 A during 60 s (heavy duty)
Elektrisk tilkobling	Screw terminal, clamping capacity: 1.5...4 mm <sup>2</sup> for line side Screw terminal, clamping capacity: 4...6 mm <sup>2</sup> for DC bus Screw terminal, clamping capacity: 1.5...4 mm <sup>2</sup> for motor Screw terminal, clamping capacity: 0.2...2.5 mm <sup>2</sup> for control
Maks kortslutningsnivå I <sub>sc</sub>	5 kA
Base load current at high overload	7,2 A

Base load current at low overload	9,3 A
Effektapp i W	Natural convection: 78 W at 380 V, switching frequency 4 kHz (heavy duty) Forced convection: 78 W at 380 V, switching frequency 4 kHz (heavy duty) Natural convection: 96 W at 380 V, switching frequency 4 kHz (normal duty) Forced convection: 96 W at 380 V, switching frequency 4 kHz (normal duty)
Elektrisk tilkobling	Line side: screw terminal 1.5...4 mm <sup>2</sup> /AWG 14...AWG 12 DC bus: screw terminal 4...6 mm <sup>2</sup> /AWG 12...AWG 10 Motor: screw terminal 1.5...4 mm <sup>2</sup> /AWG 14...AWG 12 Control: screw terminal 0.2...2.5 mm <sup>2</sup> /AWG 24...AWG 12
With safety function Safely Limited Speed (SLS)	True
With safety function Safe brake management (SBC/SBT)	True
With safety function Safe Operating Stop (SOS)	False
With safety function Safe Position (SP)	False
With safety function Safe programmable logic	False
With safety function Safe Speed Monitor (SSM)	False
With safety function Safe Stop 1 (SS1)	True
With sft fct Safe Stop 2 (SS2)	False
With safety function Safe torque off (STO)	True
With safety function Safely Limited Position (SLP)	False
With safety function Safe Direction (SDI)	False
Beskyttelsestype	Thermal protection: Motor Safe torque off: Motor Motor phase loss: motor Thermal protection: drive Safe torque off: drive Overoppvarming: drive Overcurrent: drive Output overcurrent between motor phase and earth: drive Output overcurrent between motor phases: drive Short-circuit between motor phase and earth: drive Short-circuit between motor phases: drive Motor phase loss: drive DC Bus overvoltage: drive Line supply overvoltage: drive Line supply undervoltage: drive Input supply loss: drive Exceeding limit speed: drive Break on the control circuit: drive
Bredde	85,0 mm
Høyde	270,0 mm
Dybde	232,5 mm
Vekt	2,2 kg
Nominell utgangsstrøm	9,3 A på 4 kHz for normal duty 7,2 A på 4 kHz for heavy duty

## Miljø

Operating altitude	<= 3000 m with current derating above 1000m
Driftsposisjon	Vertikal +/- 10 grader
Produktsertifikater	UL CSA TÜV EAC CTick
Merking	CE
Standarder	EN/IEC 61800-3 EN/IEC 61800-5-1 IEC 60721-3 IEC 61508 IEC 13849-1 UL 618000-5-1 UL 508C
Monteringsmåte	Med kjølelegeme


Elektromagnetisk kompatibilitet	Immunitetstest for elektrostatisk utladning nivå 3 i samsvar med IEC 61000-4-2 Strålings radiofrekvente elektromagnetiske felt immunitet test nivå 3 i samsvar med IEC 61000-4-3 Electrical fast transient/burst immunity test nivå 4 i samsvar med IEC 61000-4-4 1.2/50 µs - 8/20 µs surge immunity test nivå 3 i samsvar med IEC 61000-4-5 Immunitetstest for ledet radiofrekvens nivå 3 i samsvar med IEC 61000-4-6
Environmental class (during operation)	Class 3C3 according to IEC 60721-3-3 Class 3S3 according to IEC 60721-3-3
Maximum acceleration under shock impact (during operation)	70 m/s <sup>2</sup> at 22 ms
Maximum acceleration under vibrational stress (during operation)	5 m/s <sup>2</sup> at 9...200 Hz
Maximum deflection under vibratory load (during operation)	1.5 mm at 2...9 Hz
Permitted relative humidity (during operation)	Class 3K5 according to EN 60721-3
Volum av kjøleluft	19,0 m <sup>3</sup> /t
Kjølemetode	Tvangsstyrt konveksjon
Overspenningskategori	Class III
Reguleringssløyfe	Justerbar PID regulator
Støynivå	51,2 dB
Forurensningsgrad	2
Ambient air transport temperature	-40...70 °C
Omgivelsestemperatur for drift	-15...50 °C without derating (vertical position) 50...60 °C with derating factor (vertical position)
Omgivelsestemperatur for lagring	-40...70 °C
Skille	Between power and control terminals

## Packing Units

Enhetstype forpakning 1	PCE
Antall enheter forpakning 1	1
Forpakning 1 vekt	2,91 kg
Forpakning 1 høyde	11 cm
Forpakning 1 bredde	37 cm
Forpakning 1 lengde	32 cm
Enhetstype forpakning 2	BB1
Antall enheter forpakning 2	1
Forpakning 2 vekt	2,64 kg
Forpakning 2 høyde	10,7 cm
Forpakning 2 bredde	28,8 cm
Forpakning 2 lengde	35,3 cm
Enhetstype forpakning 3	S04
Antall enheter forpakning 3	2
Forpakning 3 vekt	6,59 kg
Forpakning 3 høyde	30 cm
Forpakning 3 bredde	40 cm
Forpakning 3 lengde	60 cm

## Offer Sustainability

Produktets miljøstatus	Green Premium miljømerket produkt
REACH-regelverk	<a href="#">REACH-erklæring</a>
EU RoHS-direktiv	Proaktivt i samsvar (Produktet inngår ikke i EUs RoHS direktivet) <a href="#">EU RoHS-erklæring</a>
Kvikksølvfri	Ja
Informasjon om RoHS-unntak	<a href="#">Ja</a>
Kinas RoHS-forskrift	<a href="#">Kinas RoHS-Erklæring</a>
Miljøinformasjon	<a href="#">Produktmiljøprofil</a>
Produktets livssyklus	<a href="#">Informasjon Om Levetidsslutt</a>

WEEE	Innen EU må produktet avhendes i henhold til bestemte regler for avfallshåndtering og aldri kastes som husholdningsavfall.
Oppgraderbarhet	 <a href="#">Oppgraderte Komponenter Tilgjengelig</a>
<b>Garantiperiode</b>	
Garanti	18 måneder