



**Sine filter, three-phase, 500 V + 0% (50/60 Hz) V AC, 90 A, For use with: DA1, DL1, DG1, SVX, SPX**

**Part no. DX-SIN3-090**  
**Catalog No. 271601**  
**Alternate Catalog No. DX-SIN3-090**

## Delivery program

Product range			Accessories
Accessories			Sine filter
Description			three-phase
For use with			DA1, DG1, SVX, SPX
Max. permissible connection voltage		V AC	500 V + 0% (50/60 Hz)
Rated operational current	$I_e$	A	90
Inductance	L	mH	0.8
Maximum heat dissipation	$P_v$	W	290

## Technical data

### General

Operating temperature		°C	-10 - +45
Storage	$\theta$	°C	-25 - +85
Altitude		m	0 - 1000 a.s.l., up to 4000 with current reduction
Mounting position			Standing vertically, suspended horizontally
Free surrounding areas		MM	> 100
Degree of Protection			IP00
Rated duty factor		% DF	100
Weight		kg	53.3

### Electrical data

Rated operational voltage			3 AC 230 V 3 AC 400 V
Max. permissible connection voltage		V AC	500 V + 0% (50/60 Hz)
Rated frequency	f	Hz	0 - 120
Insulation class			H
Rated operational current	$I_e$	A	90
Inductance	L	mH	0.8
Maximum heat dissipation	$P_v$	W	290
Voltage sag	$U_k$	%	10

### Connection

Terminations			✓
PE stud			✓
Terminal		mm <sup>2</sup>	16 - 50
Terminal		AWG	6 - 2/0
Tightening torque		Nm	3,2 - 3,7

## Design verification as per IEC/EN 61439

Technical data for design verification			
Rated operational current for specified heat dissipation	$I_n$	A	90
Heat dissipation per pole, current-dependent	$P_{vid}$	W	0
Equipment heat dissipation, current-dependent	$P_{vid}$	W	290
Static heat dissipation, non-current-dependent	$P_{vs}$	W	0
Heat dissipation capacity	$P_{diss}$	W	0
Operating ambient temperature min.		°C	-10
Operating ambient temperature max.		°C	45

IEC/EN 61439 design verification			
10.2 Strength of materials and parts			
10.2.2 Corrosion resistance			Meets the product standard's requirements.
10.2.3.1 Verification of thermal stability of enclosures			Meets the product standard's requirements.
10.2.3.2 Verification of resistance of insulating materials to normal heat			Meets the product standard's requirements.
10.2.3.3 Verification of resistance of insulating materials to abnormal heat and fire due to internal electric effects			Meets the product standard's requirements.
10.2.4 Resistance to ultra-violet (UV) radiation			Meets the product standard's requirements.
10.2.5 Lifting			Does not apply, since the entire switchgear needs to be evaluated.
10.2.6 Mechanical impact			Does not apply, since the entire switchgear needs to be evaluated.
10.2.7 Inscriptions			Meets the product standard's requirements.
10.3 Degree of protection of ASSEMBLIES			Does not apply, since the entire switchgear needs to be evaluated.
10.4 Clearances and creepage distances			Meets the product standard's requirements.
10.5 Protection against electric shock			Does not apply, since the entire switchgear needs to be evaluated.
10.6 Incorporation of switching devices and components			Does not apply, since the entire switchgear needs to be evaluated.
10.7 Internal electrical circuits and connections			Is the panel builder's responsibility.
10.8 Connections for external conductors			Is the panel builder's responsibility.
10.9 Insulation properties			
10.9.2 Power-frequency electric strength			Is the panel builder's responsibility.
10.9.3 Impulse withstand voltage			Is the panel builder's responsibility.
10.9.4 Testing of enclosures made of insulating material			Is the panel builder's responsibility.
10.10 Temperature rise			The panel builder is responsible for the temperature rise calculation. Eaton will provide heat dissipation data for the devices.
10.11 Short-circuit rating			Is the panel builder's responsibility. The specifications for the switchgear must be observed.
10.12 Electromagnetic compatibility			Is the panel builder's responsibility. The specifications for the switchgear must be observed.
10.13 Mechanical function			The device meets the requirements, provided the information in the instruction leaflet (IL) is observed.

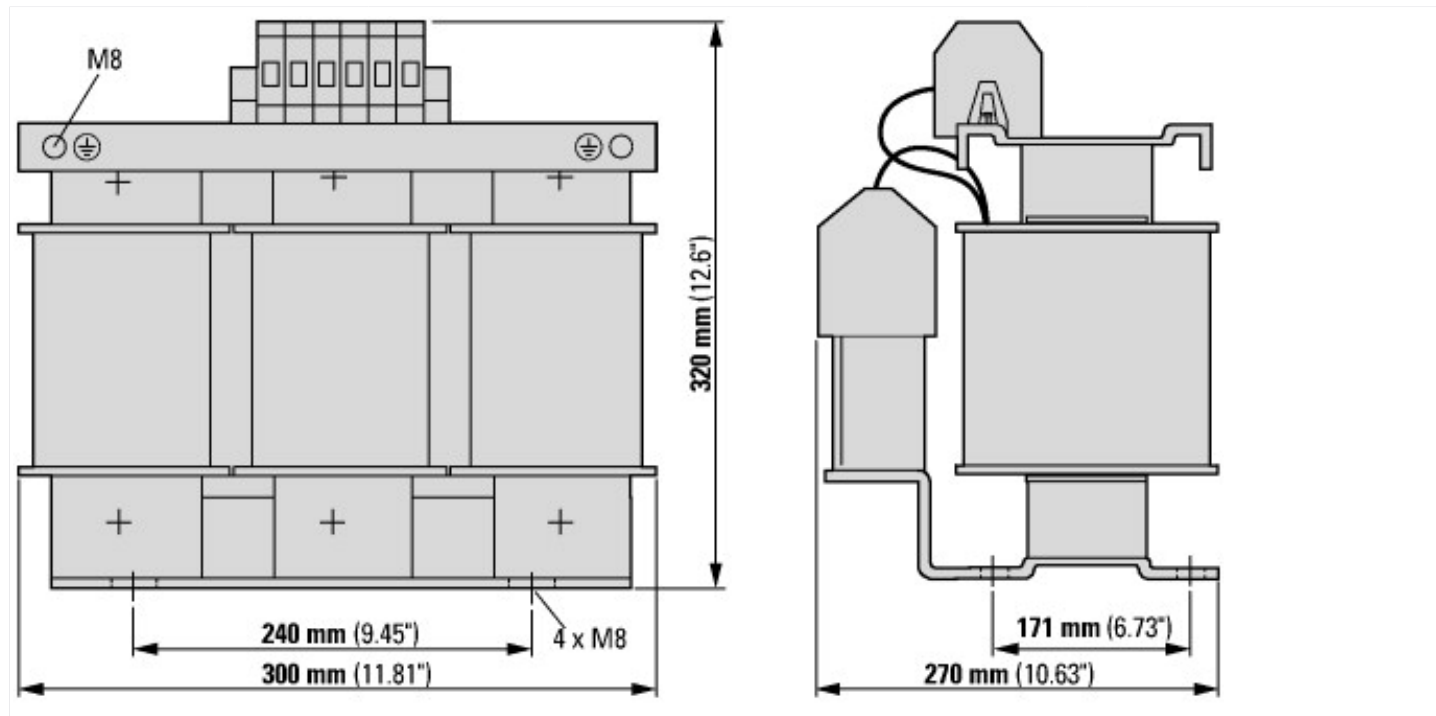
## Technical data ETIM 7.0

Low-voltage industrial components (EG000017) / Accessories for frequency controller (EC002025)			
Electric engineering, automation, process control engineering / Electrical drive / Static frequency converter / Static frequency converter (accessory) (ecl@ss10.0.1-27-02-31-92 [AFR303003])			
Type of accessory			Filter

## Approvals

Product Standards			UL 508C; CSA-C22.2 No. 14; IEC/EN61800-3; IEC/EN61800-5; CE marking
UL File No.			E300273
UL Category Control No.			NMTR2, NMTR8
CSA File No.			UL report applies to both US and Canada
North America Certification			UL listed, certified by UL for use in Canada
Specially designed for North America			No
Suitable for			Branch circuits
Max. Voltage Rating			1~ 240 V AC IEC: TN-S UL/CSA: "Y" (Solidly Grounded Wey), 3~ 240 V AC IEC: TN-S UL/CSA: "Y" (Solidly Grounded Wey), 3~ 480 V AC IEC: TN-S UL/CSA: "Y" (Solidly Grounded Wey)
Degree of Protection			IEC: IP00

## Dimensions



## Assets (links)

### Declaration of CE Conformity

00002789

### Instruction Leaflets

IL00906001Z2018\_05

### Manuals

MN04020003Z\_EN (English)

MN04020005Z\_EN (English)

## Additional product information (links)

<b>IL00906001Z Sine filter</b>	
IL00906001Z Sine filter	<a href="ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL00906001Z2018_05.pdf">ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL00906001Z2018_05.pdf</a>
<b>MN04020003Z DC1 variable frequency drives, Installation manual</b>	
MN04020003Z Frequenzumrichter DC1, Installationshandbuch - Deutsch	<a href="ftp://ftp.moeller.net/DOCUMENTATION/AWB_MANUALS/MN04020003Z_DE.pdf">ftp://ftp.moeller.net/DOCUMENTATION/AWB_MANUALS/MN04020003Z_DE.pdf</a>
MN04020003Z DC1 variable frequency drives, Installation manual - English	<a href="ftp://ftp.moeller.net/DOCUMENTATION/AWB_MANUALS/MN04020003Z_EN.pdf">ftp://ftp.moeller.net/DOCUMENTATION/AWB_MANUALS/MN04020003Z_EN.pdf</a>
MN04020003Z Frekvenční měnič DC1, manuál Instalace - čeština	<a href="ftp://ftp.moeller.net/DOCUMENTATION/AWB_MANUALS/MN04020003Z_CZ.pdf">ftp://ftp.moeller.net/DOCUMENTATION/AWB_MANUALS/MN04020003Z_CZ.pdf</a>
MN04020003Z Convertitore di frequenza DC1, manuale Installazione - italiano	<a href="ftp://ftp.moeller.net/DOCUMENTATION/AWB_MANUALS/MN04020003Z_IT.pdf">ftp://ftp.moeller.net/DOCUMENTATION/AWB_MANUALS/MN04020003Z_IT.pdf</a>
<b>MN04020005Z DA1 variable frequency drives, Installation manual</b>	
MN04020005Z Frequenzumrichter DA1, Installationshandbuch - Deutsch	<a href="ftp://ftp.moeller.net/DOCUMENTATION/AWB_MANUALS/MN04020005Z_DE.pdf">ftp://ftp.moeller.net/DOCUMENTATION/AWB_MANUALS/MN04020005Z_DE.pdf</a>
MN04020005Z DA1 variable frequency drives, Installation manual - English	<a href="ftp://ftp.moeller.net/DOCUMENTATION/AWB_MANUALS/MN04020005Z_EN.pdf">ftp://ftp.moeller.net/DOCUMENTATION/AWB_MANUALS/MN04020005Z_EN.pdf</a>
MN04020005Z Convertitore di frequenza DA1, manuale Installazione - italiano	<a href="ftp://ftp.moeller.net/DOCUMENTATION/AWB_MANUALS/MN04020005Z_IT.pdf">ftp://ftp.moeller.net/DOCUMENTATION/AWB_MANUALS/MN04020005Z_IT.pdf</a>
CA04020001Z-EN Product Range Catalog: Efficient Engineering for Starting and Controlling Motors	<a href="http://www.eaton.eu/DE/ecm/groups/public/@pub/@europe/@electrical/documents/content/pct_1095238.pdf">http://www.eaton.eu/DE/ecm/groups/public/@pub/@europe/@electrical/documents/content/pct_1095238.pdf</a>