Manufacture Declaration for Technical regulation 3.2.1

Under/over frequency (Denmark)

	Under frequency		Over frequency	
Parameter	Frequency	Time	Frequency	Time
Protection limit	47Hz	0.2s	52Hz	0.2s
Actual Setting	47Hz	0.2s	52Hz	0.2s
Trip value (test result)	47.00Hz	0.165s	52.01 Hz	0.173s
ROCOF				
Trip value (limit)	±2.5Hz/s		Trip Time (limit)	0.08s
Frequency	Time		Frequency	Time
48→50.5Hz within 1s	0.058s		50→47.5Hz within 1s	0.046s

Under voltage (Denmark)

	Under Voltage			
Parameter	Voltage	Time	Voltage	Time
Protection limit	0.85Un	50s(10s~60s)	0.80Un	0.1s(0.1s)
Actual Setting	195.5V	50s(10s~60s)	184.0V	0.1s(0.1s)
Trip value(test result)	195.5V	50s(10s~60s)	184.0V	0.1s(0.1s)
L1	195.5V	52.2s	184.0V	0.057s
L2	195.4V	50.8s	184.1V	0.0705s
L3	195.2V	50.6s	184.0V	0.0665s
ALL	195.3V	50.6s	184.0V	0.0605s

Over voltage (Denmark)

	Over Voltage			
Parameter	Voltage	Time	Voltage	Time
Protection limit	1.15Un	0.2s	1.1Un	60s
Actual Setting	264.5V	0.2s	253.0V	60s
Trip value(test result)	264.5V	0.2s	253.0V	60s
L1	264.5V	0.176s	253.4V	55.4s
L2	264.5V	0.166s	253.5V	55.6s
L3	264.5V	0.164s	253.4V	55.6s
ALL	264.5V	0.154s	253.4V	55.2s

Power response to over-frequency

Test sequence at power level>80%	Output Power(W)	Frequency(Hz)	Primary Power source	Power gradient
Step a)	10013	50.000	DC source	50%Pm/Hz
Step b)	9809	50.250	DC source	50%Pm/Hz
Step c)	7607	50.700	DC source	50%Pm/Hz
Step d)	5245	51.150	DC source	50%Pm/Hz
Step e)	7565	50.700	DC source	50%Pm/Hz
Step f)	9728	50.250	DC source	50%Pm/Hz
Step g)	10000	50.000	DC source	50%Pm/Hz
Limitation ΔP/ P_{Emax}		± 10%		
Step h) 52.500HZ	Disconnection			
Step i) 50.000HZ	Maximal Rising Gradient [W/s]: _892.9__, Limitation [W/s]: __1000___			

Test sequence at power level 40%-60%	Output Power(W)	Frequency(Hz)	Primary Power source	Power gradient
Step a)	4998	50.000	DC source	50%Pm/Hz
Step b)	4897	50.250	DC source	50%Pm/Hz
Step c)	3793	50.700	DC source	50%Pm/Hz
Step d)	2703	51.150	DC source	50%Pm/Hz
Step e)	3752	50.700	DC source	50%Pm/Hz
Step f)	4795	50.250	DC source	50%Pm/Hz
Step g)	4996	50.000	DC source	50%Pm/Hz

Q control

The original factory settings is usually the “OFF” status,as the figure1 shows .	 figure1
If you want to change the Mode,please handle it as follows:	

Step1: press “enter” button until the “OFF”begins to flash

Step 2:then press “down”button , as the figure shows above, press enter button to enable the selection, as the figure shows below:

Step 3: press “down” button as the figure shows above

Step 4: press “enter” button until the “xxxxVar”begins to flash，and thenyou can change the value from “-5000” to “5000”，at last you need to press “enter” button to enable this setting.

Connection after trip of interface protection

step	Setting connection time	Actual connection time (Please refer to the picture from oscilloscope)
Step a)	180s	214s