

# PowerFlex® 6000 Medium Voltage Variable Frequency Drive

Description	
Power Rating Range @ 3 kV motor voltage	320 ... 1600 kW
Power Rating Range @ 3.3 kV motor voltage	360 ... 1720 kW
Power Rating Range @ 6 kV motor voltage	200 ... 3360 kW
Power Rating Range @ 6.6 kV motor voltage	220 ... 3720 kW
Power Rating Range @ 10 kV motor voltage	200 ... 5600 kW
Motor Type	Induction (asynchronous) motors
Input Voltage Rating	3 kV, 3.3 kV, 6 kV, 6.6 kV, 10 kV, 11 kV
Input Voltage Tolerance	±10% of Nominal
Input Voltage Sag	-20% of Nominal, duration – 60 seconds
Input Frequency	50/60 Hz, ±5%
Input Impedance Device	Multiphase Isolation Transformer
Output Voltage	0 ... 3000V, 0 ... 3300V, 0 ... 6000V, 0 ... 6600V, 0 ... 10,000V
Rectifier Configurations	18 pulse (3 kV, 3.3 kV), 36 pulse (6 kV, 6.6 kV), 54 pulse (10 kV, 11 kV)
Inverter Configuration	Pulse Width Modulated (PWM) power modules
Power Semiconductors	Diodes (rectifier), IGBTs (inverter)
Output Current THD (1st...49th)	< 5%
Output Waveform to Motor	Near Sinusoidal Current / Voltage
Medium Voltage Isolation	Fiber Optic
Control Method	Volts per hertz
Output Frequency Range	0.5 ... 75 Hz
Acceleration/Deceleration time	0...3276 seconds
Flying Start Capability	Yes
Service Duty Rating	120% Overload for 1 min every 10 min
Input Power Factor	> .95
VFD Efficiency <sup>(1)</sup>	> 96.5%
VFD Noise Level	< 80 dB
Operator Interface	7 in. WinCE Color Touchscreen
Languages	English, Chinese
Control Power	120V 60 Hz, 240V 60 Hz, 110V 50 Hz, or 220V 50 Hz (3 kVA)
External Input Ratings	24V DC
External Output Ratings	240V AC/2 A
Analog Inputs (Optional)	Four non-isolated, 4 ... 20 mA or 0 ... 10V DC (two spare)
Analog Outputs (Optional)	Two isolated: 4 ... 20 mA, two isolated: 0 ... 5V DC (spare)
Communications Protocols (Optional)	RS232/422/485, Modbus, Modbus Plus, Profibus DP, Ethernet I/P
Enclosure	IP31 (standard), IP42 (optional)
Structure Finish	Epoxy Powder - Paint Exterior Sandtex Light Grey (RAL 7038) - Black (RAL 8022) Internal - Control Sub Plates - High Gloss White (RAL 9003)
Corrosion Protection	Unpainted Parts (Zinc Plated / Bronze Chromate)
Ambient Temperature (Operating)	0 ... 40 °C (standard), 0 ... 50 °C (optional with derating)
Ambient Temperature (Storage)	-25 ... 55 °C
Relative Humidity	Max. 95% non-condensing
Altitude	0 ... 1000 m (standard) 1001 ... 3000 m (optional)

(1) Average for Product Portfolio.

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