

Data points

Vacon M10 frequency inverter data point settings for control of REMAK air-handling units.
The table is applicable for the frequency request setup using digital inputs or 0 -10V analogue signal.
Selection of the control can be made by the data point 3.3, option 0 – DI, option 3 – AI.

Data point	Data point description	REMAK	Default	Units	Min	Max
1.1	Motor nominal voltage	230	400	V	180	500
1.2	Motor nom. Frequency	50	50	Hz	30	320
1.3	Motor nominal speed	data engine		rpm	300	20000
1.4	Motor nominal current	data engine		A	0,74	7,4
1.5	Motor cos Φ	data engine			0,3	1
1.7	Current limit	overcurrent		A	0,74	7,4
1.8	Motor control mode	0	0		0	1
1.9	U/f ratio selection	0	0		0	2
1.10	Field weakening point	50	50	Hz	30	320
1.11	Voltage at field weakening point	100	100	%	10	200
1.12	U/f curve midpoint frequency	50	50	Hz	0	50
1.13	U/f curve midpoint voltage	100	100	%	0	100
1.14	Output voltage at zero frequency	0	0	%	0	40
1.15	Torque boost	0	0		0	1
1.16	Switching frequency	6	6	kHz	1,5	16
1.17	Brake chopper	0	0		0	2
2.1	Control place	1	1		1	3
2.2	Start function	0	0		0	1
2.3	Stop function	0	0		0	1
2.4	Start/Stop logic	0	0		0	3
3.1	Min frequency	20	0	Hz	0	50
3.2	Max frequency	50	50	Hz	0	320
3.3	I/O reference	0	3		0	4
3.4	Preset speed 0	22	5	Hz	0	50
3.5	Preset speed 1	28	10	Hz	0	50
3.6	Preset speed 2	36	15	Hz	0	50
3.7	Preset speed 3	43	20	Hz	0	50
3.8	Preset speed 4	50	25	Hz	0	50
3.9	Preset speed 5	0	30	Hz	0	50
3.10	Preset speed 6	0	40	Hz	0	50
3.11	Preset speed 7	0	50	Hz	0	50
4.1	Ramp shape	0	0	s	0	10
4.2	Acceleration time	30	1	s	0,1	3000
4.3	Deceleration time	30	1	s	0,1	3000
4.4	DC braking current	3,7	0	A	0,74	7,4
4.5	DC braking time at start	0	0	s	0	-55,36
4.6	Frequency to start DC braking during ramp	1,5	1,5	Hz	0,1	10
4.7	DC braking time at stop	0	0	s	0	-55,36
5.1	Start signal 1	1	1		0	6
5.2	Start signal 2	2	2		0	6

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5.3	Reverse	0	0	0	6
5.4	Ext. fault Close	0	0	0	6
5.5	Ext. fault Open	0	0	0	6
5.6	Fault reset	0	5	0	6
5.7	Run enable	0	0	0	6
5.8	Preset speed B0	3	3	0	6
5.9	Preset speed B1	4	4	0	6
5.10	Preset speed B2	5	0	0	6
5.11	Disable PI	6	6	0	6
6.1	AI1 Signal range	0	0	0	1
6.2	AI1 filter time	0,1	0,1 s	0	10
6.3	AI1 Custom min	0	0 %	-100	100
6.4	AI1 Custom max	100	100 %	-100	100
6.5	AI2 Signal range	3	3	2	3
6.6	AI2 filter time	0,1	0,1 s	0	10
6.7	AI2 Custom min	0	0 %	-100	100
6.8	AI2 Custom max	100	100 %	-100	100
7.1	Relay output 1 content	2	2	0	8
7.2	Relay output 2 content	1	3	0	8
7.3	Digital output 1 content	1	1	0	8
7.4	Analogue output function	1	1	0	4
7.5	Analogue output minimum	1	1	0	1
9.1	Response to 4mA reference fault	1	1	0	2
9.2	Response to under voltage fault	2	2	0	2
9.3	Earth fault protection	2	2	0	2
9.4	Stall protection	1	1	0	2
9.5	Underload protection	0	0	0	2
9.7	Thermal protection of the motor	2	2	0	2
9.8	Motor ambient temperature	40	40 °C	-20	100
9.9	Motor cooling factor at zero speed	40	40 %	0	150
9.10	Motor thermal time constant	45	45 m	1	200
10.1	Wait time	0,5	0,5 s	0,1	10
10.2	Trial time	30	30 s	0	60
10.3	Start function	0	0	0	2
10.4	Automatic restart	0	0	0	1
12.1	PI activation	0	0	0	2
12.2	PI controller gain	100	100 %	0	1000
12.3	PI controller I-time	10	10 s	0	320
12.4	Keypad PI reference	0	0 %	0	100
12.5	Setpoint source	0	0	0	3
12.6	Feedback source	2	2	0	2
12.7	Feedback minimum	0	0 %	0	100
12.8	Feedback maximum	100	100 %	0	100
12.9	Error value inversion	0	0	0	1

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13.1	Parameter conceal	0	1	0	1
13.2	Drive setup	0	3	0	540
	System menu parameters				
1.1	Software package	1	0	0	-1
1.2	Power SW version	2	0	0	-1
1.3	API SW version	0,03	0	0	-0,01
1.4	API Firmware interface	0,04	0	0	-0,01
1.5	Application ID	5	0	0	-1
1.6	Application revision	0,06	0	0	-0,01
1.7	System load	7	0 %	0	-1
2.1	Communication status	0,008	0	0	-0,001
2.2	Fieldbus protocol	9	0	0	1
2.3	Slave address	10	1	1	255
2.4	Baud rate	11	5	0	5
2.5	Number of stop bits	12	1	0	1
2.6	Parity type	13	0	0	0
2.7	Communication time-out	14	0 s	0	255
2.8	Reset communication status	15	0	0	1
3.1	MWh counter	0,016	0 MWh	0	-0,001
3.2	Power on days	17	0	0	-1
3.3	Power on hours	18	0 h	0	-1
4.1	Display contrast	19	7	0	15
4.2	Restore factory defaults	20	0	0	1