

## SINAMICS SM120 CM

### Technical Data

[siemens.com/sinamics-sm120-cm](https://www.siemens.com/sinamics-sm120-cm)



#### Drive Features

<b>Output power</b>	4 – 13.3 MVA
<b>Output voltage</b>	ALM 3.3 – 6.6 kV MoM M2C 3.3 – 7.2 kV MoM NPC 3.3 – 4.4 kV BrM 4.16 – 6.6 kV
<b>Cooling</b>	Water-cooled
<b>Topology</b>	Line side: cell-based Multi-level Modular Converter (M2C), Diode Front End (DFE) or Basic Line Module Motor side: Multi-level Modular Converter or 3 Level Neutral Point Clamp (3L-NPC)
<b>Drive quadrants</b>	2 or 4 quadrant operation available
<b>Rules and standards</b>	IEC, EN, CE, EAC, CSA (on request)
<b>Motor type</b>	Induction motors (incl. high-speed motors) Synchronous motor for M2C (on request) Separately excited synchronous motors
<b>Arc fault tested</b>	Yes
<b>Supply</b>	Separate converter transformer (e.g. dry or oil-type) Transformerless configuration
<b>Open/closed-loop control</b>	Vector control with and without speed encoder
<b>Efficiency of converter</b>	98.5%

Input & Output Data	
<b>Input configuration</b>	Basic line module: 12-, 18-, 24- or 36-pulse diode rectifier Active line module: Modular Multi-level Converter (M2C)
<b>Input voltage</b>	BLM: 2 x 2.4 kV – 6 x 1.4 kV ± 10% (IGBT) ALM: 2.3 – 6.6 kV ± 10% (M2C)
<b>Input power factor</b>	0.95
<b>Input frequency</b>	50 / 60 Hz ± 5%
<b>Output frequency</b>	Up to 250 Hz for NPC Up to 150 Hz for M2C
<b>Auxiliary voltage</b>	230 V 1 AC ± 10%, 50 / 60 Hz ± 5% 400 V 3 AC ± 10%, 50 / 60 Hz ± 5% Other power supply options available

Environmental Features	
<b>Altitude</b>	Up to 1000 m; from 1000 m to 4000 m with derating
<b>Ambient air temperature</b>	+5 °C to +45 °C
<b>Noise</b>	72 dB(A) – 77 dB(A)
<b>Degree of protection</b>	IP43, IP44