


Converters, inverters, AFE inverters, rectifier units, rectifier/regenerative units and braking units

Cooling type	Forced ventilation with integral fan	
Air-cooled		
Permissible ambient and cooling-medium temperature during operation	0 °C to +40 °C	
Water-cooled		
● Cooling water inlet temperature	+5 °C to +38 °C	
● Permissible ambient temperature during operation	0 °C to +40 °C	
Permissible ambient temperature during storage and transport	-25 °C to +70 °C	
Installation altitude	≤ 1000 m above sea level (100 % load capability) > 1000 m to 4000 m above sea level	
Humidity rating	Relative humidity ≤ 85 %, moisture condensation not permissible	
Climatic category	Class 3K3 to EN 60 721-3-3	
Environmental class	Class 3C2 to EN 60 721-3-3	
Insulation	Pollution degree 2 to DIN VDE 0110-1 (HD 625. 1 S1: 1996), moisture condensation not permissible	
Ovvoltage category	Category III to DIN VDE 0110-1 (HD 625. 1 S1: 1996)	
Degree of protection	To EN 60 529: Compact PLUS units: IP20; chassis units: IP00 (IP20 optional)	
Protection class	Class I to EN 61 140	
Shock protection	To DIN VDE 0106 Part 100 and BGV A2 (previously VBG 4)	
Radio-interference suppression	To EMC product standard EN 61 800-3 for variable-speed drives	
● Standard	No radio-interference suppression	
● Options	Class B1 or Class A1 to EN 61 800-3	
Additional information	The units are motor-side ground-fault protected, short-circuit proof and may be operated under no-load conditions.	
Paint finish	For indoor installation	
Mechanical specifications	To EN 60 068-2-6	
● during operation	10 Hz to 58 Hz constant deflection 0.075 mm	
● during transport	58 Hz to 500 Hz constant acceleration 9.8 m/s ² (1 g) 5 Hz to 9 Hz constant deflection 3.5 mm 9 Hz to 500 Hz constant acceleration 9.8 m/s ² (1 g)	
Approvals according to UL/CSA¹⁾	UL File No.	CSA File No.
● Converters and inverters	E 145 153	LR 21927
● Rectifier units and rectifier/regenerative units ²⁾	E 145 153	LR 21927
● Braking units and braking load resistors ²⁾	E 145 153	LR 21927
● Braking resistors for Compact PLUS units	E 233 422	210040 (Certificate 1185101)
● dv/dt- and sinusoidal filter ²⁾	E 145 153	LR 21927
● Radio-interference suppression filter type 6SE70 ... ²⁾	E 145 153	LR 21927
● Line commutating and output reactors (iron)	E 103 902	
● 3NE1 series fuses are	E 167 357	

1) UL and CSA approval is not valid for units and system components 3 AC 660 V – 690 V and 890 V – 930 V DC.

2) UL and CSA approval only in combination with SIMOVERT MASTERDRIVES converters or inverters.