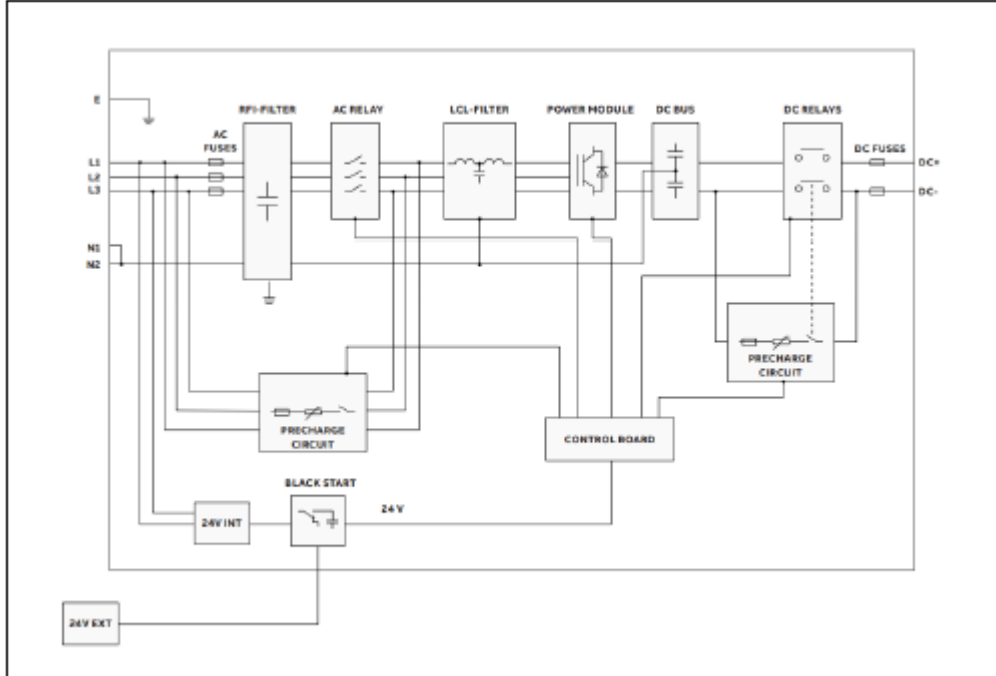


<b>Product Certificate Number</b>	<b>21615-1-CER</b>
<b>Applicant</b>	Hitachi Energy Ltd. Allée Centrale 10. Z.I. Jumet B-6040, Charleroi, Jumet.
<b>Series</b>	PQstorl Series
<b>Models</b>	PQstorl-M PQstorl-WM PQstorl-C
<b>Type of generating unit</b>	Energy storage Inverter
<b>Technical Data</b>	See page 2
<b>Software version</b>	SW: uC 1.0 Rev20/DSP V56.2 rev77
<b>Model name</b>	PQstorl_RMS_PWFv672_Template_fix.pfd aip_win64.dll digexfun_aip_v670_64bit.dll
<b>Checksum</b>	7853706CC9B0E1363EEF7D269CDB5D75 0C1551C925F08AE74299BC209BB62CDE D779EE5996EA6FA2D8F05A9E891AAF2A
<b>Software environment</b>	DigSilent Powerfactory 2022
<b>Grid connection code</b>	<b>Engineering Recommendation G99 Issue 1 – Amendment 9- 3 October 2022:</b> Requirements for the connection of generation equipment in parallel with public distribution networks on or after 27 April 2019.Type A & B
<p>Having assessed the report number: 21614-3-TR and the report number: 21615-S, both performed by CERE (Accredited Laboratory N° 5314.01) based on the requirements of the EN ISO/IEC 17025: 2017.</p> <p>The above-mentioned generating unit complies with the requirements of the:</p> <p><b>Engineering Recommendation G99 Issue 1 – Amendment 9- 3 October 2022:</b> Requirements for the connection of generation equipment in parallel with public distribution networks on or after 27 April 2019.Type A &amp; B</p> <p>This certification is according to the CERE internal process PET-CERE-09 Rev 35, that defines the certification scheme, based on the requirements of the EN ISO/IEC 17065:2012. For this certification process the conformity assessment activities were based on:</p> <ul style="list-style-type: none"> <li>• Testing of production samples selected by CERE.</li> <li>• Audit of quality system according to ISO 9001 with certificate number: BE05/051523 issued by a certification body accredited according to EN ISO/IEC 17021.</li> <li>• Inspection of the manufacturing process.</li> </ul>	
<p>Madrid, February 10, 2023. This certificate is valid until February 10, 2028</p> <p style="text-align: right;">Miguel Martínez Lavin, Certification Director</p>	

**Technical data**

Specifications	PQstorl – M (module)	PQstorl – WM (Wall mounted)	PQstorl – C (Standalone cabinet)
<b>Electrical characteristics</b>			
<b>AC grid tied connection side</b>			
Connection method	3P3W+PE		
Network voltage (+/- 10%)	208 - 415 V		
Network frequency (+/- 5%)	50/60Hz		
Rated power (at 400 V)	30 kW		
Line current rating per base unit (A)	43 A		Full cubicle: 43 A .. 688 A
<b>DC Energy source connection side</b>			
DC voltage (min)	620 V for 3 W application (note 1) Note 1: Limited High voltage ride through support at lower DC voltages		
DC voltage (max)	830 V (890 V with reduced power)		
DC current	52A		
<b>Interface / communication</b>			
Wi-Fi communication	Webserver on smartphone or computer for simple diagnostics and parameters setup		
USB	With dedicated optional software (servicing/ programming)		
RJ12	For CAN bus communication between HMI and other modules		
CT inputs	3 ph CT measurements (class 1.0 or better, 15 VA)		
2x 24Vdc inputs	1 for Emergency stop 1 for external supply		
230Vac Relay output	For control of external grid contactor/breaker		
Wi-Fi communication	Webserver on smartphone or computer for simple diagnostics and parameters setup		
PQconnect	Dimensions (W x D x H)	78 x 25 x 94 mm	
	IP protection	IP 20	
	Communications	CAN: RJ12 - 500 kbit/s or 1 Mbit/s Ethernet: 10/100 Mbit, full or half-duplex, HP Auto-MDIX support	
	I/O	1 relay output, normally open, 5 A / 30 VDC	
HMI (optional)	7-inch color TFT screen (800 x 480 pixels)		
	Dimensions (W x D x H)	198 x 141 x 40 mm	
	IP protection	IP65 front side / IP 20 backside	
	Communications	CAN 2B (internal) – RJ12 Ethernet (Modbus TCP) – RJ45 USB 2.0	
	Digital I/O on HMI	2 insulated digital inputs - +24 V (AC or DC) 6 digital NO outputs – 250 Vac/ 5 A (one common polarity), dry contacts	

Electrical Diagram of PQstor1:



The sample selected to test was representative of the production. The sample was selected in:

Hitachi Energy Belgium N.V.  
Allée Centrale, 10 – Z.I. Jumet B-6040 Charleroi,  
Belgium

Sample Report Number:

21614-TM

The inspection of manufacturing process was performed in:  
On November 30, 2022

Hitachi Energy Belgium N.V.  
Allée Centrale, 10 – Z.I. Jumet B-6040 Charleroi,  
Belgium

Inspection Report Number:

60028-22-1-IF

## RECORD OF CHANGES

Revision	Reason of the modification	Modification	Date
0		Initial version	10/02/2023