

Fișă tehnică produs

Specificatii



Variator De Viteza - 5.5Kw- 400V - 3 Faze - Atv340 Ethernet

ATV340U55N4E

Principal

Gama De Produse	Altivar Machine ATV340
Tip Produs Sau Componenta	Variator de viteza
Aplicatie Specifica Produsului	Machine
Varianta	Standard version
Mod De Montare	Cabinet mount
Port Protocol De Comunicatie	Ethernet/IP Modbus TCP Serial Modbus
Numar Faze In Retea	3 faze
Frecventa De Alimentare	50...60 Hz +/- 5 %
[Us] Tensiune Nominala De Alimentare	380...480 V - 15...10 %
Curent Nominal De Iesire	12,7 A
Putere Motor Kw	7,5 kW pentru serviciu normal 5,5 kW pentru pentru sarcini grele
Putere Motor Hp	10 CP pentru serviciu normal 7 CP pentru pentru sarcini grele
Filtru Emc	Class C3 EMC filter integrated
Grad De Protectie Ip	IP20

Suplimentar

Numar Intrare Discreta	5
Tip De Intrare Discreta	PTI programmable as pulse input 0...30 kHz, 24 V c.c. (30 V) DI1...DI5 cuplu de siguranță, 24 V c.c. (30 V), impedanță: 3.5 kOhm programabile
Number Of Preset Speeds	16 preset speeds
Numar Iesire Discreta	2,0
Tip De Iesire Discreta	Programmable output DQ1, DQ2 30 V c.c. 100 mA
Numarul Intrarii Analogice	2
Tip De Intrare Analogica	AI1 curent configurabil soft 0...20 mA, impedanță: 250 Ohm, rezoluție 12 biti AI1 sonda de temperatura configurabila cu soft sau senzor de nivel de apa AI1 tensiune configurabilă soft 0...10 V c.c., impedanță: 31.5 kOhm, rezoluție 12 biti AI2 tensiune configurabilă soft - 10...10 V c.c., impedanță: 31.5 kOhm, rezoluție 12 biti
Numarul Iesirii Analogice	2
Tip Iesire Analogica	Tensiune configurabilă soft AQ1 0...10 V c.c. 470 Ohm, rezoluție 10 bits Curent configurabil soft AQ1 0...20 mA 500 Ohm, rezoluție 10 bits

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

Numarul Iesirii Releu	2
Tensiune De Iesire	<= tensiunea de alimentare
Tip Releu Iesire	Ieșiri releu R1A Ieșiri releu R1C 100000 cic Ieșiri releu R2A Ieșiri releu R2C 100000 cic
Curent Maxim De Comutatie	Relay output R1C pornit rezistiv sarcina, cos phi = 1 3 A la 250 V c.a. Relay output R1C pornit rezistiv sarcina, cos phi = 1 3 A la 30 V c.c. Relay output R1C pornit inductiv sarcina, cos phi = 0,4 si stanga/dreapta = 7 ms 2 A la 250 V c.a. Relay output R1C pornit inductiv sarcina, cos phi = 0,4 si stanga/dreapta = 7 ms 2 A la 30 V c.c. Relay output R2C pornit rezistiv sarcina, cos phi = 1 5 A la 250 V c.a. Relay output R2C pornit rezistiv sarcina, cos phi = 1 5 A la 30 V c.c. Relay output R2C pornit inductiv sarcina, cos phi = 0,4 si stanga/dreapta = 7 ms 2 A la 250 V c.a. Relay output R2C 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 R1B 5 mA la 24 V c.c. Relay output R2C 5 mA la 24 V c.c.
Interfata Fizica	RS 485 cu 2 fire
Tipul Conectorului	3 RJ45
Metoda De Acces	Slave Modbus RTU Slave Modbus TCP
Rata De Transmisie	4.8 kbit/s 9.6 kbit/s 19.2 kbit/s 38.4 kbit/s
Cadrul De Transmisie	RTU
Numarul De Adrese	1...247
Format Date	8 biti, configurabil impar, par sau fara paritate
Tip De Polarizare	Fara impedanta
4 Quadrant Operation Possible	Adevarat
Profil De Control Al Motorului Asincron	Mod de cuplu optim Constanta de cuplu standard Cuplu variabil standard
Profil De Control Al Motorului Sincron	Reluctance motor Permanent magnet motor
Grad De Poluare	2 conformitate cu IEC 61800-5-1
Frecventa Maxima De Iesire	0,599 kHz
Rampe De Accelerare Si Decelerare	Reglabil liniar separat, de la 0,01 la 9999 s S, U sau personalizat
Compensare Alunecare Motor	Automat indiferent de sarcina Poate fi suprimat Reglabil Not available in permanent magnet motor law
Frecventa De Comutare	2...16 kHz reglabil 7...16 kHz cu
Frecventa De Comutare Nominala	4 kHz
Franare Sau Imobil	Cu injectie c.c.
Brake Chopper Integrated	Adevarat
Curent De Linie	15,3 A la 380 V (serviciu normal) 12,2 A la 480 V (serviciu normal) 20,0 A la 380 V (pentru sarcini grele) 16,0 A la 480 V (pentru sarcini grele)

Curent De Linie	20 A la 380 V without line choke (pentru sarcini grele) 16 A la 480 V without line choke (pentru sarcini grele) 15,3 A la 380 V with external line choke (serviciu normal) 12,2 A la 480 V with external line choke (serviciu normal) 11,6 A la 380 V with external line choke (pentru sarcini grele) 9,4 A la 480 V with external line choke (pentru sarcini grele)
Curent Maxim De Intrare	20,0 A
Maximum Output Voltage	480 V
Putere Aparenta	12,1 kVA la 480 V (serviciu normal) 13,3 kVA la 480 V (pentru sarcini grele)
Curent Tranzitoriu Maxim	18,2 A in timpul 60 s (serviciu normal) 19,1 A in timpul 60 s (pentru sarcini grele) 22,3 A in timpul 2 s (serviciu normal) 22,9 A in timpul 2 s (pentru sarcini grele)
Conexiune Electrica	Borna cu surub, capacitate de prindere: 4...6 mm ² pentru DC bus Borna cu surub, capacitate de prindere: 0.2...2.5 mm ² pentru control Borna cu surub, capacitate de prindere: 1.5...6 mm ² pentru line side Borna cu surub, capacitate de prindere: 1.5...6 mm ² pentru motor
Curent De Scurtcircuit Presumat I _{sc}	22 kA
Base Load Current At High Overload	12,7 A
Base Load Current At Low Overload	16,5 A
Puterea Disipata In W	Convectie naturala 134 W la 380 V 4 kHz (pentru sarcini grele) Convectie fortata 134 W la 380 V 4 kHz (pentru sarcini grele) Convectie naturala 164 W la 380 V 4 kHz (serviciu normal) Convectie fortata 164 W la 380 V 4 kHz (serviciu normal)
Conexiune Electrica	DC bus borna cu surub 4...6 mm ² AWG 12...AWG 10 Control borna cu surub 0.2...2.5 mm ² AWG 24...AWG 12 Line side borna cu surub 1.5...6 mm ² AWG 14...AWG 10 Motor borna cu surub 1.5...6 mm ² AWG 14...AWG 10
Cu Functia De Siguranta Safely Limited Speed (Sls)	Adevarat
Cu Functia De Siguranta Safe Brake Management (Sbc/Sbt)	Adevarat
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)	Adevarat
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 Safe torque off motor Pierdere de fază a motorului motor Protectie termica variator Safe torque off variator Supraincalzire variator Supracurent variator Output overcurrent between motor phase and earth variator Output overcurrent between motor phases variator Short-circuit between motor phase and earth variator Scurtcircuit între fazele motorului variator Pierdere de fază a motorului variator DC Bus overvoltage variator Supratensiune în linia de alimentare variator Scăderea tensiunii de alimentare variator Input supply loss variator Exceeding limit speed variator Defectarea circuitului de comandă variator
Latime	110,0 mm
Inaltime	270,0 mm
Adancime	234,0 mm
Greutate Neta	2,9 kg
Curent La Iesire Continuu	16,5 A la 4 kHz pentru serviciu normal 12,7 A la 4 kHz pentru sarcini grele

Mediu

Altitudinea De Functionare	<= 3000 m with current derating above 1000m
Pozitie De Operare	Vertical +/- 10 grade
Certificari Produs	UL CSA TÜV EAC CTick
Marcaj	CE
Standarde	IEC 61800-3 IEC 61800-5-1 IEC 60721-3 IEC 61508 IEC 13849-1 UL 618000-5-1 UL 508C
Stil De Asamblare	Cu radiator
Compatibilitate Electromagnetica	Test de imunitate la descarcari electrostatice nivel 3 conformitate cu IEC 61000-4-2 Test de imunitate la frecventa radio radiata nivel 3 conformitate cu IEC 61000-4-3 Tranzienți rapizi/test de imunitate la impulsuri de ionizare nivel 4 conformitate cu IEC 61000-4-4 1.2/50 µs - 8/20 µs test de imunitate la supratensiuni nivel 3 conformitate cu IEC 61000-4-5 Test de imunitate la radiofrecvență condusă nivel 3 conformitate cu IEC 61000-4-6
Clasa De Mediu (In Timpul Functionarii)	Clasa 3C3 in conformitate cu IEC 60721-3-3-3 Class 3S3 according to IEC 60721-3-3
Acceleratia Maxima In Cazul Unui Impact De Soc (In Timpul Functionarii)	70 m/s² at 22 ms
Acceleratia Maxima Sub Tensiune De Vibratie (In Timpul Functionarii)	5 m/s² at 9...200 Hz
Deformarea Maxima Sub Sarcină Vibratorie (In Timpul Functionarii)	1.5 mm at 2...9 Hz
Permitted Relative Humidity (During Operation)	Class 3K5 according to EN 60721-3
Volumul Aerului De Racire	76,0 m³/h
Tip De Racire	Convecție fortata

Categorie De Supratensiune	Class III
Bucla De Reglare	Regulator PID reglabil
Nivel De Zgomot	46,6 dB
Grad De Poluare	2
Temperatura De Transport A Aerului Ambiental	-40...70 °C
Temperatura Ambientala De Utilizare	-15...50 °C fără declasare (pozitie verticala) 50...60 °C cu (pozitie verticala)
Temperatura Ambietala Pentru Depozitare	-40...70 °C
Izolatie	Intre alimentare si bornele de control

Unitati de ambalare

Unitate De Masura Pentru Prima Forma De Impachetare	PCE
Numar Unitati In Prima Forma De Impachetare	1
Inaltime Prima Forma De Impachetare	13,200 cm
Latime Prima Forma De Impachetare	37,000 cm
Lungime Prima Forma De Impachetare	32,000 cm
Greutate Prima Forma De Impachetare	3,810 kg
Unitate De Masura Pentru A Doua Forma De Impachetare	S06
Numar Unitati In A Doua Forma De Impachetare	10
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	50,900 kg

Garanție contractuală

Garantie	18 luni
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Sustenabilitate

Eticheta **Green Premium™** reprezinta angajamentul Schneider Electric de a livra produse cu cea mai buna performanta de mediu din clasa lor. Green Premium promite respectarea celor mai recente reglementari, transparenta in ceea ce priveste impactul asupra mediului, precum si produse circulare si cu emisii reduse de CO₂.

Ghidul pentru evaluarea sustenabilitatii produsului este un ghid care clarifica standardele globale de eticheta ecologica si modul de interpretare a declaratiilor de mediu.

[Ghid pentru evaluarea sustenabilitatii unui produs >](#)



Transparenta RoHS/REACH

Performanta resurselor

 Componente Cu Upgrade Disponibile

Echipament sustenabil

 Fara Mercur

 Informatii Privind Scutirea De La Rohs Da

Certificari si standarde

Regulamentul Reach	Declaratia REACH
Directiva Rohs Ue	Conformitate proactivă (Produs în afara domeniului de aplicare a EU RoHS)
Regulamentul Rohs China	Declaratia RoHS China
Raport De Mediu	Profilul ambiental al produsului
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.
Profil Circularitate	Informatii privind sfarsitul duratei de viata

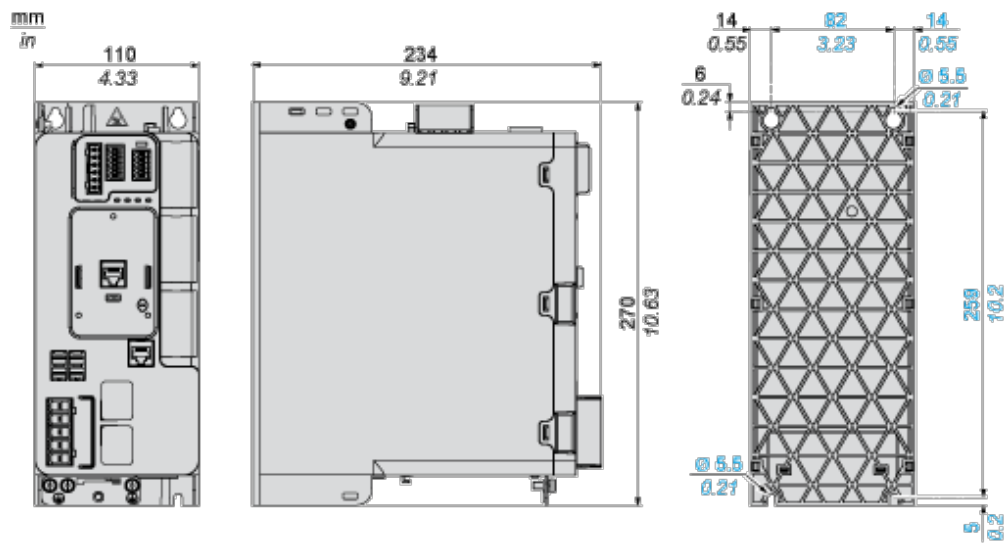
Fișă tehnică produs

ATV340U55N4E

Dimensions Drawings

Dimensions

Views: Front - Left - Rear



Mounting and Clearance

Clearance



Dimensions in mm

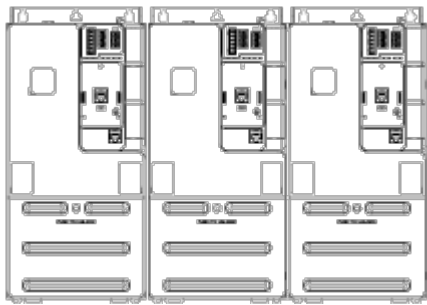
X1	X2	X3
100	100	60

Dimensions in in.

X1	X2	X3
3.94	3.94	2.36

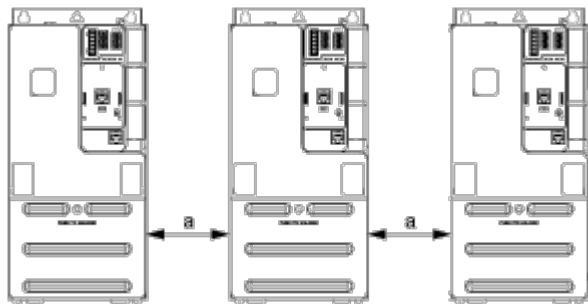
Mounting Types

Mounting Type A: Side by Side IP20



Possible, at ambient temperature $\leq 50\text{ }^{\circ}\text{C}$ (122 $^{\circ}\text{F}$)

Mounting Type B: Individual IP20



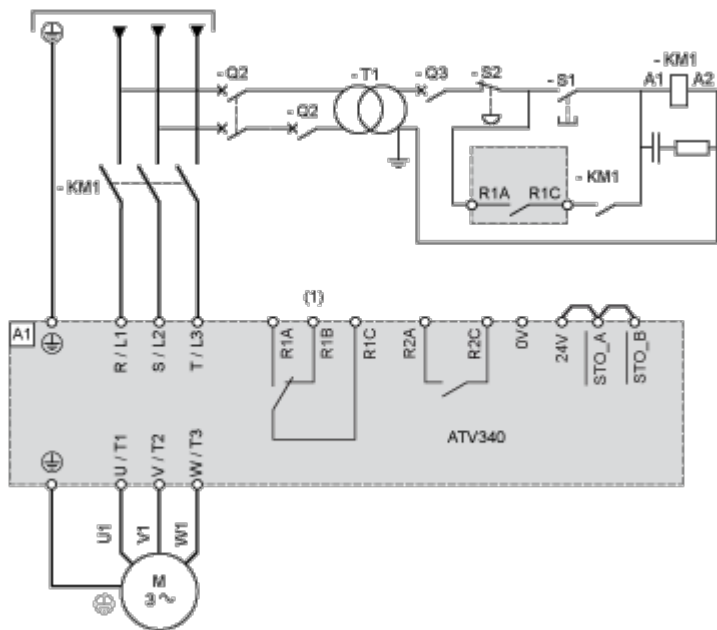
a  50 mm (1.97 in.) from 50...60 $^{\circ}\text{C}$, no restriction below 50 $^{\circ}\text{C}$

Connections and Schema

Connections and Schema

Three-phase Power Supply with Upstream Breaking via Line Contactor Without Safety
Function STO

Connection diagrams conforming to standards ISO13849 category 1 and IEC/EN 61508 capacity SIL1, stopping category 0 in accordance with standard IEC/EN 60204-1.



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

A1 : Drive

KM1 : Line Contactor

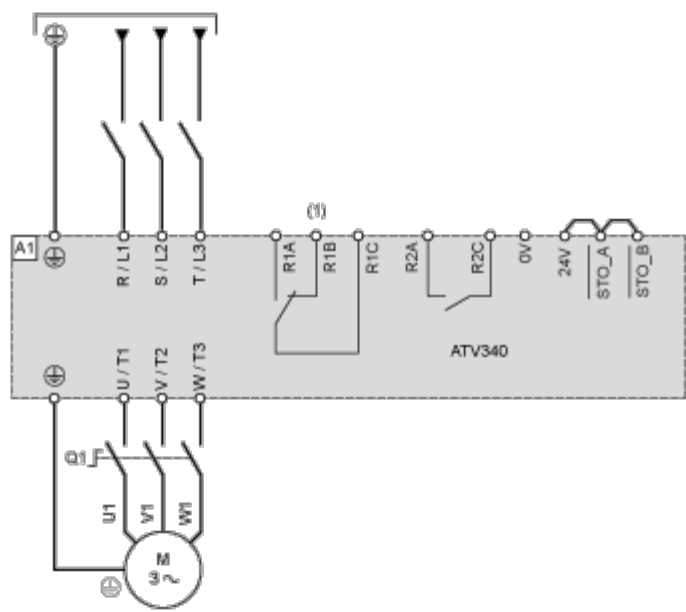
Q2, Q3 : Circuit breakers

S1 : Pushbutton

S2 : Emergency stop

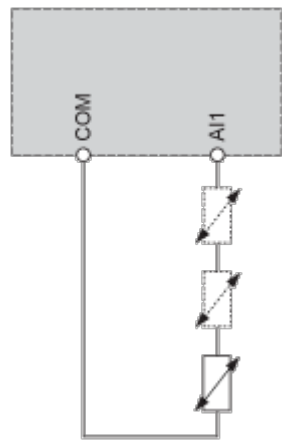
T1 : Transformer for control part

Three-phase Power Supply With Downstream Breaking via Switch Disconnecter



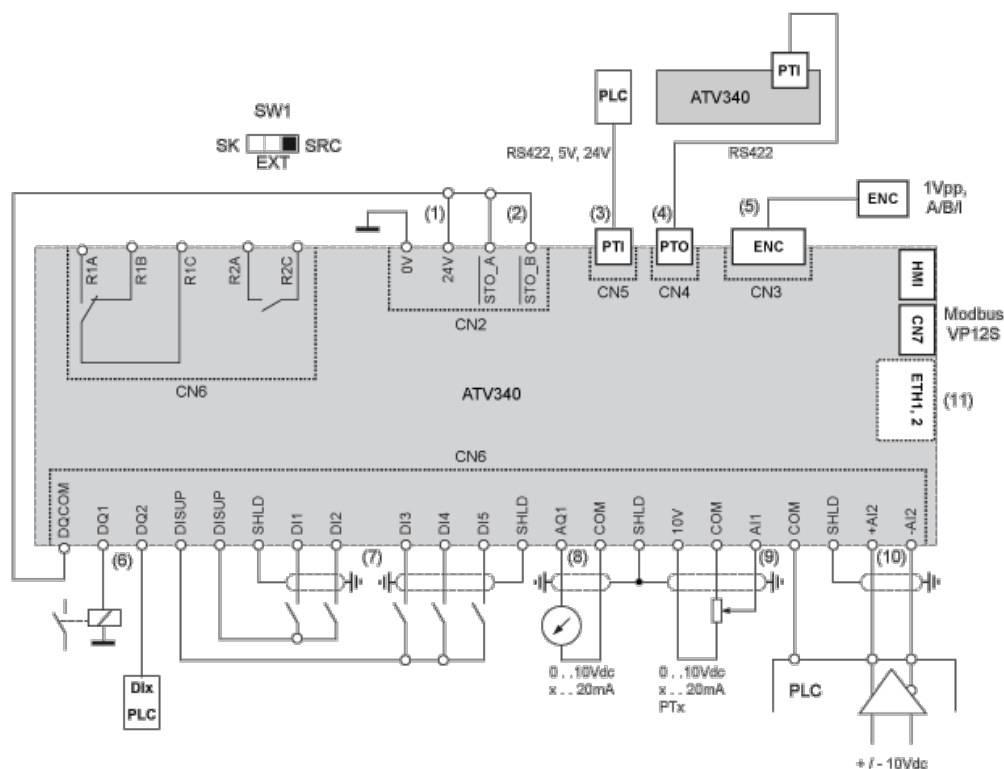
- (1) Use relay output R1 set to operating state Fault to switch Off the product once an error is detected.
- A1 : Drive
- Q1 : Switch disconnector

Sensor Connection



It is possible to connect either 1 or 3 sensors on terminals AI1.

Control Block Wiring Diagram

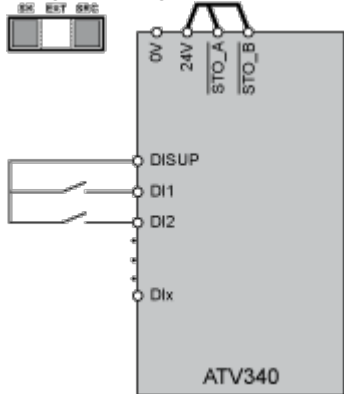


- (1) 24V supply (STO)
 - (2) STO - Safe Torque Off
 - (3) PTI - Pulse Train In
 - (4) PTO - Pulse Train Out
 - (5) Motor Encoder connection
 - (6) Digital outputs
 - (7) Digital inputs
 - (8) Analog output
 - (9) Analog input
 - (10) Differential Analog Input
 - (11) Ethernet port (only on Ethernet drive version)
- SW1 : Sink/Source switch
- R1A, R1B, R1C : Fault relay
- R2A, R2C : Sequence relay

Digital Inputs Wiring

Digital Inputs: Internal Supply

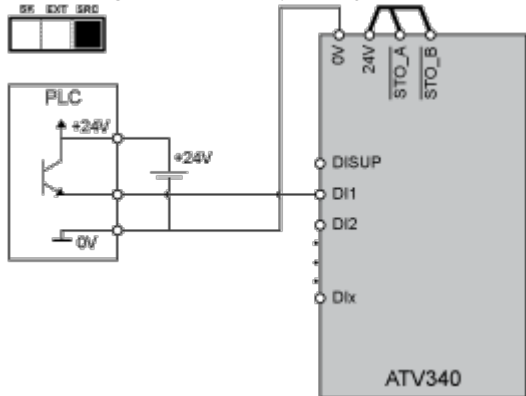
Using DISUP Signal



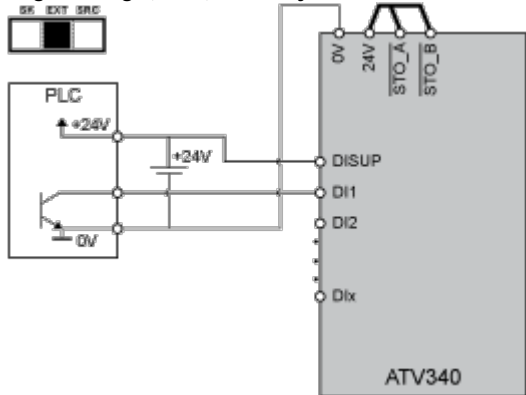
In SRC position DISUP outputs 24 V. In SK position DISUP is connected to 0 V.

Digital Inputs: External Supply

Positive Logic, Source, European Style

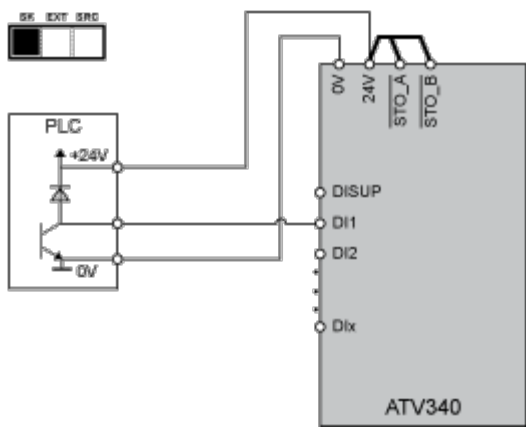


Negative Logic, Sink, Asian Style



Digital Inputs: Internal supply

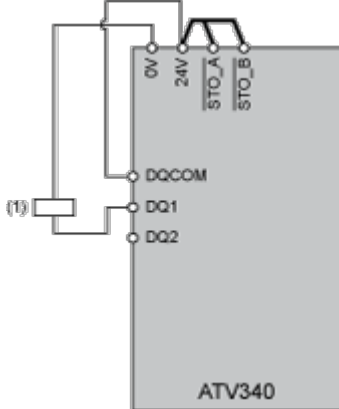
Negative Logic, Sink, Asian Style



Digital Outputs Wiring

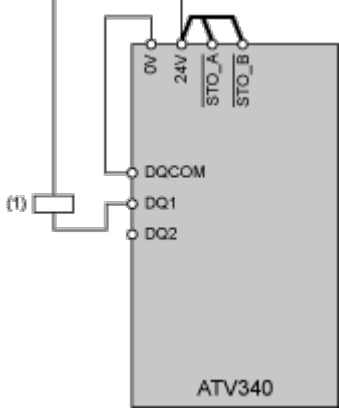
Digital Outputs: Internal Supply

Positive Logic, Source, European Style, DQCOM to +24V



(1) Relay or valve

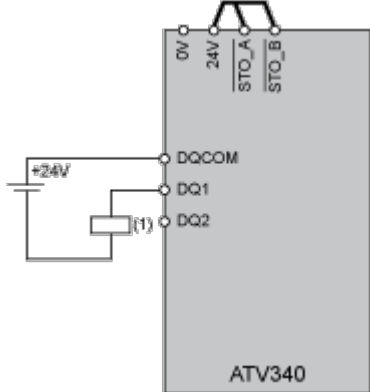
Negative Logic, Sink, Asian Style, DQCOM to 0V



(1) Relay or valve

Digital Outputs: External Supply

Positive Logic, Source, European Style, DQCOM to +24V



(1) Relay or valve

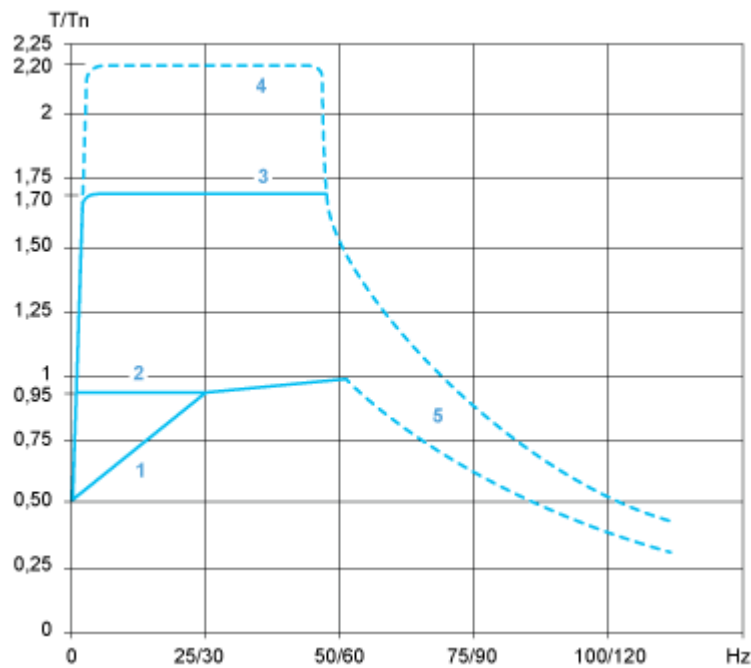
Negative Logic, Sink, Asian Style, DQCOM to 0V



(1) Relay or valve

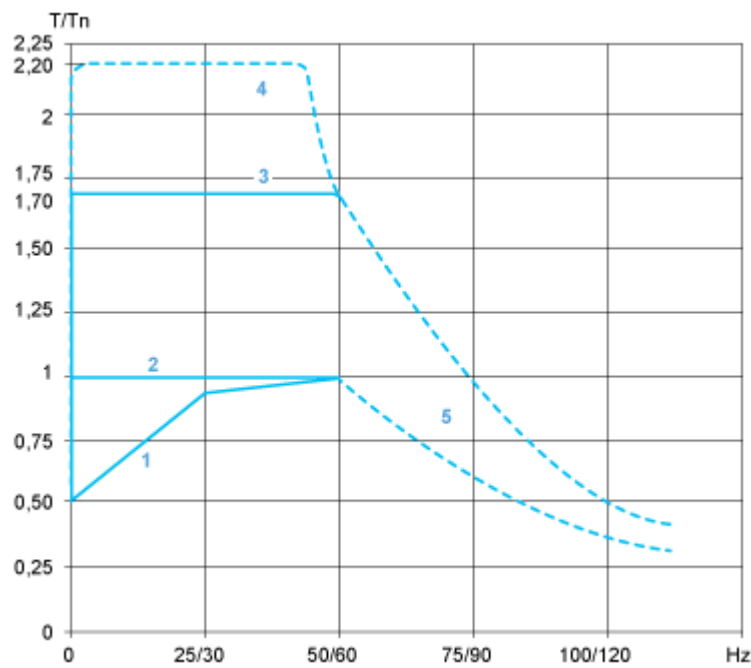
Performance Curves

Open Loop Applications



- 1 : Self-cooled motor: continuous useful torque
- 2 : Force-cooled motor: continuous useful torque
- 3 : Overtorque for 60 s maximum
- 4 : Transient overtorque for 2 s maximum
- 5 : Torque in overspeed at constant power

Closed Loop Applications



- 1 : Self-cooled motor: continuous useful torque
- 2 : Force-cooled motor: continuous useful torque
- 3 : Overtorque for 60 s maximum
- 4 : Transient overtorque for 2 s maximum
- 5 : Torque in overspeed at constant power