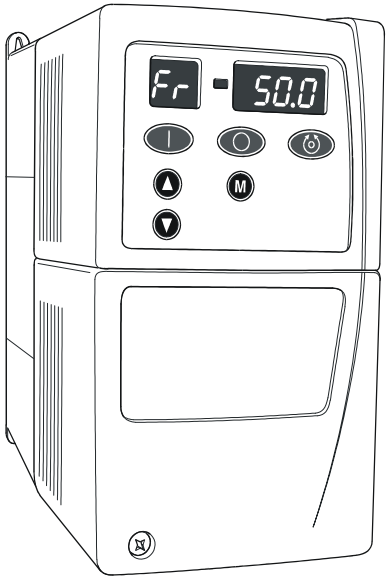
Varidyne

Quick Start
Mise en service rapide
Puesta en marcha rapida



Part Number: 0452-0064-02
Issue Number: 2

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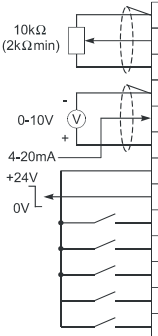
VARIDYNE QUICK START

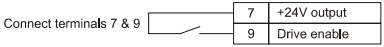
TERMINAL CONTROL

As default - in positive logic (connect terminals to +24V to activate).
Parameter 5 set to A1. A2.



1	0V common
2	Local voltage speed reference input (A1)
3	+10V reference output
4	0V common
5	Remote current speed reference input (A2)
6	Analog output (Motor speed)
7	+24V output
8	Digital output (Zero speed)
9	Drive Enable/Reset
10	Run forward
11	Run reverse
12	Local (A1)/Remote (A2) speed reference
13	Jog select
14	+24V output

KEYPAD CONTROL

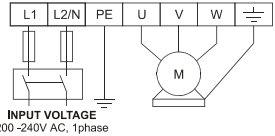


Set parameter 5 to **PAd.** If reverse is required, set parameter 10 to **L2** and set parameter 26 to **On** to enable key. Use ▲ and ▼ keys to increase/decrease speed. **Press key to go.**
Press key to reverse and key to stop.

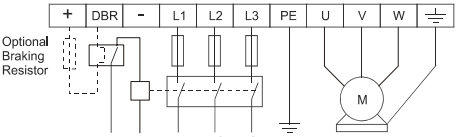
NOTE ***When parameter 5 is set to PAd, terminals 12 and 13 do not have any functionality.***

POWER CONNECTIONS

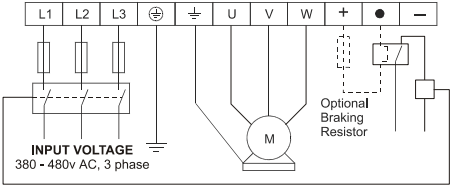
Varidyne size 1



Varidyne sizes 2, 3 & 4



Varidyne size 5

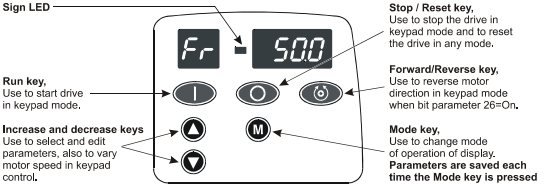


TO OPTIMISE PERFORMANCE, SET MOTOR MAP:

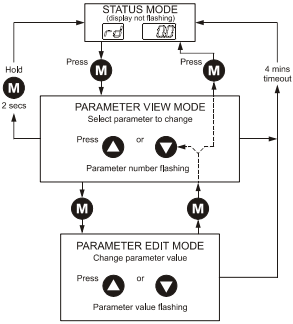
From the motor nameplate data, enter the following:

Parameter 06 Motor rated current in A
Parameter 07 Motor rated speed in rpm
Parameter 08 Motor rated voltage in V
Parameter 09 Motor power factor

DISPLAY AND KEYPAD



SELECTING AND CHANGING PARAMETERS



NOTE! To return from Parameter Edit mode to Parameter View mode, press the (M) key once.

When in Parameter View mode - EITHER press the ▲ or ▼ keys to select another parameter to change, then press the (M) key to enter Parameter Edit mode OR press the (M) key to return to Status mode.

DISPLAY MNEMONICS

LEFT HAND DISPLAY	***STATUS MODE***
rd	Drive ready
ih	Drive inhibited
tr	Drive has tripped
dc	DC injection braking
	SPEED INDICATIONS
Fr	Drive output frequency in Hz
SP	Motor speed in rpm
Cd	Machine speed in Customer defined units
	LOAD INDICATIONS
Ld	Active current as a % of motor rated active current
A	Drive output current per phase in A

TRIP CONDITION	***RIGHT HAND DISPLAY***
DC link under voltage	UU
DC link over voltage	OU
AC instantaneous over current trip	OI.AC
Overcurrent on braking resistor	OI.br
External trip	Et
Overspeed trip	O.SP
Auto-tune failure	tunE
Ixt on braking resistor	It.br
Motor overload on current x time	It.AC
Overheat (Heatsink thermistor)	Oht2
Over temperature (Motor thermistor)	th
+24V or digital output overload	O.Ld1
Current loop loss term. 5 (4-20mA, 20-4mA)	cL
EEPROM failure	EEF
Stator resistance measurement failure	rS
Phase loss	PH*
Comms port supply overload	O.Ld2
Overload on current loop input	O.cL
Internal drive self check failure	HF

* 3 phase units only

VARIDYNE PARAMETER DESCRIPTION

PAR.	LEVEL 1	DEFAULT 50 / 60 Hz
01	Minimum speed (Hz)	0.0
02	Maximum speed (Hz)	50.0 / 60.0
03	Acceleration rate (s/100Hz)	5.0
04	Deceleration rate (s/100Hz)	10.0
05	Speed reference select	A1.A2 / PAd
06	Rated current (A)	drive rating
07	Rated speed (rpm)	1500 / 1800
08	Rated voltage (V)	230/400 / 230/460
09	Power factor	0.85
10	Parameter access	L1

Changing Parameter 10 to L2 allows access to level 2 parameters from 11 to 54.

	LEVEL 2	
11	Preset 1 (Hz)	0.0
12	Preset 2 (Hz)	0.0
13	Preset 3 (Hz)	0.0
14	Preset 4 (Hz)	0.0
15	Jog speed (Hz)	1.5
16	Current input mode (mA)	4 - .20
17	Enable negative preset speeds	OFF
18	Last trip	--
19	Trip before Par.18	--
20	Trip before Par.19	--
21	Trip before Par.20	--
22	Load display units (%/A)	Ld (%)
23	Speed display select units (Hz/rpm/units)	Fr (Hz)
24	Customer scaling for parameter 23	1.00
25	Security setup	0
26	FWD/REV key enable	OFF
27	Power up mode for keypad ref.	0 (zero speed)
28	Parameter cloning mode	no (do nothing)
29	Load defaults	no (defaults not loaded)
30	Ramp mode	1(standard ramp)
31	Stopping mode	1(ramp to stop)
32	Variable torque select	OFF
33	Spinning motor select	OFF
34	Positive logic select	On (positive)
35	Start / Stop logic setup	0
36	Analogue output select	Fr (motor speed)
37	Switching frequency	6kHz
38	Auto tune	0 (no auto tune)
39	Rated frequency (Hz)	50.0 / 60.0
40	Number of poles	Auto
41	Serial mode	0 (ANSI)
42	Baud rate	4.8
43	Serial address	1.1
44	Software version	--
45	Fieldbus node address	0
46	Fieldbus baudrate	0
47	Fieldbus diagnostics	0
48	Voltage mode selector	3
49	Low frequency voltage boost	3.0
50	Motor thermistor select	OFF
*51	Zero speed threshold	1.0
*52	Motor current threshold	0
*53	Motor current threshold hysteresis	0
*54	Brake release delay time	0

*Only become active when parameter 29 is set to "br.Eu" or "br.US" & stop/reset button is pressed for 1 second.