There are 115V, 230V and 460V models in the VFD-EL series. For 115V models, it is 1-phase models. For 0.25 to 3HP of the 230V models, there are 1-phase/3-phase models. Refer to following specifications for details.

Voltage Class		**115V Class**		
Model Number VFD-XXXEL		002	004	007
Max. Applicable Motor Output (kW)		0.2	0.4	0.75
Max. Applicable Motor Output (hp)		0.25	0.5	1.0
Output Rating	Rated Output Capacity (kVA)	0.6	1.0	1.6
	Rated Output Current (A)	1.6	2.5	4.2
	Maximum Output Voltage (V)	3-Phase Proportional to Twice the Input Voltage		
	Output Frequency (Hz)	0.1~599 Hz		
	Carrier Frequency (kHz)	2-12		
Input Rating	Rated Input Current (A)	6.4	9	18
	Rated Voltage/Frequency	Single phase, 100-120V, 50/60Hz		
	Voltage Tolerance	±10%(90~132 V)		
	Frequency Tolerance	±5%(47~63 Hz)		
Cooling Method		Natural Cooling		
Weight (kg)		1.1	1.1	1.4

Voltage Class			**230V Class**					
Model Number VFD-XXXEL			002	004	007	015	022	037
Max. Applicable Motor Output (kW)			0.2	0.4	0.75	1.5	2.2	3.7
Max. Applicable Motor Output (hp)			0.25	0.5	1.0	2.0	3.0	5.0
Output Rating	Rated Output Capacity (kVA)		0.6	1.0	1.6	2.9	4.2	6.5
	Rated Output Current (A)		1.6	2.5	4.2	7.5	11.0	17
	Maximum Output Voltage (V)		3-Phase Proportional to Input Voltage					
	Output Frequency (Hz)		0.1~599 Hz					
	Carrier Frequency (kHz)		2-12					
Input Rating	XXXEL 21A	Rated Input Current (A)	4.9	6.5	9.5	15.7	24	--
		Rated Voltage/Frequency	1-phase, 200-240 V, 50/60Hz					
	XXXEL 23A	Rated Input Current (A)	1.9	2.7	4.9	9	15	20.6
		Rated Voltage/Frequency	3-phase, 200-240V, 50/60Hz					
	Voltage Tolerance		±10%(180~264 V)					
	Frequency Tolerance		±5%(47~63 Hz)					
Cooling Method			Natural Cooling		Fan Cooling			
Weight (kg)			1.2	1.2	1.2	1.7	1.7	1.7

Voltage Class		**460V Class**				
Model Number VFD-XXXEL		004	007	015	022	037
Max. Applicable Motor Output (kW)		0.4	0.75	1.5	2.2	3.7
Max. Applicable Motor Output (hp)		0.5	1.0	2.0	3.0	5.0
Output Rating	Rated Output Capacity (kVA)	1.2	2.0	3.3	4.4	6.8
	Rated Output Current (A)	1.5	2.5	4.2	5.5	8.2
	Maximum Output Voltage (V)	3-Phase Proportional to Input Voltage				
	Output Frequency (Hz)	0.1~599 Hz				
	Carrier Frequency (kHz)	2-12				
Input Rating	Rated Input Current (A)	1.8	3.2	4.3	7.1	9.0
	Rated Voltage/Frequency	3-phase, 380-480V, 50/60Hz				
	Voltage Tolerance	±10%(342~528V)				
	Frequency Tolerance	±5%(47~63Hz)				
Cooling Method		Natural Cooling		Fan Cooling		
Weight (kg)		1.2	1.2	1.2	1.7	1.7

General Specifications			
Control Characteristics	Control System		SPWM(Sinusoidal Pulse Width Modulation) control (V/f control)
	Frequency Setting Resolution		0.01Hz
	Output Frequency Resolution		0.01Hz
	Torque Characteristics		Including the auto-torque/auto-slip compensation; starting torque can be 150% at 5.0Hz
	Overload Endurance		150% of rated current for 1 minute
	Skip Frequency		Three zones, setting range 0.1-599Hz
	Accel/Decel Time		0.1 to 600 seconds (2 Independent settings for Accel/Decel time)
	Stall Prevention Level		Setting 20 to 250% of rated current
	DC Brake		Operation frequency 0.1-599Hz, output 0-100% rated current Start time 0-60 seconds, stop time 0-60 seconds
	Regenerated Brake Torque		Approx. 20% (up to 125% possible with optional brake resistor or externally mounted brake unit, 1-15hp (0.75-11kW) models have brake chopper built-in)
	V/f Pattern		Adjustable V/f pattern
Operating Characteristics	Frequency Setting	Keypad	Setting by ▲ ▼
		External Signal	Potentiometer-5kΩ/0.5W, 0 to +10VDC, 4 to 20mA, RS-485 interface; Multi-function Inputs 3 to 6 (15 steps, Jog, up/down)
	Operation Setting Signal	Keypad	Set by RUN and STOP
		External Signal	2 wires/3 wires ((MI1, MI2, MI3)), JOG operation, RS-485 serial interface (MODBUS), programmable logic controller
	Multi-function Input Signal		Multi-step selection 0 to 15, Jog, accel/decel inhibit, 2 accel/decel switches, counter, external Base Block, ACI/AVI selections, driver reset, UP/DOWN key settings, NPN/PNP input selection
	Multi-function Output Indication		AC drive operating, frequency attained, zero speed, Base Block, fault indication, overheat alarm, emergency stop and status selections of input terminals
	Analog Output Signal		Output frequency/current
Operation Functions			AVR, accel/decel S-Curve, over-voltage/over-current stall prevention, 5 fault records, reverse inhibition, momentary power loss restart, DC brake, auto torque/slip compensation, auto tuning, adjustable carrier frequency, output frequency limits, parameter lock/reset, PID control, external counter, MODBUS communication, abnormal reset, abnormal re-start, power-saving, fan control, sleep/wake frequency, 1st/2nd frequency source selections, 1st/2nd frequency source combination, NPN/PNP selection
Protection Functions			Over voltage, over current, under voltage, external fault, overload, ground fault, overheating, electronic thermal, IGBT short circuit, PTC
Display Keypad (optional)			6-key, 7-segment LED with 4-digit, 4 status LEDs, master frequency, output frequency, output current, custom units, parameter values for setup and lock, faults, RUN, STOP, RESET, FWD/REV
Built-in EMI Filter			For 230V 1-phase and 460V 3-phase models.
Enviromental Conditions	Enclosure Rating		IP20
	Pollution Degree		2
	Installation Location		Altitude 1,000 m or lower, keep from corrosive gasses, liquid and dust
	Ambient Temperature		-10°C to 50°C (40°C for side-by-side mounting) Non-Condensing and not frozen
	Storage/ Transportation Temperature		-20 °C to 60 °C
	Ambient Humidity		Below 90% RH (non-condensing)
	Vibration		9.80665m/s^2 (1G) less than 20Hz, 5.88m/s2 (0.6G) at 20 to 50Hz
Approvals			CE cULus RCM

This page intentionally left blank