

S100 suggested basic settings for Heavy Duty applications - Using standard LED keypad

	Parameter	Description	Unit	Default set	*Suggested set	Notes
Operation Group	Acc	Accelerating time	seconds	*20.0	1 to 5	Increase if overcurrent 'OCt' trip occurs on accelerating.
	Dec	Decelerating time	seconds	**30.0	1 to 10+	Increase if overvolt 'Ouv' trip occurs on stopping or decelerating. If PID control, set = 0.1
	Drv	Command source	-	1	1	Connect 'RUN FORWARD' contact between terminals 'P1' and 'CM' or '24' . Close to RUN, open to STOP.
	Frq	Frequency Ref source	-	0	2 or 5	Set 2 if using 0-10V input on terminal 'V1'. Set 5 if using mA signal on terminal 'I2'
<i>No more essential parameters in this group</i>						
Drive Group	dr.09	Control Mode	-	0	0 or 4	0 = V/F control; 4 = IM Sensorless Vector control (may be needed if increased starting torque is required)
	dr.14	Motor power (Capacity)	KW	*	!	Factory set 1:1 to inverter size. Change if lower power motor is connected.
	dr.15	Torque Boost	-	0	1	Automatically sets amount of boost applied at starting and stopping by adaption of the V/F characteristics.
	dr.18	Base Frequency	Hz	60.00	50.00	Set to frequency shown on motor rating plate (normally 50Hz in UK/Europe)
	dr.20	Max. Output Frequency	Hz	60.00	50.00	Sets maximum allowable frequency (motor speed) - reduce to 50.00 for UK/European motors.
	dr.93	Parameter Initialize	-	-	N/A	Set to '1' to set ALL groups back to factory set values
<i>No more essential parameters in this group</i>						
Basic Group	ba.10	Input Power Frequency	Hz	0	1	0' = 60Hz, 1 = 50Hz. Set to '1' (50Hz) if using in UK/Europe etc
	ba.11	Pole number	-	4	As required	Check motor rating plate rpm data. ie, 1500 (-1 to -10%) = 4, 1000 (-1 to -10%) = 6, 3000 (-1 to -10%) = 2, etc
	ba.12	Rated slip	RPM	-	As required	Enter a value which is the synchronous speed - rotor speed. Ex: 1500 - 1420 = 80, so enter '80'
	ba.13	Motor rated current	A	-	As required	Set to motor rating plate current. (Be careful to use the correct value if star/delta or 50/60Hz values are given)
	ba.15	Motor rated voltage	V	-	As required	Set to motor rating plate value or leave at '0'. Note: '0' means inverter output voltage = inverter input voltage
	ba.19	AC Input voltage	V	380	As required	Set to 400V or whatever the input line to line voltage is.
	ba.20	Auto Tuning	-	0	0 or 2	0 = standard factory installed motor parameters apply; 2 = auto-tuning routine, installs actual connected motor values.
Advanced Group	Ad.24	Frequency limits select	-	0	1	Set to 1 to allow changes to upper and lower frequency (speed) limits
	Ad.25	Low limit	Hz	0.50	0.50 (or higher)	This parameter is not visible until Ad.24 is changed to '1'
	Ad.26	High Limit	Hz	60.00	50.00 (or lower)	This parameter is not visible until Ad.24 is changed to '1'
	Ad.64	Cooling Fan operation	-	0	2	0 = Fan operates when inverter output is ON; 2 = Fan operates on internal thermostat (only runs when needed)
<i>No more essential parameters in this group</i>						
Control Group	Cn.04	Carrier Frequency	kHz	3	As required	Increase if low audible motor noise is required. Keep value low if enclosure is small or motor cable is long
<i>No more essential parameters in this group</i>						
Input Group	In.08	Terminal 'V1' min. volts	V	0.00	0	Sets terminal 'V1' minimum voltage for external potentiometer operation.
	In.09	Output frequency at In.08	%	0.00	As required	Fixes the motor / output frequency when terminal 'V1' is at voltage set in parameter In.08
	In.10	Terminal 'V1' max. volts	V	10	10	Sets terminal 'V1' maximum voltage for external potentiometer operation.
	In.11	Output frequency at In.10	%	100.00	As required	Fixes the motor / output frequency when terminal 'V1' is at voltage set in parameter In.10
	In.53	Terminal 'I2' min. current	mA	4.00	0.00 or 4.00	Sets terminal 'I2' minimum current when an external milli Amp loop is used to give the speed reference
	In.54	Output frequency at In.53	Hz	0	As required	Fixes the motor / output frequency when terminal 'I2' is at mA level set in parameter In.53
	In.55	Terminal 'I2' max. current	mA	20.00	20.00	Sets terminal 'I2' maximum current when an external milli Amp loop is used to give the speed reference
In.56	Output frequency at In.55	%	100.00	As required	Fixes the motor / output frequency when terminal 'I' is at mA level set in parameter In.55	

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Protection Group	Pr.04	Load Duty	-	1	1	1' = Heavy duty
	Pr.05	Phase-loss protection	-	Binary	As required	Set to '01' for output (motor) phase loss protection, '10' for input phase loss protection, and '11' for both
	Pr.21	Overload Trip level	%	180	180	Sets fault detection level for overload. The set level will be maintained for 60s or for Pr.22 setting then drive will trip.
<i>No more essential parameters in this group</i>						

***3.0kHz up to 22KW

Denotes **MUST** check / set parameters for best operation

All others are relative to the design requirements of the equipment and/or application or environment.

**Suggested Setting - values shown are application typical only. Other setting values may be more appropriate.*

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