

Set the Q-U Characteristic Curve on Smartlogger1000&2000



Huawei Technologies Co. Ltd.

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If you do not need the SmartLogger to send remote reactive power control commands, you can configure the characteristic curve on the SmartLogger as a substitute. The SmartLogger delivers the values configured for the characteristic curve to the inverter, which then operates in compliance with the configuration. The SmartLogger no longer adjusts the values.

The Q-U characteristic curve control mode is to dynamically adjust the ratio Q/S of output reactive power to apparent power in accordance with the ratio U/Un(%) of the actual grid voltage to the rated grid voltage.

Procedure

1. Set your computer local area connection with an IP in the same range with the Smartlogger

Go to Windows start->Control Panel->Network and Internet->Network and Sharing Center->Change adapter settings->Double click on Local Area Connection->Double click on Internet Protocol Version 4 and set the IP like below:

Diagnose this connection Rename this connection Change settings of this connection							
Array Networks VPN Adapter Disabled Array Networks VPN Adapter Array Networks VPN Adapter							
 ↓ Local Area Connection Properties ▶ Networking Authentication Sharing Connect using: Participation Participation Intel(R) Ethernet Connection 1219-LM Configure This connection uses the following items: Cient for Microsoft Networks Cient for Microsoft Networks Cost Cient Scheduler Cost C	Internet Protocol Version 4 (TCP/IPv4) Properties General You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings. Obtain an IP address IP address: IP address IP address <tr< td=""></tr<>						
Transmission Control Protocol/Internet Protocol. The default wide area network protocol that provides communication across diverse interconnected networks.	Validate settings upon exit Advanced OK Cancel						



2. Login on Smartlogger as special user

Connect with a LAN cable the Ethernet ports of the Smartlogger and PC. Open a browser (Chrome 50 or IE11) and type the next link: <u>https://192.168.0.10</u>

Chose a user name "Special user" and type in the password. The default password for all users is "**Changeme**".

HUAWEI			SmartLogger200
		Enspire	
	Language	English 🔻	
	User Name	Special User	
	Password	D Changeme	
		Log In Reset	
	T-T-		

3. Set Reactive power control mode to Q-U characteristic curve.

After you login choose Settings menu \rightarrow Reactive power control \rightarrow Enable reactive power control \rightarrow choose from Reactive power control mode Q-U characteristic curve





4. Set the Q-U Characteristic curve

-Set Reactive power adjustment time accordingly with the grid operator recommendation-this time is the delay after the inverter will start to produce reactive energy

- Under a specific grid code, after you set **Percents of trigger frequency**, the characteristic curve takes effect only when the actual output active power of the inverter is greater than preset value (Italian grid specific requirement).

-Set the Characteristic curve point to 2, you can add a maximum of 10 valid points between the interval 98 and 106 like it is in the below example.

- Set the U/Un for each point. U it is the real voltage value measure by the inverter and Un is the nominal value accordingly with the grid voltage range. The U/Un value for the point A and B it is set accordingly with the value recommended by the grid operator.

-Set the Q/S for the point A and B. The values is also recommended by the grid operator.



Enspire	Over View Monitor	ing Ouery Settings M	aintenance						
• R5485	Reactive Power Control								
 Power Meter 		Reactive power control Reactive power control mode	Enable O-U characteristic cur	ve T					
 Modbus TCP 		Reactive power adjustment time	10	(5~120) s					
Active Power Control		Percents of trigger frequency	20	(10 - 100) %					
Reactive Power Control		Characteristic curve points	2	•					
Remote Off by Dry Con DI Export Limitation		0,6- 0,4- 0,2- 0,0- -0,2- -0,4- -0,6-	0 95.0 100 101	5.0 110.0 115.0 ►U/Un(%)					
	Point U/Un(%)	•		Q/S					
	A 98.0	(80.0115.0)		0.310 (0.	600-0.600)				
	B 106.0	(80.0~115.0)		0.310 (-0.	600~0.600)				
			Submit						
I time 2018-08-22 09:30	Grid dispatch P : 100.0% Q : Disal	hle		🇤 Copyright 🗅 Huawei Technologie	es Co., Ltd. 2018. All rights reserved.				

After you set all the above value submit and monitories the inverters to see that the rule works accordingly with your settings.

Configure the characteristic curve under instructions from professionals to ensure that the SUN2000 works properly.