

Data points

Vacon 100 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 1.10, option 0 - DI, option AI1 – AI.

Data point	Data point description	REMAK	Default	Units	Min	Max
1.1	Motor Nom Voltg	400	400	V	180	690
1.2	Motor Nom Freq	50	50	Hz	0	320
1.3	Motor Nom Speed	data engine		rpm	0	62500
1.4	Motor Nom Currnt	data engine		A	4,6	92
1.5	Motor Cos Φ	data engine			0	1
1.6	Motor Nom Power	data engine		kW	0	9999
1.7	Current Limit	overcurrent		A	4,6	69
1.8	Min Frequency	20	0	Hz	0	50
1.9	Max Frequency	50	50	Hz	0	320
1.10	I/O A Ctrl Ref	Preset Freq. 0	AI1+AI2		1	7
1.11	Preset Freq 1	10	10	Hz	0	50
1.12	Preset Freq 2	15	15	Hz	0	50
1.13	Accel Time 1	30	5	s	0	300
1.14	Decel Time 1	30	5	s	0	300
1.15	Rem. Ctrl. Place	0	0		0	1
1.16	Automatic Reset	0	0		0	1
1.17	PID Mini-Wizard	0	0		0	1
3.1.1.1	Motor Nom Voltg	400	400	V	180	690
3.1.1.2	Motor Nom Freq	50	50	Hz	0	320
3.1.1.3	Motor Nom Speed	1465	1465	rpm	0	62500
3.1.1.4	Motor Nom Currnt	46	46	A	4,6	92
3.1.1.5	Motor Cos Φ	0,85	0,85		0	1
3.1.1.6	Motor Nom Power	30	30	kW	0	9999
3.1.1.7	Current Limit	69	69	A	4,6	69
3.1.1.8	Supply Voltage	400	400	V	380	500
3.1.2						
3.1.2.2	U/f Ratio Select	0	0		0	2
3.1.2.3	Field WeakngPnt	50	50	Hz	8	320
3.1.2.4	Voltage at FWP	100	100	%	10	200
3.1.2.5	U/f Mid Freq	0	0	Hz	0	50
3.1.2.6	U/f Mid Voltg	1	1	%	0	100
3.1.2.7	Zero Freq Voltg	1	1	%	0	40
3.1.2.9	Switching Freq	6	6	kHz	1,5	6
3.2.1	Rem. Ctrl. Place	0	0		0	1
3.2.2	KeypadStopButton	1	1		0	1
3.2.3	Start Function	0	0		0	1
3.2.4	Stop Function	0	0		0	1
3.2.5	I/O A Logic	0	0		0	5
3.2.6	I/O B Logic	0	0		0	5
3.2.7	AI1 Start Threshold	5	5	%	3	100
3.2.8	FB Start Logic	0	0		0	1
3.2.9	Start Delay	0	0	s	0	10

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3.3.1	Min Frequency	20	0 Hz	0	50
3.3.2	Max Frequency	50	50 Hz	0	320
3.3.3	I/O A Ctrl Ref	Preset Freq. 0	AI1+AI2	1	7
3.3.4	I/O B Ctrl Ref	4	4	1	7
3.3.5	Keypad Ctrl Ref	2	2	1	7
3.3.6	Keypad Reference	0	0 Hz	0	50
3.3.7	KeypadRefCopy	1	1	0	2
3.3.8	FieldBusCtrl Ref	3	3	1	7
3.3.9	PresetFreqMode	0	0	1	7
3.3.10	Preset Freq 0	22	5 Hz	0	50
3.3.11	Preset Freq 1	28	10 Hz	0	50
3.3.12	Preset Freq 2	36	15 Hz	0	50
3.3.13	Preset Freq 3	43	20 Hz	0	50
3.3.14	Preset Freq 4	50	25 Hz	0	50
3.3.15	Preset Freq 5	0	25 Hz	0	50
3.3.16	Preset Freq 6	0	30 Hz	0	50
3.3.17	Preset Freq 7	0	40 Hz	0	50
3.3.18	PresetAlarmFreq	25	25 Hz	0	50
3.4.2	Accel Time 1	30	5 s	0	300
3.4.3	Decel Time 1	30	5 s	0	300
3.4.4	Ramp2 Threshold	0	0 Hz	0	1000
3.5.1.1	CTR Sig 1 A	DigIN SlotA.1	DigIN SlotA.1	0	0
3.5.1.2	CTR Sig 2 A	DigIN SlotA.2	DigIN SlotA.2	0	0
3.5.1.3	CTR Sig 1 B	DigIN Slot0.1	DigIN Slot0.1	0	0
3.5.1.4	CTR Sig 2 B	DigIN Slot0.1	DigIN Slot0.1	0	0
3.5.1.5	I/O B Ctrl Force	DigIN Slot0.1	DigIN Slot0.1	0	0
3.5.1.6	I/O B Ref Force	DigIN Slot0.1	DigIN Slot0.1	0	0
3.5.1.7	Ext Fault Close	DigIN Slot0.1	DigIN Slot0.1	0	0
3.5.1.8	Ext Fault Open	DigIN Slot0.2	DigIN SlotA.3	0	0
3.5.1.9	Fault Reset	DigIN SlotA.6	DigIN SlotA.6	0	0
3.5.1.10	Run Enable	DigIN Slot0.2	DigIN Slot0.2	0	0
3.5.1.11	Run Interlock 1	DigIN Slot0.2	DigIN Slot0.2	0	0
3.5.1.12	Run Interlock 2	DigIN Slot0.2	DigIN Slot0.2	0	0
3.5.1.15	Preset Freq Sel0	DigIN SlotA.3	DigIN SlotA.4	0	0
3.5.1.16	Preset Freq Sel1	DigIN SlotA.4	DigIN SlotA.5	0	0
3.5.1.17	Preset Freq Sel2	DigIN SlotA.5	DigIN Slot0.1	0	0
3.5.1.18	Timer 1	DigIN SlotA.3	DigIN SlotA.4	0	0
3.5.1.19	Timer 2	DigIN SlotA.4	DigIN SlotA.5	0	0
3.5.1.20	Timer 3	DigIN SlotA.5	DigIN Slot0.1	0	0
3.5.1.21	PID1 Boost SP	DigIN Slot0.1	DigIN Slot0.1	0	0
3.5.1.22	PID1 Select SP	DigIN Slot0.1	DigIN Slot0.1	0	0
3.5.1.23	PID2 Select SP	DigIN Slot0.1	DigIN Slot0.1	0	0
3.5.1.24	Interlock 1	DigIN Slot0.1	DigIN Slot0.1	0	0
3.5.1.25	Interlock 2	DigIN Slot0.1	DigIN Slot0.1	0	0
3.5.1.26	Interlock 3	DigIN Slot0.1	DigIN Slot0.1	0	0
3.5.1.27	Interlock 4				
3.5.2.1	AI1 Signal Sel	AnIN SlotA.1	AnIN SlotA.1	0	0
3.5.2.2	AI1 Filter Time	1	1 s	0	300

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3.5.2.3	AI1 Signal Range	0	0	0	1
3.5.2.4	AI1 Custom Min	0	0 %	-160	160
3.5.2.5	AI1 Custom Max	100	100 %	-160	160
3.5.2.6	AI1 Signal Inv	0	0	0	1
3.5.2.7	AI2 Signal Sel	AnIN SlotA.2	AnIN SlotA.2	0	0
3.5.2.8	AI2 Filter Time	1	1 s	0	300
3.5.2.9	AI2 Signal Range	1	1	0	1
3.5.2.10	AI2 Custom Min	0	0 %	-160	160
3.5.2.11	AI2 Custom Max	100	100 %	-160	160
3.5.2.12	AI2 Signal Inv	0	0	0	1
3.5.2.13	AI3 Signal Sel	AnIN Slot0.1	AnIN Slot0.1	0	0
3.5.2.14	AI3 Filter Time	1	1 s	0	300
3.5.2.15	AI3 Signal Range	0	0	0	1
3.5.2.16	AI3 Custom Min	0	0 %	-160	160
3.5.2.17	AI3 Custom Max	100	100 %	-160	160
3.5.2.18	AI3 Signal Inv	0	0	0	1
3.5.2.19	AI4 Signal Sel	AnIN Slot0.1	AnIN Slot0.1	0	0
3.5.2.20	AI4 Filter Time	1	1 s	0	300
3.5.2.21	AI4 Signal Range	0	0	0	1
3.5.2.22	AI4 Custom Min	0	0 %	-160	160
3.5.2.23	AI4 Custom Max	100	100 %	-160	160
3.5.2.24	AI4 Signal Inv	0	0	0	1
3.5.2.25	AI5 Signal Sel	AnIN Slot0.1	AnIN Slot0.1	0	0
3.5.2.26	AI5 Filter Time	1	1 s	0	300
3.5.2.27	AI5 Signal Range	0	0	0	1
3.5.2.28	AI5 Custom Min	0	0 %	-160	160
3.5.2.29	AI5 Custom Max	100	100 %	-160	160
3.5.2.30	AI5 Signal Inv	0	0	0	1
3.5.2.31	AI6 Signal Sel	AnIN Slot0.1	AnIN Slot0.1	0	0
3.5.2.32	AI6 Filter Time	1	1 s	0	300
3.5.2.33	AI6 Signal Range	0	0	0	1
3.5.2.34	AI6 Custom Min	0	0 %	-160	160
3.5.2.35	AI6 Custom Max	100	100 %	-160	160
3.5.2.36	AI6 Signal Inv	0	0	0	1
3.5.3.2.1	RO1 Function	2	2	0	31
3.5.3.2.2	RO1 ON Delay	0	0 s	0	320
3.5.3.2.3	RO1 OFF Delay	0	0 s	0	320
3.5.3.2.4	RO2 Function	1	3	0	31
3.5.3.2.5	RO2 ON Delay	0	0 s	0	320
3.5.3.2.6	RO2 OFF Delay	0	0 s	0	320
3.5.3.2.7	RO3 Function	1	1	0	31
3.5.4.1.1	AO1 Function	2	2	0	11
3.5.4.1.2	AO1 Filter Time	1	1 s	0	300
3.5.4.1.3	AO1 Min Signal	0	0	0	1
3.5.4.1.4	AO1 MinScale	0	0 x	-214748	214748
3.5.4.1.5	AO1 MaxScale	0	0 x	-214748	214748
3.7.1	Range 1 Low Lim	0	0 Hz	-1	320
3.7.2	Range 1 High Lim	0	0 Hz	0	320
3.7.3	Range 2 Low Lim	0	0 Hz	0	320

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3.7.4	Range 2 High Lim	0	0 Hz	0	320
3.7.5	Range 3 Low Lim	0	0 Hz	0	320
3.7.6	Range 3 High Lim	0	0 Hz	0	320
3.7.7	Acc/Dec Factor	1	1 x	0,1	10
3.8.1	Superv1 Item	0	0	0	7
3.8.2	Superv1 Model	0	0	0	2
3.8.3	Superv1 Limit	25	25 Hz	-214748	214748
3.8.4	Superv1 Hyst	5	5 Hz	0	100
3.8.5	Superv2 Item	1	1	0	7
3.8.6	Superv2 Model	0	0	0	2
3.8.7	Superv2 Limit	40	40 Hz	-214748	214748
3.8.8	Superv2 Hyst	5	5 Hz	0	100
3.9.1	AI Low Fault	0	0	0	4
3.9.2	External Fault	2	2	0	3
3.9.3	InputPhaseFault	3	3	0	3
3.9.6	Motor Therm Prot	2	2	0	3
3.9.7	MotAmbient Temp	40	40 ° C	-20	100
3.9.8	ZeroSpeedCooling	0	0 %	0	150
3.9.9	ThermTimeConst	45	45 min	0	200
3.9.10	Motor Duty Cycle	100	100 %	0	100
3.9.13	FieldbusComm Flt	3	3	0	4
3.9.16	Thermistor Fault	0	0	0	3
3.9.17	SoftFill Timeout	2	2	0	3
3.9.18	PID1 Supervision	2	2	0	3
3.9.19	PID2 Supervision	2	2	0	3
3.10.1	Automatic Reset	0	0	0	1
3.10.2	Restart Function	1	1	0	1
3.10.3	Wait Time	0,5	0,5 s	0	10000
3.10.4	Trial Time	60	60 s	0	10000
3.10.5	Number of Trials	4	4	1	10
3.10.6	Undervoltage Flt	1	1	0	1
3.10.7	OverVoltage Flt	1	1	0	1
3.10.8	OverCurrent Flt	1	1	0	1
3.10.9	AI Low Fault	1	1	0	1
3.10.10	UnitOverTemp Flt	1	1	0	1
3.10.11	MotorOverTempFlt	1	1	0	1
3.10.12	External Fault	0	0	0	1
3.11.1.1	ON Time	0	0	0	0
3.11.1.2	OFF Time	0	0	0	0
3.11.1.3	From Day	0	0	0	6
3.11.1.4	To Day	0	0	0	6
3.11.1.5	AssignToChannel	0	0	0	3
3.11.2.1	ON Time	0	0	0	0
3.11.2.2	OFF Time	0	0	0	0
3.11.2.3	From Day	0	0	0	6
3.11.2.4	To Day	0	0	0	6
3.11.2.5	AssignToChannel	0	0	0	3

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3.11.3.1	ON Time	0	0	0	0
3.11.3.2	OFF Time	0	0	0	0
3.11.3.3	From Day	0	0	0	6
3.11.3.4	To Day	0	0	0	6
3.11.3.5	AssignToChannel	0	0	0	3
3.11.4.1	ON Time	0	0	0	0
3.11.4.2	OFF Time	0	0	0	0
3.11.4.3	From Day	0	0	0	6
3.11.4.4	To Day	0	0	0	6
3.11.4.5	AssignToChannel	0	0	0	3
3.11.5.1	ON Time	0	0	0	0
3.11.5.2	OFF Time	0	0	0	0
3.11.5.3	From Day	0	0	0	6
3.11.5.4	To Day	0	0	0	6
3.11.5.5	AssignToChannel	0	0	0	3
3.11.6.1	Duration	0	0 s	0	72000
3.11.6.2	AssignToChannel	0	0	0	3
3.11.7.1	Duration	0	0 s	0	72000
3.11.7.2	AssignToChannel	0	0	0	3
3.11.8.1	Duration	0	0 s	0	72000
3.11.8.2	AssignToChannel	0	0	0	3
3.12.1.1	Gain	50	50 %	0	200
3.12.1.2	Integration Time	10	10 s	0	600
3.12.1.3	Derivation Time	0	0 s	0	100
3.12.1.4	ProcessUnitSel.	1	1	1	40
3.12.1.5	ProcessUnitMin	0	0 %	-100000	100000
3.12.1.6	ProcessUnitMax	100	100 %	-100000	100000
3.12.1.7	ProcessUnitDeci.	2	2	0	4
3.12.1.8	Error Inversion	0	0	0	1
3.12.1.9	Dead Band	0	0 %	0	100000
3.12.1.10	Dead Band Delay	0	0 s	0	320
3.12.2.1	Keypad SP 1	0	0 %	0	100
3.12.2.2	Keypad SP 2	0	0 %	0	100
3.12.2.3	Ramp Time	0	0 s	0	300
3.12.2.4	SP 1 Source	1	1	0	16
3.12.2.5	SP 1 Minimum	0	0 %	-200	200
3.12.2.6	SP 1 Maximum	100	100 %	-200	200
3.12.2.7	SP 1 Sleep Freq	0	0 Hz	0	320
3.12.2.8	SP 1 Sleep Delay	0	0 s	0	3000
3.12.2.9	SP 1 WakeUpLevel	0	0 %	-214748	214748
3.12.2.10	SP 1 Boost	1	1 x	-2	2
3.12.2.11	SP 2 Source	2	2	0	16
3.12.2.12	SP 2 Minimum	0	0 %	-200	200
3.12.2.13	SP 2 Maximum	100	100 %	-200	200
3.12.2.14	SP 2 Sleep Freq	0	0 Hz	0	320

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3.12.2.15	SP 2 Sleep Delay	0	0	s	0	3000
3.12.2.16	SP 2 WakeUpLevel	0	0	%	-214748	214748
3.12.2.17	SP 2 Boost	1	1	x	-2	2
3.12.3.1	Function	1	1		1	9
3.12.3.2	Gain	100	100	%	-1000	1000
3.12.3.3	FB 1 Source	1	1		0	14
3.12.3.4	FB 1 Minimum	0	0	%	-200	200
3.12.3.5	FB 1 Maximum	100	100	%	-200	200
3.12.3.6	FB 2 Source	0	0		0	14
3.12.3.7	FB 2 Minimum	0	0	%	-200	200
3.12.3.8	FB 2 Maximum	100	100	%	-200	200
3.12.4.1	Function	1	1		1	9
3.12.4.2	Gain	100	100	%	-1000	1000
3.12.4.3	FF 1 Source	0	0		0	14
3.12.4.4	FF 1 Minimum	0	0	%	-200	200
3.12.4.5	FF 1 Maximum	100	100	%	-200	200
3.12.4.6	FF 2 Source	0	0		0	14
3.12.4.7	FF 2 Minimum	0	0	%	-200	200
3.12.4.8	FF 2 Maximum	100	100	%	-200	200
3.12.5.1	Enable SoftFill	0	0		0	1
3.12.5.2	SoftFill Freq	0	0	Hz	0	50
3.12.5.3	SoftFill Level	0	0	%	-214748	214748
3.12.5.4	SoftFill Timeout	0	0	s	0	30000
3.12.6.1	Enable Superv	0	0		0	1
3.12.6.2	Upper Limit	0	0	%	-214748	214748
3.12.6.3	Lower Limit	0	0	%	-214748	214748
3.12.6.4	Delay	0	0	s	0	30000
3.12.7.1	Enable SP 1	0	0		0	1
3.12.7.2	SP 1 Max Comp.	0	0	%	-214748	214748
3.12.7.3	Enable SP 2	0	0		0	1
3.12.7.4	SP 2 Max Comp.	0	0	%	-214748	214748
3.13.1.1	Enable PID	0	0		0	1
3.13.1.2	Gain	50	50	%	0	200
3.13.1.3	Integration Time	10	10	s	0	600
3.13.1.4	Derivation Time	0	0	s	0	100
3.13.1.5	ProcessUnitSel.	1	1		1	40
3.13.1.6	ProcessUnitMin	0	0	%	-100000	100000
3.13.1.7	ProcessUnitMax	100	100	%	-100000	100000
3.13.1.8	ProcessUnitDeci.	2	2		0	4
3.13.1.9	Error Inversion	0	0		0	1
3.13.1.10	Dead Band	0	0	%	0	100000
3.13.1.11	Dead Band Delay	0	0	s	0	320
3.13.2.1	Keypad SP 1	0	0	%	0	100
3.13.2.2	Keypad SP 2	0	0	%	0	100
3.13.2.3	Ramp Time	0	0	s	0	300

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3.13.2.4	SP 1 Source	1	1	0	16
3.13.2.5	SP 1 Minimum	0	0 %	-200	200
3.13.2.6	SP 1 Maximum	100	100 %	-200	200
3.13.2.7	SP 2 Source	0	0	0	16
3.13.2.8	SP 2 Minimum	0	0 %	-200	200
3.13.2.9	SP 2 Maximum	100	100 %	-200	200
3.13.3.1	Function	1	1	1	9
3.13.3.2	Gain	100	100 %	-1000	1000
3.13.3.3	FB 1 Source	1	1	0	14
3.13.3.4	FB 1 Minimum	0	0 %	-200	200
3.13.3.5	FB 1 Maximum	100	100 %	-200	200
3.13.3.6	FB 2 Source	2	2	0	14
3.13.3.7	FB 2 Minimum	0	0 %	-200	200
3.13.3.8	FB 2 Maximum	100	100 %	-200	200
3.13.4.1	Enable Superv	0	0	0	1
3.13.4.2	Upper Limit	0	0 %	-214748	214748
3.13.4.3	Lower Limit	0	0 %	-214748	214748
3.13.4.4	Delay	0	0 s	0	30000
4.4.1	Energy counter(+)	0	0 kWh	0	0
4.4.2	Energy counter(-)	0	0 kWh	0	0
4.4.3	Operating time	0a 0d 00:10	0a 0d 00:10	0	0
5.4.2	Time	0	0	0	0
5.4.3	Day	0	0	0	0
5.4.4	Year	0	0	0	0
5.4.5	Day light saving	1	1	1	4
5.8.1.1		1	1	0	12
5.8.3.1					
5.8.3.1.1	Max msg. size	512	512	1	512
5.8.3.1.2	Max block size	64	64	1	512
5.8.3.1.3	Resend timeout	200	200 ms	0	10000
5.8.3.1.4	Nr. of resends	0	0	0	20
5.8.3.1.5	2bit counter	1	1	0	1
5.8.3.1.6	Autobauding	1	1	0	1
5.9.1.1	IP Address Mode	0	0	0	2
5.9.1.2	IP Address	0.0.0.0	0.0.0.0	0	255
5.9.1.3	Subnet Mask	0.0.0.0	0.0.0.0	0	255
5.9.1.4	Default Gateway	0.0.0.0	0.0.0.0	0	255
6.1		100	100	100	1000
6.2		0	0	0	4
6.4					
6.4.1	Restore Factory Defau	0	0	0	1