Basic set-up guide FAN/PUMP suggested LS inverter settings iS7

	Drive group	Description	Unit	Default set	Suggested set	Notes
DRV Group	03	Accelerating time	seconds	*20.0	10	Increase if overcurrent 'OCt' trip occurs on accelerating. If PID control, set = 0.1
	04	Decelerating time	seconds	**30.0	20	Increase if overvolt 'Ou' trip occurs on stopping or decelerating. If PID control, set = 0.1
	06	Command source	-	1	1	Connect 'RUN FORWARD' contact between terminals 'P1' and 'CM' . Close to RUN.
	07	Frequency Ref source	-	0	2 or 3	Set 2 if using 0-10V input on terminal 'V1'. Set 3 if using mA signal on terminal 'I1'
	14	Motor power	KW	*	!	Factory set 1:1 to inverter size. Change if lower or higher power motor is connected.
	18	Base Frequency	Hz	60.00	50.00	Set to frequency shown on motor rating plate (normally 50Hz in UK/Europe)
	20	Max. Output Frequency	Hz	60.00	50.00	Sets maximum allowable frequency (motor speed) - reduce to 50.00 for UK/European motors.
BAS - Group	10	Input Power Frequency	Hz	60.00	50.00	Set to 50Hz if using in UK/Europe etc
	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
	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)
	15	Motor rated voltage	V	-	As required	Set to motor rating plate value
	17	Load Inertia	-	0	As required	Can be set to approximate the inertia (related to mass and diameter of the blades) for better starting & stopping.
	19	AC Input voltage	V	380	400	Set to 400V or whatever the input line to line voltage is.
ADV - Group	24	Frequency limits select	-	0	1	Set to 1 to allow changes to upper and lower frequency (speed) limits
	25	Low limit	Hz	0.50	0.50 (or higher)	Some pumps get hot and do not pump if run below certain frequency - check!
	26	High Limit	Hz	60.00	50.00 (or lower)	Do not over-speed a fan or pump unless OK'd by manufacturer (large power increase)
	50	Energy saving mode	-	0	2	0 = none, 1 = manual (see H51), 2 = Auto; for increased energy saving at light motor loads
	51	Energy saving amount	%	0-30%	-	Set between 0-30% if using manual energy saving (H50 = 1)
CON - Group	04	Carrier Frequency	kHz	***5.0	As required	Inrease if low audible motor noise is required. Keep value low if enclosure is small or motor cable is long
						No more essential parameters in this group
IN - Group	08	Terminal 'V1' min. volts	V	0.00	0	Sets terminal 'V1' minimum voltage for external potentiometer operation.
	09	Output frequency at I7	Hz	0.00	As required	Fixes the motor / output frequency when terminal 'V1' is at voltage set in parameter I8
	I9	Terminal 'V1' max. volts	V	10	10	Sets terminal 'V1' maximum voltage for external potentiometer operation.
	I10	Output frequency at I9	Hz	60.00	50.00 (or lower)	Fixes the motor / output frequency when terminal 'V1' is at voltage set in parameter I9
	I12	Terminal 'I' min. current (mA)	mA	4.00	0.00 or 4.00	Sets terminal 'I' minimum current when an external milli Amp loop is used to give the speed reference
	I13	Output frequency at I12	Hz	0	As required	Fixes the motor / output frequency when terminal 'I' is at mA level set in parameter I12
	I14	Terminal 'I' max. current (mA)	mA	20.00	20.00	Sets terminal 'I' maximum current when an external milli Amp loop is used to give the speed reference
	I15	Output frequency at I14	Hz	60.00	50.00 (or lower)	Fixes the motor / output frequency when terminal 'I' is at mA level set in parameter I14
PRT - Group	04	Load Duty	-	1	0	Set to '0' to enable 'Normal Duty' or variable torque application settings (fan, pump, etc)
	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
	31	No-load trip	-	0.00	As required	Set to '1' if you want the drive to detect and trip if load is lost, ie broken fan belt, etc
	32	No-load trip level	%	5.00	As required	Set between 1 - 100% - ie if '13' in BAS-Group (motor current) = 16A, then if '32' is set at 50%, drive will trip below 8A
	33	No-load trip time	seconds	3.00	As required	Set detection and reaction time for a 'No-load' condition between 0.1 - 10s

***3.0kHz above 90KW

Denotes MUST check / set parameters

All others are relative to the design requirements of the equipment and/or application or environment. In case of I/O Group it is normally only necessary to set I7 to I10 or I12 to I15 (not both)

Note: PID control is covered in separate sheet.

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