

***EASY START UP GUIDE***

***Rev 1***

A group of black and red electrical equipment

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**Setting up the Drive for Basic Operation**

**F647 – Set to English #1**

**F800 – Set up the Motor**

F800 – Motor Tuning – after all the motor parameters have been entered set F800 to 1 for rotating tuning or 2 for stationary tuning

F801 – Rated power in kW

F802 – Rated Voltage

F803 – Rated current

F804 – Number of poles

F805 – RPM

F810 – Rated frequency

A screen shot of a table

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**Parameter Group 100 - Basic parameters**

F109 – Start frequency or minimum frequency 0-10Hz

F110 – Start frequency hold time – 0-10 seconds

F111 – Max Frequency – set to 60Hz

F112 – minimum frequency – usually set to 0

F113 – set to same as maximum frequency F111

F114 – Acceleration time – set to appropriate value

F115 – Deceleration time – set to appropriate value

F118 – Knee Frequency – should be 60Hz

F119 – Acceleration time set to max frequency so set to 1

F120 – Dead time during reversing – if reversing, a value set here will make the drive stop at 0Hz during a reversal for the amount of time set.

F122 – Reversing lock or prevention. Drive is enabled for FWD / REV out of the factory but can be locked to FWD only set to 1

F123 – leave at 0 if using the FWD / REV inputs but enable if providing a negative speed reference

F124 – Jog Frequency

F125 and F126 – accel / decel ramps for jog function

F127, 128, 129, 130 – skip frequency – typically used on fan applications

F131 – What is displayed on the pendant during operation – factory default of 15 which is frequency, speed in RPM, motor current, motor voltage and DC Bus voltage. Can be changed if desired – see manual.

F132 – display of pendant during stop – factory default of 6 which is frequency, RPM setpoint and DC Bus voltage. Can be changed if required see manual.

F137 – Voltage frequency characteristic for V/Hz mode only – linear (0) or quadratic (1), user defined (2), automatic (3) or defined by user selected setpoints (4)

If F137 = 2 then F140 thru F151 are the set frequencies and voltages

F138 – linear characteristic range 1-20 – leave as default

F139 – quadratic characteristic range 1-6 see chart on page 44

F153 – PWM Frequency – 800 – 16,000Hz (automatic carrier frequency available – F159)

F154 – Power supply voltage compensation – activate on non-critical speed applications as this function will stretch the deceleration ramp if the power supply fluctuates

F159 – random PWM modulation leave at default

F160 – Default parameter reset – 11 resets to US parameters

**Parameter Group 200 – Inverter Control**

F200 – Start command source – keypad only, terminal input only, both, modbus or all three – default is 4

F201 – Stop command source – same as start command – default is 4

F200-201 take their start/stop commands from pulse inputs. If a maintained input is being used then go to F208 for two/three wire control.

F202 – rotation direction – forward, reverse, controlled by static terminal signals (FWD/REV), remote keypad or remote keypad with power down memory. If using two/three wire control set to 2.

F203 – Primary speed reference source –

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F204 – Secondary speed reference sourceA close-up of a computer program

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F208 – how the digital I/O operates – Recommend going with Two-wire Type 1 static (1) – See options in manual.A diagram of a circuit

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F209 – Stop mode selection – 0 ramp to stop, 1 – coast to stop, 2 – DC injection

F213 – Autostart after power-down – normally 0

F214 – Inverter Error Auto Reset – normally 0

F215 – Power-on autostart delay in seconds

F216 – Number of error-resets allowed

F217 – Delay time for error reset

**Parameter Group 300 – Digital I/O**

Multifunctional Input and Output Terminals

A screenshot of a computer

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F300 – relay output – selection of how the output relay functions default is inverter fault protection

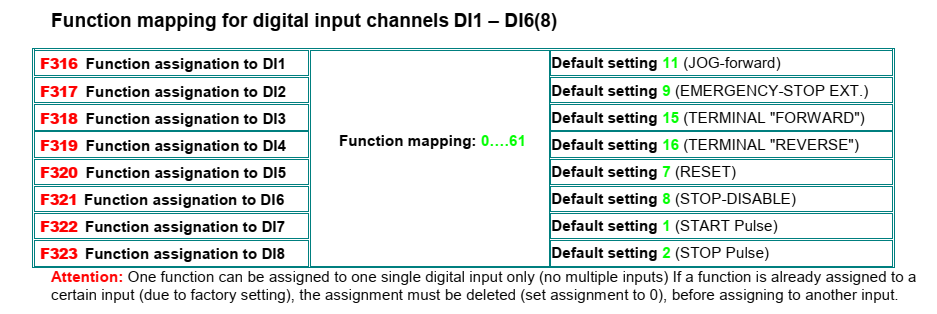
F301 – DO1 output – default is running

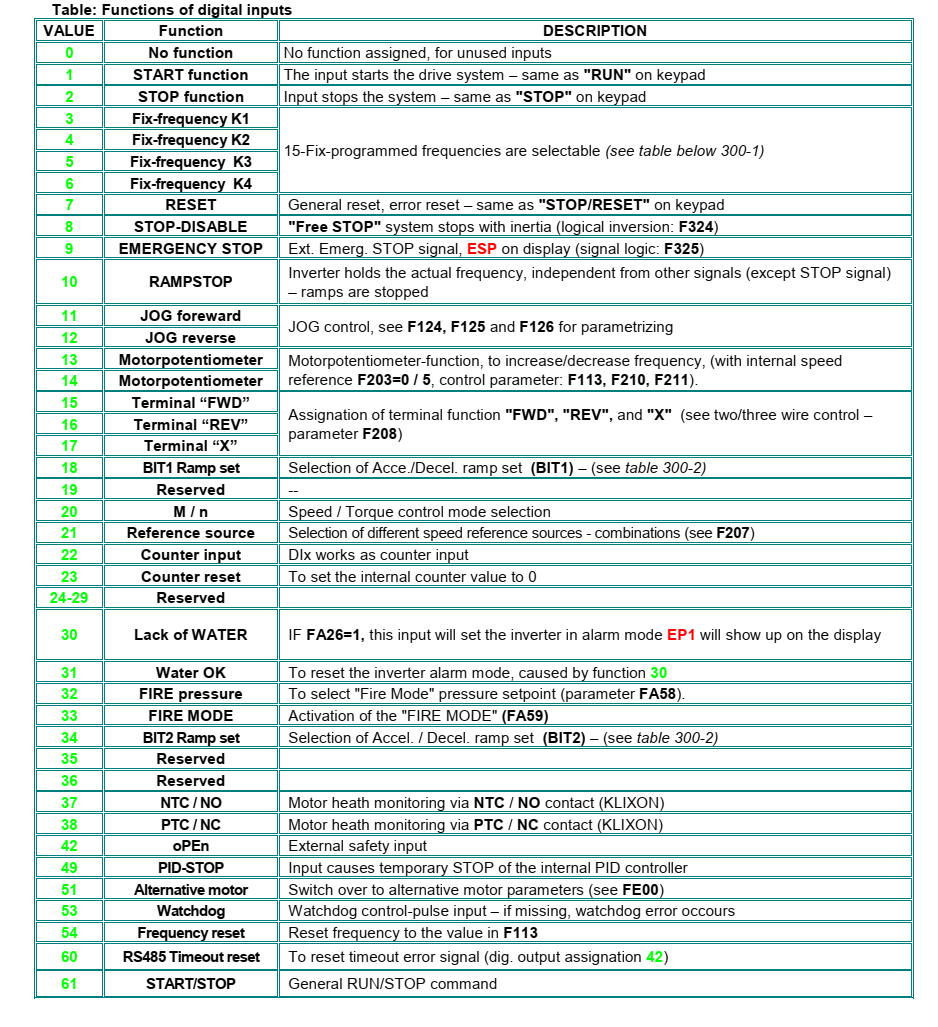
F302 – DO2 output – default is running

F303 – DO1 can do pulse output instead of maintained

F304, 305, 306 – setting up S-curve starting and stopping

Setting up the Digital Inputs for operation.



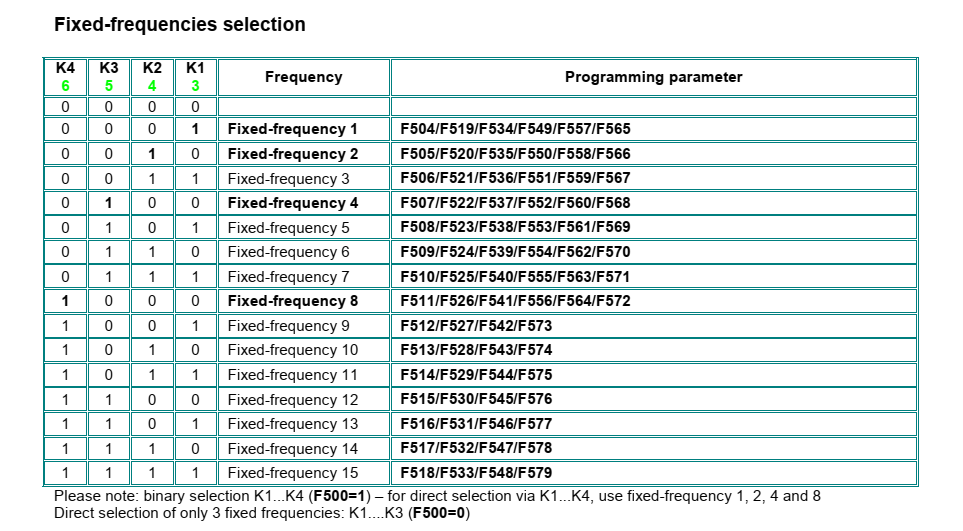


The digital I/O is configurable. Note the factory default settings above. Terminal “FWD” with a maintained input the drive will start and run. When the input is removed the drive will stop. Terminal “REV” will do the same as “FWD” but in the opposite rotation. Note – when the drive is in two or three wire control the operator panel does not function.

**Parameter Group 400 is for setting up Analog I/O**

Standard configuration is 0-10 V with 0-20mA or 4-20mA as an option.

**Parameter Group 500 is for setting up the Fixed-Frequencies**



**Parameter Group 600 is for DC Brake Control**

**Parameter Group 700 is for Error Handling and Protection Functions**