

Nv-5 Register Map Ver 1.00

1 reg = 2bytes (16bit)
short int = 16 bit
int = 32 bit
long int = 64 bit
neg P = export
neg Q = capacitive

Instantaneous Parameter								
Reg Addr (Hex)	Register	(R/W)	Unit	Multiplier	Format	Comment	Reg Byte Count	Reg Addr (Dec)
0000	Reserved				unsigned short int		2	0
0001	Voltage	R	V	0.1	unsigned short int		2	1
0002	Ampere	R	A	0.01	unsigned short int		2	2
0003	Frequency	R	Hz	0.01	unsigned short int		2	3
0004	Thd-V	R	%	0.1	unsigned short int		2	4
0005	Thd-I	R	%	0.1	unsigned short int		2	5
0006	Cos	R		0.01	short int	neg => capacitive	2	6
0007	PF	R		0.01	short int		2	7
0008	Active Power	R	W	0.1	short int	neg => export	2	8
0009	Reactive Power	R	VAr	0.1	short int	neg => capacitive	2	9
Total Registers = 10								

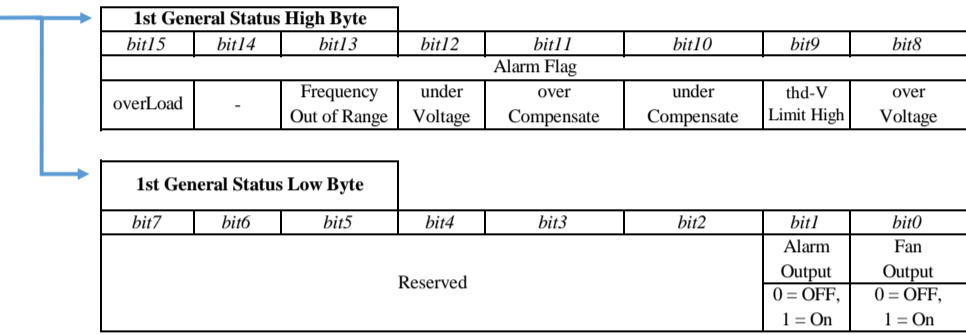
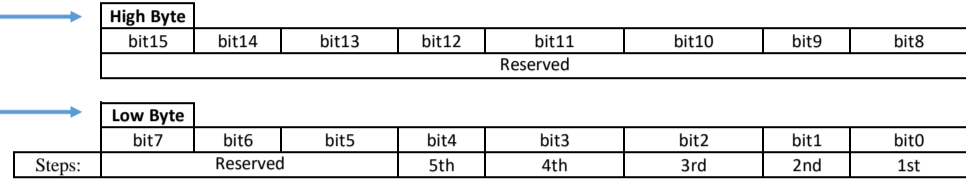
Cap Bank Status								
Reg Addr (Hex)	Register	(R/W)	Unit	Multiplier	Format	Comment	Reg Byte Count	Reg Addr (Dec)
000A	cap in use status	R		1	unsigned short int		2	10
000B	faulty cap status	R		1	unsigned short int		2	11
000C	cap operated more than 35k hrs status	R		1	unsigned short int		2	12
000D	1st general status	R		1	unsigned short int		2	13
000E	2nd general status	R		1	unsigned short int	Reserved	2	14
000F	3rd general status	R		1	unsigned short int		2	15
Total Registers = 6								

Voltage Harmonic Spectrum Parameter								
Reg Addr (Hex)	Register	(R/W)	Unit	Multiplier	Format	Comment	Reg Byte Count	Reg Addr (Dec)
0010	Reserved	R			unsigned short int		2	16
0011	V Spectrum H-order 1	R	V		unsigned short int		2	17
0012	V Spectrum H-order 2	R	V		unsigned short int		2	18
0013	V Spectrum H-order 3	R	V		unsigned short int		2	19
0014	V Spectrum H-order 4	R	V		unsigned short int		2	20
0015	V Spectrum H-order 5	R	V		unsigned short int		2	21
0016	V Spectrum H-order 6	R	V		unsigned short int		2	22
0017	V Spectrum H-order 7	R	V		unsigned short int		2	23
0018	V Spectrum H-order 8	R	V	0.1	unsigned short int		2	24
0019	V Spectrum H-order 9	R	V		unsigned short int		2	25
001A	V Spectrum H-order 10	R	V		unsigned short int		2	26
001B	V Spectrum H-order 11	R	V		unsigned short int		2	27
001C	V Spectrum H-order 12	R	V		unsigned short int		2	28
001D	V Spectrum H-order 13	R	V		unsigned short int		2	29
001E	V Spectrum H-order 14	R	V		unsigned short int		2	30
001F	V Spectrum H-order 15	R	V		unsigned short int		2	31
Total Registers = 16								

Ampere Harmonic Spectrum Parameter (Secondary Value)								
Reg Addr (Hex)	Register	(R/W)	Unit	Multiplier	Format	Comment	Reg Byte Count	Reg Addr (Dec)
0020	Reserved	R			unsigned short int		2	32
0021	I Spectrum H-order 1	R	A		unsigned short int		2	33
0022	I Spectrum H-order 2	R	A		unsigned short int		2	34
0023	I Spectrum H-order 3	R	A		unsigned short int		2	35
0024	I Spectrum H-order 4	R	A		unsigned short int		2	36
0025	I Spectrum H-order 5	R	A		unsigned short int		2	37
0026	I Spectrum H-order 6	R	A		unsigned short int		2	38
0027	I Spectrum H-order 7	R	A		unsigned short int		2	39
0028	I Spectrum H-order 8	R	A	0.01	unsigned short int		2	40
0029	I Spectrum H-order 9	R	A		unsigned short int		2	41
002A	I Spectrum H-order 10	R	A		unsigned short int		2	42
002B	I Spectrum H-order 11	R	A		unsigned short int		2	43
002C	I Spectrum H-order 12	R	A		unsigned short int		2	44
002D	I Spectrum H-order 13	R	A		unsigned short int		2	45
002E	I Spectrum H-order 14	R	A		unsigned short int		2	46
002F	I Spectrum H-order 15	R	A		unsigned short int		2	47
Total Registers = 16								

Cap Bank Utilization Hours								
Reg Addr (Hex)	Register	(R/W)	Unit	Multiplier	Format	Comment	Reg Byte Count	Reg Addr (Dec)
0030	k1 cap hours	R/W	sec	8	unsigned short int		4	48
0032	k2 cap hours	R/W	sec		unsigned short int		4	50
0034	k3 cap hours	R/W	sec		unsigned short int		4	52
0036	k4 cap hours	R/W	sec		unsigned short int		4	54
0038	k5 cap hours	R/W	sec		unsigned short int		4	56
003A	Reserved	R/W			unsigned short int		4	58
003C		R/W			unsigned short int		4	60
003E		R/W			unsigned short int		4	62
0040		R/W			unsigned short int		4	64
0042		R/W			unsigned short int		4	66
0044		R/W			unsigned short int		4	68
0046		R/W			unsigned short int		4	70
0048		R/W			unsigned short int		4	72
004A		R/W			unsigned short int		4	74
Total Registers = 28								

Cap Bank Switching Count								
Reg Addr (Hex)	Register	(R/W)	Unit	Multiplier	Format	Comment	Reg Byte Count	Reg Addr (Dec)
004C	k1 cap switched count	R/W			unsigned short int		2	76
004D	k2 cap switched count	R/W			unsigned short int		2	77
004E	k3 cap switched count	R/W			unsigned short int		2	78
004F	k4 cap switched count	R/W			unsigned short int		2	79
0050	k5 cap switched count	R/W			unsigned short int		2	80
0051	Reserved	R/W			unsigned short int		2	81
0052		R/W			unsigned short int		2	82
0053		R/W			unsigned short int		2	83
0054		R/W			unsigned short int		2	84
0055		R/W			unsigned short int		2	85
0056		R/W			unsigned short int		2	86
0057		R/W			unsigned short int		2	87
0058		R/W			unsigned short int		2	88
0059		R/W			unsigned short int		2	89
Total Registers = 14								



Cap Bank 1ph Secondary Value								
Reg Addr (Hex)	Register	(R/W)	Unit	Multiplier	Format	Comment	Reg Byte Count	Reg Addr (Dec)
005A	k1 cap secondary Var	R	VAr	0.1	unsigned short int		2	90
005B	k2 cap secondary Var	R	VAr		unsigned short int		2	91
005C	k3 cap secondary Var	R	VAr		unsigned short int		2	92
005D	k4 cap secondary Var	R	VAr		unsigned short int		2	93
005E	k5 cap secondary Var	R	VAr		unsigned short int		2	94
005F	Reserved	R	-		unsigned short int		2	95
0060		unsigned short int			2		96	
0061		unsigned short int			2		97	
0062		unsigned short int			2		98	
0063		unsigned short int			2		99	
0064		unsigned short int			2		100	
0065		unsigned short int			2		101	
0066		unsigned short int			2		102	
0067		unsigned short int			2		103	
Total Registers = 14								

Cap Bank C/K ratio								
Reg Addr (Hex)	Register	(R/W)	Unit	Multiplier	Format	Comment	Reg Byte Count	Reg Addr (Dec)
0068	k1 cap c/k ratio	R		0.1	unsigned short int		2	104
0069	k2 cap c/k ratio	R			unsigned short int		2	105
006A	k3 cap c/k ratio	R			unsigned short int		2	106
006B	k4 cap c/k ratio	R			unsigned short int		2	107
006C	k5 cap c/k ratio	R			unsigned short int		2	108
006D	Reserved	R	-		unsigned short int		2	109
006E		unsigned short int			2		110	
006F		unsigned short int			2		111	
0070		unsigned short int			2		112	
0071		unsigned short int			2		113	
0072		unsigned short int			2		114	
0073		unsigned short int			2		115	
0074		unsigned short int			2		116	
0075		unsigned short int			2		117	
Total Registers = 14								

Setting Parameter								
Reg Addr (Hex)	Register	(R/W)	Unit	Multiplier	Format	Data Value	Reg Byte Count	Reg Addr (Dec)
0F00	model	R	-	-	unsigned short int	fixed 0x2105	2	3840
0F01	firmware Ver, Map Ver	R	-	0.01	unsigned short int	100, 100	2	3841
0F02	C/K	R	-	0.01	unsigned short int	Auto = 0 or 1 ~ 80	2	3842
0F03	target cos	R	-	0.01	short int	85 ~ 99 ind, 100, 99 ~ 90 cap (neg)	2	3843
0F04	no.connected.steps	R	-	1	unsigned short int	1 ~ 5	2	3844
0F05	switching program	R	-	1	unsigned short int	Auto = 0, P-0 = 1, P-1 = 2, ... , P-7 = 8	2	3845
0F06	switching on time	R	sec	1	unsigned short int	1 ~ 250	2	3846
0F07	switching off time	R	sec	1	unsigned short int	1 ~ 250	2	3847
0F08	reconnection time	R	sec	5	unsigned short int	OFF = 0 or 1 ~ 180	2	3848
0F09	over voltage setting	R	V	1	unsigned short int	OFF = 0 or 200 ~ 260	2	3849
0F0A	thd-V setting	R	%	1	unsigned short int	OFF = 0 or 3 ~ 10	2	3850
0F0B	operation hour	R	min	1	unsigned int		4	3851
0F0D	1st general setting	R	-	1	unsigned short int		2	3853
0F0E	2nd general setting	R	-	1	unsigned short int		2	3854
Total Registers = 15								

2nd General Setting High Byte							
bit15	bit14	bit13	bit12	bit11	bit10	bit9	bit8
Empty							

2nd General Setting Low Byte							
bit7	bit6	bit5	bit4	bit3	bit2	bit1	bit0
Empty		Baud Rate		Parity		Plug-in Module	
		000 = 300, 001 = 600 010 = 1200, 011 = 2400 100 = 4800, 101 = 9600 110 = 19200, 111 = 28800		00 = none, 01 = odd, 10 = even		00 = none, 01 = A-01s	

1st General Setting High Byte							
bit15	bit14	bit13	bit12	bit11	bit10	bit9	bit8
Empty			Fan Duty	Network Type	Static Duty Interval		
			0 = Auto, 1 = Follow Steps	0 = P-n, 1 = P-P	000 = OFF, 001 = 10 mins, 010 = 15mins 011 = 20mins, 100 = 30mins 101 = 60mins, 110 = 90mins, 111 = 120mins		

1st General Setting Low Byte							
bit7	bit6	bit5	bit4	bit3	bit2	bit1	bit0
Keypad Lock		Output Selection	C.T. Polarity Selection	Frequency Selection		Cap Bank Protection	
0 = OFF, 1 = On		0 = Fan, 1 = Alarm	00 = Auto, 01 = Forward, 10 = Reverse	00 = Auto, 01 = 50Hz, 10 = 60Hz		00 = OFF, 01 = overVoltage, 10 = thd-V, 11 = ALL	

Voltage Waveform								
Reg Addr (Hex)	Register	(R/W)	Unit	Multiplier	Format	Data Value	Reg Byte Count	Reg Addr (Dec)
0100	V data pt <1:0>	R	-	1	short int		2	256
...	... (up to)	R	-	1	short int	
011F	V data pt <64:63>	R	-	1	short int		2	287
Total Registers = 32								

Ampere Waveform								
Reg Addr (Hex)	Register	(R/W)	Unit	Multiplier	Format	Data Value	Reg Byte Count	Reg Addr (Dec)
0200	I data pt <1:0>	R	-	1	short int		2	512
...	... (up to)	R	-	1	short int	
021F	I data pt <64:63>	R	-	1	short int		2	543
Total Registers = 32								

