



Data Sheet



Application Inverter
MOVIDRIVE® modular
Information Regarding UL



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1 Information regarding UL

INFORMATION



- Use only tested units with a limited output voltage ($V_{\max} = \text{DC } 30 \text{ V}$) and limited output current ($I_{\max} = 8 \text{ A}$) as an external DC 24 V voltage source.
- UL certification does not apply to operation in voltage supply systems with a non-grounded star point (IT systems).

1.1 Field Wiring Power Terminals

- Use 75 °C solid or stranded copper wire only sized at 14 AWG minimum. Suitable for 1 wire per terminal.
- For double axis modules use wire size 12 – 14 AWG.
- Tighten terminals to in-lbs (Nm) as follows

Tightening torque in-lbs (Nm)				
MDP90A-...-	Power supply module			
	Line connection		Braking resistor terminals	
0100 (size 1)	X1	4.4 – 5.3 (0.5 – 0.6)	X3	4.4 – 5.3 (0.5 – 0.6)
0100 (size 1A)	X1	4.4 – 5.3 (0.5 – 0.6)	X3	4.4 – 5.3 (0.5 – 0.6)
0250	X1	26.6 – 35.4 (3.0 – 4.0)	X3	26.6 – 35.4 (3.0 – 4.0)
0500	X1	159.3 – 194.7 (18.0 – 22.0)	X3	26.6 – 35.4 (3.0 – 4.0)
0750	X1	159.3 – 194.7 (18.0 – 22.0)	X3	26.6 – 35.4 (3.0 – 4.0)
1100	X1	159.3 – 194.7 (18.0 – 22.0)	X3	97.4 – 106.2 (11.0 – 12.0)
MDA90A-...-	Single-axis module			
	Motor connection		-	
0020 – 0120	X2	4.4 – 5.3 (0.5 – 0.6)	-	-
0160 – 0240	X2	13.3 – 15.0 (1.5 – 1.7)	-	-
0320 – 0480	X2	26.6 – 35.4 (3.0 – 4.0)	-	-
0640 – 1800	X2	159.3 – 194.7 (18.0 – 22.0)	X3	159.3 – 194.7 (18.0 – 22.0)
MDD90A-...-	Double-axis module			
	Motor connection		-	
0020 – 0040	X2	4.4 – 5.3 (0.5 – 0.6)	-	-
0020 – 0080	X2	13.3 – 15.0 (1.5 – 1.7)	-	-
	All modules (exception below)			
	DC link connection		PE connection	
	X4	26.6 – 35.4 (3.0 – 4.0)		26.6 – 35.4 (3.0 – 4.0)
DC link connection				
MDP90A-1100	X4B	97.4 – 106.2 (11.0 – 12.0)	-	-
MDA90A-1400 – 1800	X4	97.4 – 106.2 (11.0 – 12.0)	-	-

1.2 Short Circuit Current Rating

Suitable for use on a circuit capable of delivering not more than

- 5000/10000/65000 rms symmetrical amperes when protected by fuses and circuit breakers as described in the tables below.

Max. voltage is limited to 500 V.

1.3 Branch Circuit Protection

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

Power supply module MDP90A-..	SCCR: 5 kA/500 V			SCCR: 65 kA/500 V		
	when protected by:					
	Non semiconductor fuses (currents are maximum values)	Inverse-time circuit breaker (currents are maximum values)	Type E Combination Motor Controller	Non semiconductor fuses (currents are maximum values)	Inverse-time circuit breaker (currents are maximum values)	Type E Combination Motor Controller
	0100 (size 1)	20 A/600 V	20 A/500 V min.	Siemens Sirius 3RV2021-4BA10 (13 – 20 A)	20 A/600 V Class: CA, CB, CC, CF, G, J, K1, K5, K9, RK1, RK5, T	20 A/500 V min.
0100 (size 1A)	20 A/600 V	20 A/500 V min.	Siemens Sirius 3RV2021-4BA10 (13 – 20 A)	20 A/600 V Class: CA, CB, CC, CF, G, J, K1, K5, K9, RK1, RK5, T	20 A/500 V min.	Siemens Sirius 3RV2021-4BA10 (13 – 20 A)
0250 (size 2)	50 A/600 V	50 A/500 V min.	Siemens Sirius 3RV2031-4VA10 (35 – 45 A)	50 A/600 V Class: CA, CB, CD, CF, G, J, K1, K5, RK1, RK5, T	50 A/500 V min.	Siemens Sirius 3RV2031-4VA10 (35 – 45 A)
Power supply module MDP90A-..	SCCR: 10 kA/500 V			SCCR: 65 kA/500 V		
	when protected by:					
	Non semiconductor fuses (currents are maximum values)	Inverse-time circuit breaker (currents are maximum values)	Type E Combination Motor Controller	Non semiconductor fuses (currents are maximum values)	Inverse-time circuit breaker (currents are maximum values)	Type E Combination Motor Controller
	0500 (size 3)	100 A/600 V Class: CF, J, K-1, RK1, RK5, T	100 A/500 V min.	Siemens Sirius 3RV2041-4YA10 (75 – 93 A)	100 A/600 V Class: CF, J, K1, RK1, T	100 A/500 V min.
0750 (size 3)	150 A/600 V Class: J, K-1, RK1, T	150 A/500 V min.	–	150 A/600 V Class: J, K1, RK1, T	150 A/500 V min.	–
1100 (size 4)	200 A/600 V Class: J, RK1, T	200 A/500 V min.	–	200 A/600 V Class: J, K1, RK1, T	200 A/500 V min.	–

- If you use cable cross sections that are dimensioned for a smaller current than the rated current of the unit, make sure that the fuse is dimensioned for the used cable cross section.
- For information on selecting cable cross sections, refer to the project planning manual.
- Comply with the country-specific installation regulations in addition to the above notes.
- Single- and double-axis modules are intended for installation with the supply modules.
- Accessory Model MDM90A is intended for use with the drive system MOVIDRIVE®.

1.4 Motor Overload Protection

The units are provided with load and speed-sensitive overload protection and thermal memory retention upon shutdown or power loss.

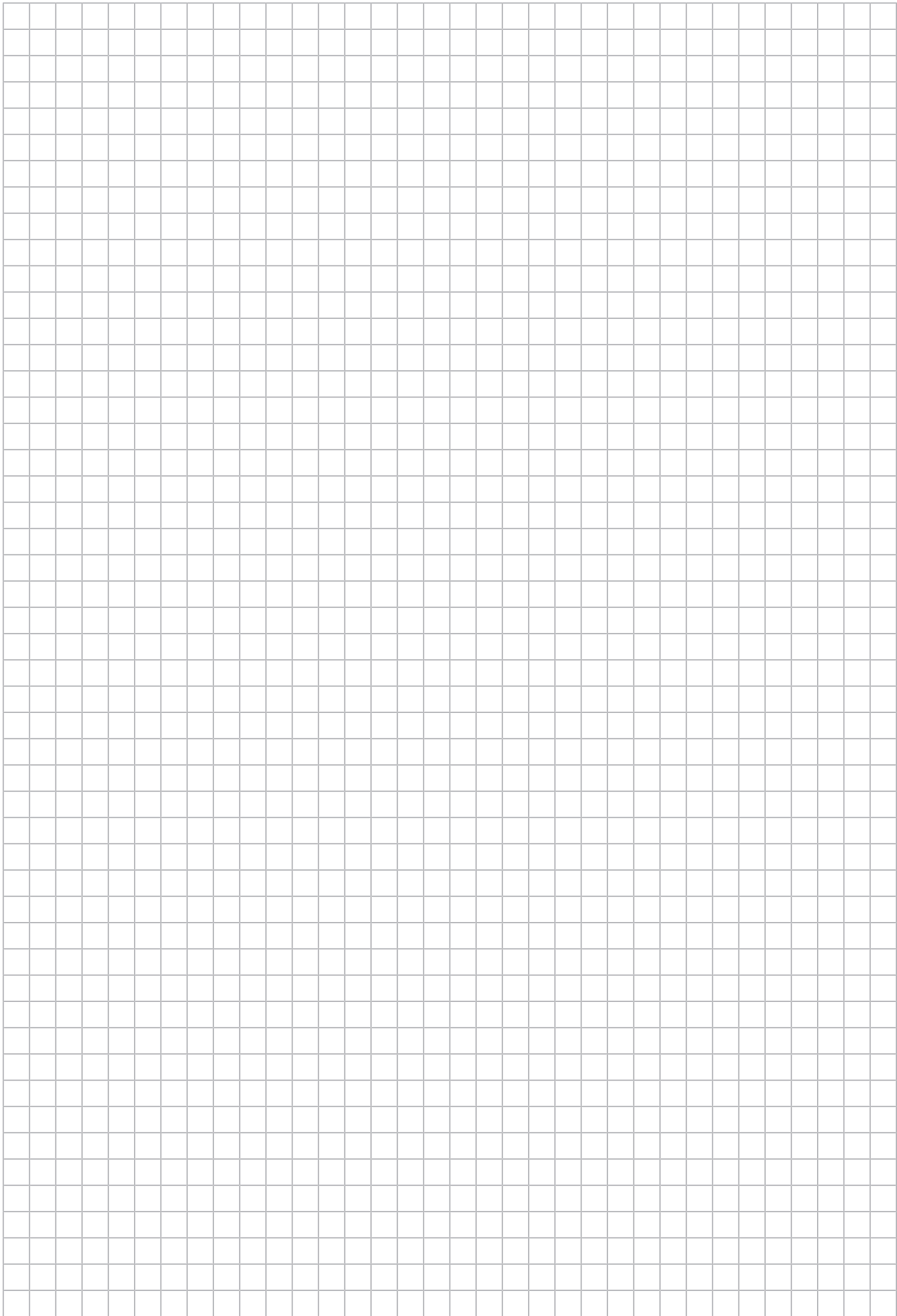
The trip current is adjusted to 150 % of the rated motor current.

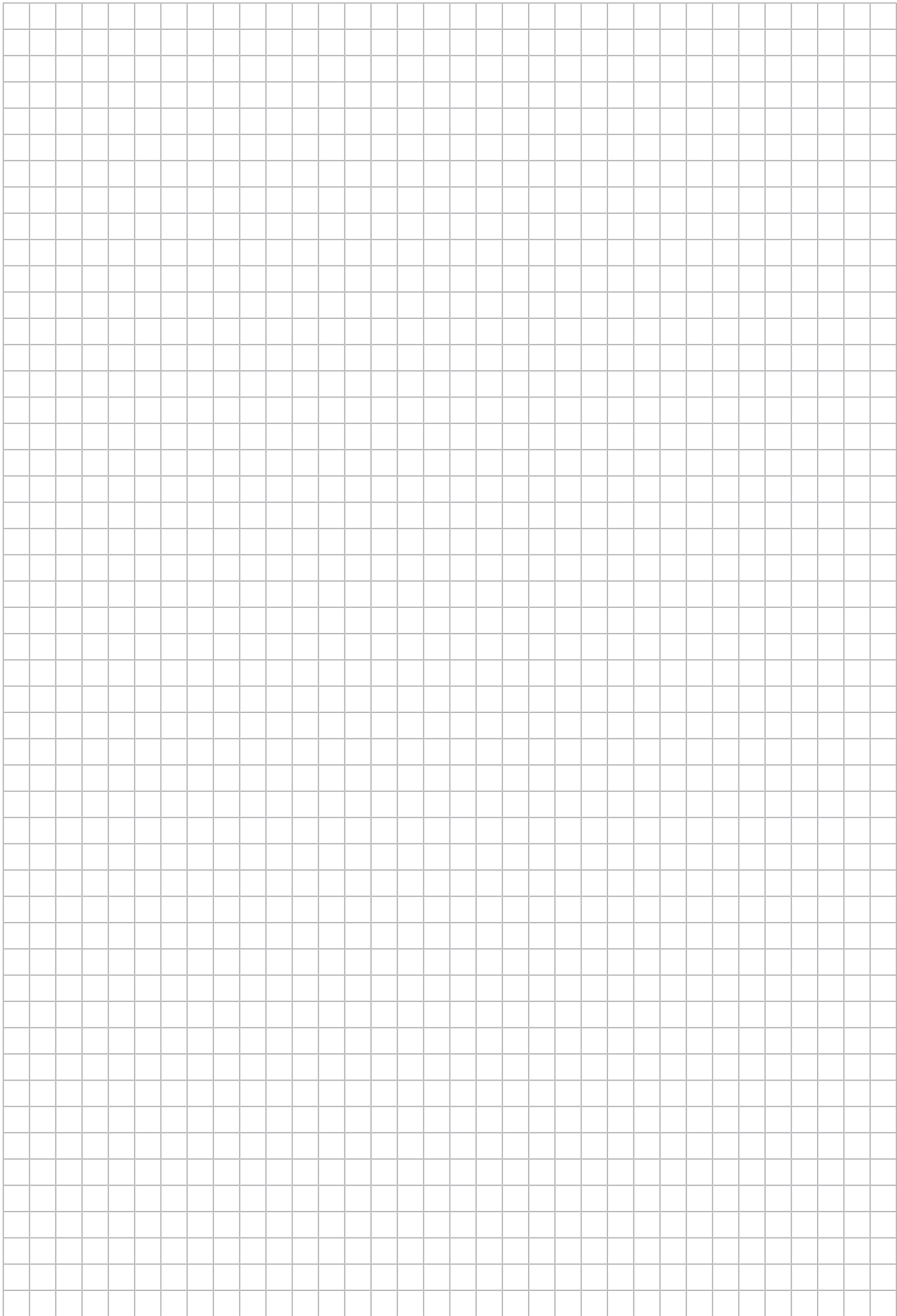
1.5 Ambient Temperature

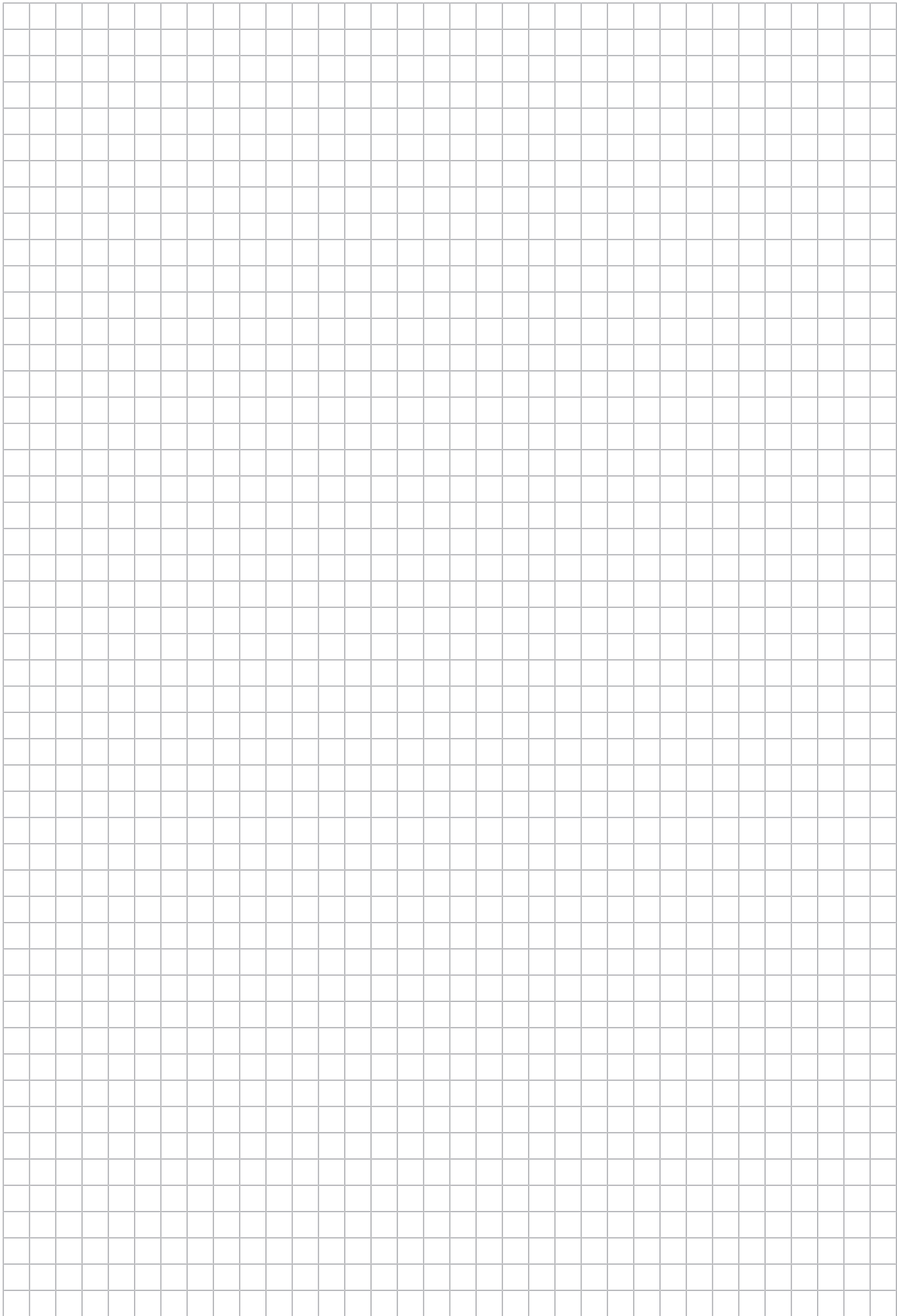
The units are suitable for an ambient temperature of 45 °C.

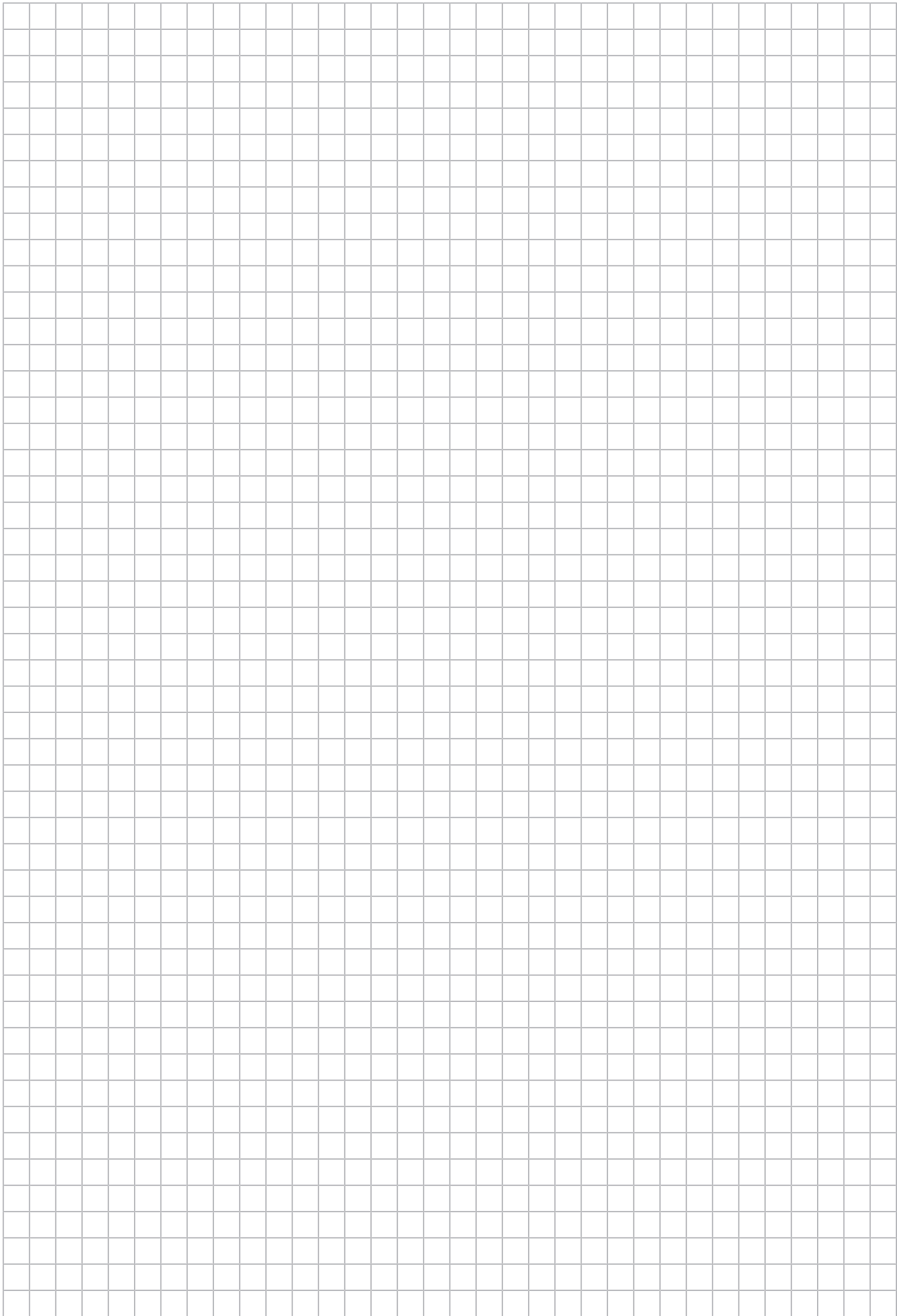
1.6 Wiring Diagrams

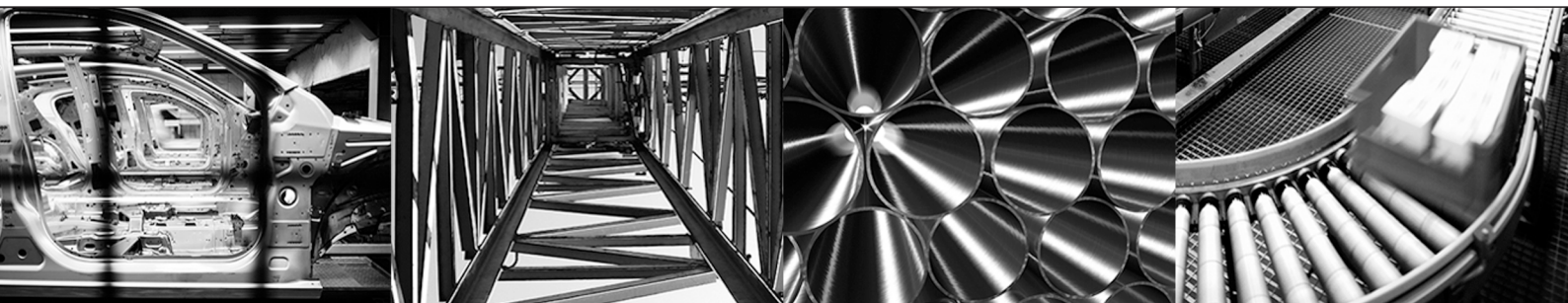
For wiring diagrams, refer to chapter "Wiring Diagrams" in Operating Instructions "MOVIDRIVE® modular".













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