

# Annex to the Getting Started with Altivar Machine ATV340



NVE3764106

## Short-Circuit Current Ratings (SCCR) and branch circuit protection

The combinations in the tables have been tested per UL61800-5-1 (Reference UL file E116875). These ratings allow proper coordination of short circuit protection. The product would exceed a 100 kA interrupt rating on the output.

Altivar Machine ATV340 drives are provided with integral overload and over-speed monitoring and can provide motor overload protection at 100% of the full load motor current. The motor thermal protection current [Motor Th Current] *i<sub>L</sub>* must be set to the rated current indicated on the motor nameplate. For more information, refer to the ATV340 Programming Manual (NVE61643).

The opening of the branch circuit protective device may be an indication that a fault current has been interrupted.

### ⚠️ ⚠️ DANGER

#### HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH

- Current-carrying parts and other components of the controller should be examined and replaced if damaged.
- If burnout of the current element of an overload relay occurs, the complete overload relay must be replaced.

**Failure to follow these instructions will result in death or serious injury.**

Use 75°C (167°F) copper conductor with the AWG wire size shown on nameplate for all sizes.

Suitable for use on a circuit capable of delivering not more than   X   rms symmetrical kiloamperes,   Y   Volts maximum, when protected by   Z1   with a maximum rating of   Z2  .

### Open Type Without Line Reactor

Altivar Machine ATV340 Short Circuit Current Ratings <sup>1, 2</sup> With Enclosure, No Line Reactor			Minimum Enclosure Volume		With Circuit Breaker		With GV•P			Fuses		Line Reactor Min Value <sup>8</sup>			
Input Voltage 50/60 Hz (Y)	Power Ratings in Heavy Duty				Catalog Number (may be followed by characters)	PowerPact <sup>3</sup> Catalog Number (Z1, Z2)	SCCR (X)	GV•P (Z1, Z2)	GV•P		SCCR (X)			600 V Class J <sup>6</sup> (Z1, Z2)	SCCR (X)
	(kW)	(HP)	Type E <sup>4</sup>	Voltage Rating					Power <sup>7</sup>	(A)		(kA)	(mH)		
480 Vac Three-phase	0.75	1	ATV340U07N4•	53	3223	(N)H•L36015	22	GV2P08	480Y/277	2	22	6	22	–	–
	1.5	2	ATV340U15N4•	53	3223	(N)H•L36015	22	GV2P10	480Y/277	3	22	12	22	–	–
	2.2	3	ATV340U22N4•	53	3223	(N)H•L36015	22	GV2P14	480Y/277	5	22	15	22	–	–
	3	3	ATV340U30N4•	53	3223	(N)H•L36015	22	GV2P14	480Y/277	5	22	20	22	–	–
	4	5	ATV340U40N4•	53	3223	(N)H•L36020	22	GV3P13 <sup>5</sup>	480Y/277	7.5	22	25	22	–	–
	5.5	7.5	ATV340U55N4•	53	3223	(N)H•L36025	22	GV3P18 <sup>5</sup>	480Y/277	10	22	40	22	–	–
	7.5	10	ATV340U75N4•	53	3223	(N)H•L36035	22	GV3P25 <sup>5</sup>	480Y/277	15	22	40	22	–	–
	11	15	ATV340D11N4•	63	3840	(N)H•L36045	22	GV3P32	480Y/277	20	22	60	22	–	–
	15	20	ATV340D15N4•	63	3840	(N)H•L36060	22	GV3P40	480Y/277	25	22	70	22	–	–
	18.5	25	ATV340D18N4•	63	3840	(N)H•L36070	22	GV3P50	480Y/277	30	22	100	22	–	–
	22	30	ATV340D22N4•	63	3840	(N)H•L36090	22	GV3P65	480Y/277	40	22	100	22	–	–
	30	40	ATV340D30N4E	115	7010	(N)H•L36125	100	GV3P50	480Y/277	30	65	90	100	–	–
	37	50	ATV340D37N4E	115	7010	(N)H•L36150	100	GV3P65	480Y/277	40	65	100	100	–	–
	45	60	ATV340D45N4E	197	12039	(N)J•L36175	100	GV4PB80S	480Y/277	40	65	150	100	–	–
	55	75	ATV340D55N4E	197	12039	(N)J•L36200	100	GV4PB115S	480Y/277	60	65	200	100	–	–
75	100	ATV340D75N4E	197	12039	(N)J•L36250	100	GV5P150H	480Y/277	100	65	200	100	–	–	

## Open Type With Line Reactor

Altivar Machine ATV340 Short Circuit Current Ratings <sup>1, 2</sup> With Enclosure and Line Reactor				Minimum Enclosure Volume		With Circuit Breaker		With GV•P			Fuses		Line Reactor Min Value <sup>8</sup>			
Input Voltage 50/60 Hz (Y)	Power Ratings in Heavy Duty		Catalog Number (may be followed by characters)			PowerPact <sup>3</sup> Catalog Number (Z1, Z2)	SCCR (X)	GV•P (Z1, Z2)	GV•P		SCCR (X)	600 V Class J <sup>6</sup> (Z1, Z2)			SCCR (X)	
	(kW)	(HP)		Type E <sup>4</sup>	Voltage Rating			Power <sup>7</sup>	(kA)	(A)			(kA)	(A)		
				(liter)	(inch <sup>3</sup> )	(kA)	–	(V)	(HP)	(kA)	(A)	(kA)	(mH)	(A)		
480 Vac Three-phase	0.75	1	ATV340U07N4•	53	3223	(N)H•L36015	65	GV2P08	480Y/277	2	65	6	100	4.8	0.9	
	1.5	2	ATV340U15N4•	53	3223	(N)H•L36015	65	GV2P10	480Y/277	3	65	12	100	4.8	3.3	
	2.2	3	ATV340U22N4•	53	3223	(N)H•L36015	65	GV2P14	480Y/277	5	65	15	100	4.8	4.6	
	3	3	ATV340U30N4•	53	3223	(N)H•L36015	65	GV2P14	480Y/277	5	65	20	100	3	6.2	
	4	5	ATV340U40N4•	53	3223	(N)H•L36020	65	GV3P13 <sup>5</sup>	480Y/277	7.5	65	25	100	3	8.1	
	5.5	7.5	ATV340U55N4•	53	3223	(N)H•L36025	65	GV3P18 <sup>5</sup>	480Y/277	10	65	40	100	1.6	11.2	
	7.5	10	ATV340U75N4•	53	3223	(N)H•L36035	65	GV3P25 <sup>5</sup>	480Y/277	15	65	40	100	1.6	15	
	11	15	ATV340D11N4•	63	3840	(N)H•L36045	65	GV3P32	480Y/277	20	65	60	100	0.6	23	
	15	20	ATV340D15N4•	63	3840	(N)H•L36060	65	GV3P40	480Y/277	25	65	70	100	0.6	30	
	18.5	25	ATV340D18N4•	63	3840	(N)H•L36070	65	GV3P50	480Y/277	30	65	100	100	0.6	36	
	22	30	ATV340D22N4•	63	3840	(N)H•L36090	65	GV3P65	480Y/277	40	65	100	100	0.6	42	
	30	40	ATV340D30N4E	If optional line reactor is used, the SCCR values are the same as on the table without line reactor.												
	37	50	ATV340D37N4E													
	45	60	ATV340D45N4E													
55	75	ATV340D55N4E														
75	100	ATV340D75N4E														

## Type 1 Without Line Reactor

Altivar Machine ATV340 Short Circuit Current Ratings <sup>1, 2</sup> With Conduit Box (UL Type 1)				Fuses	
Input Voltage 50/60 Hz (Y)	Power Rating in Heavy Duty		Catalog Number (may be followed by characters)	600 V Class J <sup>6</sup> (Z1, Z2)	SCCR (X)
	(kW)	(HP)		(A)	(kA)
480 Vac Three-phase	30	40	ATV340D30N4E	90	100
	37	50	ATV340D37N4E	100	100
	45	60	ATV340D45N4E	150	100
	55	75	ATV340D55N4E	200	100
	75	100	ATV340D75N4E	200	100

1. The amp rating of the short circuit protection devices in the table are maximum values. Smaller amp sizes may be used; particularly for Normal Duty ratings. Branch circuit protection must be provided in accordance with the National Electrical Code and any additional local codes.

2. Ratings apply to an Altivar Machine ATV340 drive mounted in a Type 1, 3R, 4(X) or 12 rated enclosure. Minimum enclosure volume allows for specified SCCR. Thermal requirements may require a larger enclosure.

3. Circuit breaker part number designations: • = short circuit current rating. For 480 V range, use • = D for 18 kA, G for 35 kA, J for 65 kA, L for 100 kA. Bus bar connectors circuit breakers with part number designations N•F36••TW are allowed as well.

4. For GV2P/3P use, 480 V ratings are for Wye connected electrical distribution systems. GV2P•• self protected manual combination starter must be used with GV2GH7 insulating barrier to meet UL 508 Type E rating. GV3P•• self protected manual combination starter must be used with GV3G66 + GVAM11 insulating barrier and auxiliary contact to meet UL 508 Type E rating. The GVAM11 provides a visual indication if the GV3P has tripped.

5. GV2P products detailed below can be used in place of the GV3P products for obtaining an SCCR limited to 10 kA. GV2P16 for GV3P13, GV2P20 for GV3P18, GV2P22 for GV3P25.

6. Use Class CC or J fast acting or time delay.

7. UL61800-5-1 Par. 6.3.7DV.2.1.1 require publishing the standard Type E combination motor controller power rating since this is a basic identification marking of the Type E devices. However, when applied as an input overcurrent protective device for a drive, the rated current of the Type E combination motor controller, not the rated power, is the key parameter for dimensioning (reference UL61800-5-1 Par. 5.2.3.6.2DV.4.1.11 & 5.2.3.6.2DV.4.1.12). Schneider Electric GV•P Type E combination motor controllers are adjustable, their current range is shown on the adjustment dial and their selection is based on the input current and not power rating of the drive.

8. Reactor from Altivar Machine ATV340 catalog ([DIA2ED2160701EN](#)) or MTE series: RLW, do not substitute.

### Note:

- Integral solid state short circuit protection in the drive does not provide branch circuit protection. Branch circuit protection must be provided in accordance with the National Electrical Code and any local codes.

- The Altivar Machine ATV340 drive has a 100 kA interrupt rating on the output of the drive. In addition to providing a rating based on shorting the output of the drive, these short circuit current ratings have been obtained by shorting components internal to the Altivar Machine ATV340. These ratings allow proper coordination of short circuit protection.

#### Преобразователь частоты серии Altivar

Основные параметры и характеристики указаны на маркировке изделия.

Наименование страны, где изготовлено изделие, указано на упаковке.

Преобразователь частоты предназначен для управления асинхронными и синхронными электродвигателями с постоянными магнитами (может отличаться для разных типов преобразователей частоты).

Безопасность применения оборудования обеспечивается его эксплуатацией в установленных изготовителем условиях квалифицированным персоналом.

Правила и условия монтажа, хранения, перевозки (транспортирования), реализации и утилизации согласно инструкции по эксплуатации, размещенной на сайте изготовителя.

Отключите силовое питание от преобразователя частоты в случае возникновения не сбрасываемой неисправности и дождитесь погасания экрана графического терминала.

Найдите причину неисправности и устраните ее.

Подключите питание: это приведет к сбросу блокировки преобразователя частоты по ошибке, если причина возникновения устранена.

В некоторых случаях может произойти автоматический повторный запуск в работу после исчезновения неисправности и сброса ошибки, если эта функция была запрограммирована.

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Дата изготовления указана на упаковке (под текстом "Made in"): PPYYWW, где PP – код завода, YY – год изготовления, WW – номер недели изготовления.

#### Altivar сериясының жиілік түрлендіргіші

Негізгі параметрлер мен сипаттамалар өнімнің жапсырмасында көрсетілген.

Өнім шығарылған мемлекеттің атауы қаптамада көрсетілген.

Жиілік түрлендіргіші тұрақты магниттері бар асинхронды және синхронды электр қозғалтқыштарын басқаруға арналған (жиілік түрлендіргіштерінің әр түрлі типтері үшін әр түрлі болуы мүмкін).

Жабдықты пайдалану қауіпсіздігі оның өндіруші белгілеген жағдайларда білікті маманның жұмыс жасауымен қамтамасыз етіледі.

Өндірушінің веб-сайтында пайдалану жөніндегі нұсқаулыққа сәйкес орнату, сақтау, тасымалдау, сату және жою ережелері мен шарттары көрсетілген.

Қалпына келтіруге болмайтын ақаулық туындаған жағдайда электр желісін реттелетін жиіліктік жетектен ажыратыңыз және графикалық дисплей терминалы сөнгенше күтіңіз.

Мәселенің себебін тауып, оны түзетіңіз.

Қуатты қосыңыз: егер бұл себеп жойылған болса, жиілік түрлендіргішінің құлыпталуын қайта қалпына келтіреді.

Кейбір жағдайларда ақаулық жойылып, құлыпталуы қайта қалпына келтірілгеннен кейін, автоматты түрде қайта іске қосылуы мүмкін, егер бұл функция бағдарламаланған болса.

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Дайындалу күні қаптамада көрсетілген (мәтіннің астында көрсетілген "Made in"): PPYYWW, мұндағы PP - зауыт коды, YY - дайындалу жылы, WW – дайындалу аптасы.

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## China RoHS Hazardous Substances Table



The data shown in this spreadsheet are related to the following version of the China RoHS 2.0:  
 "Administrative Measures for the Restriction of Hazardous Substances in Electric Appliances and Electronic Products"  
 released January 21st 2016.

部件名称 Part Name	有害物质 - Hazardous Substances					
	铅 (Pb)	汞 (Hg)	镉 (Cd)	六价铬 (Cr (VI))	多溴联苯 (PBB)	多溴二苯醚 (PBDE)
金属部件 Metal Parts	x	o	o	o	o	o
塑料部件 Plastic Parts	o	o	o	o	o	o
电子件 Electronic	x	o	o	o	o	o
触点 Contacts	o	o	o	o	o	o
线缆和线缆附件 Cables and cabling accessories	o	o	o	o	o	o

本表格依据SJ/T11364的规定编制。  
 o: 表示该有害物质在该部件所有均质材料中的含量均在GB/T 26572规定的限量要求以下。  
 x: 表示该有害物质至少在该部件的某一均质材料中的含量超出GB/T 26572规定的限量要求。

This table is made according to SJ/T 11364.

o: indicates that the concentration of hazardous substance in all of the homogeneous materials for this part is **below** the limit as stipulated in GB/T 26572.

x: indicates that concentration of hazardous substance in at least one of the homogeneous materials used for this part is **above** the limit as stipulated in GB/T 26572