

**ANNEX 1 TO CERTIFICATE 21614-1-CER  
REQUIREMENTS FOR UNIT CERTIFICATE  
VDE-AR-N 4105**





## INDEX

1	UNIT CERTIFICATE ACCORDING TO CLAUSE E.4 VDE-AR-N 4105 .....	3
2	TEST REPORT EXTRACT .....	4
3	PARAMETER LIST .....	11



## 1 UNIT CERTIFICATE ACCORDING TO CLAUSE E.4 VDE-AR-N 4105

<b>UNIT CERTIFICATE</b>		No. 21614-1-CER Copy No. 1
Manufacturer	Hitachi Energy Belgium N.V Allée Centrale, 10 – Z.I. Jumet B-6040 Charleroi, Belgium	
Power generating unit type	PQstorl – M PQstorl – WM PQstorl - C	
<input type="checkbox"/> Inverter	<input type="checkbox"/> Asynchronous generator	<input type="checkbox"/> Synchronous generator
<input type="checkbox"/> Stirling generator	<input type="checkbox"/> Fuel cell	<input checked="" type="checkbox"/> Other: Battery Energy Storage Inverter
Assessment values	Max. active power $P_E$ max	30 kW
	Max. apparent power $S_E$ max	30 kVA
	Rated voltage	480 V
Rated values	Rated current (AC) $I_r$	43 A
Rated values	Initial short circuit AC current	50 kA
Network connection rule	<b>VDE-AR-N 4105: 'Generators connected to the low-voltage distribution network'</b> Technical minimum requirements for connection and parallel operation of power generation systems connected to the low-voltage network	
Test requirement	<b>DIN VDE 0124-100 (VDE V 0124-100) 'Network integration of power generation systems – Low voltage'</b> Test requirements for power generation units intended for connection to and parallel operation on the low-voltage network	
Test report	21614-1-TR from (22.11.2022)	
The above designated power generation units meet the requirements of VDE-AR-N 4105		
<p>Madrid, 02.12.2022</p> <p>Miguel Martínez, Certification Director</p> <p>This certificate shall not be used in extracts</p> <p>Certification Entity for Renewable Energies, S.L. c/ Monturiol 15 . 28906. Getafe. Madrid. Spain.</p>		

## 2 TEST REPORT EXTRACT

### Network interaction for power generation units with an input current >75 A according Clause E.5 VDE-AR-N 4105

<b>Extract of the test report for power generation units 'Determination of electrical properties' 21614-1-TR</b>				No. 21614-1-CER Copy No. 1							
Manufacturer		Hitachi Energy Belgium N.V Allée Centrale, 10 – Z.I. Jumet B-6040 Charleroi, Belgium									
Manufacturer indications		System type			Three-Phase Storage Converter (3P3W)						
		Designation			PQstorl – M						
		Max. active power $P_E$ max			30kW						
		Rated voltage			400V (line)						
Measurement period		29/09/2022-21/10/2022									
Rapid voltage changes											
Connection without provisions (regarding the primary energycarrier)				$k_i = 0,10$							
Most adverse case when switching between generator levels				Not applicable							
Connection at nominal conditions (of the primary energycarrier)				$k_i = 1,02$							
Disconnection at rated power				$k_i = 1,01$							
Worst value of all switching operations				$k_{imax} = 1,02$							
Flicker		Network impedance angle $\psi_k$		30°		50°		70°		85°	
		Initial flicker factor $c_{\psi}$		9,67		11,34		11,74		12,28	
<b>Harmonics Inverter Mode</b>											
Active power P/P <sub>n</sub> [%]		10	20	30	40	50	60	70	80	90	100
Ordinal number		I [%]	I [%]	I [%]	I [%]	I [%]	I [%]	I [%]	I [%]	I [%]	I [%]
2		0,30%	0,18%	0,23%	0,28%	0,41%	0,38%	0,44%	0,40%	0,52%	0,57%
3		0,26%	0,28%	0,31%	0,35%	0,35%	0,36%	0,35%	0,35%	0,34%	0,35%
4		0,15%	0,09%	0,15%	0,21%	0,27%	0,37%	0,36%	0,53%	0,56%	0,55%
5		0,18%	0,19%	0,28%	0,31%	0,28%	0,25%	0,21%	0,19%	0,19%	0,20%
6		0,26%	0,12%	0,17%	0,16%	0,18%	0,18%	0,21%	0,24%	0,22%	0,24%
7		0,19%	0,19%	0,21%	0,26%	0,27%	0,27%	0,27%	0,28%	0,30%	0,33%
8		0,30%	0,37%	0,31%	0,13%	0,16%	0,17%	0,18%	0,26%	0,21%	0,24%
9		0,17%	0,21%	0,19%	0,22%	0,26%	0,27%	0,29%	0,26%	0,25%	0,33%
10		0,12%	0,13%	0,09%	0,15%	0,19%	0,23%	0,19%	0,31%	0,32%	0,28%
11		0,13%	0,13%	0,15%	0,18%	0,18%	0,19%	0,21%	0,20%	0,19%	0,19%
12		0,18%	0,15%	0,12%	0,18%	0,12%	0,11%	0,12%	0,14%	0,13%	0,08%
13		0,17%	0,17%	0,18%	0,21%	0,24%	0,23%	0,18%	0,16%	0,15%	0,18%
14		0,45%	0,25%	0,36%	0,36%	0,12%	0,20%	0,19%	0,29%	0,34%	0,26%
15		0,24%	0,04%	0,18%	0,11%	0,22%	0,22%	0,15%	0,13%	0,19%	0,27%

16	0,26%	0,17%	0,17%	0,24%	0,19%	0,22%	0,22%	0,19%	0,25%	0,25%
17	0,07%	0,08%	0,14%	0,07%	0,10%	0,16%	0,16%	0,13%	0,11%	0,12%
18	0,12%	0,04%	0,08%	0,10%	0,09%	0,07%	0,14%	0,14%	0,09%	0,14%
19	0,11%	0,10%	0,11%	0,09%	0,10%	0,12%	0,12%	0,09%	0,06%	0,07%
20	0,10%	0,10%	0,09%	0,12%	0,16%	0,11%	0,15%	0,15%	0,19%	0,24%
21	0,06%	0,07%	0,08%	0,06%	0,08%	0,08%	0,05%	0,06%	0,06%	0,08%
22	0,05%	0,05%	0,06%	0,07%	0,04%	0,05%	0,08%	0,09%	0,08%	0,08%
23	0,06%	0,06%	0,06%	0,09%	0,06%	0,05%	0,07%	0,08%	0,06%	0,06%
24	0,02%	0,04%	0,04%	0,03%	0,05%	0,05%	0,06%	0,04%	0,04%	0,04%
25	0,36%	0,36%	0,56%	0,46%	0,58%	0,06%	0,14%	0,37%	0,28%	0,23%
26	0,04%	0,03%	0,03%	0,06%	0,03%	0,04%	0,09%	0,11%	0,06%	0,04%
27	0,03%	0,03%	0,03%	0,04%	0,03%	0,03%	0,05%	0,05%	0,03%	0,06%
28	0,03%	0,03%	0,03%	0,04%	0,03%	0,04%	0,07%	0,06%	0,07%	0,06%
29	0,30%	0,29%	0,19%	0,17%	0,41%	0,39%	0,13%	0,13%	0,22%	0,19%
30	0,02%	0,02%	0,02%	0,02%	0,03%	0,02%	0,03%	0,04%	0,04%	0,03%
31	0,25%	0,25%	0,14%	0,23%	0,16%	0,41%	0,17%	0,06%	0,18%	0,20%
32	0,04%	0,02%	0,03%	0,03%	0,02%	0,04%	0,03%	0,06%	0,06%	0,03%
33	0,02%	0,02%	0,03%	0,02%	0,03%	0,03%	0,04%	0,05%	0,03%	0,03%
34	0,03%	0,03%	0,03%	0,03%	0,02%	0,03%	0,04%	0,06%	0,05%	0,03%
35	0,21%	0,20%	0,31%	0,28%	0,08%	0,18%	0,20%	0,10%	0,10%	0,12%
36	0,02%	0,02%	0,02%	0,02%	0,02%	0,03%	0,03%	0,03%	0,04%	0,02%
37	0,18%	0,18%	0,15%	0,19%	0,20%	0,12%	0,20%	0,15%	0,11%	0,12%
38	0,03%	0,02%	0,02%	0,03%	0,02%	0,03%	0,06%	0,06%	0,05%	0,03%
39	0,02%	0,02%	0,02%	0,03%	0,02%	0,03%	0,03%	0,04%	0,03%	0,03%
40	0,02%	0,02%	0,02%	0,03%	0,02%	0,02%	0,06%	0,05%	0,04%	0,03%

#### Inter-harmonics Inverter Mode

Active power P/P <sub>n</sub> [%]	10	20	30	40	50	60	70	80	90	100
Frequency [Hz]	I [%]	I [%]	I [%]	I [%]	I [%]	I [%]	I [%]	I [%]	I [%]	I [%]
75	0,36%	0,27%	0,32%	0,38%	0,45%	0,49%	0,57%	0,69%	0,81%	0,93%
125	0,30%	0,28%	0,35%	0,39%	0,48%	0,43%	0,49%	0,56%	0,67%	0,79%
175	0,24%	0,22%	0,25%	0,28%	0,36%	0,33%	0,38%	0,45%	0,52%	0,58%
225	0,17%	0,14%	0,21%	0,18%	0,25%	0,27%	0,31%	0,39%	0,44%	0,50%
275	0,12%	0,11%	0,18%	0,24%	0,24%	0,21%	0,21%	0,32%	0,50%	0,64%
325	0,12%	0,12%	0,14%	0,15%	0,19%	0,23%	0,29%	0,31%	0,30%	0,33%
375	0,10%	0,12%	0,27%	0,24%	0,19%	0,23%	0,31%	0,34%	0,27%	0,33%
425	0,14%	0,14%	0,14%	0,18%	0,18%	0,19%	0,17%	0,17%	0,19%	0,17%
475	0,08%	0,08%	0,09%	0,15%	0,14%	0,14%	0,14%	0,15%	0,20%	0,14%
525	0,07%	0,08%	0,10%	0,11%	0,12%	0,15%	0,15%	0,12%	0,12%	0,13%
575	0,07%	0,07%	0,07%	0,12%	0,13%	0,15%	0,13%	0,14%	0,16%	0,14%
625	0,06%	0,07%	0,07%	0,12%	0,10%	0,15%	0,15%	0,13%	0,15%	0,15%
675	0,06%	0,06%	0,06%	0,09%	0,10%	0,15%	0,15%	0,15%	0,20%	0,17%
725	0,05%	0,05%	0,07%	0,06%	0,05%	0,08%	0,10%	0,09%	0,10%	0,09%
775	0,05%	0,05%	0,06%	0,06%	0,05%	0,06%	0,08%	0,08%	0,10%	0,09%
825	0,05%	0,05%	0,06%	0,05%	0,07%	0,09%	0,10%	0,12%	0,19%	0,19%
875	0,04%	0,04%	0,06%	0,05%	0,05%	0,06%	0,08%	0,09%	0,18%	0,18%
925	0,04%	0,04%	0,08%	0,05%	0,06%	0,07%	0,06%	0,08%	0,17%	0,15%
975	0,04%	0,04%	0,05%	0,05%	0,06%	0,06%	0,06%	0,06%	0,14%	0,16%
1025	0,04%	0,04%	0,04%	0,05%	0,04%	0,06%	0,05%	0,06%	0,09%	0,11%
1075	0,04%	0,04%	0,04%	0,05%	0,04%	0,06%	0,06%	0,05%	0,06%	0,07%
1125	0,03%	0,04%	0,05%	0,06%	0,04%	0,07%	0,07%	0,06%	0,08%	0,15%
1175	0,03%	0,05%	0,05%	0,05%	0,05%	0,07%	0,08%	0,06%	0,06%	0,12%
1225	0,03%	0,05%	0,04%	0,05%	0,05%	0,08%	0,09%	0,06%	0,04%	0,10%
1275	0,03%	0,04%	0,05%	0,04%	0,05%	0,06%	0,10%	0,07%	0,05%	0,08%
1325	0,03%	0,04%	0,04%	0,04%	0,04%	0,05%	0,07%	0,05%	0,04%	0,05%
1375	0,03%	0,03%	0,04%	0,04%	0,03%	0,05%	0,07%	0,06%	0,06%	0,04%

1425	0,04%	0,03%	0,03%	0,04%	0,04%	0,05%	0,09%	0,08%	0,09%	0,05%
1475	0,03%	0,02%	0,03%	0,03%	0,04%	0,06%	0,07%	0,08%	0,10%	0,05%
1525	0,03%	0,02%	0,03%	0,03%	0,03%	0,05%	0,06%	0,08%	0,11%	0,04%
1575	0,03%	0,03%	0,03%	0,03%	0,03%	0,05%	0,05%	0,07%	0,11%	0,05%
1625	0,03%	0,03%	0,03%	0,03%	0,03%	0,04%	0,04%	0,05%	0,07%	0,04%
1675	0,03%	0,03%	0,02%	0,03%	0,03%	0,04%	0,04%	0,05%	0,06%	0,04%
1725	0,02%	0,03%	0,03%	0,03%	0,03%	0,04%	0,05%	0,06%	0,12%	0,07%
1775	0,02%	0,03%	0,03%	0,03%	0,03%	0,04%	0,06%	0,05%	0,09%	0,06%
1825	0,02%	0,02%	0,03%	0,03%	0,02%	0,04%	0,07%	0,04%	0,08%	0,06%
1875	0,03%	0,02%	0,03%	0,03%	0,03%	0,03%	0,08%	0,05%	0,07%	0,07%
1925	0,02%	0,02%	0,02%	0,03%	0,02%	0,03%	0,05%	0,03%	0,05%	0,04%
1975	0,02%	0,02%	0,02%	0,03%	0,02%	0,03%	0,05%	0,03%	0,03%	0,04%

### Higher frequencies Inverter Mode

Active power P/P <sub>n</sub> [%]	10	20	30	40	50	60	70	80	90	100
Frequency [kHz]	I [%]	I [%]	I [%]	I [%]	I [%]	I [%]	I [%]	I [%]	I [%]	I [%]
2,1	0,20%	0,19%	0,25%	0,19%	0,26%	0,14%	0,17%	0,23%	0,15%	0,16%
2,3	0,11%	0,11%	0,08%	0,13%	0,10%	0,14%	0,12%	0,13%	0,11%	0,12%
2,5	0,10%	0,10%	0,09%	0,09%	0,09%	0,11%	0,11%	0,11%	0,11%	0,11%
2,7	0,10%	0,10%	0,11%	0,14%	0,14%	0,09%	0,10%	0,12%	0,12%	0,12%
2,9	0,07%	0,07%	0,07%	0,07%	0,06%	0,06%	0,06%	0,08%	0,07%	0,07%
3,1	0,06%	0,06%	0,06%	0,05%	0,07%	0,06%	0,05%	0,07%	0,05%	0,06%
3,3	0,06%	0,06%	0,06%	0,08%	0,07%	0,06%	0,05%	0,06%	0,05%	0,05%
3,5	0,05%	0,05%	0,05%	0,05%	0,05%	0,05%	0,06%	0,06%	0,06%	0,06%
3,7	0,05%	0,05%	0,06%	0,05%	0,06%	0,05%	0,05%	0,05%	0,06%	0,05%
3,9	0,06%	0,05%	0,05%	0,05%	0,06%	0,07%	0,05%	0,06%	0,06%	0,06%
4,1	0,05%	0,04%	0,05%	0,05%	0,04%	0,06%	0,07%	0,07%	0,06%	0,06%
4,3	0,05%	0,04%	0,05%	0,05%	0,05%	0,05%	0,08%	0,09%	0,08%	0,07%
4,5	0,07%	0,05%	0,06%	0,06%	0,07%	0,07%	0,08%	0,09%	0,09%	0,09%
4,7	0,06%	0,05%	0,06%	0,05%	0,07%	0,10%	0,10%	0,09%	0,09%	0,09%
4,9	0,08%	0,07%	0,07%	0,08%	0,09%	0,11%	0,13%	0,13%	0,10%	0,11%
5,1	0,12%	0,11%	0,11%	0,10%	0,12%	0,13%	0,14%	0,15%	0,13%	0,13%
5,3	0,13%	0,11%	0,11%	0,12%	0,14%	0,16%	0,17%	0,15%	0,15%	0,15%
5,5	0,15%	0,13%	0,13%	0,12%	0,15%	0,18%	0,15%	0,14%	0,17%	0,15%
5,7	0,09%	0,09%	0,08%	0,10%	0,14%	0,11%	0,16%	0,11%	0,13%	0,12%
5,9	0,06%	0,06%	0,06%	0,06%	0,08%	0,09%	0,08%	0,08%	0,09%	0,08%
6,1	0,05%	0,05%	0,05%	0,05%	0,05%	0,07%	0,07%	0,06%	0,06%	0,07%
6,3	0,03%	0,03%	0,03%	0,04%	0,05%	0,05%	0,06%	0,04%	0,05%	0,05%
6,5	0,02%	0,02%	0,03%	0,03%	0,04%	0,04%	0,05%	0,04%	0,04%	0,04%
6,7	0,02%	0,02%	0,02%	0,03%	0,03%	0,05%	0,03%	0,04%	0,04%	0,03%
6,9	0,01%	0,02%	0,02%	0,02%	0,02%	0,03%	0,03%	0,03%	0,02%	0,03%
7,1	0,01%	0,01%	0,02%	0,02%	0,02%	0,03%	0,03%	0,03%	0,02%	0,03%
7,3	0,15%	0,14%	0,14%	0,14%	0,14%	0,14%	0,14%	0,14%	0,13%	0,13%
7,5	0,30%	0,31%	0,31%	0,31%	0,31%	0,31%	0,31%	0,31%	0,30%	0,31%
7,7	0,01%	0,01%	0,01%	0,02%	0,01%	0,03%	0,02%	0,02%	0,03%	0,02%
7,9	0,01%	0,01%	0,02%	0,01%	0,02%	0,03%	0,03%	0,03%	0,03%	0,02%
8,1	0,01%	0,01%	0,01%	0,02%	0,02%	0,02%	0,02%	0,02%	0,02%	0,02%
8,3	0,02%	0,01%	0,01%	0,02%	0,02%	0,02%	0,02%	0,03%	0,02%	0,03%
8,5	0,03%	0,03%	0,03%	0,03%	0,03%	0,04%	0,05%	0,05%	0,04%	0,05%
8,7	0,01%	0,01%	0,01%	0,01%	0,01%	0,02%	0,02%	0,02%	0,01%	0,01%
8,9	0,10%	0,10%	0,10%	0,10%	0,10%	0,10%	0,11%	0,11%	0,11%	0,11%

### Harmonics Storage Mode

Active power P/P <sub>n</sub> [%]	10	20	30	40	50	60	70	80	90	100
Ordinal number	I [%]	I [%]	I [%]	I [%]	I [%]	I [%]	I [%]	I [%]	I [%]	I [%]
2	0,30%	0,23%	0,30%	0,33%	0,44%	0,38%	0,40%	0,44%	0,53%	0,46%

3	0,26%	0,29%	0,35%	0,30%	0,31%	0,36%	0,35%	0,36%	0,36%	0,36%
4	0,15%	0,22%	0,31%	0,30%	0,29%	0,26%	0,28%	0,21%	0,23%	0,27%
5	0,18%	0,18%	0,22%	0,17%	0,18%	0,25%	0,29%	0,30%	0,31%	0,32%
6	0,26%	0,15%	0,16%	0,12%	0,13%	0,16%	0,16%	0,21%	0,28%	0,26%
7	0,19%	0,22%	0,30%	0,22%	0,24%	0,26%	0,29%	0,32%	0,33%	0,34%
8	0,30%	0,36%	0,26%	0,20%	0,21%	0,20%	0,18%	0,21%	0,24%	0,27%
9	0,17%	0,22%	0,25%	0,22%	0,19%	0,24%	0,20%	0,11%	0,18%	0,21%
10	0,12%	0,11%	0,14%	0,30%	0,33%	0,28%	0,27%	0,19%	0,26%	0,31%
11	0,13%	0,14%	0,17%	0,18%	0,16%	0,17%	0,20%	0,19%	0,17%	0,16%
12	0,18%	0,10%	0,09%	0,13%	0,12%	0,14%	0,16%	0,09%	0,13%	0,18%
13	0,17%	0,17%	0,21%	0,19%	0,21%	0,21%	0,19%	0,18%	0,18%	0,20%
14	0,45%	0,51%	0,44%	0,15%	0,24%	0,22%	0,26%	0,25%	0,27%	0,24%
15	0,24%	0,15%	0,11%	0,17%	0,16%	0,24%	0,22%	0,23%	0,28%	0,30%
16	0,26%	0,25%	0,17%	0,33%	0,39%	0,38%	0,35%	0,34%	0,40%	0,39%
17	0,07%	0,08%	0,09%	0,09%	0,07%	0,12%	0,10%	0,07%	0,08%	0,08%
18	0,12%	0,12%	0,08%	0,06%	0,12%	0,07%	0,11%	0,11%	0,14%	0,14%
19	0,11%	0,11%	0,11%	0,12%	0,08%	0,13%	0,15%	0,12%	0,09%	0,07%
20	0,10%	0,16%	0,14%	0,15%	0,16%	0,09%	0,13%	0,19%	0,18%	0,15%
21	0,06%	0,07%	0,06%	0,09%	0,08%	0,07%	0,10%	0,08%	0,10%	0,10%
22	0,05%	0,06%	0,13%	0,07%	0,14%	0,17%	0,16%	0,11%	0,13%	0,15%
23	0,06%	0,06%	0,08%	0,07%	0,05%	0,04%	0,08%	0,08%	0,05%	0,03%
24	0,02%	0,03%	0,04%	0,04%	0,03%	0,08%	0,07%	0,06%	0,04%	0,05%
25	0,36%	0,36%	0,50%	0,33%	0,55%	0,24%	0,27%	0,35%	0,37%	0,18%
26	0,04%	0,04%	0,08%	0,04%	0,07%	0,06%	0,03%	0,07%	0,09%	0,07%
27	0,03%	0,03%	0,04%	0,03%	0,04%	0,03%	0,03%	0,03%	0,03%	0,04%
28	0,03%	0,04%	0,03%	0,05%	0,02%	0,05%	0,06%	0,06%	0,03%	0,07%
29	0,30%	0,28%	0,22%	0,24%	0,33%	0,34%	0,20%	0,15%	0,26%	0,18%
30	0,02%	0,02%	0,03%	0,03%	0,02%	0,03%	0,05%	0,04%	0,03%	0,03%
31	0,25%	0,26%	0,28%	0,30%	0,13%	0,31%	0,16%	0,09%	0,20%	0,17%
32	0,04%	0,03%	0,04%	0,03%	0,03%	0,04%	0,02%	0,02%	0,05%	0,05%
33	0,02%	0,03%	0,03%	0,03%	0,02%	0,02%	0,05%	0,03%	0,02%	0,02%
34	0,03%	0,03%	0,04%	0,04%	0,03%	0,03%	0,02%	0,06%	0,02%	0,03%
35	0,21%	0,20%	0,16%	0,19%	0,12%	0,15%	0,13%	0,13%	0,11%	0,15%
36	0,02%	0,02%	0,02%	0,02%	0,02%	0,02%	0,03%	0,03%	0,02%	0,02%
37	0,18%	0,19%	0,14%	0,10%	0,16%	0,09%	0,15%	0,13%	0,08%	0,14%
38	0,03%	0,03%	0,03%	0,03%	0,02%	0,02%	0,03%	0,02%	0,02%	0,04%
39	0,02%	0,02%	0,03%	0,02%	0,02%	0,02%	0,03%	0,02%	0,02%	0,03%
40	0,02%	0,02%	0,03%	0,01%	0,02%	0,02%	0,03%	0,02%	0,02%	0,02%

**Interharmonics Storage Mode**

Active power P/P <sub>n</sub> [%]	10	20	30	40	50	60	70	80	90	100
Frequency [Hz]	I [%]	I [%]	I [%]	I [%]	I [%]	I [%]	I [%]	I [%]	I [%]	I [%]
75	0,36%	0,39%	0,52%	0,69%	0,82%	0,92%	1,04%	1,18%	1,32%	1,46%
125	0,30%	0,30%	0,36%	0,41%	0,51%	0,53%	0,57%	0,66%	0,78%	0,94%
175	0,24%	0,25%	0,26%	0,29%	0,39%	0,42%	0,46%	0,51%	0,62%	0,76%
225	0,17%	0,20%	0,18%	0,18%	0,27%	0,28%	0,32%	0,48%	0,63%	0,75%
275	0,12%	0,15%	0,17%	0,18%	0,29%	0,34%	0,43%	0,60%	0,77%	0,91%
325	0,12%	0,12%	0,16%	0,14%	0,14%	0,17%	0,19%	0,17%	0,31%	0,36%
375	0,10%	0,09%	0,13%	0,27%	0,25%	0,26%	0,26%	0,17%	0,24%	0,34%
425	0,14%	0,13%	0,13%	0,19%	0,19%	0,18%	0,17%	0,17%	0,18%	0,18%
475	0,08%	0,07%	0,08%	0,18%	0,17%	0,14%	0,11%	0,10%	0,08%	0,10%
525	0,07%	0,07%	0,07%	0,17%	0,14%	0,08%	0,14%	0,10%	0,08%	0,13%
575	0,07%	0,06%	0,07%	0,16%	0,13%	0,08%	0,13%	0,10%	0,09%	0,15%
625	0,06%	0,06%	0,07%	0,08%	0,10%	0,08%	0,13%	0,13%	0,07%	0,09%
675	0,06%	0,05%	0,07%	0,08%	0,09%	0,07%	0,13%	0,13%	0,07%	0,07%
725	0,05%	0,05%	0,06%	0,06%	0,07%	0,07%	0,11%	0,10%	0,06%	0,06%



775	0,05%	0,05%	0,07%	0,06%	0,05%	0,08%	0,11%	0,08%	0,05%	0,05%
825	0,05%	0,05%	0,07%	0,07%	0,06%	0,09%	0,11%	0,07%	0,05%	0,06%
875	0,04%	0,05%	0,08%	0,07%	0,05%	0,09%	0,10%	0,07%	0,04%	0,07%
925	0,04%	0,04%	0,06%	0,06%	0,07%	0,05%	0,10%	0,08%	0,05%	0,06%
975	0,04%	0,04%	0,04%	0,06%	0,07%	0,05%	0,08%	0,07%	0,05%	0,05%
1025	0,04%	0,04%	0,04%	0,05%	0,05%	0,04%	0,05%	0,07%	0,07%	0,05%
1075	0,04%	0,03%	0,04%	0,06%	0,04%	0,05%	0,04%	0,08%	0,07%	0,05%
1125	0,03%	0,03%	0,05%	0,06%	0,05%	0,06%	0,07%	0,10%	0,07%	0,05%
1175	0,03%	0,04%	0,04%	0,06%	0,05%	0,07%	0,07%	0,11%	0,08%	0,04%
1225	0,03%	0,04%	0,04%	0,05%	0,04%	0,08%	0,05%	0,10%	0,06%	0,05%
1275	0,03%	0,04%	0,04%	0,04%	0,04%	0,08%	0,05%	0,08%	0,07%	0,05%
1325	0,03%	0,03%	0,04%	0,03%	0,04%	0,06%	0,05%	0,05%	0,04%	0,05%
1375	0,03%	0,03%	0,03%	0,03%	0,04%	0,05%	0,05%	0,04%	0,05%	0,05%
1425	0,04%	0,03%	0,04%	0,04%	0,03%	0,06%	0,05%	0,05%	0,07%	0,05%
1475	0,03%	0,03%	0,04%	0,05%	0,04%	0,06%	0,05%	0,05%	0,08%	0,05%
1525	0,03%	0,02%	0,04%	0,04%	0,04%	0,06%	0,04%	0,04%	0,07%	0,04%
1575	0,03%	0,02%	0,03%	0,03%	0,04%	0,06%	0,04%	0,04%	0,05%	0,05%
1625	0,03%	0,03%	0,03%	0,03%	0,03%	0,03%	0,04%	0,03%	0,04%	0,03%
1675	0,03%	0,02%	0,03%	0,03%	0,03%	0,03%	0,04%	0,03%	0,03%	0,03%
1725	0,02%	0,02%	0,03%	0,03%	0,03%	0,05%	0,04%	0,04%	0,04%	0,04%
1775	0,02%	0,02%	0,03%	0,03%	0,03%	0,05%	0,05%	0,04%	0,04%	0,05%
1825	0,02%	0,02%	0,03%	0,04%	0,04%	0,04%	0,05%	0,03%	0,04%	0,04%
1875	0,03%	0,02%	0,03%	0,03%	0,03%	0,04%	0,04%	0,03%	0,03%	0,04%
1925	0,02%	0,02%	0,02%	0,03%	0,02%	0,03%	0,03%	0,03%	0,03%	0,03%
1975	0,02%	0,02%	0,02%	0,02%	0,03%	0,03%	0,02%	0,03%	0,03%	0,02%

**Higher frequencies Storage Mode**

Active power P/Pn [%]	10	20	30	40	50	60	70	80	90	100
Frequency [Hz]	I [%]	I [%]	I [%]	I [%]	I [%]	I [%]	I [%]	I [%]	I [%]	I [%]
2,1	0,20%	0,19%	0,19%	0,21%	0,18%	0,12%	0,13%	0,16%	0,09%	0,14%
2,3	0,11%	0,10%	0,11%	0,08%	0,06%	0,13%	0,10%	0,09%	0,08%	0,09%
2,5	0,10%	0,10%	0,11%	0,07%	0,07%	0,10%	0,09%	0,07%	0,08%	0,08%
2,7	0,10%	0,10%	0,08%	0,11%	0,13%	0,08%	0,10%	0,07%	0,09%	0,08%
2,9	0,07%	0,07%	0,06%	0,05%	0,05%	0,07%	0,07%	0,07%	0,06%	0,06%
3,1	0,06%	0,06%	0,05%	0,06%	0,06%	0,09%	0,08%	0,08%	0,06%	0,06%
3,3	0,06%	0,07%	0,07%	0,08%	0,11%	0,08%	0,09%	0,07%	0,05%	0,05%
3,5	0,05%	0,06%	0,07%	0,06%	0,07%	0,07%	0,06%	0,05%	0,05%	0,05%
3,7	0,05%	0,06%	0,07%	0,07%	0,05%	0,06%	0,05%	0,06%	0,05%	0,05%
3,9	0,06%	0,07%	0,07%	0,07%	0,10%	0,08%	0,05%	0,07%	0,06%	0,05%
4,1	0,05%	0,06%	0,06%	0,07%	0,06%	0,06%	0,06%	0,05%	0,05%	0,05%
4,3	0,05%	0,06%	0,06%	0,08%	0,06%	0,07%	0,07%	0,05%	0,05%	0,05%
4,5	0,07%	0,09%	0,10%	0,08%	0,08%	0,07%	0,09%	0,06%	0,05%	0,05%
4,7	0,06%	0,07%	0,09%	0,09%	0,07%	0,07%	0,08%	0,06%	0,06%	0,06%
4,9	0,08%	0,09%	0,11%	0,09%	0,08%	0,09%	0,09%	0,08%	0,07%	0,07%
5,1	0,12%	0,13%	0,14%	0,13%	0,12%	0,13%	0,10%	0,13%	0,10%	0,08%
5,3	0,13%	0,14%	0,14%	0,16%	0,14%	0,13%	0,12%	0,12%	0,13%	0,10%
5,5	0,15%	0,15%	0,14%	0,13%	0,15%	0,15%	0,14%	0,12%	0,13%	0,13%
5,7	0,09%	0,10%	0,11%	0,12%	0,11%	0,11%	0,11%	0,09%	0,08%	0,09%
5,9	0,06%	0,06%	0,06%	0,06%	0,06%	0,07%	0,07%	0,06%	0,06%	0,06%
6,1	0,05%	0,05%	0,05%	0,05%	0,05%	0,05%	0,04%	0,05%	0,05%	0,05%
6,3	0,03%	0,03%	0,03%	0,04%	0,04%	0,04%	0,04%	0,03%	0,03%	0,04%
6,5	0,02%	0,02%	0,02%	0,03%	0,03%	0,03%	0,03%	0,03%	0,03%	0,03%
6,7	0,02%	0,02%	0,02%	0,03%	0,02%	0,03%	0,03%	0,02%	0,03%	0,02%
6,9	0,01%	0,01%	0,02%	0,02%	0,02%	0,02%	0,02%	0,02%	0,02%	0,02%
7,1	0,01%	0,01%	0,01%	0,01%	0,02%	0,02%	0,02%	0,02%	0,02%	0,02%
7,3	0,15%	0,16%	0,16%	0,16%	0,16%	0,17%	0,16%	0,17%	0,16%	0,17%





ANNEX TO CERTIFICATE  
VDE 4105\_Rev 2



7,5	0,30%	0,30%	0,30%	0,30%	0,30%	0,30%	0,30%	0,30%	0,30%	0,30%	0,30%
7,7	0,01%	0,01%	0,01%	0,01%	0,01%	0,01%	0,01%	0,02%	0,01%	0,02%	0,02%
7,9	0,01%	0,01%	0,01%	0,01%	0,01%	0,01%	0,01%	0,02%	0,02%	0,02%	0,01%
8,1	0,01%	0,01%	0,01%	0,01%	0,01%	0,01%	0,01%	0,02%	0,01%	0,01%	0,01%
8,3	0,02%	0,01%	0,01%	0,01%	0,01%	0,02%	0,02%	0,01%	0,02%	0,01%	0,01%
8,5	0,03%	0,03%	0,03%	0,03%	0,03%	0,03%	0,03%	0,02%	0,02%	0,02%	0,02%
8,7	0,01%	0,01%	0,01%	0,01%	0,01%	0,01%	0,01%	0,01%	0,01%	0,02%	0,02%
8,9	0,10%	0,10%	0,10%	0,09%	0,09%	0,09%	0,09%	0,09%	0,09%	0,09%	0,09%





## Requirements for the test report for the NS protection according Clause E.7 VDE-AR-N 4105

The client declares that the functions of the tests “Connection and reconnection” (clause 8.3) and “Abnormal voltage and frequency protections” (clause 6.5) are performed by a NS protection relay. Therefore, these tests are not going to be performed in the power generating unit under test nor going to be included in the scope of this certification.



### 3 PARAMETER LIST

Parameter	Description	Type	Address	Index	Acc. Level	Units	Range	Step Size	Default
DERType	Type of DER unit managed by controller or connected at the ECP	int	B9C01	1	1	N/A	1 to 999	1	990
MaxWLim	Nominal max output power at controller or ECP	float	B9C02	2	1	kW	10.0 to 120.0	0.1	30
MaxVArLim	Nominal max output reactive power at controller or ECP	float	B9C03	3	1	kVar	10.0 to 120.0	0.1	30
WMax	Setting for maximum active power and reference value for functions	float	B9C04	4	1	kW	10.0 to 120.0	0.1	30,000 1
VArMax	Setpoint for maximum reactive power;	float	B9C05	5	1	kVar	10.0 to 120.0	0.1	30
VRef	Reference voltage for functions using grid voltage as input	float	B9C06	6	1	V	10.0 to 690.0	0,01	400
VV11_WinTms	Time window (in s) within which to randomly execute a command (not implemented)	int	B9C07	7	1	s	0 to 3600	1	0
VV11_RvrtTms	Timeout period (in s), after which the device will revert to its default status (not implemented)	int	B9C08	8	1	s	0 to 86400	1	0
VV11_RmpTms	Ramp time (in s) for moving from current operational mode settings to new operational mode settings (not implemented)	int	B9C09	9	1	s	0 to 3600	1	0
VV11_PairArray_NumPts	Number of points in the point array	int	B9C0A	10	1	N/A	0 to 20	1	4
VV11_PairArray_P0_xVal	VW11 PairArray	float	B9C0B	11	1	V (pu)	-10.0 to 10.0	0,01	0,94
VV11_PairArray_P0_yVal	VW11 PairArray	float	B9C0C	12	1	Q (pu)	-2.0 to 2.0	0,01	0,33
VV11_PairArray_P1_xVal	VW11 PairArray	float	B9C0D	13	1	V (pu)	-10.0 to 10.0	0,01	0,96
VV11_PairArray_P1_yVal	VW11 PairArray	float	B9C0E	14	1	Q (pu)	-2.0 to 2.0	0,01	0
VV11_PairArray_P2_xVal	VW11 PairArray	float	B9C0F	15	1	V (pu)	-10.0 to 10.0	0,01	1,04
VV11_PairArray_P2_yVal	VW11 PairArray	float	B9C10	16	1	Q (pu)	-2.0 to 2.0	0,01	0
VV11_PairArray_P3_xVal	VW11 PairArray	float	B9C11	17	1	V (pu)	-10.0 to 10.0	0,01	1,06
VV11_PairArray_P3_yVal	VW11 PairArray	float	B9C12	18	1	Q (pu)	-2.0 to 2.0	0,01	-0,33

VV11_PairArray_P4_xVal	VW11 PairArray	float	B9C13	19	1	V (pu)	-10.0 to 10.0	0,01	0
VV11_PairArray_P4_yVal	VW11 PairArray	float	B9C14	20	1	Q (pu)	-2.0 to 2.0	0,01	0
VV11_PairArray_P5_xVal	VW11 PairArray	float	B9C15	21	1	V (pu)	-10.0 to 10.0	0,01	0
VV11_PairArray_P5_yVal	VW11 PairArray	float	B9C16	22	1	Q (pu)	-2.0 to 2.0	0,01	0
VV11_PairArray_P6_xVal	VW11 PairArray	float	B9C17	23	1	V (pu)	-10.0 to 10.0	0,01	0
VV11_PairArray_P6_yVal	VW11 PairArray	float	B9C18	24	1	Q (pu)	-2.0 to 2.0	0,01	0
VV11_PairArray_P7_xVal	VW11 PairArray	float	B9C19	25	1	V (pu)	-10.0 to 10.0	0,01	0
VV11_PairArray_P7_yVal	VW11 PairArray	float	B9C1A	26	1	Q (pu)	-2.0 to 2.0	0,01	0
VV11_PairArray_P8_xVal	VW11 PairArray	float	B9C1B	27	1	V (pu)	-10.0 to 10.0	0,01	0
VV11_PairArray_P8_yVal	VW11 PairArray	float	B9C1C	28	1	Q (pu)	-2.0 to 2.0	0,01	0
VV11_PairArray_P9_xVal	VW11 PairArray	float	B9C1D	29	1	V (pu)	-10.0 to 10.0	0,01	0
VV11_PairArray_P9_yVal	VW11 PairArray	float	B9C1E	30	1	Q (pu)	-2.0 to 2.0	0,01	0
VV11_PairArray_P10_xVal	VW11 PairArray	float	B9C1F	31	1	V (pu)	-10.0 to 10.0	0,01	0
VV11_PairArray_P10_yVal	VW11 PairArray	float	B9C20	32	1	Q (pu)	-2.0 to 2.0	0,01	0
VV11_PairArray_P11_xVal	VW11 PairArray	float	B9C21	33	1	V (pu)	-10.0 to 10.0	0,01	0
VV11_PairArray_P11_yVal	VW11 PairArray	float	B9C22	34	1	Q (pu)	-2.0 to 2.0	0,01	0
VV11_PairArray_P12_xVal	VW11 PairArray	float	B9C23	35	1	V (pu)	-10.0 to 10.0	0,01	0
VV11_PairArray_P12_yVal	VW11 PairArray	float	B9C24	36	1	Q (pu)	-2.0 to 2.0	0,01	0
VV11_PairArray_P13_xVal	VW11 PairArray	float	B9C25	37	1	V (pu)	-10.0 to 10.0	0,01	0
VV11_PairArray_P13_yVal	VW11 PairArray	float	B9C26	38	1	Q (pu)	-2.0 to 2.0	0,01	0
VV11_PairArray_P14_xVal	VW11 PairArray	float	B9C27	39	1	V (pu)	-10.0 to 10.0	0,01	0
VV11_PairArray_P14_yVal	VW11 PairArray	float	B9C28	40	1	Q (pu)	-2.0 to 2.0	0,01	0
VV11_PairArray_P15_xVal	VW11 PairArray	float	B9C29	41	1	V (pu)	-10.0 to 10.0	0,01	0
VV11_PairArray_P15_yVal	VW11 PairArray	float	B9C2A	42	1	Q (pu)	-2.0 to 2.0	0,01	0
VV11_PairArray_P16_xVal	VW11 PairArray	float	B9C2B	43	1	V (pu)	-10.0 to 10.0	0,01	0
VV11_PairArray_P16_yVal	VW11 PairArray	float	B9C2C	44	1	Q (pu)	-2.0 to 2.0	0,01	0
VV11_PairArray_P17_xVal	VW11 PairArray	float	B9C2D	45	1	V (pu)	-10.0 to 10.0	0,01	0
VV11_PairArray_P17_yVal	VW11 PairArray	float	B9C2E	46	1	Q (pu)	-2.0 to 2.0	0,01	0
VV11_PairArray_P18_xVal	VW11 PairArray	float	B9C2F	47	1	V (pu)	-10.0 to 10.0	0,01	0
VV11_PairArray_P18_yVal	VW11 PairArray	float	B9C30	48	1	Q (pu)	-2.0 to 2.0	0,01	0
VV11_PairArray_P19_xVal	VW11 PairArray	float	B9C31	49	1	V (pu)	-10.0 to 10.0	0,01	0
VV11_PairArray_P19_yVal	VW11 PairArray	float	B9C32	50	1	Q (pu)	-2.0 to 2.0	0,01	0
VV11_DeptRef	Enumeration of the independent reference parameter units using SI units	int	B9C33	51	1	N/A	0 to 6	1	2

VV11_RmpDecTmm	The maximum rate at which the dependent value (output) may be reduced in response to changes in the independent value (input). This is represented in terms of % of Reference value (e.g. VArMax) per minute.	float	B9C34	52	1	puRef/ min	0.0 to 10.0	0,01	0
VV11_RmplncTmm	The maximum rate at which the dependent value (output) may be increased in response to changes in the independent value (input). This is represented in terms of % of Reference value per minute.	float	B9C35	53	1	puRef/ min	0.0 to 10.0	0,01	0
VV11_RmpRsUp	The maximum rate at which the dependent value (output) may be increased after releasing the frozen value of snap shot function. This is represented in terms of % of Reference value (e.g. WMax) per minute (not implemented).	float	B9C36	54	1	puRef/ min	0.0 to 10.0	0,01	0
VV12_WinTms	Time window (in s) within which to randomly execute a command (not implemented)	int	B9C37	55	1	s	0 to 3600	1	0
VV12_RvrtTms	Timeout period (in s), after which the device will revert to its default status (not implemented)	int	B9C38	56	1	s	0 to 86400	1	0
VV12_RmpTms	Ramp time (in s) for moving from current operational mode settings to new operational mode settings (not implemented)	int	B9C39	57	1	s	0 to 3600	1	0
VV12_PairArray_NumPts	Number of points in the point array	int	B9C3A	58	1	N/A	0 to 20	1	2
VV12_PairArray_P0_xVal	VW12 PairArray	float	B9C3B	59	1	V (pu)	-10.0 to 10.0	0,01	0,96
VV12_PairArray_P0_yVal	VW12 PairArray	float	B9C3C	60	1	Q (pu)	-2.0 to 2.0	0,01	0,33
VV12_PairArray_P1_xVal	VW12 PairArray	float	B9C3D	61	1	V (pu)	-10.0 to 10.0	0,01	1,04
VV12_PairArray_P1_yVal	VW12 PairArray	float	B9C3E	62	1	Q (pu)	-2.0 to 2.0	0,01	-0,33
VV12_PairArray_P2_xVal	VW12 PairArray	float	B9C3F	63	1	V (pu)	-10.0 to 10.0	0,01	0
VV12_PairArray_P2_yVal	VW12 PairArray	float	B9C40	64	1	Q (pu)	-2.0 to 2.0	0,01	0
VV12_PairArray_P3_xVal	VW12 PairArray	float	B9C41	65	1	V (pu)	-10.0 to 10.0	0,01	0
VV12_PairArray_P3_yVal	VW12 PairArray	float	B9C42	66	1	Q (pu)	-2.0 to 2.0	0,01	0
VV12_PairArray_P4_xVal	VW12 PairArray	float	B9C43	67	1	V (pu)	-10.0 to 10.0	0,01	0
VV12_PairArray_P4_yVal	VW12 PairArray	float	B9C44	68	1	Q (pu)	-2.0 to 2.0	0,01	0

VV12_PairArray_P5_xVal	VW12 PairArray	float	B9C45	69	1	V (pu)	-10.0 to 10.0	0,01	0
VV12_PairArray_P5_yVal	VW12 PairArray	float	B9C46	70	1	Q (pu)	-2.0 to 2.0	0,01	0
VV12_PairArray_P6_xVal	VW12 PairArray	float	B9C47	71	1	V (pu)	-10.0 to 10.0	0,01	0
VV12_PairArray_P6_yVal	VW12 PairArray	float	B9C48	72	1	Q (pu)	-2.0 to 2.0	0,01	0
VV12_PairArray_P7_xVal	VW12 PairArray	float	B9C49	73	1	V (pu)	-10.0 to 10.0	0,01	0
VV12_PairArray_P7_yVal	VW12 PairArray	float	B9C4A	74	1	Q (pu)	-2.0 to 2.0	0,01	0
VV12_PairArray_P8_xVal	VW12 PairArray	float	B9C4B	75	1	V (pu)	-10.0 to 10.0	0,01	0
VV12_PairArray_P8_yVal	VW12 PairArray	float	B9C4C	76	1	Q (pu)	-2.0 to 2.0	0,01	0
VV12_PairArray_P9_xVal	VW12 PairArray	float	B9C4D	77	1	V (pu)	-10.0 to 10.0	0,01	0
VV12_PairArray_P9_yVal	VW12 PairArray	float	B9C4E	78	1	Q (pu)	-2.0 to 2.0	0,01	0
VV12_PairArray_P10_xVal	VW12 PairArray	float	B9C4F	79	1	V (pu)	-10.0 to 10.0	0,01	0
VV12_PairArray_P10_yVal	VW12 PairArray	float	B9C50	80	1	Q (pu)	-2.0 to 2.0	0,01	0
VV12_PairArray_P11_xVal	VW12 PairArray	float	B9C51	81	1	V (pu)	-10.0 to 10.0	0,01	0
VV12_PairArray_P11_yVal	VW12 PairArray	float	B9C52	82	1	Q (pu)	-2.0 to 2.0	0,01	0
VV12_PairArray_P12_xVal	VW12 PairArray	float	B9C53	83	1	V (pu)	-10.0 to 10.0	0,01	0
VV12_PairArray_P12_yVal	VW12 PairArray	float	B9C54	84	1	Q (pu)	-2.0 to 2.0	0,01	0
VV12_PairArray_P13_xVal	VW12 PairArray	float	B9C55	85	1	V (pu)	-10.0 to 10.0	0,01	0
VV12_PairArray_P13_yVal	VW12 PairArray	float	B9C56	86	1	Q (pu)	-2.0 to 2.0	0,01	0
VV12_PairArray_P14_xVal	VW12 PairArray	float	B9C57	87	1	V (pu)	-10.0 to 10.0	0,01	0
VV12_PairArray_P14_yVal	VW12 PairArray	float	B9C58	88	1	Q (pu)	-2.0 to 2.0	0,01	0
VV12_PairArray_P15_xVal	VW12 PairArray	float	B9C59	89	1	V (pu)	-10.0 to 10.0	0,01	0
VV12_PairArray_P15_yVal	VW12 PairArray	float	B9C5A	90	1	Q (pu)	-2.0 to 2.0	0,01	0
VV12_PairArray_P16_xVal	VW12 PairArray	float	B9C5B	91	1	V (pu)	-10.0 to 10.0	0,01	0
VV12_PairArray_P16_yVal	VW12 PairArray	float	B9C5C	92	1	Q (pu)	-2.0 to 2.0	0,01	0
VV12_PairArray_P17_xVal	VW12 PairArray	float	B9C5D	93	1	V (pu)	-10.0 to 10.0	0,01	0
VV12_PairArray_P17_yVal	VW12 PairArray	float	B9C5E	94	1	Q (pu)	-2.0 to 2.0	0,01	0
VV12_PairArray_P18_xVal	VW12 PairArray	float	B9C5F	95	1	V (pu)	-10.0 to 10.0	0,01	0
VV12_PairArray_P18_yVal	VW12 PairArray	float	B9C60	96	1	Q (pu)	-2.0 to 2.0	0,01	0
VV12_PairArray_P19_xVal	VW12 PairArray	float	B9C61	97	1	V (pu)	-10.0 to 10.0	0,01	0
VV12_PairArray_P19_yVal	VW12 PairArray	float	B9C62	98	1	Q (pu)	-2.0 to 2.0	0,01	0
VV12_DeptRef	Enumeration of the independent reference parameter units using SI units	int	B9C63	99	1	N/A	0 to 6	1	2
VV12_RmpDecTmm	The maximum rate at which the dependent value (output) may be reduced in response to changes in the independent value (input). This is	float	B9C64	100	1	puRef/ min	0.0 to 10.0	0,01	0

	represented in terms of % of Reference value (e.g. VArMax) per minute.								
VV12_RmplncTmm	The maximum rate at which the dependent value (output) may be increased in response to changes in the independent value (input). This is represented in terms of % of Reference value per minute.	float	B9C65	101	1	puRef/ min	0.0 to 10.0	0,01	0
VV12_RmpRsUp	The maximum rate at which the dependent value (output) may be increased after releasing the frozen value of snap shot function. This is represented in terms of % of Reference value (e.g. WMax) per minute (not implemented).	float	B9C66	102	1	puRef/ min	0.0 to 10.0	0,01	0
FW22_OverFreqDelay	Delay after an Overfrequency event before ramping back once frequency within threshold limits (applicable for AS-NZS 4777-2)	int	B9C67	103	1	s	6 to 600	1	6
FW22_UnderFreqDelay	Delay after an Underfrequency event before ramping back once frequency within threshold limits (applicable for AS-NZS 4777-2)	int	B9C68	104	1	s	6 to 600	1	6
FW22_WinTms	Time window (in s) within which to randomly execute a command (not implemented)	int	B9C69	105	1	s	0 to 3600	1	0
FW22_RvrtTms	Timeout period (in s), after which the device will revert to its default status (not implemented)	int	B9C6A	106	1	s	0 to 86400	1	0
FW22_RmpTms	Ramp time (in s) for moving from current operational mode settings to new operational mode settings (not implemented)	int	B9C6B	107	1	s	0 to 3600	1	0
FW22_PairArray_NumPts	Number of points in the point array	int	B9C6C	108	1	N/A	0 to 20	1	4
FW22_PairArray_P0_xVal	FW22 PairArray	float	B9C6D	109	1	Hz	-10.0 to 10.0	0,01	-2,2
FW22_PairArray_P0_yVal	FW22 PairArray	float	B9C6E	110	1	P (pu)	-2.0 to 2.0	0,01	2
FW22_PairArray_P1_xVal	FW22 PairArray	float	B9C6F	111	1	Hz	-10.0 to 10.0	0,01	-0,2
FW22_PairArray_P1_yVal	FW22 PairArray	float	B9C70	112	1	P (pu)	-2.0 to 2.0	0,01	0
FW22_PairArray_P2_xVal	FW22 PairArray	float	B9C71	113	1	Hz	-10.0 to 10.0	0,01	0,2
FW22_PairArray_P2_yVal	FW22 PairArray	float	B9C72	114	1	P (pu)	-2.0 to 2.0	0,01	0



FW22_PairArray_P3_xVal	FW22 PairArray	float	B9C73	115	1	Hz	-10.0 to 10.0	0,01	1,5
FW22_PairArray_P3_yVal	FW22 PairArray	float	B9C74	116	1	P (pu)	-2.0 to 2.0	0,01	-0,52
FW22_PairArray_P4_xVal	FW22 PairArray	float	B9C75	117	1	Hz	-10.0 to 10.0	0,01	0
FW22_PairArray_P4_yVal	FW22 PairArray	float	B9C76	118	1	P (pu)	-2.0 to 2.0	0,01	0
FW22_PairArray_P5_xVal	FW22 PairArray	float	B9C77	119	1	Hz	-10.0 to 10.0	0,01	0
FW22_PairArray_P5_yVal	FW22 PairArray	float	B9C78	120	1	P (pu)	-2.0 to 2.0	0,01	0
FW22_PairArray_P6_xVal	FW22 PairArray	float	B9C79	121	1	Hz	-10.0 to 10.0	0,01	0
FW22_PairArray_P6_yVal	FW22 PairArray	float	B9C7A	122	1	P (pu)	-2.0 to 2.0	0,01	0
FW22_PairArray_P7_xVal	FW22 PairArray	float	B9C7B	123	1	Hz	-10.0 to 10.0	0,01	0
FW22_PairArray_P7_yVal	FW22 PairArray	float	B9C7C	124	1	P (pu)	-2.0 to 2.0	0,01	0
FW22_PairArray_P8_xVal	FW22 PairArray	float	B9C7D	125	1	Hz	-10.0 to 10.0	0,01	0
FW22_PairArray_P8_yVal	FW22 PairArray	float	B9C7E	126	1	P (pu)	-2.0 to 2.0	0,01	0
FW22_PairArray_P9_xVal	FW22 PairArray	float	B9C7F	127	1	Hz	-10.0 to 10.0	0,01	0
FW22_PairArray_P9_yVal	FW22 PairArray	float	B9C80	128	1	P (pu)	-2.0 to 2.0	0,01	0
FW22_PairArray_P10_xVal	FW22 PairArray	float	B9C81	129	1	Hz	-10.0 to 10.0	0,01	0
FW22_PairArray_P10_yVal	FW22 PairArray	float	B9C82	130	1	P (pu)	-2.0 to 2.0	0,01	0
FW22_PairArray_P11_xVal	FW22 PairArray	float	B9C83	131	1	Hz	-10.0 to 10.0	0,01	0
FW22_PairArray_P11_yVal	FW22 PairArray	float	B9C84	132	1	P (pu)	-2.0 to 2.0	0,01	0
FW22_PairArray_P12_xVal	FW22 PairArray	float	B9C85	133	1	Hz	-10.0 to 10.0	0,01	0
FW22_PairArray_P12_yVal	FW22 PairArray	float	B9C86	134	1	P (pu)	-2.0 to 2.0	0,01	0
FW22_PairArray_P13_xVal	FW22 PairArray	float	B9C87	135	1	Hz	-10.0 to 10.0	0,01	0
FW22_PairArray_P13_yVal	FW22 PairArray	float	B9C88	136	1	P (pu)	-2.0 to 2.0	0,01	0
FW22_PairArray_P14_xVal	FW22 PairArray	float	B9C89	137	1	Hz	-10.0 to 10.0	0,01	0
FW22_PairArray_P14_yVal	FW22 PairArray	float	B9C8A	138	1	P (pu)	-2.0 to 2.0	0,01	0
FW22_PairArray_P15_xVal	FW22 PairArray	float	B9C8B	139	1	Hz	-10.0 to 10.0	0,01	0
FW22_PairArray_P15_yVal	FW22 PairArray	float	B9C8C	140	1	P (pu)	-2.0 to 2.0	0,01	0
FW22_PairArray_P16_xVal	FW22 PairArray	float	B9C8D	141	1	Hz	-10.0 to 10.0	0,01	0
FW22_PairArray_P16_yVal	FW22 PairArray	float	B9C8E	142	1	P (pu)	-2.0 to 2.0	0,01	0
FW22_PairArray_P17_xVal	FW22 PairArray	float	B9C8F	143	1	Hz	-10.0 to 10.0	0,01	0
FW22_PairArray_P17_yVal	FW22 PairArray	float	B9C90	144	1	P (pu)	-2.0 to 2.0	0,01	0
FW22_PairArray_P18_xVal	FW22 PairArray	float	B9C91	145	1	Hz	-10.0 to 10.0	0,01	0
FW22_PairArray_P18_yVal	FW22 PairArray	float	B9C92	146	1	P (pu)	-2.0 to 2.0	0,01	0
FW22_PairArray_P19_xVal	FW22 PairArray	float	B9C93	147	1	Hz	-10.0 to 10.0	0,01	0
FW22_PairArray_P19_yVal	FW22 PairArray	float	B9C94	148	1	P (pu)	-2.0 to 2.0	0,01	0
FW22_DeptRef	Enumeration of the independent	int	B9C95	149	1	N/A	0 to 6	1	5

	reference parameter units using SI units								
FW22_RmpDecTmm	The maximum rate at which the dependent value (output) may be reduced in response to changes in the independent value (input). This is represented in terms of PU value of the Reference value (e.g. WMax) per minute.	float	B9C96	150	1	puRef/ min	0.0 to 10.0	0,01	0,1
FW22_RmpIncTmm	The maximum rate at which the dependent value (output) may be reduced in response to changes in the independent value (input). This is represented in terms of PU value of the Reference value (e.g. WMax) per minute.	float	B9C97	151	1	puRef/ min	0.0 to 10.0	0,01	0,1
FW22_RmpRsUp	The maximum rate at which the dependent value (output) may be increased after releasing the frozen value of snap shot function. This is represented in terms of % of Reference value (e.g. WMax) per minute (not implemented).	float	B9C98	152	1	puRef/ min	0.0 to 10.0	0,01	0
VW51_WinTms	Time window (in s) within which to randomly execute a command (not implemented)	int	B9C99	153	1	s	0 to 3600	1	0
VW51_RvrtTms	Timeout period (in s), after which the device will revert to its default status (not implemented)	int	B9C9A	154	1	s	0 to 86400	1	0
VW51_RmpTms	Ramp time (in s) for moving from current operational mode settings to new operational mode settings (not implemented)	int	B9C9B	155	1	s	0 to 3600	1	0
VW51_PairArray_NumPts	Number of points in the point array	int	B9C9C	156	1	N/A	0 to 20	1	0
VW51_PairArray_P0_xVal	VW51 PairArray	float	B9C9D	157	1	V (pu)	-10.0 to 10.0	0,01	0
VW51_PairArray_P0_yVal	VW51 PairArray	float	B9C9E	158	1	P (pu)	-2.0 to 2.0	0,01	0
VW51_PairArray_P1_xVal	VW51 PairArray	float	B9C9F	159	1	V (pu)	-10.0 to 10.0	0,01	0
VW51_PairArray_P1_yVal	VW51 PairArray	float	B9CA0	160	1	P (pu)	-2.0 to 2.0	0,01	0
VW51_PairArray_P2_xVal	VW51 PairArray	float	B9CA1	161	1	V (pu)	-10.0 to 10.0	0,01	0
VW51_PairArray_P2_yVal	VW51 PairArray	float	B9CA2	162	1	P (pu)	-2.0 to 2.0	0,01	0
VW51_PairArray_P3_xVal	VW51 PairArray	float	B9CA3	163	1	V (pu)	-10.0 to 10.0	0,01	0
VW51_PairArray_P3_yVal	VW51 PairArray	float	B9CA4	164	1	P (pu)	-2.0 to 2.0	0,01	0

VW51_PairArray_P4_xVal	VW51 PairArray	float	B9CA5	165	1	V (pu)	-10.0 to 10.0	0,01	0
VW51_PairArray_P4_yVal	VW51 PairArray	float	B9CA6	166	1	P (pu)	-2.0 to 2.0	0,01	0
VW51_PairArray_P5_xVal	VW51 PairArray	float	B9CA7	167	1	V (pu)	-10.0 to 10.0	0,01	0
VW51_PairArray_P5_yVal	VW51 PairArray	float	B9CA8	168	1	P (pu)	-2.0 to 2.0	0,01	0
VW51_PairArray_P6_xVal	VW51 PairArray	float	B9CA9	169	1	V (pu)	-10.0 to 10.0	0,01	0
VW51_PairArray_P6_yVal	VW51 PairArray	float	B9CAA	170	1	P (pu)	-2.0 to 2.0	0,01	0
VW51_PairArray_P7_xVal	VW51 PairArray	float	B9CAB	171	1	V (pu)	-10.0 to 10.0	0,01	0
VW51_PairArray_P7_yVal	VW51 PairArray	float	B9CAC	172	1	P (pu)	-2.0 to 2.0	0,01	0
VW51_PairArray_P8_xVal	VW51 PairArray	float	B9CAD	173	1	V (pu)	-10.0 to 10.0	0,01	0
VW51_PairArray_P8_yVal	VW51 PairArray	float	B9CAE	174	1	P (pu)	-2.0 to 2.0	0,01	0
VW51_PairArray_P9_xVal	VW51 PairArray	float	B9CAF	175	1	V (pu)	-10.0 to 10.0	0,01	0
VW51_PairArray_P9_yVal	VW51 PairArray	float	B9CB0	176	1	P (pu)	-2.0 to 2.0	0,01	0
VW51_PairArray_P10_xVal	VW51 PairArray	float	B9CB1	177	1	V (pu)	-10.0 to 10.0	0,01	0
VW51_PairArray_P10_yVal	VW51 PairArray	float	B9CB2	178	1	P (pu)	-2.0 to 2.0	0,01	0
VW51_PairArray_P11_xVal	VW51 PairArray	float	B9CB3	179	1	V (pu)	-10.0 to 10.0	0,01	0
VW51_PairArray_P11_yVal	VW51 PairArray	float	B9CB4	180	1	P (pu)	-2.0 to 2.0	0,01	0
VW51_PairArray_P12_xVal	VW51 PairArray	float	B9CB5	181	1	V (pu)	-10.0 to 10.0	0,01	0
VW51_PairArray_P12_yVal	VW51 PairArray	float	B9CB6	182	1	P (pu)	-2.0 to 2.0	0,01	0
VW51_PairArray_P13_xVal	VW51 PairArray	float	B9CB7	183	1	V (pu)	-10.0 to 10.0	0,01	0
VW51_PairArray_P13_yVal	VW51 PairArray	float	B9CB8	184	1	P (pu)	-2.0 to 2.0	0,01	0
VW51_PairArray_P14_xVal	VW51 PairArray	float	B9CB9	185	1	V (pu)	-10.0 to 10.0	0,01	0
VW51_PairArray_P14_yVal	VW51 PairArray	float	B9CBA	186	1	P (pu)	-2.0 to 2.0	0,01	0
VW51_PairArray_P15_xVal	VW51 PairArray	float	B9CBB	187	1	V (pu)	-10.0 to 10.0	0,01	0
VW51_PairArray_P15_yVal	VW51 PairArray	float	B9CBC	188	1	P (pu)	-2.0 to 2.0	0,01	0
VW51_PairArray_P16_xVal	VW51 PairArray	float	B9CBD	189	1	V (pu)	-10.0 to 10.0	0,01	0
VW51_PairArray_P16_yVal	VW51 PairArray	float	B9CBE	190	1	P (pu)	-2.0 to 2.0	0,01	0
VW51_PairArray_P17_xVal	VW51 PairArray	float	B9CBF	191	1	V (pu)	-10.0 to 10.0	0,01	0
VW51_PairArray_P17_yVal	VW51 PairArray	float	B9CC0	192	1	P (pu)	-2.0 to 2.0	0,01	0
VW51_PairArray_P18_xVal	VW51 PairArray	float	B9CC1	193	1	V (pu)	-10.0 to 10.0	0,01	0
VW51_PairArray_P18_yVal	VW51 PairArray	float	B9CC2	194	1	P (pu)	-2.0 to 2.0	0,01	0
VW51_PairArray_P19_xVal	VW51 PairArray	float	B9CC3	195	1	V (pu)	-10.0 to 10.0	0,01	0
VW51_PairArray_P19_yVal	VW51 PairArray	float	B9CC4	196	1	P (pu)	-2.0 to 2.0	0,01	0
VW51_DeptRef	Enumeration of the independent reference parameter units using SI units	int	B9CC5	197	1	N/A	0 to 6	1	5

VW51_RmpDecTmm	The maximum rate at which the dependent value (output) may be reduced in response to changes in the independent value (input). This is represented in terms of % of Reference value (e.g. VArMax) per minute.	float	B9CC6	198	1	puRef/ min	0.0 to 10.0	0,01	0
VW51_RmpIncTmm	The maximum rate at which the dependent value (output) may be increased in response to changes in the independent value (input). This is represented in terms of % of Reference value per minute.	float	B9CC7	199	1	puRef/ min	0.0 to 10.0	0,01	0
VW51_RmpRsUp	The maximum rate at which the dependent value (output) may be increased after releasing the frozen value of snap shot function. This is represented in terms of % of Reference value (e.g. WMax) per minute (not implemented).	float	B9CC8	200	1	puRef/ min	0.0 to 10.0	0,01	0
VW52_WinTms	Time window (in s) within which to randomly execute a command (not implemented)	int	B9CC9	201	1	s	0 to 3600	1	0
VW52_RvrtTms	Timeout period (in s), after which the device will revert to its default status (not implemented)	int	B9CCA	202	1	s	0 to 86400	1	0
VW52_RmpTms	Ramp time (in s) for moving from current operational mode settings to new operational mode settings (not implemented)	int	B9CCB	203	1	s	0 to 3600	1	0
VW52_PairArray_NumPts	Number of points in the point array	int	B9CCC	204	1	N/A	0 to 20	1	0
VW52_PairArray_P0_xVal	VW52 PairArray	float	B9CCD	205	1	V (pu)	-10.0 to 10.0	0,01	0
VW52_PairArray_P0_yVal	VW52 PairArray	float	B9CCE	206	1	P (pu)	-2.0 to 2.0	0,01	0
VW52_PairArray_P1_xVal	VW52 PairArray	float	B9CCF	207	1	V (pu)	-10.0 to 10.0	0,01	0
VW52_PairArray_P1_yVal	VW52 PairArray	float	B9CD0	208	1	P (pu)	-2.0 to 2.0	0,01	0
VW52_PairArray_P2_xVal	VW52 PairArray	float	B9CD1	209	1	V (pu)	-10.0 to 10.0	0,01	0
VW52_PairArray_P2_yVal	VW52 PairArray	float	B9CD2	210	1	P (pu)	-2.0 to 2.0	0,01	0
VW52_PairArray_P3_xVal	VW52 PairArray	float	B9CD3	211	1	V (pu)	-10.0 to 10.0	0,01	0
VW52_PairArray_P3_yVal	VW52 PairArray	float	B9CD4	212	1	P (pu)	-2.0 to 2.0	0,01	0
VW52_PairArray_P4_xVal	VW52 PairArray	float	B9CD5	213	1	V (pu)	-10.0 to 10.0	0,01	0
VW52_PairArray_P4_yVal	VW52 PairArray	float	B9CD6	214	1	P (pu)	-2.0 to 2.0	0,01	0

VW52_PairArray_P5_xVal	VW52 PairArray	float	B9CD7	215	1	V (pu)	-10.0 to 10.0	0,01	0
VW52_PairArray_P5_yVal	VW52 PairArray	float	B9CD8	216	1	P (pu)	-2.0 to 2.0	0,01	0
VW52_PairArray_P6_xVal	VW52 PairArray	float	B9CD9	217	1	V (pu)	-10.0 to 10.0	0,01	0
VW52_PairArray_P6_yVal	VW52 PairArray	float	B9CDA	218	1	P (pu)	-2.0 to 2.0	0,01	0
VW52_PairArray_P7_xVal	VW52 PairArray	float	B9CDB	219	1	V (pu)	-10.0 to 10.0	0,01	0
VW52_PairArray_P7_yVal	VW52 PairArray	float	B9CDC	220	1	P (pu)	-2.0 to 2.0	0,01	0
VW52_PairArray_P8_xVal	VW52 PairArray	float	B9CDD	221	1	V (pu)	-10.0 to 10.0	0,01	0
VW52_PairArray_P8_yVal	VW52 PairArray	float	B9CDE	222	1	P (pu)	-2.0 to 2.0	0,01	0
VW52_PairArray_P9_xVal	VW52 PairArray	float	B9CDF	223	1	V (pu)	-10.0 to 10.0	0,01	0
VW52_PairArray_P9_yVal	VW52 PairArray	float	B9CE0	224	1	P (pu)	-2.0 to 2.0	0,01	0
VW52_PairArray_P10_xVal	VW52 PairArray	float	B9CE1	225	1	V (pu)	-10.0 to 10.0	0,01	0
VW52_PairArray_P10_yVal	VW52 PairArray	float	B9CE2	226	1	P (pu)	-2.0 to 2.0	0,01	0
VW52_PairArray_P11_xVal	VW52 PairArray	float	B9CE3	227	1	V (pu)	-10.0 to 10.0	0,01	0
VW52_PairArray_P11_yVal	VW52 PairArray	float	B9CE4	228	1	P (pu)	-2.0 to 2.0	0,01	0
VW52_PairArray_P12_xVal	VW52 PairArray	float	B9CE5	229	1	V (pu)	-10.0 to 10.0	0,01	0
VW52_PairArray_P12_yVal	VW52 PairArray	float	B9CE6	230	1	P (pu)	-2.0 to 2.0	0,01	0
VW52_PairArray_P13_xVal	VW52 PairArray	float	B9CE7	231	1	V (pu)	-10.0 to 10.0	0,01	0
VW52_PairArray_P13_yVal	VW52 PairArray	float	B9CE8	232	1	P (pu)	-2.0 to 2.0	0,01	0
VW52_PairArray_P14_xVal	VW52 PairArray	float	B9CE9	233	1	V (pu)	-10.0 to 10.0	0,01	0
VW52_PairArray_P14_yVal	VW52 PairArray	float	B9CEA	234	1	P (pu)	-2.0 to 2.0	0,01	0
VW52_PairArray_P15_xVal	VW52 PairArray	float	B9CEB	235	1	V (pu)	-10.0 to 10.0	0,01	0
VW52_PairArray_P15_yVal	VW52 PairArray	float	B9CEC	236	1	P (pu)	-2.0 to 2.0	0,01	0
VW52_PairArray_P16_xVal	VW52 PairArray	float	B9CED	237	1	V (pu)	-10.0 to 10.0	0,01	0
VW52_PairArray_P16_yVal	VW52 PairArray	float	B9CEE	238	1	P (pu)	-2.0 to 2.0	0,01	0
VW52_PairArray_P17_xVal	VW52 PairArray	float	B9CEF	239	1	V (pu)	-10.0 to 10.0	0,01	0
VW52_PairArray_P17_yVal	VW52 PairArray	float	B9CF0	240	1	P (pu)	-2.0 to 2.0	0,01	0
VW52_PairArray_P18_xVal	VW52 PairArray	float	B9CF1	241	1	V (pu)	-10.0 to 10.0	0,01	0
VW52_PairArray_P18_yVal	VW52 PairArray	float	B9CF2	242	1	P (pu)	-2.0 to 2.0	0,01	0
VW52_PairArray_P19_xVal	VW52 PairArray	float	B9CF3	243	1	V (pu)	-10.0 to 10.0	0,01	0
VW52_PairArray_P19_yVal	VW52 PairArray	float	B9CF4	244	1	P (pu)	-2.0 to 2.0	0,01	0
VW52_DeptRef	Enumeration of the independent reference parameter units using SI units	int	B9CF5	245	1	N/A	0 to 6	1	5
VW52_RmpDecTmm	The maximum rate at which the dependent value (output) may be reduced in response to changes in the independent value (input). This is	float	B9CF6	246	1	puRef/ min	0.0 to 10.0	0,01	0

	represented in terms of % of Reference value (e.g. VArMax) per minute.								
VW52_RmpIncTmm	The maximum rate at which the dependent value (output) may be increased in response to changes in the independent value (input). This is represented in terms of % of Reference value per minute.	float	B9CF7	247	1	puRef/ min	0.0 to 10.0	0,01	0
VW52_RmpRsUp	The maximum rate at which the dependent value (output) may be increased after releasing the frozen value of snap shot function. This is represented in terms of % of Reference value (e.g. WMax) per minute (not implemented).	float	B9CF8	248	1	puRef/ min	0.0 to 10.0	0,01	0
PQ_WinTms	Time window (in s) within which to randomly execute a command (not implemented)	int	B9CF9	249	1	s	0 to 3600	1	0
PQ_RvrtTms	Timeout period (in s), after which the device will revert to its default status (not implemented)	int	B9CFA	250	1	s	0 to 86400	1	0
PQ_RmpTms	Ramp time (in s) for moving from current operational mode settings to new operational mode settings (not implemented)	int	B9CFB	251	1	s	0 to 3600	1	0
PQ_PairArray_NumPts	Number of points in the point array	int	B9CFC	252	1	N/A	0 to 20	1	5
PQ_PairArray_P0_xVal	PQ PairArray	float	B9CFD	253	1	P (pu)	-10.0 to 10.0	0,01	1
PQ_PairArray_P0_yVal	PQ PairArray	float	B9CFE	254	1	Q (pu)	-2.0 to 2.0	0,01	-0,33
PQ_PairArray_P1_xVal	PQ PairArray	float	B9CFF	255	1	P (pu)	-10.0 to 10.0	0,01	0,9
PQ_PairArray_P1_yVal	PQ PairArray	float	B9D00	256	1	Q (pu)	-2.0 to 2.0	0,01	-0,33
PQ_PairArray_P2_xVal	PQ PairArray	float	B9D01	257	1	P (pu)	-10.0 to 10.0	0,01	0,6
PQ_PairArray_P2_yVal	PQ PairArray	float	B9D02	258	1	Q (pu)	-2.0 to 2.0	0,01	-0,05
PQ_PairArray_P3_xVal	PQ PairArray	float	B9D03	259	1	P (pu)	-10.0 to 10.0	0,01	0
PQ_PairArray_P3_yVal	PQ PairArray	float	B9D04	260	1	Q (pu)	-2.0 to 2.0	0,01	0
PQ_PairArray_P4_xVal	PQ PairArray	float	B9D05	261	1	P (pu)	-10.0 to 10.0	0,01	0
PQ_PairArray_P4_yVal	PQ PairArray	float	B9D06	262	1	Q (pu)	-2.0 to 2.0	0,01	0
PQ_PairArray_P5_xVal	PQ PairArray	float	B9D07	263	1	P (pu)	-10.0 to 10.0	0,01	0
PQ_PairArray_P5_yVal	PQ PairArray	float	B9D08	264	1	Q (pu)	-2.0 to 2.0	0,01	0
PQ_PairArray_P6_xVal	PQ PairArray	float	B9D09	265	1	P (pu)	-10.0 to 10.0	0,01	0
PQ_PairArray_P6_yVal	PQ PairArray	float	B9D0A	266	1	Q (pu)	-2.0 to 2.0	0,01	0
PQ_PairArray_P7_xVal	PQ PairArray	float	B9D0B	267	1	P (pu)	-10.0 to 10.0	0,01	0
PQ_PairArray_P7_yVal	PQ PairArray	float	B9D0C	268	1	Q (pu)	-2.0 to 2.0	0,01	0
PQ_PairArray_P8_xVal	PQ PairArray	float	B9D0D	269	1	P (pu)	-10.0 to 10.0	0,01	0



PQ_PairArray_P8_yVal	PQ PairArray	float	B9D0E	270	1	Q (pu)	-2.0 to 2.0	0,01	0
PQ_PairArray_P9_xVal	PQ PairArray	float	B9D0F	271	1	P (pu)	-10.0 to 10.0	0,01	0
PQ_PairArray_P9_yVal	PQ PairArray	float	B9D10	272	1	Q (pu)	-2.0 to 2.0	0,01	0
PQ_PairArray_P10_xVal	PQ PairArray	float	B9D11	273	1	P (pu)	-10.0 to 10.0	0,01	0
PQ_PairArray_P10_yVal	PQ PairArray	float	B9D12	274	1	Q (pu)	-2.0 to 2.0	0,01	0
PQ_PairArray_P11_xVal	PQ PairArray	float	B9D13	275	1	P (pu)	-10.0 to 10.0	0,01	0
PQ_PairArray_P11_yVal	PQ PairArray	float	B9D14	276	1	Q (pu)	-2.0 to 2.0	0,01	0
PQ_PairArray_P12_xVal	PQ PairArray	float	B9D15	277	1	P (pu)	-10.0 to 10.0	0,01	0
PQ_PairArray_P12_yVal	PQ PairArray	float	B9D16	278	1	Q (pu)	-2.0 to 2.0	0,01	0
PQ_PairArray_P13_xVal	PQ PairArray	float	B9D17	279	1	P (pu)	-10.0 to 10.0	0,01	0
PQ_PairArray_P13_yVal	PQ PairArray	float	B9D18	280	1	Q (pu)	-2.0 to 2.0	0,01	0
PQ_PairArray_P14_xVal	PQ PairArray	float	B9D19	281	1	P (pu)	-10.0 to 10.0	0,01	0
PQ_PairArray_P14_yVal	PQ PairArray	float	B9D1A	282	1	Q (pu)	-2.0 to 2.0	0,01	0
PQ_PairArray_P15_xVal	PQ PairArray	float	B9D1B	283	1	P (pu)	-10.0 to 10.0	0,01	0
PQ_PairArray_P15_yVal	PQ PairArray	float	B9D1C	284	1	Q (pu)	-2.0 to 2.0	0,01	0
PQ_PairArray_P16_xVal	PQ PairArray	float	B9D1D	285	1	P (pu)	-10.0 to 10.0	0,01	0
PQ_PairArray_P16_yVal	PQ PairArray	float	B9D1E	286	1	Q (pu)	-2.0 to 2.0	0,01	0
PQ_PairArray_P17_xVal	PQ PairArray	float	B9D1F	287	1	P (pu)	-10.0 to 10.0	0,01	0
PQ_PairArray_P17_yVal	PQ PairArray	float	B9D20	288	1	Q (pu)	-2.0 to 2.0	0,01	0
PQ_PairArray_P18_xVal	PQ PairArray	float	B9D21	289	1	P (pu)	-10.0 to 10.0	0,01	0
PQ_PairArray_P18_yVal	PQ PairArray	float	B9D22	290	1	Q (pu)	-2.0 to 2.0	0,01	0
PQ_PairArray_P19_xVal	PQ PairArray	float	B9D23	291	1	P (pu)	-10.0 to 10.0	0,01	0
PQ_PairArray_P19_yVal	PQ PairArray	float	B9D24	292	1	Q (pu)	-2.0 to 2.0	0,01	0
PQ_DeptRef	Enumeration of the independent reference parameter units using SI units	int	B9D25	293	1	N/A	0 to 6	1	2
PQ_RmpDecTmm	The maximum rate at which the dependent value (output) may be reduced in response to changes in the independent value (input). This is represented in terms of % of Reference value (e.g. VArMax) per minute.	float	B9D26	294	1	puRef/ min	0.0 to 10.0	0,01	0
PQ_RmpIncTmm	The maximum rate at which the dependent value (output) may be increased in response to changes in the independent value (input). This is represented in terms of % of Reference value per minute.	float	B9D27	295	1	puRef/ min	0.0 to 10.0	0,01	0
PQ_RmpRsUp	The maximum rate at which the dependent value (output) may be increased after releasing the frozen value of snap shot function. This is represented in terms of % of Reference value (e.g. WMax)	float	B9D28	296	1	puRef/ min	0.0 to 10.0	0,01	0



	per minute (not implemented).								
VRT_RvrtTms	Timeout period (ms)	int	B9D29	297	1	ms	0 to 60000	1	5000
HVRT_Max_Volt_Ratio	Max AC/DC voltage ratio in order to provide HVRT dynamic network support	float	B9D2A	298	1	V (pu)	0.5 to 1.0	0,01	0,735
HVRT_Volt_Ratio_Hyst	Level of hysteresis relating to the HVRT voltage ratio	float	B9D2B	299	1	V (pu)	0.0 to 0.1	0,01	0
FW21_HzStopWGra	The maximum time-based rate of change at which power output returns to normal after having been capped by an over frequency event.	float	B9D2C	300	1	Hz/W	0.0 to 1.0	0.01	0,1
TV31_FilTms	Filter time window for calculating moving average voltage.	int	B9D2D	301	1	s	0 to 120	1	60
TV31_HoldTmms	Hold time (ms)	int	B9D2E	302	1	ms	0 to 60	1	10
TV31_DelTmms	Delay time prior to current injection (ms)	int	B9D2F	303	1	ms	0 to 100	1	15
RoCoF_trip_Freq_rate	Threshold rate of change of frequency Hz/s	float	B9D30	304	1	Hz/s	0.1 to 5.0	0.01	2,5
TV31_Priority	Determines the priority of pre-fault priority for Positive and negative sequence currents during a fault.	int	B9D30	304	1	N/A	0, 1	1	0
RoCoF_trip_delay_time	Delay time from detection to tripping	float	B9D31	305	1	s	0.0 to 600.0	0,01	0,08
RoCoF_N_cycles	Adjustable number of cycles in order to calculate the rate of change of frequency using voltage zero crossings	int	B9D32	306	1	N/A	4 to 60	1	5
RoCoF_error_time	Switch-on conditions evaluated as part of auto reconnection only after the set error time	float	B9D33	307	1	s	0.5 to 600.0	0,01	0
LVRT_Pos3Ph_NumPts	Number of points in the array	int	B9D61	353	2	N/A	0 to 15	1	0
LVRT_3Ph_NumPts	Number of points in the array	int	B9D61	353	2	N/A	0 to 15	1	
LVRT_Pos3Ph_sP0_x	LVRT Pos3ph PairArray	float	B9D62	354	2	V (pu)	0.0 to 2.0	0,01	0
LVRT_3Ph_sP0_x	LVRT 3ph PairArray	float	B9D62	354	2	V (pu)	0.0 to 100.0	0,01	
LVRT_Pos3Ph_sP0_T	LVRT Pos3ph PairArray	float	B9D63	355	2	s	0.0 to 3600.0	0,01	0
LVRT_3Ph_sP0_T	LVRT 3ph PairArray	float	B9D63	355	2	s	0.0 to 3600.0	0,01	
LVRT_Pos3Ph_sP1_x	LVRT Pos3ph PairArray	float	B9D64	356	2	V (pu)	0.0 to 2.0	0,01	0
LVRT_3Ph_sP1_x	LVRT 3ph PairArray	float	B9D64	356	2	V (pu)	0.0 to 100.0	0,01	
LVRT_Pos3Ph_sP1_T	LVRT Pos3ph PairArray	float	B9D65	357	2	s	0.0 to 3600.0	0,01	0
LVRT_3Ph_sP1_T	LVRT 3ph PairArray	float	B9D65	357	2	s	0.0 to 3600.0	0,01	
LVRT_Pos3Ph_sP2_x	LVRT Pos3ph PairArray	float	B9D66	358	2	V (pu)	0.0 to 2.0	0,01	0

LVRT_3Ph_sP2_x	LVRT 3ph PairArray	float	B9D66	358	2	V (pu)	0.0 to 100.0	0,01	
LVRT_Pos3Ph_sP2_T	LVRT Pos3ph PairArray	float	B9D67	359	2	s	0.0 to 3600.0	0,01	0
LVRT_3Ph_sP2_T	LVRT 3ph PairArray	float	B9D67	359	2	s	0.0 to 3600.0	0,01	
LVRT_Pos3Ph_sP3_x	LVRT Pos3ph PairArray	float	B9D68	360	2	V (pu)	0.0 to 2.0	0,01	0
LVRT_3Ph_sP3_x	LVRT 3ph PairArray	float	B9D68	360	2	V (pu)	0.0 to 100.0	0,01	
LVRT_Pos3Ph_sP3_T	LVRT Pos3ph PairArray	float	B9D69	361	2	s	0.0 to 3600.0	0,01	0
LVRT_3Ph_sP3_T	LVRT 3ph PairArray	float	B9D69	361	2	s	0.0 to 3600.0	0,01	
LVRT_Pos3Ph_sP4_x	LVRT Pos3ph PairArray	float	B9D6A	362	2	V (pu)	0.0 to 2.0	0,01	0
LVRT_3Ph_sP4_x	LVRT 3ph PairArray	float	B9D6A	362	2	V (pu)	0.0 to 100.0	0,01	
LVRT_Pos3Ph_sP4_T	LVRT Pos3ph PairArray	float	B9D6B	363	2	s	0.0 to 3600.0	0,01	0
LVRT_3Ph_sP4_T	LVRT 3ph PairArray	float	B9D6B	363	2	s	0.0 to 3600.0	0,01	
LVRT_Pos3Ph_sP5_x	LVRT Pos3ph PairArray	float	B9D6C	364	2	V (pu)	0.0 to 2.0	0,01	0
LVRT_3Ph_sP5_x	LVRT 3ph PairArray	float	B9D6C	364	2	V (pu)	0.0 to 100.0	0,01	
LVRT_Pos3Ph_sP5_T	LVRT Pos3ph PairArray	float	B9D6D	365	2	s	0.0 to 3600.0	0,01	0
LVRT_3Ph_sP5_T	LVRT 3ph PairArray	float	B9D6D	365	2	s	0.0 to 3600.0	0,01	
LVRT_Pos3Ph_sP6_x	LVRT Pos3ph PairArray	float	B9D6E	366	2	V (pu)	0.0 to 2.0	0,01	0
LVRT_3Ph_sP6_x	LVRT 3ph PairArray	float	B9D6E	366	2	V (pu)	0.0 to 100.0	0,01	
LVRT_Pos3Ph_sP6_T	LVRT Pos3ph PairArray	float	B9D6F	367	2	s	0.0 to 3600.0	0,01	0
LVRT_3Ph_sP6_T	LVRT 3ph PairArray	float	B9D6F	367	2	s	0.0 to 3600.0	0,01	
LVRT_Pos3Ph_sP7_x	LVRT Pos3ph PairArray	float	B9D70	368	2	V (pu)	0.0 to 2.0	0,01	0
LVRT_3Ph_sP7_x	LVRT 3ph PairArray	float	B9D70	368	2	V (pu)	0.0 to 100.0	0,01	
LVRT_Pos3Ph_sP7_T	LVRT Pos3ph PairArray	float	B9D71	369	2	s	0.0 to 3600.0	0,01	0
LVRT_3Ph_sP7_T	LVRT 3ph PairArray	float	B9D71	369	2	s	0.0 to 3600.0	0,01	
LVRT_Pos3Ph_sP8_x	LVRT Pos3ph PairArray	float	B9D72	370	2	V (pu)	0.0 to 2.0	0,01	0
LVRT_3Ph_sP8_x	LVRT 3ph PairArray	float	B9D72	370	2	V (pu)	0.0 to 100.0	0,01	
LVRT_Pos3Ph_sP8_T	LVRT Pos3ph PairArray	float	B9D73	371	2	s	0.0 to 3600.0	0,01	0
LVRT_3Ph_sP8_T	LVRT 3ph PairArray	float	B9D73	371	2	s	0.0 to 3600.0	0,01	
LVRT_Pos3Ph_sP9_x	LVRT Pos3ph PairArray	float	B9D74	372	2	V (pu)	0.0 to 2.0	0,01	0
LVRT_3Ph_sP9_x	LVRT 3ph PairArray	float	B9D74	372	2	V (pu)	0.0 to 100.0	0,01	
LVRT_Pos3Ph_sP9_T	LVRT Pos3ph PairArray	float	B9D75	373	2	s	0.0 to 3600.0	0,01	0
LVRT_3Ph_sP9_T	LVRT 3ph PairArray	float	B9D75	373	2	s	0.0 to 3600.0	0,01	
LVRT_Pos3Ph_sP10_x	LVRT Pos3ph PairArray	float	B9D76	374	2	V (pu)	0.0 to 2.0	0,01	0
LVRT_3Ph_sP10_x	LVRT 3ph PairArray	float	B9D76	374	2	V (pu)	0.0 to 100.0	0,01	
LVRT_Pos3Ph_sP10_T	LVRT Pos3ph PairArray	float	B9D77	375	2	s	0.0 to 3600.0	0,01	0
LVRT_3Ph_sP10_T	LVRT 3ph PairArray	float	B9D77	375	2	s	0.0 to 3600.0	0,01	
LVRT_Pos3Ph_sP11_x	LVRT Pos3ph PairArray	float	B9D78	376	2	V (pu)	0.0 to 2.0	0,01	0
LVRT_3Ph_sP11_x	LVRT 3ph PairArray	float	B9D78	376	2	V (pu)	0.0 to 100.0	0,01	
LVRT_Pos3Ph_sP11_T	LVRT Pos3ph PairArray	float	B9D79	377	2	s	0.0 to 3600.0	0,01	0
LVRT_3Ph_sP11_T	LVRT 3ph PairArray	float	B9D79	377	2	s	0.0 to 3600.0	0,01	
LVRT_Pos3Ph_sP12_x	LVRT Pos3ph PairArray	float	B9D7A	378	2	V (pu)	0.0 to 2.0	0,01	0

LVRT_3Ph_sP12_x	LVRT 3ph PairArray	float	B9D7A	378	2	V (pu)	0.0 to 100.0	0,01	
LVRT_Pos3Ph_sP12_T	LVRT Pos3ph PairArray	float	B9D7B	379	2	s	0.0 to 3600.0	0,01	0
LVRT_3Ph_sP12_T	LVRT 3ph PairArray	float	B9D7B	379	2	s	0.0 to 3600.0	0,01	
LVRT_Pos3Ph_sP13_x	LVRT Pos3ph PairArray	float	B9D7C	380	2	V (pu)	0.0 to 2.0	0,01	0
LVRT_3Ph_sP13_x	LVRT 3ph PairArray	float	B9D7C	380	2	V (pu)	0.0 to 100.0	0,01	
LVRT_Pos3Ph_sP13_T	LVRT Pos3ph PairArray	float	B9D7D	381	2	s	0.0 to 3600.0	0,01	0
LVRT_3Ph_sP13_T	LVRT 3ph PairArray	float	B9D7D	381	2	s	0.0 to 3600.0	0,01	
LVRT_Pos3Ph_sP14_x	LVRT Pos3ph PairArray	float	B9D7E	382	2	V (pu)	0.0 to 2.0	0,01	0
LVRT_3Ph_sP14_x	LVRT 3ph PairArray	float	B9D7E	382	2	V (pu)	0.0 to 100.0	0,01	
LVRT_Pos3Ph_sP14_T	LVRT Pos3ph PairArray	float	B9D7F	383	2	s	0.0 to 3600.0	0,01	0
LVRT_3Ph_sP14_T	LVRT 3ph PairArray	float	B9D7F	383	2	s	0.0 to 3600.0	0,01	
LVRT_Pos2Ph_NumPts	Number of points in the array	int	B9D80	384	2	N/A	0 to 15	1	0
LVRT_2Ph_NumPts	Number of points in the array	int	B9D80	384	2	N/A	0 to 15	1	
LVRT_Pos2Ph_sP0_x	LVRT Pos2ph PairArray	float	B9D81	385	2	V (pu)	0.0 to 2.0	0,01	0
LVRT_2Ph_sP0_x	LVRT 2ph PairArray	float	B9D81	385	2	V (pu)	0.0 to 100.0	0,01	
LVRT_Pos2Ph_sP0_T	LVRT Pos2ph PairArray	float	B9D82	386	2	s	0.0 to 3600.0	0,01	0
LVRT_2Ph_sP0_T	LVRT 2ph PairArray	float	B9D82	386	2	s	0.0 to 3600.0	0,01	
LVRT_Pos2Ph_sP1_x	LVRT Pos2ph PairArray	float	B9D83	387	2	V (pu)	0.0 to 2.0	0,01	0
LVRT_2Ph_sP1_x	LVRT 2ph PairArray	float	B9D83	387	2	V (pu)	0.0 to 100.0	0,01	
LVRT_Pos2Ph_sP1_T	LVRT Pos2ph PairArray	float	B9D84	388	2	s	0.0 to 3600.0	0,01	0
LVRT_2Ph_sP1_T	LVRT 2ph PairArray	float	B9D84	388	2	s	0.0 to 3600.0	0,01	
LVRT_Pos2Ph_sP2_x	LVRT Pos2ph PairArray	float	B9D85	389	2	V (pu)	0.0 to 2.0	0,01	0
LVRT_2Ph_sP2_x	LVRT 2ph PairArray	float	B9D85	389	2	V (pu)	0.0 to 100.0	0,01	
LVRT_Pos2Ph_sP2_T	LVRT Pos2ph PairArray	float	B9D86	390	2	s	0.0 to 3600.0	0,01	0
LVRT_2Ph_sP2_T	LVRT 2ph PairArray	float	B9D86	390	2	s	0.0 to 3600.0	0,01	
LVRT_Pos2Ph_sP3_x	LVRT Pos2ph PairArray	float	B9D87	391	2	V (pu)	0.0 to 2.0	0,01	0
LVRT_2Ph_sP3_x	LVRT 2ph PairArray	float	B9D87	391	2	V (pu)	0.0 to 100.0	0,01	
LVRT_Pos2Ph_sP3_T	LVRT Pos2ph PairArray	float	B9D88	392	2	s	0.0 to 3600.0	0,01	0
LVRT_2Ph_sP3_T	LVRT 2ph PairArray	float	B9D88	392	2	s	0.0 to 3600.0	0,01	
LVRT_Pos2Ph_sP4_x	LVRT Pos2ph PairArray	float	B9D89	393	2	V (pu)	0.0 to 2.0	0,01	0
LVRT_2Ph_sP4_x	LVRT 2ph PairArray	float	B9D89	393	2	V (pu)	0.0 to 100.0	0,01	
LVRT_Pos2Ph_sP4_T	LVRT Pos2ph PairArray	float	B9D8A	394	2	s	0.0 to 3600.0	0,01	0
LVRT_2Ph_sP4_T	LVRT 2ph PairArray	float	B9D8A	394	2	s	0.0 to 3600.0	0,01	
LVRT_Pos2Ph_sP5_x	LVRT Pos2ph PairArray	float	B9D8B	395	2	V (pu)	0.0 to 2.0	0,01	0
LVRT_2Ph_sP5_x	LVRT 2ph PairArray	float	B9D8B	395	2	V (pu)	0.0 to 100.0	0,01	
LVRT_Pos2Ph_sP5_T	LVRT Pos2ph PairArray	float	B9D8C	396	2	s	0.0 to 3600.0	0,01	0
LVRT_2Ph_sP5_T	LVRT 2ph PairArray	float	B9D8C	396	2	s	0.0 to 3600.0	0,01	
LVRT_Pos2Ph_sP6_x	LVRT Pos2ph PairArray	float	B9D8D	397	2	V (pu)	0.0 to 2.0	0,01	0
LVRT_2Ph_sP6_x	LVRT 2ph PairArray	float	B9D8D	397	2	V (pu)	0.0 to 100.0	0,01	

LVRT_Pos2Ph_sP6_T	LVRT Pos2ph PairArray	float	B9D8E	398	2	s	0.0 to 3600.0	0,01	0
LVRT_2Ph_sP6_T	LVRT 2ph PairArray	float	B9D8E	398	2	s	0.0 to 3600.0	0,01	
LVRT_Pos2Ph_sP7_x	LVRT Pos2ph PairArray	float	B9D8F	399	2	V (pu)	0.0 to 2.0	0,01	0
LVRT_2Ph_sP7_x	LVRT 2ph PairArray	float	B9D9F	399	2	V (pu)	0.0 to 100.0	0,01	
LVRT_Pos2Ph_sP7_T	LVRT Pos2ph PairArray	float	B9D90	400	2	s	0.0 to 3600.0	0,01	0
LVRT_2Ph_sP7_T	LVRT 2ph PairArray	float	B9D90	400	2	s	0.0 to 3600.0	0,01	
LVRT_Pos2Ph_sP8_x	LVRT Pos2ph PairArray	float	B9D91	401	2	V (pu)	0.0 to 2.0	0,01	0
LVRT_2Ph_sP8_x	LVRT 2ph PairArray	float	B9D91	401	2	V (pu)	0.0 to 100.0	0,01	
LVRT_Pos2Ph_sP8_T	LVRT Pos2ph PairArray	float	B9D92	402	2	s	0.0 to 3600.0	0,01	0
LVRT_2Ph_sP8_T	LVRT 2ph PairArray	float	B9D92	402	2	s	0.0 to 3600.0	0,01	
LVRT_Pos2Ph_sP9_x	LVRT Pos2ph PairArray	float	B9D93	403	2	V (pu)	0.0 to 2.0	0,01	0
LVRT_2Ph_sP9_x	LVRT 2ph PairArray	float	B9D93	403	2	V (pu)	0.0 to 100.0	0,01	
LVRT_Pos2Ph_sP9_T	LVRT Pos2ph PairArray	float	B9D94	404	2	s	0.0 to 3600.0	0,01	0
LVRT_2Ph_sP9_T	LVRT 2ph PairArray	float	B9D94	404	2	s	0.0 to 3600.0	0,01	
LVRT_Pos2Ph_sP10_x	LVRT Pos2ph PairArray	float	B9D95	405	2	V (pu)	0.0 to 2.0	0,01	0
LVRT_2Ph_sP10_x	LVRT 2ph PairArray	float	B9D95	405	2	V (pu)	0.0 to 100.0	0,01	
LVRT_Pos2Ph_sP10_T	LVRT Pos2ph PairArray	float	B9D96	406	2	s	0.0 to 3600.0	0,01	0
LVRT_2Ph_sP10_T	LVRT 2ph PairArray	float	B9D96	406	2	s	0.0 to 3600.0	0,01	
LVRT_Pos2Ph_sP11_x	LVRT Pos2ph PairArray	float	B9D97	407	2	V (pu)	0.0 to 2.0	0,01	0
LVRT_2Ph_sP11_x	LVRT 2ph PairArray	float	B9D97	407	2	V (pu)	0.0 to 100.0	0,01	
LVRT_Pos2Ph_sP11_T	LVRT Pos2ph PairArray	float	B9D98	408	2	s	0.0 to 3600.0	0,01	0
LVRT_2Ph_sP11_T	LVRT 2ph PairArray	float	B9D98	408	2	s	0.0 to 3600.0	0,01	
LVRT_Pos2Ph_sP12_x	LVRT Pos2ph PairArray	float	B9D99	409	2	V (pu)	0.0 to 2.0	0,01	0
LVRT_2Ph_sP12_x	LVRT 2ph PairArray	float	B9D99	409	2	V (pu)	0.0 to 100.0	0,01	
LVRT_Pos2Ph_sP12_T	LVRT Pos2ph PairArray	float	B9D9A	410	2	s	0.0 to 3600.0	0,01	0
LVRT_2Ph_sP12_T	LVRT 2ph PairArray	float	B9D9A	410	2	s	0.0 to 3600.0	0,01	
LVRT_Pos2Ph_sP13_x	LVRT Pos2ph PairArray	float	B9D9B	411	2	V (pu)	0.0 to 2.0	0,01	0
LVRT_2Ph_sP13_x	LVRT 2ph PairArray	float	B9D9B	411	2	V (pu)	0.0 to 100.0	0,01	
LVRT_Pos2Ph_sP13_T	LVRT Pos2ph PairArray	float	B9D9C	412	2	s	0.0 to 3600.0	0,01	0
LVRT_2Ph_sP13_T	LVRT 2ph PairArray	float	B9D9C	412	2	s	0.0 to 3600.0	0,01	
LVRT_Pos2Ph_sP14_x	LVRT Pos2ph PairArray	float	B9D9D	413	2	V (pu)	0.0 to 2.0	0,01	0
LVRT_2Ph_sP14_x	LVRT 2ph PairArray	float	B9D9D	413	2	V (pu)	0.0 to 100.0	0,01	
LVRT_Pos2Ph_sP14_T	LVRT Pos2ph PairArray	float	B9D9E	414	2	s	0.0 to 3600.0	0,01	0
LVRT_2Ph_sP14_T	LVRT 2ph PairArray	float	B9D9E	414	2	s	0.0 to 3600.0	0,01	
LVRT_Pos1Ph_NumPts	Number of points in the array	int	B9D9F	415	2	N/A	0 to 15	1	0
HVRT_3Ph_NumPts	Number of points in the array	int	B9D9F	415	2	N/A	0 to 15	1	
LVRT_Pos1Ph_sP0_x	LVRT Pos1ph PairArray	float	B9DA0	416	2	V (pu)	0.0 to 2.0	0,01	0
HVRT_3Ph_sP0_x	HVRT 3ph PairArray	float	B9DA0	416	2	V (pu)	0.0 to 100.0	0,01	
LVRT_Pos1Ph_sP0_T	LVRT Pos1ph PairArray	float	B9DA1	417	2	s	0.0 to 3600.0	0,01	0

HVRT_3Ph_sP0_T	HVRT 3ph PairArray	float	B9DA1	417	2	s	0.0 to 3600.0	0,01	
LVRT_Pos1Ph_sP1_x	LVRT Pos1ph PairArray	float	B9DA2	418	2	V (pu)	0.0 to 2.0	0,01	0
HVRT_3Ph_sP1_x	HVRT 3ph PairArray	float	B9DA2	418	2	V (pu)	0.0 to 100.0	0,01	
LVRT_Pos1Ph_sP1_T	LVRT Pos1ph PairArray	float	B9DA3	419	2	s	0.0 to 3600.0	0,01	0
HVRT_3Ph_sP1_T	HVRT 3ph PairArray	float	B9DA3	419	2	s	0.0 to 3600.0	0,01	
LVRT_Pos1Ph_sP2_x	LVRT Pos1ph PairArray	float	B9DA4	420	2	V (pu)	0.0 to 2.0	0,01	0
HVRT_3Ph_sP2_x	HVRT 3ph PairArray	float	B9DA4	420	2	V (pu)	0.0 to 100.0	0,01	
LVRT_Pos1Ph_sP2_T	LVRT Pos1ph PairArray	float	B9DA5	421	2	s	0.0 to 3600.0	0,01	0
HVRT_3Ph_sP2_T	HVRT 3ph PairArray	float	B9DA5	421	2	s	0.0 to 3600.0	0,01	
LVRT_Pos1Ph_sP3_x	LVRT Pos1ph PairArray	float	B9DA6	422	2	V (pu)	0.0 to 2.0	0,01	0
HVRT_3Ph_sP3_x	HVRT 3ph PairArray	float	B9DA6	422	2	V (pu)	0.0 to 100.0	0,01	
LVRT_Pos1Ph_sP3_T	LVRT Pos1ph PairArray	float	B9DA7	423	2	s	0.0 to 3600.0	0,01	0
HVRT_3Ph_sP3_T	HVRT 3ph PairArray	float	B9DA7	423	2	s	0.0 to 3600.0	0,01	
LVRT_Pos1Ph_sP4_x	LVRT Pos1ph PairArray	float	B9DA8	424	2	V (pu)	0.0 to 2.0	0,01	0
HVRT_3Ph_sP4_x	HVRT 3ph PairArray	float	B9DA8	424	2	V (pu)	0.0 to 100.0	0,01	
LVRT_Pos1Ph_sP4_T	LVRT Pos1ph PairArray	float	B9DA9	425	2	s	0.0 to 3600.0	0,01	0
HVRT_3Ph_sP4_T	HVRT 3ph PairArray	float	B9DA9	425	2	s	0.0 to 3600.0	0,01	
LVRT_Pos1Ph_sP5_x	LVRT Pos1ph PairArray	float	B9DAA	426	2	V (pu)	0.0 to 2.0	0,01	0
HVRT_3Ph_sP5_x	HVRT 3ph PairArray	float	B9DAA	426	2	V (pu)	0.0 to 100.0	0,01	
LVRT_Pos1Ph_sP5_T	LVRT Pos1ph PairArray	float	B9DAB	427	2	s	0.0 to 3600.0	0,01	0
HVRT_3Ph_sP5_T	HVRT 3ph PairArray	float	B9DAB	427	2	s	0.0 to 3600.0	0,01	
LVRT_Pos1Ph_sP6_x	LVRT Pos1ph PairArray	float	B9DAC	428	2	V (pu)	0.0 to 2.0	0,01	0
HVRT_3Ph_sP6_x	HVRT 3ph PairArray	float	B9DAC	428	2	V (pu)	0.0 to 100.0	0,01	
LVRT_Pos1Ph_sP6_T	LVRT Pos1ph PairArray	float	B9DAD	429	2	s	0.0 to 3600.0	0,01	0
HVRT_3Ph_sP6_T	HVRT 3ph PairArray	float	B9DAD	429	2	s	0.0 to 3600.0	0,01	
LVRT_Pos1Ph_sP7_x	LVRT Pos1ph PairArray	float	B9DAE	430	2	V (pu)	0.0 to 2.0	0,01	0
HVRT_3Ph_sP7_x	HVRT 3ph PairArray	float	B9DAE	430	2	V (pu)	0.0 to 100.0	0,01	
LVRT_Pos1Ph_sP7_T	LVRT Pos1ph PairArray	float	B9DAF	431	2	s	0.0 to 3600.0	0,01	0
HVRT_3Ph_sP7_T	HVRT 3ph PairArray	float	B9DAF	431	2	s	0.0 to 3600.0	0,01	
LVRT_Pos1Ph_sP8_x	LVRT Pos1ph PairArray	float	B9DB0	432	2	V (pu)	0.0 to 2.0	0,01	0
HVRT_3Ph_sP8_x	HVRT 3ph PairArray	float	B9DB0	432	2	V (pu)	0.0 to 100.0	0,01	
LVRT_Pos1Ph_sP8_T	LVRT Pos1ph PairArray	float	B9DB1	433	2	s	0.0 to 3600.0	0,01	0
HVRT_3Ph_sP8_T	HVRT 3ph PairArray	float	B9DB1	433	2	s	0.0 to 3600.0	0,01	
LVRT_Pos1Ph_sP9_x	LVRT Pos1ph PairArray	float	B9DB2	434	2	V (pu)	0.0 to 2.0	0,01	0
HVRT_3Ph_sP9_x	HVRT 3ph PairArray	float	B9DB2	434	2	V (pu)	0.0 to 100.0	0,01	
LVRT_Pos1Ph_sP9_T	LVRT Pos1ph PairArray	float	B9DB3	435	2	s	0.0 to 3600.0	0,01	0
HVRT_3Ph_sP9_T	HVRT 3ph PairArray	float	B9DB3	435	2	s	0.0 to 3600.0	0,01	
LVRT_Pos1Ph_sP10_x	LVRT Pos1ph PairArray	float	B9DB4	436	2	V (pu)	0.0 to 2.0	0,01	0
HVRT_3Ph_sP10_x	HVRT 3ph PairArray	float	B9DB4	436	2	V (pu)	0.0 to 100.0	0,01	
LVRT_Pos1Ph_sP10_T	LVRT Pos1ph PairArray	float	B9DB5	437	2	s	0.0 to 3600.0	0,01	0



HVRT_3Ph_sP10_T	HVRT 3ph PairArray	float	B9DB5	437	2	s	0.0 to 3600.0	0,01	
LVRT_Pos1Ph_sP11_x	LVRT Pos1ph PairArray	float	B9DB6	438	2	V (pu)	0.0 to 2.0	0,01	0
HVRT_3Ph_sP11_x	HVRT 3ph PairArray	float	B9DB6	438	2	V (pu)	0.0 to 100.0	0,01	
LVRT_Pos1Ph_sP11_T	LVRT Pos1ph PairArray	float	B9DB7	439	2	s	0.0 to 3600.0	0,01	0
HVRT_3Ph_sP11_T	HVRT 3ph PairArray	float	B9DB7	439	2	s	0.0 to 3600.0	0,01	
LVRT_Pos1Ph_sP12_x	LVRT Pos1ph PairArray	float	B9DB8	440	2	V (pu)	0.0 to 2.0	0,01	0
HVRT_3Ph_sP12_x	HVRT 3ph PairArray	float	B9DB8	440	2	V (pu)	0.0 to 100.0	0,01	
LVRT_Pos1Ph_sP12_T	LVRT Pos1ph PairArray	float	B9DB9	441	2	s	0.0 to 3600.0	0,01	0
HVRT_3Ph_sP12_T	HVRT 3ph PairArray	float	B9DB9	441	2	s	0.0 to 3600.0	0,01	
LVRT_Pos1Ph_sP13_x	LVRT Pos1ph PairArray	float	B9DBA	442	2	V (pu)	0.0 to 2.0	0,01	0
HVRT_3Ph_sP13_x	HVRT 3ph PairArray	float	B9DBA	442	2	V (pu)	0.0 to 100.0	0,01	
LVRT_Pos1Ph_sP13_T	LVRT Pos1ph PairArray	float	B9DBB	443	2	s	0.0 to 3600.0	0,01	0
HVRT_3Ph_sP13_T	HVRT 3ph PairArray	float	B9DBB	443	2	s	0.0 to 3600.0	0,01	
LVRT_Pos1Ph_sP14_x	LVRT Pos1ph PairArray	float	B9DBC	444	2	V (pu)	0.0 to 2.0	0,01	0
HVRT_3Ph_sP14_x	HVRT 3ph PairArray	float	B9DBC	444	2	V (pu)	0.0 to 100.0	0,01	
LVRT_Pos1Ph_sP14_T	LVRT Pos1ph PairArray	float	B9DBD	445	2	s	0.0 to 3600.0	0,01	0
HVRT_3Ph_sP14_T	HVRT 3ph PairArray	float	B9DBD	445	2	s	0.0 to 3600.0	0,01	
LVRT_Neg2Ph_NumPts	Number of points in the array	int	B9DBE	446	2	N/A	0 to 15	1	0
HVRT_2Ph_NumPts	Number of points in the array	int	B9DBE	446	2	N/A	0 to 15	1	
LVRT_Neg2Ph_sP0_x	LVRT Neg2ph PairArray	float	B9DBF	447	2	V (pu)	0.0 to 2.0	0,01	0
HVRT_2Ph_sP0_x	HVRT 2ph PairArray	float	B9DBF	447	2	V (pu)	0.0 to 100.0	0,01	
LVRT_Neg2Ph_sP0_T	LVRT Neg2ph PairArray	float	B9DC0	448	2	s	0.0 to 3600.0	0,01	0
HVRT_2Ph_sP0_T	HVRT 2ph PairArray	float	B9DC0	448	2	s	0.0 to 3600.0	0,01	
LVRT_Neg2Ph_sP1_x	LVRT Neg2ph PairArray	float	B9DC1	449	2	V (pu)	0.0 to 2.0	0,01	0
HVRT_2Ph_sP1_x	HVRT 2ph PairArray	float	B9DC1	449	2	V (pu)	0.0 to 100.0	0,01	
LVRT_Neg2Ph_sP1_T	LVRT Neg2ph PairArray	float	B9DC2	450	2	s	0.0 to 3600.0	0,01	0
HVRT_2Ph_sP1_T	HVRT 2ph PairArray	float	B9DC2	450	2	s	0.0 to 3600.0	0,01	
LVRT_Neg2Ph_sP2_x	LVRT Neg2ph PairArray	float	B9DC3	451	2	V (pu)	0.0 to 2.0	0,01	0
HVRT_2Ph_sP2_x	HVRT 2ph PairArray	float	B9DC3	451	2	V (pu)	0.0 to 100.0	0,01	
LVRT_Neg2Ph_sP2_T	LVRT Neg2ph PairArray	float	B9DC4	452	2	s	0.0 to 3600.0	0,01	0
HVRT_2Ph_sP2_T	HVRT 2ph PairArray	float	B9DC4	452	2	s	0.0 to 3600.0	0,01	
LVRT_Neg2Ph_sP3_x	LVRT Neg2ph PairArray	float	B9DC5	453	2	V (pu)	0.0 to 2.0	0,01	0
HVRT_2Ph_sP3_x	HVRT 2ph PairArray	float	B9DC5	453	2	V (pu)	0.0 to 100.0	0,01	
LVRT_Neg2Ph_sP3_T	LVRT Neg2ph PairArray	float	B9DC6	454	2	s	0.0 to 3600.0	0,01	0
HVRT_2Ph_sP3_T	HVRT 2ph PairArray	float	B9DC6	454	2	s	0.0 to 3600.0	0,01	
LVRT_Neg2Ph_sP4_x	LVRT Neg2ph PairArray	float	B9DC7	455	2	V (pu)	0.0 to 2.0	0,01	0
HVRT_2Ph_sP4_x	HVRT 2ph PairArray	float	B9DC7	455	2	V (pu)	0.0 to 100.0	0,01	
LVRT_Neg2Ph_sP4_T	LVRT Neg2ph PairArray	float	B9DC8	456	2	s	0.0 to 3600.0	0,01	0
HVRT_2Ph_sP4_T	HVRT 2ph PairArray	float	B9DC8	456	2	s	0.0 to 3600.0	0,01	

LVRT_Neg2Ph_sP5_x	LVRT Neg2ph PairArray	float	B9DC9	457	2	V (pu)	0.0 to 2.0	0,01	0
HVRT_2Ph_sP5_x	HVRT 2ph PairArray	float	B9DC9	457	2	V (pu)	0.0 to 100.0	0,01	
LVRT_Neg2Ph_sP5_T	LVRT Neg2ph PairArray	float	B9DCA	458	2	s	0.0 to 3600.0	0,01	0
HVRT_2Ph_sP5_T	HVRT 2ph PairArray	float	B9DCA	458	2	s	0.0 to 3600.0	0,01	
LVRT_Neg2Ph_sP6_x	LVRT Neg2ph PairArray	float	B9DCB	459	2	V (pu)	0.0 to 2.0	0,01	0
HVRT_2Ph_sP6_x	HVRT 2ph PairArray	float	B9DCB	459	2	V (pu)	0.0 to 100.0	0,01	
LVRT_Neg2Ph_sP6_T	LVRT Neg2ph PairArray	float	B9DCC	460	2	s	0.0 to 3600.0	0,01	0
HVRT_2Ph_sP6_T	HVRT 2ph PairArray	float	B9DCC	460	2	s	0.0 to 3600.0	0,01	
LVRT_Neg2Ph_sP7_x	LVRT Neg2ph PairArray	float	B9DCD	461	2	V (pu)	0.0 to 2.0	0,01	0
HVRT_2Ph_sP7_x	HVRT 2ph PairArray	float	B9DCD	461	2	V (pu)	0.0 to 100.0	0,01	
LVRT_Neg2Ph_sP7_T	LVRT Neg2ph PairArray	float	B9DCE	462	2	s	0.0 to 3600.0	0,01	0
HVRT_2Ph_sP7_T	HVRT 2ph PairArray	float	B9DCE	462	2	s	0.0 to 3600.0	0,01	
LVRT_Neg2Ph_sP8_x	LVRT Neg2ph PairArray	float	B9DCF	463	2	V (pu)	0.0 to 2.0	0,01	0
HVRT_2Ph_sP8_x	HVRT 2ph PairArray	float	B9DCF	463	2	V (pu)	0.0 to 100.0	0,01	
LVRT_Neg2Ph_sP8_T	LVRT Neg2ph PairArray	float	B9DD0	464	2	s	0.0 to 3600.0	0,01	0
HVRT_2Ph_sP8_T	HVRT 2ph PairArray	float	B9DD0	464	2	s	0.0 to 3600.0	0,01	
LVRT_Neg2Ph_sP9_x	LVRT Neg2ph PairArray	float	B9DD1	465	2	V (pu)	0.0 to 2.0	0,01	0
HVRT_2Ph_sP9_x	HVRT 2ph PairArray	float	B9DD1	465	2	V (pu)	0.0 to 100.0	0,01	
LVRT_Neg2Ph_sP9_T	LVRT Neg2ph PairArray	float	B9DD2	466	2	s	0.0 to 3600.0	0,01	0
HVRT_2Ph_sP9_T	HVRT 2ph PairArray	float	B9DD2	466	2	s	0.0 to 3600.0	0,01	
LVRT_Neg2Ph_sP10_x	LVRT Neg2ph PairArray	float	B9DD3	467	2	V (pu)	0.0 to 2.0	0,01	0
HVRT_2Ph_sP10_x	HVRT 2ph PairArray	float	B9DD3	467	2	V (pu)	0.0 to 100.0	0,01	
LVRT_Neg2Ph_sP10_T	LVRT Neg2ph PairArray	float	B9DD4	468	2	s	0.0 to 3600.0	0,01	0
HVRT_2Ph_sP10_T	HVRT 2ph PairArray	float	B9DD4	468	2	s	0.0 to 3600.0	0,01	
LVRT_Neg2Ph_sP11_x	LVRT Neg2ph PairArray	float	B9DD5	469	2	V (pu)	0.0 to 2.0	0,01	0
HVRT_2Ph_sP11_x	HVRT 2ph PairArray	float	B9DD5	469	2	V (pu)	0.0 to 100.0	0,01	
LVRT_Neg2Ph_sP11_T	LVRT Neg2ph PairArray	float	B9DD6	470	2	s	0.0 to 3600.0	0,01	0
HVRT_2Ph_sP11_T	HVRT 2ph PairArray	float	B9DD6	470	2	s	0.0 to 3600.0	0,01	
LVRT_Neg2Ph_sP12_x	LVRT Neg2ph PairArray	float	B9DD7	471	2	V (pu)	0.0 to 2.0	0,01	0
HVRT_2Ph_sP12_x	HVRT 2ph PairArray	float	B9DD7	471	2	V (pu)	0.0 to 100.0	0,01	
LVRT_Neg2Ph_sP12_T	LVRT Neg2ph PairArray	float	B9DD8	472	2	s	0.0 to 3600.0	0,01	0
HVRT_2Ph_sP12_T	HVRT 2ph PairArray	float	B9DD8	472	2	s	0.0 to 3600.0	0,01	
LVRT_Neg2Ph_sP13_x	LVRT Neg2ph PairArray	float	B9DD9	473	2	V (pu)	0.0 to 2.0	0,01	0
HVRT_2Ph_sP13_x	HVRT 2ph PairArray	float	B9DD9	473	2	V (pu)	0.0 to 100.0	0,01	
LVRT_Neg2Ph_sP13_T	LVRT Neg2ph PairArray	float	B9DDA	474	2	s	0.0 to 3600.0	0,01	0
HVRT_2Ph_sP13_T	HVRT 2ph PairArray	float	B9DDA	474	2	s	0.0 to 3600.0	0,01	
LVRT_Neg2Ph_sP14_x	LVRT Neg2ph PairArray	float	B9DDB	475	2	V (pu)	0.0 to 2.0	0,01	0
HVRT_2Ph_sP14_x	HVRT 2ph PairArray	float	B9DDB	475	2	V (pu)	0.0 to 100.0	0,01	
LVRT_Neg2Ph_sP14_T	LVRT Neg2ph PairArray	float	B9DDC	476	2	s	0.0 to 3600.0	0,01	0
HVRT_2Ph_sP14_T	HVRT 2ph PairArray	float	B9DDC	476	2	s	0.0 to 3600.0	0,01	



LVRT_Neg1Ph_NumPts	Number of points in the array	int	B9DDD	477	2	N/A	0 to 15	1	0
LVRT_Neg1Ph_sP0_x	LVRT Neg1ph PairArray	float	B9DDE	478	2	V (pu)	0.0 to 2.0	0,01	0
LVRT_Neg1Ph_sP0_T	LVRT Neg1ph PairArray	float	B9DDF	479	2	s	0.0 to 3600.0	0,01	0
LVRT_Neg1Ph_sP1_x	LVRT Neg1ph PairArray	float	B9DE0	480	2	V (pu)	0.0 to 2.0	0,01	0
LVRT_Neg1Ph_sP1_T	LVRT Neg1ph PairArray	float	B9DE1	481	2	s	0.0 to 3600.0	0,01	0
LVRT_Neg1Ph_sP2_x	LVRT Neg1ph PairArray	float	B9DE2	482	2	V (pu)	0.0 to 2.0	0,01	0
LVRT_Neg1Ph_sP2_T	LVRT Neg1ph PairArray	float	B9DE3	483	2	s	0.0 to 3600.0	0,01	0
LVRT_Neg1Ph_sP3_x	LVRT Neg1ph PairArray	float	B9DE4	484	2	V (pu)	0.0 to 2.0	0,01	0
LVRT_Neg1Ph_sP3_T	LVRT Neg1ph PairArray	float	B9DE5	485	2	s	0.0 to 3600.0	0,01	0
LVRT_Neg1Ph_sP4_x	LVRT Neg1ph PairArray	float	B9DE6	486	2	V (pu)	0.0 to 2.0	0,01	0
LVRT_Neg1Ph_sP4_T	LVRT Neg1ph PairArray	float	B9DE7	487	2	s	0.0 to 3600.0	0,01	0
LVRT_Neg1Ph_sP5_x	LVRT Neg1ph PairArray	float	B9DE8	488	2	V (pu)	0.0 to 2.0	0,01	0
LVRT_Neg1Ph_sP5_T	LVRT Neg1ph PairArray	float	B9DE9	489	2	s	0.0 to 3600.0	0,01	0
LVRT_Neg1Ph_sP6_x	LVRT Neg1ph PairArray	float	B9DEA	490	2	V (pu)	0.0 to 2.0	0,01	0
LVRT_Neg1Ph_sP6_T	LVRT Neg1ph PairArray	float	B9DEB	491	2	s	0.0 to 3600.0	0,01	0
LVRT_Neg1Ph_sP7_x	LVRT Neg1ph PairArray	float	B9DEC	492	2	V (pu)	0.0 to 2.0	0,01	0
LVRT_Neg1Ph_sP7_T	LVRT Neg1ph PairArray	float	B9DED	493	2	s	0.0 to 3600.0	0,01	0
LVRT_Neg1Ph_sP8_x	LVRT Neg1ph PairArray	float	B9DEE	494	2	V (pu)	0.0 to 2.0	0,01	0
LVRT_Neg1Ph_sP8_T	LVRT Neg1ph PairArray	float	B9DEF	495	2	s	0.0 to 3600.0	0,01	0
LVRT_Neg1Ph_sP9_x	LVRT Neg1ph PairArray	float	B9DF0	496	2	V (pu)	0.0 to 2.0	0,01	0
LVRT_Neg1Ph_sP9_T	LVRT Neg1ph PairArray	float	B9DF1	497	2	s	0.0 to 3600.0	0,01	0
LVRT_Neg1Ph_sP10_x	LVRT Neg1ph PairArray	float	B9DF2	498	2	V (pu)	0.0 to 2.0	0,01	0
LVRT_Neg1Ph_sP10_T	LVRT Neg1ph PairArray	float	B9DF3	499	2	s	0.0 to 3600.0	0,01	0
LVRT_Neg1Ph_sP11_x	LVRT Neg1ph PairArray	float	B9DF4	500	2	V (pu)	0.0 to 2.0	0,01	0
LVRT_Neg1Ph_sP11_T	LVRT Neg1ph PairArray	float	B9DF5	501	2	s	0.0 to 3600.0	0,01	0
LVRT_Neg1Ph_sP12_x	LVRT Neg1ph PairArray	float	B9DF6	502	2	V (pu)	0.0 to 2.0	0,01	0
LVRT_Neg1Ph_sP12_T	LVRT Neg1ph PairArray	float	B9DF7	503	2	s	0.0 to 3600.0	0,01	0
LVRT_Neg1Ph_sP13_x	LVRT Neg1ph PairArray	float	B9DF8	504	2	V (pu)	0.0 to 2.0	0,01	0
LVRT_Neg1Ph_sP13_T	LVRT Neg1ph PairArray	float	B9DF9	505	2	s	0.0 to 3600.0	0,01	0
LVRT_Neg1Ph_sP14_x	LVRT Neg1ph PairArray	float	B9DFA	506	2	V (pu)	0.0 to 2.0	0,01	0
LVRT_Neg1Ph_sP14_T	LVRT Neg1ph PairArray	float	B9DFB	507	2	s	0.0 to 3600.0	0,01	0
HVRT_Pos3Ph_NumPts	Number of points in the array	int	B9DFC	508	2	N/A	0 to 15	1	0
HVRT_Pos3Ph_sP0_x	HVRT Pos3ph PairArray	float	B9DFD	509	2	V (pu)	0.0 to 2.0	0,01	0
HVRT_Pos3Ph_sP0_T	HVRT Pos3ph PairArray	float	B9DFE	510	2	s	0.0 to 3600.0	0,01	0
HVRT_Pos3Ph_sP1_x	HVRT Pos3ph PairArray	float	B9DFF	511	2	V (pu)	0.0 to 2.0	0,01	0

HVRT_Pos3Ph_sP1_T	HVRT Pos3ph PairArray	float	B9E00	512	2	s	0.0 to 3600.0	0,01	0
HVRT_Pos3Ph_sP2_x	HVRT Pos3ph PairArray	float	B9E01	513	2	V (pu)	0.0 to 2.0	0,01	0
HVRT_Pos3Ph_sP2_T	HVRT Pos3ph PairArray	float	B9E02	514	2	s	0.0 to 3600.0	0,01	0
HVRT_Pos3Ph_sP3_x	HVRT Pos3ph PairArray	float	B9E03	515	2	V (pu)	0.0 to 2.0	0,01	0
HVRT_Pos3Ph_sP3_T	HVRT Pos3ph PairArray	float	B9E04	516	2	s	0.0 to 3600.0	0,01	0
HVRT_Pos3Ph_sP4_x	HVRT Pos3ph PairArray	float	B9E05	517	2	V (pu)	0.0 to 2.0	0,01	0
HVRT_Pos3Ph_sP4_T	HVRT Pos3ph PairArray	float	B9E06	518	2	s	0.0 to 3600.0	0,01	0
HVRT_Pos3Ph_sP5_x	HVRT Pos3ph PairArray	float	B9E07	519	2	V (pu)	0.0 to 2.0	0,01	0
HVRT_Pos3Ph_sP5_T	HVRT Pos3ph PairArray	float	B9E08	520	2	s	0.0 to 3600.0	0,01	0
HVRT_Pos3Ph_sP6_x	HVRT Pos3ph PairArray	float	B9E09	521	2	V (pu)	0.0 to 2.0	0,01	0
HVRT_Pos3Ph_sP6_T	HVRT Pos3ph PairArray	float	B9E0A	522	2	s	0.0 to 3600.0	0,01	0
HVRT_Pos3Ph_sP7_x	HVRT Pos3ph PairArray	float	B9E0B	523	2	V (pu)	0.0 to 2.0	0,01	0
HVRT_Pos3Ph_sP7_T	HVRT Pos3ph PairArray	float	B9E0C	524	2	s	0.0 to 3600.0	0,01	0
HVRT_Pos3Ph_sP8_x	HVRT Pos3ph PairArray	float	B9E0D	525	2	V (pu)	0.0 to 2.0	0,01	0
HVRT_Pos3Ph_sP8_T	HVRT Pos3ph PairArray	float	B9E0E	526	2	s	0.0 to 3600.0	0,01	0
HVRT_Pos3Ph_sP9_x	HVRT Pos3ph PairArray	float	B9E0F	527	2	V (pu)	0.0 to 2.0	0,01	0
HVRT_Pos3Ph_sP9_T	HVRT Pos3ph PairArray	float	B9E10	528	2	s	0.0 to 3600.0	0,01	0
HVRT_Pos3Ph_sP10_x	HVRT Pos3ph PairArray	float	B9E11	529	2	V (pu)	0.0 to 2.0	0,01	0
HVRT_Pos3Ph_sP10_T	HVRT Pos3ph PairArray	float	B9E12	530	2	s	0.0 to 3600.0	0,01	0
HVRT_Pos3Ph_sP11_x	HVRT Pos3ph PairArray	float	B9E13	531	2	V (pu)	0.0 to 2.0	0,01	0
HVRT_Pos3Ph_sP11_T	HVRT Pos3ph PairArray	float	B9E14	532	2	s	0.0 to 3600.0	0,01	0
HVRT_Pos3Ph_sP12_x	HVRT Pos3ph PairArray	float	B9E15	533	2	V (pu)	0.0 to 2.0	0,01	0
HVRT_Pos3Ph_sP12_T	HVRT Pos3ph PairArray	float	B9E16	534	2	s	0.0 to 3600.0	0,01	0
HVRT_Pos3Ph_sP13_x	HVRT Pos3ph PairArray	float	B9E17	535	2	V (pu)	0.0 to 2.0	0,01	0
HVRT_Pos3Ph_sP13_T	HVRT Pos3ph PairArray	float	B9E18	536	2	s	0.0 to 3600.0	0,01	0
HVRT_Pos3Ph_sP14_x	HVRT Pos3ph PairArray	float	B9E19	537	2	V (pu)	0.0 to 2.0	0,01	0
HVRT_Pos3Ph_sP14_T	HVRT Pos3ph PairArray	float	B9E1A	538	2	s	0.0 to 3600.0	0,01	0
HVRT_Pos2Ph_NumPts	Number of points in the array	int	B9E1B	539	2	N/A	0 to 15	1	0
HVRT_Pos2Ph_sP0_x	HVRT Pos2ph PairArray	float	B9E1C	540	2	V (pu)	0.0 to 2.0	0,01	0
HVRT_Pos2Ph_sP0_T	HVRT Pos2ph PairArray	float	B9E1D	541	2	s	0.0 to 3600.0	0,01	0
HVRT_Pos2Ph_sP1_x	HVRT Pos2ph PairArray	float	B9E1E	542	2	V (pu)	0.0 to 2.0	0,01	0
HVRT_Pos2Ph_sP1_T	HVRT Pos2ph PairArray	float	B9E1F	543	2	s	0.0 to 3600.0	0,01	0
HVRT_Pos2Ph_sP2_x	HVRT Pos2ph PairArray	float	B9E20	544	2	V (pu)	0.0 to 2.0	0,01	0
HVRT_Pos2Ph_sP2_T	HVRT Pos2ph PairArray	float	B9E21	545	2	s	0.0 to 3600.0	0,01	0
HVRT_Pos2Ph_sP3_x	HVRT Pos2ph PairArray	float	B9E22	546	2	V (pu)	0.0 to 2.0	0,01	0

HVRT_Pos2Ph_sP3_T	HVRT Pos2ph PairArray	float	B9E23	547	2	s	0.0 to 3600.0	0,01	0
HVRT_Pos2Ph_sP4_x	HVRT Pos2ph PairArray	float	B9E24	548	2	V (pu)	0.0 to 2.0	0,01	0
HVRT_Pos2Ph_sP4_T	HVRT Pos2ph PairArray	float	B9E25	549	2	s	0.0 to 3600.0	0,01	0
HVRT_Pos2Ph_sP5_x	HVRT Pos2ph PairArray	float	B9E26	550	2	V (pu)	0.0 to 2.0	0,01	0
HVRT_Pos2Ph_sP5_T	HVRT Pos2ph PairArray	float	B9E27	551	2	s	0.0 to 3600.0	0,01	0
HVRT_Pos2Ph_sP6_x	HVRT Pos2ph PairArray	float	B9E28	552	2	V (pu)	0.0 to 2.0	0,01	0
HVRT_Pos2Ph_sP6_T	HVRT Pos2ph PairArray	float	B9E29	553	2	s	0.0 to 3600.0	0,01	0
HVRT_Pos2Ph_sP7_x	HVRT Pos2ph PairArray	float	B9E2A	554	2	V (pu)	0.0 to 2.0	0,01	0
HVRT_Pos2Ph_sP7_T	HVRT Pos2ph PairArray	float	B9E2B	555	2	s	0.0 to 3600.0	0,01	0
HVRT_Pos2Ph_sP8_x	HVRT Pos2ph PairArray	float	B9E2C	556	2	V (pu)	0.0 to 2.0	0,01	0
HVRT_Pos2Ph_sP8_T	HVRT Pos2ph PairArray	float	B9E2D	557	2	s	0.0 to 3600.0	0,01	0
HVRT_Pos2Ph_sP9_x	HVRT Pos2ph PairArray	float	B9E2E	558	2	V (pu)	0.0 to 2.0	0,01	0
HVRT_Pos2Ph_sP9_T	HVRT Pos2ph PairArray	float	B9E2F	559	2	s	0.0 to 3600.0	0,01	0
HVRT_Pos2Ph_sP10_x	HVRT Pos2ph PairArray	float	B9E30	560	2	V (pu)	0.0 to 2.0	0,01	0
HVRT_Pos2Ph_sP10_T	HVRT Pos2ph PairArray	float	B9E31	561	2	s	0.0 to 3600.0	0,01	0
HVRT_Pos2Ph_sP11_x	HVRT Pos2ph PairArray	float	B9E32	562	2	V (pu)	0.0 to 2.0	0,01	0
HVRT_Pos2Ph_sP11_T	HVRT Pos2ph PairArray	float	B9E33	563	2	s	0.0 to 3600.0	0,01	0
HVRT_Pos2Ph_sP12_x	HVRT Pos2ph PairArray	float	B9E34	564	2	V (pu)	0.0 to 2.0	0,01	0
HVRT_Pos2Ph_sP12_T	HVRT Pos2ph PairArray	float	B9E35	565	2	s	0.0 to 3600.0	0,01	0
HVRT_Pos2Ph_sP13_x	HVRT Pos2ph PairArray	float	B9E36	566	2	V (pu)	0.0 to 2.0	0,01	0
HVRT_Pos2Ph_sP13_T	HVRT Pos2ph PairArray	float	B9E37	567	2	s	0.0 to 3600.0	0,01	0
HVRT_Pos2Ph_sP14_x	HVRT Pos2ph PairArray	float	B9E38	568	2	V (pu)	0.0 to 2.0	0,01	0
HVRT_Pos2Ph_sP14_T	HVRT Pos2ph PairArray	float	B9E39	569	2	s	0.0 to 3600.0	0,01	0
HVRT_Pos1Ph_NumPts	Number of points in the array	int	B9E3A	570	2	N/A	0 to 15	1	0
HVRT_Pos1Ph_sP0_x	HVRT Pos1ph PairArray	float	B9E3B	571	2	V (pu)	0.0 to 2.0	0,01	0
HVRT_Pos1Ph_sP0_T	HVRT Pos1ph PairArray	float	B9E3C	572	2	s	0.0 to 3600.0	0,01	0
HVRT_Pos1Ph_sP1_x	HVRT Pos1ph PairArray	float	B9E3D	573	2	V (pu)	0.0 to 2.0	0,01	0
HVRT_Pos1Ph_sP1_T	HVRT Pos1ph PairArray	float	B9E3E	574	2	s	0.0 to 3600.0	0,01	0
HVRT_Pos1Ph_sP2_x	HVRT Pos1ph PairArray	float	B9E3F	575	2	V (pu)	0.0 to 2.0	0,01	0
HVRT_Pos1Ph_sP2_T	HVRT Pos1ph PairArray	float	B9E40	576	2	s	0.0 to 3600.0	0,01	0
HVRT_Pos1Ph_sP3_x	HVRT Pos1ph PairArray	float	B9E41	577	2	V (pu)	0.0 to 2.0	0,01	0
HVRT_Pos1Ph_sP3_T	HVRT Pos1ph PairArray	float	B9E42	578	2	s	0.0 to 3600.0	0,01	0
HVRT_Pos1Ph_sP4_x	HVRT Pos1ph PairArray	float	B9E43	579	2	V (pu)	0.0 to 2.0	0,01	0
HVRT_Pos1Ph_sP4_T	HVRT Pos1ph PairArray	float	B9E44	580	2	s	0.0 to 3600.0	0,01	0
HVRT_Pos1Ph_sP5_x	HVRT Pos1ph PairArray	float	B9E45	581	2	V (pu)	0.0 to 2.0	0,01	0

HVRT_Pos1Ph_sP5_T	HVRT Pos1ph PairArray	float	B9E46	582	2	s	0.0 to 3600.0	0,01	0
HVRT_Pos1Ph_sP6_x	HVRT Pos1ph PairArray	float	B9E47	583	2	V (pu)	0.0 to 2.0	0,01	0
HVRT_Pos1Ph_sP6_T	HVRT Pos1ph PairArray	float	B9E48	584	2	s	0.0 to 3600.0	0,01	0
HVRT_Pos1Ph_sP7_x	HVRT Pos1ph PairArray	float	B9E49	585	2	V (pu)	0.0 to 2.0	0,01	0
HVRT_Pos1Ph_sP7_T	HVRT Pos1ph PairArray	float	B9E4A	586	2	s	0.0 to 3600.0	0,01	0
HVRT_Pos1Ph_sP8_x	HVRT Pos1ph PairArray	float	B9E4B	587	2	V (pu)	0.0 to 2.0	0,01	0
HVRT_Pos1Ph_sP8_T	HVRT Pos1ph PairArray	float	B9E4C	588	2	s	0.0 to 3600.0	0,01	0
HVRT_Pos1Ph_sP9_x	HVRT Pos1ph PairArray	float	B9E4D	589	2	V (pu)	0.0 to 2.0	0,01	0
HVRT_Pos1Ph_sP9_T	HVRT Pos1ph PairArray	float	B9E4E	590	2	s	0.0 to 3600.0	0,01	0
HVRT_Pos1Ph_sP10_x	HVRT Pos1ph PairArray	float	B9E4F	591	2	V (pu)	0.0 to 2.0	0,01	0
HVRT_Pos1Ph_sP10_T	HVRT Pos1ph PairArray	float	B9E50	592	2	s	0.0 to 3600.0	0,01	0
HVRT_Pos1Ph_sP11_x	HVRT Pos1ph PairArray	float	B9E51	593	2	V (pu)	0.0 to 2.0	0,01	0
HVRT_Pos1Ph_sP11_T	HVRT Pos1ph PairArray	float	B9E52	594	2	s	0.0 to 3600.0	0,01	0
HVRT_Pos1Ph_sP12_x	HVRT Pos1ph PairArray	float	B9E53	595	2	V (pu)	0.0 to 2.0	0,01	0
HVRT_Pos1Ph_sP12_T	HVRT Pos1ph PairArray	float	B9E54	596	2	s	0.0 to 3600.0	0,01	0
HVRT_Pos1Ph_sP13_x	HVRT Pos1ph PairArray	float	B9E55	597	2	V (pu)	0.0 to 2.0	0,01	0
HVRT_Pos1Ph_sP13_T	HVRT Pos1ph PairArray	float	B9E56	598	2	s	0.0 to 3600.0	0,01	0
HVRT_Pos1Ph_sP14_x	HVRT Pos1ph PairArray	float	B9E57	599	2	V (pu)	0.0 to 2.0	0,01	0
HVRT_Pos1Ph_sP14_T	HVRT Pos1ph PairArray	float	B9E58	600	2	s	0.0 to 3600.0	0,01	0
HVRT_Neg2Ph_NumPts	Number of points in the array	int	B9E59	601	2	N/A	0 to 15	1	0
HVRT_Neg2Ph_sP0_x	HVRT Neg2ph PairArray	float	B9E5A	602	2	V (pu)	0.0 to 2.0	0,01	0
HVRT_Neg2Ph_sP0_T	HVRT Neg2ph PairArray	float	B9E5B	603	2	s	0.0 to 3600.0	0,01	0
HVRT_Neg2Ph_sP1_x	HVRT Neg2ph PairArray	float	B9E5C	604	2	V (pu)	0.0 to 2.0	0,01	0
HVRT_Neg2Ph_sP1_T	HVRT Neg2ph PairArray	float	B9E5D	605	2	s	0.0 to 3600.0	0,01	0
HVRT_Neg2Ph_sP2_x	HVRT Neg2ph PairArray	float	B9E5E	606	2	V (pu)	0.0 to 2.0	0,01	0
HVRT_Neg2Ph_sP2_T	HVRT Neg2ph PairArray	float	B9E5F	607	2	s	0.0 to 3600.0	0,01	0
HVRT_Neg2Ph_sP3_x	HVRT Neg2ph PairArray	float	B9E60	608	2	V (pu)	0.0 to 2.0	0,01	0
HVRT_Neg2Ph_sP3_T	HVRT Neg2ph PairArray	float	B9E61	609	2	s	0.0 to 3600.0	0,01	0
HVRT_Neg2Ph_sP4_x	HVRT Neg2ph PairArray	float	B9E62	610	2	V (pu)	0.0 to 2.0	0,01	0
HVRT_Neg2Ph_sP4_T	HVRT Neg2ph PairArray	float	B9E63	611	2	s	0.0 to 3600.0	0,01	0
HVRT_Neg2Ph_sP5_x	HVRT Neg2ph PairArray	float	B9E64	612	2	V (pu)	0.0 to 2.0	0,01	0
HVRT_Neg2Ph_sP5_T	HVRT Neg2ph PairArray	float	B9E65	613	2	s	0.0 to 3600.0	0,01	0
HVRT_Neg2Ph_sP6_x	HVRT Neg2ph PairArray	float	B9E66	614	2	V (pu)	0.0 to 2.0	0,01	0
HVRT_Neg2Ph_sP6_T	HVRT Neg2ph PairArray	float	B9E67	615	2	s	0.0 to 3600.0	0,01	0
HVRT_Neg2Ph_sP7_x	HVRT Neg2ph PairArray	float	B9E68	616	2	V (pu)	0.0 to 2.0	0,01	0

HVRT_Neg2Ph_sP7_T	HVRT Neg2ph PairArray	float	B9E69	617	2	s	0.0 to 3600.0	0,01	0
HVRT_Neg2Ph_sP8_x	HVRT Neg2ph PairArray	float	B9E6A	618	2	V (pu)	0.0 to 2.0	0,01	0
HVRT_Neg2Ph_sP8_T	HVRT Neg2ph PairArray	float	B9E6B	619	2	s	0.0 to 3600.0	0,01	0
HVRT_Neg2Ph_sP9_x	HVRT Neg2ph PairArray	float	B9E6C	620	2	V (pu)	0.0 to 2.0	0,01	0
HVRT_Neg2Ph_sP9_T	HVRT Neg2ph PairArray	float	B9E6D	621	2	s	0.0 to 3600.0	0,01	0
HVRT_Neg2Ph_sP10_x	HVRT Neg2ph PairArray	float	B9E6E	622	2	V (pu)	0.0 to 2.0	0,01	0
HVRT_Neg2Ph_sP10_T	HVRT Neg2ph PairArray	float	B9E6F	623	2	s	0.0 to 3600.0	0,01	0
HVRT_Neg2Ph_sP11_x	HVRT Neg2ph PairArray	float	B9E70	624	2	V (pu)	0.0 to 2.0	0,01	0
HVRT_Neg2Ph_sP11_T	HVRT Neg2ph PairArray	float	B9E71	625	2	s	0.0 to 3600.0	0,01	0
HVRT_Neg2Ph_sP12_x	HVRT Neg2ph PairArray	float	B9E72	626	2	V (pu)	0.0 to 2.0	0,01	0
HVRT_Neg2Ph_sP12_T	HVRT Neg2ph PairArray	float	B9E73	627	2	s	0.0 to 3600.0	0,01	0
HVRT_Neg2Ph_sP13_x	HVRT Neg2ph PairArray	float	B9E74	628	2	V (pu)	0.0 to 2.0	0,01	0
HVRT_Neg2Ph_sP13_T	HVRT Neg2ph PairArray	float	B9E75	629	2	s	0.0 to 3600.0	0,01	0
HVRT_Neg2Ph_sP14_x	HVRT Neg2ph PairArray	float	B9E76	630	2	V (pu)	0.0 to 2.0	0,01	0
HVRT_Neg2Ph_sP14_T	HVRT Neg2ph PairArray	float	B9E77	631	2	s	0.0 to 3600.0	0,01	0
HVRT_Neg1Ph_NumPts	Number of points in the array	int	B9E78	632	2	N/A	0 to 15	1	0
HVRT_Neg1Ph_sP0_x	HVRT Neg1ph PairArray	float	B9E79	633	2	V (pu)	0.0 to 2.0	0,01	0
HVRT_Neg1Ph_sP0_T	HVRT Neg1ph PairArray	float	B9E7A	634	2	s	0.0 to 3600.0	0,01	0
HVRT_Neg1Ph_sP1_x	HVRT Neg1ph PairArray	float	B9E7B	635	2	V (pu)	0.0 to 2.0	0,01	0
HVRT_Neg1Ph_sP1_T	HVRT Neg1ph PairArray	float	B9E7C	636	2	s	0.0 to 3600.0	0,01	0
HVRT_Neg1Ph_sP2_x	HVRT Neg1ph PairArray	float	B9E7D	637	2	V (pu)	0.0 to 2.0	0,01	0
HVRT_Neg1Ph_sP2_T	HVRT Neg1ph PairArray	float	B9E7E	638	2	s	0.0 to 3600.0	0,01	0
HVRT_Neg1Ph_sP3_x	HVRT Neg1ph PairArray	float	B9E7F	639	2	V (pu)	0.0 to 2.0	0,01	0
HVRT_Neg1Ph_sP3_T	HVRT Neg1ph PairArray	float	B9E80	640	2	s	0.0 to 3600.0	0,01	0
HVRT_Neg1Ph_sP4_x	HVRT Neg1ph PairArray	float	B9E81	641	2	V (pu)	0.0 to 2.0	0,01	0
HVRT_Neg1Ph_sP4_T	HVRT Neg1ph PairArray	float	B9E82	642	2	s	0.0 to 3600.0	0,01	0
HVRT_Neg1Ph_sP5_x	HVRT Neg1ph PairArray	float	B9E83	643	2	V (pu)	0.0 to 2.0	0,01	0
HVRT_Neg1Ph_sP5_T	HVRT Neg1ph PairArray	float	B9E84	644	2	s	0.0 to 3600.0	0,01	0
HVRT_Neg1Ph_sP6_x	HVRT Neg1ph PairArray	float	B9E85	645	2	V (pu)	0.0 to 2.0	0,01	0
HVRT_Neg1Ph_sP6_T	HVRT Neg1ph PairArray	float	B9E86	646	2	s	0.0 to 3600.0	0,01	0
HVRT_Neg1Ph_sP7_x	HVRT Neg1ph PairArray	float	B9E87	647	2	V (pu)	0.0 to 2.0	0,01	0
HVRT_Neg1Ph_sP7_T	HVRT Neg1ph PairArray	float	B9E88	648	2	s	0.0 to 3600.0	0,01	0
HVRT_Neg1Ph_sP8_x	HVRT Neg1ph PairArray	float	B9E89	649	2	V (pu)	0.0 to 2.0	0,01	0
HVRT_Neg1Ph_sP8_T	HVRT Neg1ph PairArray	float	B9E8A	650	2	s	0.0 to 3600.0	0,01	0
HVRT_Neg1Ph_sP9_x	HVRT Neg1ph PairArray	float	B9E8B	651	2	V (pu)	0.0 to 2.0	0,01	0



HVRT_Neg1Ph_sP9_T	HVRT Neg1ph PairArray	float	B9E8C	652	2	s	0.0 to 3600.0	0,01	0
HVRT_Neg1Ph_sP10_x	HVRT Neg1ph PairArray	float	B9E8D	653	2	V (pu)	0.0 to 2.0	0,01	0
HVRT_Neg1Ph_sP10_T	HVRT Neg1ph PairArray	float	B9E8E	654	2	s	0.0 to 3600.0	0,01	0
HVRT_Neg1Ph_sP11_x	HVRT Neg1ph PairArray	float	B9E8F	655	2	V (pu)	0.0 to 2.0	0,01	0
HVRT_Neg1Ph_sP11_T	HVRT Neg1ph PairArray	float	B9E90	656	2	s	0.0 to 3600.0	0,01	0
HVRT_Neg1Ph_sP12_x	HVRT Neg1ph PairArray	float	B9E91	657	2	V (pu)	0.0 to 2.0	0,01	0
HVRT_Neg1Ph_sP12_T	HVRT Neg1ph PairArray	float	B9E92	658	2	s	0.0 to 3600.0	0,01	0
HVRT_Neg1Ph_sP13_x	HVRT Neg1ph PairArray	float	B9E93	659	2	V (pu)	0.0 to 2.0	0,01	0
HVRT_Neg1Ph_sP13_T	HVRT Neg1ph PairArray	float	B9E94	660	2	s	0.0 to 3600.0	0,01	0
HVRT_Neg1Ph_sP14_x	HVRT Neg1ph PairArray	float	B9E95	661	2	V (pu)	0.0 to 2.0	0,01	0
HVRT_Neg1Ph_sP14_T	HVRT Neg1ph PairArray	float	B9E96	662	2	s	0.0 to 3600.0	0,01	0
LVRTD_NumPts	Number of points in the array	int	B9E97	663	2	N/A	0 to 15	1	3
LVRTD_sP0_x	LVRTD PairArray	float	B9E98	664	2	V (pu)	0.0 to 100.0	0,01	0,9
LVRTD_sP0_T	LVRTD PairArray	float	B9E99	665	2	s	0.0 to 3600.0	0,01	60
LVRTD_sP1_x	LVRTD PairArray	float	B9E9A	666	2	V (pu)	0.0 to 100.0	0,01	0,8
LVRTD_sP1_T	LVRTD PairArray	float	B9E9B	667	2	s	0.0 to 3600.0	0,01	2,4
LVRTD_sP2_x	LVRTD PairArray	float	B9E9C	668	2	V (pu)	0.0 to 100.0	0,01	0,3
LVRTD_sP2_T	LVRTD PairArray	float	B9E9D	669	2	s	0.0 to 3600.0	0,01	0,8
LVRTD_sP3_x	LVRTD PairArray	float	B9E9E	670	2	V (pu)	0.0 to 100.0	0,01	0
LVRTD_sP3_T	LVRTD PairArray	float	B9E9F	671	2	s	0.0 to 3600.0	0,01	0
LVRTD_sP4_x	LVRTD PairArray	float	B9EA0	672	2	V (pu)	0.0 to 100.0	0,01	0
LVRTD_sP4_T	LVRTD PairArray	float	B9EA1	673	2	s	0.0 to 3600.0	0,01	0
LVRTD_sP5_x	LVRTD PairArray	float	B9EA2	674	2	V (pu)	0.0 to 100.0	0,01	0
LVRTD_sP5_T	LVRTD PairArray	float	B9EA3	675	2	s	0.0 to 3600.0	0,01	0
LVRTD_sP6_x	LVRTD PairArray	float	B9EA4	676	2	V (pu)	0.0 to 100.0	0,01	0
LVRTD_sP6_T	LVRTD PairArray	float	B9EA5	677	2	s	0.0 to 3600.0	0,01	0
LVRTD_sP7_x	LVRTD PairArray	float	B9EA6	678	2	V (pu)	0.0 to 100.0	0,01	0
LVRTD_sP7_T	LVRTD PairArray	float	B9EA7	679	2	s	0.0 to 3600.0	0,01	0
LVRTD_sP8_x	LVRTD PairArray	float	B9EA8	680	2	V (pu)	0.0 to 100.0	0,01	0
LVRTD_sP8_T	LVRTD PairArray	float	B9EA9	681	2	s	0.0 to 3600.0	0,01	0
LVRTD_sP9_x	LVRTD PairArray	float	B9EAA	682	2	V (pu)	0.0 to 100.0	0,01	0
LVRTD_sP9_T	LVRTD PairArray	float	B9EAB	683	2	s	0.0 to 3600.0	0,01	0
LVRTD_sP10_x	LVRTD PairArray	float	B9EAC	684	2	V (pu)	0.0 to 100.0	0,01	0
LVRTD_sP10_T	LVRTD PairArray	float	B9EAD	685	2	s	0.0 to 3600.0	0,01	0
LVRTD_sP11_x	LVRTD PairArray	float	B9EAE	686	2	V (pu)	0.0 to 100.0	0,01	0
LVRTD_sP11_T	LVRTD PairArray	float	B9EAF	687	2	s	0.0 to 3600.0	0,01	0
LVRTD_sP12_x	LVRTD PairArray	float	B9EB0	688	2	V (pu)	0.0 to 100.0	0,01	0
LVRTD_sP12_T	LVRTD PairArray	float	B9EB1	689	2	s	0.0 to 3600.0	0,01	0
LVRTD_sP13_x	LVRTD PairArray	float	B9EB2	690	2	V (pu)	0.0 to 100.0	0,01	0
LVRTD_sP13_T	LVRTD PairArray	float	B9EB3	691	2	s	0.0 to 3600.0	0,01	0
LVRTD_sP14_x	LVRTD PairArray	float	B9EB4	692	2	V (pu)	0.0 to 100.0	0,01	0
LVRTD_sP14_T	LVRTD PairArray	float	B9EB5	693	2	s	0.0 to 3600.0	0,01	0

HVRTD_NumPts	Number of points in the array	int	B9EB6	694	2	N/A	0 to 15	1	3
HVRTD_sP0_x	HVRTD PairArray	float	B9EB7	695	2	V (pu)	0.0 to 100.0	0,01	1,1
HVRTD_sP0_T	HVRTD PairArray	float	B9EB8	696	2	s	0.0 to 3600.0	0,01	60
HVRTD_sP1_x	HVRTD PairArray	float	B9EB9	697	2	V (pu)	0.0 to 100.0	0,01	1,15
HVRTD_sP1_T	HVRTD PairArray	float	B9EBA	698	2	s	0.0 to 3600.0	0,01	0,1
HVRTD_sP2_x	HVRTD PairArray	float	B9EBB	699	2	V (pu)	0.0 to 100.0	0,01	1,25
HVRTD_sP2_T	HVRTD PairArray	float	B9EBC	700	2	s	0.0 to 3600.0	0,01	0,1
HVRTD_sP3_x	HVRTD PairArray	float	B9EBD	701	2	V (pu)	0.0 to 100.0	0,01	0
HVRTD_sP3_T	HVRTD PairArray	float	B9EBE	702	2	s	0.0 to 3600.0	0,01	0
HVRTD_sP4_x	HVRTD PairArray	float	B9EBF	703	2	V (pu)	0.0 to 100.0	0,01	0
HVRTD_sP4_T	HVRTD PairArray	float	B9EC0	704	2	s	0.0 to 3600.0	0,01	0
HVRTD_sP5_x	HVRTD PairArray	float	B9EC1	705	2	V (pu)	0.0 to 100.0	0,01	0
HVRTD_sP5_T	HVRTD PairArray	float	B9EC2	706	2	s	0.0 to 3600.0	0,01	0
HVRTD_sP6_x	HVRTD PairArray	float	B9EC3	707	2	V (pu)	0.0 to 100.0	0,01	0
HVRTD_sP6_T	HVRTD PairArray	float	B9EC4	708	2	s	0.0 to 3600.0	0,01	0
HVRTD_sP7_x	HVRTD PairArray	float	B9EC5	709	2	V (pu)	0.0 to 100.0	0,01	0
HVRTD_sP7_T	HVRTD PairArray	float	B9EC6	710	2	s	0.0 to 3600.0	0,01	0
HVRTD_sP8_x	HVRTD PairArray	float	B9EC7	711	2	V (pu)	0.0 to 100.0	0,01	0
HVRTD_sP8_T	HVRTD PairArray	float	B9EC8	712	2	s	0.0 to 3600.0	0,01	0
HVRTD_sP9_x	HVRTD PairArray	float	B9EC9	713	2	V (pu)	0.0 to 100.0	0,01	0
HVRTD_sP9_T	HVRTD PairArray	float	B9ECA	714	2	s	0.0 to 3600.0	0,01	0
HVRTD_sP10_x	HVRTD PairArray	float	B9ECB	715	2	V (pu)	0.0 to 100.0	0,01	0
HVRTD_sP10_T	HVRTD PairArray	float	B9ECC	716	2	s	0.0 to 3600.0	0,01	0
HVRTD_sP11_x	HVRTD PairArray	float	B9ECD	717	2	V (pu)	0.0 to 100.0	0,01	0
HVRTD_sP11_T	HVRTD PairArray	float	B9ECE	718	2	s	0.0 to 3600.0	0,01	0
HVRTD_sP12_x	HVRTD PairArray	float	B9ECF	719	2	V (pu)	0.0 to 100.0	0,01	0
HVRTD_sP12_T	HVRTD PairArray	float	B9ED0	720	2	s	0.0 to 3600.0	0,01	0
HVRTD_sP13_x	HVRTD PairArray	float	B9ED1	721	2	V (pu)	0.0 to 100.0	0,01	0
HVRTD_sP13_T	HVRTD PairArray	float	B9ED2	722	2	s	0.0 to 3600.0	0,01	0
HVRTD_sP14_x	HVRTD PairArray	float	B9ED3	723	2	V (pu)	0.0 to 100.0	0,01	0
HVRTD_sP14_T	HVRTD PairArray	float	B9ED4	724	2	s	0.0 to 3600.0	0,01	0
LFRTD_NumPts	Number of points in the array	int	B9ED5	725	2	N/A	0 to 15	1	2
LFRTD_sP0_x	LFRTD PairArray	float	B9ED6	726	2	Hz	0.0 to 100.0	0,01	49
LFRTD_sP0_T	LFRTD PairArray	float	B9ED7	727	2	s	0.0 to 3600.0	0,01	1800
LFRTD_sP1_x	LFRTD PairArray	float	B9ED8	728	2	Hz	0.0 to 100.0	0,01	47,5
LFRTD_sP1_T	LFRTD PairArray	float	B9ED9	729	2	s	0.0 to 3600.0	0,01	0,1
LFRTD_sP2_x	LFRTD PairArray	float	B9EDA	730	2	Hz	0.0 to 100.0	0,01	0
LFRTD_sP2_T	LFRTD PairArray	float	B9EDB	731	2	s	0.0 to 3600.0	0,01	0
LFRTD_sP3_x	LFRTD PairArray	float	B9EDC	732	2	Hz	0.0 to 100.0	0,01	0
LFRTD_sP3_T	LFRTD PairArray	float	B9EDD	733	2	s	0.0 to 3600.0	0,01	0
LFRTD_sP4_x	LFRTD PairArray	float	B9EDE	734	2	Hz	0.0 to 100.0	0,01	0
LFRTD_sP4_T	LFRTD PairArray	float	B9EDF	735	2	s	0.0 to 3600.0	0,01	0
LFRTD_sP5_x	LFRTD PairArray	float	B9EE0	736	2	Hz	0.0 to 100.0	0,01	0
LFRTD_sP5_T	LFRTD PairArray	float	B9EE1	737	2	s	0.0 to 3600.0	0,01	0



LFRTD_sP6_x	LFRTD PairArray	float	B9EE2	738	2	Hz	0.0 to 100.0	0,01	0
LFRTD_sP6_T	LFRTD PairArray	float	B9EE3	739	2	s	0.0 to 3600.0	0,01	0
LFRTD_sP7_x	LFRTD PairArray	float	B9EE4	740	2	Hz	0.0 to 100.0	0,01	0
LFRTD_sP7_T	LFRTD PairArray	float	B9EE5	741	2	s	0.0 to 3600.0	0,01	0
LFRTD_sP8_x	LFRTD PairArray	float	B9EE6	742	2	Hz	0.0 to 100.0	0,01	0
LFRTD_sP8_T	LFRTD PairArray	float	B9EE7	743	2	s	0.0 to 3600.0	0,01	0
LFRTD_sP9_x	LFRTD PairArray	float	B9EE8	744	2	Hz	0.0 to 100.0	0,01	0
LFRTD_sP9_T	LFRTD PairArray	float	B9EE9	745	2	s	0.0 to 3600.0	0,01	0
LFRTD_sP10_x	LFRTD PairArray	float	B9EEA	746	2	Hz	0.0 to 100.0	0,01	0
LFRTD_sP10_T	LFRTD PairArray	float	B9EEB	747	2	s	0.0 to 3600.0	0,01	0
LFRTD_sP11_x	LFRTD PairArray	float	B9EEC	748	2	Hz	0.0 to 100.0	0,01	0
LFRTD_sP11_T	LFRTD PairArray	float	B9EED	749	2	s	0.0 to 3600.0	0,01	0
LFRTD_sP12_x	LFRTD PairArray	float	B9EEE	750	2	Hz	0.0 to 100.0	0,01	0
LFRTD_sP12_T	LFRTD PairArray	float	B9EEF	751	2	s	0.0 to 3600.0	0,01	0
LFRTD_sP13_x	LFRTD PairArray	float	B9EF0	752	2	Hz	0.0 to 100.0	0,01	0
LFRTD_sP13_T	LFRTD PairArray	float	B9EF1	753	2	s	0.0 to 3600.0	0,01	0
LFRTD_sP14_x	LFRTD PairArray	float	B9EF2	754	2	Hz	0.0 to 100.0	0,01	0
LFRTD_sP14_T	LFRTD PairArray	float	B9EF3	755	2	s	0.0 to 3600.0	0,01	0
HFRTD_NumPts	Number of points in the array	int	B9EF4	756	2	N/A	0 to 15	1	3
HFRTD_sP0_x	HFRTD PairArray	float	B9EF5	757	2	Hz	0.0 to 100.0	0,01	51
HFRTD_sP0_T	HFRTD PairArray	float	B9EF6	758	2	s	0.0 to 3600.0	0,01	1800
HFRTD_sP1_x	HFRTD PairArray	float	B9EF7	759	2	Hz	0.0 to 100.0	0,01	51,5
HFRTD_sP1_T	HFRTD PairArray	float	B9EF8	760	2	s	0.0 to 3600.0	0,01	5
HFRTD_sP2_x	HFRTD PairArray	float	B9EF9	761	2	Hz	0.0 to 100.0	0,01	52,5
HFRTD_sP2_T	HFRTD PairArray	float	B9EFA	762	2	s	0.0 to 3600.0	0,01	0,1
HFRTD_sP3_x	HFRTD PairArray	float	B9EFB	763	2	Hz	0.0 to 100.0	0,01	0
HFRTD_sP3_T	HFRTD PairArray	float	B9EFC	764	2	s	0.0 to 3600.0	0,01	0
HFRTD_sP4_x	HFRTD PairArray	float	B9EFD	765	2	Hz	0.0 to 100.0	0,01	0
HFRTD_sP4_T	HFRTD PairArray	float	B9EFE	766	2	s	0.0 to 3600.0	0,01	0
HFRTD_sP5_x	HFRTD PairArray	float	B9EFF	767	2	Hz	0.0 to 100.0	0,01	0
HFRTD_sP5_T	HFRTD PairArray	float	B9F00	768	2	s	0.0 to 3600.0	0,01	0
HFRTD_sP6_x	HFRTD PairArray	float	B9F01	769	2	Hz	0.0 to 100.0	0,01	0
HFRTD_sP6_T	HFRTD PairArray	float	B9F02	770	2	s	0.0 to 3600.0	0,01	0
HFRTD_sP7_x	HFRTD PairArray	float	B9F03	771	2	Hz	0.0 to 100.0	0,01	0
HFRTD_sP7_T	HFRTD PairArray	float	B9F04	772	2	s	0.0 to 3600.0	0,01	0
HFRTD_sP8_x	HFRTD PairArray	float	B9F05	773	2	Hz	0.0 to 100.0	0,01	0
HFRTD_sP8_T	HFRTD PairArray	float	B9F06	774	2	s	0.0 to 3600.0	0,01	0
HFRTD_sP9_x	HFRTD PairArray	float	B9F07	775	2	Hz	0.0 to 100.0	0,01	0
HFRTD_sP9_T	HFRTD PairArray	float	B9F08	776	2	s	0.0 to 3600.0	0,01	0
HFRTD_sP10_x	HFRTD PairArray	float	B9F09	777	2	Hz	0.0 to 100.0	0,01	0
HFRTD_sP10_T	HFRTD PairArray	float	B9F0A	778	2	s	0.0 to 3600.0	0,01	0
HFRTD_sP11_x	HFRTD PairArray	float	B9F0B	779	2	Hz	0.0 to 100.0	0,01	0
HFRTD_sP11_T	HFRTD PairArray	float	B9F0C	780	2	s	0.0 to 3600.0	0,01	0
HFRTD_sP12_x	HFRTD PairArray	float	B9F0D	781	2	Hz	0.0 to 100.0	0,01	0
HFRTD_sP12_T	HFRTD PairArray	float	B9F0E	782	2	s	0.0 to 3600.0	0,01	0

HFRTD_sP13_x	HFRTD PairArray	float	B9F0F	783	2	Hz	0.0 to 100.0	0,01	0
HFRTD_sP13_T	HFRTD PairArray	float	B9F10	784	2	s	0.0 to 3600.0	0,01	0
HFRTD_sP14_x	HFRTD PairArray	float	B9F11	785	2	Hz	0.0 to 100.0	0,01	0
HFRTD_sP14_T	HFRTD PairArray	float	B9F12	786	2	s	0.0 to 3600.0	0,01	0
VFDet_LVFltThr	Low voltage fault threshold for positive sequence voltage in p.u.	float	B9F13	787	2	V (pu)	0.5 to 0.99	0,01	0,9
VFDet_LVRcyThr	Low voltage fault recovery threshold for positive sequence voltage in p.u. Must be greater than VFDet_LVFltThr	float	B9F14	788	2	V (pu)	0.5 to 0.99	0,01	0,91
VFDet_HVFltThr	High voltage fault threshold for positive sequence voltage in p.u.	float	B9F15	789	2	V (pu)	1.01 to 1.5	0,01	1,1
VFDet_HVRcyThr	High voltage fault recovery threshold for positive sequence voltage in p.u. Must be less than VFDet_HVFltThr	float	B9F16	790	2	V (pu)	1.01 to 1.5	0,01	1,09
VFDet_VNegFltThr	Fault threshold for negative sequence voltage in p.u.	float	B9F17	791	2	V (pu)	0.01 to 0.5	0,01	0,033
VFDet_VNegRcyThr	Fault recovery threshold for negative sequence voltage in p.u. Must be less than VFDet_VNegFltThr	float	B9F18	792	2	V (pu)	0.01 to 0.5	0,01	0,03
INV3_PFSign	Power factor sign convention (1 = IEC; 2 = EEI)	int	B9F19	793	2	N/A	1, 2	1	2
FW21_WGra	Active power gradient in percent of frozen active power value per Hz	float	B9F1A	794	2	Hz/W	0.0 to 1.0	0.01	1
FW21_HzStop	Delta frequency between stop frequency and nominal grid frequency	float	B9F1B	795	2	Hz	0.0 to 5.0	0,01	0,1
FW21_HzStr	Delta frequency between start frequency and nominal grid frequency	float	B9F1C	796	2	Hz	0.0 to 5.0	0,01	0,2
FW21_SnptW	Snapshot of power: 0 Off, the snapshot is not active (read only)	int	B9F1D	797	2	N/A			0
TV31_ArGraMod	Mode of reactive current characteristic: selects between that edges, and where the gradients trend toward zero at the center	int	B9F1E	798	2	N/A	0, 1, 2	1	2
TV31_ArGraSag	Gradient for reactive current during a voltage sag (0 gradient implies no reactive current feed-in)	float	B9F1F	799	2	N/A	0.0 to 10.0	0,1	2
TV31_ArGraSwell	Gradient for reactive current during a voltage swell (0 gradient implies no	float	B9F20	800	2	N/A	0.0 to 10.0	0,1	2

	reactive current feed-in)								
TV31_DbVMin	Lower limit, voltage dead band	float	B9F21	801	2	V (pu)	0.0 to 1.0	0,01	0,1
TV31_DbVMax	Upper limit, voltage dead band	float	B9F22	802	2	V (pu)	0.0 to 1.0	0,01	0,1
TV31_BlkZnTmms	Block zone time (ms)	int	B9F23	803	2	ms	0 to 10000	1	5000
TV31_BlkZnV	Block zone voltage	float	B9F24	804	2	V	0.0 to 690.0	0,01	0
TV31_HysBlkZnV	Hysteresis voltage	float	B9F25	805	2	V	0.0 to 100.0	0,01	0
WP41_WStr	Power of start point	float	B9F41	833	3	P (pu)	-1.0 to 1.0	0,01	0.2
WP41_WStop	Power of stop point	float	B9F42	834	3	P (pu)	-1.0 to 1.0	0,01	0.4
WP41_PFStr	Power factor of start point	float	B9F43	835	3	pf	-1.0 to -0.6, 0.6 to 1.0	0.001	0,9
WP41_PFStop	Power factor of stop point	float	B9F44	836	3	pf	-1.0 to -0.6, 0.6 to 1.0	0.001	0,85
WP41_PFExtStr	Excitation of start point (1 = Underexcited, 0 = overexcited)	int	B9F45	837	3	N/A	0, 1	1	0
WP41_PFExtStop	Excitation of stop point (1 = Underexcited, 0 = overexcited)	int	B9F46	838	3	N/A	0, 1	1	1
FW22_StlTms	Settling time under FW22 once frequency reaches nominal frequency	int	B9F47	839	3	s	0 to 600	1	600
TolAbrVFltPU	Tolerance levels for the Abrupt voltage response	float	B9F48	840	3	V (pu)	0.0 to 0.15	0,01	0,05
TimeAbrVFltRcvy	Time during which the abrupt voltage response will operate (ms)	float	B9F49	841	3	ms	0 to 10000	0.01	5000
FaultRecDelayTms	Blocking delay after start of a fault (ms)	int	B9F4A	842	3	ms	0 to 10000	1	5000
FaultDelayFW22Tms	Blocking delay for FW22 response after start of a fault (ms)	int	B9F4B	843	3	ms	0 to 5000	1	500
FW22_HystCharge	This ensures a hysteresis response to over frequency changes only in charge mode	int	B9F4C	844	3	N/A	0, 1	1	0
GCPProfileID	Unique identifier of the Grid Code profile	int	B9F4D	845	3	N/A	1 to 65535	1	1
ProtectFreqRate	Threshold rate of change of frequency Hz/s for Overvoltage protection	float	B9F4E	846	3	Hz/s	0.1 to 5.0	0.01	4
ProtectFreqTime	Delay time from detection to tripping for Overvoltage protection	float	B9F4F	847	3	s	0.0 to 600.0	0,01	0,002
ProtectFreqNCycles	Adjustable number of cycles in order to calculate the rate of change of frequency using voltage zero crossings for Overvoltage protection	int	B9F50	848	3	N/A	4 to 60	1	5
ProtectFreqErrTime	Switch-on conditions evaluated as part of auto reconnection only after the set error time for	float	B9F51	849	3	s	0.5 to 600.0	0,01	0

	Overvoltage protection								
FW21_Pm	actual active power, capped at its current output level (read only)	float	B9FE2	38849		P (pu)	0.0 to 100.0	0.01	
TV31_LvrtSt	When 1, low voltage ride-through incident is occurring (read only)	int	B9FE3	38851		N/A	0 or 1	1	
VArAval	Available vars (read only)	float	B9FE4	38853		kVar	0.0 to 100.0	0.01	
ServiceError	Service Error Message (read only)	float	B9FE5	38855		N/A	0 to 12	1	
GCFuncActive	Provides a decimal value indicating the various grid code functions active at the time of reading this parameter (read only)	int		38857		N/A		1	
DERNum	Number of DER units connected to controller or number of units	int	B9FC1	40603	4	N/A	0 to 16	1	1
ReconnRmpUp_ModEna	Reconnection ramp enable	int	B9FC2	40605	4	N/A	0, 1	1	0
PrampMax	Power gradients at a maximum rate of x % P <sub>Max</sub> (= W <sub>Max</sub> ) per second. Applied during reconnection and INV4	float	B9FC3	40607	4	puW/s	0.0001 to 1.0	0.0001	0,0066
PrampAltMax	Alternative ramp rate applied to fSet_P for application purposes	float	B9FC4	40609	4	puW/s	0.0001 to 1.0	0.0001	1
VV11_ModEna	Enables/disables VV11 function	int	B9FC5	40611	4	N/A	0, 1	1	0
VV12_ModEna	Enables/disables VV12 function	int	B9FC6	40613	4	N/A	0, 1	1	0
FW22_ModEna	Enabled/disables FW22 function	int	B9FC7	40615	4	N/A	0, 2	1	0
VW51_ModEna	Enables/disables VW51 function	int	B9FC8	40617	4	N/A	0, 1	1	0
VW52_ModEna	Enables/disables VW52 function	int	B9FC9	40619	4	N/A	0, 1	1	0
VDE_Ctrl_ModEna	Selects one of five modes	int	B9FCA	40621	4	N/A	0, 1, 2, 3, 4	1	0
VDE_Ctrl_QRef	Set-point reference active power.	float	B9FCB	40623	4	P (pu)	-1.0 to 1.0	0,01	0
VDE_Ctrl_UQ0	Default reference voltage.	float	B9FCC	40625	4	V (pu)	0.05 to 1.2	0,01	1
VDE_Ctrl_cos_phi	Target power factor. Positive values represent an inductive power factor.	float	B9FCD	40627	4	pf	-1.0 to -0.6, 0.6 to 1.0	0.001	0,93
VDE_3TauPT1Tms	This allows for a damped response (PT1) to changes in the Q within VDE mode as shown in Figure 5.	int	B9FCE	40629	4	s	0 to 60	1	10
LVRT_ModEna	Enables/ disables LVRT function	int	B9FCF	40631	4	N/A	0, 1	1	0
HVRT_ModEna	Enables/disables HVRT function	int	B9FD0	40633	4	N/A	0, 1	1	0
LVRTD_ModEna	Enables/disables LVRTD function	int	B9FD1	40635	4	N/A	0, 1	1	0
HVRTD_ModEna	Enables/disables HVRTD function	int	B9FD2	40637	4	N/A	0, 1	1	0

LFRTD_ModEna	Enables/disables LFRTD function	int	B9FD3	40639	4	N/A	0, 1	1	0
HFRTD_ModEna	Enables/disables HF RTD function	int	B9FD4	40641	4	N/A	0, 1	1	0
INV3_OpModConPF	Enable the power factor function	int	B9FD5	40643	4	N/A	0, 1	1	0
INV3_OutPFSet	Setpoint for maintaining fixed power factor	float	B9FD6	40645	4	pf	-1.0 to -0.6, 0.6 to 1.0	0.001	0,93
INV3_PFExt	Underexcited = 1; Overexcited = 0	int	B9FD7	40647	4	N/A	0, 1	1	1
INV4_OpModExIm	Enable set charge/discharge rate	int	B9FD8	40649	4	N/A	0, 1	1	0
FW21_WCtHzEna	Activation of the Active Power Reduction by Frequency function	int	B9FD9	40651	4	N/A	0, 1	1	0
FW21_HysEna	Enabled/disables FW 21 Hysteresis	int	B9FDA	40653	4	N/A	0, 1	1	1
TV31_ModEna	Activation of dynamic reactive current support function	int	B9FDB	40655	4	N/A	0, 1	1	0
TV31_RLDNS	restricted limited dynamic network stability enable/disable	int	B9FDC	40657	4	N/A	0, 1, 2, 3, 4	1	0
WP41_PFCtWEEna	Activation of WP41	int	B9FDD	40659	4	N/A	0, 1	1	0
AI_ModEna	Enables/ disables Anti Islanding	int	B9FDE	40661	4	N/A	0, 1	1	1
RoCoF_ModEna	Enable rate of change of frequency protection method	int	B9FDF	40663	4	N/A	0, 1	1	0
Abrupt_ModEna	Abrupt voltage response mode enabled	int	B9FE0	40665	4	N/A	0, 1	1	0
UserVarPriority	Var Priority control. High indicates that Var will have priority over W when there is no other overriding automatic function in operation	int	B9FE1	40667	4	N/A	0, 1	1	0
UQO_Deadband	VDE mode 2 (VV12) deadband	float	B9FE1	40669	4	V (pu)	0.0 to 0.05	0,01	0
SetQp_3TauPT1Tms	This allows for a damped response (PT1) to changes in the setQp.	float	B9FE3	40671	4	s	0.0 to 60.0	0.01	0
INV4_OutWRte	Setpoint for charge/discharge as fraction of WMax. Allowed range is -1.0 to +1.0. Positive values indicated discharge into the grid.	float	B9FF1	40703	5	pu Wmax	-1.0 to 1.0	0,01	0
PImportLim	Import Limitation input from EMS	float	B8AFE	47153		P (pu)	0.0 to 1.0	0,01	1
PExportLim	Export Limitation input from EMS	float	B8AFF	47155		P (pu)	0.0 to 1.0	0,01	1