

## D1000 – Technical Specification

Control Characteristics	
<b>Product</b>	D1000
<b>Type</b>	Power Regenerative Converter
<b>Rated Output Voltage (dependent on input)</b>	Three Ph 200V Class : 330 Vdc Three Ph 400V Class : 660 Vdc
<b>Compatible Inverter Types</b>	A1000, V1000, J1000, GA700, GA500, G7, L1000A, Servo Drives & All conventional Inverters (with a DC Bus),
<b>Control Methods</b>	Sine wave PWM
Environmental Factors	
<b>Ambient Temperature</b>	-10 to +50°C (IP00/IP20/Open Type enclosure)
<b>Altitude</b>	Up to 1000 meters (derating required at altitudes from 1000 m to 3000 m)
<b>Humidity</b>	95% RH or less (no condensation)
<b>Shock</b>	2A0005 to 2A0050, 4A0005 to 4A0100) 10 to 20 Hz : 9.8 m/s <sup>2</sup> , 20 to 55 Hz : 5.9 m/s <sup>2</sup> (2A0065 to 2A0130, 4A0130 to 4A0370) 10 to 20 Hz : 9.8 m/s <sup>2</sup> , 20 to 55 Hz : 2.0 m/s <sup>2</sup> (4A0630) 10 to 20 Hz : 5.9 m/s <sup>2</sup> , 20 to 55 Hz : 2.0 m/s <sup>2</sup>
<b>Area of Use</b>	Indoor (Protected from corrosive gasses and dust)
Protection Features	
<b>Fuse Burnout</b>	Operation stops if the fuse burns out.
<b>Momentary Overcurrent Protection</b>	Unit stops when input current exceeds 250%.
<b>Overload Protection</b>	Operation stops after 60 s at 150% of rated output current. Operation stops after 3 s at 200% of rated output current.
<b>Overvoltage Protection</b>	200 V Class: Stops when input voltage exceeds approx. 227 Vac, Output: Stops when DC bus voltage exceeds approx. 410 Vdc 400 V Class: Stops when input voltage exceeds approx. 554 Vac, Output: Stops when DC bus voltage exceeds approx. 820 Vdc
<b>Undervoltage Protection</b>	200 V class: Stops when input voltage falls below approx. 150 Vac; Output: Stops when DC bus voltage falls below approx. 190 Vdc

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	400 V class: Stops when input voltage falls below approx. 300 Vac; Output: Stops when DC bus voltage falls below approx. 380 Vdc
<b>Momentary Power Loss Ride-Thru</b>	Immediately stops after Momentary Power Loss is detected.
<b>Heatsink Overheat Protection</b>	Protection by thermistor
<b>Ground Fault Protection</b>	Protection by electronic circuit
<b>Charge LED</b>	Charge LED illuminates when DC bus voltage is more than 50 V.
<b>Power Specifications</b>	
<b>Rated input Voltage/Frequency</b>	400V Class: 380 to 480 Vac 50/60 Hz 200V Class : 200 to 240 Vac 50/60 Hz
<b>Allowable Voltage Fluctuation</b>	-15% to 10%
<b>Allowable Frequency Fluctuation</b>	±2%
<b>Common Specifications</b>	
<b>Multi Function Digital Inputs</b>	8 Digital Inputs ( NPN or PNP ) .
<b>Multi Function Digital Outputs</b>	1 Programmable Relay M1-M2 (250 Vac, max. 1 A; 30 Vdc, max 1 A (min. 5 Vdc, 10 mA)), 1 fault relay MA-MB-MC, 2 photocouplers P1,P2 (48 Vdc, max 50 mA)
<b>Multi Function Analog Output</b>	2 Multi function Analog outputs FM-AC & AM-AC (- 10 to +10 Vdc, 2 mA)
<b>Serial communication</b>	MEMOBUS/Modbus (RTU mode) comm. RS-485/422, Max. 115.2 kbps
<b>Optional communication Protocols</b>	Mechatrolink, Profibus, CC-Link, Devicenet
<b>Programming Interface</b>	Serial port or USB B port in front of VFD
<b>Additional Functions</b>	Current Limit, Cooling Fan on/off Switch, Removable Terminal Block with Parameter Backup Function, MEMOBUS/Modbus (RTU mode) Comm. (RS-422/RS-485 max, 115.2 kbps)